# **APPENDIX 3: TRAFFIC ANALYSES**

### A3.1 Introduction

During the course of the development of concepts for the Southern Connector/Champlain Parkway, various alternatives were considered in addition to the two Build Alternatives described in Chapter 4. These other alternatives were ultimately dismissed because they did not meet the project's transportation needs and objectives, and/or because of their associated impacts to natural resources and cultural resources, or impacts to social and economic characteristics of the area. The alternatives considered and dismissed included a non-construction alternative that considered the effects of implementing Travel Demand Management (TDM) and three construction alternatives, as follows:

- Travel Demand Management (TDM)
- Null Alternative (C-1 Section, C-2 Section and C-8 Section)
- Build Alternative 1 (four-lane)
- C-1 Section and C-2 Section Only (two-lane)

The traffic volumes and traffic operations associated with each of these alternatives are described in Section A3.2 - Traffic Analyses for Alternatives Considered and Dismissed.

This Appendix 3 also provides a summary description of the traffic modeling effort used to develop the design year traffic volume projections for the various project alternatives (including the No-Build Alternative, Build Alternatives, and alternatives considered but dismissed), and the supporting technical documentation of the level-ofservice analyses presented throughout the document.

#### A3.2 Traffic Analyses for Alternatives Considered and Dismissed

This section describes the volume patterns and traffic operations for the project's design year conditions for each of the alternatives considered and dismissed. This section also compares these alternatives to the No-Build and Build Alternatives presented in Chapter 4.

The evaluation of the traffic operations for the Build Alternatives considered but dismissed were based on travel demand models developed for the Primary and Secondary study areas for the project design years 2008 and 2028. The analyses of traffic operations for these alternatives were based on the same general infrastructure characteristics as were used for the analysis of the two Build Alternatives described in Chapter 4, namely:

- 1. A 30 mph posted speed limit on the Southern Connector/Champlain Parkway from the I-189 / U.S. Route 7 interchange northward to the terminus with the local street system.
- 2. Proposed signalized intersections along the primary corridor of the Southern Connector/Champlain Parkway feature exclusive pedestrian phases. Where signal improvements are indicated at other locations (i.e., along Pine Street and/or Battery Street) associated with specific Build Alternatives, these locations would also have exclusive pedestrian phases. Intersections along the C-2 Section of the project (with Home Avenue, Flynn Avenue, Sears Lane, and Lakeside Avenue) would be signalized.
- 3. Signals within 0.5 mile of each other would be coordinated using cycle lengths that were optimized for each peak hour and design year condition.
- 4. Geometric and signal operation improvements and equipment replacement were assumed for the Pine Street at Lakeside Avenue intersection and all intersections along Battery Street (except in the C-1 Section and C-2 Section Only Alternative).

# A3.2.1 Travel Demand Management (TDM) Alternative

The analyses of the No-Build Alternative shows that some key intersections and corridor sections would have congested operations during the projected design years, which would reduce mobility within the corridor and would not be consistent with the project's goals and objectives. A non-construction alternative that was considered to address these conditions was the implementation of TDM strategies. The TDM alternative considers the system benefits that could be achieved through increased transit ridership and ridesharing initiatives to reduce traffic volume demand during peak demand periods.

The effects of an aggressive TDM policy were evaluated using the regional travel demand model. For the purposes of this evaluation, the TDM program was implemented for the area bounded by Pearl Street to the north, South Willard Street and Shelburne Street to the east, the I-189/U.S. Route 7 (Shelburne Street) interchange to the south, and Lake Champlain to the west. For this discussion, the aforementioned area is referred to as the TDM Area. The assumptions for the TDM program consisted of the following:

- Roads in the TDM area that are not currently serviced by public transit were provided with this service.
- The frequency of bus service was doubled throughout the entire TDM area,

- A 10% increase in participation in rideshare programs was assumed for work-related trips in the TDM area.
- The effect of resuming passenger rail service on the Champlain Flyer was included based on ridership rates when this service was active.

The mobility benefits associated with the implementation of the TDM alternative are expressed in terms of reductions in person-trips that are made by automobile and by changes in the overall Vehicle Miles of Travel (VMT) in the Primary and Secondary study areas of the project. An evaluation of the modeling for the transit service enhancements (increased route coverage and service frequency) shows that these TDM improvements would increase transit ridership by approximately 10-15% in both the 2008 and 2028 design years. The resulting increase in bus ridership, with increased route coverage and a doubling of the service frequency, is summarized for each of the scenarios in Table A3-1. These analysis results indicate that transit service enhancements alone would not have a substantial effect in addressing the project's mobility objectives. This modest change in ridership is also not likely to be cost-effective for the provision of these expanded transit services.

	No-Build	TDM Alternative		
	Alternative	(increased transit routes coverage and		
	(No TDM)	service frequency)		
	Total Person-		Net Increase in	
Design Year	Trips using	Total Person-Trips	Person-trips	
and Peak Hour	Transit	using Transit	using Transit	
2008 AM	825	924	99	
2008 PM	623	706	83	
2028 AM	864	958	94	
2028 PM	630	715	85	

Table A3-1:Effect of increasing bus service on ridershiprates

The evaluation of the cumulative effect of implementing the full TDM program of increased transit service, resumed passenger rail service and increased ridesharing indicates that these would not, by themselves, produce a substantial improvement in mobility in the project area. These combined TDM initiatives are shown to reduce the total VMT in the Primary and Secondary study areas by only approximately one-half percent. The total vehicle trips removed and the corresponding effect on total VMT of the full TDM program (bus, rail, and rideshare) are summarized in Table A3-2.

	No-Build Alternative (No TDM)		TDM Program Alternative		
Design Year	Total Vehicle		Trips		
and Peak Hour	Trips	VMT	Removed	VMT Reduction	$\% \Delta VMT$
2008 AM	73,031	711,837	632	3,247	-0.46%
2008 PM	71,472	499,314	619	3,293	-0.66%
2028 AM	82,524	897,236	649	3,181	-0.35%
2028 PM	77,198	544,158	627	3,223	-0.59%

 Table A3-2: Effect of TDM Program on Total Vehicle Trips and Vehicle Miles

 Traveled

Based on these analyses, it is concluded that the TDM alternative does not address the overall project objective to improve mobility in the Primary study area. It is also noted that the TDM alternative does not address the objective to improve freight accessibility to the industrial facilities along the project corridor.

#### A3.2.2 Null Alternative

The Null Alternative consists of constructing a four-lane roadway along the C-1 Section, C-2 Section and C-8 Section. The Null Alternative was previously approved by FHWA in 1979 for construction. The C-8 Section extends north from the intersection of Lakeside Avenue and connects with Battery Street at its intersection with Maple Street.

# Traffic Volumes:

The projected ADT volumes in the Primary study area for the Null Alternative are shown in Table A3-3. A comparison of these volumes to those of the No-Build Alternative indicates that the Null Alternative would divert a substantial volume from the Pine Street corridor between Home Avenue and Main Street. Traffic volumes on the section of Pine Street between Lakeside Avenue and Maple Street would be 50% less than in the No-Build Alternative. Also, traffic volumes on the section of Pine Street south of Lakeside Avenue are projected to decrease by more than 50% and volumes north of Maple Street would see a 40% reduction.

T di	Null Alternative		
Location	2008 (ETC)	2028 (ETC+20)	
Southern Connector/Champlain Parkway: Home Avenue to Lakeside Avenue	19,600	19,700	
Pine Street: Home Avenue to Flynn Avenue	2,600	2,800	
Pine Street: Flynn Avenue to Lakeside Avenue	6,400	6,500	
Pine Street: Lakeside Avenue to Maple Street	6,800	6,900	
Pine Street: Maple Street to Main Street	4,000	4,000	
Battery Street: Maple Street to Main Street	18,700	18,700	
Lakeside Avenue: Connector to Pine Street	5,200	5,700	
Maple Street: Pine Street to Battery Street	3,900	4,100	
King Street: Pine Street to Battery Street	3,500	3,500	
Main Street: Pine Street to Battery Street	5,100	5,100	

#### Table A3-3: Average Daily Traffic Volume Summary: Null Alternative

The design year peak hour volumes produced from the travel demand modeling for the Null Alternative are presented in Figures A3-1 through A3-4, as follows:

- Figure A3-1: 2008 AM Peak Hour
- Figure A3-2: 2008 PM Peak Hour
- Figure A3-3: 2028 AM Peak Hour
- Figure A3-4: 2028 PM Peak Hour

The following traffic flow patterns are observed from these peak hour volumes:

- Pine Street is no longer used as a primary corridor for access to the City Center District (CCD).
- The Pine Street/Maple Street intersection is no longer a critical congestion point in the system for traffic access and circulation.

• Home Avenue and Flynn Avenue would see a substantial reduction in traffic volume as these roadways convert to a primary function of local access, and through traffic is diverted to the Southern Connector/Champlain Parkway.

# **Traffic Operations**

Table A3-4 presents results of the capacity analyses for the Primary study area intersections in the 2008 and 2028 design years for the Null Alternative. Figures A3-5 and A3-6 present the overall LOS at each study intersection within the Primary and Secondary study areas for the 2008 Design Year AM and PM peak hours, respectively. The LOS for the combined Primary and Secondary study areas in the 2028 design year AM and PM peak hours are shown on Figures A3-7 and A3-8. Detailed LOS and delay calculations are provided in Part C of this Appendix.



FILE NAME =\$FILE\$ DATE/TIME =\$DATE\$ USER =\$NTUSER\$







	2008	(ETC)	2028 (ETC+20)	
Location	AM Peak	PM Peak	AM Peak	PM Peak
	Hour	Hour	Hour	Hour
Signalized Intersections				
Battery Street & Main Street	В	В	В	В
Battery Street & King Street	В	В	В	В
Battery Street & Maple Street	В	С	С	С
Pine Street & Main Street	В	В	В	В
Pine Street & Lakeside Avenue	В	В	С	В
Pine Street & Flynn Avenue	В	В	В	В
Connector & Lakeside Avenue	D	D	D	D
Connector & Sears Lane	В	А	С	А
Connector & Flynn Avenue	В	С	В	C
Connector & Home Avenue	В	В	В	В
AWSC <sup>(1)</sup> Intersections				
Pine Street & King Street	А	В	В	В
Pine Street & Maple Street	В	В	В	В
Pine Street & Home Avenue	А	А	А	А
TWSC <sup>(2)</sup> Intersections				
Pine Street & Howard Street				
Eastbound Approach	В	С	С	C
Westbound Approach	С	D	С	D
Pine Street & Locust Street				
Westbound Approach	С	С	С	С
Pine Street & Birchcliff				
Parkway				
Westbound Approach	В	В	В	C
Pine St & Sears Lane				
Eastbound Approach	C	C	С	C
(1) $AWSC = All-Way Stop Control$				
(2) $I WSC = I WO-Way Stop Control (i.e., Side Street Stop). Note that the LOS for TWSC$				
Mainline movements are free-fl	таноп ој те т w.	inor siop-contre	леа арргоасн к	novements.

#### Table A3-4: Level of Service Summary – Null Alternative

#### 2008 Design Year: Null Alternative

#### Primary Study Area

The signalized intersections within the Primary study area are projected to operate at an overall LOS D or better during both the AM and PM peak hour. Many of these locations would operate at LOS B. Signal timing optimization (including exclusive pedestrian phasing) and geometric improvements were applied to the intersections along Battery Street. Signal phasing was designed to promote the major north-south traffic flow. All the AWSC intersections within the Primary study area along Pine Street would operate at a LOS A or B during both peak hours. This LOS and associated vehicle delay is a substantial improvement from the conditions indicated for the No-Build Alternative.

The operations at the TWSC intersections within the Primary study area would similarly have improved LOS in this alternative. LOS for the stop-controlled approaches would be LOS D or better, with most approaches operating at LOS B or C.

# Secondary Study Area

The signalized intersections within the Secondary study area would generally operate at LOS C or better during the AM and PM peak hours, although the intersection of U.S. Route 7 and I-189 Ramp C would operate at LOS D in the PM peak hour.

The LOS for the stop-controlled intersections within the Secondary study area would be LOS D or better during the AM peak hour, except the side street approaches to the South Willard Street / Shelburne Street intersection. The LOS for these approaches would be LOS F, which is comparable to existing conditions. The operations for the stop-controlled approaches at the following intersections would continue to be LOS E or F during the PM peak hour:

- U.S. Route 7 and Birchcliff Parkway
- U.S. Route 7 and South Willard Street
- U.S. Route 7 and South Union Street

# 2028 Design Year: Null Alternative

# Primary Study Area

The intersection operations in the Primary study area for the 2028 design year would be generally comparable to the operations noted for the 2008 design year. The proposed signalized intersections along the new Southern Connector/Champlain Parkway would operate at overall LOS D or better in this design year. The AWSC intersections in the Primary study area along Pine Street would continue to operate at LOS B or better for both peak hours. These operations continue to represent an improvement from the No-Build Alternative, representing a substantial reduction in average vehicle delay.

The stop-controlled approaches at the TWSC intersections in the Primary study area along Pine Street would continue to operate at acceptable LOS for both peak hours.









#### Secondary Study Area

The signalized intersections within the Secondary study area would operate at an overall LOS C or better through this 20-year design horizon, with one exception. The intersection of U.S. Route 7 at I-189 Ramp C would operate at LOS E during the PM peak hour.

The stop-controlled approaches in the Secondary study area would also see a decrease in delay but some would still have LOS E/F operations in the PM peak hour.

#### Summary of Null Alternative Traffic Operations

Traffic volumes along Pine Street would be dramatically reduced in this alternative due to the direct connection from the Southern Connector/Champlain Parkway to Battery Street. The intersections along Pine Street, from Lakeside Avenue to Maple Street, would have substantially improved LOS because of the shift in volume from Pine Street to the Southern Connector/Champlain Parkway. The C-8 Section connection provides sufficient capacity to accommodate the projected traffic volumes at acceptable overall LOS throughout the 20-year design period.

The Null Alternative also provides some general improvement in LOS along the Shelburne Street corridor from the No-Build Alternative as a result of reduced traffic volume, and particularly, reduced turn movement volumes at key intersections such as Home Avenue and Flynn Avenue.

The Null Alternative satisfies the purpose and need of this project by providing mobility and access to the CCD. This alternative is also very effective in diverting through traffic away from the residential neighborhoods and providing connectivity to existing industrial facilities. However, the C-8 Section of this alternative requires new roadway construction within the environmentally-sensitive Superfund Site. As a result of the numerous environmental issues and associated remediation costs, the Null Alternative is not progressed as the Preferred Alternative.

#### A3.2.3 Build Alternative 1 (four-lane)

This variation of Build Alternative 1 would follow the same alignment as the two-lane alternative described in Chapter 4, but would provide the additional capacity of a four-lane facility. This four-lane alternative is discussed to provide comparison to the Null Alternative traffic operations. This alternative would involve the widening of the section of Pine Street, between Lakeside Avenue and the proposed Battery Street Extension, to maintain the continuity of the four-lane corridor.

# Traffic Volumes

The projected ADT volumes in the Primary study area are shown in Table A3-5 for this alternative. A review of this data indicates that traffic volumes on the section of Pine Street between Lakeside Avenue and Pine Place would increase by 40% compared to the No-Build Alternative. Similar to the two-lane version of this alternative, this increase is a result of this section of Pine Street serving as the link between the C-1 Section and C-2 Section and the CCD. Traffic volumes on the sections of Pine Street external to this linkage would decrease substantially. Volume on the section south of Lakeside Avenue is projected to decrease by more than 50% and volume north of Maple Street is projected to decrease 20%. These changes in traffic flow patterns are comparable to the two-lane version of this alignment alternative.

Location	Build Alternative 1 (4-lane)		
Location	2008 (ETC)	2028 (ETC+20)	
Southern Connector/Champlain Parkway: Home Avenue to Lakeside Avenue	15,100	15,100	
Pine Street: Home Avenue to Flynn Avenue	3,300	3,300	
Pine Street: Flynn Avenue to Lakeside Avenue	8,400	8,500	
Pine Street: Lakeside Avenue to Pine Place	19,900	20,000	
Pine Street: Pine Place to Main Street	5,300	5,300	
Battery Street: Maple Street to Main Street	15,100	15,400	
Lakeside Avenue: Connector to Pine Street	13,000	13,000	
Maple Street: Pine Street to Battery Street	3,300	3,400	
King Street: Pine Street to Battery Street	3,200	3,300	
Main Street: Pine Street to Battery Street	6,000	6,000	

 Table A3-5: Average Daily Traffic Volume Summary: Build Alternative 1

 (four-lane)

The design year peak hour volumes produced from the travel demand modeling for the Build Alternative 1 (four-lane) are presented in Figures A3-9 through A3-12, as follows:

- Figure A3-9: 2008 AM Build Alternative 1 (four-lane)
- Figure A3-10: 2008 PM Build Alternative 1 (four-lane)
- Figure A3-11: 2028 AM Build Alternative 1 (four-lane)
- Figure A3-12: 2028 PM Build Alternative 1 (four-lane)

The traffic circulation patterns and trends observed from these peak hour turning movement volumes are the same as were noted in Chapter 4 for Build Alternative 1.









#### **Traffic Operations**

Table A3-6 presents the Build Alternative 1 (four-lane) results of the capacity analyses for the Primary study area intersections in the 2008 and 2028 design years. Figures A3-13 and A3-14 present the overall LOS at each study intersection within the Primary and Secondary study areas for the 2008 Design Year AM and PM peak hours, respectively. The LOS for the combined Primary and Secondary study areas in the 2028 design year AM and PM peak hours are shown on Figures A3-15 and A3-16. Detailed LOS and delay calculations are provided in Part C of this Appendix.

	2008 (ETC)		2028 (ETC+20)	
Location	AM Peak	PM Peak	AM Peak	PM Peak
	Hour	Hour	Hour	Hour
Signalized Intersections				
Battery Street & Main Street	В	В	В	В
Battery Street & King Street	В	В	В	В
Battery Street & Maple Street	В	В	В	В
Pine Street & Main Street	В	В	В	В
Pine Street & Battery Street Ext	В	С	В	С
Pine Street & Lakeside Avenue	В	С	С	С
Pine Street & Flynn Avenue	В	В	В	В
Connector & Lakeside Avenue	В	С	В	С
Connector & Sears Lane	В	А	В	В
Connector & Flynn Avenue	В	С	В	С
Connector & Home Avenue	В	В	В	В
AWSC <sup>(1)</sup> Intersections				
Pine Street & King Street	А	В	В	В
Pine Street & Maple Street	В	С	В	С
Pine Street & Home Avenue	А	А	А	А
TWSC <sup>(2)</sup> Intersections				
Pine Street & Howard Street				
Eastbound Approach	F	F	F	F
Westbound Approach	F	F	F	F
Pine Street & Locust Street				
Westbound Approach	F	F	F	F
Pine Street & Birchcliff				
Parkway				
Westbound Approach	С	С	С	D
Pine Street & Sears Lane				
Eastbound Approach	D	D	D	D
(1) AWSC = All-Way Stop Control				
(2) $IWSC = Iwo-Way$ Stop Control (i.e., Side Street Stop). Note that the LOS for TWSC				

Table A3-6: Level of Service Summary – Build Alternative 1 (four-lane)

(2) TWSC = Two-Way Stop Control (i.e., Side Street Stop). Note that the LOS for TWSC intersections represents the operation of the minor stop-controlled approach movements. Mainline movements are free-flow.

#### 2008 Design Year: Build Alternative 1 (four-lane)

#### Primary Study Area

The operations of the existing and proposed signalized intersections within the Primary study area are projected to operate at an overall LOS C or better in this alternative due to the additional capacity created by the four-lane roadway section, even with the modest increase in traffic volume in the corridor compared to the two-lane version of this alternative.

The operations of the AWSC intersections along Pine Street would operate at LOS C or better in this alternative, similar to the operations described for the two-lane version of this alternative.

The operations of the TWSC intersections would also be essentially the same as noted for the two-lane version of this alignment alternative (See Chapter 4 – Build Alternative 1). However, because of the greater gap requirements for traffic entering a four-lane facility than for a two-lane facility, the delay would be somewhat greater in this alternative for the stop-controlled movements at Locust Street and at Howard Street.

The LOS for the intersections south of Lakeside Avenue would be the same LOS D or better as in the two-lane version of this alignment alternative for both peak hours.

#### Secondary Study Area

The AWSC intersection in the surrounding study area would operate at a LOS C or better for both peak hours.

The operations of the AWSC and TWSC intersections in the Secondary study area would be comparable to those identified for the two-lane version of this alignment alternative, as described in Chapter 4.

#### 2028 Design Year: Build Alternative 1 (four-lane)

#### Primary Study Area

The operations of the existing and proposed signalized intersections in the Primary study area would continue to operate at LOS C or better during the peak hours in the 20-year design horizon for this alternative.

The AWSC intersections would continue to operate at LOS C or better during both peak hours. These operations continue to represent an improvement from the No-Build Alternative.









In the Primary study area, the LOS F conditions for the stop-controlled approaches at the TWSC intersections along Pine Street at Howard Street and Locust Street would be comparable to the conditions in the 2008 design year, although the amount of delay would become substantial as a result of increased traffic volume flow on Pine Street. The stop-controlled approaches at Birchcliff Parkway and Sears Lane would operate at a LOS D or better.

#### Secondary Study Area

The operations of the signalized and unsignalized intersections within the Secondary study area in the 2028 design year for this alternative would be comparable to the operations described in Chapter 4 for the two-lane version of this alignment alternative.

# Summary of Build Alternative 1 (four-lane) Analyses

Build Alternative 1 (four-lane) shows the same basic traffic patterns as the Build Alternative 1 described in Chapter 4. The primary difference between them is that Build Alternative 1 (four-lane) provides greater capacity and; therefore, induces more traffic volume to the corridor. However, the increased capacity accommodates these volumes at LOS that are substantially better than in the No-Build Alternative.

# A3.2.4 C-1 Section and C-2 Section Only (two-lane)

This alternative involves the construction of the C-1 Section and C-2 Section to connect I-189 to Lakeside Avenue west of Pine Street. This alternative also includes intersection improvements at the intersection of Lakeside Avenue and Pine Street to accommodate the future traffic flow. Traffic on this alignment would access the CCD via the existing Pine Street and Battery Street corridors north of Lakeside Avenue. No additional improvements would be incorporated along Pine Street north of the Lakeside Avenue intersection. The C-1 Section and C-2 Section would be constructed as a two-lane roadway in this alternative.

# Traffic Volumes

The projected ADT volumes in the Primary study area for the C-1 Section and C-2 Section Only are shown in Table A3-7. A review of this data indicates that traffic volumes on the section of Pine Street south of Lakeside Avenue would decrease substantially compared to the No-Build volumes. This change in volume is comparable to the patterns observed for other Build Alternatives. However, traffic volumes on the section of Pine Street north of Lakeside Avenue would increase by approximately 15% compared to the No-Build Alternative.

Location	C-1 Section & C-2 Section Only		
Location	2008 (ETC)	2028 (ETC+20)	
Southern Connector/Champlain Parkway: Home Avenue to Lakeside Avenue	12,800	13,200	
Pine Street: Home Avenue to Flynn Avenue	2,700	2,800	
Pine Street: Flynn Avenue to Lakeside Avenue	7,300	7,600	
Pine Street: Lakeside Avenue to Maple Street	15,900	16,300	
Pine Street: Maple Street to Main Street	7,300	7,300	
Battery Street: Maple Street to Main Street	8,400	8,400	
Lakeside Avenue: Connector to Pine Street	10,400	11,000	
Maple Street: Pine Street to Battery Street	6,800	6,800	
King Street: Pine Street to Battery Street	4,300	4,300	
Main Street: Pine Street to Battery Street	9,400	9,400	

# Table A3-7: Average Daily Traffic Volume Summary:C-1 Section and C-2 Section Only

The design year peak hour volumes produced from the travel demand modeling for the C-1 Section and C-2 Section Only are presented in Figures A3-17 through A3-20, as follows:

- Figure A3-17: 2008 AM C-1 Section and C-2 Section Only
- Figure A3-18: 2008 PM C-1 Section and C-2 Section Only
- Figure A3-19: 2028 AM C-1 Section and C-2 Section Only
- Figure A3-20: 2028 PM C-1 Section and C-2 Section Only

The following traffic flow trends are observed from these peak hour volumes:

• The Pine Street at Maple Avenue intersection would be a critical congestion point for traffic access and circulation to the CCD, similar to the trends observed for the No-Build Alternative.








- Home Avenue and Flynn Avenue would see a substantial reduction in traffic volume as these roadways convert to a primary function of local access, and through traffic is diverted to the Southern Connector/Champlain Parkway.
- This alternative would provide improved access to existing industrial facilities in the project area, but accessibility to the CCD for freight movements would be essentially unchanged from No-Build Alternative.
- Traffic volumes on the section of Pine Street north of Lakeside Avenue would increase by 10-15% from the No-Build Alternative.
- The section of Pine Street between Maple Street and Main Street would continue to function as a regional access to the CCD as in the No-Build Alternative.

# **Traffic Operations**

Table A3-8 presents the results of the capacity analyses for the Primary study area intersections in the 2008 and 2028 design years, for the C-1 Section and C-2 Section Only alternative. Figures A3-21 and A3-22 present the overall LOS at each study intersection within the Primary and Secondary study areas for the 2008 Design Year AM and PM peak hours, respectively. The LOS for the combined Primary and Secondary study areas in the 2028 design year AM and PM peak hours are shown on Figures A3-23 and A3-24. Detailed LOS and delay calculations are provided in Part C of this Appendix.

# 2008 Design Year: C-1 Section and C-2 Section Only

# Primary Study Area

The existing and proposed signalized intersections within the Primary study area would all operate at LOS D or better. At most locations, these operations would be LOS B or C. Traffic volumes would increase at the intersection of Pine Street and Lakeside Avenue as a result of the C-1 Section and C-2 Section Only alternative. Even with this change in volume, the intersection would operate at LOS C or better for both peak hours with the proposed geometric and signal-control improvements.

In this alternative, the AWSC intersection of Pine Street and Maple Street in the Primary study area is anticipated to remain a critical junction for traffic moving to and from the CCD from Pine Street, as it is in the No-Build Alternative. The increased turning movement volumes at this intersection would exacerbate existing LOS F congestion at this location. The increased volume on the section of Pine Street between Maple Street and Main Street would also produce LOS E operations during the PM peak hour at the AWSC intersection of Pine Street and King Street.

	2008	(ETC)	2028 (ETC+20)				
Location	AM Peak	PM Peak	AM Peak	PM Peak			
	Hour	Hour	Hour	Hour			
Signalized Intersections							
Battery Street & Main Street	В	С	В	C			
Battery Street & King Street	В	В	С	В			
Battery Street & Maple Street	В	В	В	В			
Pine Street & Main Street	В	В	В	В			
Pine Street & Lakeside Avenue	С	С	С	С			
Pine Street & Flynn Avenue	В	В	В	В			
Connector & Lakeside Avenue	В	С	В	C			
Connector & Sears Lane	В	В	В	В			
Connector & Flynn Avenue	В	D	С	Е			
Connector & Home Avenue	С	С	С	С			
AWSC <sup>(1)</sup> Intersections							
Pine Street & King Street	С	E	D	Е			
Pine Street & Maple Street	F	F	F	F			
Pine Street & Home Avenue	А	А	А	Α			
TWSC <sup>(2)</sup> Intersections							
Pine Street & Howard Street							
Eastbound Approach	F	F	F	F			
Westbound Approach	F	F	F	F			
Pine Street & Locust Street							
Westbound Approach	F	F	F	F			
Pine Street & Birchcliff							
Parkway							
Westbound Approach	В	В	С	C			
Pine Street & Sears Lane							
Eastbound Approach	С	С	C	C			
<u> </u>							
(1) $AWSC = All-Way Stop Control$			1 1004				
(2) TWSC = Two-Way Stop Control	( <i>i.e.</i> , Side Stree	et Stop). Note th	nat the LOS for 1	<i>CWSC</i>			
intersections represents the oper- Mainline movements are free-flow	aiion of the mii	nor stop-control	nea approach m	ovements.			

Table A3-8: Level	of Service Summar	v – C-1 Section ar	nd C-2 Section	Only
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Traffic volumes south of Lakeside Avenue would be diverted onto the Southern Connector/Champlain Parkway and the AWSC intersection of Pine Street and Home Avenue would experience a substantial improvement of operations, with LOS A conditions during both peak hours.









The operations of the TWSC intersections along Pine Street between Lakeside Avenue and Maple Street would continue to operate at LOS F as in the No-Build Alternative during peak hours, but with a general increase in delay due to the additional volume on Pine Street. The LOS for the intersections south of Lakeside Avenue would be LOS C, which is an improvement from the No-Build Alternative.

# Secondary Study Area

The signalized intersections within the Secondary study area would operate at LOS D or better in this alternative, with most operating at LOS C or better. These LOS of service are generally better than the operations in the No-Build Alternative.

The operations of the unsignalized intersections within the Secondary study area would be essentially the same as noted for the other Build Alternatives. Although there is some improvement at these locations associated with reductions in delay compared to the No-Build Alternative, these changes are modest and the LOS would continue to be LOS E or F during one or both peak hours for the stop-controlled movements.

# 2028 Design Year: C-1 Section and C-2 Section Only

# Primary Study Area

The signalized intersections within the Primary study area would generally operate at acceptable LOS C or better during both peak hours in this 20-year design horizon. However, signs of congestion would begin to be show along the Southern Connector/Champlain Parkway, as evidenced by a LOS E operation at the intersection of the Southern Connector/Champlain Parkway and Flynn Avenue. These operations are consistent with those identified for the Build Alternative 1.

The volume of traffic projected to move through the intersection of Pine Street and Maple Street and Pine Street and King Street would continue to compound the level of congestion at these AWSC intersections, where the operations would be LOS E or F during one or peak hours.

In the Primary study area, the LOS F conditions for the stop-controlled approaches at the TWSC intersections of Pine Street at Howard Street and Locust Street would be comparable to the conditions in the 2008 design year, although the amount of delay would increase as a result of increased traffic volume flow on Pine Street. The Stop-sign controlled approaches of Sears Lane and Birchcliff Parkway to Pine Street would continue to operate at a LOS C during the 2028 peak hours.

# Secondary Study Area

The existing signalized intersections within the Secondary study area would generally operate at acceptable LOS C or better through this design horizon. The one exception to this is the intersection of U.S. Route 7 at I-189 Ramp C, which would operate at LOS E during the PM peak hour. This is consistent with the operations for other Build Alternatives and is an improvement from the LOS F operations in the No-Build Alternative.

The operations of the stop-controlled intersections would be comparable to the operations in the No-Build Alternative, with LOS E/F conditions for the stop-controlled approaches during peak hours.

# Summary of the C-1 Section and C-2 Section Only Analyses

The C-1 Section and C-2 Section Only alternative would improve mobility to the CCD compared to the No-Build Alternative, although not to the extent of other alternatives. This alternative would also be effective in reducing the movement of through traffic in the residential neighborhoods on the south side of the project area. The intersection of Pine Street and Maple Avenue would be a critical congestion point for traffic access and circulation to the CCD, similar to the No-Build Alternative. Increases in traffic volumes in the north section of Pine Street, from Maple Street to Main Street, would contribute to reduced LOS in this part of the project area compared to the No-Build Alternative.

Traffic operations along the Southern Connector/Champlain Parkway would be LOS D or better during peak hours through the 20-year design horizon in the C-1 Section and C-2 Section Only alternative, except at the intersection of the Southern Connector/Champlain Parkway and Flynn Avenue. The operations at this intersection would be LOS E in the PM peak hour of the 2028 design year. This condition is the same as for Build Alternative 1 as described in Chapter 4.

Traffic operations at the unsignalized intersections along Pine Street south of Lakeside Avenue would improve compared to the No-Build Alternative as a result of the traffic diversions from this area to the C-1 Section and C-2 Section of the Southern Connector/Champlain Parkway.

The C-1 Section and C-2 Section Only alternative does address some of the mobility objectives of the project and provides improved access to the industrial facilities within the corridor when compared to the No-Build Alternative. However, this alternative would increase traffic volumes along the northern section of Pine Street, which would result in recurrent congestion in the area of Maple Street and King Street during peak hours.

## A3.3 Comparison of Alternatives - Traffic

The following is a summary overview and comparison of the traffic volumes and operations for each of the project alternatives.

Table A3-9 summarizes the projected ADT volumes for each of the alternatives in the 2008 and 2028 design years. A review of the data shown in Table A3-9 indicates that traffic volumes on Pine Street between Lakeside Avenue and Maple Street would increase by approximately 15-40% in all scenarios, compared to the No-Build Alternative. The one exception would be the Null Alternative in which traffic volumes along that section of Pine Street would see a 50% reduction. Traffic volumes on the section of Pine Street south of Lakeside Avenue are projected to decrease by 50% or more in all scenarios. Traffic volumes on the section of Pine Street in Build Alternative 2 by approximately 10%. The proposed Battery Street Extension from Maple Street to Pine Street near Marble Avenue included in the Build Alternative 1 and Build Alternative 1 (four-lane) would divert traffic from this north section of Pine Street, reducing traffic volumes by 20-25%.

Tables A3-10 and A3-11 summarize the signalized and unsignalized intersection analysis for each of the alternatives in the 2008 and 2028 design years. These tables show the overall LOS for the intersection or each unsignalized minor street approach. As shown in the table, the main differences between the alternatives focus on Pine Street from Lakeside Avenue to Main Street. All the alternatives improve operations along the southern section of Pine Street. All the alternatives except for C-1 Section and C-2 Section Only alternative and Build Alternative 2 improve operations along the northern section of Pine Street (Maple Street to Main Street). Only the Null Alternative improves operations along the entire section of Pine Street.

# **Summary of Comparisons**

# **No-Build Alternative**

In the No-Build Alternative, traffic would continue to use Home Avenue and Flynn Avenue to travel between U.S. Route 7 and Pine Street. Traffic increases along the Pine Street and U.S. Route 7 corridor would also produce increased congestion and queuing, especially for traffic entering these corridors from the unsignalized side streets. These conditions would result in LOS F operations for these traffic movements. Left-turn movements from Pine Street onto the side streets would also contribute to congestion along Pine Street due to reductions in the available gaps in opposing travel direction resulting from increased volume and uncoordinated flow. Traffic volumes would increase and the congestion experienced at the intersection of Pine Street and Maple Street would become a constraint on the existing corridor. This intersection is the focal point of the CCD area and it would control the operations of traffic entering/exiting the CCD. The AWSC intersection of Pine Street with Maple Street is projected to operate at an overall LOS F during all of the future No-Build AM and PM peak periods. The AWSC intersection of Pine Street with Home Avenue is projected to operate at an overall LOS E during the 2008 AM peak hour, and then at LOS F during all other No-Build years and peak periods.

These operating conditions represent a substantial corridor capacity constraint, which would result in recurrent system-wide congestion and excess delay. The No-Build Alternative would not meet the purpose and need of the project.

# Table A3-9:

# Average Daily Traffic Volume Summary: Comparison of Alternatives

No-BuildLocationAlternative		Build native	Null Alternative		Build Alte	ernative 1	Build Alte (4-la	ernative 1 ane)	C-1 Secti Section	on & C-2 n Only	Build Alternative 2	
	2008	2028	2008	2028	2008	2028	2008	2028	2008	2028	2008	2028
Southern Connector/Champlain Parkway: Home Avenue to Lakeside Avenue			19,600	19,700	13,500	13,800	15,100	15,100	12,800	13,200	12,800	13,200
Pine Street: Home Avenue to Flynn Avenue	9,600	10,300	2,600	2,800	3,100	3,100	3,300	3,300	2,700	2,800	2,700	2,800
Pine Street: Flynn Avenue to Lakeside Avenue	16,300	17,500	6,400	6,500	8,200	8,200	8,400	8,500	7,300	7,600	7,300	7,600
Pine Street: Lakeside Avenue to Maple Street	14,000	14,900	6,800	6,900	18,000	18,100	19,900	20,000	15,900	16,300	15,900	16,300
Pine Street: Maple Street to Main Street	6,600	6,700	4,000	4,000	5,200	5,200	5,300	5,300	7,300	7,300	8,500	8,500
Battery Street: Maple Street to Main Street	7,400	7,600	18,700	18,700	13,000	13,200	15,100	15,400	8,400	8,400	7,000	7,000
Lakeside Avenue: Connector to Pine Street	6,100	7,500	5,200	5,700	11,100	11,600	13,000	13,000	10,400	11,000	10,400	11,000
Maple Street: Pine Street to Battery Street	5,900	6,100	3,900	4,100	3,200	3,200	3,300	3,400	6,800	6,800	4,800	4,800
King Street: Pine Street to Battery Street	4,100	4,100	3,500	3,500	3,100	3,100	3,200	3,300	4,300	4,300	5,500	5,600
Main Street: Pine Street to Battery Street	8,900	9,100	5,100	5,100	5,700	5,700	6,000	6,000	9,400	9,400	10,400	10,400

Table A3-10: Level of Service Summary - 2008 (ETC) Design Year												
			AM Pea	ak Hour					PM Pea	ak Hour		
Location	No- Build	Null Alt	Build Alt. 1	Build Alt. 1 (4-lane)	C-1 & C-2 Only	Build Alt. 2	No- Build	Null Alt	Build Alt. 1	Build Alt. 1 (4-lane)	C-1 & C-2 Only	Build Alt. 2
Signalized Intersections					2							
Battery Street & Main Street	В	В	В	В	В	С	В	В	С	В	С	С
Battery Street & King Street	В	В	С	В	В	В	В	В	С	В	В	В
Battery Street & Maple Street	В	В	В	В	В	В	В	С	С	В	В	В
Pine Street & Main Street	В	В	В	В	В	С	В	В	В	В	В	С
Pine Street & Battery Street Ext	Note 1	Note 1	В	В	Note 1	Note 1	Note 1	Note 1	С	С	Note 1	Note 1
Pine Street & Lakeside Avenue	А	В	С	В	С	С	В	В	С	С	С	С
Pine Street & Flynn Avenue	В	В	В	В	В	В	С	В	В	В	В	В
Connector & Lakeside Avenue	Note 1	D	С	В	В	В	Note 1	D	В	С	С	С
Connector & Sears Lane	Note 1	В	В	В	В	В	Note 1	А	В	А	В	В
Connector & Flynn Avenue	Note 1	В	В	В	В	В	Note 1	С	D	С	D	D
Connector & Home Avenue	Note 1	В	В	В	С	С	Note 1	В	D	В	С	С
AWSC <sup>(1)</sup> Intersections												
Pine Street & King Street	С	Α	А	А	С	B <sup>(3)</sup>	С	В	В	В	Е	C <sup>(3)</sup>
Pine Street & Maple Street	F	В	В	В	F	C <sup>(3)</sup>	F	В	С	С	F	D <sup>(3)</sup>
Pine Street & Home Avenue	F	А	А	А	А	А	F	А	А	А	А	А
TWSC <sup>(2)</sup> Intersections												
Pine Street & Howard Street	_	_	_		_	_			_		_	
Eastbound Approach	D	B	F	F	F	F	F	C	F	F	F	F
Westbound Approach	F	C	F	F	F	F	F	D	F	F	F	F
Pine Street & Locust Street	Г	C	Б	Б	г	Б	Б	C	Г	Б	Б	Г
Westbound Approach	F	C	F	F	Г	F	Г	C	F	F	Г	Г
Westbound Approach	Б	р	C	C	D	D	Б	р	C	C	D	D
Ding Street & Sourd Long	E	D	C	C	D	D	Г	D	C	C	D	D
Fasthound Approach	л	C	C	р	C	C	F	C	C	р	C	C
(1)  AWSC = All-Way Stop Control	D	C	C	D	C	C	1	C	C	D	C	C
<ul> <li>(1) TWSC = Two-Way Stop Control</li> <li>(2) TWSC = Two-Way Stop Control</li> <li>(3) This intersection is signalized in</li> </ul>	ol (i.e., Side S this alternati	treet Stop) ve										
Notes: <i>1-</i> this intersection does not ex-	xist in this alt	ernative										

Table A3-11: Level of Service Summary - 2028 (ETC) Design Year												
			AM Pea	ak Hour					PM Pea	ık Hour		
	No-	Null	Build	Build	C-1 &	Build	No-	Null	Build	Build	C-1 &	Build
Location	Build	Alt	Alt. 1	Alt. 1	C-2	Alt. 2	Build	Alt	Alt. 1	Alt. 1	C-2	Alt. 2
				(4-lane)	Only					(4-lane)	Only	
Signalized Intersections				_		~	~	_	~		~	~
Battery Street & Main Street	B	В	B	В	B	C	C	В	C	В	С	С
Battery Street & King Street	С	В	C	В	С	С	В	В	С	В	В	В
Battery Street & Maple Street	В	С	В	В	В	В	В	С	С	В	В	В
Pine Street & Main Street	В	В	В	В	В	С	В	В	В	В	В	С
Pine Street & Battery Street Ext	Note 1	Note 1	В	В	Note 1	Note 1	Note 1	Note 1	С	C	Note 1	Note 1
Pine Street & Lakeside Avenue	А	С	D	С	С	С	С	В	С	С	С	С
Pine Street & Flynn Avenue	В	В	В	В	В	В	F	В	В	В	В	В
Connector & Lakeside Avenue	Note 1	D	В	В	В	В	Note 1	D	С	С	С	С
Connector & Sears Lane	Note 1	С	В	В	В	В	Note 1	А	В	В	В	В
Connector & Flynn Avenue	Note 1	В	В	В	С	С	Note 1	С	F	С	Е	Е
Connector & Home Avenue	Note 1	В	С	В	С	С	Note 1	В	D	В	С	С
AWSC <sup>(1)</sup> Intersections												
Pine Street & King Street	С	В	В	В	D	B <sup>(3)</sup>	D	В	В	В	Е	C <sup>(3)</sup>
Pine Street & Maple Street	F	В	В	В	F	C <sup>(3)</sup>	F	В	С	С	F	D <sup>(3)</sup>
Pine Street & Home Avenue	F	Α	А	А	А	А	F	Α	А	Α	А	А
TWSC <sup>(2)</sup> Intersections												
Pine Street & Howard Street												
Eastbound Approach	Е	С	F	F	F	F	F	С	F	F	F	F
Westbound Approach	F	С	F	F	F	F	F	D	F	F	F	F
Pine Street & Locust Street												
Westbound Approach	F	С	F	F	F	F	F	С	F	F	F	F
Pine Street & Birchcliff Parkway												
Westbound Approach	F	В	С	C	С	С	F	С	С	D	С	С
Pine Street & Sears Lane												
Eastbound Approach	Е	С	D	D	С	С	F	С	С	D	С	С
(1) AWSC = All-Way Stop Control		~ ``										
(2) TWSC = Two-Way Stop Control	(1.e., Side Sti	reet Stop)										
(3) This intersection is signalized in t	ins alternativ	e										
<i>I</i> - this intersection does not ex	rist in this alte	ernative										
	ist in this alt	ci iluti v c										

## Null Alternative

The Null Alternative scenario would provide the best traffic operating conditions for this area. The C-1 Section and C-2 Section would remove traffic from Home Avenue and Flynn Avenue while reducing volumes along U.S. Route 7 and the southern section of Pine Street. The C-8 Section would divert most of the through traffic away from Pine Street and improve operations throughout the entire Pine Street corridor. The four-lane highway would also provide enough capacity to provide acceptable intersection operations. This alternative is also very effective in providing connectivity to existing industrial facilities. However, the C-8 Section of this alternative requires new roadway construction within the environmentallysensitive Superfund Site. As a result of the substantial environmental issues and associated remediation costs, the Null Alternative is not progressed as the Preferred Alternative.

## **Build Alternative 1 (See Also – Chapter 4)**

By diverting traffic onto the Southern Connector/Champlain Parkway, Build Alternative 1 provides the same benefits for the southern section of Pine Street as the Null Alternative. Likewise, in the northern section of Pine Street, the connection for the north/south circulation to the CCD area needed to improve traffic operations is provided by the construction of the Battery Street Extension portion of the C-6 Section. The intersection of Pine Street and Maple Street is no longer a congestion point that would affect the entire CCD area. This alternative also provides connectivity to existing industrial facilities. However, without the C-8 Section, traffic volumes on Pine Street would increase between Lakeside Avenue and the Battery Street Extension. This would increase delays for the stop-controlled approaches trying to access Pine Street.

By removing through traffic from the neighborhood streets in the southern and northern sections of Pine Street, and providing acceptable LOS for the signalized intersections within the project study area, Build Alternative 1 meets the purpose and need of this project. However, the C-6 Section of this alternative requires new roadway construction through the existing Burlington rail yard facilities. As a result of substantial environmental and rail yard operation mitigation issues associated with the relocation of these operations, this alternative is not recommended as the Preferred Alternative at this time.

# **Build Alternative 1 (four-lane)**

Build Alternative 1 (four-lane) satisfies the purpose and need of this project by providing mobility and access to the CCD. This alternative is also very effective in diverting through traffic away from the residential neighborhoods and providing connectivity to existing industrial facilities. The construction of this alternative has

the similar issues related to impacts to the existing rail yard as noted for the Build Alternative 1 because it requires new roadway construction through the existing Burlington rail yard facilities. In addition, substantial right-of-way impacts along Pine Street are also associated with this alternative to provide the four-lane section. As a result of substantial environmental and rail yard operation mitigation issues associated with the relocation of these operations and the substantial right-of-way impact, this alternative is not recommended as the Preferred Alternative.

# C-1 Section and C-2 Section Only

The C-1 Section and C-2 Section Only alternative does reduce the through volume on the southern sections of Pine Street, and avoids the construction of a C-8 or C-6 Section, but does not provide acceptable operation conditions in the northern section of Pine Street. This is most notable at the AWSC intersections of Pine Street at Maple Street and Pine Street at King Street, where the LOS F conditions identified to occur in the No-Build Alternative would be exacerbated as a result of the increased traffic volumes northbound in this alternative. These operating conditions represent a substantial corridor capacity constraint, which would result in recurrent system-wide failure. Without addressing the lack of capacity and poor circulation in the CCD area further exacerbated by the additional traffic volume, the C-1 Section and C-2 Section Only alternative does not meet the purpose and need of the project and is not recommended as the Preferred Alternative.

# **Build Alternative 2 (See also Chapter 4)**

Build Alternative 2 reduces the through volume on the southern sections of Pine Street, avoids the negative implications with the construction of the C-8 or C-6 Section, and with the installation of traffic signals at the intersections of Pine Street at Maple Street and Pine Street at King Street, provides acceptable operation conditions in the CCD area and mitigates the affect of traffic increases to the extent practicable. Build Alternative 2 addresses the overall mobility objectives of the project and provides improved access to the industrial facilities within the corridor when compared to the No-Build Alternative.

Build Alternative 2 would not only improve conditions within the Primary study area, but also improve conditions for the Secondary study area as well. Traffic volumes on U.S. Route 7 would decrease and signalized operations would improve as the Southern Connector/Champlain Parkway creates a more favorable route to access the CCD area. U.S. Route 7 through traffic currently using Home Avenue and Flynn Avenue to access Pine Street would also decrease. By removing through traffic from the neighborhood streets and providing acceptable LOS for the signalized intersections within the project study area, the Build Alternative 2 satisfies the purpose and need of this project. This alternative is recommended as the Preferred Alternative at this time.



Documentation for:

# Southern Connector/Champlain Parkway Project

Draft

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#### INTRODUCTION

The purpose of this document is to provide a summary of the transportation modeling methodology and resulting traffic projections developed by Resource Systems Group (RSG) in support of the Southern Connector/Champlain Parkway project. RSG conducted model runs and performed post-model refinements for the scenarios and years described below.

#### TRANSPORTATION MODEL OVERVIEW

The tool used for this project was the Chittenden County Transportation Model, calibrated to the base year 1998. The model was developed for the Chittenden County Metropolitan Planning Organization (CCMPO) for performing comprehensive regional transportation analysis using the ITM/TModel software. The model includes 350 internal Traffic Analysis Zones (TAZs) covering all of Chittenden County, 17 external zones representing the surrounding areas, 1200 intersections (nodes), and 1600 road segments (links). The model is based on the four-step process: trip generation, trip distribution, mode choice, and traffic assignment and forecasts both the AM and PM peak hour periods. A fifth step, land use allocation, was also added by RSG. For a full technical description of the CCMPO model, see the "Report on Model Performance, Data Sources, and Parameter Estimation" which is available from the CCMPO.

The model structure is depicted in Figure 1 below.







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An overview of the five steps in the CCMPO model is provided below:

- Trip Generation: estimates the number of person "trip ends" that start and end in each TAZ based on trip rates and land use (housing and employment).
- Trip Distribution: pairs the trip ends from trip generation for each trip type (work trips, home trips, etc.) using a gravity model construct. The results are zone-to-zone person-trip matrices by trip type.
- Mode Choice: breaks the person trip tables into travel modes (drive, shared ride, bus, walk/bike).
- Assignment: assigns the auto trip table to the roadway network. Two of the important results of this step are travel times and auto volumes.
- Land Use Allocation: allocates a user defined increment of growth (houses, retail employees, non-retail employees) to the internal TAZs. The result is future year land use (housing and employment) which are used by trip generation in the forecasting process. The land use allocation model uses a typical Lowry/Putnam construct and is sensitive to physical constraints (steep slopes, wetlands), political constraints (zoning), availability of land, and accessibility (travel times take from the four-step model). The purpose of the land use allocation module is to create future land use scenarios that are realistic, internally consistent, and that can be easily updated. These future transportation/land use scenarios are also realistically influenced by transportation measures including transit improvements and land use policy decisions.

Transportation models are deemed ready for forecasting when they are "calibrated" which means they reasonably replicate the base year conditions. The Federal Highway Administration (FHWA) has guidelines for calibration.<sup>1</sup> The CCMPO model used for this study exceeds each of the FHWA guidelines.

#### PROJECT-SPECIFIC USE OF THE MODEL

In order to be consistent with previous model analyses performed for this project, the model was run for the years 2002 (base year), 2012 (interim year), and 2022 (forecast year). The years of analysis were 2003 (using the 2002 model volumes), 2008 (using the 2012 model volumes), and 2028 (extrapolating the 2022 model volumes using the trend from 2012 to 2022). Using this approach we were able to represent the important model dynamics present in the future years (such as rerouting due to delay) while maintaining model consistency with previous work. This was important for "quality assurance" and "quality control" purposes.

<sup>&</sup>lt;sup>1</sup>Ismart, Dane. Calibration and Adjustment of System Planning Models. U.S. Department of Transportation, Federal Highway Administration Publication FHWA-ED-90-015. Washington, DC, December 1990.



Table 1 shows a list of the study intersections which include most of the major intersection in downtown Burlington, along U.S. Route 7 and Pine Street.

Table 1. Intersections Reported for the Southern Connector/Champlain Parkway Study

Number	Intersection Name
1	Main Street and South Willard Street
2	Main Street and South Union Street
3	Main Street and South Winooski Avenue
4	Main Street and St. Paul Street
5	Main Street and Pine Street
6	Main Street and Battery Street
7	Battery Street and King Street
8	Battery Street and Maple Street
9	Pine Street and King Street
10	Pine Street and Maple Street
11	Pine Street and Howard Street
12	Pine Street and Locust Street
13	Pine Street and Lakeside Avenue
14	Pine Street and Birchcliff Parkway
15	Pine Street and Sears Lane
16	Pine Street and Flynn Avenue
17	Pine Street and Home Avenue
18	Maple Street and St. Paul Street
19	St. Paul Street and South Union Street and Marian
20	St. Paul Street and South Winooski Avenue and Howard Street
21	U.S. Route 7 and St. Paul Street and Locust Street and South Willard Street
22	U.S. Route 7 and Birchcliff Parkway
23	U.S. Route 7 and Flynn Avenue
24	U.S. Route 7 and Home Avenue
25	U.S. Route 7 and I-189 Ramp C (westbound)
26	Home Avenue and Industrial Parkway and Austin Drive
27	Southern Connector and Home Avenue
28	Southern Connector and Pine Street
29	Southern Connector and Lakeside Avenue
30	Southern Connector and Sears Lane
31	Southern Connector and Flynn Avenue



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These intersections are also referenced in Figure 2.

#### PROJECT ALTERNATIVES

The model was used to analyze six different alternatives in both the AM and PM peak periods. Within some alternatives there were also some modifications performed. The alternatives are described further below.

#### 1. No Build Alternative

The "No Build" networks for 2012 and 2022 assumed the major roadway improvements identified in the CCMPO long range plan. These include:

- Circumferential Highway
- Kennedy Drive Widening
- Shelburne Road Widening
- Mary Street Extension to Market Street in South Burlington

All of these roadway improvements were assumed to be part of all other alternatives as well. The No-Build Alternative does not include the Southern Connector/Champlain Parkway.

#### 2. TDM/TSM Alternative

A Transportation Demand Management (TDM) / Transportation Systems Management (TSM) alternative was performed using the model. The impacts were assumed to take place within a geographic area bounded by Pearl Street to the north, South Willard Street and U.S. Route 7 to the east, the intersection of I-189 and U.S. Route 7 and the Southern Connecter / Champlain Parkway to the south and Lake Champlain to the west. The improvements fall into three major headings listed below.

- Bus service was assumed to be provided throughout the entire geographic area described above. Where bus service was already present, the frequency of the service was assumed to double.
- The Champlain Flyer Commuter Rail service was assumed to be operational (this obviously has impacts beyond the geographic area described above).
- A 10% increase in participation in rideshare programs was assumed for work related trips. This was implemented by reducing home-to-work and work-to-home trips by 10% in all the TAZs of the program area. As a point of reference, the Year 2000 Journey to Work census data for Chittenden County reports a 10% carpool share and a 1.5% public transit share.

Note that while the bus and rail options use the model to estimate the impact (use of transit vs. auto), the TDM ride share program is assumed to result in a 10% reduction in auto trip making. So, rather than



develop a detailed TDM strategy designed to reduce trip making, we assumed a reduction in trips to simulate the outcome of an aggressive strategy that might include things like carpooling, vanpooling, and employer endorsed off peak shifts.

#### 3. The Null Alternative (C-1 Section, C-2 Section and C-8 Section)

This alternative includes the Southern Connector/Champlain Parkway configuration from Home Avenue to the intersection of Battery Street and Maple Street. The Southern Connector is assumed to be a four-lane road in this alternative.

#### 4. The Build 1 Alternative (C-1 Section, C-2 Section and C-6 Section)

This alternative includes the Southern Connector/Champlain Parkway configuration from Home Avenue to Lakeside Avenue (C-1 Section and C-2 Section), and from the intersection of the Southern Connector/Champlain Parkway and Lakeside Avenue to the intersection of Battery Street and Maple Street (C-6 Section). This alternative was run in two different configurations:

- Two-lane Sections (one lane in each direction)
- Four-lane Sections (two lanes in each direction)

#### 5. The Build 2 Alternative (C-1 Section / C-2 Section)

This alternative includes the Southern Connector/Champlain Parkway configuration from Home Avenue to Lakeside Avenue (C-1 Section and C-2 Section). The Southern Connector/Champlain Parkway is assumed to be a two-lane configuration for this alternative (one lane in each direction).

#### 6. The Build 2 Alternative with geometric improvements on Pine Street

This alternative is the same as the Build 2 alternative described above but with improvements to Pine Street. Pine Street is widened from two lanes to three lanes (a shared left-turn lane) from Maple Street to Main Street. Intersection changes from an all-way stop conditions to a signalized controls were also assumed at Pine Street / Maple Street intersection and the Pine Street / King Street intersection.





#### POST MODEL REFINEMENTS

While transportation models adequately forecast the most likely significant future trends, it is common to perform post-model refinements at the intersection level prior to performing level-of-service analysis. These refinements can be broken into two categories.

- Ground truth refinements using observed counts
- Refinements where model detail does not adequately capture subtle roadway conditions

Both of these refinement techniques are described below. In all cases, the descriptive trends and model results were maintained.

#### **Ground Truth Refinements**

While the model is calibrated to base conditions, it is also appropriate to use intersection counts to enhance the model accuracy at the turning movement level. Generally, this exercise involves comparing the intersection counts to base model volumes (the same year represented by the counts) and then applying that to the future model run. Essentially, the model is used to forecast the change that will occur between the base and future years and that change is applied to the counts. This process is called "pivoting."

There are two methods used to pivot future volumes, "absolute difference" and "percentage difference". In the absolute differences method the difference between count and model values are added to the future volumes. Percentage differences method multiplies the ratio of the counts and model volumes to the future volumes. The absolute pivoting method was used where the resulting volumes were positive. Where absolute pivoting resulted in negative numbers, the percentage pivoting method was used. After pivoting, the network was balanced to show a conserved flow of traffic between intersections.

#### **Refinements to Intersection Sensitivity**

Transportation models are inherently simplified representations of actual conditions. They do not represent every small driveway and, in some cases, do not distinguish between virtually identical route choices. While these limitations are relatively minor, there is an approach to account for them which further improve the model results. The primary method is to use observed route choices and know travel times to ensure that the model appropriately assigns volumes where the model is known to have difficulty in distinguishing route choices.

#### **IMPORTANT MODEL DYNAMICS**

This section serves to describe some of the major trends in traffic flow that the model is predicting for the future year. The CCMPO Transportation model is a complex forecasting tool that encompasses many



dynamics such as mode choices. These observations are limited to the auto routing impacts associated with the Southern Connector/Champlain Parkway project.

#### Comparing No Build to the Build 2 Alternative (C-1 Section and C-2 Section)

The construction of C-1 Section and C-2 Section has several important impacts including the following:

- The trips associated with land uses west of Pine Street (especially those west of the C-1Section and C-2 Section) use these new sections in place of Pine Street. This alleviates some level of congestion on Pine Street and provides faster access to and from these land uses.
- There is also a shift from Pine Street to the new C-1Section and C-2 Section by travelers who were using Pine Street as a through road. This shift creates a secondary shift from U.S. Route 7 to both Pine Street and to the new C-1 Section and C-2 Section. These shifts occur primarily south of Lakeside Avenue where the C-2 Section ties back into Pine Street
- Some of the traffic shifted from U.S. Route 7 stays on Pine Street north of Lakeside Avenue which results in an increase on Pine Street and a decrease on U.S. Route 7
- Finally, there is a small shift from Main Street to north/south corridor as a result of the increase in capacity.

#### Comparing No Build to the Build 1 Alternative (C-1 Section, C-2 Section and C-6 Section)

The construction of Section C-6 in addition to the C-1 Section and C-2 Section causes some additional dynamics including the following:

- There is a local shift of trips from Pine Street to the C-6 Section which provides a better connection to Battery Street.
- There is shift in traffic from U.S. Route 7 to Pine Street and on to the C-6 Section similarly because of the improved access to Battery Street.
- Finally, there is a slight increase in use of the corridor due to the increase in capacity. These shifts occur from Main Street and South Winooski Avenue and are more prominent in the AM peak hour.

These dynamics are largely independent of the C-1 Section and C-2 Section. That is, we would expect these dynamics to occur with or without the construction of the C-1 Section and C-2 Section.



# APPENDIX 3C: TRAFFIC CAPACITY ANALYSES

# **EXISTING CONDITIONS**

# 2003 AM PEAK HOUR

				1	đjanom	Ł	and the second sec	Ŷ	P	\$		-
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4	7		Â	7		414		۴	<b>ţ</b> >	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0		4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00		0.95		1.00	1.00	
Frt		1.00	0.85		1.00	0.85		0.99		1.00	1.00	
Fit Protected		0.98	1.00		0.98	1.00		1.00		0.95	1.00	
Satd. Flow (prot)		1832	1583		1817	1583		3500		1770	1855	
Flt Permitted		0.86	1.00		0.82	1.00		0.85		0.95	1.00	
Satd. Flow (perm)		1607	1583		1520	1583		3000		1770	1855	
Volume (vph)	15	30	25	60	60	200	35	315	15	265	570	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	33	28	67	67	222	39	350	17	294	633	17
RTOR Reduction (vph)	0	0	23	0	0	123	0	0	0	0	0	0
Lane Group Flow (vph)	0	50	5	0	134	99	0	406	0	294	650	0
Turn Type	Perm		Prot	Perm		pt+ov	Perm		C	ustom		
Protected Phases		4	4		8	8 1		2		1	6	
Permitted Phases	4	autotation data		8			2			1		
Actuated Green, G (s)		8.1	8,1		8.1	23.0		13.5		14.9	33.4	
Effective Green, g (s)	na ann an ann an an	9.1	9.1		9.1	25.0		14.5		15.9	34.4	
Actuated g/C Ratio		0.16	0.16		0.16	0.44		0.26		0.28	0.61	
Clearance Time (s)	i parta da turba da suma	5.0	5.0		5.0			5.0		5.0	5.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		260	256		246	703		773		500	1133	
v/s Ratio Prot			0.00			0.06				0.17	c0.35	
v/s Hatio Perm		0.03	111120120200		c0.09			0.14				
v/c Hatio		0.19	0.02		0.54	0.14		0.53		0.59	0.57	
Uniform Delay, d1		20.4	19.8		21.7	9.3		17.9		17.4	6.6	
Progression Factor		1.00	1.00		1.00	1.00		1.00		1.00	1.00	
incremental Delay, d2	la caster es de	0.4	0.0	(leonescond) (	2.5	0.1	gaaan tay dadaan	0.6	sinte transfit i tar	1.8	0.7	
Delay (s)		20.8	19.9		24.2	9.4		18.6		19.2	7.3	
Level of Service	an a		В	anan da kara	C	A		В		В	A	
Approach LOC		20.5			14.9			18.6			11.0	
Approach LUS		C			В			В			В	
Intersection Summary												
HCM Average Control D	əlay		13.9	Н	CM Le	el of Se	ervice		В			
HCM Volume to Capacity	/ ratio		0.51									
Actuated Cycle Length (s	3)		56.3	S	um of lo	ost time	(S)		8.0			
Intersection Capacity Util	ization	(	54.3%	IC.	CU Leve	l of Ser	vice		С			
Analysis Period (min)			15			e ta seconda esta de la						
c Critical Lane Group												

	Å		À	the second second	Aquum		*	a construction of the second se	P			Ż
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	Ŗ	Þ			44			4\$÷			ą,	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00			1.00			1.00			1.00	
Frt	1.00	0.93			0.88			1.00			0.99	
Flt Protected	0.95	1.00			1.00			1.00			0.99	
Satd. Flow (prot)	1770	1723			1637			1854			1826	• • • • • • •
Flt Permitted	0.67	1.00			0.99			0.97			0.84	
Satd. Flow (perm)	1242	1723			1630			1806			1544	
Volume (vph)	15	5	5	5	10	115	10	235	5	170	450	35
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	6	6	6	11	128	11	261	6	189	500	39
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	17	12	0	0	145	0	0	278	0	0	728	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	22.8	22.8			22.8			36.9			36.9	
Effective Green, g (s)	23.8	23.8			23.8			37.9			37.9	
Actuated g/C Ratio	0.34	0.34			0.34			0.54			0.54	
Clearance Time (s)	5.0	5.0			5.0			5.0			5.0	
Vehicle Extension (s)	3.0	3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)	424	588			557			982			840	
v/s Ratio Prot		0.01										
v/s Ratio Perm	0.01				c0.09			0.15			c0.47	
v/c Ratio	0.04	0.02			0.26			0.28			0.87	
Uniform Delay, d1	15.3	15.2			16.6			8.6			13.7	
Progression Factor	1.00	1.00			1.00			1.00			1.00	
Incremental Delay, d2	0.2	0.1			1,1			0.2			9.4	
Delay (s)	15.5	15.3			17.7			8.7			23.1	
Level of Service	В	В			В			A			С	
Approach Delay (s)		15.4			17.7			8.7			23.1	
Approach LOS		В			В			A			С	
Intersection Summary												
HCM Average Control D	elay		18.8	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.63									
Actuated Cycle Length (	s)		69.7	S	um of lo	st time	(S)		8.0			
Intersection Capacity Uti	lization		70.7%	IC	U Leve	l of Sen	/ice		С			
Analysis Period (min)			15	1	and the second							
c Critical Lane Group												

	Å	an a	~	F	4		1	Â	P			4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		÷\$>			4Ĵ¢			ф <b>э</b>			4>	********
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.97			0.90			0.94			0.99	
Flt Protected		0.99			0.99			0.99			0.96	
Satd. Flow (prot)		1732			1610			1663			1712	
Flt Permitted		0.94			0.96			0.92			0.73	
Satd. Flow (perm)		1639			1557			1548			1314	
Volume (vph)	5	15	5	45	40	240	5	5	10	405	30	25
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	6	17	6	50	44	267	6	6	4	450	33	28
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	29	0	0	361	0	0	23	0	0	511	0
Turn Type	Perm			Perm			Perm		1	om+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		20.9			20.9			29.5			28.5	
Effective Green, g (s)		20.9			20.9			29.5			29.5	
Actuated g/C Ratio		0.36			0.36			0.51			0.51	
Clearance Time (s)		4.0			4.0			4.0			5.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		587			557			782			664	
v/s Ratio Prot												
v/s Ratio Perm		0.02			c0.23			0.01			c0.39	
v/c Ratio		0.05			0.65			0.03			0.77	
Uniform Delay, d1		12.3			15.7			7.3			11.7	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.2			5.7			0.0			5.4	
Delay (s)		12.4			21.4			7.3			17.1	
Level of Service		В			C			Α			В	
Approach Delay (s)		12.4			21.4			7.3			17.1	
Approach LOS		B			C			A			8	
Intersection Summary												
HCM Average Control D	elay		18.4	Η	CM Lev	el of Se	rvice		В			
HCM Volume to Capacity	y ratio		0.72									
Actuated Cycle Length (	s)		58.4	S	um of lo	ost time	(s)		8.0			
Intersection Capacity Uti	lization	(	62.4%	IC.	CU Leve	of Ser	vice	naansaas	8	in management		
Analysis Period (MIN)			I.									

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	A.	and the second		<b>F</b>	-		1	Å	P	\$	Ļ	and the second s
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4.			র্ধ	۲		Â	¥		¢Ĵ>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0		4.0	4.0		4.0	
Lane Util. Factor		1.00			1.00	1.00		1.00	1.00		1.00	
	n felovnol Annala An	0.97	ang ng n	ana ana ang ang	1.00	0.85	a kara sa tiya wasi ay	1.00	0.85		0.97	autorite duragen.
Hit Protected		0.99			1.00	1.00		0.98	1.00		0.99	
Sato. Flow (prot)	han an a	1/98	References	and an ends	1861	1583	ien de trètues	1835	1583	unita di ministra	1796	aboleh seleten.
Fit Permitted		10.92			1054	1.00		0.84	1.00		10.88	
Jaluar (perm)	A 7 <sup>m</sup>	1007	به ه		1001	1003		1007	1083	1 por	1606	
Volume (vpn)	40	235	0.00	0 00	330	0.00	60	125	15	45	125	40
Adi Elow Arch	0.90 cn	0.90	0.90	0.90	0.90	0.90 EC	0.90	0.90	0.90	0.90	0.90	0.90
RTOP Reduction (unb)	00	201 م	00 0	0 0	007	00 20	01	109	17 40	oc VC	138	44
Lane Group Flow (vph)	0 	100	u n	്പ്പ	973	29 07	0 A	0	13 N	U A	0	U A
Turn Tuna	Porm		V	Porm		Dorm	Dorm	2.00	Dorm	Dorm	<u> </u>	U.
Protected Phases	1 (2111)	•		reini	6	Feiin	генн	Q	rem	renn	А	
Permitted Phases	2	Kee		6		8	8	U	Ŕ	nini ini ini A		
Actuated Green G (s)	5	20.5			20.5	205	Nationalistication (Constanting Constanting Co	10.0	100		10.0	
Effective Green. a (s)		21.5		ala de board	21.5	21.5		11.0	11 0	een eesse	110	1999.465-65-
Actuated g/C Ratio		0.47			0.47	0.47		0.24	0.24		0.24	
Clearance Time (s)		5.0	(j), (i), (i);		5.0	5.0		5.0	5.0		5.0	
Vehicle Extension (s)		3.0			3.0	3.0		3.0	3.0		3.0	
Lane Grp Cap (vph)		791			879	751		378	384	<u></u>	390	
v/s Ratio Prot												
v/s Ratio Perm		c0.24			0.20	0.02		0.13	0.00	1 (1414 (14 (14 (14 (14 (14 (14 (14 (14	c0.15	
v/c Ratio		0.50			0.42	0.04		0.53	0.01		0.60	
Uniform Delay, d1		8.2			7.8	6.4		14.9	13.0		15.2	
Progression Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Incremental Delay, d2		0.5			0.3	0.0		1.3	0.0		2.5	
Delay (s)		8.7			8.2	6.4		16.2	13.0		17.6	
Level of Service		A			A	Α		В	В		В	
Approach Delay (s)		8.7			7.9			16.0			17.6	
Approach LOS		A			A			В			В	
Intersection Summary												
HCM Average Control D	elay		11.3	Н	CM Lev	el of Se	ervice		В			
HCM Volume to Capacit	y ratio		0.46									
Actuated Cycle Length (:	S)	n an	45.3	S	um of k	ost time	(S)		8.0			that the state of
Intersection Capacity Uti	lization		71.5%	IC	U Leve	el of Ser	vice		C			
Analysis Period (min)	a ta Madala da Arrida	unite en transferencia	15				-					
c Critical Lane Group												

			*			~		
Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations	Ň	7	ĥ	Ą	个	7		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Width	11	12	11	12	11	12		
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00		
Frt	1.00	0.85	1.00	1.00	1.00	0.85		
Fit Protected	0.95	1.00	0.95	1.00	1.00	1.00		
Satd. Flow (prot)	1711	1583	1711	1863	1801	1583		
Flt Permitted	0.95	1.00	0.38	1.00	1.00	1.00		
Satd. Flow (perm)	1711	1583	679	1863	1801	1583		
Volume (vph)	55	60	120	520	555	110	99999999999999999999999999999999999999	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90		
Adj. Flow (vph)	61	67	133	578	617	122	en al en en antennet esta en antenna en sin a sen a sen antenna sen sen sen antenna en antenna el el esta en en	
RTOR Reduction (vph)	0	56	0	0	0	34		
Lane Group Flow (vph)	61	11	133	578	617	88		
Turn Type		Prot	Perm			Perm		
Protected Phases	4	4		2	6			-lithelith it
Permitted Phases			2			6		
Actuated Green, G (s)	11.4	11.4	52.1	52.1	52.1	52.1	al na santa sa kana ang kana ang kana ang kana kana k	.800.90944
Effective Green, g (s)	12.4	12.4	53.1	53.1	53.1	53.1		
Actuated g/C Ratio	0.17	0.17	0.72	0.72	0.72	0.72	a da anna a sua anna anna anna anna anna an	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	289	267	491	1346	1301	1144		
v/s Ratio Prot	c0.04	0.01		0.31	c0.34			80.00049
v/s Ratio Perm			0.20			0.06		
v/c Ratio	0.21	0.04	0.27	0.43	0.47	0.08		ç
Uniform Delay, d1	26.3	25.6	3.5	4.1	4.3	3.0		
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	en men melle ningen helme frigeligt frige of elle stande franken som en er som en som som som som som som som s	
Incremental Delay, d2	0.4	0.1	1.4	1.0	1.2	0.1		
Delay (s)	26.7	25.6	4.9	5.1	5.5	3.1		
Level of Service	С	C	Α	A	A	A		
Approach Delay (s)	26.1	ven ertrentförerki trafor	12 mail and an darring	5.1	5.1	an a	e na na esta na esta esta de menera como presenta da como de como de la como de la como de la como de la como d A como de menera de la como de la c	
Approach LOS	С			Á	A			
Intersection Summary								
HCM Average Control D	elay		6.8	ŀ	ICM Lev	vel of Service	A	
HCM Volume to Capacit	y ratio		0.42		er en en en en factur a sector () I	a ana ang ing ing ing ing ing ing ing ing ing i		
Actuated Cycle Length (:	5)		73.5	S	um of k	ost time (s)	8.0	
Intersection Capacity Uti	lization		\$9.2%	[(	CU Leve	al of Service	B	1946-996
Analysis Period (min)			15					

c Critical Lane Group

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		÷\$>			4	alan da kana d		4		۴	<b>t</b> >	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	14	12	12	14	12	12	14	12	11	11	12
Total Lost time (s)		4.0			4.0			4.0		4,0	4.0	
Lane Util. Factor		1.00			1.00			1.00		1.00	1.00	
Frt		0.99			0.91			1.00		1.00	0.98	
Flt Protected		0.98			1.00			1.00		0.95	1.00	
Satd. Flow (prot)		1931			1809			1980		1711	1765	
Flt Permitted		0.58			0.99			0.99		0.28	1.00	
Satd. Flow (perm)		1138			1791		- /	1959		506	1765	
Volume (vph)	55	60	5	10	90	185	10	480	10	110	400	60
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	61	67	6	11	100	206	11	533	11	122	444	67
RTOR Reduction (vph)	0	2	0	0	96	0	0	1	0	0	5	0
Lane Group Flow (vph)	0	132	0	0	221	0	0	554	0	122	506	0
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		12.5			12.5			23.0		34.1	34.1	
Effective Green, g (s)		13.5			13.5			24.0		35.1	35.1	
Actuated g/C Ratio		0.23			0.23			0.40		0.59	0.59	
Clearance Time (s)		5.0			5.0			5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0		****	3.0		3.0	3.0	
Lane Grp Cap (vph)		259			407			792		443	1043	
v/s Ratio Prot										0.03	c0.29	
v/s Ratio Perm		0.12			c0.12			c0.28		0.13		
v/c Ratio		0.51			0.54			0.70		0.28	0.48	
Uniform Delay, d1		20.1			20.2			14.7		7.6	7.0	
Progression Factor		1.00			1.00			1.00		1.00	1.00	
Incremental Delay, d2		1.6			1.5			2.8		0.3	0.4	
Delay (s)		21.6			21.7		) et en stationet en sous	17.5		7.9	7.3	
Level of Service		C C			0			8		A	Α	
Approach Delay (s)		21.6	kalenen determen	ungesige julies i der	21.7	an a fairte an airte		17.5			7.4	
Approach LUS		C			U			В			A	
Intersection Summary												
HCM Average Control D	elay		14.8	Н	CM Lev	el of Se	rvice		8			
HCM Volume to Capacit	y ratio		0.60									
Actuated Cycle Length (s	s)		59.4	S	um of Ic	st time	(s)		12.0			
Intersection Capacity Uti Analysis Period (min)	lization	8	37.8% 15	IC	CU Leve	l of Sen	/ice		E			

c Critical Lane Group

	Second State			K	- Esteradores		*	-	P	<b>\$</b>	Ļ	Å
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		á þ			¢Ĵ,			4,			¢ĵ,	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	10	90	70	25	105	15	45	170	35	15	185	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	11	100	78	28	117	17	50	189	39	17	206	6
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	189	161	278	228							******	
Volume Left (vph)	11	28	50	17								
Volume Right (vph)	78	17	39	6								
Hadj (s)	-0.20	0.01	-0.01	0.03								
Departure Headway (s)	5.4	5.6	5.2	5.4								
Degree Utilization, x	0.28	0.25	0.40	0.34								
Capacity (veh/h)	606	574	635	621								
Control Delay (s)	10.4	10.5	11.8	11.1								
Approach Delay (s)	10.4	10.5	11.8	11.1								
Approach LOS	В	В	В	В								
Intersection Summary												
Delay			11.1									
HCM Level of Service			В									
Intersection Capacity Uti	lization		46.7%	IC	XU Leve	l of Ser	vice		A			
Analysis Period (min)			15									

	A	namenta		×~	- Constanting			Å	,Å∞		¥	al a
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		44			đ,			4 <b>î</b> »			ą,	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	65	315	55	170	15	160	230	45	15	260	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	72	350	61	189	17	178	256	50	17	289	6
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	428	267	483	311								
Volume Left (vph)	6	61	178	17								
Volume Right (vph)	350	17	50	6								
Hadj (s)	-0.45	0.04	0.05	0.03								
Departure Headway (s)	7.6	8.7	8.1	8.5				121-2212-2214-2214-2214-2214-2214-2214-				
Degree Utilization, x	0.90	0.64	1.08	0.73								
Capacity (veh/h)	428	386	445	406		1. teo (teo 11.) e e e	e construction strang				*****	a tatat sa ta sa ta sa ta
Control Delay (s)	48.9	26.1	94.7	31.2								
Approach Delay (s)	48.9	26.1	94.7	31.2								
Approach LOS	E	D	F	D								
Intersection Summary												
Delay			56.0									
HCM Level of Service			F									
Intersection Capacity Uti	lization		87.9%	IC	CU Leve	l of Ser	vice		Ε			
Analysis Period (min)			15									
				ese densige						466666666	en para de la competencia de la competencia de la competencia de l	
	and the second	->	Ň	<b>K</b>	¢		*	Ť	/the	\$	ļ	al and a second
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4.			<i>ф</i> ,			¢Ĵ,			Ĵ.	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	50	130	10	20	115	225	10	150	15	145	235	35
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	56	144	11	22	128	250	11	167	17	161	261	39
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	211	400	194	461								
Volume Left (vph)	56	22	11	161								
Volume Right (vph)	11	250	17	39							h	
Hadj (s)	0.06	-0.33	-0.01	0.05								
Departure Headway (s)	7.3	6.5	7.3	6.6								
Degree Utilization, x	0.43	0.72	0.39	0.85								
Capacity (veh/h)	436	522	438	522								
Control Delay (s)	15.8	24.1	14.9	35.8								
Approach Delay (s)	15.8	24.1	14.9	35.8								
Approach LOS	С	C	В	E								
Intersection Summary												
Delay			25.6									
HCM Level of Service			D									
Intersection Capacity Uti	lization		68.4%	IC	CU Leve	l of Ser	vice		С			
Analysis Period (min)			15									
							ere e des par					<i></i>

	Å		1	<b>K</b>			1	Î	p	\$		and the second
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			-\$}-			<u>ب</u> ه			4.	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	5	5	15	20	5	40	20	540	20	30	645	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	6	17	22	6	44	22	600	22	33	717	6
Pedestrians			evere la casa		Additesta (data)				ayaayadadaa	ni interation	kalaka ngana sat	44101020101
Lane Widin (II) Wolking Speed (#/o)												
Parcant Blockana									Ang ini ang ini Ang ini ang ini Ang ini ang ini Ang ini ang ini Ang ini ang ini ang ini ang ini			
Right turn flare (veh)		nani kalatu	eretaide fa				al di tan di tak			CALLER STREET		
Median type		None	<u>in an an an</u>		None							
Median storage veh)			rianis a ded ri dest da secon	9	un de la compañía de			na da	George (ner) (George)	reprint and a second of the	100000000000000	ander Germann
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1489	1453	719	1461	1444	611	722			622		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
VCu, unblocked vol	1489	1453	/19	1461	1444	611	722			622		(fpailister
tC, single (s) $tC = 2 \text{ stage}(s)$	7.1	6.5	0.2	/3	0.5	6.2	4.1			4,1		
iC, 2 stage (s) IF (a)	25	10	22	95	10	2.2	00			െക്ക		
n0 queue free %	94	95	96 96	0.0 77	96	91 91	6-6 97			97		
cM capacity (veh/h)	86	123	428	95	124	494	880			959		
Direction Lane #	CQ 1	1A/R 1	- MQ 1	CDA								
Volume Total	20 I 28	70	644	756	<u></u>							
Volume Left	2-2 6	22	22	33								
Volume Right	17	44	22	6								
cSH	186	195	880	959		transformation (n				eles de la composition de la compositio	nitos energial	
Volume to Capacity	0.15	0.37	0.03	0.03								
Queue Length 95th (ft)	13	40	2	3								
Control Delay (s)	27.7	33.8	0.7	0.9								
Lane LOS	D	D	A	A		etre restauration succession						
Approach Delay (s)	27.7	33.8	0.7	0.9								
Approach LOS	D	D										
Intersection Summary												
Average Delay			2.9									
Intersection Capacity Ut	ilization		59.3%	IC	CU Leve	I of Serv	vice		B			
Analysis Period (min)			15		last integrating ingener		anii gati kii talaasi	0,000,000-400400-400			sann an an an an an	u en antenist

	ų.	×.	Å	P			
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations Sign Control Grade	¥ Stop 0%	<b>E</b> E	<b>∳</b> Free 0%		<i>.</i>	র্ণ Free 0%	
Peak Hour Factor	0.90	0.90	0 90	00	0 90	005	
Hourly flow rate (vph) Pedestrians Lane Width (ft)	67	61	567	72	50	672	
Walking Speed (ft/s) Percent Blockage Right turn flare (veh)							
Median type Median storage veh) Upstream signal (ft)	None	0.07	600		0.07		
vC, conflicting volume vC1, stage 1 conf vol vC2, stage 2 conf vol	0.87 1375	603			639		
vCu, unblocked vol tC, single (s) tC, 2 stage (s)	1430 6.4	544 6.2			586 4.1		
tF (s) p0 queue free % cM capacity (veh/h)	3.5 45 122	3.3 87 470			2.2 94 862		
Direction, Lane #	WB 1	N8 1	SB 1				
Volume Total Volume Left	128 67	639 0	722 50				
Volume Right	61 189	72 1700	0 862				
Volume to Capacity Queue Length 95th (ft)	0.68	0.38	0.06				
Control Delay (s)	56.8 F	0.0	1.5 ^				
Approach Delay (s) Approach LOS	56.8 F	0.0	1.5				
Intersection Summary							
Average Delay Intersection Capacity Ut Analysis Period (min)	ilization	8	5.6 31.8% 15	IC	U Level	of Ser	vice D

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Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	ħø		Þ			Ą.	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Volume (veh/h)	15	65	595	25	30	565	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Hourry now rate (vpri)	17	12	001	28	33	028	
Lane Width (ft)							
Walking Speed (ft/s)		soocesee tee	9995699999999999999999999999999 1999				
Percent Blockage							
Right turn flare (veh)		en en Viele Viel Viel Viel V	e engle antier e altre e be	a partar garanta tatu			an la na la na manazina na manazina na manazina kana na manazina na manazina na manazina na manazina na manazin An
Median type	None						
Median storage veh)							
Upstream signal (ft)						667	
pX, platoon unblocked	0.86	والمتعاجز والمتعار	p.B. de Norder (n. de Pr	n an			n de la maio come to relación de la constructión de la construcción de la decementa de la construcción de la co
vC, conflicting volume	1308	6/5			688		
vC1, stage 1 contivol						ntattata	a na na sana kana kana kana kana kana ka
vCu. unblocked vol	1428	675	1993-9494-94 1993-949-949-94		689		
tC, single (s)	6.4	6.2			4.1		
tC, 2 stage (s)				(11)		-9-6-19-00-6-00-	an na manang na mpanggan mbanda ka mbalak kambala kata ng katan na na na na na pangang ng manggang k
tF (s)	3.5	3.3			2.2		
p0 queue free %	87	84			96	a da ser se an se	
cM capacity (veh/h)	124	454			905		
Direction, Lane #	WB 1	NB 1	SB 1				
Volume Total	89	689	661				
Volume Left	17	0	33	alaa kiri kareerik a.e.	ledeneter namer	ana na kao An	
Volume Hight	- 12	28	0				
Volume to Canacity	000 0.00	1700 A 44	0.04	Handaratan			
Queue Length 95th (ft)	0.23 30	0.41 0	0.04 2				
Control Delay (s)	21.8	0.0	10				
Lane LOS	C		A	**********		000000000000	
Approach Delay (s)	21.8	0.0	1.0				
Approach LOS	С						
Intersection Summary							
Average Delay			1.8		****		
Intersection Capacity Ut	ilization	(	35.7%	IC	U Leve	of Sei	rvice C
Analysis Period (min)			15				

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3%.

		~	*	Å	an and the second s	4	
Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	Ŷſ			র্ব	Þ		
Sign Control	Stop			Free	Free		
Grade	0%	Nelsensen <u>a taa</u> nka		0%	0%		
Volume (veh/h)		20	155	625	555	25	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	Ang kang panganan ang kang kang kang kang kang kan
Podestriane	0	44	116	094	017	28	
Lane Width (ft)							
Walking Speed (ft/s)		(1149년 8월 1993) -		i de la la de la composición de la comp	hydrolfer orger (*	94049 804888 9	
Percent Blockage							
Right turn flare (veh)							
Median type	None						
Median storage veh)							
Upstream signal (ft)				1089	959		
pX, platoon unblocked	0.82	0.92	0.92	aladə (ələrə) mill	antiko georgia		e Maria Maria Maria Andriana da Indonesia da Angrica Maria (1997), Angrica Maria (1997), Angrica da Angrica (19
vC, conflicting volume	1669	631	644				
vC2 stage 2 confivel							Na na na amin'ny fanisana amin'ny fanisana amin'ny fanisana amin'ny fanisana amin'ny fanisana amin'ny fanisana
vCu. unblocked vol	1667	597	612				
tC, single (s)	6.4	6.2	4.1				
tC, 2 stage (s)				*********			terenetikan kanala k
tF (s)	3.5	3.3	2.2				
p0 queue free %	92	95	81				
cM capacity (veh/h)	70	461	887				
Direction, Lane #	EB 1	NB 1	SB 1				
Volume Total	28	867	644				
Volume Lett	6	172	0			hini nin hina ka	
	010	007	1700				
Volume to Canacity	013	007 n 10	0.38				
Queue Length 95th (ft)	11	18	0.00				
Control Delay (s)	24.0	4.6	0.0				
Lane LOS	С	A					
Approach Delay (s)	24.0	4.6	0.0				
Approach LOS	С						
Intersection Summary							
Average Delay			3.0				
Intersection Capacity Uti	lization	Ę	35.5%	IC	U Leve	l of Serv	ice E
Analysis Period (min)	ورور ورور ورور و	9 / 17 19 19 19 19 19 19 19 19 19 19 19 19 19	15				

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	۴	<u></u>	******	ň	Þ			4			ф,	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	12	11	11	14	14	14	11	11	11
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.99		1.00	0.99			0.97			0.98	
Fit Protected	0.95	1.00		0.95	1.00			0.99			0.99	
Satd. Flow (prot)	1711	1839		1770	1789			1923			1743	
Fit Permitted	0.21	1.00		0.39	1.00			0.95			0.92	
Satd. Flow (perm)	374	1839		718	1789			1842			1618	
Volume (vph)	25	370	35	80	560	25	25	175	50	45	185	50
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	28	411	39	89	622	28	28	194	56	50	206	56
RTOR Reduction (vph)	0	4	0	0	2	0	0	8	0	0	8	0
Lane Group Flow (vph)	28	446	0	89	648	0	0	270	0	0	304	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6	····		8		••••••	4	inanti trikonkonkonko filozofi
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	24.9	24.9		24.9	24.9			16.5			16.5	
Effective Green, g (s)	25.9	25.9		25.9	25.9			17.5			17.5	
Actuated g/C Ratio	0.46	0.46		0.46	0.46			0.31			0.31	
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	173	851		332	827			576			506	CONTRACTOR OF CONTRACTOR
v/s Ratio Prot		0.24		*********************	c0.36			11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				ana sasing siy
v/s Ratio Perm	0.07			0.12				0.15			c0.19	
v/c Ratio	0.16	0.52		0.27	0.78	sennen handen of so	1	0.47	And Charles and Call		0.60	
Uniform Delay, d1	8.7	10.7		9.2	12.7			15.5			16.3	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	er) esta racea ta
Incremental Delay, d2	0.4	0.6		0.4	4.9			0.6	General ang Anata General ang Anata		2.0	
Delay (s)	9.2	11.3		9.7	17.6			16.1	1999 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -		18.3	
Level of Service	Α	В		A	8			В			В	
Approach Delay (s)		11.1			16.6			16.1			18.3	
Approach LOS		В			В			В			В	
Intersection Summarv												
HCM Average Control D	elav		15.4	Н	CMIev	el of Se	Nice		R			
HCM Volume to Capacit	v ratio	a derek genegelenen.	0.64	an an tha stail a stail a stàil		~					notice de la composition de la composit La composition de la c	Societande -
Actuated Cycle Length (	s)		56.0	Ş	um of lo	sttime	s)		20			
Intersection Capacity Uti	lization	99999999999999999999999999999999 H	71,4%	U I	)     eve	l of Sen	er. Vice	ener det techi	n.			anns staged a
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	٩	Ą			ţ,		ñ	Þ				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	10	10	16	16	16	10	11	11	12	12	12
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0				
Lane Util. Factor	1.00	1.00			1.00		1.00	1.00				
Frt	1.00	1.00			0.99		1.00	0.95				
Fit Protected	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (prot)	1888	1739			1875		1652	1716				
Fit Permitted	0.23	1.00			1.00		0.95	1.00				
Satd. Flow (perm)	459	1739			1875		1652	1716				
Volume (vph)	15	350	0	0	570	60	85	175	80	0	0	0
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	389	0	0	633	67	94	194	89	0	0	0
RTOR Reduction (vph)	0	0	0	0	5	0	0	16	0	0	0	0
Lane Group Flow (vph)	17	389	0	0	695	0	94	267	Ő	0	0	0
Parking (#/hr)				0	0	0						
Turn Type	Perm						Perm					
Protected Phases		2			6			8				
Permitted Phases	2						8					
Actuated Green, G (s)	27.1	27.1			27.1		13.5	13.5				
Effective Green, g (s)	28.1	28.1			28.1		14.5	14.5				
Actuated g/C Ratio	0.53	0.53			0.53		0.27	0.27				
Clearance Time (s)	5.0	5.0			5.0		5.0	5.0				
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0				
Lane Grp Cap (vph)	243	922			994		452	469				
v/s Ratio Prot		0.22			c0.37			c0.16				
v/s Ratio Perm	0.04						0.06					
v/c Ratio	0.07	0.42			0.70		0.21	0.57				
Uniform Delay, d1	6.1	7.5			9.3		14.8	16.6				
Progression Factor	1.00	1.00			1.00		1.00	1.00				
Incremental Delay, d2	0.1	0.3			2.2		0.2	1.6				
Delay (s)	6.2	7.8			11.5		15.1	18.2				
Level of Service	A	A			В		В	В				
Approach Delay (s)		7.8			11.5			17.4			0.0	
Approach LOS		А			В			В			A	
Intersection Summary				6.62.63.6		8 (S. 189)						
HCM Average Control D	elay		12.0	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacity	y ratio		0.62									
Actuated Cycle Length (s	5)		53.0	Si	um of la	st time	(S)		8.0			
Intersection Capacity Uti	lization		54.4%	IC	U Leve	I of Sen	rice		A			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ĥ	ţ,		ř	곆	7		45		ኻ	¢.	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	11	11	12	12	12	10	10	12
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0		4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00
Frt	1.00	0.99		1.00	1.00	0.85		0.97		1.00	1.00	0.85
Fit Protected	0.95	1.00		0.95	1.00	1.00		0.99		0.95	1.00	1.00
Satd. Flow (prot)	1540	1657		1711	1801	1531		1609		1652	1739	1583
Flt Permitted	0.40	1.00		0.54	1.00	1.00		0.91		0.72	1.00	1.00
Satd. Flow (perm)	656	1657		964	1801	1531		1488		1259	1739	1583
Volume (vph)	30	240	20	55	385	130	10	25	10	65	160	80
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	33	267	22	61	428	144	11	28	11	72	178	89
RTOR Reduction (vph)	0	3	0	0	0	74	0	9	0	0	Ō	62
Lane Group Flow (vph)	33	286	0	61	428	70	0	41	0	72	178	27
Parking (#/hr)	0	0	0				0	0	0			
Turn Type	Perm	anine dalam da anina da ana ang mga ay		Perm		Perm	Perm	*****		pm+pt		Perm
Protected Phases		2			6			8		7	4	
Permitted Phases	2			6	1.000001.000007000	6				4 4	ante alterritet e	4
Actuated Green, G (s)	28.8	28.8		29.9	29.9	29.9		10.6		18.6	18.6	18.6
Effective Green, g (s)	29.8	29.8		30.9	30.9	30.9	yn diwl a de la de de de la de la Na de la d	11.6		19.6	19.6	19.6
Actuated g/C Ratio	0.47	0.47		0,48	0.48	0.48		0.18		0.31	0.31	0.31
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0		5.0		5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0		3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	306	773	annaa amaa amaa ku ka kiyoone	466	871	740		270		411	533	486
v/s Ratio Prot		0.17			c0.24					0.01	c0.10	
v/s Ratio Perm	0.05	Persent (2010) 10101 1010		0.06		0.05		0.03	() - (1577) <sup>(</sup> 16 (1677) <sup>(</sup> 1677) <sup>(</sup>	0.04	99968787878787878787878787 1	0.02
v/c Ratio	0.11	0.37		0.13	0.49	0.09		0.15		0.18	0.33	0.06
Uniform Delay, d1	9.6	11.0		9.1	11.2	8.9		22.0	ta da farana mare	16.3	17.1	15.6
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00
Incremental Delay, d2	0.2	0.3		0.1	0.4	0.1		0.3	(*************************************	0.2	0.4	0.0
Delay (s)	9.7	11.3		9.2	11.6	9.0		22.3		16.5	17.5	15.7
Level of Service	A	В		А	В	A		С		В	В	В
Approach Delay (s)		11.1			10.8			22.3			16.8	
Approach LOS		В			В			С			В	1919 - 1919 - 1917 - 1917
Intersection Summary												
HCM Average Control D	elav		12.8	H	CM Lev	el of Se	rvice		R			
HCM Volume to Capacit	v ratio		0.39						Eurof All and a second second			
Actuated Cycle Length (	s)	5 4 4 5 5 5 6 4 6 5 4 6 5 6 6 6 6 7 6 9 6 6 7 6 7 6 7 6 7 6 7 6 7	63.9	S	um of lo	st time	(s)		8 O S			wiisiisia
Intersection Capacity Uti	lization	2	17.8%	ĬČ	U Leve	Lof Ser	vice		Ă			
Analysis Period (min)	2003-00-000 <sup>00000</sup> 00			en e		en e	na man da kada	na e dala (ne fora)	일이 아파가 아파 관계가 	eenten en Sottik (* (*	a en sen de la fa	

				<b>K</b>	digeneses.		*	\$	p	\$		A.
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4	7	ĸ	<u></u> ل			র্ঝ	ţ.	۴	<b>î</b> ,	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	12	12	16	12	12	12
Total Lost time (s)		4.0	4.0	4.0	4.0			4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	
Frt		1.00	0.85	1.00	0.97			1.00	0.85	1.00	0.99	
Flt Protected		1.00	1.00	0.95	1.00			0.99	1.00	0.95	1.00	
Satd. Flow (prot)		1737	1478	1486	1525			1835	1794	1593	1836	
Flt Permitted		0.99	1.00	0.57	1.00			0.89	1.00	0.59	1.00	
Satd. Flow (perm)		1720	1478	890	1525	2000 Sama La managementa		1662	1794	990	1836	
Volume (vph)	5	240	45	30	345	70	60	140	30	20	50	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	6	267	50	33	383	78	67	156	33	22	56	6
RTOR Reduction (vph)	0	0	24	0	9	0	0	0	16	0	4	0
Lane Group Flow (vph)	0	273	26	33	452	0	0	223	17	22	58	0
Parking (#/hr)				0	0	0	0			0		
Turn Type	Perm		Perm	Perm			Perm		Perm	Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6			8		8	4		
Actuated Green, G (s)		18.7	18.7	18.7	18.7			12.6	12.6	12.6	12.6	
Effective Green, g (s)		19.7	19.7	19.7	19.7			13.6	13.6	13.6	13.6	
Actuated g/C Ratio		0.43	0.43	0.43	0.43			0.29	0.29	0.29	0.29	
Clearance Time (s)		5.0	5.0	5.0	5.0			5.0	5.0	5.0	5.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0			3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		732	629	379	649			488	527	291	539	
v/s Ratio Prot					c0.30						0.03	
v/s Ratio Perm		0.16	0.02	0.04		· · · · ·		c0.13	0.01	0.02		
v/c Ratio		0.37	0.04	0.09	0.70			0.46	0.03	0.08	0.11	
Uniform Delay, d1		9.1	7.8	7.9	10.9			13.3	117	11.8	11.9	
Progression Factor		1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.3	0.0	0.1	3.3			0.7	0.0	0.1	0.1	
Delay (s)		9.4	7.8	8.0	14.1			14.0	11.7	11.9	12.0	
Level of Service		A	A	Α	В			В	В	В	В	
Approach Delay (s)		9.2			13.7			13.7			12.0	
Approach LOS		A			В			В			В	
Intersection Summary			6.900.0									
HCM Average Control De	elay		12.3		ICM Lev	el of Ser	vice		В			
HCM Volume to Capacity	y ratio		0.52									
Actuated Cycle Length (s	s)	und and a second	46.3	S	um of Ic	ost time (	s)		8.0			
Intersection Capacity Util	lization		49.0%	I(	CU Leve	I of Serv	ice		A			
Analysis Period (min)			15			,						
c Critical Lane Group												

	and the second			<b>K</b>	4	Ł	4	Î	P	\$		- All and a second
Movement	EBL2	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR2	SBL	SBT	SBR
Lane Configurations		44			44			e <b>l</b> s			414	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	14	14	14	12	12	12	16	16	16
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.96			0.98			1.00			1.00	
Flt Protected		0.99			0.99			1.00			1.00	
Satd. Flow (prot)		1777			1923			1856			2103	
Flt Permitted		0.96			0.96			0.98			0.99	
Satd. Flow (perm)		1717			1864			1825			2083	
Volume (vph)	10	30	15	5	20	5	20	470	5	5	245	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	11	33	17	6	22	6	22	522	6	6	272	6
RTOR Reduction (vph)	0	14	0	0	0	0	0	1	0	0	1	0
Lane Group Flow (vph)	0	47	0	0	34	0	0	549	0	0	283	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		3			3			2			6	
Permitted Phases	3			3			2	2		6	6	
Actuated Green, G (s)		15.0			15.0			30.0			30.0	
Effective Green, g (s)		16.0			16.0			31.0			31.0	
Actuated g/C Ratio		0.20			0.20			0.39			0.39	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Lane Grp Cap (vph)		343			373			707			807	
v/s Ratio Prot												
v/s Ratio Perm		c0.03			0.02			c0.30			0.14	
v/c Ratio		0.14			0.09			0.78			0.35	
Uniform Delay, d1		26.3			26.1			21.5			17.4	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		8.0			0.5			8.2			1.2	
Delay (s)		27.2			26.6			29.7			18.6	
Level of Service	nanagiarati. A	C			С			С			В	
Approach Delay (s)		27.2			26.6			29.7			18.6	
Approach LOS		C			С			С			В	
Intersection Summary												
HCM Average Control D	elay		26.2	Н	CM Lev	el of Se	rvice		С			
HCM Volume to Capacity	/ ratio		0.52									
Actuated Cycle Length (s	3)		80.0	S	um of lo	ost time	(s)		12.0			
Intersection Capacity Uti	ization		63.0%	IC	CU Leve	l of Sen	vice		В			
Analysis Period (min)			15									
c Critical Lane Group												

	6	and the second sec		Ł
Movement	SWL2	SWL	SWR :	SWR2
Lane Configurations	٢	<del>۱</del>		
Ideal Flow (vphpl)	1900	1900	1900	1900
Lane Width	14	14	14	14
Total Lost time (s)	4.0	4.0		
Lane Util. Factor	1.00	1.00		
Frt	1.00	0.98		
Flt Protected	0.95	0.96		
Satd. Flow (prot)	1888	1872		
Flt Permitted	0.95	0.96		
Satd. Flow (perm)	1888	1872		
Volume (vph)	5	175	15	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90
Adj. Flow (vph)	6	194	17	6
RTOR Reduction (vph)	0	1	0	0
Lane Group Flow (vph)	6	216	0	0
Turn Type	Split			
Protected Phases	4	4	· · · · ·	
Permitted Phases				
Actuated Green, G (s)	20.0	20.0		
Effective Green, g (s)	21.0	21.0		
Actuated g/C Ratio	0.26	0.26		
Clearance Time (s)	5.0	5.0		
Lane Grp Cap (vph)	496	491		
v/s Ratio Prot	0.00	c0.12		
v/s Ratio Perm				
v/c Ratio	0.01	0.44		
Uniform Delay, d1	21.8	24.6		
Progression Factor	1.00	1.00		
Incremental Delay, d2	0.0	2.8		
Delay (s)	21.9	27.4		
Level of Service	С	С		
Approach Delay (s)		27.3		
Approach LOS		С		
Intersection Summary				

	and the second		- A	<b>K</b>	- Ageneration				pt	1	*	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		র্শ	7		4	7	٢	个族		¥	ቶኈ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	0.99	
Fit Protected		0.96	1.00		0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1791	1583		1808	1583	1770	3536		1770	3506	
Flt Permitted		0.75	1.00		0.81	1.00	0.24	1.00		0.25	1.00	
Satd. Flow (perm)		1398	1583		1507	1583	453	3536		467	3506	
Volume (vph)	60	15	130	15	10	15	205	1015	5	15	685	45
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	67	17	144	17	11	17	228	1128	6	17	761	50
RTOR Reduction (vph)	0	0	122	0	0	14	0	0	0	0	6	Ó
Lane Group Flow (vph)	0	84	22	0	28	3	228	1134	0	17	805	0
Turn Type	Perm		Perm	Perm		Perm	pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)		7.7	7.7		7.7	7.7	35.2	35.2		24.1	24.1	
Effective Green, g (s)		7.7	7.7		7.7	7.7	35.2	35.2		24.1	24.1	
Actuated g/C Ratio		0.15	0.15		0.15	0.15	0.69	0.69		0.47	0.47	
Clearance Time (s)		4.0	4.0		4.0	4.0	3.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		211	239		228	239	497	2445		221	1660	
v/s Ratio Prot							0.06	c0.32			0.23	
v/s Ratio Perm		c0.06	0.01		0.02	0.00	0.25			0.04		
v/c Ratio		0.40	0.09		0.12	0.01	0.46	0.46		0.08	0.48	
Uniform Delay, d1		19.5	18.6		18.7	18.4	3.8	3.6		7.3	9.2	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.2	0.2		0.2	0.0	0.7	0.1		0.1	0.2	
Delay (s)		20.7	18.8		18.9	18.4	4.5	3.7		7.5	9.4	
Level of Service		C	В		В	В	A	A		A	A	
Approach Delay (s)		19.5			18.7			3.8			9.3	
Approach LOS		В			В			A			A	
Intersection Summary												
HCM Average Control De	elay		7.4	Н	CM Lev	el of Se	ervice		А			
HCM Volume to Capacity	/ ratio		0.45									
Actuated Cycle Length (s	5)		50.9	Si	um of Ic	ost time	(s)		8.0			
Intersection Capacity Util	ization		55.7%	IC	U Leve	l of Ser	vice		В			
Analysis Period (min)			15									
c Critical Lane Group												

	Å			<b>F</b>	4	×.	*	Ŷ	p		Ļ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4	1	×	ኁ		×	샦ኄ		Ŷ	个ኄ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	10	12	16	12	10	10	10	10	10	10
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	0.95		1.00	0.95	
Frt		1.00	0.85	1.00	0.90		1.00	1.00		1.00	0.99	
Flt Protected		0.96	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1728	1478	1770	1906		1652	3297		1652	3269	
Flt Permitted		0.75	1.00	0.71	1.00		0.26	1.00		0.95	1.00	
Satd. Flow (perm)		1349	1478	1329	1906		450	3297		1652	3269	
Volume (vph)	50	10	250	15	5	10	305	1290	15	10	745	55
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	56	4	278	17	6	11	339	1433	17	11	828	61
RTOR Reduction (vph)	0	0	247	0	10	0	0	1	0	0	6	0
Lane Group Flow (vph)	0	67	31	17	7	0	339	1449	0	11	883	0
Turn Type	Perm		Perm	Perm			om+pt			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2					
Actuated Green, G (s)		7.8	7.8	7.8	7.8		45.9	45.9		0.9	28.3	
Effective Green, g (s)		7.8	7.8	7.8	7.8		46.9	46.9		0.9	29.3	
Actuated g/C Ratio		0.11	0.11	0.11	0.11		0.67	0.67		0.01	0.42	
Clearance Time (s)		4.0	4.0	4.0	4.0		5.0	5.0		4.0	5.0	
Vehicle Extension (s)		1.0	1.0	1.0	1.0		1.5	1.0		1.0	1.0	
Lane Grp Cap (vph)		150	164	148	212		618	2206		21	1366	
v/s Ratio Prot					0.00		0.14	c0.44		0.01	c0.27	
v/s Ratio Perm		c0.05	0.02	0.01			0.22					
v/c Ratio		0.45	0.19	0.11	0.03		0.55	0.66		0.52	0.65	
Uniform Delay, d1		29.1	28.3	28.0	27.8		11.1	6.9		34.4	16.3	
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.8	0.2	0.1	0.0		3.5	1.5		10.4	2.4	
Delay (s)		29.9	28.5	28.2	27.8		14.5	8.4		44.8	18.6	
Level of Service		C	C	С	С		В	A		D	В	
Approach Delay (s)		28.8	aneerine properties and		28.0			9.6	uturus truccus succes		19.0	
Approach LOS		C			C			Α			В	
Intersection Summary			8 8 8 8				\$			ê lê lê lê		
HCM Average Control D	elay		14.7	Н	CM Lev	rel of Se	rvice		В			
HCM Volume to Capacity	y ratio		0.58		en en en en en en en el tra	9.99999.0007970 1		ىرى تەرىك بۇ تىلىدى كىسى تەرىپى تەرىكەر	erente <del>a</del> rdit		and na statistic (statistic)	
Actuated Cycle Length (s	\$}		70.1	S	um of Ic	st time	(s)		8.0			
Intersection Capacity Util	lization		59.4%	IC	U Leve	l of Serv	/ice		8			runuta maninaranana.
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis 25: I-189 OFF RAMP & Shelburne St. (Rt 7)

	and the second		<b>*</b>	<b>K</b>		Ł.	4	a de la constante de la consta	M	1		and a start of the
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				۲	4			44			朴跢	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	14	12	12	12	12	12	12
Total Lost time (s)				4.0	4.0			4.0			4.0	
Lane Util. Factor				0.95	0.95			0.95			0.95	
Frt				1.00	1.00			1.00			1.00	
Flt Protected				0.95	0.96			1.00			1.00	
Satd. Flow (prot)				1681	1692			3539			3539	
Flt Permitted				0.95	0.96			1.00			1.00	
Satd. Flow (perm)				1681	1692			3539			3539	
Volume (vph)	0	0	0	1175	50	0	0	915	0	0	1080	0
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	1306	56	0	0	1017	0	0	1200	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	663	699	0	0	1017	0	0	1200	0
Turn Type				Perm			Perm					
Protected Phases				tere tratiles that	8			2	an an a tha an tait.		6	
Permitted Phases				8			2					
Actuated Green, G (s)				28.1	28.1			27.5			27.5	
Effective Green, g (s)				30.1	30.1			29.5			29.5	
Actuated g/C Ratio			ana ang sa	0.45	0.45			0.44			0.44	. tj. cy i soort s
Clearance I ime (s)				6.0	6.0			6.0			6.0	
Venicle Extension (s)		****		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)				748	753			1544			1544	
V/s Hatio Prot								0.29			c0.34	
v/s Hatio Perm				0.39	0.41			~ ~ ~				
				0.89	0.93			0.66			0.78	en anti-arterezar
Uniform Delay, di			9410 x 90 447	17.2	1/./			15.1			16.2	
Progression Factor		Manggagay	Geneladore:	1.00	1.00		analangg	1.00		Adatabili da	1.00	, the trade to get
Delay (a)				12.2	17.5			1.0			2.5	
Louol of Convice		inalia persona	winner	29.4 A	30.2 D	independent		10.1			18.8	selas (sevel
Approach Doloy (c)		00		V	20.4			10 1			+0 0	
Approach LOS		U.U A			32.4 A			10.1			18.8	
Approachteoo		<b>/1</b>						D			B	
Intersection Summary				19 (S. 19 (S				6.6.6				
HCM Average Control Do	əlay		23.2	Н	CM Lev	el of Ser	vice		C			
HCM Volume to Capacity	ratio		0.85									
Actuated Cycle Length (s	)		67.6	S	um of lo	ost time (	s)		8.0			
Intersection Capacity Util	ization	7	0.4%	IC	CU Leve	I of Serv	ice		С			
Analysis Period (min)			15									

	Å		1	F	digeneses	A.	4		P	No.	and the second second	a)
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		¢ĵ.			44			4			4	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	80	45	20	135	15	105	340	35	5	150	10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	89	50	22	150	17	117	378	39	6	167	11
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	144	189	533	183	htti Chairte Christian Anna San San San San San San San San San							
Volume Left (vph)	6	22	117	6								
Volume Right (vph)	50	17	39	11								
Hadj (s)	-0.17	0.00	0.03	0.00								
Departure Headway (s)	6.2	6.2	5.3	5.8								
Degree Utilization, x	0.25	0.33	0.79	0.30								
Capacity (veh/h)	519	523	658	547								
Control Delay (s)	11.2	12.2	25.1	11.3								
Approach Delay (s)	11.2	12.2	25.1	11.3								
Approach LOS	В	В	D	В								
Intersection Summary												
Delay			18.5									
HCM Level of Service			С									
Intersection Capacity Uti	lization		61.0%	IC	CU Leve	l of Sen	vice		В			
Analysis Period (min)			15									
		www.www.	terre konstruction de la				hitininine de	nisee mitterne		68860A186666	120423120-00	annaideaine -

	<i>K</i>		Ŷ	Mar			
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	Ŷ		14			4	
Sign Control	Stop		Free			Free	
Grade	0%		0%		lendin for Barro (gale eve	0%	
Peak Hour Factor	60 0 0	00 0	545 0 00	235	0 00	495	
Hourly flow rate (vph)	72	0.50	606	261	0.30	550	
Pedestrians	01111.0000.0 <del>00</del> .00	an an tha			daya kaya 1774 di		
Lane Width (ft)							
Walking Speed (ft/s)	e e foarline weratea	ta AArtiinteen	ster its a transmittatio			engeli Actolia Ac	
Percent Blockage							
Median type	None						
Median storage veh)	a de la completación de la completa La completación de la completación d		1999-1990-1990-1990 1990-1990-1990-1990-		809966679369933 1		
Upstream signal (ft)						837	
pX, platoon unblocked	0.93	enverte entre tente etc.					
vC, conflicting volume	1297	736			867		
vC1, stage 1 contivol			aidena (du		(Administration)	yaanaa ay	Na kulon na manana ma
vCu, unblocked vol	1318	736			867		
tC, single (s)	6.4	6.2			4.1		
tC, 2 stage (s)							
tF (s)	3.5	3.3			2.2		
pu queue tree %	55 161	99 710			99	Sidenta (	
our capacity (verifit)	101	* I Q					
Direction, Lane #	<u></u>	NB 1	SB 1				
Volume Left	78 72	100	00C				
Volume Right	6	261	ŏ			kirini matai	
cSH	168	1700	777		iddiidii factori (aa	tea-(+1) (+1) (+1) (+1) (+1) (+1) (+1) (+1)	
Volume to Capacity	0.46	0.51	0.01				
Queue Length 95th (ft)	54	0	1		وربرة وتناثر وتناريه وتناقده	terterne staatter	
Lontrol Delay (s)	43.6 E	0.0	0.2				
Approach Delay (s)	43.6	0.0	м 02				
Approach LOS	E						
Intersection Summarv							
Average Delay			2.3				
Intersection Capacity Ut	ilization	ļ	53.6%	IC	U Leve	of Sen	/ice A
Analysis Period (min)			15				

	and the second second			<b>F</b>	difference	×.	*	Ť	p			- And a start of the start of t
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4.			45			ፈሱ			ፈቴ	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	10	0	45	10	0	10	35	1040	5	5	715	45
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	11	0	50	11	0	11	39	1156	6	6	794	50
Pedestrians		u kalente en e	nidanakana.				her an					and an and an a
Lane width (it) Walking Speed (ft/s)												
Percent Rlockane							kana na kata					
Right turn flare (veh)		hiki, shitani	niderii)d fan stêr									
Median type		None			None							
Median storage veh)					1997-000-000-0	. an i gan (176 yan a na an an			ningelikken heide	ry-69,65105000000000000	naret (staleder reg	0.0000000000000000000000000000000000000
Upstream signal (ft)								1267				
pX, platoon unblocked												
vC, conflicting volume	1497	2069	422	1694	2092	581	844			1161		
vC1, stage 1 conf vol										· · · · · · · · · · · · · · · · · · ·		
vC2, stage 2 conf vol		~~~~										
VCu, unblocked vol	1497	2069	422	1694	2092	581	844		alahian daa	1161		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4,1		
10, 2 Staye (S) 15 (a)	2 C	10	60	οc	10	0.0	20			0.0		
n0 queue free %	0.0 86	4.0	0.0 Q1	0.0 79	4.0 100	0.0 QQ	2,2 Q5			2،2 ۵۵		
cM capacity (veh/h)	79	50	580	53	49	457	788			597		hishigani
Direction Lane #	FRI	WR 1	NR1	NRO	2 <b>R</b> 1	CR 2						
Volume Total	<u>61</u>	22	<u>, «, , , , , , , , , , , , , , , , , , </u>	583	103	ΔΔΖ						
Volume Left	11		39	000	-00 6	0						
Volume Right	50	11	Ō	6	ŏ	50						
cSH	269	94	788	1700	597	1700		gelenne en state faar van	******************	100000000000000000000000000000000000000		
Volume to Capacity	0.23	0.24	0.05	0.34	0.01	0.26						
Queue Length 95th (ft)	21	21	4	0	1	0						
Control Delay (s)	22.3	54.6	1.3	0.0	0.3	0.0						
Lane LOS	С	F	A		A	a an	and the strategic test.					
Approach Delay (s)	22.3	54.6	0.7		0.1							
Approach LUS	C	F										
Intersection Summary												
Average Delay			1.6									
Intersection Capacity Uti	lization	(	34.4%	IC	CU Leve	l of Sen	rice		C			
Analysis Period (min)			15									·

			<b>F</b>	4	-	P	
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	ţ>			Â	۲		
Sign Control	Free			Free	Stop		
Grade	0%	~~		0%	0%	والمتعاجر المتعادية	
Peak Hour Factor	001	25 0 00	0 00	0.00	0.00	35	
Hourly flow rate (vph)	183	28	0.90	0.90	0.90	0.90 39	
Pedestrians				1997-999 <b>-99</b> 999			
Lane Width (ft)							
Walking Speed (ft/s)			ayaa ka sa sa sa sa sa sa				
Percent Blockage							
Median type					Mono		
Median storage veh)			ndela (kalende sederad	arosolastis.	140110	1999, 1999, 1999, 19 1999, 19	
Upstream signal (ft)							
pX, platoon unblocked							
vC, conflicting volume			211		464	197	
VC1, stage 1 cont vol	heiden	0.0000000000000000000000000000000000000					
vCu, unblocked vol		194923-1940-1960-19 1	211		464	197	
tC, single (s)			4.1		6.4	6.2	
tC, 2 stage (s)							na provinski prislavni pri pri pri pri pri pri pri pri pri pr
tF (s)			2.2		3.5	3.3	
p0 queue tree %			93 1750		98 546	95 044	
			1009		910	044	
Uirection, Lane #	EB 1	107	NB 1				
Volume Left	611 0	107	əv 11				
Volume Right	28	Ō	39				
cSH	1700	1359	739		keening albrahers (199		a esta ana ang ang ang ang esta sa ang ang ang ang ang ang ang ang ang an
Volume to Capacity	0.12	0.07	0.07				
Queue Length 95th (ft)	0	6	5	dina ina para		lighthe only store to start as a start.	
Lane LOS	<u>v.</u> v	5.U Δ	IU.Z R				
Approach Delay (s)	0.0	50	10.2	<u>i de la compo</u>			
Approach LOS			B		1799 - 1999 -	0.4949.000.000.000.000.000.000	
Intersection Summary							
Average Delay			3.1				
Intersection Capacity Uti	lization		31.7%	IC	U Leve	l of Servic	<b>A</b>
Analysis Period (min)			15				

	10	NO-WAY STO	P CONTRO	DL SUN	IMARY			
General Information	1		Site Ir	iformat	ion			******
Analyst A(y/Co. Date Performed Analysis Time Period	EJD CHA 2/18/2005 AM PEAK	HOUR	Intersec Jurisdic Analysis	otion otion s Year		ROUTE 7. TOWN OI 2003 EXIS	/LOCUST/ F BURLIN( STING	LEDGE GTON
Project Description BU	RLINGTON							
East/West Street: LOCL	JST/LEDGE		North/S	outh Stre	et: ROUTE :	7		
Intersection Orientation:	North-South		Study P	eriod (hr	s): 0.25			
Vehicle Volumes an	<u>d Adjustments</u>						-	
Major Street		Northbound			4	Southboi	und	
Novement		2 T			4	5 T		6
Volume		805	240		0	545		15
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Hourly Flow Rate, HFR	0	894	266		0	605		16
Percent Heavy Vehicles	0		~~		2		1	***
Median Type		amainen Maininaa kantoo muunaan kantoo k		Undivid	ded			
RT Channelized			0	1			Ĭ	0
Lanes	0	2	0	Ĩ	0	1		0
Configuration		T	TR		LTR			
Upstream Signal		0				0	I	
Minor Street		Westbound				Eastbou	nd	
Movement	7	8	9		10	11		12
	L	r	R		L	Т		R
Volume	0	0	30		0	5		85
Pe Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Housy Flow Rate, HFR	0	0			0	5		94
Percent Heavy Vehicles	0		2		0	2	l	2
Percent Grade (%)		0				0		
Flared Approach		N				Į N		
Storage		0				0		
RT Channelized			0					0
Lanes	0	0	1		0	1		0
Configuration	<u> </u>		<u> </u>					TR
Delay, Queue Length, a	nd Level of Servic	)e						
Approach	NB	SB		Westbou	nd		Eastbound	J
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LTR			R			TR
v (vph)		0			33			99
C (m) (vph)		598	1		458			357
v/c		0.00			0.07			0.28
95% queue lenath		0.00	1		0.23	İ		1.11
Control Delav		11.0	1		13.5			18.9
LOS		R		Manadalah katika katika katika dan perminin				
Approach Delay		* 				12.0		
Approach LOS				R	<u></u>	18.9 C		

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	1	NO-WAY STO	P CONTR	OL SUMN	<b>AARY</b>			
<b>General Information</b>	)		Site II	nformatio	on			******
Analvst A(y/Co. Date Performed Analysis Time Period	EJD CHA 2/18/2005 AM PEAK	HOUR	Interse Jurisdic Analysi	ction ction s Year		ROUTE 7 TOWN O 2003 EXI	7/SOUTH V F BURLIN STING	VILLARD GTON
Project Description BU	RLINGTON							
East/West Street: SOUT	HWILLARD		North/S	South Stree	t: ROUTE	7		99.49.49.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5
Intersection Orientation:	North-South		Study F	Period (hrs)	: 0.25			
Vehicle Volumes an	d Adjustments	>	*****					
Major Street		Northbound				Southbo	und	
iviovement	1	2	3		4	5		6
Volume	L	750	H A					K
Peak-Hour Factor PHF	0.90	0.90	0	)	nan	000		
Hourly Flow Rate, HFR	61	833	0.00		0.00	622		0.30
Percent Heavy Vehicles	2				2			
Median Type				Undivide	d	L		
RT Channelized			0	<u> </u>		T	1	0
Lanes	0	1	0	1	0	1		0
Configuration	LT					T		
Upstream Signal	0 Wathourd					0		
Minor Street					Eastbou	Ind		
Movement	7	9	9		11		12	
	L	Т	R		L	Т		R
Volume	0	145	0	0		0		0
Pe Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Hoady Flow Hate, HFH	0	161	0		0	0		0
Percent Heavy Venicles	0	2	2		0	<u>  2</u>		2
Percent Grade (%)		<u> </u>				0		
Flareo Approach		N N			****	L N		
Storage		0				0		
HI Channelized			0					0
Lanes	0	1	0		0	0		0
Conliguration	l		<i>IH</i>			L		
Delay, Queue Length, an	d Level of Servic	\$ <b>\$</b>	7					
Approach	NB	SB		Westbound	1		Eastbound	,
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT	×***			TR			
v (vph)	61	<u> </u>			161			
C (m) (vph)	959				96			
v/c	0.06				1.68			
95% queue length	0.20				12.83			
Control Delay	9.0				421.8			
LOS	A	n communitation and a single for a single for the s			F			
Approach Delay		1	421.8	***************************************				
Approach LOS			1	F				

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## EXISTING CONDITIONS 2003 PM PEAK HOUR

	, Ale			F	alfan an a	k.	1	Ŷ	<u>p</u>	1		4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		¢۵	۲		áî T	1	****	đÞ		ř	Þ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0		4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00		0.95		1.00	1.00	
Frt		1.00	0.85		1.00	0.85		0.99		1.00	0.99	
Fit Protected		0.98	1.00		0.97	1.00		1.00		0.95	1.00	
Satd. Flow (prot)		1830	1583		1810	1583		3476		1770	1844	
Fit Permitted		0.85	1.00		0.77	1.00		0.86		0.95	1.00	
Satd. Flow (perm)		1589	1583		1443	1583		3010		1770	1844	
Volume (vph)	25	45	50	100	70	310	60	555	60	250	425	30
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	28	50	56	111	78	344	67	617	67	278	472	- 33
RTOR Reduction (vph)	0	0	44	0	0	149	0	0	0	0	0	0
Lane Group Flow (vph)	0	78	12	0	189	195	0	751	0	278	505	0
Turn Type	Perm		Prot	Perm		pt+ov	Perm		C	ustom		
Protected Phases		4	4		8	8 1		2		1	6	
Permitted Phases	4	e de la contra trado	antes estatutores.	8			2			1		
Actuated Green, G (s)		13.7	13.7		13.7	27.7		21.3		14.0	40.3	
Effective Green, g (s)	ana ya substania	14.7	14.7	-	14.7	29.7		22.3		15.0	41.3	
Actuated g/C Hatio		0.21	0.21		0.21	0.43		0.32		0.22	0.60	
Clearance I ime (s)		5.0	5.0		5.0		territari Agadagi	5.0		5.0	5.0	alin (alianana dia
Vehicle Extension (s)		3.0	3.0		3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		340	338		308	683		976		386	1107	
v/s Hatio Prot			0.01			0.12				c0.16	0.27	
v/s Ratio Perm	(1.19) (alternation of	0.05		n gentralitation (taxa	c0.13	onna naciació.		c0.25				
V/CHatio		0.23	0.04		0.61	0.29		0.77		0.72	0.46	
Uniform Delay, d1		22.4	21.4		24.5	12.7		20.9		25.0	7.6	
Progression Factor		1.00	1.00		1.00	1.00		1.00		1.00	1.00	
incremental Delay, d2		0.3	0.0		3.6	0.2 (1988)	and a second	3.7		6.5	0.3	a hadahaalada
Delay (S)		halas I	21.5		28.1	12.9		24.6		31,4	1.9	
Level of Service	SABABASA BARA	0				D		U Ala		U Sector	A	
Approach LOS		<i>44.4</i> C			10.3 D			24.0			16.2	
Approach LOS		U			D			U			D	
Intersection Summary												
HCM Average Control De	elay		20.0	Н	ICM Lev	el of Se	rvice		В			
HCM Volume to Capacity	y ratio		0.65									
Actuated Cycle Length (s	3)		68.8	S	um of k	ost time	(S)		12.0			
Intersection Capacity Uti	lization	(	69.1%	IC	JU Leve	at of Ser	vice		C			
Analysis Period (min)	A stational determine		15									
c Critical Lane Group												

	Å			<b>F</b>	4		*		p			Â
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ħ	ţ,			45			¢Ĵ>			¢\$>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00			1.00			1.00			1.00	
Frt	1.00	0.94			0.88			0.99			0.99	
Fit Protected	0.95	1.00			1.00			1.00			0.99	
Satd. Flow (prot)	1770	1757			1629			1847			1828	
Fit Permitted	0.54	1.00			0.99			0.99			0.78	
Satd. Flow (perm)	1010	1757			1619			1824			1449	
Volume (vph)	35	25	15	10	10	210	10	430	25	125	415	35
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	39	28	17	11	11	233	11	478	28	139	461	39
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	39	45	0	0	255	0	0	517	0	0	639	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	22.9	22.9			22.9			32.5			32.5	
Effective Green, g (s)	23.9	23.9			23.9			33.5			33.5	
Actuated g/C Ratio	0.37	0.37			0.37			0.51			0.51	
Clearance Time (s)	5.0	5.0			5.0			5.0			5.0	
Vehicle Extension (s)	3.0	3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)	369	642			592			934			742	
v/s Ratio Prot		0.03										
v/s Ratio Perm	0.04				c0.16			0.28			c0.44	
v/c Ratio	0.11	0.07			0.43			0.55			0.86	
Uniform Delay, d1	13.7	13.5			15.6			10.9			13.9	
Progression Factor	1.00	1.00			1.00			1.00			1.00	
Incremental Delay, d2	0.6	0.2			2.3			0.7			10.1	
Delay (s)	14.3	13.7			17.9			11.6			24.0	
Level of Service	В	В	-1	tere construction and the s	В			В			С	
Approach Delay (s)		14.0			17.9			11.6			24.0	
Approach LOS		В			В			В			С	
Intersection Summary												
HCM Average Control D	elay		18.1	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.68									
Actuated Cycle Length (	s)		65.4	S	um of lo	st time	(s)		8.0			
Intersection Capacity Uti	lization	8	36.3%	IC	U Leve	l of Sen	rice		E			
Analysis Period (min)			15									
c Critical Lane Group												

	- And And		À	*	-Ageneration	Ł	and the second s		P	\$	*	À
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4 <b>}</b> >			¢Ĵą			4,	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Fri		0.99			0.87			0.92			0.99	
Fit Protected		0.98			1.00			1.00			0.96	
Satd. Flow (prot)		1746			1571			1655			1711	
Flt Permitted		0.75			1.00			1.00			0.70	
Satd. Flow (perm)		1346			1568			1655			1259	
Volume (vph)	45	45	5	5	20	400	0	20	30	405	15	20
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	50	50	6	6	22	444	0	22	33	450	17	22
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	106	0	0	472	0	0	55	0	0	489	0
Turn Type	Perm			Perm			Perm			om+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		35.5			35.5			38.4			37.4	
Effective Green, g (s)		35.5			35.5			38.4			38.4	
Actuated g/C Ratio		0.43			0.43			0.47			0.47	
Clearance Time (s)		4.0			4.0			4.0			5.0	
Vehicle Extension (s)	****	3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		583			680			776			590	
v/s Ratio Prot								0.03				
v/s Ratio Perm		0.08			c0.30						c0.39	
v/c Hatio		0.18	on and the second second	- Alexandra and and	0.69			0.07			0.83	al face con trace.
Uniform Delay, d1		14.3			18.8			11.9			18.9	
Progression Factor	ing Margatana	1.00	1977-01-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	nenes merged.	1.00	Andrick domber	urgengiler (1944)	1.00	an a		1.00	
Incremental Delay, d2		0.7			5.8			0.0			9.4	
Delay (S)		15.0	la Mandalar da segunda segun		24.6	ad contractors		12.0	egyesseergen Annels Ar		28.3	
Level of Service		4C 0						40 O			C AA A	
Approach LOC		0.CT 0	ni (secenti de la l		24.6			12.0			28.3	
Approach LUS		D			U			в			G	
Intersection Summary	8-19-10-14		8 (B (B (B)			0. 10 - 19 - 19 - 19 - 19 - 19 - 19 - 19 -		\$ 39 S 1			68-16-18 18	
HCM Average Control De	elay		24.7	H	CM Lev	el of Se	rvice		C			
HCM Volume to Capacity	ratio		0.76									
Actuated Cycle Length (s	)		81.9	S	um of Ic	st time (	(S)		8.0			
Intersection Capacity Util	ization		72.3%	IC	U Leve	l of Serv	vice		С			
Analysis Period (min)			15									

	-				n Systematic	×.	*	Ť	P	\$	Ļ	- Martin
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		44			4	ř		র্ব	A		ą.	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0		4.0	4.0		4.0	
Lane Util. Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Frt		0.97			1.00	0.85		1.00	0.85		0.99	
Fit Protected		1.00			0.99	1.00		0.98	1.00		0.98	
Satd. Flow (prot)		1810	autivatute. Devatainut -		1848	1583		1831	1583		1818	
Fit Permitted		0.99			0.89	1.00		0.83	1.00		0.85	
Satd. Flow (perm)		1790			1653	1583		1543	1583		1575	
Volume (vph)	10	290	75	60	315	45	45	85	80	70	145	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	11	322	83	67	350	50	50	94	89	78	161	17
RIOR Reduction (vph)	0	0	0	0	0	26	0	0	67	0	0	0
Lane Group Flow (vph)	0	416	0	0	417	24	0	144	22	0	256	0
Turn Type	Perm			Perm		Perm	Perm		Perm	Perm	gana bihalagah	
Protected Phases		2			6			8			4	
Permitted Phases	2	ى بىر تېرىلىرىكى	egegegegeddate ei	6 	ويها الهولين والا	6	8	u nijega segara	8	4	tini fatta (bracti	-instructure
Actuated Green, G (s)		23.0			23.0	23.0		11.4	11.4		11.4	
Effective Green, g (s)	verse en el se se s	24.0	s-terrene ere		24.0	24.0	papela de la com	12.4	12.4	alah shi an s	12.4	ind appropria
Actualed g/C Hallo		0.49			U.49	0.49		0.25	0.25		0.25	
Veblete Extension (c)		5.U 0.0			5.0	5.0		5.U 0.C	5.U 0.0		5.0	
	1999 - Onglosof Geographical	3.0			3.0	3.0		3.0	3.0		3.0	
Lane Grp Cap (Vpn)		873	i de la companya	NAMES AND	800	172 	eren eren eren eren eren eren eren eren	389	399	alaajaadaatak	397	geodetantes
V/S Hallo Proi		0.00			-0 0E	A AA		0.00	0.04		-0 1 <i>C</i>	
		0.23	under der		CU.20	0.02 n na	igalekekekende	0.09	0.01	1994-1994-1994-199	CU. 10	aaaaaaaa
V/G nduo		0.40			0.02 0.6	0.03 C C		450	14.0		U.04 1 <i>C 4</i>	
Prograssion Eactor		0.4 1 00			0.0	1 00		10.2	14.0		10.4	(
Incremental Delay, d2		1.00 ∩ /			00.1 A A	00.0		00.1 A A	1.00		2 6	
Delay (s)		8.9			9.0	0.0 6 6		15.8	14.0		20.0	
Level of Service	1999999999999	ο.ο Α			Δ			B	R		с С	
Approach Delay (s)		8.8			8.9			151			20 ñ	
Approach LOS		A	9-0-09-000-000-00 	the (de production de la constante de la const La constante de la constante de	A	heirdikt (die voorge	Arthur a pharact	B	altudenten (1433	A-21/10/07/07/2020/17/02	С	an aga Baayaya
Intersection Summani	a generation de				to anti-banatico ballerol							
HCM Average Control D	elav		12 0	H		ial of Sc	nvice		R			
HCM Volume to Capacit	v ratio		0.50								aniaiaajua	
Actuated Cycle Length /	s)	a de la contra de la Contra de la contra d	49.2	6660 (1997) <b>2</b>	um of h	nst time	(s)	290040099300	80			
Intersection Canacity Uti	-/ lization		39.4%	Ŭ I	CU Leve	al of Ser	vice		Č			
Analysis Period (min)			15	ung ting ting ting Ting			ta sena farit di dijiy	ang sing pang pang si kiti. T				4999999999
c Critical Lane Group												

		Ň	1	Å	and the second sec	- Martin
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	ሻ	<i>M</i>	h	4	ŕ	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	12	11	12	11	12
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1711	1583	1711	1863	1801	1583
Flt Permitted	0.95	1.00	0.16	1.00	1.00	1.00
Satd. Flow (perm)	1711	1583	289	1863	1801	1583
Volume (vph)	95	210	60	460	855	60
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	106	233	67	511	950	67
RTOR Reduction (vph)	0	117	0	0	0	23
Lane Group Flow (vph)	106	116	67	511	950	44
Turn Type		Prot	Perm			Perm
Protected Phases	4	4		2	6	
Permitted Phases			2			6
Actuated Green, G (s)	12.6	12.6	40.0	40.0	40.0	40.0
Effective Green, g (s)	13.6	13.6	41.0	41.0	41.0	41.0
Actuated g/C Ratio	0.22	0.22	0.65	0.65	0.65	0.65
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	372	344	189	1220	1180	1037
v/s Ratio Prot	0.06	c0.07	eren in Staffari.	0.27	c0.53	neen na in the property of the
v/s Ratio Perm			0.23			0.03
v/c Ratio	0.28	0.34	0.35	0.42	0.81	0.04
Uniform Delay, d1	20.4	20.7	4.9	5.1	7.9	3.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.6	5.1	1.1	5.9	0.1
Delay (s)	20.9	21.3	10.0	6.2	13.8	3.9
Level of Service	С	С	A	Α	В	Α
Approach Delay (s)	21.1			6.6	13.1	
Approach LOS	С			A	В	
Intersection Summarv						
HCM Average Control D	elav		12 A	ļ.	ICMIA	vel of Service
HCM Volume to Canacity	v ratio		0 69	espinitestisfei	s	· · · · · · · · · · · · · · · · · · ·
Actuated Cycle Length (s	;		62.6	2	um of l	ost time (s)
Intersection Canacity Liti	lization	1999) 	66.5%	۷ ۱۱	711 ava	el of Service
Analysis Period (min)	,, <u>an</u> zeitert			₽ % 		

	A	>		K	digmana			-	p	\$	-	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		44			<b>4</b> \$>			45		۲	ţ,	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	14	12	12	14	12	12	14	12	11	11	12
Total Lost time (s)		4.0			4.0			4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00			1.00		1.00	1.00	
Frt		0.98			0.93			0.99		1.00	0.99	
Fit Protected		0.98			1.00			1.00		0.95	1.00	
Satd. Flow (prot)		1914			1832			1967		1711	1778	
Flt Permitted		0.63			0.96			0.95		0.37	1.00	
Satd. Flow (perm)		1238			1769			1875		672	1778	
Volume (vph)	80	105	30	25	100	150	15	305	20	245	715	65
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0,90	0.90
Adj. Flow (vph)	89	117	33	28	111	167	17	339	22	272	794	72
RTOR Reduction (vph)	0	8	0	0	60	0	0	2	0	0	3	0
Lane Group Flow (vph)	0	231	0	0	246	0	0	376	0	272	863	0
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		15.4		·	15.4			23.5		36.7	36.7	
Effective Green, g (s)		16.4			16.4			24.5		37.7	37.7	
Actuated g/C Ratio		0.25			0.25			0.38		0.58	0.58	
Clearance Time (s)		5.0			5.0			5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		313			447			708		538	1033	
v/s Ratio Prot		·								0.07	c0.49	
v/s Ratio Perm		c0.19			0.14			0.20		0.22		
v/c Ratio		0.74			0.55			0.53		0.51	0.84	
Uniform Delay, d1		22.3			21.1			15.7		8.4	11.1	
Progression Factor		1.00			1.00			1.00		1.00	1.00	
Incremental Delay, d2		8.7			1.5			0.8		0.8	5.9	
Delay (s)		31.0			22.5			16.5		9.2	17.0	
Level of Service		C			C			В		Α	В	
Approach Delay (s)		31.0			22.5			16.5			15.1	
Approach LOS		C			C			В			В	
Intersection Summary							19-19-19-19 19-19-19-19	- 15 - 15 - 15 - 15 - 15 - 15 - 15 - 15				
HCM Average Control D	elay		18.3	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio	euro en el constante de la	0.77			nyaran baliki	een e sette dit		an an an an an an an an A			nanati si
Actuated Cycle Length (s	3)		64.9	S	um of lo	st time	(s)		8.0			
Intersection Capacity Uti	lization	1	00.6%	IC	U Leve	l of Ser	vice		G	nan en karakti	an seann 2000 à là	
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			<u>.</u>	*****		44			4,	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	15	130	105	45	175	20	50	175	15	25	245	10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	17	144	117	50	194	22	56	194	17	28	272	11
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	278	267	267	311								
Volume Left (vph)	17	50	56	28								
Volume Right (vph)	117	22	17	11								* :** *
Hadj (s)	-0.21	0.02	0.04	0.03								
Departure Headway (s)	6.2	6.4	6.4	6.3								
Degree Utilization, x	0.48	0.48	0.48	0.55								
Capacity (veh/h)	518	498	505	517								
Control Delay (s)	14.8	15.2	15.1	16.6								
Approach Delay (s)	14.8	15.2	15.1	16.6								
Approach LOS	В	С	C	С								
Intersection Summary												
Delay			15.5									
HCM Level of Service			С									·
Intersection Capacity Uti	lization		56.4%	IC	U Leve	l of Sen	vice		В			
Analysis Period (min)			15							24 U 01041240149900		
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	, A			the second s	rogenner	al and a second	4		P	\$	*	Ż
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			<del>ب</del> ې			ș <b>(</b> )ș			¢\$>	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	10	130	310	60	185	20	230	210	60	15	370	10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0,90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	11	144	344	67	206	22	256	233	67	17	411	*
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	500	294	556	439								
Volume Left (vph)	11	67	256	17								
Volume Right (vph)	344	22	67	11								
Hadj (s)	-0.37	0.03	0.05	0.03								
Departure Headway (s)	8.6	9.6	9.1	9.0								
Degree Utilization, x	1.20	0.79	1.40	1.10								
Capacity (veh/h)	422	370	407	408								
Control Delay (s)	138.3	39.9	219.2	105.7								
Approach Delay (s)	138.3	39.9	219.2	105.7								
Approach LOS	F	E	F	F								
Intersection Summary												
Delay			139.2									
HCM Level of Service			F									
Intersection Capacity Ut	ilization	1	02,4%	K	CU Leve	l of Ser	vice		G			
Analysis Period (min)			15									
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4¢,			4,			4,	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	65	135	15	20	135	135	10	145	15	240	330	35
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	72	150	17	22	150	150	11	161	17	267	367	39
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	239	322	189	672			ininen de de la fair de					<u>and and a second s</u>
Volume Left (vph)	72	22	11	267								
Volume Right (vph)	17	150	17	39								
Hadj (s)	0.05	-0.23	-0.01	0.08								
Departure Headway (s)	7.4	6.8	7.3	6.5								
Degree Utilization, x	0.49	0.61	0.38	1.22								
Capacity (veh/h)	460	508	451	543								
Control Delay (s)	17.1	20.1	14.8	136.2								
Approach Delay (s)	17.1	20.1	14.8	136.2								
Approach LOS	С	C	8	F								
Intersection Summary												
Delay			73.8									
HCM Level of Service			F									
Intersection Capacity Uti	lization		82.3%	K	CU Leve	l of Ser	vice		E			
Analysis Period (min)			15									·····
							on contraction de la c			aanaalaata		tibaiqirting -



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		¢\$>			4			4			¢\$	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	10	5	25	15	5	30	15	510	35	35	875	10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	11	6	28	17	6	33	17	567	39	39	972	11
Pedestrians	ane aneman f				ana ana amin' a		ushir bathalas katha		a na porta de la case da C			
Lane Wigth (II)												
Walking Speed (II/S)	i de le la caracia					Sistemati	Haraidada	Mariana ang ang ang ang ang ang ang ang ang				
Picht turn flore (voh)												
Median type		None		de júlio e	Nono				ini sa			
Median storage veh)					. INOTIC		dalmandaariset	0.0000000000000000000000000000000000000		1944,9121,9194,913	hahatta daga ta	ayaa aa aa
Upstream signal (ft)											et al a la companya de la companya d	
pX, platoon unblocked			strata tore e konstans?r	nga (konsynneger) (s	a star ( s d a sec ( ) a ( ) a (		*************			84010 (DAV) 10 (DA) (DA) (DA)	990099999999 1990099999999	96999999999999999 
vC, conflicting volume	1711	1694	978	1706	1681	586	983			606		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1711	1694	978	1706	1681	586	983			606		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)					hendelingste ggette.		an a	والمعرفة والمعرفة المراجع	en managelant takat tak	tani dagatajata		an an an the state of the
t⊢ (\$)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
pu queue free %	82 64	94 07	91	/2 ch	94 00	93	98			96 070		skowenn
CIVI Capacity (Veri/11)	01	0/	304	98	03	210	/02			972		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Lotal	44	56	622	1022								
	11 20	٦ <i>٢</i>	17	39		Queense autorite valu		priori di Santa Rigaja	21000000000000000000000000000000000000		a de la de la desta de la d	hakatarah panjarat
	28 101	33 196	39 700	11 070								
Volume to Canacity	0.34	0.41	102	972						Anter in the	alaanaa	
Oueue Length 95th (ft)	34	44	2	3								
Control Delay (s)	45.9	48.7	้ ด ค	ŤŤ					Arthurshinated Militaria			
Lane LOS	E	E	A	A	101404100104000101010840004				****			
Approach Delay (s)	45.9	48.7	0.6	1.1								
Approach LOS	E	E										
Intersection Summary												
Average Delay			3.6									
Intersection Capacity Uti	lization		73.6%	IC.	CU Leve	l of Sen	<i>r</i> ice		D			
Analysis Period (min)			15	nya Agastabatan			Adaptation	dan santan kara	agat (alagaalada bib	and a second second		tegang datasi di

	Warm	4	Ť	a start and a start a	1	and the second se	
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	Ŷ		1.			4	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Volume (veh/h)	30	30	495	60	45	885	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Podestriane	33	33	550	67	50	983	
I ane Width (ft)							
Walking Speed (ft/s)				lideredet de	9644 <u>6</u> 647666766666	enserer op p	
Percent Blockage							
Right turn flare (veh)							
Median type	None						
Median storage veh)		Angenangen Anges (1911)		10 - Contra da Contra			
Upstream signal (ft)	0.00	A 00	600		A AA		
vC conflicting volume	0.88	0.88 203			0.88 ©17		
vC1_stage 1 conf vol	1007	000			017		
vC2, stage 2 conf vol							
vCu, unblocked vol	1759	526		tetre territoria (name a seco	564		an ja mangan dan mangangan pangangan di pangangan pangangan pangangan pangangan pangan pangangan pangan pangan Pangan pangan
tC, single (s)	6.4	6.2			4.1		
tC, 2 stage (s)							
tF (s)	3.5	3.3			2.2		
p0 queue tree %	57 77	93 496	Herrore (1996)	41.000000000	94 005	on an an Air	
civi capacity (verini)	11	400			coo		
Direction, Lane #	WB 1	NB 1	SB 1				
Volume Loft	6/	617	1033				
Volume Right	აა ივ	U 67	0C 0	1940-1940-194	hijinga seria		Ny INSEE dia mampina mampika mpikambana mpika mpika mpika mpikambana mpikambana mpikambana mpikambana mpikamban
cSH	133	1700	885				
Volume to Capacity	0.50	0.36	0.06				
Queue Length 95th (ft)	59	0	4				
Control Delay (s)	56.5	0.0	1,6				
Lane LOS	F		A			Sector constants	
Approach Delay (s) Approach LOS	56.5 F	0.0	1.6				
Intersection Summary							
Average Delay			3.2				
Intersection Capacity U	tilization	(	92.3%	IC	U Level	l of Sen	rice F
Analysis Period (min)			15				

	<b>K</b>		Ť	P	1	¥	
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	¥		15			4	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Volume (veh/h)	5	30	505	15	35	900	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vph)	6	33	561	17	39	1000	
Pedestrians		in to the objects	seiteeseere			64.69949.6997	
Lane widin (it)							
Porcont Blockago						ahalina (aut	
Right turn flore (yeh)							
Median tyne	None						
Median storage veh)				unnanana	1996 De 1966 (9	0,0000,000,000,000,000; ()	
Upstream signal (ft)		li da de la compañía				667	
pX. platoon unblocked	0.57	Sector de Contrat		649 (1.51) - 1.Detectet	Neteration (Speed)		ningel uit sin in de leisen en de leisen gester der sins d Eine
vC, conflicting volume	1647	569			578		
vC1, stage 1 conf vol			·····				an a
vC2, stage 2 conf vol							n den kanten seten den bereiten eta biski bate hateta datu bereiten den bereiten den bereiten era bereiten eta Arrente bereiten era eta biski bateta biski bereiten biski bereiten biski bereiten biski biski biski biski biski
vCu, unblocked vol	2134	569			578		
tC, single (s)	6.4	6.2			4.1		
tC, 2 stage (s)	Anna an an a <u>n</u> an an an An A					alantaan saara aasa	
t <del>F</del> (s)	3.5	3.3			2.2		
pU queue tree %	81	94 504			96		
civi capacity (ven/n)	30	521			990		
Direction, Lane #	WB 1	NB 1	SB 1				
Volume Total	39	578	1039				
Volume Lett	6	0	39	en e		www.eastalantereast	
Volume Hight	33 - 55	+ 700	000				
Volume to Cononity	155	1700	990				
Queue Length 05th (ft)	0:20	0.34	V.V4 2				
Control Delay (e)	∡ 2 ג 2	nn	ں ہے ہ				
Lane LOS	er F		α Δ				
Approach Delay (s)	35.8	0.0	11				
Approach LOS	E		aa an af faar is		abou Digeo Digeo		
Intersection Summary							
Average Delay			1.5				
Intersection Capacity U	tilization	(	35.7%	IC	U Leve	I of Servi	ce E
Analysis Period (min)			15				

	A		*			a)	
Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	ķέ			4	ß		
Sign Control	Stop			Free	Free		
Grade	0%			0%	0%		
Volume (veh/h)	5	65	15	490	985	10	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	a en anten en e
Hourly flow rate (vph)	6	72	17	544	1094	11	
Pedestrians			ebachterrier		en martinida	Manaka katalah	a an
Lane wigin (n)							
Porcent Blockore							
Right turn flare (yeh)						9490,041 (949-94 1	an a
Median type	None		n en en en en				a terile de la companya de la compa
Median storage veh)			800000000000000000000000000000000000000	and de andré anglé an de la com	(din koleno ni dov	ani ngi ngi ngangangan sa k	na na na na fan inder en general na de
Upstream signal (ft)				1089	959		
pX, platoon unblocked	0.62	0.60	0.60				
vC, conflicting volume	1678	1100	1106				
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	2025	1166	1176				
tC, single (s)	6.4	6.2	4.1				
tU, 2 stage (s)	ور الم	i An	n 19				
n (F (S)	0.0 05	0.0 /0	2.2 05				
cM canacity (yeh/h)	00 27	149	257				
		8.173.4	00				
Volumo Total	CD 1 79	ND I SG1	1100				
Volume Left	۰. ۶				1969 April 2000 (C	100000000000000000000000000000000000000	
Volume Right	72	6	11				
cSH	118	357	1700				
Volume to Capacity	0.66	0.05	0.65				
Queue Length 95th (ft)	86	4	0				
Control Delay (s)	80.8	1.5	0.0				
Lane LOS	F	A					
Approach Delay (s)	80.8	1.5	0.0				
Approach LOS	F						
Intersection Summary							
Average Delay			4.1				
Intersection Capacity Ut	ilization	0.000	63.4%	IC	U Leve	l of Serv	ice B
Analysis Period (min)		o a la l	15				

	À			ŕ	-		~	-	P			4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	٣	Þ		Ŕ	ţ.			ૡૼ૱			¢.	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	12	11	11	14	14	14	11	11	11
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.99		1.00	0.99			0.99			0.98	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.99	
Satd. Flow (prot)	1711	1846		1770	1784			1942			1752	
Flt Permitted	0.29	1.00		0.17	1.00			0.88			0.95	
Satd. Flow (perm)	514	1846		318	1784			1728			1666	
Volume (vph)	25	565	35	75	455	30	50	205	30	35	245	55
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	28	628	39	83	506	33	56	228	33	39	272	61
RTOR Reduction (vph)	0	3	0	0	3	0	0	4	0	0	7	0
Lane Group Flow (vph)	28	664	0	83	536	0	0	313	0	0	365	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	25.6	25.6		25.6	25.6			19.4			19.4	
Effective Green, g (s)	26.6	26.6		26.6	26.6			20.4			20.4	
Actuated g/C Ratio	0.44	0.44		0.44	0.44			0.34			0.34	
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	229	821		141	794			589			568	
v/s Ratio Prot		c0.36			0.30							
v/s Ratio Perm	0.05			0.26				0.18			c0.22	
v/c Ratio	0.12	0.81		0.59	0.68			0.53			0.64	
Uniform Delay, d1	9.7	14.4		12.5	13.2			15.9			16.6	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.2	5.9		6.2	2.3			0.9			2.5	
Delay (s)	10.0	20.3		18.6	15.5			16.8			19.1	
Level of Service	Α	С		В	В			В			В	
Approach Delay (s)		19.9			15.9			16.8			19.1	
Approach LOS		В			В			В			В	
Intersection Summarv			19 (m 18 18)									
HCM Average Control D	elay		18.0	μ	ICM Lev	el of Se	rvice		B			
HCM Volume to Capacity	v ratio	2014-405-050 (MARKAR) 	0.67	e de la contra de la contra	11-44-000 TT-576-5	n e contra Willi	na de la companya de La companya de la comp	an an the state of	n se an an tribh		ana ese de tres (936	n de la construcción de la constru La construcción de la construcción d
Actuated Cycle Length (s	s)		59.8	S	um of lo	st time	(s)		8.0			
Intersection Capacity Uti	lization		73.1%		CU Leve	l of Ser	vice	a adalarta na shia	D	na an an tha br>Tha an tha an t	A STATEST SANDA STATEST STATEST	
Analysis Period (min)			15			iti ini ini ini ini ini ini ini ini ini						

			~	4	-Qer		٩		de la compañía de la	\$		4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ĸ	ŕ			<b>\$</b>		۴	<u></u>				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	10	10	16	16	16	10	11	11	12	12	12
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0				
Lane Util. Factor	1.00	1.00			1.00		1.00	1.00				
Frt	1.00	1.00			0.99		1.00	0.96				
Fit Protected	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (prot)	1888	1739			1882		1652	1729				
Flt Permitted	0.25	1.00			1.00		0.95	1.00				
Satd. Flow (perm)	504	1739			1882		1652	1729				
Volume (vph)	45	540	0	0	510	40	60	250	90	0	0	0
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	50	600	0	0	567	44	67	278	100	0	0	0
RTOR Reduction (vph)	0	0	0	0	4	0	0	11	0	0	0	0
Lane Group Flow (vph)	50	600	0	0	607	0	67	367	0	0	0	0
Parking (#/hr)				0	0	0						
Turn Type	Perm				5179936619999662999		Perm					2011 Million Party and
Protected Phases		2			6			8				
Permitted Phases	2						8					
Actuated Green, G (s)	23.8	23.8			23.8		16.4	16.4				
Effective Green, g (s)	24.8	24.8			24.8		17.4	17.4				
Actuated g/C Ratio	0.47	0.47			0.47		0.33	0.33				
Clearance Time (s)	5.0	5.0			5.0		5.0	5.0				
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0				
Lane Grp Cap (vph)	238	820			887		546	572			olitin da se in a se in	anders and subscience
v/s Ratio Prot		c0.35			0.32			c0.21				
v/s Ratio Perm	0.10						0.04				radara dense	
v/c Ratio	0.21	0.73			0.68		0.12	0.64				
Uniform Delay, d1	8.2	11.2			10.8		12.3	14.9				
Progression Factor	1.00	1.00			1.00		1.00	1.00				
Incremental Delay, d2	0.4	3.4			2.2		0.1	2.5				
Delay (s)	8.6	14.6			13.1		12.4	17.4				
Level of Service	A	В			В		В	В				
Approach Delay (s)		14.1			13.1			16.6			0.0	
Approach LOS		В			В			В			A	
Intersection Summary												
HCM Average Control D	elay		14.4	H	CM Lev	el of Se	rvice		В			
HCM Volume to Capacity	y ratio		0.66									
Actuated Cycle Length (s	5)		52.6	St	um of lo	st time (	(s)	`	8.0			
Intersection Capacity Uti	lization	(	\$2.7%	IC	U Leve	l of Sen	rice		В			
Analysis Period (min)			15									
c Critical Lane Group												

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	and the second second			-	a di digerenne de la constante	All the second	1	Ť	p	\$	and the second	$\checkmark$
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL.	NBT	NBR	SBL	SBT	SBR
Lane Configurations	k	\$		'n	ŕ	ř		4		ħ	Ŷ	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	11	11	12	12	12	10	10	12
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0		4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00
Frt	1.00	0.99		1.00	1.00	0.85		0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00		1.00		0.95	1.00	1.00
Satd. Flow (prot)	1540	1657		1711	1801	1531		1620		1652	1739	1583
Flt Permitted	0.41	1.00		0.37	1.00	1.00		0.69		0.67	1.00	1.00
Satd. Flow (perm)	670	1657		674	1801	1531		1121		1156	1739	1583
Volume (vph)	105	355	30	70	350	165	10	80	25	215	305	100
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	117	394	33	78	389	183	11	89	28	239	339	111
RTOR Reduction (vph)	0	3	0	0	0	107	0	10	0	0	0	72
Lane Group Flow (vph)	117	424	0	78	389	76	0	118	0	239	339	39
Parking (#/hr)	0	0	0				0	0	0			
Turn Type	Perm			Perm	a daram daram daram daram daram dara	Perm	Perm			om+pt		Perm
Protected Phases		2			6			8		7	4	
Permitted Phases	2			6		6	8			4		4
Actuated Green, G (s)	23.9	23.9		23.5	23.5	23.5		8.4		20.0	20.0	20.0
Effective Green, g (s)	24.9	24.9		24.5	24.5	24.5		9.4		21.0	21.0	21.0
Actuated g/C Ratio	0.42	0.42		0.41	0.41	0.41		0.16		0.36	0.36	0.36
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0		5.0		5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0		3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	282	698		279	747	635		178		475	618	562
v/s Ratio Prot		c0.26			0.22					0.06	c0.19	
v/s Ratio Perm	0.17		(an ana an an an an Ar	0.12		0.05		c0.11		0.11	long Alexing to the second on the	0.02
v/c Ratio	0.41	0.61		0.28	0.52	0.12		0.66		0.50	0.55	0.07
Uniform Delay, d1	12.0	13.3		11.5	12.9	10.7	-10100108-001010148-0	23.4	1901 - 19 <sup>1</sup> 9 19 19 19 19 19 19 19 19 19 19 19 19 19	17.1	15.3	12.6
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00
Incremental Delay, d2	1.0	1.5		0.5	0.7	0.1		8.9		0.8	1.0	0.1
Delay (s)	13.0	14.8		12.0	13.6	10.7		32.3		18.0	16.3	12.6
Level of Service	В	В		В	В	В		С		В	В	В
Approach Delay (s)		14.4			12.6			32.3			16.3	
Approach LOS		В			В			С			В	
Intersection Summary						19 (19) (19) (19) 19 (19)						
HCM Average Control D	elay		15.6	ł	ICM Lev	el of Se	ervice		В			
HCM Volume to Capacit	y ratio		0.53									
Actuated Cycle Length (	s)		59.1	S	Sum of Ic	ost time	(s)		8.0	2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 -		
Intersection Capacity Uti	lization	1	55.7%	1	CU Leve	I of Ser	vice		B			
Analysis Period (min)			15									
c Critical Lane Group												

	Å			F		1	*	Å	P	*		4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4	7	ĥ	<b>\$</b>			র্ব	P	Ň	<b>\$</b>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	12	12	16	12	12	12
Total Lost time (s)		4.0	4.0	4.0	4.0			4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	
Frt		1.00	0.85	1.00	0.98			1.00	0.85	1.00	0.98	
Flt Protected		1.00	1.00	0.95	1.00			0.98	1.00	0.95	1.00	
Satd. Flow (prot)		1735	1478	1486	1528			1826	1794	1593	1825	
Flt Permitted		0.97	1.00	0.43	1.00			0.82	1.00	0.64	1.00	
Satd. Flow (perm)		1695	1478	673	1528			1526	1794	1065	1825	
Volume (vph)	15	340	85	60	330	60	70	105	65	95	125	20
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	378	94	67	367	67	78	117	72	106	139	22
RTOR Reduction (vph)	0	0	32	0	8	0	0	0	38	0	6	0
Lane Group Flow (vph)	0	395	62	67	426	0	0	195	34	106	155	0
Parking (#/hr)				0	0	0	0			0		
Turn Type	Perm		Perm	Perm			Perm		Perm	Perm	<u> </u>	ALL CONTRACTOR OF CONTRACTOR
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6			8		8	4		
Actuated Green, G (s)		17.6	17.6	17.6	17.6			12.6	12.6	12.6	12.6	
Effective Green, g (s)		18.6	18.6	18.6	18.6			13.6	13.6	13.6	13.6	
Actuated g/C Ratio		0.41	0.41	0.41	0.41			0.30	0.30	0.30	0.30	
Clearance Time (s)		5.0	5.0	5.0	5.0			5.0	5.0	5.0	5.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0			3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		698	608	277	629			459	540	320	549	ninananin innanin kanin
v/s Ratio Prot					c0.28						0.09	
v/s Ratio Perm		0.23	0.04	0.10				c0.13	0.02	0.10		
v/c Ratio		0.57	0.10	0.24	0.68			0.42	0.06	0.33	0.28	
Uniform Delay, d1		10.2	8.2	8.7	10.8			12.7	11.3	12.3	12.1	
Progression Factor		1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	
Incremental Delay, d2		1.1	0.1	0.5	2.9			0.6	0.0	0.6	0.3	
Delay (s)		11.3	8.2	9.1	13.7			13.3	11.3	12.9	12.4	
Level of Service		В	Α	А	В			В	В	В	В	
Approach Delay (s)		10.7			13.1			12.8			12.6	
Approach LOS		В			В			В			В	
Intersection Summary								- 53 (S) (S) (S)	8 6 8 6	19-19-19-19 19-19-19-19-19-19-19-19-19-19-19-19-19-1	rom Subsis	
HCM Average Control D	elay		12.2	┢	ICM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.49									
Actuated Cycle Length (	3)		45.2	S	sum of Ic	ost time	(s)		8.0			
Intersection Capacity Uti	lization		70.3%	)(	SU Leve	I of Serv	rice		С			
Analysis Period (min)			15									
c Critical Lane Group												

	Å		¥	the second second	4	Â.	4	Ŷ	/*	1	and the second se	al a
Movement	EBL2	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR2	SBL	SBT	SBR
Lane Configurations		4			44			44			4	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	14	14	14	12	12	12	16	16	16
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.97			0.99			1.00			1.00	
Flt Protected		0.99			0.98			1.00			1.00	
Satd. Flow (prot)		1784			1926			1855			2101	
Flt Permitted	ال به معنی ایر مره مره د	0.95			0.89			0.99			0.99	
Satd. Flow (perm)		1703			1744			1834			2090	
Volume (vph)	15	45	20	20	30	5	10	445	10	5	450	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0,90	0.90	0.90	0,90
Adj. Flow (vph)	17	50	22	22	33	6	11	494	11	6	500	17
RTOR Reduction (vph)	0	14	0	0	0	0	0	1	0	0	1	0
Lane Group Flow (vph)	0	75	0	0	61	0	0	515	0	0	522	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		3			3			2			6	
Permitted Phases	3			3			2	2		6	6	
Actuated Green, G (s)		15.0			15.0	usedutuese ere tusota		30.0			30.0	
Effective Green, g (s)		16.0			16.0			31.0			31.0	
Actuated g/C Ratio		0.20			0.20			0.39			0.39	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Lane Grp Cap (vph)		341			349			711			810	
v/s Ratio Prot												
v/s Ratio Perm		c0.04			0.03	1		c0.28			0.25	
v/c Ratio		0.22			0.17			0.72			0.64	
Uniform Delay, d1		26.8			26.5			20.9			20.0	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.5	an martin an	alad a Sabahatana	1.1	teoretrottetetetetet.		6.3			3.9	
Delay (s)		28.2			27.6			27.2			23.9	
Level of Service		C			C	10.200.0000.0000.000000		C			C	tinisiinistaaliis
Approach Delay (s)		28.2			27.6			27.2			23.9	
Approach LOS		C			C			С			С	
Intersection Summary												
HCM Average Control D	elay		30.5	Н	CM Lev	vel of Se	rvice		С			
HCM Volume to Capacit	y ratio		0.64									
Actuated Cycle Length (	s)		80.0	S	um of le	ost time	(s)		12.0			
Intersection Capacity Uti	lization		67.7%	IC	CU Leve	el of Ser	vice		C			
Analysis Period (min)	Arent Artester (	a stanta se se s	15									
c Critical Lane Group												

## 

Movement	SWL2	SWL	SWR S	WR2		
Lane Configurations	ħ	¥4				
Ideal Flow (vphpl)	1900	1900	1900	1900		
Lane Width	14	14	14	14		
Total Lost time (s)	4.0	4.0				
Lane Util. Factor	1.00	1.00				
Frt	1.00	0.99				
Flt Protected	0.95	0.96				
Satd. Flow (prot)	1888	1879				
Fit Permitted	0.95	0.96				
Satd. Flow (perm)	1888	1879				
Volume (vph)	15	350	20	5		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90		
Adj. Flow (vph)	17	389	22	6		
RTOR Reduction (vph)	0	1	0	0		
Lane Group Flow (vph)	17	416	0	0		
Turn Type	Split					
Protected Phases	4	4				
Permitted Phases						
Actuated Green, G (s)	20.0	20.0				
Effective Green, g (s)	21.0	21.0				
Actuated g/C Ratio	0.26	0.26				t att att a
Clearance I ime (s)	5.0	5.0				
Lane Grp Cap (vph)	496	493				
v/s Ratio Prot	0.01	c0.22				
v/s Ratio Perm	ana <u>ana</u> -ana	- Annak nastalan		a en sta octa da ta		
v/c Hatio	0.03	0.84				
Uniform Delay, d1	22.0	28.0	y and a support to the	an de terre de la de		
Progression Factor	1.00	1.00				
incremental Delay, dz	0.1	10.1	2010/01/02/04		A Marilan (1997) Malaka Marila Marilana (Marilana) a sa s	
Lougl of Service	<i>6</i> <b>6</b> .1	44.I N				
Level OF Service		U 100				
Approach LOS		40.Z				
Approach LOO		U				
Intersection Summary						

			A	K	~	×.,	٩		P		¥	and the second
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	, for y Standing over the Sound Stand Stand Street	र्स	7		Â	1	ኻ	<b>养</b> 侈		8	<b>养</b> 搻	99144151991 <b>8</b> 91891891899199
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	0.99	
Flt Protected		0.97	1.00		0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1801	1583		1805	1583	1770	3534		1770	3504	
Flt Permitted		0.77	1.00		0.79	1.00	0.13	1.00		0.22	1.00	
Satd. Flow (perm)		1434	1583		1471	1583	242	3534		413	3504	
Volume (vph)	55	25	240	35	20	35	5	1070	10	30	1065	75
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj, Flow (vph)	61	28	267	39	22	39	6	1189	11	33	1183	83
RTOR Reduction (vph)	0	0	214	0	0	31	0	1	0	0	6	0
Lane Group Flow (vph)	0	89	53	0	61	8	6	1199	0	33	1260	0
Turn Type	Perm	stats er sorrefen i er undelanmalden	Perm	Perm		Perm	pm+pt		nientekki inisi kinistenia rataivilia kis	Perm	n ana mana kao kao mana aminina	
Protected Phases		4			8		5	2			6	
Permitted Phases	4		4	8		8	2			6		· · · · · · · · · · · · · · · · · · ·
Actuated Green, G (s)		9.6	9.6		9.6	9.6	30.8	30.8		26.8	26.8	
Effective Green, g (s)		9.6	9.6		9.6	9.6	30.8	30.8		26.8	26.8	
Actuated g/C Ratio		0.20	0.20		0.20	0.20	0.64	0.64		0.55	0.55	
Clearance Time (s)		4.0	4.0		4.0	4.0	3.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		284	314	ritiken om det store i det state og state og store og sto	292	314	154	2249		229	1940	
v/s Ratio Prot								c0.34			c0.36	
v/s Ratio Perm		c0.06	0.03		0.04	0.00	0.02			0.08		
v/c Ratio		0.31	0.17		0.21	0.02	0.04	0.53		0.14	0.65	
Uniform Delay, d1		16.6	16.1		16.2	15.6	3.3	4.8		5.2	7.5	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.6	0.3		0.4	0.0	0.1	0.2		0.3	0.8	
Delay (s)		17.2	16.3		16.6	15.7	3.4	5.1		5.5	8.3	
Level of Service		В	В		В	В	А	А		A	A	
Approach Delay (s)		16.6			16.2			5.1			8.2	
Approach LOS		В			В			A			А	
Intersection Summary												
HCM Average Control D	elay		8.2	H	ICM Lev	vel of Se	ervice		А			
HCM Volume to Capacit	y ratio		0.58									
Actuated Cycle Length (	s)		48.4	S	um of le	ost time	(S)		12.0			
Intersection Capacity Uti	lization		63.4%	10	CU Leve	el of Sei	vice		B			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	W8L	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		र्द	1	ĥ	ţ,		٢	朴族		۲	<b>ት</b> ጌ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	10	12	16	12	10	10	10	10	10	10
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	0.95		1.00	0.95	
Frt		1.00	0.85	1.00	0.90		1.00	1.00		1.00	1.00	
Flt Protected		0.97	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1750	1478	1770	1909		1652	3297		1652	3297	
Flt Permitted		0.79	1.00	0.71	1.00		0.16	1.00		0.95	1.00	
Satd. Flow (perm)		1415	1478	1329	1909		272	3297		1652	3297	
Volume (vph)	35	25	335	30	20	35	260	1285	15	45	1210	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	39	28	372	33	22	39	289	1428	17	50	1344	17
RTOR Reduction (vph)	0	0	330	0	35	0	0	1	0	0	1	0
Lane Group Flow (vph)	0	67	42	33	26	0	289	1444	0	50	1360	0
Turn Type	Perm		Perm	Perm			pm+pt			Prot	*****	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2					
Actuated Green, G (s)		7.8	7.8	7.8	7.8		41.4	41.4		3.7	28.3	
Effective Green, g (s)		7.8	7.8	7.8	7.8		42.4	42.4		3.7	29.3	
Actuated g/C Ratio		0.11	0.11	0.11	0.11		0.62	0.62		0.05	0.43	
Clearance Time (s)		4.0	4.0	4.0	4.0		5.0	5.0		4.0	5.0	
Vehicle Extension (s)		1.0	1.0	1.0	1.0		1.5	1.0		1.0	1.0	
Lane Grp Cap (vph)		161	169	152	218		508	2044		89	1412	
v/s Ratio Prot					0.01		0.14	c0.44		0.03	c0.41	
v/s Ratio Perm		c0.05	0.03	0.02			0.21					
v/c Ratio		0.42	0.25	0.22	0.12		0.57	0.71		0.56	0.96	
Uniform Delay, d1		28.2	27.6	27.5	27.2		16.4	8.8		31.6	19.0	
Progression Factor	er de textereteres	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.6	0.3	0.3	0.1		4.6	2.1		4.8	16.6	
Delay (s)		28.8	27.9	27.8	27.3		21.0	10.9		36.3	35.6	
Level of Service		C	С	С	С		C	В		D	D	
Approach Delay (s)		28.1			27.5			12.6			35.7	
Approach LOS		С			C			В			D	
Intersection Summary												
HCM Average Control D	elay		23.7	Η	CM Lev	el of Se	rvice		С			
HCM Volume to Capacity	y ratio		0.75									
Actuated Cycle Length (s	3)		68.4	S	um of lo	st time	(s)		8.0			
Intersection Capacity Uti	lization	(	68.2%	10	CU Leve	l of Serv	/ice		С			
Analysis Period (min)			15									

	and the second	anger an		-	4	ł,	4		P	-		-
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				ř	<del>ب</del> اً)			솪			ት እ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	14	12	12	12	12	12	12
Total Lost time (s)				4.0	4.0			4.0			4.0	
Lane Util. Factor	an dala serat giya	den de Angele.	(),	0.95	0.95	an a	viteri en estat	0.95	Malakata da wasa da		0.95	de data esta est
				1.00	1.00			1.00			1.00	
FIT Protected				0.95	0.96		o a constance de la constance d	1.00	içoya başara sələti	0.699103460	1.00	a an
Salo. Flow (prot)				1001	1705			3539			3538 1 00	
Pit Penniteu Soid Elou (porm)				0.95	1705			00.1		000000000	00.1	
Volume (uph)		<u>^</u>		075	1700	<u>^</u>	<u>^</u>	0008	<u>^</u>	<u>^</u>	4075	E
Dook hour footor DUE	U A AA	0	0	975	100	U Nin An	U An An	900	0 00	0 0 00	10/0	c no on
Adi Flow (vph)	0.50	0.30	0.90	1093	0.90 150	0.90	0.90	1061	0.90	0.90	2002	0.90 A
RTOR Reduction (voh)	ň	ň	ň	1000	130	М	А	1001	n v		2000	0 A
Lane Group Flow (vph)	Ŷ	N States	n N	601	632	en en Mai N	Ŷ	1061	A N	v ۵	2089	0
Turn Tyne				Perm			Perm	1001	~	 	~~~~	Ý
Protected Phases				1.01111	8			2			6	
Permitted Phases				8	, in the second s		2	5ee				
Actuated Green, G (s)			(ana coona con coo	34.0	34.0			54.0	de Alfrede Galerier		54.0	
Effective Green, g (s)				36.0	36.0			56.0			56.0	
Actuated g/C Ratio				0.36	0.36			0.56	a de terretera en entretera		0.56	
Clearance Time (s)				6.0	6.0			6.0			6.0	
Vehicle Extension (s)				3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)				605	614			1982			1981	
v/s Ratio Prot								0.30			c0.59	
v/s Ratio Perm				0.36	0.37							
v/c Ratio				0.99	1.03			0.54			1.05	
Uniform Delay, d1				31.9	32.0			13.8			22.0	
Progression Factor				1.00	1.00			1.00		den sort to tableat	1.00	
Incremental Delay, d2				34.7	44.0			0.3			36.4	
Delay (s)				66.6	/6.0	istinininga	section generat	14.1	en e	iosantan kaiwak	58.4	
Level of Service		~ ~		E				В			ro 4	
Approach Delay (s)		0.0 A			/1.4	an haran an		14.1 o			58.4	
Approach LUS		A			Prov.			B				
Intersection Summary						8 H G B		18 (B) (G)			SP 49 49 4	
HCM Average Control D	elay		51.3	Η	ICM Lev	el of Se	rvice		D			
HCM Volume to Capacity	y ratio		1.04									
Actuated Cycle Length (s	s)		100:0	S	um of lo	ost time	(s)		8.0			
Intersection Capacity Uti	lization		89.2%	1	CU Leve	I of Serv	vice		E			
Analysis Period (min)			15									

	Sec. Mark		No.	A.	a official and a second			Ŷ	P	\$	*	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		ŵ			÷.			4			¢\$	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	20	135	60	30	110	25	120	285	50	65	280	25
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	22	150	67	33	122	28	133	317	56	72	311	28
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	239	183	506	411								
Volume Left (vph)	22	33	133	72								
Volume Right (vph)	67	28	56	28								
Hadj (s)	-0.11	-0.02	0.02	0.03								
Departure Headway (s)	7.5	7.8	6.6	6.8								
Degree Utilization, x	0.50	0.40	0.93	0.78								
Capacity (veh/h)	442	411	535	504								
Control Delay (s)	17.7	15.9	48.2	29.8								
Approach Delay (s)	17.7	15.9	48.2	29.8								
Approach LOS	С	c	E.	D								
Intersection Summary												
Delay			32.7									
HCM Level of Service			D									
Intersection Capacity Uti	lization		60.6%	IC	CU Leve	l of Ser	vice		В			
Analysis Period (min)			15									
			anninanai									46644664666

	K	×.	Ť	and the second	S and a second s	l.	
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	λ4		<b>t</b> >			¢Î	
Sign Control	Stop		Free			Free	
Grade	0%	la constante de la constante d	0%			0%	
Volume (ven/n) Peak Hour Eactor	140	00 N	545 0 00	215	0 00	0 00	
Hourly flow rate (vph)	156	0.00	606	239	0.50	950	
Pedestrians		a an tructe de la <del>T</del> al tru			nini minni <u>A</u> rris		an in an
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Hight turn flare (veh)	Mana		1469499494		aginqaases	499999999999999	Na kali ka da kata kata kata kata kata kata kat
Median storage veh)	INOUR						
Upstream signal (ff)						837	
pX, platoon unblocked	0.77				, të sete san dhe në të		
vC, conflicting volume	1675	725			844		
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
VCu, unbiocked vol	1873	/25 e n	North Article		844	in de a de la de la de	
tC, Single (s)	0.4	0.2			<b>64, I</b>		
tF (s)	3.5	3.3			2.2		
p0 queue free %	0	99			100	1949-946 April 2000	an ta ana ta da ana ang ang ang ang ang ang ang ang an
cM capacity (veh/h)	61	425			792		
Direction, Lane #	WB 1	N8 1	SB 1				
Volume Total	161	844	950				
Volume Left	156	0	0				
Volume Right	6	239	0				
COII Volume to Canacity	256	0.50	792				
Queue Length 95th (ft)	2.00 401	0.00	0.00				
Control Delay (s)	847.4	0.0	0.Õ			erener Antras. Annstraser	
Lane LOS	F						Stelenenetti maranda yana meneneta a shara da bada kula ta
Approach Delay (s)	847.4	0.0	0.0				
Approach LOS	F						
Intersection Summary							
Average Delay		ana atao Arte	69.8		ta de tata como como como como como como como com		
Intersection Capacity Ut	ilization	, in the second s	59.7%	IC	U Leve	l of Sen	/ice B
Analysis Period (min)			15				

	Å			and the second second	4	×.	4	Ŷ	M	1		-
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations Sign Control Grade		<b>4∔</b> Stop 0%			↔ Stop 0%			4ी∳ Free 0%			<b>∜î⊳</b> Free 0%	
Volume (veh/h)	10	0	35	10	0	10	10	1115	5	5	1145	25
Peak Hour Factor Hourly flow rate (vph) Pedestrians Lane Width (ft) Walking Speed (ft/s) Percent Blockage Right turn flare (veh)	0.90	0.90	0.90	0.90	0.90 0	0.90	0.90	0.90 1239	0.90 6	0.90	0.90 1272	0.90 28
Median type Median storage veh) Upstream signal (ft)		None			None			1267				
pX, platoon unblocked	0.99	0.99		0.99	0.99	0.99				0.99		
vC, conflicting volume vC1, stage 1 conf vol vC2, stage 2 conf vol	1950	2564	650	1950	2575	622	1300			1244		
vCu, unblocked vol	1950	2568	650	1950	2580	611	1300	n a chuirean a chuir an	******	1238		
tC, single (s) tC, 2 stage (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4,1		
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
cM capacity (veh/h)	69 36	100 25	412	67 34	24	97 433	98 529			99 554		
Direction, Lane #	EB 1	WB1	<u>NB 1</u>	NB 2	<u>SB 1</u>	SB 2						
Volume Total	50	22	631	625	642	664						
Volume Leit	11	11	11 A	U A	0	0 28						
cSH	125	63	529	1700	554	1700						
Volume to Capacity	0.40	0.35	0.02	0.37	0.01	0.39						
Queue Length 95th (ft)	42	33	2	0	1	0						
Control Delay (s)	51.7	90.9	0.6	0.0	0.3	0.0						
Lane LOS Approach Delay (s)	F 51.7 F	⊢ 90.9 F	A 0,3		A 0.1							
Average Delay			2 0									
Intersection Canacity Liti	lization	2	2.0 48.0%	lí	U Leve	l of Ser	vice		A			
Analysis Period (min)		enteren en en fallen Ver date sider videren	15						sectore de la compañsión Sectores de la compañsión			

		N.	and the second	<b>4</b>	Ś	P	
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	₿•			Â	¥		
Sign Control	Free			Free	Stop		
Grade	0% 400	00		0%	0%	an a	
Peak Hour Eactor	0 01	20 N 90	0 0 0	125 0 00	00 0 00	00 N	
Hourly flow rate (vph)	111	22	33	139	33	61	
Pedestrians			n en				na n
Lane Width (ft)							
Walking Speed (ft/s)		ana sa	Visite Reckeristereter			1	
Percent Blockage							
Median type			giano ana an		None		
Median storage veh)				0.0000000000000000000000000000000000000		Antonia da Canada da Canada da Canada da C	
Upstream signal (ft)							
pX, platoon unblocked		e territoria coste posto					
vC, conflicting volume			133		328	122	
vC1, stage 1 cont vol					Hereiter		
vCu. unblocked vol			133		328	122	
tC, single (s)			4,1		6.4	6.2	
tC, 2 stage (s)							ng ng pang pa
tF (s)			2.2		3.5	3.3	
p0 queue tree %	veren er	Nationalia	98 4 4 5 4	anan ananan	95 654	93	Malakakatan matang salatan di Kabupatan salatan kata kata kata kata kata kata kata
civi capacity (ven/n)			1451		051	958	
Direction, Lane #	EB 1	WB 1	NB 1				
Volume Loft	133	20	94 22				
Volume Bight	22	0			histopopta		
cSH	1700	1451	807				
Volume to Capacity	0.08	0.02	0.12				
Queue Length 95th (ft)	0	2	10				
Control Delay (s)	0.0	1.6	10.0				
Approach Delay (c)	nn	A	ы В на по		NGO ARTICIO		
Approach LOS	( <b>. V.V</b> )	1.0	iv.v B				
Intercenting Cummon							
Average Delay			<u>२</u> 1				
Intersection Capacity Uti	lization	1	26.6%	IC	ULeve	l of Servic	e
Analysis Period (min)		a an	15				

		NO-WAY STO	P CONTRO	L SUMM/	ARY				
<b>General Informatior</b>	1		Site Inf	formation	}				
Analyst A ુુy/Co. Date Performed Analysis Time Period	EJD CHA 2/18/2005 PM PEAK	HOUR	Intersecti Jurisdicti Analysis	ion on Year		ROUTE 7 TOWN O 2003 EXI	7/LOCUST/ F BURLIN STING	/LEDGE GTON	
Project Description BU	RLINGTON					***/->>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>		1990	
East/West Street: LOCL	JST/LEDGE		North/So	uth Street:	ROUTE	7			
Intersection Orientation:	North-South		Study Pe	eriod (hrs):	0.25				
Vehicle Volumes an	d Adjustments	3							
Major Street		Northbound				Southbo	und		
Movement	1	2	3		4	5		6	
		T	R			T		R	
Volume Dook Hour Foster, DUF	0	780	215		15	965		15	
Hourly Flow Poto HED	0.90	0.90	0.90		0.90	0.90		0.90	
Percent Heavy Vehicles		000	238		20	10/2		10	
Median Tyno				Undividad	L.,				
RT Channelized		<u> </u>	0	Shaivided		1	T	$\cap$	
Lanes	0	2	0		0	1		0	
Configuration						<u>'</u>		U	
Upstream Signal		0				0			
Vinor Street	1	Westbound				Fasthou	 Ind		
Vlovement	7	8	9		10	11	43 FCA	12	
******	L.	Т	R		L	T		R	
Volume	0	0	45		0	10		75	
Pe Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90	
Holly Flow Rate, HFR	0	0	50		0	11		83	
Percent Heavy Vehicles	0	0	2		0	2		2	
Percent Grade (%)		0				0		, ", ", ", ", ", ", ", ", ", ", ", ", ",	
Elared Approach		N				N	1		
Storage		0				0			
RT Channelized			0					0	
anes	0	0	1		0	1		0	
Configuration			R			1		TR	
)elay, Queue Length, ar	nd Level of Servic	>e							
\pproach	NB	SB	N N	Vestbound	****		Eastbound	j	
Novement	1	4	7	8	9	10	11	12	
ane Configuration		LTR	l l	_	R		1		
/ (vph)		16	t T		50			94	
<u>, , ,</u> C(m)(vph)		628			<u>177</u>	1	1	110	
/C		0.03			 0 10		Source of the second	146 A CC	
5% qualla lanath		0.00 A A0			0.10	-			
<sup>2</sup> ontrol Dolay		0.00 40.0			U.00 40-4	<u> </u>		3.05	
Nonitul Delay		10.9			13.4	-	ļ	69.8	
.UO		B	<u> </u>		В			<u> </u> F	
Approach Delay		ت بن م	ļ <u></u>	13.4		69.8			
vpproach LOS		uq ur		В		1	F		

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	T	NO-WAY STO	P CONTRO	L SUMM	IARY			
General Information	)	142 - 143 - 145 - 145 - 145 - 145 - 145 - 145 - 145 - 145 - 145 - 145 - 145 - 145 - 145 - 145 - 145 - 145 - 145	Site Inf	formatio	n			
Analyst A ્રy/Co. Date Performed Analysis Time Period	EJD CHA 2/18/2005 PM PEAK	HOUR	Intersect Jurisdicti Analysis	tion ion Year		ROUTE 7 TOWN O 2003 EXI	7/SOUTH W F BURLING STING	/ILLARD GTON
Project Description BU	RLINGTON							
East/West Street: SOUT	'H WILLARD		North/Sc	outh Street:	ROUTE	7		
Intersection Orientation:	North-South		Study Pe	eriod (hrs):	0.25			
Vehicle Volumes and	d Adjustments	\$		****				
Major Street		Northbound				Southbo	und	
Movement	1	2	3		4	5		6
	L		R		<u> </u>	T		R
Volume	65	/15	0		0	995		0
Haudy Flow Data UED		0.90	0.90		0.90	0.90		0.90
Percent Heavy Vehicles	12	/ 94	U U		2	1705		U
Median Tyne			<u> </u>	Undivided	<u>د</u> i	1		
RT Channelized		····		Unuivided	1	1	<u> </u>	
anes	Ω				0	4		<u> </u>
Configuration		/					<u> </u>	U
Instream Signal		0			~~~~	1 1		
Minor Street		Weethound	<u> </u>			Eastboy		
Movement	7	A R	Τα		10			10
		т	A B		10			- 12 D
Valume		160			د ۱	· ·		n 0
Pessi-Hour Factor, PHF	<u>n 90</u>	0.90	0.90		<u>n 90</u>	0 90		nan
Hu v Flow Rate, HFR	0	177	0.00		0.00	0.00		0.00 0
Percent Heavy Vehicles	0	2	2		0	2		2
Percent Grade (%)		, 0				0		_
Flared Approach		N N	1				1	
Storage		$\frac{1}{2}$						<u></u>
RT Channelized								0
anes	<u>Λ</u>	1			0			0
Configuration		1			V			V
Jalav Qualla Lanath an	I aval of Convir		1 ///			<u> </u>		
loproach	NR I	SR	Í v	Vesthound		1	Fasthound	
Vovement	1	4	7	8 A	a	10	11	1 12
ane Configuration	1 <i>T</i>	•			TP		е ! 	1 <u>~</u>
/ (vph)	72		$\mathbf{H}$		177	1		
? (m) (vob)	632			<u></u>	111 A.A			+
z wy vywy de	002 0.11				44 1 00	-		_
X5% augus leagth	0.11				4.UZ 40.07			+
No yugug lengti	<i>V.30</i>	<u></u>			18.82			4
	11.4				7548			
.05	<u> </u>		<u> </u>	l.	F			<u> </u>
Approach Delay	**			1548		<u> </u>		-
Approach LOS		eta 162		gane. gener		and and a second		

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## NO-BUILD ALTERNATIVE 2008 AM PEAK HOUR

## HCM Signalized Intersection Capacity Analysis 6: Main Street & Battery Street

	۶		$\mathbf{r}$	≮		×.	1	t	1	1	Ļ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		ধ	7		র	1		ፈቴ		ሻ	î.	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	n fel standen en standelsen	4.0	un an	4.0	4.0	n naga kaningkingk
Lane Util. Factor		1.00	1.00		1.00	1.00		0.95		1.00	1.00	
Frt		1.00	0.85		1.00	0.85		0.99	onte to service de la constante	1.00	1.00	ingengange sing dan si
Fit Protected		0.98	1.00		0.98	1.00		1.00		0.95	1.00	
Satd. Flow (prot)		1828	1583		1819	1583		3492		1770	1855	linianin bilinian)
Flt Permitted		0.85	1.00		0.83	1.00		0.85		0.95	1.00	
Satd. Flow (perm)		1583	1583		1537	1583		2992		1770	1855	eworzygowa 11107
Volume (vph)	15	25	25	50	55	145	35	300	20	235	565	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	28	28	56	61	161	39	333	22	261	628	17
RTOR Reduction (vph)	0	0	24	0	0	93	0	0	0	0	0	0
Lane Group Flow (vph)	0	45	4	0	117	68	0	394	0	261	645	0
Turn Type	Perm	*****	Prot	Perm		pt+ov	Perm		С	ustom		
Protected Phases		4	4		8	8 1		2		4	6	
Permitted Phases	4			8		,	2	10 (* 11 10 4 10 10 10 4 10 10 10 10 10 10 10 10 10 10 10 10 10		1	2005-000-009-009-009-05-09-05-0	
Actuated Green, G (s)		7.4	7,4		7,4	20.5		13.2		13.1	31.3	
Effective Green, g (s)		8.4	8.4		8.4	22.5		14.2	********	14.1	32.3	2020-000000000000000000000000000000000
Actuated g/C Ratio		0.16	0.16		0.16	0.42		0.27		0.26	0.60	
Clearance Time (s)		5.0	5.0		5.0			5.0	****	5.0	5.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		249	249		241	666		794		466	1120	
v/s Ratio Prot			0.00			0.04				0.15	c0.35	
v/s Ratio Perm		0.03			c0.08		densite da prinde norte de pri	0.13				angera kentangan
v/c Ratio		0.18	0.02		0.49	0.10		0.50		0.56	0.58	
Uniform Delay, d1		19.6	19.1		20.6	9.4		16.6		17.0	6.4	2010-01 (14) (4) (1444)
Progression Factor		1.00	1.00		1.00	1.00	3688	1.00		1.00	1.00	
Incremental Delay, d2		0.4	0.0		1.5	0.1		0.5		1.5	0.7	an ( i tan an a' a san a' an an an
Delay (s)		19.9	19.1		22.1	9.4		17.1		18.6	7.2	
Level of Service		В	В		С	А		В		В	Α	
Approach Delay (s)	Q Q Q 3	19.6			14.8			17.1			10.4	
Approach LOS		В			В			В			В	
Intersection Summary												
HCM Average Control D	elay		13.2	Н	CM Lev	el of Se	rvice		В			and the second
HCM Volume to Capacity	y ratio		0.50									
Actuated Cycle Length (s	5)		53.5	S	um of lo	ost time	(s)		8.0			Control (171
Intersection Capacity Util	lization	6	32.9%	IC	U Leve	l of Ser	vice		В			
Analysis Period (min)	taka tak		15								· · · · · · · · · · · · · · · · · · ·	
c Critical Lane Group					(North Handonska)						<u>Webiesker</u> ung	



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ኘ	4			44			ф.			+ <b>1</b> +	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	1		4.0			4.0			4.0	anna feileachta
Lane Util. Factor	1.00	1.00			1.00			1,00			1.00	
Frt	1.00	1.00			0.88			1.00		(	0.99	07400000-000-000
Fit Protected	0.95	1.00			1.00			1.00			0.99	
Satd. Flow (prot)	1770	1863			1631			1855			1827	na
Fit Permitted	0.70	1.00			0.99			0.99			0.83	
Satd. Flow (perm)	1295	1863			1622			1834			1542	
Volume (vph)	15	30	0	5	5	105	5	235	5	170	440	30
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	33	0	6	6	117	6	261	6	189	489	33
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	17	33	0	0	129	0	0	273	0	0	711	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2		g do de de	6	
Permitted Phases	4			8			2			6		and an and an an
Actuated Green, G (s)	22.9	22.9			22.9			35.7			35.7	
Effective Green, g (s)	23.9	23.9			23.9			36.7			36.7	
Actuated g/C Ratio	0.35	0.35			0.35			0.53			0.53	
Clearance Time (s)	5.0	5.0			5.0			5.0			5.0	
Vehicle Extension (s)	3.0	3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)	451	649			565			981			825	
v/s Ratio Prot		0.02										
v/s Ratio Perm	0.01				c0.08			0.15			c0.46	- 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 199 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999
v/c Ratio	0.04	0.05			0.23			0.28			0.86	
Uniform Delay, d1	14.8	14.8			15.8			8.7			13.8	20000000000000000000000000000000000000
Progression Factor	1.00	1.00	68.8.8		1.00			1.00		19-18-65-44)	1.00	
Incremental Delay, d2	0.2	0.1			0.9			0.2			9.2	
Delay (s)	14.9	15.0			16.8			8.9			23.0	
Level of Service	В	В		a fra fa ta la ta cara da ta fa	В		1 mar 1 m	A			С	
Approach Delay (s)		15.0			16.8			8.9			23.0	
Approach LOS		В			В			A			С	
Intersection Summary												
HCM Average Control D	elay		18.6	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacity	y ratio		0.61									
Actuated Cycle Length (s	3)		68.6	S	um of lo	st time (	(s)		8.0			
Intersection Capacity Uti	lization	6	8.7%	IC	U Leve	l of Serv	rice		C	8 18 G. (*)		
Analysis Period (min)			15									
c Critical Lane Group	1499 EL 1991 7 1491 - St. 1894 8											



	۶	-+	$\mathbf{i}$	<	-	×	1	Ť	1	1	Ļ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$			4			4			\$	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.97			0.90			0.98			0.99	
Flt Protected		0.99			0.99			0.99			0.96	
Satd. Flow (prot)		1732			1608			1742			1717	
Flt Permitted		0.94			0.96			0.94			0.74	
Satd. Flow (perm)		1646			1560			1654			1324	
Volume (vph)	5	15	5	40	35	220	5	20	5	365	55	25
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	6	17	6	44	39	244	6	22	6	406	61	28
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	29	0	0	327	0	0	34	0	0	495	0
Turn Type	Perm			Perm			Perm			pm+pt	And Grig	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		- 3- 23-35
Actuated Green, G (s)	wardd yfelydd a thyangar	20.9	na waliota ili na na		20.9			28.5	the second second second second		27.5	
Effective Green, g (s)		20.9			20.9			28.5			28.5	
Actuated g/C Ratio		0.36	and data subseries interes.		0.36			0.50			0.50	
Clearance Time (s)		4.0			4.0			4.0			5.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		599			568			821			657	
v/s Ratio Prot	an an the state of t	ala al ante destructures al a						Andreas and a state of a state of				
v/s Ratio Perm		0.02			c0.21			0.02			c0.37	
v/c Ratio	ور شار و شدود از از شورا ادر سار در	0.05	len i di jeren ji di badasi a		0.58		-17-111-111-1-1-1-1-1-1-1-1-1-1-1-1-1-1	0.04	ورجور ومحرور ومحرور ومحرور		0.75	
Uniform Delay, d1		11.8			14.7			7.4			11.6	
Progression Factor	e festerida en da anti-	1.00	s-levenskast-distas.		1.00	sectorer administra	a an	1.00			1.00	an an that and
Incremental Delay, d2		0.2			4.2			0.0			4.9	
Delay (s)		12.0			18.9	ta ang ang ang ang ang ang ang ang ang an		7.4			16.5	in ann bha sheada bhaa
Level of Service					B			A			B	
Approach Delay (s)		12.0		sajajastinistijais	18.9			7.4		Heidensinen	16.5	<i></i>
Approach LUS		B			В			A			В	
Intersection Summary												
HCM Average Control D	elay		16.9	H	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.68									
Actuated Cycle Length (	3)		57.4	S	um of lo	st time	(s)		8.0	ý sta s	- 19 - 19 - 19 - 19 - 19 - 19 - 19 - 19	
Intersection Capacity Uti	lization	Į	59.2%	IC	CU Leve	l of Ser	vice		В			
Analysis Period (min)			15									



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		44			֔	7		ধ	7		4.	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0		4.0	4.0		4.0	
Lane Util. Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Frt		0.96			1.00	0.85		1.00	0.85		0.98	
Fit Protected		0.99			1.00	1.00		0.97	1.00		0.99	
Satd. Flow (prot)		1782			1861	1583		1801	1583		1804	
Flt Permitted		0.91			0.99	1.00		0.65	1.00		0.88	
Satd. Flow (perm)		1638			1847	1583		1204	1583		1611	
Volume (vph)	40	195	90-	5	275	65	245	110	10	45	155	40
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	44	217	100	6	306	72	272	122	11	50	172	44
RTOR Reduction (vph)	0	0	0	0	0	50	0	0	6	0	0	0
Lane Group Flow (vph)	0	361	0	0	312	22	0	394	5	0	266	0
Turn Type	Perm			Perm		Perm	Perm		Perm	Perm		
Protected Phases		2	9-3-3-3-3-		6			8			4	
Permitted Phases	2			6		6	8		8	4		
Actuated Green, G (s)		16.6			16.6	16.6		26.8	26.8		26.8	
Effective Green, g (s)		17.6		and a sum a second free	17.6	17.6		27.8	27.8		27.8	
Actuated g/C Ratio		0.30			0.30	0.30		0.48	0.48		0.48	
Clearance Time (s)		5.0			5.0	5.0		5.0	5.0		5.0	
Vehicle Extension (s)		3.0		1998) (S.K	3.0	3.0		3.0	3.0		3.0	
Lane Grp Cap (vph)		495			559	479		575	756		770	
v/s Ratio Prot		15) (S. S.										
v/s Ratio Perm		c0.22			0.17	0.01		c0.33	0.00		0.17	
v/c Ratio		0.73			0.56	0.05		0.69	0.01		0.35	
Uniform Delay, d1		18.2	an a	مندر المناف المناور ومادر ومرور	17.0	14.4		11.8	8.0		9.5	
Progression Factor		1.00	8828		1.00	1.00		1.00	1.00		1.00	
Incremental Delay, d2		5.3			1.2	0.0	la iniziata de construir services en	3.4	0.0		0.3	
Delay (s)		23.5			18.2	14.4		15.2	8.0		9.8	
Level of Service		C	kan seria ang saresa		В	В	arenda en Esta Alexa a desta	В	A		А	-
Approach Delay (s)		23.5			17.5			15.0			9.8	
Approach LOS		С			В			В			A	
Intersection Summary												
HCM Average Control D	elay	مترجع ومترور والروانين	16.9	Н	ICM Lev	el of Se	ervice		В			
HCM Volume to Capacit	y ratio		0.63									
Actuated Cycle Length (	S)		58.2	S	um of lo	ost time	(S)	antanan ini terdenet s	8.0	م من المراجع الم المحمول المراجع	e per propositione de la constante de la const	و بالمنظر المراجع المراجع
Intersection Capacity Uti	lization		78.5%		CU Leve	el of Ser	vice		D			
Analysis Period (min)	n ja kan separat kan	ale polos de la recorre	15	utus ta status manan mi	- Alexandra and a state of the		e (e stare) en la estadore e est	darate. 17 a	unde son die son die	······································	en e	ta fuera autoritat fuera en
c Critical Lane Group												

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Movement	EBL	EBR	NBL	NBT	SBT	SBR		×
Lane Configurations	ሻ	7	ሻ	¥	¥	7		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Width	11	12	11	12	11	12		*11-2001
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	<ul> <li>Sector and a sector problem</li> </ul>	
Frt	1.00	0.85	1.00	1.00	1.00	0.85		
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00		
Satd. Flow (prot)	1711	1583	1711	1863	1801	1583		
Flt Permitted	0.95	1.00	0.36	1.00	1.00	1.00		
Satd. Flow (perm)	1711	1583	652	1863	1801	1583		
Volume (vph)	55	100	140	570	580	180		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90		
Adj. Flow (vph)	61	111	156	633	644	200	<ul> <li>manufacture</li> </ul>	
<b>RTOR Reduction (vph)</b>	0	92	0	0	0	56		
Lane Group Flow (vph)	61	19	156	633	644	144		
Turn Type		Prot	Perm	57 (J. S. S		Perm		
Protected Phases	4	4		2	6			
Permitted Phases			2			6		
Actuated Green, G (s)	11.4	11.4	52.1	52.1	52.1	52.1		
Effective Green, g (s)	12.4	12.4	53.1	53.1	53.1	53.1		
Actuated g/C Ratio	0.17	0.17	0.72	0.72	0.72	0.72		
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	289	267	471	1346	1301	1144		
v/s Ratio Prot	c0.04	0.01		0.34	c0.36			
v/s Ratio Perm			0.24			0.09		
v/c Ratio	0.21	0.07	0.33	0.47	0.50	0.13	-2012-2012-0012-00	
Uniform Delay, d1	26.3	25.7	3.7	4.3	4.4	3.1		
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		
Incremental Delay, d2	0.4	0.1	1.9	1.2	1.3	0.2		
Delay (s)	26.7	25.8	5.6	5.5	5.8	3.3		
Level of Service	C	C	A	A	Α	A		
Approach Delay (s)	26.1			5.5	5.2			
Approach LOS	C			A	Α			
Intersection Summary								
HCM Average Control D	elay		7.3		ICM Lev	el of Service		
HCM Volume to Capacit	y ratio		0.44	s		anna a a stannan ei stat nieddy (yw 1919) fyr fa		4,50720
Actuated Cycle Length (	s)		73.5	S	ium of lo	ost time (s)		
Intersection Capacity Uti	lization	(	30.5%	IC	CU Leve	of Service	***********************	
Analysis Period (min)			15					

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			44		ሻ	ĥ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	14	12	12	14	12	12	14	12	11	11	12
Total Lost time (s)		4.0			4.0			4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00			1.00		1.00	1.00	
Frt		0.99			0.91			1.00		1.00	0.98	
Flt Protected		0.98			1.00			1.00		0.95	1.00	
Satd. Flow (prot)		1927			1809			1980		1711	1761	
Flt Permitted		0.55			0.99			0.99		0.24	1.00	
Satd. Flow (perm)		1085			1795			1959		439	1761	
Volume (vph)	60	70	10	10	115	235	10	525	10	135	430	75
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	67	78	11	11	128	261	11	583	11	150	478	83
RTOR Reduction (vph)	0	4	0	0	92	0	0	1	0	0	7	0
Lane Group Flow (vph)	0	152	0	0	308	0	0	604	0	150	554	0
Turn Type	Perm	5 영어 관		Perm			Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	- 4			8			2			6		
Actuated Green, G (s)		15.5			15.5			23.6		34.4	34.4	
Effective Green, g (s)		16.5			16.5			24.6		35.4	35.4	
Actuated g/C Ratio		0.26			0.26			0.39		0.56	0.56	
Clearance Time (s)		5.0			5.0			5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0	-		3.0		3.0	3.0	
Lane Grp Cap (vph)		286			472			769		386	994	
v/s Ratio Prot										0.04	c0.31	
v/s Ratio Perm		0.14			c0.17			c0.31		0.18		
v/c Ratio		0.53			0.65			0.79		0.39	0.56	
Uniform Delay, d1	u geografie	19.8			20.5			16.7		9.3	8.7	
Progression Factor		1.00			1.00			1.00		1.00	1.00	
Incremental Delay, d2		1.9			3.2			5.3		0.7	0.7	
Delay (s)		21.7			23.8			22.0		10.0	9.4	
Level of Service		С			C			C		A	A	
Approach Delay (s)		21.7	ومعادية والمعادية والمعادية		23.8		1	22.0			9.5	
Approach LOS		C	2 S S S		C		83 808 87 SI	C	1		A	
Intersection Summary												
HCM Average Control D	elav		17.6	Н	CMLev	el of Se	rvice		B			
HCM Volume to Capacit	v ratio	oi-irsbillichiada	0.68	institu ninisi tahu 767						0,0140000,177410.		
Actuated Cycle Length (s	ý) S)		62.7	S	um of lo	ost time	(s)		12.0			
Intersection Capacity Uti	lization		98.0%	IC	U Leve	I of Ser	vice		F			99799999999999999999999999999999999999
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			\$			<del>4</del> 3-			<del>(</del> ].	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	10	100	85	25	100	25	10	330	45	20	225	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	11	111	94	28	111	28	11	367	50	22	250	6
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	217	167	428	278								
Volume Left (vph)	11	28	11	22								
Volume Right (vph)	94	28	50	6								
Hadj (s)	-0.22	-0.03	-0.03	0.04								
Departure Headway (s)	6.1	6.4	5.6	6.0								
Degree Utilization, x	0.37	0.30	0.67	0.46								
Capacity (veh/h)	511	476	610	548								
Control Delay (s)	12.7	12.2	19.4	14.0			<u> </u>					5.054.654.55
Approach Delay (s)	12.7	12.2	19.4	14.0								
Approach LOS	В	B	С	В								
Intersection Summary												
Delay	19.19.2911 19.19.2911		15.6			8888					13743×374	
HCM Level of Service			С									
Intersection Capacity Uti	lization	en gebeelden Gebeure	45.5%	I	CU Leve	l of Ser	vice	u gologo (1950) Galera (1950)	Α			
Analysis Period (min)			15									
<ul> <li>A set of the set of</li></ul>	interiorante de la constante d	ka an indigi ka juli ka anita ( ani	gan an an sao sao sa	0.050453546645555555	ikai-koleisteleine	terilekineni-konatike	and a second second second	den er fan de fan d	har the close we can	salarin karing salaring sa	waanna an ar	0.000

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$			ф.			÷‡+			ф.	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	55	310	70	100	10	120	370	55	5	325	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	61	344	78	111	11	133	411	61	6	361	6
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	411	200	606	372								
Volume Left (vph)	6	78	133	6								
Volume Right (vph)	344	11	61	6								
Hadj (s)	-0,47	0.08	0.02	0.03								
Departure Headway (s)	7.4	8.8	7.7	7.9								
Degree Utilization, x	0.85	0.49	1.30	0.82								
Capacity (veh/h)	471	368	475	442	.,	-,						
Control Delay (s)	39.7	20.0	172.9	37.9								
Approach Delay (s)	39.7	20.0	172.9	37.9								
Approach LOS	E	C	F	E								
Intersection Summary												
Delay			87.6				6161516			(ind), dijese)		
HCM Level of Service			F									
Intersection Capacity Uti	lization		92.5%	(	CU Leve	l of Ser	vice		F			
Analysis Period (min)	t tono dia ama dagener		15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		44			44			4		~~~~~	ф.	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	65	145	25	40	140	245	10	160	20	150	250	45
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	72	161	28	44	156	272	11	178	22	167	278	50
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	261	472	211	494								
Volume Left (vph)	72	44	11	167								
Volume Right (vph)	28	272	22	50				(1999) - 1999 (1999) - 1999 (1999) (1999) 1999 - 1999 (1999) - 1999 (1999) (1999) (1999)				
Hadj (s)	0.03	-0.29	-0.02	0.04					la de agitido e Certificado alta	9 44 5 C		
Departure Headway (s)	8.2	7.2	8.4	7.6								
Degree Utilization, x	0.59	0.95	0.49	1.04								
Capacity (veh/h)	418	489	403	471								
Control Delay (s)	22.5	54.7	19.3	80.5				46,84				
Approach Delay (s)	22.5	54.7	19.3	80.5								
Approach LOS	С	F	С	F								
Intersection Summary												
Delay			52.6					8.8.8	o (ja stala) i	6 AH 65 UV	54 64 69 S	
HCM Level of Service			F									
Intersection Capacity Uti	lization		71.6%	16	CU Leve	l of Ser	vice		С			
Analysis Period (min)			15									
										\$060) <i>10</i> 8/69		

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			÷.			¢.			ф.	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	2
Volume (veh/h)	5	5	15	40	5	40	15	600	20	40	710	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	6	17	44	6	44	17	667	22	44	789	6
Pedestrians		والمتحافظ والمراجع		ale produktionen er samer spa		ant - warne warne warne we					and a second surger wat	
Lane Width (ft)												
Walking Speed (ft/s)									an a	onder internet and a sec		al a construction of the second states of the second states of the second states of the second states of the se
Percent Blockage										9 - 2 - 2 - 4		
Hight turn flare (ven)		<b></b>			s <b>k</b> ar <u>ist</u> ika							89424455445
Median type		ivone			INONE	599.499.367.499	971.090.091.08	1999 S.C. 800				d detundents
linetroam signal (ff)												
opsiream signal (ii)												
vC. conflicting volume	1639	1603	792	1611	1594	678	794			689		
vC1. stage 1 conf vol										~~~		
vC2, stage 2 conf vol												
vCu, unblocked vol	1639	1603	792	1611	1594	678	794	niteriteri tekste sestere		689		in information (2007) and
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	92	94	96	39	94	90	98		-	95		
cM capacity (veh/h)	66	98	389	73	100	452	827			905		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	28	94	706	839		8 8						
Volume Left	6	44	17	44	27 a faith ann fha fhailte fhair ann ann an 19	10 million to an an a state of the same state						
Volume Right	17	44	22	6								
cSH	151	124	827	905	construit construint				progradari Arcine Arigi		yn generaling al fan genige	
Volume to Capacity	0.18	0.76	0.02	0.05						8-8 6 T		
Queue Length 95th (ft)	16	110	2	4	na filikari takini			stasiaisiatikain.	enterinaen etter	essis (Eskonakse vien	egitad Algadetter (ja	adage-futbooksid
Control Delay (s)	34.1	94.2	U.5	1.3			6.08.08%			00.014.000.00		ensenesne
Lane LOS Apprecial Dalou (a)	04 4	г 04 0	A	A								
Approach LOS	୍ତ୍ୟ. । ମ	94.Z	U.5	1.3								
	U	f"				AN (12) 100 100 100 100 100 100 100 100 100 10		fa faaf oo da fi bala aa faan + + -	facture process in the second state.			
Intersection Summary												
Average Delay	ng a 1940 gada		6.8			ine de la companya d	en en antige faithean dhe co-c	والمعادية والمعادين والمعادين				- the state of the
Intersection Capacity Util	lization		74.1%	- K	CU Leve	l of Sen	<i>i</i> ice		D			
Analysis Period (min)			15									



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Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	¥ <b>f</b>		4			<del>ب</del>	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Volume (veh/h)	70	65	555	70	45	690	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vph)	78	72	617	78	50	767	
Pedestrians				eterand sector factor days			
Lane Width (ft)							
Walking Speed (ft/s)					Kasing katalog kasa sa	San	
Percent Blockage							
Hight turn tiare (ven)	Mane					enter serger	
Median storage veh)	INOULE		6.000				
l Instream signal (ft)			600				
nX nlatoon unblocked	0.84	0.84	000		0.84		
vC conflicting volume	1522	656			694		
vC1. stage 1 conf vol		~~~			~~ .		
vC2, stage 2 conf vol							
vCu, unblocked vol	1620	591	ala 200 kardadari	deniserin destructio	637		
tC, single (s)	6.4	6.2			4.1		
tC, 2 stage (s)							
tF (s)	3.5	3.3			2.2		
p0 queue free %	13	83			94		
cM capacity (veh/h)	90	427			797		
Direction, Lane #	WB 1	NB 1	SB 1				
Volume Total	150	694	817	8.15 3.3			
Volume Left	78	0	50				
Volume Right	72	78	0				
cSH	145	1700	797	ومحافظتهم ومعروفا ومحاور			
Volume to Capacity	1.04	0.41	0.06	6-60 (203)			
Queue Length 95th (ft)	196	0	5 *********	oglas gegete og state og skale	Si filipite de la secono de la s	an a	
Control Delay (s)	146.6	0.0	1.7				
Lane LUS	+		A				
Approach LOS	146.6 F	0.0	1.7				
Intersection Summary							
Average Delay			14.0				
Intersection Capacity Ut	ilization		37.7%	IC	U Leve	l of Serv	ice E
Analysis Period (min)			15				



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Movement	WBL	WBR	NBT	NBR	SBL	SBT					
Lane Configurations	۲ <b>۲</b>		4			<del>د</del>					
Sign Control	Stop		Free			Free					
Grade	0%		0%			0%					
Volume (veh/h)	30	70	665	40	40	620					
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90					
Hourly flow rate (vph)	33	78	739	44	44	689					
Pedestrians											
Lane Width (ft)											
Walking Speed (ft/s)				····							
Percent Blockage											
Right turn flare (veh)	93535 <b>2</b> 72767647666625		kata agan ta mas kata ayan.	an a		a da seria da desta da esta a como de seria	n og an oar	20mi merbelanibalei	a substantine and the plane of the	wakana katakan tata ya	A-9-2-1.
Median type	None										38 38
Median storage veh)	ini di secondari da	anisanista initia	Soni international						a na sana sa	en andere samelie als als als and	
Upstream signal (ff)	A A F					667					
pX, platoon unblocked	0.85		terri potenciali	Negan Sigai (Sanita							200
vc, conflicting volume	1539	/61			/83						
VC1, stage 1 cont vol			Suctoria		noseneeneese				ASIASAASAAS		
VCZ, Stage Z Cont VO	1007	701			700			ay ala ay ang ang ay	960492993995		Sec.
tC. cincle (a)	1037	101			/83						1943
tC, Single (s)	0.4	0.4			4,1						
(C, 2  slaye  (3))	2 5	22			20						is d
n (s)	62 62	0.0 81			<b>2.2</b> Q5						.988
cM canacity (veh/h)	80	405			935						ieni 1
Disastian Lans #			on 4								aidi Ma
Valuma Tatal	444	700	<u>1 0C</u>								
Volume Loft	111	/03	133								<u>555</u>
Volume Leit Volume Dieht	აა 70	U A A	44 A				1950) BL (B) (S)	enteritaria:			588
	106	1700	00E	yacı aştır. Guran	o denide de co		netholige and a second	der der der ord			Sard (
Volume to Canacity	0.57	0.46	000 20 0								
Oueue Length 95th (ft)	76	0.40 A	0.00 /			aan oo ah					2322
Control Dolay (e)	70 45 1	0	+ 1 /	della del				station in the second			
Lane LOS	F		ι								1950
Annroach Delay (e)	45.1	0.0	14								
Approach LOS	F										2668
	-										6820M
intersection Summary			~ ~ ~								
Average Delay			3.7								5869
Intersection Capacity UI	ilization		/8.1%	i c	U Leve	l of Service			J		
Analysis Period (min)			15								



	٠	$\mathbf{F}$	•	Ť	¥	1				
Movement	EBL	EBR	NBL	NBT	SBT	SBR				
Lane Configurations	<b>k</b> ∤ <b>f</b>			र्स	1					
Sign Control	Stop			Free	Free					
Grade	0%		ويريد ويروي والمحاصر ويرو	0%	0%	a na manazarta da sa	andersteinen och med och som	en en greger van de skriveren en gebeuren.	andrasti da da serencia da mante da s	
Volume (veh/h)	5	20	170	710	625	25				
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				
Hourly flow rate (vph)	6	22	189	789	694	28				
Pedestrians										
Lane Width (ft)										
Walking Speed (ft/s)										
Percent Blockage					12 2 8 2			5.5.31-61(G		
Right turn flare (veh)										
Median type	None									e esta seta del terretoria. El referencia del terretoria del terretoria del terretoria del terretoria del terretoria del terretoria del ter
Median storage veh)										
Upstream signal (ft)				1089	959					
pX, platoon unblocked	0.76	0.90	0.90	وعوما وحمائنا محتائل ورعاعيا وف	n an ann an t-mhainn t-a-an a f-t-	an an ann an Arran a		na da antica da antic		
vC, conflicting volume	1875	708	722							
vC1, stage 1 conf vol	share manieri eri se	anggangangangangangangangangangangangang	Abteri straderitatu otar	a than in the state of the states	A Statement and a statement of the statement					
vC2, stage 2 conf vol										
vCu, unblocked vol	1950	676	692				n gan yang sang sang sang sang sang sang sang s			in an
tC, single (s)	6.4	6.2	4.1				NAR GUILIN			
IC, 2 stage (s)	ik et en generalen der	in an air							- Lothikistan ja suotesta ta	Hopfdysey (oosaa
( <b>⊢</b> ( <b>S</b> )	3.5	3.3								
pu queue tree %	8/ ••	95	//				0190029042905456	an daharin Sintatin	distanta na interna	
civi capacity (ven/n)	42	408	814							
Direction, Lane #	EB 1	NB 1	SB 1							
Volume Total	28	978	722							
Volume Lett	6	189	0	igiliya ganasana a					gentelsenten terret dere dem	
Volume Hight	22	0	28							
CSH Veloce to Occasion	148	814	1700							
Volume to Capacity	0,19	0.23	0.42							
Queue Length 95th (ft)	1/ ი/ი	22 e o	U							iya ayaa ahaa ahaa ah
Long LOS	34.9 D		U.U					gado centra cin		
Lane LUS Approach Dolou (c)	0 2000	A	~~~	i de cara de la cara d						
Approach LOS	୍ ୦୫.୫ D	0.0	U.U							
Interpretion Cummer										
Average Delay										
Average Delay	11:		 ১.৬					a and a second second	Selder datable for the	
Intersection Capacity Ut	Inzation		94.5%	IC	U Leve	I OF SERVICE		F		
Analysis Period (min)			15							



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Movement	EBL	EBT	EBA	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	۲	<b>1</b> .		ሻ	4Î			<b>4</b>			4	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	12	11	11	14	14	14	11	11	11
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Fit	1.00	0.98		1.00	0.99			0.98			0.98	
Flt Protected	0.95	1.00		0.95	1.00			1.00			0.99	
Satd. Flow (prot)	1711	1831		1770	1788			1932			1747	
Flt Permitted	0.25	1.00		0.49	1.00			0.96			0.86	
Satd. Flow (perm)	446	1831	ê tir ê si	922	1788		<u> </u>	1865			1527	
Volume (vph)	40	270	35	40	510	25	25	235	55	45	135	30
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	44	300	39	44	567	28	28	261	61	50	150	33
RTOR Reduction (vph)	0	6	0	0	2	0	0	7	0	0	6	0
Lane Group Flow (vph)	44	333	0	44	593	0	0	343	0	0	227	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	21.6	21.6		21.6	21.6			14.5			14.5	
Effective Green, g (s)	22.6	22.6		22.6	22.6			15.5			15.5	
Actuated g/C Ratio	0.45	0.45		0.45	0.45			0.31			0.31	
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	199	816		411	797	9. 40 AS 40		570			467	
v/s Ratio Prot		0.18			c0.33							
v/s Ratio Perm	0.10			0.05				c0.18			0.15	
v/c Ratio	0.22	0.41		0.11	0.74			0.60			0.49	
Uniform Delay, d1	8.6	9.5		8.2	11.6			15.0			14.4	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.6	0.3		0.1	3.8			1.8	96. s ø		0.8	
Delay (s)	9.2	9.9		8.3	15.4			16.8	- 1 - A contra turo cui un torco da		15.2	
Level of Service	A	A		A	B			В			В	
Approach Delay (s)	sungersets states	9.8	i de la competencia d	ter en	14.9	an a	والمراجع والمراجع والمراجع	16.8			15.2	en an
Approach LOS		A			B			В			В	
Intersection Summary												
HCM Average Control D	lelay		14.1	H see a	ICM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.61				n, ann na hErnether	aa soo aasaa ahaa da ka	eren rendere	n an	un september te sestérie	seeda a the statistic
Actuated Cycle Length (	s)		50.7	S	um of lo	ost time	(S)		8.0			90004903
Intersection Capacity Uti	ilization	1	62.3%	IC	CU Leve	of Serv	/ice		В			
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	*			<b>1</b> 4		۲	4				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	10	10	16	16	16	10	11	11	12	12	12
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0				
Lane Util. Factor	1.00	1.00			1.00		1.00	1.00				
Frt	1.00	1.00			0.98		1.00	0.98				
Fit Protected	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (prot)	1888	1739			1871		1652	1764				
Flt Permitted	0.31	1.00			1.00		0.95	1.00				
Satd. Flow (perm)	615	1739			1871	8.8.8.9	1652	1764				
Volume (vph)	15	315	0	0	500	65	105	190	30	0	0	0
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	350	0	0	556	72	117	211	33	0	0	0
RTOR Reduction (vph)	0	0	0	0	5	0	0	6	0	0	0	0
Lane Group Flow (vph)	17	350	0	0	623	0	117	238	0	0	0	0
Parking (#/hr)				0	0	0						
	Perm				******		Perm					
Protected Phases		2			6			8				
Permitted Phases	2	ara (1999) 1993 (Arabara	and a province sector of a pro-	integrand werneningd	an a	a Bangan da Sananga Angalan yana mita kana sa	8	er og fall filligere (tealford)				
Actuated Green, G (s)	27.2	27.2			27.2		10.5	10.5				
Effective Green, g (s)	28.2	28.2	(hadagool (beraenae)	nenedia de Atra de estado de Atra	28.2	nga tangang nganangangan Ag	11.5	11.5	en el triber d'Anne a l'Anne e	a ne valen en alter an el de		logane sociali sur-
Actuated q/C Ratio	0.56	0.56			0.56		0.23	0.23				
Clearance Time (s)	5.0	5.0		na Provinsi Denvinske Alexan	5.0		5.0	5.0			,	
Vehicle Extension (s)	3.0	3.0	ol noroda oliv Service della		3.0	ala depuis selecteration de context selecteration	3.0	3.0				
Lane Grp Cap (vph)	346	979			1053		379	405				
v/s Ratio Prot		0.20			c0.33			c0.13				
v/s Ratio Perm	0.03	an a					0.07					ogelgessense
v/c Batio	0.05	0.36			0.59		0.31	0.59	5 (5 de ces	()		
Uniform Delay, d1	4.9	6.0			7.2		16.0	17.2		ali de la construcción de la const La construcción de la construcción d		
Progression Factor	1.00	1.00			1.00		1.00	1.00				
Incremental Delay, d2	0.1	0.2		9999099222660000	0.9	ientos Centrol Charles and	0.5	2.2	anasta instantina (	seennes methodox	a neel ta celette ta celet	
Delay (s)	5.0	6.2			8.1		16.5	19.4		i izaz		
Level of Service	Α	Α	ang pangga bertakan di bara.		A		В	В			en en destanten en e	
Approach Delay (s)		6.2			8.1			18.4			0.0	
Approach LOS		A		ni ni statio popio	Α			В			Α	0000000000
Intersection Summary												
HCM Average Control D	elay		10.3	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio	ka giai	0.56	6.6.6.0							6.6.2.2	
Actuated Cycle Length (s	s)		50.1	S	um of lo	ost time	(s)		8.0			
Intersection Capacity Uti	lization		48.7%	IC	U Leve	l of Serv	/ice		Α			
Analysis Period (min)			15									
c Critical Lane Group						9 T G S					***	

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	۲	τ.		ሻ	<b>k</b>	*		£.		٣	*	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	11	11	12	12	12	10	10	12
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0		4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	an an an tha fail an tha an differences	1.00	- (	1.00	1.00	1.00
Frt	1.00	0.99	e an	1.00	1.00	0.85		0.99	ener og det Stelenske	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.99		0.95	1.00	1.00
Satd. Flow (prot)	1540	1665		1711	1801	1531		1647		1652	1739	1583
Flt Permitted	0.44	1.00		0.58	1.00	1.00		0.94		0.78	1.00	1.00
Satd. Flow (perm)	718	1665		1043	1801	1531		1558		1358	1739	1583
Volume (vph)	30	205	10	40	335	135	10	55	5	65	170	50
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	33	228	11	44	372	150	11	61	6	72	189	56
RTOR Reduction (vph)	0	2	0	0	0	82	0	3	0	0	0	37
Lane Group Flow (vph)	33	237	0	44	372	68	0	75	0	72	189	19
Parking (#/hr)	0	0	0			338E	0	0	0			
Turn Type	Perm			Perm		Perm	Perm			pm+pt		Perm
Protected Phases		2			6			8	n de Kenser	7	4	
Permitted Phases	2			6		6	8			4		4
Actuated Green, G (s)	26.8	26.8		27.9	27.9	27.9		10.0		20.2	20.2	20.2
Effective Green, g (s)	27.8	27.8		28.9	28.9	28.9		11.0		21.2	21.2	21.2
Actuated g/C Ratio	0.44	0.44		0.46	0.46	0.46		0.17		0.33	0.33	0.33
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0		5.0		5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0		3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	314	729		475	820	697		270		482	581	528
v/s Ratio Prot		0.14			c0.21					0.01	c0.11	
v/s Ratio Perm	0.05			0.04		0.04		0.05		0.04		0.01
v/c Ratio	0.11	0.33	8 3 8 8	0.09	0.45	0.10		0.28		0.15	0.33	0.04
Uniform Delay, d1	10.5	11.7		9.8	11.9	9.9		22.8		15.6	15.8	14.3
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00
Incremental Delay, d2	0.1	0.3		0.1	0.4	0.1		0.6		0.1	0.3	0.0
Delay (s)	10.7	12.0		9.9	12.3	9.9		23.4		15.8	16.1	14.3
Level of Service	В	В		А	В	Α		С		В	В	В
Approach Delay (s)		11.8			11.5			23.4			15.7	
Approach LOS		В			В			С			В	
Intersection Summary												
HCM Average Control D	elay		13.4	Н	ICM Lev	el of Se	ervice		В			
HCM Volume to Capacit	y ratio		0.36									
Actuated Cycle Length (	s)		63.5	S	um of lo	ost time	(s)		8.0			
Intersection Capacity Uti	lization		46.1%	)I	CU Leve	of Ser	vice		Α			
Analysis Period (min)			15									
c Critical Lane Group				(3.09) (3.04)		943 GAS						

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		र्भ	7	ሻ	4			र्भ	7	ሻ	<b>1</b> -	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	12	12	16	12	12	12
Total Lost time (s)		4.0	4.0	4.0	4.0			4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	
Frt		1.00	0.85	1.00	0.97			1.00	0.85	1.00	0.99	
Flt Protected		1.00	1.00	0.95	1.00			0.98	1.00	0.95	1.00	
Satd. Flow (prot)		1736	1478	1486	1517			1830	1794	1593	1836	
Fit Permitted		0.99	1.00	0.62	1.00			0.87	1.00	0.57	1.00	
Satd. Flow (perm)		1718	1478	964	1517		5 G O S	1619	1794	952	1836	
Volume (vph)	5	200	45	20	275	70	80	145	25	20	50	5
Peak-hour factor, PHF	0,90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	6	222	50	22	306	78	89	161	28	22	56	6
RTOR Reduction (vph)	0	0	30	0	12	0	0	0	11	0	3	0
Lane Group Flow (vph)	0	228	20	22	372	0	0	250	17	22	59	0
Parking (#/hr)				0	0	0	0			0		
Turn Type	Perm		Perm	Perm			Perm		Perm	Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6			8		8	4		
Actuated Green, G (s)		15.9	15.9	15.9	15.9			12.8	12.8	12.8	12.8	
Effective Green, g (s)		16.9	16.9	16.9	16.9			13.8	13.8	13.8	13.8	
Actuated g/C Ratio		0.39	0.39	0.39	0.39			0.32	0.32	0.32	0.32	
Clearance Time (s)		5.0	5.0	5.0	5.0			5.0	5.0	5.0	5.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0			3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		664	572	373	587			511	567	301	580	
v/s Ratio Prot					c0.25						0.03	
v/s Ratio Perm		0.13	0.01	0.02				c0.15	0.01	0.02		
v/c Ratio	19 9 E 5	0.34	0.03	0.06	0.63			0.49	0.03	0.07	0.10	
Uniform Delay, d1		9.5	8.3	8.4	10.9			12.1	10.3	10.5	10.6	
Progression Factor		1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.3	0.0	0.1	2.2			0.7	0.0	0.1	. 0.1	
Delay (s)		9.8	8.4	8.5	13.1			12.8	10.3	10.6	10.6	
Level of Service	ara-araantara ta'a ta'a	Α	Α	Α	В			В	В	В	В	
Approach Delay (s)		9.5			12.9			12.6			10.6	
Approach LOS		Α			В			В			В	
Intersection Summary												
HCM Average Control De	elay	ta an	11.7	H	ICM Lev	el of Se	rvice	the second of the second	В			
HCM Volume to Capacity	y ratio		0.49	- 19: 53: 53: 6					6.499			
Actuated Cycle Length (s	3) Deservations	an dage kalina salah sarah s	43.7	S	Sum of k	ost time i	(s)		8.0	nanatanat toto to to		annailte an
Intersection Capacity Util	lization		44.1%	K	CU Leve	of Sen	/ice		A			
Analysis Period (min)	lan kanalari kara di kara ta		15	an a								an ta ta na tat fan dae
c Critical Lane Group												



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Movement	EBL2	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR2	SBL	SBT	SBR
Lane Configurations		<u>.</u>			đ.			44			Ĵ.	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	14	14	14	12	12	12	16	16	16
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00		, "	1.00	
Frt		0.95			0.98			1.00			1.00	
Flt Protected		0.99			0.99			1.00			1.00	******************
Satd, Flow (prot)		1752			1923			1856			2103	
Flt Permitted		0.96			0.96			0.98			0.99	
Satd. Flow (perm)	19 (9. % S	1701		3 6 5 5	1861			1826			2082	
Volume (vph)	10	30	25	5	20	5	20	465	5	5	235	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	11	33	28	6	22	6	22	517	6	6	261	6
RTOR Reduction (vph)	0	22	0	0	0	0	0	1	0	0	1	0
Lane Group Flow (vph)	0	50	0	0	34	0	0	544	0	0	272	0
Turn Type	Perm			Perm			Perm			Perm	18 18 19 C	
Protected Phases		3			3			2			6	******
Permitted Phases	3			3			2	2		6	6	
Actuated Green, G (s)		15.0			15.0			30.0			30.0	
Effective Green, g (s)		16.0			16.0			31.0			31.0	
Actuated g/C Ratio		0.20			0.20			0.39			0.39	
Clearance Time (s)		5.0			5.0		98.88 C 10	5.0			5.0	
Lane Grp Cap (vph)		340			372			708			807	
v/s Ratio Prot												
v/s Ratio Perm		c0.03			0.02			c0.30			0.13	
v/c Ratio		0.15			0.09			0.77			0.34	
Uniform Delay, d1		26.4			26.1			21.4			17.3	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.9			0.5			7.9			1.1	
Delay (s)		27.3			26.6			29.2			18.4	
Level of Service		С			С			С			В	
Approach Delay (s)		27.3			26.6			29.2			18.4	
Approach LOS		С			С			С			В	
Intersection Summary												
HCM Average Control D	elay		27.0	Н	CM Lev	el of Se	rvice		С			
HCM Volume to Capacity	y ratio		0.57				ġ(g (p))					
Actuated Cycle Length (s	5)		80.0	S	um of lo	ost time	(s)		12.0			
Intersection Capacity Uti	lization		66.3%	See IC	U Leve	l of Sen	/ice		C	is siener		
Analysis Period (min)			15									
c Critical Lane Group												

	<b>6</b>	4	~	t
Movement	SWL2	SWL	SWR S	SWR2
Lane Configurations	×;	Ŵ		
Ideal Flow (vphpl)	1900	1900	1900	1900
Lane Width	14	14	14	14
Total Lost time (s)	4.0	4.0		
Lane Util. Factor	1.00	1.00		
Frt	1.00	0.98		
Flt Protected	0.95	0.96		
Satd. Flow (prot)	1888	1866		
Flt Permitted	0.95	0.96		
Satd. Flow (perm)	1888	1866		
Volume (vph)	5	225	30	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90
Adj. Flow (vph)	6	250	33	6
RTOR Reduction (vph)	0	1	0	0
Lane Group Flow (vph)	6	288	0	0
Turn Type	Split	9-3-8 S		
Protected Phases	4	4		
Permitted Phases				
Actuated Green, G (s)	20.0	20.0		
Effective Green, g (s)	21.0	21.0		
Actuated g/C Ratio	0.26	0.26		
Clearance Time (s)	5.0	5.0		
Lane Grp Cap (vph)	496	490		
v/s Ratio Prot	0.00	c0.15		
v/s Ratio Perm				
v/c Ratio	0.01	0.59		
Uniform Delay, d1	21.8	25.7		
Progression Factor	1.00	1.00	86 46 ST	8 8 7 4
Incremental Delay, d2	0.0	5.1		
Delay (s)	21.9	30.8		
Level of Service	С	С		·····
Approach Delay (s)		30.7		
Approach LOS		С		
Intersection Summarv				



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		ধ	7		÷.	7	ሻ	4ħ		ኻ	<b>†</b> 1 <sub>4</sub>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	00
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	0.99	an de stander de state de
Flt Protected		0.96	1.00		0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1795	1583		1817	1583	1770	3536		1770	3509	and and an and a second second
Fit Permitted		0.76	1.00		0.82	1.00	0.22	1.00		0.24	1.00	
Satd. Flow (perm)		1410	1583		1536	1583	401	3536		452	3509	
Volume (vph)	60	20	160	15	15	20	275	1045	5	20	745	45
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	67	22	178	17	17	22	306	1161	6	22	828	50
RTOR Reduction (vph)	0	0	152	0	0	19	0	0	0	0	6	0
Lane Group Flow (vph)	0	89	26	0	34	3	306	1167	0	22	872	0
Turn Type	Perm	******	Perm	Perm		Perm	pm+pt			Perm		
Protected Phases		4			8		5	2	9 (\$ 19 (\$ )		6	
Permitted Phases	4		4	8		8	2	al fa an an an gun a' an ann an a'		6		
Actuated Green, G (s)		7.0	7.0		7.0	7.0	33.5	33.5		22.7	22.7	
Effective Green, g (s)		7.0	7.0		7.0	7.0	33.5	33.5		22.7	22.7	
Actuated g/C Ratio		0.14	0.14		0.14	0.14	0.69	0.69		0.47	0.47	
Clearance Time (s)		4.0	4.0		4.0	4.0	3.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		204	228		222	228	469	2442		212	1642	
v/s Ratio Prot							c0.09	0.33			0.25	
v/s Ratio Perm		c0.06	0.02	******	0.02	0.00	c0.36			0.05		
v/c Ratio		0.44	0.11		0.15	0.01	0.65	0.48		0.10	0.53	
Uniform Delay, d1		18.9	18.0		18.2	17.8	4.5	3.5		7.2	9.1	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.5	0.2		0.3	0.0	3.2	0.1		0.2	0.3	
Delay (s)		20.4	18.3		18.5	17.8	7.7	3.6		7.4	9.5	
Level of Service		С	В		В	В	Α	Α		А	Α	
Approach Delay (s)		19.0			18.2			4.5			9.4	
Approach LOS		В			В			А			А	
Intersection Summary												
HCM Average Control D	elay		7.8	Н	CM Lev	/el of Se	ervice		A			
HCM Volume to Capacity	y ratio		0.60									
Actuated Cycle Length (s	5)		48.5	S	um of k	ost time	(s)		8.0			
Intersection Capacity Uti	lization		58.3%	IC	CU Leve	el of Sei	vice		B			
Analysis Period (min)			15									
c Critical Lane Group					gkagyuspolyseu	geologi Abgeleg				SUKSI SANS		

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		र्भ	Ŧ	۲	î,		ሻ	ቶኈ		٢	<b>^</b> î.	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	10	12	16	12	10	10	10	10	10	10
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	0.95		1.00	0.95	e an a chùidh an ann dhe chui
Frt		1.00	0.85	1.00	0.90		1.00	1.00		1.00	0.99	
Flt Protected		0.96	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1728	1478	1770	1906		1652	3300		1652	3273	
Flt Permitted		0.75	1.00	0.71	1.00		0.21	1.00		0.95	1.00	
Satd. Flow (perm)		1349	1478	1329	1906		367	3300		1652	3273	
Volume (vph)	50	10	275	15	5	10	365	1390	10	10	835	55
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	56	11	306	17	6	11	406	1544	11	11	928	61
RTOR Reduction (vph)	0	0	272	0	10	0	0	0	0	0	5	0
Lane Group Flow (vph)	0	67	34	17	7	0	406	1555	0	11	984	0
Turn Type	Perm		Perm	Perm			pm+pt			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2					
Actuated Green, G (s)		7.8	7.8	7.8	7.8		45.9	45.9		0.9	28.3	
Effective Green, g (s)		7.8	7.8	7.8	7.8		46.9	46.9		0.9	29.3	
Actuated g/C Ratio		0.11	0.11	0.11	0.11		0.67	0.67		0.01	0.42	
Clearance Time (s)		4.0	4.0	4.0	4.0		5.0	5.0		4.0	5.0	n in grag
Vehicle Extension (s)		1.0	1.0	1.0	1.0		1.5	1.0		1.0	1.0	
Lane Grp Cap (vph)		150	164	148	212		585	2208		21	1368	
v/s Ratio Prot					0.00		0.18	c0.47		0.01	c0.30	
v/s Ratio Perm		c0.05	0.02	0.01			0.28					
v/c Ratio		0.45	0.21	0.11	0.03		0.69	0.70		0.52	0.72	
Uniform Delay, d1	20.33	29.1	28.3	28.0	27.8		13.1	7.3		34.4	17.0	
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.8	0.2	0.1	0.0		6.7	1.9		10.4	3.3	
Delay (s)		29.9	28.6	28.2	27.8		19.7	9.2		44.8	20.3	
Level of Service		C	С	Ç	С		В	Α		D	С	
Approach Delay (s)	an a	28.8	والمستحد والمركبة الراجع ومحاو		28.0	an a		11,4			20.5	
Approach LOS		C			C	9999	19-19-19-19 19-19-19-19	В			C	
Intersection Summary										-		
HCM Average Control D	elay		16.2	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.63			,			-,			sanan nyiadini
Actuated Cycle Length (	3)	18.63080	70.1	S	um of lo	ost time	(S)		8.0			
Intersection Capacity Uti	lization		65.0%	IC	U Leve	l of Ser	vice		С	a a na a ta ma dina dia aki (harmi		- 1
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				۲	র্ন			412			<u>ት</u> ኩ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	14	12	12	12	12	12	12
Total Lost time (s)				4.0	4.0			4.0			4.0	
Lane Util. Factor				0.95	0.95			0.95			0.95	
Frt				1.00	1.00			1.00			1.00	
Flt Protected				0.95	0.96			1.00			1.00	
Satd. Flow (prot)				1681	1691			3539			3539	
Flt Permitted				0.95	0.96			1.00			1.00	
Satd. Flow (perm)				1681	1691	8.8 SS 61		3539	5 5 6 6	S 10 (19 (1	3539	
Volume (vph)	0	0	0	1365	50	0	0	890	0	0	1195	0
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	1517	56	0	0	989	0	0	1328	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	766	807	0	0	989	0	0	1328	0
Turn Type			7. <u>1</u>	Perm			Perm					
Protected Phases					8			2			6	
Permitted Phases				8			2					
Actuated Green, G (s)				28.0	28.0			28.7			28.7	
Effective Green, g (s)				30.0	30.0			30.7			30.7	
Actuated g/C Ratio				0.44	0.44			0.45			0.45	
Clearance Time (s)				6.0	6.0			6.0			6.0	
Vehicle Extension (s)				3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)				734	738			1581			1581	
v/s Ratio Prot								0.28	en en de la comprese br>La comprese de la comp		c0.38	1999-1997-1997-1997-1997-19
v/s Ratio Perm				0.46	0.48							
v/c Ratio				1.04	1.09			0.63			0.84	-2009-2010-910-2045
Uniform Delay, d1				19.4	19.4		9 10 C S	14.6	9 (S (S ())	gian sering	16.8	
Progression Factor				1.00	1.00			1.00			1.00	
Incremental Delay, d2				45.1	61.6			0.8			4.1	
Delay (s)				64.5	80.9			15.4			20.9	
Level of Service				e E	F			В			C	
Approach Delay (s)		0.0			72.9			15.4			20.9	
Approach LOS	88.8B	A			E		53 (5) (5) (5)	В			C	
Intersection Summary												
HCM Average Control De	əlay		40.5	H	CM Lev	el of Se	rvice		D		1981 1981 1981 19	
HCM Volume to Capacity	ratio		0.96			an maan gan kan saan kan manyk	e e se esta per la cipale i danado	**********************	an na antara ang ang ang ang ang ang ang ang ang an	u en rectulyrdde eindol	n y nem sen en en fan de ferjen fêrfelje.	errenen en de Debi
Actuated Cycle Length (s	)		68.7	S	um of lo	ist time	(s)		8.0	ilene os os		
Intersection Capacity Util	ization	7	78.8%	IC	CU Leve	l of Serv	/ice		D			
Analysis Period (min)			15							in an		
	≯		$\mathbf{i}$	¥	<b>4</b>	×.	1	<b>†</b>	1	1	¥	1
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		44			44			4			4	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	75	40	5	125	10	55	360	60	5	150	10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	83	44	6	139	11	61	400	67	6	167	11
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	133	156	528	183								
Volume Left (vph)	6	6	61	6								
Volume Right (vph)	44	11	67	11								
Hadj (s)	-0.16	0.00	-0.02	0.00				ki osindiselisin Nationalisi				
Departure Headway (s)	6.0	6.1	5.1	5.6								
Degree Utilization, x	0.22	0.26	0.74	0.29								
Capacity (veh/h)	530	522	689	587								,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Control Delay (s)	10.7	11.2	21.4	10.8	2 - 22 - 22 - 22 - 23 - 23 - 23 - 23 -			n sa se se				
Approach Delay (s)	10.7	11.2	21.4	10.8								
Approach LOS	В	В	С	В	ener en en Ener en en	een de nies as in Generalies as in de nies as in de nie Generalies as in de nies as				iana da as Rendonitaria		
Intersection Summary												
Delay			16.4			24						
HCM Level of Service			С									
Intersection Capacity Uti	lization		53.5%		CU Leve	el of Ser	vice		A			
Analysis Period (min)	aprova		15									
Canada San San San San San San San San San Sa										a da an		orindeknikStalet.



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Movement	WBL	WBR	NBT	NBR	SBL	SBT				
Lane Configurations	¥		1.			<del>م</del>				20090000000
Sign Control	Stop		Free			Free				
Grade	0%		0%	,	577.007.007.007.007.007.007.007.007.007.	0%			n an sin an tao an tao an tao an tao an tao ana da tao an tao	data meta
Volume (veh/h)	65	5	545	265	5	555				
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				
Hourly flow rate (vph)	72	6	606	294	6	617				
Pedestrians				a alata indon tanan na	in the state of the					
Lane Width (ft)										
Walking Speed (tt/s)				kelengi di pagengi ngan			94492049929292032949494	uelari ilik etyisetes		gelerinte.
Percent Blockage										
Modion time	Niana	Sidaadalistaa						<u> AND AND AND AND AND AND AND AND AND AND</u>	yezhoù ar ar ar ar ar	
Median storage yeb)	none	9 49 49 AG								
Instream signal (ff)						927				1510M
pX_nlatoon unblocked	0 94					007				
vC. conflicting volume	1381	753			900					
vC1. stage 1 conf vol		• • • •	9990899909999999999 99		~~~					10000
vC2, stage 2 conf vol						a da Giudada ana a				
vCu, unblocked vol	1404	753	han an tha bha an tha an t	ner de ciènne (dans	900		nyuwana aleba aleba aleba aleba		en de march a dracht an arain a dùthair	darek ba
tC, single (s)	6.4	6.2			4.1	l-is in puis and				
tC, 2 stage (s)								n yn energe yn erwyneu yn er		-0-1-1-103
tF (s)	3.5	3.3			2.2					
p0 queue free %	50	99			99					
cM capacity (veh/h)	144	410			755					
Direction, Lane #	WB 1	NB 1	SB 1							
Volume Total	78	900	622							
Volume Left	72	0	6			an a		i ni induli ni nganina ("finaga na hadina garg	e 19 dez - en la segui de la zagen (19 dez 20 de	
Volume Right	6	294	0							
cSH	151	1700	755							
Volume to Capacity	0.52	0.53	0.01	\$7.69.18 (S						
Queue Length 95th (ft)	63	0	1	ti ti sana sa	a Arazza 200 - Arazza Ar		an a	Na patricka (1999)	1. A standing to provide the state of the state of the state	
Control Delay (s)	51.9	0.0	0.2							
Lane LOS	F		A							Canage 1997-
Approach Delay (s)	51.9	0.0	0.2							
Approach LUS	F									
Intersection Summary										
Average Delay			2.6							
Intersection Capacity Ut	ilization		55.4%	IC	U Leve	of Service		B		
Analysis Period (min)			15							

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			ф.			41			412	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	20	0	70	10	0	10	45	1065	5	5	755	60
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	22	0	78	11	0	11	50	1183	6	6	839	67
Pedestrians	-	Santani (matalastar).	a sala katila da antakakisa k		and the state of the state of the state	anan i selet kalalak katalak			en altradecida a la carganezativa e	and an early of the state state.		
Lane Width (ff)												
Walking Speed (IT/s)										di Astalan da		belana ana a
Percent blockage												
Median tune		Nono			None					den de la comp		
Median storage veh)		110110			INVILE							
Upstream signal (ft)			Ó SASAS					1267		e de la centre		
pX, platoon unblocked												
vC, conflicting volume	1586	2172	453	1794	2203	594	906			1189		
vC1, stage 1 conf vol		ana baharan baharan ba	an a	444 (Historia) - 2004 Historia (1994)		-2000 Second House Standing Sta	99-98 ((19-9-80 (19-9) 19-98 ((19-9-80 (19-9)					an a
vC2, stage 2 conf vol												
vCu, unblocked vol	1586	2172	453	1794	2203	594	906			1189		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4,1		
tC, 2 stage (s)	er den fra de t <u>ala</u> n de <u>taran</u> en es	ana ana amin'ny saratra	noon an	dan da mangana sa				e werde betre en staare	an a			an nana samuniasi
i <b>⊢ (s)</b>	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	67	100	86	73	100	98	93	usus os ausos au		99	A yezh di daga si segu si s	300-000-00-00-00-00-00-00-00-00-00-00-00
civi capacity (ven/n)	67	43	554	41	41	448	/4/			583		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	100	22	642	597	425	486						
Volume Left	22	11	50	0	6	0	seri hermitek (dar	si kasardaranya shekari ka	un and a second	Geologi Zanama Anarana		car followed barrenet
	/8	11	0	6	- 0	67						
COR Volume te Conseilu	211	75	/4/	1700	583	1700			silain sin asaa			
	U.47 50	0.30	0.07	0.35	0.01	0.29						
Control Delay /c)	00 26 E	21 70 0	2 10	0	- no	0			gi di di secondo de la consecondo de la con			
Lane LOS	00.0 F	12.U F	Δ Δ	<b>U.U</b>	υ.ο Δ	va						
Approach Delay (s)	365	720	ົດຊົ		ิกา์	9 in in in	5					
Approach LOS	E	F			<b>V</b> . 1							
Intersection Summary												
Average Delay	n al traduction and a traduction		2.9									
Intersection Capacity Uti	lization		69.5%	K	CU Leve	l of Serv	rice		C			
Analysis Period (min)			15									



	}	$\rightarrow$	≮	4	1	1		
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations Sign Control Grade	∲ Free 0%			ি Free ০%	Y Stop			
Volume (veh/h)	195	- 30	110	70	10	40		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90		
Hourly flow rate (vph) Pedestrians Lane Width (ft)	217	33	122	78	11	44		
Walking Speed (ft/s) Percent Blockage Right turn flare (veh)								
Median type Median storage veh) Upstream signal (ft)					None			
pX, platoon unblocked vC, conflicting volume vC1, stage 1 conf vol			250		556	233		
vC2, stage 2 conf vol								
vCu, unblocked vol		1997-1997 (1997-1997) 1997-1997 (1997-1997)	250	1999 (Strafter State 1994)	556	233	ne po meneral e novem e con la electro politica en politica de la construir de la construir de la construir de La construir e novem e construir de la construir	
tC, single (s) tC, 2 stage (s)			4.1		6.4	6.2		
tF (s)			2.2		3.5	3.3		
p0 queue tree %		an ini katalaran	91		98	94		Andrean Constant Constant
civi capacity (ven/n)			1316		447	806		
Direction, Lane #	EB 1	WB 1	NB 1					
Volume Total	250	200	56	S.S.S.S				
Volume Lett	0	122	11					
	1700	1016	44 604					
Volume to Canacity	0.15	0.00	0.94		Series Series			
Queue Length 95th (ft)	0.10	0.00 8	0.00 7					
Control Delay (s)	٥ŏ	52	10.6					
Lane LOS		A	B					
Approach Delay (s) Approach LOS	0.0	5.2	10.6 B					
Intersection Summary								
Average Delay			3.2					
Intersection Capacity Uti	lization		35.2%	IC	U Leve	l of Servic	e A	
Analysis Period (min)	ana ang paga ang paga ang paga ang paga ang pag-	و با ویژی این که در این سری سر در ا	15	a postal se contra politika	n, na mari di sina mpangalan fin	un ann an Airstean 1966 à 1986		and and a state of the second se

	TV	VO-WAY STO	P CONTR	OL SUI	MM/	ARY					
<b>General Information</b>			Site II	nforma	tior	1					
Analyst A cy/Co. Date Performed Analysis Time Period	EJD CHA 2/18/2005 AM PEAK	HOUR	Interse Jurisdic Analysi	ction ction is Year			ROUTE 7 TOWN OI 2008 NO	/LOCI F BUF BUILL	UST/L RLING D	EDGE TON	
Project Description BUI	RLINGTON										
East/West Street: LOCU	ST/LEDGE		North/S	South Str	eet:	ROUTE 7	7				
Intersection Orientation:	North-South		Study F	Period (h	rs):	0.25					
Vehicle Volumes and	d Adjustments	6									
Major Street		Northbound					Southbo	und			
Movement	1	2	3			4	5		ļ	6	
Valuma		1	H				1		ļ	<u></u>	
Poak Hour Easter DHE		830	250	,		<u> </u>	0.00		<b> </b>	15	
Hourly Flow Rate HER	0.90	0.90	0.90	, , , , , , , , , , , , , , , , , , , ,		<u>0.90</u>	0.90		<u> </u>	16	
Percent Heavy Vehicles	0		2//			2					
Median Type				Undivi	ided						
BT Channelized			1 0	0.10.11	ucu				1	0	
Lanes	0	2	- o	· · · ·		0	1		<b> </b>	0	
Configuration		<u> </u>	TR			LTR			<u> </u>		
Upstream Signal		0					0		İ.		
Minor Street		Westbound		T			Eastbou	nd			
Movement	7	8	9			10 1				12	
	L	Т	R		L.		Т			R	
Volume	0	0	60			0	15			85	
Pr Hour Factor, PHF	0.90	0.90	0.90			0.90	0.90			0.90	
Heary Flow Rate, HFR	0	0	66		0	16			94		
Percent Heavy Vehicles	0	0	2			0	2		:	2	
Percent Grade (%)		0	-				0				
Flared Approach		N					N				
Storage		0					0				
RT Channelized			0							0	
Lanes	0	0	1			0	1			0	
Configuration			R							TR	
Delay, Queue Length, an	d Level of Servic	e									
Approach	NB	SB		Westbou	und			Eastb	ound		
Movement	1	4	7	8		9	10	1	1	12	
Lane Configuration		LTR				R		1		TR	
v (vph)		5				66		1		110	
C (m) (vph)		578				444				235	
v/c		0.01				0.15		f		0.47	
95% queue length		0.03				0.52		[ [		2.30	
Control Delay		11.3			-+	14 5				33.1	
IOS					-+	B					
Approach Delay				11 =		<u>ل</u>		22	1		
Approach LOS		<del></del>	14.5				33.1				
Approach EOS			L	B			D				

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	T١	<b>NO-WAY STO</b>	P CONTRO	OL SUMN	/IARY				
<b>General Information</b>			Site Ir	nformatic	on				
Analyst A ɔy/Co. Daಚ Performed Analysis Time Period	EJD CHA 2/18/2005 AM PEAK	HOUR	Intersed Jurisdic Analysi	ction ction s Year		ROUTE 7 TOWN 0 2008 NO	r/SOUTH F BURLI BUILD	I WILLARD INGTON	
Project Description BU	RLINGTON								
East/West Street: SOUT	H WILLARD		North/S	outh Street	t: ROUTE ;	7			
Intersection Orientation:	North-South		Study F	eriod (hrs):	. 0.25				
Vehicle Volumes and	d Adjustments	3							
Major Street		Northbound			,	Southbo	und		
iviovement	1	<u>- <u>2</u></u>	3		4	5		6	
Volume	70	760				620		<u>n</u>	
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90	
Hourly Flow Rate, HFR	77	844	0		0	688		0	
Percent Heavy Vehicles	2				2				
Median Type				Undivide	d				
RT Channelized			0					0	
Lanes	0	1	0		0	1		0	
Configuration	LT					T			
Upstream Signal		0				0			
Minor Street		Westbound				Eastbou	ind		
Movement	7	8	9		10	11		12	
	L	Т	R			Т		R	
Volume	0	140	0		0	0		0	
Pe Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90	
Record Heavy Vehicles	0	155	0		0	0		0	
Percent Freado (%)	0	<u>∠</u>	<u> </u>		U		<b>I</b>	2	
Fercent Grade (%)			T						
Flared Approach		N				N N			
Storage		U				0			
HI Channelized			0		-			0	
Lanes	0	7			0	0		0	
						L			
Delay, Queue Length, an	Id Level of Servic	20 20	T	Moothoung	4	1	Costhou	up d	
Movomont	4	30	7	vesibourio		10			
	1	4	/	0	3	10		12	
Lane Configuration	L1 77				165				
v (vpH)	//				155		<b></b>		
	300				/8	<b> </b>			
	0.08				1.99				
95% queue length	0.28				13.83		<b>_</b>		
Control Delay	9.3				574.3				
LOS	A				F				
Approach Delay	• *		574.3						
Approach LOS			1	F					

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## NO-BUILD ALTERNATIVE 2008 PM PEAK HOUR

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		ন	7		÷.	7		412		ሻ	14	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0		4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00		0.95		1.00	1.00	
Frt		1.00	0.85		1.00	0.85		0.98		1.00	0.99	
Fit Protected		0.98	1.00		0.97	1.00		0.99		0.95	1.00	
Satd. Flow (prot)		1832	1583		1811	1583		3449		1770	1838	
Fit Permitted		0.86	1.00		0.78	1.00		0.86		0.95	1.00	
Satd. Flow (perm)		1604	1583		1446	1583		2997		1770	1838	
Volume (vph)	25	50	45	100	75	395	60	400	70	295	300	30
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	28	56	50	111	83	439	67	444	78	328	333	33
RTOR Reduction (vph)	0	0	39	0	0	177	0	0	0	0	0	0
Lane Group Flow (vph)	0	84	11	0	194	262	0	589	0	328	366	0
Turn Type	Perm		Prot	Perm		pt+ov	Perm		с	ustom		
Protected Phases		4	4		8	81		2		1 (	6	
Permitted Phases	4			8			2			1		
Actuated Green, G (s)		13.7	13.7		13.7	29.5		17.6		15.8	38.4	
Effective Green, g (s)		14.7	14.7		14.7	31.5		18.6		16.8	39.4	
Actuated g/C Ratio		0.22	0.22		0.22	0.47		0.28		0.25	0.59	
Clearance Time (s)		5.0	5.0		5.0			5.0		5.0	5.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		352	348		318	745		833		444	1082	
v/s Ratio Prot			0.01			0.17				c0.19	0.20	
v/s Ratio Perm		0.05			c0.13			c0.20				
v/c Ratio		0.24	0.03		0.61	0.35		0.71		0.74	0.34	
Uniform Delay, d1		21.5	20.5		23.5	11.2		21.7		23.0	7.1	
Progression Factor		1.00	1.00		1.00	1.00		1.00		1.00	1.00	
Incremental Delay, d2		0.4	0.0		3.4	0.3		2.8		6.3	0.2	
Delay (s)		21.8	20.5		27.0	11.5		24.5		29.4	7.2	
Level of Service		С	С		С	В		С		С	А	
Approach Delay (s)		21.4			16.2			24.5			17.7	
Approach LOS		С			В			С			В	
Intersection Summary												
HCM Average Control D	elay		19.4	Н	CM Lev	el of Se	ervice		В			
HCM Volume to Capacit	y ratio		0.63									
Actuated Cycle Length (	s)		66.9	S	um of le	ost time	(S)		12.0			
Intersection Capacity Uti	lization		58.8%	IC	CU Leve	el of Ser	vice		В		59 (S) (S)	
Analysis Period (min)			15		a sa sa ta ta ta ta ta							
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	۲	4			4			4			¢.	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00			1.00			1.00			1.00	
Frt	1.00	0.99			0.90			0.99			0.99	
Fit Protected	0.95	1.00			1.00			1.00			0.99	
Satd. Flow (prot)	1770	1840			1673			1842			1818	
Flt Permitted	0.66	1.00			0.99			0.99			0.76	
Satd. Flow (perm)	1233	1840			1657			1832			1410	
Volume (vph)	50	60	5	10	35	125	5	355	30	120	290	35
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	56	67	6	11	39	139	6	394	33	133	322	39
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	56	73	0	0	189	0	0	433	0	0	494	0
Turn Type	Perm			Perm			Perm			Perm	*****	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	22.6	22.6			22.6			23.4			23.4	
Effective Green, g (s)	23.6	23.6			23.6			24.4			24.4	
Actuated g/C Ratio	0.42	0.42			0.42			0.44			0.44	
Clearance Time (s)	5.0	5.0			5.0			5.0			5.0	
Vehicle Extension (s)	3.0	3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)	520	775			698			798			614	
v/s Ratio Prot		0.04										
v/s Ratio Perm	0.05			1.1911.1.1011.1.191	c0.11		ali ta da se na facilar a dast	0.24	2010-000-000-000-000-000-000-000-000-000		c0.35	ang meriodi si sa mali sa
v/c Ratio	0.11	0.09			0.27		las non der tod Comberstanien	0.54			0.80	
Uniform Delay, d1	9.8	9.8			10.6			11.7			13.7	4040-04900-0490
Progression Factor	1.00	1.00			1.00			1.00			1.00	
Incremental Delay, d2	0.4	0.2			1.0			0.8			7.6	
Delay (s)	10.2	10.0			11.5			12.4			21.3	
Level of Service	В	В			В			В			С	
Approach Delay (s)		10.1			11.5			12.4			21.3	
Approach LOS		В			В			В			С	
Intersection Summary												
HCM Average Control D	elay		15.6	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.54									
Actuated Cycle Length (s	5)		56.0	S	um of lo	ost time	(s)		8.0			
Intersection Capacity Uti	lization		71.7%	IC	U Leve	l of Serv	/ice		С			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			¢Ĵ,	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor	for a factor of	1.00			1.00			1.00			1.00	
Frt		0.99			0.88			0.95			0.99	
Flt Protected		0.98			1.00			1.00			0.96	
Satd. Flow (prot)		1746			1575			1706			1710	
Flt Permitted	ta parte a construction de la construcción de la construcción de la construcción de la construcción de la const	0.79			1.00			1.00			0.70	
Satd. Flow (perm)		1403			1571			1706			1255	
Volume (vph)	45	45	5	5	20	305	0	40	25	265	20	20
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	50	50	6	6	22	339	0	44	28	294	22	22
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	106	0	0	367	0	0	72	0	0	338	0
Turn Type	Perm			Perm			Perm			om+pt		
Protected Phases		4	1.1		8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		21.6		and south to south the	21.6		a faaf oo doo oo oo oo doo oo	32.3			31.3	
Effective Green, g (s)		21.6			21.6			32.3			32.3	
Actuated g/C Ratio	variji da boje esta de s	0.35	an en an	a de marte amos d'alte	0.35	eren berdaria atar en arr		0.52			0.52	
Clearance Time (s)		4.0			4.0		S. 5. 6	4.0			5.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		490	Senter Shoes		548			890			655	
v/s Ratio Prot	an an an an an an an an an an an an an a	- Alexandra and a stand a stand		ter an an an an an an an an an an an an an	and the objection	the state of the state		0.04				
v/s Ratio Perm		0.08			c0.23				en en en en en en en en en en en en en e		c0.27	
v/c Ratio		0.22	in and the second second		0.67	Salah salah salah salah salah salah salah salah salah salah salah salah salah salah salah salah salah salah sa		0.08			0.52	an an an an an an an an an an an an an a
Uniform Delay, d1		14.2			17.1			7.4			9.7	
Progression Factor	ninini ili primita	1.00			1.00	erster store to be defende	personala de la composicione de la composicione de la composicione de la composicione de la composicione de la	1.00	n an tha an tha an tha an tha an tha an tha an tha an tha an tha an tha an tha an tha an tha an tha an tha an t		1.00	ha sear-mitchink fe
Incremental Delay, d2		1.0	660-960-950-970		6.4	AV TONGOLOG		0.0			0.7	
Delay (s)		15.2		algejinske kleme	23.5	second second		1.4	ahalistadak taken		10.4	www.
Level of Service		45.0			00 5			A			10 K	
Approach Delay (s)		15.2		Video Altor (meni Marg	23.5			/.4			10.4	84400-5955
Approach LOS		D			U.			A			В	
Intersection Summary												
HCM Average Control D	elay		16.2	H	CM Lev	el of Se	rvice		В			
HCM Volume to Capacity	y ratio	and and a set of a sum of a set	0.58					·				
Actuated Cycle Length (s	5)		61.9	്ട	um of lo	ost time	(S)		8.0			
Intersection Capacity Util Analysis Period (min)	lization	:	59.0% 15	IC	CU Leve	l of Ser	vice		В			



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			÷.	7		र्स	7		44	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0		4.0	4.0		4.0	
Lane Util. Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Frt		0.97			1.00	0.85		1.00	0.85		0.99	
Flt Protected		1.00			0.99	1.00		0.97	1.00		0.99	
Satd. Flow (prot)		1803			1845	1583		1808	1583		1819	
Fit Permitted		0.99			0.87	1.00		0.66	1.00		0.81	
Satd. Flow (perm)		1781			1627	1583		1224	1583		1502	
Volume (vph)	10	260	80	70	290	40	135	90	70	70	150	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	11	289	89	78	322	44	150	100	78	78	167	17
RTOR Reduction (vph)	0	0	0	0	0	24	0	0	56	0	0	0
Lane Group Flow (vph)	0	389	0	0	400	20	0	250	22	0	262	0
Turn Type	Perm			Perm		Perm	Perm		Perm	Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6		6	8		8	4		
Actuated Green, G (s)		21.1			21.1	21.1		13.0	13.0		13.0	
Effective Green, g (s)		22.1			22.1	22.1		14.0	14.0		14.0	
Actuated g/C Ratio		0.45			0.45	0.45		0.29	0.29		0.29	
Clearance Time (s)		5.0			5.0	5.0		5.0	5.0		5.0	
Vehicle Extension (s)		3.0			3.0	3.0		3.0	3.0		3.0	
Lane Grp Cap (vph)		808			738	718		352	455		432	
v/s Ratio Prot												
v/s Ratio Perm		0.22			c0.25	0.01		c0.20	0.01		0.17	
v/c Ratio		0.48			0.54	0.03		0.71	0.05		0.61	
Uniform Delay, d1		9.3			9.6	7.4		15.5	12.5		15.0	
Progression Factor		1.00	9.08×3513		1.00	1.00	-52-69-65-4	1.00	1.00		1.00	
Incremental Delay, d2		0.5			0.8	0.0		6.6	0.0		2.4	
Delay (s)		9.7			10.5	7.4		22.1	12.6		17.4	
Level of Service		A	for far and a second state	det with a new state of several	В	A		С	В		В	
Approach Delay (s)		9.7			10.1			19.9			17.4	
Approach LOS		A			В			В			В	
Intersection Summary												
HCM Average Control D	elay		13.6	Н	CM Lev	el of Se	ervice		В			
HCM Volume to Capacit	y ratio		0.54									
Actuated Cycle Length (	s)		48.7	S	um of k	ost time	(s)		8.0			
Intersection Capacity Uti	ilization		71.3%	10	CU Leve	el of Ser	vice		C			
Analysis Period (min)			15									
c Critical Lane Group												



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Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations	ሻ	*	٣	<b>∱</b>	4	7		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Width	11	12	11	12	11	12		
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00		
Frt	1.00	0.85	1.00	1.00	1.00	0.85		
Fit Protected	0.95	1.00	0.95	1.00	1.00	1.00		
Satd. Flow (prot)	1711	1583	1711	1863	1801	1583		
Flt Permitted	0.95	1.00	0.13	1.00	1.00	1.00		
Satd. Flow (perm)	1711	1583	231	1863	1801	1583		
Volume (vph)	135	285	110	535	895	80		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90		
Adj. Flow (vph)	150	317	122	594	994	89		
RTOR Reduction (vph)	0	106	0	0	0	31		
Lane Group Flow (vph)	150	211	122	594	994	58		
Turn Type		Prot	Perm			Perm		
Protected Phases	4	4		2	6			
Permitted Phases			2			6		
Actuated Green, G (s)	13.4	13.4	40.0	40.0	40.0	40.0		
Effective Green, g (s)	14.4	14.4	41.0	41.0	41.0	41.0		
Actuated g/C Ratio	0.23	0.23	0.65	0.65	0.65	0.65		
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	389	360	149	1205	1165	1024		
v/s Ratio Prot	0.09	c0.13		0.32	c0.55	, (, ) ) (, ) (, ) (, ) (, ) (, ) (, )	energen en de fan de	unde de mandera al parte de la companya de la companya de la companya de la companya de la companya de la comp
v/s Ratio Perm			0.53			0.04		
v/c Ratio	0.39	0.59	0.82	0.49	0.85	0.06		
Uniform Delay, d1	20.8	21.8	8.4	5.8	8.8	4.1		
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		an an an an an an an an an an an an an a
Incremental Delay, d2	0.6	2.4	37.4	1.4	8.0	0.1	e de la constante de la constan Constante de la constante de la	
Delay (s)	21.4	24.3	45.8	7.3	16.8	4.2	anna a mar ann an ann ann ann ann ann ann ann an	
Level of Service	С	C	D	A	В	Α		
Approach Delay (s)	23.4			13.8	15.8	e e e regel e e estre transferteur e transferteur		nan anyan an' amin' a Amin' amin'
Approach LOS	C			В	В			
Intersection Summary								
HCM Average Control D	elay		16.7	ŀ	ICM Le	vel of Service	В	
HCM Volume to Capacit	y ratio		0.78					
Actuated Cycle Length (	s)		63.4	S	Sum of I	ost time (s)	8.0	
Intersection Capacity Uti	ilization		77.1%	][	CU Leve	el of Service	D	i e e e e e entre nue no sue pro trauta natura. Va uta a f
Analysis Period (min)		hei ozoogo (M	15					

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			¢‡,			4		ሻ	î.	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	14	12	12	14	12	12	14	12	11	11	12
Total Lost time (s)		4.0			4.0			4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00			1.00		1.00	1.00	
Fit		0.98			0.92			0.99		1.00	0.99	
Flt Protected		0.98			1.00			1.00		0.95	1.00	
Satd. Flow (prot)		1915			1824			1970		1711	1775	
Flt Permitted		0.57			0.96		en an	0.70		0.31	1.00	
Satd, Flow (perm)		1108			1756			1376	0	562	1775	
Volume (vph)	105	130	35	30	120	205	15	360	20	285	770	80
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	117	144	39	33	133	228	17	400	22	317	856	89
RTOR Reduction (vph)	0	7	0	0	64	0	0	3	0	0	4	0
Lane Group Flow (vph)	0	293	0	0	330	0	0	436	0	317	941	0
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases	ta anton torono dua danasi	4	un la destruction de la comp	www.com	8	an ann an tartainn an tartai	an and a star and a star	2	en foto e an ancarta	1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	Ala faran ya kata ƙasar ƙasar ƙasar ƙasar ƙasar ƙasar ƙasar ƙasar ƙasar ƙasar ƙasar ƙasar ƙasar ƙasar ƙasar ƙa	21.3		an sin sin a sin a sin a	21.3	un un este anti attach an an 10-	ne de la compañía de la compañía de la compañía de la compañía de la compañía de la compañía de la compañía de	25.2		38.3	38.3	Anna Alberton es
Effective Green, g (s)		22.3			22.3			26.2		39.3	39.3	
Actuated g/C Hatio	a sa shi sa shi sa shi sa s	0.31		anan an	0.31	segesteres mareix angle.		0.36		0.54	0.54	an an an an an an an an an an an an an a
Clearance I ime (s)		5.0			5.0			5.0		5.0	5.0	
Vehicle Extension (s)		3.0	S. Norman Strategies and Strategies and		3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		341			540			497		449	962	
v/s Hatio Prot	and and a state of the state of	in i tariha na <u>madriat</u> ia in	e de Antonio e Antonio	ali in the state of the state	er en se baze d'a este bazentet.			a sa ang sa sa sa sa sa sa sa sa sa sa sa sa sa		0.09	c0.53	
V/s Hatio Perm		c0.26			0.19			0.32		0.29		
V/C Hatio		0.86			0.61			0.88		0.71	0.98	ole Developidaties
Uniform Delay, d1		23.6			21.4			21.7		11.8	16.2	
Progression Factor		1.00		an herende kalende geg	1.00	0144551556555555	Salabahishini	1.00		1.00	1.00	Veganeizia. Byłów s
Delaw (a)		18.9			2.1			16.0		5.0	23.5	
Delay (S)		42.5		Manada	23.5		din Girin and	37.7		16.8	39.7	
Approach Dolou (a)		40 E			00 F			07 7		в	U 20 0	
Approach LOS		42.0 N	State		23.5		-	3/./ n			33.9	
Appidauli LOO		v			U			U .			U	
Intersection Summary												
HCM Average Control De	əlay		34.0	H	CM Lev	el of Se	rvice		C			
HCM Volume to Capacity	/ ratio		0.89					·				
Actuated Cycle Length (s	9		72.5	S	um of lo	ost time	(S)		8.0			kura-olioisi
Intersection Capacity Util	ization	1.	15.0%	IC	CU Leve	l of Serv	/ice		Н			
Analysis Period (min)			15				zanistiinin 191 Salahan				en en son de la son de la son de la son de la son de la son de la son de la son de la son de la son de la son En esta de la son de la son de la son de la son de la son de la son de la son de la son de la son de la son de l	

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	125	180	40	160	30	35	260	25	30	260	10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	139	200	44	178	33	39	289	28	33	289	11
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	344	256	356	333					00146402066610040E2-160306			*******
Volume Left (vph)	6	44	39	33								
Volume Right (vph)	200	33	28	11							na na ang ang ang ang ang ang ang ang an	a a sang ara 1965
Hadj (s)	-0.31	-0.01	0.01	0.03								
Departure Headway (s)	6.9	7.4	7.1	7.1								
Degree Utilization, x	0.66	0.53	0.70	0.66								
Capacity (veh/h)	480	424	472	464		ana na sa sa sa sa sa sa sa sa sa					All Control (1997), et es a	1941-047041-195
Control Delay (s)	22.0	18.4	24.7	23.0								
Approach Delay (s)	22.0	18.4	24.7	23.0							an an gallan ta an ta an ta	sjunitri iki matesi
Approach LOS	C	C	С	C								
Intersection Summary												
Delay			22.3									
HCM Level of Service			С							ene e elemento di elemento		
Intersection Capacity Uti	lization		63.6%	IC	CU Leve	l of Ser	vice		В			
Analysis Period (min)			15				landara surgerger			ana dayat patanan taj		a fastadasteristis
			<u>Ekifestéré</u> i			weisen werden der		04005568.000	u na se se se se se se se se se se se se se	isista (uskazaiw	0001000000000	

×.		$\rightarrow$	-		×.	-	Ť	1	1	↓ I	-
EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
	44			<del>4</del> 4+			<del>4</del> )-			ф.	
	Stop			Stop			Stop			Stop	
5	140	205	60	105	110	300	205	60	60	415	5
0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
6	156	228	67	117	122	333	228	67	67	461	6
EB 1	WB 1	NB 1	SB 1								
389	306	628	533								
6	67	333	67								
228	122	67	6								
-0.31	-0.16	0.08	0.05						99999999999 5009920000		
8.7	9.2	9.0	8.9								
0.94	0.78	1.56	1.32								
408	380	405	411								
59.9	38.6	287.2	187.3								
59.9	38.6	287.2	187.3								
F	E	F	F								
		169.9									
		F									
lization	1	05.6%	li li	CU Lev	el of Ser	vice		G			
		15									
	EBL 5 0.90 6 EB 1 389 6 228 -0.31 8.7 0.94 408 59.9 59.9 F 59.9 F	EBL  EBT    5  140    0.90  0.90    5  140    0.90  0.90    6  156    EB1  WB1    389  306    6  67    228  122    -0.31  -0.16    8.7  9.2    0.94  0.78    408  380    59.9  38.6    59.9  38.6    59.9  38.6    59.9  38.6    59.9  38.6    59.9  38.6    59.9  38.6    59.9  38.6	EBL  EBT  EBR    Stop  5    5  140  205    0.90  0.90  0.90    6  156  228    EB1  WB 1  NB 1    389  306  628    6  67  333    228  122  67    -0.31  -0.16  0.08    8.7  9.2  9.0    0.94  0.78  1.56    408  380  405    59.9  38.6  287.2    59.9  38.6  287.2    59.9  38.6  287.2    59.9  38.6  287.2    59.9  38.6  287.2    59.9  38.6  287.2    59.9  38.6  287.2    F  E  F    169.9  F  169.9    52400  105.6%  15	EBL    EBT    EBR    WBL      Stop	EBL  EBT  EBR  WBL  WBT    Stop  Stop  Stop    5  140  205  60  105    0.90  0.90  0.90  0.90  0.90    6  156  228  67  117    EB1  WB1  NB1  SB1  389  306  628  533    6  67  333  67  228  122  67  6    -0.31  -0.16  0.08  0.05  8.7  9.2  9.0  8.9    0.94  0.78  1.56  1.32  408  380  405  411    59.9  38.6  287.2  187.3  59.9  38.6  287.2  187.3    59.9  38.6  287.2  187.3  59.9  50.9	EBL    EBT    EBR    WBL    WBT    WBR      Stop    Stop    Stop    110      5    140    205    60    105    110      0.90    0.90    0.90    0.90    0.90    0.90      6    156    228    67    117    122      EB1    WB1    NB1    SB1	EBL  EBT  EBR  WBL  WBT  WBR  NBL    Stop  Stop  Stop  Stop  300  300  300  0.91<	EBL  EBT  EBR  WBL  WBT  WBR  NBL  NBT    Stop   EBL  EBT  EBR  WBL  WBT  WBR  NBL  NBT  NBR	EBL  EBT  EBR  WBL  WBT  WBR  NBL  NBT  NBR  SBL    + <td>EBL  EBT  EBR  WBL  WBT  WBR  NBL  NBT  NBR  SBL  SBT    +&lt;</td>	EBL  EBT  EBR  WBL  WBT  WBR  NBL  NBT  NBR  SBL  SBT    +<	

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			÷‡+			44	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	85	130	50	30	165	145	10	170	30	245	375	50
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	94	144	56	33	183	161	11	189	33	272	417	56
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	294	378	233	744								
Volume Left (vph)	94	33	11	272								
Volume Right (vph)	56	161	33	56						ina mini na binangui		
Hadj (s)	-0.02	-0.20	-0.04	0.06								
Departure Headway (s)	7.9	7.4	8.1	7.4								
Degree Utilization, x	0.64	0.78	0.52	1.53								
Capacity (veh/h)	433	464	410	487								
Control Delay (s)	24.1	32.0	19.6	267.6							89-180 (B. C)	
Approach Delay (s)	24.1	32.0	19.6	267.6						·		", ,"- ····
Approach LOS	C	D	C	F								
Intersection Summary												
Delay			135.1			10.00						
HCM Level of Service			F								1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 -	
Intersection Capacity Uti	lization		93.2%	IC	CU Leve	l of Ser	vice		F			
Analysis Period (min)			15					2			a (1997) - 1997) - 1997) - 1997) 1997) - 1997) - 1997) - 1997) - 1997) - 1997) - 1997) - 1997) - 1997) - 1997) - 1997) - 1997) - 1997) - 1997) -	
	de dan kasa ka						Ushista (shabi)	vénimens (Ha	90897799789686		aaladgeedaladsee	84856656565

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					<b>4</b> 2-			<b>4</b> 5-			¢ <b>t</b> ,	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	10	5	20	20	5	30	15	615	35	35	935	10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	11	6	22	22	6	33	17	683	39	39	1039	11
Pedestrians	a a se dia pana dia aminina dia	ada na mana ang sa sa sa sa sa sa sa	ta nuterantine est esterite									
Lane Width (ft)												
Walking Speed (ft/s)			kal-10-ljalek-seksilar						er sin time en en		A standard a tanàna amin	y felir lefey types toops
Percent Blockage												
Modion time		Nana		ay wate the	Ness	ela de la companya d El companya de la companya de la companya de la companya de la companya de la companya de la companya de la comp	-	96030906666	ata da kara sa		Antonina inde	
Median storage veh)		NOTE			INOUR							
Linstream signal (ft)												
pX. platoon unblocked										(111) (111) (120) (120)		
vC. conflicting volume	1894	1878	1044	1883	1864	703	1050			722		
vC1, stage 1 conf vol	an in the second second second second second second second second second second second second second second se										untarjanski faljavjej	a an an an an an an an an an an an an an
vC2, stage 2 conf vol												
vCu, unblocked vol	1894	1878	1044	1883	1864	703	1050	a para para da sera da	a da sina ayan na fiji takin	722		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	74	92	92	50	92	92	97			96		
cM capacity (veh/h)	44	67	278	44	68	438	663			880		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	39	61	739	1089	NSCALS.	s e a é					67-69-69-69	
Volume Left	11	22	17	39	dan baran da karan da sa karan da sa	1994 (Junos et Chevrender Pro	en fort en fort d'arment heren.			under einer der Staten under		on to the set of the starts
Volume Right	22	33	39	11								
CSH Matura Connector	93	92	663	880	Line Signatur (an ar		anda an shina shina.					a (na sana sa
Volume to Capacity	0.42	0.66	0.03	0.04								
Control Dolau (a)	43 60.0	08	2 67	3 4 4						eresta en esta	andra (na sana sa	
Long LOS	09.2 E	99.0 E	U./ A	1,4 A							000.000.0000	
Annroach Dalay (s)	69.2	ິດດູຊິ	n7						SA SA SA SA SA SA SA SA SA SA SA SA SA S		istariograficaist	
Approach LOS	F	99.0 F		<b>3</b> • <b>3</b>								
Intersection Summary												-4-5-14-5-14-5
Average Delay			5.6									
Intersection Capacity Uti	lization		78.4%	I(	CU Leve	l of Serv	/ice		D			
Analysis Period (min)			15				an an an an an an an an an an an an an a			a and straight		

	Image: A start of the start	×.	Ť	1	1	¥				
Movement	WBL	WBR	NBT	NBR	SBL	SBT				
Lane Configurations	W		<b>1</b> 4			<del>د</del>				
Sign Control	Stop		Free			Free				
Grade	0%		0%			0%				
Volume (veh/h)	30	35	595	75	45	945				
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				
Hourly flow rate (vph) Pedestrians	33	39	661	83	50	1050				
Lane Width (ft)										
Walking Speed (ft/s)										
Percent Blockage										
Right turn flare (veh)										
Median type	None					67.39.69.69.69 1				
Median storage veh)			and a start of the start of the start of the start of the start of the start of the start of the start of the s			an fan sen an star star star star st			مەلەر بىرى قىرىمىغىر بىرىمىر بىرىمىغىر بىرىمىغىر	
Upstream signal (ft)			600							
pX, platoon unblocked	0.82	0.82		ala da seria da seria da da	0.82	وروانية والمرور والمراجعة والمراجع والمراجع			ومحروبه والمراجعة والمحمد والمحمد والمراجع	
vC, conflicting volume	1853	703			744					
vC1, stage 1 conf vol	Silenenenenen	9594500000000000000		1999-1999-1999-1999	ni este Ante-Ante-		ann an	den belen bezante betree		
vC2, stage 2 cont vol	0007	~~~								
VCU, UNDIOCKED VOI	2037	639			689					addada
tC, Single (S)	0.4	0.2			4.1					
(0, 2  stage(s))	25	22	agaan gebaarde. Meester		0.0					Kalija
n) queue free %	30 20	0.0 QA			2.2 03					
cM canacity (veh/h)	<u>78</u>	30			745					hohid
Direction Lens 4		NID 4	004		170					
Volume Total	70		1400							
Volume Loft	22	/44	50							Sang
Volume Right	20	ິຊຊ	oc A			en en en en en en en en en en en en en e				500
cSH	03 Q1	1700	745							<i>388</i> 0
Volume to Capacity	0.79	0 44	0.07							
Queue Length 95th (ft)	104	0	5							0.000
Control Delay (s)	126.2	٥Ň	22							
_ane LOS	F		A	ografyndd (1888) (188	anna an an Airighte					.59,69
Approach Delay (s)	126.2	0.0	2.2							
Approach LOS	F		antes <del>a la cont</del> es per		****************		yesaan ka ka ka ya ya ya ka			usindi.
ntersection Summary										
Average Delay			6.0							
Intersection Capacity UI	ilization		96.8%	IC	U Leve	I of Servic	e	F		
Analysis Period (min)			15							

	4	•	1	1	5	Ļ			
Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations	Ý		41			ন			
Sign Control	Stop		Free			Free			
Grade	0%		0%			0%			
Volume (veh/h)	20	35	620	35	65	1075			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90			
Hourly flow rate (vph)	22	39	689	39	72	1194			
Pedestrians									
Lane Width (ft)									
Walking Speed (ft/s)					na ta				
Percent Blockage									
Right turn flare (veh)									
Median type	None								
Median storage veh)	ed er Streditstatet	-111110-1111-111-1111-1			an an an an an an an an an an an an an a				
Upstream signal (It)						667			
pX, platoon unblocked	0.43				en en en en en en en en en en en en en e		e vision to any to a terminal taking	enderaly (1990) and a sec	en dae staar de faar weerde de s
vC, conflicting volume	2047	/08			/28				
vC1, stage 1 conf vol		SHORMSSEL	Si si si si si si si si si si si si si si	waki waki jat	u da antiga da antiga da antiga da antiga da antiga da antiga da antiga da antiga da antiga da antiga da antig		Marina di Katalari da katalari da katalari da katalari da katalari da katalari da katalari da katalari da katal		latus kunsus sunantar metadas
VC2, stage 2 cont vol	A 1 1 A	700							
	3440	708			/28			shinan ngananang	Antonio antonio antonio a
tC, single (s)	0.4	6.2			4.1				
(C, 2 Stage (S)	<u>о с</u>				<b>^</b> ^			Historiyi ya kasa k	e de la completa de la completa de la completa de la completa de la completa de la completa de la completa de l
nn queue free %	•.9 ∩	0.0 01	99700 (Sener)		2.2 02				
eM capacity (voh/h)	ں م	91 195			32 076				
civi capacity (verini)	J	τJJ			0/0				
Direction, Lane #	WB 1	NB 1	SB 1						
Volume Total	61	728	1267						
Volume Left	22	0	72	All-Mailleogus curait A	un eta de cala ésta esta esta esta esta esta esta esta e		naan maana maana ma	e cás tasi 600 kecisi karektar	
Volume Hight	39	39	0						
C2H	8	1/00	8/6		de gestan (pers)de result for	te genoto co cogo e la colocida de la colocida de colocida de colocida de colocida de colocida de colocidade d		in Antonio di Statuta	
Volume to Capacity	/.40	0.43	0.08						
	⊢rr ►	0	/ **				deligionistatica	ang generative	ja og kalender som som som som som som som som som som
Control Delay (S)	En F	<b>U.U</b>	3.U ^						
Lane LUS Approach Delou (a)	۲ ۲	<u>^</u>	A		S ST SA STA				
Approach LOS	EA	U.U	J.U						
MUNACII LUO	<b>Г</b>	14474-0-1310-2447-0-140-410-4147	an 1170 de l'Anne a Carl a Canada de Maria de Santa de S			10000101100000100000000000000000000000			
Intersection Summary									
Average Delay			299.1	n sylicius di successi 200				a an an an an an an an an an an an an an	
Intersection Capacity Ul	ulization	11	08.3%	IC	U Leve	l of Service		G	
Analysis Period (min)			15						



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Movement	EBL	EBR	NBL	NBT	SBT	SBR			
Lane Configurations	Ý			র্শ	4				
Sign Control	Stop			Free	Free				
Grade	0%			0%	0%				
Volume (veh/h)	5	75	15	625	1085	10			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	t mini komo karatar na navel.		
Hourly flow rate (vph)	6	83	17	694	1206	11			
Pedestrians							anda ana ang ang ang ang ang ang ang ang an		
Lane widin (ii)									
Percent Blockane									
Right turn flare (veh)		Si qiqi shqirtini qir		aga ceri ada ce					
Median type	None								
Median storage veh)	90099900000000000000000000000000000000		on and a substantial sector			n - 2000 CONTRACTOR CONTRACTOR CONTRACTOR			
Upstream signal (ft)				1089	959				
pX, platoon unblocked	0.53	0.47	0.47						
vC, conflicting volume	1939	1211	1217						
vC1, stage 1 conf vol			An Constantination						
vC2, stage 2 cont vol	2100	4 4 4 0	1 100						
VCU, UNDIOCKED VOI	2423	1449	1460						
tC, single (s) $tC = 2 \text{ stage}(s)$	0.4	0.2	4.1						
tF (s)	35	22	<b>?</b> ?						
p0 queue free %	68	0.0	92						
cM capacity (veh/h)	17	76	218						
Direction, Lane #	EB 1	NB 1	SB 1						
Volume Total	89	711	1217						
Volume Left	6	17	0			an an an an an an an an an an an an an a	an na ann an Airte Ann an Airte an Airte		
Volume Right	83	0	11						
cSH	63	218	1700						
Volume to Capacity	1.42	0.08	0.72						
Queue Length 95th (ft)	191	6	0	there and the second second			Second and a second states of the second second second second second second second second second second second		
Control Delay (s)	3/0.5	3.4	0.0						
Lane LOS Approach Dolau (c)	270 F	A A C	<u></u>						
Approach LOS	570.5 F	0.4	0.0						
Intersection Summary									
Average Delay		la deserva de seta de seta de	17.5	ana kana kana kana kana	20240240240404044	anter a construction in a construction of the		2010 Marine International International	ter y a tra tra est de para de gran de la compacte en activa est en
Intersection Capacity Ut	ilization	(	59.3%	IC	U Leve	I of Service	C	<b>)</b>	
Analysis Period (min)			15						

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	۲	1.		۲	14			4			ф.	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	12	11	11	14	14	14	11	11	11
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Fit	1.00	0.99		1.00	0.99			1.00			0.98	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.99	
Satd. Flow (prot)	1711	1840		1770	1784			1963			1761	
Flt Permitted	0.27	1.00		0.33	1.00			0.90			0.94	
Satd. Flow (perm)	485	1840		613	1784			1778			1666	
Volume (vph)	60	405	35	50	465	30	50	215	5	35	220	35
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	67	450	39	56	517	33	56	239	6	39	244	39
RTOR Reduction (vph)	0	4	0	0	3	0	0	1	0	0	5	0
Lane Group Flow (vph)	67	485	0	56	547	0	0	300	0	0	317	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	20.1	20.1		20.1	20.1			15.3			15.3	
Effective Green, g (s)	21.1	21.1		21.1	21.1			16.3			16.3	
Actuated g/C Ratio	0.42	0.42		0.42	0.42			0.33			0.33	
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0	80.Qy 20.Q2		5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	205	776		259	753			580			543	
v/s Ratio Prot		0.26			c0.31							
v/s Ratio Perm	0.14			0.09				0.17			c0.19	
v/c Ratio	0.33	0.62		0.22	0.73			0.52			0.58	2000-000 - 000 - 000 - 000 - 000 - 000 - 000 - 000 - 000 - 000 - 000 - 000 - 000 - 000 - 000 - 000 - 000 - 000
Uniform Delay, d1	9.7	11.3		9.2	12.0			13.7			14.0	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.9	1.6		0.4	3.5			0.8			1.6	
Delay (s)	10.6	12.9		9.6	15.6			14.4			15.6	
Level of Service	В	В		A	В			В			B	
Approach Delay (s)		12.6			15.0			14.4			15.6	
Approach LOS		В			В			В		2.9.2.3	В	
Intersection Summary												
HCM Average Control D	elay		14.3	H	CM Lev	rel of Se	rvice		В			
HCM Volume to Capacit	y ratio	0.59										
Actuated Cycle Length (	s)		50.0		um of Ic	st time i	(S)		8.0			
Intersection Capacity Uti Analysis Period (min)	lization	(	65.3% 15	3% ICU Level of Service 15			rice		С			



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	٢	*			ţ,		ሻ	ĥ				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	10	10	16	16	16	10	11	11	12	12	12
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0				
Lane Util. Factor	1.00	1.00			1.00		1.00	1.00				
Frt	1.00	1.00			0.99		1.00	0.99				
Flt Protected	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (prot)	1888	1739			1881		1652	1783				
Flt Permitted	0.27	1.00			1.00		0.95	1.00				
Satd. Flow (perm)	540	1739			1881		1652	1783				
Volume (vph)	35	485	0	0	500	40	65	275	20	0	0	0
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	39	539	0	0	556	44	72	306	22	0	0	0
RTOR Reduction (vph)	0	0	0	0	4	0	0	2	0	0	0	0
Lane Group Flow (vph)	39	539	0	0	596	0	72	326	0	0	0	0
Parking (#/hr)				0	0	0						
Turn Type	Perm						Perm				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Protected Phases		2			6			8				
Permitted Phases	2						8					
Actuated Green, G (s)	21.8	21.8			21.8		13.9	13.9				
Effective Green, g (s)	22.8	22.8			22.8		14.9	14.9				
Actuated g/C Ratio	0.47	0.47			0.47		0.31	0.31				
Clearance Time (s)	5.0	5.0			5.0		5.0	5.0	~			
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0				
Lane Grp Cap (vph)	256	824			892	******	512	552				
v/s Ratio Prot		0.31			c0.32			c0.18				
v/s Ratio Perm	0.07	terrenden Mandelander		1999-1997 (1997) 1999-1997 (1997)	~~~~~~~~~~~	10070737000700300032507.	0.04	han a shekara a shekara		eroto eno conservação (941).	-7929-01242120429-014	10000006-0005
v/c Ratio	0.15	0.65		é ésti	0.67		0.14	0.59				
Uniform Delay, d1	7.2	9.6	·····		9.7	()	12.0	14.0				yether with the standard
Progression Factor	1.00	1.00		dalarika terip tela Savasili telah telah	1.00		1.00	1.00				
Incremental Delay, d2	0.3	1.9		67.01010.0000.000	1.9		0.1	1.7	-11.000 (1000) - 1000 (1000)	ni ni jerini pilete di fati	en de fan een de de de de de de de de de de de de de	1000000000000
Delay (s)	7.4	11.5			11.7		12.1	15.7				
Level of Service	A	В			В		В	В		1010 N 2007 P 004 J 00	10	
Approach Delay (s)		11.2			11.7			15.1			0.0	
Approach LOS		В			В			В			Α	
Intersection Summary												
HCM Average Control D	elay		12.4	H(	CM Lev	el of Se	rvice		В			
HCM Volume to Capacity	y ratio		0.60				00 (20 SB) -					
Actuated Cycle Length (s	5)		48.1	Su	um of lo	st time (	(s)		8.0			
Intersection Capacity Util	lization	ę	51.4%	IC	U Leve	l of Serv	rice	ili en singini Si China (Si	Α			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	<b>1</b>		ሻ	ŕ	۴		44		ኻ	¥	ř
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	11	11	12	12	12	10	10	12
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0		4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00
Frt	1.00	0.98		1.00	1.00	0.85		0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00		1.00		0.95	1.00	1.00
Satd. Flow (prot)	1540	1647		1711	1801	1531		1626		1652	1739	1583
Flt Permitted	0.41	1.00		0.43	1.00	1.00		0.79		0.66	1.00	1.00
Satd. Flow (perm)	661	1647		769	1801	1531		1294		1143	1739	1583
Volume (vph)	105	295	40	70	350	155	5	90	25	210	300	85
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	117	328	44	78	389	172	6	100	28	233	333	94
RTOR Reduction (vph)	0	5	0	0	0	103	0	9	0	0	0	60
Lane Group Flow (vph)	117	367	0	78	389	69	0	125	0	233	333	34
Parking (#/hr)	0	0	0				0	0	0			
Turn Type	Perm			Perm		Perm	Perm			pm+pt		Perm
Protected Phases		2	ele constante de la seconda de la seconda de la seconda de la seconda de la seconda de la seconda de la second En esta de la seconda de la		6			8		7	4	
Permitted Phases	2			6		6	8			4		4
Actuated Green, G (s)	22.1	22.1		21.9	21.9	21.9		8.0		19.6	19.6	19.6
Effective Green, g (s)	23.1	23.1		22.9	22.9	22.9		9.0		20.6	20.6	20.6
Actuated g/C Ratio	0,41	0.41		0.40	0.40	0.40		0.16		0.36	0.36	0.36
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0		5.0		5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0		3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	268	669		309	725	616		205		482	630	573
v/s Ratio Prot		c0.22			0.22					0.06	c0.19	
v/s Ratio Perm	0.18			0.10		0.05		0.10		0.11		0.02
v/c Ratio	0.44	0.55		0.25	0.54	0.11		0.61		0.48	0.53	0.06
Uniform Delay, d1	12.2	12.9		11.3	13.0	10.6		22.3		16.2	14.3	11.8
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00
Incremental Delay, d2	1.1	0.9		0.4	0.8	0.1		5.0		0.8	0.8	0.0
Delay (s)	13.3	13.8		11.7	13.7	10.7		27.4		17.0	15.1	11.9
Level of Service	В	В		В	В	В		С		В	В	В
Approach Delay (s)	-90-22-00-2	13.7			12.7			27.4			15.3	
Approach LOS		В			В			С			В	
Intersection Summary												
HCM Average Control D	elay		14.9	Н	CM Lev	el of Se	ervice		В			
HCM Volume to Capacity	y ratio		0.48									
Actuated Cycle Length (s	3)		56.9	S	um of lo	st time	(s)		8.0			
Intersection Capacity Uti	lization	ţ	53.4%	IC	CU Leve	l of Ser	vice		Α			
Analysis Period (min)	· · · ·		15									
c Critical Lane Group							19 (S. 19. S)					

CAP Clough, Harbour & Associates, LLP

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		র্ম	7	ሻ	ኈ			đ,	7	٢	<b>t</b>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	12	12	16	12	12	12
Total Lost time (s)		4.0	4.0	4.0	4.0			4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	
Frt		1.00	0.85	1.00	0.98			1.00	0.85	1.00	0.98	
Fit Protected		1.00	1.00	0.95	1.00			0.98	1.00	0.95	1.00	
Satd. Flow (prot)		1734	1478	1486	1527		ý og ski	1825	1794	1593	1822	
Flt Permitted		0.97	1.00	0.48	1.00			0.82	1.00	0.64	1.00	
Satd. Flow (perm)		1690	1478	759	1527			1524	1794	1071	1822	
Volume (vph)	15	295	85	55	315	60	70	100	60	95	115	20
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	328	94	61	350	67	78	111	67	106	128	22
RTOR Reduction (vph)	0	0	36	0	8	0	0	0	36	0	6	0
Lane Group Flow (vph)	0	345	58	61	409	0	0	189	31	106	144	0
Parking (#/hr)				0	0	0	0			0		
Turn Type	Perm		Perm	Perm			Perm		Perm	Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6			8		8	4	an fan de fan fan de fan de fan de fan de fan de fan de fan de fan de fan de fan de fan de fan de fan de fan de	
Actuated Green, G (s)		17.0	17.0	17.0	17.0			12.3	12.3	12.3	12.3	
Effective Green, g (s)		18.0	18.0	18.0	18.0			13.3	13.3	13.3	13.3	
Actuated g/C Ratio		0.41	0.41	0.41	0.41			0.30	0.30	0.30	0.30	
Clearance Time (s)		5.0	5.0	5.0	5.0			5.0	5.0	5.0	5.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0			3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		687	601	308	620			458	539	322	547	
v/s Ratio Prot					c0.27						0.08	
v/s Ratio Perm		0.20	0.04	0.08		5-5,0,0+5,0,,0,0,5,0,0	an an an an an an an an an an an an an a	c0.12	0.02	0.10	an an an an an an an an an an an an an a	
v/c Ratio		0.50	0,10	0.20	0.66			0.41	0.06	0.33	0.26	
Uniform Delay, d1		9.8	8.1	8.5	10.7			12.4	11.0	12.0	11.8	
Progression Factor		1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.6	0.1	0.3	2.5			0.6	0.0	0.6	0.3	
Delay (s)		10.4	8.2	8.8	13.2			13.0	11,1	12.6	12.0	
Level of Service		В	Α	А	В			В	В	В	В	
Approach Delay (s)		9.9	18-20-88-18		12.6			12.5			12.3	
Approach LOS		А			В			В			В	
Intersection Summary												
HCM Average Control D	elay		11.7	H	ICM Lev	el of Se	rvice		В			
HCM Volume to Capacity	y ratio		0.48						5			
Actuated Cycle Length (s	3)	****	44.3	S	um of lo	st time	(s)		8.0			
Intersection Capacity Uti	lization		66.3%	10	CU Leve	l of Serv	/ice		C			
Analysis Period (min)			15									
c Critical Lane Group												



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Movement	EBL2	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR2	SBL	SBT	SBR
Lane Configurations		4			4			¢Ĵ,			÷\$+	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	14	14	14	12	12	12	16	16	16
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.97			0.99			1.00			1.00	
Flt Protected		0.99			0.98			1.00			1.00	
Satd. Flow (prot)		1794			1926			1854			2100	
Flt Permitted		0.94			0.89			0.98			0.99	
Satd. Flow (perm)		1708			1747			1817			2090	
Volume (vph)	15	45	15	20	30	5	15	440	10	5	440	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	50	17	22	33	6	17	489	11	6	489	17
RTOR Reduction (vph)	0	11	0	0	0	0	0	1	0	0	2	0
Lane Group Flow (vph)	0	73	0	0	61	0	0	516	0	0	510	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		3			3			2			6	
Permitted Phases	3			3			2	2		6	6	
Actuated Green, G (s)		15.0			15.0			30.0			30.0	
Effective Green, g (s)		16.0			16.0			31.0			31.0	
Actuated g/C Ratio		0.20			0.20			0.39			0.39	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Lane Grp Cap (vph)		342			349			704			810	
v/s Ratio Prot												
v/s Ratio Perm		c0.04			0.03			c0.28			0.24	
v/c Ratio		0.21			0.17			0.73			0.63	
Uniform Delay, d1		26.7			26.5		er orden er en er en er er er er er er er er er er er er er	21.0		51.600, 571, 661, 671, 67	19.9	
Progression Factor		1.00			1.00			1.00	es custo s		1.00	
Incremental Delay, d2		1.4			1.1			6.6			3.7	
Delay (s)		28.2			27.6			27.6			23.5	
Level of Service		С			С			С			С	
Approach Delay (s)		28.2			27.6			27.6			23.5	
Approach LOS		С			С			С			С	
Intersection Summary												
HCM Average Control D	elay		33.1	Н	CM Lev	el of Se	rvice		С			
HCM Volume to Capacit	y ratio		0.67									
Actuated Cycle Length (	s)		80.0	S	um of k	ost time	(s)		12.0			
Intersection Capacity Ut	ilization		72.3%	IC	CU Leve	of Ser	vice		C			
Analysis Period (min)	And Anna and Anna A		15		1		1					
c Critical Lane Group												

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Movement	SWL2	SWL	SWR	SWR2	
Lane Configurations	٦	¥			
Ideal Flow (vphpl)	1900	1900	1900	1900	
Lane Width	14	14	14	14	
Total Lost time (s)	4.0	4.0			
Lane Util. Factor	1.00	1.00			
Frt	1.00	0.99			
Flt Protected	0.95	0.96			
Satd. Flow (prot)	1888	1875			
Fit Permitted	0.95	0.96			
Satd. Flow (perm)	1888	1875			
Volume (vph)	15	370	30	5	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	
Adj. Flow (vph)	17	411	33	6	
<b>RTOR Reduction (vph)</b>	0	1	0	0	
Lane Group Flow (vph)	17	449	0	0	· ·
Turn Type	Split				
Protected Phases	4	4			
Permitted Phases					
Actuated Green, G (s)	20.0	20.0			
Effective Green, g (s)	21.0	21.0			
Actuated g/C Ratio	0.26	0.26			
Clearance Time (s)	5.0	5.0			
Lane Grp Cap (vph)	496	492			
v/s Ratio Prot	0.01	c0.24			
v/s Ratio Perm					
v/c Ratio	0.03	0.91			
Uniform Delay, d1	22.0	28.6			
Progression Factor	1.00	1.00			
Incremental Delay, d2	0.1	23.9	enter da carecta a carecta a		
Delay (s)	22.1	52.5		(example)	
Level of Service	С	D	deligite (2) et en delse son set	enter en en en en en en en en en en en en en	
Approach Delay (s)		51.4			
Approach LOS		D			
Intersection Summary					

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4	7		֔	7	ř	<b>†</b> 15		ኘ	<b>†</b> Ъ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	0.99	
Flt Protected		0.96	1.00		0.98	1.00	0.95	1.00		0.95	1.00	800000
Satd. Flow (prot)		1786	1583		1817	1583	1770	3535		1770	3506	and seals to search a
Fit Permitted		0.72	1.00		0.84	1.00	0.12	1.00		0.21	1.00	
Satd. Flow (perm)		1339	1583		1563	1583	229	3535	-120-000-00-000000-000000-	400	3506	
Volume (vph)	60	10	320	30	30	35	210	1150	10	35	1060	70
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	67	11	356	33	33	39	233	1278	11	39	1178	78
RTOR Reduction (vph)	0	0	221	0	0	32	0	1	0	0	6	0
Lane Group Flow (vph)	0	78	135	0	66	7	233	1288	0	39	1250	0
Turn Type	Perm		Perm	Perm		Perm	pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4	n para para da anglar	4	8	- in a sin an	8	2			6	Analas (Albert Albert	
Actuated Green, G (s)		11.0	11.0		11.0	11.0	41.8	41.8		28.5	28.5	
Effective Green, g (s)	********	11.0	11.0	-1999-99-999-999-999-999-999-999-999-	11.0	11.0	41.8	41.8	oktroaten (monekki kilisioko	28.5	28.5	2010-000-000-000-000-000-000-000-000-000
Actuated g/C Ratio		0.18	0.18		0.18	0.18	0.69	0.69		0.47	0.47	
Clearance Time (s)		4.0	4.0		4.0	4.0	3.0	4.0		4.0	4.0	119763-1998-1919 1
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	an an an an an an an an an an an an an a	242	286		283	286	393	2430		188	1643	<u> </u>
v/s Ratio Prot							0.09	c0.36			c0.36	
v/s Ratio Perm		0.06	c0.09		0.04	0.00	0.32		enterin (ny tanàna dia dia dia dia dia dia dia dia dia di	0.10		
v/c Ratio		0.32	0.47		0.23	0.02	0.59	0.53		0.21	0.76	
Uniform Delay, d1	499 <i>0960970966</i> 00066006	21.7	22.3	4739-004-02969-06969-0795	21.3	20.5	8.7	4.7	80100307836978369899 90100307836978869899	9.5	13.3	994(15)9(9(9)969) 994(15)9(9(9)969)
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.8	1.2	(), - (= -, -, -) = -; (= -, -, -, -)	0.4	0.0	2.4	0.2		0.6	2.1	1999-0-0-0000-0- 1999-0-0-0000-0-0-0000-0-0-0000-0-0-0000-0-0
Delay (s)		22.4	23.5		21.7	20.5	11.1	4.9		10.1	15.5	44040 Active 2400403946
Level of Service		С	С		С	C	В	Α	والمراجعة ويرابع والمراجع	В	В	4499-949-000-000-000-000-000-000-000-000
Approach Delay (s)		23.3			21.3			5.8			15.3	
Approach LOS		C	*****		С	1999 - Handrid Markel, 1999	, , , , , , , , , , , , , , , , , , ,	A	54549494949494646464646464		В	000000000000000000000000000000000000000
Intersection Summary												
HCM Average Control D	elay		12.2	Н	CM Lev	el of S	ervice		В			
HCM Volume to Capacit	y ratio		0.67									
Actuated Cycle Length (	s)		60.8	S	um of lo	ost time	(s)		12.0			
Intersection Capacity Uti	lization		68.0%	IÇ	CU Leve	el of Sei	vice		C			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4	7	٣	1		<b>`</b> *i	<b>≜</b> †		ኻ	ቀኄ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	10	12	16	12	10	10	10	10	10	10
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	0.95		1.00	0.95	
Frt		1.00	0.85	1.00	0.90		1.00	1.00		1.00	1.00	
Flt Protected		0.97	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1747	1478	1770	1909		1652	3298		1652	3296	
Flt Permitted		0.78	1.00	0.71	1.00		0.16	1.00		0.95	1.00	
Satd. Flow (perm)		1400	1478	1323	1909		272	3298		1652	3296	
Volume (vph)	40	25	350	30	20	35	315	1415	15	45	1275	20
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	44	28	389	33	22	39	350	1572	17	50	1417	22
RTOR Reduction (vph)	0	0	344	0	35	0	0	1	0	0	- 1	0
Lane Group Flow (vph)	0	72	45	33	26	0	350	1588	0	50	1438	0
Turn Type	Perm		Perm	Perm			om+pt	90.9549		Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8	6 10 ST 57		2	2 (S. (S. (C.)		0		
Actuated Green, G (s)		7.9	7.9	7.9	7.9		41.4	41.4		3.7	28.3	
Effective Green, g (s)		7.9	7.9	7.9	7.9		42.4	42.4		3.7	29.3	
Actuated g/C Ratio		0.12	0.12	0.12	0.12		0.62	0.62		0.05	0.43	
Clearance Time (s)		4.0	4.0	4.0	4.0		5.0	5.0		4.0	5.0	
Vehicle Extension (s)		1.0	1.0	1.0	1.0		1.5	1.0		1.0	1.0	
Lane Grp Cap (vph)		161	170	153	220		507	2041		89	1410	
v/s Ratio Prot				utation to the second second second	0.01		0.17	c0.48		0.03	c0.44	
v/s Ratio Perm		c0.05	0.03	0.02			0.26					
v/c Ratio		0.45	0.26	0.22	0.12		0.69	0.78		0.56	1.02	
Uniform Delay, d1		28.3	27.6	27.5	27.2	9 - 9 - S	18.2	9.6		31.6	19.6	
Progression Factor	nevers states at the	1.00	1.00	1.00	1.00	والمراجعة والمعرف والمراجع	1.00	1.00	ana kangu ang sikuratua	1.00	1.00	
Incremental Delay, d2		0.7	0.3	0.3	0.1		7.5	3.0		4.8	29.1	
Delay (s)		29.0	28.0	27.7	27.3	nakular (ural) (kalu	25.7	12.6	Der 14 Greet Antonio transitio	36.4	48.7	
Level of Service		C	C	C	C .		C	В		D	D	
Approach Delay (s)		28.1		instale (n. 35) i stalijejej	27.4			15.0			48.2	
Approach LUS		C			C			8			D	
Intersection Summary												
HCM Average Control D	elay		29.2	H	ICM Lev	el of Se	rvice		C			
HCM Volume to Capacit	y ratio		0.80									
Actuated Cycle Length (	s)		68.5	S	um of lo	ost time (	(s)		8.0			
Intersection Capacity Uti	lization		73.5%	IC	CU Leve	l of Serv	/ice		D			
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				ሻ	4			<b>4</b> ↑			<b>†</b> î>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	14	12	12	12	12	12	12
Total Lost time (s)				4.0	4.0			4.0			4.0	
Lane Util. Factor	n an	and and an and a state of the		0.95	0.95		والمتعار والمتعار والمتعار والمتعار والمتعار والمتعار والمتعار والمتعار والمتعار والمتعار والمتعار والمتعار	0.95			0.95	and a factor of a specific system.
Frt				1.00	1.00			1.00			1,00	
Flt Protected	tana da esta les les cali	a de la companya de l		0.95	0.96	*****	Australia (Salata Santia Santi	1.00		ta en estas a treveste da streve	1.00	
Satd. Flow (prot)				1681	1700			3539			3538	
Fit Permitted	Arreni Arriente Allia de pina.			0.95	0.96		la beledaka sa Applata	1.00		811211114997449974	1.00	andonesides
Satd. Flow (perm)	<u>.</u>	-	_	1681	1700	-	-	3539	-		3538	
Volume (vph)	0	0	0	1355	135	0	0	890	0	0	1955	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	1506	150	0 	0	989	0	0 taraanaa darawaa da	2172	6
RIOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	807	849	0	0	989	0	0	2178	0
Turn Type				Perm			Perm	-				
Protected Phases	aren aran herritea		an in the state of the state of the state of the state of the state of the state of the state of the state of t	Andre and the state of the st	8	es beren en deren in		2	un en anter en en en en en en en en en en en en en	olane en Akia bet	6	an an an an an an an an an an an an an a
Permitted Phases			N Stanstalle	8			2					
Actuated Green, G (s)	1,4001+100000000000000	anasterar astron		34.0	34.0	en al a cara la cara da  unca, poperio de Significade	54.0	en lei se da da anta	ane heeste festeral	54.0	-Verbalan (Articularity)	
Effective Green, g (s)				36.0	36.0			56.0			56.0	
Actuated g/C Hatio				0.36	0.36			0.56			0.56	anan ana ang
Clearance I ime (s)				6.0	6.0			6.0			6.0	
Venicle Extension (s)	personal and a second second second second second second second second second second second second second secon		aniyashi departasji	3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)				605	612			1982			1981	
v/s Hatio Prot	aanta Kendenaa	NA MARINA MA					59782343-547636	0.28	zionioi-oraini orientei	u Madalah Manakina	c0.62	kanta wisteraturi
V/s Ratio Perm	di se denti	- 64. (SS 68		0.48	0.50							
V/C Hatio				1.33	1.39			0.50			1.10	in dia kaominina dia kaominina dia kaominina dia kaominina dia kaominina dia kaominina dia kaominina dia kaomin
Uniform Delay, d1				32.0	32.0			13.4			22.0	
Progression Factor		946046666		1.00	1.00	yan dari tati taki ta	ina ngalagiangig	1.00	hina an an an an an an an an an an an an a		1.00	dours la space
Delay (a)				101.3	104.2			126			- 00.2 75-0	
Lovel of Convice				190.0	210.2	RAGE		10.0	in an		/ 3.2 E	
Approach Dolay (c)		0.0			205 1	5		126			75.0	
Approach LOS		A			200.1 F			B	ga ga		75.2 E	
Intersection Summary												
HCM Average Control D	elay		107.2	ŀ	ICM Lev	el of Se	rvice		F			
HCM Volume to Capacity	y ratio		1.21			aan ah sa dada da	and second states and second			enen en		er en esta en esta esta esta esta esta esta esta esta
Actuated Cycle Length (s	5)		100.0	5	Sum of Io	ost time i	(s)		8.0	9 9 9 9 G		
Intersection Capacity Uti	lization	1(	01.9%	l	CU Leve	el of Serv	vice		G			
Analysis Period (min)			15									

c Critical Lane Group

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EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
	\$			4			<del>4)</del>			<b>4</b> 4-	
	Stop			Stop			Stop			Stop	
20	150	70	45	90	15	150	290	55	55	285	25
0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
22	167	78	50	100	17	167	322	61	61	317	28
EB 1	WB 1	NB 1	SB 1								
267	167	550	406								
22	50	167	61								
78	17	61	28				1979-1997 - 1997 - 1997 - 1997 1979 - 1979 - 1979 - 1979 - 1979 - 1979 - 1979 - 1979 - 1979 - 1979 - 1979 - 1979			terragenengentigen ere	
-0.12	0.03	0.03	0.02								
7.4	8.0	6.7	6.9								
0.55	0.37	1.02	0.78			Sango (Suan Magazina					
453	401	550	509			a na manana ana kapatan an			1911-911-944-991-911-91-99		
19.2	15.7	70.8	30.0								
19.2	15.7	70.8	30.0								
С	С	F	D								
		42.3	480-852 (Pr. 16						5 (S) (S) (S)		
		Ε					Server Server States		a an bheadh a bha an tha	1-640.0417.0400.000	1999 - ANDER AND AND AND AND AND AND AND AND AND AND
ization		74.9%	IC	U Leve	l of Sen	vice		D			
		15				1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -		,	endede en de estado		er en en en sen de sele villes e
	€BL 20 0.90 22 EB 1 267 22 78 -0.12 7.4 0.55 453 19.2 19.2 C ization	▶  ►    EBL  EBT    ●  Stop    20  150    0.90  0.90    22  167    EB1  WB1    267  167    22  50    78  17    -0.12  0.03    7.4  8.0    0.55  0.37    453  401    19.2  15.7    C  C    ization  C	▲  ▲  ▲    EBL  EBT  EBR    Stop  -  -    20  150  70    0.90  0.90  0.90    20  167  78    EB1  WB1  NB1    267  167  550    22  50  167    78  17  61    -0.12  0.03  0.03    7.4  8.0  6.7    0.55  0.37  1.02    453  401  550    19.2  15.7  70.8    19.2  15.7  70.8    19.2  15.7  70.8    E  42.3  E    ization  74.9%  15	EBL  EBT  EBR  WBL    Stop	EBL  EBT  EBR  WBL  WBT    ●  ●  ●  ●  ●    Stop  70  45  90    20  150  70  45  90    0.90  0.90  0.90  0.90  0.90    22  167  78  50  100    EB1  WB1  NB1  SB1	EBL  EBT  EBR  WBL  WBT  WBR    Stop  70  45  90  15    0.90  0.90  0.90  0.90  0.90  0.90    20  150  70  45  90  15    0.90  0.90  0.90  0.90  0.90  0.90    22  167  78  50  100  17    EB 1  WB 1  NB 1  SB 1  100  17    EB 1  WB 1  NB 1  SB 1  100  17    EB 1  WB 1  NB 1  SB 1  100  17    267  167  550  406  100  17    78  17  61  28  100  100  17    7.4  8.0  6.7  6.9  100  100  17    90.55  0.37  1.02  0.78  100  100  11    453  401  550  509  19  19.2  15.7  70.8  30.0  100  100  100  100	EBL  EBT  EBR  WBL  WBT  WBR  NBL    Stop  Stop  Stop	EBL  EBT  EBR  WBL  WBT  WBR  NBL  NBT	EBL  EBT  EBR  WBL  WBT  WBR  NBL  NBT  NBR    \$\pmu\$  td< td=""><td>EBL  EBT  EBR  WBL  WBT  WBR  NBL  NBT  NBR  SBL    •<td>EBL  EBT  EBR  WBL  WBT  WBR  NBL  NBT  NBR  SBL  SBT    ••</td></td></td<>	EBL  EBT  EBR  WBL  WBT  WBR  NBL  NBT  NBR  SBL    • <td>EBL  EBT  EBR  WBL  WBT  WBR  NBL  NBT  NBR  SBL  SBT    ••</td>	EBL  EBT  EBR  WBL  WBT  WBR  NBL  NBT  NBR  SBL  SBT    ••



	<pre>f</pre>	×.	1	F	1	Ļ				
Movement	WBL	WBR	NBT	NBR	SBL	SBT				
Lane Configurations	Y		Þ			4				
Sign Control	Stop		Free			Free				
Grade	0%		0%			0%				
Volume (veh/h)	140	5	545	235	0	865				
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90		and the trade that the trade of the		
Hourly flow rate (vph)	156	6	606	261	0	961				
Pedestrians			then as a second second second second second second second second second second second second second second se		(1993) 1993) 1993)		n se an an an an an an an an an an an an an	en and the state of the	ener ander ander en en en en en en en en en en en en en	ana ar
Lane wium (ii) Walking Spood (ft/c)										
Percent Blockage										
Right turn flare (veh)										
Median type	None							kali daga ngalaki sa daga. Nga malaki kali sa kali sa kali sa kali sa kali sa kali sa kali sa kali sa kali sa k		
Median storage veh)		renterin and and a second sec		1990-9999-9990-9900 1990-9999-9990-9900	9992 - Yorkey (1996 - 1997	n de la maria de la competición de la competición de la competición de la competición de la competición de la c	a na ana ang ang ang ang ang ang ang ang		an an an an an an an an an an an an an a	-599-59-59
Upstream signal (ft)						837				
pX, platoon unblocked	0.78									
vC, conflicting volume	1697	736			867		1903 (M 1905)	4 (s) 59 (s) (s)		
vC1, stage 1 conf vol	Salassana da Social da Antonia da S	ad a second a second second second			and the balance of the second second				an tha tha tha tha tha tha tha tha tha tha	
vC2, stage 2 conf vol	4000									
VCu, unblocked vol	1892	/36	sinangi ji kanaya	de la compañía de la compañía de la compañía de la compañía de la compañía de la compañía de la compañía de la	867			delet i elature de front a trabat a giva		
tC, single (s)	0.4	0.2			4.1					
tF (c)	2 5	22			<b></b>					
p0 queue free %	0.0	99			100			in an		Garandi.
cM capacity (veh/h)	60	419			777					9493-5954 
Direction Lane #	WB 1	NB 1	SB 1							
Volume Total	161	867	961							
Volume Left	156	0	0							8448329
Volume Right	6	261	0							
cSH	62	1700	777							
Volume to Capacity	2.60	0.51	0.00		19-17-11-14 19-17					
Queue Length 95th (ft)	404	0	0		la para da na je da tenda ten	an ha shaha bayta na sa sa sa sa sa	n en en en ter en etter etter etter	with a section of patient astronomy		
Control Delay (s)	869.6	0.0	0.0							
Lane LOS		~ ~ ~								
Approach LOS	009.0 F	0.0	U.U							
Intersection Summer	•									
Average Delay			70.4							
Intersection Canacity 1 It	ilization		30.3%	<b>1</b> 0		Lof Service		i p		
Analysis Period (min)	mzanori		15 N.O.70	in an	O LEVE			<b>.</b>		
	- Andrew Andrew Andrew Andrew Andrew Andrew Andrew Andrew Andrew Andrew Andrew Andrew Andrew Andrew Andrew Andr	Sanaayan de Kolongalo e	· •			- Constant and the Constant of the	ورواده والمتحاو متحادر والمحاد مرد		na a sa composition da sub a c	

	٦		$\mathbf{i}$	1	-	×.	1	1	1	1	Ļ	~
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			ф.			412			ፈጉ	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	10	0	50	10	0	10	25	1185	5	5	1125	40
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	11	0	56	11	0	11	28	1317	6	6	1250	44
Pedestrians		ta an provinte de la										
Lane Width (ft)						94494 - 1948 - 1948 - 1949 - 194						
Walking Speed (ft/s)	u secon a superior o p		nanar taariista	enter (menoritation and	utada wantangin dalaya di da	-0.4.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.		di den en spit di menger		erenden Abeloe (n. M		
Percent Blockage												
Right turn flare (ven)					R R R R R R R R R	Malalaistin järjängi		Ang kanalang kanang		stationitation	hanan karapan in	towa (MAZERAL)
Median storage yeb)		INOUL			ivone		ni i Sinsonieli			50050400000		
Unetroom elanal (ft)								1067				
nX nlatoon unblocked	0 02	0 92		0 02	n 02	0 02		120/		0 02		
vC conflicting volume	2008	2661	647	2067	2681	661	1201			1222		
vC1, stage 1 conf vol							- <b></b>			1022		
vC2, stage 2 conf vol												
vCu, unblocked vol	2009	2721	647	2073	2742	540	1294	n de la desta de la desta de la desta de la desta de la desta de la desta de la desta de la desta de la desta En la desta de la desta de la desta de la desta de la desta de la desta de la desta de la desta de la desta de l	anter de clatter	1261	konten en el estado en el estado en el estado en el estado en el estado en el estado en el estado en el estado Estado en estado en el estado en el estado en el estado en el estado en el estado en el estado en el estado en e	
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)				******	5 - 1 ( )		denta dalla mentantana				an an an an an an an an an an an an an a	
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	62	100	87	53	100	98	95			99		
cM capacity (veh/h)	30	18	414	23	17	446	531			502		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	67	22	686	664	631	669						
Volume Left	11	11	28	0	6	0						
Volume Right	56	11	0	6	0	44						
cSH	131	45	531	1700	502	1700			and for the second and the second	a Anna an an an an an an an an an an an an		
Volume to Capacity	0.51	0.50	0.05	0.39	0.01	0.39						
Queue Length 95th (tt)	60	45	4	0	1 	0	againg an an an an an an an an an an an an an	unner and air air	ekketannenta	e Alexandre Alexandre		والمعاملية والم
Comirol Delay (s)	58.2	148.2	1.5	0.0	0.3	0.0	Salas 1.5 (4)	1550 200 200				
Lane LOS	r rog	- Тако о	A A O		A	Se an Shinka an Shin					inen alukienes	ekakelarikanak
Approach LOS	00.2 F	140.2 F	v.o		0.2							
Intercection Summan	•											
Average Delay			2 4									
Intersection Canacity Liti	lization		.। ৪৭.০%	i i	2111 ove	l of Son	ico		<b>_</b>		Herebiski	
Analysis Period (min)	nzativil		15 IS		JU LEVE	a UI JEI I	NICC		D			



Movement EBT EBR WBL WBT NBL NBR	
Lane Configurations 🖡 📫 🕅	
Sign Control Free Free Stop	
Grade 0% 0% 0%	
Volume (veh/h) 125 20 35 145 35 65	
Peak Hour Factor 0.90 0.90 0.90 0.90 0.90 0.90	
Hourly flow rate (vph) 139 22 39 161 39 72	
	selection and the selection of the selec
Lane Width (n) Walking Speed (#/s)	
Porcent Pleakage	
Right turn flare (veh)	
Median type	
Median storage veh)	
Upstream signal (ft)	
pX, platoon unblocked	
vC, conflicting volume 161 389 150	
vC1, stage 1 conf vol	ini senderarian period
vC2, stage 2 conf vol	
vCu, unblocked vol 161 389 150	
tC, single (s) 4.1 6.4 6.2	
tC, 2 stage (s)	
IF (s) 2.2 3.5 3.3	
pu queue free % 97 93 92	elacatoria, peratoria
Civi capacity (veli/ii) 1418 598 896	
Direction, Lane # EB 1 WB 1 NB 1	
Volume Fotal 161 200 111	
Volume Left 0 39 39	ofernaries Black and Michael Michael
Volume Hight    22    0    72      ∞SH    1700    1410    762	
Volume to Capacity 0.09 0.03 0.15	
Oueue Length 95th (ft) $0.2$ 13	
Control Delay (s) 0.0 1.7 10.5	
Lane LOS A B	
Approach Delay (s) 0.0 1.7 10.5	
Approach LOS B	antonini Menisipi Me
Intersection Summany	
Average Delay 2.2	
Intersection Canacity I Itilization 33.3% ICL Level of Service A	
Analysis Period (min) 15	



	T'	WO-WAY STO	P CONTR	OL SUM	MARY			
General Information			Site I	nformati	ion			
Analyst / ``cy/Co. De Performed Analysis Time Period	EJD CHA 2/18/2005 PM PEAK	HOUR	Interse Jurisdic Analysi	ction ction is Year		ROUTE 7 TOWN O 2008 NO	7/LOCUS F BURLII BUILD	T/LEDGE NGTON
Project Description BU	HLINGTON		IN LEASTING (C					
East/West Street: LOCU	North South		North/S	South Stree	et: HOUIE	/		
	Nonin-Souin		Sludy r	renou (ms	s). 0.25			
venicie volumes an	a Adjustment	S	ŧ					
Major Street		Northbound			4	Southbo	und	
		<u>- </u> - <u>-</u> - <u>-</u> - <u>-</u>						0
Volume	0	805	260		25	965		15
Peak-Hour Factor, PHF	0.90	0.90	0.90	)	0.90	0.90		0.90
Hourly Flow Rate, HFR	0	894	288		27	1072		16
Percent Heavy Vehicles	0	÷			2			
Median Type				Undivid	ed			
RT Channelized			0					0
Lanes	0	2	0		0	1		0
Configuration		T	TR		LTR			
Upstream Signal		0				0		
Minor Street		Westbound	·			Eastbou	ind	
Movement	. 7	8	9		10	11		12
	L	T	R		L	Т		R
Volume	0	0	55		0	20		75
Peri-Hour Factor, PHF	0.90	0.90	0.90	)	0.90	0.90		0.90
H y Flow Rate, HFR	0	0	61		0	22		83
Percent Heavy Vehicles	0	0	2		0	2		2
Percent Grade (%)		0				0		
Flared Approach		N				N		
Storage		0				0		
RT Channelized			0					0
Lanes	0	0	1		0	1		0
Configuration			<u> </u>					<i>TR</i>
Delay, Queue Length, an	d Level of Servi	ce						
Approach	NB	SB		Westbour	nd		Eastbour	nd
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LTR			R		I	TR
v (vph)		27			61			105
C (m) (vph)		587			450		1	98
v/c		0.05			0.14	1	1	1.07
95% aueue lenath		0.14			0.47	1	<b> </b>	6.73
Control Delay		11.4			14.3			101 0
08		R			R			E
Approach Delay		مستد 		1/2	L		101 0	<u> </u>
Approach LOS				P			<u>191.9</u> E	

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	T	WO-WAY STO	P CONTR	OL SU	MMARY			
General Information			Site I	nforma	ition			
Analyst Ag //Co. Date Performed Analysis Time Period	EJD CHA 2/18/2005 PEAK	HOUR	Interse Jurisdio Analys	ction ction is Year		ROUTE 7 TOWN O 2008 NO	7/SOUTH \ F BURLIN BUILD	WILLARD IGTON
Project Description BU	RLINGTON		<b>b</b> 1 1 1 10					
East/West Street: SOUT	H WILLARD		North/S	South Str	reet: ROUTE	7		
intersection Orientation:	North-South		Study I	Period (n	irs): 0.25			
Vehicle Volumes and	d Adjustment	<u>S</u>						
Major Street		Northbound				Southbo	und	
	1		3		4	5		<u> </u>
Volume	75	730			L	1005		<u> </u>
Peak-Hour Factor, PHF	0.90	0.90	0.90	)	<u> </u>	n 90		<u></u>
Hourly Flow Rate, HFR	83	811	0	<u> </u>	0.00	1116		0.00
Percent Heavy Vehicles	2				2			
Median Type	********			Undiv	ided		L	
RT Channelized			0					0
Lanes	0	1	0		0	1		0
Configuration	LT					Т		
Upstream Signal		0				0		
Minor Street		Westbound				Eastbou	Ind	
Movement	7	8	9		10	11		12
	L	Т	R		L.	Т		R
Volume	0	145	0		0	0		0
Pe Hour Factor, PHF	0.90	0.90	0.90	·	0.90	0.90		0.90
Houry Flow Rate, HFR	0	161	0		0	0		0
Percent Heavy Vehicles	0	2	2		0	2	<u> </u>	2
Percent Grade (%)		0				0		
Flared Approach		N				N		
Storage		0				0		
RT Channelized			0					0
Lanes	0	1	0		0	0		0
Configuration								
Delay, Queue Length, an	d Level of Servi	<u>ce</u>				-		
Approach	NB	SB		Westbo	und		Eastboun	d
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT				TR			
v (vph)	83				161			
C (m) (vph)	626				39			
v/c	0.13				4.13		ſ	
95% queue length	0.46				18.51			
Control Delay	11.6				1618			
LOS	В				F			
Approach Delay	÷÷		1	1618	B		ŧ	
Approach LOS				F				

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## NO-BUILD ALTERNATIVE 2028 AM PEAK HOUR
	٨		$\mathbf{i}$	1	-	*	1	†	1	1	Ļ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		র্ম	Ť		র	7		4 b		ሻ	14	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0		4.0	·····	4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00		0.95		1.00	1.00	
Frt		1.00	0.85		1.00	0.85		0.99		1.00	1.00	
Flt Protected		0.99	1.00		0.98	1.00		0.99		0.95	1.00	
Satd. Flow (prot)		1835	1583		1820	1583		3482		1770	1857	
Fit Permitted		0.88	1.00		0.82	1.00		0.83		0.95	1.00	
Satd. Flow (perm)		1633	1583		1531	1583		2914		1770	1857	
Volume (vph)	15	35	25	45	50	150	35	280	25	220	690	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	39	28	50	56	167	39	311	28	244	767	17
RTOR Reduction (vph)	0	0	24	0	0	99	0	0	0	0	0	0
Lane Group Flow (vph)	0	56	4	0	106	68	0	378	0	244	784	0
Turn Type	Perm		Prot	Perm		pt+ov	Perm		С	ustom		
Protected Phases		4	4		8	8 1		2		1	6	
Permitted Phases	4			8			2			1		
Actuated Green, G (s)		7.2	7.2		7.2	20.0		13.9		12.8	31.7	
Effective Green, g (s)		8.2	8.2		8.2	22.0		14.9		13.8	32.7	
Actuated g/C Ratio		0.15	0.15		0.15	0.41		0.28		0.26	0.61	
Clearance Time (s)	. In an official names and the	5.0	5.0		5.0			5.0		5.0	5.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		249	242		234	649		809		455	1131	
v/s Ratio Prot			0.00			0.04				0.14	c0.42	
v/s Ratio Perm		0.03			c0.07			0.13				
v/c Ratio		0.22	0.02		0.45	0.11		0.47		0.54	0.69	
Uniform Delay, d1		20.0	19.3		20.7	9.8		16.1		17.2	7.1	
Progression Factor		1.00	1.00		1.00	1.00		1.00		1.00	1.00	
Incremental Delay, d2	al analytic and the second	0.5	0.0	11 martine and the state	1.4	0.1		0.4		1.2	1.9	
Delay (s)		20.4	19.4		22.1	9.9		16.5		18.4	9.0	
Level of Service	North Article Cont	С	В		С	Α		В		В	А	
Approach Delay (s)		20.1			14.6			16.5			11.2	
Approach LOS		С			В			В			В	
Intersection Summary												
HCM Average Control D	elay		13.3	Н	CM Lev	el of Se	ervice		В			
HCM Volume to Capacity	y ratio		0.58									
Actuated Cycle Length (s	3)		53.7	S	um of lo	ost time	(s)		8.0			
Intersection Capacity Uti	lization	(	58.6%	IC	CU Leve	l of Ser	vice		C			
Analysis Period (min)			15									
c Critical Lane Group												

	≯		$\mathbf{i}$	<b>F</b>	-	•	1	†	1	1	Ļ	~
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	4			4			¢ <b>‡</b> ,			<b>4</b> 4>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00			1.00			1.00			1.00	
Frt	1.00	1.00			0.88			0.99			0.99	
Flt Protected	0.95	1.00			1.00	i de la composición de la composición de la composición de la composición de la composición de la composición Esta de la composición de la composición de la composición de la composición de la composición de la composición		1.00			0.98	
Satd. Flow (prot)	1770	1863			1636			1848			1820	
Fit Permitted	0.63	1.00			0.98			0.97			0.78	
Satd. Flow (perm)	1175	1863			1614			1788			1445	
Volume (vph)	20	35	0	10	5	110	10	210	10	280	455	30
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj, Flow (vph)	22	39	0	11	6	122	11	233	11	311	506	33
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	22	39	0	0	139	0	0	255	0	0	850	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	22.4	22.4			22.4			50.7			50.7	
Effective Green, g (s)	23.4	23.4			23.4			51.7			51.7	
Actuated g/C Ratio	0.28	0.28			0.28			0.62			0.62	
Clearance Time (s)	5.0	5.0			5.0			5.0			5.0	
Vehicle Extension (s)	3.0	3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)	331	525			454			1112			899	
v/s Ratio Prot		0.02			n in an an Aorde Staise (Staise)							
v/s Ratio Perm	0.02				c0.09			0.14		1991 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -	c0.59	an an an an an an an an an an an an an a
v/c Ratio	0.07	0.07			0.31			0.23			0.95	
Uniform Delay, d1	21.9	21.9			23.5			6.9			14.4	ora-1ora (1960/04/95-
Progression Factor	1.00	1.00			1.00			1.00			1.00	
Incremental Delay, d2	0.4	0.3			1.7			0.1			18.1	
Delay (s)	22.2	22.2			25.2	un de la la la la la la la la la la la la la		7.0			32.5	
Level of Service	C	С			С			А			С	(1),121,122,1411,
Approach Delay (s)		22.2			25.2			7.0			32.5	
Approach LOS		C			С			А			С	
Intersection Summary												
HCM Average Control D	elay		26.3	Н	CM Lev	el of Se	rvice		С			
HCM Volume to Capacit	y ratio		0.75									
Actuated Cycle Length (s	s)		83.1	S	um of lo	ost time	(s)		8.0			
Intersection Capacity Uti	lization	ī	7.7%	IC	U Leve	l of Sen	/ice		D	h ang si		
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		¢.			44			£,			<u>.</u>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00	· · · · · · · · · · · · · · · · · · ·		1.00	an an an an an an an an an an an an an a
Frt		0.97			0.90			0.98			0.99	shikashara karang Malaka Salah Sala
Flt Protected		0.99			0.99			0.99			0.96	
Satd, Flow (prot)		1732			1611			1742			1719	
Flt Permitted		0.94			0.96			0.94			0.75	
Satd. Flow (perm)		1648			1560			1652			1336	
Volume (vph)	5	15	5	40	35	205	5	20	5	365	70	25
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	6	17	6	44	39	228	6	22	6	406	78	28
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	29	0	0	311	0	0	34	0	0	512	0
Turn Type	Perm			Perm			Perm			om+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		20.9			20.9			29.4			28.4	
Effective Green, g (s)		20.9			20.9			29.4			29.4	
Actuated g/C Ratio		0.36			0.36			0.50			0.50	
Clearance Time (s)		4.0			4.0			4.0			5.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		591			559			833			674	
v/s Ratio Prot												
v/s Ratio Perm		0.02			c0.20			0.02			c0.38	
v/c Ratio		0.05			0.56			0.04			0.76	
Uniform Delay, d1		12.2			15.0			7.3			11.6	
Progression Factor	tottet datum tet tak an	1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.2			4.0			0.0			4.9	
Delay (s)	te de la companya de la companya de la	12.4			18.9			7.3			16.5	
Level of Service		В			В			Α			В	
Approach Delay (s)	ine ferte data data data	12.4			18.9	lander for the second of the state		7.3			16.5	
Approach LOS		В			В			A			В	
Intersection Summary												
HCM Average Control De	elay		16.9	Н	CM Lev	el of Se	rvice		В			<u></u>
HCM Volume to Capacity	y ratio		0.68					ala ma muntu da		ee enterte enterte her fan	u un konstrata (18	an an an an an an an an Araba
Actuated Cycle Length (s	<b>)</b>		58.3	S	um of lo	st time	(S)		8.0			
Intersection Capacity Util	lization	Ę	59.1%	IC	U Leve	l of Sen	/ice		В			
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<del>4</del> 3+			<del>4</del> Î	7		ধ	7		<del>4</del> 3	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0		4.0	4.0		4.0	
Lane Util. Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Frt		0.96			1.00	0.85		1.00	0.85		0.98	
Fit Protected		0.99			1.00	1.00		0.97	1.00		0.99	
Satd. Flow (prot)		1772			1861	1583		1802	1583		1801	
Fit Permitted		0.94			0.99	1.00		0.63	1.00		0.88	
Satd. Flow (perm)		1668			1847	1583		1177	1583		1601	
Volume (vph)	40	220	125	5	285	65	260	125	10	45	160	45
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	44	244	139	6	317	72	289	139	11	50	178	50
RTOR Reduction (vph)	0	0	0	0	0	48	0	0	6	0	0	0
Lane Group Flow (vph)	0	427	0	0	323	24	0	428	5	0	278	0
Turn Type	Perm	an et en se en en en en en en en en en en en en en	ang ang pang pang pang pang pang pang pa	Perm		Perm	Perm		Perm	Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2	en en <u>en anterne</u> r en		6	an tangga <u>n</u> tan <u>sa</u> ta -	6	8	warte weerster	8	4	An an an an an an an an an an an an an an	
Actuated Green, G (s)		19.5			19.5	19.5		26.9	26.9		26.9	
Effective Green, g (s)		20.5	raanse finaleer dereken	na ta tangan sanya sa	20.5	20.5		27.9	27.9	an an an an an an an an an an an an an a	27.9	
Actuated g/C Hatio		0.33			0.33	0.33		0.46	0.46		0.46	
Clearance Time (s)	oo aa ay ay ahaa ahaa ahaa ahaa ahaa aha	5.0			5.0	5.0	anan da anan da da	5.0	5.0		5.0	111 - 112 - 112 - 112 - 112 - 112 - 112 - 112 - 112 - 112 - 112 - 112 - 112 - 112 - 112 - 112 - 112 - 112 - 11
Venicle Extension (s)		3.0			3.0	3.0		3.0	3.0		3.0	
Lane Grp Cap (vph)		559		n (pi tatu iya yeker	619	530	-2527-1727-1747-1717-1747	537	722		730	a an an an an an an an an an an an an an
v/s Hatio Prot												
v/s Hatio Perm	ana ang ang ang ang ang ang ang ang ang	c0.26	ana ang ang ang ang ang ang ang ang ang	(Maria)) de dece	0.17	0.02		c0.36	0.00		0.17	a ta mana katura
V/C Hatio		0.76			0.52	0.05		0.80	0.01		0.38	
Uniform Delay, d1		18.2			16.4	13.7		14.2	9.1		11.0	sinahisiisaasa
Progression Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Incremental Delay, d2	san ang ang ang ang ang ang ang ang ang a	5.1 545	(8,43 kok kokstaan)	wijikaana jalaha jalay	0.8	0.0	VARAN ARTAN BUT MARK	8.1	0.0		0.3	lani-karindarata kalu
Delay (S)		24.3		0000000000	17.2 D	13.8		22.3	9.1		11.3	
Level of Service					d A C C	B		00.0	A		В	nikarkengi
Approach LOS		24.3			0.0			22.0			11.3	
Approach LOS		C			в			U			В	
Intersection Summary												
HCM Average Control D	elay	e a tau a tau a ta	19.3	Н	CM Lev	/el of Se	ervice		В			
HCM Volume to Capacit	y ratio		0.71									
Actuated Cycle Length (	S)	Shi ya wa ya mwana wa	61.2	S	um of k	ost time	(s)		8.0			
Intersection Capacity Uti	lization		34.6%	IC	CU Leve	el of Ser	vice		E			
Analysis Period (min)			15	angen den en en et en ere		ordana or offensionen de	na duata da tatistica	an an an an an an an an an an an an an a				an an an an an an an an an an an an an a
c Critical Lane Group												

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Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	۲	オ	۳,	<b></b>	*	*
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	12	11	12	11	12
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1711	1583	1711	1863	1801	1583
Flt Permitted	0.95	1.00	0.32	1.00	1.00	1.00
Satd. Flow (perm)	1711	1583	580	1863	1801	1583
Volume (vph)	55	120	155	590	645	235
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	61	133	172	656	717	261
RTOR Reduction (voh)	0	111	Ō	0	0	73
Lane Group Flow (vph)	61	22	172	656	717	188
Turn Type		Prot	Perm			Perm
Protected Phases	4	4		2	6	
Permitted Phases			2			6
Actuated Green. G (s)	11.1		50.9	50.9	50.9	50.9
Effective Green, a (s)	12.1	12.1	51.9	51.9	51.9	51.9
Actuated g/C Ratio	0.17	0.17	0.72	0.72	0.72	0.72
Clearance Time (s)	5.0	5.0	50	50	50	50
Vehicle Extension (s)	3.0	3.0	3.0	3.0	30	3.0
Lane Grp Cap (vph)	288	266	418	1343	1298	1141
v/s Ratio Prot	c0 04	0.01		0.35	c0 40	
v/s Ratio Perm			0.30			0.12
v/c Ratio	0 21	0.08	0.00	0 49	በ 55	0.16
Uniform Delay, d1	25.8	25.3	40	4.3	47	20
Progression Factor	1 00	1 00	1 00	1 00	1 00	1.00
Incremental Delay d2	n 4	01	30	q	1.00	1.00
Delay (s)	26.2	25.4	<del>ን የ</del> በ	56	64	35
Level of Service	C		γ.γ Δ	Δ	υ.+ Δ	0.5
Approach Delay (s)	25.7	~	<b>FX</b>	59	56	<i>4</i> N
Approach LOS	Č.			Δ	э.о А	
						ta de la facto de la facto de la facto de la facto de la facto de la facto de la facto de la facto de la facto
Intersection Summary						
HCM Average Control D	elay		7.7	Н	ICM Lev	el of Service
HCM Volume to Capacit	y ratio		0.49			
Actuated Cycle Length (	5)		72.0	S	um of lo	ost time (s)
Intersection Capacity Uti	lization	(	63.9%	IC	CU Leve	of Service
Analysis Period (min)			15			

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<del>4</del> )			<del>4</del> 2-			ф.		ሻ	<b>ţ</b>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	14	12	12	14	12	12	14	12	11	11	12
Total Lost time (s)		4.0			4.0			4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00			1.00		1.00	1.00	
Frt		0.99			0.92			1.00		1.00	0.98	
Fit Protected		0.98			1.00			1.00		0.95	1.00	
Satd. Flow (prot)		1926			1816			1980		1711	1759	
Fit Permitted		0.49			0.99			0.98		0.24	1.00	
Satd. Flow (perm)		971			1802			1940		432	1759	
Volume (vph)	65	70	10	10	130	235	15	555	10	145	490	90
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	72	78	11	11	144	261	17	617	11	161	544	100
RTOR Reduction (vph)	0	4	0	0	83	0	0	1	0	0	7	0
Lane Group Flow (vph)	0	157	0	0	333	0	0	644	0	161	637	0
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		16.0			16.0			25.8		36.8	36.8	
Effective Green, g (s)		17.0			17.0			26.8		37.8	37.8	
Actuated g/C Ratio		0.26			0.26			0.41		0.58	0.58	
Clearance Time (s)		5.0			5.0			5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		252			467			793		385	1014	
v/s Ratio Prot										0.04	c0.36	
v/s Ratio Perm		0.16			c0.18			c0.33		0.20		
v/c Ratio	والمعادية والمعادية والمعالية	0.62		ە خىيىتىمە ئىرىمەتلەر بىرى ئىرى	0.71		والمراجع والمحالية والمحالية والمحالية	0.81		0.42	0.63	
Uniform Delay, d1		21.5			22.1			17.2		9.6	9.2	
Progression Factor	an an an an an an an an an an an an an a	1.00	na Manatana ang Karang		1.00	o-titler Cree Car Crience		1.00		1.00	1.00	
Incremental Delay, d2		4.8			5.1	den en	6.4		0.7	1.2		
Delay (s)	an second second second second	26.2			27.2	ari dama karakarati		23.5		10.3	10.5	
Level of Service		C			~ 0			C		B	8	
Approach Delay (S)		26.2		n an	27.2	rionisia sian bili k	oosta salaataa ay sa	23.5	gaga sena aya	uppelijske krige general	10.4	ningingingi kanan
Approach LUS	0.000000000	U.			Ú			Ú			B	
Intersection Summary												
HCM Average Control D	elay		19.3	H	CM Lev	el of Se	rvice		В			
HCM Volume to Capacity	y ratio		0.73									
Actuated Cycle Length (s	<b>3)</b>		65.6	S	um of lo	st time	(s)		12.0			
Intersection Capacity Uti	lization	1(	)4.9%	IC	CU Leve	l of Serv	/ice		G			
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		44			ф.			4			4.	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	10	110	95	25	105	25	10	355	45	25	260	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	11	122	106	28	117	28	11	394	50	28	289	6
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	239	172	456	322								
Volume Left (vph)	11	28	11	28								
Volume Right (vph)	106	28	50	6								and an an an an an an an an an an an an an
Hadj (s)	-0.22	-0.03	-0.03	0.04			agu agu bha ann Aba allanna agu					
Departure Headway (s)	6.5	6.9	6.0	6.3								
Degree Utilization, x	0.43	0.33	0.76	0.56								
Capacity (veh/h)	481	438	579	527				(*)	2000/00/00/00/00/00/00/00 2000/00/00/00/00/00/00/00/00/00/00/00/00			an an se gans and a
Control Delay (s)	14.4	13.3	25.1	17,1						8		
Approach Delay (s)	14.4	13.3	25.1	17.1						1		an an an an Arrange an Arrange
Approach LOS	В	В	D	C								
Intersection Summary												
Delay		S 10 10 10	19.1									
HCM Level of Service			С									
Intersection Capacity Uti	lization	la bisha kash dashi Manaziri dashi	50.1%	l	CU Leve	l of Ser	vice		Α			
Analysis Period (min)			15				·					

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		¢‡,			÷Ĵ.			÷Ĵ+			4	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	55	365	75	100	10	105	395	55	5	365	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	61	406	83	111	11	117	439	61	6	406	6
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	472	206	617	417								
Volume Left (vph)	6	83	117	6								
Volume Right (vph)	406	11	61	6						55 55 54 54 55 57 5 5 5 5 5 5 5	an an an an an an an an an an an an an a	atesan institution.
Hadj (s)	-0,48	0.08	0.01	0.03								
Departure Headway (s)	7.9	9.6	8.4	8.4				******		na ta shina ba theadh na marain	oden de Alle Oxidi	
Degree Utilization, x	1.03	0.55	1.43	0.97								
Capacity (veh/h)	460	363	442	417					aan aret oo taalaa taalaa taa			terreta de la construcción
Control Delay (s)	79.0	23.5	230.4	66.8						i de de se		
Approach Delay (s)	79.0	23.5	230.4	66.8								
Approach LOS	F	С	F	F								
Intersection Summary												
Delay			123,9				5 6 6 2					
HCM Level of Service			F									
Intersection Capacity Uti	lization		98.8%	IC	CU Leve	l of Ser	vice		F			
Analysis Period (min)			15								1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 -	
								<u>isainninn</u> n			Salidades	

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<del>د</del> ‡.			4			<u>а</u> ,			£.	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	75	160	35	55	160	250	15	175	20	155	295	60
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	83	178	39	61	178	278	17	194	22	172	328	67
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	300	517	233	567								
Volume Left (vph)	83	61	17	172								
Volume Right (vph)	39	278	22	67							forfe-considert stor	100000000000000000000000000000000000000
Hadj (s)	0.01	-0.26	-0.01	0.02								
Departure Headway (s)	8.5	7.6	8.8	7.9					an belik berne here bei	and an an an an an an an an an an an an an		***********
Degree Utilization, x	0.70	1.09	0.57	1.24					<u>i de la com</u>			
Capacity (veh/h)	414	471	392	454	renterili okti olikusto	har u la data ya ma ma Mara S				trainaide Meiriceachai	beengenbekeed	an barbar di Barrana. T
Control Delay (s)	29.3	95.1	22.8	150.8								
Approach Delay (s)	29.3	95.1	22.8	150.8					()			
Approach LOS	D	F	C	F						adadada (1997) Suma Sector		
Intersection Summary												
Delay			92.0									
HCM Level of Service			F									
Intersection Capacity Uti	lization		78.5%	I	CU Leve	l of Ser	vice		D			
Analysis Period (min)			15								- 19 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 2	an an sa tana fast.
								ina ang ang ang ang ang ang ang ang ang a		initestatatio		Shidadaa

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			ф.			4			<b>4</b> 4	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	5	5	15	50	5	45	20	630	20	45	805	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	6	17	56	6	50	22	700	22	50	894	6
Pedestnans	Nasionalia (Maria)			inte sintens						Seneone cours	Nganakanan	shimhataanaa
Walking Speed (ft/s)												
Percent Blockage	a dalar dalar segur. Sector dalar segur											
Right turn flare (veh)												
Median type		None			None				eth dhè nami ang bagai. Na ang bagai ang bagai ang bagai ang bagai ang bagai ang bagai ang bagai ang bagai ang			
Median storage veh)	100000000000000000000000000000000000000			1999 - 1999 -	annen a terrakanan	1944, 1944, 4944, 1947, 19		ta a ta ann ann an		50 e e e 200 e e 200 e e 200 e e 200 e e 200 e e 200 e e 200 e e 200 e e 200 e e 200 e e 200 e e 200 e e 200 e		ten konsen konstant.
Upstream signal (ft)						4 H H H						
pX, platoon unblocked		entere entere de la comme	waa aan waxaa ahaa aha				en ante de la constante de la c					
vC, conflicting volume	1806	1764	897	1772	1756	711	900			722		
VC1, stage 1 cont vol				NISING MARKIN				ing Scherkelander		hiyinikin di taya	walan dalama	arkonskovára.
VGZ, Stage Z coni voi	1906	1764	907	1770	1756	714	000			700		
tC single (s)	7.1	65	697	71	1/50	(  ) 60	900			122		
tC. 2 stage (s)	an an an an an an an an an an an an an a	0.0	<b>1.4 - 5.</b>		0.0	Uste	77-1			7.1		
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			22		
p0 queue free %	88	93	95	0	93	88	97		1910-0910-1916-0911-0913 1910-0910-1916-0911-0913	94	1949-1949-949-1419-1419 1949-1949-949-1419-141	anna chrisinga
cM capacity (veh/h)	48	77	338	54	78	433	755			880		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	28	111	744	950		50 (21 mil 107)						
Volume Left	6	56	22	50								
Volume Right	17	50	22	6								
CSH Victoria Constant	117	92	755	880					oldaj menagan		(alateria)	an dan katalah
Volume to Capacity	0.24	1.21	0.03	0.06								
Control Delay (c)	22 1 5 1	194 244 2		c A F						langgalalasia		
Lane LOS	F	E E	υ.ο Δ	ι.υ Δ					0.0500000000000000000000000000000000000			
Approach Delay (s)	45.1	244 2	0.8	16								<u>en service de la composición de la composición de la composición de la composición de la composición de la comp</u>
Approach LOS	E	F										
Intersection Summary												
Average Delay			16.6									and the second second second second second second second second second second second second second second second
Intersection Capacity Uti	lization		81.7%	ા	CU Leve	l of Serv	rice		D			
Analysis Period (min)			15									

	¥	*	Ť	1	1	¥				
Movement	WBL	WBR	NBT	NBR	SBL	SBT				
Lane Configurations	M		<b>ħ</b>			4				
Sign Control	Stop		Free			Free				
Grade	0%		0%			0%			ale e contra contra por envers	alanta a ser control o control
Volume (veh/h)	85	75	575	65	45	795				
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				
Hourly flow rate (vph)	94	83	639	72	50	883				
Pedestrians										
Lane Width (ft)										
Walking Speed (ft/s)		antaran an antar (an Argar)	Leenanderan anda	interational and a state of the			(1),500,000,000,000,000,000,000,000,000,00	والمحمدين فالروم مراجع ماريك	eren haran kersa propana	a a tana ang ana na ang ang ang
Percent Blockage										
Right turn flare (veh)		645106310663366376	an an an an an an an an an an an an an a	-	n waan da bada da baar ee da		sashanishi na masara	na ana ang ang ang ang ang ang ang ang a		Contesta de la referanciación.
Median type	None									
Nedian storage ven)			000						Kalendari berez	
Dystream signal (it)	0 02	0 00	000		0 00					
VC conflicting volume	1659	0.03	nani tataniyi ketapiri jine mini patanyi ketapiri jine		0.03					
vC1_stage_1_conf_vol	1000	0/3			/11					
vC2 stage 2 conf vol										
vCu, unblocked vol	1792	609			652					
tC. single (s)	6.4	6.2			41					
tC, 2 stage (s)		na na hana an an an an an an an an an an an an		n de la construction de la constru La construction de la construction d		a gravit state a sinita initia a dife			destructure southeise (gi	
tF (s)	3.5	3.3			2.2					
p0 queue free %	0	80			94		e n fel est ve fel recept folge seg		,	and raws raid, an were structured
cM capacity (veh/h)	69	411			776					
Direction, Lane #	WB 1	NB 1	SB 1							
Volume Total	178	711	933						0.0.0	
Volume Left	94	0	50							
Volume Right	83	72	0							
cSH	113	1700	776			ter son the subscription of the second				
Volume to Capacity	1.57	0.42	0.06							
Queue Length 95th (ft)	329	0	5	1945 AND 107 AND 107 AND 107 AND 107 AND 107 AND 107 AND 107 AND 107 AND 107 AND 107 AND 107 AND 107 AND 107 AND	an shar ti cui com ave		en en en en en en en en en en en en en e	an an an an an an an an an an an an an a	lenender ( 12 bei merren.	nia anna an an Anna An Anna An An
Control Delay (s)	362.7	0.0	1.8							
	ל ה ההה		A						an ini ang ang ang ang ang ang ang ang ang ang	
Approach LOS	362.7 F	0.0	1.8							
Intersection Summary	-									
Average Delav			36.3							
Intersection Capacity Ut	ilization	ç	94.6%	IC	U Level	of Service		<b>p</b>		
Analysis Period (min)		çı	15	, ang ang ang ang ang ang ang ang ang ang			y ang sy tanan ing kang bagi sa			unanananggapang.

	¥	*	1	1	1	Ļ			
Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations	¥		<b>t</b>			र्स			
Sign Control	Stop		Free			Free			
Grade	0%		0%			0%	an an the transmission of the second se	an na managan panananan	a fasta sala atala sina ang sang sa
Volume (veh/h)	45	70	685	45	55	685			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90			1
Hourly flow rate (vph)	50	78	761	50	61	761			
Pedestrians									
Lane Width (ft)									
Walking Speed (ft/s)	entre en district et esterio			lation and at the second second					
Percent Blockage									
Right turn flare (veh)		-Selfersseitze-Betresseite			والمعادية والمحافظ والمحافظ والمعاقب		en en en en en en en en en en en en en e		
Median type	None								
Median storage veh)		it and the second second							
Upstream signal (ft)						667			
px, platoon unblocked	0.80		synder and a start and a start a start a start a start a start a start a start a start a start a start a start				gen Geleg Hernielsen		ne z jedna konzektore
vC, conflicting volume	1669	/86			811				
vC1, stage 1 cont vol						understander begander as a st		Makimistrikina (sa).	
vCz, staye z coni vol	1007	706			011				
tC cincle (c)	1007 6 A	60			011 				
tC, 2 stage (s)	9. <b>9. 9. 9</b> .	U.K.			<b>**.</b> 1				
(0, 2 0///g0 (0) tF /s)	25	33			<u></u>				
n0 queue free %	 19	80 80	******	yernen kernen	93				
cM capacity (veh/h)	62	392	Da (Da (19)		815				
Direction Lane #	W/B 1	NR 1	CR 1		•••				
Volume Total	128	811	822						
Volume Left	50	0	61				80.51.53.22.03.4		
Volume Right	78	50	Ō				<u>jestos ser</u>		
cSH	127	1700	815	hterrest Stagsauge (s)					
Volume to Capacity	1.01	0.48	0.07						
Queue Length 95th (ft)	175	0	6						
Control Delay (s)	149.3	0.0	2.0					enangi bigʻi yapangini Galakti shiringa angan	
Lane LOS	F		Α		a, a sa  ennen mensen en er en en en en en en en en en en en en en			sene en en en en en en en en en en en en	
Approach Delay (s)	149.3	0.0	2.0						
Approach LOS	F					,			n gen um num en en en en en en en en en en en en en
Intersection Summary									
Average Delay			11.7						
Intersection Capacity UI	tilization	•	94.7%	IC	U Leve	of Service		F	
Analysis Period (min)			15						



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Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	¥			র্শ	4	
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	5	25	185	735	700	30
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	28	206	817	778	33
Pedestrians		nin Selivisies		kathalan kikadar	an an an an an an an an an an an an an a	
Lane wigin (ff)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)		0945540000099009	Andro-Maria (1994-199	nyata misingi kang		
Upstream signal (ft)				1089	959	
pX, platoon unblocked	0.76	0.86	0.86	*** ;****************		
vC, conflicting volume	2022	794	811			
vC1, stage 1 conf vol		- 1 kana kana jana ing pikang				
vC2, stage 2 conf vol						
VCu, unblocked vol	2061	760	780			
tC, single (s)	6.4	6.2	4.1			
IC, Z Slaye (S)	25	22	22		njeriok (ene	
n (s)	83	92	<i>د.د</i> 71	esta (statela))		
cM capacity (veh/h)	33	348	718			
Direction Lone #	CQ 1		CD 1			
Volume Total	22	1022	<u>911</u>			
Volume Left		206	0			
Volume Right	28	0	33			
cSH	134	718	1700		ender an de herrion de	
Volume to Capacity	0.25	0.29	0.48			
Queue Length 95th (ft)	23	30	0			
Control Delay (s)	40.6	7.7	0.0			
Lane LOS	E	Α	an an an an an an an an an an an an an a	an an an an an an an an an an an an an a		
Approach Delay (s) Approach LOS	40.6 E	7.7	0.0			
Intersection Summary						
Average Delay			4.9			
Intersection Capacity Ut Analysis Period (min)	ilization	10	)0.9% 15	IC	U Level	l of Service G



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	۲	4î		ሻ	4			¢.			ф.	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	12	11	11	14	14	14	11	11	11
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.99		1.00	0.99			0.97			0.98	
Flt Protected	0.95	1.00		0.95	1.00			1.00			0.99	
Satd. Flow (prot)	1711	1839		1770	1786			1921			1748	
Flt Permitted	0.26	1.00		0.31	1.00			0.97			0.90	
Satd. Flow (perm)	464	1839		573	1786			1861			1591	
Volume (vph)	45	380	35	25	430	25	25	270	85	45	190	45
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	50	422	39	28	478	28	28	300	94	50	211	50
RTOR Reduction (vph)	0	5	0	0	3	0	0	8	0	0	5	0
Lane Group Flow (vph)	50	456	0	28	503	0	0	414	0	0	306	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	19.8	19.8		19.8	19.8			20.9			20.9	
Effective Green, g (s)	20.8	20.8		20.8	20.8			21.9			21.9	
Actuated g/C Ratio	0.37	0.37		0.37	0.37			0.39			0.39	
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	174	689		215	669			734			628	
v/s Ratio Prot		0.25			c0.28							
v/s Ratio Perm	0.11			0.05				c0.22			0.19	
v/c Ratio	0.29	0.66		0.13	0.75			0.56			0.49	
Uniform Delay, d1	12.2	14.4		11.4	15.1			13.1			12.6	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.9	2.4		0.3	4.8			1.0			0.6	
Delay (s)	13.1	16.8		11.7	19.9			14.1			13.2	
Level of Service	B	B		В	В			В			В	
Approach Delay (s)		16.5			19.4			14.1			13.2	
Approach LOS		В			В		a- 6 a a	В			В	
Intersection Summary												
HCM Average Control D	elay		16.2	H	ICM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.59				, serve contro (echol)	n yaarta da aada da adaa Aadii			v sessioner (dre	ne en en en en en en en en en en en en e
Actuated Cycle Length (:	5)		55.5	S	um of k	ost time	(S)		8.0			
Intersection Capacity Uti	lization	(	58.1%	IC	CU Leve	l of Ser	/ice		С	nan e grafan Afrikan (filma		2000-000-000-000-000-000-000-000-000-00
Analysis Period (min)			15									



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	*			4		٣	1,				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	10	10	16	16	16	10	11	11	12	12	12
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0				
Lane Util. Factor	1.00	1.00			1.00		1.00	1.00				. (* 1977) - 1997) - 1997) - 1997) - 1997) - 1997) - 1997) - 1997) - 1997) - 1997) - 1997) - 1997) - 1997) - 1
Frt	1.00	1.00			0.98		1.00	0.96				
Flt Protected	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (prot)	1888	1739			1869		1652	1733				
Flt Permitted	0.31	1.00			1.00		0.95	1.00				
Satd. Flow (perm)	607	1739			1869		1652	1733				
Volume (vph)	20	390	0	0	445	60	110	210	70	0	0	0
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	22	433	0	0	494	67	122	233	78	0	0	0
RTOR Reduction (vph)	0	0	0	0	7	0	0	11	0	0	0	0
Lane Group Flow (vph)	22	433	0	0	554	0	122	300	0	0	0	0
Parking (#/hr)	Southeast			0	0	0	<u>Austroni</u>					
Turn Type	Perm						Perm					
Protected Phases		2			6			8				
Permitted Phases	2						8	ni na fini na na na na na na na na na na na na na	n	er al en verste strede en stred	1919-1919-1919-1940-4940 1919-1919-1919-1919-1919-1919-1919-191	-0.02097700220972
Actuated Green, G (s)	21.0	21.0			21.0		13.3	13.3			0499910, 0004). 	
Effective Green, g (s)	22.0	22.0			22.0		14.3	14.3		*****	9929-000-0-996,009	24260294 <u>869</u> 0696
Actuated g/C Ratio	0.47	0.47			0.47		0.31	0.31				
Clearance Time (s)	5.0	5.0			5.0		5.0	5.0				ana kana Merida ng
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0				
Lane Grp Cap (vph)	286	819			880		506	531				
v/s Ratio Prot		0.25			c0.30	Saidalapaida.		c0.17				
v/s Ratio Perm	0.04			nna e Santa de Santa	() - 24 - 11 - 12 - 14 - 14 - 14 - 14 - 14	9244465994994494698	0.07	or (1990) (2014) (2494) (2	97.000-1409-040700 1	nta a tito de Secola de Secola de Secola de Secola de Secola de Secola de Secola de Secola de Secola de Secola Secola de Secola de S		60064936066665
v/c Ratio	0.08	0.53			0.63		0.24	0.56				
Uniform Delay, d1	6.8	8.7			9.3		12.1	13.6			1999-09-09-09-09-09-09-09-09-09-09-09-09-	ng na mang pada na Pili
Progression Factor	1.00	1.00		kiris sotas Sintensi	1.00	ri ever de siere Sector de siere	1.00	1.00				
Incremental Delay, d2	0.1	0.6			1.4		0.2	1.4	5757222222222222222222222		49999999999999999999999999999999999999	
Delay (s)	6.9	9.3			10.7		12.4	15.0				
Level of Service	Α	A			В		В	В	5 1 - F. C.	anan sa sa sa sa sa sa sa sa sa sa sa sa sa		adara (strandar
Approach Delay (s)		9.2			10.7			14.2			0.0	
Approach LOS		A			В			В			Α	an an an an an an an an an an an an an a
Intersection Summary												
HCM Average Control D	əlay		11.3	H	CM Lev	el of Sei	vice		В			
HCM Volume to Capacity	/ ratio	6.59.5.61	0.57									
Actuated Cycle Length (s	5)		46.7	SL	um of lo	st time (	s)		8.0			
Intersection Capacity Util	ization	4	19.0%	IC	U Level	l of Serv	ice		A			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	*	ţ.		<u>۲</u>	¥	1		ጨ		ኻ	*	*
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	11	11	12	12	12	10	10	12
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0		4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	ngendon produce neero	1.00	ka population and a	1.00	1.00	1.00
Frt	1.00	0.99		1.00	1.00	0.85		0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	to an a the second second second second second second second second second second second second second second s	0.95	1.00	1.00		0.99	Servi (order General de	0.95	1.00	1.00
Satd. Flow (prot)	1540	1666		1711	1801	1531		1643		1652	1739	1583
Flt Permitted	0.41	1.00	Sec	0.51	1.00	1.00	ber entre darent varge	0.91		0.71	1.00	1.00
Satd, Flow (perm)	670	1666		924	1801	1531		1506		1240	1739	1583
Volume (vph)	30	235	10	40	310	120	10	45	5	100	340	50
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	33	261	11	44	344	133		50	6	111	378	56
RTOR Reduction (vph)	0	2	0	0	0	89	0	3	ō	o l	Ō	33
Lane Group Flow (vph)	33	270	0	44	344	44	0	64	0	111 111	378	23
Parking (#/hr)	0	0	0				Ō	0	Ō			
Turn Type	Perm			Perm		Perm	Perm			nm∔nt		Perm
Protected Phases		2			6	astanda digila dag Natural digila dag		8		7	4	
Permitted Phases	2	91 040700-410 <b>7</b> 09		6	an an an an an an an an an an an an an a	6 (Constanting	8	1999 - 1999 - 1997 -	***********************	4		<b>4</b>
Actuated Green, G (s)	15.7	15.7		16.1	16.1	16.1		11.3		20.7	20.7	20.7
Effective Green, q (s)	16.7	16.7		17.1	17.1	17.1		12.3	aaran da baadi (1994)	21.7	21.7	21.7
Actuated g/C Ratio	0.32	0.32		0.33	0.33	0.33		0.24		0.42	0.42	0.42
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0	14969-9-69175-69176-681	5.0		5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0		3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	215	535		304	592	503		356		560	726	661
v/s Ratio Prot		0.16			c0.19					0.02	cn 22	
v/s Ratio Perm	0.05			0.05		0.03	hilterina ola di posti de Secolo de Secolo de Secolo de Secolo de Secolo de Secolo de Secolo de Secolo de Secol	0.04		0.06		0.01
v/c Ratio	0.15	0.50		0.14	0.58	0.09		0.18		0.20	0.52	0.04
Uniform Delay, d1	12.6	14.3		12.3	14.5	12.1		15.8		9.7	11.3	90
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00
Incremental Delay, d2	0.3	0.8	nyon ya cachoras becer	0.2	1.5	0.1		0.2	stingen gement	0.2	0.7	0.0
Delay (s)	12.9	15.1		12.5	15.9	12.1		16.1		9.9	12.0	9.0
Level of Service	В	В	an an an an an an ann an tha an	В	В	В		В	produkti da kangerini da na	А	В	Α
Approach Delay (s)		14.8			14.7			16.1			11.2	
Approach LOS		В			В			В	,	ala ngalariya	В	ala de la completa d
Intersection Summary												
HCM Average Control D	elay		13.5	Н	ICM Lev	el of Se	rvice		В			
HCM Volume to Capacity	y ratio		0.48									
Actuated Cycle Length (s	5)		52.0	S	um of lo	ost time	(s)		8.0			
Intersection Capacity Util	lization		50.9%	IC	CU Leve	l of Ser	vice		Α			
Analysis Period (min)			15					<ul> <li>A second state</li> </ul>				an an an an an an an an an an an an an a
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<del>با</del> ً	7	٣	4			ব	7	٣	<b>1</b>	102122222011222200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	12	12	16	12	12	12
Total Lost time (s)		4.0	4.0	4.0	4.0			4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	
Frt		1.00	0.85	1.00	0.97			1.00	0.85	1.00	0.99	
Fit Protected		1.00	1.00	0.95	1.00			0.98	1.00	0.95	1.00	
Satd. Flow (prot)		1736	1478	1486	1519			1826	1794	1593	1836	
Flt Permitted		0.99	1.00	0.59	1.00			0.85	1.00	0.55	1.00	
Satd. Flow (perm)		1720	1478	923	1519			1587	1794	916	1836	
Volume (vph)	5	220	45	20	270	65	95	145	25	20	50	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	6	244	50	22	300	72	106	161	28	22	56	6
RTOR Reduction (vph)	0	0	28	0	11	0	0	0	10	0	3	0
Lane Group Flow (vph)	0	250	22	22	361	0	0	267	18	22	59	0
Parking (#/hr)				0	0	0	0			0		
Turn Type	Perm		Perm	Perm			Perm		Perm	Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6			8		8	4		
Actuated Green, G (s)		15.6	15.6	15.6	15.6			13.2	13.2	13,2	13.2	
Effective Green, g (s)		16.6	16.6	16.6	16.6			14.2	14.2	14.2	14.2	
Actuated g/C Ratio		0.38	0.38	0.38	0.38			0.32	0.32	0.32	0.32	
Clearance Time (s)		5.0	5.0	5.0	5.0			5.0	5.0	5.0	5.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0			3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		652	560	350	576			515	582	297	595	
v/s Ratio Prot					c0.24						0.03	
v/s Ratio Perm		0.15	0.01	0.02		*****		c0.17	0.01	0.02		n (na stallen en fan fan fan fan fan fan fan fan fan fa
v/c Ratio	is South	0.38	0.04	0.06	0.63	50 - 254 i 654 i 654 i		0.52	0.03	0.07	0.10	
Uniform Delay, d1		9.9	8.6	8.7	11.1			12.0	10.1	10.2	10.3	
Progression Factor		1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.4	0.0	0.1	2.1			0.9	0.0	0.1	0.1	
Delay (s)		10.3	8.6	8.7	13.2			12.9	10.1	10.4	10.4	
Level of Service		В	А	Α	В			В	В	В	В	
Approach Delay (s)		10.0			13.0			12.6			10.4	
Approach LOS		A			В			В			В	
Intersection Summary												
HCM Average Control De	elay		11.8	H	ICM Lev	el of Se	rvice		В			
HCM Volume to Capacity	/ ratio		0.50							Ser carrière da		
Actuated Cycle Length (s	;)		43.8	S	ium of Ic	st time (	(s)		8.0			
Intersection Capacity Util	ization	,	44.4%		CU Leve	l of Serv	rice		Α			
Analysis Period (min)			15									
c Critical Lane Group												



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Movement	EBL2	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR2	SBL	SBT	SBR
Lane Configurations		ф <b>.</b>			4			<del>4</del> 2+			<b>4</b> 14	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	14	14	14	12	12	12	16	16	16
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.94			0.98			1.00		oleninditen eti Vietenin Artonia	1.00	
Flt Protected		0.99			0.99			1.00			1.00	
Satd. Flow (prot)		1733			1923			1856			2104	
Flt Permitted		0.97			0.96			0.98			0.99	
Satd. Flow (perm)		1689			1858			1823			2085	
Volume (vph)	10	30	35	5	20	5	20	465	5	5	270	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	11	33	39	6	22	6	22	517	6	6	300	6
RTOR Reduction (vph)	0	31	0	0	0	0	0	1	0	0	1	0
Lane Group Flow (vph)	0	52	0	0	34	0	0	544	0	0	311	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		3			3		1	2			6	erik dine finanska digar
Permitted Phases	3			3			2	2		6	6	
Actuated Green, G (s)		15.0			15.0			30.0			30.0	
Effective Green, g (s)		16.0			16.0			31.0			31.0	
Actuated g/C Ratio		0.20			0.20			0.39			0.39	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Lane Grp Cap (vph)		338			372			706			808	
v/s Ratio Prot										i fili di secto da secto da se Secto de la secto de	den gant (d). Rêdî hekîn de der	
v/s Ratio Perm		c0.03			0.02			c0.30			0.15	n ( ) e na mijer en
v/c Ratio		0.15			0.09			0.77			0.39	
Uniform Delay, d1		26.4			26.1	اليمشيران باليونية بميرانية والاسترا	e de thime contra titori	21.4	atomogén vésztéréseték	1994) 1996) - 1946) - 1997) 1997	17.6	an search an straight search an search an search an search an search an search an search an search an search an
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.0			0.5			8.0		57.5.7%;r.5.7***************	1.4	
Delay (s)		27.4			26.6			29.4			19.0	
Level of Service		С			С			С			В	
Approach Delay (s)		27.4			26.6			29.4			19.0	
Approach LOS		С			C			С			В	
Intersection Summary												
HCM Average Control D	elay		31.1	Н	CM Lev	el of Se	rvice		С			
HCM Volume to Capacity	y ratio		0.65									
Actuated Cycle Length (s	5)		80.0	S	um of lo	st time	(s)		12.0			
Intersection Capacity Uti	lization		73.0%	IC	U Leve	l of Sen	/ice		C			
Analysis Period (min)			15									
c Critical Lane Group												

Movement	SWL2	SWL	SWR	SWR2	
Lane Configurations	7	¥			
Ideal Flow (vphpl)	1900	1900	1900	1900	
Lane Width	14	14	14	14	
Total Lost time (s)	4.0	4.0			
Lane Util. Factor	1.00	1.00			
Frt	1.00	0.98			
Fit Protected	0.95	0.96			
Satd. Flow (prot)	1888	1866			
Flt Permitted	0.95	0.96			
Satd. Flow (perm)	1888	1866			
Volume (vph)	5	320	45	5	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	
Adj. Flow (vph)	6	356	50	6	
RTOR Reduction (vph)	0	1	0	0	
Lane Group Flow (vph)	6	411	0	0	
Turn Type	Split				
Protected Phases	4	4	la de de travers en anticipar en e	و میں دور و دروانی و دور میں وال	
Permitted Phases		ean ac sin			
Actuated Green, G (s)	20.0	20.0	an an an an an an an an an an an an an a		
Effective Green, g (s)	21.0	21.0			
Actuated g/C Ratio	0.26	0.26		والمراجع والمتعارية والمحاوم والمتعاد	
Clearance Time (s)	5.0	5.0			
Lane Grp Cap (vph)	496	490	www.coman.com		
v/s Ratio Prot	0.00	c0.22			
v/s Hatio Perm	series <b>a</b> s caricas as	latojo <u>de</u> na s <u>al</u> ategi () na	owagiowana canena.	an da kana kana da kana sa ka	
V/c Hatio	0.01	0.84			
Unitorm Delay, d1	21.8	27.9			
Progression Factor	1.00	1.00			
incremental Delay, d2	0.0	15.8	an an an an an an an an an an an an an a	niselation spaces	
Louid of Convine	21.9	43./			
Level Of Service		U 40.0			
Approach LOS		43.J			
Approach LUS		U			
Intersection Summary					

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		£	7		ជ	*	۲	<u></u>		۲	<u>ትኬ</u>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0	nan ya katika dana s	4.0	4.0	an ta ga sa
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	0.99	
Flt Protected		0.97	1.00		0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1799	1583		1823	1583	1770	3536		1770	3512	en ter de de de de de ter
Fit Permitted		0.77	1.00		0.84	1.00	0.14	1.00		0.25	1.00	
Satd. Flow (perm)		1426	1583		1573	1583	263	3536		465	3512	
Volume (vph)	60	25	175	15	20	20	280	1020	5	20	925	50
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	67	28	194	17	22	22	311	1133	6	22	1028	56
RTOR Reduction (vph)	0	0	167	0	0	19	0	0	0	0	5	0
Lane Group Flow (vph)	0	95	27	0	- 39	3	311	1139	0	22	1079	0
Turn Type	Perm		Perm	Perm		Perm	pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4		4	8		8	2			6		- 11- F13 F1 - F F
Actuated Green, G (s)		7.5	7.5		7.5	7.5	39.1	39.1		25.3	25.3	
Effective Green, g (s)		7.5	7.5		7.5	7.5	39.1	39.1		25.3	25.3	
Actuated g/C Ratio		0.14	0.14		0.14	0.14	0.72	0.72		0.46	0.46	
Clearance Time (s)		4.0	4.0		4.0	4.0	3.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		196	217		216	217	459	2532		215	1627	
v/s Ratio Prot							c0,12	0.32			0.31	
v/s Ratio Perm		c0.07	0.02		0.02	0.00	c0.36			0.05	a an ann an Annaichtean an Annaichtean an Annaichtean an Annaichtean an Annaichtean an Annaichtean an Annaichte	212.012.012.010.014
v/c Ratio		0.48	0.12		0.18	0.01	0.68	0.45		0.10	0.66	
Uniform Delay, d1		21.8	20.7		20.8	20.4	8.6	3.2		8.3	11.3	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.9	0.3		0.4	0.0	3.9	0.1		0.2	1.0	
Delay (s)		23.6	20.9		21.2	20.4	12.5	3.4		8.5	12.4	
Level of Service		С	С		С	С	В	А		А	В	
Approach Delay (s)		21.8			20.9			5.3			12.3	
Approach LOS		С			С			А			В	
Intersection Summary												
HCM Average Control D	elay		9.9	н	CM Lev	el of Se	ervice		A			
HCM Volume to Capacit	y ratio		0.63									
Actuated Cycle Length (s	s)		54.6	Sı	um of lo	ost time	(S)		8.0		9990-000-000-000-000-000-000-000-000-00	e on en
Intersection Capacity Uti	lization		64.0%	IC	U Leve	l of Ser	vice		В			
Analysis Period (min)			15									un alter for for for
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ų	र्भ	7	۲	<b>t</b> i		۲	ትኈ		ኘ	ትቡ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	10	12	16	12	10	10	10	10	10	10
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	0.95		1.00	0.95	
Frt		1.00	0.85	1.00	0.90		1.00	1.00		1.00	0.99	
Fit Protected		0.96	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1728	1478	1770	1906		1652	3300		1652	3271	
Flt Permitted		0.75	1.00	0.71	1.00		0.14	1.00		0.95	1.00	
Satd. Flow (perm)		1349	1478	1329	1906		245	3300		1652	3271	
Volume (vph)	50	10	310	15	5	10	380	1370	10	10	1015	70
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	56	11	344	17	6	11	422	1522	11	11	1128	78
RTOR Reduction (vph)	0	0	306	0	10	0	0	0	0	0	6	0
Lane Group Flow (vph)	0	67	38	17	7	0	422	1533	0	11	1200	0
Turn Type	Perm		Perm	Perm			pm+pt			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2					
Actuated Green, G (s)		7.8	7.8	7.8	7.8		45.9	45.9		0.9	28.3	
Effective Green, g (s)		7.8	7.8	7.8	7.8		46.9	46.9		0.9	29.3	
Actuated g/C Ratio		0.11	0.11	0.11	0.11		0.67	0.67		0.01	0.42	
Clearance Time (s)		4.0	4.0	4.0	4.0		5.0	5.0		4.0	5.0	
Vehicle Extension (s)		1.0	1.0	1.0	1.0		1.5	1.0		1.0	1.0	
Lane Grp Cap (vph)		150	164	148	212		535	2208		21	1367	
v/s Ratio Prot					0.00		c0.21	0.46		0.01	c0.37	
v/s Ratio Perm		c0.05	0.03	0.01			0.32					
v/c Ratio		0.45	0.23	0.11	0.03		0.79	0.69		0.52	0.88	
Uniform Delay, d1		29.1	28.4	28.0	27.8		16.6	7.2		34.4	18.8	
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.8	0.3	0.1	0.0		11.2	1.8		10.4	8.2	
Delay (s)		29.9	28.7	28.2	27.8		27.8	9.0		44.8	27.0	
Level of Service		C	C	C	C		C	Α		D	С	
Approach Delay (s)		28.9			28.0			13.1			27.2	
Approach LOS		C			С	5 9 G S		В			С	
Intersection Summary												
HCM Average Control De	əlay		19.7	Н	ICM Lev	el of Se	rvice		В			
HCM Volume to Capacity	/ ratio	,	0.71							en en en en en en en en en en en en en e	un ann an Adharaidh	orani, orange bateloof.
Actuated Cycle Length (s	)		70.1	S	um of lo	ost time	(S)		8.0			
Intersection Capacity Util	ization		71.3%	IC	CU Leve	l of Sen	/ice		С			
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				ሻ	<del>ل</del> ک			<b>^</b> t}			ትኈ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	14	12	12	12	12	12	12
Total Lost time (s)				4.0	4.0			4.0			4.0	
Lane Util. Factor		·		0.95	0.95			0.95			0.95	
Frt				1.00	1.00			1.00			1.00	
Flt Protected				0.95	0.96			1.00			1.00	
Satd. Flow (prot)				1681	1691			3539			3539	
Flt Permitted				0.95	0.96			1.00			1.00	
Satd. Flow (perm)				1681	1691			3539			3539	
Volume (vph)	0	0	0	1290	50	0	0	965	0	0	1410	0
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	1433	56	0	0	1072	0	0	1567	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	725	764	0	0	1072	0	0	1567	0
Turn Type				Perm			Perm					
Protected Phases					8			2			6	
Permitted Phases				8			2					Ando Antoineo Nacional
Actuated Green, G (s)				28.0	28.0			30.0			30.0	
Effective Green, g (s)				30.0	30.0			32.0			32.0	
Actuated g/C Ratio				0.43	0.43			0.46			0.46	
Clearance Time (s)				6.0	6.0			6.0			6.0	
Vehicle Extension (s)				3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)				720	725			1618			1618	
v/s Ratio Prot								0.30			c0.44	
v/s Ratio Perm				0.43	0.45							
v/c Ratio				1.01	1.05			0.66			0.97	
Uniform Delay, d1				20.0	20.0			14.8			18.5	
Progression Factor				1.00	1.00			1.00			1.00	
Incremental Delay, d2				35.3	48.5			1.0			15.4	
Delay (s)				55.3	68.5			15.8			33.9	
Level of Service				E				В			C	
Approach Delay (s)	leesta dele herenzante	0.0	Several de la composition		62.0			15.8			33.9	
Approach LOS		A				99459-59459		В			C	
Intersection Summary												
HCM Average Control De	elay		39.3	Н	CM Lev	el of Sei	vice		D			
HCM Volume to Capacity	ratio		1.01									
Actuated Cycle Length (s	)		70.0	S	um of lo	ost time (	S)		8.0			
Intersection Capacity Util Analysis Period (min)	ization	8	32.7% 15	IC	U Leve	l of Serv	ice		E			

	≯		$\mathbf{i}$	-	4	×.	•	†	*	4	ţ	~
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		44			4			ф.			đ,	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	65	45	15	130	10	50	370	65	5	165	10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	72	50	17	144	11	56	411	72	6	183	11
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	128	172	539	200								
Volume Left (vph)	6	17	56	6								0804644
Volume Right (vph)	50	11	72	11					*****			
Hadj (s)	-0.19	0.01	-0.03	0.01								
Departure Headway (s)	6.1	6.2	5.2	5.7								
Degree Utilization, x	0.22	0.30	0.77	0.32								
Capacity (veh/h)	521	523	678	569		-,			~~~~~	1999 (1999) - Angeles (1999) 1999 (1999) - Angeles (1999)	1999-001990-000 (M. 1990-001)	
Control Delay (s)	10.8	11.7	23.4	11.3								
Approach Delay (s)	10.8	11.7	23.4	11.3								
Approach LOS	В	В	C	В								
Intersection Summary												
Delay			17.6									
HCM Level of Service			С						****			
Intersection Capacity Uti	lization		59.0%	IC	CU Leve	l of Ser	vice		В	n na sin indin Manaka		
Analysis Period (min)			15									

	1	*	1	1	5	Ļ		
Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations	¥		4			<del>ب</del>		1996 AN
Sign Control	Stop		Free			Free		
Grade	0%		0%			0%		
Volume (veh/h)	65	5	535	265	5	695		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90		Ì
Hourly flow rate (vph)	72	6	594	294	6	772		
Pedestrians	dela en anter de contrator	sine an early a star		an an an an an an an an an an an an an a		an fan fan fan skiel fan de fan skiel fan skiel		
Lane Width (ft)								
Walking Speed (ft/s)	yayayayata yayaya	skiklini (dobučki) (	ing and the transformation	1995 - Harle Gallace Allace	- Velo-Velo-Velo-Velo-Velo-Velo-Velo-Velo-	egen establishten diels A		
Percent Blockage								
Hight turn tiare (ven)				hesissanas.			leinidet (niggengidente	
Median type	ivone							
Lipetreem elegal (ft)				Adalah katalah k		007		<u> (</u>
nX nlatoon unblocked	<u>0 01</u>					03/		33) (1)
vC conflicting volume	1525	742			ABO	le de política de seconda de secon		
vC1. stage 1 conf vol		an an an an an an an an an an an an an a						ęd
vC2. stage 2 conf vol			in an Annai					
vCu, unblocked vol	1574	742		n stille file nigse kjesta	889		an an an an an an an an an an an an an a	
tC, single (s)	6.4	6.2			4.1			
tC, 2 stage (s)					11 - 12 - 12 - 12 - 12 - 12 - 12 - 12 -			
tF (s)	3.5	3.3			2.2			
p0 queue free %	34	99			99			
cM capacity (veh/h)	110	416			762			
Direction, Lane #	WB 1	NB 1	SB 1					
Volume Total	78	889	778					
Volume Left	72	0	6	n waar oo galaa dhigaa ay dhiga		anan sayay nangay tiyan	es-ges/38111/21107/229/012	ordal
Volume Right	6	294	0					
cSH	116	1700	762				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Volume to Capacity	0.67	0.52	0.01					
Queue Length 95th (ft)	88	0	1					
Control Delay (s)	84.0	0.0	0.2	aan de se de Konse se de				
Lane LOS	F		A			و و و و و و و و و و و و و و و و و و و		
Approach Delay (s)	84.0	0.0	0.2					
Approach LOS	F							
Intersection Summary								
Average Delay			3.8					
Intersection Capacity Ut	ilization	Į	54.9%	IC	U Level	of Servic	)e	
Analysis Period (min)			15					

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		44			44			ፈቴ			ፈቴ	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%	er men en der bestelende	*******	0%	1999-1999, augusta (h. 1993). 1999	er om som som som som	0%	
Volume (veh/h)	40	0	85	10	0	10	40	1045	5	5	930	90
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	44	0	94	11	0	11	44	1161	6	6	1033	100
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)	na na mana ang ang ang ang ang ang ang ang ang	Nel mineri e textectio	Protocol and Protocol				una a paga a tanan seri					
Percent Blockage												
Hight turn flare (veh)	ininen in an			Marikana ang kana sa kana kana kana kana kana kana k		silvedan (1954) (292)	waaannaa maaraa ahaa		karana karana ka	ta Ariatette bebyta i Artta		a an an an an an an an an an an an an an
Median type		None			None							
Nedian storage ven)								4007				dicistrilationist.
Destream signal (it)								1267				
$\gamma C$ conflicting volume	1775	2250	667	1075	0207	E02	1100			4467	onisi/olganitikas	under songe
vC1_stage 1_conf_vol	1779	2000		10/0	2091	- 000	ା ୦୦୦			110/		
vC2_stage 2 conf vol												
vCu. unblocked vol	1775	2350	567	1875	2397	583	1133			1167		9923993999999 99
tC. single (s)	7.5	6.5	6.9	7.5	65	69	41			41		
tC, 2 stage (s)					~~~							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	7	100	80	66	100	98	93			99	n yaran yaran da sa Kara	conternity (contents)
cM capacity (veh/h)	48	33	467	33	30	455	612			595		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	139	22	625	586	522	617						
Volume Left	44	11	44	0	6	0	ADSEALADAICOMASDA	nngekastatisterist	2702249249249292		ranga Krasini kabiyi ya	2010125-055-0555
Volume Right	94	11	0	6	0	100						
cSH	123	61	612	1700	595	1700		(* 1922) - 1932 (* 1937) - 1937) - 1937 1937 - 1937 (* 1937) - 1937 (* 1937) - 1937 1937 - 1937 (* 1937) - 1937 (* 1937) - 1937 (* 1937) - 1937) - 1937	*********	**********		ra - Gradharan (Ba
Volume to Capacity	1.13	0.36	0.07	0.34	0.01	0.36						
Queue Length 95th (ft)	207	33	6	0	1	0						
Control Delay (s)	189.1	93.8	2.0	0.0	0.3	0.0						
Lane LOS	F	F	Α		А							
Approach Delay (s)	189.1	93.8	1.0		0.1							
Approach LOS	F	F										
Intersection Summary												
Average Delay			11.8									
Intersection Capacity Uti	lization		73.2%	IC	CU Leve	l of Sen	vice		D			
Analysis Period (min)			15									



	-+	$\rightarrow$	4		1	1	
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	4			র্ম	Y		
Sign Control	Free			Free	Stop		
Grade	0%			0%	0%		· · · · · · · · · · · · · · · · · · ·
Volume (veh/h)	215	35	135	85	10	45	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vpn)	239	39	150	94	11	50	
Pedestrians							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)				**************			
Median type					None		
Median storage veh)						2011 CONTRACTOR (2017) (2017)	n an
Upstream signal (ft)							
pX, platoon unblocked		An Administration (		lan sala dana si salah kuta da	ar an an an an an an an an an an an an an	end at a month and the test of the	
vC, conflicting volume		6.051050205	278		653	258	
VC1, stage 1 cont vol		2010-2010-2010 2010-2010-2010-2010		NICONCLES			
vCu, unblocked vol			279		652	9E0	
tC. single (s)			41		64	62	
tC, 2 stage (s)		ng ng signa signa si ng signa. Ng ng signa signa si ng signa si ng signa si ng signa si ng signa si ng signa si		1999 - 999 - 999 - 999 - 999 - 999 - 999 - 999 - 999 - 999 - 999 - 999 - 999 - 999 - 999 - 999 - 999 - 999 - 9 1999 - 999 - 999 - 999 - 999 - 999 - 999 - 999 - 999 - 999 - 999 - 999 - 999 - 999 - 999 - 999 - 999 - 999 - 99 1999 - 999 - 999 - 999 - 999 - 999 - 999 - 999 - 999 - 999 - 999 - 999 - 999 - 999 - 999 - 999 - 999 - 999 - 99	<b>~</b> ***		
tF (s)			2.2		3.5	3.3	
p0 queue free %			88		97	94	
cM capacity (veh/h)			1285		382	780	
Direction, Lane #	EB 1	WB 1	NB 1				
Volume Total	278	244	61				
Volume Lett	0	150	11				
	1700	1005	5U 656				
Volume to Canacity	0.16	n 12	000 n na				
Queue Length 95th (ft)	0	10	8				
Control Delay (s)	0.0	5.4	11.1				
Lane LOS		Α	В			indology dissolation (dissolation)	
Approach Delay (s)	0.0	5.4	11.1				
Approach LOS			В				
Intersection Summary							
Average Delay		- Ar a gru gaar ga a	3.4				
Intersection Capacity Uti	lization		38.7%	IC	U Level	of Servic	e A
Analysis Period (min)			15				



	T۱	NO-WAY STO	P CONTR	OL SUMN	/IARY					
<b>General Information</b>			Site Information							
Analyst A ં cy/Co. Date Performed Analysis Time Period	EJD CHA 2/18/2005 AM PEAK	HOUR	Interse Jurisdic Analysi	ction ction s Year		ROUTE 7/LOCUST/LEDGE TOWN OF BURLINGTON 2028 NO BUILD				
Project Description BUI	RLINGTON									
East/West Street: LOCU	ST/LEDGE		North/S	outh Street	: ROUTE	7				
Intersection Orientation:	North-South		Study F	eriod (hrs)	. 0.25					
Vehicle Volumes and	d Adjustments	3								
Major Street		Northbound				Southbo	und			
	1		3		4	5 T		6		
Volume		810	265		10 L	735		<u> </u>		
Peak-Hour Factor, PHF	0.90	0.90	0.90	)	0.90	0.90		0.90		
Hourly Flow Rate, HFR	0	900	294		11	816	i	16		
Percent Heavy Vehicles	0				2					
Median Type				Undivide	d					
RT Channelized			0	0			]			
Lanes	0	2	0		0	1		0		
Configuration		7	TR		LTR					
Upstream Signal		0				0				
Minor Street		Westbound				Eastbou	Ind			
Movement	7	8	9		10	11		12		
	L	Т	R		L	Т		R		
Volume	0	0			0	10		85		
Pe Hour Factor, PH-	0.90	0.90	0.90		0.90	0.90		0.90		
Record Heavy Vehicles	0	0			0	1		94		
Percent Grade (%)	0	0	2		U	<u> </u>		2		
Flored Approach										
Flareo Approach						//				
Storage		0				0		-		
RT Channelized			0					0		
Lanes		0			0	1		0		
	<u> </u>							/H		
Delay, Queue Length, an Approach	d Level of Servic	ce CD	1	Maathoung	4		Easthau			
Movement	1	35	7			10				
Lane Configuration	1	4	/	0	9	10				
v (vph)		11			77			105		
C(m)(ynh)		580			116		[	210		
v/c		0.02			0.17		I	0.50		
95% queue length		0.02	-		0.17		ļ	0.50		
Control Dolov		11.00			4 4 7		l	2.52		
		11.J			14.7		[ 	38.1		
LUO Annuach Dalais		Ď			L B	<u> </u>				
Approach Delay		m =		14.7		38.1				
ADDIOBCH LUS			1	ы		1	₩			

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	T۱	NO-WAY STO	P CONTR	OL SUM	IMARY					
<b>General Information</b>			Site Information							
Analyst A cy/Co. Date Performed Analysis Time Period	EJD CHA 2/18/2005 AM PEAK	HOUR	Interse Jurisdic Analysi	ction ction is Year		ROUTE 7/SOUTH WILLARD TOWN OF BURLINGTON 2028 NO BUILD				
Project Description BU	RLINGION		<b>b</b> 1 1 10							
Easi/West Street: SUUT	North-South		North/S	South Stre	et: $HOUTE$	/				
Melsiele Melsines en			Study r		5). 0.25					
Venicle Volumes and	a Adjustments	Northbound				Southbound				
Major Street	- 4		3		4		una	6		
		T	R		<del>~</del>	- J - T		R		
Volume	75	735	0		0	760		0		
Peak-Hour Factor, PHF	0.90	0.90	0.90	)	0.90	0.90		0.90		
Hourly Flow Rate, HFR	83	816	0		0	844		0		
Percent Heavy Vehicles	2				2					
Median Type				Undivid	led	j l				
RT Channelized			0					0		
Lanes	0	1	0		0	1		0		
Configuration						<u> </u>				
Upstream Signal		0				0				
Minor Street		Westbound				Eastbou	ind			
Movement	7		9		10	11		12		
N / 1		T	R			Т		R		
Volume	0	210	0		0	0		0		
	0.90	0.90	0.90		0.90	0.90		0.90		
Percent Heavy Vehicles	0	233			0			0		
Percent Grade (%)	<u>v</u>	<u> </u>	2		0	<u> </u>				
Flared Approach										
Ptorogo		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~								
		0	_			0				
			0					0		
Configuration	0	1			0	0		0		
			1 10	L						
Delay, Queue Length, an		co	1	Maathaur			To ath as you			
Approach	1	30		westbour		40	Eastbound			
	1	4	/	8	9	10	11	12		
	LI				IR			_		
v (vph)	83				233	ļ				
C (m) (vph)	792				61					
v/c	0.10				3.82					
95% queue length	0.35				25.00					
Control Delay	10.1				1408					
LOS	В				F					
Approach Delay	170 AD			1408						
Approach LOS					· · · · · · · · · · · · · · · · · · ·					

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## NO-BUILD ALTERNATIVE 2028 PM PEAK HOUR

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		र्स	7		<del>ų</del>	*		a î î a		ሻ	<b>t</b>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0		4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00		0.95		1.00	1.00	
Frt		1.00	0.85		1.00	0.85		0.98		1.00	0.99	
Fit Protected		0.98	1.00		0.97	1.00		0.99		0.95	1.00	
Satd. Flow (prot)		1830	1583		1809	1583		3453		1770	1838	
Flt Permitted		0.85	1.00		0.77	1.00		0.87		0.95	1.00	
Satd. Flow (perm)		1585	1583		1439	1583		3012		1770	1838	
Volume (vph)	25	45	45	110	75	415	60	425	70	300	300	30
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	28	50	50	122	83	461	67	472	78	333	333	33
<b>RTOR Reduction (vph)</b>	0	0	39	0	0	170	0	0	0	0	0	0
Lane Group Flow (vph)	0	78	11	0	205	291	0	617	0	333	366	0
Turn Type	Perm		Prot	Perm		pt+ov	Perm		С	ustom		
Protected Phases		4	4		8	8 1		2		1	6	
Permitted Phases	4			8			2			1		
Actuated Green, G (s)		14.3	14.3		14.3	30.0		18.5		15.7	39.2	
Effective Green, g (s)		15.3	15.3		15.3	32.0		19.5		16.7	40.2	
Actuated g/C Ratio		0.22	0.22		0.22	0.47		0.29		0.24	0.59	
Clearance Time (s)		5.0	5.0	مرز می و معمور میں مالو	5.0			5.0		5.0	5.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		355	355		322	742		860		433	1082	
v/s Ratio Prot			0.01			0.18				c0.19	0.20	
v/s Ratio Perm		0.05			c0.14			c0.20				
v/c Ratio		0.22	0.03		0.64	0.39		0.72		0.77	0.34	
Uniform Delay, d1		21.6	20.7		24.0	11.8		21.9		24.0	7.2	
Progression Factor		1.00	1.00		1.00	1.00		1.00		1.00	1.00	
Incremental Delay, d2		0.3	0.0		4.1	0.3		2.9		8.0	0.2	
Delay (s)		21.9	20.7		28.1	12.2		24.8		32.0	7.4	
Level of Service		С	С		С	В		С		С	Α	
Approach Delay (s)		21.5			17.1			24.8			19.1	
Approach LOS		С			В			С			В	
Intersection Summary												
HCM Average Control D	elay		20.3	Н	ICM Lev	el of Se	ervice		С			
HCM Volume to Capacity	y ratio		0.65									
Actuated Cycle Length (s	5)		68.3	S	um of lo	ost time	(s)		12.0			
Intersection Capacity Uti	lization	1	30.0%	10	CU Leve	of Ser	vice		В			
Analysis Period (min)			15									
c Critical Lane Group			ospanjika sistema). Sekuela sekuela r>Sekuela sekuela									



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	4			¢ţ,			<del>(</del> ‡)			÷Ĵ.	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0			4.0	an na sana sa ana ang
Lane Util. Factor	1.00	1.00			1.00			1.00			1.00	
Frt	1.00	1.00			0.90			0.99			0.99	
Flt Protected	0.95	1.00			1.00			1.00			0.99	
Satd. Flow (prot)	1770	1863			1673			1844			1818	
Flt Permitted	0.66	1.00			0.99			0.99			0.74	
Satd. Flow (perm)	1224	1863			1658			1833			1372	
Volume (vph)	50	50	0	10	35	125	5	380	30	125	295	35
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	56	56	0	11	39	139	6	422	33	139	328	39
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	56	56	0	0	189	0	0	461	0	0	506	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	22.6	22.6			22.6			24.4			24.4	
Effective Green, g (s)	23.6	23.6			23.6			25.4			25.4	
Actuated g/C Ratio	0.41	0.41			0.41			0.45			0.45	
Clearance Time (s)	5.0	5.0			5.0			5.0			5.0	
Vehicle Extension (s)	3.0	3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)	507	771			686			817			611	
v/s Ratio Prot		0.03				dalar ini seni seni Karan parta seni						
v/s Ratio Perm	0.05				c0.11			0.25			c0.37	
v/c Ratio	0.11	0.07			0.28			0.56			0.83	
Uniform Delay, d1	10.3	10.1			11.0			11.7	en en en en en en en en en en en en en e		13.9	
Progression Factor	1.00	1.00			1.00			1.00			1.00	
Incremental Delay, d2	0.4	0.2			1.0			0.9			9.0	
Delay (s)	10.7	10.3			12.0			12.6			22.9	innigadain Suntanaini
Level of Service	В	В			В			В			С	
Approach Delay (s)		10.5			12.0			12.6			22.9	
Approach LOS		В			В			В			С	
Intersection Summary												
HCM Average Control D	elay		16.5	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.56			c (5/6-14)						
Actuated Cycle Length (s	5)		57.0	S	um of lo	st time	(s)	anten eta estilat	8.0		an sata meninte (1986) Ali	na na sera Visterii di
Intersection Capacity Uti	lization		73.4%	IC	U Leve	l of Ser	vice		D			
Analysis Period (min)	,		15		e a caracter a caracter d'ennel d'ennel							er en en en en en en en en en en en en en
c Critical Lane Group												



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			¢\$,			<b>.</b>			£.	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.99			0.88			0.95			0.99	
Flt Protected		0.98			1.00			1.00			0.96	
Satd. Flow (prot)		1746			1578			1720			1712	
Flt Permitted		0.76			1.00			1.00			0.70	
Satd. Flow (perm)		1356			1574			1720			1248	
Volume (vph)	45	45	5	5	25	320	0	50	25	265	25	20
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	50	50	6	6	28	356	0	56	28	294	28	22
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	106	0	0	390	0	0	84	0	0	344	0
Turn Type	Perm			Perm			Perm			om+pt		Sonadi de das Sentecidas das
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		21.6			21.6			33.7			32.7	e tan ka sa da ana a sa
Effective Green, g (s)		21.6			21.6			33.7			33.7	
Actuated g/C Ratio	a tot e a constant a constant de la	0.34		tenne ete ne de altre temp	0.34		alaan ahaa dhalaa ahaalaa	0.53		and the second second	0.53	
Clearance Time (s)		4.0			4.0			4.0			5.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		463			537			916			664	
v/s Ratio Prot	ana ana ana ana ana ana ana ana ana ana	an an an an an an an an an an an an an a						0.05				
V/s Hatio Perm		0.08	a grand		c0.25		3 9 8 9				c0.28	
v/c Hatio	under der der der der der der der der der	0.23	sol hirebateroria	n an	0.73			0.09		an an an an an an an an an an an an an a	0.52	
Uniform Delay, d1		14.9			18.3			7.3			9.6	
Progression Factor	an an an an an an an an an an an an an a	1.00		anan katalan-kata	1.00	interinterister	ging alal ya jiwga a.	1.00			1.00	especies carby:
Incremental Delay, d2		1.2			8.3			0.0			0.7	
Delay (S)	aliyakiinaania	16.0		ana na kata kata kata kata kata kata kat	26.6	seren en	7.3	ani kangangan seberahan seberahan seberahan seberahan seberahan seberahan seberahan seberahan seberahan seberah	tereskisterije:	10.2	900994419446	
Level of Service		16 O				an an an an an an an an an an an an an a		- A - 7 0		6469-036-036	40 O	
Approach LOS		10.0 B			20.0 C			7.3 A			10.2 B	
Intersection Summary												
HCM Average Control D	elay		17.5	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacity	y ratio		0.60									·····
Actuated Cycle Length (s	s)		63.3	S	um of Ic	st time	(s)		8.0			
Intersection Capacity Util Analysis Period (min)	lization	(	50.4% 15	IC	CU Leve	l of Ser	vice		В			



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4	7		র্ম	*		4	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0		4.0	4.0		4.0	
Lane Util. Factor		1.00	le altra de		1.00	1.00		1,00	1.00		1.00	
Frt		0.97			1.00	0.85		1.00	0.85		0.99	
Fit Protected		1.00			0.99	1.00		0.97	1.00		0.99	
Satd. Flow (prot)	1	1803			1845	1583		1806	1583		1820	
Fit Permitted		0.99			0.87	1.00		0.67	1.00		0.85	
Satd. Flow (perm)		1780			1629	1583		1239	1583		1561	
Volume (vph)	10	260	80	70	295	35	150	90	70	65	150	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	11	289	89	78	328	39	167	100	78	72	167	17
RTOR Reduction (vph)	0	0	0	0	0	24	0	0	50	0	0	0
Lane Group Flow (vph)	0	389	0	0	406	15	0	267	28	0	256	0
Turn Type	Perm	himmer and a <u>se</u> rver	n an tha an tha an tao an tao an tao an tao an tao an tao an tao an tao an tao an tao an tao an tao an tao an t	Perm		Perm	Perm		Perm	Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2	orradolgo ( <u>aster</u> construinte	oloosa kassa kasa	6	nanda Arabia a Sara	6	8	anton deservations	8	4	an de anta de la calendaria de sera	States and the second second
Actuated Green, G (s)		19.4			19.4	19.4	610-68 -610-66	17.2	17.2		17.2	
Effective Green, g (s)		20.4	eningsinening		20.4	20.4	en an	18.2	18.2	Securit Atente contrade	18.2	ana ang ang ang ang ang ang ang ang ang
Actuated g/C Hatto		0.40			0.40	0.40		0.35	0.35		0.35	
Clearance Time (s)	ana ana ana ana ana ana ana ana ana ana	5.0	a da anti-	(ang ang ang ang ang ang ang ang ang ang	5.0	5.0		5.0	5.0	inningerinteginetekspe	5.0	ang mang mang mang mang mang mang mang m
Venicle Extension (s)		3.0			3.0	3.0		3.0	3.0		3.0	
Lane Grp Cap (vpn)		706	Shirantari kuto	ana a shekara a shekara a	647	628	yglandsta oligindla	439	561	() and got a bottom and re-	553	annyoanse en an
V/S Hallo Prot		0.00	ânaș și (Sc		-0.05							
V/S Ralio Perm		0.22	Sector Street of		CU.25	0.01		c0.22	0.02	s fan til en Adherdan.	0.16	60.000 milet (als
V/C NaliO		10.0			0.03	0.02		0.61	0.05		0.46	
Drinoriti Delay, di		12.0			12.4	9.4		13.7	10.9		12.8	
Incremental Delay, d2		0.0		0000000	1.00	0.0		1.00	1.00		1.00	
Dolov (e)		12.0			1.3 177	0.0 0 E		2.4 42.4	0.0 40.0		0.0 10.4	
Level of Service		12.0 R			14.4 R	σ.ο Δ		19.1 R	10.9 D		10.4 D	
Approach Delay (s)		129			130			149			121	
Approach LOS		B			10.0 B			17.0 R			10. <del>7</del> R	
Interception Summers					2			U			U	
HCM Average Control D	alau		10.0		CMLo	val af Ca	-		<u> </u>			
HCM Volume to Canacity	ciay Viotio		13.0	n Siddiae		er or Se	ivice		D			WEINE
Actuated Cycle Length (			0.00 51 /	C	um of k	et time	(0)		0 ^			
Intersection Canacity 1 Hi	'' lization		7/ Q0/	د ۱	an or it 111 ave	I of Cor	(3) Vina		0.U n			
Analysis Period (min)			15		NO LOVE		VIUG		U			
c Critical Lane Group										<u>en en en en</u>		
		er (1996) (1996) (1996)		adastasidili	secola de la la la la la la la la la la la la la		1010000000000					

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Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	٣	*	ኻ	¢	¥	*	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width	11	12	11	12	11	12	
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	1.00	0.85	
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00	
Satd. Flow (prot)	1711	1583	1711	1863	1801	1583	
Flt Permitted	0.95	1.00	0.10	1.00	1.00	1.00	
Satd. Flow (perm)	1711	1583	176	1863	1801	1583	
Volume (vph)	180	325	145	565	945	100	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	
Adj. Flow (vph)	200	361	161	628	1050	111	
RTOR Reduction (vph)	0	93	0	0	0	40	
Lane Group Flow (vph)	200	268	161	628	1050	71	
Turn Type	233	Prot	Perm			Perm	
Protected Phases	4	4	a staan gewere patro regere.	2	6		
Permitted Phases			2			6	
Actuated Green, G (s)	14.0	14.0	40.0	40.0	40.0	40.0	
Effective Green, g (s)	15.0	15.0	41.0	41.0	41.0	41.0	
Actuated g/C Ratio	0.23	0.23	0.64	0.64	0.64	0.64	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	401	371	113	1193	1154	1014	
v/s Ratio Prot	0.12	c0.17	al malanda sa ka sa Na sa ka s	0.34	0.58		
v/s Ratio Perm			c0.92			0.04	
v/c Ratio	0.50	0.72	1.42	0.53	0.91	0.07	
Uniform Delay, d1	21.2	22.6	11.5	6.2	9.9	4.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	na na na na na na na na na na na na na n
Incremental Delay, d2	1.0	6.8	234.7	1.7	12.1	0.1	
Delay (s)	22.2	29.4	246.2	7.9	22.0	4.5	enne eine seizen eine eine eine eine seizen zeizen eine seizen zuen eine seizen eine eine eine eine eine eine Anne eine eine eine eine eine eine eine
Level of Service	C	С	F	Α	C	A	
Approach Delay (s)	26.9	*******		56.5	20.4	ang yang ing pang pang pang pang pang pang pang pa	ana mangkapangkapat ang ang pangkapangkapangkapangkapangkapangkapangkapangkapangkapangkapangkapangkapangkapang Nang
Approach LOS	C			E	C		
Intersection Summary							
HCM Average Control D	elay		33.2	н	CM Lev	el of Service	С
HCM Volume to Capacity	/ ratio	ono mang menorangka A	1.24	an airtean an tha tha she she she she she she she she she she	na marta an an an an an an an an an an an an an	an an an ann ann an an Artainn an Artainn an Artainn an Ar	
Actuated Cycle Length (s			64.0	S	um of lo	ost time (s)	8.0
Intersection Capacity Util	ization		79.7%	Ĩ	CU Leve	I of Service	D
Analysis Period (min)			15				

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		¢.			¢.			\$		<u>م</u>	î.	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	14	12	12	14	12	12	14	12	11	11	12
Total Lost time (s)		4.0			4.0			4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00			1.00		1.00	1.00	
Frt		0.98			0.92			0.99		1.00	0.99	
Fit Protected		0.98			1.00			1.00		0.95	1.00	
Satd. Flow (prot)		1913			1827			1966		1711	1774	
Fit Permitted		0.55			0.96			0.41		0.27	1.00	
Satd. Flow (perm)		1067			1758			813		494	1774	
Volume (vph)	125	155	45	30	140	225	20	380	25	300	815	90
Peak-hour factor, PHF	0.90	0,90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	139	172	50	33	156	250	22	422	28	333	906	100
RTOR Reduction (vph)	0	7	0	0	58	0	0	3	0	0	5	0
Lane Group Flow (vph)	0	354	0	0	381	0	0	469	0	333	1001	0
Turn Type	Perm	666		Perm			Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8 8 an 19	2			6		
Actuated Green, G (s)		25.0			25.0			25.1		38.1	38.1	
Effective Green, g (s)		26.0			26.0			26.1		39.1	39.1	
Actuated g/C Ratio		0.34			0.34			0.34		0.51	0.51	
Clearance Time (s)		5.0			5.0			5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0	·		3.0		3.0	3.0	
Lane Grp Cap (vph)		365			601			279		398	913	
v/s Ratio Prot										0.10	c0.56	
v/s Ratio Perm		c0.33			0.22			c0.58		0.33		
v/c Ratio		0.97			0.63			1.68		0.84	1.10	
Uniform Delay, d1		24.6			21.0			24.9		14.1	18.4	
Progression Factor	VAN NA KASA MANA MANA MANA MANA MANA MANA MANA M	1.00	a galgedowert anda		1.00			1.00		1.00	1.00	
Incremental Delay, d2		38.5			2.2			322.2		14.1	59.7	
Delay (s)	ann ann an 199	63.1	2014 hand to be a filled a state	onnywinessis wieksen sta	23.2			347.2		28.2	78.2	al di scrittica di anco
Level of Service		E			C			F		С	E	
Approach Delay (s)		63.1	del de la compañía		23.2		and the states of the states o	347.2		Angeler and a state of the	65.8	
Approach LUS		E			Ú						E	
Intersection Summary												
HCM Average Control De	əlay		109.1	Н	CM Lev	el of Se	rvice		F			
HCM Volume to Capacity	/ ratio		1.26								an an an an an an an an an an an an an a	
Actuated Cycle Length (s	i)		76.0	S	um of lo	ost time	(s)		12.0			
Intersection Capacity Util	ization	12	24.9%	IC	CU Leve	l of Serv	/ice		Н			
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		÷‡÷			4			<del>4</del> 4-			4	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	130	185	40	160	25	35	285	25	30	265	10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	144	206	44	178	28	39	317	28	33	294	11
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	356	250	383	339					****			
Volume Left (vph)	6	44	39	33								
Volume Right (vph)	206	28	28	11								
Hadj (s)	-0.31	0.00	0.01	0.03								
Departure Headway (s)	7.1	7.8	7.3	7.4					*****			
Degree Utilization, x	0.71	0.54	0.77	0.70								
Capacity (veh/h)	466	401	467	448								2010) - H ( 2010) - H ( 2010)
Control Delay (s)	25.5	19.6	31.1	26.0								
Approach Delay (s)	25.5	19.6	31.1	26.0								
Approach LOS	D	С	D	D								
Intersection Summary												
Delay			26.1									
HCM Level of Service			D									
Intersection Capacity Uti	ilization		65.2%	1(	CU Leve	of Ser	vice		С			
Analysis Period (min)			15									
<ul> <li>An experimentation of the entropy of the experimentation of the experimental of the experimental of the experimentation of t</li></ul>	West status distances		0.000.000.000.000.000.000	والمحافظة والمحجوج والأشاق		nette the terrary that stay	avaaa ka	at the product of the	ەبىر شىر ئىجىلىپ (رامۇرلىرتى)	والمحاوية والمحاوية والمعارك والكرار	er e passa rassara se e	and the state of the second


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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<del>4</del> 4+			ф.	*****		¢.			44	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	145	215	65	100	120	320	220	60	60	420	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	161	239	72	111	133	356	244	67	67	467	6
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	406	317	667	539								
Volume Left (vph)	6	72	356	67								
Volume Right (vph)	239	133	67	6				······				
Hadj (s)	-0.32	-0.17	0.08	0.05								
Departure Headway (s)	8.8	9.4	9.2	9.2								
Degree Utilization, x	0.99	0.82	1.70	1.37								
Capacity (veh/h)	406	379	395	402								
Control Delay (s)	72.3	43.8	350.3	209.2								
Approach Delay (s)	72.3	43.8	350.3	209.2								
Approach LOS	F	E	F	F	in dan tabupat Seria dan dari dan s							
Intersection Summary												
Delay			202.0									
HCM Level of Service			F									
Intersection Capacity Uti	lization		09.3%	10	CU Leve	l of Ser	vice		Н			
Analysis Period (min)			15									
<ul> <li>- a data data data data data data data d</li></ul>					alierenisiaaren d	andreach an Anna Anna Anna Anna Anna Anna Anna		la della deletta de les	i da de balaño de seren	initia internetati	terre in the second second second second second second second second second second second second second second	0.070707999000000

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	<u>altadan 42400 mm</u>	44			÷Ĵ.			÷\$.			4	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	105	140	60	45	185	155	15	175	35	255	400	60
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	117	156	67	50	206	172	17	194	39	283	444	67
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	339	428	250	794				****				
Volume Left (vph)	117	50	17	283								
Volume Right (vph)	67	172	39	67								5
Hadj (s)	-0.02	-0.18	-0.05	0.05				alada Segindaria 1957 - Seda Seda				
Departure Headway (s)	8.4	8.0	8.9	8.3								
Degree Utilization, x	0.79	0.95	0.62	1.82								
Capacity (veh/h)	413	428	385	439					Transferanti e substanti e	sen por estrator	etanda da ser se se se de se se s	4-6540-656-656-6568.
Control Delay (s)	37.0	58.3	25,1	398.0								
Approach Delay (s)	37.0	58.3	25.1	398.0					ono metro establica de construir. A			
Approach LOS	E	F	D	F					Salasi seta sesa. Salasi seta sesa.			
Intersection Summary												
Delay			198.7									
HCM Level of Service			F									
Intersection Capacity Uti	lization		98.5%	I(	CU Leve	el of Ser	vice		F			
Analysis Period (min)			15									
	de compaña					en en en en en en en en en en en en en e					alkaleako	

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		¢.,			44			<b>4</b> 4+			¢‡,	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	10	5	25	25	5	35	15	650	50	50	975	10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	11	6	28	28	6	39	17	722	56	56	1083	11
Pedestrians			alayaan iyooya karat		Linin is index in period		na an an an an an an an an an an an an a		an saladi salah sara ku	- Selected in Long Marcal		
Lane Width (ft)												
Walking Speed (II/s)	heringe karlen statut		Hanna an tao amin' an tao amin' amin' amin' amin' amin' amin' amin' amin' amin' amin' amin' amin' amin' amin' a	le kiere le Arreke te tra				alahan dari dari da			des takaya sa	fa sanan an an an
Percent blockage												
Median tune		Nona			Nono		lan din Quari		e ingi ga san	in ang aga aga	503400048	
Median storage veh)		INUIIG	95 (de la 1967) 19		INOUIG							
Upstream signal (ft)										9.9.66		
pX, platoon unblocked												
vC, conflicting volume	2025	2011	1089	2014	1989	750	1094			778		
vC1, stage 1 conf vol			a na haran ya n			5043-50-00-0-0-9-90-90-0		1991-940-940-940-940-940-940-940-940-940-940				ana ang ang ang ang ang ang ang ang ang
vC2, stage 2 conf vol												
vCu, unblocked vol	2025	2011	1089	2014	1989	750	1094			778		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4,1			4.1		
tC, 2 stage (s)	rene ver sländstadet at	gerste op dat gebruike staat de staat de s	antan <u>m</u> ana	dele statio <u>est</u> atio <u>est</u> eren	an she she sa sa sa	0040-00200-000-0-	terre en de magadore	nata ann a ta ta ann an  an an an an an an an an an an an an an a	and a second second a present of			
t⊢ (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		0.000000000
po queue tree %	6/	90	89	1/	90	91	97	A GODO GALENA	Weiken in der im der einer der einer der einer der einer der einer der einer der einer der einer der einer der	93	Sale este and se	
civi capacity (ven/n)	- 33	54	262	ವರ	55	411	638			839		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	- 44	72	794	1150								
Volume Left	11	28	17	56	981961966996999	istin fast veidelte histori					e anena se a casa a casa	
	28	39	56	11								
Volume to Conneitu	82 0 5 4	100	038	839								inerinaanini
	0.54 50	133	ບ.ບວ ?	0.07								
Control Delay (s)	921	215.6	<u> η 7</u>	22			<u>e de la composition de la composition de la composition de la composition de la composition de la composition de</u>	ing an an an an an an an an an an an an an			an an an an an an an an an an an an an a	in desina ang dan se
Lane LOS	F		ο Α	<i>م.ح</i> ۵			0000000000000					
Approach Delay (s)	92 1	215.6	07	22								
Approach LOS	F	F										
Intercaction Cummon												
Average Delay			11.0									
Intersection Canacity Liti	lization		0.11 ערוי	11	2111	l of Con	ica		s se	ining alatak		
Analysis Period (min)	ncanali		<u>יס, ביסק</u> 15		20 Leve		/168		•			
	n en fernedene titene t	organisti ve ose este	<b>ل ا</b> مەرەمەمەمەمە	en de la calendada	enter antique de la composition de la composition de la composition de la composition de la composition de la c	د. در راسه رسان در در در در	والمراجع والمراجع والمراجع والمراجع					

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Movement	WBL	WBR	NBT	NBR	SBL	SBT				
Lane Configurations	¥		<b>Þ</b>			4				
Sign Control	Stop		Free			Free				
Grade	0%		0%	·	•••	0%				
Volume (veh/h)	45	40	640	110	45	995				
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				
Hourly flow rate (vph)	50	44	711	122	50	1106				
Pedestrians										
Lane Width (ft)										
Walking Speed (ft/s)				al de la recepció	. Antonista da anto	et et finnen hirektion alterit.	ana ana aona aona			e an en
Percent Blockage										
Right turn flare (veh)		in headystaaraate	Saranasa sa				the level of the level of the level	nga mentangka dan daren di Dalam daren di		
iviedian type	INONE									
iviedian storage ven)			000							
opstream signal (II)	0.00	A 00	000		0.00					
pA, platoon unblocked	0.80	08.0			0.80	leyeriyi yaratta da ata ata ata ata ata ata ata ata			ki den gehieren der	igualan sebua
vC, connicung volume	1970	112			833					
vC1, stage 1 conti vol			540930893063	alan dar dar dar dar dar				ei den ferialen den		
vCu, unblocked vol	2227	71/			701					
tC single (s)	64	62		legenters (Allectron Menoralista de Mandra	41					
tC 2 stage (s)	2012-01-0 <b>1-0</b> 1-01-01-01-01-01-01-01-01-01-01-01-01-01	•••	intration of the		TT¥ €					
tF (s)	35	33			22				949494949	
p0 queue free %	0	87	ender (und der gehörtende soch	ongedelengelen	92		(800)00)000(726)64 	201300019202020000000 		
cM capacity (veh/h)	35	344			661					
Direction Lone #	MR 1	MR 1	CR 1							
Volume Total	94	833	1156							
Volume Left	50	000	50					8	848)88(8)84(9).	
Volume Right	44	122	n in the second se							
cSH	60	1700	661							
Volume to Capacity	1.56	0.49	0.08							
Queue Length 95th (ft)	211	0	6	ened al de la entratada	a na kaodina di kabiliti di		enske rednik di Koslik († 1937) 1	reconstruction (militation)	an an an an an an an an an an an an an a	enen tenistikkinikki
Control Delay (s)	432.6	0.0	2.7							
Lane LOS	F	nan a shini dhi abalikka	Α	4 17 mar 19 mar 19 mar 19 an 19 mar 19 mar 19 mar 19 mar 19 mar 19 mar 19 mar 19 mar 19 mar 19 mar 19 mar 19 ma 19 mar 19 mar	e e contra esta fana a anjeg			an an an an an an an an an an an an an a	ennerethere er hêrdere	400.8 000 43 00008000
Approach Delay (s)	432.6	0.0	2.7							
Approach LOS	F							en an treas an an the Control State Control States of		
Intersection Summary										
Average Delay			21.1							
Intersection Capacity UI	tilization	1(	00.5%	IC	CU Leve	l of Service		G		
Analysis Period (min)			15	nen sessi si si fil	a an an an an an an an an an an an an an			gaan gaaran daga ya ka ta sa	yaay ayoo taabaa ahaa daga daga daga daga daga daga da	a, dinang bilipi sak

	1	×.	1	1	1	ţ	
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	Ý		<b>ħ</b>			4	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Volume (veh/h)	20	40	680	40	75	1150	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vph)	22	44	756	44	83	1278	
Pedestrians	0-11-1-1-11-1-1-1-1-1-1-1-1-1-1-1-1-1-1			enter and a second and			
Lane Width (ft)							
Walking Speed (ft/s)		ha an an an an an an an an an an an an an				naning-anini di sikin da	
Percent Blockage							
Right turn flare (ven)			Militik Matalatan			ninga katarata	
Median type	None						
Upetroom pignal (tt)						007	
nX nlatoon unblocked	0 42					00/	
vC conflicting volume	0.42	778			900		
vC1_stage 1 conf vol	fin fin fin fin				000		
vC2_stage 2 conf vol						9/19/09/09/19	
vCu. unblocked vol	3886	778		hin aip apaipais An	800		
tC, single (s)	6.4	6.2			4.1		
tC, 2 stage (s)	ener eren frederigen beseter		ala daringan (norma		erini (estili Anfany):		
tF (s)	3.5	3.3			2.2		
p0 queue free %	0	89			90		e fan de ferendere meneren ander een de meer werde en de ferende ferende ferende ferende ferende ferende ferend E
cM capacity (veh/h)	1	396			823		
Direction, Lane #	WB 1	NB 1	SB 1				
Volume Total	67	800	1361				
Volume Left	22	0	83				
Volume Right	44	44	0				
cSH	4	1700	823				
Volume to Capacity	15.13	0.47	0.10				
Queue Length 95th (ft)	Err	0	8	free de roue de recent free	t ender tradienter state sta		
Control Delay (s)	Err	0.0	4.4				
Lane LOS	F		A				
Approach Delay (s)	Err	0.0	4,4				
Approach LOS	F						
Intersection Summary							
Average Delay		and a state of the state of the state of the	301.9		ha ha ha ha ha ha ha ha ha ha ha ha ha h		
Intersection Capacity Ut	ilization	11	6.5%	IC	U Leve	l of Servi	ce H
Analysis Period (min)		e la garda da harinn	15	s de la comercia		منتشر محرف والمربية والمرزين	

	۶	$\mathbf{F}$	1	†	Ļ	4		
Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations	¥			ধ	î.			
Sign Control	Stop			Free	Free			
Grade	0%			0%	0%			
Volume (veh/h)	10	80	15	685	1155	10		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90		
Hourly flow rate (vph)	11	89	17	761	1283	11		
Pedestrians								
Lane Width (ft)								
Walking Speed (ft/s)	di kalanta karaka		na an an an an an an an an an an an an a	niełki kukłuwa	te konstant film (das film film kan depar	n de la constantina de la constantina de la constantina de la constantina de la constantina de la constantina d		
Percent Blockage								
Right turn flare (ven)	<b></b>		Saddindayaan	utar - setender		din Salah jarah darah darak sala sala		
Median type	None				Kedipalis, seq			
Upetroom cignet (ft)			A de Alexaño	1000	OFO			
nX platoon unblocked	0 54	0 46	0 46	1009	909			
vC conflicting volume	2083	1290	120/					
vC1_stane 1 conf vol	6000	1200	12.07					
vC2_stage 2 conf vol								
vCu, unblocked vol	2565	1625	1637		iniganganan na			
tC. single (s)	6.4	6.2	4.1					
tC, 2 stage (s)				an fan an staar te staar de s				
tF (s)	3.5	3,3	2.2	n kan ngan ngan dalam kan Kanangan kangan kangan kang		és délénde le trainé de la constant de la constant Constant de la constant		
p0 queue free %	22	0	91	*************		an da an an an an an an an an an an an an an	lana kana dalam dan dan kana kana kana kana kana kana k	Bi sa di si adda da da angadi.
cM capacity (veh/h)	14	58	183					
Direction, Lane #	EB 1	NB 1	SB 1					
Volume Total	100	778	1294					
Volume Left	11	17	0	9 MARGONIDO AN AGUNI 1967	465C196476C10378C1897659			
Volume Right	89	0	11					
cSH	43	183	1700					
Volume to Capacity	2.30	0.09	0.76					
Queue Length 95th (ft)	265	7	0					
Control Delay (s)	796.5	4.9	0.0					
Lane LOS	F	Α						
Approach Delay (s)	796.5	4.9	0.0		88.8			
Approach LOS	F							
Intersection Summary								
Average Delay	terrar da stander at est		38.4					
Intersection Capacity Ut	ilization	7	73.6%	IC	U Level	of Service	D	
Analysis Period (min)			15	t (1945-Alfanija Majaraka Ata			Design i Designer genergi i designer genergi designer designer designer designer designer designer designer des	

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	4		٢	<del>ډ</del> ۱			ф.				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	12	11	11	14	14	14	11	11	11
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.99		1.00	0.99			1.00			0.98	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.99	
Satd. Flow (prot)	1711	1840		1770	1784			1964			1759	
Flt Permitted	0.27	1.00		0.33	1.00			0.90			0.94	
Satd. Flow (perm)	477	1840		606	1784			1778			1667	
Volume (vph)	60	405	35	60	465	30	50	225	5	35	230	40
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	67	450	39	67	517	33	56	250	6	39	256	44
RTOR Reduction (vph)	0	4	0	0	3	0	0	1	0	0	5	0
Lane Group Flow (vph)	67	485	0	67	547	0	0	311	0	0	334	0
Turn Type	Perm	3 - 3 - 32		Perm		8 X S S	Perm			Perm		
Protected Phases		2			6			8		·······	4	
Permitted Phases	2			6			8			4		unyai dai nya Sugio dia dia
Actuated Green, G (s)	20.5	20.5		20.5	20.5			16.1			16.1	
Effective Green, g (s)	21.5	21.5		21.5	21.5			17.1			17.1	
Actuated g/C Ratio	0.42	0.42		0.42	0.42			0.33			0.33	
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	200	773		254	749			594			557	
v/s Ratio Prot		0.26			c0.31							
v/s Ratio Perm	0.14			0.11				0.18			c0.20	
v/c Ratio	0.34	0.63		0.26	0.73			0.52			0.60	
Uniform Delay, d1	10.0	11.7		9.7	12.4			13.8	6.0.000		14.2	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	1.0	1.6		0.6	3.7			0.8			1.8	
Delay (s)	11.0	13.3		10.2	16.1			14.6			16.0	
Level of Service	В	В		В	В			В			В	
Approach Delay (s)		13.0			15.5			14.6			16.0	
Approach LOS		В			В	6.0.0.0		В			В	
Intersection Summary												
HCM Average Control D	elay		14.7	H	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.60									
Actuated Cycle Length (	s)		51.2	S	um of lo	ost time	(S)		8.0			
Intersection Capacity Uti	lization	(	6.2%	10	CU Leve	l of Serv	vice		С			
Analysis Period (min)			15									



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	<b>↑</b>			14		ሻ	ţ.				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	10	10	16	16	16	10	11	11	12	12	12
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0				
Lane Util. Factor	1.00	1.00			1.00		1.00	1.00	1			e en staat jan (181)
Fit	1.00	1.00			0.99		1.00	0.99				
Flt Protected	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (prot)	1888	1739			1881		1652	1780				
Fit Permitted	0.25	1.00			1.00		0.95	1.00				
Satd. Flow (perm)	498	1739	6.56		1881		1652	1780				
Volume (vph)	30	480	0	0	505	40	70	305	25	0	0	0
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	33	533	0	0	561	44	78	339	28	0	0	0
RTOR Reduction (vph)	0	0	0	0	4	0	0	3	0	0	0	0
Lane Group Flow (vph)	33	533	0	0	601	0	78	364	0	0	0	0
Parking (#/hr)				0	0	0						
Turn Type	Perm						Perm					****
Protected Phases		2			6			8	Santai nanigara Santai Kasinggan			
Permitted Phases	2						8	n an duite du na ann an Annaid Stri				
Actuated Green, G (s)	21.5	21.5			21.5		15.4	15.4				
Effective Green, g (s)	22.5	22.5			22.5		16.4	16.4			terran for en transforma	erenne geboure
Actuated g/C Ratio	0.46	0.46			0.46		0.33	0.33				
Clearance Time (s)	5.0	5.0			5.0		5.0	5.0				
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0				
Lane Grp Cap (vph)	227	794			858		550	592				*******
v/s Ratio Prot		0.31			c0.32			c0.20				
v/s Ratio Perm	0.07						0.05					Derector of the Derector of the
v/c Ratio	0.15	0.67		6 10 20	0.70		0.14	0.62			8	
Uniform Delay, d1	7.8	10.5			10.7		11.5	13.8	2012/2012/2012/2012/2012/2012			(
Progression Factor	1.00	1.00			1.00		1.00	1.00				
Incremental Delay, d2	0.3	2.2			2.6		0.1	1.9				
Delay (s)	8.1	12.7		88 8 B	13.3		11.6	15.7				
Level of Service	Α	В			В		В	В				
Approach Delay (s)		12.5		84808	13.3			15.0			0.0	
Approach LOS		В			В			В			А	
Intersection Summary												
HCM Average Control D	elay		13.5	H	CM Lev	el of Sei	vice		В			
HCM Volume to Capacity	y ratio		0.63									
Actuated Cycle Length (s	6)		49.3	Su	um of lo	st time (	s)		8.0			
Intersection Capacity Uti	lization	ç	53.2%	IC	U Leve	of Serv	ice		Α			
Analysis Period (min)			15							e e constante de la composition	a a tra a tra a fa fasta (a fail)	
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ኻ	4		ሻ	4	۲		4.		٢	*	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	11	11	12	12	12	10	10	12
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0		4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00
Frt	1.00	0.98		1.00	1.00	0.85		0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00		1.00		0.95	1.00	1.00
Satd. Flow (prot)	1540	1645		1711	1801	1531		1616		1652	1739	1583
Fit Permitted	0.35	1.00		0.41	1.00	1.00		0.92		0.73	1.00	1.00
Satd. Flow (perm)	569	1645		735	1801	1531		1487		1272	1739	1583
Volume (vph)	110	280	40	70	360	155	5	70	25	220	320	85
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	122	311	44	78	400	172	6	78	28	244	356	94
RTOR Reduction (vph)	0	6	0	0	0	113	0	11	0	0	0	55
Lane Group Flow (vph)	122	349	0	78	400	59	0	101	0	244	356	39
Parking (#/hr)	0	0	0		2.03.20.62		0	ି 0	0			
Turn Type	Perm			Perm		Perm	Perm			pm+pt		Perm
Protected Phases		2			6			8		7	4	
Permitted Phases	2			6		6	8			4		4
Actuated Green, G (s)	17.8	17.8		17.6	17.6	17.6		8.9		21.6	21.6	21.6
Effective Green, g (s)	18.8	18.8		18.6	18.6	18.6		9.9		22.6	22.6	22.6
Actuated g/C Ratio	0.34	0.34		0.34	0.34	0.34		0.18		0.41	0.41	0.41
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0		5.0		5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0		3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	196	567		251	615	523		270		588	721	656
v/s Ratio Prot		0.21			c0.22					0.07	c0.20	
v/s Ratio Perm	0.21			0.11		0.04		0.07		0.11		0.02
v/c Ratio	0.62	0.62		0.31	0.65	0.11		0.37		0.41	0.49	0.06
Uniform Delay, d1	14.9	14.8		13.2	15.2	12.3		19.6		12.6	11.7	9.6
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00
Incremental Delay, d2	6.0	2.0		0.7	2.5	0.1		0.9		0.5	0.5	0.0
Delay (s)	20.9	16.8		13.9	17.7	12.4		20.4		13.1	12.3	9.6
Level of Service	С	В		В	В	В		С		В	В	A
Approach Delay (s)		17.9			15.8			20.4	- 91 - 61 - 64 - 64 - 64 - 64 - 64 - 64 - 6		12.2	
Approach LOS		В			В			С			В	
Intersection Summary												
HCM Average Control D	elay		15.3	Н	ICM Lev	el of Se	ervice		В			
HCM Volume to Capacity	y ratio		0.50									
Actuated Cycle Length (s	5)	the strangest of the second	54.5	S	um of lo	ost time	(s)		8.0			
Intersection Capacity Util	lization	,	54.5%	IC	CU Leve	ol of Ser	vice		Α			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		÷.	۲	ĥ	<b>t</b> ,			ধ	7	<u>م</u>	î.	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	12	12	16	12	12	12
Total Lost time (s)		4.0	4.0	4.0	4.0			4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	
Frt		1.00	0.85	1.00	0.97			1.00	0.85	1.00	0.99	
Flt Protected		1.00	1.00	0.95	1.00			0.98	1.00	0.95	1.00	
Satd. Flow (prot)		1734	1478	1486	1525			1825	1794	1593	1841	
Flt Permitted		0.97	1.00	0.49	1.00			0.82	1.00	0.63	1.00	
Satd. Flow (perm)		1688	1478	767	1525			1525	1794	1060	1841	
Volume (vph)	15	290	85	55	320	65	75	105	50	100	120	10
Peak-hour factor, PHF	0,90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	322	94	61	356	72	83	117	56	111	133	11
RTOR Reduction (vph)	0	0	37	0	9	0	0	0	29	0	3	0
Lane Group Flow (vph)	0	339	57	61	419	0	0	200	27	111	141	0
Parking (#/hr)			10.00.00	0	0	0	0			0		
Turn Type	Perm		Perm	Perm			Perm		Perm	Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6			8		8	4		
Actuated Green, G (s)		17.5	17.5	17.5	17.5			12.8	12.8	12.8	12.8	
Effective Green, g (s)		18.5	18.5	18.5	18.5			13.8	13.8	13.8	13.8	
Actuated g/C Ratio	192 GU 39 S	0.41	0.41	0.41	0.41			0.30	0.30	0.30	0.30	
Clearance Time (s)	a tanàna amin'ny tanàna man	5.0	5.0	5.0	5.0			5.0	5.0	5.0	5.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0			3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		689	604	313	623			465	547	323	561	
v/s Ratio Prot					c0.27						0.08	
v/s Ratio Perm		0.20	0.04	0.08				c0.13	0.02	0.10		
v/c Ratio		0.49	0.09	0.19	0.67			0.43	0.05	0.34	0.25	
Uniform Delay, d1	ta ta da Afrika a tractica da an	9.9	8.2	8.6	10.9			12.6	11.1	12.2	11.9	
Progression Factor		1.00	1.00	1.00	1.00		9	1.00	1.00	1.00	1.00	
Incremental Delay, d2	Analistan analas	0.6	0.1	0.3	2.9			0.6	0.0	0.6	0.2	
Delay (s)		10.5	8.3	8.9	13.8			13.2	11.2	12.9	12.1	
Level of Service	adagina danja (kanja) goji	В	A	A	В			В	В	В	В	
Approach Delay (s)		10.0			13.2			12.8	8.43493499		12.4	
Approach LOS		В			В			В			В	
Intersection Summary									_			
HCM Average Control D	elay		12.0	H A A A A A A A A A A A A A A A A A A A	ICM Lev	el of Se	rvice	ور در در در تاریندند.	В	inanjarija un deveninje i unig	Se instruction de la companya	an share an an share share
Actuated Quale Least's (	y ratio		0.49									
Actuated Cycle Length (s	5) Maria		45.3	S Antonio (1997)	Sum of Ic	st time	(S)	haning dan di Abara da	8.0		a seconda a compositiva de la compositi	cangestates e
Analysis Dariad (min)	Inzation	5.000 x 600 x 50	00.8% 4 m		SO Leve	i or Serv	/ICE		C			
Analysis Period (min)			15	hinis (Alemania) (		delintade de Secolema	i la la completa de la completa de la completa de la completa de la completa de la completa de la completa de l	yang nganadara		telefontes en anticipado en a	angan askirindar (m	estematication
c Unical Lane Group												

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Movement	EBL2	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR2	SBL	SBT	SBR
Lane Configurations		4			4			÷\$+			÷Ĵ.	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	14	14	14	12	12	12	16	16	16
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Fift		0.95			0.99			1.00			1.00	
Flt Protected		0.99			0.98			1.00			1.00	
Satd. Flow (prot)		1750			1926			1854			2101	
Flt Permitted		0.96			0.88			0.98			0.99	
Satd. Flow (perm)		1685			1732			1818			2090	
Volume (vph)	15	45	40	20	30	5	15	445	10	5	455	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	50	44	22	33	6	17	494	11	6	506	17
RTOR Reduction (vph)	0	30	0	0	0	0	0	1	0	0	1	0
Lane Group Flow (vph)	0	81	0	0	61	0	0	521	0	0	528	0
Turn Type	Perm		0.2102.02	Perm			Perm			Perm		
Protected Phases		3			3			2			6	
Permitted Phases	3			3			2	2		6	6	
Actuated Green, G (s)		15.0			15.0			30.0			30.0	
Effective Green, g (s)		16.0			16.0			31.0			31.0	
Actuated g/C Ratio		0.20			0.20			0.39			0.39	
Clearance Time (s)		5.0			5.0	bade es eu		5.0			5.0	
Lane Grp Cap (vph)		337			346			704			810	
v/s Ratio Perm		<u>~0 05</u>	90.099.909.999 		0.04		gulen genes	<u>~0 20</u>			0 2E	
v/c Ratio		0.24			0.04 0.19	6003450556		0.74	9900000000 (K)	<u>Gerdeninis</u>	0.20	
Uniform Delay d1		26.9			26.5	energe afe	de later de la com	21 0		eta sin Rode	20.00	
Progression Eactor		1 00			1.00			1.00			20.1	
Incremental Delay d2		17			1 1			69			/ 1	
Delay (s)		28.6			27.6			27.9		leine is de la seguerate Notes a companye est	 24 1	
Level of Service	-019-14-96-010-97-169 -019-14-96-010-97-169	C	89900399036003900 899003900		C			с С	5544jan94j44(95)		с. С	
Approach Delay (s)		28.6			276	<u>énsivén</u> és		27 9			24 1	
Approach LOS		С	den se se se se se se se se se se se se se		C			C			C	
Intersection Summary												
HCM Average Control De	elay		33.8	Н	CM Lev	el of Se	rvice		С			
HCM Volume to Capacity	/ ratio		0.68									
Actuated Cycle Length (s	3)		80.0	S	um of lo	st time	(s)		12.0			
Intersection Capacity Util	lization		72.9%	IC	U Leve	l of Sen	/ice		С			
Analysis Period (min)	an an taoinn an taoinn	and a factor of the second factor of	15	in the second second second								
c Critical Lane Group												



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Movement	SWL2	SWL	SWR S	WR2
Lane Configurations	ሻ	Ŵ		
Ideal Flow (vphpl)	1900	1900	1900	1900
Lane Width	14	14	14	14
Total Lost time (s)	4.0	4.0		
Lane Util. Factor	1.00	1.00		
Frt	1.00	0.99		
Fit Protected	0.95	0.96		
Satd. Flow (prot)	1888	1876		
Flt Permitted	0.95	0.96		
Satd. Flow (perm)	1888	1876		5 (S. 69) (A
Volume (vph)	15	375	30	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	417	33	6
RTOR Reduction (vph)	0	1	0	0
Lane Group Flow (vph)	17	455	0	0
Turn Type	Split			
Protected Phases	4	4		
Permitted Phases				
Actuated Green, G (s)	20.0	20.0		
Effective Green, g (s)	21.0	21.0		
Actuated g/C Ratio	0.26	0.26		
Clearance Time (s)	5.0	5.0		
Lane Grp Cap (vph)	496	492		
v/s Ratio Prot	0.01	c0.24		
v/s Ratio Perm				
v/c Ratio	0.03	0.93		
Uniform Delay, d1	22.0	28.7		
Progression Factor	1.00	1.00		
Incremental Delay, d2	0.1	25.7		
Delay (s)	22.1	54.4		
Level of Service	С	D		
Approach Delay (s)		53.3		
Approach LOS		D		
Intersection Summary				

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<del>ل</del> ه	7		£	7	<b>`</b>	<b>ት</b> ኬ		٣	<b>ቀ</b> ሴ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	en en esta par
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	0.99	an ta nite ta angai
Flt Protected		0.96	1.00		0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1793	1583		1821	1583	1770	3535		1770	3507	
Flt Permitted		0.74	1.00		0.85	1.00	0.12	1.00		0.21	1.00	
Satd. Flow (perm)		1384	1583		1588	1583	220	3535		387	3507	ana ang ang ang ang ang ang ang ang ang
Volume (vph)	55	15	345	30	35	35	240	1180	10	35	1085	70
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	61	17	383	33	39	39	267	1311	11	39	1206	78
RTOR Reduction (vph)	0	0	218	0	0	32	0	1	0	0	6	Õ
Lane Group Flow (vph)	0	78	165	0	72	7	267	1321	0	39	1278	Ō
Turn Type	Perm		Perm	Perm		Perm	pm+pt		<u></u>	Perm		<u></u>
Protected Phases		4			8		່ 5	2			6	
Permitted Phases	4		4	8		8	2	en di si		6	ladysta ar Lodys Taite	ender van de d
Actuated Green, G (s)		11.7	11.7		11.7	11.7	43.5	43.5		29.8	29.8	
Effective Green, g (s)		11.7	11.7		11.7	11.7	43.5	43.5		29.8	29.8	
Actuated g/C Ratio		0.19	0.19		0.19	0.19	0.69	0.69		0.47	0.47	
Clearance Time (s)		4.0	4.0		4.0	4.0	3.0	4.0	i de la constant de la constant de la constant de la constant de la constant de la constant de la constant de La constant de la cons	4.0	4.0	005901000000
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		256	293	<u></u>	294	293	389	2433		182	1654	
v/s Ratio Prot							c0.11	0.37			c0.36	
v/s Ratio Perm	-1919-09-09-09-09-09-09-09-09-09-09-09-09-09	0.06	c0.10	4999 AAN AGA 4970 AGA 4970 A	0.05	0.00	0.37	anna seanna sa in		0.10	n (si (si (si (si (si (si )	anda an anna.
v/c Ratio		0.30	0.56		0.24	0.02	0.69	0.54		0.21	0.77	
Uniform Delay, d1		22.2	23.4	rania initial adolesia and a	22.0	21.1	11.8	4.9	poli Nol (Addenia polici)	9.8	13.9	ander de antres
Progression Factor		1.00	1.00	Q 0. Q Q	1,00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.7	2.5		0.4	0.0	5.0	0.2		0.6	2.3	
Delay (s)		22.9	25.9		22.4	21.1	16.8	5.2		10.4	16.2	
Level of Service		С	С		С	С	В	Α		B	B	eren in an
Approach Delay (s)		25.4			22.0			7.1		tinit di king	16.0	0.6994915
Approach LOS		С			С		100000000000000000000000000000000000000	Α	Cerri 9 2 - el 2003 9 - 6 - 6 - 6 - 6 - 6 - 6 - 6 - 6 - 6 -	e-se entre Antonian	В	naithe faile de frit.
Intersection Summary												
HCM Average Control De	elay		13.4	н	CM Lev	el of Se	ervice		В			
HCM Volume to Capacity	/ ratio		0.71									
Actuated Cycle Length (s	3)		63.2	S	um of lo	ost time	(S)		12.0		er sentre son son sen en dat	a and the second second second second second second second second second second second second second second se
Intersection Capacity Util	lization		70.2%	IC	CU Leve	el of Ser	vice		С	9		
Analysis Period (min)			15					an an an an an an an an air a' an air a' an air a' an air a' an an air a' an an air a' an an air a' a' an an ai				n - meneral (1943).
c. Critical Lane Group						<u>en an an an</u>					lige Spaces	eveningshaa.



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		র্ম	7	ሻ	<b>1</b>		٢	<u>ትኬ</u>		٣	<b>*</b> 14	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	10	12	16	12	10	10	10	10	10	10
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	in in the second second second second second second second second second second second second second second se
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	0.95		1.00	0.95	
Frt		1.00	0.85	1.00	0.90		1.00	1.00		1.00	1.00	
Flt Protected		0.97	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1747	1478	1770	1909		1652	3298		1652	3296	
Flt Permitted		0.78	1.00	0.71	1.00		0.16	1.00		0.95	1.00	
Satd. Flow (perm)		1400	1478	1323	1909		272	3298		1652	3296	
Volume (vph)	40	25	375	30	20	35	355	1480	15	45	1325	20
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	44	28	417	33	22	39	394	1644	17	50	1472	22
RTOR Reduction (vph)	0	0	369	0	35	0	0	1	0	0	1	0
Lane Group Flow (vph)	0	72	48	33	26	0	394	1660	0	50	1493	0
Turn Type	Perm		Perm	Perm			pm+pt			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2					
Actuated Green, G (s)	antantan ara arawa ara	7.9	7.9	7.9	7.9		41.4	41.4		3.7	28.3	
Effective Green, g (s)		7.9	7.9	7.9	7.9		42.4	42.4		3.7	29.3	
Actuated g/C Ratio	a daar taadi totoo ahaa	0.12	0.12	0.12	0.12		0.62	0.62		0.05	0.43	
Clearance Time (s)		4.0	4.0	4.0	4.0		5.0	5.0		4.0	5.0	
Vehicle Extension (s)		1.0	1.0	1.0	1.0		1.5	1.0		1.0	1.0	
Lane Grp Cap (vph)		161	170	153	220		507	2041		89	1410	
v/s Ratio Prot					0.01		0.19	c0.50		0.03	c0.45	
v/s Ratio Perm		c0.05	0.03	0.02			0.29					
v/c Ratio	la unun ann gu an an an a	0.45	0.28	0.22	0.12		0.78	0.81		0.56	1.06	
Uniform Delay, d1		28.3	27.7	27.5	27.2		19.6	10.0		31.6	19.6	
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.7	0.3	0.3	0.1		11.1	3.7		4.8	41.2	
Delay (s)	Marka and the second	29.0	28.0	27.7	27.3		30.8	13.7		36.4	60.8	
Level of Service		C	C	C	C		С	В		D	E	
Approach Delay (s)		28.2	ertet jaard die stade	di Basharatan Santasi	27.4		وروسود وروم ومحرور	17.0	a statute de contra popul	ugu ana sa ta ta ta ga ga ta ta ta ta	60.0	
Approach LOS		C			C			В			E	
Intersection Summary												
HCM Average Control D	elay		34.4	H	CM Lev	el of Se	rvice		C			
HCM Volume to Capacity	ratio		0.83									
Actuated Cycle Length (s	3)		68.5	S	um of Ic	ost time	(S)		8.0			
Intersection Capacity Util	ization	•	77.1%	IC	CU Leve	l of Sen	/ice		D			
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				ሻ	र्स			<b>†</b> Ъ			<b>≜</b> 1≽	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	14	12	12	12	12	12	12
Total Lost time (s)				4.0	4.0			4.0			4.0	
Lane Util. Factor				0.95	0.95			0.95			0.95	na Merina a seguna a sente
Frt				1.00	1.00		en en en en en en en en en en en en en e	1.00			1.00	
Fit Protected				0.95	0.96			1.00			1.00	
Satd. Flow (prot)				1681	1699			3539			3538	
Flt Permitted				0.95	0.96			1.00			1.00	
Satd. Flow (perm)				1681	1699			3539			3538	
Volume (vph)	0	0	0	1485	140	0	0	890	0	0	2040	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0,90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	1650	156	0	0	989	0	0	2267	6
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	880	926	0	0	989	0	0	2273	0
Turn Type				Perm			Perm		la de se			
Protected Phases			······		8			2		le la recenta de la recenta de la c	6	National de Charles de Charles
Permitted Phases				8			2					
Actuated Green, G (s)				34.0	34.0			54.0			54.0	
Effective Green, g (s)				36.0	36.0			56.0			56.0	
Actuated g/C Ratio				0.36	0.36			0.56			0.56	
Clearance Time (s)				6.0	6.0			6.0			6.0	
Vehicle Extension (s)				3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)				605	612			1982			1981	
v/s Ratio Prot							a da filia a tana ta sere	0.28		والمرابع والأمحاط والمحاط محرم	c0.64	
v/s Ratio Perm				0.52	0.55							
v/c Ratio				1.45	1.51	********	-01111111111111111111111111111111111111	0.50	an na hara dan bahar bahar bahar bahar bahar bahar bahar bahar bahar bahar bahar bahar bahar bahar bahar bahar Bahar bahar bah		1.15	an an an taon a
Uniform Delay, d1				32.0	32.0		gu shi shi shi shi shi shi shi shi shi shi	13.4			22.0	
Progression Factor				1.00	1.00			1.00			1.00	
Incremental Delay, d2				213.7	239.3			0.2			72.8	
Delay (s)				245.7	271.3			13.6			94.8	
Level of Service				F	F			В			F	
Approach Delay (s)		0.0			258.8			13.6			94.8	
Approach LOS	58 mil 100 mil	A			F		90-19 - SP-89	B			s F	
Intersection Summary												
HCM Average Control De	alay		137.4	ŀ	ICM Lev	el of Se	rvice		F			
HCM Volume to Capacity	ratio		1.29					·	a a cara da sera da se			an ann an St
Actuated Cycle Length (s	)		100.0		Sum of Ic	ost time (	(s)		8.0			
Intersection Capacity Util	ization	10	8.0%	[(	CU Leve	l of Serv	/ice		G			
Analysis Period (min)			15									

	۶	->	$\mathbf{i}$	1	<b>←</b>	×.	•	Ť	1	<b>\</b>	ŧ	-
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			44			÷\$+			4.	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	20	155	70	55	95	15	155	295	50	55	290	25
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	22	172	78	61	106	17	172	328	56	61	322	28
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	272	183	556	411								
Volume Left (vph)	22	61	172	61								
Volume Right (vph)	78	17	56	28					171 - 717 - 1717 - 177	ter in an		Alex Constraint and the
Hadj (s)	-0.12	0.05	0.04	0.02					di destanguna Si Sen destanguna			
Departure Headway (s)	7.6	8.1	6.9	7.0								energi en sediser
Degree Utilization, x	0.57	0.41	1.06	0.80								
Capacity (veh/h)	444	398	521	498						59.00.000/000000000000000000000000000000		alara na sera ana.
Control Delay (s)	20.2	16.7	81.9	32.9								
Approach Delay (s)	20.2	16.7	81.9	32.9		~~~~~						
Approach LOS	С	C	F	D		di nisi Asal asi n Barta Maratika						
Intersection Summary												
Delay			47.5									
HCM Level of Service			Ε							( ******) ****) ******		an an an an an an an an an an an an an a
Intersection Capacity Util	lization		80.2%	IC	CU Leve	l of Sen	vice		D			
Analysis Period (min)			15									

	✓	×.	<b>†</b>	1	1	Ļ	
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	Ý		4			Ą	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	···· · ·
Volume (veh/h)	145	5	550	265	15	885	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vph)	161	6	611	294	17	983	
Pedestrians			Madalah (Manada)		initalises karlanases		An Ann
Lane width (ff)							
Percent Blockage	ka seria dikirida da b						
Right turn flare (veh)	ing ayang aya						<u>19</u> 145
Median type	None						
Median storage veh)							930(9) (
Upstream signal (ft)						837	
pX, platoon unblocked	0.77	ورزي شيرة وليتي مشويين ومرد	ales(10) (14) (10) (14) (14)				202400
vC, conflicting volume	1775	758			906		
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	2008	758		والمراجع والمراجع والمراجع	906		
tC, single (s)	6.4	6,2			4.1		
tC, 2 stage (s)	0 E	- <b>-</b>		skienie in ter	~ ~ ~ ~		Geraen
nn aueua free %	3.3 ∩	3.3 00			2.2		
cM canacity (yeb/h)	10	99 407	Abdustaat		90 751		ioniai:
	- <b>T</b> -4	TUI			101		
Direction, Lane #	WB 1	NB 1	SB 1				
Volume I otal	167	906	1000		ningin sense		
Volume Lett	161	0	17				1.000000-
	0 60	1700	751				
Volume to Canacity	3 31	0.53	0 02				
Queue Length 95th (ft)	Frr	0.00	0.02 2				
Control Delay (s)	Err	0.0	07		ie og nies og		
Lane LOS	F		A		.999.000.000.000		20093
Approach Delay (s)	Err	0.0	0.7				
Approach LOS	F						sanan-
Intersection Summary							
Average Delay			804.5		Constant Constrainty Pro-		<u></u>
Intersection Capacity Ut	ilization		73.6%	ICI	J Level	I of Service D	
Analysis Period (min)			15				



	۶		$\mathbf{i}$	¥	4	*	1	t	r	1	Ļ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		ф			44			ৰ কি			র চি	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	10	0	50	10	0	10	35	1200	5	5	1150	40
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	11	0	56	11	0	11	39	1333	6	6	1278	44
Pedestrians			historia (de Alberta)		Adoration and the state that	da heren di saka di sila d	e in the internet states of	kana ta angina ta a Patrate		di wana mada		
Lane Width (ff)												
Porcent Plockage		talleriteksejekseje				e de la desta de sec	an an an an an an an an an an an an an a	lindere de la se				
Right turn flare (yeh)												
Median type		None			None					ani ang kanas	latata kata da	
Median storage veh)					- HANI I W		98 yang maga san					
Upstream signal (ft)								1267				
pX, platoon unblocked	0.89	0.89		0.89	0.89	0.89				0.89		
vC, conflicting volume	2067	2728	661	2119	2747	669	1322			1339		
vC1, stage 1 conf vol							1999 (1999) (1999) (1999) (1999) 1997 (1999) (1999) (1999) (1999) (1999) (1999) (1999) (1999) (1999) (1999) (1999) (1999) (1999) (1999) (1999) (1	la nen la fre muner de la nen				ana ang pangangang pangang pang pang pan
vC2, stage 2 conf vol												
vCu, unblocked vol	2075	2818	661	2134	2840	504	1322			1257		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)				tionsis configurationic		internet internet and the state of the	ana ang ang ang ang ang ang ang ang ang	Naki Antoneo (mpeten)	en terren antered.		dektels estadstates	
IF (S)	3.5	4,0	3.3	3.5	4.0	3.3	2.2			2,2		8.930,000,8
p0 queue nee %	0C 2C	100	86 405	44	100	98	92	in an		99	waa soosaan	sinangan na katala
civi capacity (ven/n)	23	14	400	20	14	400	518			489		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	67	- 22	706	672	644	683						
Volume Left	11	11	39	0	6	0	an an an an an an an an an an an an an a		unter of the second	r General Contre Parts Antonio	0102001005000000000000	ung de de la compañía de la compañía de la compañía de la compañía de la compañía de la compañía de la compañía
	115	11	C 10	1700	400	44						
Volume to Canacity	0.59	30 0 50	010	0.40	489	1700						
Queue Length 95th (ft)	0.00 71	0.30 51	0.00 6	0.40	0.01	0.40 0						
Control Delay (s)	72.5	187.2	21	٥Ň	na	nñ			i da kata ang sa	dan manan Aranda bing	haloga agai	
Lane LOS	F	F	A		v.o A		68988888888888888888888888888888888888					
Approach Delay (s)	72.5	187.2	ાં		0.2		Ś. Grancy					
Approach LOS	F	F										
Intersection Summary												
Average Delay			3.8									and a second second second second second second second second second second second second second second second
Intersection Capacity Uti	lization	(	69.0%	IC	U Leve	l of Serv	lice		C			
Analysis Period (min)		dennisen and	15	مى بىرىمى بىرىمى يىرىمى مەرىمى بىرىمى بىرىمى بىرىمى بىر		an an an an an an an an an an an an an a		an an an an an an an an an an an an an a		a an an an an an an an an an an an an an		



		$\rightarrow$	1	4	1	1	
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	<b>1</b>			4	¥		
Sign Control	Free			Free	Stop		
Grade	0% 1EE	ne	10	0% 170	0% 06	70	is (Autobal ada bela terta terta terta ada ana ana ana ana ana ana ana ana an
Peak Hour Factor		20 0 00	0 90	0 0	0 00	0 00	
Hourly flow rate (voh)	172	28	0.30 44	189	30	0.30 78	
Pedestrians	ananan sasayar	nens senses <u>and fi</u> elds					
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)	kana ana ang ang ang ang ang ang ang ang	V Antoini Maine		an an air an an an air an air an air an air an air an air an air an air an air an air an air an air an air an a		ele les enderes terres et trensfer	
Median type					None		
Unetream storage ven)							
nX platoon unblocked							
vC. conflicting volume			200		464	186	
vC1, stage 1 conf vol		ini ngé (ninini gilinga visi)	aladala <u>din kande</u> raka	leisteineineine			
vC2, stage 2 conf vol							
vCu, unblocked vol			200		464	186	
tC, single (s)			4.1		6.4	6.2	
tC, 2 stage (s)		an an an an an an an an an an an an an a	orofeer <b>aa</b> stads	san ( 1,46 Abis ( Abis)	an an an an an an an an an an an an an a	unio e co <u>se</u> nte service de pres	
IF (S)			2.2		3.5	3.3	
cM canacity (yeh/h)			37		93	91	
			10/2		000	000	
Ulrection, Lane #		WB 1	NB 1				
Volume Left	200	233 14	20				
Volume Bight	28		78				•
cSH	1700	1372	715				
Volume to Capacity	0.12	0.03	0.16				
Queue Length 95th (ft)	0	3	15				
Control Delay (s)	0.0	1.7	11.0				
Lane LOS	an an suit suit strainigeac	Α	В				
Approach Delay (s)	0.0	1.7	11.0				
Approach LOS			В				
Intersection Summary							
Average Delay	7774 (1919-1919-1919-1919 	 	3.1				
Intersection Capacity Uti	lization	,	37.1%	IC	U Leve	l of Servic	e A
Analysis Period (min)			15				



	T	NO-WAY STO	P CONTR	OL SU	MMARY				
<b>General Information</b>			Site I	nforma	ation				
Analyst A( y/Co. Date Performed Analysis Time Period	EJD CHA 2/18/2005 PM PEAK	HOUR	Interse Jurisdi Analys	ection ction is Year		ROUTE 7 TOWN 0 2028 NO	7/LOCUS F BURLI BUILD	T/LEDGE NGTON	
Project Description BUI	RLINGTON		<b>b c c c c</b>	<u> </u>	· · · · · · · · · · · · · · · · · · ·		·		
East/west Street: LOCO	ST/LEDGE		North/	South St	reet: HOUIE	/			
	Nonin-South		Sludy	Period (r	irs): 0.25				
Vehicle Volumes and	d Adjustment	<u>S</u>							
Major Street		Northbound				Southbo	und		
								<u> </u>	
Volume	0	845	23(		30	985		15	
Peak-Hour Factor, PHF	0.90	0.90	0.9	2	0.90	0.90		0.90	
Hourly Flow Rate, HFR	0	938	255	5	33	1094		16	
Percent Heavy Vehicles	0				2			~ <del>~</del>	
Median Type				Undiv	vided				
RT Channelized			0					0	
Lanes	0	2	0		0	1		0	
Configuration		Τ	TR		LTR				
Upstream Signal		0				0			
Minor Street					Eastbou	ınd			
Movement	7	8	9		10	11		12	
	L	ТТ	R		L	Т		R	
Volume	0	0	55		0	25		75	
Pe Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90	
Hosey Flow Hate, HFH	0	0	61		0	27		83	
Percent Reavy Vehicles	0		2		U			2	
			T						
riared Approach		/ <u>//</u>							
Storage						0		-	
					~			0	
Lanes	0	0	$\frac{1}{2}$		0	1		0	
				<u> </u>				17	
Delay, Queue Length, an	d Level of Servic	ce on	T	187		F		3	
Approach	NB	5B		vvestoo	ouna		Eastbou	na	
	]	4	/	8	9	10	11	12	
Lane Configuration		LIR			R		ļ	TR	
v (vph)		33			61			110	
C (m) (vph)		581			447			82	
v/c		0.06			0.14			1.34	
95% queue length		0.18			0.47			8.41	
Control Delay		11.6			14.3			305.7	
LOS		В			В			F	
Approach Delay			14.3			305.7			
Approach LOS				В	·····	F			

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	T\	NO-WAY STO	P CONTRO	OL SUM	MARY					
General Information			Site Ir	nformatio	on					
Analyst Ag y/Co. Date Performed Analysis Time Period	EJD CHA 2/18/2005 PM PEAK	HOUR	Intersed Jurisdic Analysi	ction ction s Year		ROUTE 7 TOWN O 2028 NO	7/SOUTH \ F BURLIN BUILD	WILLARD GTON		
Project Description BU	RLINGTON									
East/West Street: SOUT	H WILLARD		North/S	outh Stree	t: ROUTE 2	7				
Intersection Orientation:	North-South		Study F	Period (hrs)	: 0.25					
Vehicle Volumes and	d Adjustments	5								
Major Street		Northbound				Southbo	und			
Movement	1	2	3		4	5		6		
Volumen		705	R		<u> </u>	T 1000		R		
Volume Deak-Hour Factor DHE	80	/65	0.00		0	1030		0		
Hourly Flow Rate HFR	88	850	0.90		0.90 0	1144		0.90		
Percent Heavy Vehicles	2				2					
Median Type				Undivide	d	<u>I</u>				
RT Channelized			0					0		
Lanes	0	1	0		0	1		0		
Configuration	LT					T		· · · · · · · · · · · · · · · · · · ·		
Upstream Signal		0				0				
Minor Street		Westbound				Eastbou	ind			
Movement	7	7 8		9		11		12		
	L	Т	R		L	Т		R		
Volume	0	165	0		0	0		0		
Pe Your Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90		
Houny Flow Rate, HFR	0	183	0		0	0		0		
Percent Heavy Vehicles	0	2	2		0	<u> </u>	I	2		
Percent Grade (%)		0				0	-			
Flared Approach		<u>N</u>				N				
Storage		0				0				
RT Channelized			0					0		
Lanes	0	1	0		0	0		0		
Configuration										
Delay, Queue Length, an	d Level of Servic	ce	1							
Approach	NB	SB		Westbound	d		Eastboun	d		
Movement	1	4	7	8	9	10	11	12		
Lane Configuration	LT				TR					
v (vph)	88				183					
C (m) (vph)	611				33					
v/c	0.14				5.55					
95% queue length	0.50				21.89	I	T			
Control Delay	11.9				2285					
LOS	В				F	T	1			
Approach Delay		÷÷	1	2285						
Approach LOS	oproach Delay									

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## BUILD ALTERNATIVE 1 2008 AM PEAK HOUR

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4	7		4	7		ፈኁ		ሻ	ţ,	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0		4.0		4.0	4.0	500 1000 1000 1000 1000 1000 1000 1000
Lane Util. Factor		1.00	1.00		1.00	1.00		0.95		1.00	1.00	
Frt		1.00	0.85		1.00	0.85		0.99		1.00	1.00	
Flt Protected		0.98	1.00		0.98	1.00		0.99		0.95	1.00	
Satd. Flow (prot)		1823	1583		1817	1583		3499		1770	1858	
Fit Permitted		0.84	1.00		0.82	1.00		0.73		0.95	1.00	
Satd. Flow (perm)		1559	1583		1531	1583		2551		1770	1858	
Volume (vph)	15	20	45	50	50	85	60	510	25	100	915	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	22	50	56	56	94	67	567	28	111	1017	17
<b>RTOR Reduction (vph)</b>	0	0	44	0	0	73	0	0	0	0	0	0
Lane Group Flow (vph)	0	39	6	0	112	21	0	662	0	111	1034	0
Turn Type	Perm		Prot	Perm		pt+ov	Perm		с	ustom		
Protected Phases		4	4		8	8 1		2		1	6	
Permitted Phases	4			8			2			1		
Actuated Green, G (s)		13.9	13.9		13.9	26.5		83.3		12.6	100.9	
Effective Green, g (s)		14.9	14.9		14.9	28.5		84.3		13.6	101.9	
Actuated g/C Ratio		0.11	0.11		0.11	0.22		0.65		0.10	0.78	
Clearance Time (s)		5.0	5.0		5.0			5.0		5.0	5.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		179	181		175	347		1654		185	1456	
v/s Ratio Prot			0.00			0.01				0.06	c0.56	
v/s Ratio Perm		0.03			c0.07			0.26				
v/c Ratio		0.22	0.03		0.64	0.06		0.40		0.60	0.71	
Uniform Delay, d1		52.3	51.1		55.0	40.1		10.8		55.6	6.9	
Progression Factor		1.00	1.00		1.00	1.00		0.53		1.00	1.00	
Incremental Delay, d2		0.6	0.1		7.7	0.1		0.6		5.2	3.0	
Delay (s)		52.9	51.2		62.7	40.2		6.4		60.8	9.8	
Level of Service	a a construction and a construction of the	D	D		Ε	D		Α		E	А	
Approach Delay (s)		51.9			52.5			6.4			14.8	
Approach LOS		D			D			А			В	
Intersection Summary												
HCM Average Control D	elay		17.4	H	ICM Lev	el of Se	ervice		В			
HCM Volume to Capacit	y ratio		0.67									
Actuated Cycle Length (	s)		130.0	S	um of lo	ost time	(s)		8.0			
Intersection Capacity Uti	lization	l	37.8%	10	CU Leve	of Ser	vice		E			
Analysis Period (min)			15									
c Critical Lane Group												

	٠		$\mathbf{r}$	<b>F</b>		×.	1	1	1	×	↓ I	-
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	3	4			<del>.</del>		٣	L L		٢	14	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00			1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.85			0.90		1.00	1.00		1.00	1.00	tata sa ta sa
Fit Protected	0.95	1.00			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1583			1661		1770	1860		1770	1855	
Fit Permitted	0.36	1.00			0.96		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	668	1583			1606		1770	1860		1770	1855	-1-12-12-12-12-14-0-4
Volume (vph)	20	0	10	20	15	110	10	465	5	105	880	25
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	22	0	11	22	17	122	11	517	6	117	978	28
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	22	11	0	0	161	0	11	523	0	117	1006	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8						all filles an any star	a na an an Anglas a Anglas	State-Analysian
Actuated Green, G (s)	16.5	16.5			16.5		1.6	79.3		13.0	90.7	
Effective Green, g (s)	17.5	17.5			17.5		2.6	80.3		14.0	91.7	
Actuated g/C Ratio	0.13	0.13			0.13		0.02	0.62		0.11	0.71	
Clearance Time (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	90	213			216		35	1149		191	1308	uniduntiennutduiteinidiistis
v/s Ratio Prot		0.01					0.01	0.28		c0.07	c0.54	
v/s Ratio Perm	0.03				c0.10					- 1717-1717-1717-1717-1717-1717-1717-17		
v/c Ratio	0.24	0.05			0.75		0.31	0.46		0.61	0.77	
Uniform Delay, d1	50.3	49.0			54.1		62.8	13.2		55.4	12.3	or her de la construction de la construcción de la construcción de la construcción de la construcción de la cons
Progression Factor	1.00	1.00			1.00		0.96	0.74		1.14	0.76	
Incremental Delay, d2	1.4	0.1			13.1		4.6	1.2		4.3	3.3	
Delay (s)	51.8	49.1			67.2	en de la calacia. Marca de agai	65.0	11.0		67.2	12.7	
Level of Service	D	D			Е		Е	В		E	В	
Approach Delay (s)		50.9			67.2			12.1			18.3	
Approach LOS		D			Ε			В			В	
Intersection Summary												
HCM Average Control D	elay		21.4	Н	CM Lev	el of Se	rvice		С			
<b>HCM Volume to Capacit</b>	y ratio		0.77									
Actuated Cycle Length (	s)		130.0	S	um of lo	st time	(s)		18.2			
Intersection Capacity Uti	lization	7	79.8%	IC	CU Leve	l of Serv	<i>ice</i>		D			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		¢.			44		٢	ĥ		ኻ	4	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.99			0.98		1.00	0.99		1.00	0.99	
Flt Protected		0.97			0.97		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1725			1717		1711	1782		1711	1784	
Flt Permitted		0.66			0.80		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1176			1410		1711	1782		1711	1784	
Volume (vph)	55	20	5	65	40	20	5	405	30	80	780	50
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	61	22	6	72	44	22	6	450	33	89	867	56
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	89	0	0	138	0	6	483	0	89	923	0
Turn Type	Perm			Perm		e en en en en en	Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)		16.3			16.3		1.6	81.1		11.4	90.9	
Effective Green, g (s)		17.3			17.3		2.6	82.1		12.4	91.9	
Actuated g/C Ratio		0.13			0.13		0.02	0.63		0.10	0.71	
Clearance Time (s)		5.0		98. Sp. 2003	5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		156			188		34	1125		163	1261	
v/s Ratio Prot							0.00	0.27		c0.05	c0.52	
v/s Ratio Perm		0.08			c0.10							
v/c Ratio		0.57			0.73		0.18	0.43		0.55	0.73	
Uniform Delay, d1		52.9			54.1		62.6	12.1		56.1	11.6	
Progression Factor		1.00			1.00		0.74	1.53		1.26	0.13	
Incremental Delay, d2		5.0			13.8		2.3	1.1		2.5	2.6	
Delay (s)		57.8			67.9		48.4	19.6		73.3	4.1	
Level of Service		E			E		D	В		E	A	
Approach Delay (s)		57.8			67.9			19.9			10.1	
Approach LOS		E			E			В			В	
Intersection Summary												
HCM Average Control De	elay		20.0	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacity	/ ratio		0.74							u se una rubu da de Dia		
Actuated Cycle Length (s	)		130.0	S	um of lo	st time	(S)		18.2			
Intersection Capacity Util	ization	(	58.1%	IC	U Leve	l of Serv	vice		С			
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			र्स	7		र्भ	7		4	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0		4.0	4.0		4.0	
Lane Util. Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Frt		1.00			1.00	0.85		1.00	0.85		0.98	
Fit Protected		0.99			1.00	1.00		0.99	1.00		0.99	
Satd. Flow (prot)		1837			1859	1583	Na mana sa kana sa	1842	1583		1797	t turba succession
Fit Permitted		0.89			0.99	1.00		0.90	1.00		0.89	
Satd. Flow (perm)		1649			1838	1583		1679	1583		1610	
Volume (vph)	45	160	5	10	255	45	40	140	10	45	130	40
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	50	178	6	- <b>1</b> 1	283	50	44	156	11	50	144	44
RTOR Reduction (vph)	0	0	0	0	0	29	0	0	8	0	0	0
Lane Group Flow (vph)	0	234	0	0	294	21	0	200	3	0	238	0
Turn Type	Perm	و محرب میں ور دی		Perm		Perm	Perm		Perm	Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6	ta sete o atom o com	6	8		8	4		
Actuated Green, G (s)		16.3			16.3	16.3		9.4	9.4		9.4	
Effective Green, g (s)		17.3		an an ann an taraigh an taraigh an taraigh an taraigh an taraigh an taraigh an taraigh an taraigh an taraigh an	17.3	17.3	entates constructions	10.4	10.4		10.4	
Actuated g/C Ratio		0.43			0.43	0.43		0.26	0.26		0.26	
Clearance Time (s)		5.0	an an an an an an an an an an an an an a	La segui da se de secto de secto de secto de secto de secto de secto de secto de secto de secto de secto de se	5.0	5.0		5.0	5.0		5.0	
Vehicle Extension (s)		3.0			3.0	3.0		3.0	3.0		3.0	
Lane Grp Cap (vph)		704	u sa sa sa sa sa sa sa sa sa sa sa sa sa	1. j	785	676		431	406		413	
v/s Ratio Prot												
v/s Ratio Perm		0.14			c0.16	0.01		0.12	0.00		c0.15	
v/c Ratio		0.33			0.37	0.03		0.46	0.01		0.58	
Uniform Delay, d1		7.7	an an an an an an an an an an an an an a	وروسين ورود ورسين	7.9	6.7		12.7	11.2		13.1	
Progression Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Incremental Delay, d2	na ana ang ang ang ang ang ang ang ang a	0.3	eda Aresta formationaria	etteret tetseretereteret	0.3	0.0	waganana na matao.	0.8	0.0	enter and the state of the stat	1.9	anton destas.
Delay (s)		8.0			8.2	6.8		13.5	11.2		15.1	
Level of Service	hiyekingkingkin ni	A			A	A		В	B		В	un an
Approach Delay (s)		8.0			8.0			13.4			15.1	
Approach LUS		A			A			В			В	
Intersection Summary												
HCM Average Control D	elay		10.7	Н	CM Lev	vel of Se	ervice		В			
HCM Volume to Capacity	y ratio		0.38									
Actuated Cycle Length (s	5)		40.5	S	um of lo	ost time	(S)		8.0			
Intersection Capacity Uti	lization		59.9%	IC.	CU Leve	el of Ser	vice		В			
Analysis Period (min)			15		والمراجع والمراجع والمراجع والمراجع		the the second second second					
c Critical Lane Group												



	<b>†</b>	ľ	4	Ļ	4	t	
Movement	NBT	NBR	SBL	SBT	SWL	SWR	
Lane Configurations	ŧ	*	ሻ	¥	¥		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		
Frt	1.00	0.85	1.00	1.00	1.00		
Fit Protected	1.00	1.00	0.95	1.00	0.95		
Satd. Flow (prot)	1863	1583	1770	1863	1769		
Flt Permitted	1.00	1.00	0.40	1.00	0.95		
Satd. Flow (perm)	1863	1583	748	1863	1769		
Volume (vph)	465	265	15	845	290	10	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	
Adj. Flow (vph)	517	294	17	939	322	11	
RTOR Reduction (vph)	0	31	0	0	1	0	
Lane Group Flow (vph)	517	263	17	939	332	0	
Turn Type	Prot		Perm				
Protected Phases	2	8		6	8		
Permitted Phases		2	6				
Actuated Green, G (s)	86.5	113.8	86.5	86.5	27.3		
Effective Green, g (s)	87.5	115.8	87.5	87.5	28.3		
Actuated g/C Ratio	0.67	0.89	0.67	0.67	0.22		
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	1254	1459	503	1254	385		
v/s Ratio Prot	0.28	0.04		c0.50	c0.19		
v/s Ratio Perm		0.13	0.02				
v/c Ratio	0.41	0.18	0.03	0.75	0.86		
Uniform Delay, d1	9.6	0.9	7.1	14.0	49.0		
Progression Factor	1.00	1.00	0.39	0.51	1.00		
Incremental Delay, d2	1.0	0.1	0.1	3.0	17.7		
Delay (s)	10.6	1.0	2.8	10.1	66.7		
Level of Service	B	A	A	В	E		
Approach Delay (s)	7.1			10.0	66.7		
Approach LOS	A			В	E		
Intersection Summary							
HCM Average Control D	elay		17.9	F	ICM Lev	el of Service	В
HCM Volume to Capacit	y ratio		0.78				
Actuated Cycle Length (s	S)		130.0	S	Sum of lo	ost time (s)	14.2
Intersection Capacity Uti	lization		67.8%	K	CU Leve	l of Service	C
Analysis Period (min)			15				
c Critical Lane Group							

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Movement	EBL	EBR	NBL	NBT	SBT	SBR			
Lane Configurations	۲,	7	ኻ	*	¥	7			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Lane Width	11	12	11	12	11	12			n nga mananan na gramatan dari dari dari dari dari dari dari dari
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00		and the first second from the second s	anan an ing panganan panganan pananan sa sa sa sa sa
Fit	1.00	0.85	1.00	1.00	1.00	0.85			
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00			
Satd. Flow (prot)	1711	1583	1711	1863	1801	1583			
Flt Permitted	0.95	1.00	0.40	1.00	1.00	1.00			
Satd. Flow (perm)	1711	1583	729	1863	1801	1583			
Volume (vph)	265	15	15	460	395	740			<u></u>
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90			
Adj. Flow (vph)	294	17	17	511	439	822		ford over one of other (sound)	
<b>RTOR Reduction (vph)</b>	0	11	0	0	0	0			
Lane Group Flow (vph)	294	6	17	511	439	822			
Turn Type		Prot	Perm			Perm			
Protected Phases	2	2		4	8	an an a' ann an fa suid an Annaichte an Stair an San Annaichte	, managang kanalan di para kanaka kana kana kana kana kana kana	an ann an galaistean taite an t	
Permitted Phases			4			8			
Actuated Green, G (s)	38.8	38.8	65.0	65.0	65.0	65.0			
Effective Green, g (s)	39.8	39.8	66,0	66.0	66.0	66.0			
Actuated g/C Ratio	0.33	0.33	0.55	0.55	0.55	0.55			
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0			
Lane Grp Cap (vph)	567	525	401	1025	991	871			
v/s Ratio Prot	c0.17	0.00		0.27	0.24			1 m ( m m m ) ( m ( m m m m m m m m m m m	
v/s Ratio Perm			0.02			c0.52			
v/c Ratio	0.52	0.01	0.04	0.50	0.44	0.94		-22	
Uniform Delay, d1	32.4	26.9	12.4	16.7	16.1	25.3			
Progression Factor	0.72	0.75	1.00	1.00	1.00	1.00			
Incremental Delay, d2	3.3	0.0	0.2	1.7	0.3	18.2			
Delay (s)	26.5	20.3	12.6	18.5	16.4	43.5			
Level of Service	С	C	В	В	8	D			
Approach Delay (s)	26.1			18.3	34.0				
Approach LOS	С			В	C				
Intersection Summary									
HCM Average Control D	elay		28.9	H	CM Lev	el of Service	(	2	
HCM Volume to Capacit	y ratio		0.78					aa aanta waxa mining ahaad	, en el construcción de la construcción de la del
Actuated Cycle Length (	s)		120.0	S	um of lo	ost time (s)	14.2	2	
Intersection Capacity Ut	ilization	(	62.5%	IC	CU Leve	I of Service	E	3	e en el el el el este de la el el en el el el el el el el el el el el el el
Analysis Period (min)			15						side opposite tid second disso. And the second second second second



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		44			4			4.		۲	t.	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	14	12	12	14	12	12	14	12	11	11	12
Total Lost time (s)		4.0			4.0			4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00			1.00		1.00	1.00	10) / 11 (11 ) / 2001 (11 / 20
Frt		1.00			0.92			0.99		1.00	0.98	
Flt Protected		0.98			1.00	1999 (1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 -		1.00		0.95	1.00	
Satd. Flow (prot)		1948			1816			1973		1711	1764	
Flt Permitted		0.66			0.98			0.99		0.51	1.00	200-00-00-00-00-00-00-00-00-00-00-00-00-
Satd. Flow (perm)		1305			1779			1954		912	1764	
Volume (vph)	30	45	0	10	55	105	10	245	10	115	190	30
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	33	50	0	11	61	117	11	272	11	128	211	33
RTOR Reduction (vph)	0	0	0	0	93	0	0	2	0	0	5	0
Lane Group Flow (vph)	0	83	0	0	96	0	0	292	0	128	239	0
Turn Type	Perm			Perm			Perm			om+pt		
Protected Phases		4		na stal a sennala sita setti	8	2253 yılının məzəri yılışır.	tera na ser a galera da far	2			6	peritangan genderalar
Permitted Phases	4			8			2		99.599.380.600.3	6	-	
Actuated Green, G (s)		7.5			7.5			28.6		39.1	39.1	1999-1997 (BAG 1949
Effective Green, g (s)		8.5			8.5			29.6		40.1	40.1	
Actuated g/C Ratio		0.14			0.14			0.50		0.68	0.68	
Clearance Time (s)		5.0			5.0			5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		187			255			974		703	1191	
v/s Ratio Prot				10,10,00 - La Constanta (	, , , , , , , , , , , , , , , , , , ,				eseleten sederande	0.02	c0.14	ang ng sang ng
v/s Ratio Perm		c0.06			0.05			c0.15		0.10		
v/c Ratio		0.44			0.38		,	0.30		0.18	0.20	90-90-500-65049-6
Uniform Delay, d1		23.3			23.1			8.8		4.0	3.6	
Progression Factor		1.00			1.00			1.00		1.00	1.00	an a transmission a se
Incremental Delay, d2		1.7			0.9			0.2		0.1	0.1	
Delay (s)		25.0			24.0			9.0		4.1	3.7	
Level of Service		С			C			A		A	Α	
Approach Delay (s)		25.0			24.0			9.0			3.8	
Approach LOS	50 010 AU -	C		63 (S. 1918)	C		\$160 Q (S)	A			A	
Intersection Summary												
HCM Average Control De	lay		11.4	H	CM Lev	el of Se	rvice		В			
HCM Volume to Capacity	ratio		0.30									*****
Actuated Cycle Length (s	)		59.4	Si	um of lo	st time i	(S)		12.0			
Intersection Capacity Utili Analysis Period (min)	zation	E	50.1% 15	IC	U Leve	l of Serv	vice		A			



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Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	¥	<b>7</b>	٣,	¥	ሻ	7	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	a elemente a mel es rece la sua racia troc a que sa col mon de constructorio de la districtión estas estas est
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	1.00	0.85	n en
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00	
Satd. Flow (prot)	1863	1583	1770	1863	1770	1583	u au an an thu an an an an ann an ann an ann an thu ann a' fhear na dhair an a' na an dhairtean ann ann ann ann
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00	
Satd. Flow (perm)	1863	1583	1770	1863	1770	1583	y og en engeneralet i en en en en en en en en en en en en en
Volume (vph)	60	95	660	95	225	220	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	
Adj. Flow (vph)	67	106	733	106	250	244	
RTOR Reduction (vph)	0	62	0	0	0	47	
Lane Group Flow (vph)	67	44	733	106	250	197	
Turn Type		pm+ov	Prot		C	sustom	
Protected Phases	4	2	3	8	2	23	
Permitted Phases		4		n menera ya produkti na dina s		2	
Actuated Green, G (s)	7.9	47.9	50.9	63.8	40.0	95.9	
Effective Green, g (s)	8.9	49.9	51.9	64.8	41.0	96.9	
Actuated g/C Ratio	0.07	0.42	0.43	0.54	0.34	0.81	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	i se se se	
Lane Grp Cap (vph)	138	658	766	1006	605	1278	
v/s Ratio Prot	c0.04	0.02	c0.41	0.06	c0.14	0.12	
v/s Ratio Perm		0.00					
v/c Ratio	0.49	0.07	0.96	0.11	0.41	0.15	
Uniform Delay, d1	53.4	21.1	33.0	13.5	30.3	2.5	
Progression Factor	1.00	1.00	0.24	0.15	1.08	5.15	
Incremental Delay, d2	2.7	0.0	11.2	0.0	1.9	0.1	
Delay (s)	56.0	21.1	19.1	2.0	34.6	13.1	
Level of Service	E	С	В	А	С	В	
Approach Delay (s)	34.6			16.9	24.0		
Approach LOS	С			В	С		
Intersection Summary							
HCM Average Control D	elay		21.3	H	CM Lev	el of Service	С
HCM Volume to Capacit	y ratio		0.70				
Actuated Cycle Length (	s)		120.0	S	um of lo	ost time (s)	18.2
Intersection Capacity Uti	ilization		62.4%	IC	CU Leve	l of Service	Barris and Barris and Barris
Analysis Period (min)			15		an tan ara katika		
c Critical Lane Group	23994994349						



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			44		ሻ	ĥ		ሻ	4	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.89			0.98		1.00	0.98		1.00	1.00	
Fit Protected		0.99			0.98		0.95	1.00		0.95	1.00	erindi del del Gristi del Statisti
Satd. Flow (prot)		1648			1786		1770	1826		1770	1857	
Fit Permitted		0.94			0.88		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1570			1591		1770	1826		1770	1857	
Volume (vph)	5	0	20	30	40	15	80	425	65	10	730	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	6	0	22	- 33	44	17	89	472	72	11	811	17
RTOR Reduction (vph)	0	20	0	0	6	0	0	3	0	0	0	0
Lane Group Flow (vph)	0	8	0	0	88	0	89	541	0	11	828	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4	te dy og oar		8		5	2		9 68 9 <b>1</b> 6	6	
Permitted Phases	4			8								
Actuated Green, G (s)		10.7			10.7		8.7	84.9		3.2	79.4	
Effective Green, g (s)		11.7			11.7		9.7	85.9		4.2	80.4	
Actuated g/C Ratio		0.10			0.10		0.08	0.72		0.04	0.67	
Clearance Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		153			155		143	1307		62	1244	
v/s Ratio Prot							c0.05	0.30		0.01	c0.45	
v/s Ratio Perm		0.01			c0.06							
v/c Ratio		0.05			0.57		0.62	0.41		0.18	0.67	
Uniform Delay, d1		49.1			51.7		53.4	6.9		56.2	11.8	
Progression Factor		1.00			1.03		0.88	1,44		1.21	0.13	
Incremental Delay, d2		0.1	water that the second second		4.6		7.5	0.9		0.7	1.4	
Delay (s)		49.3			57.7		54.5	10.8		68.8	3.0	
Level of Service		D			E		D	В		E	A	
Approach Delay (s)		49.3			57.7			16.9			3.8	
Approach LOS		D			E			В			A	
Intersection Summary												
HCM Average Control D	elay		13.0	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.65									
Actuated Cycle Length (	s)		120.0	Si	um of lo	st time	(s)		18.2			
Intersection Capacity Uti	lization	(	54.0%	IC	U Leve	l of Sen	/ice		C			
Analysis Period (min)		ter de la companya de la companya de la companya de la companya de la companya de la companya de la companya d	15			a ta stade a sta						
c Critical Lane Group												



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			44		ሻ	<b>1</b> 4		ሻ	<b>1</b> 4	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	an an an an an an an an an an an an an a
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.97			0.98	1977 - 1977 - 1977 - 1977 - 1977 - 1977 - 1977 - 1977 - 1977 - 1977 - 1977 - 1977 - 1977 - 1977 - 1977 - 1977 -	1.00	1.00		1.00	0.99	
Fit Protected		0.98			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1780			1808		1770	1860		1770	1848	
Flt Permitted		0.77			0.90		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1401			1646		1770	1860		1770	1848	
Volume (vph)	45	65	30	15	65	15	65	510	5	5	735	40
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	50	72	33	17	72	17	72	567	6	6	817	44
RTOR Reduction (vph)	0	9	0	0	6	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	146	0	0	100	0	72	573	0	6	860	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8					'- ' ' ' ' ' '			
Actuated Green, G (s)		15.1			15.1		7.8	82.1		1.6	75.9	
Effective Green, g (s)		16.1			16.1		8.8	83.1		2.6	76.9	
Actuated g/C Ratio		0.13			0.13		0.07	0.69		0.02	0.64	
Clearance Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		188			221		130	1288		38	1184	
v/s Ratio Prot							c0.04	0.31		0.00	c0.47	
v/s Ratio Perm		c0.10			0.06							
v/c Ratio		0.78			0.45		0.55	0.44		0.16	0.73	
Uniform Delay, d1		50.2			47.9		53.7	8.2		57.6	14.5	and an experiment of the
Progression Factor	nenga (si s	1.00			1.00		0.85	1.36		1.26	0.23	
Incremental Delay, d2		18.2			1.5		4.5	1.0		1.5	3.1	
Delay (s)		68.4			49.4		50.0	12.2		73.9	6.4	
Level of Service		E			D		D	В		E	А	
Approach Delay (s)		68.4			49.4			16.4			6.9	
Approach LOS		E			D			В			А	
Intersection Summary												
HCM Average Control D	elay		18.2	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.72									
Actuated Cycle Length (s	5)		120.0	S	um of lo	ost time	(s)		18.2			
Intersection Capacity Uti	lization	7	72.0%	IC	CU Leve	l of Serv	/ice		C			
Analysis Period (min)			15									
c Critical Lane Group									el senere est			



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4	শ		4		ሻ	î.		٣	î.	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	· · · · · · · · · · · · · · · · · · ·	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00		1.00	1.00		1.00	1.00	
Frt		1.00	0.85		0.99	eren and an an an an an an an an an an an an an	1.00	0.99		1.00	0.99	an an an an an an an an an an an an an a
Flt Protected		0.98	1.00		0.96		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1827	1583		1766		1770	1843		1770	1848	2412-124-24-24-44-44
Flt Permitted		0.87	1.00		0.48		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	· · · ·	1619	1583		876		1770	1843	2012 (1997) - 1997) 2017 (1997) - 1997) - 1997)	1770	1848	
Volume (vph)	50	80	105	40	5	5	135	525	40	5	735	40
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	56	89	117	44	6	6	150	583	44	6	817	44
RTOR Reduction (vph)	0	0	93	0	4	0	0	1	0	0	1	0
Lane Group Flow (vph)	0	145	24	0	52	0	150	626	0	6	860	0
Turn Type	Perm		Perm	Perm			Prot			Prot		terre de la constante de la cons
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8				1				and an an an an an an an an an an an an an
Actuated Green, G (s)		13.7	13.7		13.7		14.3	83.5		1.6	70.8	
Effective Green, g (s)		14.7	14.7		14.7		15.3	84.5		2.6	71.8	
Actuated g/C Ratio		0.12	0.12		0.12		0.13	0.70		0.02	0.60	
Clearance Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		198	194		107		226	1298		38	1106	
v/s Ratio Prot							c0.08	0.34		0.00	c0.47	
v/s Ratio Perm		c0.09	0.02		0.06							
v/c Ratio		0.73	0.12		0.49		0.66	0.48		0,16	0.78	inigeniedele Reference
Uniform Delay, d1		50.8	46.9		49.2		49.9	7.9		57.6	18.1	
Progression Factor	NSO (SO ISA (S	1.00	1.00	20132-92-8	1.00		1.00	1.00		1.28	0.19	
Incremental Delay, d2		13.1	0.3	the set of the set of the left	3.5		7.1	1.3		1.4	3.8	
Delay (s)		63.8	47.2		52.7		57.0	9.2		75.0	7.3	
Level of Service		E	D		D		E	Α		Ε	Α	
Approach Delay (s)		56.4			52.7			18.5			7.8	
Approach LOS		E			D			В			A	
Intersection Summary												
HCM Average Control D	elay		19.8	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.75									
Actuated Cycle Length (	s)		120.0	S	um of lo	st time	(s)		18.2			
Intersection Capacity Uti	lization		68.0%	- IC	CU Leve	l of Sen	/ice	5.0.4	С			
Analysis Period (min)	ana ana ang ang ang ang ang ang ang ang		15	Second ended to be the second		the state of the second						
c. Critical Lane Group												



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			÷‡;			4.	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	100	65	25	100	25	10	160	40	5	135	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	111	72	28	111	28	11	178	44	6	150	6
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	189	167	233	161								
Volume Left (vph)	6	28	11	6								
Volume Right (vph)	72	28	44	6					en enserigeneseter		Aven menten han version	
Hadj (s)	-0.19	-0.03	-0.07	0.02								
Departure Headway (s)	5.0	5.2	5.0	5.2								
Degree Utilization, x	0.26	0.24	0.32	0.23		ga gina ing ka						
Capacity (veh/h)	658	634	662	634	*****************	2004 III 64 7 17 11 14 II 16 II				ang dan sekaran segar ya	anang katalon ng kulokang kata	streaturingen eta
Control Delay (s)	9.7	9.8	10.4	9.7						i gestat		
Approach Delay (s)	9.7	9.8	10.4	9.7		and a subspectra de senderal	alio dysływa sielada si	a na della especiale de la construcción de la construcción de la construcción de la construcción de la constru La construcción de la construcción d	te-(te-constructionse			
Approach LOS	A	A	В	A								
Intersection Summary												
Delay			9.9				Se (0) (0					
HCM Level of Service			Α									
Intersection Capacity Uti	lization		41.0%	I	CU Leve	el of Sen	vice		Α			
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			÷\$+			44			4	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	40	50	55	125	5	55	200	45	10	210	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	44	56	61	139	6	61	222	50	11	233	6
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	106	206	333	250								
Volume Left (vph)	6	61	61	11								
Volume Right (vph)	56	6	50	6				us met verse vit versenskipe			tart trisin south fill the tr	
Hadj (s)	-0.27	0.08	-0.02	0.03								
Departure Headway (s)	5.6	5.7	5.2	5.4					- 10 m		100 m (100 m (100 m m m m	
Degree Utilization, x	0.16	0.33	0.48	0.37								
Capacity (veh/h)	555	569	649	626				tatos fatos de desta con		1999-1999-1999-1999-1999-1999-1999-199		ologia mangagan
Control Delay (s)	9.7	11.5	12.9	11.5								
Approach Delay (s)	9.7	11.5	12.9	11.5			anan sala an ta'n a'r fel ar tefn	************************************	Alexandra and Anna (Ann	n da an an an an an an an an an an an an an	inana kata da sa kata da sa	
Approach LOS	A	В	B	В								
Intersection Summary												
Delay			11.8									
HCM Level of Service			В							1	an de service de service de service de service de service de service de service de service de service de servi Notat de service de service de service de service de service de service de service de service de service de serv	i na sana sa
Intersection Capacity Uti	lization		54.8%	IC	CU Leve	el of Ser	vice		A			
Analysis Period (min)			15	1	(		an i manina ang mang min	ng ng gi sang nang nang ng gang	*****	an menangka menangka dari dari dari dari dari dari dari dar	letter al national grad	er en en en en en en en en en en en en en
							sistera		85455066666666666			

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4,			4			4	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	20	110	0	10	15	115	5	55	10	140	20	20
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	22	122	0	11	17	128	6	61	11	156	22	22
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	144	156	78	200						<u>ALMARTINE ALALAN MEDON</u>		
Volume Left (vph)	22	11	6	156								
Volume Right (vph)	0	128	11	22								nenet rener (enform
Hadj (s)	0.06	-0.44	-0.04	0.12								
Departure Headway (s)	4.9	4.3	4.8	4.8								
Degree Utilization, x	0.19	0.19	0.10	0.27								
Capacity (veh/h)	690	767	682	697			an an an an an an an an an an an an an a	and a strange of the states				ATO SCORECTORY S
Control Delay (s)	9.0	8.4	8.4	9.6	anda gazar							
Approach Delay (s)	9.0	8.4	8.4	9.6			ungon, eretre ta ter, irai				******	a dalam dalam dalam dalam dalam dalam dalam dalam dalam dalam dalam dalam dalam dalam dalam dalam dalam dalam d
Approach LOS	A	A	A	A								
Intersection Summary												
Delay			9.0									
HCM Level of Service			Α				- 0.00 mp	1999-1999 - 1999 - 1999 - 1999 - 1999 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 -	- """""""""""""""		ويتواود بالبيار بالايتاء سالير سالير	entre net et
Intersection Capacity Uti	ilization		35.1%	i an an an an an an an an an an an an an	CU Leve	l of Ser	vice		A			
Analysis Period (min)			15	ça , 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20	ana dala da per di Denimali de	57 - 51 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 -	teren barren birten gehilden best		nen hulen er en hulen er en here.			anan kanan ang ang ang ang ang ang ang ang ang
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	×		$\mathbf{F}$	<pre>f</pre>	-		1	Ť	1	1	Ļ	1
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		¢‡+			¢‡>			4			4,	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	5	5	15	45	5	40	20	750	30	20	1130	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	6	17	50	6	44	22	833	33	22	1256	6
Pedestrians	den gemeen gemeen verke plike.	an an an an an an an an an an an an an a		-13 - 4-13 - 4-13 - 4-13-1	An an an an an an an an an an an an an an	den litera d'Alecces		an an an an an an an an an an an an an a		na desta de como		n os no state
Lane Width (II)												
Walking Speed (II/s)										Shekidada	an kanada kata kata	ander stor førstal
Percent blockage												
Median type		Nona			Nono		ganga kata					
Median storage veh)		INCING			INUIIG							
Upstream signal (ff)					1222						1247	
pX, platoon unblocked	0.85	0.85	0.85	0.85	0.85		0.85	999) 999 999 99 9			1 <b>Ann</b> 7 <b>F</b>	
vC, conflicting volume	2244	2214	1258	2217	2200	850	1261			867		
vC1, stage 1 conf vol											alesenet deserved	-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1
vC2, stage 2 conf vol											Charrestenssies Vielense asserte	
vCu, unblocked vol	2470	2434	1305	2438	2418	850	1309			867		
tC, single (s)	7.1	6.5	6.2	7,1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)	ana ang <u>a</u> ng <u>a</u> ng	ina kaominin'i agrico <u>tar</u> iere		the state of the s	0000-10-0 <u>0</u> 0-000	dan din dan samuniasi						
tF (S)	3.5	4.0 ≂o	3.3	3.5	4.0	3.3	2.2			2.2		
pu queue free %	53	/8 05	90	0	/8 00	88	95		ie derivatie of gestad	97	iya Manazarta	010000000000
civi capacity (venin)	12	25	100	13	29	300	448			-111		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	28	100	889	1283				69. Jan 69. U				
Volume Lett	6	50	22	22	distanti da s		howerski sie deska	senten senten senten senten senten senten senten senten senten senten senten senten senten senten senten senten	S fantsof (se es consecutor	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	una pinta na bore da	14/45/11/15/avier
	17 25	44 04	33 440	5 777			697.037.037					
Volume to Canacity	0.70	24 193	440 0.05	0.03							alan Sabida	
Queue Length 95th (ft)	70	Frr	0.00 4	0.00								
Control Delay (s)	257 1	En	17	12								
Lane LOS	F	F	A	A		SelfSeptem (694)	0000000000000					9089843999999 90899
Approach Delay (s)	257.1	Err	1.7	1.2								
Approach LOS	F	F						ante el any tatta de la	- 1996 - 1997 - 1997 - 1996 - 1996 - 1996 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 199	Soenne and Saard Koente	-994-9999-9999-9999-9999-9999-9999-999	ana ang ang ang ang ang ang ang ang ang
Intersection Summary												
Average Delay			439.2									
Intersection Capacity U	tilization		86.9%	IC	CU Leve	l of Sen	/ice		E			
Analysis Period (min)			15									

	✓	*	Ť	1	1	Ļ	
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	Y		4			4	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Volume (veh/h)	45	90	695	30	70	1090	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vph)	50	100	772	- 33	78	1211	
Pedestrians	daan dagayaa ka	urorada esta	9468889494	Heidelik (Seiner			un anteres
Lane width (it)							
Percent Blockage							61626F
Right turn flare (veh)		611991 <i>12914</i> 9					2029) 
Median type	None		Gendrad dat habel The Association				
Median storage veh)			ay gonesanned	esterani dani selati s			9949990
Upstream signal (ft)			611				9999
pX, platoon unblocked	0.82	0.82			0.82		
vC, conflicting volume	2156	789		<u> </u>	806		
vC1, stage 1 conf vol	ta parte de la companya de la carte		a and a state of decad				
vC2, stage 2 conf vol							
vCu, unblocked vol	2409	743	Melokumukko		763		
tC, single (s)	6.4	6.2			4.1		
tF (e)	3 5	22	der i steden state state. State state state state		00		
n0 queue free %	0.0	0.0 71			<b>م.</b> 80		500050
cM capacity (veh/h)	26	341			697		
Direction Lane #	WB 1	NB 1	SR 1				
Volume Total	150	806	1289				
Volume Left	50	0	78	******			898848
Volume Right	100	- 33	0				
cSH	69	1700	697				546969694
Volume to Capacity	2.19	0.47	0.11				
Queue Length 95th (ft)	354	0	9	der Mitter eine bei der	tere warmen tere de la constate a		
Control Delay (s)	674.6	0.0	4.6				
Lane LOS	F		A	n an			galikasan
Approach Delay (s) Approach LOS	6/4.6 F	0.0	4.6				
Intersection Summary							
Average Delay			47.7				
Intersection Capacity Ut	ilization	11	17.7%	IC	U Leve	el of Service H	
Analysis Period (min)			15				



	✓	*	1	1	1	ŧ	
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	¥7		<del>د</del> آ			র্ম	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Volume (veh/h)	20	70	425	20	35	355	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vph)	22	78	472	22	39	394	
Pedestrians			production and respect to respect to			instature tay taul a success of	
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (ven)			Salasinina sa			kinininininininini	
Median storage usb)	INOULE						
Instream signal (ff)						667	
nX nlatoon unblocked	98.0					00/	
vC conflicting volume	956	483			лол		
vC1, stage 1 conf vol		TUU			TUT		
vC2. stage 2 conf vol							
vCu, unblocked vol	948	483	englangs galaran an	strayensata (segreta sed	494	ener and a start	
tC, single (s)	6.4	6.2			4.1		
tC, 2 stage (s)						alaya garijaja arata s	
tF (s)	3.5	3.3			2.2		
p0 queue free %	91	87			96		
cM capacity (veh/h)	240	583			1069		
Direction, Lane #	WB 1	NB 1	SB 1				
Volume Total	100	494	433				
Volume Left	22	0	39				
Volume Right	78	22	0				
cSH	443	1700	1069				
Volume to Capacity	0.23	0.29	0.04	969			
Queue Length 95th (ft)	21	0	3	vienni male i bioche herde	and succession of the second	land o de la dela composition de	
Control Delay (s)	15.5	0.0	1.1				
	U ,		A		diga galanian in	tanggagan kalaka	
Approach LOS	15.5 C	0.0	1,1				
Intersection Summan	•						
Average Delay			20				
Intersection Canacity III	ilization		2.U	10	מיים     ו	of Son	ina B
Analysis Period (min)	meanun	•	15,070 15	٦L	VU LEVE		D D
	an the state of the state of the state of the	وبالمناز بالمناجع والمنازية	( J				



	۶	$\rightarrow$	1	†	Ļ	4		
Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations	Ŵ			a	<b>1</b> 4			
Sign Control	Stop			Free	Free			
Grade	0%	(1), (1), (1), (1), (1), (1), (1), (1),		0%	0%	n an the first stand and find an all a grap an and all a graph and graph and a graph and a stand and a stand a		
Volume (veh/h)	65	10	50	390	340	35		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	an na managan sa katala na Baran (na baran) na kata	ter tristissionen utter ends
Hourly flow rate (vph)	72	11	56	433	378	39		
Pedestrians							ana a matagong ang ang manang ang ang ang ang ang ang ang ang an	
Lane Width (ft)								
Walking Speed (ft/s)							en reconstruction de la construction de la construcción de la construcción de la construcción de la construcció	
Percent Blockage								
Right turn flare (veh)								
Median type	None							
Median storage veh)								
Upstream signal (ft)				1089	959			
pX, platoon unblocked	0.89	0.89	0.89					
vC, conflicting volume	942	397	417					
vC1, stage 1 conf vol								
vC2, stage 2 conf vol			9.9 9.8					
vCu, unblocked vol	935	325	347					
tC, single (s)	6.4	6.2	4.1					
tC, 2 stage (s)	Radadoria (m <u>ta do daradora</u>		65416431 (MING-654					
ti- (s)	3.5	3.3	2.2					
p0 queue free %	71	98	95			A Malanda and Malanda and Anna Anna ann an Anna		*****
cM capacity (veh/h)	250	640	1083					
Direction, Lane #	EB 1	NB 1	SB 1					
Volume Total	83	489	417				0 49 70 OK 28 OK 38 OK	
Volume Left	72	56	0	and a state of the state of the state of the state of the state of the state of the state of the state of the s	n an	a daalad halaada ahayoo dahayoo dahaa ahaa waxaa ahaa ahaa ahaa ahaa ahaa	and an and a state of the second second second second second second second second second second second second s	و و و و و و و و و و و و و و و و و و و
Volume Right	11	0	39					
CSH	272	1083	1700	han an	Ana jales (Agusti ali en eg.	la se esta este el se se de la segura de terra de la segura de la segura de la segura de la segura de la segur		
volume to Capacity	0.31	0.05	0.25					
Queue Length 95th (ft)	31	4	0	gaan ay gaan daa sa dada			li de seus estal de la compania de service de la compania	ى ئەرمەر ئەرىمەر بەرمەر ئەرمەر ئەرمەر ئەرى
Control Delay (s)	24.0	1.5	0.0				0.00000000000000000	
Lane LOS	C	A		la an an an an an an an an an an an an an	hillin an			gargelingalawan waaraa
Approach Delay (s)	24.0	1.5	0.0					
Approach LOS	С							
Intersection Summary								
Average Delay			2.8					
Intersection Capacity Uti	lization		57.5%	IC	U Level	of Service	В	
Analysis Period (min)			15				a an a search ann an Ann	



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	4		ኻ	4Î			<del>4</del> )-			4	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	12	11	11	14	14	14	11	11	11
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.98		1.00	0.99			0.98			0.97	
Flt Protected	0.95	1.00		0.95	1.00			1.00			0.99	
Satd. Flow (prot)	1711	1830		1770	1787			1939			1729	
Flt Permitted	0.28	1.00		0.49	1.00	an an tha an an an an an an an an an an an an an		0.95			0.91	
Satd. Flow (perm)	499	1830		916	1787			1851			1595	
Volume (vph)	40	265	35	30	460	25	25	205	40	45	155	60
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	44	294	39	33	511	28	28	228	44	50	172	67
RTOR Reduction (vph)	0	6	0	0	2	0	0	5	0	0	10	0
Lane Group Flow (vph)	44	327	0	33	537	0	0	295	0	0	279	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2		9	6			8			4		
Actuated Green, G (s)	19.5	19.5		19.5	19.5		and a second second	15.0			15.0	
Effective Green, g (s)	20.5	20.5		20.5	20.5			16.0			16.0	
Actuated g/C Ratio	0.42	0.42		0.42	0.42			0.33			0.33	
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	208	764		382	746			603			520	
v/s Ratio Prot		0.18			c0.30							
v/s Ratio Perm	0.09			0.04				0.16			c0.17	
v/c Ratio	0.21	0.43		0.09	0.72			0.49			0.54	
Uniform Delay, d1	9.1	10.1		8.6	11.9			13.3		****	13.5	
Progression Factor	1.00	1.00		1.00	1.00	and a second second second		1.00			1.00	
Incremental Delay, d2	0.5	0.4		0.1	3.3			0.6			1.1	
Delay (s)	9.6	10.5		8.7	15.2			13.9			14.6	
Level of Service	A	В		A	B			В			В	
Approach Delay (s)		10.4	بالترور ووسالير فتور الموه	lanaa yo gagaa ahaan tara	14.9			13.9			14.6	
Approach LOS		В			В	0.0.0.0		В			В	
Intersection Summary												
HCM Average Control D	elay		13.5	H	ICM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.57									
Actuated Cycle Length (	s)		49.1	S	um of lo	ost time	(s)		8.0			
Intersection Capacity Uti	lization	(	53.6%	IC	CU Leve	l of Ser	vice		В			
Analysis Period (min)			15									



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	<b>^</b>			î,		٢	t.				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	10	10	16	16	16	10	11	11	12	12	12
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0				
Lane Util. Factor	1.00	1.00			1.00		1.00	1.00		n hari dan daga kurur		···///////////////////////////////////
Frt	1.00	1.00			0.98		1.00	0.98				
Flt Protected	0.95	1.00			1.00	tere for elements	0.95	1.00		a de contra	alationis and also	er fille fan it fleref
Satd. Flow (prot)	1888	1739			1871		1652	1764				
Flt Permitted	0.32	1.00			1.00	11	0.95	1.00	er en frankrige (da die e	eta was kristatua a	en lingesternet:	
Satd. Flow (perm)	645	1739			1871		1652	1764		6		
Volume (vph)	15	310	0	0	480	60	100	190	30	٥	٥	Ω
Peak-hour factor PHE	0.90	0.90	0 9ñ	n añ	0.90	n an	nan	0.90	n ăñ	ิ ก ด ก	n añ	n añ
Adi, Flow (vph)	17	344	0	0	533	67	111	211	33	0.00	0.00	0.00
BTOB Beduction (vph)	n	ň	ň	ň	ς.	ัก	'n	- i	ñ	ň	ň	ň
Lane Group Flow (vph)	17	344	0	0 0	595	енененененен П	111	238	ň	ñ	ñ	N N
Parking (#/hr)				ň	័ត	Ň				v Alexandria	v Ale	
Turn Type	Perm			<u> </u>		Y	Porm					
Protected Phases		•		Angerstand yn treisian. Gegenerad yn treisian	8		ГСІШ	g				
Permitted Phases	2	000 (19 003) <b>(1</b> 9 00	99926949299993		•	100100000000	andersteine Q		9000439999999	29.69.599.999 		
Actuated Green G (c)	250	25 Q	ana ana ana ana ana ana ana ana ana ana		25.0		10 6	10.5		asi di Maria		
Effective Green a (s)	26.0	26.0	99979334998 9		20.9		11 5	10.0				
Actuated o/C Batio	0.55	Δ0.5 Δ55			20.3 0.55		0.04	0.24				
Clearance Time (s)	5.0	5.00 5.0			0.00 5.0		0.24 E 0	U.24 E A				
Vehicle Extension (s)	2.0	3.0		ue égolation d	3.0 3.0		0.U 2 A	0.0 2 A			i an an an an an an an an an an an an an	
Lano Gro Con (unb)	256	0.0			1001		200	440				
v/c Patio Prot	330	909			1031	hohano(s) eteo	309	410		alainaalaalaa		
V/S Natio Price	A A2	0.20			00.02	Single States	0.07	CU. 13			ANN (2017) - 20	
	0.03	0.00			0 50		0.07	0 C 7				
Uniform Dolov, d1	0.09 E A	0.30			0.50		15 0	10.57				
Drogrosping Easter	0.0	1.0			1.2		10.3	10.5	delasio mercio del	i sanga indanasia	ara galaki kuy	
Progression Pacion	1.00	1.00			1.00		1.00	1.00				
Delay, (2)	U.I E 4	U.2 6 A			0.8	in an	U.4	1.9				waaanga ay
Lovel of Service	ى م	0.4 ^			0.U ^		10./	10.4				
Approach Dolou (c)	A .	м с о			м 0 л		D	- D 			<u>^</u>	
Approach LOS		0.0 A			0.0 A			и.э В			0.0 A	
Intersection Summary								-				
HCM Average Control D	elav		10.1	н	CMIA	al of Sa	nvice		R			
HCM Volume to Canacit	v ratio		0.54						U			
Actuated Cycle Length (	;		48.8	¢,	um of k	net time	(e)		βΛ			
Intersection Canacity Liti	-, lization	len de j	17 4%	n 1		I of Con	dre.		0.0 A			
Analysis Period (min)	1556-1423-1673-1		15		C FCAC		n <b>vu</b>		n	808900990		
c Critical Lane Group												use en en en en en en en en en en en en en
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#### HCM Signalized Intersection Capacity Analysis 3: Main Street & South Winooski Ave

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	<b>N</b> j	<b>Þ</b>		٣	<b>†</b>	7		44		ሻ	4	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	11	11	12	12	12	10	10	12
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0		4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00
Fit	1.00	1.00		1.00	1.00	0.85		0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.99		0.95	1.00	1.00
Satd. Flow (prot)	1540	1669		1711	1801	1531		1626		1652	1739	1583
Fit Permitted	0.47	1.00		0.61	1.00	1.00		0.91		0.73	1.00	1.00
Satd. Flow (perm)	759	1669		1101	1801	1531		1493		1265	1739	1583
Volume (vph)	30	185	5	40	315	135	10	25	5	75	170	65
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	33	206	6	44	350	150	11	28	6	83	189	72
RTOR Reduction (vph)	0	1	0	0	0	81	0	5	0	0	0	49
Lane Group Flow (vph)	33	211	0	44	350	69	0	40	0	83	189	23
Parking (#/hr)	0	0	0				0	0	0			
Turn Type	Perm			Perm		Perm	Perm			pm+pt		Perm
Protected Phases		2			6			8		7	4	
Permitted Phases	2			6		6	8			4		4
Actuated Green, G (s)	26.6	26.6		27.7	27.7	27.7		11.1		19.2	19.2	19.2
Effective Green, g (s)	27.6	27.6		28.7	28.7	28.7		12.1		20.2	20.2	20.2
Actuated g/C Ratio	0.44	0.44		0.46	0.46	0.46		0.19		0.32	0.32	0.32
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0		5.0		5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0		3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	336	738		506	828	704	<u>' '.'.'</u>	290		435	563	512
v/s Ratio Prot		0.13			c0.19					0.01	c0.11	
v/s Ratio Perm	0.04			0.04		0.05		0.03	and heidin things of picture to	0.05	atorates paga 602366	0.01
v/c Ratio	0.10	0.29		0.09	0.42	0.10	1818 B S	0.14		0.19	0.34	0.05
Uniform Delay, d1	10.1	11.1		9.5	11.3	9.5		20.8	ng sang ang at signa pang ang a	15.3	16.0	14.5
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00
Incremental Delay, d2	0.1	0.2		0.1	0.3	0.1		0.2		0.2	0.4	0.0
Delay (s)	10.3	11.3		9.6	11.6	9.6		21.1		15.5	16.4	14.5
Level of Service	В	В		Α	В	Α		С		В	В	В
Approach Delay (s)		11.2		60000000	10.9	ŚŚŚ		21.1		id di sa si	15.8	
Approach LOS		В			В			С			В	Nelos tetra nuori nino
Intersection Summary												
HCM Average Control D	elay		12.8	Ĥ	CM Lev	el of Se	rvice		В			
HCM Volume to Capacity	y ratio		0.35			G Sais Q						
Actuated Cycle Length (s	5)		62.4	S	um of lo	ost time	(S)		8.0			
Intersection Capacity Uti	lization	4	14.1%	IC	U Leve	l of Ser	vice		A			
Analysis Period (min)			15									
c Critical Lane Group												



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<del>ل</del> ه	7	ሻ	£			A	7	٣	L	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	12	12	16	12	12	12
Total Lost time (s)		4.0	4.0	4.0	4.0			4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00		deereed en de deer	1.00	1.00	1.00	1.00	an an an an an an an an an an an an an a
Frt		1.00	0.85	1.00	0.97			1.00	0.85	1.00	0.98	
Flt Protected		1.00	1.00	0.95	1.00		1946 - 1977 - 1976 - 1976 - 1976 - 1976 - 1976 - 1976 - 1976 - 1976 - 1976 - 1976 - 1976 - 1976 - 1976 - 1976	0.98	1.00	0.95	1.00	
Satd. Flow (prot)		1736	1478	1486	1516			1834	1794	1593	1833	
Flt Permitted		0.99	1.00	0.64	1.00	andaran tahun karabatan		0.89	1.00	0.63	1.00	taskupegaske Geriksends
Satd, Flow (perm)		1714	1478	999	1516			1656	1794	1049	1833	
Volume (vph)	5	165	45	20	270	70	60	130	25	20	45	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0 90	n añ	n qñ
Adi, Flow (vph)	6	183	50	22	300	78	67	144	28	22	50	6
RTOR Reduction (vph)	0	0	31	Ō	12	Ő	, N	'n	13	-0	4	ň
Lane Group Flow (vph)	0	189	19	22	366	0	0	211	15	22	52	<b>*</b>
Parking (#/hr)				0	0	Ō	ō			 0		
Turn Type	Perm		Perm	Perm			Perm		Perm	Perm		
Protected Phases		2	injo-info-tenistrator. Otomini orazio della		6	de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la Recordo de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata		8			4	
Permitted Phases	2	enerinen <del>mi</del> te	2	6			8		8	4		800000000000
Actuated Green, G (s)		15.2	15.2	15.2	15.2			11.9	11 9	119	11.9	
Effective Green, q (s)	ar Allini Histori I I I I A Mai	16.2	16.2	16.2	16.2	99999999999999999999999999999999999999	684 676 766 676 676 1	12.9	12.9	12.9	129	
Actuated g/C Ratio		0.38	0.38	0.38	0.38			0.31	0.31	0.31	0.31	
Clearance Time (s)		5.0	5.0	5.0	5.0	ren angli kanghilipitete	soy Reaction and	5.0	5.0	5.0	5.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0			3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		660	569	384	583			507	550	321	562	
v/s Ratio Prot					c0.24						0.03	is name and a second
v/s Ratio Perm		0.11	0.01	0.02		en a polytepolytepolyte		c0.13	0.01	0.02		**********
v/c Ratio		0.29	0.03	0.06	0.63			0.42	0.03	0.07	0.09	
Uniform Delay, d1		9.0	8.1	8.1	10.5			11.6	10.2	10.3	10.4	
Progression Factor		1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	
Incremental Delay, d2	1	0.2	0.0	0.1	2.1	en en en en en en en en en en en en en e	anteros de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de	0.6	0.0	0.1	0.1	1043E994779111252
Delay (s)		9.2	8.1	8.2	12.6			12.2	10.2	10.4	10.5	
Level of Service		Α	А	Α	В		ann an thail an thail an thail an thail an thail an thail an thail an thail an thail an thail an thail an thail	В	В	В	В	en son yn de de de de de de de de de de de de de
Approach Delay (s)		9.0	s		12.4			11.9			10.5	
Approach LOS		Α		an din 2016 di marte di Constanta	В			В			В	
Intersection Summary												
HCM Average Control D	elay		11.3	Н	CM Lev	el of Se	rvice		В			
<b>HCM Volume to Capacity</b>	y ratio		0.46			19.43.4 <u>3</u> .4	9.40.60.43					0.603803
Actuated Cycle Length (s	s)		42.1	S	um of lo	st time (	(s)		8.0			
Intersection Capacity Util	lization		42.0%	10	CU Leve	l of Serv	ice		A			
Analysis Period (min)			15	· · · · · · · · · · · · · · · · · · ·				· · · · · · · · · · · · · · · · · · ·			uunde des la rection de solard	an an ann an Chuirte
c Critical Lane Group												

	٠	-+	$\rightarrow$	-	4	×.	1	<b>†</b>	1	<b>\</b>	Ļ	-
Movement	EBL2	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR2	SBL	SBT	SBR
Lane Configurations		¢.			4,			£.			<u>.</u>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	14	14	14	12	12	12	16	16	16
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00		,	1.00	ang distriction and and		1.00	er for produkti sin deliĝe
Frt		0.97			0.98			1.00			0.99	
Flt Protected		0.99	5		0.99		1 1	1.00		in an initial production of the start.	1.00	n nastri na sinjenje
Satd. Flow (prot)		1795			1923			1853			2093	
Flt Permitted		0.95			0.96			0.98		- 1- 1- 1- 1- 1- 1- 1- 1- 1- 1- 1- 1- 1-	0.98	Antel Million anglis
Satd. Flow (perm)		1728			1865			1824			2062	
Volume (vph)	10	30	10	5	20	5	20	315	5	5	105	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	11	33	11	6	22	6	22	350	6	6	117	6
RTOR Reduction (vph)	0	9	0	0	0	0	0	1	0	0	2	Ō
Lane Group Flow (vph)	0	46	0	0	34	0	0	377	0	0	127	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases	1	3	alia Dell'Interactory a	an an an an an an an an an an an an an a	3			2		0.000000000000000000000000000000000000	6	0100000000000
Permitted Phases	3			3			2	2		6	6	
Actuated Green, G (s)		15.0		and and the state of the state	15.0			30.0	0-0104000000000000000000	000444000000 <b>7</b> 00404	30.0	ngaalaanaan too
Effective Green, g (s)		16.0			16.0			31.0			31.0	
Actuated g/C Ratio		0.20			0.20			0.39	and and and and a stand of the	1999-00-000-000-000-000-00-00-00-00-00-00	0.39	0.0000000000000000000000000000000000000
Clearance Time (s)	Ś. S. C. S.	5.0			5.0			5.0			5.0	
Lane Grp Cap (vph)		346			373			707			799	
v/s Ratio Prot				oden pred side (byd Nordel Predstand)								
v/s Ratio Perm	an an an an an an an an an an an an an a	c0.03			0.02	Andread and personality of	ina propinsi kijago presi.	c0.21		979 (119 (119 (19 (19 (19 (19 (19 (19 (19	0.06	ang ang ang ang ang ang ang ang ang ang
v/c Ratio		0.13			0.09			0.53		Gideni (1966) Shiringa	0.16	
Uniform Delay, d1	1-11-11-11-11-11-11-11-11-11-11-11-11-1	26.3	1999 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -	alan ng marana atangkasa	26.1	enter en en en en en en en en en en en en en	na teo teo teo teo teo teo teo teo teo teo	18.9	Annalan katata		16.0	2415/2012/2012/2
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.8		· · · · · · · · · · · · · · · · · · ·	0.5			2.9		ann farfalleile far stir	0.4	
Delay (s)		27.1			26.6			21.8		eri den den der de Station (der eine	16.4	
Level of Service		С			С			С		ar fadi Afa era da mada	В	
Approach Delay (s)		27.1			26.6			21.8			16.4	NET SOLE
Approach LOS		С			С			С			В	eren er selsen de
Intersection Summary												
HCM Average Control De	elay		23.1	H	CM Lev	el of Se	rvice		С			
HCM Volume to Capacity	ratio		0.41						-			
Actuated Cycle Length (s	)		80.0	Su	um of lo	st time (	(S)	a an an an an an an an an an an an an an	12.0	on of the second second second	999999999999999 99999	anasa dalari
Intersection Capacity Util	zation		52.1%	IC	U Level	of Serv	lice		A			
Analysis Period (min)			15							an an an an an an an an an an an an an a	nan man Astan Sa	
c Critical Lane Group												



	6	f	*	t	
Movement	SWL2	SWL	SWR	SWR2	
Lane Configurations	۲	Y			
Ideal Flow (vphpl)	1900	1900	1900	1900	
Lane Width	14	14	14	14	1000 and 1000 and 1000 and 1000 and 1000 and 1000 and 1000 and 1000 and 1000 and 1000 and 1000 and 1000 and 100
Total Lost time (s)	4.0	4.0			
Lane Util. Factor	1.00	1.00			
Frt	1.00	0.98			

Frt	1.00	0.98				
Flt Protected	0.95	0.96				
Satd. Flow (prot)	1888	1872				
Flt Permitted	0.95	0.96				10 Q.
Satd. Flow (perm)	1888	1872				
Volume (vph)	5	180	15	5		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90		
Adj. Flow (vph)	6	200	17	6		0.00
RTOR Reduction (vph)	0	1	0	0		
Lane Group Flow (vph)	6	222	0	0	aan oo saaraa ahaa ah ah ah ahaa ahaa ahaa aha	9999. 1
Turn Type	Split					
Protected Phases	4	4				de fe
Permitted Phases						
Actuated Green, G (s)	20.0	20.0				
Effective Green, g (s)	21.0	21.0				
Actuated g/C Ratio	0.26	0.26				
Clearance Time (s)	5.0	5.0				
Lane Grp Cap (vph)	496	491				*****
v/s Ratio Prot	0.00	c0.12				
v/s Ratio Perm						242
v/c Ratio	0.01	0.45				
Uniform Delay, d1	21.8	24.7		<ul> <li>among and a straight strai</li></ul>		1009
Progression Factor	1.00	1.00	60.005			
Incremental Delay, d2	0.0	3.0				
Delay (s)	21.9	27.7				
Level of Service	С	С		an an taran tara da sa		-ang
Approach Delay (s)		27.5				
Approach LOS	,,,.,,.,.,.,.,.,.,.,.,.,.,	С	a a construction and a second			214
Intersection Summarv						

	۶	>	$\mathbf{i}$	1	4	×.	1	†	1	1	¥	~
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		ų.	Ť		<del>ب</del>	7	ሻ	<b>*</b> 14		ሻ	<u>ቶሴ</u>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	0.99	
Flt Protected		0.97	1.00		0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1799	1583		1817	1583	1770	3536		1770	3500	
FIt Permitted		0.77	1.00		0.85	1.00	0.31	1.00		0.29	1.00	
Satd. Flow (perm)		1441	1583		1592	1583	583	3536		540	3500	
Volume (vph)	60	25	110	15	15	15	85	885	5	10	565	45
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	67	28	122	17	17	17	94	983	6	11	628	50
RTOR Reduction (vph)	0	0	100	0	0	14	0	1	0	0	7	0
Lane Group Flow (vph)	0	95	22	0	34	3	94	988	0	11	671	0
Turn Type	Perm		Perm	Perm		Perm	pm+pt			Perm		
Protected Phases		4		12.23 2 3	8		5	2			6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)		10.3	10.3		10.3	10.3	38.8	38.8		29.4	29.4	
Effective Green, g (s)		10.3	10.3		10.3	10.3	38.8	38.8		29.4	29.4	
Actuated g/C Ratio		0.18	0.18		0.18	0.18	0.68	0.68		0.51	0.51	
Clearance Time (s)		4.0	4.0		4.0	4.0	3.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0	3.0	1999 1997 1997	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		260	286		287	286	508	2403		278	1802	
v/s Ratio Prot							0.02	c0.28			0.19	
v/s Ratio Perm		c0.07	0.01		0.02	0.00	0.11			0.02		
v/c Ratio		0.37	0.08		0.12	0.01	0.19	0.41		0.04	0.37	
Uniform Delay, d1		20.5	19.4		19.6	19.2	3.6	4.1		6.9	8.3	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.9	0.1	a da ta	0.2	0.0	0.2	0.1		0.1	0.1	
Delay (s)		21.4	19.6		19.8	19.2	3.7	4.2		6.9	8.4	
Level of Service		C	В	Weischersteiten der einer	В	B	Α	Α		A	A	ala shafa asi shaka ƙwa
Approach Delay (s)		20.4			19.6			4.1			8.4	
Approach LOS		С			В			A			A	
Intersection Summary												
HCM Average Control D	elay		7.7	Н	CM Lev	el of S	ervice		A			
HCM Volume to Capacity	y ratio		0.40									
Actuated Cycle Length (s	3)		57.1	S	um of lo	ost time	(s)		8.0			
Intersection Capacity Uti	lization		52.6%	lC IC	CU Leve	l of Sei	vice		Α	energi de la seconda de la seconda de la seconda de la seconda de la seconda de la seconda de la seconda de la s		
Analysis Period (min)			15									
c Critical Lane Group										lain nois tan isr Seo capacita dal		



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		র্ম	7	٣	<b>t</b> .		٣	<b>†</b> £		۴	<u>ቀ</u> ሴ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	10	12	16	12	10	10	10	10	10	10
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	0.95		1.00	0.95	Succession of profile and the
Frt		1.00	0.85	1.00	0.90		1.00	1.00		1.00	0.99	
Flt Protected		0.96	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1728	1478	1770	1906		1652	3299		1652	3265	
Flt Permitted		0.75	1.00	0.71	1.00		0.34	1.00		0.95	1.00	
Satd. Flow (perm)		1349	1478	1329	1906		597	3299		1652	3265	
Volume (vph)	50	10	240	15	5	10	95	1040	10	10	610	50
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	56	11	267	17	6	11	106	1156	11	11	678	56
RTOR Reduction (vph)	0	0	237	0	10	0	0	0	0	0	7	0
Lane Group Flow (vph)	0	67	30	17	7	0	106	1167	0	11	727	0
Turn Type	Perm		Perm	Perm			pm+pt			Prot		
Protected Phases		4			8		5	2	engaren (eraner) engelere	1	6	
Permitted Phases	4		4	8			2					
Actuated Green, G (s)		7.8	7.8	7.8	7.8		45.9	45.9		0.9	28.3	
Effective Green, g (s)		7.8	7.8	7.8	7.8		46.9	46.9		0.9	29.3	
Actuated g/C Ratio		0.11	0.11	0.11	0.11		0.67	0.67		0.01	0.42	
Clearance Time (s)		4.0	4.0	4.0	4.0		5.0	5.0		4.0	5.0	
Vehicle Extension (s)		1.0	1.0	1.0	1.0		1.5	1.0		1.0	1.0	
Lane Grp Cap (vph)		150	164	148	212		678	2207		21	1365	
v/s Ratio Prot					0.00		0.04	c0.35		0.01	c0.22	ta ter a feriter
v/s Ratio Perm		c0.05	0.02	0.01			0.06					
v/c Ratio		0.45	0.18	0.11	0.03		0.16	0.53		0.52	0.53	
Uniform Delay, d1		29.1	28.3	28.0	27.8	Ç Karalaşı	5.5	5.9		34.4	15.3	
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.8	0.2	0.1	0.0		0.5	0.9		10.4	1.5	
Delay (s)		29.9	28.4	28.2	27.8		6.0	6.9		44.8	16.8	
Level of Service		C	C	С	C		Α	Α		D	В	
Approach Delay (s)		28.7			28.0			6.8			17.2	
Approach LOS		С			C	51.69 (S. 69)		A			В	
Intersection Summary												
HCM Average Control D	elay		13.4	H	CM Lev	el of Se	rvice		В			
HCM Volume to Capacity	y ratio		0.49					a a san na san san san san san san san s	nen soloenen en til 1948	saa ahaan too dhiistii	e namen de serve de la Brezile	1010-010-010-000-000-00-000-00-000-000-
Actuated Cycle Length (s	s)		70.1	S	um of lo	ost time (	(S)		8.0			
Intersection Capacity Uti	lization	Ę	52.4%	IC	CU Leve	l of Serv	vice		А			
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				ሻ	វ			<b>≜</b> ‡			<b>^</b> î.	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	14	12	12	12	12	12	12
Total Lost time (s)				4.0	4.0			4.0			4.0	
Lane Util. Factor				0.95	0.95			0.95			0.95	244-0-12 11 (24-12) 12 (27-12) 244-0-12 (12) -12 (27-12) (27-12)
Frt				1.00	1.00			1.00			1.00	
Flt Protected				0.95	0.96			1.00			1.00	da ana da dana kara tara
Satd. Flow (prot)				1681	1691			3539			3539	
Flt Permitted				0.95	0.96			1.00			1.00	1993 (1997) - 1993 (1997) 1993 (1997) - 1993 (1997)
Satd. Flow (perm)				1681	1691			3539			3539	
Volume (vph)	0	0	0	1255	50	0	0	720	0	0	935	0
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	1394	56	0	0	800	0	0	1039	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	706	744	0	0	800	0	0	1039	0
Turn Type				Perm			Perm					
Protected Phases	,				8			2	an salan dan pinikis		6	
Permitted Phases				8			2					
Actuated Green, G (s)				28.2	28.2			24.7			24.7	*******
Effective Green, g (s)				30.2	30.2			26.7			26.7	
Actuated g/C Ratio				0.47	0.47			0.41			0.41	
Clearance Time (s)				6.0	6.0			6.0			6.0	
Vehicle Extension (s)				3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)				782	787			1456			1456	
v/s Ratio Prot					*********			0.23	0 m 1 m 0 m 2 m 2 m 2 m 2 m 2 m 2 m 2 m 2 m 2		c0.29	and a substantial state of the second state of the second state of the second state of the second state of the
v/s Ratio Perm				0.42	0.44							
v/c Ratio				0.90	0.95		000000000000000000000000000000000000000	0.55		0-1762-0-01-0-06-0	0.71	//////////////////////////////////////
Uniform Delay, d1				16.0	16.6		5.00	14.5			15.9	
Progression Factor				1.00	1.00			1.00			1.00	
Incremental Delay, d2				13.7	19.8			0.4			1.7	
Delay (s)				29.7	36.4			15.0			17.6	
Level of Service	29 11 25 25			C	D			В			В	
Approach Delay (s)		0.0			33.1			15.0			17.6	
Approach LOS		A			C			B			В	
Intersection Summary												
HCM Average Control De	elay		23.8	H	CM Lev	el of Sei	rvice		С			
HCM Volume to Capacity	/ ratio		0.84							aa ah ah ah ah ah ah ah dadada dada dad	u e de la completa de la completa de la completa de la completa de la completa de la completa de la completa d Completa de la completa  erenten Görta	
Actuated Cycle Length (s	<b>)</b>		64.9	S	um of lo	st time (	S)		8.0			
Intersection Capacity Util	ization	6	8.6%	IC	CU Leve	l of Serv	rice		С			
Analysis Period (min)	nin si si si Ni se si si		15	iner de la deservit Némecia composi								

	۶	-+	$\rightarrow$	-	-	×.	1	1	r	- <b>\</b>		-
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		÷.		,	4			¢Ĵ.			<u>.</u>	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	80	30	40	155	10	25	320	45	5	145	10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	89	33	44	172	11	28	356	50	6	161	11
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	128	228	433	178		<u></u>						
Volume Left (vph)	6	44	28	6								
Volume Right (vph)	33	11	50	11					i kana dan ta mata da sa 1973	van de de comencia da se	Sana astronostronynasa,	an se an de de de de de de de de de de de de de
Hadj (s)	-0.11	0.04	-0.02	0.00				Ger Gerner a				
Departure Headway (s)	5.9	5.9	5.3	5.7								
Degree Utilization, x	0.21	0.37	0.63	0.28								
Capacity (veh/h)	514	555	652	572				*****	r) 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			e e per e de la definite
Control Delay (s)	10.5	12.3	16.9	10.9								
Approach Delay (s)	10.5	12.3	16.9	10.9							entered and a state of the second second second second second second second second second second second second	Second State
Approach LOS	В	В	С	B								
Intersection Summary												
Delay			13.9									
HCM Level of Service			В					a na ana kata na ana ana ka		,		n de la regionne de la constante
Intersection Capacity Uti	lization		55.0%	K	CU Leve	l of Sen	vice		Α			
Analysis Period (min)			15	and the second states					-1	a da manga sa kata na ganga sa fa		an an thairt an th
									(dela de second		<u>iojanojo princip</u>	

	<	×.	1	1	1	Ļ	
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	Y		4			đ	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Volume (veh/h)	75	5	395	225	5	345	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vph)	83	6	439	250	6	383	
Pedestrians		a kelebaharan jina se	ger ophielden der		andara arkai kata dia	n konstruction and the state of the state of the state of the state of the state of the state of the state of t	
Lane width (ff)							
Porcont Plockogo							
Right turn flare (veh)							
Median type	None						
Median storage veh)			eosenbaran				
Upstream signal (ft)						837	
pX, platoon unblocked			an an an an an an an an an an an an an a				
vC, conflicting volume	958	564			689		
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	958	564		leren en eler en el el	689		
tC, single (s)	6.4	6.2			4.1		
IC, 2 Stage (S)	A A		alianisina en		leterin <b>di</b> managanan		
IF (S)	3.5 71	3.3	bez (de la constant) (de la		2.2		
cM canacity (yeh/h)	284 	99 505			99		
Divertise Lass #		NOA	004		300		
Velume Total			381				
Volume Loft	03	009	389				
Volume Right	8	250	ň		6.966		
cSH	292	1700	905				
Volume to Capacity	0.30	0.41	0.01				
Queue Length 95th (ft)	31	0	0		i den en de de de de de de de de de de de de de		
Control Delay (s)	22.6	0.0	0.2				
Lane LOS	С		Α				
Approach Delay (s)	22.6	0.0	0.2				
Approach LOS	С						
Intersection Summary							
Average Delay			1.8				
Intersection Capacity Ut	ilization	4	15.6%	IC	U Level	of Service	e A
Analysis Period (min)			15				

	≯		$\rightarrow$	- 🗲	-		1	1	M	<b>\</b>	↓ I	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<del>4</del> 4-			¢‡,			đĥ			đt.	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	20	0	50	10	0	10	50	895	5	5	585	45
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	22	0	56	11	0	11	56	994	6	6	650	50
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)					ng til som i som skaler og	ang ang ang ang ang ang ang						
Percent Blockage												
Right turn flare (veh)			katele (skotele) state	La companya (La companya)	an <b>a</b> ng sana ang san Ing sana ang		an an an an an an an an an an an an an a	landorosici alca e (o		gar Valis Antoniae IV alasta.	-and all a second station of the second station of	(1411-14)); (141-14); (141-14); (141-14); (141-14); (141-14); (141-14); (141-14); (141-14); (141-14); (141-14)
Median type		None			None			dia dia 201				
Median storage ven)					5460 664 664		Maria da serie da serie da serie da serie da serie da serie da serie da serie da serie da serie da serie da se	4000		940.449.000 (C)	An an an an an an an an an an an an an an	his Adopting
opstream signal (it)								1267				
vC conflicting volume	1206	1707	DEN	1500	1010	500	700			1000		
vC1 stage 1 conf vol	1000	1/3/		1900	1013	000	100		page age age	1000		
vC2_stage 2 conf vol												
vCu_unblocked vol	1306	1797	350	1500	1819	500	700			1000		9,018,938,946 1
tC. single (s)	7.5	6.5	6.9	75	65	69	41			4 1		
tC, 2 stage (s)								(ABCARATIANA)	pada di karisti			
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	80	100	91	85	100	98	94	and a second second second second second second second second second second second second second second second		99	a dana da sera sina da seta s	99999999999999999
cM capacity (veh/h)	109	74	646	73	71	516	893			688		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	78	22	553	503	331	375		100 SP 51 S				
Volume Left	22	11	56	0	6	0						
Volume Right	56	11	0	6	0	50						
cSH	268	128	893	1700	688	1700						
Volume to Capacity	0.29	0.17	0.06	0.30	0.01	0.22						
Queue Length 95th (ft)	29	15	5	0	<b>1</b>	0	under Antonie der Antonie	la baan birabirat baasa	en de la compañía de la compañía de la compañía de la compañía de la compañía de la compañía de la compañía de	a tha dhara an tao ta Angar ta		energi esta esti conta co
Control Delay (s)	23.8	39.0	1.7	0.0	0.3	0.0						
Lane LOS	C	E	A		A						ana ang ang ang ang ang ang ang ang ang	www.comedaloo
Approach LOO	23.8	39.0	0.9		0.1							
Approach LOS	C	E										
Intersection Summary												
Average Delay	an an an an an an an an an an an an an a		2.0	20-9-20-0-0-0-0-0-0-		alaa ah waxaa ah ah ah			ere deserve de anarco de se		a seguitado a traba do este	
intersection Capacity Uti	lization		58.6%	10	JU Leve	I of Sen	/ICE		В			anda antikak Arite Antika
Analysis Period (min)			15	dentre bereiken in				dalar sa kupa kuta			ninini 444 minini ka	u kana kana kana kana kana kana kana kan



		$\rightarrow$	-		1	1	
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	1			<del>,</del>	۲		
Sign Control	Free			Free	Stop		
Grade	0%			0%	0%		
Volume (veh/h)	195	30	110	70	10	40	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vph)	217	33	122	78	11	44	
Pedestrians	n na Saidhean donaidh an	bestern Antonio and the se				ere de la tre checkatatatat	
Lane Width (ft)							
Walking Speed (ft/s)				e formi den 1934			
Percent Blockage							
Modion type	- A CARGE CONTRACTOR				Nono		
Median storage veh)				0646206020	INCITE		
(Instream signal (ff)				331			
pX. platoon unblocked	dan si dahat						
vC. conflicting volume			250		556	233	
vC1, stage 1 conf vol				tradition de la Constantia		an an an an an an an an an an an an an a	
vC2, stage 2 conf vol							
vCu, unblocked vol			250		556	233	
tC, single (s)			4.1		6.4	6.2	
tC, 2 stage (s)	unde anti-se ta tar e care				and a second second		
IF (s)			2.2		3.5	3.3	
p0 queue free %	HARAD BARASA	iin attay (wis kangles da	91		98	94	
civi capacity (ven/n)			1316		447	806	
Direction, Lane #	EB 1	WB 1	NB 1				
Volume Lotal	250	200	56				
	0	122	11 • • • •	SERVICE AND AND AND AND AND AND AND AND AND AND	Haring and starts		
	1700	1216	44 604				
Volume to Canacity	Δ15	0.00	094				
Queue Length 95th (ft)	0.10	0.03 8	0.00 7				
Control Delay (s)	0.0	52	10.6				
Lane LOS		A	B	30140360350056			
Approach Delay (s)	0.0	5.2	10.6				
Approach LOS			В	e	ning versioning of the second	n de la company de la company de la company de la company de la company de la company de la company de la comp	
Intersection Summary							
Average Delay			32				
Intersection Capacity LIti	lization		35.2%	IC	llleve	of Service	Δ
Analysis Period (min)		an na na Shiri (Shiri)	15	ang ng			

General InformationSite InformationAnalystEJDIntersectionROUTE 7/LOCUST/LEDGEA(								
Analyst       EJD       Intersection       ROUTE 7/LOCUST/LEDGL         A(	General Information Analyst EJD							
Project Description       BURLINGTON         East/West Street:       LOCUST/LEDGE         Intersection Orientation:       North-South         Study Period (hrs):       0.25         Vehicle Volumes and Adjustments       Southbound         Major Street       Northbound	Analvst A( y/Co. Date Performed Analysis Time Period							
Last/West Street:       LOCUST/LEDGE       North/South Street:       ROUTE 7         Intersection Orientation:       North-South       Study Period (hrs):       0.25         Vehicle Volumes and Adjustments       Northbound       Southbound	Project Description BUI							
Vehicle Volumes and Adjustments         Northbound         Southbound	East/West Street: LOCU							
Vehicle Volumes and Adjustments Major Street Southbound Southbound Southbound	Intersection Orientation:							
Maior Street Southbound Southbound	Vehicle Volumes and							
Horizona Courte	Major Street							
Movement 1 2 3 4 5 6	viovement							
L I <u>R</u> <u>L</u> I <u>R</u>	Volume							
Volume         0         055         255         0         403         15           Peak-Hour Eactor PHE         0.90	Peak-Hour Factor PHF							
Hourly Flow Bate, HFB 0 727 283 0 450 16	Hourly Flow Bate, HFR							
Percent Heavy Vehicles 0 2	Percent Heavy Vehicles							
Median Type Undivided	Median Type							
RT Channelized 0 0	RT Channelized							
Lanes 0 2 0 0 1 0	anes							
Configuration T TR LTR	Configuration							
Upstream Signal 0 0	Jpstream Signal							
Minor Street Westbound Eastbound	Minor Street							
Movement 7 8 9 10 11 12	Movement							
Volume 0 0 55 0 20 85	Volume							
Pe Hour Factor, PHF 0.90 0.90 0.90 0.90 0.90 0.90	Pe Hour Factor, PHF							
How y Flow Rate, HFR 0 0 61 0 22 94	How Rate, HFR							
Percent Heavy Vehicles 0 0 2 0 2 2	Percent Heavy Vehicles							
Percent Grade (%) 0 0	Percent Grade (%)							
Flared Approach N N	-lared Approach							
Storage 0 0	Storage							
RT Channelized 0 0	RT Channelized							
Lanes 0 0 1 0 1 0	anes							
Configuration R TR	Configuration							
Delay, Queue Length, and Level of Service	Delay, Queue Length, an							
Approach NB SB Westbound Eastbound	1pproach							
Movement 1 4 7 8 9 10 11 1/	Novement							
Lane Configuration LTR R TF	ane Configuration							
v (vph) 0 61 11	r (vph)							
C (m) (vph) 682 512 33	C (m) (vph)							
v/c 0.00 0.12 0.3	//c							
95% queue length 0.00 0.40 1.4	95% queue length							
Control Delay 10.3 13.0 21	Control Delay							
	.OS							
Approach Delay 13.0 21.2	oproach Delav							
Approach LOS	Approach LOS							

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	Т	WO-WAY STO	P CONTR	OL SL	JMMARY			
General Information	)		Site I	nform	ation			
Analvst A(y/Co. Date Performed Analysis Time Period	EJD CHA 12/22/05 AM PEAH	( HOUR	Interse Jurisdi Analys	ction ction is Year	*****	ROUTE TOWN C 2008 BU	7/SOUTH )F BURLIN ILD	WILLARD IGTON
Project Description BU	RLINGTON	·····		-				
East/West Street: SOUT	H WILLARD		North/S	South S	treet: ROUTE	= 7		
Intersection Orientation:	North-South		Study	Period (	hrs): 0.25			·····
Vehicle Volumes an	d Adjustment	S						
Major Street		Northbound				Southbo	ound	
Novement	1	<u>2</u>	3		4	5		6
Volume	L 	590	H R		L	100		<u> </u>
Peak-Hour Factor PHF	0.90	0.90	0		0	420		0
Hourly Flow Rate, HFR	83	644	0.00		0	466		0.90
Percent Heavy Vehicles	2				2			
Median Type				Undi	vided		I	
RT Channelized			0					0
Lanes	0	1	0		0	1		0
Configuration	LT					Т		
Upstream Signal		0				0		
Minor Street		Westbound				Eastbo	und	
Movement	7	7 8			10	11		12
	L	Т	R		L	Ť		R
Volume	0	150	0		0	0		0
Pe Hour Factor, PHF	0.90	0.90	0.90	)	0.90	0.90		0.90
Holey Flow Rate, HFR	0	166	0		0	0		0
Percent Heavy Vehicles	0	2	2		0	2		2
Percent Grade (%)		0				0		
Flared Approach		N				N		
Storage		0				0		
RT Channelized			0					0
Lanes	0	1	0		0	0		0
Configuration			TR					
Delay, Queue Length, an	d Level of Servi	се						
Approach	NB	SB		Westbo	bund		Eastboun	d
Vovement	1	4	7	8	9	10	11	12
ane Configuration	LT				TR			
/ (vph)	83		1		166			
C (m) (vph)	1095				147			
//c	0.08			<b></b>	1 12			
35% queue length	0.25				0.17		1	
Control Delay	9.20 				3.17		<u> </u>	
AS AS AS AS AS AS AS AS AS AS AS AS AS A	0.0 A				- 1/3.9		Į	
Norroach Dalau	<u> </u>						I	
	*=			173.9	<i>i</i>			
Approach LUS			1	F		1		

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# BUILD ALTERNATIVE 1 2008 PM PEAK HOUR

## HCM Signalized Intersection Capacity Analysis 6: Main Street & Battery Street

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<del>4</del>	7		र्स	7		ፈቴ		٣	<b>t</b> .	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0		4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00		0.95		1.00	1.00	
Frt		1.00	0.85		1.00	0.85		0.99		1.00	0.99	
Fit Protected		0.98	1.00		0.97	1.00		0.99		0.95	1.00	
Satd. Flow (prot)		1823	1583		1813	1583		3479		1770	1851	
Flt Permitted		0.74	1.00		0.80	1.00		0.74		0.95	1.00	
Satd. Flow (perm)		1388	1583		1495	1583		2590		1770	1851	
Volume (vph)	20	25	55	90	75	165	85	550	50	135	685	30
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	22	- 28	61	100	83	183	94	611	56	150	761	33
RTOR Reduction (vph)	0	0	51	0	0	129	0	0	0	0	0	0
Lane Group Flow (vph)	0	50	10	0	183	54	0	761	0	150	794	0
Turn Type	Perm		Prot	Perm		pt+ov	Perm		с	ustom		
Protected Phases		4	4		8	8 1		2		1	6	
Permitted Phases	4			8			2			1		
Actuated Green, G (s)		20.6	20.6		20.6	36.3		73.4		15.7	94.1	
Effective Green, g (s)		21.6	21.6		21.6	38.3		74.4		16.7	95.1	
Actuated g/C Ratio		0.17	0.17		0.17	0.29		0.57		0.13	0.73	
Clearance Time (s)		5.0	5.0		5.0			5.0		5.0	5.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		231	263		248	466		1482		227	1354	
v/s Ratio Prot			0.01			0.03				c0.08	c0.43	
v/s Ratio Perm		0.04			c0.12			0.29				
v/c Ratio		0.22	0.04		0.74	0.12		0.51		0.66	0.59	
Uniform Delay, d1		46.9	45.5		51.5	33.5		16.8		54.0	8.2	
Progression Factor		1.00	1.00		1.00	1.00		0.54		1.00	1.00	
Incremental Delay, d2		0.5	0.1		10.9	0.1		1.1		7.0	1.9	
Delay (s)		47.4	45.5		62.4	33.6		10.2		61.0	10.1	
Level of Service		D	D		E	С		В		E	В	
Approach Delay (s)		46.4			48.0			10.2			18.2	
Approach LOS		D			D			В			В	
Intersection Summary												
HCM Average Control D	elay		21.8	H	ICM Lev	/el of Se	ervice		С			
HCM Volume to Capacit	y ratio		0.59				nay isi dis Si Chash isi di					
Actuated Cycle Length (	S)		130.0	S	um of lo	ost time	(s)		8.0			
Intersection Capacity Uti	lization		82.7%	(	CU Leve	el of Ser	vice		E			
Analysis Period (min)			15			etan watan wasar a						
c Critical Lane Group												en de transmission de la deservación d Esta de transmission de la deservación d



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	Ť	4Î			4		ሻ	<b>1</b> 2		٦	4	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00			1.00		1.00	1,00		1.00	1.00	
Frt	1.00	0.99			0.88		1.00	0.99		1.00	0.99	
Fit Protected	0.95	1.00			1.00		0.95	1,00		0.95	1.00	
Satd. Flow (prot)	1770	1836			1640		1770	1846		1770	1849	
Fit Permitted	0.39	1.00			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	718	1836			1624		1770	1846		1770	1849	
Volume (vph)	20	50	5	5	10	105	20	560	35	90	705	35
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	22	56	6	6	11	117	22	622	39	100	783	39
RTOR Reduction (vph)	0	0	Ó	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	22	62	0	0	134	0	22	661	0	100	822	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)	15.4	15.4			15.4		4.8	81.8		11.6	88.6	
Effective Green, g (s)	16.4	16.4			16.4		5.8	82.8		12.6	89.6	
Actuated g/C Ratio	0.13	0.13			0.13		0.04	0.64		0.10	0.69	
Clearance Time (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	91	232			205		79	1176		172	1274	
v/s Ratio Prot		0.03					0.01	0.36		c0.06	c0.44	
v/s Ratio Perm	0.03			- 1944) - 1944 - 1944 - 1944 - 1944	c0.08		, 45 m. 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997					
v/c Ratio	0.24	0.27			0.65		0.28	0.56	111122-1111-114 Sa (Sa (Sa (Sa (Sa (	0.58	0.65	
Uniform Delay, d1	51.2	51.4			54.1		60.1	13.3		56.2	11.3	
Progression Factor	1.00	1.00			1.00		0.91	0.91		1.10	0.66	
Incremental Delay, d2	1.4	0.6			7.3		1.6	1.6		4.1	2.1	
Delay (s)	52.6	52.0			61.4		56.0	13.7		66.1	9.5	
Level of Service	D	D			E		E	В		Е	Α	
Approach Delay (s)		52.1			61.4			15.1			15.7	
Approach LOS		D			Е			В			В	
Intersection Summary												
HCM Average Control D	elay		20.5	Н	CM Lev	el of Se	rvice		С			
HCM Volume to Capacit	y ratio		0.63						ternikolistoisee Sentikologistee			
Actuated Cycle Length (	s)		130.0	S	um of lo	ost time	(s)		14.2			
Intersection Capacity Uti	lization	(	\$7.5%	IC	CU Leve	l of Serv	/ice		С			
Analysis Period (min)			15									
c Critical Lane Group												

## HCM Signalized Intersection Capacity Analysis 8: Maple Street & Battery Street

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4		۲	ţ,		ሻ	î.,	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00			1.00		1.00	1.00	
Frt		0.99			0.93			0.99		1.00	0.99	
Fit Protected		0.98			0.99			1.00		0.95	1.00	
Satd. Flow (prot)		1739			1652			1774		1711	1781	
Flt Permitted		0.63			0.85			1.00		0.95	1.00	
Satd. Flow (perm)		1123			1423			1774		1711	1781	
Volume (vph)	50	50	10	55	40	100	0	465	50	90	580	45
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	56	56	11	61	44	111	0	517	56	100	644	50
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	123	0	0	216	0	0	573	0	100	694	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)		22.4			22.4			74.2		12.2	91.4	
Effective Green, g (s)		23.4			23.4			75.2		13.2	92.4	
Actuated g/C Ratio		0.18			0.18			0.58		0.10	0.71	
Clearance Time (s)		5.0			5.0			5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		202			256			1026		174	1266	
v/s Ratio Prot								0.32		0.06	c0.39	
v/s Ratio Perm		0.11			c0.15			56 54 55 5				an dan san san An dan san san
v/c Ratio		0.61			0.84			0.56		0.57	0.55	
Uniform Delay, d1		49.1			51.5			17.1		55.7	8.9	
Progression Factor		1.00		and the fact of a sub-sub-sub-	1.00			0.22		1.19	0.16	
Incremental Delay, d2		5.1			21.6			1.9		3.6	1.3	
Delay (s)	and a first state of the	54.2	ana ang ang ang ang ang ang ang ang ang		73.1			5.6		69.6	2.8	
Level of Service		D			E			A		E	A	
Approach Delay (s)		54.2	المراجع والمراجع والمراجع		73.1		مىرىمى بالمراجع	5.6			11.2	
Approach LOS		D			E			A		9 S M S M S	В	
Intersection Summary												
HCM Average Control De	elay		20.3	Η	CM Lev	rel of Se	rvice		С			
HCM Volume to Capacity	/ ratio		0.61									
Actuated Cycle Length (s	3)		130.0	S	um of Ic	ost time (	(S)		14.2			
Intersection Capacity Util	ization	e	32.5%	IC	U Leve	l of Serv	rice		В			
Analysis Period (min)			15			5 3 C 3						

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			ર્સ	7		र्भ	*		4	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0		4.0	4.0		4.0	
Lane Util. Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Frt		0.99			1.00	0.85		1.00	0.85		0.99	
Flt Protected		1.00			0.99	1.00		1.00	1.00		0.99	
Satd. Flow (prot)		1832			1846	1583		1854	1583		1823	
Fit Permitted		0.98			0.90	1.00		0.97	1.00		0.87	
Satd. Flow (perm)		1805			1669	1583		1799	1583		1614	
Volume (vph)	10	230	30	65	295	35	10	100	70	70	170	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	11	256	33	72	328	39	<b>1:1</b>	111	78	78	189	17
RTOR Reduction (vph)	0	0	0	0	0	20	0	0	58	0	0	0
Lane Group Flow (vph)	0	300	0	0	400	19	0	122	20	0	284	0
Turn Type	Perm			Perm		Perm	Perm		Perm	Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6		6	8		8	4		
Actuated Green, G (s)		21.6			21.6	21.6		11.3	11.3		11.3	
Effective Green, g (s)		22.6			22.6	22.6		12.3	12.3		12.3	
Actuated g/C Ratio		0.48			0.48	0.48		0.26	0.26		0.26	
Clearance Time (s)		5.0			5.0	5.0		5.0	5.0		5.0	
Vehicle Extension (s)		3.0			3.0	3.0		3.0	3.0		3.0	
Lane Grp Cap (vph)		859			794	753		466	410		418	
v/s Ratio Prot						22 (Q. 13 49)						
v/s Ratio Perm		0.17			c0.24	0.01		0.07	0.01		c0.18	
v/c Ratio		0.35			0.50	0.02		0.26	0.05		0.68	
Uniform Delay, d1		7.8			8.6	6.6		14.0	13.2		15.8	
Progression Factor		1.00		3 G B S	1.00	1.00		1.00	1.00		1.00	
Incremental Delay, d2		0.2			0.5	0.0		0.3	0.1		4.4	
Delay (s)		8.1			9.1	6.6		14.3	13.3		20.2	
Level of Service		А			Α	Α		В	В		Ċ	
Approach Delay (s)		8.1			8.9			13.9			20.2	
Approach LOS		А			А			В			С	
Intersection Summary												
HCM Average Control D	elay		12.1	Н	ICM Lev	vel of Se	ervice		В			
HCM Volume to Capacity	y ratio		0.50									
Actuated Cycle Length (s	5)		47.5	S	um of lo	ost time	(s)		8.0			
Intersection Capacity Uti	lization	(	64.0%	IC	CU Leve	el of Ser	vice		В			
Analysis Period (min)			15									
c Critical Lane Group												

	1	۲	4	Ļ	4	t		-
Movement	NBT	NBR	SBL	SBT	SWL	SWR		
Lane Configurations	Ť	7	ኻ	<b>↑</b>	¥			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			
Frt	1.00	0.85	1.00	1.00	0.99			
Fit Protected	1.00	1.00	0.95	1.00	0.96			
Satd. Flow (prot)	1863	1583	1770	1863	1764			
Fit Permitted	1.00	1.00	0.34	1.00	0.96			
Satd. Flow (perm)	1863	1583	637	1863	1764			
Volume (vph)	490	260	20	670	435	30		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90		
Adj. Flow (vph)	544	289	- 22	744	483	33		
RTOR Reduction (vph)	0	29	0	0	2	0		en en en en en en en en en en en en en e
Lane Group Flow (vph)	544	260	22	744	514	0		
Turn Type	Prot		Perm					
Protected Phases	2	8		6	8			
Permitted Phases		2	6	Angelen (1966) (1977) (1977) Angelen (1977)	arai po gona di cad			696380-5173561569366-
Actuated Green, G (s)	74.7	113.8	74.7	74.7	39.1			
Effective Green, g (s)	75.7	115.8	75.7	75.7	40.1			
Actuated g/C Ratio	0.58	0.89	0.58	0.58	0.31			
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0			inen en
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			
Lane Grp Cap (vph)	1085	1459	371	1085	544	<u> </u>		
v/s Ratio Prot	0.29	0.05		c0.40	c0 29			
v/s Ratio Perm		0.11	0.03	an faile ann an tha tha tha tha tha tha tha tha tha tha				peruntan) (ang pagkya
v/c Ratio	0.50	0.18	0.06	0.69	0.94			
Uniform Delay. d1	16.0	0.9	11.7	18.9	43.9			
Progression Factor	1.20	0.00	1.31	0.96	1.00			
Incremental Delay, d2	1.5	0.1	0.3	3.0	25.3		i kan dara kan bar kan baran kan seberar kan kanang perjang perjang perjang perjang perjang perjang perjang perj Kan dara kan bar kan baran kan bertar perjang perjang perjang perjang perjang perjang perjang perjang perjang pe	eenterinaan siinneedige
Delay (s)	20.8	0.1	15.6	21.2	69.2			
Level of Service	С	Α	В	С	erenter ander E		al na bhfa a mhairt an an sagadh gall sagadh na an sagar-na an sagadh an Sri an Sri an Sri an Sri an Sri an Sri An sairt	eren en die er op belakte
Approach Delay (s)	13.6			21.1	69.2			
Approach LOS	В	an an an an an an an an an an an an an a	1997 A. BANK MINTER STATES	С	E	ene general e la grad a repart d'Alin e Marine (Aline de Cal		eren er en en en en en en en en en en en en en
Intersection Summary								
HCM Average Control D	elay		29.9	H	ICM Lev	el of Service	С	
HCM Volume to Capacit	y ratio		0.78					
Actuated Cycle Length (s	s)	ana ng kang sa pangang ng kilang	130.0	S	um of lo	st time (s)	14.2	una, aure frankrigen filmilie
Intersection Capacity Uti	lization		67.9%		CU Leve	l of Service	С	
Analysis Period (min)	er versteren sterfer († 196		15			en en en este en en en en en en en en en en en en en	anna mean mhainne mar naochar na bheann mar aireann bhair chruidh ann an dhaidh ann an bhairte ann an Ann. Ann ann ann ann ann ann ann ann ann ann	soonse oosta oostaaliik
c Critical Lane Group								

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Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations	٣	7	ሻ	*	¥	7		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Width	11	12	11	12	11	12		
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	***,********	
Frt	1.00	0.85	1.00	1.00	1.00	0.85		
Fit Protected	0.95	1.00	0.95	1.00	1.00	1.00		
Satd. Flow (prot)	1711	1583	1711	1863	1801	1583		
Flt Permitted	0.95	1.00	0.25	1.00	1.00	1.00		
Satd. Flow (perm)	1711	1583	443	1863	1801	1583		
Volume (vph)	365	45	15	380	540	685	Analain min Andres (Alaisin (Alaisin (Alaisin (Alaisin (Alaisin (Alaisin (Alaisin (Alaisin (Alaisin (Alaisin (	<u></u>
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90		
Adj. Flow (vph)	406	50	17	422	600	761		
RTOR Reduction (vph)	0	30	0	0	0	0		
Lane Group Flow (vph)	406	20	17	422	600	761		
Turn Type		Prot	Perm			Perm		
Protected Phases	2	2		4	8		n ya kana kata kata ya kata kata kata kata kata	
Permitted Phases			4			8		
Actuated Green, G (s)	49.8	49.8	64.0	64.0	64.0	64.0		and a second and a second device of a second second data and a second second second second second second second
Effective Green, g (s)	50.8	50.8	65.0	65.0	65.0	65.0		
Actuated g/C Ratio	0.39	0.39	0.50	0.50	0.50	0.50		
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	669	619	222	932	901	792		
v/s Ratio Prot	c0.24	0.01		0.23	0.33		an an an an an an an an an an an an an a	
v/s Ratio Perm			0.04			c0.48		
v/c Ratio	0.61	0.03	0.08	0.45	0.67	0.96	nyan menyakan berakan papanan di pantan di pentanggi di Kalangi dan penjangi kana penjangi dan penjara penjara	
Uniform Delay, d1	31.6	24.4	16.9	21.0	24.4	31.3		
Progression Factor	0.68	0.64	1.00	1.00	0.86	0.87		
Incremental Delay, d2	3.9	0.1	0.7	1.6	1.4	19.2		
Delay (s)	25.4	15.8	17.6	22.6	22.5	46.4		
Level of Service	С	В	В	C	C	D		
Approach Delay (s)	24.4			22.4	35.8			
Approach LOS	C			C	D			
Intersection Summary								
HCM Average Control D	elay		30.9	H	CM Lev	vel of Service	C	
HCM Volume to Capacit	y ratio		0.81					
Actuated Cycle Length (	s)		130.0	S	um of k	ost time (s)	14.2	
Intersection Capacity Ut	ilization		59.1%	IC	U Leve	el of Service	В	
Analysis Period (min)			15					

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			<del>ب</del> له			<b>4</b> Ъ		۲	1.	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	14	12	12	14	12	12	14	12	11	11	12
Total Lost time (s)		4.0			4.0			4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00			1.00		1.00	1.00	
Frt		0.98			0.91			0.98		1.00	0.98	
Flt Protected		0.99			1.00			0.99		0.95	1.00	
Satd. Flow (prot)		1919			1802			1941		1711	1764	
Flt Permitted		0.81			0.96			0.93		0.59	1.00	
Satd. Flow (perm)		1580			1744			1817		1056	1764	
Volume (vph)	40	75	20	25	75	195	15	90	15	175	255	40
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	44	83	22	28	83	217	17	100	17	194	283	44
RTOR Reduction (vph)	0	9	0	0	95	0	0	7	0	0	7	0
Lane Group Flow (vph)	0	140	0	0	233	0	0	127	0	194	320	0
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases		4			8			2		1	6	nya ya shekara ya sh
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		11.6			11.6			11.7		22.9	22.9	
Effective Green, g (s)		12.6			12.6			12.7		23.9	23.9	élingering va Reférensige
Actuated g/C Ratio		0.27			0.27			0.27		0.51	0.51	
Clearance Time (s)		5.0			5.0			5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		422			466			489		635	893	
v/s Ratio Prot			5)						, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	0.05	c0.18	
v/s Ratio Perm		0.09			c0.13			0.07		0.11		
v/c Ratio		0.33	55.75 m 2m  (11.200 (11.101 11.101 11.00 11.201 1	0.50	1001901901900090	1999, 1999, 1999, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 19	0.26	ber of the bound of the	0.31	0.36	191919-0019-0019-00-00-00-00-00-00-00-00-00-00-00-00-00	
Uniform Delay, d1		13.9		\$995) (\$15 <u>5</u>	14.6			13.6		6.8	7.0	
Progression Factor		1.00			1.00			1.00		1.00	1.00	
Incremental Delay, d2		0.5			0.8			0.3		0.3	0.2	
Delay (s)		14.4			15.5			13.8		7.1	7.3	
Level of Service		В			В			В	egi ada si dala digi. Ny fisia dala selat	A	A	
Approach Delay (s)		14.4			15.5			13.8			7.2	
Approach LOS		В			В			В			A	
Intersection Summary												
HCM Average Control D	elav		11.3	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacity	v ratio	19919999999999999999999999999999999999	0.38					4689999999999		2000/02/01/02/02/22	angangemento	ansnaarte
Actuated Cycle Length (s	1		47.2	S	um of Ic	st time	(s)		8.0			
Intersection Capacity Uti	ization	net set te se	43.5%	- IC	U Leve	l of Sen	vice		A			anetanteoro
Analysis Period (min)			15									



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Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	¥	7	ሻ	4	ሻ	7	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	1.00	0.85	
Fit Protected	1.00	1.00	0.95	1.00	0.95	1.00	
Satd. Flow (prot)	1863	1583	1770	1863	1770	1583	alina a su a de ante a la contra de la contra con de la contra de ser de ser proporta de la consecuta de la co La consecuta de la contra de la contra de la contra de la contra de la consecuta de la consecuta de la consecut
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00	
Satd. Flow (perm)	1863	1583	1770	1863	1770	1583	ul ou hey na hey he na her na hear na na hear na hear na her na na her na na hey hey her na her na her na her I
Volume (voh)	110	310	640	60	135	300	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	
Adi, Flow (vph)	122	344	711	67	150	333	
RTOR Reduction (vph)	0	218	0	0	0	68	
Lane Group Flow (voh)	122	126	711	67	150	265	
Turn Type	1	nm+ov	Prot			custom	
Protected Phases	4	2	a a	8	ົ່ວ	23	
Permitted Phases		4				2	
Actuated Green, G (s)	11.3	45.8	63.0	793	34 5	1025	
Effective Green, g (s)	12.3	47.8	64.0	80.3	35.5	103.5	
Actuated o/C Batio	0.09	0.37	0.49	0.62	0.27	0.80	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	176	582	871	1151	483	1260	
v/s Ratio Prot	c0.07	0.06	c0 40	0.04	c0.08	0.17	
v/s Ratio Perm		0.02	1999 an 1999 an 1997 an 1997 an 1997 an 1997 an 1997 an 1997 an 1997 an 1997 an 1997 an 1997 an 1997 an 1997 a 1997 an 1997 an	ala di sensi di sensi di sensi di sensi di sensi di sensi di sensi di sensi di sensi di sensi di sensi di sensi Sensi sensi			
v/c Ratio	0.69	0.22	0.82	0.06	0.31	0.21	
Uniform Delay. d1	57.0	28.2	28.0	9.9	37.5	3.2	
Progression Factor	1.00	1.00	0.01	0.00	0.93	3.15	
Incremental Delay, d2	11.2	0.2	2.1	0.0	1.6	0.1	
Delay (s)	68.2	28.4	2.4	0.0	36.3	10.3	
Level of Service	E	С	A	Α	D	В	arendi minisi kana ang ing ing ng
Approach Delay (s)	38.9			2.2	18,4		
Approach LOS	D		1.0.010 (C.C.)	А	В	n men en de la men de la men de la men de la men de la mente de la mente de la mente de la mente de la mente d La mente de la m	iene en forske serene for en en en forske forske for forske forste forske forske forske forske forske forske fo I
Intersection Summary							
HCM Average Control D	)elav		16.6	H	ICM Lev	el of Service	В
HCM Volume to Capacil	tv ratio		0.64				
Actuated Cycle Length (	s)		130.0	nantsaritikik S	Sum of l	ost time (s)	18.2
Intersection Capacity Ut	ilization		61.3%	- II	CU Leve	of Service	B
Analysis Period (min)			15	1999-1999-1999-1999- <sup>1</sup> 99	ಪ್ರಾಂಥಾರ್ ನಿನಿ		
c Critical Lane Group				nigi ang kani d			

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$			÷		٢	ţ,		ሻ	ţ,	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.87			0.97		1.00	0.98		1.00	1.00	
Flt Protected		1.00			0.97		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1623			1760		1770	1828		1770	1860	
Fit Permitted		0.98			0.56		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1597			1013		1770	1828		1770	1860	
Volume (vph)	5	0	75	30	10	10	5	420	60	15	925	10
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	6	0	83	- 33	11	11	6	467	67	17	1028	11
RTOR Reduction (vph)	0	76	0	0	7	0	0	2	0	0	0	0
Lane Group Flow (vph)	0	13	0	0	48	0	6	532	0	17	1039	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		le de la contra de	6	
Permitted Phases	4			8								
Actuated Green, G (s)		10.2		(99.0. (P. 1)	10.2		1.6	95.4		3.2	97.0	
Effective Green, g (s)		11.2			11.2		2.6	96.4		4.2	98.0	
Actuated g/C Ratio		0.09			0.09		0.02	0.74		0.03	0.75	
Clearance Time (s)	anna gara a cair ann a	5.0	na de colona e conserva de com		5.0	ana an	5.0	5.0		5.0	5.0	a da an taona an an tao tao
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		138			87		35	1356		57	1402	
v/s Ratio Prot							0.00	0.29		c0.01	c0.56	
v/s Ratio Perm		0.01		www.commen.ext	c0.05							
v/c Ratio		0.10			0.55		0.17	0.39		0.30	0.74	
Uniform Delay, d1	(terrila bib) radio-arabel	54.7	ier de contraction de la defició de		57.0	and a state of the state of the state of the	62.6	6.1		61.5	8.9	ing the Dan Dan American in the
Progression Factor		1.00			0.99		0.85	1.27		1.19	0.39	
Incremental Delay, d2	i han faring fallen fallen fallen fallen fallen fallen fallen fallen fallen fallen fallen fallen fallen fallen	0.3	aana sa	wanganananan.	6.2	Ger La Renal population	2.1	0.8		2.1	2.6	
Delay (s)		55.0			62.6		55.4	8.5		75.4	6.0	
Level of Service	insanasasi da	E		Managa ang Karaka	E	og paraggan gaag	<b>E</b>	A	in an	E.	A	unneuroraa
Approach Delay (s)		55.0			62.6			9.1			7.1	
Approach LUS		<b>C</b> .			E			A			A	
Intersection Summary												
HCM Average Control D	elay		11.9	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.69									
Actuated Cycle Length (s	S)		130.0	S	um of lo	st time	(s)		14.2			
Intersection Capacity Uti	lization	(	35.4%	10	CU Leve	l of Sen	/ice		C			
Analysis Period (min)	والمتعرفة والمتعارفة والمتعارفة والمتعارفة والمتعارفة والمتعارفة والمتعارفة والمتعارفة والمتعارفة والمتعار	والمتعارفة والمتعارفة والمتعارفة	15	n egenerer er de bere	al al al an an an an an an an an an an an an an	ana tana ay ahaa baaraa	en fan eiter an anter en e	enereda tara dententen				
c Critical Lane Group												

#### HCM Signalized Intersection Capacity Analysis 31: Flynn Avenue & Southern Connector

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		÷			44		ħ	ĥ		ሻ	î,	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00	2	1.00	1.00		1.00	1.00	
Frt		0.96			0.99		1.00	1.00		1.00	0.99	
Flt Protected		0.99			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1762			1826		1770	1859		1770	1852	
Fit Permitted		0.81			0.80		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1444			1472		1770	1859		1770	1852	
Volume (vph)	65	120	85	25	95	10	60	410	5	10	980	40
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	72	133	94	28	106	11	67	456	6	11	1089	44
RTOR Reduction (vph)	0	13	0	0	2	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	286	0	0	143	0	67	462	0	11	1132	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)		25.0			25.0		7.8	82.2		1.6	76.0	
Effective Green, g (s)		26.0			26.0		8.8	83.2		2.6	77.0	
Actuated g/C Ratio		0.20	lipinin kinais. Baasa karata		0.20		0.07	0.64		0.02	0.59	
Clearance Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		289			294		120	1190		35	1097	
v/s Ratio Prot							c0.04	0.25		0.01	c0.61	
v/s Ratio Perm		c0.20			0.10							1
v/c Ratio		0.99			0.49		0.56	0.39		0.31	1.03	
Uniform Delay, d1		51.9			46.1		58.7	11.2		62.8	26.5	
Progression Factor	Po Goda S	1.00			1.00		0.90	1.41	8. (S. (Q.)	1.24	0.36	
Incremental Delay, d2		50.1			1.3		5.1	0.9		3.7	31.9	
Delay (s)		102.0			47.3		57.9	16.7		81.5	41.3	
Level of Service		F			D		Ε	В		F	D	
Approach Delay (s)		102.0			47.3			21.9			41.7	
Approach LOS		F			D			С			D	
Intersection Summary												
HCM Average Control De	elay		45.7	Н	ICM Lev	el of Se	rvice		D			
HCM Volume to Capacity	/ ratio		0.99									
Actuated Cycle Length (s	3)		130.0	S	um of lo	ost time	(s)		18.2			
Intersection Capacity Util	ization	{	32.4%	IC	CU Leve	l of Serv	/ice		E			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		ধ	7		4.		٣	<u>t</u>		٢	<b>L</b>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00		1.00	1.00		1.00	1.00	
Frt		1.00	0.85		0.99		1.00	0.98		1.00	0.99	
Fit Protected		0.97	1.00		0.97		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1799	1583		1798		1770	1820		1770	1851	
Fit Permitted		0.70	1.00		0.67		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1300	1583		1249		1770	1820		1770	1851	
Volume (vph)	60	25	105	90	50	5	85	410	75	5	1040	45
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	67	28	117	100	56	6	94	456	83	6	1156	50
RTOR Reduction (vph)	0	0	99	0	1	0	0	3	0	0	1	0
Lane Group Flow (vph)	0	95	18	0	161	0	94	536	0	6	1205	0
Turn Type	Perm		Perm	Perm			Prot			Prot		
Protected Phases		4			8		5	2		l III	6	
Permitted Phases	4		4	8								
Actuated Green, G (s)		18.7	18.7		18.7		11.3	88.5		1.6	78.8	
Effective Green, g (s)		19.7	19.7		19.7		12.3	89.5		2.6	79.8	
Actuated g/C Ratio		0.15	0.15		0.15		0.09	0.69		0.02	0.61	
Clearance Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		197	240		189		167	1253		35	1136	
v/s Ratio Prot						9 C E E	c0.05	0.29		0.00	c0.65	
v/s Ratio Perm		0.07	0.01		c0.13				1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -			
v/c Ratio		0.48	0.07		0.85		0.56	0.43		0.17	1.06	
Uniform Delay, d1		50.5	47.3		53.7		56.3	8.9		62.6	25.1	
Progression Factor		1.00	1.00		1.00		1.00	1.00		1.26	0.26	
Incremental Delay, d2		1.9	0.1		29.1		4.3	1.1		0.6	33.2	
Delay (s)		52.3	47.5		82.8		60.6	10.0		79.7	39.6	
Level of Service		D	D		F		Ε	В		Е	D	
Approach Delay (s)		49.6			82.8			17.5			39.8	
Approach LOS		D			F			В			D	
Intersection Summary												
HCM Average Control D	elay		37.5	Н	CM Lev	el of Se	rvice		D			
HCM Volume to Capacit	y ratio		0.97									
Actuated Cycle Length (s	s)		130.0	S	um of lo	st time	(s)		18.2			
Intersection Capacity Uti	lization		38.7%	IC	U Leve	l of Sen	/ice		Е			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		÷.			4,			44			¢ <b>1</b> ,	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	120	80	50	165	15	15	160	30	25	230	10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	133	89	56	183	17	17	178	33	28	256	11
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	228	256	228	294								
Volume Left (vph)	6	56	17	28						in ini tatan. Francis		
Volume Right (vph)	89	17	33	11								10.000
Hadj (s)	-0.20	0.04	-0.04	0.03								
Departure Headway (s)	5.8	5.9	5.9	5.8								1
Degree Utilization, x	0.37	0.42	0.37	0.48								
Capacity (veh/h)	547	550	547	569								
Control Delay (s)	12.1	13.2	12.3	14.0								
Approach Delay (s)	12.1	13.2	12.3	14.0				.,		and comparisons of		
Approach LOS	B	В	В	B			849 G1G					
Intersection Summary												
Delay			13.0									
HCM Level of Service			В									
Intersection Capacity Uti	lization		53.5%	- IC	CU Leve	of Ser	vice		Α			
Analysis Period (min)			15	u de latación de C						an kang panting tan 1999 pa		

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		¢.			4.			<u>.</u>			£.	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	10	125	50	50	120	10	60	185	55	15	335	10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	11	139	56	56	133	11	67	206	61	17	372	11
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	206	200	333	400								
Volume Left (vph)	11	56	67	17								
Volume Right (vph)	56	11	61	11		er mener herrefter vier		19909 1990 00 1999 1999 1997 1997 1997 1				1946 (J. 1946) 197
Hadi (s)	-0.12	0.06	-0.04	0.03								
Departure Headway (s)	6.5	6.7	6.1	6.0			anda metata terleta dara di	i a mana ina mang pinang pina	en en de la constant de la constant de la constant de la constant de la constant de la constant de la constant		enini filosofi en esta da da d	rend fremendense
Degree Utilization, x	0.37	0.37	0.56	0.67								
Capacity (veh/h)	476	463	552	564	en de la companya de la companya de la companya de la companya de la companya de la companya de la companya de		ani ka da na kana na b	in line of the Spectra stands of the Spectra states			00	una para para
Control Delay (s)	13.4	13.7	16.5	20.1								
Approach Delay (s)	13.4	13.7	16.5	20.1		1	Ann ann a Chaigen.		00000000000000000000000000000000000000	felon fan teorie oant	*******	wychy Grandski
Approach LOS	B	В	C	C								
Intersection Summary												
Delay			16.7									
HCM Level of Service			С							aan (adaaada (adaa)		n provinské stanister Na slovenské stanister
Intersection Capacity Uti	lization		68.7%	IC	CU Leve	l of Serv	/ice		C			
Analysis Period (min)		si siyatimisini	15	ugen versternete		energe en fan de fan Steatstelijker kaarde		antina anti-	eren en en de en en de de la deservación de la deservación de la deservación de la deservación de la deservació	e and an an an and description angles present and and a description		na energianea Na energianea



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		÷\$+			£.			4			đ.	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	65	5	10	100	100	5	20	15	140	50	10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	72	6	11	111	111	6	22	17	156	56	11
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	83	233	44	222								
Volume Left (vph)	6	11	6	156			ojanio di caso Sugli a da ca					
Volume Right (vph)	6	111	17	11						an maanda ang sy ang si	an an an an an an an an an an an an an a	
Hadj (s)	0.01	-0.24	-0.17	0.14								
Departure Headway (s)	4.9	4.4	4.8	4.9					1999-1999-1999-1999-1999-1999-1999 1999-			
Degree Utilization, x	0.11	0.29	0.06	0.30								
Capacity (veh/h)	682	761	684	697							,	
Control Delay (s)	8.5	9.2	8.1	9.9								
Approach Delay (s)	8.5	9.2	8.1	9.9								
Approach LOS	Α	A	A	A								
Intersection Summary												
Delay			9.3									
HCM Level of Service			А								50 000 000 000 000 000 000 000 000 000	
Intersection Capacity Uti	lization		38.7%	- II	CU Leve	el of Ser	vice		Α			
Analysis Period (min)			15									
						ed Medideniya (1997) Sin 2017 (1997)						

HCM Unsignalized Intersection Capacity Analysis 11: Howard Street & Pine Street

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			¢.,			<del>4</del> )-			ф.	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	10	5	20	25	5	30	15	750	50	45	1200	10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	11	6	22	28	6	33	17	833	56	50	1333	11
Pedestrians	Nicher Geldenke		izalo de loga con	Na se na se na se na se na se na se na se na se na se na se na se na se na se na se na se na se na se na se na	la hashqinasini,			inersen jarde				
Walking Speed (ft/s)												
Percent Blockage									ian di sudi più			
Right turn flare (veh)					nanyetin kariyanya k					1997-1997-1997- 1997-1997-1997-1997-1997	nestra crasta (a)	NORIN BRINGH
Median type		None			None		310) - S					
Median storage veh)			anna far in sta in san far far	en en frederik fan fan en feren							in and residue in the second	a de contra de la contra
Upstream signal (ft)											1247	
pX, platoon unblocked	0.74	0.74	0.74	0.74	0.74		0.74					
vC, conflicting volume	2369	2361	1339	2358	2339	861	1344			889		
vC1, stage 1 cont vol	ali el la casa gina	Parini-opinio pranojstv	ine de la componecció			Na paga kala kaipin			in the second second	regulariko (polisio) (polisio)		adalah kala met
VC2, stage 2 cont vol	0044	0000	1450	0006	0000	064	4 4 6 0			000		
tC single (s)	204 I 7 1	2030	1400	2020	2000 6 E	100	1403	New York (1994)		889 7 4		- 
tC, 2 stage (s)									angeosteraetera			90999889899 909998899999
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	52	81	0	54	91	95	anan na Sara Abata Aba	nin fostrumentjattanin	93	ann de stande service.	a ya sa ta ta ta ta ta
cM capacity (veh/h)	4	12	119	4	12	355	343			762		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	39	67	906	1394								
Volume Left	<b>11</b>	28	17	50	ante de la compañía de señese en el	lan dari da wana wana		and the second second second second			an an an an an an an an an an an an an a	
Volume Right	22	33	56	11							3.6.6.8	
CSH	12	9	343	762	é na serie de la compañía de la compañía de la compañía de la compañía de la compañía de la compañía de la comp			a an an an an an an an an an an an an an	inidentation (data	risci spatensionis		and and a state
Volume to Capacity	3.20 Evr	/.03 Err	0.05	0.07							0544114416	
Control Delay (e)	CII Err	CII Err	4 1 Q	21								
Lane LOS	F	F	Α	0.4 A								
Approach Delay (s)	Err	Err	1.9	3.4					(na standarska stanta) Se te standarska standarska standarska standarska standarska standarska standarska stand			
Approach LOS	F	F	ieren i staj inforttuires	nagara Tabaya (na				in an			9280 mije (9286 om	14869-14922-1969 14869-14922-1969
Intersection Summary												
Average Delay			441.4	10 Marco 10 July 10 Ju			and and a first state of the					
Intersection Capacity Ut	ilization		99.7%	IC.	CU Leve	l of Sen	vice		F			
Analysis Period (min)			15									

САР

	-	×.	Ť	1	<b>&gt;</b>	Ļ				
Movement	WBL	WBR	NBT	NBR	SBL	SBT				
Lane Configurations	Y		4			र्स				
Sign Control	Stop		Free			Free				
Grade	0%		0%			0%				
Volume (veh/h)	25	60	720	25	60	1200				
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				
Hourly flow rate (vph) Pedestrians	28	67	800	28	67	1333				
Lane Width (ft)										
Walking Speed (ft/s)	Na sana ang ang ang ang ang ang ang ang ang	a da anticipa d		allala migh-saigh-saighdige).	d an the fail to an to the stand of the	ekonstanten eta eta kata datu				
Percent Blockage										
Right turn flare (ven)				n-Angelonder (* 19					Sectores and the sector of the sectores of the sectores of the sectores of the sectores of the sectores of the	ang tao katala sa
Median type	ivone									
Median Storage ven)			<b>24</b> 4	seine print an	wayayayayayay					
opstream signal (ii)	0 0E	0 0E	011	ioneseussione	0 0E					<u>Sanapa</u>
vC conflicting volume	0.00	0.00			0.85	i de la compañía		Normalian (Salaha)		iki katalah
vC1_stage 1_conf_vol	2201	014			020					
vC1, stage 1 conf vol										
vCu, unblocked vol	2508	781			707	9988099099199899 9				
tC single (s)	64	62			41					
tC, 2 stage (s)										
tF (s)	3.5	3.3			22					
p0 queue free %	0	80			90					
cM capacity (veh/h)	24	335			701					
Direction Lane #	WR 1	NR 1	SR 1							
Volume Total	94	828	1400							
Volume Left	28	0	67							
Volume Right	67	28	Ō							
cSH	70	1700	701	and an ann an Arlandi an Arlandi an Arlandi an Arlandi an Arlandi an Arlandi an Arlandi an Arlandi an Arlandi a Arlandi an Arlandi an Ar		en eren anne ann a' agus ann	en en en en en en en en en en en en en e			-26900069
Volume to Capacity	1.35	0.49	0.10							
Queue Length 95th (ft)	192	0	8	********		a dhur dh' Ghinn an Ann Stàidh a' Bh	enegeszentős száratot éstet	an an an an an an an an an an an an an a		nan ka Kera
Control Delay (s)	329.9	0.0	5.0							
Lane LOS	F		Α							~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Approach Delay (s)	329.9	0.0	5.0							
Approach LOS	F				, 201999-1997-1997-1997-1997-1997-1997-1997		en erst henne herstel Apply (194	www.contentions.com/contention/contention	arren al alter om te atte ditter for hjelder	estretektikik
Intersection Summary										
Average Delav			16.4							
Intersection Capacity Ut	ilization	1:	21.0%	IC	U Leve	l of Service		н		
Analysis Period (min)	an sa na sa	ang yang di kanalan kang di B	15	an an an an an an an an an an an an an a	y na ana ina ina ina fisika (ka fisika). Na ana ana ina ina ina ina ina ina ina in	na ana amin'ny sara-daharana amin'ny saraharana amin'ny saraharana amin'ny saraharana amin'ny saraharana amin' Ny faraharana amin'ny saraharana amin'ny saraharana amin'ny saraharana amin'ny saraharana amin'ny saraharana ami		nter en en en en en en en en en en en en en	yan yang ministra (1990-1990-1990-1990) Yan yang ministra (1990-1990-1990-1990-1990)	
	1	×.	t	1	1	Ļ				
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Movement	WBL	WBR	NBT	NBR	SBL	SBT				
Lane Configurations	¥		¢Ĵ			<del>د</del> أ				
Sign Control	Stop		Free			Free				
Grade	0%		0%			0%				
Volume (veh/h)	20	50	355	10	40	505				
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				
Hourly flow rate (vph)	22	56	394	11	44	561				
Pedestrians										
Lane Width (ft)										
Walking Speed (ft/s)										
Percent Blockage										
Right turn flare (veh)										
Median type	None									
Median storage veh)	والمتعارية والمتعارين والمتعارين والمتعار	والمراجعة والمراجع		a para para da manda da ser da ser da ser da ser da ser da ser da ser da ser da ser da ser da ser da ser da se	and at constant second	tere particulation and	en fan mei die staat en tereferige te oor die			
Upstream signal (ft)	olas su su a					667				
pX, platoon unblocked	0.75	del territori del territori del territori	la na la casa na sa daga di Arra I	an stated and a second		in an ann an tha tha an tarairte an ta				
vC, conflicting volume	1050	400			406					
vC1, stage 1 conf vol	en de Arrent - 14 inder- 1							gaalaat sat ga		
vC2, stage 2 conf vol			Ş.,							
vCu, unblocked vol	1067	400		A STEPARADO ( VADO ) (MA	406	un de la companya de la companya de la companya de la companya de la companya de la companya de la companya de	Sinderstellersdeltet.			
tC, single (s)	6.4	6.2			4.1					
tC, 2 stage (s)										
t⊢ (s)	3.5	3.3			2.2					
p0 queue free %	87	91		in Margard Industria	96	tyan kalendadi selemi	a a sugara a sugara su su su su su su su su su su su su su	ta ngangi		
civi capacity (ven/n)	1//	650			1153			9.5376		
Direction, Lane #	WB 1	NB 1	SB 1							
Volume Total	78	406	606							
Volume Left	22	0	44		1112 M 1 1 1 1 1 1 1 1 1	te to define a definition of the definition				
Volume Right	56	11	0							
cSH	369	1700	1153	a ta africa ta construction a sec						
Volume to Capacity	0.21	0.24	0.04							
Queue Length 95th (ft)	20	0	3							
Control Delay (s)	17.4	0.0	1.0							
Lane LOS	С	an salah daga da manan d	A	h babban yang sa kawan samar		upot es de la compacta de la constitue de la compacta de la constitue de la constitue de la constitue de la co	ananan karatan tan sa			
Approach Delay (s)	17.4	0.0	1.0							
Approach LOS	С									
Intersection Summary										
Average Delay			1.8							
Intersection Capacity UI	tilization		62.3%	IC	U Leve	I of Servic	<b>e</b>			
Analysis Period (min)			15							

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Movement	EBL	EBR	NBL	NBT	SBT	SBR			
Lane Configurations	¥			र्स	<b>ţ</b>				
Sign Control	Stop			Free	Free				
Grade	0%			0%	0%				
Volume (veh/h)	60	15	10	285	480	40			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90			
Hourly flow rate (vph)	67	17	11	317	533	44			
Pedestrians									
Lane Width (ft)									
Walking Speed (ft/s)									
Percent Blockage									
Right turn flare (veh)	وروار والمراوري والمراور المراور			-11-14-14-4-14-64-14-64-64					
Median type	None				eren (alter (Alter a				
Median storage veh)	n balani da sera sera sera sera sera sera s	Constantine Constantine Constantine Constantine Constantine Constantine Constantine Constantine Constantine Con	an an an an an an an an an an an an an a	den de de conteinente.	n berrita <u>en et da ster</u> aktele.			an an an an an an an an an an an an an a	ela liva en demanden duer 11 e en demanden due a
Upstream signal (It)		·		1089	959				
pX, platoon unblocked	0.77	0.77	0.77	daannot in caala is ad					
vC, conflicting volume	894	556	5/8						
VC1, stage 1 cont vol									
VCZ, Stage Z corili vol	060	404	450						
tC einnle (e)	603 64	424 60	455 / 4		Sectored and the sectored and the sectored and the sectored and the sectored and the sectored and the sectored and the sectored and the sectored and the sectored and the sectored and the sectored and the sectored and the sectored and the sectored and the				
tC, 2 stane (s)	<b>U.</b> <del>4</del>	0.2							
tF (s)	35	33	22						
p0 queue free %	73	97	99	42949.42049.430					
cM capacity (veh/h)	247	486	855						
Direction 1 ane #	ER 1	NR 1	SR 1						
Volume Total	83	328	578						
Volume Left	67	11	0,0						
Volume Right	17	0	44						
cSH	274	855	1700	entres tentins					
Volume to Capacity	0.30	0.01	0.34						
Queue Length 95th (ft)	31	1	0	*****		n a da antinana en la anana da pan franca (nagar			
Control Delay (s)	23.7	0.5	0.0						
Lane LOS	С	Α						in an	
Approach Delay (s)	23.7	0.5	0.0						
Approach LOS	С								
Intersection Summary									
Average Delay	en fan fan fan fan fan fan fan fan fan fa		2.2		n an star	al al faith and an an an an an an an an an an an an an		a de la companya de l	
Intersection Capacity Uti	ilization		38.6%	IC	U Level	of Service		A	
Analysis Period (min)		a de ser a como este	15		a an an an an an an an an an an an an an	****	det a hadda har e festel er e s		and the second second second second second second second second second second second second second second secon

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	ţ,		٢	ţ,			£.			<u>.</u>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	12	11	11	14	14	14	11	11	11
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00	ent for the test of test of te		1.00	i		1.00	er en staar de eerste skrije de r>T
Frt	1.00	0.99		1.00	0.99			0.99			0.98	
Fit Protected	0.95	1.00		0.95	1.00			0.99			0.99	an an an an an an an an an an an an an a
Satd. Flow (prot)	1711	1840		1770	1784			1947			1756	
Flt Permitted	0.26	1.00		0.32	1.00			0.90	-1		0.94	energy and an and a second second second second second second second second second second second second second
Satd. Flow (perm)	471	1840		602	1784			1768			1663	
Volume (vph)	70	400	35	40	460	30	50	215	25	35	235	45
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	78	444	39	44	511	33	56	239	28	39	261	50
RTOR Reduction (vph)	0	4	0	0	3	0	0	3	0	0	5	0
Lane Group Flow (vph)	78	479	0	44	541	0	0	320	0	0	345	0
Turn Type	Perm			Perm			Perm	(3.59.)S (4		Perm		
Protected Phases		2	la ann an  **********************	6	11 51	antala ndepananta et enderde	8			4	oprocedeteleterete	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	20.3	20.3		20.3	20.3			16.9			16.9	
Effective Green, g (s)	21.3	21.3		21.3	21.3			17.9	ti dalah dari sebara Kari dalah sebara		17.9	
Actuated g/C Ratio	0.41	0.41		0.41	0.41			0.35			0.35	
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	194	757		248	734			611			575	
v/s Ratio Prot		0.26			c0.30	1999 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -		an an an an an an an an an an an an an a	an san tana sa	1-11 - 112 - 117 - 117 - 117 - 117 - 117 - 117 - 117 - 117 - 117 - 117 - 117 - 117 - 117 - 117 - 117 - 117 - 1	-989-999-9999-9999-999 -	an an a' an a' an a' an a' a' a' a' a' a' a' a' a' a' a' a' a'
v/s Ratio Perm	0.17			0.07				0.18			c0.21	
v/c Ratio	0.40	0.63		0.18	0.74		an an an an an an an an an an an an an a	0.52	50 m - Jacob - Constantina	on and the second second	0.60	1999999999999999
Uniform Delay, d1	10.8	12.1		9.7	12.9			13.5		345.695 <u>5</u>	14.0	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	5
Incremental Delay, d2	1.4	1.7		0.3	3.9			0.8			1.7	
Delay (s)	12.1	13.9		10.0	16.8			14.4			15.7	
Level of Service	B	В		В	В			В			В	
Approach Delay (s)		13.6			16.3			14.4			15.7	
Approach LOS		В			В			В			В	
Intersection Summary												
HCM Average Control D	elay		15.0	H	ICM Lev	el of Se	rvice		В			
HCM Volume to Capacity	y ratio		0.60							e e e e e e e e e e e e e e e e e e		a anasanan ang ara
Actuated Cycle Length (s	5)		51.8	S	um of lo	st time	(s)		8.0			
Intersection Capacity Uti Analysis Period (min)	lization	(	6.9% 15	IC	CU Leve	l of Serv	/ice		С			



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	٣	*			t.		ሻ	t.				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	10	10	16	16	16	10	11		12	12	12
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0				
Lane Util. Factor	1.00	1.00	·		1.00		1.00	1.00		angang da sa	un na méri (men nav) a mére	ay 1999 - Ales Ales Ales II.
Frt	1.00	1.00			0.99		1.00	0.98				
Flt Protected	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (prot)	1888	1739			1881		1652	1771				
Flt Permitted	0.26	1.00			1.00		0.95	1.00	575			
Satd. Flow (perm)	522	1739			1881		1652	1771				
Volume (vph)	35	475	0	0	500	40	65	280	35	0	0	0
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	39	528	0	0	556	44	72	311	39	0	0	0
RTOR Reduction (vph)	0	0	0	0	4	0	0	4	0	0	0	0
Lane Group Flow (vph)	39	528	0	0	596	0	72	346	0	0	0	0
Parking (#/hr)				0	0	0					59 89 SA 8	
Turn Type	Perm						Perm					
Protected Phases		2			6			8				
Permitted Phases	2						8					1999091780897980
Actuated Green, G (s)	21.5	21.5			21.5		14.6	14.6				
Effective Green, g (s)	22.5	22.5			22.5		15.6	15.6		ande en en en en en en en en en en en en en	a thank dia kata naana badi	
Actuated g/C Ratio	0.46	0.46			0.46		0.32	0.32				
Clearance Time (s)	5.0	5.0			5.0		5.0	5.0				- / / / / /
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0				
Lane Grp Cap (vph)	242	807			873		531	570				
v/s Ratio Prot		0.30			c0.32			c0.20				
v/s Ratio Perm	0.07						0.04		ana da kana ang da kana da kana da kana da kana da kana da kana da kana da kana da kana da kana da kana da kan Na kana da kana		000000000000000000000000000000000000000	an an an an an an an an an an an an an a
v/c Ratio	0.16	0.65			0.68		0.14	0.61				
Uniform Delay, d1	7.5	10.0			10.2		11.7	13.9				
Progression Factor	1.00	1.00			1.00		1.00	1.00				
Incremental Delay, d2	0.3	1.9			2.2		0.1	1.8				
Delay (s)	7.8	11.9			12.4		11.8	15.7	li (grad obri Sadozen zaroa			
Level of Service	А	В			В		В	В				
Approach Delay (s)		11.6	8 IS 2017 -	Steff (50-28	12.4			15.0			0.0	
Approach LOS		В			В			В			Α	
Intersection Summary												
HCM Average Control D	elay		12.8	H	CM Lev	el of Sei	rvice		В			
HCM Volume to Capacity	y ratio		0.61									
Actuated Cycle Length (s	3)	a a substant a final substant substant su	48.5	Sı	um of lo	st time (	(s)		8.0			
Intersection Capacity Util	ization	Ę	52.6%	IC	U Leve	l of Serv	rice		A			
Analysis Period (min)		Suine - Ageneration - The	15	an an an an an an an an an an an an an a		ave observation of the	والمراجع والمراجع والمراجع والمراجع					
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	1,		ሻ	۴	7		<u>.</u>		ሻ	*	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	11	11	12	12	12	10	10	12
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0		4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00
Frt	1.00	0.99		1.00	1.00	0.85		0.96		1.00	1.00	0.85
Fit Protected	0.95	1.00		0.95	1.00	1.00		1.00		0.95	1.00	1.00
Satd. Flow (prot)	1540	1655		1711	1801	1531		1605		1652	1739	1583
Flt Permitted	0.42	1.00		0.48	1.00	1.00		0.44		0.78	1.00	1.00
Satd. Flow (perm)	677	1655		861	1801	1531		713		1355	1739	1583
Volume (vph)	110	275	25	70	350	155	5	55	25	225	285	95
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	122	306	28	78	389	172	6	61	28	250	317	106
RTOR Reduction (vph)	0	4	0	0	0	102	0	16	0	0	0	69
Lane Group Flow (vph)	122	330	0	78	389	70	0	79	0	250	317	37
Parking (#/hr)	0	0	0			C) (79) (79)	0	0	0			
Turn Type	Perm			Perm		Perm	Perm			om+pt		Perm
Protected Phases		2			6			8		7	4	
Permitted Phases	2			6		6	8			4	·····	4
Actuated Green, G (s)	21.0	21.0		20.8	20.8	20.8		5.1		17.4	17.4	17.4
Effective Green, g (s)	22.0	22.0		21.8	21.8	21.8		6.1		18.4	18.4	18.4
Actuated g/C Ratio	0.41	0.41		0.41	0.41	0.41		0.11		0.34	0.34	0.34
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0		5.0		5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0		3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	279	682		351	735	625		81		513	599	545
v/s Ratio Prot		0.20			c0.22					0.08	c0.18	
v/s Ratio Perm	0.18			0.09		0.05		c0.11		0.09		0.02
v/c Ratio	0.44	0.48		0.22	0.53	0.11		0.98		0.49	0.53	0.07
Uniform Delay, d1	11.3	11.5		10.3	11.9	9.8		23.6		14.9	14.0	11.7
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00
Incremental Delay, d2	1.1	0.5		0.3	0.7	0.1		91.1		0.7	0.8	0.1
Delay (s)	12.4	12.1		10.6	12.6	9.9		114.7		15.6	14.9	11.8
Level of Service	В	В		В	В	A		F		В	В	В
Approach Delay (s)		12.2			11.6			114.7			14.7	
Approach LOS		В			В			F			В	
Intersection Summary												
HCM Average Control D	elay		18.1	Н	CM Lev	el of Se	ervice		В			
HCM Volume to Capacity	y ratio		0.51									
Actuated Cycle Length (s	S)	ale consistente en en en	53.4	S	um of lo	st time	(S)		8.0			
Intersection Capacity Uti	lization		54.2%	IC	CU Leve	l of Ser	vice		Α			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		र्भ	7	٢	î.			ર્લ	*	۲	t,	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	12	12	16	12	12	12
Total Lost time (s)		4.0	4.0	4.0	4.0			4.0	4.0	4,0	4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	
Ent		1.00	0.85	1.00	0.97			1.00	0.85	1.00	0.99	
Fit Protected		1.00	1.00	0.95	1.00			0.98	1.00	0.95	1.00	
Satd. Flow (prot)		1734	1478	1486	1525			1823	1794	1593	1840	
Flt Permitted		0.97	1.00	0.52	1.00			0.82	1.00	0.64	1.00	
Satd. Flow (perm)		1684	1478	821	1525			1520	1794	1081	1840	
Volume (vph)	15	265	85	60	315	65	70	90	60	95	110	10
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	294	94	67	350	72	78	100	67	106	122	11
<b>RTOR Reduction (vph)</b>	0	0	40	0	9	0	0	0	39	0	3	0
Lane Group Flow (vph)	0	311	54	67	413	0	0	178	28	106	130	0
Parking (#/hr)				0	0	0	0			0		
Turn Type	Perm		Perm	Perm			Perm		Perm	Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6			8		8	4		
Actuated Green, G (s)		16.9	16.9	16.9	16.9			12.1	12.1	12.1	12.1	
Effective Green, g (s)		17.9	17.9	17.9	17.9			13.1	13.1	13.1	13.1	
Actuated g/C Ratio		0.41	0.41	0.41	0.41			0.30	0.30	0.30	0.30	
Clearance Time (s)		5.0	5.0	5.0	5.0			5.0	5.0	5.0	5.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0			3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		685	601	334	620			453	534	322	548	
v/s Ratio Prot					c0.27						0.07	
v/s Ratio Perm		0.18	0.04	0.08				c0.12	0.02	0.10		
v/c Ratio		0.45	0.09	0.20	0.67	a constanti		0.39	0.05	0.33	0.24	
Uniform Delay, d1		9.5	8.0	8.4	10.6			12.3	11.0	12.0	11.7	
Progression Factor		1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.5	0.1	0.3	2.7			0.6	0.0	0.6	0.2	
Delay (s)		10.0	8,1	8.7	13.3			12.9	11.1	12.6	11.9	
Level of Service		Α	Α	Α	В			В	В	В	В	
Approach Delay (s)		9.5			12.7			12.4			12.2	
Approach LOS		А			В			В			В	
Intersection Summary												
HCM Average Control D	elay		11.6	Н	ICM Lev	el of Se	rvice		В			
HCM Volume to Capacity	y ratio		0.47									
Actuated Cycle Length (s	5)	a ta a anna an ta	44.0	S	um of lo	st time	(S)		8.0			
Intersection Capacity Uti	lization		60.6%	I(	CU Leve	l of Serv	/ice		В			
Analysis Period (min)	and production of the		15	a baba da antes a c								
c Critical Lane Group												

#### HCM Signalized Intersection Capacity Analysis 20: Howard Street & South Winooski Ave

	۶	-	$\mathbf{i}$	1	-	×.	1	Ť	1	\$	Ļ	-
Movement	EBL2	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR2	SBL	SBT	SBR
Lane Configurations		4			4			¢.			4	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	14	14	14	12	12	12	16	16	16
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.97			0.99			1.00			0.99	
Fit Protected		0.99			0.98			1.00			1.00	
Satd. Flow (prot)		1794			1926			1853			2092	
Flt Permitted		0.94			0.89			0.98			0.99	
Satd. Flow (perm)		1708			1747			1815			2080	
Volume (vph)	15	45	15	20	30	5	15	265	5	5	240	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	50	17	22	33	6	17	294	6	6	267	17
RTOR Reduction (vph)	0	11	0	0	0	0	0	1	0	0	3	0
Lane Group Flow (vph)	0	73	0	0	61	0	0	316	0	0	287	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		3			3			2			6	
Permitted Phases	3			3			2	2		6	6	
Actuated Green, G (s)		15.0			15.0			30.0			30.0	
Effective Green, g (s)		16.0			16.0			31.0			31.0	
Actuated g/C Ratio		0.20			0.20			0.39			0.39	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Lane Grp Cap (vph)		342			349			703			806	
v/s Ratio Prot									Gran Arrida			
v/s Ratio Perm		c0.04			0.03			c0.17			0.14	
v/c Ratio		0.21			0.17			0.45			0.36	
Uniform Delay, d1		26.7			26.5			18.2			17.4	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.4			1.1			2.1			1.2	
Delay (s)		28.2			27.6			20.3			18.6	
Level of Service	1	С			С			С			В	
Approach Delay (s)		28.2			27.6			20.3			18.6	
Approach LOS		С			С			С			В	
Intersection Summary												
HCM Average Control D	elay		27.5	Н	CM Lev	el of Se	rvice		С			
HCM Volume to Capacit	y ratio		0.50									
Actuated Cycle Length (	s)		80.0	S	um of lo	ost time	(s)		12.0			
Intersection Capacity Uti	lization	Į	58.6%	IC	CU Leve	l of Sen	vice		В			
Analysis Period (min)			15									
c. Critical Lane Groun												

	4	¥	*	t
Movement	SWL2	SWL	SWR	SWR2
Lane Configurations	7	¥4		
Ideal Flow (vphpl)	1900	1900	1900	1900
Lane Width	14	14	14	14
Total Lost time (s)	4.0	4.0		
Lane Util. Factor	1.00	1.00		n ter de la reception de la
Frt	1.00	1.00		
Flt Protected	0.95	0.95		
Satd. Flow (prot)	1888	1886		
Flt Permitted	0.95	0.95	and material rates are a	
Satd. Flow (perm)	1888	1886		
Volume (vph)	15	345	5	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	383	6	6
RTOR Reduction (vph)	0	1	0	0
Lane Group Flow (vph)	17	394	0	0
Turn Type	Split			
Protected Phases	4	4		
Permitted Phases				
Actuated Green, G (s)	20.0	20.0		11
Effective Green, g (s)	21.0	21.0		
Actuated g/C Ratio	0.26	0.26		1999, 1999, 1999, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 19
Clearance Time (s)	5.0	5.0		
Lane Grp Cap (vph)	496	495		
v/s Ratio Prot	0.01	c0.21		
v/s Ratio Perm				
v/c Ratio	0.03	0.80		
Uniform Delay, d1	22.0	27.5	9007910-0-94-04-08	
Progression Factor	1.00	1.00		
Incremental Delay, d2	0.1	12.5		
Delay (s)	22,1	40.0		
Level of Service	С	D	ana tang tang tang tang tang tang tang t	en de la proposition de la place
Approach Delay (s)		39.3		
Approach LOS		D		an indiana ang ing ing ing ing ing ing ing ing ing i

Intersection Summary

	٦		$\mathbf{F}$	4	<b></b>	×	•	†	1	<b>\</b>	Ļ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		र्स	7		4	7	ሻ	<u>ት</u> ቤ		ሻ	<u>ት</u> ቤ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	an ta na set na taona
Lane Util. Factor	uderse de c	1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	0.99	
Fit Protected		0.96	1.00		0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1793	1583		1808	1583	1770	3534		1770	3498	terreter (new first see t
Flt Permitted		0.74	1.00		0.79	1.00	0.19	1.00		0.25	1.00	
Satd. Flow (perm)		1371	1583		1464	1583	356	3534		470	3498	
Volume (vph)	55	15	145	30	20	35	145	1005	10	30	835	70
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	61	17	161	33	22	39	161	1117	11	33	928	78
RTOR Reduction (vph)	0	0	138	0	0	34	0	1	0	0	8	0
Lane Group Flow (vph)	0	78	23	0	55	5	161	1127	0	- 33	998	0
Turn Type	Perm		Perm	Perm	ant alabiti talan aray raybyat	Perm	pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4		4	8		8	2			6	-,	
Actuated Green, G (s)		8.0	8.0		8.0	8.0	41.1	41.1		30.1	30.1	
Effective Green, g (s)		8.0	8.0		8.0	8.0	41.1	41.1		30.1	30.1	
Actuated g/C Ratio		0.14	0.14		0.14	0.14	0.72	0.72		0.53	0.53	
Clearance Time (s)		4.0	4.0		4.0	4.0	3.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		192	222		205	222	430	2544		248	1844	*********
v/s Ratio Prot							0.05	c0.32			c0.29	
v/s Ratio Perm		c0.06	0.01		0.04	0.00	0.22		Der alle andere alle en en elle far	0.07		
v/c Ratio		0.41	0.10		0.27	0.02	0.37	0.44		0.13	0.54	
Uniform Delay, d1		22.4	21.4		21.9	21.2	4.1	3.3		6.9	8.9	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00	ê () - 3 () -	1.00	1.00	
Incremental Delay, d2		1.4	0.2		0.7	0.0	0.6	0.1		0.2	0.3	
Delay (s)		23.8	21.6		22.6	21.2	4.6	3.4		7.1	9.3	
Level of Service		С	С		С	С	Α	Α		Α	A	
Approach Delay (s)		22.3			22.1			3.6			9.2	
Approach LOS		C			С			А			Α	
Intersection Summary												
HCM Average Control D	elay		8.1	Н	ICM Lev	vel of S	ervice		А			
HCM Volume to Capacit	y ratio		0.52									
Actuated Cycle Length (s	s)	- <u></u>	57.1	S	um of le	ost time	e (s)		12.0			
Intersection Capacity Uti	lization		55.3%	ા	CU Leve	el of Se	rvice		В			
Analysis Period (min)	and all the second	ta dagtar a da sa	15									
c Critical Lane Group					n manazariasi							

#### HCM Signalized Intersection Capacity Analysis 24: Home Avenue & Shelburne St. (Rt 7)

2 Lane 2008 PM

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<del>4</del>	7	×,	14		ሻ	<b>≜</b> ↑		ሻ	♠₽	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	10	12	16	12	10	10	10	10	10	10
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	0.95		1.00	0.95	
Fit		1.00	0.85	1.00	0.90		1.00	1.00		1.00	1.00	
Flt Protected		0.97	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1750	1478	1770	1909		1652	3297		1652	3295	
Flt Permitted		0.79	1.00	0.71	1.00		0.24	1.00		0.95	1.00	
Satd. Flow (perm)		1415	1478	1329	1909		411	3297		1652	3295	
Volume (vph)	35	25	165	30	20	35	185	1220	15	40	885	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	39	28	183	33	22	39	206	1356	17	44	983	17
RTOR Reduction (vph)	0	0	162	0	35	0	0	1	0	0	1	0
Lane Group Flow (vph)	0	67	21	33	26	0	206	1372	0	44	999	0
Turn Type	Perm		Perm	Perm			pm+pt			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2					
Actuated Green, G (s)		7.7	7.7	7.7	7.7		41.5	41.5		3.6	28.3	
Effective Green, g (s)		7.7	7.7	7.7	7.7		42.5	42.5		3.6	29.3	
Actuated g/C Ratio		0.11	0.11	0.11	0.11		0.62	0.62		0.05	0.43	
Clearance Time (s)		4.0	4.0	4.0	4.0		5.0	5.0		4.0	5.0	
Vehicle Extension (s)		1.0	1.0	1.0	1.0		1.5	1.0		1.0	1.0	
Lane Grp Cap (vph)		160	167	150	215		561	2052		87	1414	
v/s Ratio Prot					0.01		0.09	c0.42		0.03	c0.30	
v/s Ratio Perm		c0.05	0.01	0.02		81.431/61.451	0.14					
v/c Ratio		0.42	0.12	0.22	0.12		0.37	0.67		0.51	0.71	
Uniform Delay, d1		28.2	27.3	27.6	27.3		11.6	8.3		31.5	16.0	
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.6	0.1	0.3	0.1		1.8	1.8		1.7	3.0	
Delay (s)	de a l'esta d'una la resta suche suche	28.9	27.4	27.8	27.4	ala da di seta selana da da sa	13.4	10.1		33.2	19.0	
Level of Service		C	C	C	C		В	В		C	В	
Approach Delay (s)		27.8			27.5		an an an an an an an an an an an an an a	10.5			19.6	and the state of the state of the state of the state of the state of the state of the state of the state of the
Approach LOS		C			C			В			В	
Intersection Summary												
HCM Average Control D	elay		15.7	H	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.61									
Actuated Cycle Length (s	s)		68.3	S	um of lo	ost time	(s)		8.0			
Intersection Capacity Uti	lization		57.5%	IC	CU Leve	l of Ser	/ice		В			
Analysis Period (min)			15									

#### HCM Signalized Intersection Capacity Analysis 25: I-189 OFF RAMP & Shelburne St. (Rt 7)

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				٣	ধ			<b>≜</b> ta			<b>≜</b> 1	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	14	12	12	12	12	12	12
Total Lost time (s)				4.0	4.0		Ú. Star	4.0			4.0	
Lane Util. Factor				0.95	0.95			0.95			0.95	
Frt				1.00	1.00			1.00			1.00	
Flt Protected				0.95	0.96		2	1.00	1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -	sensi sensi sensi	1.00	()
Satd. Flow (prot)				1681	1700			3539			3537	
Flt Permitted				0.95	0.96	-9-14 PC 8040-00100000		1.00	,		1.00	an operation of a state
Satd. Flow (perm)				1681	1700			3539			3537	
Volume (vph)	0	0	0	1310	135	0	0	790	0	0	1380	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	1456	150	0	0	878	0	0	1533	6
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	Ō	1	Ō
Lane Group Flow (vph)	0	0	0	782	824	0	0	878	0	0	1538	0
				Perm			Perm					
Protected Phases		s a lika jerit til kan er a jerit a		an Carport State Contra	8	ran den den den den de		2	Realization de la calencia	(*************************************	6	1049904106415F
Permitted Phases				8			2					
Actuated Green, G (s)			**********	28.0	28.0			30.0	******	and an an fan de se	30.0	
Effective Green, g (s)				30.0	30.0			32.0			32.0	
Actuated g/C Ratio				0.43	0.43			0.46	27426724272222222222	inikan piriti ya ka	0.46	References and a second
Clearance Time (s)				6.0	6.0			6.0			6.0	
Vehicle Extension (s)				3.0	3.0	2000-10-00-00-000-000-000-000-000-000-00	ranan (artika) (artika) (artik	3.0	en et dan de la mineraliera.	ad hyrafad ardd ywara	3.0	
Lane Grp Cap (vph)				720	729			1618			1617	
v/s Ratio Prot	in provinski stra	n e prostant de la com	en in de la delaria	n for for grand given sjed			ayu tarihi Méndilahi	0.25			c0.43	i proveni koninge tigler i koninge
v/s Ratio Perm	olo i de latina) Minesia de co			0.47	0.48							
v/c Ratio				1.09	1.13	samen postota	220000030400900	0.54			0.95	SANGE AND AND A
Uniform Delay, d1				20.0	20.0			13.7			18.3	
Progression Factor		51		1.00	1.00			1.00	9-949-99-99-99-99-99-99-99-99-99-99-99-9	-0510-0510-051-061-061-0	1.00	ula (nilayi)yoo niyaayoo)
Incremental Delay, d2				59.3	75.3			0.4			12.7	
Delay (s)				79.3	95.3	tine ( all and the standard		14.1	5-22-5-5-6-6-5-5-5-5-5-5-5-5-5-5-5-5-5-5		30.9	an a she a she a she a she a she a she a she a she a she a she a she a she a she a she a she a she a she a she
Level of Service				Е	F			В			С	
Approach Delay (s)		0.0			87.5		a na tanàn amin'ny fisiana dia ta	14.1	and have been and here and h	den frankreiter feb	30.9	2010/07/2010/07/2010
Approach LOS		Α			- <b>F</b>			В			C	
Intersection Summary												
HCM Average Control De	əlay		49.9	H	CM Lev	el of Se	rvice		D			
HCM Volume to Capacity	ratio		1.04									
Actuated Cycle Length (s	)		70.0	S	um of lo	ost time (	(S)		8.0			
Intersection Capacity Util	ization	8	4.8%	IC	CU Leve	l of Serv	rice		E		,	
Analysis Period (min)			15				61 (S) (S) (S)	9				

HCM Unsignalized Intersection Capacity Analysis 18: Maple Street & St. Paul St

	٠		$\mathbf{i}$	1	<b>4</b>	×.	1	<b>†</b>	1	1	Ļ	$\checkmark$
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$			4			4,			4	<u> </u>
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	20	130	60	65	115	15	20	270	55	60	255	25
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	22	144	67	72	128	17	22	300	61	67	283	28
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	233	217	383	378								
Volume Left (vph)	22	72	22	67			da la jung sana Sana Garaga da sana					
Volume Right (vph)	67	17	61	28								
Hadj (s)	-0.12	0.05	-0.05	0.03								
Departure Headway (s)	6.8	7.0	6.3	6.4								
Degree Utilization, x	0.44	0.42	0.67	0.67								
Capacity (veh/h)	457	440	537	526								
Control Delay (s)	15.2	15.1	21.3	21.4								
Approach Delay (s)	15.2	15.1	21.3	21.4								
Approach LOS	C	C	C	C								
Intersection Summary												
Delay			19.0									
HCM Level of Service			С									
Intersection Capacity Uti	lization		68.1%		CU Leve	el of Ser	vice		С			
Analysis Period (min)			15									

	1	×.	t	1	1	Ļ					
Movement	WBL	WBR	NBT	NBR	SBL	SBT					
Lane Configurations	Y		4			ধ					
Sign Control	Stop		Free			Free					
Grade	0%		0%			0%					
Volume (veh/h)	145	5	370	230	5	605					
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90					
Hourly flow rate (vph)	161	6	411	256	6	672					
Pedestrians	standelige fan de standelige fan de standelige fan de standelige fan de standelige fan de standelige fan de st		na kana kata kata kata kata kata kata ka		al Masherida ya shi				uleyinikiniyinga		an an an an an an an an an an an an an a
Lane widin (ii)											9393
Percent Blockane											di sidili
Right turn flare (veh)	ka nego kata debuga			100000-1000-1007-0017-0017-0017-0017-00							
Median type	None										20030
Median storage veh)		ingen selge ( almosfors i spinsk) (					99 199 199 199 199 1				-1995-199 
Upstream signal (ft)	Service distriction Contact Contactor					837					
pX, platoon unblocked	0.94					a a da angang sa angang sa ang agang sa ang sa sa sa sa sa sa sa sa sa sa sa sa sa		n beter den besterne de besteren des	andele and a destruction		04004040
vC, conflicting volume	1222	539			667						
vC1, stage 1 conf vol											
vC2, stage 2 conf vol											
vCu, unblocked vol	1236	539	less Marrian de Nacio	an the Chine Protection	667		and a state of a state		A SERVICE ANALYSIS AND	an an an an an an an an an an an an an a	
tC, single (s)	6.4	6.2			4.1						
tC, 2 stage (s)	9 E	00		ala da waxeen	<u>_</u>		ni di Manini Mani				1994-1943 1994-1945
nn queue free %	3.D 10	0.0 00			2.2						ntestide Joséficie
cM canacity (yeh/h)	182	55			933						36553
Direction Long #			CD 4		JE.J						
Volume Total	167	667	679								
Volume Left	161	007 1	6,0								
Volume Right	6	256	Ő								
cSH	186	1700	923		an segar taka sajadi at					anta da atta da San San G	30,0000
Volume to Capacity	0.89	0.39	0.01								
Queue Length 95th (ft)	169	0	0		e e e service de la companya de la companya de	************************		n a an an an tha an an 1993).	e de la constant de la constituir d'Ardet		
Control Delay (s)	92.0	0.0	0.2								
Lane LOS	F		Α								
Approach Delay (s) Approach LOS	92.0 F	0.0	0.2								
Intersection Summary											
Average Delay			10.2								
Intersection Capacity Ut	ilization	ł	50.8%	IC	U Leve	l of Service	3	1	<b>\</b>		u zie Gestie
Analysis Period (min)			15								

HCM Unsignalized Intersection Capacity Analysis 22: Birchcliff Pkwy & Shelburne St. (Rt 7)

	٦		$\mathbf{r}$	1		×	1	t	1	<b>\</b>	Ļ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		¢‡+			44			ፈኁ			ፈቴ	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	20	0	50	10	0	10	45	995	5	5	895	20
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	22	0	56	11	0	11	50	1106	6	6	994	22
Pedestrians		ann an siae (sy in the Saidh i	المرول وللرواز والالورد ويشار		anga sanga sanga	Sedan mada a dan sa	Apper Augusta (Sant)			la de esta da esta de esta de	dente den solve	- Contraction
Lane Width (ft)												
Walking Speed (IT/S)				tiga katan katig	900000000000000000		Vielenie opisie		in an Antonian.	Succession -	ternako kekia	xexes and a second
Percent Diockaye												
Median hine		None			None							
Median storage veh)					110110							
Upstream signal (ft)							len instation Sin Cinternation	1267				
pX, platoon unblocked	949-46979-94968899999			n de Carlon de Carlon (de Carlon (	en en en en en en en en en en en en en e	en an						99. AND 1997 AND 2017
vC, conflicting volume	1681	2228	508	1772	2236	556	1017			1111		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol							9. S. B. B					
vCu, unblocked vol	1681	2228	508	1772	2236	556	1017			1111		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	~ ~ ~			<b>n n</b>		State Action			lonseri els i denis		dialación de la comp	Ginada Carindes
IF (S)	3.5 61	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
pu queue nee %	10 56	001	09 510	61 A A	001	98 175	93			99		
			510			47J	070			024		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Lott	/8	22	603	558	503	519						
Volume Leit	22 50	।। कक	00 A	U c	0	0						
cSH		11 80	678	1700	624	1700						
Volume to Capacity	0.50	0.28	0.07	0.33	0.01	0.31				Martan tahun su		
Queue Length 95th (ft)	61	25	6	0.00	1	0						04601078764
Control Delay (s)	49.7	66.0	2.0	0.0	0.3	0.0						
Lane LOS	Е	F	Α		Α	keditesta diktikiine ja j						
Approach Delay (s)	49.7	66.0	1.0		0.1							
Approach LOS	E	F										
Intersection Summary												
Average Delay			2.9									
Intersection Capacity Ut	ilization		69.0%	K	CU Leve	l of Sen	vice		C			
Analysis Period (min)			15									

		$\mathbf{i}$	<b>F</b>		1	1	
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	4			র	¥7		
Sign Control	Free			Free	Stop		
Grade	0%			0%	0%		
Volume (veh/h)	125	20	35	145	35	65	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vph)	139	22	39	161	39	72	
Pedestrians	- Al-Al-Al-Al-Al-Al-Al-Al-Al-Al-Al-Al-Al-A	o de la centra de la centra de la centra de la centra de la centra de la centra de la centra de la centra de la	- Anna an Anna Anna Anna Anna	وروب وروب وروب وروب			
Lane Width (ft)							
Walking Speed (ft/s)	Stabletik	andadi dangan M	akasi pilikati utu				
Percent Blockage							
Modion time					None		
Median storage yeb)					INOLIA		
Instream signal (ft)				331	i lahiji i maning i kan karang Manang ing kanang ing karang ing karang ing karang ing karang ing karang ing kar	normania (ang salari salabis) Rangang salari	
nX. platoon unblocked		9					
vC. conflicting volume			161		389	150	
vC1, stage 1 conf vol	n (1967), fa fan de la r>Internet en la fan de la fan de la fan de la fan de la fan de la fan de la fan de la fan de la fan de la fan de	an an an an an an an an an an an an an a		el Stadio (1994) (1997) T			
vC2, stage 2 conf vol							
vCu, unblocked vol	( ( (		161		389	150	
tC, single (s)			4,1		6.4	6.2	
tC, 2 stage (s)							
tF (s)			2.2		3.5	3.3	
p0 queue free %	لية معملية متعام التراني الما معملية المتعام التراني	andalat spini den per	97		93	92	
cM capacity (veh/h)			1418		598	896	
Direction, Lane #	EB 1	WB 1	NB 1				
Volume Total	161	200	111				
Volume Left	0	39	39	ng kanalagang kanalakan dia	internet de constant ou port je lan		
Volume Hight	22	0	72				
CSH	1700	1418	763	an airtean an  Alta anna an Albangara	-		
Volume to Capacity	0.09	0.03	0.15				
Control Dolou (a)	0	47	13	in an			
Long LOS	0.0	۲. <i>۲</i> ۸	10.0				
Annroach Dalay (e)	0.0	н 17	D 10 5				
Approach LOS	v.v	1.**	IV.V R				
			L				
Intersection Summary			<b>-</b> -				
Average Delay			3.2	y est y statut de la <u>statu</u>		gan gaganan an	
Intersection Capacity Uti	lization		33.3%	IC	U Leve	I of Servic	e A
Analysis Period (min)			15				

	T	WO-WAY STO	P CONTR	OL SUI	MMARY			
<b>General Information</b>			Site II	nforma	tion			
Analvst A⊊ y/Co. Date Performed Analysis Time Period	EJD CHA 12/22/05 PM PEAK	HOUR	Interse Jurisdic Analysi	ction ction is Year		ROUTE 7 TOWN 0 2008 BU	7/LOCUS1 F BURLIN ILD	T/LEDGE IGTON
Project Description BU	RLINGTON							
East/west Street: LUCU	North South		North/S	South Str	reet: HOUIE	7		
Vehicle Velumes an		_			<u>(s): 0.25</u>			
venicie volumes an	a Aajustment	S Normalina and a second state				0	F	
Major Street		Normbound	1 2		А		ouna	<u>e</u>
	1	<u>~</u>	B		4			<u> </u>
Volume	0	630	255	;	30	705		15
Peak-Hour Factor, PHF	0.90	0.90	0.90	)	0.90	0.90		0.90
Hourly Flow Rate, HFR	0	700	283	1	33	783		16
Percent Heavy Vehicles	0		+		2			
Median Type				Undivi	ided			
RT Channelized			0					0
Lanes	0	2	0		0	1		0
Configuration		<i>T</i>	TR		LTR			
Upstream Signal		0				0		
Minor Street		Westbound				Eastbou	und	
Movement	7	8	9		10	11		12
			<u> </u>		L.,	T		R
Volume	0	0	55		0	25		75
He Flow Pate HER	0.90	0.90	0.90		0.90	0.90		0.90
Percent Heavy Vehicles	0	0			0	21		03
Percent Grade (%)	<u> </u>				0	<u> </u>		2
Flared Approach		U						
Storado		A		<u></u>				
BT Channelized		0				0		0
			1			4		0
Configuration					U	/		TR
Delay Queue Length an	d Level of Servi							
Approach	NR	SB	T	Westhou	und		Easthoun	d
Movement	1	4	7	8		10	11	1 12
Lane Configuration	*	I TR						
v (voh)		22			п 61			110
C(m)(unb)		600			500		ļ	170
		0.05				1	<u> </u>	
		0.05			0.12		Į	0.65
95% queue iengin		0.15			0.39	<u> </u>	Į	3.69
Control Delay		10.4			12.8	<b></b>		58.4
LUS		<i>B</i>	<u>                                     </u>		В		<u> </u>	<u> </u>
Approach Delay			L	12.8		<u> </u>	58.4	
Approach LOS				В			F	

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	T	WO-WAY STO	P CONTROL	SUMM/	ARY			
<b>General Information</b>			Site Info	rmatior	)			
Analyst A y/Co. Date Performed Analysis Time Period	EJD CHA 12/22/05 PM PEAK	(HOUR	Intersection Jurisdiction Analysis Y	n 1 ear		ROUTE 7 TOWN O 2008 BUI	7/SOUTH F BURLIN LD	WILLARD IGTON
Project Description BU	RLINGTON							
East/West Street: SOUT	H WILLAHD		North/Sout	h Street:	ROUTE	7		
intersection Orientation:	North-South		Study Perio	od (nrs):	0.25			
Vehicle Volumes an	d Adjustment	S						
Major Street		Northbound				Southbo	und	
	1		3		4	5		6
Volume	80	550				750		<u> </u>
Peak-Hour Factor PHE	0.90	0.90			nan	750		
Hourly Flow Rate, HFR	88	611	0.00		0.00	833		0.30
Percent Heavy Vehicles	2				2			
Median Type			U	Individed				
RT Channelized			0	T		T		0
Lanes	0	1	0	1	0	1		0
Configuration	LT					Т		******
Upstream Signal		0				0		
Minor Street		Westbound				Eastbou	Ind	
Movement	7	8	9		10	11		12
	L	Т	R		L	Т		R
Volume	0	150	0		0	0		0
Pe Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Housy Flow Rate, HFR	0	166	0		0	0		0
Percent Heavy Vehicles	0	2	2		0	2		2
Percent Grade (%)		0				0		
Flared Approach		N				N		
Storage		0				0		
RT Channelized			0					0
Lanes	0	1	0		0	0		0
Configuration			TR					
Delay, Queue Length, an	d Level of Servi	ce						
Approach	NB	SB	We	stbound			Eastboun	d
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT				TR			
v (vph)	88				166			
C (m) (vph)	800				85	t		
v/c	0.11				1.95	1		
95% aueue lenath	0.37				14 44	<u> </u>		
Control Delay	10.1				550.2	1	ļ	
	R				E			
Approach Delay	<u> </u>			<u> </u>	<u> </u>		L <u></u>	<u> </u>
Approach LOS				50.2 r				
	1	W1 44	1	177				

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# BUILD ALTERNATIVE 1 2028 AM PEAK HOUR

### HCM Signalized Intersection Capacity Analysis 6: Main Street & Battery Street

	٨		$\mathbf{i}$	¥	<b>.</b>	×	•	Ť	1	<b>\$</b>	Ļ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		¢,	*		র্ব	7		4 î b		ሻ	4	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0		4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00		0.95		1.00	1.00	
Frt		1.00	0.85		1.00	0.85		0.99		1.00	1.00	
Fit Protected		0.98	1.00		0.98	1.00		0.99		0.95	1.00	
Satd. Flow (prot)		1823	1583		1817	1583		3495		1770	1859	
Flt Permitted		0.84	1.00		0.82	1.00		0.68		0.95	1.00	dohazi elekerela Selezi elekerela
Satd. Flow (perm)		1559	1583		1531	1583		2373		1770	1859	
Volume (vph)	15	20	45	50	50	80	60	500	30	130	1015	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	22	50	56	56	89	67	556	33	144	1128	17
RTOR Reduction (vph)	0	0	44	0	0	68	0	0	0	0	0	0
Lane Group Flow (vph)	0	39	6	0	112	21	0	656	0	144	1145	0
Turn Type	Perm		Prot	Perm		pt+ov	Perm		С	ustom	********	
Protected Phases		4	4		8	. 81		2		1	6	
Permitted Phases	4	********	1.0000000000000000000000000000000000000	8			2			1		949-01940-949-973
Actuated Green, G (s)		13.9	13.9		13.9	28.7		81.1		14.8	100.9	
Effective Green, g (s)		14.9	14.9		14.9	30.7		82.1		15.8	101.9	
Actuated g/C Ratio		0.11	0.11		0.11	0.24		0.63		0.12	0.78	
Clearance Time (s)		5.0	5.0		5.0			5.0	2000-000-000-000-000-000-000-000-000-00	5.0	5.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		179	181		175	374		1499		215	1457	<i></i>
v/s Ratio Prot			0.00			0.01				0.08	c0.62	
v/s Ratio Perm		0.03			c0.07		and a subject of the spanned of	0.28		a ga ng ng ng ng ng ng ng ng ng ng ng ng ng		
v/c Ratio		0.22	0.03		0.64	0.06	ulioja duja da obaj Referencia	0.44		0.67	0.79	
Uniform Delay, d1		52.3	51.1		55.0	38.4	eren de la desta de la deserva de la des	12.2	4949-949-94000-14940-949	54.6	7.9	alografia (na 1970)
Progression Factor		1.00	1.00		1.00	1.00		0.60		1.00	1,00	
Incremental Delay, d2	an an an an an an an an an an an an an a	0.6	0.1		7.7	0.1	1999) 1997 (1997) 1997 (1997) 1999)	0.8	an na tri stati stati se	7.7	4.3	en andere fan de en andere
Delay (s)		52.9	51.2		62.7	38.5		8.2		62.3	12.2	
Level of Service		D	D		E	D		Α		Ε	В	en e statelja frederačiji
Approach Delay (s)		51.9			52.0			8.2			17.8	
Approach LOS		D			Ď			Α			В	
Intersection Summary												
HCM Average Control D	elay		19,4	Н	ICM Lev	el of Se	ervice		В			
HCM Volume to Capacit	y ratio		0.73					nistereti istori. Nesi terretari e				
Actuated Cycle Length (s	s)		130.0	S	um of lo	ost time	(s)		8.0			
Intersection Capacity Uti	lization		92.9%		CU Leve	el of Ser	vice		F			
Analysis Period (min)			15									
C Cinical Lane Group	ana ang kang kang kang kang kang kang ka											

#### HCM Signalized Intersection Capacity Analysis 7: King Street & Battery Street

	٨	-+	$\mathbf{i}$	4	←	*	•	t	1	1	ţ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	×	ţ.			4		3	ĥ		۲	1	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00			1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.85			0.89		1.00	1.00		1.00	1.00	
Fit Protected	0.95	1.00			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1583			1647		1770	1859		1770	1856	
Fit Permitted	0.36	1.00			0.97		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	666	1583			1608		1770	1859		1770	1856	
Volume (vph)	25	0	5	15	10	115	10	455	5	110	980	25
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	28	0	6	17	11	128	11	506	6	122	1089	28
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	28	6	0	0	156	0	11	512	0	122	1117	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		្រា	6	
Permitted Phases	4			8								
Actuated Green, G (s)	16.3	16.3			16.3		1.6	79.2		13.3	90.9	
Effective Green, g (s)	17.3	17.3			17.3		2.6	80.2		14.3	91.9	
Actuated g/C Ratio	0.13	0.13			0.13		0.02	0.62		0.11	0.71	
Clearance Time (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	89	211			214		35	1147		195	1312	1970-0-1960-0-1970-0-1970-0-1970-0-1970-0-1970-0-1970-0-1970-0-1970-0-1970-0-1970-0-1970-0-1970-0-1970-0-1970-0
v/s Ratio Prot		0.00					0.01	0.28		c0.07	c0.60	6-20-20-5
v/s Ratio Perm	0.04				c0.10							
v/c Ratio	0.31	0.03			0.73		0.31	0.45		0.63	0.85	
Uniform Delay, d1	51.0	49.0			54.1		62.8	13.2		55.3	14.0	
Progression Factor	1.00	1.00			1.00		0.98	0.66		1.12	0.78	
Incremental Delay, d2	2.0	0.1			11.7		4.7	1.2		4.1	4.9	
Delay (s)	53.0	49.1			65.8		66.1	9.9		66.2	15.8	
Level of Service	D	D			Е		Е	Α		Е	В	
Approach Delay (s)		52.3			65.8			11.1			20.8	
Approach LOS		D			Ε			В			С	
Intersection Summary												
HCM Average Control D	elay		22.3	Н	CM Lev	el of Se	rvice		С			
HCM Volume to Capacit	y ratio		0.84									
Actuated Cycle Length (s	s)		130.0	S	um of lo	ost time	(s)		18.2			
Intersection Capacity Uti	lization		34.9%	l C	U Leve	l of Sen	/ice		E			
Analysis Period (min)			15									
c Critical Lane Group												

#### HCM Signalized Intersection Capacity Analysis 8: Maple Street & Battery Street

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$			ф <b>.</b>		ሻ	4		۲	ţ,	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.99			0.98		1.00	0.99		1.00	0.99	
Flt Protected		0.97			0.97		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1724			1717		1711	1781		1711	1783	
Flt Permitted		0.66			0.80		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1180			1404		1711	1781		1711	1783	
Volume (vph)	60	20	5	70	40	20	5	385	30	80	855	60
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	67	22	6	78	44	22	6	428	33	89	950	67
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	95	0	0	144	0	6	461	0	89	1017	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4	0.2-8-6		8	n der der				0.00.70.700			
Actuated Green, G (s)		16.9	an and a farmerate		16.9		1.6	80.7		11.2	90.3	
Effective Green, g (s)		17.9			17.9	ngen og vegeter Som og skipelin	2.6	81.7		12.2	91.3	
Actuated g/C Ratio		0.14			0.14		0.02	0.63		0.09	0.70	
Clearance Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0	·····	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		162		4) (j. 63)	193		34	1119		161	1252	
v/s Ratio Prot							0.00	0.26		c0.05	c0.57	
v/s Ratio Perm		0.08			c0.10							
v/c Ratio		0.59			0.75		0.18	0.41		0.55	0.81	
Uniform Delay, d1		52.6			53.9		62.6	12.1		56.3	13.4	
Progression Factor	a dha bada ba sharan iyo ya shara a	1.00	an an ann an	a antice ta care a care ta care	1.00	and a start of the second start of the second	0.78	1.49		1.28	0.09	
Incremental Delay, d2		5.3		(60 - 199 - 199 - 199 - 199 - 199 - 199 - 199 - 199 - 199 - 199 - 199 - 199 - 199 - 199 - 199 - 199 - 199 - 19 19 - 19 -	14.5		2.3	1.0		2.4	3.4	
Delay (s)	ter tit ster ter setter overet en er	57.9			68.4		51.4	19.1		74.2	4.7	
Level of Service		E			E		D	В		E	A	
Approach Delay (s)		57.9			68.4			19.5			10.3	ta an an an an an an an an an an an an an
Approach LOS		E			E.	69-69-69-69		В			B	
Intersection Summary												
HCM Average Control D	elay		19.8	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.80									
Actuated Cycle Length (	5)		130.0	S	um of lo	ost time	(S)		18.2			
Intersection Capacity Uti	lization		72.9%	IC	U Leve	el of Serv	/ice		С		a a la conserva por contrato	a a mara a strada (tra
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			र्भ	7		<del>ل</del> ه	7		4	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0		4.0	4.0		4.0	
Lane Util. Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Frt		0.99			1.00	0.85		1.00	0.85		0.98	
Fit Protected		0.99			1.00	1.00		0.99	1.00		0.99	
Satd. Flow (prot)		1825			1857	1583		1842	1583		1799	
Fit Permitted		0.89			0.97	1.00		0.90	1.00		0.89	
Satd. Flow (perm)		1646			1816	1583		1680	1583		1617	
Volume (vph)	45	150	15	15	225	45	40	140	10	45	135	40
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	50	167	17	17	250	50	- 44	156	11	50	150	44
RTOR Reduction (vph)	0	0	0	0	0	29	0	0	8	0	0	0
Lane Group Flow (vph)	0	234	0	0	267	21	0	200	3	0	244	0
Turn Type	Perm			Perm		Perm	Perm		Perm	Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6		6	8		8	4		
Actuated Green, G (s)		15.5			15.5	15.5		9.5	9.5		9.5	
Effective Green, g (s)		16.5			16.5	16.5		10.5	10.5		10.5	
Actuated g/C Ratio		0.41			0.41	0.41		0.26	0.26		0.26	
Clearance Time (s)		5.0			5.0	5.0		5.0	5.0		5.0	
Vehicle Extension (s)		3.0			3.0	3.0		3.0	3.0		3.0	
Lane Grp Cap (vph)		682			753	656		443	418		427	
v/s Ratio Prot												
v/s Ratio Perm		0.14			c0.15	0.01		0.12	0.00		c0.15	
v/c Ratio		0.34			0.35	0.03		0.45	0.01	1974) (d. 19	0.57	
Uniform Delay, d1	n ala an ann an Arainn a	8.0	ومحدود فسعروه فستنبغ ورجع		8.0	6.9		12.2	10.8		12.7	
Progression Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Incremental Delay, d2	en lette vien die de te	0.3		intelet (het eine bestelle	0.3	0.0	1994-1995-1995-1995-1995-	0.7	0.0		1.8	
Delay (s)		8.3			8.3	6.9		13.0	10.8		14.5	
Level of Service	a para di sangé apasis da t	A	anna ann an thatairteac	ana ang sang sang sang sang sang sang sa	A	A	Manini sa mangana ang	В	B	Jana Katalara (Jana)	B	andada sabini-
Approach Delay (s)		8.3			8.1	10.000.880.980		12.9			14.5	
Approach LOS		A			A			В			В	
Intersection Summary												
HCM Average Control D	elay		10.7	Н	CM Lev	el of Se	ervice		В			
HCM Volume to Capacit	y ratio		0.37									
Actuated Cycle Length (s	s)		39.8	S	um of k	ost time	(s)		8.0			
Intersection Capacity Uti	lization	() 	58.9%	IC	CU Leve	of Ser	vice		B			
Analysis Period (min)			15				adaga kana kana kana		ta an an an an an an an an an an an an an			
c Critical Lane Group												

	Ť	۲	4	Ļ	¥	t			
Movement	NBT	NBR	SBL	SBT	SWL	SWR			
Lane Configurations	•	7	ሻ	4	¥¥				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0				
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00				
Frt	1.00	0.85	1.00	1.00	1.00				
Fit Protected	1.00	1.00	0.95	1.00	0.95				
Satd. Flow (prot)	1863	1583	1770	1863	1769				
Fit Permitted	1.00	1.00	0.41	1.00	0.95				
Satd. Flow (perm)	1863	1583	761	1863	1769				
Volume (vph)	455	265	10	890	295	10			
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90			
Adj. Flow (vph)	506	294	11	989	328	11			
RTOR Reduction (vph)	0	32	0	0	1	0			
Lane Group Flow (vph)	506	262	11	989	338	0			
Turn Type	Prot		Perm						
Protected Phases	2	8		6	8				
Permitted Phases	(900705996700079506960	2	6	alayan sayar tarka tarka sayar tark				19449427419449591.09	
Actuated Green, G (s)	86.5	113.8	86.5	86.5	27.3			ju da ka la ja	
Effective Green, g (s)	87.5	115.8	87.5	87.5	28.3	en 1922 - Charles and American Constant of States			
Actuated g/C Ratio	0.67	0.89	0.67	0.67	0.22	an an an deithice searchaid. Martin an deithice searchaid.			
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	an na hInna an Anna an	n de consta - en la tracata de contractora. A		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0				
Lane Grp Cap (vph)	1254	1459	512	1254	385				
v/s Ratio Prot	0.27	0.04		c0.53	c0.19				
v/s Ratio Perm		0.13	0.01	u-statistika N					
v/c Ratio	0.40	0.18	0.02	0.79	0.88				
Uniform Delay, d1	9.5	0.9	7.0	14.8	49.2			on naonanan an har	
Progression Factor	0.68	0.00	0.33	0.46	1.00				
Incremental Delay, d2	0.9	0.1	0.0	3.2	19.7		nediyi diliyyediyadiyi yaliyi	ana ang ang ang ang ang ang ang ang ang	
Delay (s)	7.4	0.1	2.4	10.0	68.9				
Level of Service	А	А	Α	В	Е				
Approach Delay (s)	4.7	ial California A nata california		9.9	68.9				
Approach LOS	A	skerestinke ( refere		Α	E			er fransk fransk fransk fransk fransk fransk fransk fransk fransk fransk fransk fransk fransk fransk fransk fra F	
Intersection Summary									
HCM Average Control D	elay		17.3	F	ICM Lev	el of Service		В	
HCM Volume to Capacit	y ratio		0.81						
Actuated Cycle Length (s	3)		130.0	S	um of lo	st time (s)	14	.2	,
Intersection Capacity Uti	lization		70.5%		CU Leve	l of Service		C	
Analysis Period (min)			15	u sense nostini	n el altre de la la la la la la la la la la la la la			ere nationalistic destilitat	
c Critical Lane Group									

	٨	$\mathbf{F}$	-	1	Ļ	1	
Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	۲	7	٣	<b>Å</b>	*	7	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width	11	12	11	12	11	12	
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	1.00	0.85	
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00	
Satd. Flow (prot)	1711	1583	1711	1863	1801	1583	
Flt Permitted	0.95	1.00	0.42	1.00	1.00	1.00	n en
Satd. Flow (perm)	1711	1583	762	1863	1801	1583	
Volume (vph)	275	20	15	445	385	845	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	
Adj. Flow (vph)	306	22	17	494	428	939	
RTOR Reduction (vph)	0	15	0	0	0	0	
Lane Group Flow (vph)	306	7	17	494	428	939	
Turn Type		Prot	Perm		21.55	Perm	
Protected Phases	2	2		4	8		
Permitted Phases			4			8	
Actuated Green, G (s)	39.8	39.8	74.0	74.0	74.0	74.0	
Effective Green, g (s)	40.8	40.8	75.0	75.0	75.0	75.0	
Actuated g/C Ratio	0.31	0.31	0.58	0.58	0.58	0.58	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	537	497	440	1075	1039	913	
v/s Ratio Prot	c0.18	0.00		0.27	0.24		· · · · · · · · · · · · · · · · · · ·
v/s Ratio Perm			0.02			c0.59	
v/c Ratio	0.57	0.01	0.04	0.46	0.41	1.03	
Uniform Delay, d1	37.3	30.7	11.9	15.8	15.3	27.5	
Progression Factor	0.73	0.81	1.00	1.00	0.99	1.03	
Incremental Delay, d2	4.3	0.1	0.2	1.4	0.2	32.7	
Delay (s)	31.6	25.0	12.1	17.2	15.3	60.9	
Level of Service	С	С	В	В	В	E	
Approach Delay (s)	31.2			17.1	46.6		
Approach LOS	C			В	D		
Intersection Summary							
HCM Average Control D	elay	naistais (CO) Saistais	37.5	Н	CM Lev	el of Service	D
HCM Volume to Capacit	y ratio		0.87				
Actuated Cycle Length (	s)		130.0	S	um of lo	ost time (s)	14.2
Intersection Capacity Uti	ilization		69.0%	IC	U Leve	of Service	С
Analysis Period (min)			15				

## HCM Signalized Intersection Capacity Analysis 16: Flynn Avenue & Pine Street

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			\$		٢	ĥ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	14	12	12	14	12	12	14	12	11	11	12
Total Lost time (s)		4.0			4.0			4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00			1.00		1.00	1.00	
Frt		1.00			0.91			0.99		1.00	0.98	
Flt Protected		0.98			1.00			1.00		0.95	1.00	
Satd. Flow (prot)		1947			1801			1973		1711	1764	
Flt Permitted		0.76			0.98			0.99		0.47	1.00	
Satd. Flow (perm)		1511			1774			1951		854	1764	
Volume (vph)	35	50	0	10	55	135	10	240	10	110	190	30
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	39	56	0	11	61	150	11	267	11	122	211	33
RTOR Reduction (vph)	0	0	0	0	111	0	0	2	0	0	6	0
Lane Group Flow (vph)	0	95	0	0	111	0	0	287	0	122	238	0
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		9.5			9.5	atuu ta a ta aurus ta	and the task store	20.6		30.3	30.3	
Effective Green, g (s)		10.5			10.5			21.6		31.3	31.3	
Actuated g/C Ratio		0.20			0.20	alara di secondari	tal an comparison	0.41		0.60	0.60	
Clearance Time (s)		5.0			5.0			5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		302			355			803		602	1052	
v/s Ratio Prot										0.02	c0.14	
v/s Ratio Perm		c0.06			0.06			c0.15		0.10		
v/c Ratio		0.31	11.001 × 14.0403 × 15.001 × 4.0043		0.31	ganage stid are seen as	a an an an an an an an an an an an an an	0.36		0.20	0.23	na na sana na sana sa sa
Uniform Delay, d1		17.9			17.9			10.7		5.4	4.9	
Progression Factor	adalariya dalada sa sa sa	1.00	ana ana ang ang ang ang ang ang ang ang	n han dia kang di sebagai sebag	1.00	en andaration de Las Ana-	de serve de la constanción	1.00	oomaaaaaa oo oo oo	1.00	1.00	entre nerve
Incremental Delay, d2		0.6			0.5			0.3		0.2	0.1	
Delay (s)	Here and a same	18.5	rointeanistraar	eren Arrowei often beste	18.4	staningan geranaan in		10.9		5.5	5.1	aga ayaa ahaa sa
Level of Service		Ь			B			В		A	A	
Approach Delay (s)	in in the second second second second	18.5	i	ng kanala kana kana kana	18.4	Sectore and the sector of the sector of the sector of the sector of the sector of the sector of the sector of t	anneachtaire	10.9			5.2	
Approach LOS		В			В		21-20-31-42) 21-20-31-42)	В			A	
Intersection Summary												
HCM Average Control D	elay		11.2	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.31									
Actuated Cycle Length (:	s)		52.5	S	um of lo	ost time	(s)		12.0			
Intersection Capacity Uti Analysis Period (min)	lization	:	53.4% 15	IC	CU Leve	l of Serv	/ice		A			

		$\rightarrow$	<b>*</b>		1	1			
Movement	EBT	EBR	WBL	WBT	NBL	NBR			
Lane Configurations	٨	*	ሻ	<b>†</b>	۲	7			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	feeting and a second second second second second second second second second second second second second second		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00			
Frt	1.00	0.85	1.00	1.00	1.00	0.85		ang pananang pananang pa	1997-9999-9999 1997-9999
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00			
Satd. Flow (prot)	1863	1583	1770	1863	1770	1583	alada yang sebagai kang sebagai k	a na ann an an Albert (1996).	0.00000000
Fit Permitted	1.00	1.00	0.95	1.00	0.95	1.00			
Satd. Flow (perm)	1863	1583	1770	1863	1770	1583			201000000 20100000
Volume (voh)	60	115	700	160	230	230			
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	a angka malakata palan karan kalake, karakat		
Adi, Flow (vph)	67	128	778	178	256	256			
RTOR Reduction (vph)	0	75	0	0	0	47			
Lane Group Flow (vph)	67	53	778	178	256	209			
Turn Type		pm+ov	Prot			custom			
Protected Phases	4	9	, i UL	8	2	23			
Permitted Phases		4				- 2			00000000
Actuated Green, G (s)	87	51.8	57.0	70.7	43 1	105 1			
Effective Green, a (s)	9.7	53.8	58.0	71.7	44.1	106.1			Constants)
Actuated d/C Ratio	0.07	0.41	0.45	0.55	0.34	0.82			
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0			-6-19-10-10-10-10-10-10-10-10-10-10-10-10-10-	109/2021-03
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0				
Lane Grp Cap (vph)	139	655	790	1028	600	1292			
v/s Ratio Prot	c0.04	0.03	c0 44	0 10	c0 14	013			
v/s Ratio Perm		0.01							01107631043
v/c Ratio	0.48	0.08	0.98	0.17	0.43	0.16			
Uniform Delay. d1	57.7	23.1	35.6	14.5	33.2	2.5			ndy (Subb
Progression Factor	1.00	1.00	0.27	0.13	1.02	4.37			
Incremental Delay. d2	2.6	0.1	6.6	0.0	2.1	0.1			terrent (vel)
Delay (s)	60.4	23.2	16.1	1.9	35.8	11.1			
Level of Service	E	Ĉ	В	A	D	B			viqi Seyid
Approach Delav (s)	35.9			13.5	23.5				
Approach LOS	D	en da peteraja	nder telster statet det ste	B	C				20000000000000000000000000000000000000
	-			-	-				
Intersection Summary	Valavi		10.0			val at Oam iss			
ICM Volume to Control L	velay	anosinoinen	19.2		IUIVI LO	Vel of Service		<b>D</b> Serverskonservers	ng ganar
Actuated Quela Lazath (		G., 10, 10, 40	10.72						Hereitet von
Actuated Cycle Length (	S)		130.0	5	um ot k	ost time (S)	18	). <b>Z</b>	a an an an an an an an an an an an an an
Intersection Capacity Ut	mzation		04.9%	K	U Leve	el of Service		V	
Analysis Period (min)		in an	15 15		and the second second second second second second second second second second second second second second secon				<u> Saissian</u> s
c Unitical Lane Group									

### HCM Signalized Intersection Capacity Analysis 30: Sears Lane & Southern Connector

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4		ሻ	<b>î</b> +		ሻ	4	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.89			0.97		1.00	0.98	ana an an an an an an an an an an an an	1.00	1.00	
Fit Protected		0.99			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	et e anti ta dan fat annan	1641	an a start to the start of the		1783		1770	1828		1770	1857	
Fit Permitted		0.94			0.89		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1551			1620		1770	1828		1770	1857	
Volume (vph)	5	0	25	45	60	25	85	430	60	10	790	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	6	0	28	50	67	28	94	478	67	11	878	17
RTOR Reduction (vph)	0	25	0	0	7	0	0	2	0	0	0	0
Lane Group Flow (vph)	0	9	0	0	138	0	94	543	0	11	895	0
Turn Type	Perm	entañ hitorea reacado		Perm			Prot			Prot		
Protected Phases		4			8		5	2	9.69.69.59.	1	6	
Permitted Phases	4			8								
Actuated Green, G (s)		14.8			14.8		11,1	90.8		3.2	82.9	
Effective Green, g (s)		15.8		No. A Science of A	15.8		12.1	91.8		4.2	83.9	
Actuated g/C Ratio		0.12			0.12		0.09	0.71		0.03	0.65	
Clearance Time (s)		5.0			5.0	sin manual sensitiva.	5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		189			197		165	1291		57	1198	
v/s Ratio Prot							c0.05	0.30		0.01	c0.48	
v/s Ratio Perm		0.01			c0.09							
v/c Ratio		0.05			0.70		0.57	0.42		0.19	0.75	
Uniform Delay, d1		50.5			54.8		56.5	8.0		61.2	15.8	
Progression Factor		1.00			1.08		0.95	1.18		1.30	0.20	
Incremental Delay, d2		0.1			10.6		4.1	0.9		0.8	2.0	
Delay (s)		50.6			69.8		57.4	10.3		80.2	5.1	
Level of Service		D			E		E	В	and the set of the second second	F	Α	
Approach Delay (s)		50.6			69.8			17.3			6.0	
Approach LOS		D			E			В			A	
Intersection Summary												
HCM Average Control D	elay		16.4	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.72									
Actuated Cycle Length (s	s)		130.0	S	um of lo	st time	(s)		18.2			
Intersection Capacity Uti	lization		72.5%	IC	CU Leve	l of Serv	/ice	6923622	C			
Analysis Period (min)			15									
c Critical Lane Group												

#### HCM Signalized Intersection Capacity Analysis 31: Flynn Avenue & Southern Connector

	۶		$\mathbf{F}$	4	<b></b>	×	•	1	1	<b>\</b>	ţ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			<b>4</b> ₽-		ሻ	î.		ኻ	<b>1</b>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	·
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.97			0.98		1.00	1.00		1.00	0.99	
Fit Protected		0.99			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1780			1808		1770	1860		1770	1843	
Flt Permitted		0.83			0.88		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1503			1601		1770	1860		1770	1843	
Volume (vph)	35	75	35	15	65	15	75	525	5	5	795	60
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	- 39	83	39	17	72	17	83	583	6	6	883	67
RTOR Reduction (vph)	0	9	0	0	5	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	152	0	0	101	0	83	589	0	6	949	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)		16.2			16.2		10.5	91.0		1.6	82.1	
Effective Green, g (s)		17.2			17.2		11.5	92.0		2.6	83.1	
Actuated g/C Ratio		0.13			0.13		0.09	0.71		0.02	0.64	
Clearance Time (s)	والمراجع والمراجع والمراجع والمراجع	5.0			5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		199			212		157	1316		35	1178	
v/s Ratio Prot							c0.05	0.32		0.00	c0.51	
v/s Ratio Perm	N1	c0.10			0.06						Nuturi 1. and tana barada	
v/c Ratio		0.77			0.48		0.53	0.45		0.17	0.81	
Uniform Delay, d1		54.5			52.2	wate las not ball with the	56.7	8.1	ularisti pinal manganang ka	62.6	17.4	en meret et el terret
Progression Factor		1.00			1.00		0.90	1.20		1.21	0.22	
Incremental Delay, d2		16.0		va sejekata atisa siyas	1.7	et mente data de cara d	2.8	1.0		1.6	4.1	697334.1.1247.1245
Delay (s)		70.4			53.9		54.0	10.7		77.6	8.0	
Level of Service		E Stranger gene		(kelet ellet bleck te ter	D	99951 W2509 (2015) (2016)	D	B	eren ander andere andere andere andere andere andere andere andere andere andere andere andere andere andere a Einer andere andere andere andere andere andere andere andere andere andere andere andere andere andere andere a	E	A	una da anti-
Approach Delay (s)		70.4			53.9			16.1			8.4	
Approach LOS		E			D			В			A	
Intersection Summary												
HCM Average Control D	elay	aliinealiinealiinealiine	19.0	H	CM Lev	el of Se	rvice		В	alaa ha baala ta	Same and the statement of	onn tainneilten 17
HCM Volume to Capacit	y ratio		0.77	20102200.0								
Actuated Cycle Length (	S)	ika organizati wa wita wa	130.0	S	um of lo	ost time	(S)		18.2	ana mana ar maine ar s	an wanyo shariki mwaka shi shi	
Intersection Capacity Uti	lization		74.8%	IC	CU Leve	el of Sen	/ice		D			
Analysis Period (min)	n (se se  nayahajan waxaana	15	y gyt gest og en en ek dere	e tre direkt positive da se sta	والمعرفة والمعرفة والمعرفة والمعر	وي من من من من من من من من من من من من من		an an an an an an an an an an an an an a		en en en en en en en en en en en en en e	na da publica dal nom	
c Critical Lane Group												

#### HCM Signalized Intersection Capacity Analysis 27: Home Avenue & Southern Connector

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<del>4</del>	۴		4.		٣	ĥ		ሻ	î.	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00		1.00	1.00		1.00	1.00	
Frt		1.00	0.85		0.99		1.00	0.99		1.00	0.99	hann ei bul na anns
Flt Protected		0.98	1.00		0.96		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1826	1583		1768		1770	1841		1770	1846	
Fit Permitted		0.86	1.00		0.42		0.95	1.00		0.95	1.00	sidalari era ist Sidalari era dal
Satd. Flow (perm)		1603	1583		764		1770	1841		1770	1846	and for the former of the
Volume (vph)	60	90	115	50	5	5	160	540	45	5	790	50
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	67	100	128	56	6	6	178	600	50	6	878	56
RTOR Reduction (vph)	0	0	83	0	3	0	0	2	0	0	1	0
Lane Group Flow (vph)	0	167	45	0	65	0	178	649	0	6	933	0
Turn Type	Perm		Perm	Perm			Prot			Prot		
Protected Phases		4			8		5	2		8 (2 ( <b>)</b>	6	
Permitted Phases	4	ale construction de la construction de la construction de la construction de la construction de la construction	4	8	an nangana Guar	*****			-988-888-98-98-98-98-98-98-98-98-98-98-9		erren en  caanaa (1101) (1705	
Actuated Green, G (s)		17.2	17.2		17.2		17.8	90.0		1.6	73.8	
Effective Green, g (s)		18.2	18.2		18.2		18.8	91.0		2.6	74.8	
Actuated g/C Ratio		0.14	0.14		0.14		0.14	0.70		0.02	0.58	
Clearance Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	- 22 - 27 - 27 - 27 - 27 - 27 - 27 - 27
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		224	222	*****	107		256	1289		35	1062	
v/s Ratio Prot							c0.10	0.35		0.00	c0.51	
v/s Ratio Perm		c0.10	0.03		0.09		449764-44976 1		(barra)=barradab+aarah-	an di si su si si si si si si si si si si si si si		
v/c Ratio	rosi od pod Nasla Rosa da	0.75	0.20		0.61		0.70	0.50		0.17	0.88	en and an an an an an an an an an an an an an
Uniform Delay, d1		53.7	49.5		52.6	be-belore-tworth	52.9	9.0	nije na posložna na se na jezi se s	62.6	23.7	
Progression Factor		1.00	1.00		1.00		1.00	1.00		1.33	0.41	
Incremental Delay, d2	- 1979 - 1979 - 1979 - 1979	12.6	0.5		9.9	300 (400 (), Million (1990)	7.9	1.4	ni de la traccierte dituaran	1.4	6.5	saka karta ar tirkasa yar
Delay (s)		66.3	50.0		62.5	Ś. s. s. s.	60.8	10.4		84.6	16.2	
Level of Service	,	E	D	يېل (مېرلىمىمار يېزىم اور مەراپىيە	Ε		E	В		F	В	and the state of the
Approach Delay (s)		59.2			62.5			21.3			16.7	
Approach LOS		E			E	······································		С			В	9,1 maggap angar
Intersection Summary												
HCM Average Control D	elay		25.8	Н	CM Lev	el of Se	rvice		С			
HCM Volume to Capacit	y ratio		0.83									
Actuated Cycle Length (s	5)		130.0	S	um of lo	ost time	(s)		18.2			
Intersection Capacity Uti	lization		73.5%	i	CU Leve	l of Ser	vice		D			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			¢.,			<del>4</del> 0-	
Sign Control		Stop			Stop	teringen der selet. Stander der selet.		Stop			Stop	
Volume (vph)	5	100	50	25	105	25	10	160	35	10	150	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	111	56	28	117	28	11	178	39	11	167	6
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	172	172	228	183								
Volume Left (vph)	6	28	11	1								
Volume Right (vph)	56	28	39	6				*******				An an an an an an an an an an an an an an
Hadj (s)	-0.15	-0.03	-0.06	0.03								
Departure Headway (s)	5.1	5.2	5.0	5.2								
Degree Utilization, x	0.24	0.25	0.32	0.26							nin nyi tan 19 Kanadan	
Capacity (veh/h)	642	630	666	639						1999-9999 - 1999-9999 - 1999 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 -		
Control Delay (s)	9.7	9.9	10.3	10.0								
Approach Delay (s)	9.7	9.9	10.3	10.0				anganaan oo ay ay ay ay ay				a da kana kana kana kana kana kana kana
Approach LOS	Α	A	В	В								
Intersection Summary												
Delay	54 (S-6) (		10.0			<u> </u>						
HCM Level of Service			В	1999 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -							(	
Intersection Capacity Uti	lization		39.2%	10	CU Leve	el of Sen	vice		A			
Analysis Period (min)		· · · · · · · · · · · · · · · · · · ·	15	1 million 1997 (1997) 1 million - Santa Santa Santa Santa Santa Santa Santa Santa Santa Santa Santa Santa Santa				39900000000000000000000000000000000000	1944 - Andrea Alline Angles (g			er egenere en grandet ditte
					ú se se se						9949949949	

	٨		$\rightarrow$	1	4	•	1	1	1	<b>\</b>	Ļ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		¢‡,			4			4			đ.	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	35	50	55	125	5	55	195	40	10	210	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	39	56	61	139	6	61	217	44	11	233	6
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	100	206	322	250								
Volume Left (vph)	6	61	61	11								
Volume Right (vph)	56	6	44	6			a (ana ang pangan)	ann an an Annais an A	- 1997 - 1	an a la ser d'anna anna an a'	ended for til en verskilt te til	
Hadj (s)	-0.29	0.08	-0.01	0.03								
Departure Headway (s)	5.5	5.7	5.2	5.3								27) (22) (22) 27) (22) (22)
Degree Utilization, x	0.15	0.32	0.46	0.37				idayi ingiri dagiri Ta'ini dagiri dagiri d				
Capacity (veh/h)	562	577	651	632								and success that a set
Control Delay (s)	9.5	11.4	12.6	11.4							2 B B B	
Approach Delay (s)	9.5	11.4	12.6	11.4							nu 4.000000000000000000000000000000000000	
Approach LOS	A	В	B	В								
Intersection Summary							5 (SU)	(New Street				
Delay			11.6									
HCM Level of Service			В								(1990)	n digin yin distanti
Intersection Capacity Uti	lization		54.2%	IC	CU Leve	l of Sen	vice		Α			
Analysis Period (min)			15			anne an an an an an an an an an an an an an	a da matana arawa (kara)	e y en granden og skansk skansk skalende der		e te restant fan út sjúferni		and a second second second second second second second second second second second second second second second

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			44			4	Angeler and a second second second second second second second second second second second second second second
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	20	120	0	10	20	115	5	50	15	145	20	15
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	22	133	0	11	22	128	6	56	17	161	22	17
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	156	161	78	200								
Volume Left (vph)	22	11	6	161								
Volume Right (vph)	0	128	17	17								100000000000000000000000000000000000000
Hadj (s)	0.06	-0.43	-0.08	0.15								
Departure Headway (s)	4.9	4.4	4.9	4.9								
Degree Utilization, x	0.21	0.20	0.10	0.27								
Capacity (veh/h)	688	760	678	686								
Control Delay (s)	9.2	8.5	8.4	9.7								
Approach Delay (s)	9.2	8.5	8.4	9.7								
Approach LOS	Α	A	Α	A								
Intersection Summary												
Delay			9.1									
HCM Level of Service			Α									
Intersection Capacity Uti	lization		35.7%	](	CU Leve	l of Ser	vice		A			
Analysis Period (min)			15									
									ele del terre dalle Contenente del contenente			

HCM Unsignalized Intersection Capacity Analysis 11: Howard Street & Pine Street

	٦		$\mathbf{i}$	¥		×.	1	Ť	1	×	Ļ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$			4			4			4	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	5	5	15	50	5	40	20	740	30	25	1205	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	6	17	56	6	44	22	822	33	28	1339	6
Pedestrians	oktolookilette.					delerentizatet egetetetetetetetetetetetetetetetetet	shietoasaaa			alansanaanis	kodarijsko obelobi	Additional and a second second second second second second second second second second second second second se
Lane wigin (ii)			90 (O. 1996) (O. 1996)									
Percent Blockage										Selander dar		
Right turn flare (veh)												
Median type		None			None							
Median storage veh)	an de personant de la company de la company de la company de la company de la company de la company de la comp		ileneri eleritettette			inalian taka takat	anta ing pangang panga Pangang pangang	anga daga kaga da	enti de Herioria (de 1999)			
Upstream signal (ft)											1247	
pX, platoon unblocked	0.84	0.84	0.84	0.84	0.84		0.84			1999) - Anna Sant Sadanna (m. 1997) 1997 - Anna Sant Sadanna (m. 1997)	a na faran ya na	- 0414-1970 (PC-1940) (PC-1940) (PC-1940) (PC-1940) (PC-1940) (PC-1940) (PC-1940) (PC-1940) (PC-1940) (PC-1940)
vC, conflicting volume	2328	2297	1342	2300	2283	839	1344			856		
vC1, stage 1 conf vol					and a facility and a function of the			ana ang ang ang ang ang ang ang ang ang				
vC2, stage 2 conf vol												
vCu, unblocked vol	2576	2539	1405	2543	2523	839	1409		timined rimetedait	856	ti as fot ino por in gias (eng	mengan anangaa.
tC, single (s)	7.1	6.5	6.2	7,1	6.5	6.2	4.1			4.1		
	<u>о с</u>	10	<u></u>	οe	10	22	20			<u></u>		
n (s)	0.0 42	4.0 73		0.0 ∩	4.0 74	0.0 88	65 05			2.2 96		
cM capacity (veh/h)	10	21	144	10	21	366	408			784		
Direction Lane #	FB 1	WR1	NR 1	SR 1								
Volume Total	28	106	878	1372								
Volume Left	6	56	22	28								
Volume Right	17	44	33	6								
cSH	29	18	408	784		tie teed te performante (1993) o	ana de asserta da batella se					al ang ang alat sa garang sa
Volume to Capacity	0.97	5.90	0.05	0.04								
Queue Length 95th (ft)	79	Err	4	3								
Control Delay (s)	355.8	Err	1.9	1.8								
Lane LOS	F	F	A	A		ocanites casaras			tis and the second statements	unnaitheach staire	energen ander en en en en en en en en en en en en en	kan salah sa sa sa sa sa sa sa sa sa sa sa sa sa
Approach LOS	355.8 F	Err F	1.9	1.8								
Intersection Summary												
Average Delay			448.7									
Intersection Capacity Ut	ilization		94.1%	IC	CU Leve	l of Serv	<i>i</i> ice		F	an dan Kolobe Singarah dan		
Analysis Period (min)	· · · · · · · · · · · · · · · · · · ·		15									



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Movement	WBL	WBR	NBT	NBR	SBL	SBT				
Lane Configurations	¥		ţ,			4				
Sign Control	Stop		Free			Free				
Grade	0%		0%			0%				
Volume (veh/h)	65	80	695	20	75	1165				
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				
Hourly flow rate (vph)	72	89	772	22	83	1294				
Pedestrians		a dan da sé at tanan tanan da t		. A start from state						
Lane Width (ft)										
Walking Speed (ft/s)					- i i					
Percent Blockage										
Right turn flare (veh)		tak kalendar kalendar		nyegeri yagata a tayla yagata	an an an an an an an an an an an an an a	an an ing ang ana sa a		na antina se inclusiones de alta a	gaalaad y daalaa daalaada	
Median type	None									
Median storage ven)						esetti derdyytetetete	n han dia kang dia kang dia kang dia kang dia kang dia kang dia kang dia kang dia kang dia kang dia kang dia ka		olitteletter bereiter atter	wysoi weisiadaa
Upstream signal (II)	<u>^ ^ 4</u>	0.04	<b>6</b> 11		0.04					
px, platoon unblocked	0.84	0.84			0.84					
vo, connicting volume	2244	/83			/94					
vC1, stage 1 com vol					a kata kata			al Malad Arm Manga a path		
VCz, stage z com vol	2/01	7/0			755				CARA AND	
tC single (s)	64	62		ing ing ing ing ing ing ing ing ing ing	/ J J					
tC, 2 stage (s)					<b></b>					
tE (s)	3.5	33			22					
p0 queue free %	0.0	75			88		indiana di secondri addi se da angena			
cM capacity (veh/h)	24	349			719				iden iden iden delse i serie. Constant delse i series delse i series delse i series delse i series delse i series delse i series delse i serie	laturio de la company
Direction Lane #	WB 1	NR 1	SB 1							
Volume Total	161	794	1378							
Volume Left	72	0	83							
Volume Right	89	22	Ō			de contidentation Sectores de contractor				
cSH	50	1700	719	enselve web dette date	::::::::::::::::::::::::::::::::::::::	004499890000009999999999				
Volume to Capacity	3.23	0.47	0.12							
Queue Length 95th (ft)	Err	0	10				terestitiertere odelenti Stremese Factor		eend eestimate onte politikalise	ana wasan na malaka ilay
Control Delay (s)	Err	0.0	5.5							
Lane LOS	F		А		en y annen ein dein bir ei			ere en en en tre Sterio erjoù		
Approach Delay (s)	Err	0.0	5.5							
Approach LOS	F									
Intersection Summary										
Average Delay			693.7							
Intersection Capacity UI	tilization	1	21.8%	IC	U Leve	l of Servie	<b>)e</b>	Н		
Analysis Period (min)			15							

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Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations	Y		ţ,			<del>ل</del> اً ا			
Sign Control	Stop		Free			Free			
Grade	0%		0%			0%			
Volume (veh/h)	60	55	425	30	60	325			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90			
Hourly flow rate (vph)	67	61	472	33	67	361			
Pedestrians									
Lane Width (ft)									
Walking Speed (ft/s)									
Percent Blockage									
Right turn flare (veh)	-2-12-12-12-12-12-12-12-12-12-12-12-12-1	uski ogski raski gata.					n waxa a ta sa sa ta sa sa ta s		
Median type	None			Source of the					
Median storage veh)	ang ang ang ang ang ang ang ang ang ang	ngwasaaaaaaaa	an an an an an an an an an an an an an a	le contrato da come		an an an an an an an an an an an an an a	and and the state of the second	and the second states of the	
Upstream signal (It)						667			
pX, platoon unblocked	0.88	ar in the set			ر مەرەرى <u>مەر يەرە</u> باردۇرى باردۇرى باردۇرى باردۇرى باردۇرى باردۇرى باردۇرى بىرى بىرى بىرى باردۇرى باردۇرى باردۇرى		eg (rysserver alless in Densily rakes 1944	an kalina girya inta kali	<ul> <li>Albert Albert A Albert Albert Alb Albert Albert Albe</li></ul>
vC, conflicting volume	983	489			506				
vC1, stage 1 cont vol	á / dzőriebliszciótada	yah dagi kaga kafunt	9880-100-100-100-100-100-100-100-100-100-		Herricker i Antonia		u ayayo yanayo wakata ayaa ya k	والمعارية والمعارية وإراحته والمعارية	alges velger og gebravel, ett far sta
VC2, stage 2 cont vol		400							
VCU, UNDIOCKED VOI	981	489		ling kalang kang dan	506	Sanada da da sector da	A A DE ROBRIDA DA MARINA	dalarin dalama	ana ana ang ang ang ang ang ang ang ang
tC, single (s)	6,4	6.2			4,1				
(0, 2  staye(s))	്രം				00				
rr (s) n0 augus frag %	0.0 71	3.3 00			2.2				
pu queue free 76	207	09 670		isken kang	94 1050			kiinedan distanti optin dadad	
	<i>221</i>	0/9			1033				
Direction, Lane #	WB1	NB 1	SB 1						
Volume I otal	128	506	428						
	6/ 62	0	6/				inisi sense juntana		
	000	1700	1050						
uon Valuese ta Casasitu	320	1700	1059					500000000000000000000000000000000000000	
	0.40	0.30	U.UD						
Queue Lengin 93in (II)	40 20 E	0	с 1 о						
		0.0	۲.9 ۸						
Lang LUO Approach Dolou (a)	ີ່ຈາວເຂ	<u>^</u>	א 1 ח			in distance in the second			i gi kana kana kana kana kana kana kana kan
Approach LOS	23.3 C	0.0							
hppivauli LVU	<u> </u>								
Intersection Summary			_						
Average Delay	<u>i de</u> ta en el cardo en el c	servet a constant of the	3.6	000000000000000000000000000000000000000	والمتحدث والمتحقي والتقرير والمح	ala da <u>antaza</u> desardente de terre	an an an an an an an an an an an an an a	and a substitution of a substitution	
Intersection Capacity Ut	ilization		61.3%	IC	U Leve	l of Service		B	
Analysis Period (min)			15						

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Movement	EBL	EBR	NBL	NBT	SBT	SBR						
Lane Configurations	¥			<del>ب</del> اً	ţ,							
Sign Control	Stop			Free	Free							
Grade	0%			0%	0%							
Volume (veh/h)	60	10	70	400	325	60						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90						
Hourly flow rate (vph)	67	11	78	444	361	67						
Pedestrians	e tet statue og til sets som					a na ana ang ang ang ang ang ang ang ang						
Lane Width (ft)												
Walking Speed (ft/s)	nisinini an asiste	aterites (a second free		11	a - an an an an an an an							
Percent Blockage												
Right turn flare (veh)			(yang pela jalan serien di y	a an an an an an an an an an an an an an								
Median type	None											
Median storage ven)	inisina ang sana	SMARASAANANA	nico astronastas	i i <b>na ana</b> ana								
Upstream signal (II)	A AA	A AA	A AA	1089	959							
px, platoon unblocked	0.92	0.92	0.92									
vC, connicuity volume	994	394	428									
vC1, stage 7 conf vol												
vCu, unblocked vol	004	343	270									
tC single (s)	534 64	62	41									
tC 2 stage (s)				ango ango APPANTA	n de Angelei (de Angelei ( Angelei (de Angelei (de							
1F (s)	35	33	22									
p0 queue free %	71	98	93	a beyek ja ja fa da	) esta (de la faladada de la composición de la composición de la composición de la composición de la composición Esta de la composición de la composición de la composición de la composición de la composición de la composición							
cM capacity (veh/h)	232	645	1087	n light ann a' gur bri gar An San an San Anna an San Anna an San Anna an San Anna an San Anna an San Anna Anna								
Direction Lane #	FR 1	NR 1	SR 1									
Volume Total	78	522	428									
Volume Left	67	78	0									
Volume Right	11	Ō	67		unije in state i State state state							
cSH	256	1087	1700									
Volume to Capacity	0.30	0.07	0.25									
Queue Length 95th (ft)	31	6	0	en onder en en en der under								
Control Delay (s)	25.1	2.0	0.0									
Lane LOS	D	Α										
Approach Delay (s)	25.1	2.0	0.0									
Approach LOS	D											
Intersection Summary												
Average Delay			2.9									
Intersection Capacity Ut	ilization		59.6%	IC	U Leve	el of Service B						
Analysis Period (min)			15			an an an an an an an an an an an an an a						
	٨		$\mathbf{F}$	1			1	t	1	\$	Ļ	4
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	<b>1</b> 4		ሻ	î,			44			44	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	12	11	11	14	14	14	11	11	11
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.98		1.00	0.99			0.97			0.97	
Flt Protected	0.95	1.00		0.95	1.00			1.00			0.99	
Satd. Flow (prot)	1711	1833		1770	1785			1925			1729	
Fit Permitted	0.25	1.00		0.32	1.00			0.96			0.83	
Satd. Flow (perm)	449	1833		603	1785			1860			1456	
Volume (vph)	45	335	40	35	405	25	25	265	75	80	170	65
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	50	372	44	39	450	28	28	294	83	89	189	72
RTOR Reduction (vph)	0	7	0	0	3	0	0	7	0	0	7	0
Lane Group Flow (vph)	50	409	0	39	475	0	0	398	0	0	343	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	un 990.0000000000
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	20.1	20.1		20.1	20.1			25.9			25.9	
Effective Green, g (s)	21.1	21.1		21.1	21.1			26.9			26.9	
Actuated g/C Ratio	0.35	0.35		0.35	0.35	,		0.44			0.44	
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	156	636		209	619			823			644	
v/s Ratio Prot		0.22			c0.27						1, 10, 10, 1, 10, 10, 10, 10, 10, 10, 10	- ; · · · · ? ; · * · · · · · · · ; · ; =
v/s Ratio Perm	0.11			0.06				0.21			c0.24	
v/c Ratio	0.32	0.64		0.19	0.77			0.48			0.53	
Uniform Delay, d1	14.6	16.7		13.9	17.7			12.0			12.4	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	1.2	2.2		0.4	5.7			0.4			0.8	
Delay (s)	15.8	18.9		14.3	23.3			12.5			13.2	
Level of Service	В	В		В	C			В			В	
Approach Delay (s)		18.6			22.6			12.5			13.2	
Approach LOS		B			С			В			B	
Intersection Summary												
HCM Average Control D	elay		17.3	H	CM Lev	el of Sei	rvice		В			
HCM Volume to Capacit	y ratio		0.58	1999-001 (MADAWANA)	, met an en	a entre marte en artiste			a na sana sa			an e Med Arbed Arb
Actuated Cycle Length (s	s)		60.8	S	um of lo	st time (	S)		8.0			
Intersection Capacity Uti	lization	7	79.7%	IC	CU Leve	l of Serv	rice		D		araa Waxaa Doolooyo	an shartairi
Analysis Period (min)			15					n digi kata data ya Kata di kata disarati				

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	٢	¥			14		ሻ	4				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	10	10	16	16	16	10	11	11	12	12	12
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0				
Lane Util. Factor	1.00	1.00		1 (1997) (1999) (1997)	1.00		1.00	1.00				
Frt	1.00	1.00			0.98		1.00	0.95				
Fit Protected	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (prot)	1888	1739			1869	gi ani invi apri Gali invi	1652	1719				
Flt Permitted	0.31	1.00			1.00		0.95	1.00				
Satd. Flow (perm)	625	1739			1869		1652	1719				
Volume (vph)	20	335	0	0	435	60	110	195	85	0	0	0
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	22	372	0	0	483	67	122	217	94	0	0	0
RTOR Reduction (vph)	0	0	0	0	7	0	0	15	0	0	0	0
Lane Group Flow (vph)	22	372	0	0	543	0	122	296	0	0	0	0
Parking (#/hr)				0	0	0						
Turn Type	Perm						Perm				****	
Protected Phases		2			6			8				
Permitted Phases	2						8					Anton - Anton - Anton
Actuated Green, G (s)	20.7	20.7			20.7		13.2	13.2				
Effective Green, g (s)	21.7	21.7			21.7		14.2	14.2				
Actuated g/C Ratio	0.47	0.47			0.47		0.31	0.31				
Clearance Time (s)	5.0	5.0			5.0		5.0	5.0				
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0				
Lane Grp Cap (vph)	293	815			876		507	527				
v/s Ratio Prot		0.21			c0.29			c0.17				
v/s Ratio Perm	0.04				1917-1917-1997-1997-1997-1997-1997-1997		0.07			1977 - Charles Marine, 1979 - 19	0-14001404-04004	1999-0999-0999-0994 1999-099-0999-099-099-099-099-099-099-09
v/c Ratio	0.08	0.46			0.62		0.24	0.56				
Uniform Delay, d1	6.8	8.3			9.2		12.0	13.4			1999 B. Statistic Classics -	
Progression Factor	1.00	1.00			1.00		1.00	1.00				
Incremental Delay, d2	0.1	0.4			1.3		0.2	1.4				
Delay (s)	6.9	8.7			10.5		12.3	14.8				
Level of Service	А	А			В		В	В				
Approach Delay (s)		8.6			10.5			14.1			0.0	
Approach LOS		А			В			В			Α	
Intersection Summary												
HCM Average Control D	elay		11.1	H	CM Lev	el of Sei	rvice		В			
HCM Volume to Capacity	/ ratio		0.56					9/00/00-Exp				
Actuated Cycle Length (s	s)		46.3	Su	um of lo	st time (	s)		8.0			
Intersection Capacity Util	ization	4	18.6%	IC	U Leve	l of Serv	ice		A			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	<b>1</b> ,		٢	¥	7		<u>.</u>		٢	<b>A</b>	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	11	11	12	12	12	10	10	12
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0		4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85		0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.98		0.95	1.00	1.00
Satd. Flow (prot)	1540	1669		1711	1801	1531		1623		1652	1739	1583
Flt Permitted	0.48	1.00		0.63	1.00	1.00		0.83		0.72	1.00	1.00
Satd. Flow (perm)	783	1669		1138	1801	1531		1371		1258	1739	1583
Volume (vph)	30	175	5	45	295	115	15	25	5	100	250	50
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	33	194	6	50	328	128	17	28	6	111	278	56
RTOR Reduction (vph)	0	1	0	0	0	76	0	5	0	0	0	37
Lane Group Flow (vph)	33	199	0	50	328	52	0	46	0	111	278	19
Parking (#/hr)	0	0	0				0	0	0			
Turn Type	Perm			Perm		Perm	Perm		,	om+pt		Perm
Protected Phases		2			6			8		7	4	
Permitted Phases	2			6		6	8	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	n ha shekiri da ba da sa t	4		4
Actuated Green, G (s)	18.9	18.9		19.6	19.6	19.6		8.9		16.3	16.3	16.3
Effective Green, g (s)	19.9	19.9		20.6	20.6	20.6		9.9	ja na kanya mana wakani ka	17.3	17.3	17.3
Actuated g/C Ratio	0.39	0.39		0.40	0.40	0.40		0.19		0.34	0.34	0.34
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0		5.0	1	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0		3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	305	650		459	726	617		266		452	589	536
v/s Ratio Prot		0.12			c0.18		landa adalah katalah Mala manakataka			0.02	c0.16	rainige delle al Recta accentication
v/s Ratio Perm	0.04			0.04		0.03	******	0.03	00000000000000000000000000000000000000	0.07		0.01
v/c Ratio	0.11	0.31		0.11	0.45	0.08		0.17		0.25	0.47	0.04
Uniform Delay, d1	9.9	10.8		9.5	11.1	9.4	an die uit weer die die die die die die die die die die	17.2		12.3	13.3	11.3
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00
Incremental Delay, d2	0.2	0.3		0.1	0.4	0.1	11241.2124 - Frank Frank	0.3		0.3	0.6	0.0
Delay (s)	10.1	11,1		9.6	11.6	9.5		17.5		12.5	13.9	11.3
Level of Service	В	В		Α	В	А		В		В	В	В
Approach Delay (s)		10.9			10.9			17.5			13.2	
Approach LOS		В			В			В			В	
Intersection Summary												
HCM Average Control D	elay		12.0	ł	ICM Lev	el of Se	ervice		В			
HCM Volume to Capacity	y ratio		0.41									
Actuated Cycle Length (s	s)		51.1	S	Sum of Ic	ost time	(s)		8.0		aan ay saaraa taabada ta	
Intersection Capacity Uti	lization	4	17.3%	1(	CU Leve	l of Ser	vice		A			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		ৰ	7	٢	4			র	7	ሻ	<b>1</b> 4	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	12	12	16	12	12	12
Total Lost time (s)		4.0	4.0	4.0	4.0			4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	
Frt		1.00	0.85	1.00	0.97			1.00	0.85	1.00	0.98	
Flt Protected		1.00	1.00	0.95	1.00			0.99	1.00	0.95	1.00	
Satd. Flow (prot)		1736	1478	1486	1516			1836	1794	1593	1833	
Flt Permitted		0.99	1.00	0.64	1.00	·		0.90	1.00	0.63	1.00	
Satd. Flow (perm)		1713	1478	1009	1516			1680	1794	1049	1833	
Volume (vph)	5	155	45	20	245	65	55	135	25	20	45	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	6	172	50	22	272	72	61	150	28	22	50	6
RTOR Reduction (vph)	0	0	32	0	13	0	0	0	13	0	4	0
Lane Group Flow (vph)	0	178	18	22	331	0	0	211	15	22	52	Ó
Parking (#/hr)			9.6.6.6	0	0	0	0			0		
Turn Type	Perm		Perm	Perm			Perm		Perm	Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6			8		8	4		
Actuated Green, G (s)		13.9	13.9	13.9	13.9			12.3	12.3	12.3	12.3	
Effective Green, g (s)		14.9	14.9	14.9	14.9			13.3	13.3	13.3	13.3	
Actuated g/C Ratio		0.36	0.36	0.36	0.36			0.32	0.32	0.32	0.32	
Clearance Time (s)		5.0	5.0	5.0	5.0			5.0	5.0	5.0	5.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0			3.0	3.0	3,0	3.0	
Lane Grp Cap (vph)		620	535	365	548			542	579	339	592	
v/s Ratio Prot					c0.22						0.03	
v/s Ratio Perm		0.10	0.01	0.02				c0.13	0.01	0.02		
v/c Ratio		0.29	0.03	0.06	0.60			0.39	0.03	0.06	0.09	
Uniform Delay, d1		9.4	8.5	8.6	10.7			10.8	9.5	9.6	9.7	
Progression Factor		1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.3	0.0	0.1	1.9			0.5	0.0	0.1	0.1	
Delay (s)		9.6	8.5	8.7	12.6			11.3	9.5	9.7	9.8	
Level of Service		A	Α	A	В			В	Α	А	Α	
Approach Delay (s)		9.4			12.4			11.1			9.8	
Approach LOS		Α			В			В			А	
Intersection Summary												
HCM Average Control D	elay	anga dipananatanjan da	11.1	<b></b>	ICM Lev	el of Sei	vice		В			
HCM Volume to Capacity	v ratio		0.43								1920 (SQ 1922)	
Actuated Cycle Length (s	5) Alimpania		41.2	S	ium of Ic	ost time (	s)	a an an an an an an an an an an an an an	8.0	a sa	والمحمد والمحمول والمروان	epinoja esta constante en
intersection Capacity Util	Ization		40.3%		JU Leve	i of Serv	ice	i të gastë i	A	A. S. S. S		
Analysis Period (min)			15	a an an an an an an an an an an an an an	in madeirochte	sere a facete à content	san dasar sestima a	ano anto entre an			ta Agong Janga pagawa	a deservation and
c Critical Lane Group												



## HCM Signalized Intersection Capacity Analysis 20: Howard Street & South Winooski Ave

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Movement	EBL2	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR2	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	14	14	14	12	12	12	16	16	16
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.98			0.98			1.00			0.99	
Fit Protected		0.99			0.99			1.00			1.00	
Satd. Flow (prot)		1792			1923			1854			2094	
Flt Permitted		0.93			0.96			0.99			0.98	
Satd. Flow (perm)		1690			1864			1833			2065	
Volume (vph)	15	30	10	5	20	5	15	305	5	5	110	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	33	11	6	22	6	17	339	6	6	122	6
RTOR Reduction (vph)	0	9	0	0	0	0	0	1	0	0	2	0
Lane Group Flow (vph)	0	52	0	0	34	0	0	361	0	0	132	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		3			3			2			6	
Permitted Phases	3			3			2	2		6	6	
Actuated Green, G (s)		15.0			15.0			30.0			30.0	
Effective Green, g (s)		16.0			16.0			31.0			31.0	
Actuated g/C Ratio		0.20			0.20			0.39			0.39	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Lane Grp Cap (vph)		338			373			710			800	
v/s Ratio Prot												
v/s Ratio Perm		c0.03			0.02			c0.20			0.06	
v/c Ratio		0.15			0.09			0.51			0.17	
Uniform Delay, d1		26.4			26.1			18.7			16.0	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.0			0.5			2.6			0.4	
Delay (s)		27.4			26.6			21.3			16.5	
Level of Service		С			С			С			В	
Approach Delay (s)		27.4			26.6			21.3			16.5	
Approach LOS		С			С			С			В	
Intersection Summary												
HCM Average Control D	elay		23.3	Н	CM Lev	el of Se	rvice		С			
HCM Volume to Capacit	y ratio		0.42									
Actuated Cycle Length (s	s)		80.0	S	um of Ic	ost time	(s)		12.0			
Intersection Capacity Uti	lization	ļ	50.9%	IC	CU Leve	l of Serv	/ice		A			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	SWL2	SWL	SWR	SWR2
Lane Configurations	ሻ	î,f		
Ideal Flow (vphpl)	1900	1900	1900	1900
Lane Width	14	14	14	14
Total Lost time (s)	4.0	4.0		
Lane Util. Factor	1.00	1.00		
Frt	1.00	0.98		
Flt Protected	0.95	0.96		
Satd. Flow (prot)	1888	1870		
Flt Permitted	0.95	0.96		
Satd. Flow (perm)	1888	1870		
Volume (vph)	5	195	20	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90
Adj. Flow (vph)	6	217	22	6
RTOR Reduction (vph)	0	1	0	0
Lane Group Flow (vph)	6	244	0	0
Turn Type	Split			
Protected Phases	4	4		
Permitted Phases				
Actuated Green, G (s)	20.0	20.0		
Effective Green, g (s)	21.0	21.0		
Actuated g/C Ratio	0.26	0.26		
Clearance Time (s)	5.0	5.0		
Lane Grp Cap (vph)	496	491		
v/s Ratio Prot	0.00	c0.13		
v/s Ratio Perm				
v/c Ratio	0.01	0.50		
Uniform Delay, d1	21.8	25.0		
Progression Factor	1.00	1.00		
Incremental Delay, d2	0.0	3.6		
Delay (s)	21.9	28.6		
Level of Service	С	С		
Approach Delay (s)		28.4		
Approach LOS		С		
Intersection Summary				

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		र्भ	*		र्भ	7	ሻ	<b>†</b> Ъ		ኘ	<b>4</b> ↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	0.99	
Fit Protected		0.96	1.00		0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1795	1583		1828	1583	1770	3536		1770	3507	
Fit Permitted		0.75	1.00		0.86	1.00	0.30	1.00		0.30	1.00	
Satd. Flow (perm)		1397	1583		1593	1583	568	3536		561	3507	
Volume (vph)	60	20	105	15	25	15	110	850	5	10	620	40
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	67	22	117	17	28	17	122	944	6	11	689	44
RTOR Reduction (vph)	0	0	103	0	0	15	0	1	0	0	5	0
Lane Group Flow (vph)	0	89	14	0	45	2	122	949	0	11	728	0
Turn Type	Perm		Perm	Perm		Perm	pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)		6.9	6.9		6.9	6.9	41.6	41.6		32.2	32.2	
Effective Green, g (s)		6.9	6.9		6.9	6.9	41.6	41.6		32.2	32.2	
Actuated g/C Ratio		0.12	0.12		0.12	0.12	0.74	0.74		0.57	0.57	
Clearance Time (s)		4.0	4.0		4.0	4.0	3.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0	an de contra	3.0	3.0	
Lane Grp Cap (vph)		171	193		195	193	533	2603		320	1999	
v/s Ratio Prot							0.02	c0.27			0.21	
v/s Ratio Perm		c0.06	0.01		0.03	0.00	0.15			0.02		
v/c Ratio		0.52	0.07		0.23	0.01	0.23	0.36		0.03	0.36	
Uniform Delay, d1		23.2	22.0		22.4	21.8	2.6	2.7		5.3	6.6	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		2.8	0.2		0.6	0.0	0.2	0.1		0.0	0.1	
Delay (s)		26,1	22.1		23.0	21.8	2.8	2.8		5.4	6.7	
Level of Service	a na bina na batang mat	С	С		С	С	Α	Α		А	Α	
Approach Delay (s)		23.8			22.7			2.8			6.7	
Approach LOS		С			С			А			А	
Intersection Summary												
HCM Average Control D	elay		6.8	Н	ICM Lev	el of S	ervice		А			
HCM Volume to Capacit	y ratio		0.39									
Actuated Cycle Length (	5)		56.5	S	um of k	ost time	(s)		8.0			
Intersection Capacity Uti	lization		51.4%	10	SU Leve	of Sei	rvice		A			074964046
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		র্ম	7	ሻ	î.≱		ሻ	ተኈ		٣	<u></u>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	10	12	16	12	10	10	10	10	10	10
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	0.95		1.00	0.95	
Frt		1.00	0.85	1.00	0.90		1.00	1.00		1.00	0.99	
Flt Protected		0.96	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1728	1478	1770	1906		1652	3299		1652	3268	
Flt Permitted		0.75	1.00	0.71	1.00		0.31	1.00		0.95	1.00	
Satd. Flow (perm)		1349	1478	1329	1906		547	3299		1652	3268	
Volume (vph)	50	10	250	15	5	10	95	1030	10	10	655	50
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	56	11	278	17	6	11	106	1144	11	11	728	56
RTOR Reduction (vph)	0	0	247	0	10	0	0	1	0	0	6	0
Lane Group Flow (vph)	0	67	31	17	7	0	106	1154	0	11	778	0
Turn Type	Perm		Perm	Perm			pm+pt			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2					
Actuated Green, G (s)		7.8	7.8	7.8	7.8		45.9	45.9		0.9	28.3	
Effective Green, g (s)		7.8	7.8	7.8	7.8		46.9	46.9		0.9	29.3	
Actuated g/C Ratio		0.11	0.11	0.11	0.11		0.67	0.67		0.01	0.42	
Clearance Time (s)		4.0	4.0	4.0	4.0		5.0	5.0		4.0	5.0	
Vehicle Extension (s)		1.0	1.0	1.0	1.0		1.5	1.0		1.0	1.0	
Lane Grp Cap (vph)		150	164	148	212		658	2207		21	1366	
v/s Ratio Prot					0.00		0.04	c0.35		0.01	c0.24	
v/s Ratio Perm		c0.05	0.02	0.01			0.07					
v/c Ratio		0.45	0.19	0.11	0.03		0.16	0.52		0.52	0.57	
Uniform Delay, d1		29.1	28.3	28.0	27.8		6.0	5.9	See 199	34.4	15.6	
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.8	0.2	0.1	0.0		0.5	0.9		10.4	1.7	
Delay (s)		29.9	28.5	28.2	27.8		6.5	6.8		44.8	17.3	
Level of Service		C	С	C	С		Α	A		D	В	
Approach Delay (s)		28.8			28.0			6.8			17.7	
Approach LOS		C			C			A			B	
Intersection Summary												
HCM Average Control D	elay		13.7	H	CM Lev	el of Se	rvice		В			
HCM Volume to Capacity	y ratio		0.50									
Actuated Cycle Length (s	5)		70.1	S	um of lo	st time	(s)		8.0			
Intersection Capacity Uti	lization	ļ	52.1%	IC	CU Leve	l of Ser	vice		А			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis 25: I-189 OFF RAMP & Shelburne St. (Rt 7)

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				۲	<del>ب</del> اً						<b>†</b> Ъ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	14	12	12	12	12	12	12
Total Lost time (s)				4.0	4.0			4.0			4.0	
Lane Util. Factor				0.95	0.95			0.95			0.95	
Frt				1.00	1.00			1.00			1.00	
Flt Protected				0.95	0.96	1947 - 1977 - 1977 - 1977 - 1977 - 1977 - 1977 - 1977 - 1977 - 1977 - 1977 - 1977 - 1977 - 1977 - 1977 - 1977 -		1.00			1.00	ang na na na paganana.
Satd. Flow (prot)				1681	1691			3539			3539	
Flt Permitted				0.95	0.96			1.00			1.00	
Satd. Flow (perm)				1681	1691			3539			3539	
Volume (vph)	0	0	0	1280	50	0	0	780	0	0	990	0
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	1422	56	0	0	867	0	0	1100	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	720	758	0	0	867	0	0	1100	0
Turn Type				Perm			Perm				133 (S) (S)	
Protected Phases					8			2			6	
Permitted Phases				8			2					
Actuated Green, G (s)				28.1	28.1			25.7			25.7	
Effective Green, g (s)				30.1	30.1			27.7			27.7	donia (densia) Mana-Mana
Actuated g/C Ratio				0.46	0.46			0.42			0.42	
Clearance Time (s)				6.0	6.0			6.0			6.0	
Vehicle Extension (s)				3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)				769	774			1490			1490	
v/s Ratio Prot			an de fan de	adalah kara menangai			an an an tha an an an an an an an an an an an an an	0.24			c0.31	ni mini mini mini mini mini mini mini m
v/s Ratio Perm		kt of a legal legit i Griffing refer server		0.43	0.45		list ministrativist Geographicae					
v/c Ratio			an an an an an an an an an an an an an a	0.94	0.98	1960);;;===;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;	nenevolatela estatora	0.58		1000-000-000-000-00-000-00-00-00-00-00-0	0.74	Endforde Almélia nom
Uniform Delay, d1				16.9	17.5			14.6			16.0	
Progression Factor				1.00	1.00			1.00			1.00	a fi fara na nast tao
Incremental Delay, d2				18.5	26.9			0.6			2.0	
Delay (s)		21272172772727272727272727272		35.5	44.5			15.2			18.0	
Level of Service				D	D			В			В	
Approach Delay (s)		0.0		.,	40.1			15.2	- 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 199 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999		18.0	
Approach LOS		A			D			В			В	
Intersection Summary												
HCM Average Control De	elay		26.8		ICM Lev	el of Se	rvice		С			
HCM Volume to Capacity	ratio		0.86				an an an an an an an an an an an an an a					
Actuated Cycle Length (s	}		65.8	S	um of lo	ost time	(s)		8.0			
Intersection Capacity Util	ization		70.8%	10	CU Leve	l of Serv	/ice		С	a esta e transmisió		: ' ; ' )'
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			<b>.</b>			¢Ĵ,	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	70	30	50	145	10	20	330	55	5	150	10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	78	33	56	161	11	22	367	61	6	167	11
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	117	228	450	183								
Volume Left (vph)	6	56	22	6								
Volume Right (vph)	33	11	61	11		1911/1911/1911/1911					an an Draman an Ar	
Hadi (s)	-0.13	0.05	-0.04	0.00								
Departure Headway (s)	6.0	5.9	5.2	5.7								4. 4. 10. 2010 - 2010 - 2010 - 2010 - 2010 - 2010 - 2010 - 2010 - 2010 - 2010 - 2010 - 2010 - 2010 - 2010 - 20 - 2010 - 2010 - 2010 - 2010 - 2010 - 2010 - 2010 - 2010 - 2010 - 2010 - 2010 - 2010 - 2010 - 2010 - 2010 - 2010
Degree Utilization, x	0.19	0.37	0.65	0.29								
Capacity (veh/h)	505	551	658	574	grade (antro) e reentroe.	alah disebut dari dari karang sebut dari		wy Addrida Conservational Address				oden de la catalog
Control Delay (s)	10.4	12.4	17.6	11.0								
Approach Delay (s)	10.4	12.4	17.6	11.0	er ferste en ferste ferste senset ferste s	talayun talah satu di ditarak				en de la compañía de la compañía de la compañía de la compañía de la compañía de la compañía de la compañía de	a serai da stra da kasatasi	on the second second
Approach LOS	B	В	C	В								
Intersection Summary												
Delay			14.3									
HCM Level of Service			В								e politika en esta en esta esta esta esta esta esta esta esta	
Intersection Capacity Uti	lization		54.0%	IC	CU Leve	l of Ser	vice		Α			
Analysis Period (min)			15									
											ando dossas	

	¥		<b>†</b>	1	1	¥	
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	¥		ţ,			र्भ	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Volume (veh/h)	80	5	385	205	5	375	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vph)	89	6	428	228	6	417	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)			an an an an an an an an an an an an an a		alate di suto suto successi su		
Percent Blockage							
Right turn flare (veh)	e gyraddydd			an an an an an an an an an an an an an a	enne des mensen	50.0950.03555055050	
Median type	None						
Median storage ven)	946-546-646-646-6	sittiringindurt	janon sekista	una anti da da s	94524963769769		
Upstream signal (II)						83/	
pA, platoon unblocked	000	<b>610</b>			ere		
vC1, connicting volume	909	042			000		
vC1, stage 1 contivol			elioneliologic				
vCu, unblocked vol	020	542			656		
tC single (s)	64 64	62			2 J		
tC, 2 stage (s)	Y* 3	inen <b>Vate</b> rio			<b>.</b>		
tF (s)	3.5	3.3			22		
p0 queue free %	68	99	nnes freezie spesnije i	and a she had a she	99	in the second	
cM capacity (veh/h)	279	541			932		
Direction Lane #	WR 1	NR 1	SR 1				
Volume Total	94	656	422				
Volume Left	89	0	6				
Volume Right	6	228	Ō				
cSH	288	1700	932				
Volume to Capacity	0.33	0.39	0.01				
Queue Length 95th (ft)	35	0	0			ere en altre en anne de service de la	
Control Delay (s)	23.5	0.0	0.2				
Lane LOS	С		А				
Approach Delay (s)	23.5	0.0	0.2				
Approach LOS	С						
Intersection Summary							
Average Delay			2.0				
Intersection Capacity Ut	ilization		44.2%	IC	U Leve	l of Servi	Ce A
Analysis Period (min)			15				(1) S. C. Martin, M. M. Martin, C. Martin, and S. C. Martin, Construction of the Construction System Society (2019) 111 (2019).

HCM Unsignalized Intersection Capacity Analysis 22: Birchcliff Pkwy & Shelburne St. (Rt 7)

	٭		$\mathbf{r}$	∢	-	*	1	Ť	1	1	ţ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations Sign Control Grade		↔ Stop 0%			t top 0%			<b>41</b> ≱ Free 0%			<b>41</b> ≯ Free 0%	
Volume (veh/h)	30	0	60	10	0	10	30	880	5	5	625	100
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph) Pedestrians Lane Width (ft) Walking Speed (ft/s)	33	0	67	11	0	11	33	978	6	6	694	111
Percent blockage												
Median type Median storage veh) Upstream signal (ft)		None			None			1267				
pX, platoon unblocked		an tha an tao an tao an tao an tao an tao an tao an tao an tao an tao an tao an tao an tao an tao an tao an ta		antan arta ang kang kang kang kang kang kang kang	an (en jojin a juga jojin jojin jojin jojin jojin joji joji							
vC, conflicting volume vC1, stage 1 conf vol	1328	1811	403	1472	1864	492	806			983		
vCz, stage z com vol	1328	1811	403	1472	1864	102	<u> 208</u>			083		
tC single (s)	75	65		75	65	-32 6 9	41			 1		
tC. 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	69	100	89	85	100	98	96			99	aggine a sur sur sur sur	
cM capacity (veh/h)	107	74	597	76	69	523	815		onisenisejassini. Onisenistisejäni	698		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	100	22	522	494	353	458	8 8 8 A					
Volume Left	33	11	33	0	6	0						
Volume Right	67	11	0	6	0	111						
cSH	236	132	815	1700	698	1700	in the state of the second in	ana na santana na ba				
Volume to Capacity	0.42	0.17	0.04	0.29	0.01	0.27						
Queue Length 95th (ft)	49	15	3	0	1	0						ling i filosoficion
Control Delay (s)	31.1	37.7	T.T ^	0.0	0.3	0.0						
Lane LOS Approach Dolou (a)	U 04.4	ー ファフ	A		А А 4							alajajajajaj
Approach LOS	D	97.7 E			V. I	Garata de com						63995565
Interception Summon	-	-										
Average Delay			24									
Intersection Capacity Uti Analysis Period (min)	lization		58.9% 15	IC	CU Leve	el of Serv	/ice		В			

CAP

		$\mathbf{\tilde{\mathbf{A}}}$	≮		-	1	
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations Sign Control Grade	₽ Free 0%			<b>4</b> Free 0%	¥ Stop 0%		
Volume (veh/h)	215	35	135	85	10	45	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vph)	239	39	150	94	11	50	
Lane Width (ft)			han manalan kula Manalan kula				
Walking Speed (ft/s)		selver en ser seres de la seres de la seres de la seres de la seres de la seres de la seres de la seres de la s				0,00,000,000,000,000,000,000,000,000,0	
Percent Blockage							
Right turn flare (veh)			e la contra a contra da contra				
Median type Median storage yeb)					None		
Linstream signal (ff)				331			
pX, platoon unblocked							
vC, conflicting volume			278		653	258	
vC1, stage 1 conf vol	halayin Marayan San San S	una u (un la club tarja tinazo).	ang da gala la ta da gal	ang dalah galapat ang lang bang dalah sa katalan sa sa		gag sang sing sing sing sing sing sing sing si	
vC2, stage 2 cont vol			070		650	050	
tC single (s)			2/0 41		64	200 6.2	
tC, 2 stage (s)							
tF (s)			2.2		3.5	3.3	
p0 queue free %		an maancaaraan	88	esense astron	97	94	
cM capacity (ven/n)			1285		382	780	
Direction, Lane #	EB 1	WB 1	NB 1				
Volume Total	278	244	61				
Volume Left	20	150	11 E0			le Mirtine i de giberes d	
cSH	1700	1285	656				
Volume to Capacity	0.16	0.12	0.09				
Queue Length 95th (ft)	0	10	8				
Control Delay (s)	0.0	5.4	11.1				
Lane LOS	- A A	A	B				
Approach LOS	0.0	<b>ə.</b> 4	II.I R		anan germaans		
Internetion Comment			<u>,</u>				
Average Delay			3 /				
Intersection Capacity Uti	lization	91010-001-000 <b>.</b>	38.7%	ı <i>c</i>	U Leve	l of Servic	e A
Analysis Period (min)	anatan sing di Sing da	agan agangan takta Tara sa	15			್ಷ, ಪ್ರಾಮ ವಿದ್ಯಾಸ್ ಕ್ರಿಯೆನಿಗೆ	

	T۱	NO-WAY STO	P CONTR	OL SU	JMMARY			
General Information			Site	nform	ation	*********		
Analyst A y/Co. Date Performed Analysis Time Period	EJD CHA 12/22/05 AM PEAK	HOUR	Interse Jurisdi Analys	ection iction sis Year		ROUTE : TOWN C 2028 BU	7/LOCUS1 F BURLIN ILD	/LEDGE IGTON
Project Description BUI	ALINGTON		A La sala b	0	DOUTE			
Last/West Street: LOCU	ST/LEDGE North-South		North/ Study	South S Period (	treet: HOUIE	/		
Vehicle Volumes and	Adjustment	•	Piùdy		1113). 0.20			
Maior Street	Aujustinenta	Northbound				Southbo	und	
Movement	1	2	3		4	500000		6
	L	<u>т</u>	R			T		 R
Volume	0	605	29	5	0	445		15
Peak-Hour Factor, PHF	0.90	0.90	0.9	0	0.90	0.90		0.90
Hourly Flow Rate, HFR	0	672	327	7	0	494		16
Percent Heavy Vehicles	0				2			+
Median Type				Undi	vided			
RT Channelized			0					0
Lanes	0	2	0		0	1		0
Configuration		<i>T</i>	TR	,	LTR			
Upstream Signal		0				0		
Minor Street		Westbound				Eastbou	und	
Movement	7	8	9		10	11		12
		Т	R		L	T		R
Volume	0	0	60		0	20		85
He Hour Factor, PHF	0.90	0.90	0.90	, 	0.90	0.90		0.90
Dercent Heavy Vehicles	0	0	00		0			94
Percent Grado (%)			2		0			
Flared Approach								
Storage								
DT Chonnelized		0				0		~
					<u>^</u>			0
Configuration		V			0	/		
Delay Queue Length en							1	111
Approach	NR I	SB	T	Moeth	hund	1	Easthour	d
Movement	1	<u> </u>	7			10		10
Lane Configuration		1 TD	<u> </u>	<u> </u>				
u (unh)			1		<u> </u>			111
$(v \mu \mu)$		V	<u> </u>		00		ļ	176
		009		<u> </u>	576	<u> </u>	<b> </b>	318
		0.00	ļ	ļ	0.13	<u> </u>	<u> </u>	0.36
95% queue length		0.00	<b> </b>	<u> </u>	0.44		<b></b>	1.62
Control Delay		10.2		<u> </u>	13.0	<u> </u>	ļ	22.7
LOS		В			В			С
Approach Delay				13.0	)		22.7	
Approach LOS	**		ł	В			С	

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	TV	<b>NO-WAY STO</b>	P CONTR	OL SUM	MARY			
<b>General Information</b>			Site I	nformatio	on			
Anelyst Ag y/Co. Date Performed Analysis Time Period	EJD CHA 12/22/05 AM PEAK	HOUR	Interse Jurisdio Analys	ction ction is Year		ROUTE 7 TOWN 0 2028 BUI	7/SOUTH IF BURLIN ILD	WILLARD IGTON
Project Description BU	RLINGTON							
East/West Street: SOUT	H WILLARD		North/S	South Stree	t: ROUTE	7		
intersection Orientation:	North-South	·····	Study I	Period (nrs)	0.25			
Vehicle Volumes and	d Adjustments							
Major Street		Northbound				Southbo	ound	
	] 	<u>- 2</u>	3		4	5		6
Volume		545			<u>ل</u>	1		<u> </u>
Peak-Hour Factor, PHF	0.90	0.90	0.90	,	0 90	0.90		<u></u>
Hourly Flow Rate, HFR	66	605	0	,	0	511		0.00
Percent Heavy Vehicles	2				2			
Median Type				Undivide	d			
RT Channelized			0				Ţ	0
Lanes	0	1	0		0	1		0
Configuration	LŤ					T		
Upstream Signal		0				0		
Minor Street		Westbound				Eastbou	und	
Movement	7	8	9		10	11		12
	L	Т	R		L	Т		R
Volume	0	200	0		0	0		0
Pe Hour Factor, PHF	0.90	0.90	0.90	,	0.90	0.90		0.90
Housy Flow Hate, HFR	0	222	0		0	0		0
Percent Ready Vehicles		<u> </u>	<u> </u>		0	2	<u> </u>	
						0	- 1	
Plared Approach		N O				N		
Storage		0				0		-
RT Channelized			0		~			0
Lanes	0				0	0		0
Delay, Queue Length, an	d Level of Servic	<u>e</u>	T		.4	<b>T</b>		1
Approach	NB	58		vvestbound			Eastboun	d
	1	4	/	8	9	10	11	12
Lane Configuration	LI				TR			
v (vph)	66				222			
C (m) (vph)	1054	·			156			
v/c	0.06				1.42			
95% queue length	0.20				14.14			
Control Delay	8.6				277.7			
LOS	A				F			
Approach Delay		m. m.		277.7				
Approach LOS		<u>مد مد</u>		F				

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# BUILD ALTERNATIVE 1 2028 PM PEAK HOUR

#### HCM Signalized Intersection Capacity Analysis 6: Main Street & Battery Street

	٠		$\mathbf{i}$	∢	4	×	1	Ť	1	•	¥	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		ন	7		<del>4</del>	7		4 Þ		ኻ	4	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0		4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00		0.95		1.00	1.00	
Frt		1.00	0.85		1.00	0.85		0.99		1.00	0.99	
Fit Protected		0.98	1.00		0.97	1.00		0.99		0.95	1.00	
Satd. Flow (prot)		1817	1583		1811	1583		3482		1770	1850	
Flt Permitted		0.73	1.00		0.80	1.00		0.75		0.95	1.00	
Satd. Flow (perm)		1360	1583		1485	1583		2632		1770	1850	
Volume (vph)	20	20	90	95	70	150	90	605	50	115	635	30
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	22	22	100	106	78	167	100	672	56	128	706	33
RTOR Reduction (vph)	0	0	83	0	0	120	0	0	0	0	0	0
Lane Group Flow (vph)	0	44	17	0	184	47	0	828	0	128	739	0
Turn Type	Perm		Prot	Perm		pt+ov	Perm		С	ustom		
Protected Phases		4	4		8	81		2		1	6	
Permitted Phases	4			8			2			1		
Actuated Green, G (s)		20.7	20.7		20.7	34.6		75.2		13.9	94.1	
Effective Green, g (s)		21.7	21.7		21.7	36.6		76.2		14.9	95.1	
Actuated g/C Ratio		0.17	0.17		0.17	0.28		0.59		0.11	0.73	
Clearance Time (s)		5.0	5.0		5.0			5.0		5.0	5.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		227	264		248	446		1543		203	1353	
v/s Ratio Prot			0.01			0.03				c0.07	c0.40	
v/s Ratio Perm		0.03			c0.12			0.31				
v/c Ratio		0.19	0.06		0.74	0.11		0.54		0.63	0.55	
Uniform Delay, d1		46.6	45.6		51.5	34.6		16.2		54.9	7.8	
Progression Factor		1.00	1.00		1.00	1.00		0.55		1.00	1.00	
Incremental Delay, d2		0.4	0.1		11.3	0.1		1.1		6.2	1.6	
Delay (s)		47.0	45.7		62.8	34.7		10.0		61.2	9.4	
Level of Service	te de la secte en este tet e este en	D	D		E	С		Α		E	Α	
Approach Delay (s)		46.1			49.4			10.0		5. II. I.  17.0		
Approach LOS		D			D			A			В	
Intersection Summary												
HCM Average Control D	elay		21.5	Н	ICM Lev	vel of Se	ervice		С			
HCM Volume to Capacit	y ratio		0.56						e de cêner			
Actuated Cycle Length (s	s)	an a service de tracé de la com	130.0	S	um of lo	ost time	(s)		8.0			
Intersection Capacity Uti	lization		81.8%	K	CU Leve	el of Ser	vice		D			
Analysis Period (min)		antenina at et e e	15									
c Critical Lane Group												



	۶		$\mathbf{\hat{z}}$	<		×.	1	1	1	1	Ļ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	4			4,		ሻ	ĘŢ.		٢	<b>\$</b>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00			1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.98			0.88		1.00	0.99		1.00	0.99	
Fit Protected	0.95	1.00			1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1829			1638		1770	1847		1770	1849	
Flt Permitted	0.37	1.00			0.99		0.95	1.00		0.95	1.00	Stanjušenos Svišinistavi
Satd. Flow (perm)	690	1829			1624		1770	1847		1770	1849	
Volume (vph)	30	40	5	5	10	110	20	605	35	90	685	35
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	33	44	6	6	11	122	22	672	39	100	761	39
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	33	50	0	0	139	0	22	711	0	100	800	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8						~~~~~~		orno ong og na 2000
Actuated Green, G (s)	15.5	15.5			15.5		4.8	81.5		11.8	88.5	
Effective Green, g (s)	16.5	16.5			16.5	·····	5.8	82.5		12.8	89.5	
Actuated g/C Ratio	0.13	0.13			0.13	in in sin du	0.04	0.63	ling (jalan) Sang kana	0.10	0.69	
Clearance Time (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	88	232			206		79	1172	***	174	1273	
v/s Ratio Prot		0.03					0.01	0.38	ka kat	c0.06	c0.43	
v/s Ratio Perm	0.05				c0.09			1.				
v/c Ratio	0.38	0.22	Shubid girdiga Firmin Silana		0.67		0.28	0.61	u historia (historia) Antonia (historia)	0.57	0.63	
Uniform Delay, d1	52.0	50.9	nan serin basi da bishi		54.2	A	60.1	14.1		56.0	11.1	alan kana kana kana kana kana kana kana
Progression Factor	1.00	1.00	U. (C. C. (2)		1.00		0.88	0.91		1.11	0.71	
Incremental Delay, d2	2.7	0.5			8.4		1.5	1.8	te provinsi provinsi da se se se de	3.9	2.0	. () () ()
Delay (s)	54.7	51.4			62.6		54.3	14.6		66.0	9.9	
Level of Service	D	D			Е		D	В		Е	А	
Approach Delay (s)		52.7			62.6			15.8			16.1	
Approach LOS		D			Е			В			В	
Intersection Summary												
HCM Average Control D	elay		21.1	Н	CM Lev	el of Se	rvice		С			
HCM Volume to Capacit	y ratio		0.62				e Senso namena Generatione				n instructure Singer og som	
Actuated Cycle Length (	s)		130.0	Si	um of lo	st time	(s)	and a survey of a family of the	14.2			
Intersection Capacity Uti	lization	6	6.8%	IC	U Leve	l of Serv	/ice		С			
Analysis Period (min)			15									
c Critical Lane Group												

CAP Clough, Harbour & Associates, LLP

### HCM Signalized Intersection Capacity Analysis 8: Maple Street & Battery Street

	۶		$\mathbf{i}$	4	<b>.</b>	×.	•	Ť	1	\$	ł	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		÷			4		ሻ	4Î		ሻ	ţ,	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00			1.00		1.00	1.00	
Frt		0.99			0.93			0.99		1.00	0.99	
Flt Protected		0.98			0.99			1.00		0.95	1.00	
Satd. Flow (prot)		1737			1652			1774		1711	1776	
Flt Permitted		0.59			0.85			1.00		0.95	1.00	
Satd. Flow (perm)		1059			1424			1774		1711	1776	
Volume (vph)	60	50	10	55	40	100	0	500	55	95	545	55
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	67	56	11	61	44	111	0	556	61	106	606	61
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	134	0	0	216	0	0	617	0	106	667	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4	e national data of a contract of	patration in processing a series	8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)	Augerra (geographica)	22.8	sayaran minalar	Senste 14 star opert Alexa	22.8	oleonia en anternitaria de		73.7	energen og skilder og skilder	12.3	91.0	ويتحدث فيحتكم فللمحتر والمتعا
Effective Green, g (s)		23.8			23.8			74.7		13.3	92.0	
Actuated g/C Hatio	varana ya sheke	0.18	sini na matana ta ƙasar	(nomano sy fano a sy fa	0.18	104.0000.00000.0000	hilden het het het het et.	0.57		0.10	0.71	an an thair an an an an an an an an an an an an an
Clearance I ime (s)		5.0			5.0			5.0		5.0	5.0	
Venicle Extension (s)		3.0			3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		194			261			1019		175	1257	
V/S Hatio Prot	Andrid (s th the Annels		a dalam galama	ومنوع والروانية والمعادية والمعادية		en de contractoria de la contractoria de la contractoria de la contractoria de la contractoria de la contractori	len men eisteninge	c0.35	arangar-tarigaj	c0.06	0.38	
V/s Hatio Perm		0.13			CU.15				n senen (sse			
	Net al le se le se le se le se le se le se le se le se le se le se le se le se le se le se le se le se le se le	0.69	leistationtenete		0.83		inidant constantini i	0.61	winderste de Bauf	0.61	0.53	
Drogradian Easter		49.7			51.1			18.0		55.8	8.9	
Progression Factor		1.00	te na je po daloža koje je s		1.00			0.22	States a Constant	1.16	0.17	
Dolov (c)		10.1			18.9			2.2		4.7	1.3	
Level of Sonvice		ວອ.o E			70.1 E	An airte an an an an an an an an an an an an an	Geografia	0.J A	(Alleptering)	09.0 E	∠.8 ∧	
Approach Dolay (c)		50.0			70 1	68980000000		6.2		E.	40 A	
Approach LOS		53.0 E			70.1 E			0.3 A			12.0 B	
Intersection Summary												
HCM Average Control D	elay		20.8	Н	CM Lev	el of Se	rvice		С			
HCM Volume to Capacity	y ratio	25.0700000000000000000000000000000000000	0.65		***************************************	es anna an Anna Anna Anna Anna Anna Anna	or ann an Mairt Sàna	00,000,000,000,000,000 1	an ina di <del>str</del> ikie	unu marakati di kiliki kili		ensere en fan de
Actuated Cycle Length (s	3)		130.0	Si	um of lo	ost time (	's)		18.2			
Intersection Capacity Util Analysis Period (min)	lization	(	60.9% 15	IC	CU Leve	l of Serv	ice		В			

	٨		$\mathbf{i}$	4	-	×	-	Ť	1	\ \	Ļ	~
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			<del>ب</del> ا	7		র্ম	1		4	<u></u>
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0		4.0	4.0		4.0	
Lane Util. Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Frt	·	0.98			1.00	0.85		1.00	0.85		0.99	
Fit Protected		1.00			0.99	1.00		1.00	1.00		0.99	
Satd. Flow (prot)		1830	a constant, constant commercia		1843	1583	and a standard second second	1854	1583		1829	
Fit Permitted		0.98			0.88	1.00		0.97	1.00		0.89	
Satd. Flow (perm)		1802			1639	1583		1799	1583		1641	
Volume (vph)	10	215	- 30	75	280	35	10	100	70	60	170	10
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	11	239	33	83	311	39	11	111	78	67	189	11
RTOR Reduction (vph)	0	0	0	0	0	20	0	0	58	0	0	0
Lane Group Flow (vph)	0	283	0	0	394	19	0	122	20	0	267	0
Turn Type	Perm			Perm		Perm	Perm		Perm	Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6		6	8		8	4		
Actuated Green, G (s)		21.8			21.8	21.8		11.1	11.1		11.1	
Effective Green, g (s)	a an an an an an an an an an an an an an	22.8			22.8	22.8		12.1	12.1		12.1	
Actuated g/C Ratio		0.48			0.48	0.48		0.25	0.25		0.25	
Clearance Time (s)	ana kata ang kata kata kata kata kata kata kata kat	5.0	a-manin Almora		5.0	5.0	en se de la complete d'Alexa de la comp	5.0	5.0		5.0	and unabled when the st
Vehicle Extension (s)		3.0			3.0	3.0		3.0	3.0		3.0	
Lane Grp Cap (vph)		861			783	757		456	402		416	
v/s Ratio Prot												
v/s Ratio Perm	and the state is the second	0.16	ener an an an an an an an an an an an an an	and a state of the state of the state	c0.24	0.01		0.07	0.01		c0.16	
v/c Ratio		0.33			0.50	0.02		0.27	0.05		0.64	1903-1914 1
Uniform Delay, d1	xusaleseleseae	7.7			8.6	6.6		14.3	13.5	e e la contractoria de la contractoria	15.9	
Progression Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Incremental Delay, d2	dinantan sata	0.2	na katala kat	4-114-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	0.5	0.0		0.3	0.1		3.4	- 1. j j
Delay (s)		/.9			9.1	6.6		14.6	13.5		19.2	
Level of Service		A	sinterenter	Linis de la Marcia Marc	A	A 	Sector and a sector of the sector of the sector of the sector of the sector of the sector of the sector of the	B	B	alo di todi ta sino de la constante	B	winter the Arction of Levels
Approach Delay (s)		7.9		26 A. A. A. A. A.	8.8			14.2			19.2	
Approach LUS		A			A			В			В	
Intersection Summary												
HCM Average Control D	elay		11.9	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.48									
Actuated Cycle Length (s	s)		47.7	S	um of lo	ost time	(s)		8.0			
Intersection Capacity Uti	lization	6	62.1%	IC	U Leve	l of Ser	vice		В			
Analysis Period (min)	Land talle and a second second		15	a set and set of set	an an an an an an an an an an an an an a							
c Critical Lane Group												

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Movement	NBT	NBR	SBL	SBT	SWL	SWR		
Lane Configurations	<b>A</b>	7	ሻ	۸	¥			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			
Frt	1.00	0.85	1.00	1.00	0.99			
Fit Protected	1.00	1.00	0.95	1.00	0.96			
Satd. Flow (prot)	1863	1583	1770	1863	1764			
Fit Permitted	1.00	1.00	0.31	1.00	0.96			
Satd. Flow (perm)	1863	1583	569	1863	1764			· · · · ·
Volume (vph)	530	250	20	640	450	30		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90		
Adj. Flow (vph)	589	278	22	711	500	33		
RTOR Reduction (vph)	0	26	0	0	2	0		
Lane Group Flow (vph)	589	252	22	711	531	0		
Turn Type	Prot		Perm					
Protected Phases	2	8		6	8			
Permitted Phases		2	6					
Actuated Green, G (s)	73.4	113.8	73.4	73.4	40.4			
Effective Green, g (s)	74.4	115.8	74.4	74.4	41.4			
Actuated g/C Ratio	0.57	0.89	0.57	0.57	0.32			
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			
Lane Grp Cap (vph)	1066	1459	326	1066	562			
v/s Ratio Prot	0.32	0.05		c0.38	c0.30			
v/s Ratio Perm		0.10	0.04					
v/c Ratio	0.55	0.17	0.07	0.67	0.94			
Uniform Delay, d1	17.4	0.9	12.4	19.2	43.2			
Progression Factor	1.04	0.00	1.34	1.00	1.00			
Incremental Delay, d2	1.8	0.1	0.3	2.9	24.8			
Delay (s)	19.9	0.1	16.9	22.2	68.0			
Level of Service	B	<b>A</b>	<b>B</b>	С	E	i geologi a susta da su su su su su su su su su su su su su		a ka
Approach Delay (s)	13.5			22.1	68.0			
Approach LOS	В			С	=			
Intersection Summary								
HCM Average Control D	elay	a di tana kata da sana sa	30.1	H	ICM Lev	el of Service	С	
HCM Volume to Capacity	y ratio		0.77					
Actuated Cycle Length (s	s)		130.0	S	ium of lo	ost time (s)	14.2	
Intersection Capacity Uti	lization	. (	57.1%		CU Leve	I of Service	C	
Analysis Period (min)			15					
c Critical Lane Group								

	٦	$\mathbf{i}$	-	Ť	Ļ	4		
Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations	۴	۲	۲	¥	¥	7		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Width	11	12	11	12	11	12		
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00		
Frt	1.00	0.85	1.00	1.00	1.00	0.85		
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00		
Satd. Flow (prot)	1711	1583	1711	1863	1801	1583		
Flt Permitted	0.95	1.00	0.23	1.00	1.00	1.00		
Satd. Flow (perm)	1711	1583	407	1863	1801	1583		
Volume (vph)	415	60	15	380	540	665		-
Peak-hour factor, PHF	0,90	0.90	0.90	0.90	0.90	0.90		
Adj. Flow (vph)	461	67	17	422	600	739		
<b>RTOR Reduction (vph)</b>	0	36	0	0	0	0		
Lane Group Flow (vph)	461	31	17	422	600	739		
Turn Type		Prot	Perm			Perm		
Protected Phases	2	2		4	8	en en en en en en en en en en en en en e		
Permitted Phases			4			8		
Actuated Green, G (s)	52.8	52.8	61.0	61.0	61.0	61.0		
Effective Green, g (s)	53.8	53.8	62.0	62.0	62.0	62.0		
Actuated g/C Ratio	0.41	0.41	0.48	0.48	0.48	0.48		
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	708	655	194	889	859	755		
v/s Ratio Prot	c0.27	0.02		0.23	0.33			
v/s Ratio Perm			0.04			c0.47		
v/c Ratio	0.65	0.05	0.09	0.47	0.70	0.98		al secondo d
Uniform Delay, d1	30.6	22.8	18.6	23.0	26.7	33.4		
Progression Factor	0.66	0.70	1.00	1.00	0.86	0.86	<ul> <li>A 10 A 10 A 200 A</li></ul>	ann a star a s
Incremental Delay, d2	4.3	0.1	0.9	1.8	1.9	23.5		
Delay (s)	24.4	16.1	19.4	24.8	24.8	52.3		
Level of Service	С	В	В	С	С	D		
Approach Delay (s)	23.3			24.6	40.0	<ul> <li></li></ul>		
Approach LOS	С			C	D			
Intersection Summarv								
HCM Average Control D	elav		33.3	Н	CMLev	el of Service		
HCM Volume to Capacit	tv ratio	on selfanosis Hijani	0.83					
Actuated Cycle Length (	s)		130.0	S	um of lo	ost time (s)		1
Intersection Capacity Ut	ilization		58.1%	) I	CU Leve	el of Service		
Analysis Period (min)			15					

HCM Signalized Intersection Capacity Analysis 16: Flynn Avenue & Pine Street

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		÷			44			44		ሻ	4	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	14	12	12	14	12	12	14	12	11	11	12
Total Lost time (s)		4.0			4.0			4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00			1.00		1.00	1.00	
Frt		0.98			0.91			0.98		1.00	0.98	
Flt Protected		0.99			1.00			0.99		0.95	1.00	
Satd. Flow (prot)		1924			1807	si en di niji Su Si en di		1935		1711	1763	
Flt Permitted		0.83			0.96			0.94		0.57	1.00	
Satd. Flow (perm)		1612			1747			1822		1021	1763	
Volume (vph)	40	85	20	25	80	190	15	95	20	185	245	40
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	44	94	22	28	89	211	17	106	22	206	272	44
RTOR Reduction (vph)	0	8	0	0	88	0	0	9	0	0	7	0
Lane Group Flow (vph)	0	152	0	0	240	0	0	136	0	206	309	0
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases		4			8			2		1	6	000000000000000000000000000000000000000
Permitted Phases	4	8 90.90		8			2			6		
Actuated Green, G (s)		11.8			11.8			11.6		22.8	22.8	
Effective Green, g (s)		12.8			12.8			12.6		23.8	23.8	
Actuated g/C Ratio		0.27			0.27			0.27		0.50	0.50	
Clearance Time (s)		5.0			5.0			5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		436			473			485		619	887	
v/s Ratio Prot									-1	0.05	c0.18	hann an
v/s Ratio Perm		0.09			c0.14			0.07		0.12		
v/c Ratio		0.35			0.51			0.28		0.33	0.35	
Uniform Delay, d1		13.9			14.6			13.8		7.0	7.1	
Progression Factor		1.00			1.00			1.00		1.00	1.00	
Incremental Delay, d2		0.5			0.9			0.3		0.3	0.2	
Delay (s)		14.4			15.5			14.1		7.4	7.3	···· ·
Level of Service		В			В			В		Α	A	
Approach Delay (s)		14.4			15.5			14.1			7.3	
Approach LOS		В			В			В			Α	
Intersection Summary												
HCM Average Control D	elav		11.5	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	v ratio	aanaan too too too too too too too too too to	0.38	en setteret in med field.	anteria (Constant) (C		1997 (1997 <b>- 1</b> 998 (1993)	anaan 1970 (1970) (1970 (1970 (1970 (1970 (1970 (1970 (1970 (1970 (1970 (1970	an an an an an an an an an an an an an a	essen sessiones annes		nancia Alian
Actuated Cycle Length (	<b>1</b>		47.3	S	um of Ic	st time	(s)		8.0			
Intersection Capacity Uti	lization	4	14.2%	IC	CU Leve	l of Ser	/ice	anga karang dapi ki s	A			ennen Stille
Analysis Period (min)			15									



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Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	•	7	٦	<b>^</b>	ሻ	7	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	1.00	0.85	
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00	
Satd. Flow (prot)	1863	1583	1770	1863	1770	1583	
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00	
Satd. Flow (perm)	1863	1583	1770	1863	1770	1583	
Volume (vph)	160	350	595	80	165	320	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	
Adj. Flow (vph)	178	389	661	89	183	356	
RTOR Reduction (vph)	0	210	0	0	0	87	
Lane Group Flow (vph)	178	179	661	89	183	269	
Turn Type	1	om+ov	Prot		(	custom	
Protected Phases	4	2	3	8	2	23	
Permitted Phases		4	1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 -		******	2	
Actuated Green, G (s)	16.7	57.7	51.1	72.8	41.0	97.1	
Effective Green, g (s)	17.7	59.7	52.1	73.8	42.0	98.1	
Actuated g/C Ratio	0.14	0.46	0.40	0.57	0.32	0.75	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	254	727	709	1058	572	1195	
v/s Ratio Prot	c0.10	0.08	c0.37	0.05	c0.10	0.17	
v/s Ratio Perm		0.03		(m.,	1., 1., 1., 1., 1., 1., 1., 1., 1., 1.,	ana ( in a na angla ( ing ang apang gran ang ang ang ang ang ang ang ang ang a	
v/c Ratio	0.70	0.25	0.93	0.08	0.32	0.22	
Uniform Delay, d1	53.6	21.4	37.3	12.8	33.2	4.7	
Progression Factor	1.00	1.00	0.18	0.02	0.97	6.21	
Incremental Delay, d2	8.4	0.2	7.6	0.0	1.4	0.1	
Delay (s)	62.1	21.6	14.3	0.2	33.5	29.4	
Level of Service	E	С	В	Α	С	С	
Approach Delay (s)	34.3			12.6	30.8		
Approach LOS	С			В	С		
Intersection Summary							
HCM Average Control D	elay		24.5	Н	ICM Lev	el of Service	С
HCM Volume to Capacit	y ratio		0.67				
Actuated Cycle Length (	s)		130.0	S	um of lo	ost time (s)	18.2
Intersection Capacity Ut	ilization		61.3%	10	CU Leve	el of Service	В
Analysis Period (min)			15				
c Critical Lane Group							

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4		ሻ	4		ሻ	ţ,	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.88			0.98		1.00	0.98		1.00	1.00	
Fit Protected		0.99			0.97		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1630			1761		1770	1833		1770	1860	
Fit Permitted		0.97			0.53		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1591			962		1770	1833		1770	1860	
Volume (vph)	10	0	80	35	10	10	5	465	55	15	920	10
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	11	0	89	- 39	11	11	6	517	61	17	1022	11
RTOR Reduction (vph)	0	81	0	0	6	0	0	2	0	0	0	0
Lane Group Flow (vph)	0	19	0	0	55	0	6	576	0	17	1033	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		11.4			11.4		1.6	94.2		3.2	95.8	
Effective Green, g (s)		12.4			12.4		2.6	95.2		4.2	96.8	
Actuated g/C Ratio		0.10			0.10		0.02	0.73		0.03	0.74	
Clearance Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		152			92		35	1342		57	1385	
v/s Ratio Prot							0.00	0.31		c0.01	c0.56	
v/s Ratio Perm		0.01			c0.06							(+ (+
v/c Ratio		0.13			0.59		0,17	0.43		0.30	0.75	
Uniform Delay, d1		53.8			56.4		62.6	6.8		61.5	9.5	and a second stand
Progression Factor		1.00			1.00		0.88	1.31		1.20	0.58	
Incremental Delay, d2		0.4			8.8		2.0	0.9		1.9	2.5	
Delay (s)		54.2			65.4		57.2	9.7		75.9	8.0	
Level of Service		D			E		E	Α		E	Α	
Approach Delay (s)		54.2			65.4			10.2			9.1	
Approach LOS		D			Ε			В			А	
Intersection Summary												
HCM Average Control D	elay		13.9	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.70									
Actuated Cycle Length (	s)		130.0	S	um of lo	st time	(s)		14.2			
Intersection Capacity Uti	lization	6	65.4%	IC	U Leve	l of Serv	/ice		С			
Analysis Period (min)			15									
c Critical Lane Group												

## HCM Signalized Intersection Capacity Analysis 31: Flynn Avenue & Southern Connector

2 Lane 2028 PM

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4		٣	<b>1</b> ,		ኻ	4	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.96			0.99		1.00	1.00		1.00	0.99	
Fit Protected		0.98			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1765			1819		1770	1859		1770	1848	
Fit Permitted		0.74			0.85		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1327			1556		1770	1859		1770	1848	
Volume (vph)	110	130	90	25	100	15	80	400	5	10	975	55
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	122	144	100	28	111	17	89	444	6	11	1083	61
RTOR Reduction (vph)	0	11	0	0	3	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	355	0	0	153	0	89	450	0	11	1143	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)		30.0			30.0		10.8	77.2		1.6	68.0	
Effective Green, g (s)		31.0			31.0		11.8	78.2		2.6	69.0	
Actuated g/C Ratio		0.24			0.24		0.09	0.60		0.02	0.53	
Clearance Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		316			371		161	1118		35	981	
v/s Ratio Prot							c0.05	0.24		0.01	c0.62	
v/s Ratio Perm		c0.27			0.10							
v/c Ratio		1.12			0.41		0.55	0.40		0.31	1.16	
Uniform Delay, d1		49.5			41.8		56.6	13.6		62.8	30.5	
Progression Factor		1.00			1.00		0.95	1.29		1.27	0.44	
Incremental Delay, d2		88.6			0.7		3.7	1.0		3.7	82.6	
Delay (s)		138.1			42.6		57.7	18.6		83.4	96.1	
Level of Service		F		er men en sen en sen en sen	D	Partition and a state of the state	E	В		F	F	
Approach Delay (s)		138.1			42.6			25.1	2000 - Scenet		96.0	
Approach LOS		F			D			С			F	
Intersection Summary												
HCM Average Control D	elay		81.9	Н	CM Lev	el of Se	rvice		F			
HCM Volume to Capacit	y ratio		1.09				an se se se Se an air air					
Actuated Cycle Length (s	5)	a ha a sha a sha a sha sha sha sha sha s	130.0	S	um of lo	ost time	(s)		18.2			
Intersection Capacity Uti	lization	(	96.4%	IC	CU Leve	l of Serv	/ice		F			
Analysis Period (min)	and a start of the start of the start of the start of the start of the start of the start of the start of the s		15									
c Critical Lane Group												

CAP Clough, Harbour & Associates, LLP

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		र्स	7		4		ሻ	<b>1</b> ,		ሻ	<b></b>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00		1.00	1.00		1.00	1.00	
Frt		1.00	0.85		1.00		1.00	0.97		1.00	0.99	
Flt Protected		0.96	1.00		0.97		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1792	1583		1797		1770	1814		1770	1849	
Fit Permitted		0.68	1.00		0.64		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1260	1583		1192		1770	1814		1770	1849	
Volume (vph)	75	20	130	95	50	5	105	405	85	5	1025	55
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	83	22	144	106	56	6	117	450	94	6	1139	61
RTOR Reduction (vph)	0	0	122	0	1	0	0	4	0	0	1	0
Lane Group Flow (vph)	0	105	22	0	167	0	117	540	0	6	1199	0
Turn Type	Perm		Perm	Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8								
Actuated Green, G (s)		19.2	19.2		19.2		12.7	88.0		1.6	76.9	
Effective Green, g (s)		20.2	20.2		20.2		13.7	89.0		2.6	77.9	
Actuated g/C Ratio		0.16	0.16		0.16	S. 1997. 1997	0.11	0.68		0.02	0.60	
Clearance Time (s)	a në an tura tura di mort	5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		196	246		185		187	1242		35	1108	
v/s Ratio Prot							c0.07	0.30		0.00	c0.65	
v/s Ratio Perm		0.08	0.01		c0.14							
v/c Ratio		0.54	0.09		0.90	8 60 S (S)	0.63	0.43		0.17	1.08	
Uniform Delay, d1	i anterio de la composición de la composición de la composición de la composición de la composición de la comp	50.6	47.0	11. Turker half a faans soor	53.9		55.7	9.2		62.6	26.0	
Progression Factor		1.00	1.00		1.00		1.00	1.00		1.18	0.17	
Incremental Delay, d2	National construction of the second second	2.8	0.2	ayan san ta san ang say sa a	39.9		6.4	1.1	and the formation of the second second	0.2	38.7	
Delay (s)		53.4	47.2		93.8		62.1	10.3		74.4	43.2	
Level of Service		D	D	ekkennen mann	F	del n'est de la decembra	E	B	an independent of the second	E	D	
Approach Delay (s)		49.8			93.8			19.5			43.4	
Approach LOS		D			F			В			D	
Intersection Summary												
HCM Average Control D	elay		40.9	Н	CM Lev	el of Se	rvice		D			
HCM Volume to Capacity	y ratio		0.99									
Actuated Cycle Length (s	s)	ar an an an an an an an an an an an an an	130.0	S	um of lo	st time (	(s)		18.2			
Intersection Capacity Uti	lization		38.8%	IC	CU Leve	l of Serv	rice		E			
Analysis Period (min)	de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la		15	n an								
c Critical Lane Group												



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$			44			4.			÷Ĵ+	
Sign Control		Stop		ere da Siedar i da Triancia da Angela	Stop			Stop			Stop	
Volume (vph)	5	120	80	50	165	15	5	160	25	25	240	10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	133	89	56	183	17	6	178	28	28	267	11
Direction, Lane #	EB 1	WB1	NB 1	SB 1								
Volume Total (vph)	228	256	211	306								
Volume Left (vph)	6	56	6	28								
Volume Right (vph)	89	17	28	11					ana ang ang ang ang ang ang ang ang ang	nament indet in the star		
Hadj (s)	-0.20	0.04	-0.04	0.03								
Departure Headway (s)	5.8	5.9	5.9	5.8								
Degree Utilization, x	0.36	0.42	0.35	0.49								
Capacity (veh/h)	560	553	543	575					ne nene na entre este ante este este este este este este este e	Androise, ngiga talat kag	1999-01909-0196-09-29-2	nodojen do mosed
Control Delay (s)	12.0	13.1	12.0	14.2								
Approach Delay (s)	12.0	13.1	12.0	14.2					na e conserva en conserva po		anne an ann an ann an ann an an an an an an	0.000.0000.000
Approach LOS	B	B	B	В							<u> </u>	
Intersection Summary												
Delay			13.0									
HCM Level of Service			В									
Intersection Capacity Uti	lization		59.2%	IC	U Leve	l of Sen	vice		В			
Analysis Period (min)	ağını səhəri da		15		ingen internet met met		oga ga aga ga ga					

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		÷.			4			<del>(</del> ].			<u>.</u>	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	10	130	50	50	125	5	55	175	55	15	345	10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	11	144	56	56	139	6	61	194	61	17	383	11
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	211	200	317	411								
Volume Left (vph)	11	56	61	17								
Volume Right (vph)	56	6	61	11		- 1		Ar 1979 (Arright Arriston)				-0-1-00-000-000-00
Hadj (s)	-0.11	0.07	-0.04	0.03								
Departure Headway (s)	6.5	6.7	6.1	6.0								e de la recentra de la depresenta de la
Degree Utilization, x	0.38	0.37	0.54	0.68								
Capacity (veh/h)	478	462	546	566			en en el construction de la construction de la construction de la construction de la construction de la constru La construction de la construction d				en de la desta de la desta de las	10049401.0001809
Control Delay (s)	13.5	13.7	15.9	20.9								
Approach Delay (s)	13.5	13.7	15.9	20.9	an na se en na sen de la sege	69999999999999999999999999999999999999						
Approach LOS	В	В	C	C								
Intersection Summary												
Delay			16.9									
HCM Level of Service			С	· · · · · · · · · · · · · · · · · · ·		1999 - 1999 - 1995 - 1995 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -			******			Second and a second second
Intersection Capacity Uti	lization		66.8%	K	CU Leve	l of Sen	vice		С			
Analysis Period (min)			15	n in na standard gebi		in al chanachtaire ar		en per en en en print en distriction de la construcción de la construcción de la construcción de la construcción		an an an an an an an an an an an an an a		ve meteringe
									<u>iupunsinan</u>			

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		¢.			ţ.			đ.			£.	
Sign Control		Stop			Stop		ka kenatar des Gantes Altaria	Stop			Stop	
Volume (vph)	5	70	10	10	105	110	5	20	15	135	45	10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	78	11	11	117	122	6	22	17	150	50	11
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	94	250	44	211								
Volume Left (vph)	6	11	6	150		(1999) Alexandra						
Volume Right (vph)	11	122	17	11	2010-1910-1910-1910-1910 2010-1910-1910-1910-1910-1910-1910-1910-	24474227012104247124042	talan di karana daran	an an ann an an ann an an an an an an an	ere elemente elemente en elemente en elemente elemente elemente elemente elemente elemente elemente elemente e	99993999999999999999999999999999999999		0.005000-000-0000
Hadj (s)	-0.02	-0.25	-0.17	0.14								
Departure Headway (s)	4.8	4.4	4.8	4.9						ina manin'ny tanàna mandritra.	1470 M.C. Alexandro de Construction de Cale	
Degree Utilization, x	0.13	0.31	0.06	0.29								
Capacity (veh/h)	688	766	673	685	*****			1979-9971 1971 1972 1972 1972 1972 1972 1972	and shirt from a second of the			1.479494949494949
Control Delay (s)	8.5	9.4	8.2	9.9								
Approach Delay (s)	8.5	9.4	8.2	9.9							Artes (al Decarety)	legen generale se
Approach LOS	A	Α	A	Α								
Intersection Summary												
Delay			9.3								Sectionado esp	
HCM Level of Service			А								1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -	
Intersection Capacity Uti	lization		39.3%	K	CU Leve	l of Sen	vice		A			
Analysis Period (min)			15					<u>han an u>			en en en en en en en en en en en en en e	

HCM Unsignalized Intersection Capacity Analysis 11: Howard Street & Pine Street

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			¢‡,			44	
Sign Control		Stop			Stop			Free			Free	
Grade		0%	at each an an a state an		0%			0%			0%	
Volume (veh/h)	10	5	20	25	5	30	15	780	50	50	1180	10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vpn)		6	22	- 28	6	33	1/	867	56	56	1311	11
Long Width (ft)			<u>Sector and a</u>					hidi kash ash isi				
Walking Speed (ft/s)		HIGH GOUGH	itan in an									
Percent Blockage												
Right turn flare (veh)	~~~~	n fan de ferste ferste ferste ste	alikitan dina sa jarabira.		an de de la companya de la companya de la companya de la companya de la companya de la companya de la companya		forten en de la composition	pilipili in niposopoli i	any sengal san kagamaya		ang pengkan kanang pengkan pengkan pengkan pengkan pengkan pengkan pengkan pengkan pengkan pengkan pengkan pen Pengkan pengkan p	vi/Citificility far
Median type		None			None	uçuş di	6.0.0.5					
Median storage veh)												
Upstream signal (ft)											1247	
pX, platoon unblocked	0.73	0.73	0.73	0.73	0.73		0.73	Steward Automatical States	ele la trackia della d	an ann ann an thair an th	and a second second second	land second concerns
vC, conflicting volume	2392	2383	1317	2381	2361	894	1322			922		
vC1, stage 1 cont vol			ini kana kana kana kana kana kana kana k							iyis Gilas dipundasi	to Historia i an Davida	
vCu unblocked vol	2897	2886	1/132	2882	2856	804	1/120			000		
tC, single (s)	71	65	62	2002	65	62	4.1		ridelidelejnik	922 4 1		
tC, 2 stage (s)							anto anti-standari Anto anti-standari				ana shekare	90030333193035
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	47	82	0	49	90	95		51 M - 51 M - 51 M - 51 M - 51 M - 51 M - 51 M - 51 M - 51 M - 51 M - 51 M - 51 M - 51 M - 51 M - 51 M - 51 M -	92		
cM capacity (veh/h)	4	10	121	3	11	340	346			741		
Direction, Lane #	EB 1	WB1	NB 1	SB 1								
Volume Total	39	67	939	1378				SC SP SP 2				
Volume Left	11	28	17	56	an de la competencia de la			ومميوم والمتاجر والمتاجر فروا	n instructure (againe constant) a	et en stanen filter van bier ve	en se se se se se se se se se se se se se	and a garanta
Volume Right	22	33	56	11			8 Q & 5	San tali Ser di				
Volume to Conseitu	010	040	346	/41 0.00		-5050-050-040						
Oueue Length 95th (ft)	0.70 Frr	9.10 Frr	0.00 A	0.00								000000000000000000000000000000000000000
Control Delay (s)	Fr	Frr	19	37		Kolonika (h.					Geologia	
Lane LOS	F	F	A	A								
Approach Delay (s)	Err	Err	1.9	3.7								
Approach LOS	F	F			n a a de anti da a de Merido na Miñe			981961 A 2010 V A 2011 V 20	an an an Anna Anna Anna Anna Anna Anna			
Intersection Summary												
Average Delay		90479506748-845-94	438.6			alar san barran da barran				·····		
Intersection Capacity Uti	lization	) ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( (	01.7%	IC	CU Leve	l of Sen	vice		G			
Analysis Period (min)		i i i i i i i i i i i i i i i i i i i	15		Nederal de Contactorio de		ana ang ang ang ang ang ang ang ang ang					anan marata

CAP Clough, Harbour & Associates, LLP

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Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	¥		Þ			4	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Volume (veh/h)	35	50	760	40	70	1170	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vph)	39	56	844	44	78	1300	
Pedestrians	same and a serie		o Martinonis testimosis	ana ana amin'ny faritr'o amin'ny faritr'o amin'ny faritr'o amin'ny faritr'o amin'ny faritr'o amin'ny faritr'o a	an an an an an an an an an an an an an a	en de la compañía de la compañía de la compañía de la compañía de la compañía de la compañía de la compañía de	
Lane Width (ft)	uneo ayaana						
Walking Speed (II/s)	de Ben Beine de			hiteksin kalender			
Picht turn flore (uch)							
Median tuno	None						
Median storage veh)	140110	baagaa ayaa aha					
Upstream signal (ft)		distration (	611				
pX, platoon unblocked	0.84	0.84			0.84		
vC, conflicting volume	2322	867			889		
vC1, stage 1 conf vol			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	e-e-series and		Companya sa aka sa a	
vC2, stage 2 conf vol							
vCu, unblocked vol	2570	842			868		
tC, single (s)	6.4	6.2			4.1		
tC, 2 stage (s)			و بر المراجع المراجع المراجع المراجع المراجع المراجع المراجع المراجع المراجع المراجع المراجع المراجع المراجع ا				· · · · · · · · · · · · · · · · · · ·
tF (s)	3.5	3.3			2.2		
p0 queue tree %	0	82	ağışlışıktara açışır.	sieviese staatsgi	88	i an an an an an an an an an an an an an	la al la produite bélievité de la de la desta participant de la construction de la construction de la construct
civi capacity (ven/n)	21	307			654		
Direction, Lane #	WB 1	NB 1	SB 1				
Volume Total	94	889	1378				
Volume Left	39	0	78	ya ya yang dipadan dapa	und ein Salada da Dagdagae	an an an an an an an an an an an an an a	
Volume Hight	56	44	0				
CSH Values la Casalini	4/	1/00	654				
Oueue Length 95th (ft)	2.01	0.52	U.12 10				
Control Delay (c)	241 659.7	<u></u>	60				
Lane LOS	000.7 F	0.0	ο.ο Δ	too (Dosueles)			
Approach Delay (s)	658 7	0.0	60				
Approach LOS	F						
Intersection Summary							
Average Delay	والمتعادية والمتعادية والمتعادية والمتعادية والمتعاد		29.9	and a constant on star of			
Intersection Capacity UI	tilization	1;	22.9%	IC	U Leve	l of Servi	ce H
Analysis Period (min)	e yan kata yang dan kata kata		15	ar fusion in picture a stat	wangangan kana ka	en farmen en familieren der stateren er	



	-	×.	<b>†</b>	1	1	Ļ	
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	Y		<b>1</b> ,			<del>د</del> أ	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Volume (veh/h)	30	55	350	10	55	505	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vph)	- 33	61	389	11	61	561	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type	None						
Median storage veh)	iyo dana da ayar ya da ya da ya	ada da serie da de terretaria de la	e traducta de cardo da de contra de		alexile and the second	antoine <u>tar</u> m <u>ar matri</u> an taran m	
Upstream signal (ft)			5, 65 ( <b>5</b> , 65)			667	
pX, platoon unblocked	0.74			aliselees alise varies		in en sen de la companya de la companya de la companya de la companya de la companya de la companya de la comp	
vC, conflicting volume	10/8	394			400		
VC1, stage 1 cont vol	k den de deçerey	an ipeleistet oppleg	ar ang sa ang sa ang sa	Sentenderstelen de	nigor (artain 2014)		
vC2, stage 2 cont vol	4405	004			400		
	1105	394	este and a state of the		400	an an an an an an an an an an an an an a	
tC, Single (s)	0.4	0.2			4,1		
tC, Z Staye (S)	3 6	ാറ			- <b>^</b> ^		
n) queue free %	0.0 80	0.0 Q1			<b>2.2</b> 05		
cM canacity (veh/h)	163	655		anta algun anta algun	1160		
	34/0.2				1100		
Direction, Lane #	WB I	NB 1 400	<u>SB 1</u>				
Volume Loft	94	400	622				
Volume Leit	<u>৩</u> ১ ০ৰ	U 44	וס				
	01	1700	1150				
Volume to Canacity	0.20	0.04	0.05				
Ouque Length 95th (ft)	0.00 21	9.49 0	0.00 A			0.00000000000000000	
Control Delay (e)	21.1	0	 				
Lane LOS	с. С	U.V	Δ				
Annroach Delay (s)	21 1	٥n	14				
Approach LOS	с С		L . T	20099002209	460135166755		
Intersection Summarv							
Average Delav			2.6				
Intersection Capacity Ut	ilization		63.7%	IC	U Level	of Servic	De B
Analysis Period (min)			15	e por l'hori hori a de la Caracteria da Caracteria da Caracteria da Caracteria da Caracteria da Caracteria da C	n on an a' an an an an an an an an an an an an an	an da kara ta kara kara kara kara kara kara	-a a-a a-a-a-a a-a

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Movement	EBL	EBR	NBL	NBT	SBT	SBR					
Lane Configurations	۲¥			র্ন	ţ,						
Sign Control	Stop			Free	Free						
Grade	0%			0%	0%						
Volume (veh/h)	55	15	10	285	485	45					
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90					
Hourly flow rate (vph)	61	17	11	317	539	50					
Pedestrians	destandet overvete	Sector and the sector sector sector sector sector sector sector sector sector sector sector sector sector secto	erente behandt anderente	on water name	a ista settette Assassis	a da garana da sa ata ya nata wana sa sa sa sa			erenza erendet.	en en en en en en en en en en en en en e	1
Lane Width (ft)											
Walking Speed (ft/s)				den ander ander ander ander ander ander ander ander ander ander ander ander ander ander ander ander ander ander	Submenske sous		i de calenda de sécle		endestelandskov	tanganang Sikerana Auro Gul	talihin na ana ing bia ila katika
Percent Blockage											
Modion type	Nono							Alian ana amin' amin' amin' amin' amin' amin' amin' amin' amin' amin' amin' amin' amin' amin' amin' amin' amin'			
Median storage yeb)	INUTIE				020105005005						
Linstream signal (ft)				1020	ara	lenistis izr i sin izrice	<u> Angerson</u> an	<u>zenen</u> en	en en en en en en en en en en en en en e		
pX. platoon unblocked	0.77	0.77	0 77						880 (89 (88 S) (88 S) S		
vC. conflicting volume	903	564	589								
vC1, stage 1 conf vol	ele generation al particular.		ni mula serie serie				n glagnan an la gragnagan	an an an an an an an an an an an an an a	den de la presente		
vC2, stage 2 conf vol											
vCu, unblocked vol	873	430	463								
tC, single (s)	6.4	6.2	4,1								
tC, 2 stage (s)											
tF (s)	3.5	3.3	2,2								
p0 queue free %	75	97	99	en anti-	a da si a da si a da sa da sa da si			ورور وروان ورور وروان			
cM capacity (veh/h)	242	478	841						0.10.20.00		
Direction, Lane #	EB 1	NB 1	SB 1								
Volume Total	78	328	589								
Volume Left	61	11	0	egy eigeise Assista	Andread and a state of the stat			unia da	egendanışı akraşılaşılar		anna dhalanna an
	1/	0	1700								
Volume to Conceitu	2/1	841	1700				ng king king king king king king king ki				aakeesaaaaaak
	0.29 20	0.01 1	0.35								0.000.000.0000
Control Delay (s)	23.6	្នុ	٥Ň								
Lane LOS	с С	0.0 A	0.0								
Approach Delay (s)	23.6	0.5	0.0				ta astronomica de la comunicación de la comunicación de la comunicación de la comunicación de la comunicación d Esta comunicación de la comunicación				
Approach LOS	C					************************		999, 1999, 1999, 1999, 1999, 1999, 1999, 1999, 1999, 1999, 1999, 1999, 1999, 1999, 1999, 1999, 1999, 1999, 199		ngahisanganggo.	
Intersection Summary											
Average Delay	the part state of sector 1.1		2.0								
Intersection Capacity Uti	lization	Ś	38.9%	IC	U Level	of Service	0		Α		
Analysis Period (min)		and a state of the second	15	an tana sa sa sa sa sa sa			a ala falan sa di sa sa sa sa sa				

	٭		$\rightarrow$	4		×.	1	Ť	1	1	Ļ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	۲	1≱		ሻ	4			<b>4</b> .			đ.	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	12	11	11	14	14	14	11	11	11
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	ing sang
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	and or other second
Frt	1.00	0.99		1.00	0.99			1.00			0.98	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.99	
Satd. Flow (prot)	1711	1839		1770	1784			1961			1762	isi di ava tradiciji General da da da da
Flt Permitted	0.25	1.00		0.34	1.00			0.90			0.94	
Satd. Flow (perm)	452	1839		636	1784			1779			1669	
Volume (vph)	60	380	35	60	465	30	50	235	10	35	250	40
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	67	422	39	67	517	33	56	261	11	39	278	44
RTOR Reduction (vph)	0	5	0	0	3	0	0	1	0	0	5	0
Lane Group Flow (vph)	67	456	0	67	547	0	0	327	0	0	356	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	na para na kanabar
Permitted Phases	2			6		0.0000000	8			4		
Actuated Green, G (s)	21.0	21.0		21.0	21.0			17.9			17.9	Oldersen and Arts
Effective Green, g (s)	22.0	22.0		22.0	22.0			18.9			18.9	
Actuated g/C Ratio	0.41	0.41		0.41	0.41			0.35			0.35	
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	185	753		261	731			626			587	
v/s Ratio Prot		0.25			c0.31						21177-11-11-11-11-11-11-11-11-11-11-11-11	See and the second second
v/s Ratio Perm	0.15			0.11		este sur estat. Stanica specifica		0.18			c0.21	
v/c Ratio	0.36	0.61		0.26	0.75			0.52			0.61	
Uniform Delay, d1	11.0	12.4		10.5	13.5			13.8			14.3	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	1.2	1.4		0.5	4.2			0.8			1.8	
Delay (s)	12.2	13.8		11.0	17.7			14.6			16.1	
Level of Service	В	В		В	В	Geographics Society and Addition		В			В	
Approach Delay (s)		13.6			17.0			14.6			16.1	
Approach LOS		В			В			В			В	
Intersection Summary												
HCM Average Control D	elay		15.4	H	CM Lev	el of Se	rvice		В			
HCM Volume to Capacity	y ratio	a a ann ann ann ann ann ann ann ann ann	0.61	unerne en strepe fils	s an ann an an an an Ard Ard				er ny sinana 1944 (Selah		an an an an an an an an an an an an an a	server verse av est
Actuated Cycle Length (s	3)		53.7	S	um of lo	ost time	(s)		8.0			
Intersection Capacity Util	lization	(	57.4%	IC	CU Leve	l of Sen	/ice	una de la construir de servició	С	na saanan 1975 ya 1995 k	erse sterne å 700 for	a an tha an Anna Anna Anna.
Analysis Period (min)			15									

#### HCM Signalized Intersection Capacity Analysis 2: Main Street & South Union St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ኻ	ŧ			ţ,		٣	<b>1.</b>				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	10	10	16	16	16	10	11	11	12	12	12
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0	<u>Vigioine</u>			
Lane Util. Factor	1.00	1.00	ande seletae este	na international de la constant	1.00	and an an and a state	1.00	1.00	2014299-009-099099 2014-099-099-0990-09		hina ny taona amin'ny taona 1996. N	artealle a gailteale
Frt	1.00	1.00			0.99		1.00	0.99				
Flt Protected	0.95	1.00	-angenie en en televier (og net e		1.00		0.95	1.00		en en en en en en en en en en en en en e		1999-1991-1991-199 1999-1999-1999-1999-
Satd, Flow (prot)	1888	1739		lignicin det o	1881		1652	1776	Na Katika katala da			
Flt Permitted	0.27	1.00	Almonno (nericinaria)	100100000000000000000000000000000000000	1.00	ang makadala kana s	0.95	1 00	adarati nga jagan	Seprepensi Street		
Satd. Flow (perm)	544	1739			1881		1652	1776				
Volume (vnh)	40	460	Û	٥	505	40	65	255	25	<u>Λ</u>	<u>ہ</u>	<u>ہ</u>
Peak-hour factor PHF	0.90	0,90	n qñ	പപ്പ	0.00	n añ	n an	 	n 90	nañ	ററ്	ററ്
Adi Flow (vph)	ΔΔ	511	0.00 0	0.00 A	561	0.00 AA	70	283	28	0.00	0.00	0.50
BTOB Beduction (voh)	'n	ο 1	ň	ň	С. А	 0	' - ^	200	20 A	ň	n n	ň
Lane Group Flow (vph)	<b>У</b> ДД	511	<u>м</u>	м Л	601	0 0	マク マウ	308 208	v A	× ∧	О	<b>v</b>
Parking (#/hr)	er Statestad			ň	001	്റ്	<b>ے ،</b> 1909/1907	308		v		V
	Porm			X			Dorm					
Protected Phases		9			A		rem	0				NGWA/AA
Permitted Phases	2	4			U		0	0				
Actuated Green G (c)	222	<b>00 2</b>	(alatanini data (art).		20.2		106	10 6	na de la ferencia. La ferencia			
Effective Green a (s)	22.2	22.3		255-355-1692-165	22.0	SI SU CUIT	10.0	14.6				
Actuated o/C Batio	0.0 ∩_//8	<u>лия</u>		aliyaratiya	20.0 1/10		14.0	14.0 0.00				alexisteres
Clearance Time (c)	5. <del>π</del> 0	- <del>0.70</del> 5.0			0.40 E A		0.00 E A	0.00 E A		80.400.664464		1991099169
Vehicle Extension (c)	0.U 2.A	2.0			3.0		0.0	0.0				
Venicle Extension (s)	0.0	0.0			0.0		400	- 0.U - 0.7	5			
V/a Potio Prot	202	009	kani kungenaki.		907	tinggen oppgangen.	499	537		syndrosen (send	yazan inakiyeksi veka	
v/s Ratio Porm	0 00	0.29			00.32		<u> </u>	CU. 17				
v/s hallo reini	0.00	0.04		ionistaisensi	000		0.04	~ ~ ~ ~	******			ikonikovas
Uniform Dolov, d1	7.0	0.01			0.00		0.14	14.0	(A. 1997)			
Drogrossion Easter	1.0	9.2			9.0		12.3	14.2		ala katakatak	and a definition of the	
Incromontal Dolou, d2	1.00	1.00		Senti Maria de	1.00		1.00	1.00				
Dolou /c)	U.3 70	1.3 40.4			. I.O مراجع		U.I	د. حصصه		Souled Atlantics		NEGENERAS
Level of Service	/.9 ^	10.4 D	Sanga yango		I 1.3 D		IZ.4	1 <b>3./</b>				
Approach Dolou (c)	~	100		100.000.000.000		S	D	D			~ ~ ~	0.55999999
Approach LOS		iv.c B			I LO B			ID.I R			υ.υ Δ	
Intersection Summary		<u> </u>			5			U			^	
HCM Average Control D	elav		11.9	Н	CMLev	el of Se	rvice		R			
HCM Volume to Capacity	v ratio		0.59						u Nagetak			
Actuated Cycle Length (	,		48.3	<u>S</u> ı	um of lo	st time	(s)		ΩΛ			
Intersection Canacity Uti	, lization	4	54.8%	ic ic	 	Inf Son	vice		υ.υ Δ			
Analysis Period (min)			15		e na santa Y Sa		1 1 <b>1 1 1 1 1</b> 1		<b>~</b>			
c Critical Lane Group												
	٦		$\mathbf{F}$	4	4	۸.	1	†	۴	1	ţ	4
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	٣	<b>t</b> ,		ሻ	¢	7		<u>A</u>		ሻ	*	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	11	11	12	12	12	10	10	12
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0		4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00
Frt	1.00	0.99		1.00	1.00	0.85		0.95		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00		1.00		0.95	1.00	1.00
Satd. Flow (prot)	1540	1659		1711	1801	1531		1583		1652	1739	1583
Fit Permitted	0.42	1.00		0.51	1.00	1.00		0.38		0.86	1.00	1.00
Satd. Flow (perm)	682	1659		913	1801	1531		596		1503	1739	1583
Volume (vph)	110	260	20	70	350	160	5	35	25	225	285	85
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	122	289	22	78	389	178	6	39	28	250	317	94
RTOR Reduction (vph)	0	3	0	0	0	105	0	24	0	0	0	62
Lane Group Flow (vph)	122	308	0	78	389	73	0	49	0	250	317	32
Parking (#/hr)	0	0	0				0	0	0			
Turn Type	Perm			Perm		Perm	Perm			pm+pt		Perm
Protected Phases		2			6			8		7	4	
Permitted Phases	2			6		6	8			4		4
Actuated Green, G (s)	20.9	20.9		20.6	20.6	20.6		4.8		16.8	16.8	16.8
Effective Green, g (s)	21.9	21.9		21.6	21.6	21.6		5.8		17.8	17.8	17.8
Actuated g/C Ratio	0.42	0.42		0.41	0.41	0.41		0.11		0.34	0.34	0.34
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0		5.0		5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0		3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	283	689		374	738	628		66		530	587	535
v/s Ratio Prot		0.19			c0.22				eng ka ar	0.07	c0.18	
v/s Ratio Perm	0.18			0.09		0.05		c0.08		0.09		0.02
v/c Ratio	0.43	0.45		0.21	0.53	0.12		0.74		0.47	0.54	0.06
Uniform Delay, d1	11.0	11.1		10.0	11.7	9.6		22.7		14.2	14.1	11.8
Progression Factor	1.00	1.00	9.09-52.05	1.00	1.00	1.00		1.00		1.00	1.00	1.00
Incremental Delay, d2	1.1	0.5		0.3	0.7	0.1		35.7		0.7	1.0	0.0
Delay (s)	12.0	11.5		10.3	12.4	9.7		58.5		14.8	15.2	11.8
Level of Service	В	В		В	В	А		E		В	В	В
Approach Delay (s)		11.7			11.4	5 10 20 5		58.5			14.6	
Approach LOS		В			В			E			В	
Intersection Summary												
HCM Average Control D	elay		14.5	Η	ICM Lev	el of Se	rvice		В			
HCM Volume to Capacity	y ratio		0.48									
Actuated Cycle Length (s	3)		52.7	S	um of lo	ost time	(s)		8.0			
Intersection Capacity Uti	lization	Ę	64.2%	K	CU Leve	l of Ser	vice		A			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		र्भ	7	ሻ	4			র্ব	7	ኻ	<b>î</b> ,	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	12	12	16	12	12	12
Total Lost time (s)		4.0	4.0	4.0	4.0			4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	
Frt		1.00	0.85	1.00	0.97			1.00	0.85	1.00	0.99	
Flt Protected		1.00	1.00	0.95	1.00			0.98	1.00	0.95	1.00	
Satd. Flow (prot)		1733	1478	1486	1525			1823	1794	1593	1840	
Flt Permitted		0.97	1.00	0.55	1.00			0.82	1.00	0.65	1.00	
Satd. Flow (perm)		1681	1478	859	1525			1531	1794	1093	1840	
Volume (vph)	15	245	85	55	315	65	65	85	60	105	110	10
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	272	94	61	350	72	72	94	67	117	122	11
RTOR Reduction (vph)	0	0	43	0	9	0	0	0	41	0	3	0
Lane Group Flow (vph)	0	289	51	61	413	0	0	166	26	117	130	0
Parking (#/hr)				0	0	0	0			0		
Turn Type	Perm		Perm	Perm			Perm	*****	Perm	Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6			8		8	4		
Actuated Green, G (s)		17.1	17.1	17.1	17.1			12.4	12.4	12.4	12.4	
Effective Green, g (s)		18.1	18.1	18.1	18.1			13.4	13.4	13.4	13.4	ang papang ang ang ang ang ang ang ang ang ang
Actuated g/C Ratio		0.41	0.41	0.41	0.41			0.30	0.30	0.30	0.30	
Clearance Time (s)		5.0	5.0	5.0	5.0			5.0	5.0	5.0	5.0	2010-000-000
Vehicle Extension (s)		3.0	3.0	3.0	3.0			3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		684	601	349	620		****	461	540	329	554	
v/s Ratio Prot					c0.27						0.07	
v/s Ratio Perm	. 19. (m) n (1999) (19. 1997) (199	0.17	0.03	0.07	ner estas teta pela pena	an an an an an an an an an an an an an a	ana ana amin'ny faritr'o de	c0.11	0.01	0.11		oo dadadka oʻda kabr
v/c Ratio		0.42	0.08	0.17	0.67			0.36	0.05	0.36	0.24	
Uniform Delay, d1		9.5	8.1	8.4	10.7			12.2	11.0	12.2	11.7	aa, asgi sagi us
Progression Factor		1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.4	0.1	0.2	2.7			0.5	0.0	0.7	0.2	
Delay (s)		9.9	8.2	8.7	13.5			12.7	11.1	12.8	11.9	
Level of Service		А	А	А	В			В	В	В	В	
Approach Delay (s)		9.5			12.8			12.2			12.3	
Approach LOS		Α			В			В			В	
Intersection Summary												
HCM Average Control D	elay		11.7	H	ICM Lev	el of Se	rvice		В			
HCM Volume to Capacity	y ratio		0.46									
Actuated Cycle Length (s	5)		44.5	S	lum of lo	ost time	(s)	·····	8.0		en en anterna en anterna portes de la segui	
Intersection Capacity Uti	lization		59.0%	j(	CU Leve	l of Serv	/ice		В			
Analysis Period (min)			15			a a provinsi di Sergini si di					n yn acher yn arwyn yn a fwydd dar	0-0-0000000000
c Critical Lane Group							olande operig Steriotenie					

#### HCM Signalized Intersection Capacity Analysis 20: Howard Street & South Winooski Ave

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Movement	EBL2	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR2	SBL	SBT	SBR
Lane Configurations		4			4			4			44	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	14	14	14	12	12	12	16	16	16
Total Lost time (s)		4.0			4.0		d de la Ciencia. Como de la Ciencia	4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.97			0.99			1.00			0.99	
Fit Protected		0.99			0.98			1.00			1.00	
Satd. Flow (prot)		1794			1926			1853	el esterador Referencia		2093	
Flt Permitted		0.94			0.89			0.98			0.99	
Satd. Flow (perm)		1708			1747			1816			2080	
Volume (vph)	15	45	15	20	30	5	15	270	5	5	245	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	50	17	22	33	6	17	300	6	6	272	17
RTOR Reduction (vph)	0	11	0	0	0	0	0	<b>1</b>	0	0	2	0
Lane Group Flow (vph)	0	73	0	0	61	0	0	322	0	0	293	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		3			3		a na sana ang sa sa sa sa sa sa sa sa sa sa sa sa sa	2			6	
Permitted Phases	3			3			2	2		6	6	
Actuated Green, G (s)		15.0			15.0			30.0			30.0	
Effective Green, g (s)		16.0			16.0			31.0			31.0	
Actuated g/C Ratio		0.20			0.20			0.39			0.39	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Lane Grp Cap (vph)		342		****	349			704			806	
v/s Ratio Prot												
v/s Ratio Perm		c0.04	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -		0.03	ang paramatan di sa sa sa sa sa sa	an an an an an an an an an an an an an a	c0.18			0.14	
v/c Ratio		0.21			0.17	ien de rectande Rectanción de la composition		0.46	an dan di dan sin Kang bahar sin		0.36	
Uniform Delay, d1	2001-201-000-001-10-12-00-00	26.7	fan yn ferfyn fri yn fernan ferfynnau yn		26.5	1999 - Albert Mc17943 (1996)		18.2	9-94000-04999999999999999	na fund mand te brittenska britter	17.5	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.4			1.1			2.1			1.3	
Delay (s)		28.2			27.6			20.4			18.7	
Level of Service		С			С			С			В	
Approach Delay (s)		28.2			27.6			20.4			18.7	
Approach LOS		С			С			С			В	*****
Intersection Summary												
HCM Average Control D	elay		27.8	Н	CM Lev	el of Se	rvice		С			
HCM Volume to Capacit	y ratio		0.51									
Actuated Cycle Length (	s)		80.0	Si	um of lo	ost time	(s)		12.0			
Intersection Capacity Uti	ilization	(	59.2%	IC	U Leve	l of Sen	rice		В			
Analysis Period (min)			15									
c Critical Lane Group												



	<b>\$</b>	¥	~	t
Movement	SWL2	SWL	SWR S	SWR2
Lane Configurations	¥	¥4		
Ideal Flow (vphpl)	1900	1900	1900	1900
Lane Width	14	14	14	14
Total Lost time (s)	4.0	4.0		
Lane Util. Factor	1.00	1.00		
Frt	1.00	0.99		
Flt Protected	0.95	0.95		
Satd. Flow (prot)	1888	1884		
Flt Permitted	0.95	0.95		
Satd. Flow (perm)	1888	1884		
Volume (vph)	15	345	10	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	383	11	6
RTOR Reduction (vph)	0	1	0	0
Lane Group Flow (vph)	17	399	0	0
Turn Type	Split			
Protected Phases	4	4		
Permitted Phases				
Actuated Green, G (s)	20.0	20.0		
Effective Green, g (s)	21.0	21.0		
Actuated g/C Ratio	0.26	0.26		
Clearance Time (s)	5.0	5.0		
Lane Grp Cap (vph)	496	495		
v/s Ratio Prot	0.01	c0.21		
v/s Ratio Perm				
v/c Ratio	0.03	0.81		
Uniform Delay, d1	22.0	27.6		
Progression Factor	1.00	1.00		
Incremental Delay, d2	0.1	13.2		
Delay (s)	22.1	40.8		
Level of Service	С	D		
Approach Delay (s)		40.0		
Approach LOS		D		
Intersection Summary				

#### HCM Signalized Intersection Capacity Analysis 23: Flynn Avenue & Shelburne St. (Rt 7)

	٨		$\mathbf{i}$	4		×.	•	†	*	1	ţ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4	7		÷1	۲	۲	<b>†</b> 14		ሻ	<b>≜</b> ‡	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	0.99	17,000,000,000,000
Fit Protected		0.96	1.00		0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1797	1583		1808	1583	1770	3534		1770	3499	
Fit Permitted		0.75	1.00		0.78	1.00	0.19	1.00		0.25	1.00	
Satd. Flow (perm)		1393	1583		1460	1583	345	3534		470	3499	
Volume (vph)	55	20	160	30	20	35	140	1005	10	30	855	70
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	61	22	178	33	22	39	156	1117	11	- 33	950	78
RTOR Reduction (vph)	0	0	153	0	0	34	0	1	0	0	8	0
Lane Group Flow (vph)	0	83	25	0	55	5	156	1127	Ó	33	1020	0
Turn Type	Perm		Perm	Perm		Perm	pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4		4	8		8	2			6	an an tri tha an tra philippin	alayan (orang)
Actuated Green, G (s)		8.1	8.1		8.1	8.1	41.7	41.7		30.7	30.7	
Effective Green, g (s)		8.1	8.1		8.1	8.1	41.7	41.7		30.7	30.7	nandirad nadirad
Actuated g/C Ratio		0.14	0.14		0.14	0.14	0.72	0.72		0.53	0.53	
Clearance Time (s)		4.0	4.0		4.0	4.0	3.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		195	222		205	222	421	2550		250	1858	******
v/s Ratio Prot							0.04	c0.32			c0.29	
v/s Ratio Perm		c0.06	0.02	- ,	0.04	0.00	0.22			0.07	antia ya Anfordi ya King nga panana	
v/c Ratio		0.43	0.11		0.27	0.02	0.37	0.44		0.13	0.55	
Uniform Delay, d1		22.7	21.7		22.2	21.4	4.1	3.3		6.8	9.0	1999-1999 - Standard Standard
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.5	0.2		0.7	0.0	0.6	0.1		0.2	0.3	
Delay (s)		24.2	21.9		22.9	21.5	4.7	3.4		7.1	9.3	
Level of Service		С	C		С	С	Α	Α		А	А	
Approach Delay (s)		22.7			22.3			3.6			9.2	
Approach LOS		С			С			А			Α	
Intersection Summary												
HCM Average Control D	elay		8.3	Н	CM Lev	el of Se	ervice		A			
HCM Volume to Capacity	y ratio		0.53									
Actuated Cycle Length (s	s)		57.8	S	um of lo	ost time	(s)		12.0			
Intersection Capacity Uti	lization		55.5%	IC	CU Leve	l of Ser	vice		В			
Analysis Period (min)			15									
c Critical Lane Group												

# HCM Signalized Intersection Capacity Analysis 24: Home Avenue & Shelburne St. (Rt 7)

2 Lane 2028 PM

	٦		$\mathbf{i}$	4	4	×.	1	t	/	\$	Ļ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4	7	ኻ	ĥ		ኻ	41		ሻ	<u>_</u>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	10	12	16	12	10	10	10	10	10	10
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	0.95		1.00	0.95	
Frt		1.00	0.85	1.00	0.90		1.00	1.00		1.00	1.00	
Flt Protected		0.97	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd, Flow (prot)		1750	1478	1770	1909		1652	3297		1652	3295	
Flt Permitted		0.79	1.00	0.71	1.00		0.22	1.00		0.95	1.00	
Satd. Flow (perm)		1415	1478	1329	1909		382	3297		1652	3295	
Volume (vph)	35	25	165	30	20	35	195	1205	15	40	915	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	39	28	183	33	22	39	217	1339	17	44	1017	17
RTOR Reduction (vph)	0	0	162	0	35	0	0	1	0	0	1	0
Lane Group Flow (vph)	0	67	21	33	26	0	217	1355	0	44	1033	0
Turn Type	Perm		Perm	Perm			om+pt			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2					
Actuated Green, G (s)		7.7	7.7	7.7	7.7		41.5	41.5		3.6	28.3	
Effective Green, g (s)		7.7	7.7	7.7	7.7		42.5	42.5		3.6	29.3	
Actuated g/C Ratio		0.11	0.11	0.11	0.11		0.62	0.62		0.05	0.43	
Clearance Time (s)		4.0	4.0	4.0	4.0		5.0	5.0		4.0	5.0	
Vehicle Extension (s)		1.0	1.0	1.0	1.0		1.5	1.0		1.0	1.0	
Lane Grp Cap (vph)		160	167	150	215		550	2052		87	1414	
v/s Ratio Prot					0.01		0.10	c0.41		0.03	c0.31	
v/s Ratio Perm		c0.05	0.01	0.02			0.15					
v/c Ratio		0.42	0.12	0.22	0.12		0.39	0.66		0.51	0.73	
Uniform Delay, d1		28.2	27.3	27.6	27.3		11.9	8.3		31.5	16.2	
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.6	0.1	0.3	0.1		2.1	1.7		1.7	3.4	
Delay (s)	and the standard standards	28.9	27.4	27.8	27.4		14.0	10.0		33.2	19.6	
Level of Service		C	C	С	C		В	A		С	В	
Approach Delay (s)		27.8			27.5			10.5			20.1	
Approach LOS		С			C			В			C	
Intersection Summary												
HCM Average Control D	elay		16.0	Н	CM Lev	rel of Se	rvice		В			
HCM Volume to Capacity	y ratio		0.62									
Actuated Cycle Length (s	<b>\$)</b>		68.3	S	um of lo	ost time i	(s)		8.0			
Intersection Capacity Uti	lization		57.0%	IC	CU Leve	l of Serv	vice		В			
Analysis Period (min)			15									
c Critical Lane Group						•						

HCM Signalized Intersection Capacity Analysis 25: I-189 OFF RAMP & Shelburne St. (Rt 7)

2 Lane 2028 PM

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				۲	র			<b>4</b> 12			朴ኈ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	14	12	12	12	12	12	12
Total Lost time (s)				4.0	4.0			4.0			4.0	
Lane Util. Factor	Vortungen Breisen.	n na sang kapana baha	******	0.95	0.95	ann darfala a freinnar		0.95			0.95	and designed states to
Frt				1.00	1.00			1.00			1.00	
Flt Protected			a ji niningi sana ni sa	0.95	0.96	a de la contra de l La contra de la contr	1999 - San San San San San San San San San San	1.00			1.00	Beerlen of the second second
Satd. Flow (prot)				1681	1699			3539			3537	
Flt Permitted	()			0.95	0.96			1.00		(* **)*);*******************************	1.00	
Satd. Flow (perm)				1681	1699			3539			3537	
Volume (vph)	0	0	0	1445	140	0	0	750	0	0	1420	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	1606	156	0	0	833	0	0	1578	6
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	<b>1</b>	0
Lane Group Flow (vph)	0	0	0	858	904	0	0	833	0	0	1583	0
Turn Type				Perm			Perm					
Protected Phases		011090100011100.019		Aleberer of severe	8			2		por a construction of a	6	na ana ang ang ang ang ang ang ang ang a
Permitted Phases				8			2					
Actuated Green, G (s)		Antonio en la constitució		28.0	28.0		p	30.0		alati mangan tersebut terse	30.0	
Effective Green, g (s)				30.0	30.0			32.0			32.0	
Actuated g/C Ratio				0.43	0.43			0.46			0.46	
Clearance Time (s)				6.0	6.0			6.0			6.0	
Vehicle Extension (s)				3.0	3.0		1	3.0			3.0	
Lane Grp Cap (vph)				720	728			1618			1617	
v/s Ratio Prot				1 - Ly - Ly - Ly - Ly - Ly - Ly - Ly - L	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	, , , , , , , , , , , , , , , , , , ,		0.24			c0.45	-9
v/s Ratio Perm				0.51	0.53					ali dali ali da Menistra Specia		
v/c Ratio	i foloni e forti de la folont henti	na na minina na kata na kata kata kata k	an an an an an an an an an an an an an a	1.19	1.24	anten en ten en de ten de ten de		0.51	-1	1009 (* 1997) (* 1997) 1009 (* 1997)	0.98	en en en en en en en en en en en en en e
Uniform Delay, d1				20.0	20.0			13.5			18.7	
Progression Factor	, ng san gara ng mga ng sa gara ng sa	a nden den stander den de	20,000,000,000,000,000	1.00	1.00	an oo faan oo geroorde ferme		1.00			1.00	ala hadan da sa
Incremental Delay, d2				99.7	120.3			0.3			17.4	
Delay (s)	enne dense densen. De			119.7	140.3			13.8			36.1	
Level of Service				F	F			В			D	
Approach Delay (s)		0.0			130.3			13.8			36.1	
Approach LOS		A			F			B			D	
Intersection Summarv												
HCM Average Control De	elav		71.4	F	ICM Lev	el of Ser	vice		E			
HCM Volume to Capacity	ratio		1.11				a					sanasan ang kang kang kang kang kang kang kan
Actuated Cycle Length (s	1		70.0		Sum of Ic	ost time /s	s)		8.0			
Intersection Capacity Util	ization	8	39.8%	1 	CU Leve	l of Servi	cancellation Ce		E		01201040000000	antolocional
Analysis Period (min)			15									
c Critical Lane Group	aaa ah ing barang kata kata ka	n en						an filing an serier ginabar gin			an an an an Alaista an A	

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			<b>.</b>	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	20	135	60	75	110	15	20	275	65	55	260	25
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	22	150	67	83	122	17	22	306	72	61	289	28
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	239	222	400	378								
Volume Left (vph)	22	83	22	61		un est en deixer Generation			ania ny Asia. Na amin'ny Asia			
Volume Right (vph)	67	17	72	28			*******					
Hadi (s)	-0.11	0.06	-0.06	0.02								
Departure Headway (s)	7.0	7.2	6.4	6.6								
Degree Utilization, x	0.47	0.45	0.72	0.69								
Capacity (veh/h)	445	431	532	516	*********			n a casa a secondar a segundar	90900000000000000000000000000000000000			
Control Delay (s)	16.0	16.0	24.0	22.8								
Approach Delay (s)	16.0	16.0	24.0	22.8							······································	
Approach LOS	С	C	C	C								
Intersection Summary												
Delay			20.7									
HCM Level of Service			С				an an tha tha tha tha tha tha tha tha tha tha				,,,,,,,,,	1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -
Intersection Capacity Uti	lization		67.5%	IC	CU Leve	l of Ser	vice		С			
Analysis Period (min)			15			la la la la la la la la la la la la la l						

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Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	¥		4			स्
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	150	5	380	215	5	625
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	167	6	422	239	6	694
Pedestrians	erendiză anazendarea d	n de sta enten tata tit.	one and a decision of the		مىتىر ۋەتتۇ مۇتىرىيە رولىر	
Lane Width (ft)						
Walking Speed (ft/s)	iemena kolomiela kir		sin in station (nami)	uken kalendari serintek		
Percent Blockage						
Hight turn hare (ven)	Mona		an da an			
Median storage yeb)	INOTIE					
Instream signal (ft)		hadigidan geladigida			h dishtiqi tagi ta	837
nX platoon unblocked	0 93		1999-1999-1999 1999-1999			007
vC. conflicting volume	1247	542			661	
vC1, stage 1 conf vol		inin sejan <b>Ti</b> na S <u>A</u> TINA (S		949-1899-1899-1899 1		
vC2, stage 2 conf vol						
vCu, unblocked vol	1264	542		1999 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -	661	en en en en anverde a se en en el en en en en en en en en en en en en en
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	4	99	nga Marangan Kating Kating An	يتوريد المحمد المح	99	
ci capacity (ven/n)	1/4	541			927	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	172	661	700			
Volume Left	167	0	6	and shipshipshipshipships	da fuquetado en preferir e	
Volume Hight	6	239	0			
C2H	178	1700	927	an an an an an an an an an an an an an a	ininesti a fonomada	
Volume to Capacity	100	0.39	0.01			
Control Dolou (o)	190	0	0			
	112.0 E	0,0	U.2 A			
Approach Delay (s)	112 8	0.0	ົດົົ			
Approach LOS	F					
Intersection Summary						
Average Delay			12.7			
Intersection Capacity Ut	ilization	Ę	52.2%	IC	U Leve	el of Service A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis 22: Birchcliff Pkwy & Shelburne St. (Rt 7)

	٠		$\mathbf{i}$	-		•	1	1	1	· /•	↓ ·	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		44			£.			đ1,			ፈቴ	
Sign Control		Stop			Stop	C. C. C. C.		Free			Free	
Grade		0%			0%			0%		ne a groupe and an	0%	an sint mise
Volume (veh/h)	35	0	60	10	0	10	55	1005	5	5	905	30
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	39	0	67	11	0	11	61	1117	6	6	1006	33
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)		o <b>z</b> akowani	i o da de agastigados		a ing ang ang ang ang ang ang ang ang ang a			aalaan kan jagaa yaa		en en en en en en en en en en en en en e		Mir-Miria Asia-
Median type		None			None							
Niedian storage ven)				i des sections in distances	an an an an an an an an an an an an an a	ana ang ang ang ang ang ang ang ang ang	han an  State and the second second second second second second second second second second second second second second	andre stander der stander der		listiirki katoot	idalih diaman	
Upstream signal (II)								1267			20.390.381	
vC conflicting volume	1706	0070	ein	4000	0000	T O 4	1000				iaetoo i tietoo t	840000000
vC1 stage 1 conf vol	1723	2210	013	1022	6696	301	1009			1122		
vC2 stage 2 conf vol											Milling weather	
vCu unblocked vol	1725	2278	519	1822	2292	561	1039			1122	000000000000	
tC. single (s)	7.5	6.5	6.9	7.5	6.5	69	4 1			41		
tC, 2 stage (s)				n de Dijeren de <b>de Graff</b> ersen.			89999999 <b>7</b> 9799999	a genel genel terrari e	dalene også gedde			halanini sodni br>Stati stati sodni sod
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	24	100	87	71	100	98	91		n (n 1967) (	99	,,	dente perto de terro dest
cM capacity (veh/h)	51	35	501	39	35	471	665			618		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	106	22	619	564	508	536						
Volume Left	39	11	61	0	6	0						
Volume Right	67	11	0	6	0	33						
cSH	119	71	665	1700	618	1700		den de la companya			terre and a second as	
Volume to Capacity	0.89	0.31	0.09	0.33	0.01	0.32						
Queue Length 95th (ft)	138	29	8	0	1	0				Section of the sector of the sector		u dan karanan kar
Control Delay (s)	123.1	/6.8	2.4	0.0	0.3	0.0						
Lane LUS Approach Dalau (a)	100 4	۲ م مح	A		A					dia amin'ny fisiana amin'ny fisiana amin'ny fisiana amin'ny fisiana amin'ny fisiana amin'ny fisiana amin'ny fis	ala kalèn desarat	
Approach LOS	123.1 F	7 <b>0,8</b> F	6.1		U. I							
Intersection Summary												
Average Delay			6.9									
Intersection Capacity Ut	ilization		72.1%	10	CU Leve	l of Sen	<i>r</i> ice		C			
Analysis Period (min)			15									

		$\mathbf{r}$	1	4	-	/					
Movement	EBT	EBR	WBL	WBT	NBL	NBR					
Lane Configurations	<b>4</b> î			<del>د</del> ا ا	¥						
Sign Control	Free			Free	Stop						
Grade	0%			0%	0%						
Volume (veh/h)	155	25	40	170	35	70					
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90					
Hourly flow rate (vph)	172	28	44	189	39	78					
Pedestrians				an an an an an an an an an an an an an a						·····	An and a second second second
Lane Width (ft)											
Walking Speed (ft/s)		6.5400.000.000.000.000	interi di si suddin tanki	norma Esperante mareir	spangalay digby 340-0444	sta lytta in substantia, sing y take		er and second contact	ther had not then ever		
Percent Blockage											
Right turn flare (ven)					<b>k</b> 1				si de la comunicación de la comunicación de la comunicación de la comunicación de la comunicación de la comunic		
Median type					ivone						
Unetroom cignol (ft)				221						<u>den ser pres</u>	
pX platoon unblocked				001	20638830203 2						
vC, conflicting volume			200		464	186					
vC1. stage 1 conf vol	iyadəyir yaxayı baryı.	selesed seleses								100,000,090,009	
vC2, stage 2 conf vol											
vCu, unblocked vol	,		200		464	186			anga ding dipertuh panga		
tC, single (s)		nie dziel (dziel inje) Geografie (dziel inje)	4.1		6.4	6.2		dalah (posta) Galak (posta)			
tC, 2 stage (s)											
tF (s)			2.2		3.5	3.3					
p0 queue free %	والمتعادي والمتعارف والمتعارف	فالمتعادية والمروما والمستحد فالم	97		93	91					
cM capacity (veh/h)			1372		538	856					
Direction, Lane #	EB 1	WB 1	NB 1								
Volume Total	200	233	117						이상 관계 전문	0120-20-2	
Volume Left	0	44	39			The second second second second second					
Volume Right	28	0	78								
CSH	1700	1372	715			et mellet preskog ditariotskop ditar	le pune conspiration de	a galabati ka	-	estato en la com	
volume to Capacity	0.12	0.03	0.16	6.00.00.0							
Queue Length 95th (ft)	U A A	3	15								
Long LOS	U.U	1./	- 11.U								
Approach Delou (a)	60	A 4 7	0 11 0						ing a an an an an an an an an an an an an a		
Approach LOS	ບ.ບ	- L <i>.I</i>	11.U R								
Approach LOO			L								
Intersection Summary											
Average Delay			3.1	(a) ja je popuja konstruization	ang ng sugar na sugar sa sugar sa sugar sa sugar sugar sugar sugar sa sugar sa sugar sa sugar sa sugar sa suga	galang ogganaan senaa	unayo, aga waaraa	alalas kasatara tari	in <u>n</u> asta di Sanata da Sa	engalas da talantar ta	م مى مەلىرىكى بىل بىل بىل بىل بىل بىل بىل بىل
Intersection Capacity Uti	lization		37.1%	- IC	CU Leve	I of Service	historia		A	6.2.2.0	
Analysis Period (min)			15								



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	T	WO-WAY STO	P CONTRO	L SUM	MARY			
<b>General Information</b>			Site In	formati	on			· · · · · · · · · · · · · · · · · · ·
Anelyst Ag y/Co. Date Performed Analysis Time Period	EJD CHA 12/22/05 PM PEAK	( HOUR	Intersec Jurisdict Analysis	tion ion Year		ROUTE 7 TOWN 0 2028 BUI	7/LOCUST, F BURLIN 'LD	/LEDGE GTON
Project Description BU	RLINGTON							
East/West Street: LOCU	ST/LEDGE		North/Sc	outh Stree	et: ROUTE	7	hm	
Intersection Orientation:	North-South		Study Pe	erioa (nrs	): 0.25			
Vehicle Volumes and	d Adjustment	S						
Major Street		Northbound				Southbo	und	
wovement	1	2	3		4	5	·····	<u> </u>
Volume		625	280		L	715		<u> </u>
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		<u> </u>
Hourly Flow Rate, HFR	0	694	311		44	794		16
Percent Heavy Vehicles	0	<del>~~</del>			2			
Median Type				Undivide	əd			
RT Channelized			0					0
Lanes	0	2	0		0	1		0
Configuration		Т	TR		LTR			
Upstream Signal		0				0		
Minor Street		Westbound				Eastbou	ınd	
Movement	7	8	9		10	11		12
	L	Т	R		L	Т		R
Volume	0	0	55		0	25		75
Pe Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Houny Flow Hate, HFH	0	0	61		0	27		83
Percent Heavy Vehicles	0		2		0	<u> </u>		2
Percent Grade (%)		0				0		
Flared Approach		N				N N		
Storage		0				0		
RT Channelized			0					0
	0	0	1		0	1		0
Configuration			<u> </u>					IR
Delay, Queue Length, an	d Level of Servi	ce						
Approach	NB	SB	<u>۷</u>	Vestboun	<u>d</u>		Eastbound	1
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LTR			R			TR
v (vph)		44			61			110
C (m) (vph)		685			515			158
v/c		0.06			0.12			0.70
95% queue length		0.21	I		0.40			4.09
Control Delay		10.6			12.9			68.1
OS		В			В	1		F
Approach Delay			L	12.9		1	68.1	
Approach LOS				В		1	F	

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	T\	NO-WAY STO	P CONTR	OL SL	JMM	IARY				
<b>General Information</b>			Site I	nform	atio	n				
Analyst Agency/Co. Date Performed Analysis Time Period	EJD CHA 12/22/05 PM PEAK	HOUR	Interse Jurisdi Analys	ction ction is Year			ROUTE 7 TOWN 0 2028 BUI	7/SOU1 F BURI ILD	"H W LING	ILLARD TON
Project Description BU	RLINGTON									
East/West Street: SOUT	H WILLARD		North/S	South S	treet:	ROUTE	7			
Intersection Orientation:	North-South		Study	Period (	hrs):	0.25				
Vehicle Volumes and	d Adjustments	3								
Major Street		Northbound			L		Southbo	ound		
Movement	1	2	3			4	5			6
Malum a	L	T	R			<u> </u>				R
Volume	80	545		~		0	//0			0
Hourty Flow Pate HEP	0.90	0.90	0.90	,		0.90	0.90			0.90
Percent Heavy Vehicles	2	803	0			2	035			U
Median Type	۷			Lindi	video	4				
BT Channelized			1 0	Onur	Viueu	1		1		0
Lanes	0	1	0			0	1 1			0
Configuration	LT	,	- ľ				$\frac{1}{T}$			~
Upstream Signal		0					0			
Minor Street		Westbound					Eastbou	Ind		
Movement	7	8	9			10	11			12
	L	Т	R			L	Т			R
Volume	0	165	0			0	0			0
Pe Hour Factor, PHF	0.90	0.90	0.90	)		0.90	0.90			0.90
Houny Flow Rate, HFR	0	183	0			0	0			0
Percent Heavy Vehicles	0	2	2			0	2			2
Percent Grade (%)		0					0			
Flared Approach		N					N			
Storage		0					0			
RT Channelized			0							0
Lanes	0	1	0			0	0	Ī		0
Configuration			TR							
Delay, Queue Length, an	d Level of Servic	;e								· · · · · · · · · · · · · · · · · · ·
Approach	NB	SB		Westbo	ound			Eastbo	bund	
Movement	1	4	7	8		9	10	1	1	12
Lane Configuration	LT			İ		TR				
v (vph)	88			1		183				
C (m) (vph)	785					83				1
v/c	0.11			1		2.20	†			
95% queue length	0.38					16.63		<u> </u>		1
Control Delay	10.2					660.9	<b></b>	<u> </u>		
	, v.c. R		1			555.0 E		<u> </u>		
Approach Dolou			I	L		r	1	<u> </u>		<u>I</u>
Approach LOC		<b>~</b>	 	- 000	0	······				
Approach LUS	w- wi			F						

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# **BUILD ALTERNATIVE 2**

### AND

# C-1 SECTION & C-2 SECTION ONLY 2008 AM PEAK HOUR

#### HCM Signalized Intersection Capacity Analysis 6: Main Street & Battery Street

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	٨		$\mathbf{i}$	1		•	1	†	1	1	¥	4												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBI	SBT	SBR												
Lane Configurations		<del>ل</del> ة:	7		र्भ	7		ፈጌ		٣	<u>.</u>													
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900												
Total Lost time (s)		4.0	4.0	·	4.0	4.0		4.0	argene begindene	4.0	4.0	al na serie de la constante de la constante de la constante de la constante de la constante de la constante de La constante de la  Lane Util. Factor		1.00	1.00		1.00	1.00		0.95		1.00	1.00	
Frt		1.00	0.85		1.00	0.85		0.99		1.00	1.00	er et en en en en en en en en en en en en en												
Fit Protected		0.98	1.00		0.98	1.00		1.00		0.95	1.00													
Satd. Flow (prot)		1828	1583		1819	1583		3490		1770	1856													
Fit Permitted		0.91	1.00		0.86	1.00		0.84		0.95	1.00													
Satd. Flow (perm)		1688	1583		1605	1583		2935		1770	1856													
Volume (vph)	15	25	25	50	55	125	40	350	25	285	575	15												
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90												
Adj. Flow (vph)	17	28	28	56	61	139	44	389	28	317	639	17												
RTOR Reduction (vph)	0	0	18	0	0	58	0	0	0	0	0	0												
Lane Group Flow (vph)	0	45	10	0	117	81	0	461	0	317	656	0												
Turn Type	Perm		Prot	Perm		pt+ov	Perm		С	ustom														
Protected Phases		4	4		8	81		2		1	6													
Permitted Phases	4			8			2			1														
Actuated Green, G (s)		30.6	30.6		30.6	50.7		18.1		20.1	43.2													
Effective Green, g (s)		31.6	31.6		31.6	52.7		19.1		21.1	44.2													
Actuated g/C Ratio		0.35	0.35		0.35	0.59		0.21		0.23	0.49													
Clearance Time (s)	ana ang ang ang ang ang ang ang ang ang	5.0	5.0	te observanja da se se se se se se se se se se se se se	5.0		tanto tanàna amin'ny fisiana	5.0		5.0	5.0													
Vehicle Extension (s)		3.0	3.0		3.0			3.0		3.0	3.0													
Lane Grp Cap (vph)		593	556		564	927		623		415	912													
v/s Ratio Prot			0.01			0.05				0.18	c0.35													
v/s Ratio Perm		0.03	5-2-2-1-2-2-1-2-2		c0.07	ere en ante en ante en ante en ante		0.16																
v/c Ratio		0.08	0.02		0.21	0.09		0.74		0.76	0.72													
Uniform Delay, d1		19.5	19.1	undebalanta antes dat	20.4	8.1	and a strategy water	33.1	al Mili sana aka sara s	32.1	18.0													
Progression Factor		1.00	1.00		1.00	1.00	49,460,8948	1.00		1.00	1.00													
Incremental Delay, d2		0.2	0.1	del de constalación	0.8	0.0		4.6	in Cales, Carlo Calestor	8.1	2.7													
Delay (s)		19.7	19.1		21.3	8.2		37.7		40.3	20.8													
	gana gana ang	B	B		C	A		D	ugi mining di disenglia.	D	С													
Approach Delay (s)		19.5			14.2			37.7			27.1													
Approach LUS		В			В			D			С													
Intersection Summary																								
HCM Average Control D	elay		27.7	Н	CM Lev	el of Se	rvice		С															
HUM Volume to Capacit	y ratio		0.51				<u>en 2 de 6</u>																	
Actuated Cycle Length (s	5) *****		90.0	S	um of lo	ost time	(s)		14.2															
Intersection Capacity Uti	lization	(	55.1%	IC	CU Leve	l of Ser	vice		C			9,008003 Å												
Analysis Period (min)	a hang na sang sa sa sa sa sa sa sa sa sa sa sa sa sa	an ingen an der andere	15	ay tanah sa sa sa sa	en de la subjectiva de la set			a atu a sana ta ta santa sa			·													
c Critical Lane Group																								

#### HCM Signalized Intersection Capacity Analysis 7: King Street & Battery Street

	۶		$\mathbf{r}$	4	←	×.		t	1	1	Ļ	~
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ኻ	4			44			<b>4</b> 5			<u>.</u>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00			1.00			1.00			1.00	
Frt	1.00	0.98			0.88			0.99			0.99	
Flt Protected	0.95	1.00			1.00			1.00			0.98	
Satd. Flow (prot)	1770	1825			1642			1850			1814	
Fit Permitted	0.39	1.00			0.99			0.97			0.75	
Satd. Flow (perm)	731	1825			1623			1806			1379	
Volume (vph)	20	35	5	10	15	155	10	240	10	270	350	30
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	22	39	6	11	17	172	11	267	11	300	389	33
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	22	45	0	0	200	0	0	289	0	0	722	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	15.4	15.4			15.4			65.4			65.4	
Effective Green, g (s)	16.4	16.4			16.4			66.4			66.4	
Actuated g/C Ratio	0.18	0.18			0.18			0.73			0.73	
Clearance Time (s)	5.0	5.0			5.0			5.0			5.0	
Vehicle Extension (s)	3.0	3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)	132	330			293			1321			1008	
v/s Ratio Prot		0.02										
v/s Ratio Perm	0.03				c0.12			0.16			c0.52	and the second second second second second second second second second second second second second second secon
v/c Ratio	0.17	0.14			0.68			0.22			0.72	
Uniform Delay, d1	31.4	31.3			34.8			3.9			6.9	,
Progression Factor	1.00	1.00			1.00			1.00			1.00	
Incremental Delay, d2	0.6	0.2			6.4			0.4			4.4	
Delay (s)	32.0	31.4			41.2			4.3			11.2	
Level of Service	С	С			D			Α			В	
Approach Delay (s)		31.6			41.2			4.3			11.2	
Approach LOS		С			D			А			В	
Intersection Summary												
HCM Average Control D	elay		15.4	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.71									
Actuated Cycle Length (s	5)		90.8	S	um of lo	st time	(s)		8.0			
Intersection Capacity Uti	lization	1	76.5%	IC	U Leve	l of Serv	<i>i</i> ice		D			
Analysis Period (min)	* * **		15									
c Critical Lane Group												

	۶		$\mathbf{i}$	4		×.	1	†	1	\ \	Ļ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		44			4			đ,			<u>ب</u>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	un and an an an an an an an an an an an an an
Frt		0.99			0.90			0.98			0.99	
Flt Protected		0.97			0.99			0.99			0.96	4.1999.511.01101
Satd. Flow (prot)		1729			1611			1742			1710	
Flt Permitted		0.80			0.95			0.85			0.70	· · · · · · · · · · · · · · · · · · ·
Satd. Flow (perm)		1419			1546			1499			1248	Histoineacha Claimeacha
Volume (vph)	35	20	5	40	35	205	5	20	5	275	50	40
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	39	22	6	44	39	228	6	22	6	306	56	44
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	67	0	0	311	0	0	34	Û	0	406	0
Turn Type	Perm			Perm			Perm			om+pt		
Protected Phases		4			8			2		1	6	(1999)/00/00/00/00/00/00/00/00/00/00/00/00/00
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		15.9			15.9			5.5			25.6	an da da da da da da da da da da da da da
Effective Green, g (s)		16.9			16.9			6.5			26.6	
Actuated g/C Ratio		0.33			0.33			0.13			0.52	
Clearance Time (s)		5.0		i de la composition de la composition de la composition de la composition de la composition de la composition d Notamente de la composition de la composition de la composition de la composition de la composition de la compos	5.0			5.0			5.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	an an an an an an an an an an an an an a
Lane Grp Cap (vph)		466			507			189			789	
v/s Ratio Prot						5010-007-01960-0			670-7070170,700-0693-0-9		c0.16	******
v/s Ratio Perm		0.05			c0.20			0.02			c0.10	
v/c Ratio		0.14			0.61			0.18		an an an an an an an an an an an an an a	0.51	1999 - 1999 -
Uniform Delay, d1		12.2			14.6	inanian'i Geo		20.1			8.2	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.1			2.2			0.5			0.6	
Delay (s)		12.3			16.8			20.6			8.8	
Level of Service		В	4 (C - 51 (P)		В			C			A	
Approach Delay (s)	tate atomatica dova	12.3			16.8			20.6			8.8	
Approach LOS		В			В			C			A	
Intersection Summary												
HCM Average Control De	elay		12.6	H	CM Lev	el of Se	rvice	-2-02-05-4	В			
HCM Volume to Capacity	ratio		0.55					e namen di seri e des des di de de di	an an tha an tha an tha an tha an tha an tha an tha an tha an tha an tha an tha an tha an tha an tha an tha an	un en en la berel hener		999-699-699-699 9
Actuated Cycle Length (s	}		51.5	Si	um of lo	st time i	(S)		8.0			
Intersection Capacity Util	ization	5	0.3%	IC	U Level	of Serv	vice		A	1999-1999-1997-1997 1997-1997-1997-1997		an atha 20040 MB
Analysis Period (min)			15									

c Critical Lane Group

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#### HCM Signalized Intersection Capacity Analysis 5: Main Street & Pine Street

	٦		$\mathbf{i}$	1	<b></b>		1	†	1	1	Ļ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4	۲		र्स	۲		4	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	·		4.0	4.0		4.0	4.0		4.0	···· · · · · · · · · · · · · · · · · ·
Lane Util. Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Frt		0.94			1.00	0.85		1.00	0.85		0.98	
Flt Protected		1.00			1.00	1.00		0.97	1.00		0.99	
Satd. Flow (prot)		1736			1859	1583		1812	1583		1811	
Flt Permitted		0.94			0.98	1.00		0.63	1.00		0.88	
Satd. Flow (perm)		1644			1819	1583		1178	1583		1613	
Volume (vph)	40	180	195	10	245	60	205	160	20	45	185	40
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	44	200	217	11	272	67	228	178	22	50	206	44
RTOR Reduction (vph)	0	0	0	0	0	42	0	0	12	0	0	0
Lane Group Flow (vph)	0	461	0	0	283	25	0	406	10	0	300	0
Turn Type	Perm			Perm		Perm	Perm		Perm	Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6		6	8		8	4		
Actuated Green, G (s)		29.4			29.4	29.4		38.4	38.4		38.4	
Effective Green, g (s)		33.4			33.4	33.4		42.4	42.4		42.4	
Actuated g/C Ratio		0.37			0.37	0.37		0.47	0.47		0.47	
Clearance Time (s)		8.0			8.0	8.0		8.0	8.0		8.0	
Vehicle Extension (s)		3.0			3.0	3.0		3.0	3.0		3.0	
Lane Grp Cap (vph)		610			675	587		555	746		760	
v/s Ratio Prot												
v/s Ratio Perm		c0.28			0.16	0.02		c0.34	0.01		0.19	d meneral sets wheely
v/c Ratio		0.76			0.42	0.04		0.73	0.01		0.39	
Uniform Delay, d1		24.7			21.1	18.1		19.2	12.7		15.5	
Progression Factor		1.00			1.00	1.00		0.73	0.97		1.00	
Incremental Delay, d2		5.3			0.4	0.0		7.2	0.0		0.3	,
Delay (s)		30.0			21.5	18.1		21.3	12.3		15.8	
Level of Service		С			С	В		С	В		В	
Approach Delay (s)		30.0			20.9			20.9			15.8	
Approach LOS		С			С			С			В	
Intersection Summary												
HCM Average Control D	elay		22.6	H	CM Lev	el of Se	ervice		С			
HCM Volume to Capacity	y ratio		0.74						6 19 19 19 19 19 19 19 19 19 19 19 19 19			
Actuated Cycle Length (s	s)		90.0	S	um of lo	ost time	(S)		14.2		a na ante la estate	
Intersection Capacity Uti	lization		34.8%	IC	U Leve	l of Ser	vice		E			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis 9: King Street & Pine Street

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			44			4			44	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.92			0.98			0.98			1.00	
Fit Protected		1.00			0.99			0.99			1.00	
Satd. Flow (prot)		1705			1803			1820			1855	
Flt Permitted		0.99			0.63			0.88			0.97	
Satd. Flow (perm)		1690			1152			1619			1796	
Volume (vph)	10	100	175	35	100	25	70	350	55	20	365	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	11	111	194	39	111	28	78	389	61	22	406	6
RTOR Reduction (vph)	0	66	0	0	8	0	0	3	0	0	0	0
Lane Group Flow (vph)	0	250	0	0	170	0	0	525	0	0	434	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		16.3			16.3			57.5			57.5	
Effective Green, g (s)		17.3			17.3			58.5			58.5	
Actuated g/C Ratio		0.19			0,19			0.65			0.65	
Clearance Time (s)	011-0-11-0-0-46-46-46-66	5.0	an a cherrar transmittan eq.	and all was was waited as	5.0			5.0			5.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		325			221			1052			1167	
v/s Ratio Prot												
v/s Ratio Perm		c0.15			0.15			c0.32			0.24	
v/c Ratio		0.77			0.77			0.50			0.37	
Uniform Delay, d1		34.5		and the strength of the second second	34.5			8.2			7.3	
Progression Factor		1.00			1.00			0.14			0.79	
Incremental Delay, d2	harran yan da yan yan sana sana s	10.4			14.8			0.5			0.7	
Delay (s)		44.9			49.3			1.7			6.5	
Level of Service		D	del victorio de como	stantin material data data	D	وروارية مستحديتهم والمراز		A	ta a sere tra ta successo a set a set a t		A	
Approach Delay (s)		44.9			49.3			1.7			6.5	
Approach LOS		D			D			A			A	
Intersection Summary												
HCM Average Control D	elay		18.3	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacity	y ratio		0.56									
Actuated Cycle Length (s	<b>S)</b>	a sa sa sa sa sa sa sa sa sa sa sa sa sa	90.0	Sı	um of lo	ost time	(s)		14.2			
Intersection Capacity Uti	lization	1	7.8%	IC	U Leve	l of Sen	/ice		D			
Analysis Period (min)	and a second second second		15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4		******	4			¢.			đ.	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	12	11	11	11	12	11	12	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.89			0.99			0.99			1.00	
Flt Protected		1.00			0.98			0.99			1.00	
Satd. Flow (prot)		1603			1751			1765			1797	
Flt Permitted		0.99			0.49			0.81			0.99	
Satd. Flow (perm)		1596			870			1445			1777	
Volume (vph)	5	55	250	80	100	10	100	460	55	10	560	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	6	61	278	89	111	11	111	511	61	11	622	6
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	345	0	0	211	0	0	683	0	0	639	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		21.8			21.8			52.0			52.0	
Effective Green, g (s)		22.8			22.8			53.0			53.0	
Actuated g/C Ratio		0.25			0.25			0.59			0.59	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		404			220			851			1046	
v/s Ratio Prot												
v/s Ratio Perm		0.22			c0.24			c0.47			0.36	
v/c Ratio		0.85			0.96			0.80			0.61	
Uniform Delay, d1		32.0			33.1			14.4			11.9	
Progression Factor		1.00			1.00			1.00			0.75	
Incremental Delay, d2		15.9			48.5			7.9			2.3	
Delay (s)		47.9			81.7			22.3			11.3	
Level of Service		D			- <b>F</b> -			C			В	
Approach Delay (s)		47.9			81.7			22.3			11.3	
Approach LOS		D			F			C			В	
Intersection Summary												
HCM Average Control De	elav		29.9	Н	CMIev	el of Se	rvice		C.			
HCM Volume to Capacity	v ratio	en en de service de la desta de la desta de la desta de la desta de la desta de la desta de la desta de la des La desta de la d	0.85									
Actuated Cycle Length (s	Ý zrosta		90.0	Si	um of lo	st time	(s)		14.2	Sheke in the		
Intersection Capacity Util	ization	ana 2000 10	)5.6%	м IC	U Leve	l of Ser	/ice	*******	G			949999999
Analysis Period (min)			15									

# HCM Signalized Intersection Capacity Analysis 6: Main Street & Battery Street

	≯		$\mathbf{F}$	-	.4	<b>₹</b>	-	Ť	1	1	Ļ	-
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		ব	*		÷.	7		416		ሻ	4	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0		4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00		0.95		1.00	1.00	
Frt		1.00	0.85		1.00	0.85		0.99		1.00	1.00	
Flt Protected		0.98	1.00		0.98	1.00		1.00		0.95	1.00	
Satd. Flow (prot)		1828	1583		1819	1583		3490		1770	1856	
Flt Permitted		0.85	1.00		0.83	1.00		0.84		0.95	1.00	
Satd. Flow (perm)		1576	1583		1537	1583		2952		1770	1856	
Volume (vph)	15	25	25	50	55	125	40	350	25	210	650	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	28	28	56	61	139	44	389	28	233	722	17
RTOR Reduction (vph)	0	0	24	0	0	84	0	0	0	0	0	0
Lane Group Flow (vph)	0	45	4	0	117	55	0	461	0	233	739	0
Turn Type	Perm		Prot	Perm		pt+ov	Perm		С	ustom		
Protected Phases		4	4		8	81		2		t i	6	
Permitted Phases	4			8			2			1		
Actuated Green, G (s)		7.1	7.1		7.1	19.3		14.7		12.2	31.9	
Effective Green, g (s)		8.1	8.1		8.1	21.3		15.7		13.2	32.9	
Actuated g/C Ratio		0.15	0.15		0.15	0.40		0.29		0.25	0.61	
Clearance Time (s)		5.0	5.0		5.0			5.0		5.0	5.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		237	238		231	627		861		434	1135	
v/s Ratio Prot			0.00			0.03				0.13	c0.40	
v/s Ratio Perm		0.03			c0.08			0.16				
v/c Ratio		0.19	0.02		0.51	0.09		0.54		0.54	0.65	
Uniform Delay, d1		20.0	19.5		21.0	10.2		16.0		17.6	6.7	
Progression Factor		1.00	1.00		1.00	1.00		1.00		1.00	1.00	
Incremental Delay, d2		0.4	0.0		1.7	0.1		0.6		1.3	1.3	
Delay (s)		20.4	19.5		22.8	10.2		16.6		18.9	8.1	
Level of Service		С	В		С	В		В		В	Α	
Approach Delay (s)		20.0			16.0			16.6			10.7	
Approach LOS		С			В			В			В	
Intersection Summary												
HCM Average Control D	elay		13.4	F	ICM Lev	el of Se	ervice		В			
HCM Volume to Capacit	y ratio		0.56									
Actuated Cycle Length (	s)		53.8	S	sum of lo	ost time	(s)		8.0			
Intersection Capacity Uti	lization	(	69.1%	1(	CU Leve	el of Ser	vice		C			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ኻ	14			44			\$			4,	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00			1.00			1.00			1.00	
Frt	1.00	0.98			0.89		and and an easier	1.00			0.99	ed werde het en en en en en en en en en en en en en
Flt Protected	0.95	1.00			1.00			1.00			0.99	
Satd. Flow (prot)	1770	1825			1651			1851			1828	
Fit Permitted	0.46	1.00			0.98			0.97			0.80	
Satd. Flow (perm)	852	1825			1624			1808			1488	1 m part of more street 1
Volume (vph)	20	35	5	10	15	115	10	280	10	195	500	30
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adi, Flow (vph)	22	39	6	11	17	128	ंग	311	11	217	556	33
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	22	45	0	0	156	0	Ō	333	Ō	Ō	806	Ō
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	13.8	13.8			13.8			69.1			69.1	
Effective Green, g (s)	14.8	14.8			14.8			70.1			70.1	
Actuated g/C Ratio	0.16	0.16			0.16			0.75			0.75	
Clearance Time (s)	5.0	5.0			5.0			5.0			5.0	
Vehicle Extension (s)	3.0	3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)	136	291		,	259			1364			1123	******
v/s Ratio Prot		0.02	e ch da g									
v/s Ratio Perm	0.03				c0.10			0.18	ىرى بىرى بىر بىرى بىرى بىرى بىرى بىرى ب	an an an an an an an an an an an an an a	c0.54	an sa sa sa sa sa sa sa sa sa sa sa sa sa
v/c Ratio	0.16	0.15			0.60			0.24			0.72	
Uniform Delay, d1	33.7	33.7			36.3	1999 - Serie Contra C	04440101101000	3.4		1999 - Frank Store (* 1999) 1999 - Frank Store (* 1999)	6.1	
Progression Factor	1.00	1.00			1.00			1.00			1.00	
Incremental Delay, d2	0.6	0.2		-1	3.9			0.4	1999 (1999) (1997) (1997) (1997) (1997) 1999 (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (1997) (19	uta dagi piya tiya ata	4.0	200200000000000000000000000000000000000
Delay (s)	34.3	33.9			40.2			3.9			10.1	
Level of Service	С	С		(***(*********************************	D			Α			В	
Approach Delay (s)		34.0	alessi shekele Versi shekele		40.2			3.9			10.1	
Approach LOS		С			D			Α			В	al mineral de la composition de la composition de la composition de la composition de la composition de la comp
Intersection Summary												
HCM Average Control D	elav		13.2	Н	CMLev	el of Sei	vice		B			
HCM Volume to Capacit	v ratio		0.70	• • Alexandria (alexandria) Alexandria (alexandria)					<b></b>			
Actuated Cycle Length (	s)		92.9	8888888888 <b>2</b>	um of lo	st time (	s)	nes restateles	80	x 2003 (1997) (1997) (1997)		
Intersection Canacity Liti	-, ilization		79.9%	ĩ	)]] eve	of Serv	ice		о Г			
Analysis Period (min)			15									nan an
c Critical Lane Group			· •									an an an an an an an an an an an an an a
				er de production de la companya de la companya de la companya de la companya de la companya de la companya de l		example and the second s	yanga harangan			sente de la 1933		uneeneedde

# HCM Signalized Intersection Capacity Analysis 8: Maple Street & Battery Street

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			<b>\$</b>			¢.,	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.99			0.90			0.98			0.99	
Flt Protected		0.97			0.99			0.99			0.96	
Satd. Flow (prot)		1729			1604			1742			1711	
Flt Permitted		0.73		an analas an an an an airte	0.96			0.83			0.69	
Satd. Flow (perm)		1307			1547			1455			1229	
Volume (vph)	35	20	5	40	35	245	5	20	5	425	50	40
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	39	22	6	44	39	272	6	22	6	472	56	44
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	67	0	0	355	0	<u> </u>	34	0	0	572	0
Turn Type	Perm			Perm			Perm	an de ser		pm+pt		
Protected Phases	i aliya di kata ti diki gapata	4	ana ana amin' amin' amin' amin' amin' amin' amin' amin' amin' amin' amin' amin' amin' amin' amin' amin' amin' a Amin' amin'	8		andreas a statione	2	a da garta (arada ya da ya	1	6	en de trada contra parte	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	helen dalari	19.8	a an an an an Ann an Ann	enterten erste jättert, et dete	19.8	941.461.864.664.664.	antro - Margaro Antro	6.5	والموالية والمتريدين	-shire-instatested	37.5	
Effective Green, g (s)		20.8			20.8			7.5			38.5	
Actuated g/C Ratio	Neodinaan Arenda	0.31	ing a constant south space	structure state diversities a	0.31	an na sana ta ta	en de la compañía	0.11	en andre andre andre andre andre andre andre andre andre andre andre andre andre andre andre andre andre andre	a in a state in a state of the	0.57	
Clearance Lime (s)		5.0			5.0			5.0			5.0	
Venicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		404			478			162			896	
V/s Ratio Prot	alar dala Madalar		y ya da di da sa sa sa sa sa sa sa sa sa sa sa sa sa							ang ng katalang	c0.26	a pang ayas takisti.
v/s Hatio Perm		0.05			c0.23			0.02			c0.11	
	Anton particular	0.17	64783434540		0.74		9349042494550456	0.21	yanisia (si si asar		0.64	
Dragradsian Costor		10.9			20.9			21.2			9.7	
Frogression Factor		1.00			1.00			1.00			1.00	
Dolou (o)		17.1			0.2			0.0			1.0	
Level of Service		1/.1 D			21.0			21.9			11.2	
Approach Delay (c)		171			27.0			27.0		an a chuir an an an an an an an an an an an an an	110	
Approach LOS		ни. н В			27.0 C			27.9 C			B	
Intersection Summary												
HCM Average Control D	elay		17.6	H	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.67						ana ang ang ang ang ang ang ang ang ang		2000-000-0000-000000000000000000000000	e en en en en en en en en en en en en en
Actuated Cycle Length (:	s)		67.3	S	um of lo	ost time	(s)		8.0			
Intersection Capacity Uti Analysis Period (min)	lization	(	61.0% 15	IC	CU Leve	el of Serv	/ice		В			

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			¢.	7		র	7		£.	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0		4.0	4.0		4.0	
Lane Util. Factor		1.00			1.00	1.00		1.00	1.00		1.00	VCSI SIMOS NGC SIMOS
Frt		0.95			1.00	0.85		1.00	0.85		0.98	99999999999999999999999999999999999999
Fit Protected		0.99			1.00	1.00		0.97	1.00		0.99	
Satd. Flow (prot)		1764			1859	1583		1812	1583		1811	e vel tel terre e te
Fit Permitted		0.93			0.98	1.00		0.66	1.00		0.89	
Satd. Flow (perm)		1654			1829	1583		1238	1583		1631	
Volume (vph)	40	180	120	10	245	60	205	160	20	45	185	40
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	44	200	133	11	272	67	228	178	22	50	206	44
RTOR Reduction (vph)	0	0	0	0	0	46	0	0	12	0	0	0
Lane Group Flow (vph)	0	377	0	0	283	21	0	406	10	0	300	0
Turn Type	Perm			Perm		Perm	Perm		Perm	Perm		
Protected Phases		2			6	ist nav dit nam Generalist		8			4	
Permitted Phases	2			6		6	8		8	4		1999 - Hannes Constanting
Actuated Green, G (s)		17.3			17.3	17.3		26.8	26.8		26.8	
Effective Green, g (s)		18.3			18.3	18.3		27.8	27.8		27.8	
Actuated g/C Ratio		0.31			0.31	0.31		0,47	0.47		0.47	
Clearance Time (s)		5.0			5.0	5.0		5.0	5.0		5.0	
Vehicle Extension (s)		3.0			3.0	3.0		3.0	3.0		3.0	
Lane Grp Cap (vph)		514			568	492		584	747		770	
v/s Ratio Prot												
v/s Ratio Perm		c0.23			0.15	0.01		c0.33	0.01		0.18	
v/c Ratio		0.73	8 G. S. S.		0.50	0.04		0.70	0.01		0.39	
Uniform Delay, d1		18.1			16.6	14.2		12.2	8.3		10.1	
Progression Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Incremental Delay, d2		5.4			0.7	0.0		3.6	0.0		0.3	
Delay (s)		23.5			17.2	14.2		15.8	8.3		10.4	
Level of Service		С	data ta	В	В		В	А		В		
Approach Delay (s)		23.5			16.7	9		15.4			10.4	
Approach LOS		С			В			В			В	
Intersection Summary												
HCM Average Control D	elay		16.8	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacity	y ratio		0.64									
Actuated Cycle Length (s	6)	Alexandra and a	58.9	S	um of lo	ost time	(s)		8.0			
Intersection Capacity Util	lization	1	30.2%	IC	CU Leve	of Ser	vice		D			
Analysis Period (min)	and a state of the second		15									
c Critical Lane Group												

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Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	۲	7	ኻ	Ť	ŧ	7	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width	11	12	11	12	11	12	
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	1.00	0.85	
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00	
Satd. Flow (prot)	1711	1583	1711	1863	1801	1583	
Fit Permitted	0.95	1.00	0.48	1.00	1.00	1.00	
Satd. Flow (perm)	1711	1583	862	1863	1801	1583	
Volume (vph)	230	15	15	405	315	630	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	
Adj. Flow (vph)	256	17	17	450	350	700	
<b>RTOR Reduction (vph)</b>	0	12	0	0	0	0	
Lane Group Flow (vph)	256	5	17	450	350	700	
Turn Type		Prot	Perm			Perm	
Protected Phases	2	2		4	8		
Permitted Phases			4			8	
Actuated Green, G (s)	37.8	37.8	66.0	66.0	66.0	66.0	
Effective Green, g (s)	38.8	38.8	67.0	67.0	67.0	67.0	
Actuated g/C Ratio	0.32	0.32	0.56	0.56	0.56	0.56	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	553	512	481	1040	1006	884	
v/s Ratio Prot	c0.15	0.00		0.24	0.19		
v/s Ratio Perm			0.02			c0.44	
v/c Ratio	0.46	0.01	0.04	0.43	0.35	0.79	
Uniform Delay, d1	32.3	27.6	11.9	15.4	14.5	21.0	
Progression Factor	0.72	0.77	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.7	0.0	0.1	1.3	0.2	4.9	
Delay (s)	26.0	21.2	12.1	16.7	14.7	25.9	alaalada ah t
Level of Service	C	С	В	B	В	С	
Approach Delay (s)	25.7	teli el la statica come sia	energian (national)	16.6	22.2		and and provide states of the
Approach LOS	С			В	C		
Intersection Summary							
HCM Average Control D	lelay		21.3	Н	CM Le	vel of Service	
HCM Volume to Capacit	ty ratio		0.67				
Actuated Cycle Length (	s)		120.0	S	um of le	ost time (s)	
Intersection Capacity Ut	ilization		55.7%	IC	U Leve	el of Service	
Analysis Period (min)			15				

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4		ኻ	<b>Þ</b>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	14	12	12	14	12	12	14	12	11	11	12
Total Lost time (s)		4.0			4.0			4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00			1.00		1.00	1.00	
Frt		1.00			0.92			0.99		1.00	0.98	
Flt Protected	1 Mat 100 1 1 10	0.98			1.00			1.00		0.95	1.00	
Satd. Flow (prot)		1948			1829			1971		1711	1761	
Flt Permitted		0.72			0.97	an an anna theann anna bh		0.99		0.53	1.00	
Satd. Flow (perm)		1434			1787			1953		956	1761	
Volume (vph)	30	45	0	10	55	85	10	215	10	95	145	25
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	33	50	0	11	61	94	11	239	11	106	161	28
RTOR Reduction (vph)	0	0	0	0	75	0	0	2	0	0	5	0
Lane Group Flow (vph)	0	83	0	0	91	0	0	259	0	106	184	0
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		7.6			7.6			28.7		39.4	39.4	
Effective Green, g (s)		8.6			8.6			29.7		40.4	40.4	
Actuated g/C Ratio		0.14			0.14	and a feat second date of	and a set of the	0.50		0.67	0.67	
Clearance Time (s)		5.0			5.0			5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		206			257			968		729	1188	
v/s Ratio Prot										0.02	c0.10	
v/s Ratio Perm		c0.06			0.05	8.5.67.5	9 8 6 8	c0.13		0.08		
v/c Ratio		0.40	en el vers el a a a a a a		0.36		alah menangkan bertekan dari bertekan dari bertekan dari bertekan dari bertekan dari bertekan dari bertekan dar	0.27		0.15	0.15	
Uniform Delay, d1		23.3			23.2			8.8		3.9	3.5	
Progression Factor		1.00			1.00			1.00		1.00	1.00	and a source of the same
Incremental Delay, d2		1.3			0.8			0.1		0.1	0.1	
Delay (s)	NATION AND AND AND AND AND AND AND AND AND AN	24.6	s and and the state of the	al for such standard starts	24.0		en all and a second all all	8.9		4.0	3.6	Nandlanda (15) See dama
Level of Service		С			C			A		A	A	
Approach Delay (s)		24.6	side tati i Admittane	el en el la presente l'a l'antician	24.0			8.9	stand and a stand as a stand as a stand as	a terrar a successiva ta a ta ayar arabiteta a	3.7	contra esta nati namenta.
Approach LOS		C			C			A			A	
Intersection Summary												
HCM Average Control D	elay		11.8	H	CM Lev	/el of Se	rvice		В	S. 2005 S		
HCM Volume to Capacity	y ratio		0.27							ana a sa sa sa sa sa sa sa sa sa sa sa sa		an an ann an an an an an an an an an an
Actuated Cycle Length (s	3)		59.9	S	um of k	ost time	(s)		12.0			
Intersection Capacity Uti	lization	4	45.0%	IC	CU Leve	el of Serv	/ice		Α			
Analysis Period (min)			15									

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Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	¥	۲	ኻ	Ļ	ሻ	7	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	1.00	0.85	
Fit Protected	1.00	1.00	0.95	1.00	0.95	1.00	
Satd. Flow (prot)	1863	1583	1770	1863	1770	1583	
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00	
Satd. Flow (perm)	1863	1583	1770	1863	1770	1583	
Volume (vph)	60	95	550	95	225	210	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	
Adj. Flow (vph)	67	106	611	106	250	233	
RTOR Reduction (vph)	0	58	0	0	0	45	
Lane Group Flow (vph)	67	48	611	106	250	188	
Turn Type	l	pm+ov	Prot		(	custom	
Protected Phases	4	2	3	8	2	23	
Permitted Phases		4				2	
Actuated Green, G (s)	8.0	52.2	46.6	59.6	44.2	95.8	
Effective Green, g (s)	9.0	54.2	47.6	60.6	45.2	96.8	
Actuated g/C Ratio	0.08	0.45	0.40	0.51	0.38	0.81	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	140	715	702	941	667	1277	
v/s Ratio Prot	c0.04	0.03	c0.35	0.06	c0.14	0.12	
v/s Ratio Perm		0.01					
v/c Ratio	0.48	0.07	0.87	0.11	0.37	0.15	
Uniform Delay, d1	53.2	18.6	33.4	15.6	27.1	2.5	
Progression Factor	1.00	1.00	0.34	0.20	1.00	4.45	
Incremental Delay, d2	2.6	0.0	7.4	0.0	1.5	0.1	
Delay (s)	55.8	18.6	18.8	3.1	28.6	11.4	
Level of Service	Е	В	В	Α	С	В	
Approach Delay (s)	33.0			16.5	20.3		
Approach LOS	С			В	С		
Intersection Summary							
HCM Average Control D	elay		19.9	۲	ICM Lev	vel of Service	В
HCM Volume to Capacit	y ratio		0.62	10.25 B	9.5.5.5		
Actuated Cycle Length (	s)		120.0	S	Sum of lo	ost time (s)	18.2
Intersection Capacity Uti	ilization		56.3%	l(	CU Leve	el of Service	В
Analysis Period (min)	·		15				
c Critical Lane Group							

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		44			4		ኻ	<b>ħ</b>		۲	<b>Ъ</b>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.89			0.98		1.00	0.98		1.00	1.00	
Flt Protected		0.99			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1648			1786		1770	1825		1770	1856	
Fit Permitted		0.94			0.88		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1570			1591		1770	1825		1770	1856	
Volume (vph)	5	0	20	30	40	15	80	415	65	10	620	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	6	0	22	33	44	17	89	461	72	11	689	17
RTOR Reduction (vph)	0	20	0	0	6	0	0	3	0	0	1	0
Lane Group Flow (vph)	0	8	0	0	88	0	89	530	0	11	705	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		t.	6	
Permitted Phases	4			8	· · · · · · · · · · · · · · · · · · ·							
Actuated Green, G (s)		10.7			10.7		10.4	84.9		3.2	77.7	
Effective Green, g (s)		11.7			11.7		11.4	85.9		4.2	78.7	
Actuated g/C Ratio		0.10			0.10		0.10	0.72		0.04	0.66	
Clearance Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		153			155		168	1306		62	1217	
v/s Ratio Prot							c0.05	0.29		0.01	c0.38	
v/s Ratio Perm		0.01			c0.06							
v/c Ratio		0.05			0.57		0.53	0.41		0.18	0.58	
Uniform Delay, d1		49.1			51.7		51.7	6.8		56.2	11.5	
Progression Factor		1.00			1.06		0.97	1.24		1.27	0.10	
Incremental Delay, d2		0.1			4.7		2.7	0.9		0.9	1.3	
Delay (s)		49.3			59.2		53.1	9.3		72.5	2.4	
Level of Service	tan beratur taka taka takat	D			E		D	Α		E	А	
Approach Delay (s)		49.3			59.2			15.6			3.5	
Approach LOS		D			E			В			A	
Intersection Summary												
HCM Average Control D	elay		13.1	H	ICM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.57		9.49.49.49.49 9.49.49.49		8					
Actuated Cycle Length (	s)		120.0	S	um of lo	st time	(s)		18.2			
Intersection Capacity Ut	ilization	e e e e e e e e e e e e e e e e e e e	8.3%	1	CU Leve	l of Sen	/ice		В			
Analysis Period (min)			15									
c Critical Lane Group												

# HCM Signalized Intersection Capacity Analysis 31: Flynn Avenue & Southern Connector

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			<del>,</del> ‡}		ሻ	4		۲	4	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.97			0.98		1.00	1.00		1.00	0.99	
Fit Protected		0.98			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1780	er an an an an an an an an an an an an an		1808		1770	1860		1770	1846	alar berne annes ber
Fit Permitted		0.75			0.89		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1350			1614		1770	1860		1770	1846	
Volume (vph)	45	65	30	15	65	15	65	500	5	5	625	40
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	50	72	- 33	17	72	17	72	556	6	6	694	44
RTOR Reduction (vph)	0	8	0	0	6	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	147	0	0	100	0	72	562	0	6	737	Q
Turn Type	Perm			Perm			Prot	di Kalakanan di dirika		Prot		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8	-1							
Actuated Green, G (s)		13.8			13.8		7.8	83.4		1.6	77.2	
Effective Green, g (s)		14.8	andana ing panahasari	e and see the specific sector of the	14.8		8.8	84.4		2.6	78.2	
Actuated g/C Ratio		0.12			0.12		0.07	0.70		0.02	0.65	
Clearance Time (s)	na para sera da sera da sera	5.0	s la ajutat a cara a perte		5.0	under i Artaa intarat	5.0	5.0	No da carlo da Carlo da Carlo da Carlo da Carlo da Carlo da Carlo da Carlo da Carlo da Carlo da Carlo da Carlo	5.0	5.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		167			199		130	1308		38	1203	
v/s Ratio Prot							c0.04	0.30		0.00	c0.40	
v/s Ratio Perm		c0.11			0.06		an di shaka ta makaka sa	and for the bart standard				
v/c Ratio		0.88			0.50		0.55	0.43		0.16	0.61	
Uniform Delay, d1	niita e contractio	51.7	and a state of the state of the state of the state of the state of the state of the state of the state of the s		49.2		53.7	7.6	-à contra principalita	57.6	12.1	
Progression Factor		1.00			1.00		0.91	1.17		1.19	0.18	
Incremental Delay, d2	Anna airte anna anna anna	37.8	len yild fastra en prise.	weether and a local and a	2.0		4.5	0.9		1.6	2.0	01-0000-0-0-
Delay (s)		89.5			51.1		53.3	9.8		70.2	4.2	
Level of Service	ja tanàn ing kaominina	۲ مم ج			D	liter konstalen ser ser ser ser ser ser ser ser ser ser	D	A	eli estato de la com	E	A	stateliki katel
Approach Delay (s)		89.5			51.1			14.7			4.7	
Approach LUS		r-			D			В			A	
Intersection Summary												
HCM Average Control D	elay		19.6	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.65									
Actuated Cycle Length (	s)		120.0	S	um of lo	ost time	(s)	waterodus este e	18.2			
Intersection Capacity Uti	lization	(	56.2%	IC	CU Leve	l of Sen	<i>v</i> ice		C			anna an Abhair Salaite an Abhair
Analysis Period (min)		و من من من من من من من من من من من من من	15									
c Critical Lane Group												

# HCM Signalized Intersection Capacity Analysis 27: Home Avenue & Southern Connector

	٨		$\mathbf{i}$	-	4	×.	-	Ť	1	1	Ļ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		र्द	7		¢‡,		۲	<b>1</b>	****	ኻ	4	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00		1.00	1.00		1.00	1.00	
Frt		1.00	0.85		0.99		1.00	0.99	10 (1997) (1997) (1997) 1997)	1.00	0.99	
Flt Protected		0.98	1.00		0.96		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1827	1583		1766		1770	1843		1770	1846	
Fit Permitted		0.87	1.00		0.39		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1624	1583		721		1770	1843		1770	1846	
Volume (vph)	50	80	105	40	5	5	135	515	40	5	625	40
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	56	89	117	44	6	6	150	572	44	6	694	44
RTOR Reduction (vph)	0	0	92	0	4	0	0	1	0	0	2	0
Lane Group Flow (vph)	0	145	25	0	52	0	150	615	0	6	736	0
Turn Type	Perm		Perm	Perm			Prot			Prot		
Protected Phases		4			8		5	2			6	in instantion ag Se tribuisti
Permitted Phases	4		4	8							, , , , , , , , , , , , , , , , , , ,	
Actuated Green, G (s)		11.8	11.8		11.8		14.5	85.4		1.6	72.5	
Effective Green, g (s)		12.8	12.8		12.8		15.5	86.4		2.6	73.5	
Actuated g/C Ratio		0.11	0.11		0.11		0.13	0.72		0.02	0.61	
Clearance Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		173	169		77		229	1327		38	1131	
v/s Ratio Prot							c0.08	0.33		0.00	c0.40	
v/s Ratio Perm		c0.09	0.02		0.07							
v/c Ratio		0.84	0.15		0.68		0.66	0.46		0.16	0.65	
Uniform Delay, d1		52.6	48.6		51.6		49.7	7.1		57.6	15.0	
Progression Factor		1.00	1.00		1.00		1.00	1.00		1.35	0.31	
Incremental Delay, d2		28.3	0.4		22.0		6.6	1.2		1.6	2.3	
Delay (s)		80.8	49.1		73.6		56.3	8.2		79.3	7.0	
Level of Service		F	D		Е		Ε	Α		E	А	
Approach Delay (s)		66.6		18-18-19-49	73.6			17.6			7.6	
Approach LOS		Ξ			E			В			А	
Intersection Summary												
HCM Average Control D	elay		22.3	Н	CM Lev	el of Se	rvice		С			
HCM Volume to Capacit	y ratio		0.68									
Actuated Cycle Length (	s)		120.0	S	um of lo	st time	(s)		18.2			
Intersection Capacity Uti	ilization		62.2%	IC	CU Leve	l of Ser	vice		B			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			¢‡,			4	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	10	100	100	35	100	25	30	350	55	20	290	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	11	111	111	39	111	28	33	389	61	22	322	6
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	233	178	483	350								
Volume Left (vph)	11	39	33	22								
Volume Right (vph)	111	28	61	6							A	a dhanna ann an ghr
Hadj (s)	-0.24	-0.02	-0.03	0.04								
Departure Headway (s)	6.8	7.2	6.1	6.4					-y-ro	an an an an an an an an an an an an an a		
Degree Utilization, x	0.44	0.35	0.82	0.63								
Capacity (veh/h)	475	442	563	521					ni fan sener ferselen fan sel sen		-612 2020 - 72 4 19 20 10 20 -	
Control Delay (s)	15.0	14.1	31.0	19.6								
Approach Delay (s)	15.0	14.1	31.0	19.6						e or arrests and books	nageranowy and and	en dalar on a faldrophe
Approach LOS	B	В	D	С								
Intersection Summary												
Delay			22.4									
HCM Level of Service			С									
Intersection Capacity Uti	lization		58.6%	IC	CU Leve	l of Ser	vice		В			
Analysis Period (min)		den kan de kan de kan	15	leselarrech (stratik)							en en en en en en en en en en en en en e	

	٨		$\rightarrow$	✓		×.	1	Ť	1	<b>\$</b>	ł	-
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			<b>4</b> ,			<b>4</b>			¢.	
Sign Control		Stop			Stop			Stop	9.00 ABA (1997)		Stop	
Volume (vph)	5	55	400	80	100	10	140	420	55	10	410	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	61	444	89	111	11	156	467	61	11	456	6
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	511	211	683	472								
Volume Left (vph)	6	89	156	11			latini dalat Malakati					
Volume Right (vph)	444	11	61	6					******			14004 (14020) 14000
Hadi (s)	-0.49	0.09	0.03	0.03								
Departure Headway (s)	8.0	9.7	8.5	8.5			ila (kaski sanakara			rteliarite «Catararetti		
Degree Utilization, x	1.13	0.57	1.61	1.11								
Capacity (veh/h)	456	363	429	437	neken konstruction (das ne das			an an in the second second	200 March 200 March 200			
Control Delay (s)	110.4	24.5	305.9	106.5								
Approach Delay (s)	110.4	24.5	305.9	106.5			and share not easy			n han an an an tha sha an an sh	a - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	
Approach LOS	<b>F</b> -	C	F	F								
Intersection Summary												
Delay			170.9									
HCM Level of Service			F					a test a strandar an	an (, in 1), ( in 1),	and mention produced		
Intersection Capacity Ut	ilization	1	07.1%		CU Leve	el of Sen	vice		G			
Analysis Period (min)			15							the state of the s	99,99,99,99,99,99,99,99,99,99,99,99,99,	
del degline tradicio de la contribución de la contribución de la contribución de la contribución de la contribu	8689,0999,00099		and a second	a a dura da da da da da da da da da da da da da		nya nya na nya na na na na na na na na na na na na na	ad (an included)	n de la calendaria de la calendaria de la calendaria de la calendaria de la calendaria de la calendaria de la c	gelgebereder Gelse	ladeska kolocalista	an an an an an an an an an an an an an a	04943403492

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		ф.			÷\$			÷Ĵ.			£,	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	20	110	0	10	15	90	5	55	10	100	20	20
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	22	122	0	11	17	100	6	61	11	111	22	22
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	144	128	78	156								
Volume Left (vph)	22	11	6	111								
Volume Right (vph)	0	100	11	22								
Hadj (s)	0.06	-0.42	-0.04	0.09								
Departure Headway (s)	4.7	4.2	4.7	4.7		an an an an an an an an an an an an an a		0.076 - 10 - 20 0 - 20 0 - 20				
Degree Utilization, x	0.19	0.15	0.10	0.20								
Capacity (veh/h)	719	790	712	713								
Control Delay (s)	8.8	8.0	8.2	8.9								
Approach Delay (s)	8.8	8.0	8.2	8.9								
Approach LOS	Α	A	A	A								
Intersection Summary												
Delay			8.5									
HCM Level of Service			А									
Intersection Capacity Uti	lization		32.2%	(	CU Leve	l of Ser	vice		A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis 11: Howard Street & Pine Street

	۶		$\mathbf{i}$	1	4	۰.	1	Ť	1	1	ţ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			<del>4</del> 3-			ф.			¢\$+	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	5	5	15	45	5	40	20	675	25	20	915	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	6	17	50	6	44	22	750	28	22	1017	6
Pedestrians				· /	والرائد الرابية والمراجع				un en run en en en en en	and the function of the		1 han die die Kaardanie
Lane Width (ft)												
Walking Speed (ft/s)	antagi giyada (d. s.	ni nanata ta ta	reaction of the second			an an an an an an an an an an an an an a	Helinder Mehrenberg	k de de heit telenisee	uto de la contra de la decimiente	h samaanaa kara wa	a termentari estas de	ungangasias
Percent Blockage												
Hight turn flare (ven)		Nene			hlama			Meldaniyada			heimente	
Median storage yeb)		ivorie			NOLE							
Instroam signal (ft)		riin karalasih katak	anter de la compañía de la compañía de la compañía de la compañía de la compañía de la compañía de la compañía Compañía de la compañía		al data je je se tera i data je Na data je je se tera je data je se tera je se tera je se tera je se tera je s						i Aleri Aldalar telefiki	
nX platoon unblocked									980-980-980-980			8996669999
vC conflicting volume	1919	1886	1019	1892	1875	764	1022			778		
vC1. stage 1 conf vol								ang pangkal pangkal pangkal pangkal pangkal pangkal pangkal pangkal pangkal pangkal pangkal pangkal pangkal pan Pangkal pangkal p	nologi osnologi (stol			
vC2, stage 2 conf vol												
vCu, unblocked vol	1919	1886	1019	1892	1875	764	1022	-1.1.2.2.2.1.2.2.2.2.2.2.2.2.2.2.2.2.2.2	a na mangang sa sa sa	778	a ( 1. 4. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	86	92	94	0	92	89	97			97		
cM capacity (veh/h)	41	66	288	45	67	404	679			839		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	28	100	800	1044								
Volume Left	6	50	22	22								
Volume Right	17	44	- 28	6							S 67 90	
cSH	100	77	679	839	en en la companya de servi	en ester mente in tembre	and the second second second second second second second second second second second second second second second		en binn schanne schale die	la deste i secondo de la	and the state of the second second	
Volume to Capacity	0.28	1.31	0.03	0.03								
Queue Length 95th (ft)	26	194	3	2					Sectoria de Calendaria de C	hada da ang da sa ang da sa ang da sa ang da sa ang da sa ang da sa ang da sa ang da sa ang da sa ang da sa an		enskon unikust
Control Delay (s)	54.5 Г	300.8	0.9	0.8								
Lane LOS	۲ ج ن	F 000 0	A	A					(de la companya de la			
Approach LOS	5 	ວບບ.ອ E	0.9	0.8			53 (S) (S) (S					
Approach LOO	Г	Г										
Intersection Summary												
Average Delay		enter das de la constant d'ar an	16.8			د. در مارز در <u>میر</u> د دارد مارد و توریز	ې د کې د کې ولو د د و د کې ورې		an that the second second		un a sugar se se se se se se	
Intersection Capacity Uti	lization		75.2%	K	CU Leve	l of Sen	vice		D			
Analysis Period (min)			15									

	4	×.	1	1	1	Ļ			
Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations	¥		<b>ţ</b>			ধ			
Sign Control	Stop		Free			Free			
Grade	0%		0%			0%			
Volume (veh/h)	55	75	630	30	55	890			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90			
Hourly flow rate (vph)	61	83	700	33	61	989			
Pedestrians		· · · · ·							
Lane Width (ft)									
Walking Speed (ft/s)									
Percent Blockage									
Right turn flare (veh)									
Median type	None								
Median storage veh)									
Upstream signal (ft)			611	Section 2010					
pX, platoon unblocked	0.85	0.85			0.85				
vC, conflicting volume	1828	717			733				
vC1, stage 1 conf vol									
vC2, stage 2 conf vol									
vCu, unblocked vol	1969	668			688			an an ann an tha an an an an an an an an an an an an an	
tC, single (s)	6.4	6.2			4.1				
tC, 2 stage (s)									
tF (s)	3.5	3.3			2.2				
p0 queue free %	0	79	5-267-1-29-15147-4 ()	ana ang ang ang ang ang ang ang ang ang	92	and a straight of the state of the state of the state of the state of the state of the state of the state of th	ور و معرف بروی و رو می است. است می ا	1917 - Santana Santana Santana Santana Santa	والمتحر والمراجع والمتحر والمحاف والمحافظ والمراجع والمراجع
cM capacity (veh/h)	54	391			774				
Direction, Lane #	WB 1	NB 1	SB 1						
Volume Total	144	733	1050						
Volume Left	61	0	61						
Volume Right	83	33	0						
cSH	108	1700	774						
Volume to Capacity	1.34	0.43	0.08						
Queue Length 95th (ft)	250	0	6						
Control Delay (s)	276.8	0.0	2.4						
Lane LOS	F		Α	and and second and the second					
Approach Delay (s)	276.8	0.0	2.4				n e grai i g		
Approach LOS	F								
Intersection Summary									
Average Delay			22.0						
Intersection Capacity U	tilization	11	02.5%	IC	CU Leve	l of Servic	2	G	
Analysis Period (min)			15			an an an an an an an an an an an an an a	an an an an an an an an an an an an an a	a na manana kata da kata da kata da kata da kata da kata da kata da kata da kata da kata da kata da kata da kat	en sjoerne stander ty stat period af de

	<	×.	1	1	1	¥			
Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations	Ý		4			र्भ			
Sign Control	Stop		Free			Free			
Grade	0%		0%			0%			
Volume (veh/h)	25	65	375	25	35	275			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90			
Hourly flow rate (vph)	28	72	417	28	39	306			
Pedestrians	an diada na sa kaonini da	teriteting, der mit die eine			en haar weer end het er en			ana baha tatuna sa kasara	na se se se se se se se se se se se se se
Lane Width (ft)									
Walking Speed (ft/s)	a an an an an an an an an an an an an an	(extensions), August	en en en en en en en en en en en en en e	and sharibite of the	Ne kanî navê kira takerê de	rantinaan (a bisi (araan yungua tu			a hadada a ƙwasar ƙwasar ƙwarat ƙwalata ƙwalata ƙ
Percent Blockage									
Hight turn hare (ven)									
Median storage uph	INOLIG								
Linetroam cional /ft)			ilen den generale.			667			
nX nlatoon unblocked	0.01					007			
vC conflicting volume	814	431			лла				
vC1. stage 1 conf vol									
vC2, stage 2 conf vol									
vCu, unblocked vol	795	431	, 1999 (1999 (1999 (1999 (1999 (1999 (1999 (1999 (1999 (1999 (1999 (1999 (1999 (1999 (1999 (1999 (1999 (1999 (1 1999 (19	ayaa ahaa ahaa ahaa	444			annen hander ferste sterste sterste	
tC, single (s)	6.4	6.2			4.1				
tC, 2 stage (s)					· · · · · · · · · · · · · · · · · · ·				
tF (s)	3.5	3.3			2.2				
p0 queue free %	91	88			97				
cM capacity (veh/h)	313	625	904 - E		1116				
Direction, Lane #	WB 1	NB 1	SB 1						
Volume Total	100	444	344						
Volume Left	28	0	39	al ann thaile tha bha an taile.			an taileachailte dhaonn an tair tha dhaonn an air		
Volume Right	72	28	0						
cSH	489	1700	1116	oko Balansa da Analonia Ara		NAA-Ador Laborator etan		an ban ingga ing an an an an an an an an an an an an an	
Volume to Capacity	0.20	0.26	0.03						
Queue Length 95th (ft)	19	0	3	(galgoli o kiri) eri		dan bigar ana an			
Long LOS	14.Z	U.U	1.3						
Approach Dolay (c)	D 14.0	00	A 1 つ						
Approach LOS	14.2 B	0.0	1.0						
Intersection Summary									
Average Delay	Antonia de la comercia		2.1						
Intersection Capacity Ut	ilization		53.0%	IC	CU Leve	l of Servic	0	A	
Analysis Period (min)			15						
	۶	$\mathbf{\tilde{\mathbf{v}}}$	1	Ť	ţ	4			
---------------------------	-------------------------------	--	----------------------------------	--	--------------------------	---			
Movement	EBL	EBR	NBL	NBT	SBT	SBR			
Lane Configurations	¥			<del>با</del>	4				
Sign Control	Stop			Free	Free				
Grade	0%		n en transmissioner transmission	0%	0%				
Volume (veh/h)	60	10	50	340	270	35			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90			
Hourly flow rate (vph)	67	11	56	378	300	39			
Pedestrians									
Malking Speed (ft/s)				999999999999	olegiden leder	n se na se na se na se na se na se na se na se na se na se na se na se na se na se na se na se na se na se na s Na se na s			
Percent Blockade									
Right turn flare (veh)	en effekter en effekter. E		sod sonarre standarde provi	degrade a construction de construction de la construcción de la construcción de la construcción de la construc Construcción de la construcción de l	i ne san genne ei Frende				
Median type	None								
Median storage veh)									
Upstream signal (ft)				1089	959				
pX, platoon unblocked	0.95	0.95	0.95		2010.000.000.000.000.000				
vC, conflicting volume	808	319	339						
vC1, stage 1 cont vol		aniai na kata	1444/4/1000-03						
VC2, stage 2 cont vol	700	006	206						
	799 64	200 62	300 A 1						
tC, 2 stage (s)	9.7	0.4							
tF (s)	3.5	3.3	2.2						
p0 queue free %	79	98	95						
cM capacity (veh/h)	322	718	1195						
Direction, Lane #	EB 1	NB 1	SB 1						
Volume Total	78	433	339						
Volume Left	67	56	0						
Volume Right	11	0	39						
cSH	350	1195	1700	dana ang kang kang kang kang kang kang ka	antaa kanga tahin ja				
Volume to Capacity	0.22	0.05	0.20						
Control Dolou (a)	19.0	4 1 F	0 nn						
	<u>م.</u> هر ۲	1.Ο Δ	<b>U.U</b>						
Approach Delay (s)	18.2	1.5	0.0						
Approach LOS	C	80000000000000000000000000000000000000							
Intersection Summary									
Average Delay			2.4						
Intersection Capacity Uti	ilization	Ę	50.9%	IC	U Leve	el of Service A			
Analysis Period (min)			15	ana dan tana kastan ta	ut du star steras tre				

Clough, Harbour & Associates, LLP CAP

### HCM Signalized Intersection Capacity Analysis 1: Main Street & South Willard St

	٦		$\mathbf{F}$	∢	<b></b>	*	1	t	*	1	Ļ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ኘ	4		ሻ	4Î			4			¢.,	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	12	11	11	14	14	14	11	11	11
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.99		1.00	0.99			0.98			0.97	
Flt Protected	0.95	1.00		0.95	1.00			1.00			0.99	
Satd. Flow (prot)	1711	1837		1770	1786			1936			1728	
Flt Permitted	0.27	1.00		0.45	1.00			0.96			0.88	
Satd. Flow (perm)	490	1837		836	1786			1858			1530	
Volume (vph)	35	290	30	45	440	25	25	215	45	60	140	55
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	39	322	33	50	489	28	28	239	50	67	156	61
RTOR Reduction (vph)	0	5	0	0	3	0	0	6	0	0	8	0
Lane Group Flow (vph)	39	350	0	50	514	0	0	311	0	0	276	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	19.3	19.3		19.3	19.3			17.5			17.5	
Effective Green, g (s)	20.3	20.3		20.3	20.3			18.5			18.5	
Actuated g/C Ratio	0.39	0.39		0.39	0.39			0.36			0.36	
Clearance Time (s)	5.0	5.0	ele certant des States des trais	5.0	5.0	et in dei die Service metricit		5.0			5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	193	723		329	703			666			549	
v/s Ratio Prot		0.19	(11 / 11 / 11 / 11 / 11 / 11 / 11 / 11		c0.29	ente entre production (al confi	orana darahar karan karang	ina an ing si ng r>Ing si ng	1999 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -	ana ang ang ang ang ang ang ang ang ang		An-lane and an Alaster
v/s Ratio Perm	0.08			0.06				0.17			c0.18	
v/c Ratio	0.20	0.48		0.15	0.73			0.47			0.50	
Uniform Delay, d1	10.3	11.7		10.1	13.3			12.8			12.9	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	an that the second
Incremental Delay, d2	0.5	0.5		0.2	3.9			0.5			0.7	
Delay (s)	10.8	12.2		10.3	17.3			13.3			13.7	na na mana na m Na mana na
Level of Service	B	B		B	В			B			В	
Approach Delay (s)		12.1			16.6			13.3			13.7	
Approach LOS		В			В			В			В	
Intersection Summary												
HCM Average Control D	elay		14.3		ICM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.55				n ng la manana ang tang ta sinahat		a e constant e data de data d			
Actuated Cycle Length (:	s)		51.6	S	ium of lo	ost time	(s)		8.0			
Intersection Capacity Uti	lization	(	69.3%	1(	CU Leve	el of Serv	/ice		С			annan an an Arain
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ኘ	¥			<b>î</b> ,		٢	<b>ţ</b>				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	10	10	16	16	16	10	11	11	12	12	12
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0				
Lane Util. Factor	1.00	1.00			1.00		1.00	1.00				
Frt	1.00	1.00			0.98		1.00	0.98				
Flt Protected	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (prot)	1888	1739			1868		1652	1759				
Flt Permitted	0.34	1.00			1.00		0.95	1.00				
Satd. Flow (perm)	678	1739			1868		1652	1759				
Volume (vph)	15	315	0	0	450	65	100	190	35	0	0	0
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	350	0	0	500	72	111	211	39	0	0	0
RTOR Reduction (vph)	0	0	0	0	6	0	0	7	0	0	0	0
Lane Group Flow (vph)	17	350	0	0	566	0	111	243	0	0	0	0
Parking (#/hr)				0	0	0						
Turn Type	Perm			•••••			Perm					
Protected Phases		2			6			8				
Permitted Phases	2					-,	8		v 1			n man san an
Actuated Green, G (s)	24.6	24.6			24.6		10.4	10.4				
Effective Green, g (s)	25.6	25.6			25.6		11.4	11.4				
Actuated g/C Ratio	0.54	0.54			0.54		0.24	0.24				
Clearance Time (s)	5.0	5.0			5.0		5.0	5.0				
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0				
Lane Grp Cap (vph)	366	939			1009	<u>iidiidaaniidaaniidiidiidii aa 199</u>	397	423			9	******
v/s Ratio Prot		0.20			c0.30			c0.14				
v/s Ratio Perm	0.03						0.07	an air an an an an an an an an an an an an an			<u>-</u>	
v/c Ratio	0.05	0.37			0.56		0.28	0.57	eningi inistratori Secondori			
Uniform Delay, d1	5.1	6.3			7.2		14.7	15.9	2009-00-00-00-00-00-00-00-00-00-00-00-00-		de stander of the second of	
Progression Factor	1.00	1.00			1.00		1.00	1.00				
Incremental Delay, d2	0.1	0.3			0.7		0.4	1.9				
Delay (s)	5.2	6.5			7.9		15.0	17.8				
Level of Service	Α	А			А		В	В				
Approach Delay (s)		6.5			7.9			16.9			0.0	
Approach LOS		А			А			В			Α	
Intersection Summary												
HCM Average Control De	elay		10.0	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacity	y ratio		0.53									
Actuated Cycle Length (s	5)		47.4	S	um of Ic	st time	(s)		8.0			
Intersection Capacity Uti	lization	4	46.4%	IC	U Leve	l of Sen	/ice		Α			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ኻ	ţ,		٢	*	7		4		٣	¥	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	11	11	12	12	12	10	10	12
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0		4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	- 2 - 1917 - 191	1.00	1.00	1.00		1.00		1.00	1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85		0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	,	0.95	1.00	1.00		0.99		0.95	1.00	1.00
Satd. Flow (prot)	1540	1670		1711	1801	1531		1632		1652	1739	1583
Flt Permitted	0.49	1.00	1999 - 199 - 199 - 199 - 199 - 199 - 199 - 199 - 199 - 199 - 199 - 199 - 199 - 199 - 199 - 199 - 199 - 199 - 1 199 - 199 - 199 - 199 - 199 - 199 - 199 - 199 - 199 - 199 - 199 - 199 - 199 - 199 - 199 - 199 - 199 - 199 - 199	0.60	1.00	1.00		0.87		0.72	1.00	1.00
Satd. Flow (perm)	791	1670		1079	1801	1531	del texterne	1442		1246	1739	1583
Volume (vph)	30	200	5	40	295	125	15	35	5	70	205	55
Peak-hour factor. PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adi, Flow (vph)	33	222	6	44	328	139	17	39	6	78	228	61
RTOR Reduction (voh)	Ō	1	ō	0	O	80	0	4	Ō	ō	O	41
Lane Group Flow (vph)	33	227	0	44	328	59	0	58	0	78	228	20
Parking (#/hr)	0	0	0			gin straigt	Ō	0	Ō			WASSINGSANA
	Perm			Perm		Perm	Perm			nm+nt		Perm
Protected Phases		2			6			8		7	4	
Permitted Phases	2	an an thair an an thair an thair an thair an thair an thair an thair an thair an thair an thair an thair an tha Thair an thair  tellinterioritati	6	an an thairt an thairt.	6	8		0000000000000000	4		4	
Actuated Green, G (s)	21.5	21.5		22.2	22.2	22.2		9.5		171	17.1	17.1
Effective Green, g (s)	22.5	22.5	9999 (1242) (4 color of al	23.2	23.2	23.2	ana ang sa ng sa sa sa sa sa sa sa sa sa sa sa sa sa	10.5		18.1	18.1	18.1
Actuated g/C Ratio	0.41	0.41		0.43	0.43	0.43		0.19		0.33	0.33	0.33
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0	antika changing	5.0		5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0		3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	327	689		459	767	652		278		441	578	526
v/s Ratio Prot		0.14			c0.18		100 Mga 100 Mga 100			0.01	c0.13	
v/s Ratio Perm	0.04	an na maintean sa sa sa sa sa sa sa sa sa sa sa sa sa		0.04	1997 (BEL) (BEL) (BEL) (BEL) (BEL) (BEL) (BEL) (BEL) (BEL) (BEL) (BEL) (BEL) (BEL) (BEL) (BEL) (BEL) (BEL) (BE	0.04		0.04	i letti yide i Garlika (here	0.05		0.01
v/c Ratio	0.10	0.33		0.10	0.43	0.09		0.21		0.18	0.39	0.04
Uniform Delay, d1	9.8	10.9		9.4	11.0	9.3		18.5	non(neki tirejin keyi	13.0	14.0	12.3
Progression Factor	1.00	1.00	50 (D 12 (C	1.00	1.00	1.00		1.00		1.00	1.00	1.00
Incremental Delay, d2	0.1	0.3		0.1	0.4	0.1	ny logon y Llongo Volonia	0.4		0.2	0.4	0.0
Delay (s)	9.9	11.2		9.5	11.4	9.4		18.9		13.2	14.4	12.3
Level of Service	Α	В		Α	В	Α		В	en de la companya de la companya de la companya de la companya de la companya de la companya de la companya de	В	В	B
Approach Delay (s)		11.0			10.7			18.9			13.8	
Approach LOS	,	В	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	, , , , , , , , , , , , , , , , , , ,	B	1999 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -	******	В	enderel en de la desta de la desta de la desta de la desta de la desta de la desta de la desta de la de la des	olino i centre deserve	В	
Intersection Summary												
HCM Average Control D	elay		12.1	Н	CM Lev	el of Se	ervice		В			
HCM Volume to Capacit	y ratio		0.37									
Actuated Cycle Length (s	S)		54.5	S	um of lo	ost time	(s)		8.0			
Intersection Capacity Uti	lization	6	47.7%	IC	CU Leve	l of Ser	vice		Α			
Analysis Period (min)			15									
c Critical Lane Group				initian an an Arthur Na Airthachtachtachtachtachtachtachtachtachtac								

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		ŧ.	7	٣	14			र्भ	7	ኻ	ţ,	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	12	12	16	12	12	12
Total Lost time (s)	ikoli (in historia) Generalia	4.0	4.0	4.0	4.0			4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	ooraalaana oraalaa
Ert		1.00	0.85	1.00	0.97			1.00	0.85	1.00	0.98	
Flt Protected		1.00	1.00	0.95	1.00			0.98	1.00	0.95	1.00	
Satd. Flow (prot)		1736	1478	1486	1512			1831	1794	1593	1817	
Flt Permitted		0.99	1.00	0.63	1.00			0.88	1.00	0.61	1.00	n shekarin sina tali
Satd. Flow (perm)		1717	1478	978	1512			1631	1794	1025	1817	
Volume (vph)	5	185	45	20	245	70	70	135	30	20	50	10
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	6	206	50	22	272	78	78	150	33	22	56	11
RTOR Reduction (vph)	0	0	32	0	14	0	0	0	14	0	7	0
Lane Group Flow (vph)	0	212	18	22	336	0	0	228	19	22	60	0
Parking (#/hr)				0	0	0	0			0		
Turn Type	Perm		Perm	Perm			Perm		Perm	Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2	sassalar mariitannah	2	6	Baldan Rabi (Tana	en de la companya de la companya de la companya de la companya de la companya de la companya de la companya de	8		8	4 A	1997-1997-1997-1997 1997-1997-1997-1997 1997-1997-	
Actuated Green, G (s)		14.3	14.3	14.3	14.3			12.3	12.3	12.3	12.3	
Effective Green, g (s)		15.3	15.3	15.3	15.3			13.3	13.3	13.3	13.3	i de la del de la del de la del de la del de la del de la del de la del de la del de la del de la del de la de La del de la
Actuated g/C Ratio		0.37	0.37	0.37	0.37			0.32	0.32	0.32	0.32	
Clearance Time (s)		5.0	5.0	5.0	5.0		periodes, chareford,	5.0	5.0	5.0	5.0	an a straid ta kard
Vehicle Extension (s)		3.0	3.0	3.0	3.0			3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		631	544	360	556			521	574	328	581	
v/s Ratio Prot					c0.22						0.03	S-3-53-5
v/s Ratio Perm		0.12	0.01	0.02	2009-000-000-000-000-000-000-000-000-000	energene en en en en en en en en en en en en		c0.14	0.01	0.02		len verke solver
v/c Ratio		0.34	0.03	0.06	0.60			0.44	0.03	0.07	0.10	
Uniform Delay, d1		9.5	8.4	8.5	10.7			11.2	9.7	9.8	10.0	
Progression Factor		1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.3	0.0	0.1	1.9			0.6	0.0	0.1	0.1	-1.000.00000000000000000000000000000000
Delay (s)		9.8	8.4	8.6	12.6	e de la comin O note des que		11.8	9.8	9.9	10.0	
Level of Service		Α	Α	Α	В			В	Α	Α	В	
Approach Delay (s)		9.5			12.3			11.5			10.0	
Approach LOS		A			В			В			В	an an an an an an an an an an an an an a
Intersection Summary												
HCM Average Control D	elay		11.2	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacity	y ratio		0.45									
Actuated Cycle Length (s	5)		41.6	S	um of lo	st time	(s)	n og nændetselne	8.0			erenne entrenet
Intersection Capacity Util	lization		41.5%	IC	CU Leve	l of Sen	/ice		Α			
Analysis Period (min)			15									•
c Critical Lane Group												

### HCM Signalized Intersection Capacity Analysis 20: Howard Street & South Winooski Ave

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Movement	EBL2	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR2	SBL	SBT	SBR
Lane Configurations		4			44			4			4	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	14	14	14	12	12	12	16	16	16
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.97			0.98			1.00			0.99	
Flt Protected		0.99			0.99			1.00			1.00	
Satd. Flow (prot)		1795			1923			1851			2093	
Flt Permitted		0.95			0.96			0.98			0.98	
Satd. Flow (perm)		1728			1865			1823			2061	
Volume (vph)	10	30	10	5	20	5	20	330	10	5	105	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	11	33	11	6	22	6	22	367	11	6	117	6
RTOR Reduction (vph)	0	9	0	0	0	0	0	<b>1</b>	0	0	2	0
Lane Group Flow (vph)	0	46	0	0	34	0	0	399	0	0	127	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		3			3			2			6	
Permitted Phases	3			3			2	2		6	6	
Actuated Green, G (s)		15.0			15.0			30.0			30.0	
Effective Green, g (s)		16.0			16.0	6		31.0			31.0	
Actuated g/C Ratio		0.20			0.20			0.39			0.39	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Lane Grp Cap (vph)		346			373			706			799	
v/s Ratio Prot												
v/s Ratio Perm		c0.03			0.02			c0.22			0.06	
v/c Ratio		0.13			0.09			0.56	8.41.52		0.16	
Uniform Delay, d1		26.3			26.1			19.2			16.0	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.8			0.5			3.3			0.4	
Delay (s)		27.1			26.6			22.5			16.4	946) (A.S.
Level of Service		С			С			С	a ta ta ta ta ta ta ta ta ta ta ta ta ta		В	
Approach Delay (s)		27.1			26.6			22.5		184 - 94 - 94 - 94 194 - 94 - 94 - 94	16.4	
Approach LOS		С			С			С			В	
Intersection Summary												
HCM Average Control D	)elay		24.5	Н	ICM Lev	vel of Se	rvice		С			
HCM Volume to Capacil	ty ratio		0.47									
Actuated Cycle Length (	s)		80.0	S	um of l	ost time	(s)		12.0			
Intersection Capacity Ut	ilization		56.2%	10	CU Leve	el of Ser	vice		В			
Analysis Period (min)			15						و میں مرتب وروز وروز و			
c Critical Lane Group												

### Clough, Harbour & Associates, LLP CAP

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	6	4	~	t
Movement	SWL2	SWL	SWR	SWR2
Lane Configurations	ሻ	Ŵ		
Ideal Flow (vphpl)	1900	1900	1900	1900
Lane Width	14	14	14	14
Total Lost time (s)	4.0	4.0		
Lane Util. Factor	1.00	1.00		
Frt	1.00	0.99		
Fit Protected	0.95	0.96		
Satd. Flow (prot)	1888	1877		
Flt Permitted	0.95	0.96		
Satd. Flow (perm)	1888	1877		
Volume (vph)	5	235	15	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90
Adj. Flow (vph)	6	261	17	6
RTOR Reduction (vph)	0	9 - SS <b>1</b> - S	0	0
Lane Group Flow (vph)	6	283	0	0
Turn Type	Split			
Protected Phases	4	4		
Permitted Phases				
Actuated Green, G (s)	20.0	20.0		ومعادية والمراجع
Effective Green, g (s)	21.0	21.0		12 3 60 5
Actuated g/C Ratio	0.26	0.26		
Clearance Time (s)	5.0	5.0		
Lane Grp Cap (vph)	496	493		
v/s Ratio Prot	0.00	c0.15		
v/s Ratio Perm	n ang taga sa sa sa sa sa sa sa sa sa sa sa sa sa		n baar bayaha an bagan karana	ana ang ang ang ang ang ang ang ang ang
v/c Ratio	0.01	0.57		
Unitorm Delay, d1	21.8	25.6	en ander ander ander ander ander ander ander ander ander ander ander ander ander ander ander ander ander ander	an an an an an an an an an an an an an a
Progression Factor	1.00	1.00		
Incremental Delay, d2	0.0	4.8	- 22 de la grade de la composition de la composition de la composition de la composition de la composition de l	man want (s.d. 1975)
Delay (s)	21.9	30.4		
Level of Service	<b>C</b>	С	alayahan maykada.	
Approach Delay (s)		30.3		
Approach LOS		С		
Intersection Summary				

### HCM Signalized Intersection Capacity Analysis 23: Flynn Avenue & Shelburne St. (Rt 7)

	۶		$\mathbf{i}$	1			*	Ť	1	\ \	Ļ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		र्स	7		4	7	٢	41		ኻ	<u>^</u>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	0.99	
Flt Protected		0.97	1.00		0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1799	1583		1817	1583	1770	3536		1770	3503	
Fit Permitted		0.77	1.00		0.85	1.00	0.29	1.00		0.28	1.00	
Satd. Flow (perm)		1432	1583		1583	1583	543	3536		516	3503	
Volume (vph)	60	25	90	15	15	15	65	925	5	10	620	45
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	67	28	100	17	17	17	72	1028	6	11	689	50
RTOR Reduction (vph)	0	0	83	0	0	14	0	1	0	0	7	0
Lane Group Flow (vph)	0	95	17	0	34	3	72	1033	0	11	732	0
Turn Type	Perm		Perm	Perm		Perm	pm+pt			Perm		
Protected Phases		4			8		· 5	2			6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)		9.7	9.7		9.7	9.7	39.4	39.4		30.4	30.4	
Effective Green, g (s)		9.7	9.7		9.7	9.7	39.4	39.4		30.4	30.4	
Actuated g/C Ratio		0.17	0.17		0.17	0.17	0.69	0.69		0.53	0.53	
Clearance Time (s)		4.0	4.0		4.0	4.0	3.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		243	269		269	269	482	2440		275	1865	***
v/s Ratio Prot							0.01	c0.29			0.21	
v/s Ratio Perm		c0.07	0.01		0.02	0.00	0.09			0.02		
v/c Ratio		0.39	0.06		0.13	0.01	0.15	0.42		0.04	0.39	
Uniform Delay, d1		21.1	19.9		20.1	19.7	3.4	3.9		6.4	7.9	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.0	0.1		0.2	0.0	0.1	0.1		0.1	0.1	
Delay (s)		22.1	20.0		20.3	19.7	3.5	4.0		6.4	8.0	
Level of Service		С	В		C	В	Α	A		А	Α	
Approach Delay (s)		21.0			20.1			4.0			8.0	
Approach LOS		С			С			Α			A	
Intersection Summary												
HCM Average Control D	elay		7.4	Н	CM Lev	el of S	ervice		A			
HCM Volume to Capacit	y ratio		0.42									
Actuated Cycle Length (s	s)		57.1	S	um of lo	ost time	(s)		8.0			
Intersection Capacity Uti	lization		53.7%	IC	CU Leve	I of Sei	vice		Α			
Analysis Period (min)			15									
c Critical Lane Group			os se									

## Clough, Harbour & Associates, LLP CAP

# HCM Signalized Intersection Capacity Analysis 24: Home Avenue & Shelburne St. (Rt 7)

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4	7	ሻ	4		ሻ	<b>^</b> î,		٣	<b>ት</b> ኬ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	10	12	16	12	10	10	10	10	10	10
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	0.95		1.00	0.95	
Frt		1.00	0.85	1.00	0.90		1.00	1.00		1.00	0.99	
Flt Protected		0.96	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1728	1478	1770	1906		1652	3299		1652	3267	
Flt Permitted		0.75	1.00	0.71	1.00		0.32	1.00		0.95	1.00	
Satd. Flow (perm)		1349	1478	1329	1906		558	3299		1652	3267	
Volume (vph)	50	10	200	15	5	10	70	1060	10	10	645	50
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	56	11	222	17	6	11	78	1178	11	11	717	56
RTOR Reduction (vph)	0	0	197	0	10	0	0	0	0	0	6	0
Lane Group Flow (vph)	0	67	25	17	7	0	78	1189	0	11	767	0
Turn Type	Perm		Perm	Perm			om+pt			Prot		
Protected Phases		4			8		5	2	and and all a sugary the	1	6	1990000000000000
Permitted Phases	4		4	8			2			guides di		
Actuated Green, G (s)		7.8	7.8	7.8	7.8		45.9	45.9		0.9	28.3	
Effective Green, g (s)		7.8	7.8	7.8	7.8		46.9	46.9		0.9	29.3	
Actuated g/C Ratio		0.11	0.11	0.11	0.11		0.67	0.67		0.01	0.42	
Clearance Time (s)		4.0	4.0	4.0	4.0		5.0	5.0		4.0	5.0	
Vehicle Extension (s)		1.0	1.0	1.0	1.0		1.5	1.0		1.0	1.0	
Lane Grp Cap (vph)		150	164	148	212		662	2207		21	1366	
v/s Ratio Prot	10 mm 10 mm 10 mm 10 mm				0.00		0.03	c0.36		0.01	c0.23	ang sa sa sasara ara-
v/s Ratio Perm		c0.05	0.02	0.01			0.05					
v/c Ratio		0.45	0.15	0.11	0.03		0.12	0.54		0.52	0.56	
Uniform Delay, d1		29.1	28.2	28.0	27.8		5.6	6.0		34.4	15.5	
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00	6000 - COMERCIANO - CONTROL - CONTROL - CONTROL - CONTROL - CONTROL - CONTROL - CONTROL - CONTROL - CONTROL - C	1.00	1.00	-9499-949-9499(959) -
Incremental Delay, d2		0.8	0.2	0.1	0.0		0.4	0.9		10.4	1.7	
Delay (s)		29.9	28.3	28.2	27.8		6.0	6.9		44.8	17.2	····,·· /··, · ··,··· /····
Level of Service		С	C	C	C		A	Α		D	B	
Approach Delay (s)		28.7			28.0			6.9		-1111-1-11-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	17.6	
Approach LOS		С			С			A			В	
Intersection Summary												
HCM Average Control D	elay		13.4	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacity	y ratio	eren en er er er er er er er er er er er er er	0.50	na ann a chuirteacht		ere retresti tilli	, en esta en el face de la		er en ser ser ser ser ser ser ser ser ser ser			
Actuated Cycle Length (s	<b>s)</b>		70.1	S	um of lo	st time i	(s)		8.0			a taki bérangi. Kang
Intersection Capacity Uti	lization	un ann an an thaith	52.9%	IC	CU Leve	l of Serv	/ice		A	ere or over a star a de d	ka na manang kana basa Sikip I	nandra na 1995) T
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				ሻ	<del>با</del> ً			<b>↑</b> Ъ			朴玲	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	14	12	12	12	12	12	12
Total Lost time (s)				4.0	4.0			4.0			4.0	
Lane Util. Factor				0.95	0.95			0.95			0.95	
Frt				1.00	1.00			1.00			1.00	
Flt Protected				0.95	0.96			1.00			1.00	
Satd. Flow (prot)				1681	1691			3539			3539	
Flt Permitted				0.95	0.96			1.00			1.00	
Satd. Flow (perm)				1681	1691			3539			3539	
Volume (vph)	0	0	0	1310	50	0	0	715	0	0	930	0
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	1456	56	0	0	794	0	0	1033	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	736	776	0	0	794	0	0	1033	0
Turn Type				Perm			Perm					
Protected Phases					8			2			6	
Permitted Phases				8			2					
Actuated Green, G (s)				28.2	28.2			24.6			24.6	
Effective Green, g (s)				30.2	30.2			26.6			26.6	
Actuated g/C Ratio				0.47	0.47			0.41			0.41	
Clearance Time (s)				6.0	6.0			6.0			6.0	
Vehicle Extension (s)				3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)				783	788			1453			1453	
v/s Ratio Prot								0.22			c0.29	
v/s Ratio Perm			\$ & \$ \$	0.44	0.46				S. (3, (3, (3))			
v/c Ratio				0.94	0.98			0.55			0.71	
Uniform Delay, d1				16.4	17.1			14.5			15.9	
Progression Factor				1.00	1.00			1.00			1.00	
Incremental Delay, d2				18.8	28.1			0.4			1.7	50.500.550.5
Delay (s)				35.3	45.1			14.9			17.6	
Level of Service		g an Geolain		D	D			В			В	
Approach Delay (s)		0.0	*****		40.3			14.9			17.6	ana ana amin'ny sofana amin'ny sofana
Approach LOS		Α			D			В			В	
Intersection Summary												
HCM Average Control D	elay		27.3	- F	ICM Lev	vel of Ser	vice		C			
HCM Volume to Capacity	v ratio		0.86									
Actuated Cycle Length (s	\$)		64.8	S	Sum of Io	ost time (	s)		8.0			
Intersection Capacity Uti	lization		70.0%	ł	CU Leve	el of Serv	ice		С			
Analysis Period (min)			15			ar gestere						

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4.			<u>.</u>			đ.	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	80	35	30	150	10	50	310	50	10	410	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	89	39	33	167	11	56	344	56	11	456	6
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	133	211	456	472								
Volume Left (vph)	6	33	56	11								
Volume Right (vph)	39	11	56	6			5			an de anter de la contra contra contra contra contra contra contra contra contra contra contra contra contra c	endandeken an everation de	192010000000000
Hadj (s)	-0.13	0.03	-0.01	0.03								
Departure Headway (s)	7.3	7.1	6.1	6.1	nan braan de la Annen daarde.	ta eta de la comune da comune da comune da comune da comune da comune da comune da comune da comune da comune En la comune da comune da comune da comune da comune da comune da comune da comune da comune da comune da comune	e an e glinne de Cherlik Miljouri.					Nalista diskontan
Degree Utilization, x	0.27	0.42	0.77	0.80								
Capacity (veh/h)	422	451	567	565		~;~;~;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;	-140-4499-170-1740-4469 	4 (1992) 4 (1993) 4 (1993) 4 (1993) 4 (1993) 4 (1993) 4 (1993)	ana mangana kating sa			ante del la transferencia del secondo del secondo del secondo del secondo del secondo del secondo del secondo s
Control Delay (s)	12.9	15.1	26.9	29.5								
Approach Delay (s)	12.9	15.1	26.9	29.5			ar vita syntaidia, tatat	and even a start of grant data d		and antice this each of	dad a salalakati da sa	nika kang penggan
Approach LOS	B	С	D	D								
Intersection Summary												
Delay			24.4									
HCM Level of Service			С					- 19-19-19-19-19-19-19-19-19-19-19-19-19-1		te vita de la casa de antidas	angan production (see	i e constante
Intersection Capacity Uti	lization		69.2%	IC	CU Leve	l of Sen	vice		C			
Analysis Period (min)			15		porte de la construction d'Antipa	, , ,	per et en bit en de hij hellen.	a da antiga da angana sa sa sa sa sa sa sa sa sa sa sa sa sa		e se production a fajor (	a da sana ang silagit	hesterne Daelaeta
	haiden gaage		2012-02-03-03-03-03-03-03-03-03-03-03-03-03-03-				nijeli de la de la de la de la de la de la de la de la de la de la de la de la de la de la de la de la de la de	0899209499	20040 bet-been	section and	aan ahaan	letter angewaard

	4		Ť	1	\$	Ļ		
Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations	Ý		4			ন		
Sign Control	Stop		Free			Free		
Grade	0%		0%			0%		
Volume (veh/h)	75	5	415	235	5	400		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90		
Hourly flow rate (vph)	83	6	461	261	6	444		
		haddadadadadada			la la la la la la la la la la la la la l			an yan da kata ya sa sa sa sa sa sa sa sa sa sa sa sa sa
Lane width (it) Walking Speed (ff/c)								
Percent Riockane			9449499499					Alexandra de Series
Right turn flare (veh)		(addaeddaeddae		999399399939 1				
Median type	None		6. (3. (3. (3.					
Median storage veh)		hejsjorgdi initirps/Alpredi	ente porte a professione de la construcción de la construcción de la construcción de la construcción de la cons La construcción de la construcción d					
Upstream signal (ft)		an an an an an an an an an an an an an a				837		
pX, platoon unblocked		a dan salah tanga karan t	a da da anan affan di sadda	a an an ann a' star a' star a' star a' star a' star a' star a' star a' star a' star a' star a' star a' star a'		an an an an an an an an an an an an an a	ya kutan kutan dalam dan kutan dari kutan yang dalam kutan kutan kutan kutan kutan dalam da kutan da kutan da k	and a subscription of the
vC, conflicting volume	1047	592			722			
vC1, stage 1 conf vol								
vC2, stage 2 conf vol								
vCu, unblocked vol	1047	592		a la tra dua tra dua se	722	li de la contra astro destructo		
tC, single (s)	6.4	6.2			4.1			
10, 2 stage (s) +E (a)	0 E				<u> </u>			ininininininini
u (s) ní) queue free %	0.0 67	3.3 QQ			2.2 00			
cM canacity (veh/h)	251	506			880			
Direction Lane #		ND 1	00 1		000			
Volume Total	80	722	450					
Volume Left	83	0						
Volume Right	6	261	ŏ					
cSH	259	1700	880			ederfilteren betrelanten		
Volume to Capacity	0.34	0.42	0.01					
Queue Length 95th (ft)	37	0	0					
Control Delay (s)	26.0	0.0	0.2					
Lane LOS	D	an al classic francisco a	Α	د د. در در در در زیریزی در	·····		· · · · · · · · · · · · · · · · · · ·	
Approach Delay (s)	26.0 D	0.0	0.2					
ntareaction Summon	0							
			1.0					
Intersection Canacity Lik	ilization		1. <del>3</del>  7.3%	ir	III ava	of Convice	(	No. Salati
Analysis Period (min)	mzauvli		0/0. ויז 15	I.v		OI GEIVICE	A	
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			ፋኈ			412	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	20	0	50	10	0	10	45	940	5	5	640	45
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	22	0	56	11	0	11	50	1044	6	6	711	50
Pedestrians			en en en en en en en en en en en en en e									
Lane Width (ft)												
Walking Speed (ft/s)	i olon kettaana.		An an an an an an an an an an an an an an	ni mananana ang k		inii araa a	Selfatera/sets rates		e al a diger a caracteria.	and a state of the state of the state of the state of the state of the state of the state of the state of the s		
Percent Blockage												
Hight turn flare (ven)		NIZZZ							in linigi (da)siko	adalah karata karata	in in the second	สันด์สองสีสารณ์
Median type		inone			ivone							
Unetroam cional (ft)								1067	en inseln den verite			
nX niatoon unblocked								1207				
vC. conflicting volume	1381	1897	381	1569	1919	525	761			1050		
vC1, stage 1 conf vol					an a shi ta ta ta ta ta ta ta ta ta ta ta ta ta			N XOGI COLEMA (V				
vC2, stage 2 conf vol												
vCu, unblocked vol	1381	1897	381	1569	1919	525	761	na ere te filter anne e	en et destigent militiges.	1050	angan tan basin ba	ang ing an ing ing ing ing ing ing ing ing ing in
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1	anie tejini gi i di Osfani i di sina	
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	77	100	91	83	100	98	94			99		
cM capacity (veh/h)	96	64	617	65	62	497	847			659		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	78	22	572	528	361	406						
Volume Left	22	11	50	0	6	0			land and the second second second second second second second second second second second second second second		و د و در د در در در د در رو د	
Volume Right	56	11	0	6	0	50					80.69/88/99	
CSH	242	114	847	1700	659	1700	gen al de weet e let	Sector and contract	united in the state of the state of the		onis acean inclusio	20.4094/4024/402
Volume to Capacity	0.32	0.19	0.06	0.31	0.01	0.24						8.000.00008
Queue Length 95th (II)	33 200	1/	с • • •	0	1	0						u
Lang LOS	20.0 D	44.U	0.1 ۸	0.0	0.3	0.0						
Approach Dalay (c)	06.0		A A Q		× 1							
Approach LOS	20.0 D	U E	0.0		0.1							
Intersection Summary												
Average Delay			2.1									
Intersection Capacity Uti	lization		51.3%	16	CU Leve	l of Sen	<i>iice</i>		В			
Analysis Period (min)			15					and and States				9.19293939399

		$\mathbf{F}$	4	4	-	1	
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations Sign Control	₽ Free			ৰ্শ Free	<b>۲</b> Stop		
Grade	0% 105	20	440	0%	0%		
Peak Hour Factor	0.90	0.90	0.90	0 90	0 Q	40 0 00	
Hourly flow rate (voh)	217	33	122	78	0.30	44	
Pedestrians					han ha shekarar ta shekarar ya shekarar ya shekarar ya shekarar ya shekarar ya shekarar ya shekarar ya shekara Na shekarar ya shekarar ya shekarar ya shekarar ya shekarar ya shekarar ya shekarar ya shekarar ya shekarar ya s		
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)		ilmaalahaanaasta					
Median type					None		
l loetroam eignal (ft)	Na 1954 (Arced Antonica)		e de la compañía de la compañía de la compañía de la compañía de la compañía de la compañía de la compañía de l	224			
nX platoon unblocked				301			
vC. conflicting volume			250		556	233	
vC1, stage 1 conf vol	(desiri mingi mingi	1711) : alecter ( 641 y 7, 679311) (		(destriction des fait des			
vC2, stage 2 conf vol							
vCu, unblocked vol			250		556	233	na propinsi menerikan kenerikan di penerika di dalah dalam dan dari perikan perikan perikan dari bertan perikan
tC, single (s)			4.1		6.4	6,2	
tC, 2 stage (s)	1001.1.4 x 300 A.A. x 604.0 x 60	Adride Garbertan		an an an an an an an an an an an an an a			
			2.2		3.5	3.3	
pu queue tree %		lado de anticipato de colo	91		98	94	
civi capacity (veri/ii)			1310		447	806	
Direction, Lane #	EB 1	WB 1	NB 1				
Volume Total	250	200	56				
Volume Lett	0	122	11	jangaran a			
	1700	1316	604 604				
Volume to Canacity	0 15	0.09	0.04				
Queue Length 95th (ft)	0	8	0.00 7				
Control Delay (s)	0.0	5.2	10.6				
Lane LOS		Α	В				
Approach Delay (s)	0.0	5.2	10.6				
Approach LOS			В				
Intersection Summary							
Average Delay			3.2				
Intersection Capacity Util	lization		35.2%	IC	U Leve	l of Servic	e A
Analysis Period (min)			15				

#### TWO-WAY STOP CONTROL SUMMARY **General Information** Site Information Anelest EJD Intersection ROUTE 7/LOCUST/LEDGE V/Co. CHA Jurisdiction TOWN OF BURLINGTON Ac Date Performed 12/22/05 Analysis Year 2008 RSG C1 & C2 Only Analysis Time Period AM PEAK HOUR Project Description BURLINGTON North/South Street: ROUTE 7 East/West Street: LOCUST/LEDGE Intersection Orientation: Study Period (hrs): 0.25 North-South Vehicle Volumes and Adjustments Northbound Southbound Major Street Movement 3 4 1 2 5 6 L Т R L T R 0 685 270 Volume 5 460 15 Peak-Hour Factor, PHF 0.90 0.90 0.90 0.90 0.90 0.90 Hourly Flow Rate, HFR 761 0 300 5 511 16 Percent Heavy Vehicles 0 2 -----÷--------Median Type Undivided RT Channelized 0 0 Lanes 0 2 0 0 1 Ô T TR LTR Configuration Upstream Signal 0 0 Westbound **Minor Street** Eastbound Movement 7 8 9 10 11 12 Т Т L R L.... R 0 0 55 0 Volume 25 85 Hour Factor, PHF 0.90 P€ 0.90 0.90 0.90 0.90 0.90 Houny Flow Rate, HFR 0 61 27 94 0 0 0 2 Percent Heavy Vehicles 0 0 2 2 Percent Grade (%) 0 0 Flared Approach Ν Ν Storage 0 0 RT Channelized 0 0 anes 0 0 1 0 1 0 R Configuration TR Delay, Queue Length, and Level of Service Approach NB SB Westbound Eastbound 4 7 Movement 1 8 9 10 11 12 LTR ane Configuration R TR 5 v (vph) 61 121 652 493 274 C (m) (vph) v/c 0.01 0.12 0.44 95% queue length 0.02 0.42 2.13 13.3 Control Delay 10.6 28.1 .OS В В D Approach Delay 13.3 ----28.1 ----Approach LOS ------В D

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	יד	WO-WAY STO	P CONTR	OL SUM	/IARY				
<b>General Information</b>			Site I	nformatio	on				
Anelyst Ag y/Co. Date Performed Analysis Time Period	EJD CHA 12/22/05 AM PEAK	HOUR	Interse Jurisdio Analys	ction ction is Year		ROUTE 7 TOWN O 2008 RS(	7/SOUTI F BURL G C1 & (	H WILLA INGTOI C2 Only	V V
Project Description BU	RLINGTON								
East/West Street: SOUT	<u>H WILLARD</u>		North/S	South Stree	t: ROUTE	7			
intersection Orientation:	North-South		Study	Period (nrs)	. 0.25				
Vehicle Volumes and	d Adjustment	S							
Major Street		Northbound				Southbo	und	~	
	1	<u>2</u> T	3		4	5		6	
Volume	75	610			<u> </u>	180		<u></u>	
Peak-Hour Factor, PHF	0.90	0.90	0.90	)	0.90	0.90		0.9	0
Hourly Flow Rate, HFR	83	677	0		0	533		0.0	
Percent Heavy Vehicles	2				2				
Median Type				Undivide	d	L			
RT Channelized			0				Ī	0	*****
Lanes	0	1	0		0	1		0	<u>.</u>
Configuration	LT					Ť			
Upstream Signal		0				0			
Minor Street		Westbound				Eastbou	ind		
Movement	7	8	9		10	11		12	, ,
	L	Т	R		L	Т		R	
Volume	0	150	0		0	0		0	
Pe Hour Factor, PHF	0.90	0.90	0.90	)	0.90	0.90		0.90	)
Houny Flow Rate, HFR	0	166	0	0		0		0	
Percent Heavy Vehicles	0	2	2		0	2		2	
Percent Grade (%)		0				0			
Flared Approach		N	_						
Storage		0				0			
RT Channelized			0					0	
Lanes	0	1	0		0	0		0	
Configuration			TR						
Delay, Queue Length, an	d Level of Servi	ce							
Approach	NB	SB		Westbound	4		Eastbo	und	
Movement	1	4	7	8	9	10	11		12
Lane Configuration	LT				TR				
v (vph)	83		[		166		T		
C (m) (vph)	1035		[		126		1		
v/c	0.08				1.32				
95% queue length	0.26		1		10.78	1	1	<u> </u>	
Control Delav	8.8				253.5	<u> </u>	<b> </b>		
LOS	A				F				
Approach Delay				253 5	<u> </u>		<u>I</u>	I	
Approach LOS			E						
APPROACH LOO				r		I			

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### **BUILD ALTERNATIVE 2**

### AND

### C-1 SECTION & C-2 SECTION ONLY 2008 PM PEAK HOUR

### HCM Signalized Intersection Capacity Analysis 6: Main Street & Battery Street

	۶		$\mathbf{\tilde{z}}$	1	-	×	1	†	1	1	Ļ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4	7		4	7		đ Þ		ኻ	<b>ħ</b>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0		4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00		0.95		1.00	1.00	
Frt		1.00	0.85		1.00	0.85		0.98		1.00	0.99	
Flt Protected		0.98	1.00		0.97	1.00		0.99		0.95	1.00	
Satd. Flow (prot)		1832	1583		1813	1583		3432		1770	1843	
Flt Permitted		0.87	1.00		0.79	1.00		0.83		0.95	1.00	
Satd. Flow (perm)		1628	1583		1477	1583		2850		1770	1843	
Volume (vph)	25	50	45	95	80	520	60	330	75	315	395	30
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	28	56	50	106	89	578	67	367	83	350	439	33
RTOR Reduction (vph)	0	0	36	0	0	254	0	0	0	0	0	0
Lane Group Flow (vph)	0	84	14	0	195	324	0	517	0	350	472	0
Turn Type	Perm		Prot	Perm		pt+ov	Perm		с	ustom	*****	
Protected Phases		4	4		8	81		2			6	
Permitted Phases	4			8			2			1		
Actuated Green, G (s)		24.3	24.3		24.3	48.4		20.4		24.1	49.5	
Effective Green, g (s)		25.3	25.3		25.3	50.4		21.4		25.1	50.5	
Actuated g/C Ratio		0.28	0.28		0.28	0.56		0.24		0.28	0.56	
Clearance Time (s)		5.0	5.0		5.0			5.0		5.0	5.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		458	445		415	886		678		494	1034	
v/s Ratio Prot			0.01			0.20				c0.20	0.26	
v/s Ratio Perm		0.05			c0.13			c0.18				
v/c Ratio		0.18	0.03		0.47	0.37		0.76		0.71	0.46	
Uniform Delay, d1		24.5	23.5		26.8	11.0		31.9		29.2	11.7	
Progression Factor		1.00	1.00		1.00	1.00		1.00		1.00	1.00	
Incremental Delay, d2		0.9	0.1		3.8	0.3		5.1		4.6	0.3	
Delay (s)		25.4	23.6		30.6	11.2		37.0		33.8	12.0	
Level of Service	i and see for a filler fac	С	С		С	В		D		С	В	
Approach Delay (s)		24.7	6.59696		16.1			37.0			21.3	
Approach LOS		С			В			D			С	
Intersection Summary												
HCM Average Control D	elay		23.3	Н	CM Lev	el of Se	ervice		С			
HCM Volume to Capacity	y ratio		0.64				-28-29 E. 6		n og Sin der			
Actuated Cycle Length (s	3)		90.0	S	um of lo	ost time	(s)		18.2			
Intersection Capacity Uti	lization	(	52.0%	IC	SU Leve	ol of Ser	vice		В			ener gene State fan s
Analysis Period (min)			15									
<ul> <li>Critical Lane Group</li> </ul>	weinesiilisiin											3022365690



### HCM Signalized Intersection Capacity Analysis 7: King Street & Battery Street

	≯		$\mathbf{r}$	<b>F</b>			1	Ť	r	1	Ļ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	4			4			4			4	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00			1.00			1.00			1.00	
Frt	1.00	0.99			0.88			0.98			0.99	
Fit Protected	0.95	1.00			1.00			0.99			0.99	
Satd. Flow (prot)	1770	1840			1646			1816			1822	
Fit Permitted	0.34	1.00			0.99			0.91			0.85	
Satd. Flow (perm)	638	1840			1635			1667			1561	
Volume (vph)	50	60	5	10	35	260	25	155	30	140	360	35
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	56	67	6	11	39	289	28	172	- 33	156	400	39
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	56	73	0	0	339	0	0	233	0	0	595	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	21.5	21.5			21.5			50.0			50.0	
Effective Green, g (s)	22.5	22.5			22.5			51.0			51.0	
Actuated g/C Ratio	0.28	0.28			0.28		58150 (Caroli)	0.63			0.63	
Clearance Time (s)	5.0	5.0			5.0			5.0			5.0	
Vehicle Extension (s)	3.0	3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)	176	508			451			1043			977	
v/s Ratio Prot		0.04										
v/s Ratio Perm	0.09				c0.21			0.14			c0.38	
v/c Ratio	0.32	0.14			0.75			0.22			0.61	
Uniform Delay, d1	23.4	22.2			26.9			6.6			9.2	
Progression Factor	1.00	1.00			1.00			1.00			1.00	
Incremental Delay, d2	1.0	0.1			6.9			0.5			2.8	
Delay (s)	24.5	22.4			33.9			7.1			12.0	
Level of Service	С	С			C			A			В	
Approach Delay (s)		23.3		20 (S. C. C.	33.9			7.1			12.0	
Approach LOS		С			С			А			В	
Intersection Summary												
HCM Average Control D	elay		18.0	H	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.65							6.00.00		
Actuated Cycle Length (	s)		81.5	S	um of lo	st time	(s)		8.0			
Intersection Capacity Uti	lization	7	75.4%	IC	CU Leve	l of Serv	/ice		D			
Analysis Period (min)			15									
c Critical Lane Group												

	٦		$\mathbf{i}$	1	<b>.</b>	*	1	Ť	/	1	Ļ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		¢.			¢‡,			<b>.</b>			<u>.</u>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.99			0.89			0.95			0.98	
Flt Protected		0.98			1.00			1.00			0.96	
Satd, Flow (prot)		1749			1595			1706			1702	
Flt Permitted		0.77			0.99			1.00			0.54	
Satd. Flow (perm)		1381			1581			1706			959	
Volume (vph)	45	50	5	5	20	125	0	40	25	305	25	45
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	50	56	6	6	22	139	0	44	28	339	28	50
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	112	0	0	167	0	0	72	0	0	417	0
Turn Type	Perm			Perm			Perm			om+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		12.0			12.0			11.3			45.1	
Effective Green, g (s)		13.0			13.0			12.3			46.1	
Actuated g/C Ratio		0.19			0.19			0.18			0.69	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Vehicle Extension (s)		3.0			3.0		_	3.0			3.0	
Lane Grp Cap (vph)		268			306			313			989	
v/s Ratio Prot								0.04			c0.19	
v/s Ratio Perm		0.08			c0.11						c0.10	
v/c Ratio		0.42			0.55			0.23			0.42	
Uniform Delay, d1		23.7			24.4			23.4			4.6	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1,1			2.0			0.4			0.3	
Delay (s)	and a subsequence of a spectral	24.8			26.4			23.7			4.9	
Level of Service		C			C			C			A	
Approach Delay (s)	(antalantika) (anarata)	24.8		ويتعادينهم والمتحافي	26.4			23.7		Anna da anna dh' dha anna dh' a	4.9	
Approach LOS		С			C			C			A	
Intersection Summary				10								
HCM Average Control De	əlay		14.2	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacity	/ ratio		0.44				· · · · · · · · · · · · · · · · · · ·		an an an an an an Arana (1984).			
Actuated Cycle Length (s	)		67.1	S	um of lo	ost time	(s)		8.0			
Intersection Capacity Util	ization	Ę	52.1%	IC	CU Leve	l of Serv	/ice		А		an an an an an an an An An An An An An An An An An An An An	
Analysis Period (min)			15									



	٭	-	$\mathbf{i}$	4	-	×	-	Ť	1	1	Ļ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			র্ন	*		ধ	7		44	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0		4.0	4.0		4.0	
Lane Util. Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Frt		0.96			1.00	0.85		1.00	0.85		0.99	
Flt Protected		1.00			0.99	1.00		0.97	1.00		0.99	
Satd. Flow (prot)		1793			1845	1583		1799	1583		1823	
Fit Permitted		0.99			0.70	1.00		0.60	1.00		0.76	
Satd. Flow (perm)		1769			1310	1583		1117	1583		1411	
Volume (vph)	10	265	100	70	295	40	255	105	60	70	175	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	11	294	111	78	328	44	283	117	67	78	194	17
RTOR Reduction (vph)	0	0	0	0	0	29	0	0	31	0	0	0
Lane Group Flow (vph)	0	416	0	0	406	15	0	400	36	0	289	0
Turn Type	Perm			Perm		Perm	Perm		Perm	Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6		6	8		8	4		
Actuated Green, G (s)		37.5			37.5	37.5		60.3	60.3		60.3	
Effective Green, g (s)		41.5	· ·		41.5	41.5		64.3	64.3		64.3	
Actuated g/C Ratio		0.35			0.35	0.35		0.54	0.54		0.54	
Clearance Time (s)	anta seta e reversata da	8.0			8.0	8.0		8.0	8.0		8.0	
Vehicle Extension (s)		3.0			3.0	3.0		3.0	3.0		3.0	
Lane Grp Cap (vph)		612			453	547		599	848		756	
v/s Ratio Prot												
v/s Ratio Perm		0.24			c0.31	0.01		c0.36	0.02		0.20	
v/c Ratio		0.68	05-737 - 1987 1987	<u> Kong</u> a	0.90	0.03	Second	0.67	0.04		0.38	
Uniform Delay, d1		33.6			37.2	25.9		20.1	13.2		16.3	
Progression Factor		1.00			1.00	1.00		0.60	0.42		1.00	
Incremental Delay, d2	an an an an an an an an an an an an an a	3.0		5	19.8	0.0		3.5	0.1	****	0.3	
Delay (s)		36.6			57.1	25.9		15.7	5.6		16.6	
Level of Service		D		and the second	E	С	مىلىدە ۋەر بېرىن ئىز ئىلى	В	Α		В	
Approach Delay (s)		36.6			54.0			14.2	Separation (		16.6	
Approach LOS		D			D			В			В	
Intersection Summary												
HCM Average Control D	elay		31.4	Н	CM Lev	el of Se	ervice		С			
HCM Volume to Capacit	y ratio		0.76									
Actuated Cycle Length (	s)	the former strengther for the	120.0	Sı	um of lo	ost time	(s)		14.2			
Intersection Capacity Uti	lization	5	37.0%	IC	U Leve	l of Ser	vice		E			
Analysis Period (min)	in an interference and the	an an an an an an an an an an an an an a	15		a data a tanàna mandritra						t agter and a second	
c Critical Lane Group												

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HCM Signalized Intersection Capacity Analysis 9: King Street & Pine Street

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		44			4			¢‡+			4	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.92			0.98			0.99			1.00	
Fit Protected		1.00			0.99			0.99			1.00	
Satd. Flow (prot)		1713			1808			1825			1848	
Fit Permitted		0.99			0.61			0.75			0.92	
Satd. Flow (perm)		1704			1107			1397			1705	
Volume (vph)	5	130	195	50	160	35	170	380	25	30	305	10
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	6	144	217	56	178	39	189	422	28	33	339	11
RTOR Reduction (vph)	0	46	0	0	5	0	0	1	0	0	1	0
Lane Group Flow (vph)	0	321	0	0	268	0	0	638	0	0	382	0
Turn Type	Perm			Perm			Perm	****		Perm		
Protected Phases		- 4			8			2			6	
Permitted Phases	4			8			2		**********************	6	n verve finnere virit kenter	
Actuated Green, G (s)		28.0			28.0			75.8			75.8	
Effective Green, g (s)		29.0			29.0			76.8		haan ah sayaa dha	76.8	000000000000000000000000000000000000000
Actuated g/C Ratio		0.24			0.24			0.64			0.64	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		412			268			894			1091	
v/s Ratio Prot												
v/s Ratio Perm		0.19			c0.24			c0.46		Harrista a ser di ser	0.22	anggali (1922-1926)
v/c Ratio		0.78			1.00			0.71			0.35	
Uniform Delay, d1		42.5			45.5			14.3			10.0	40-99999449999 
Progression Factor		1.00			1.00	ola dal Gali Gali. Secondo de la composición		0.36			0.93	
Incremental Delay, d2		9.0			54.2			0.4			0.7	1979-9671996, 1978 <u>1</u>
Delay (s)		51.5			99.7			5.5			10.0	
Level of Service		D			F			Α			Α	19.000 (Constants)
Approach Delay (s)		51.5			99.7			5.5			10.0	
Approach LOS		D			F			Α			Α	
Intersection Summary												
HCM Average Control D	elay		32.2	Н	CM Lev	el of Se	rvice		С			
HCM Volume to Capacit	y ratio		0.79	60 SC 60 S								
Actuated Cycle Length (s	s)		120.0	S	um of lo	ost time	(s)	en el entre terre de la constante de la constante de la constante de la constante de la constante de la constan La constante de la 14.2				
Intersection Capacity Uti	lization	(	95.0%	IC	U Leve	l of Sen	/ice		F			
Analysis Period (min)			15					1997 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 20 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 20	an a tanan sa tahun 1999. Mari	o en chananda antidado.		sa. 204390046
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HCM Signalized Intersection Capacity Analysis 10: Maple Street & Pine Street

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			44			4			đ,	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	12	11	11	11	12	11	12	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	de octaven de service au e
Frt		0.91			0.95			0.99			1.00	
Fit Protected		1.00			0.99			0.99			1.00	oleksi seri seri s
Satd. Flow (prot)		1645			1693			1763			1787	
Flt Permitted		0.99			0.53			0.76			0.88	
Satd. Flow (perm)		1630		ni in in in Si in in in	910		ori da lodu do Entre Contan	1353		larissinis mu Santa Addisati	1576	
Volume (vph)	10	140	260	80	95	90	115	475	60	55	485	10
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	11	156	289	89	106	100	128	528	67	61	539	11
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	456	0	0	295	0	0	723	0	0	611	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2	99 ANG BROOM (1997) AN	-947-1697-1897-1997-1997-1997-1997-1997-1997-19	6	10420-001110/0122
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		37.0		and a second second second second second second second second second second second second second second second	37.0		d a shekarar ( yrta ( hywfer y	66.8		Alexandra ang Alexandra Alexandra ang Alexandra	66.8	4.445334.0776535
Effective Green, g (s)		38.0			38.0			67.8			67.8	
Actuated g/C Ratio		0.32			0.32		een erente er mit die het het.	0.56			0.56	
Clearance Time (s)		5.0			5.0		en isen (son ise) En er in ser info	5.0			5.0	
Vehicle Extension (s)		3.0			3.0		organista (1997) (1997) (1997)	3.0	en an an an an an an an an an an an an an	294 (************************************	3.0	191020200000000000000000000000000000000
Lane Grp Cap (vph)		516			288			764			890	
v/s Ratio Prot					100000000000000000000000000000000000000				Bendergen versten der son	Sanata Parahara Interna.	alaan taray ta'aa ah	beneficieri eta balteri
v/s Ratio Perm		0.28			c0.32			c0.53			0.39	
v/c Ratio		0.88			1.02	-0.000000000000000000000000000000000000		0.95	Bergerel velges en son	en postanoveje	0.69	
Uniform Delay, d1		38.9			41.0	Salah nahasina Analah salah		24.4	Seistadari Asper Santonios Inter		18.5	
Progression Factor		1.00			1.00			1.00	en de la serie de la serie	er stal jegen angest program.	1.07	n de centre de la constance de la constance de la constance de la constance de la constance de la constance de
Incremental Delay, d2		16.3			59.4			21.8			3.6	
Delay (s)		55.2		· . /	100.4		and the first sector of the	46.2		na da statut da su su su su su su su su su su su su su	23.4	estimation de la parte
Level of Service		E			F			D			C	
Approach Delay (s)		55.2			100.4			46.2		a generalizet e de la factor de la factor	23.4	
Approach LOS		E			F			D			С	
Intersection Summary												
HCM Average Control De	elay		49.2	H	CM Lev	el of Se	rvice		D			
HCM Volume to Capacity	ratio		0.97		an na shekara ta shekara		an an an an an an an an an an an an an a	unungang séla térébékék		un en en en en en en en en en en en en en		202,925,920,920,993,993,993,993,993,993,993,993,993,99
Actuated Cycle Length (s	3)		120.0	Si	um of Ic	ost time	(s)		14.2			
Intersection Capacity Util	lization	1(	)5.7%	IC	U Leve	l of Serv	/ice	an se nan dan da 1997. Na	G	oon and the second second second second second second second second second second second second second second s		
Analysis Period (min)			15									

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### HCM Signalized Intersection Capacity Analysis 6: Main Street & Battery Street

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		র	7	~~~~~~	4	7		đ î ja		٣	<b>ţ</b> ,	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0		4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00		0.95		1.00	1.00	
Frt		1.00	0.85		1.00	0.85		0.98		1.00	0.99	
Flt Protected		0.98	1.00		0.97	1.00		0.99		0.95	1.00	
Satd. Flow (prot)		1832	1583		1813	1583		3451		1770	1843	
Flt Permitted		0.86	1.00		0.78	1.00		0.85		0.95	1.00	
Satd. Flow (perm)		1594	1583		1462	1583		2966		1770	1843	
Volume (vph)	25	50	45	95	80	420	60	430	75	315	395	30
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	28	56	50	106	89	467	67	478	83	350	439	33
RTOR Reduction (vph)	0	0	39	0	0	233	0	0	0	0	0	0
Lane Group Flow (vph)	0	84	11	0	195	234	0	628	0	350	472	0
Turn Type	Perm		Prot	Perm		pt+ov	Perm		C	ustom		
Protected Phases		4	4		8	81		2	isterio estatorio Mandal Accordenti		6	
Permitted Phases	4			8			2			1		
Actuated Green, G (s)		11.8	11.8		11.8	23.1		17.6		11.3	33.9	
Effective Green, g (s)		12.8	12.8		12.8	25.1		18.6		12.3	34.9	
Actuated g/C Ratio		0.21	0.21		0.21	0.41		0.31		0.20	0.57	
Clearance Time (s)		5.0	5.0		5.0			5.0		5.0	5.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		336	334		308	655		909		359	1060	
v/s Ratio Prot			0.01			0.15				c0.20	0.26	
v/s Ratio Perm		0.05			c0.13			c0.21				
v/c Ratio		0.25	0.03		0.63	0.36		0.69		0.97	0.45	
Uniform Delay, d1		20.0	19.0		21.8	12.3		18.5		24.0	7.4	
Progression Factor		1.00	1.00		1.00	1.00		1.00		1.00	1.00	
Incremental Delay, d2		0.4	0.0		4.2	0.3		2.3		40.5	0.3	
Delay (s)		20.3	19.1		26.0	12.6		20.8		64.5	7.7	
Level of Service		С	В		С	В		С		E	Α	
Approach Delay (s)		19.9			16.5			20.8			31.9	
Approach LOS		В			В			С			С	
Intersection Summary												
HCM Average Control D	elay		23.5	Н	CM Lev	el of Se	ervice		С			
HCM Volume to Capacit	y ratio		0.68									
Actuated Cycle Length (	s)		60.7	S	um of k	ost time	(s)		12.0			
Intersection Capacity Uti	lization	(	64.8%	IC	CU Leve	of Ser	vice		С			
Analysis Period (min)			15									
c Critical Lane Group												

#### HCM Signalized Intersection Capacity Analysis 7: King Street & Battery Street

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	4			4			4			4	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00			1.00			1.00			1.00	
Frt	1.00	0.99			0.90			0.99			0.99	
Flt Protected	0.95	1.00			1.00			1.00			0.99	
Satd. Flow (prot)	1770	1840			1671			1841			1822	
Flt Permitted	0.40	1.00			0.98			0.95			0.77	
Satd. Flow (perm)	750	1840			1649			1762			1416	
Volume (vph)	50	60	5	10	35	130	25	385	30	140	360	35
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	56	67	6	11	39	144	28	428	33	156	400	39
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	56	73	0	0	194	0	0	489	0	0	595	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	15.0	15.0			15.0			64.9			64.9	
Effective Green, g (s)	16.0	16.0			16.0			65.9			65.9	
Actuated g/C Ratio	0.18	0.18			0.18			0.73			0.73	
Clearance Time (s)	5.0	5.0			5.0			5.0			5.0	
Vehicle Extension (s)	3.0	3.0			3.0			3.0		di kang di dari ser Sejarah kang di di	3.0	
Lane Grp Cap (vph)	133	327		******	293			1292			1038	
v/s Ratio Prot		0.04										
v/s Ratio Perm	0.07	1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 - 1940 -			c0.12		an an an the state of the state	0.28	obila propinsi provinsi provida	1914) - 1917 - 1917 - 1917 - 1917 - 1917 - 1917 - 1917 - 1917 - 1917 - 1917 - 1917 - 1917 - 1917 - 1917 - 1917	c0.42	
v/c Ratio	0.42	0.22	S. 60 S. 89		0.66			0.38			0.57	
Uniform Delay, d1	32.8	31.6		,	34.4	9999999999999999999999		4.4	an an an an an an an an an an an an an a	Ha dan kanadan T	5.5	
Progression Factor	1.00	1.00			1.00			1.00		linist og Mile	1.00	
Incremental Delay, d2	2.1	0.3			5.5	el el este de la compañía de la compañía de la compañía de la compañía de la compañía de la compañía de la com La compañía de la comp		0.8	ang banang sa di	and served of a darling	2.3	
Delay (s)	35.0	32.0			40.0			5.3			7.8	
Level of Service	С	С			D			А	ser (sone recented alla)	ala de periodo a contra	А	en en en en en en en en en en en en en e
Approach Delay (s)		33.3			40.0			5.3			7.8	
Approach LOS	-,	С		the of the second second second second second second second second second second second second second second s	D			Α		anna Catalana dala	A	a dharan a dharan dh
Intersection Summary												
HCM Average Control D	elay		13.7	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.59									
Actuated Cycle Length (	s)		89.9	S	um of lo	st time	(s)		8.0		e e de la contraction de la contraction de la contraction de la contraction de la contraction de la contraction	- a de constant d'An
Intersection Capacity Uti	lization	1	79.5%	IC	U Leve	l of Sen	vice		D			
Analysis Period (min)	<ul> <li>Control of the Control</li> </ul>		15			aan oo amaa daalaa garaada		anan arang pengaharan Man	ooraan ta saastiinii			
c Critical Lane Group												

### HCM Signalized Intersection Capacity Analysis 8: Maple Street & Battery Street

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			÷.		· ·	44			đ,	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.99			0.87			0.95			0.98	
Fit Protected		0.98			1.00			1.00			0.96	
Satd. Flow (prot)		1749			1573			1706			1702	
Flt Permitted		0.73			1.00			1.00			0.56	
Satd. Flow (perm)		1305			1569			1706			1000	
Volume (vph)	45	50	5	5	20	355	0	40	25	305	25	45
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	50	56	6	6	22	394	0	44	28	339	28	50
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	112	0	0	422	0	0	72	0	0	417	0
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		20.1			20.1			13.8			31.7	
Effective Green, g (s)		21.1		an an shi ƙ	21.1			14.8			32.7	
Actuated g/C Ratio		0.34			0.34			0.24			0.53	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		446			536	6.6.6.6		409			687	
v/s Ratio Prot								0.04			c0.14	
v/s Ratio Perm		0.09			c0.27						c0.18	
v/c Ratio		0.25			0.79			0.18			0.61	
Uniform Delay, d1		14.7			18.3			18.7			10.1	
Progression Factor		1.00			1.00	en en anticipation de la composition de	a na di sufara di sa si	1.00			1.00	
Incremental Delay, d2		0.3			7.5			0.2			1.5	
Delay (s)		15.0			25.8	a an an an an an an an an an an an an an	alantan berten data berten	18. <del>9</del>			11.6	and the second second
Level of Service		В			C			В	S. 499 (1996).	2. (2. <del>2.</del> 3.	В	
Approach Delay (s)		15.0		Andrew Andrew Mil	25.8	niineeniineeroopool		18.9		- and the state of the state	11.6	Name and the second second
Approach LOS		В			C			В			В	
Intersection Summary												
HCM Average Control D	elay		18.4	H	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.67									
Actuated Cycle Length (	s)		61.8	S	um of Ic	ost time	(S)		8.0			
Intersection Capacity Uti Analysis Period (min)	lization	(	66.3% 15	IC	CU Leve	l of Ser	vice		С			

HCM Signalized Intersection Capacity Analysis 5: Main Street & Pine Street

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			<del>ب</del> اً	7		र्भ	۲		4+	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0		4.0	4.0		4.0	
Lane Util. Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Frt		0.96			1.00	0.85		1.00	0.85		0.99	
Fit Protected		1.00			0.99	1.00		0.97	1.00		0.99	
Satd. Flow (prot)		1793			1845	1583		1809	1583		1823	
Fit Permitted		0.99			0.84	1.00		0.66	1.00		0.85	
Satd. Flow (perm)		1772			1572	1583		1233	1583		1563	
Volume (vph)	10	265	100	70	295	40	155	105	60	70	175	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	11	294	111	78	328	44	172	117	67	78	194	17
RTOR Reduction (vph)	0	0	0	0	0	28	0	0	40	0	0	0
Lane Group Flow (vph)	0	416	0	0	406	16	0	289	27	0	289	0
Turn Type	Perm			Perm		Perm	Perm		Perm	Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6		6	8		8	4		
Actuated Green, G (s)		19.4			19.4	19.4		20.8	20.8		20.8	
Effective Green, g (s)		20.4			20.4	20.4		21.8	21.8		21.8	
Actuated g/C Ratio		0.37			0.37	0.37		0.40	0.40		0.40	
Clearance Time (s)		5.0			5.0	5.0		5.0	5.0		5.0	
Vehicle Extension (s)		3.0			3.0	3.0		3.0	3.0		3.0	
Lane Grp Cap (vph)		657			583	587		489	627		620	
v/s Ratio Prot												
v/s Ratio Perm		0.23			c0.26	0.01		c0.23	0.02		0.18	
v/c Ratio		0.63			0.70	0.03		0.59	0.04		0.47	
Uniform Delay, d1		14.2			14.7	11.0		13.1	10.2		12.3	
Progression Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Incremental Delay, d2		2.0		والمتعادية والمتعارية والمتعادية والمتعادية والمتعادية والمتعادية والمتعادية والمتعادية والمتعادية والمتعادية	3.6	0.0		1.9	0.0		0.6	
Delay (s)		16.2			18.3	11.0		15.0	10.2		12.8	
Level of Service		В	والمعارية والمتعاولة المعارية المعارية	and a second state of the second second	В	В		В	В		В	
Approach Delay (s)		16.2			17.6			14.1			12.8	
Approach LOS		В			В			В			В	
Intersection Summary												
HCM Average Control D	elay		15.5	Н	CM Lev	el of Se	ervice		В			
HCM Volume to Capacit	y ratio		0.58									
Actuated Cycle Length (s	5)		55.0	S	um of lo	ost time	(s)		8.0			
Intersection Capacity Uti	lization		78.4%	IC	CU Leve	el of Ser	vice		D			
Analysis Period (min)			15									
c Critical Lane Group												

	٨	$\mathbf{i}$	1	Ť	Ļ	4		
Movement	EBL	EBR	NBL	NBT	SBT	SBR		New State of the Income State of the
Lane Configurations	۲	7	Ϋ	*	ŧ	7		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Width	11	12	11	12	11	12		
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00		
Frt	1.00	0.85	1.00	1.00	1.00	0.85		
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00		
Satd, Flow (prot)	1711	1583	1711	1863	1801	1583		
Flt Permitted	0.95	1.00	0.32	1.00	1.00	1.00		
Satd. Flow (perm)	1711	1583	572	1863	1801	1583		
Volume (vph)	355	45	15	325	490	620		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90		
Adj. Flow (vph)	394	50	17	361	544	689		a na mana na mana na mana na mana na mana na mana na mana na mana na mana na mana na mana na mana na mana na ma Na mana na
<b>RTOR Reduction (vph)</b>	0	28	0	0	0	0		
Lane Group Flow (vph)	394	22	17	361	544	689		
Turn Type		Prot	Perm			Perm		
Protected Phases	2	2		4	8	para ang mana ang ang ang ang ang ang ang ang ang	aan waa beerba berri. Center en het ee febre een	an baban wasan bi buwa bebur ban kuba buba buba waka y
Permitted Phases			4			8		
Actuated Green, G (s)	52.8	52.8	81.0	81.0	81.0	81.0		
Effective Green, q (s)	53.8	53.8	82.0	82.0	82.0	82.0		
Actuated g/C Ratio	0.36	0.36	0.55	0.55	0.55	0.55		
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	614	568	313	1018	985	865		
v/s Ratio Prot	c0.23	0.01		0.19	0.30	ng kanala kali ng Balatang Kang Kang Kanang ng Kan	i e fan een ferste fan de ferste en genere fan de geste fin de ferste fin. I	
v/s Ratio Perm			0.03		i Socioliste de la	c0.44		
v/c Ratio	0.64	0.04	0.05	0.35	0.55	0.80		
Uniform Delay, d1	40.1	31.3	15.9	19.1	22.1	27.3		
Progression Factor	0.79	0.92	1.00	1.00	1.00	1.00	n na hundin kini nda burun dan dina da karan da saya da saya da saya da saya da saya da saya da saya da saya d	n de mana de la consecta de mandem de ministra de la consecta de secondo de la consecta de la consecta de la co
Incremental Delay, d2	4.8	0.1	0.3	1.0	0.7	5.1		
Delay (s)	36.4	29.0	16.2	20.1	22.8	32.4		a na pananana ang sakarang kanang kanang sa pang >Pang sa pang sa
Level of Service	D	C	В	C	С	C		
Approach Delay (s)	35.5		an na serie et den de 1913.	19.9	28.2	an an an an an an an an an an an an an a	uma u un construction de la calenti de la construcción de la construcción de la construcción de la construcción	
Approach LOS	D			В	C			
Intersection Summary								
HCM Average Control D	)elay		28.2	H	CM Le	vel of Service	C	
HCM Volume to Capaci	ty ratio		0.74					
Actuated Cycle Length (	(S)		150.0	S	um of le	ost time (s)	14.2	
Intersection Capacity Ut	ilization		55.1%	IC	CU Leve	el of Service	В	
Analysis Period (min)			15					

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4		٢	14	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	14	12	12	14	12	12	14	12	11	11	12
Total Lost time (s)		4.0			4.0			4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00			1.00		1.00	1.00	
Frt		0.98			0.91			0.98		1.00	0.98	
Flt Protected		0.99			1.00			0.99		0.95	1.00	
Satd. Flow (prot)		1919			1808			1932		1711	1760	
Flt Permitted		0.82			0.96			0.93	ne e successo e e e e e e e e e e e e e e e e e e	0.63	1.00	
Satd. Flow (perm)		1589			1744			1801		1129	1760	
Volume (vph)	40	75	20	25	75	175	15	70	15	160	225	40
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	44	83	22	28	83	194	17	78	17	178	250	44
RTOR Reduction (vph)	0	9	0	0	87	0	0	9	0	0	7	0
Lane Group Flow (vph)	0	140	0	0	218	0	0	103	0	178	287	0
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	ange, som en statuter to de	11.2		al second the decision of the	11.2	n tan an an an an tatin an e		12.3	ar en antier terrarier ar each	23.7	23.7	tend da compensations
Effective Green, g (s)		12.2			12.2			13.3		24.7	24.7	
Actuated g/C Ratio	la antici de la composition -	0.26	an an an an an an an an an an an an an a	destablistististas	0.26	anter en en en de la composition de la composition de la composition de la composition de la composition de la	ana (Anacana Ali	0.28		0.52	0.52	
Clearance Time (s)		5.0			5.0			5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		407			447			503		676	913	
v/s Ratio Prot		-howing the state of the state of the state of the state of the state of the state of the state of the state of		un es Pars e Adriando a de				(and ward to get the star	ta ta ta ta ta ta ta ta ta ta ta	0.04	c0.16	an debedier ben eite
v/s Ratio Perm		0.09			c0.12			0.06		0.10		
v/c Hatio		0.34	an an an an an an an an an an an an an a	anima esta de catarios	0.49			0.21	en mora radinadana	0.26	0.31	an an an an an an an an an an an an an a
Uniform Delay, d1		14.4			15.0			13.1		6.4	6.6	
Progression Factor		1.00			1.00	Maadadadadadada	Mariala (Maria)	1.00	Na amang ang ang ang ang ang ang ang ang ang	1.00	1.00	
Incremental Delay, d2		0.5			0.8			0.2		0.2	0.2	
Delay (S)		14.9			15.9	ulii) (dekoeligionalise		13.3	alayonda data.	6.6	6.8	ana ang ang ang ang ang ang ang ang ang
Level Of Service		14 O			150			- D		A	A 07	
Approach Delay (s)		14.9			15.9	opolio, katosani		13.3			0./	
Approach LOO		D			<b>.</b>			D			A	0.000.0000
Intersection Summary												
HCM Average Control D	elay		11.3	H	CM Le	vel of Se	rvice		В	<u>.</u>		
HCM Volume to Capacity	y ratio		0.35									
Actuated Cycle Length (s	5)		47.6	S	um of li	ost time	(s)		8.0			
Intersection Capacity Uti	lization	<b>.</b> 	41.4%	IC	CU Leve	el of Sen	vice		Α			
Analysis Period (min)			15									

		$\mathbf{i}$	1		1	1	
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	<b>†</b>	*	ኻ	<b>≜</b>	٣	7	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	1.00	0.85	
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00	
Satd. Flow (prot)	1863	1583	1770	1863	1770	1583	· · · · · · · · · · · · · · · · · · ·
Fit Permitted	1.00	1.00	0.95	1.00	0.95	1.00	
Satd. Flow (perm)	1863	1583	1770	1863	1770	1583	
Volume (vph)	110	310	575	60	135	290	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	
Adj. Flow (vph)	122	344	639	67	150	322	
RTOR Reduction (vph)	0	197	0	0	0	62	
Lane Group Flow (vph)	122	147	639	67	150	260	
Turn Type		pm+ov	Prot		(	custom	
Protected Phases	4	2	3	8	2	23	
Permitted Phases		4				2	
Actuated Green, G (s)	13.5	62.1	66.7	85.2	48.6	120.3	
Effective Green, g (s)	14.5	64.1	67.7	86.2	49.6	121.3	
Actuated g/C Ratio	0.10	0.43	0.45	0.57	0.33	0.81	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	180	676	799	1071	585	1280	
v/s Ratio Prot	c0.07	0.07	c0.36	0.04	c0.08	0.16	
v/s Ratio Perm		0.02					
v/c Ratio	0.68	0.22	0.80	0.06	0.26	0.20	
Uniform Delay, d1	65.5	27.1	35.3	14.1	36.7	3.3	
Progression Factor	1.00	1.00	0.21	0.04	0.90	5.30	
Incremental Delay, d2	9.7	0.2	3.5	0.0	1.0	0.1	
Delay (s)	75.2	27.3	11.0	0.6	34.0	17.5	
Level of Service	E	С	В	Α	С	В	
Approach Delay (s)	39.8			10.0	22.8		
Approach LOS	D			A	С		
Intersection Summary							
HCM Average Control D	elay		22.1	H	ICM Lev	vel of Service	C
HCM Volume to Capacit	y ratio		0.58				
Actuated Cycle Length (	s)		150.0	S	ium of lo	ost time (s)	18.2
Intersection Capacity Uti	ilization		57.7%		CU Leve	el of Service	В
Analysis Period (min)			15				
c Critical Lane Group							

### HCM Signalized Intersection Capacity Analysis 30: Sears Lane & Southern Connector

	٦		$\mathbf{r}$	1	4	×.	1	†	1	<b>&gt;</b>	↓ I	-
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4.			44		٢	ţ,		ኻ	<b>t.</b>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.87	, y , i man y i a y i y i y i y i y i y i y i y i y	e en la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la	0.97		1.00	0.98		1.00	1.00	en en gegene en gegene
Fit Protected		1.00			0.97		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	,	1623	ang na sa na sa na sa sa sa sa sa sa sa sa sa sa sa sa sa	ni gristi na najven	1760		1770	1827	an agama an an an an agama an a	1770	1860	oyudaa yoyud babb
Flt Permitted		0.98			0.50		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	a na serve da se de la serve de la serve de la serve de la serve de la serve de la serve de la serve de la serv Internet de la serve de la serve de la serve de la serve de la serve de la serve de la serve de la serve de la s	1602		nga mangan panyan yan	899		1770	1827	enti tertiti tati ali cus	1770	1860	nter des très des des
Volume (vph)	5	0	75	30	10	10	5	410	60	15	860	10
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adi. Flow (vph)	6	0	83	33	11	11	6	456	67	17	956	11
RTOR Reduction (vph)	0	76	0	0	6	0	0	2	0	0	0	0
Lane Group Flow (vph)	0	13	0	0	49	0	6	521	0	17	967	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2			6	
Permitted Phases	4	na na mana ang ang ang ang ang ang ang ang ang	en naran terzenezen	8				ang sengen dan pertekan T		2023 Marca (1920) (1920)	2000-2001-2002-2005- 2000-2001-2002-2005-2005-	
Actuated Green, G (s)		10.9			10.9		1.6	113.1		4.8	116.3	
Effective Green, g (s)		11.9			11.9		2.6	114.1	***********	5.8	117.3	
Actuated g/C Ratio		0.08			0.08		0.02	0.76		0.04	0.78	
Clearance Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	ann de sus an brustr
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	àlage (Shari) Tha an tao an tao an tao an tao an tao an tao an tao an tao an tao an tao an tao an tao an tao an tao an tao an
Lane Grp Cap (vph)		127	********		71		31	1390		68	1455	
v/s Ratio Prot							0.00	0.29		c0.01	c0.52	
v/s Ratio Perm		0.01			c0.05		1999 - Angelen Angelen († 1999) 1999 - Angelen († 1999) 1999 - Angelen († 1999)	() - () - () - () - () - () - () - () -				andangga tabut tabut
v/c Ratio		0.10			0.68		0.19	0.37		0.25	0.66	
Uniform Delay, d1		64.1			67.2		72.7	6.0	teren yan yana mana te	70.0	7.4	<
Progression Factor		1.00			1.04		0.86	0.69		1.16	0.52	
Incremental Delay, d2		0.3			22.5		2.7	0.7		1.5	1.8	
Delay (s)		64.4			92.4		65.1	4.8		82.5	5.7	
Level of Service		E			F		Ε	А		F	Α	
Approach Delay (s)		64.4			92.4			5.5			7.0	
Approach LOS		Ε			F			Α			А	
Intersection Summary												
HCM Average Control D	elay		12.5	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.66									
Actuated Cycle Length (	s)		150.0	S	um of lo	st time (	(s)		18.2			, and any distriction (
Intersection Capacity Uti	lization	6	2.0%	IC	CU Leve	l of Serv	/ice		В			on generalen de Greek weerde
Analysis Period (min)			15									
c Critical Lane Group												

### HCM Signalized Intersection Capacity Analysis 31: Flynn Avenue & Southern Connector

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			44		ሻ	ţ,		ሻ	<b>t</b> ,	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	el estere deserve est
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.96			0.99		1.00	1.00		1.00	0.99	
Flt Protected		0.99			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1762			1826		1770	1859		1770	1851	
Fit Permitted		0.77			0.76		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1373			1396		1770	1859		1770	1851	
Volume (vph)	65	120	85	25	95	10	60	400	5	10	915	40
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	72	133	94	28	106	11	67	444	6	11	1017	44
RTOR Reduction (vph)	0	11	0	0	2	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	288	0	0	143	0	67	450	0	t i	1060	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)		26.0			26.0		10.1	99.6		3.2	92.7	
Effective Green, g (s)		27.0			27.0		11.1	100.6		4.2	93.7	
Actuated g/C Ratio		0.18			0.18		0.07	0.67		0.03	0.62	
Clearance Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		247			251		131	1247		50	1156	
v/s Ratio Prot							c0.04	0.24		0.01	c0.57	
v/s Ratio Perm		c0.21			0.10							
v/c Ratio	son anna i	1.17			0.57		0.51	0.36		0.22	0.92	
Uniform Delay, d1		61.5			56.2		66.8	10.7		71.3	24.7	
Progression Factor		1.00			1.00		1.00	1.13		1.21	0.41	
Incremental Delay, d2		110.1			3.1		3.1	0.8		1.7	10.5	
Delay (s)		171.6			59.3		69.8	12.9		88.0	20.8	
Level of Service	and and a start of the second second	F		n en en han en han en han.	E		E	В		F	С	
Approach Delay (s)		171.6	84 (94 (94 (97		59.3			20.2			21.5	
Approach LOS		F			Ε			С			С	
Intersection Summary												
HCM Average Control D	elay		45.9	Н	ICM Lev	el of Se	rvice		D			
HCM Volume to Capacit	y ratio		0.93									
Actuated Cycle Length (	s)		150.0	S	um of lo	ost time	(s)		18.2			
Intersection Capacity Uti	lization		79.0%	)I	CU Leve	l of Sen	vice		D			
Analysis Period (min)		and and an a	15									
c Critical Lane Group												

### HCM Signalized Intersection Capacity Analysis 27: Home Avenue & Southern Connector

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4	7		4.		ሻ	14		ኻ	1	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00		1.00	1.00		1.00	1.00	
Frt		1.00	0.85		0.99		1.00	0.98		1.00	0.99	
Fit Protected		0.97	1.00		0.97		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1799	1583		1798		1770	1819		1770	1850	
Flt Permitted		0.70	1.00		0.62		0.95	1.00	kiesisti ven di Shaniyani	0.95	1.00	
Satd. Flow (perm)		1295	1583		1141		1770	1819		1770	1850	
Volume (vph)	60	25	105	90	50	5	85	400	75	5	975	45
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	67	28	117	100	56	6	94	444	83	6	1083	50
RTOR Reduction (vph)	0	0	103	0	1	0	0	3	0	0	1	0
Lane Group Flow (vph)	0	95	14	0	161	0	94	524	0	6	1132	0
Turn Type	Perm		Perm	Perm			Prot			Prot		
Protected Phases		4			8		5	2			6	
Permitted Phases	4		4	8								
Actuated Green, G (s)		17.0	17.0		17.0		12.1	110.2		1.6	99.7	
Effective Green, g (s)		18.0	18.0		18.0		13.1	111.2		2.6	100.7	
Actuated g/C Ratio		0.12	0.12		0.12		0.09	0.74		0.02	0.67	
Clearance Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		155	190		137		155	1348		31	1242	
v/s Ratio Prot							c0.05	0.29		0.00	c0.61	
v/s Ratio Perm		0.07	0.01		c0.14							
v/c Ratio		0.61	0.07		1.18		0.61	0.39		0.19	0.91	
Uniform Delay, d1		62.7	58.6		66.0		66.0	7.1		72.7	20.9	
Progression Factor		1.00	1.00		1.00		1.00	1.00		1.07	0.26	
Incremental Delay, d2		7.0	0.2		131.9		6.6	0.8		1.2	5.1	
Delay (s)		69.7	58.8		197.9		72.5	7.9		79.3	10.6	
Level of Service	e par parta da sera en este en este	E	E		F		Е	A	e i dan deservita e succesta e succesta e dan	E	B	
Approach Delay (s)		63.7			197.9			17.7			11.0	
Approach LOS		Ε			F			В			В	
Intersection Summary												
HCM Average Control D	elay		32.3	H	CM Lev	el of Se	rvice		С			
HCM Volume to Capacit	y ratio		0.92									
Actuated Cycle Length (s	5)		150.0	S	um of lo	ost time	(s)		18.2			
Intersection Capacity Uti	lization		85.3%		CU Leve	l of Sen	/ice		E			
Analysis Period (min)			15	1								
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			ф.	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	130	195	50	160	35	40	280	25	30	305	10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	144	217	56	178	39	44	311	28	33	339	11
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	367	272	383	383								
Volume Left (vph)	6	56	44	33								
Volume Right (vph)	217	39	28	11						- 21 - 22 - 22 - 22 - 22 - 22 - 22 - 22	na landhar leonalair.	
Hadj (s)	-0.32	-0.01	0.01	0.03								
Departure Headway (s)	7.8	8.5	8.0	8.0								
Degree Utilization, x	0.80	0.64	0.85	0.86								
Capacity (veh/h)	431	373	433	429			norman jaga kang kana				an dan pertamban di seri beran da p	ensestinisenretini
Control Delay (s)	35.3	25.6	42.6	43.0								
Approach Delay (s)	35.3	25.6	42.6	43.0		at	28-9-18-18-19-19-19-19-19-19-19-19-19-19-19-19-19-					///////////////////////////////////////
Approach LOS	<b>E</b>	D	E	E				18. 19. S. I				
Intersection Summary												
Delay		1233	37.5									
HCM Level of Service			E									
Intersection Capacity Uti	ilization		68.9%	IC	CU Leve	l of Ser	vice		C			
Analysis Period (min)			15									
	nsi (ni ji jini)					sku je inkoranske pr			ele ele ele ele ele ele ele ele ele ele	<u>enenenen</u>		

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			¢.	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	10	140	290	80	95	90	345	245	60	55	485	10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	11	156	322	89	106	100	383	272	67	61	539	11
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	489	294	722	611								
Volume Left (vph)	11	89	383	61								
Volume Right (vph)	322	100	67	11								
Hadj (s)	-0.36	-0.11	0.08	0.04								
Departure Headway (s)	8.6	9.5	9.1	9.0								
Degree Utilization, x	1,17	0.77	1.82	1.53								
Capacity (veh/h)	422	375	402	412								
Control Delay (s)	127.9	38.2	399.7	275.1								
Approach Delay (s)	127.9	38.2	399.7	275.1								
Approach LOS	F	Ε	F	F								
Intersection Summary												
Delay			250.6									
HCM Level of Service			F									
Intersection Capacity Ut	ilization	1	18.8%	l.	CU Leve	of Ser	více		н			
Analysis Period (min)			15									
	Maria Seria da Ma											

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			44			<b>.</b> ‡.			đ,	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	65	5	10	100	80	5	20	15	110	50	10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	72	6	11	111	89	6	22	17	122	56	11
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	83	211	44	189								
Volume Left (vph)	6	11	6	122								
Volume Right (vph)	6	89	17	11								
Hadj (s)	0.01	-0.21	-0.17	0.13								
Departure Headway (s)	4.7	4.4	4.7	4.8							1	and the set of the set of the set
Degree Utilization, x	0.11	0.26	0.06	0.25								
Capacity (veh/h)	704	775	706	708			ana ang ang ang ang ang ang ang ang ang					, nyene en en en en en en en en en en en en
Control Delay (s)	8.3	8.9	8.0	9.4								
Approach Delay (s)	8.3	8.9	8.0	9.4								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay			8.9									
HCM Level of Service			Α									
Intersection Capacity Uti	lization		35.8%	10	CU Leve	l of Ser	vice		A			
Analysis Period (min)			15						n, produ je v ostroveno os			1999) 1993 (1992) - Maria (1993) 1999 - Maria (1993) - Maria (1993) - Maria (1993) - Maria (1993) - Maria (1993) - Maria (1993) - Maria (1993) -
			<u>isto i pres</u> tant	NER CENTRAL CONTRACT	Nathalan da she	uhte (milijaarii)	998999999999999	Veliter (	hina harana karan karan karan karan karan karan karan karan karan karan karan karan karan karan karan karan kar		66/1968-0009-046	yagalayka kelartar
HCM Unsignalized Intersection Capacity Analysis 11: Howard Street & Pine Street

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			44			4			4	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	10	5	20	25	5	30	15	700	45	45	1075	10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	11	6	22	28	6	33	17	778	50	50	1194	11
Pedestrians		anda ja Angla padagingi Anao		(ale la falle e la fer	a kara perakan karda aka	présendet tide, élémetet	enen enengeneen	dalah karantan	- Antonio de la compañía de la compañía de la compañía de la compañía de la compañía de la compañía de la comp	ind an Archard Andrew	والمراجع والمراجع والمراجع	unione estate tradition
Lane Width (ft)												
vvaiking Speed (tt/s)	Balad Ballishi				0.0000000000000000000000000000000000000		eren er en er en er en er en er er er er er er er er er er er er er				in san an baile	
Picht turn flore (vob)												
Median tine		Mono			None							
Median storage veh)		INUIIG			INVIIC							
Unstream signal (ft)												
pX. platoon unblocked	86.000.000	6206305050666										PARAMENAN
vC, conflicting volume	2172	2161	1200	2161	2142	803	1206			828		
vC1, stage 1 conf vol				9400 - 440 - 450 - 660 - 660 - 660 - 660 - 660 - 660 - 660 - 660 - 660 - 660 - 660 - 660 - 660 - 660 - 660 - 6 1	1949-999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 -	kini en en en en en en en en en en en en en	lang ng mangalan tip ng Kapangan Ng Kapang	n - Spanie v Solden Spaniego	n ang nang sa sa sa sa sa sa sa sa sa sa sa sa sa		ya bila ya ku ya ku ya ku	nisysteetingingi
vC2, stage 2 conf vol												
vCu, unblocked vol	2172	2161	1200	2161	2142	803	1206			828		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	57	87	90	0	87	91	97		e devendele root oostatie	94	19. stada jarta jasta sast	
cM capacity (veh/h)	26	43	226	26	44	384	579			803		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	39	67	844	1256								
Volume Left	11	28	17	50	waan ahay ahaa ahaa	er Annesen sold restric		dynia yw ddan y ddana y wrweg	n a la comme de la companya de la companya de la companya de la companya de la companya de la companya de la c	nero englej orginaljo e ikon	alana wa jerwitwenyewe wa aj	
Volume Hight	22	33	50	11								
	59	52	5/9	803		go (Shara)	Santana an	si dalamban kanga dari		ensentrador	an an an an an an an an an an an an an a	104000-1844-1408
Output Longth O5th (ft)	0.00	1.20	ບ.ບວ	0.06			69 <b>- 9</b> - 9 - 9 - 9 - 9 - 9 - 9 - 9 - 9 - 9					
Control Delay (e)	1/9 1	150 247 E	2 م م	о <u>л</u>								
Lane LOS	F	047.3 F	0.0 Δ	Δ								
Approach Delay (s)	143 1	347 5	ົດຈົ	24			and a second state of the second second second second second second second second second second second second s					
Approach LOS	F	F										
Intersection Summary												
Average Delay	in an an an an an an an an an an an an an	ere objectuation datas i	14.7	un an tha an tha tha tha tha			ومحاجزة فالمتحد والمراجع والمحاج		en an an an an an an an an an an an an an			-
Intersection Capacity Ut	lization		32.6%	IC	U Leve	l of Sen	/ice		F			
Analysis Period (min)			15								ddirigi izana	

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Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations	M		<b>1</b> .			đ		
Sign Control	Stop		Free			Free		
Grade	0%		0%	na maa ilmaa sa sa sa sa sa sa sa sa sa sa sa sa s		0%		
Volume (veh/h)	30	55	670	10	55	1080		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	te el terre en construer.	
Hourly flow rate (vph)	33	61	744	11	61	1200		
Pedestrians								
Lane Width (ft)								
Walking Speed (ft/s)								
Percent Blockage								
Right turn flare (veh)								
Median type	None							
Median storage veh)	1000 ( 1000 ( 1000 ( 1000 ( 1000 ( 1000 ( 1000 ( 1000 ( 1000 ( 1000 ( 1000 ( 1000 ( 1000 ( 1000 ( 1000 ( 1000 (							
Upstream signal (ft)			611					
pX, platoon unblocked	0.89	0.89			0.89			
vC, conflicting volume	2072	750			756			
vC1, stage 1 conf vol								
vC2, stage 2 conf vol								
vCu, unblocked vol	2204	719			725			
tC, single (s)	6.4	6.2			4.1			
tC, 2 stage (s)		and and the second states of the second states of the second states of the second states of the second states o	ى ئىسىۋىيە تېرىكىيە ئىي	e Augusta de Carto de Carto de Carto de Carto de Carto de Carto de Carto de Carto de Carto de Carto de Carto de			a-antan ang ang ang ang	
tF (s)	3.5	3.3			2.2			
p0 queue free %	17	84	karka andara ta ta makar	lender obere entrated	92			
cM capacity (veh/h)	40	381	69.59. <del>5</del> 8.699		781			-31454 (d
Direction, Lane #	WB 1	NB 1	SB 1					
Volume Total	94	756	1261					
Volume Left	33	0	61					
Volume Right	61	11	0					
cSH	95	1700	781					
Volume to Capacity	0.99	0.44	0.08					
Queue Length 95th (ft)	147	0	6					
Control Delay (s)	170.4	0.0	3.0					
Lane LOS	F		Α	ور ورور ورور ورور و	. And the design of the sec	19 11 12 11 11 11 11 11 11 11 11 11 11 11		
Approach Delay (s)	170.4	0.0	3.0		n op 100 Geld Upperson Sjeri			69 (9) 88 88 6
Approach LOS	F							
Intersection Summary								
Average Delay			9.4					
Intersection Capacity UI	tilization	1	10.8%	IC	CU Leve	l of Servic	e	
Analysis Period (min)			15					<ul> <li>Objective Strength (24)</li> </ul>

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Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations	Y		4			र्स		
Sign Control	Stop		Free			Free		
Grade	0%		0%			0%		
Volume (veh/h)	20	45	305	15	35	460		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90		
Hourly flow rate (vph)	22	50	339	17	39	511		
Pedestrians								
Lane Width (ft)								
Walking Speed (ft/s)								
Percent Blockage								
Right turn flare (veh)				ange, an egenere a starg	an an an an an an			
Median type	None							
Median storage veh)		ala ana ana ana ana ana ana ana ana ana	1999 ACCO A AGO A AGO A AGO A		A fa tao ing biata data ing bia	- Advects <u>deman kest</u> ionen media		an ann ann an ann an an ann an
Upstream signal (ft)						667		
pX, platoon unblocked	0.81		ala da anti-					en al de la compañía de la compañía de la compañía de la compañía de la compañía de la compañía de la compañía
vC, conflicting volume	936	347			356			
vC1, stage 1 cont vol	n de state de la company	yîktelejî (kerîd) estder		adal nashridari nig				uringstage:
VC2, stage 2 cont voi		0.47			0F0			
VCU, UNDIOCKED VOI	92 I 0 4	347 م			350			hang ang ang ang ang ang ang ang ang ang
tC, Single (S)	0.4	0.4			4.1			
(C, Z  stage  (S))	ΟE	ം റ			0.0			
(F (S)	0.0 Q1	0.0 02			2.2 07			
po queue nee %	16 VCC	808			1000			ining a start start of the
	204	030			1200			
Direction, Lane #	WB 1	NB 1	SB 1					
Volume Loft	14	ుంల ^	200					
Volume Dight	22 En	47	33 N					
rSH	433	1700	1203					3523203555
Volume to Canacity	0.17	n 21	0.03					
Oueue Length 95th (ft)	15	<del>، د.</del> د			anan alam da d			
Control Delay (s)	15.0	٥ŏ	0. Š					
Lane LOS	В		A					
Approach Delay (s)	15.0	0.0	0.9					
Approach LOS	B	en josen and og skil	99999999999999999999999999999999999999	understad bei Heisensteilen. Litter	-anaranan ing pangka kana kana kana kana kana kana kana	aanaanaa dahadadada		
Intersection Summan	-							
Average Delay			16					
Intersection Canacity Lt	ilization		57.0%	ır	:U Leve	Lof Servic	• R	ang ang ang ang ang ang ang ang ang ang
Analysis Period (min)		se Groudstaagib	<i>∞∞∞™©</i> 15					93759364985

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Movement	EBL	EBR	NBL	NBT	SBT	SBR			
Lane Configurations	¥7			র্ম	1,				
Sign Control	Stop			Free	Free			i Alexandra Gerlada da Barazia da Alexania National da Alexandra da Alexandra da Alexandra	
Grade	0%			0%	0%				
Volume (veh/h)	55	15	10	245	435	40			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90			
Hourly flow rate (vph)	61	17	11	272	483	44			
Pedestrians									
Lane Width (ft)									
Walking Speed (ft/s)									
Percent Blockage									
Right turn flare (veh)	n digter forstationski			ender einer auf einer	an substant a sacara		و در باید و بی داری و دی از معروف می در ا		
Median type	None								
Median storage veh)						lek en en el kan het kan de kan de kan de kan de kan de k		And de la la constata de la constana de entre constata parte	amino en cu
Upstream signal (π)	A AA	<u>^ ^ </u>		1089	959				
pX, platoon unblocked	0.83	0.83	0.83				Statistica, Statistica de Calendar de Statistica de Calendar de Calendar de Calendar de Calendar de Calendar d		
vC, connicting volume	800	ouc	528						
vC1, stage 1 cont vol	degis degiserate						di di matana da sa da sa		Anglel Angle
VC2, Stage 2 coni vol	759	400	400						
tC cingle (c)	750 67	402 6.2	429			gaalikiin ahaan ahaa ka ka			54640480
tC, 2 stane (s)	9. <b>7</b> .5	0.2	774 -		en an an an an an an an an an an an an an				
tE (s)	3.5	33	22						1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 -
p0 queue free %	80	97	99		n ja Linjaga pintai si				
cM capacity (veh/h)	306	536	934						
Direction Lane #	EQ 1		CD 1						a necesito.
Volume Total	79	1101	509						
Volume Left	70 61	203 11	520 A						
Volume Right	17	'n	44						
cSH	337	934	1700						-99-52-65
Volume to Capacity	0.23	0.01	0.31						
Queue Length 95th (ft)	22		0		ana kalendar kalendar kalendar Alemania				000000000
Control Delay (s)	18.9	0.5	0.0						
Lane LOS	С	А	and an an Andrew State		0,000,000,000,000				27112229722
Approach Delay (s)	18.9	0.5	0.0						
Approach LOS	С								
Intersection Summary									
Average Delay	al Andrew Classes		1.8						
Intersection Capacity Ut	lization		35.9%	IC	U Leve	l of Service	A		
Analysis Period (min)		•	15	1					

### HCM Signalized Intersection Capacity Analysis 1: Main Street & South Willard St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	٢	\$		٢	<b>t</b> ,			44			44	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	12	11	11	14	14	14	11	11	11
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.99		1.00	0.99			0.99			0.98	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.99	
Satd. Flow (prot)	1711	1840		1770	1784			1952			1760	
Flt Permitted	0.26	1.00		0.33	1.00			0.90			0.94	
Satd. Flow (perm)	476	1840		607	1784			1773			1666	
Volume (vph)	65	400	35	45	460	30	50	220	20	35	235	40
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	72	444	39	50	511	33	56	244	22	39	261	44
RTOR Reduction (vph)	0	4	0	0	3	0	0	3	0	0	5	0
Lane Group Flow (vph)	72	479	0	50	541	0	0	319	0	0	339	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	20.2	20.2		20.2	20.2			16.5			16.5	
Effective Green, g (s)	21.2	21.2		21.2	21.2			17.5			17.5	
Actuated g/C Ratio	0.41	0.41		0.41	0.41			0.34			0.34	
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	197	760		251	737			605			568	
v/s Ratio Prot		0.26			c0.30							
v/s Ratio Perm	0.15		20125-020-22	0.08		8 (2 (2 ( <u>4</u> )	£199.08-03	0.18			c0.20	
v/c Ratio	0.37	0.63		0.20	0.73			0.53			0.60	
Uniform Delay, d1	10.4	11.9		9.6	12.7			13.6			14.0	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	1.2	1.7		0.4	3.8			0.8			1.7	
Delay (s)	11.6	13.6		10.0	16.5			14.4			15.7	
Level of Service	В	B		B	B			В			В	
Approach Delay (s)	ulibrativestatulativa s	13.4			15.9	. Set to a fact the set of the second		14.4			15.7	
Approach LOS		В			В			В			В	
Intersection Summary												
HCM Average Control D	elay		14.8	F	ICM Lev	el of Se	rvice		B		- S. (S. 31-31-31	
HCM Volume to Capacity	y ratio		0.60									
Actuated Cycle Length (s	3)		51.3	S	ium of Ic	st time	(S)	inin ang ang a Sang kabu	8.0			Marin Shik. Masintan
Intersection Capacity Uti	lization	(	66.7%	IC	CU Leve	l of Ser	vice		С			an a su tattat at
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	٦	ŧ			t,		٢	L,				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	10	10	16	16	16	10	11	11	12	12	12
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0				
Lane Util. Factor	1.00	1.00			1.00		1.00	1.00				
Frt	1.00	1.00			0.99		1.00	0.99				
Flt Protected	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (prot)	1888	1739			1881		1652	1776				
Flt Permitted	0.25	1.00			1.00		0.95	1.00				
Satd. Flow (perm)	505	1739			1881		1652	1776		reje fod hannen. Gerunger die son		
Volume (vph)	40	475	0	0	500	40	65	300	30	0	0	0
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	44	528	0	0	556	44	72	333	33	0	0	0
RTOR Reduction (vph)	0	0	0	0	4	0	0	3	0	0	0	0
Lane Group Flow (vph)	44	528	0	0	596	0	72	363	0	0	0	0
Parking (#/hr)				0	0	0						
Turn Type	Perm						Perm		****			
Protected Phases		2			6			8				
Permitted Phases	2						8					
Actuated Green, G (s)	21.3	21.3			21.3		15.3	15.3				
Effective Green, g (s)	22.3	22.3			22.3		16.3	16.3				
Actuated g/C Ratio	0.46	0.46			0.46		0.33	0.33	its instantionsen George Standard			
Clearance Time (s)	5.0	5.0			5.0		5.0	5.0				
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0				
Lane Grp Cap (vph)	230	791			856		550	591				
v/s Ratio Prot		0.30			c0.32			c0.20		g g. A 4		
v/s Ratio Perm	0.09						0.04				,	
v/c Ratio	0,19	0.67			0.70		0.13	0.61				
Uniform Delay, d1	8.0	10.4			10.7		11.4	13.7				
Progression Factor	1.00	1.00			1.00		1.00	1.00				
Incremental Delay, d2	0.4	2.1			2.5		0.1	1.9				
Delay (s)	8.4	12.6			13.1		11.5	15.6				
Level of Service	Α	В			В		В	В				
Approach Delay (s)		12.3			13.1			14.9			0.0	
Approach LOS		В			В			В			А	
Intersection Summary												
HCM Average Control De	elay		13.3	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacity	/ ratio		0.62									
Actuated Cycle Length (s	;)		49.0	S	um of lo	ost time	(S)		8.0			
Intersection Capacity Util	ization	Į.	57.5%	IC	U Leve	l of Serv	/ice		В			
Analysis Period (min)	and hereitering to a		15	ware water to set to se								
c Critical Lane Group												

# HCM Signalized Intersection Capacity Analysis 3: Main Street & South Winooski Ave

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	۲	î,		٣	¥	7		đ.		٣	*	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	11	11	12	12	12	10	10	12
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0		4.0		4.0	4.0	40
Lane Util. Factor	1.00	1.00	ang a la na di sa di panga	1.00	1.00	1.00	ageneration de la com	1.00		1.00	1.00	1.00
Frt	1.00	0.98		1.00	1.00	0.85		0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	,	1.00	anta según a conta p	0.95	1.00	1.00
Satd. Flow (prot)	1540	1648		1711	1801	1531		1626		1652	1739	1583
Flt Permitted	0.41	1.00		0.45	1.00	1.00	ana malana paraha na da	0.79	ana na nationalitati	0.66	1.00	1.00
Satd, Flow (perm)	659	1648		810	1801	1531		1292		1145	1739	1583
Volume (vph)	110	280	35	70	350	155	5	90	25	220	305	90
Peak-hour factor. PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0 90	0.90	0.90	0.90
Adi. Flow (vph)	122	311	39	78	389	172	6	100	28	244	339	100
RTOR Reduction (voh)	0	5	Ō	0	Ō	103	ō	ġ	Õ	- 'n	000	63
Lane Group Flow (vph)	122	345	0	78	389	69	0	125	ې ۱	244	339	37
Parking (#/hr)	0	0	Ō				Ō	Ō	ŏ			2000
Turn Type	Perm			Perm	hana ahara biyiy	Perm	Perm			nm∓nt		Perm
Protected Phases		2			6			8		7	4	
Permitted Phases	2	inine installitions		6		6	8	<b></b>		4 4		4
Actuated Green, G (s)	21.9	21.9		21.7	21.7	217		81		19 8	19.8	198
Effective Green, q (s)	22.9	22.9		22.7	22.7	22.7	den kompeler som som	9.1	a a thai na shekari sa ta	20.8	20.8	20.8
Actuated q/C Ratio	0.40	0.40		0.40	0.40	0.40		0.16		0.37	0.37	0.37
Clearance Time (s)	5.0	5.0	10	5.0	5.0	5.0	a de esta este esta a com	5.0	00000000000000000000000000000000000000	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0		3.0	Èn Én Én	3.0	3.0	30
Lane Grp Cap (vph)	266	664		324	720	612		207		488	637	580
v/s Ratio Prot		0.21			c0.22					0.07	c0 19	000
v/s Ratio Perm	0.19	ener er en en er er er er er er er er er er er er er	ne state se se se se se se se se se se se se se	0.10	ः यः व्यायः विद्यालयः २२	0.04		0.10		0.12	~~~~	0.02
v/c Ratio	0.46	0.52		0.24	0.54	0.11		0.60		0.50	0.53	0.06
Uniform Delay, d1	12.4	12.8		11.3	13.1	10.7	enda any ari-an-sa	22.2		16.2	14.2	117
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1 00	1 00
Incremental Delay, d2	1.3	0.7	or provinsion and	0.4	0.8	0.1	produktor je peroprospoljanje	4.9		0.8	0.9	0.0
Delay (s)	13.7	13.5	en in misjonel En Senten en Se	11.7	13.9	10.8		27.0		17.0	15.0	11.7
Level of Service	В	В	. (	В	В	B		C	ala pelaka nakan Asarota	В	В	В
Approach Delay (s)		13.5			12.8			27.0			15.2	
Approach LOS		В	(	and and a second second second	В	an an an an an an an an an an an an an a	enterna (antienterna antienterna)	С	na na na na na na na na na na na na na n	alle grade till pod	В	ana Adama (2000)
Intersection Summary												
HCM Average Control D	elay		14.8	H	CM Lev	el of Se	rvice		В			
HCM Volume to Capacity	y ratio		0.48									
Actuated Cycle Length (s	3)		56.8	Si	um of lo	ost time	(s)		8.0			
Intersection Capacity Util	lization	5	3.9%	IC	U Leve	l of Sen	vice		Α			
Analysis Period (min)			15		·····				en og som som som som som som som som som som		na ya mwakana ta ta nyika	u en el mente d'artes.
c Critical Lane Group												antan antar Kalendarik

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		÷.	7	ሻ	<b>t</b> a			र्द	*	٣	1.	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	12	12	16	12	12	12
Total Lost time (s)		4.0	4.0	4.0	4.0			4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00	ang na sa panini na sana sa sa	an an an an an an an an an an an an an a	1.00	1.00	1.00	1.00	Alan maja kabata juni
Frt		1.00	0.85	1.00	0.97			1.00	0.85	1.00	0.98	
Flt Protected		1.00	1.00	0.95	1.00			0.98	1.00	0.95	1.00	
Satd. Flow (prot)		1734	1478	1486	1525			1821	1794	1593	1829	
Flt Permitted	an an an an an an an an an an an an an a	0.97	1.00	0.50	1.00			0.81	1.00	0.64	1.00	an an an an an an an an an an an an an a
Satd, Flow (perm)		1688	1478	778	1525			1502	1794	1076	1829	
Volume (vph)	15	285	85	55	320	65	75	90	60	100	110	15
Peak-hour factor PHE	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0,90	ົດອໍດັ
Adi, Flow (vph)	17	317	94	61	356	72	83	100	67	111	122	17
RTOR Reduction (vph)	0	0	37	0	9	0	Ō	0	37	Ó	5	0
Lane Group Flow (vph)	0	334	57	61	419	0	0	183	30	111	134	Õ
Parking (#/hr)				0	0	Ō	ō			o		
	Perm		Perm	Perm		November of the second	Perm		Perm	Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6			8	1940.000 - <b>17</b> 94	8	4	1999 - S. 1999 - S. 1999 - S. 1999 - S. 1999 - S. 1999 - S. 1999 - S. 1999 - S. 1999 - S. 1999 - S. 1999 - S. 1 1999 - S. 1999	
Actuated Green, G (s)		17.4	17.4	17.4	17.4			12.5	125	12.5	12.5	
Effective Green, a (s)		18.4	18.4	18.4	18.4	alah dalah karat dipaka	9	13.5	13.5	13.5	13.5	
Actuated g/C Batio		0.41	0.41	0.41	0.41			0.30	0.30	0.30	0.30	
Clearance Time (s)		5.0	5.0	5.0	5.0	102200200000000000000000000000000000000	elle magne (1967) and	5.0	5.0	5.0	5.0	atradi data Ag
Vehicle Extension (s)		3.0	3.0	3.0	3.0			3.0	3.0	3.0	3.0	
Lane Grn Cap (vph)		692	606	319	625			452	539	324	550	
v/s Batio Prot			200		c0 27						0.07	
v/s Ratio Perm		0.20	0.04	0.08				c0.12	0.02	0.10		
v/c Ratio		0.48	0.09	0.19	0.67		Shishing ag	0.40	0.06	0.34	0 24	
Uniform Delay, d1		9.7	8.1	8.5	10.8	2011/2012/11/2012	201003009099999	12.5	11.2	12.2	11.8	4003939966485
Progression Factor		1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	
Incremental Delay. d2		0.5	0.1	0.3	2.8			0.6	0.0	0.6	0.2	
Delay (s)		10.3	8.2	8.8	13.6			13.1	11.2	12.9	12.1	
Level of Service	, 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 199 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -	В	A	A	B	ter de transmissioner (*	nolecia di referenzi di la construi di la construi di la construi di la construi di la construi di la construi La construi di la cons	В	B	В	В	General (Spinske
Approach Delay (s)		9.8			13.0			12.6			12.4	
Approach LOS	den geni en britten en en britten.	A	Contra Contraction (Contraction)		В	ania na manazina	anda da se se se se se se se se se se se se se	В	en de lecht Afrikenendigt	nakoky narisy asiyon (pon)	В	
Intersection Summary												
HCM Average Control D	elay		11.9	H	ICM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.48									
Actuated Cycle Length (s	s)	a a se anno se se súd.	44.9	S	um of lo	st time	(S)	e, entre propositionentificati	8.0	aran da biring biring biring biring biring biring biring biring biring biring biring biring biring biring biring		
Intersection Capacity Uti	lization		65.5%	1	CU Leve	l of Serv	vice		C			
Analysis Period (min)			15			a a natura yang kanading				e – sooreportensteller	,	
c Critical Lane Group												

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Movement	EBL2	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR2	SBL	SBT	SBR
Lane Configurations		4			44			<b>.</b>			£.	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	14	14	14	12	12	12	16	16	16
Total Lost time (s)		4.0	olapeletkéh knalise		4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00		······································	1.00	-11-20-00-00-00-00-00-00-00-00-00-00-00-00-
Frt		0.99			0.99			1.00			0.99	
Flt Protected		0.99			0.98			1.00			1.00	
Satd. Flow (prot)		1821			1926			1854			2094	
Flt Permitted		0.93			0.89			0.98			0.99	
Satd. Flow (perm)		1722			1753			1820			2081	
Volume (vph)	15	45	5	20	30	5	15	315	5	5	265	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	50	6	22	33	6	17	350	6	6	294	17
RTOR Reduction (vph)	0	4	0	0	0	0	0	1	0	0	2	0
Lane Group Flow (vph)	0	69	0	0	61	0	0	372	0	0	315	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		3			3			2			6	
Permitted Phases	3			3			2	2		6	6	
Actuated Green, G (s)		15.0			15.0			30.0			30.0	
Effective Green, g (s)		16.0			16.0			31.0			31.0	
Actuated g/C Ratio		0.20			0.20			0.39			0.39	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Lane Grp Cap (vph)		344			351			705			806	
v/s Ratio Prot												
v/s Ratio Perm		c0.04			0.03			c0.20			0.15	
v/c Ratio		0.20			0.17			0.53			0.39	Newconst
Uniform Delay, d1		26.7			26.5			18.9			17.7	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.3			1.1			2.8			1.4	
Delay (s)		28.0			27.6			21.7			19.1	
Level of Service		С		an an an an an an an an an an an an an a	С			С			В	
Approach Delay (s)		28.0			27.6			21.7			19.1	
Approach LOS		С			С			С			В	
Intersection Summary												
HCM Average Control D	elay		29.8	Н	CM Lev	el of Se	rvice		С			
HCM Volume to Capacity	y ratio		0.55									
Actuated Cycle Length (s	3)		80.0	S	um of lo	ost time	(s)		12.0			
Intersection Capacity Uti	lization	(	\$3.1%	IC .	CU Leve	l of Serv	/ice		В			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	SWL2	SWL	SWR	SWR2
Lane Configurations	ኻ	¥		
Ideal Flow (vphpl)	1900	1900	1900	1900
Lane Width	14	14	14	14
Total Lost time (s)	4.0	4.0		
Lane Util. Factor	1.00	1.00	e es auros es presentantem	
Frt	1.00	1.00		
Flt Protected	0.95	0.95		
Satd. Flow (prot)	1888	1887		
Flt Permitted	0.95	0.95	an an ann an an an ann an Arlanda	ng ng manang managang sa
Satd. Flow (perm)	1888	1887		
Volume (vph)	51	375	5	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90
Adj. Flow (vph)	57	417	6	6
RTOR Reduction (vph)	0	t	0	0
Lane Group Flow (vph)	57	428	0	0
Turn Type	Split			
Protected Phases	4	4		
Permitted Phases				
Actuated Green, G (s)	20.0	20.0		
Effective Green, g (s)	21.0	21.0		
Actuated g/C Ratio	0.26	0.26		
Clearance Time (s)	5.0	5.0		
Lane Grp Cap (vph)	496	495		
v/s Ratio Prot	0.03	c0.23		
v/s Ratio Perm	1. 1. 1997 (1. 1977 (			
v/c Ratio	0,11	0.87		
Uniform Delay, d1	22.4	28.1		
Progression Factor	1.00	1.00		
Incremental Delay, d2	0.5	18.0		
Delay (s)	22.9	46.1		
Level of Service	С	D		
Approach Delay (s)		43.4		
Approach LOS		D		
Intersection Summarv				

# HCM Signalized Intersection Capacity Analysis 23: Flynn Avenue & Shelburne St. (Rt 7)

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		र्भ	7		¢.	7	ሻ	<u>ት</u> ኈ		ሻ	<u>ተ</u> ኈ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	0.99	
Fit Protected		0.96	1.00		0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1793	1583		1808	1583	1770	3534		1770	3500	
Fit Permitted		0.74	1.00		0.79	1.00	0.18	1.00		0.23	1.00	
Satd. Flow (perm)		1371	1583		1465	1583	337	3534		428	3500	
Volume (vph)	55	15	130	30	20	35	125	1090	10	30	875	70
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	61	17	144	33	22	39	139	1211	11	33	972	78
RTOR Reduction (vph)	0	0	124	0	0	34	0	1	0	0	7	0
Lane Group Flow (vph)	0	78	20	0	55	5	139	1221	0	33	1043	0
Turn Type	Perm		Perm	Perm		Perm	pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)		8.1	8.1		8.1	8.1	42.0	42.0		31.3	31.3	
Effective Green, g (s)		8.1	8.1	at a strategy second strategy	8.1	8.1	42.0	42.0		31.3	31.3	
Actuated g/C Ratio		0.14	0.14		0.14	0.14	0.72	0.72		0.54	0.54	
Clearance Time (s)		4.0	4.0		4.0	4.0	3.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		191	221		204	221	409	2555		231	1886	
v/s Ratio Prot							0.04	c0.35			c0.30	
v/s Ratio Perm	an construction (200	c0.06	0.01		0.04	0.00	0.21	an a na starta da se tarta	anton careto	0.08		
v/c Ratio		0.41	0.09		0.27	0.02	0.34	0.48		0.14	0.55	
Uniform Delay, d1		22.8	21.8	erestador (a constant	22.4	21.6	4.1	3.4	and the second second second second second second second second second second second second second second second	6.7	8.8	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.4	0.2		0.7	0.0	0.5	0.1		0.3	0.4	
Delay (s)		24.2	22.0		23.1	21.6	4.6	3.6		7.0	9.2	
Level of Service	(ndestilder) höge bör	C	C	an an an an an an an an an an an an an a	C	C	A	A	ngan gengan kalèn kijan ku	<b>A</b>	A	an an an an an an an an an an an an an a
Approach Delay (s)		22.8			22.5			3.7			9.1	
Approach LOS		C			C			A			A	
Intersection Summary												
HCM Average Control D	elay		8.0	Н	CM Lev	el of S	ervice		Α			
HCM Volume to Capacity	y ratio		0.53									
Actuated Cycle Length (s	s)		58.1	S	um of lo	ost time	e (s)		12.0			
Intersection Capacity Uti	lization		57.6%	IC	CU Leve	el of Sei	rvice		В			
Analysis Period (min)		aanaa ahaa taa ta	15									
c Critical Lane Group												

# HCM Signalized Intersection Capacity Analysis 24: Home Avenue & Shelburne St. (Rt 7)

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		र्भ	7	۲	4		ሻ	<b>†</b> ‡		٢	朴	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	10	12	16	12	10	10	10	10	10	10
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	0.95		1.00	0.95	
Frt		1.00	0.85	1.00	0.90	ġ.	1.00	1.00		1.00	1.00	
Flt Protected		0.97	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1750	1478	1770	1909		1652	3297		1652	3295	
Flt Permitted		0.79	1.00	0.71	1.00		0.23	1.00		0.95	1.00	
Satd. Flow (perm)		1415	1478	1329	1909		393	3297		1652	3295	
Volume (vph)	35	25	140	30	20	35	160	1285	15	40	910	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	39	28	156	33	22	39	178	1428	17	44	1011	17
RTOR Reduction (vph)	0	0	141	0	35	0	0	1	0	0	1	0
Lane Group Flow (vph)	0	67	15	33	26	0	178	1444	0	44	1027	0
Turn Type	Perm	a hije (dei sie) i	Perm	Perm			pm+pt			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2					
Actuated Green, G (s)		6.7	6.7	6.7	6.7		42.0	42.0		3.5	28.5	
Effective Green, g (s)		6.7	6.7	6.7	6.7		43.0	43.0		3.5	29.5	
Actuated g/C Ratio		0.10	0.10	0.10	0.10		0.64	0.64		0.05	0.44	
Clearance Time (s)		4.0	4.0	4.0	4.0		5.0	5.0		4.0	5.0	
Vehicle Extension (s)		1.0	1.0	1.0	1.0		1.5	1.0		1.0	1.0	
Lane Grp Cap (vph)		140	146	132	189		566	2094		85	1436	
v/s Ratio Prot					0.01	9999 ( ) ( ) ( ) - ( )	0.08	c0.44		0.03	c0.31	nte internetienen.
v/s Ratio Perm		c0.05	0.01	0.02			0.12					
v/c Ratio		0.48	0.11	0.25	0.14		0.31	0.69		0.52	0.72	
Uniform Delay, d1		28.8	27.8	28.2	27.9		10.2	8.0		31.3	15.7	
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	ana tanàn dia kalan
Incremental Delay, d2		0.9	0.1	0.4	0.1		1.5	1.9		2.2	3.1	
Delay (s)		29.8	27.9	28.5	28.0		11.7	9.9		33.5	18.7	
Level of Service		C	C	С	C		В	A	en den son sens Grieffikken Mager	C	B	
Approach Delay (s)		28.5			28.2			10.1		na na 1997 ao 500 amin' amin' amin' amin' amin' amin' amin' amin' amin' amin' amin' amin' amin' amin' amin' ami	19.3	
Approach LOS		С			C			В			В	
Intersection Summary												
HCM Average Control D	elay		15.3	H	CM Lev	el of Se	rvice		В			
HCM Volume to Capacity	y ratio		0.63						a a se a consector de la consector de la consector de la consector de la consector de la consector de la consec			
Actuated Cycle Length (s	<b>3)</b>		67.7	S	um of lo	ost time	(s)		8.0			
Intersection Capacity Uti	lization		59.3%	IC	CU Leve	l of Sen	vice		В			
Analysis Period (min)			15									

## HCM Signalized Intersection Capacity Analysis 25: I-189 OFF RAMP & Shelburne St. (Rt 7)

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				٣	র			<b>^</b>			<b>†</b> 1,	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	14	12	12	12	12	12	12
Total Lost time (s)				4.0	4.0			4.0			4.0	
Lane Util. Factor				0.95	0.95			0.95			0.95	
Frt				1.00	1.00			1.00			1.00	
Flt Protected				0.95	0.96			1.00			1.00	
Satd. Flow (prot)				1681	1700			3539			3537	
Flt Permitted				0.95	0.96			1.00			1.00	
Satd. Flow (perm)				1681	1700			3539			3537	
Volume (vph)	0	0	0	1320	135	0	0	810	0	0	1380	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	1467	150	0	0	900	0	0	1533	6
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	0	0	787	830	0	0	900	0	0	1538	0
Turn Type				Perm			Perm					
Protected Phases					8			2			6	
Permitted Phases				8			2					
Actuated Green, G (s)				28.0	28.0			30.0			30.0	
Effective Green, g (s)				30.0	30.0			32.0			32.0	
Actuated g/C Ratio				0.43	0.43			0.46			0.46	
Clearance Time (s)				6.0	6.0			6.0			6.0	
Vehicle Extension (s)				3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)				720	729			1618			1617	
v/s Ratio Prot				1997 - 1997 - 1997 - 1997 - 1975 - 1975 - 1975 - 1976 - 1976 - 1976 - 1976 - 1976 - 1976 - 1976 - 1976 - 1976 -	ara a yang ang tang tang tang tang ta		ant and the first sector (1995)	0.25		· · · · · · · · · · · · · · · · · · ·	c0.43	an ya sanafa karista a si sa
v/s Ratio Perm				0.47	0.49							
v/c Ratio				1.09	1.14			0.56			0.95	0-1990-1990-1990-19
Uniform Delay, d1				20.0	20.0			13.8	Sunga Syasan Sunga Syasan		18.3	
Progression Factor				1.00	1.00			1.00			1.00	
Incremental Delay, d2				61.8	78.5			0.4			12.7	
Delay (s)				81.8	98.5			14.2			30.9	
Level of Service				F	F			В	en de la company		С	
Approach Delay (s)		0.0			90.3			14.2			30.9	
Approach LOS		A			F			В			С	
Intersection Summary												
HCM Average Control De	elay –		50.9	H	ICM Lev	el of Sei	vice		D			
HCM Volume to Capacity	/ ratio		1.04									
Actuated Cycle Length (s	)		70.0	S	um of Ic	st time (	S)		8.0			
Intersection Capacity Util	ization	8	35.1%	IC	CU Leve	l of Serv	rice		E			
Analysis Period (min)			15	0.9.5.0								
<ul> <li>Oritical Lana Oraum</li> </ul>												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			÷‡+			4	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	20	145	70	50	100	20	125	215	50	55	285	25
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	22	161	78	56	111	22	139	239	56	61	317	28
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	261	189	433	406								
Volume Left (vph)	22	56	139	61								
Volume Right (vph)	78	22	56	28								
Hadj (s)	-0.13	0.02	0.02	0.02								
Departure Headway (s)	7.2	7.6	6.6	6.7			· · · · · · · · · · · · · · · · · · ·					
Degree Utilization, x	0.52	0.40	0.80	0.75			elitetti operati. Stationalisetti					
Capacity (veh/h)	440	410	515	512	, , , , , , , , , , , , , , , , , , ,							
Control Delay (s)	17.8	15.6	30.9	27.4								
Approach Delay (s)	17.8	15.6	30.9	27.4								
Approach LOS	C	C	D	D								
Intersection Summary												
Delay			24.9									
HCM Level of Service			С									
Intersection Capacity Uti	lization		68.1%	I(	CU Leve	l of Ser	vice		C			
Analysis Period (min)			15			04/04/04/04/04/04		n bangsagasi as		Addeeddalada ar de	dje djelatog dore	akan katikan

	¥	•	1	1	1	¥				
Movement	WBL	WBR	NBT	NBR	SBL	SBT				
Lane Configurations	Y		4			ŧ				
Sign Control	Stop		Free			Free				
Grade	0%		0%			0%				
Volume (veh/h)	145	5	420	265	5	660				
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				
Hourly flow rate (vph)	161	6	467	294	6	733				
Pedestrians		ta da segunda da segunda da segunda da segunda da segunda da segunda da segunda da segunda da segunda da segund	anan kanan		- iteration	u da ang ang ang ang ang ang ang ang ang an		Ny faritr'o dia kaominina dia kaominina dia kaominina dia kaominina dia kaominina dia kaominina dia kaominina d	alaan waxay karay talaa say daraan	en gesterningen er ginner
Larie width (it)										
Percent Blockage			oli i della della della della della della della della della della della della della della della della della del							
Right turn flare (veh)										
Median type	None									
Median storage veh)		3291491249349343449343	i in farmenne finnsfir ferstik	finalji ogod Matridia (1993)					an fan fan de fan fan de fan fan fan fan fan fan fan fan fan fan	
Upstream signal (ft)					o ani in Chilippe (ne Na Chilippe (ne	837			talan kata kialan telapa (arran tera) Mananan pertaharan terapa terapa	
pX, platoon unblocked	0.92				1					
vC, conflicting volume	1358	614			761					
vC1, stage 1 conf vol	e den en den de la comp	teres densities teresteren								
vC2, stage 2 conf vol										
vCu, unblocked vol	1390	614	entonetterskerkov	visio algorita de	761	elestentste staatste se	enterinisterenter	uliyaa aasaa aa aa	an an an an an an an an an an an an an a	territiski rizeteri tire
tC, single (s)	6.4	6.2			4.1					
10, 2 staye (s) +E (a)	26	20			<u></u>					
n) queue free %	5.5 0	3.3 QQ			2.2 90					
cM capacity (veh/h)	143	492			851					
Direction Lone #	MP 1		eo 1							
Volume Total	167	761	739							
Volume Left	161	0	6							
Volume Right	6	294	ō							
cSH	147	1700	851	100001930100000000000000000000000000000		69.000000000000000000000000000000000000			nen and search and a search of the search	1979-00-00-00-000000-00-000
Volume to Capacity	1.14	0.45	0.01							
Queue Length 95th (ft)	231	0	0							
Control Delay (s)	176.5	0.0	0.2							
Lane LOS	F	an di da <u>su</u> da <u>su</u> da sa s	A	legg) dagged with similar in a	onoristi en entre di subr			an an an an an an an an an an an an an a	set se sua dan se sua mária sera martir	an an an an an an an an an an an an an a
Approach Delay (s) Approach LOS	176.5 F	0.0	0.2							5 0 G G
Intersection Summary										
Average Delay			17.7							
Intersection Capacity Ut	ilization	ļ	53.7%	IC	U Leve	l of Service	9	A		
Analysis Period (min)			15	- ,	· · · · · · · · · · · · · · · · · · ·		a a na sa kanagariya (belati)	ang anagana ang ang agang ang as	aan aan taan taa 1973 dalamada ta jirid dalamad	And the set of the set

HCM Unsignalized Intersection Capacity Analysis 22: Birchcliff Pkwy & Shelburne St. (Rt 7)

	٦		$\mathbf{i}$	1	4	×	1	†	1	1	Ļ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			44			ፈጉ			4 î k	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	30	0	45	10	0	10	35	1095	5	5	940	25
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	33	0	50	11	0	11	39	1217	6	6	1044	28
Pedestrians	n en ante de la Aresta de Ares			norestralizen bahirre	anana katang da	et e fan ek en finskert se		en de servición de constr	waren dieder ieri	nor an airsteach		an an an an an an an an an an an an an a
Lane Width (ft)									indonén ték			
Walking Speed (ft/s)		sector de la comp	alvissidaskida	waardan kata ka		en de contraderio						silanin an an an an an an an an an an an an an
Percent Blockage												
Hight turn flare (ven)		Nana			Mana					an in the sec		
Median storage yeb)		INOUIG	e en en en en en en en en en en en en en		INOLIE							
l Instream signal (ft)		gleft i negel v daten i en je da						1267				
pX. platoon unblocked			9,999	1999-1997-1999-19 1999-1997-1997-1997-19	999900000000000000000000000000000000000	epoise ja since n					1899019999999999	879699999999
vC. conflicting volume	1767	2369	536	1881	2381	611	1072			1222		
vC1, stage 1 conf vol	lating distanting Theory and	an an an an an an an an an an an an an a	ning mentar adda seta.		an the first of the state		an an an an an an an an an an an an an a					(nyangu)(Dologo)
vC2, stage 2 conf vol												
vCu, unblocked vol	1767	2369	536	1881	2381	611	1072			1222		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	32	100	90	70	100	97	94		ulukaran kasilata di Januar	99	ne keternat Akestonet	al an thank that the state of the
cM capacity (veh/h)	49	32	489	37	32	437	646			566		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	83	22	647	614	528	550						
Volume Left	33	11	39	0	6	0			Ann. 1999 1. 1999 1. 1999 1. 1999			
Volume Right	50	11	0	6	0	28				6.6.6.6		
cSH	107	68	646	1700	566	1700	ang ngaran menangan		estaliseta en a de sonar	uggalka kérrepisebi yangés	v sou het de tra	vaano oob aa
Volume to Capacity	0.78	0.33	0.06	0.36	0.01	0.32						
Queue Length 95th (II)	108	30	5	U 0	1	0				A SA ANA ANA ANA ANA ANA ANA ANA ANA ANA		sustania
Long LOS	109.4 E	01.4 E	0.1	0.0	0.3	0.0						
Annroach Dolay (c)	100 /	Г 91 Л	n a		n r							
Approach LOS	100. <del>1</del> F	vi. <del>.</del> F		x331004004092							1100406910698169	
Internection Cumman	•	•										
Average Delau			EO									
Average Delay	ilization		0.U ⊳∆ 77	N	ില്കം	1 of Con	vino		~			
Analysis Period (min)	INCLUMI						*100	ionenios (regili)		-7410-1410-1410		

		$\mathbf{r}$	<		1	*		
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations Sign Control Grade	₽ Free 0%			<del>ৰ্</del> Free ০%	Y Stop			
Volume (veh/h)	125	20	35	145	35	65		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	en i net tint at en titt stan stan stan se se se se se se se se se se se se se	alan yan yang salaran kana kana periodok kana kana kana kana kana kana kana ka
Hourly flow rate (vph) Pedestrians Lane Width (ft) Walking Speed (ft/s) Percent Blockage	139	22	39	161	39	72		
Right turn flare (veh) Median type					None			
Upstream signal (ft) pX, platoon unblocked				331				
vC, conflicting volume vC1, stage 1 conf vol			161		389	150		
vCu_unblocked vol	anagali dadinga ku	an ngangangangangangangangangangangangangan	161	15992304608	389	150		
tC, sinale (s)			4.1		6.4	6.2		
tC, 2 stage (s)	1141-1144 1141-1	anda garan da nga sagarang.	e de la company de la company de la company de la company de la company de la company de la company de la comp	n huna péresé dépendiné k	ter mellen st <u>er</u> og miljenered	alanda sa <u>kanan</u> a sa sa sa sa	i de serie e de la contra de la contra de production de la contra de la contra de la contra de la contra de la La contra de la contr	
tF (s)			2.2		3.5	3.3		
p0 queue free %			97		93	92		
cM capacity (veh/h)			1418		598	896		
Direction, Lane #	EB 1	WB 1	NB 1					
Volume Total	161	200	111			5 15 A 16 A		
Volume Left	0	39	39					
Volume Right	22	0	72					
cSH	1700	1418	763	aniai tean da cana	a na manta da da da da se		nili na jen niji senane seleka i sena spanska po se	
Volume to Capacity	0.09	0.03	0.15					
Queue Length 95th (II)	0	2 	13					
Lana LOS	0.0	۱./ ۸	0.01					
Annroach Delay (c)	nn	А 17	ם 10 5					
Approach LOS		<b></b>	B					
Intersection Summary								
Average Delay			3.2					
Intersection Capacity Uti	ilization		33.3%	IC	CU Leve	I of Servic	9 A	
Analysis Period (min)			15					

General Information         Site Information           Aprimation         EUD           Aprimation         Intersection           Aprimation         TOWN OF BURLINGTON           Date Partormed         122205           Analysis Time Period         PM PEAK HOUR           Protect Description         BURLINGTON           Earthwest Street:         LOCUST/LEDGE           North/South Street:         ROUTE 7           Relearch Adjustments         Study Period (ms):           Movement         1         2           Vehicle Volumes and Adjustments         Study Period (ms):         0.25           Vehicle Volumes and Adjustments         Undy Markan (ms):         0.20           Parcent Hagy Vehicles         0         1.5         Peak-Mour Hotthothothothothothot		T	WO-WAY STO	P CONTR	OL SUMI	MARY				
Appli-sit         EJD         Intersection         FOURTE 7LOCUST/LEDGE           Date Portormed         12/22/05         Analysis Tim Pariod         TOWN OF BURLINGTON           Analysis Tim Pariod         PM PEAK HOUR         Analysis Tim Pariod         2008 RSG C1 & C2 Only           Project Description         DURLINGTON         Study Penod (hrs):         0.25           Vehicle Volumes and Adjustments         Modrity South Street:         ROUTE 7         R           Major Street         North/South         Study Penod (hrs):         0.25           Vehicle Volumes and Adjustments         Modrity For Research         6         6           Major Street         North/South         Southbound         -           Volume         0         715         280         30         760         15           Peak-Hour Factor, PHF         0.90	<b>General Information</b>			Site I	nformatio	on		<u> </u>		
Project Description         EVENUATION           EastWest Street         Intersection Orientation:         North-South         Study Period (hrs):         0.25           Vehicle Volumes and Adjustments         Northbound         Southbound         Southbound           Major Street         Northbound         Intersection Orientation:         North South         Southbound           Movement         1         2         3         4         5         6           Volume         0         715         280         30         760         15           Peak-Hour Factor, PHF         0.90         0.90         0.90         0.90         0.90         0.90           Percent Heavy Vehicles         0           2             Ontifuration         T         T         T         R         L         T         R           Outrison         T         T         T         R         0         1         0           Configuration         T         T         R         L         T         R         0         1         1         12           Volume         0         0         0         0         0         30	Anelyst Ag //Co. Date Performed Analysis Time Period	EJD CHA 12/22/05 PM PEAK	( HOUR	Interse Jurisdio Analys	ction ction is Year		ROUTE 7 TOWN O 2008 RS(	7/LOCUST, F BURLIN G C1 & C2	/LEDGE GTON Only	
Pastweet         North/South         Study Period (hrs):         0.25           Vehicle Volumes and Adjustments         Northbound         Southbound         Southbound           More Street         Northbound         Southbound         Southbound           More Street         Northbound         Southbound         Southbound           More Street         Northbound         T         R         L         T         R           Vehicle Volumes and Adjustments         0         715         280         30         760         15           Vehicle Volume         0         715         280         30         760         15           Peak-Hour Factor, PHF         0.90         0.90         0.90         0.90         0.90         0.90           Houry Flow Rate, HFR         0         794         311         33         844         16           Percent Heavy Vehicles         0         -         -         2         -         -           Mior Street         Westbound         Eastbound         Eastbound         More Street         0         0           More Street         Westbound         Eastbound         Eastbound         N         -           Volume         0	Project Description BUI	HLINGTON		<b>A</b> 1 1 10	<u> </u>					
Material Contentation         Fundaments           Main         Northbound         Southbound           Movement         1         2         3         4         5         6           Volume         0         715         280         30         760         15           Volume         0         715         280         30         760         15           Peak-Hour Factor, PHF         0.90         0.90         0.90         0.90         0.90         0.90           Houry Flow Rate, HFR         0         794         311         33         844         16           Percent Heavy Vehicles         0         -         -         2         -	East/west Street: LOCU	North South		North/S	South Stree	t: HOUIE	7			
Venicle Volumes and Adjustments         Northbound         Southbound           Mayor Street         Northbound         I         2         3         4         5         6           Movement         I         Z         3         4         5         6           Valume         0         715         280         30         760         15           Peak-Hour Factor, PHF         0.90         0.90         0.90         0.90         0.90         0.90           Percent Heavy Vehicles         0         -         -         2         -         -           Modian Type         Undivided         0         1         0         0         1         0           Canfiguration         7         TR         LTR         0         -	Mehiele Mehiman		_		-enoù (ms)	). 0.20		·····		
National Solution         Solutinound         Solutinound           Novement         1         2         3         4         5         6           Novement         1         2         3         4         5         6           Verent         0         715         280         30         760         15           Peak-Hour Factor, PHF         0.90         0.9	Venicie Volumes and	a Adjustment	S Nearth to sure of				0			
Notematic         L         T         R         L         T         R         L         T         R         L         T         R         L         T         R         L         T         R         L         T         R         L         T         R         L         T         R         L         T         R         L         T         R         L         T         R         L         T         R         L         T         R         L         T         R         L         T         R         D         0	Major Street			1 0		A		una T	~	
Volume         0         715         280         30         760         15           Peak-Hour Factor, PHF         0.90		1	2			4			0	
Peak-Hour Factor, PHF         0.90	Volume	0	715	280		30	760		15	
Hourly Flow Rate, HFR         0         794         311         33         844         16           Percent Heavy Vehicles         0          2 <td>Peak-Hour Factor, PHF</td> <td>0.90</td> <td>0.90</td> <td>0.90</td> <td>)</td> <td>0.90</td> <td>0.90</td> <td></td> <td>0.90</td>	Peak-Hour Factor, PHF	0.90	0.90	0.90	)	0.90	0.90		0.90	
Percent Heavy Vehicles         0          2             Median Type         Undivided           R1 Channelized         0         0         0         0         0           Lanes         0         2         0         0         1         0           Configuration         T         TR         LTR         0         0         0           Upstream Signal         0         0         11         12         0         0         0           Minor Street         Westbound         Eastbound         Eastbound         0         0         0         0         0           Volume         0         0         66         0         33         83         0         <	Hourly Flow Rate, HFR	0	794	311		33	844		16	
Median Type         Undivided           RT Channelized         0         0         0         0         0           RT Channelized         0         2         0         0         1         0           Configuration         T         TR         LTR         0         0         0         0           Minor Street         Westbound         Eastbound         0         1         12           Movement         7         8         9         10         11         12           Volume         0         0         60         0         30         75           Per dour Factor, PHF         0.90         0.90         0.90         0.90         0.90         0.90           Volume         0         0         66         0         33         83           Percent Grade (%)         0         0         2         0         2         2           Percent Grade (%)         0         0         0         0         0         0           Storage         0         0         1         0         1         0           Configuration         R         1         1         1         1 <td>Percent Heavy Vehicles</td> <td>0</td> <td></td> <td></td> <td></td> <td>2</td> <td></td> <td></td> <td></td>	Percent Heavy Vehicles	0				2				
RT Channelized         0         0         1         0           Lanes         0         2         0         0         1         0           Configuration         T         TR         LTR         0         0         0           Winor Street         Westbound         Eastbound         0         0         0         0           Movement         7         8         9         10         11         12           Volume         0         0         60         0         30         75           Periodic Factor, PHF         0.90         0.90         0.90         0.90         0.90           Percent Heavy Vehicles         0         0         66         0         33         83           Percent Grade (%)         0         0         2         0         2         2           Percent Grade (%)         0         0         0         0         0         33         83           Percent Grade (%)         0         0         1         0         1         0           Annelized         0         1         0         1         0         1         0           Corafiguration	Median Type				Undivide	d				
Lanes         0         2         0         0         1         0           Configuration         T         TR         LTR	RT Channelized			0					0	
Configuration         T         TR         LTR           Upstream Signal         0         Eastbound           Minor Street         Westbound         Eastbound           Movement         7         8         9         10         11         12           Movement         7         8         9         10         11         12           Movement         0         0         60         0         30         75           Per dour Factor, PHF         0.90         0         0         2	Lanes	0	2	0		0	1		0	
Upstream Signal         0         0           Minor Street         Westbound         Eastbound           Movement         7         8         9         10         11         12           L         T         R         L         T         R         N         T         R           Volume         0         0         60         0         30         75           Per dour Factor, PHF         0.90         0.90         0.90         0.90         0.90         0.90           Houry Flow Rate, HFR         0         0         66         0         33         83           Percent Heavy Vehicles         0         0         2         0         2         2           Percent Heavy Vehicles         0         0         0         0         0         1         0           Flared Approach         N          0         0         1         0         0           Configuration         R         0         1         0         0         1         0           Configuration         IT         R         9         10         11         12           Cane Configuration         LTR <t< td=""><td>Configuration</td><td></td><td>Τ</td><td>TR</td><td></td><td>LTR</td><td></td><td></td><td></td></t<>	Configuration		Τ	TR		LTR				
Minor StreetWestboundEastboundMovement789101112MovementLTRLTRVolume006003075Per dour Factor, PHF0.900.900.900.900.900.90Houry Flow Rate, HFR006603383Percent Heavy Vehicles002022Percent Grade (%)000000Storage001010RT Channelized001010anes001010ConfigurationR7891011PaproachNBSBWestboundEastboundMovement147891011(vph)3366116116(mph)628477126126160.170.486.000.140.9215% queue length0.170.486.0020Ontrol Delay11.113.8126.0Noroch Delay13.8126.0Noroch Delay73.8126.0	Upstream Signal		0		<u> </u>		0			
Movement         7         8         9         10         11         12           L         T         R         L         T         R         L         T         R           Volume         0         0         60         0         30         75           Peter for four Factor, PHF         0.90	Minor Street		Westbound				Eastbou	ind		
L         T         R         L         T         R           Volume         0         0         60         0         30         75           Pe         dour Factor, PHF         0.90         0.90         0.90         0.90         0.90         0.90         0.90           Houry Flow Rate, HFR         0         0         66         0         33         83           Percent Heavy Vehicles         0         0         2         0         2         2           Percent Grade (%)         0         0         0         2         2         2           Percent Grade (%)         0         0         0         0         2         2         2           Percent Grade (%)         0         0         0         0         0         1         0         1         0         1         0         1         0         1         0         1         0         1         0         1         0         1         0         1         0         1         0         1         0         1         0         1         0         1         0         1         1         1         1         1         1 <td>Movement</td> <td colspan="2"></td> <td>9</td> <td></td> <td>10</td> <td>11</td> <td></td> <td>12</td>	Movement			9		10	11		12	
Volume         0         0         60         0         30         75           Prefer         four Factor, PHF         0.90		L.	Т	R		L	Т		R	
Perform         Output Pactor, PHP         0.90	Volume	0	0	60		0	30		75	
Houring Fride         D <thd< th="">         D         <thd< th=""> <th< td=""><td>Pe tour Factor, PHF</td><td>0.90</td><td>0.90</td><td>0.90</td><td></td><td>0.90</td><td>0.90</td><td></td><td>0.90</td></th<></thd<></thd<>	Pe tour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90	
Percent fready venices         0         0         2         0         2         2         2           Percent Grade (%)         0	Porcent Heavy Vehicles	0	0	66			33		83	
Percent Grade (%)     N     0       Flared Approach     N     N       Storage     0     0       RT Channelized     0     0       Lanes     0     1     0       Configuration     R     0     1       Delay, Queue Length, and Level of Service     R     7     8     9       Approach     NB     SB     Westbound     Eastbound       Movement     1     4     7     8     9     10     11     12       Lane Configuration     LTR     R     7     7     7     7     7       Jane Configuration     LTR     R     116     7     7     7     7       (vph)     33     66     116     16     16       (m) (vph)     628     477     126       (c     0.05     0.14     0.92       15% queue length     0.17     0.48     6.00       Control Delay     11.1     13.8     126.0       OS     B     B     F       Vproach Delay      -     13.8     126.0	Percent Grade (%)			2		0			2	
N         N         N         N         N         N         N         N         N         N         N         N         N         Storage         N         O </td <td></td> <td></td> <td></td> <td>1</td> <td></td> <td></td> <td><del></del></td> <td>I</td> <td></td>				1			<del></del>	I		
Storage         0 </td <td>riared Approach</td> <td></td> <td><u>. N</u></td> <td></td> <td></td> <td></td> <td>N</td> <td></td> <td></td>	riared Approach		<u>. N</u>				N			
H1 Channelized0010Lanes001010ConfigurationR $R$ $TR$ Delay, Queue Length, and Level of ServiceApproachNBSBWestboundEastboundMovement14789101112ane ConfigurationLTRRTRTR(vph)33666116C (m) (vph)628477126/c0.050.140.925% queue length0.170.4866.00Control Delay11.113.8126.0OSBBB57	Storage		0				0			
Lanes001010Configuration $R$ $TR$ Delay, Queue Length, and Level of ServiceApproachNBSBWestboundEastboundMovement14789101112_ane Configuration $LTR$ $R$ $TR$ $TR$ / (vph)3366116116C (m) (vph)628477126/c0.050.140.92 $5\%$ queue length0.170.486.00Control Delay11.113.8126.0.OSBBF.oproach LOS13.8126.0	HI Channelized			0		_			0	
Configuration $H$ $TR$ Delay, Queue Length, and Level of Service $K$ $Eastbound$ ApproachNBSBWestboundEastboundMovement14789101112_ane Configuration $LTR$ $R$ $TR$ $TR$ $(vph)$ 33666116 $C(m)$ (vph)6284777126 $(c$ 0.050.140.92 $5\%$ queue length0.170.486.00Control Delay11.113.8126.0 $OS$ BBB126.0 $vproach LOS$ $R$ $126.0$	Lanes	0	0	1		0	1		0	
Delay, Queue Length, and Level of Service         NB         SB         Westbound         Eastbound           Approach         1         4         7         8         9         10         11         12           ane Configuration         LTR         R         7         8         9         10         11         12           ane Configuration         LTR         R         7         10         11         12           (vph)         33         66         116         116         126           (wph)         628         477         126         0.92           % queue length         0.17         0.48         6.00         0.92           % queue length         0.17         0.48         6.00         0.92           0S         B         B         F         7         0.92           .0S         B         B         13.8         126.0           .opproach Delay           13.8         126.0	Conliguration			<u>н</u>	<u> </u>				IH	
Approach         NB         SB         Westbound         Eastbound           Movement         1         4         7         8         9         10         11         12           Lane Configuration         LTR         R         R         TR         TR           / (vph)         33         66         116         116           C (m) (vph)         628         477         126           //c         0.05         0.14         0.92           5% queue length         0.17         0.48         6.00           Control Delay         11.1         13.8         126.0           .OS         B         B         F           Approach Delay           13.8         126.0	Delay, Queue Length, an	d Level of Servi	ce							
Movement         1         4         7         8         9         10         11         12           ane Configuration         LTR         R         TR         TR         TR           / (vph)         33         66         116         178           C (m) (vph)         628         477         126           //c         0.05         0.14         0.92           >5% queue length         0.17         0.48         6.00           Control Delay         11.1         13.8         126.0           OS         B         B         F           Approach Delay           13.8         126.0	Approach	NB	SB		Westbound	d		Eastbound	j	
LTR       R       TR         / (vph)       33       66       116         (vph)       628       477       126         /c       0.05       0.14       0.92         95% queue length       0.17       0.48       6.00         Control Delay       11.1       13.8       126.0         .OS       B       B       F         Approach Delay         13.8	Movement	1	4	7	8	9	10	11	12	
V (vph)       33       66       116         C (m) (vph)       628       477       126         V/c       0.05       0.14       0.92         05% queue length       0.17       0.48       6.00         Control Delay       11.1       13.8       126.0         .OS       B       B       F         Approach Delay         13.8       126.0	Lane Configuration		LTR			R			TR	
C (m) (vph)       628       477       126         //c       0.05       0.14       0.92         05% queue length       0.17       0.48       6.00         Control Delay       11.1       13.8       126.0         .OS       B       B       F         Npproach Delay         13.8       126.0	v (vph)		33			66			116	
Image: Model         0.05         0.14         0.92           95% queue length         0.17         0.48         6.00           Control Delay         11.1         13.8         126.0           .OS         B         B         F           Approach Delay           13.8         126.0	C (m) (vph)		628			477			126	
0.17         0.48         6.00           Control Delay         11.1         13.8         126.0           .OS         B         B         F           Approach Delay           13.8         126.0	v/c		0.05			0.14			0.92	
Control Delay         11.1         13.8         126.0           .OS         B         B         F           Approach Delay           13.8         126.0	95% queue length		0.17			0.48			6.00	
OS         B         B         F           Approach Delay           13.8         126.0	Control Delay		11.1			13.8		·	126.0	
Approach Delay 13.8 126.0	LOS		В			В	1		F	
pproach LOS	Approach Delay				13.8		1	126.0		
	Approach LOS				B		F			

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Version 4.1d

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	T۱	NO-WAY STO	P CONTR	OL SUN	/MARY			
<b>General Information</b>	1		Site I	nformat	tion			
Anetost Agy/Co. Date Performed Analysis Time Period	EJD CHA 12/22/05 PM PEAK	HOUR	Interse Jurisdio Analys	ction ction is Year		ROUTE 7 TOWN 0 2008 RS(	7/SOUTH \ F BURLIN G C1 & C2	WILLARD IGTON ? Only
Project Description BU	RLINGTON				·			
East/West Street: SOUT	TH WILLARD		North/S	South Stre	et: ROUTE	7		
Intersection Orientation:	North-South		Study I	Period (hr	s): 0.25	****		
Vehicle Volumes an	d Adjustments	3						
Major Street		Northbound				Southbo	und	
Wovement	1	2	3		4	5		6
Volume	75	640	<u> </u>		L	005		<u> </u>
Peak-Hour Factor, PHF	0.90	040	0.90	,	<u> </u>	005		nan
Hourly Flow Rate, HFR	83	711	0.00	·	0	894		0.90
Percent Heavy Vehicles	2			·	2			
Median Type		·····		Undivid	ded	1	I	
RT Channelized		1	0		<u> </u>	ļ		0
Lanes	0	1	0		0	1		0
Configuration	LT					Т		
Upstream Signal		0				0		
Minor Street		Westbound				Eastbou	Ind	
Movement	7	8	9		10	11		12
	L	Т	R		L	Т		R
Volume	0	145	0		0	0		0
Pe Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Houriy Flow Hate, HFR	0	161	0		0	0		0
Percent Heavy Vehicles	0	2	2		0	2		2
Percent Grade (%)		0	-			0		
Flared Approach		N			·	N		
Storage		0				0		_
RT Channelized			0					0
Lanes	0		0		0	0		0
							L	
Delay, Queue Length, ar	nd Level of Servic	e						
Approach	NB	SB		Westbou	nd		Eastbound	d
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT				TR			
v (vph)	83				161			
C (m) (vph)	759				67			
v/c	0.11				2.40			
95% queue length	0.37				15.62			
Control Delay	10.3				771.6			
LOS	В				F			1
Approach Delay		w m		771.6				
Approach LOS		~ <del>~</del> ~		F				

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HCS2000<sup>TM</sup>

# **BUILD ALTERNATIVE 2**

## AND

# C-1 SECTION & C-2 SECTION ONLY 2028 AM PEAK HOUR

## HCM Signalized Intersection Capacity Analysis 6: Main Street & Battery Street

Movement         EBL         EBT         EBR         WBL         WBT         WBR         NBL         NBT         NBR         SBL         SBT         SB           Lane Configurations         Image: Configuration in the image: Con					<b>F</b>			1	T	1	- <b>\</b>	¥	$\checkmark$
Lane Configurations         Image: Configuration of the confi	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Ideal Flow (vphpl)19001	Lane Configurations		đ	7		র	1		ፈቴ		٣	1.	
Total Lost time (s)4.04.04.04.04.04.0Lane Util. Factor1.001.001.000.951.001.00	Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor 1.00 1.00 1.00 1.00 0.95 1.00 1.00	Total Lost time (s)		4.0	4.0		4.0	4.0		4.0		4.0	4.0	
	Lane Util. Factor		1.00	1.00		1.00	1.00		0.95		1.00	1.00	
Frt 1.00 0.85 1.00 0.85 0.99 1.00 1.00	Frt		1.00	0.85		1.00	0.85		0.99		1.00	1.00	
Fit Protected 0.99 1.00 0.98 1.00 1.00 0.95 1.00	Fit Protected		0.99	1.00		0.98	1.00		1.00		0.95	1.00	
Satd. Flow (prot) 1835 1583 1820 1583 3484 1770 1857	Satd. Flow (prot)		1835	1583		1820	1583		3484		1770	1857	
Fit Permitted 0.92 1.00 0.86 1.00 0.81 0.95 1.00	Fit Permitted		0.92	1.00		0.86	1.00		0.81		0.95	1.00	
Satd. Flow (perm) 1711 1583 1596 1583 2841 1770 1857	Satd. Flow (perm)		1711	1583		1596	1583		2841		1770	1857	
Volume (vph) 15 35 20 45 50 125 40 345 30 285 750 1	Volume (vph)	15	35	20	45	50	125	40	345	30	285	750	15
Peak-hour factor, PHF 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.9	Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph) 17 39 22 50 56 139 44 383 33 317 833 1	Adj. Flow (vph)	17	39	- 22	50	56	139	44	383	33	317	833	17
RTOR Reduction (vph) 0 0 16 0 0 63 0 0 0 0 0	RTOR Reduction (vph)	0	0	16	0	0	63	0	0	0	0	0	0
Lane Group Flow (vph) 0 56 6 0 106 76 0 460 0 317 850	Lane Group Flow (vph)	0	56	6	0	106	76	0	460	0	317	850	0
Turn Type Perm Prot Perm pt+ov Perm custom	Turn Type	Perm	steerner en teressen	Prot	Perm	in formation of the state	pt+ov	Perm		С	ustom		
Protected Phases 4 4 8 8 1 2 1 6	Protected Phases		4	4		8	8 1		2		<b>1</b>	6	
Permitted Phases 4 8 2 1	Permitted Phases	4			8		an an an an an an an an an an an an an a	2		an contractor and a second	1		
Actuated Green, G (s) 23.9 23.9 23.9 47.4 21.4 23.5 49.9	Actuated Green, G (s)		23.9	23.9		23.9	47.4		21.4		23.5	49.9	
Effective Green, g (s) 24.9 24.9 24.9 49.4 22.4 24.5 50.9	Effective Green, g (s)	an an an an an an an an an an an an an a	24.9	24.9	a kanga kuwang pan	24.9	49.4	ndeskonstant and statut	22.4	An an an an an an an an an an an an an an	24.5	50.9	ay a ananana da bart
Actuated g/C Hatio 0.28 0.28 0.25 0.27 0.57	Actuated g/C Hatio		0.28	0.28		0.28	0.55		0.25		0.27	0.57	
Clearance Time (s) 5.0 5.0 5.0 5.0 5.0 5.0 5.0	Clearance Time (s)	NER BELANNES	5.0	5.0		5.0	Sindanahianak	vant op dat op tot.	5.0	Services and and some	5.0	5.0	Anis estis etator
<u>venicie Extension (s) 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0</u>	venicle Extension (s)		3.0	3.0		3.0			3.0		3.0	3.0	
Lane Grp Cap (vpn) 473 438 442 869 707 482 1050	Lane Grp Cap (vpn)		473	438		442	869		707	kalerististerit (startis	482	1050	Persentan di Album nda
V/s Railo Prot 0.00 0.05 0.18 c0.46	V/S Hallo Prot		~ ~ ~	0.00		-0.07	0.05		<b>0 1 0</b>		0.18	c0.46	
V/s Ratio Perm 0.03 C0.07 0.16	V/S Hallo Perm		0.03	- A A 4	teritiki deler	CU.U/	~ ~~	a an an an an an an an an an an an an an	0.16	an gangan ganggi sak			ويتناويمو ولينو
WC Railo 0.12 0.01 0.24 0.09 0.65 0.66 0.81	Vic hallo		0.12	0.01		0.24	0.09		0.65		0.66	0.81	
Onition Delay, 01         24.3         23.6         25.2         9.6         30.3         29.0         15.7           Progression Easter         1.00 <t< td=""><td>Drinoffi Delay, dT</td><td></td><td>24.3</td><td>23.0</td><td></td><td>25.2</td><td>9.5</td><td></td><td>30.3</td><td>ter gelokertig koluk</td><td>29.0</td><td>15.7</td><td></td></t<>	Drinoffi Delay, dT		24.3	23.0		25.2	9.5		30.3	ter gelokertig koluk	29.0	15.7	
	Incromental Delay, d2		1.00	1.00		1.00	1.00		1.00		1.00	1.00	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Delay (e)		0.5	0.1		1.3	0.0		2.2		3.2	4.7	
Level of Service $C$ $C$ $C$ $A$ $C$ $C$ $C$	Level of Service		24.0 C	20.1 C		20.5	9,7 A		ండ.4		ుడ.రా	20.4	
Approach Delay (s) 24.5 16.0 32.4 32.6	Approach Delay (s)		24 F			0 ar	n Serense	der States	221			C	
Approach LOS C B C C	Approach LOS		ст С		dedddddedau	10.3 R			v2.4 C			0	
	Interception Summan		•						•			v	
HCM Average Control Delay 24.9 HCM Level of Service	HCM Average Control D	olov		24.0	L	CMLo		nico		~			
HCM Volume to Canacity ratio 0.62	HCM Volume to Canacity	ciay Vratio		24.3 0.62	<b>П</b> (2000) 2005				ing ang ang ang				
Actuated Cycle Length (s) 90.0 Sum of lost time (s) 14.9	Actuated Cycle Length (s	y icalo e)		90.02 90.0	C.	um of la	et time	(e)		110	General Coloria		
Intersection Capacity Litilization 73.8% ICLU evel of Service D	Intersection Canacity 1 Itil	-, lization		73 8%	ی ۲		l of Ser	vice		۲+.∠ N			
Analysis Period (min) 15	Analysis Period (min)	(7 <b>9-1-1-1</b> -1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1		15	15			YIVQ		e de la companya de la companya de la companya de la companya de la companya de la companya de la companya de l			
c Critical Lane Group	c Critical Lane Group			• • 5 • • • • • •									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	î.			<u>.</u>			<u>A</u>			a î.	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		1999 (1997) (1999) 1999 (1997)	4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00			1.00			1.00			1.00	
Frt	1.00	1.00			0.89	5+1++000++1++++,++++++		0.99			1.00	an a tha that a shirt a
Fit Protected	0.95	1.00			1.00			1.00			0.98	
Satd. Flow (prot)	1770	1863			1645			1849			1811	
Flt Permitted	0.39	1.00			0.98	an hada dan barran. Manada menangkan		0.97			0.73	
Satd. Flow (perm)	717	1863			1614			1790			1349	
Volume (vph)	25	35	0	15	15	160	10	230	10	380	405	30
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	28	39	0	17	17	178	11	256	11	422	450	- 33
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	28	39	0	0	212	0	0	278	0	0	905	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	15.8	15.8			15.8			64.7			64.7	
Effective Green, g (s)	16.8	16.8			16.8			65.7			65.7	
Actuated g/C Ratio	0.19	0.19			0.19			0.73			0.73	
Clearance Time (s)	5.0	5.0			5.0			5.0			5.0	
Vehicle Extension (s)	3.0	3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)	133	346			300			1299			979	
v/s Ratio Prot		0.02										
v/s Ratio Perm	0.04				c0.13			0.16			c0.67	
v/c Ratio	0.21	0.11			0.71			0.21		848 X X	0.92	
Uniform Delay, d1	31.2	30.7			34.5			4.0			10.3	
Progression Factor	1.00	1.00			1.00			1.00			1.00	
Incremental Delay, d2	0.8	0.1			7.4			0.4			15.5	
Delay (s)	32.0	30.8			41.9			4.4			25.8	
Level of Service	С	С			D			Α			С	
Approach Delay (s)		31.3			41.9			4.4			25.8	
Approach LOS		С			D			A			С	
Intersection Summary												
HCM Average Control D	elay	unter alturatere e realtare.	24.3	Н	CM Lev	el of Se	rvice		С			
HCM Volume to Capacit	y ratio		0.88									
Actuated Cycle Length (	s)	ol 1.51.51.5	90.5	S	um of lo	st time	(s)		8.0			
Intersection Capacity Uti	lization	<b></b>	35.6%	IC	U Leve	l of Sen	/ice		E			
Analysis Period (min)		una provant table Art	15	and the second second					و و میں در اور میں در ا			
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<del>4</del> 7+			4			44			<del>4</del> 3-	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.99			0.90			0.98			0.98	
Flt Protected		0.97			0.99			0.99	-		0.97	
Satd. Flow (prot)		1727			1615			1742			1711	
Flt Permitted		0.66			0.94			0.82			0.70	
Satd. Flow (perm)		1173			1533			1445			1248	
Volume (vph)	45	20	5	40	35	185	5	20	5	300	70	50
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	50	22	6	44	39	206	6	22	6	333	78	56
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	78	0	0	289	0	0	34	0	0	467	0
Turn Type	Perm			Perm			Perm			om+pt		
Protected Phases		4			8			2		1	6	~~~~~
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		12.2			12.2			3.8			31.6	
Effective Green, g (s)		13.2			13.2			4.8			32.6	
Actuated g/C Ratio		0.25			0.25			0.09			0.61	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		288			376			129			961	
v/s Ratio Prot											c0.22	
v/s Ratio Perm		0.07			c0.19			0.02			c0.08	
v/c Ratio		0.27			0.77			0.26			0.49	
Uniform Delay, d1		16.4			18.9			22.9			5.9	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.5			9.1			1.1			0.4	
Delay (s)	e alla eresta de constate e de	16.9			28.0			23.9			6.3	
Level of Service		В			С			C			A	
Approach Delay (s)		16.9			28.0			23.9			6.3	
Approach LOS		В			C			ଁ ୦୦			Α	
Intersection Summary												
HCM Average Control De	elay		15.2	H	CM Lev	el of Se	rvice		В			
HCM Volume to Capacity	/ ratio		0.56							an an an an an tha an An An An An An An An An An An An An An	anan da shekara kardardar	
Actuated Cycle Length (s	)		53.8	S	um of lo	ost time	(s)		8.0			
Intersection Capacity Util	ization	Ę	51.9%	IC	U Leve	l of Serv	/ice		Α		nen enstruerne tetendelse kal	an a su nata di
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			র	1		ধ্য	*		<u>.</u>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	1779 - 1779 - 1779 - 17		4.0	4.0		4.0	4.0		4.0	and so the second second second second second second second second second second second second second second s
Lane Util. Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Frt		0.93			1.00	0.85		1.00	0.85		0.98	te e traducto gele gela com
Fit Protected		1.00			1.00	1.00		0.97	1.00		0.99	
Satd. Flow (prot)		1729			1859	1583		1811	1583		1812	il contraction
Fit Permitted		0.95			0.97	1.00		0.61	1.00		0.83	
Satd. Flow (perm)		1648			1816	1583		1144	1583		1513	
Volume (vph)	40	185	225	10	235	60	215	165	20	45	190	40
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	44	206	250	11	261	67	239	183	22	50	211	44
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	500	0	0	272	67	0	422	22	0	305	0
Turn Type	Perm			Perm		Perm	Perm		Perm	Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6		6	8		8	4		
Actuated Green, G (s)		32.5			32.5	32.5		35.3	35.3		35.3	
Effective Green, g (s)		36.5			36.5	36.5		39.3	39.3		39.3	
Actuated g/C Ratio		0.41			0.41	0.41		0.44	0.44		0.44	
Clearance Time (s)		8.0			8.0	8.0		8.0	8.0		8.0	
Vehicle Extension (s)		3.0			3.0	3.0		3.0	3.0		3.0	
Lane Grp Cap (vph)		668			736	642		500	691		661	
v/s Ratio Prot												
v/s Ratio Perm		c0.30			0.15	0.04		c0.37	0.01		0.20	
v/c Ratio		0.75			0.37	0.10	65 63 63 0	0.84	0.03		0.46	00000000
Uniform Delay, d1		22.8			18.7	16.6		22.6	14.5		17.9	
Progression Factor		1.00			1.00	1.00		0.61	0.69		1.00	
Incremental Delay, d2		4.6			0.3	0.1		14.0	0.1		0.5	
Delay (s)		27.4			19.0	16.7		27.8	10.1		18.4	
Level of Service	o maana soo ahaa ahaa ahaa	С			В	В		С	В		В	
Approach Delay (s)		27.4			18.6			26.9			18.4	
Approach LOS		С			В			С			В	
Intersection Summary												
HCM Average Control D	elay		23.7	H	CM Lev	el of Se	rvice		С			
HCM Volume to Capacit	y ratio		0.80									
Actuated Cycle Length (	s)		90.0	Si	um of lo	ost time	(s)		14.2			
Intersection Capacity Uti	ilization		37.5%	IC	U Leve	l of Ser	vice		Ε			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4.			¢.			4	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.92			0.98			0.98			1.00	
Flt Protected		1.00			0.99			0.99			1.00	
Satd. Flow (prot)		1705			1805			1823			1854	
Fit Permitted		0.99			0.64			0.90			0.96	
Satd. Flow (perm)		1689			1175			1644			1779	
Volume (vph)	10	105	185	35	105	25	60	365	55	25	395	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj, Flow (vph)	11	117	206	39	117	28	67	406	61	28	439	6
RTOR Reduction (vph)	0	67	0	0	7	0	0	3	0	0	0	0
Lane Group Flow (vph)	0	267	0	0	177	0	0	531	0	0	473	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		17.2			17.2			56.6			56.6	
Effective Green, g (s)		18.2			18.2			57.6			57.6	
Actuated g/C Ratio		0.20			0.20			0.64			0.64	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		342			238			1052			1139	
v/s Ratio Prot		enge (25, 64)			8.95 (39.3J)			(18.08) (F. )				
v/s Ratio Perm		c0.16			0.15			c0.32			0.27	
v/c Ratio		0.78			0.74			0.50			0.41	
Uniform Delay, d1		34.0			33.7			8.6			7.9	
Progression Factor		1.00			1.00			0.31			0.72	
Incremental Delay, d2		11.0			11.8			0.4			0.8	
Delay (s)		45.0			45.5			3.1			6.5	
Level of Service		D			D			Α			А	
Approach Delay (s)		45.0			45.5			3.1			6.5	
Approach LOS		D			D			Α			A	
Intersection Summary												
HCM Average Control D	elay		18.4	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.57			yy isi di daga Sirong di daga daga						
Actuated Cycle Length (	s)		90.0	S	um of lo	ost time	(s)		14.2			
Intersection Capacity Uti	lization		73.3%	10	CU Leve	l of Sen	/ice		D			
Analysis Period (min)			15									
c Critical Lane Group							989.9					

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$			¢.			÷.			44	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	12	11	11	11	12	11	12	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00	·····		1.00			1.00	
Frt		0.89			0.99			0.99			1.00	
Flt Protected		1.00			0.98			0.99			1.00	Sterbernist serve b
Satd. Flow (prot)		1595			1751			1766			1797	
Flt Permitted		1.00			0.47			0.83			0.99	
Satd. Flow (perm)		1588			832			1479			1779	
Volume (vph)	5	50	300	80	100	10	85	470	55	10	600	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	6	56	333	89	111	11	94	522	61	11	667	6
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	395	0	0	211	0	0	677	0	0	684	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2		ensepter er en besteren her er	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		23.3			23.3			50.5			50.5	
Effective Green, g (s)		24.3			24.3			51.5			51.5	tikisis tripis sag Agenta eleta Ag
Actuated g/C Ratio		0.27			0.27			0.57			0.57	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		429			225			846			1018	
v/s Ratio Prot				10 (910 (000 (000 (000 (000 (000 (000 (0		(1999-999-999) (1999-999-999)		n de staar weer de staar weer de staar weer de staar weer de staar weer de staar weer de staar weer de staar w	nan dan dan dari kata birang	ning a anning agus daaraa		ini i i na na na na na na na na na na na na na
v/s Ratio Perm		0.25			c0.25			c0.46			0.38	
v/c Ratio		0.92			0.94			0.80		an nanin kanalisa.	0.67	1999:0000000000000000000000000000000000
Uniform Delay, d1		31.9			32.1			15.2			13.4	
Progression Factor		1.00			1.00			1.00			1.03	en de la facta de la companya de la companya de la companya de la companya de la companya de la companya de la
Incremental Delay, d2		25.0			42.5			7.8			3.0	
Delay (s)		56.9			74.6			23.0			16.7	
Level of Service		E			E			C			В	
Approach Delay (s)		56.9			74.6			23.0			16.7	
Approach LOS		E		<u>.</u>	E			C			B	
Intersection Summary												
HCM Average Control De	elay		33.2	Н	CM Lev	el of Se	rvice		С			
HCM Volume to Capacity	ratio		0.84									
Actuated Cycle Length (s	)		90.0	Si	um of lo	st time	(s)		14.2			
Intersection Capacity Util	ization	1-	10.2%	IC	U Leve	l of Serv	/ice		Н	and a subset with the second		
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		ন	7		đ	7		4 Þ		٦	4	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0		4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00		0.95		1.00	1.00	
Frt		1.00	0.85		1.00	0.85		0.99		1.00	1.00	
Fit Protected		0.99	1.00		0.98	1.00		1.00		0.95	1.00	
Satd. Flow (prot)		1835	1583		1820	1583		3484		1770	1858	
Fit Permitted		0.87	1.00		0.82	1.00		0.82		0.95	1.00	
Satd. Flow (perm)		1628	1583		1531	1583		2874		1770	1858	
Volume (vph)	15	35	20	45	50	125	40	345	30	210	825	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	39	22	50	56	139	- 44	383	33	233	917	17
RTOR Reduction (vph)	0	0	19	0	0	87	0	0	0	0	0	0
Lane Group Flow (vph)	0	56	3	0	106	52	0	460	0	233	934	0
Turn Type	Perm		Prot	Perm	tata wa tautata	pt+ov	Perm		С	ustom		
Protected Phases		4	4		8	81		2		1	6	
Permitted Phases	4		an weet worked.	8			2			1	a se se en es serves	
Actuated Green, G (s)		7.1	7.1		7.1	19.8		18.6		12.7	36.3	
Effective Green, g (s)		8.1	8.1		8.1	21.8	waranti ana amin' kaominina	19.6		13.7	37.3	
Actuated g/C Ratio		0.14	0.14		0.14	0.37		0.34		0.24	0.64	
Clearance I ime (s)	en an an an an an an an an an an an an an	5.0	5.0	ana ing kanalang kana	5.0		ugunya dina din katu ingga	5.0	and the constant of the start of	5.0	5.0	-
Vehicle Extension (s)		3.0	3.0		3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)	un esta de la come de	227	220	و بر ویدارد تا محدقی	213	593	1941 (1440 (1440 (1440 (1440 (1440 (1440 (1440 (1440 (1440 (1440 (1440 (1440 (1440 (1440 (1440 (1440 (1440 (14	968		417	1191	
v/s Ratio Prot			0.00			0.03				0.13	c0.50	
v/s Ratio Perm		0.03	una <u>da balan</u> talanta	daera eest oor too ta	c0.07		reactives and so was a	0.16				ur maaanna suur
v/c Ratio		0.25	0.01		0.50	0.09		0.48		0.56	0.78	
Uniform Delay, d1		22.3	21.6	anan sana sa sa sa sa sa sa sa sa sa sa sa sa sa	23.2	11.8		15.2		19.6	7.5	angerstyfystelde
Progression Factor		1.00	1.00		1.00	1.00		1.00		1.00	1.00	
Incremental Delay, d2	Marina ang taga	0.6	0.0		1.8	0.1	ulah debahir	0.4	enseneretsie	1.6	3.5	
Delay (s)		22.9	21.6		25.0	11.8		15.6		21.2	11.0	
Level of Service	inanin eti pigeinet	0 10 c		white courses of	ں جو جو ج	B		B	e a constante da constante da constante da constante da constante da constante da constante da constante da con		В	Shiriki (Marukar
Approach LOS		22.5			17.5 D			0.01			13.0	
Approach LOS	****	C			D			D			D	
Intersection Summary												
HCM Average Control D	elay	rom dense vie deele det.	14.6	Н	ICM Lev	el of Se	ervice		В			
HCM Volume to Capacit	y ratio		0.66									
Actuated Cycle Length (	S)	an an sao an ta-ran	58.2	S	um of lo	ost time	(s)	waranina ata	8.0	an da di sera da sera da sera da sera da sera da sera da sera da sera da sera da sera da sera da sera da sera d	Sec	
Intersection Capacity Uti	lization		77.8%	10	CU Leve	el of Ser	vice		D			
Analysis Period (min)	a giganja na sta state t	nggungangan panantana (a	15		ya an an an an an an an an an an an an an			u jahan janut manan			an spring with site we	ne rupur rupur, er en
c Critical Lane Group												

# HCM Signalized Intersection Capacity Analysis 7: King Street & Battery Street

	≯		$\mathbf{i}$	1	4	*	1	<b>†</b>	1	1	Ļ	-
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	۲	ţ,			4			4			44	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0			4.0	······
Lane Util. Factor	1.00	1.00			1.00			1.00			1.00	
Frt	1.00	1.00			0.89			1.00			1.00	
Flt Protected	0.95	1.00			1.00			1.00			0.98	
Satd. Flow (prot)	1770	1863			1651	···· · · · · · · · · · · · · · · · · ·		1851			1823	
Fit Permitted	0.43	1.00			0.97			0.97			0.77	
Satd. Flow (perm)	805	1863			1614			1791	an aire thatraicean		1430	
Volume (vph)	25	35	0	15	15	130	10	260	10	305	555	30
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	28	39	0	17	17	144	11	289	11	339	617	33
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	28	39	0	0	178	0	0	311	0	0	989	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4	e de antice de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la co		8			2			6	nin (na statu na su 276) se	Producto de contras
Actuated Green, G (s)	14.6	14.6			14.6			66.8			66.8	
Effective Green, g (s)	15.6	15.6	te konstalet for en en el		15.6			67.8	na kutent nuklinu mitrik	unen sier bie bie beerden.	67.8	andrik for the first of the second second second second second second second second second second second second
Actuated g/C Ratio	0.17	0.17			0.17			0.74		2010-00-00-00-00-00-00-00-00-00-00-00-00-	0.74	
Clearance Time (s)	5.0	5.0			5.0			5.0			5.0	
Vehicle Extension (s)	3.0	3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)	137	318		<u> </u>	275		, <u>, , , , , , , , , , , , , , , , , , </u>	1329	<b></b>	antidani antinata antidani 242 (anini 2	1061	
v/s Ratio Prot		0.02										
v/s Ratio Perm	0.03				c0.11	1975 - Kalendor Colardor (* 1979) 1975 - Kalendor Colardor (* 1979)	ia dimensione na materi	0.17			c0.69	ile, di Schiller e des
v/c Ratio	0.20	0.12			0.65			0.23			0.93	
Uniform Delay, d1	32.6	32.1	2020-000-000-000-000-000-000-000-000-00		35.3			3.7			9.9	2000-2010-2010-012
Progression Factor	1.00	1.00			1.00			1.00			1.00	
Incremental Delay, d2	0.7	0.2			5.2			0.4			15.5	and sound soon of the
Delay (s)	33.3	32.3			40.5			4.1			25.3	
Level of Service	С	С			D			Α			С	
Approach Delay (s)		32.7			40.5			4,1			25.3	
Approach LOS		С			D			А			С	
Intersection Summary												
HCM Average Control D	elay		23.1	Н	CM Lev	el of Se	rvice		С			
HCM Volume to Capacit	y ratio		0.88									
Actuated Cycle Length (	s)		91.4	S	um of lo	st time	(s)		8.0			
Intersection Capacity Uti	ilization	{	9.0%	10	CU Leve	l of Sen	<i>v</i> ice		E			
Analysis Period (min)	and a strength		15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$			÷Ĵ+			÷Ĵ.			4.	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	11		11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00	****		1.00	station and a state of the sec		1.00	o de establistado
Frt		0.99			0.90			0.98			0.99	
Flt Protected		0.97			0.99		n an an tha Christian Christian	0.99			0.96	n hili
Satd, Flow (prot)		1727			1609			1742			1712	
Flt Permitted		0.64			0.95		- 194 - 194 (195 - 195 - 196 - 196 - 196 - 196 - 196 - 196 - 196 - 196 - 196 - 196 - 196 - 196 - 196 - 196 - 19 - 196 - 196 - 196 - 196 - 196 - 196 - 196 - 196 - 196 - 196 - 196 - 196 - 196 - 196 - 196 - 196 - 196 - 196 - 19 - 196 - 196 - 196 - 196 - 196 - 196 - 196 - 196 - 196 - 196 - 196 - 196 - 196 - 196 - 196 - 196 - 196 - 196 - 19	0.82	barra set natar carao		0.70	an an an Anna an Anna an Anna an Anna an Anna an Anna an Anna an Anna an Anna an Anna an Anna an Anna an Anna a An an Anna an Anna an Anna an Anna an Anna an Anna an Anna an Anna an Anna an Anna an Anna an Anna an Anna an An
Satd. Flow (perm)		1146			1541			1450			1249	
Volume (vph)	45	20	5	40	35	215	5	20	5	450	70	50
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	50	22	6	44	39	239	6	22	6	500	78	56
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	Ō	0
Lane Group Flow (vph)	0	78	0	0	322	0	0	34	0	0	634	0
Turn Type	Perm			Perm			Perm			om+ot		kongoligi.
Protected Phases		4			8			2	weedstaan teester see	e-ce-ce-ce-ce- 1	6	4000000000000
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		18.2			18.2			7.2			42.6	
Effective Green, g (s)		19.2			19.2			8.2			43.6	
Actuated g/C Ratio		0.27			0.27			0.12			0.62	641 2000 CONTROLOGIC
Clearance Time (s)		5.0			5.0			5.0	grenerie:		5.0	
Vehicle Extension (s)		3.0			3.0		*****	3.0		**************	3.0	
Lane Grp Cap (vph)		311			418			168			975	
v/s Ratio Prot		1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -									c0.29	
v/s Ratio Perm		0.07			c0.21			0.02			c0.11	
v/c Ratio		0.25			0.77		ta na serie de la constante de la constante de la constante de la constante de la constante de la constante de	0.20		126-11-11-124-000-00-00	0.65	
Uniform Delay, d1		20.2			23.8			28.3			8.7	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.4			8.5			0.6			1.6	
Delay (s)		20.6			32.3			28.9			10.3	
Level of Service		C			C			C			8	
Approach Delay (s)		20.6			32.3			28.9			10.3	
Approach LOS		C			C			C			В	
Intersection Summary												
HCM Average Control De	elay		18.3	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacity	ratio		0.68									
Actuated Cycle Length (s	s)		70.8	Si	um of Ic	st time	(s)		8.0			
Intersection Capacity Util	ization	e	62.0%	IC	U Leve	l of Ser	vice		В			a na anta na tanàn
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			र्भ	۲		र्भ	7		44	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0		4.0	4.0		4.0	
Lane Util. Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Frt		0.95			1.00	0.85		1.00	0.85		0.98	
Flt Protected		0.99			1,00	1.00		0.97	1.00		0.99	
Satd. Flow (prot)		1753			1859	1583		1811	1583		1812	
Fit Permitted		0.94			0.98	1.00		0.65	1.00		0.89	
Satd. Flow (perm)		1658			1824	1583		1216	1583		1627	
Volume (vph)	40	185	150	10	235	60	215	165	20	45	190	40
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	44	206	167	11	261	67	239	183	22	50	211	44
RTOR Reduction (vph)	0	0	0	0	0	45	0	0	12	0	0	0
Lane Group Flow (vph)	0	417	0	0	272	22	0	422	10	0	305	0
Turn Type	Perm			Perm		Perm	Perm		Perm	Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6		6	8		8	4		
Actuated Green, G (s)		19.0			19.0	19.0		26.8	26.8		26.8	
Effective Green, g (s)		20.0			20.0	20.0		27.8	27.8		27.8	
Actuated g/C Ratio		0.33			0.33	0.33		0.46	0.46		0.46	
Clearance Time (s)		5.0			5.0	5.0		5.0	5.0		5.0	
Vehicle Extension (s)		3.0			3.0	3.0		3.0	3.0		3.0	
Lane Grp Cap (vph)		547			602	522		558	726		746	
v/s Ratio Prot												
v/s Ratio Perm		c0.25			0.15	0.01		c0.35	0.01		0.19	
v/c Ratio		0.76	en en en en en en en en en en en en en e		0.45	0.04		0.76	0.01		0.41	
Uniform Delay, d1		18.2			16.0	13.8		13.6	8.9		10.9	
Progression Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Incremental Delay, d2		6.2			0.5	0.0		5.8	0.0		0.4	
Delay (s)		24.4		a an an a' a' a' a' a' a' a' a' a' a' a' a' a'	16.5	13.8		19.4	8.9		11.3	
Level of Service		С			В	В		В	Α		В	
Approach Delay (s)		24.4			16.0			18.9			11.3	
Approach LOS		С			В			В			В	
Intersection Summary												
HCM Average Control D	elay		18.2	Н	CM Lev	el of Se	ervice		В			
HCM Volume to Capacit	y ratio		0.69					n del television A 10 sectores				
Actuated Cycle Length (s	s)		60.6	S	um of lo	ost time	(s)		8.0			
Intersection Capacity Uti	lization	(	32.9%	IC	SU Leve	el of Ser	vice		E			
Analysis Period (min)			15									
c Critical Lane Group					19793.50							

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Movement	EBL	EBR	NBL	NBT	SBT	SBR												
Lane Configurations	٢	1	٢	4	<b>↑</b>	7												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900												
Lane Width	11	12	11	12	11	12												
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0												
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00		mentan belar sebaraharan	en an die neer een de de de de de de de de de de de de de									
Frt	1.00	0.85	1.00	1.00	1.00	0.85												
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00			an an an an an an an an an an an an an a									
Satd. Flow (prot)	1711	1583	1711	1863	1801	1583												
Flt Permitted	0.95	1.00	0.47	1.00	1.00	1.00			en fine never tite of the transfer field									
Satd. Flow (perm)	1711	1583	847	1863	1801	1583												
Volume (vph)	265	20	15	390	335	715			******									
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90												
Adj. Flow (vph)	294	22	17	433	372	794												
RTOR Reduction (voh)	0	15	0	Ō	Ō	0												
Lane Group Flow (vph)	294	7		433	372	794		aangangapayaaddag										
Turn Type		Prot	Perm			Perm												
Protected Phases	2	2		4	8			NEGOLORINGO (MARCO										
Permitted Phases			4			8												
Actuated Green, G (s)	34.8	34.8	69.0	69.0	69.0	69.0												
Effective Green, a (s)	35.8	35.8	70.0	70.0	70.0	70.0												
Actuated g/C Ratio	0.30	0.30	0.58	0.58	0.58	0.58												
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0												
Lane Grn Can (voh)	510	472	494	1087	1051	923												
v/s Ratio Prot	c0.17	0.00		0.23	0.21													
v/s Ratio Perm			0.02			c0 50												
v/c Ratio	0.58	0.01	0.03	0.40	0.35	0.86		2009-0022009/0090928										
Uniform Delay. d1	35.7	29.7	10.6	13.6	13.1	20.9												
Progression Factor	0.70	0.65	1.00	1.00	1.00	1.00	uda yakesi dala yakesi da sisasi											
Incremental Delay, d2	4.6	0.1	0.1	11	0.2	8.2												
Delav (s)	29.7	19.4	10.8	14.7	13.3	29.1												
Level of Service	C	В	В	8	B	C												
Approach Delav (s)	29.0		en en sen en  14.5	24.1	alan dalamati dalam da seria da 1999. Nga mangana da seria da seria da seria da seria da seria da seria da seria	1994 (BARDAN 1993) (BAR) 1994 (BAR) (BAR) (BAR) (BAR) 1994 (BAR) (BAR) (BAR) (BAR) (BAR) (BAR) (BAR) (BAR) (BAR)	unanang sa tahun kara tah											
Approach LOS	C			В	C													
Intersection Summary																		
HCM Average Control D	)elay		22.7	H	ICM Lev	vel of Service		С										
HCM Volume to Capacit	ty ratio		0.76					a an an an an an an an an an an an an an	an ann an ann 1970 an 1979 ann									
Actuated Cycle Length (	s)		120.0	S	um of le	ost time (s)	1	4.2										
Intersection Capacity Ut	ilization	(	60.9%	IC	CU Leve	el of Service		В	a a an an an an an an an an Aran an Arana an Arana. An an  Analysis Period (min)			15						

## HCM Signalized Intersection Capacity Analysis 16: Flynn Avenue & Pine Street

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		44			4			đ,		ሻ	<b>1</b> 4	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	14	12	12	14	12	12	14	12	11	11	12
Total Lost time (s)		4.0			4.0			4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00			1.00		1.00	1.00	
Frt		1.00			0.92			0.99		1.00	0.98	
Flt Protected		0.98			1.00			1.00		0.95	1.00	
Satd. Flow (prot)		1947			1813			1972		1711	1759	
Flt Permitted		0.81			0.98			0.99		0.50	1.00	
Satd. Flow (perm)		1618			1784			1950		894	1759	
Volume (vph)	35	50	0	10	55	110	10	220	10	95	165	30
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	39	56	0	11	61	122	11	244	11	106	183	33
RTOR Reduction (vph)	0	0	0	0	90	0	0	2	0	0	6	0
Lane Group Flow (vph)	0	95	0	0	104	0	0	264	0	106	210	0
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases	585855.000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000	4	, prosini na mana ana ang ang ang ang ang ang ang ang	******	8	rogeni e con e con e con e con e con e con e con e con e con e con e con e con e con e con e con e con e con e		2		1	6	00000000000
Permitted Phases	4			8			2			6		9799 (Seria
Actuated Green, G (s)		11.0			11.0			23.6		34.1	34.1	242-42-42-42-42-42-42-42-42-42-42-42-42-
Effective Green, g (s)		12.0			12.0			24.6		35.1	35.1	
Actuated g/C Ratio		0.21			0.21			0.42		0.61	0.61	
Clearance Time (s)		5.0			5.0			5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		335			370			828		634	1066	
v/s Ratio Prot										0.02	c0.12	111
v/s Ratio Perm		c0.06	ita del controlo Olo Marieta dela		0.06			c0.14		0.08		
v/c Ratio		0.28			0.28		an ann an an an ann an an an an an an an	0.32	2020-009-0000-009-009-00-00-00-00-00-00-00-	0.17	0.20	
Uniform Delay, d1		19.3			19.3			11.1		5.4	5.1	
Progression Factor		1.00			1.00			1.00		1.00	1.00	
Incremental Delay, d2		0.5			0.4			0.2		0.1	0.1	
Delay (s)		19.8			19.7			11.3		5.6	5.2	
Level of Service		В			В			В		A	A	in in de la sei Suis Antoin
Approach Delay (s)		19.8			19.7			11.3			5.3	
Approach LOS		B			В			В			Α	
Intersection Summary												
HCM Average Control De	əlay		11.9	H	CM Lev	el of Se	rvice		В			
HCM Volume to Capacity	y ratio		0.28									
Actuated Cycle Length (s	3)		57.9	S	um of lo	ost time	(s)		12.0			
Intersection Capacity Util	ization	ļ	50.0%	IC	CU Leve	of Serv	/ice		Α			
Analysis Period (min)			15									

	>	$\rightarrow$	<	-	-	/		
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	¥	۴	۲	¥	ħ	7		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	enne ander en en en en en en en en en en en en en	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00		
Frt	1.00	0.85	1.00	1.00	1.00	0.85		
Fit Protected	1.00	1.00	0.95	1.00	0.95	1.00		
Satd. Flow (prot)	1863	1583	1770	1863	1770	1583		
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00		
Satd. Flow (perm)	1863	1583	1770	1863	1770	1583		and an element to provide a
Volume (vph)	60	115	570	160	230	220		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90		-00405644669065
Adj. Flow (vph)	67	128	633	178	256	244		
RTOR Reduction (vph)	0	72	0	0	0	47		
Lane Group Flow (vph)	67	56	633	178	256	197		de Carrieder G
Turn Type		pm+ov	Prot	anna a tartan a tarta da tarta da tarta	C	ustom		<u></u>
Protected Phases	4	2	3	8	2	23		
Permitted Phases	an ann an tart fair a' farainn an	4	engen offisjelingen i Makalori	9899,999,999,999,998,998,998 1997	un on un pille of Belli	2		tends Geberfulldum
Actuated Green, G (s)	7.9	50.8	48.0	60.9	42.9	95.9		
Effective Green, g (s)	8.9	52.8	49.0	61.9	43.9	96.9	an an an an an an an an an an an an an a	
Actuated g/C Ratio	0.07	0.44	0.41	0.52	0.37	0.81		
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			
Lane Grp Cap (vph)	138	697	723	961	648	1278	******	
v/s Ratio Prot	c0.04	0.03	c0.36	0.10	c0.14	0.12		
v/s Ratio Perm		0.01		,				
v/c Ratio	0.49	0.08	0.88	0.19	0.40	0.15		
Uniform Delay, d1	53.4	19.5	32.7	15.6	28.2	2.5	n en en en en en en en en en en en en en	
Progression Factor	1.00	1.00	0.35	0.25	1.10	3.48		
Incremental Delay, d2	2.7	0.0	6.3	0.0	1.7	0.1	a a cara a cara provincia de las estas de	
Delay (s)	56.0	19,6	17.6	3.9	32.6	8.9		
Level of Service	E	В	В	Α	С	A		
Approach Delay (s)	32.1			14.6	21.1			
Approach LOS	С			В	С			
Intersection Summary								
HCM Average Control D	Delay		19.0	Н	ICM Lev	el of Service	В	
HCM Volume to Capacil	ty ratio		0.63					hinigingan Consenging
Actuated Cycle Length (	s)		120.0	S	um of lo	ost time (s)	18.2	
Intersection Capacity Ut	ilization		57.7%	10	CU Leve	I of Service	В	
Analysis Period (min)			15			, an an ann an Anna Anna Anna Anna Anna	na an an an ann an Ann Ann an Ann an Ann an Ann an Ann an Ann an Ann an Ann an Ann an Ann an Ann an Ann an Ann	en andersen Gravil
c Critical Lane Group								

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4		ሻ	<b>1</b> ,		ኻ	<b>î.</b>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.89			0.97		1.00	0.98		1.00	1.00	
Flt Protected		0.99			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1641			1784		1770	1828		1770	1856	
Flt Permitted		0.91			0.90		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1503			1637		1770	1828		1770	1856	
Volume (vph)	5	0	25	40	60	25	80	420	60	10	660	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	6	0	28	44	67	28	89	467	67	11	733	17
RTOR Reduction (vph)	0	25	0	0	7	0	0	3	0	0	0	0
Lane Group Flow (vph)	0	9	0	0	132	0	89	531	0	11	750	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8	ei ise nii een Se se se se	5	2		1 - C	6	
Permitted Phases	4			8				i dine i di si di di di di si di si di si di si di si di si di si di si di si di si di si di si di si di si di				24-02000-02000-0
Actuated Green, G (s)		11.5			11.5		10.3	84.1		3.2	77.0	
Effective Green, g (s)		12.5			12.5		11.3	85.1		4.2	78.0	
Actuated g/C Ratio		0.10			0.10		0.09	0.71		0.04	0.65	
Clearance Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		157			171		167	1296		62	1206	
v/s Ratio Prot							c0.05	0.29		0.01	c0.40	
v/s Ratio Perm		0.01			c0.08							
v/c Ratio		0.06			0.77		0.53	0.41		0.18	0.62	
Uniform Delay, d1		48.4			52.4		51.8	7.2		56.2	12.3	
Progression Factor		1.00			1.03		0.88	1.36		1.20	0.15	
Incremental Delay, d2		0.2			19.0		3.0	0.9		0.9	1.5	
Delay (s)		48.6			72.9		48.5	10.6		68.6	3.4	
Level of Service		D			Е		D	В		Ε	А	
Approach Delay (s)		48.6			72.9			16.0			4.3	
Approach LOS		D			E			В			A	
Intersection Summary												
HCM Average Control D	elay		16.1	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacity	y ratio		0.63									
Actuated Cycle Length (s	5)		120.0	S	um of lo	st time	(s)		18.2		an an an an an an an an an an an an an a	
Intersection Capacity Uti	lization	6	64.6%	IC	U Leve	l of Serv	vice		C			
Analysis Period (min)			15									
c Critical Lane Group												

### HCM Signalized Intersection Capacity Analysis 31: Flynn Avenue & Southern Connector

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			44		ኻ	<b>1</b> 4		٣	ţ,	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.97			0.98		1.00	1.00		1.00	0.99	
Flt Protected		0.99			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1780			1808		1770	1860		1770	1839	
Fit Permitted		0.78			0.82		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1405			1497		1770	1860		1770	1839	
Volume (vph)	35	75	35	15	65	15	80	515	5	5	660	60
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	39	83	39	17	72	17	89	572	6	6	733	67
RTOR Reduction (vph)	0	10	0	0	5	0	0	0	0	0	2	0
Lane Group Flow (vph)	0	151	0	0	101	0	89	578	0	6	798	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)		12.0			12.0		10.4	85.2		1.6	76.4	
Effective Green, g (s)		13.0			13.0		11.4	86.2		2.6	77.4	
Actuated g/C Ratio		0.11			0.11		0.10	0.72		0.02	0.65	
Clearance Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		152			162		168	1336		38	1186	
v/s Ratio Prot							c0.05	0.31		0.00	c0.43	
v/s Ratio Perm		c0.11			0.07							
v/c Ratio		0.99		12 - E2 - E2 - E2 - E2 - E2 - E2 - E2 -	0.62		0.53	0.43		0.16	0.67	
Uniform Delay, d1		53.5			51.1		51.7	6.9		57.6	13.4	
Progression Factor		1.00			1.00		0.89	1.45		1.22	0.19	
Incremental Delay, d2		71.0			7.2		2.7	0.9		1.6	2.5	
Delay (s)		124.5			58.4		48.8	10.9		71.6	5.0	
Level of Service		F		hard a second statement of the	E		D	В		Е	А	
Approach Delay (s)		124.5			58.4			15.9	2021920) 90319230		5.5	
Approach LOS		F			E			В			А	
Intersection Summary												
HCM Average Control D	elay		23.7	Н	CM Lev	el of Se	rvice		С			
HCM Volume to Capacit	y ratio		0.70									
Actuated Cycle Length (	s)		120.0	S	um of lo	ost time	(s)		18.2			
Intersection Capacity Uti	lization	(	37.7%	١Ç	CU Leve	I of Sen	vice		C			
Analysis Period (min)			15									
c Critical Lane Group			ol so e da									

# HCM Signalized Intersection Capacity Analysis 27: Home Avenue & Southern Connector

	٦		$\mathbf{i}$	≮	-	×	1	Ť	1	5	ł	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		র	7		¢.		ኻ	<b>1</b> ,		٣	<b>1</b>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00		1.00	1.00		1.00	1.00	
Frt		1.00	0.85		0.99		1.00	0.99		1.00	0.99	,
Fit Protected		0.98	1.00		0.96		0.95	1,00		0.95	1.00	
Satd. Flow (prot)		1825	1583		1768		1770	1843		1770	1843	
Fit Permitted		0.86	1.00		0.35	ing ing ing angi. Si dan angi	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1606	1583		652		1770	1843		1770	1843	
Volume (vph)	60	85	115	50	5	5	160	530	40	5	655	50
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	67	94	128	56	6	6	178	589	44	6	728	56
RTOR Reduction (vph)	0	0	91	0	3	0	0	1	0	0	2	0
Lane Group Flow (vph)	0	161	37	0	65	0	178	632	0	6	782	0
Turn Type	Perm		Perm	Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8								******
Actuated Green, G (s)		12.9	12.9		12.9		17.5	84.3		1.6	68.4	
Effective Green, g (s)		13.9	13.9		13.9		18.5	85.3		2.6	69.4	
Actuated g/C Ratio		0.12	0.12		0.12		0.15	0.71		0.02	0.58	
Clearance Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		186	183		76		273	1310		38	1066	
v/s Ratio Prot							c0.10	0.34		0.00	c0.42	
v/s Ratio Perm		c0.10	0.02		0.10		1 (1997) - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1		nan e frankrige an an seide de	- ()-1,(,) )		
v/c Ratio		0.87	0.20		0.86		0.65	0.48		0.16	0.73	
Uniform Delay, d1		52.1	48.0		52.1		47.7	7.6	5 1 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5	57.6	18.5	nan milan sa sa sa sa sa sa sa sa sa sa sa sa sa
Progression Factor		1.00	1.00		1.00		1.00	1.00		1.29	0.27	
Incremental Delay, d2		31.7	0.5		57.7		5.5	1.3		1.4	3.3	
Delay (s)		83.9	48.6		109.8		53.2	8.9		75.6	8.3	
Level of Service		F	D		F		D	Α		Ε	А	
Approach Delay (s)		68.2			109.8	ti sinin karin. Zana karing		18.6			8.8	
Approach LOS		E			F			В			А	
Intersection Summary												
HCM Average Control D	elay		25.1	Н	CM Lev	el of Se	rvice		С			
HCM Volume to Capacity	y ratio		0.74									
Actuated Cycle Length (s	5)		120.0	S	um of lo	ost time	(s)		18.2			
Intersection Capacity Util	lization		66.4%	IC	U Leve	l of Serv	/ice		С			
Analysis Period (min)			15									
c Critical Lane Group												
	≯		$\mathbf{i}$	1		×.	1	Ť	1	1	↓ I	-
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$			<del>ب</del> له			4			<u>A</u>	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	10	105	110	35	105	25	30	365	55	25	320	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	11	117	122	39	117	28	33	406	61	28	356	6
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	250	183	500	389								
Volume Left (vph)	11	39	33	28								
Volume Right (vph)	122	28	61	6				********			en en general met de la	an a desa per de 1720 ha al
Hadj (s)	-0.25	-0.01	-0.03	0.04								
Departure Headway (s)	7.2	7.7	6.5	6.8							ionalia di Pradon	
Degree Utilization, x	0.50	0.39	0.90	0.73								
Capacity (veh/h)	456	414	541	502			en de la companya de la companya de la companya de la companya de la companya de la companya de la companya de					
Control Delay (s)	17.2	15.5	43.1	26.2								
Approach Delay (s)	17.2	15.5	43.1	26.2								
Approach LOS	C	C	E	D								
Intersection Summary												
Delay			29.4									
HCM Level of Service			D							an mala (na 1997).		an fan fan fan de an
Intersection Capacity Uti	lization		59.4%	R	CU Leve	el of Ser	vice		В			
Analysis Period (min)			15				1999 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -		, - , ,	-1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	terba terbi feli etalari	ta tua na sugli suglar
	98-109098-8003	90660 <u>0</u> 800000	dal galeraett		59.6906.695696.69	ini di di di di di di di di di di di di di	ana ana ang ang ang ang ang ang ang ang	eeste aaaaa	general and a state	khaleshideshatin je	uneae de la companya de la companya de la companya de la companya de la companya de la companya de la companya	ana pagana

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		¢‡,			ф,			đ.			đ.	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	50	450	80	100	10	115	440	55	10	450	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	56	500	89	111	11	128	489	61	11	500	6
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	561	211	678	517								
Volume Left (vph)	6	89	128	11								
Volume Right (vph)	500	11	61	6								
Hadj (s)	-0.50	0.09	0.02	0.03								
Departure Headway (s)	7.9	9.7	8.5	8.5			and a second second second second second second second second second second second second second second second					
Degree Utilization, x	1.24	0.57	1.59	1.22	unissis dia aga i Venis dia amin'	i an an an an an an an an an an an an an					na na harangan kaj Na seriesta de la seriesta de la seriesta de la seriesta de la seriesta de la seriesta de la	
Capacity (veh/h)	460	363	429	430						la esta con testa da testa de est		9999994AC2009625
Control Delay (s)	150.3	24.5	299.6	144.0					dan san s	Stêrê (D		
Approach Delay (s)	150.3	24.5	299.6	144.0								
Approach LOS	F	C	F	F								
Intersection Summary												
Delay			186.6									
HCM Level of Service			F									
Intersection Capacity Ut	ilization	1	11.7%		CU Leve	el of Ser	vice		Н			
Analysis Period (min)			15									
						8138838388					04030404403	han hairde

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			¢.			÷			<b>.</b> ‡,	
Sign Control		Stop	rendust kak tesk Standar (Standard		Stop			Stop			Stop	
Volume (vph)	20	120	0	10	20	90	5	50	15	120	20	15
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	22	133	0	11	22	100	6	56	17	133	22	17
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	156	133	78	172								
Volume Left (vph)	22	11	6	133			osioinesnes					
Volume Right (vph)	0	100	17	17								n en en en en en en en en en en en en en
Hadj (s)	0,06	-0.40	-0.08	0,13		94949-60						
Departure Headway (s)	4.7	4.3	4.7	4.8							nin (d. 1711). 1.	
Degree Utilization, x	0.21	0.16	0.10	0.23								
Capacity (veh/h)	709	773	703	700		an fan an an an de fan an fan fan fan fan fan fan fan fan	na an an an an an an an an an an an an a					en der er einer einer eine
Control Delay (s)	9.0	8.1	8.3	9.3								
Approach Delay (s)	9.0	8.1	8.3	9.3				n year year oo da da da da da da da da da da da da da	2220 COULTINUE COULT			
Approach LOS	A	A	A	A								
Intersection Summary												
Delay			8.8									
HCM Level of Service			Α								1999-1991-1991-1991-1991-19	en en de la constante de la constante de la constante de la constante de la constante de la constante de la con
Intersection Capacity Uti	lization		33.6%	- I(	CU Leve	l of Ser	vice		Α			
Analysis Period (min)	a a a se se se se se se se se se se se se se		15			- , , , , , , , , , , , , , , , , , , ,				· · · · //////////////////////////////	un provinsi permeno provide de la secon	nd 2000 (1997)
	in in the second second second second second second second second second second second second second second se	0.03105404430	899294699869	<u>ya ya shi ya wa</u>	u ana sala sala sala sa	siyayayataa sa	00.990.000.000	weekeen aa	engenegnigere	skola (sela Cen	in la secta de la secta de la secta de la secta de la secta de la secta de la secta de la secta de la secta de	Statigersz.

HCM Unsignalized Intersection Capacity Analysis 11: Howard Street & Pine Street

	٨		$\rightarrow$	-		×.	-	1	1	<b>\</b>	Ļ	-
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations Sign Control Grade		t Stop			th Stop		da table et an Capital da da	↔ Free			↔ Free	
Volume (veh/h)	5	5	15	50	5	40	20	685	20	25	1000	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph) Pedestrians Lane Width (ft) Walking Speed (ft/s)	6	6	17	56	6	44	22	761	22	28	1111	6
Percent Blockage Right turn flare (veh)												
Median type Median storage veh) Upstream signal (ft) pX, platoon unblocked		None			None							
vC, conflicting volume vC1, stage 1 conf vol vC2, stage 2 conf vol	2033	1997	1114	2006	1989	772	1117			783		
vCu, unblocked vol	2033	1997	1114	2006	1989	772	1117	i narva konzeri da da j	herrin an an an an an an an an an an an an an	783		anterinita (de
tC, single (s) tC, 2 stage (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2,2			2.2		
p0 queue free %	83	90	93	0	90	89	96			97		
cM capacity (veh/h)	33	56	253	36	57	399	625			835		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	28	106	806	1144		o ig gles						
Volume Left	6	56	22	28	the function of the function of the second	the later of the second second	ana ana ata matain					
Volume Right	17	44	22	6	\$150 (Series)							
CSH Maluma ta Casaalta	83	61	625	835	Selfect Autobach	a an an an an an an an an an an an an an	an da sana san				eyr an a Caerlanae cae ae	n an an an an an an an an an an an an an
Ouclean Longth 95th (ft)	0.33	1.74	0.04	0.03								a entre second
Control Delay (e)	68.5	243 504 B	10	3 11								
Lane LOS	00.5 F	F	۱.U ۵	ι.ι Δ								
Approach Delay (s) Approach LOS	68.5 F	504.6 F	1.0	1.1								
Intersection Summary												
Average Delay			27.5									
Intersection Capacity Ut	ilization		32.9%	10	CU Leve	l of Serv	<i>i</i> ice		E			andadagind Talah (2016
Analysis Period (min)			15									

	<		Ť	1	<b>\</b>	Ļ	
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	¥		4			đ	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Volume (veh/h)	70	75	635	20	55	980	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vph)	78	83	706	22	61	1089	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)	n a s <u>a sa</u> manana sa sa sa sa	erinte de la la la la la la la la la la la la la	1949 harden fan de skriver		an an an an an an an an an an an an an a	an that the state of the state of the	
Median type	None					9.159.059.699.	
Median storage veh)		Million (statikulova)		n an an an an an an an an an an an an an	Menangan panakan		
Upstream signal (ft)	~ ~ 7		611		^ ^ <b>7</b>		
pX, platoon unblocked	0.87	0.87			0.87		
vC, connicting volume	1928	/1/			/28		
vC1, stage 1 cont vol				lin higingalik			
VCZ, stage Z com vol	2066	675		i (an dhan an a' an a' an a' an a' an a' an a' an a' an a' an a' an a' an a' an a' an a' an a' an a' an a' an a	607		
tC eingle (e)	2000	675			007		
tC, 2 stane (s)	U.7	U.Z			9.1		
tF (s)	35	23			22		
p0 queue free %	0.0	79			92		
cM capacity (veh/h)	48	395			789	id davidska stalja	
Direction Lane #		ND 1	eo 4				
Volume Total	161	728	1150				
Volume Left	78	0	61				
Volume Right	83	22	Ō				
cSH	88	1700	789		normin Marine (190		
Volume to Capacity	1.83	0.43	0.08				
Queue Length 95th (ft)	339	0	6		nanan di tadi di B	anderse Gebählt	
Control Delay (s)	493.8	0.0	2.6				
Lane LOS	F		Α	1999 - San San San San San San San San San San			en en en en en en en en en en en en en e
Approach Delay (s)	493.8	0.0	2.6				
Approach LOS	F						
Intersection Summary							
Average Delay			40.5				
Intersection Capacity Ut	ilization	1(	)7.7%	IC	U Level	l of Serv	ice G
Analysis Period (min)			15		,		nn na san ya na sa sa ya ya na kuta sa sa sa sa sa sa sa sa sa sa sa sa sa

	<	×	1	1	6	Ļ	
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	Y		ţ,			4	
Sign Control	Stop		Free			Free	
Grade	0%		0%		· · · · · · · · · · · · · · · · · · ·	0%	
Volume (veh/h)	60	50	375	30	55	280	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vph)	67	56	417	- 33	61	311	
Pedestrians		Boost (Saladat)	Shiringani		Revenues	akter (Spinska)	
Lane widin (ii) Wolking Speed (ft/o)							
Percent Blockage							
Right turn flare (yeh)							
Median type	None						
Median storage veh)			19999999999999999999999999999999999999	velet pertonente	. ;	andoli dagaptala jad	
Upstream signal (ft)						667	
pX, platoon unblocked	0.91	9999-000-000-000-000-000-000-000-000-00	, , , , , , , , , , , , , , , , , , ,	dan ya ndan tan da gan ta 1979)	A yr Chen y Chen yr yn yn yn yn yn yn yn yn yn yn yn yn yn	or e priver processione	wa na mala tan'ny farana amin'ny faritr'o amin'ny faritr'o desira desira amin'ny tanàna amin'ny faritr'o amin'n Ny faritr'o desira dia kaominina dia kaominina dia kaominina dia kaominina dia kaominina dia kaominina dia kaomi
vC, conflicting volume	867	433			450		
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	853	433			450		
tC, single (s)	6.4	6.2			4.1		
tC, 2 stage (s)		ninina katalan tahun ta	1	jehe in dittee Alexan	an-u <u>a</u> ngas	an an an an an an an an an an an an an a	
t⊢ (s)	3.5	3.3			2.2		
pu queue tree %	75	91		Set and set sets	94	Maalaan	
civi capacity (ven/n)	282	622			1110		
Direction, Lane #	WB 1	NB 1	SB 1				
Volume Lota	122	450	3/2				
Volume Leit	0/ 50	0	ו ט ה				
	00 276	1700	1110				
Volume to Canacity	0.33	0.26	0.06				
Oueue Length 95th (ft)	35	0.20	0.00 4				
Control Delav (s)	191	0.0	19				
Lane LOS	C		Α	yan dan dan Kilik			
Approach Delay (s)	19.1	0.0	1.9				
Approach LOS	С		a da na oder terpetetetetetetetetetetetetetetetetetet	entre antica e en de doerde			e na mana a sa mana sa ana ana ana ana ana ana ana ana a
Intersection Summary							
Average Delay			3.2				
Intersection Capacity Ut	ilization		55.7%	IC	U Leve	l of Servic	e B
Analysis Period (min)	·		15	., ,		يېوند بې دې دې سرېي کې دې د	n an an an an an an an an an an an an an

	٦	$\mathbf{\tilde{z}}$	1	†	Ļ	4
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	¥			र्भ	<b>1</b>	
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	60	10	70	335	285	55
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	67	11	78	372	317	61
Pedestrians	en et el la constante d'Auto	1911) (S.1. 1994) (S.1. 19	net ett en förstatet i	ALM ADALISATION D	en oor aan aa aa a	an fin manan dan manan dan dan manan dan san dan san dan san dan dari dan dari dari dan dari dari dari dari dan
Lane Width (ft)						
Walking Speed (ff/s)			hain jahin jarin jahin j	Walayetan kanak	uhan malamakat kata	
Percent Blockage						
Hight turn flare (ven)	81					
Median type	None		ga kan kan sa			
litestream cignal (ft)				1000	OEO	
nX platoon unblocked	0.96	<u> 9</u> 0 0	90 N	1000	303	
vC conflicting volume	875	347	378			
vC1, stage 1 conf vol		~				
vC2, stage 2 conf vol						
vCu, unblocked vol	870	322	354	ainnin an in 199		
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)			2009-01-01-00-00-01-03 2009-01-01-00-01-01-01-01-01-01-01-01-01-01-			en anna sa sa sa sa sa sa sa sa sa sa sa sa sa
tF (s)	3.5	3.3	2.2			
p0 queue free %	77	98	93			
cM capacity (veh/h)	289	692	1160			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	78	450	378	\$ 4 9 8		
Volume Left	67	78	0			
Volume Right	11	0	61			
cSH	316	1160	1700	vitaren deneraria errar aziditea	a second a constant and and an	
Volume to Capacity	0.25	0.07	0.22			
Queue Length 95th (ft)	24	5	0			
Control Delay (s)	20.1	2.0	0.0			
Lane LOS	C	A			a da ana ana ana ana ana ana ana ana ana	
Approach LOS	20.1	2.0	0.0			
Approach LOS	C					
Intersection Summary						
Average Delay	<u>a konstant</u> a		2.7		Angelijejski statusk	
Intersection Capacity Ut	ilization		23.8%	ic second	U Leve	el of Service A
Analysis Period (min)			15			

# HCM Signalized Intersection Capacity Analysis 1: Main Street & South Willard St

	۶		$\mathbf{i}$	r	-	×.	•	Ť	*	\$	ţ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	<b>t</b>		ሻ	ţ,			4.			¢ <b>î</b> ,	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	12	11	11	14	14	14	11	11	11
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.99		1.00	0.99			0.97			0.97	
Flt Protected	0.95	1.00		0.95	1.00			1.00			0.99	
Satd. Flow (prot)	1711	1841		1770	1784			1922			1730	
Flt Permitted	0.26	1.00		0.31	1.00			0.96			0.83	
Satd. Flow (perm)	463	1841		580	1784			1856			1462	
Volume (vph)	40	350	30	40	395	25	25	260	80	80	175	65
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	44	389	33	44	439	28	28	289	89	89	194	72
RTOR Reduction (vph)	0	5	0	0	3	0	0	8	0	0	7	0
Lane Group Flow (vph)	44	417	0	44	464	0	0	398	0	0	348	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	19.6	19.6		19.6	19.6			25.9			25.9	
Effective Green, g (s)	20.6	20.6		20.6	20.6			26.9			26.9	
Actuated g/C Ratio	0.34	0.34		0.34	0.34			0.45			0.45	
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	158	629		198	609			828			652	
v/s Ratio Prot		0.23			c0.26							
v/s Ratio Perm	0.10			0.08				0.21			c0.24	
v/c Ratio	0.28	0.66		0.22	0.76			0.48			0.53	
Uniform Delay, d1	14.4	16.9		14.1	17.7			11.8			12.1	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	1.0	2.6		0.6	5.6			0.4			0.8	
Delay (s)	15.4	19.5		14.7	23.3			12.2			13.0	
Level of Service	В	В		B	С			В		16 16 16 18 18 18 18 18 18 18 18 18 18 18 18 18	B	
Approach Delay (s)		19.2			22.5			12.2			13.0	
Approach LOS		В			С	51123 (SA1227) Sansan (Sansa)		В			В	
Intersection Summary												
HCM Average Control D	elay		17.3		ICM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio	entre provinsi da co	0.57	a desperante por de roberto frem	unio estado estador esta	an enderlanden en datue der		ala successione to a section of the	nataa la see ana kara	ta caracteria de la constante		
Actuated Cycle Length (	5)		60.3	S	ium of Ic	ost time	(S)		8.0			
Intersection Capacity Uti	lization	7	79.4%	1(	CU Leve	of Serv	rice		D		a staatseenaatse se	and the net factors of
Analysis Period (min)			15									

	٦		$\mathbf{\tilde{\mathbf{A}}}$	1	4	×.	1	1	1	<b>\</b>	Ļ	-												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR												
Lane Configurations	۲	<b>A</b>			î.		۲	î.																
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900												
Lane Width	14	10	10	16	16	16	10	11	11	12	12	12												
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0		y de la companya de la companya de la companya de la companya de la companya de la companya de la companya de l La companya de la comp														
Lane Util. Factor	1.00	1.00		and a design of the spectrum of the spectrum of the spectrum of the spectrum of the spectrum of the spectrum of	1.00	tey denovitu ( denoville	1.00	1.00		nykising astronilasti.	147707171211444411444	14179-1491-14909 14179-1491-14909												
Frt	1.00	1.00			0.98		1.00	0.96																
Flt Protected	0.95	1.00	ner en journe pet van der	and set of a set of a set of a set of a set of a set of a set of a set of a set of a set of a set of a set of a	1.00		0.95	1.00	a ya serinta hashekeri		terta ang ang atang at	e por asparent												
Satd. Flow (prot)	1888	1739			1868		1652	1725																
Flt Permitted	0.32	1.00	na la casa da na la casa da sera da sera da sera da sera da sera da sera da sera da sera da sera da sera da se	leristeren utberen:	1.00	99,99997999999999999999999999999999999	0.95	1.00	c	9 8029 904204 54905		(1920) (1920) (1920)												
Satd, Flow (perm)	645	1739			1868		1652	1725																
Volume (vph)	20	360	0	۵	420	60	105	205	۸۵	٥	0	Λ												
Peak-bour factor PHE	n añ	nan	n qñ	ဂရဂ်	n 90	റററ	00	nan	nan	പപ്പ	പപ്പ	nan												
Adi Flow (yph)	22	400	0.00	0.00	467	67	117	228	0.00 20	0.00	0.00	0.00												
BTOR Beduction (voh)	 N	-00	ň	ň		'n	·	220 13	03 A	Ň	Ň	ň												
Lane Group Flow (vph)	ッ つつ	400	A State	× ∩	507	N A	117	204	<b>۷</b>	Maria ∧	¥ م	N N												
Parking (#/hr)	<b>6 6</b> .		v	s ñ	521 A	- O				v	v	U.												
	Porm				×	v	Dorm																	
Protected Phases	1 0111	9			R			Q																
Permitted Phases	2	4			U		Q	Q																
Actuated Groop G (c)	201	201	905039119 <u>7</u>		20.4		0 122	100				ortaliokolisk												
Effective Green, G (s)	2U.1	20.1			2U.1		10.2	10.2																
Activities are and a C Datio	21.1 0 /6	21.1			21.1 010		14.2	14.2	erenkeren															
Clearance Time (a)	U,40 5 0	U.40 E O			0.40		0.31	0.31																
Vobiolo Eutonoion (o)	0.C	0.C			0.C		0.0	5.0			Neferingen en der seine													
Venicle Extension (s)	3.0	3.0			3.0		3.0	3.0																
Lane Grp Cap (vph)	298	803	and diskloged and day	uleinenkeerine	862	an an an an an an an an an an an an an a	513	536	destationese solari	version and the test	lietoine adaste dast	and the second second second second second second second second second second second second second second second												
v/s Hatio Prot	-Sealard	0.23			c0.28		a Queste	c0.18																
v/s Hatio Perm	0.03		ista - Chevian - En	1	an an an an an an an an an an an an an a		0.07	an an an an an an an an an an an an an a			and a start of the start of the start of the start of the start of the start of the start of the start of the s													
v/c Hatio	0.07	0.50			0.61		0.23	0.57																
Uniform Delay, d1	6.9	8.6	ورابيع البرادية البرانيسيين	والمتعار والمتعاوم والمع	9.2		11.7	13.2																
Progression Factor	1.00	1.00			1.00		1.00	1.00																
Incremental Delay, d2	0.1	0.5	a special construction	an an an an an an an an an an an an an a	1.3		0.2	1.4																
Delay (s)	7.0	9.1			10.5		11.9	14.6																
Level of Service	Α	Α			В		В	В																
Approach Delay (s)		9.0			10.5			13.8			0.0													
Approach LOS		А			В			В			A													
Intersection Summary																								
HCM Average Control D	elay		11.1	H	CM Lev	el of Se	rvice		В															
HCM Volume to Capacit	y ratio		0.56																					
Actuated Cycle Length (s	S)	al ann a canain 199	45.7	Si	um of lo	st time (	(s)	an an an an an an an an an an an an an a	8.0		aan ah san daa dah sa dah sa sa sa sa sa sa sa sa sa sa sa sa sa	un de la construir de la construir de la construir de la construir de la construir de la construir de la const La construir de la  Intersection Capacity Uti	lization	4	8.1%	Ī	U Leve	l of Serv	vice		Ā			
Analysis Period (min)		erenteren er en de ser ser ser ser ser ser ser ser ser se	15				an the second second second second second second second second second second second second second second second				anda mina (alana 201)	69999999999999999999999999999999999999												
c Critical Lane Group																								

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	4		ሻ	¥	7		<i>.</i>		۲	4	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	11	11	12	12	12	10	10	12
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0		4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85		0.99		1.00	1.00	0.85
Fit Protected	0.95	1.00		0.95	1.00	1.00		0.99		0.95	1.00	1.00
Satd. Flow (prot)	1540	1670		1711	1801	1531		1628		1652	1739	1583
Flt Permitted	0.45	1.00		0.57	1.00	1.00		0.85		0.72	1.00	1.00
Satd. Flow (perm)	735	1670		1031	1801	1531		1398		1253	1739	1583
Volume (vph)	30	205	5	40	285	110	15	30	5	100	330	50
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	33	228	6	44	317	122	17	33	6	111	367	56
RTOR Reduction (vph)	0		0	0	0	82	0	4	0	0	0	33
Lane Group Flow (vph)	33	233	0	44	317	40	0	52	0	111	367	23
Parking (#/hr)	0	0	0				0	0	0			
Turn Type	Perm			Perm		Perm	Perm	*******		pm+pt		Perm
Protected Phases		2			6			8		7	4	
Permitted Phases	2			6		6	8			4		4
Actuated Green, G (s)	14.6	14.6	ade de anagé de se Contra contra c	15.1	15.1	15.1		12.0		19.4	19.4	19.4
Effective Green, g (s)	15.6	15.6		16.1	16.1	16.1		13.0		20.4	20.4	20.4
Actuated g/C Ratio	0.32	0.32		0.33	0.33	0.33		0.26		0.41	0.41	0.41
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0		5.0		5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0		3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	232	526		335	586	498		367		544	717	652
v/s Ratio Prot		0.14			c0.18					0.01	c0.21	
v/s Ratio Perm	0.04			0.04		0.03		0.04	and a second second second second second second second second second second second second second second second	0.07	en en freskriver for forske ser en er	0.01
v/c Ratio	0.14	0.44		0.13	0.54	0.08		0.14		0.20	0.51	0.04
Uniform Delay, d1	12.2	13.5		11.8	13.7	11.6		14.0		9.4	10.8	8.7
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00
Incremental Delay, d2	0.3	0.6		0.2	1.0	0.1		0.2		0.2	0.6	0.0
Delay (s)	12.4	14.1		11.9	14.7	11.6		14.2		9.6	11.5	8.7
Level of Service	В	В		В	В	В		В		Α	В	А
Approach Delay (s)		13.9			13.7			14.2			10.8	
Approach LOS		В			В			В			В	
Intersection Summary												
HCM Average Control D	elay		12.6	Н	ICM Lev	el of Se	ervice		В			
HCM Volume to Capacit	y ratio		0.46									
Actuated Cycle Length (	s)		49.5	S	um of lo	ost time	(s)		8.0			
Intersection Capacity Uti	lization		49.0%	IC	CU Leve	l of Ser	vice		Α			
Analysis Period (min)			15									
c Critical Lane Group						kali de teridor Statistica						

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		£	7	ኣ	<b>t</b> .			្ឋ	*	ሻ	1.	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	12	12	16	12	12	12
Total Lost time (s)		4.0	4.0	4.0	4.0			4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	2015/0021-0000000
Frt		1.00	0.85	1.00	0.97			1.00	0.85	1.00	0.98	
Flt Protected		1.00	1.00	0.95	1.00			0.98	1.00	0.95	1.00	
Satd. Flow (prot)		1736	1478	1486	1514			1832	1794	1593	1817	
Flt Permitted		0.99	1.00	0.62	1.00			0.89	1.00	0.61	1.00	
Satd. Flow (perm)		1714	1478	974	1514			1651	1794	1028	1817	
Volume (vph)	5	190	45	20	235	65	70	140	30	20	50	10
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	6	211	50	22	261	72	78	156	33	22	56	11
RTOR Reduction (vph)	0	0	35	0	15	0	0	0	13	0	6	0
Lane Group Flow (vph)	0	217	15	22	318	0	0	234	20	22	61	0
Parking (#/hr)				0	0	0	0			0		
Turn Type	Perm		Perm	Perm			Perm		Perm	Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6			8		8	4		
Actuated Green, G (s)		11.1	11.1	11.1	11.1			14.9	14.9	14.9	14.9	
Effective Green, g (s)		12.1	12.1	12.1	12.1			15.9	15.9	15.9	15.9	
Actuated g/C Ratio		0.30	0.30	0.30	0.30			0.39	0.39	0.39	0.39	
Clearance Time (s)		5.0	5.0	5.0	5.0			5.0	5.0	5.0	5.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0			3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		506	436	287	447			640	696	399	705	
v/s Ratio Prot					c0.21						0.03	
v/s Ratio Perm		0.13	0.01	0.02				c0.14	0.01	0.02		
v/c Ratio		0.43	0.03	0.08	0.71			0.37	0.03	0.06	0.09	
Uniform Delay, d1		11.7	10.3	10.4	12.9			9.0	7.8	7.9	7.9	
Progression Factor		1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.6	0.0	0.1	5.3			0.4	0.0	0.1	0.1	
Delay (s)		12.2	10.3	10.5	18.2			9.3	7.8	7.9	8.0	
Level of Service		В	В	В	В		a di kata di kata da kata da kata da kata da kata da kata da kata da kata da kata da kata da kata da kata da ka	Α	A	A	Α	inningi da el sobor
Approach Delay (s)		11.9			17.7			9.1			8.0	
Approach LOS		В			В			A			A	
Intersection Summary												
HCM Average Control De	əlay	19. september - Antonio Status	12.9	4	ICM Lev	el of Se	rvice		В			
HCM Volume to Capacity	/ ratio		0.44									
Actuated Cycle Length (s	5)	an seal the second	41.0	S	ium of Ic	ost time i	(S)		8.0	wantaan mwatar kanast	ista auto galegiota e organo e o	tiya dama saddi -
intersection Capacity Util	ization		41.2%	I.	JU Leve	I of Serv	/ice		A			
Analysis Period (min)	19220-4920-4930-4940		15 	000000000000000	endestantisente		valation stations	and the state of the	sector and the	gaanaa ahaan kaa		aghananna narran
c Critical Lane Group												



### HCM Signalized Intersection Capacity Analysis 20: Howard Street & South Winooski Ave

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Movement	EBL2	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR2	SBL	SBT	SBR
Lane Configurations		4			<b>€</b> ‡÷			đ.			41.	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	14	14	14	12	12	12	16	16	16
Total Lost time (s)		4.0	ý de la la la la la la la la la la la la la		4.0			4.0			4.0	
Lane Util. Factor	,	1.00			1.00		ng 10,000,000 gaara ara	1.00	49 (200 C C C C C C C C C C C C C C C C C C		1.00	in ang ang pang dar
Frt		0.98			0.99			1.00			1.00	
Flt Protected		0.99			0.98			1.00			1.00	
Satd. Flow (prot)		1808			1926			1851			2104	
Fit Permitted		0.94		and frequency to a	0.89			0.98			0.99	
Satd. Flow (perm)		1715			1750			1816			2091	
Volume (vph)	15	45	10	20	30	5	15	305	10	5	275	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	50	11	22	33	6	17	339	11	6	306	6
RTOR Reduction (vph)	0	7	0	0	0	0	0	1	0	0	ſ	Ō
Lane Group Flow (vph)	0	71	0	0	61	0	0	366	0	0	317	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		3	adartarian Manartarian	en kan kara kara darat	3			2	yana kata kata kata kata ka		6	30404-r-Y250-47407
Permitted Phases	3			3			2	2		6	6	
Actuated Green, G (s)		15.0			15.0			30.0			30.0	
Effective Green, g (s)		16.0			16.0			31.0			31.0	
Actuated g/C Ratio		0.20			0.20			0.39			0.39	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Lane Grp Cap (vph)		343		*****	350			704		*********	810	
v/s Ratio Prot									ç. (3. (3			
v/s Ratio Perm		c0.04			0.03			c0.20			0.15	
v/c Ratio		0.21			0.17	ni hin thin dae Western Contex		0.52			0.39	
Uniform Delay, d1		26.7			26.5			18.8			17.7	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.4			1.1			2.7			1.4	
Delay (s)		28.1			27.6			21.5			19.1	
Level of Service		С			С			С			В	
Approach Delay (s)		28.1			27.6			21.5			19.1	
Approach LOS		С			С			С			В	
Intersection Summary												
HCM Average Control D	elay		30.4	H	CM Lev	el of Se	rvice		С			
HCM Volume to Capacit	y ratio		0.56									
Actuated Cycle Length (	s)		80.0	S	um of lo	st time	(s)		12.0			
Intersection Capacity Uti	lization	(	33.2%	IC	U Leve	l of Ser	vice		В			
Analysis Period (min)			15									
c Critical Lane Group												

	6	4	*	ŧ٧
Movement	SWL2	SWL	SWR 8	SWR2
Lane Configurations	٢	¥		
Ideal Flow (vphpl)	1900	1900	1900	1900
Lane Width	14	14	14	14
Total Lost time (s)	4.0	4.0		
Lane Util. Factor	1.00	1.00		
Frt	1.00	0.99		
Flt Protected	0.95	0.95	and a second second second	
Satd. Flow (prot)	1888	1885		
Flt Permitted	0.95	0.95		
Satd. Flow (perm)	1888	1885		
Volume (vph)	15	375	10	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	417	11	6
HIOR Reduction (vph)	0	1	0	0
Lane Group Flow (vph)	17	433	0	0
Turn Type	Split			
Protected Phases	4	4		ng na sana kara ka sa
Permitted Phases				
Actuated Green, G (s)	20.0	20.0		dar de la del com
Effective Green, g (s)	21.0	21.0		
Actuated g/C Hatio	0.26	0.26		Belikadozekteleri
Clearance Time (S)	5.0	5.0		
Lane Grp Cap (vph)	496	495		
v/s Hatio Prot	0.01	cu.23		
V/S Hatio Perm		~ ~~	ensiyiyiyekiyiki matemi	ey episodo da
V/C Hallo	0.03	0.88		
Uniform Delay, d1	22.0	28.2	an an an an an an an an an an an an an a	aludestad
Progression Factor	1.00	1.00		
Incremental Delay, d2	0.1	19.1	defendele et deserve	
Delay (S)	22.1	47.3		
Level of Service	C	D		
Approach Delay (S)		46.3		
Approach LOS		D		
Intersection Summary				

#### HCM Signalized Intersection Capacity Analysis 23: Flynn Avenue & Shelburne St. (Rt 7)

	٦		$\mathbf{r}$	4		×.	•	Ť	1	1	ţ	-
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4	7		र्भ	7	ኻ	<u>ት</u> ቤ		٣	<b>≜</b> ↑î₊	<u></u>
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	0.99	
Fit Protected		0.96	1.00		0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1795	1583		1828	1583	1770	3536		1770	3511	
Flt Permitted		0.75	1.00		0.85	1.00	0.27	1.00		0.29	1.00	
Satd. Flow (perm)		1397	1583		1583	1583	499	3536		534	3511	
Volume (vph)	60	20	85	15	25	15	80	895	5	10	715	40
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	67	22	94	17	28	17	89	994	6	11	794	44
RTOR Reduction (vph)	0	0	83	0	0	15	0	1	0	0	4	0
Lane Group Flow (vph)	0	89	11	0	45	2	89	999	0	11	834	0
Turn Type	Perm		Perm	Perm		Perm	pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)		6.5	6.5		6.5	6.5	41.3	41.3		32.7	32.7	
Effective Green, g (s)		6.5	6.5		6.5	6.5	41.3	41.3		32.7	32.7	
Actuated g/C Ratio		0.12	0.12		0.12	0.12	0.74	0.74		0.59	0.59	
Clearance Time (s)		4.0	4.0		4.0	4.0	3.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		163	184		184	184	474	2617		313	2058	
v/s Ratio Prot							0.02	c0.28			0.24	
v/s Ratio Perm		c0.06	0.01		0.03	0.00	0.12			0.02		
v/c Ratio		0.55	0.06		0.24	0.01	0.19	0.38		0.04	0.41	
Uniform Delay, d1		23.3	21.9		22.4	21.8	2.6	2.6		4.9	6.3	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		3.7	0.1		0.7	0.0	0.2	0.1		0.0	0.1	
Delay (s)		27.0	22.1		23.1	21.8	2.8	2.7		4.9	6.4	
Level of Service		С	С		С	С	Α	А		А	А	
Approach Delay (s)		24.4			22.8			2.7			6.4	
Approach LOS		С			С			A			A	
Intersection Summary												
HCM Average Control D	elay		6.5	Н	ICM Lev	el of S	ervice		Α			
HCM Volume to Capacity	y ratio		0.40									
Actuated Cycle Length (s	s)		55.8	S	um of lo	ost time	(s)		8.0			
Intersection Capacity Uti	lization		52.6%	1	CU Leve	of Se	rvice		A			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		÷Ĵ	7	۲	<b>1</b>		۲	<b>†</b> 1,		٢	<b>†</b> Ъ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	10	12	16	12	10	10	10	10	10	10
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	0.95		1.00	0.95	
Frit		1.00	0.85	1.00	0.90		1.00	1.00		1.00	0.99	
Fit Protected		0.96	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1728	1478	1770	1906		1652	3299		1652	3271	
Flt Permitted		0.75	1.00	0.71	1.00		0.27	1.00		0.95	1.00	
Satd. Flow (perm)		1349	1478	1329	1906		464	3299		1652	3271	
Volume (vph)	50	10	220	15	5	10	75	1050	10	10	735	50
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	56	11	244	17	6	11	83	1167	11	11	817	56
RTOR Reduction (vph)	0	0	217	0	10	0	0	0	0	0	6	Ö
Lane Group Flow (vph)	0	67	27	17	7	0	83	1178	0	11	867	0
Turn Type	Perm		Perm	Perm			om+pt			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2					
Actuated Green, G (s)		7.8	7.8	7.8	7.8		45.9	45.9		0.9	28.3	
Effective Green, g (s)		7.8	7.8	7.8	7.8		46.9	46.9		0.9	29.3	
Actuated g/C Ratio		0.11	0.11	0.11	0.11		0.67	0.67		0.01	0.42	
Clearance Time (s)		4.0	4.0	4.0	4.0		5.0	5.0		4.0	5.0	
Vehicle Extension (s)		1.0	1.0	1.0	1.0		1.5	1.0		1.0	1.0	
Lane Grp Cap (vph)		150	164	148	212		624	2207		21	1367	
v/s Ratio Prot					0.00		0.04	c0.36		0.01	c0.27	
v/s Ratio Perm		c0.05	0.02	0.01			0.05	as: 536).				
v/c Ratio		0.45	0.17	0.11	0.03		0.13	0.53		0.52	0.63	
Uniform Delay, d1		29.1	28.2	28.0	27.8		6.7	6.0		34.4	16.2	
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.8	0.2	0.1	0.0		0.4	0.9		10.4	2.3	
Delay (s)	7000 <i>0000</i> 00000000000000000000000000000	29.9	28.4	28.2	27.8	terrational and the structure of the	7.1	6.9		44.8	18.4	
Level of Service		C	C	C	C		Α	A		D	В	
Approach Delay (s)	line in the track of the	28.7			28.0	- Sector and the sector and the sector of the		6.9			18.7	
Approach LOS		С			C			A			В	
Intersection Summary												
HCM Average Control D	elay		14.1	H	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.54									
Actuated Cycle Length (	s)		70.1	S	um of lo	ist time i	(s)		8.0			
Intersection Capacity Uti	lization	ļ	52.6%	IC	CU Leve	l of Serv	vice		А			
Analysis Period (min)			15									

# HCM Signalized Intersection Capacity Analysis 25: I-189 OFF RAMP & Shelburne St. (Rt 7)

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				٣	\$			415			<b>*</b> 14	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	14	12	12	12	12	12	12
Total Lost time (s)				4.0	4.0			4.0			4.0	
Lane Util, Factor	undering of the development of the	ten fistan erekteristen.	an daalaan taalaan sa da	0.95	0.95	1999 (1999 (1999 (1999 (1999 (1999 (1999 (1999 (1999 (1999 (1999 (1999 (1999 (1999 (1999 (1999 (1999 (1999 (19		0.95			0.95	
Frt				1.00	1.00	i i se se se se se se se se se se se se se		1.00			1.00	
Fit Protected				0.95	0.96			1.00			1.00	-1111111111111-
Satd. Flow (prot)				1681	1691			3539			3539	
Flt Permitted	alan ana sta fara tari			0.95	0.96			1.00			1.00	
Satd. Flow (perm)				1681	1691			3539			3539	
Volume (vph)	0	0	0	1285	50	0	0	780	0	0	1045	0
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	1428	56	0	0	867	0	0	1161	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	722	762	0	0	867	0	0	1161	0
				Perm			Perm					
Protected Phases	90818991019001910	0.0000000000000000000000000000000000000	entre en el consection de la consection de la consection de la consection de la consection de la consection de La consection de la consect	n den statutetet men	8		SPOSTO PERMIT	2	9999649999999999999999999 1999	van 1999 (*********************************	6	anaceonece aec.
Permitted Phases				8			2					
Actuated Green, G (s)	lai estelli ofeliootee.		-1201000000000000000000	28.1	28.1			26.7	1994), 2009, 2009, 2009, 2009, 2009, 2009, 2009, 2009, 2009, 2009, 2009, 2009, 2009, 2009, 2009, 2009, 2009, 20		26.7	
Effective Green, g (s)				30.1	30.1			28.7			28.7	
Actuated g/C Ratio				0.45	0.45			0.43			0.43	
Clearance Time (s)				6.0	6.0			6.0			6.0	
Vehicle Extension (s)				3.0	3.0	()(), ()()()()()()()()()()()()()()()()()		3.0			3.0	
Lane Grp Cap (vph)			entre (State	757	762			1520			1520	
v/s Ratio Prot		an da karanga karang karang karang karang karang karang karang karang karang karang karang karang karang karang	ini na ini na na na na na na na na na na na na na		1949-9969999999999999		ang pagaban da parta minana	0.24		an an an an an an an an an an an an an a	c0.33	ningen streggelænde
v/s Ratio Perm		u instruction (1977). Antica (1987) (1987)		0.43	0.45							
v/c Ratio	1992 (1993 (1994 (1996 (1997 (1997 (1997 (1997 (1997 (1997 (1997 (1997 (1997 (1997 (1997 (1997 (1997 (1997 (19	ntentinti in Costassen (he	-9-6-9-6-6-6-6-6-6-6-6-6-6-6-6-6-6-6-6-	0.95	1.00		her Webkischen Ander	0.57	on an an an an an an an an an an an an an	0.000000000000000000000000000000000000	0.76	
Uniform Delay, d1				17.7	18.3			14.4			16.2	
Progression Factor				1.00	1.00			1.00			1.00	
Incremental Delay, d2				22.0	32.6	<u> 6 10 10 10 10 10 10 10 10 10 10 10 10 10 </u>		0.5			2.3	
Delay (s)				39.6	51.0			14.9			18.5	
Level of Service				D	D			В			В	
Approach Delay (s)		0.0			45.4			14.9			18.5	
Approach LOS		Α			D			В			В	
Intersection Summary												
HCM Average Control De	lay		29.0		CM Lev	el of Ser	vice		C			
HCM Volume to Capacity	ratio		0.88									
Actuated Cycle Length (s	)		66.8	S	um of lo	ost time (	s)		8.0			
Intersection Capacity Utili	zation	7	72.5%	IC	CU Leve	of Serv	ice		С			
Analysis Period (min)			15									
a Critical Long Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			¢.			4	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	70	35	25	145	10	45	320	60	5	155	10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	78	39	28	161	11	50	356	67	6	172	11
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	122	200	472	189								
Volume Left (vph)	6	28	50	6								
Volume Right (vph)	39	11	67	11	*****	5 million (1999)						
Hadj (s)	-0.15	0.03	-0.03	0.00								
Departure Headway (s)	6.0	6.0	5.2	5.6							1999 - 1999 -	
Degree Utilization, x	0.20	0.33	0.68	0.30								
Capacity (veh/h)	508	541	667	581		104000000000000000000000000000000000000						-Anderen Gerdikalde
Control Delay (s)	10.5	11.9	18.4	11.0								
Approach Delay (s)	10.5	11.9	18.4	11.0			**********					lande na seriera.
Approach LOS	B	В	C	B								
Intersection Summary												
Delay			14.7									
HCM Level of Service			В									
Intersection Capacity Uti	lization		58.3%	l IC	CU Leve	l of Ser	vice		В			
Analysis Period (min)			15									
009000000000000000000000000000000000000	n guyay gulyay		aan dine dés		0.494.0394.0494.444		el di der transferið.	ada bahan kabudu da s	algeben higt til belande		waareeraa	n casa conges

	4	×.	Ť	1	\$	Ļ		
Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations	¥		¢†			ન		
Sign Control	Stop		Free			Free		
Grade	0%		0%			0%		
Volume (veh/h)	80	5	405	215	5	480		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90		
Hourly flow rate (vph)	89	6	450	239	6	533		
Pedestrians	ta izabiogia sació:	Antoine ann			Niddenkolokolovata	an ang sa ang sa tara		ana ka a
Lane Width (ft)								903 1
Walking Speed (ft/s)								data ba
Right turn flore (uch)								403200 403200
Median type	None							
Median storage veh)	- HACTIC							<u>George</u>
Upstream signal (ft)						837		
pX, platoon unblocked	1.00	energin (Genergin) er		,	89494999999999999999999999999999999999			2002406
vC, conflicting volume	1114	569			689			
vC1, stage 1 conf vol								S
vC2, stage 2 conf vol								
vCu, unblocked vol	1114	569			689			
tC, single (s)	6.4	6.2			4.1			
tC, 2 stage (s)		~ ~ ~	Section and the sector	Andre spite and bringed	~ ~			aridadi.
(F (S)	3.5 C1	୍ ୪.୪			2.2			
pu queue iree %	10	- 99 - 99	e en en en en en en en en en en en en en		99			lekeriyet
	640	321			900			
Direction, Lane #	WB 1	NB 1	SB 1					
Volume Lott	94	689	539					
Volume Leit	69	0000	o A					and and a
	226	1700	0 005					1242
Volume to Canacity	0.40	0.41	0.01					95909
Queue Length 95th (ft)	45	0 0	0.01					en en en en en en en en en en en en en e
Control Delay (s)	30.1	0.0	0.2					
Lane LOS	D		A					anda
Approach Delay (s)	30.1	0.0	0.2			Salasi asin Silasi Salasi silasi		
Approach LOS	D							
Intersection Summary			Sector 19					
Average Delay			2.2					
Intersection Capacity Ut	ilization	, de contra la de la de la de la de la de la de la de la de la de la de la de la de la de la de la de la de la Contra de la de la de la de la de la de la de la de la de la de la de la de la de la de la de la de la de la de	45.8%	IC	U Leve	l of Servi	ce A	
Analysis Period (min)			15					

HCM Unsignalized Intersection Capacity Analysis 22: Birchcliff Pkwy & Shelburne St. (Rt 7)

	٦	->	$\mathbf{i}$	4	-	×	*	Ť	1	4	¥	~
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		44			44			đ þ			<mark>ብ</mark> ኬ	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%		-	0%			0%	
Volume (veh/h)	30	0	55	10	0	10	35	920	5	5	725	90
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	33	0	61	11	0	11	39	1022	6	6	806	100
Pedestrians		Alman and the first state	ana dan tang dalamat	ayaanga di asayaa	ang tang tang tang tang tang tang tang t	a an an an an an an an an an an an an an			o indea citat Ati este e-			
Lane Width (ft)												
waiking Speed (ft/s)	waaning meesing	tene nu Silei Alve	yalagi (Hultarada)					Alexandra and an an an an an an an an an an an an an	dente brite Agenti		-	
Percent blockage												n yan ganaa Nyangeonoa
Median type		None			Mono							
Median storage veh)		INVING			INOLIC							
Upstream signal (ft)								1267				
pX, platoon unblocked	nahosiningan aktista	ogyspepeleseer	een een een de waard	i ne in the second second second second second second second second second second second second second second s	n nin fin fan de fin fan de fin fan de fin fan de fin fan de fin fan de fin fan de fin fan de fin fan de fin f Eine fan de fin fan de fin fan de fin fan de fin fan de fin fan de fin fan de fin fan de fin fan de fin fan de f		89183513551356					
vC, conflicting volume	1467	1972	453	1578	2019	514	906			1028		
vC1, stage 1 conf vol	, , ,, , , , , , , , , , , , , , ,				1979-011-969-019-019-01-9			a fan med new Suite de an Officia e de ser	4-1-0-1	ana proposition	,	
vC2, stage 2 conf vol				19 (S - 19 (S								
vCu, unblocked vol	1467	1972	453	1578	2019	514	906			1028		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)			uniterit <u>a</u> n ( <u>ai</u> ne		territe de la casa de la casa de la casa de la casa de la casa de la casa de la casa de la casa de la casa de l	1944-1944 <u>-1946-</u> 1944-1944-	Andreas de Calderae					
t⊢ (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	60	100	89	82	100	98	95			99	na parta darra da s	eneringi.eesi
civi capacity (ven/n)	83	58	554	63	54	506	141			6/1		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	94	22	550	517	408	503						
Volume Left	33	11	39	0	6	0	ani (ala bindu tu)	an an an an an an an an an an an an an a			enteringen beinen	iyyepiniyyinyeldaris
Volume Hight	- 61	11	- 17	6	0	100	8.8.6.8					
Con Volume to Conceitu	185	111 A AA	/4/ 0.00	1700	6/1 0.04	1700	usiolisii Mirowia	ng pangasang ma	datili tarishiri datasi	andaran ayan san		alaatiinii inte
Queue Length O5th (ft)	U.O I 64	U.2U 10	0.05	0.30	U.UI 4	0.30	60 (12176) (12					9.830 (S. S
Control Delay (e)	190	46.0	+ 1 /	nñ	i	0	alata kan da					
Lane LOS	0.2 F		Δ	v.v	υ.υ Δ	0.0						
Approach Delay (s)	432	45.2	07		<u>01</u>							
Approach LOS	Ε	E	18980 <b>7</b> 0797/809			99 Jenni 1992 - Henrika H						ining and the
Intersection Summary												
Average Delay			2.8									
Intersection Capacity Uti	lization	(	33.5%	IC	CU Leve	l of Serv	vice		В			
Analysis Period (min)			15									

	-	$\mathbf{i}$	≮		-	1	
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations Sign Control	₽ Free			র্ব Free	Stop		
Volume (veh/h)	215	35	135	0 /8 85	10	45	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vph)	239	39	150	94	11	50	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)	un statut frantsatur en	a a basalan si kata si sa sa	- Sector State State State		da sanakakan mate	te i transmistar e e ine i tri initia.	
Percent Blockage							
Hight turn flare (ven)					Mono		
Median storage veh)					NONE		
Upstream signal (ft)				331			
pX, platoon unblocked	neen segmente		99999000000000000000000000000000000000		anda artista artista. A	ener (han de fara).	
vC, conflicting volume			278		653	258	
vC1, stage 1 conf vol							na na kati anti tana antina tana a shandadi sa na na na ta'na tani na tana na panan hari na ana shi bata bata t
vC2, stage 2 conf vol							
vCu, unblocked vol	n George and Carl		278	simulaised is to the inst	653	258	
tC, single (s)			4.1		6.4	6.2	
tC, 2 stage (s)			<u>^</u>		o e	<u> </u>	
n queue free %			2.2		3.5	0.0 04	
cM capacity (veh/h)			1285		382	780	
Direction Lane #	FR 1	M/R 1					
Volume Total	278	244	61				
Volume Left	0	150	11				
Volume Right	39	0	50				
cSH	1700	1285	656				
Volume to Capacity	0.16	0.12	0.09				
Queue Length 95th (ft)	0	10	8			ىدى بىرى بىرى بىرى بىرى بىرى بىرى	
Control Delay (s)	0.0	5.4	11.1				
Lane LOS	<b>.</b>	A	В	utingskrijskrig		secondari se se se se se se se se se se se se se	
Approach LOS	0.0	9.4	- I I.I D				
			D				
Intersection Summary							
Average Delay	ggiori (cgioritati)	687715549975565656	3.4	and a state of the state of the	<u>lan sila</u> nter dinet de		
Intersection Capacity Uti	lization		38.7%	IC	U Leve	l of Servic	e A
Analysis Period (min)			15				

	T۱	NO-WAY STO	P CONTR	OL SUMI	MARY			
<b>General Information</b>			Site II	nformatio	on	<u></u>		
Analyst Ag/Co. Date Performed Analysis Time Period	EJD CHA 12/22/05 AM PEAK	HOUR	Interse Jurisdic Analysi	ction ction s Year		ROUTE 7 TOWN 0 2028 RS	7/LOCUS F BURLI G C1 & C	ST/LEDGE INGTON C2 Only
Project Description BUI	RLINGTON							
East/West Street: LOCU	ST/LEDGE		North/S	outh Stree	t: ROUTE	7		
intersection Orientation:	Ivorth-South		Study F	eriod (hrs)	0.25			
Vehicle Volumes and	d Adjustments	3						
Major Street		Northbound	<u>;</u>		-	Southbo	ound	
Movement	1	2	3		4	5		6
Volumo		625			L			<u> </u>
Peak-Hour Factor PHE	0 90	035	305	)	10 n on	0.00		15
Hourly Flow Bate HFR	0	705	338		11	594		16
Percent Heavy Vehicles	0				2			
Median Type				Undivide	ed			
RT Channelized			0				T	0
Lanes	0	2	0		0	1	<u> </u>	0
Configuration		Т	TR		LTR			
Upstream Signal		0				0		
Minor Street		Westbound				Eastbou	und	
Movement	7	7 8		9		11		12
	L	Т	R		L	Т		R
Volume	0	0	60		0	20		85
Pe Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Houny Flow Rate, HFR	0	0	66		0	22		94
Percent Heavy Vehicles	0	0	2		0	2		2
Percent Grade (%)		0				0		
Flared Approach		N				N		
Storage		0				0		
RT Channelized			0					0
Lanes	0	0	1		0	1		0
Configuration			R					TR
Delay, Queue Length, an	d Level of Service	ce						
Approach	NB	SB		Westbound	d		Eastbou	ind
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LTR			R		1	TR
v (vph)		11	1		66			116
C (m) (vph)		663			499		1	260
v/c		0.02			0.13		<u> </u>	0.45
95% queue lenath		0.05			0.45			216
Control Delay		10.5			133	1	<u> </u>	20.5
					B		<u> </u>	
Annroach Delay		k7		120		<u> </u>	20 5	
Approach LOS			- 10.0 D		29.5			
			1	D				

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#### **TWO-WAY STOP CONTROL SUMMARY General Information** Site Information An<u>chist</u> EJD ROUTE 7/SOUTH WILLARD Intersection Ag y/Co. Date Performed Jurisdiction TOWN OF BURLINGTON CHA 12/22/05 Analysis Year 2028 RSG C1 & C2 Only Analysis Time Period AM PEAK HOUR Project Description BURLINGTON East/West Street: SOUTH WILLARD North/South Street: ROUTE 7 Study Period (hrs): Intersection Orientation: North-South 0.25 Vehicle Volumes and Adjustments Northbound Southbound Major Street Movement 1 2 3 4 5 6 Т R Т R L L 60 575 0 Volume 0 560 0 Peak-Hour Factor, PHF 0.90 0.90 0.90 0.90 0.90 0.90 Hourly Flow Rate, HFR 66 638 0 0 622 0 Percent Heavy Vehicles 2 2 ---~ ~ -----Median Type Undivided **RT** Channelized 0 0 Lanes 0 1 0 0 1 0 LT Configuration T Upstream Signal 0 0 Minor Street Westbound Eastbound Movement 7 8 9 10 11 12 Т Т L R L R 0 0 Volume 200 0 0 0 Hour Factor, PHF 0.90 0.90 0.90 0.90 0.90 0.90 Houry Flow Rate, HFR 222 0 0 0 0 0 2 Percent Heavy Vehicles 0 2 0 2 2 Percent Grade (%) 0 0 Flared Approach Ν Ν 0 0 Storage **RT** Channelized 0 0 anes 0 1 0 0 0 0 Configuration TŔ Delay, Queue Length, and Level of Service Approach NB SB Westbound Eastbound Movement 1 4 7 8 9 10 12 11 ane Configuration LT TR 222 v (vph) 66 959 126 C (m) (vph) v/c 0.07 1.76 95% queue length 0.22 16.92 9.0 433.1 Control Delay .OS F A Approach Delay 433.1 --.....

Approach LOS

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### **BUILD ALTERNATIVE 2**

### AND

# C-1 SECTION & C-2 SECTION ONLY 2028 PM PEAK HOUR

### HCM Signalized Intersection Capacity Analysis 6: Main Street & Battery Street

	۶		$\mathbf{i}$	4	· <b>4</b> ·····	•	-	Ť	1	1	Ļ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4	7		ሴ	7		ፈኈ		ኻ	t.	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0		4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00		0.95		1.00	1.00	
Frt		1.00	0.85		1.00	0.85		0.98		1.00	0.99	
Flt Protected		0.98	1.00		0.97	1.00		0.99		0.95	1.00	
Satd. Flow (prot)		1830	1583		1811	1583		3434		1770	1843	
Fit Permitted		0.86	1.00		0.78	1.00		0.83		0.95	1.00	
Satd. Flow (perm)		1607	1583		1462	1583		2867		1770	1843	
Volume (vph)	25	45	45	105	80	520	60	340	75	305	385	30
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	28	50	50	117	89	578	67	378	83	339	428	33
RTOR Reduction (vph)	0	0	36	0	0	257	0	0	0	0	0	0
Lane Group Flow (vph)	0	78	14	0	206	321	0	528	0	339	461	0
Turn Type	Perm		Prot	Perm		pt+ov	Perm		c	ustom		
Protected Phases		4	4		8	8 1		2			6	
Permitted Phases	4			8			2			1		
Actuated Green, G (s)		24.2	24.2		24.2	48.0		20.8		23.8	49.6	
Effective Green, g (s)		25.2	25.2		25.2	50.0		21.8		24.8	50.6	
Actuated g/C Ratio		0.28	0.28		0.28	0.56		0.24		0.28	0.56	
Clearance Time (s)		5.0	5.0		5.0			5.0		5.0	5.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		450	443		409	879		694		488	1036	
v/s Ratio Prot			0.01			0.20				c0.19	0.25	
v/s Ratio Perm		0.05			c0.14			c0.18				
v/c Ratio		0.17	0.03		0.50	0.37		0.76		0.69	0.44	
Uniform Delay, d1	1	24.5	23.5		27.2	11.2		31.7		29.2	11.5	
Progression Factor		1.00	1.00		1.00	1.00		1.00		1.00	1.00	
Incremental Delay, d2		0.8	0.1		4.4	0.3		4.9		4.3	0.3	
Delay (s)		25.4	23.7		31.5	11.4		36.6		33.5	11.8	
Level of Service	ne henri Areke Areke Arek	С	C		С	В		D		С	В	and when the
Approach Delay (s)		24.7			16.7			36.6			21.0	
Approach LOS		С			В			D			С	
Intersection Summary												
HCM Average Control D	elay		23.4	Н	CM Lev	vel of Se	ervice		С			
HCM Volume to Capacit	y ratio		0.65						9. (* 19. 9. (* 19. 53.)			
Actuated Cycle Length (s	s)		90.0	S	um of lo	ost time	(s)		18.2			
Intersection Capacity Uti	lization		62.3%	K	CU Leve	el of Ser	vice		B			
Analysis Period (min)	and strategy and an a strategy		15									
c Critical Lane Group		u di Anton										

	٨		$\mathbf{r}$	-		×.	1	Ť	1	-	↓ I	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	<b>1</b> →			44			4			4.	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00			1.00			1.00			1.00	
Frt	1.00	0.99			0.88			0.98			0.99	
Fit Protected	0.95	1.00			1.00			0.99			0.99	
Satd. Flow (prot)	1770	1836			1644			1815			1822	
Flt Permitted	0.34	1.00			0.99			0.91			0.84	
Satd. Flow (perm)	628	1836			1635			1666			1559	
Volume (vph)	50	50	5	10	35	275	25	150	30	140	350	35
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	56	56	6	11	39	306	28	167	- 33	156	389	39
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	56	62	0	0	356	0	0	228	0	0	584	0
Turn Type	Perm			Perm			Perm			Perm	*****	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	22.2	22.2			22.2			48.9			48.9	
Effective Green, g (s)	23.2	23.2			23.2			49.9			49.9	
Actuated g/C Ratio	0.29	0.29			0.29			0.62			0.62	
Clearance Time (s)	5.0	5.0			5.0			5.0			5.0	
Vehicle Extension (s)	3.0	3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)	180	525			468			1025			959	
v/s Ratio Prot		0.03										
v/s Ratio Perm	0.09				c0.22			0.14			c0.37	
v/c Ratio	0.31	0.12			0.76			0.22			0.61	
Uniform Delay, d1	22.7	21.4			26.4			7.0			9.6	
Progression Factor	1.00	1.00			1.00			1.00			1.00	
Incremental Delay, d2	1.0	0.1			7.2			0.5			2.9	
Delay (s)	23.7	21.5		(3) (3) (3) (3)	33.6		C.	7.5			12.5	
Level of Service	С	С			С			А			В	
Approach Delay (s)		22.5			33.6			7.5			12.5	
Approach LOS		С			С			A			В	
Intersection Summary												
HCM Average Control D	elay		18.3	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.66									antanzaina Mananan
Actuated Cycle Length (	s)		81.1	S	um of lo	st time	(s)		8.0			
Intersection Capacity Uti	lization	7	75.4%	IC	CU Leve	l of Sen	/ice		D			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4.	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.99			0.90			0.95			0.98	
Flt Protected		0.98			1.00			1.00			0.96	
Satd. Flow (prot)		1747			1609			1720			1700	
Flt Permitted		0.73			0.98			1.00			0.52	
Satd. Flow (perm)		1313			1587			1720			914	
Volume (vph)	50	50	5	5	25	105	0	50	25	290	25	50
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	56	56	6	6	28	117	0	56	28	322	28	56
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	118	0	0	151	Ó	0	84	0	0	406	0
Turn Type	Perm			Perm			Perm			om+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		8.1			8.1			9.5			39.2	
Effective Green, g (s)		9.1			9.1			10.5			40.2	
Actuated g/C Ratio		0.16			0.16			0.18			0.70	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		209	8 6 D. O.		252			315			994	
v/s Ratio Prot								0.05			c0.18	
v/s Ratio Perm		0.09			c0.10						c0.10	
v/c Ratio		0.56			0.60			0.27			0.41	
Uniform Delay, d1		22.3			22.4			20.1			3.6	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		3.5			3.8	g i g i		0.5		ų darska	0.3	
Delay (s)	Marianta ang ang ang ang ang ang ang ang ang an	25.7	an an an an an an an an an an an an an a		26.2			20.6			3.9	
Level of Service		C			C			С			A	
Approach Delay (s)		25.7			26.2			20.6			3.9	
Approach LOS		С		68 89 89 89 89 	C			C			A	
Intersection Summary												
HCM Average Control De	əlay		13.6	H	CM Lev	el of Se	rvice		В			
HCM Volume to Capacity	/ ratio		0.44									
Actuated Cycle Length (s	5)		57.3	S	um of Ic	st time	(s)		8.0			
Intersection Capacity Util	ization	Ę	50.9%	IC	U Leve	l of Serv	/ice		Α			
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			र्स	7		র	7		¢Ĵ.	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0		4.0	4.0		4.0	an an an an an an an an an an an an an a
Lane Util. Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Frt		0.96			1.00	0.85	.,	1.00	0.85		0.99	
Flt Protected		1.00			0.99	1.00		0.97	1.00		0.99	
Satd. Flow (prot)		1794			1846	1583		1799	1583		1824	en estatut sa anna sa
Flt Permitted		0.99			0.78	1.00		0.60	1.00		0.74	
Satd. Flow (perm)		1770			1457	1583		1111	1583		1375	
Volume (vph)	10	255	95	65	290	40	260	105	60	65	170	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	11	283	106	72	322	44	289	117	67	72	189	17
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	400	0	0	394	44	0	406	67	0	278	Ó
Turn Type	Perm			Perm		Perm	Perm		Perm	Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6		6	8		8	4		
Actuated Green, G (s)		42.2			42.2	42.2		55.6	55.6		55.6	
Effective Green, g (s)		46.2			46.2	46.2		59.6	59.6		59.6	1 a de de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de c
Actuated g/C Ratio		0.39			0.39	0.39		0.50	0.50		0.50	
Clearance Time (s)		8.0			8.0	8.0		8.0	8.0		8.0	
Vehicle Extension (s)		3.0			3.0	3.0		3.0	3.0		3.0	
Lane Grp Cap (vph)		681			561	609		552	786	****	683	
v/s Ratio Prot												
v/s Ratio Perm		0.23			c0.27	0.03	(	c0.37	0.04		0.20	an ya 200 ya 201 ya 201 ya 201 ya 201 ya 201 ya 201 ya 201 ya 201 ya 201 ya 201 ya 201 ya 201 ya 201 ya 201 ya
v/c Ratio		0.59			0.70	0.07		0.74	0.09		0.41	
Uniform Delay, d1		29.3		1945 - 4 7 1944 - 1945 - 1945 - 1945 - 1945 - 1945 - 1945 - 1945 - 1945 - 1945 - 1945 - 1945 - 1945 - 1945 - 19	31.1	23.3	erselation of the standard software software	23.9	15.9	an wan ta an an an an an an an an an an an an an	19.1	2012/2014/07/2010/26
Progression Factor		1.00			1.00	1.00		0.55	0.55		1.00	
Incremental Delay, d2		1.3			4.0	0.1		4.9	0.1	alana ya fana ya fana ya fana	0.4	, 199-1997, 911 (41)
Delay (s)		30.6			35.1	23.4		18.2	8.8		19.4	
Level of Service		С			D	С		В	А		В	
Approach Delay (s)		30.6			33.9			16.8			19.4	
Approach LOS		С			С			В			В	
Intersection Summary												
HCM Average Control D	elay		25.5	Н	CM Lev	el of Se	ervice		C			
HCM Volume to Capacit	y ratio		0.72									
Actuated Cycle Length (s	s)		120.0	S	um of lo	ost time	(s)		14.2			
Intersection Capacity Uti	lization	8	15.3%	K	CU Leve	el of Ser	vice		E			
Analysis Period (min)			15							, and an an an an an an an an an an an an an	e second source shift offi	
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<u></u>			<i>ф</i> ,			đ.			£.	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0		5 m o o o o o o o o o o o o o	4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.92			0.98			0.99			1.00	an a sur a sur a sur a sur a sur a sur a sur a sur a sur a sur a sur a sur a sur a sur a sur a sur a sur a sur
Flt Protected		1.00			0.99			0.98			1.00	
Satd. Flow (prot)		1711			1813			1824			1847	
Fit Permitted		0.99			0.60			0.75			0.91	
Satd. Flow (perm)		1703			1099			1385			1693	
Volume (vph)	5	130	200	50	160	30	185	390	25	30	290	10
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	6	144	222	56	178	- 33	206	433	28	33	322	11
RTOR Reduction (vph)	0	46	0	0	5	0	0	1	0	0	1	0
Lane Group Flow (vph)	0	326	0	0	262	0	0	666	0	0	365	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		28.2			28.2			75.6			75.6	
Effective Green, g (s)		29.2			29.2			76.6			76.6	
Actuated g/C Ratio		0.24			0.24			0.64		enned need son) Calification (Sin)	0.64	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		414			267			884			1081	
v/s Ratio Prot												
v/s Ratio Perm		0.19			c0.24			c0.48			0.22	
v/c Ratio		0.79			0.98			0.75			0.34	
Uniform Delay, d1		42.5			45.2			15.1			10.0	over the second s
Progression Factor		1.00			1.00		C & C &	0.33			0.75	
Incremental Delay, d2		9.5			50.0			0.6			0.7	
Delay (s)		52.0			95.2			5.5			8.2	
Level of Service		D			F			Α			Α	
Approach Delay (s)		52.0			95.2			5.5			8.2	
Approach LOS		D			F			А			A	
Intersection Summary												
HCM Average Control D	elay		30.8	Н	CM Lev	el of Sei	vice		С			
HCM Volume to Capacit	y ratio		0.82						on lang digi dalar Genesia			
Actuated Cycle Length (	s)		120.0	S	um of lo	st time (	s)		14.2			an an an an an an an an an an an an an a
Intersection Capacity Uti	lization	se e ç	95.5%	IC	U Leve	l of Serv	ice		F			
Analysis Period (min)			15									a an analysis and an fight
c Critical Lane Group												



# HCM Signalized Intersection Capacity Analysis 10: Maple Street & Pine Street

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		44			đ.			£1.			<u>, 1</u> 2	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	12	11	11	11	12	11	12	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.92			0.95		0.4.5.0	0.99			1.00	
Fit Protected		1.00			0.98	<i></i>		0.99			0.99	
Satd. Flow (prot)		1650			1688			1764			1787	
Flt Permitted		0.99			0.53		5 ,	0.78			0.87	1979-000 000 000 000 000 000 000 000 000 00
Satd. Flow (perm)		1635			913			1390			1567	
Volume (vph)	10	145	245	80	85	90	110	495	60	55	475	10
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	11	161	272	89	94	100	122	550	67	61	528	11
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	444	0	0	283	0	0	739	0	0	600	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	1949-00000000000000000000000000000000000
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		37.0			37.0			66.8			66.8	vi-site/#9141614
Effective Green, g (s)		38.0			38.0			67.8			67.8	
Actuated g/C Ratio		0.32			0.32			0.56			0.56	and a fact of the second second second second second second second second second second second second second s
Clearance Time (s)		5.0			5.0			5.0			5.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		518			289			785			885	
v/s Ratio Prot												and a second second second
v/s Ratio Perm		0.27			c0.31			c0.53	54043444 S4043444		0.38	
v/c Ratio		0.86			0.98			0.94		- 200 (1995) - 200 (200 (200 (200 (200 (200 (200 (20	0.68	an an an an an an an an an an an an an a
Uniform Delay, d1		38.5			40.6			24.3			18.4	
Progression Factor		1.00			1.00			1.00			1.03	
Incremental Delay, d2		13.2			46.7			20.7			3.5	
Delay (s)		51.6			87.3			44.9			22.5	
Level of Service		D			F			D			C	
Approach Delay (s)		51.6			87.3			44.9			22.5	
Approach LOS		D			F			D			С	
Intersection Summary												
HCM Average Control De	elay		45.6	H	CM Lev	el of Se	rvice		D			
HCM Volume to Capacity	ratio		0.95									needed and the fill of the
Actuated Cycle Length (a	<b>i)</b>		120.0	Si	um of lo	st time	(s)		14.2			
Intersection Capacity Util	ization	10	3.7%	IC	U Leve	of Serv	/ice		G			1.012.000600000
Analysis Period (min)			15									

# HCM Signalized Intersection Capacity Analysis 6: Main Street & Battery Street

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<del>ہ</del>	7		र्भ	7		đþ		ሻ	<b>ħ</b>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0		4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00		0.95		1.00	1.00	
Frt		1.00	0.85		1.00	0.85		0.98		1.00	0.99	
Fit Protected		0.98	1.00		0.97	1.00		0.99		0.95	1.00	
Satd. Flow (prot)		1830	1583		1811	1583		3452		1770	1843	
Fit Permitted		0.85	1.00		0.78	1.00		0.86		0.95	1.00	
Satd. Flow (perm)		1575	1583		1454	1583		2977		1770	1843	
Volume (vph)	25	45	45	105	80	420	60	440	75	305	385	30
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	28	50	50	117	89	467	67	489	83	339	428	33
RTOR Reduction (vph)	0	0	39	0	0	227	0	0	0	0	0	0
Lane Group Flow (vph)	0	78	11	0	206	240	0	639	0	339	461	0
Turn Type	Perm		Prot	Perm		pt+ov	Perm		С	ustom		
Protected Phases		4	4		8	8 1		2		1	6	
Permitted Phases	4			8			2			1		
Actuated Green, G (s)		12.3	12.3		12.3	23.6		17.9		11.3	34.2	
Effective Green, g (s)		13.3	13.3		13.3	25.6		18.9		12.3	35.2	
Actuated g/C Ratio		0.22	0.22		0.22	0.42		0.31		0.20	0.57	
Clearance Time (s)		5.0	5.0		5.0			5.0		5.0	5.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		341	342		314	659		915		354	1055	
v/s Ratio Prot			0.01		en en de la composition de la composition de la composition de la composition de la composition de la compositi	0.15				c0.19	0.25	
v/s Ratio Perm		0.05			c0.14			c0.21				
v/c Ratio		0.23	0.03		0.66	0.36		0.70	99999999999999999999999999999999999999	0.96	0.44	
Uniform Delay, d1		19.9	19.0		22.0	12.3		18.8		24.3	7.5	
Progression Factor		1.00	1.00		1.00	1.00		1.00		1.00	1.00	
Incremental Delay, d2		0.3	0.0		4.9	0.3		2.3		36.4	0.3	
Delay (s)		20.2	19.1		26.9	12.7		21.1		60.7	7.8	
Level of Service		C	В		С	В		С		E	Α	
Approach Delay (s)		19.8			17.0			21.1			30.2	
Approach LOS		В			В			С			С	
Intersection Summary												
HCM Average Control De	elay		23.1	Н	CM Lev	el of Se	ervice		С			
HCM Volume to Capacity	/ ratio		0.68									
Actuated Cycle Length (s	5)		61.5	S	um of k	ost time	(s)		12.0			
Intersection Capacity Util	lization	1	65.1%	IC	U Leve	el of Ser	vice		C			
Analysis Period (min)			15									
c Critical Lane Group												

### HCM Signalized Intersection Capacity Analysis 7: King Street & Battery Street

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	4			4			4			4	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00			1.00			1.00			1.00	
Frt	1.00	0.99			0.90			0.99			0.99	
Fit Protected	0.95	1.00			1.00			1,00			0.99	
Satd. Flow (prot)	1770	1836			1673			1841			1822	
Flt Permitted	0.41	1.00			0.98			0.96			0.76	
Satd. Flow (perm)	759	1836			1650			1766			1400	
Volume (vph)	50	50	5	10	35	125	25	400	30	140	350	35
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	56	56	6	11	39	139	28	444	33	156	389	39
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	56	62	0	0	189	0	0	505	0	0	584	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	14.8	14.8			14.8			65.5			65.5	
Effective Green, g (s)	15.8	15.8			15.8			66.5			66.5	
Actuated g/C Ratio	0.17	0.17			0.17			0.74			0.74	
Clearance Time (s)	5.0	5.0			5.0			5.0			5.0	
Vehicle Extension (s)	3.0	3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)	133	321			289			1301			1031	
v/s Ratio Prot		0.03										
v/s Ratio Perm	0.07				c0.11			0.29			c0.42	
v/c Ratio	0.42	0.19		8.20 B.U	0.65			0.39		0.015.6	0.57	
Uniform Delay, d1	33.2	31.8			34.7	· · · · · · · · · · · · · · · · · · ·		4.4			5.4	
Progression Factor	1.00	1.00			1.00			1.00			1.00	
Incremental Delay, d2	2.1	0.3	ومعادية والمحتين والمرور والمحتي		5.2			0.9			2.3	·
Delay (s)	35.3	32.1			39.9			5.3			7.6	
Level of Service	D	С	ins de stangesjonderse inder		D	an ann an ann an an an an an an an an an	ana initali Analogia	A		en ander angementer	Α	en debren forskolsteler
Approach Delay (s)		33.6			39.9			5.3			7.6	
Approach LOS		С			D			A			A	
Intersection Summary												
HCM Average Control D	elay		13.4	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.58									
Actuated Cycle Length (	s)		90.3	S	um of lo	ost time	(s)		8.0			
Intersection Capacity Uti	lization		79.3%	IC	CU Leve	l of Ser	vice		D			
Analysis Period (min)	at the second second second second second second second second second second second second second second second		15	and an an and a second second						منابعة مراسية بريد		
c Critical Lane Group												

### HCM Signalized Intersection Capacity Analysis 8: Maple Street & Battery Street

	٨		$\mathbf{i}$	4		×.	1	t	1	<b>\$</b>	Ļ	$\checkmark$
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			<b>.</b>			4			<u>.</u>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00		1997)	1.00	1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 -	pana kadapanan	1.00	alter et en en en en en en en en en en en en en
Frt		0.99			0.88			0.95			0.98	
Flt Protected		0.98			1.00	-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1		1.00	an an san an		0.96	eeren oor oor oor oor oor oor oor oor oor oo
Satd. Flow (prot)		1747			1576			1720			1700	
Flt Permitted		0.70			1.00			1.00	1999 - Carlo I. (1999) - Carlo Carlo (1999) 1997 - Carlo Carlo (1999) - Carlo (1999) - Carlo (1999) - Carlo (1999) - Carlo (1999) - Carlo (1999) - Carlo (1 1997) - Carlo (1999) -		0.56	bir gering berdining der
Satd. Flow (perm)		1254			1572			1720			986	
Volume (vph)	50	50	5	5	25	355	0	50	25	290	25	50
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	56	56	6	6	28	394	0	56	28	322	28	56
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	118	0	0	428	0	0	84	0	0	406	0
Turn Type	Perm			Perm			Perm			om+ot		
Protected Phases		4		10.000.0000.0000.0000	8			2	nina manaki tanga malaya d	kwananya kalkalaria 1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		20.1			20.1			13.3			31.0	
Effective Green, g (s)		21.1			21.1			14.3	an di di ta ta di di Kanadari di ta ta ta ta ta ta ta ta ta ta ta ta ta		32.0	
Actuated g/C Ratio		0.35			0.35			0.23	,		0.52	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		433			543			403			676	
v/s Ratio Prot								0.05		14. June 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 199 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -	c0.13	el prese de electron
v/s Ratio Perm		0.09			c0.27						c0.18	
v/c Ratio		0.27			0.79			0.21	and a standard standard and an an an an	populo gunden (1994)	0.60	
Uniform Delay, d1		14.5		92.193-193-49	18.0			18.8			10.1	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.3		67.5) S S	7.5			0.3			1.5	
Delay (s)		14.8			25.5			19.1			11.6	
Level of Service		В			С			В		in de la co	В	
Approach Delay (s)		14.8			25.5			19.1			11.6	
Approach LOS		В	9 (203) (j-		С			В			В	
Intersection Summary												
HCM Average Control De	elay		18.3	H	CM Lev	el of Se	rvice		В			
HCM Volume to Capacity	ratio		0.67									
Actuated Cycle Length (s	)		61.1	S	um of lo	st time	(S)		8.0			
Intersection Capacity Util Analysis Period (min)	zation	(	66.3% 15	IC	CU Leve	l of Ser	vice		С			

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			र्भ	7		र्स	7		4	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0		4.0	4.0		4.0	
Lane Util. Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Frt		0.96			1.00	0.85		1.00	0.85		0.99	
Fit Protected		1.00			0.99	1.00		0.97	1.00		0.99	
Satd. Flow (prot)		1794			1846	1583	an da an an an an an an an an an an an an an	1808	1583		1824	
Fit Permitted		0.99			0.86	1.00		0.67	1.00		0.85	
Satd. Flow (perm)		1771			1601	1583		1243	1583		1576	
Volume (vph)	10	255	95	65	290	40	160	105	60	65	170	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	11	283	106	72	322	44	178	117	67	72	189	17
RTOR Reduction (vph)	0	0	0	0	0	28	0	0	40	0	0	0
Lane Group Flow (vph)	0	400	0	0	394	16	0	295	27	0	278	0
Turn Type	Perm	er en slove de transmissioner programme de se		Perm	en da da ser da secondo	Perm	Perm	rene në nazro u nazrobe	Perm	Perm		
Protected Phases		2		6. 6. 6. 6.	6			8			4	
Permitted Phases	2	an sharan alad shika as sa		6	internet and galaxies of a	6	8	ana sa sa sa sa sa sa sa sa sa sa sa sa sa	8	4		
Actuated Green, G (s)		18.9			18.9	18.9		21.3	21.3		21.3	
Effective Green, g (s)		19.9		hadala dala sala si	19.9	19.9	مەمەرغىن بۇرىيۇر مەمەرىيەرى	22.3	22.3	tan manatan sa	22.3	ورو ورو مشاور
Actuated g/C Hatio		0.36			0.36	0.36		0.41	0.41		0.41	
Clearance Lime (s)		5.0	alalah katalah s	alahan salamata sa	5.0	5.0		5.0	5.0	aanaan ah aagamaaya	5.0	u an an an an an an an an an an an an an
Venicle Extension (s)		3.0			3.0	3.0		3.0	3.0		3.0	
Lane Grp Cap (vpn)	underse kildere i	641		nininini minini 75	579	573	a and a distance	504	642	an cara tang at cara.	639	alaminin An Lord
V/s Hatio Prot		~ ~~			~ ~ =	~ ~ .						
V/S Hatio Perm		0.23	i da kana da kaleman d	nie Wegenie en Sji	CU.25	0.01	beriniskovatelykodar	c0.24	0.02		0.18	
V/C Hallo		0.62			0.68	0.03		0.59	0.04		0.44	
Disorrangian Costor		14.5		(caratawaataa	14.9	11.3		12.7	9.9	NACONI (AGRANDAR)	11.8	haderhodda (46
Progression Pacion		1.00			1.00	1.00		1.00	1.00		1.00	New Proven
Dolou (c)		1.9	ena si dan		3.3 10.1	0.0	Santa-Mariadan	1./ 47 E	0.0		10.0	
Level of Service		10.4 D			10.1 D	11.0		14.0 D	9.9		12.0 P	
Approach Dolay (c)		161			D 47 6	D Natalalasi	olen ale la la la la la	D 10 C	A	iya ka uga dana	D 10 2	1991) 1991) 1993)
Approach LOS		10.4 P			17.J R			10.0 D			12.3 D	
		U	1997 / 1770 / 1997 / 1997 / 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -		D	and the second state of th		D			D	
Intersection Summary												
HCM Average Control D	elay	1 - 12 - 12 - 12 - 12 - 12 - 12 - 12 -	15.3	Н	ICM Lev	el of Se	ervice	har shinesis san hafa sa	В			
HCM Volume to Capacity	y ratio		0.57	(deserved) a								
Actuated Cycle Length (s	3)	ang ang ang ang ang ang ang ang ang ang	55.0	S	um of lo	ost time	(S)	n karatar wa marata	8.0	nan antitus tara		energe to trace
Intersection Capacity Uti	lization	1	78.5%	IC	CU Leve	el of Ser	vice		D			
Analysis Period (min)	a en la regula (3) enc		15	en en en en en en en en en en en en en e	a parta da secon	والمعارفة والمراجع	la tra prove provensu tra d				uter en en en en en en en en en en en en en	anana dia aminjara
c Critical Lane Group						5 42 (\$ Q)						

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Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	ሻ	7	۲	¥	¥	7	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width	11	12	11	12	11	12	
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	1.00	0.85	
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00	
Satd. Flow (prot)	1711	1583	1711	1863	1801	1583	
Flt Permitted	0.95	1.00	0.29	1.00	1.00	1.00	
Satd. Flow (perm)	1711	1583	518	1863	1801	1583	
Volume (vph)	405	60	15	330	505	610	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	
Adj. Flow (vph)	450	67	17	367	561	678	
RTOR Reduction (vph)	0	33	0	0	0	0	
Lane Group Flow (vph)	450	34	17	367	561	678	
Turn Type		Prot	Perm			Perm	
Protected Phases	2	2		4	8		
Permitted Phases			4			8	
Actuated Green, G (s)	56.8	56.8	77.0	77.0	77.0	77.0	
Effective Green, g (s)	57.8	57.8	78.0	78.0	78.0	78.0	
Actuated g/C Ratio	0.39	0.39	0.52	0.52	0.52	0.52	/•
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	659	610	269	969	937	823	
v/s Ratio Prot	c0.26	0.02	990 (1997) (1997) (1997) 1997 (1997) (1997) (1997)	0.20	0.31	innen i sonin sinen ja sama pina sa sa sa sa sa sa	
v/s Ratio Perm			0.03			c0.43	
v/c Ratio	0.68	0.06	0.06	0.38	0.60	0.82	
Uniform Delay, d1	38.5	29.0	17.9	21.5	25.1	30.2	
Progression Factor	0.71	0.67	1.00	1.00	1.00	1.00	
Incremental Delay, d2	5.2	0.2	0.5	1.1	1.0	6.7	
Delay (s)	32.5	19.5	18.3	22.6	26.1	36.9	
Level of Service	С	В	В	C	C	D	
Approach Delay (s)	30.8			22.5	32.0		
Approach LOS	C			C	С		
Intersection Summary							
HCM Average Control D	elay		30.0	H	CM Lev	vel of Service	
HCM Volume to Capacit	y ratio		0.76			a an an an an ann an Anna ann ann an Anna an Airte an Airte an Airte an Airte an Airte an Airte an Airte Airte	
Actuated Cycle Length (	s)		150.0	SI	um of k	ost time (s)	
Intersection Capacity Uti	ilization		55.7%	IC	U Leve	el of Service	e anton 64 DP
Analysis Period (min)			15				

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		44			÷.			44		٣	<b>1</b>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	14	12	12	14	12	12	14	12	11	11	12
Total Lost time (s)		4.0			4.0			4.0		4.0	4.0	<u>pi di districi</u> Subina di se
Lane Util. Factor		1.00			1.00			1.00		1.00	1.00	
Frt		0.98			0.91			0.97		1.00	0.98	
Flt Protected		0.99			1.00			0.99		0.95	1.00	
Satd. Flow (prot)		1922			1810			1923		1711	1762	
Flt Permitted		0.83			0.96			0.92		0.61	1.00	
Satd. Flow (perm)		1609			1748			1791		1106	1762	
Volume (vph)	40	80	20	25	80	180	15	70	20	175	235	40
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	44	89	22	28	89	200	17	78	22	194	261	44
RTOR Reduction (vph)	0	8	0	0	84	0	0	11	0	0	7	0
Lane Group Flow (vph)	0	147	0	0	233	0	0	106	0	194	298	0
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		11.6			11.6			11.7		23.0	23.0	
Effective Green, g (s)		12.6			12.6			12.7		24.0	24.0	
Actuated g/C Ratio		0.27			0.27			0.27		0.51	0.51	
Clearance Time (s)		5.0			5.0			5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		429			466			481		655	894	
v/s Ratio Prot										0.05	c0.17	
v/s Ratio Perm		0.09			c0.13			0.06		0.10		
v/c Ratio		0.34			0.50			0.22		0.30	0.33	
Uniform Delay, d1		14.0			14.7			13.5		6.8	6.9	
Progression Factor	en balle haartaest e wit aanset	1.00			1.00			1.00		1.00	1.00	
Incremental Delay, d2		0.5			0.8			0.2		0.3	0.2	
Delay (s)	en de la compañía de la compañía	14.5		nauraur erendus und a	15.5			13.7		7.0	7.1	
Level of Service		В			В			В		A	A	
Approach Delay (s)		14.5			15.5	ant strategie stategie an an an an tha an an an an an an an an an an an an an	13.7			7.1		
Approach LOS		B			В			В			A	
Intersection Summary												
HCM Average Control D	elay		11.3	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio	an an an an an an Shaan (mhiline)	0.36		e en en en en en en en en en en en en en		andread an Angeley (1996)	an na shekara na shekara shekara shekara shekara shekara shekara shekara shekara shekara shekara shekara sheka				n vorder Meridia
Actuated Cycle Length (:	s)		47.3	S	um of lo	ost time	(s)		8.0			
Intersection Capacity Uti	lization	<u>د</u>	12.4%	IC	CU Leve	l of Ser	vice		Α			
Analysis Period (min)			15									

		$\mathbf{i}$	1		1	1	
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	¥	7	ኻ	*	٢	7	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	*****
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	1.00	0.85	
Fit Protected	1.00	1.00	0.95	1.00	0.95	1.00	
Satd. Flow (prot)	1863	1583	1770	1863	1770	1583	
Fit Permitted	1.00	1.00	0.95	1.00	0.95	1.00	
Satd. Flow (perm)	1863	1583	1770	1863	1770	1583	
Volume (vph)	160	350	540	85	165	310	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	
Adj. Flow (vph)	178	389	600	94	183	344	
RTOR Reduction (vph)	0	196	0	0	0	76	
Lane Group Flow (vph)	178	193	600	94	183	268	9 10 10 3
Turn Type	l	pm+ov	Prot		(	custom	
Protected Phases	4	2	3	8	2	23	
Permitted Phases		4				2	
Actuated Green, G (s)	17.8	69.5	59.3	82.1	51.7	116.0	
Effective Green, g (s)	18.8	71.5	60.3	83.1	52.7	117.0	
Actuated g/C Ratio	0.13	0.48	0.40	0.55	0.35	0.78	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0		an substantia and st
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	233	755	712	1032	622	1235	
v/s Ratio Prot	c0.10	0.09	c0.34	0.05	c0.10	0.17	
v/s Ratio Perm		0.03					
v/c Ratio	0.76	0.26	0.84	0.09	0.29	0.22	
Uniform Delay, d1	63.5	23.4	40.6	15.7	35.2	4.4	
Progression Factor	1.00	1.00	0.24	0.06	0.97	5.33	
Incremental Delay, d2	13.8	0.2	5.3	0.0	1.1	0.1	
Delay (s)	77.3	23.6	15.0	1.0	35.1	23.4	
Level of Service	E	С	В	Α	D	С	
Approach Delay (s)	40.4			13.1	27.5		
Approach LOS	D			В	С		
Intersection Summary							
HCM Average Control D	elay		26.0	-	ICM Lev	el of Service	}
HCM Volume to Capacit	y ratio		0.61				
Actuated Cycle Length (	5)		150.0	S	um of lo	ost time (s)	
Intersection Capacity Uti	lization		58.3%	<b>I</b> (	CU Leve	el of Service	
Analysis Period (min)			15				
c Critical Lane Group							
## HCM Signalized Intersection Capacity Analysis 30: Sears Lane & Southern Connector

	≯		$\mathbf{r}$	-	-	×.	1	<b>†</b>	1	-	Ļ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<i>.</i> ‡,			ф.		ኻ	<b>L</b>		ሻ	î,	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	,, (	4.0			4.0		4.0	4.0		4.0	4.0	e orde of a most of edge
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.88		,, ,	0.97		1.00	0.98		1.00	1.00	and a merily representation
Flt Protected		0.99			0.97		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1630		·····	1760		1770	1833		1770	1860	
Flt Permitted		0.97			0.47		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1591			843	ene for a new partie a radio	1770	1833		1770	1860	0 min 2 min 10 min 2 min
Volume (vph)	10	0	80	30	10	10	5	455	55	15	865	10
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	11	0	89	- 33	11	11	6	506	61	17	961	11
RTOR Reduction (vph)	0	82	0	0	6	0	0	2	0	0	0	0
Lane Group Flow (vph)	0	18	0	0	49	0	6	565	0	17	972	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		ana ana ang mga ang mga ang m						
Actuated Green, G (s)		11.4			11.4		1.6	114.2		3.2	115.8	
Effective Green, g (s)		12.4			12.4		2.6	115.2		4.2	116.8	
Actuated g/C Ratio		0.08			0.08		0.02	0.77		0.03	0,78	
Clearance Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		132			70		31	1408	*****************************	50	1448	
v/s Ratio Prot							0.00	0.31		c0.01	c0.52	
v/s Ratio Perm		0.01	,	1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 -	c0.06			1000-000-000-0000-0000-0000-000-000-000		ang mang pang mang mang mang mang mang mang mang m	- 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 199 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999	- berdenstelsesterkends
v/c Ratio		0.14			0.69		0.19	0.40		0.34	0.67	
Uniform Delay, d1		63.8			67.0		72.7	5.8		71.5	7.7	
Progression Factor		1.00			1.04		0.94	0.66		1.14	0.53	
Incremental Delay, d2		0.5			24.1		2.6	0.7		3.0	1.9	
Delay (s)		64.3			93.9		70.7	4.6		84.3	6.0	
Level of Service		E			F		E	Α		F	А	
Approach Delay (s)		64.3			93.9			5.3			7.3	
Approach LOS		E			F			A			Α	
Intersection Summary												
HCM Average Control D	elay		12.7	Н	ICM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.65									
Actuated Cycle Length (	s)		150.0	S	um of lo	st time	(s)		14.2			
Intersection Capacity Ut	ilization	(	52.3%	K	CU Leve	l of Serv	/ice		В			
Analysis Period (min)			15									
c Critical Lane Group												

## HCM Signalized Intersection Capacity Analysis 31: Flynn Avenue & Southern Connector

	٨		$\mathbf{i}$	1		×	1	Ť	/*	\$	Ť	-
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4		۴	4		ሻ	4	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.96			0.99		1.00	1.00		1.00	0.99	
Fit Protected		0.98			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1767			1819		1770	1859		1770	1847	
Flt Permitted		0.71			0.83		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1281		· · · · · · · · · · · · · · · · · · ·	1531		1770	1859		1770	1847	
Volume (vph)	110	130	85	25	100	15	80	390	5	10	910	55
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	122	144	94	28	111	17	89	433	6	11	1011	61
RTOR Reduction (vph)	0	9	0	0	3	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	351	0	0	153	0	89	439	0	11	1071	0
Turn Type	Perm	no energial e en deber		Perm	e da uzbula e bela de estas		Prot			Prot		to the state of the state of the
Protected Phases		4	60-50-690-69		8		5	2		<b>1</b>	6	
Permitted Phases	4		u la sector de la composition de la composition de la composition de la composition de la composition de la com	8							a tati tati a sa sa sa	an an airte an tar than a
Actuated Green, G (s)		32.0			32.0		12.1	93.6		3.2	84.7	
Effective Green, g (s)		33.0			33.0		13.1	94.6	un municipation a disease a	4.2	85.7	
Actuated g/C Ratio		0.22			0.22		0.09	0.63		0.03	0.57	
Clearance Time (s)	i Alexandra de Servicio de Servicio de Servicio de Servicio de Servicio de Servicio de Servicio de Servicio de	5.0	and states and an and a state		5.0	544 (254 255 254 267	5.0	5.0	Seddegdd Genederlau	5.0	5.0	strofe materials is
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		282			337		155	1172		50	1055	
v/s Ratio Prot							c0.05	0.24		0.01	c0.58	
v/s Ratio Perm		c0.27	والمعادية والمعارفة والمعارفة	unang salah sangan sar	0.10		a a san san sa san san san san san sa	ut part stars and subscription	-17.5 Mar 1 - 1 - 1 1		an an an an an an an an an an an an an a	
v/c Ratio		1.25			0.45		0.57	0.37		0.22	1.01	
Uniform Delay, d1	an tha an tha tha tha tha tha tha tha tha tha tha	58.5	New Merid With the State	er weitigt das state Aven die bes	50.7	ana mangana sa sa sa sa	65.8	13.4		71.3	32.1	
Progression Factor		1.00			1.00		1.03	1.20		1.21	0.48	
Incremental Delay, d2		136.9	Qarit Argo (ani togʻa sita).		1.0		4.6	0.8	an in the second second second second second second second second second second second second second second se	1.7	28.2	04-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-
Delay (s)		195.4			51.7		72.4	16.8		88.2	43.7	
Level of Service	ninganagangang	۳ د معدد	usaana kataa kata	inana da varia da s	D	elander kontre ander der	E andaridania	В	ganging nigalaaninga	H Saasaasaasa	D	ang ang ang ang ang ang ang ang ang ang
Approach Delay (s)		195.4			51./			26.2			44.1	
Approach LOS		F			D			С			D	
Intersection Summary												
HCM Average Control D	elay		65.8	H	ICM Lev	el of Se	rvice		E			
HCM Volume to Capacit	y ratio		1.03									
Actuated Cycle Length (	s)	interiore entre of the	150.0	S	um of lo	ost time	(s)	naturationaria for even e f	18.2			
Intersection Capacity Uti	lization		92.7%	10	CU Leve	el of Sen	/ice		F			
Analysis Period (min)			15			e anticipation de la comp	ana ana ao amin'	و بې مېرو د د	an an an an an an an an an an an an an a			
c Critical Lane Group												

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## HCM Signalized Intersection Capacity Analysis 27: Home Avenue & Southern Connector

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		र्स	۴		44		٣	4		۲	4	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00		1.00	1.00		1.00	1.00	
Frt		1.00	0.85		1.00		1.00	0.97		1.00	0.99	
Fit Protected		0.96	1.00		0.97		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1791	1583		1797		1770	1813		1770	1848	
Fit Permitted		0.68	1.00		0.57		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1258	1583		1065		1770	1813		1770	1848	
Volume (vph)	80	20	130	95	50	5	105	395	85	5	965	55
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	89	22	144	106	56	6	117	439	94	6	1072	61
RTOR Reduction (vph)	0	0	119	0	1	0	0	3	0	0	1	0
Lane Group Flow (vph)	0	111	25	0	167	0	117	530	0	6	1132	0
Turn Type	Perm		Perm	Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8								
Actuated Green, G (s)		19.0	19.0		19.0		14.1	108.2		1.6	95.7	
Effective Green, g (s)		20.0	20.0		20.0		15.1	109.2		2.6	96.7	
Actuated g/C Ratio		0.13	0.13		0.13		0.10	0.73		0.02	0.64	
Clearance Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		168	211		142		178	1320		31	1191	
v/s Ratio Prot							c0.07	0.29		0.00	c0.61	
v/s Ratio Perm		0.09	0.02		c0.16							
v/c Ratio		0.66	0.12		1.18		0.66	0.40		0.19	0.95	
Uniform Delay, d1		61.8	57.2		65.0		65.0	7.8		72.7	24.5	
Progression Factor		1.00	1.00		1.00		1.00	1.00		1,11	0.19	
Incremental Delay, d2	والمتعادية والمتعادية والمتعادين	9.4	0.3		130.9		8.5	0.9		0.7	5.3	
Delay (s)		71,1	57.5		195.9	878 D 88	73.4	8.8		81.0	9.9	
Level of Service		E	E		F		E	A	e and an example of the factor of the	F	Α	a ta wa ata a ata a
Approach Delay (s)		63.4			195.9			20.4			10.3	
Approach LOS		E			F			С			В	
Intersection Summary												
HCM Average Control D	elay		33.5	Н	CM Lev	el of Se	rvice		С			
HCM Volume to Capacit	y ratio		0.95									
Actuated Cycle Length (s	S)		150.0	S	um of lo	ost time	(s)		18.2			
Intersection Capacity Uti	lization		85.6%	10	CU Leve	l of Sen	/ice		E			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			¢‡,			4			4	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	130	200	50	160	30	35	290	25	30	290	10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	144	222	56	178	33	39	322	28	33	322	11
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	372	267	389	367								
Volume Left (vph)	6	56	39	33								
Volume Right (vph)	222	33	28	11				d na saisai a saisi)	ana ang kang manakan ng Kang i			2000 2000 2000 2000 2000 2000 2000 200
Hadj (s)	-0.32	0.00	0.01	0.03								
Departure Headway (s)	7.7	8.4	7.9	8.0				1997), Arthor (1997)				verseense ook
Degree Utilization, x	0.80	0.62	0.85	0.81								
Capacity (veh/h)	440	376	440	427					ilen politikasi kaotin pr	rrendenegnje exteničkih		
Control Delay (s)	34.6	24.4	41.8	37.4	u tok nepulasi iz U Kibu Skološi i							
Approach Delay (s)	34.6	24.4	41.8	37.4	-9 19 19 19 19 19 19 19 19 19 19 19 19 19		1-2121251124124124124124		ang na ng ng nangang ng na ng pa			10000000000000
Approach LOS	D	С	E	E								
Intersection Summary												
Delay			35.4									
HCM Level of Service			E	an an an an an an an an an an an an an a			(		ta na fereje je postana polo	estettion (n (nationale (n	ta paga-bag-bag-bag-bag-bag-bag-bag-bag-bag-	anderspillinger sins fast
Intersection Capacity Uti	lization		67.7%	ĸ	CU Leve	l of Ser	vice		C			
Analysis Period (min)	n ti na tata ta di	an natabutat natab	15		eren de la companya de la Califia. La companya de la com	an gargananga, <del>K</del> abu	an an the state of the state of the state of the state of the state of the state of the state of the state of t	ana ang sang sang sang sang sang sang sa	engelann inge <del>r</del> yklasia	a geliginiste debi	and descent de la dela de la	AND AND AND AND AND AND AND AND AND AND
				Gebeure	àna sainte			ada Néw Succ			niki distriktore	la senara na s

	٦		$\mathbf{i}$	1		•		Ť	1	\$	↓	-
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4	*******		¢.	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	10	145	245	80	85	90	360	245	60	55	475	10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	11	161	272	89	94	100	400	272	67	61	528	11
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	444	283	739	600								
Volume Left (vph)	11	89	400	61								
Volume Right (vph)	272	100	67	11								
Hadj (s)	-0.33	-0.12	0.09	0.04								
Departure Headway (s)	8.6	9.4	9.0	8.9								
Degree Utilization, x	1.06	0.74	1.85	1.49					- S - S - S - S			
Capacity (veh/h)	426	375	406	415								
Control Delay (s)	90.1	35.3	411.3	257.5								
Approach Delay (s)	90.1	35.3	411.3	257.5								
Approach LOS	F	E	F	F								
Intersection Summary												
Delay			246.1									
HCM Level of Service			F									
Intersection Capacity Uti	lization	1	16.1%	I(	CU Leve	l of Ser	vice		Н			
Analysis Period (min)			15									
										80,000,000,000,000,000,000,000,000,000,	genetigen son son son	Market and the

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			44			¢.,			<del>(</del> ‡,	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	70	10	10	105	90	5	20	15	125	45	10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	78	11	11	117	100	6	22	17	139	50	11
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	94	228	44	200								
Volume Left (vph)	6	11	6	139								
Volume Right (vph)	11	100	17	11								
Hadj (s)	-0.02	-0.22	-0.17	0.14								
Departure Headway (s)	4.8	4.4	4.8	4.9								
Degree Utilization, x	0.13	0.28	0.06	0.27								
Capacity (veh/h)	699	767	687	695								
Control Delay (s)	8.5	9.1	8.1	9.6	n ugʻalgal algali Andor Sgrangal							
Approach Delay (s)	8.5	9.1	8.1	9.6								
Approach LOS	A	Α	Α	A								
Intersection Summary												
Delay			9.1									
HCM Level of Service			Α									
Intersection Capacity Uti	lization		37.5%	(	CU Leve	el of Ser	vice		Α			
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		ф»			ф			44			44	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	10	5	20	25	5	30	15	720	45	50	1065	10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	11	6	22	28	6	33	17	800	50	56	1183	11
Pedestrians	en es répresenten durce		ganene enger		anter descriptions	ta la constante de la constante de la constante de la constante de la constante de la constante de la constant	Ang an an an an an an an an an an an an an					n specific contractor
Lane Width (ft)												
Walking Speed (ft/s)			aa iyaa waxaa ku	van Autor Aliza Ali		ja ja se sta se se se se se se se se se se se se se	underler (dettilt delska	o bel en statutete	n Alexandra		an da an an an an an an an an an an an an an	halahaterikan
Percerit Diockage					yaalay yaalada		Serie (dec)					
Median tune		None			None							
Median storage veh)		110116			INVIIG							
Upstream signal (ft)					in the sector (							
pX. platoon unblocked	en an an an an an an an an an an an an an	ele reliere terlige	aga dan daga katal.	nanistania pasings					er sep especiele			
vC, conflicting volume	2194	2183	1189	2183	2164	825	1194		loh gesi siya joh bari	850		aninialanizan (25) Galatin Galatin
vC1, stage 1 conf vol		en a su desta de esta	*****			-100000	naeuro con con con	a de la de la de la de la de la de la de la de la de la de la de la de la de la de la de la de la de la de la d La de la d	ere a construction e angle e p	an constant and	an de ser de la compañía de la compañía de la compañía de la compañía de la compañía de la compañía de la comp	an an an an an an an an an an an an an a
vC2, stage 2 conf vol							8 (S 6) 2					
vCu, unblocked vol	2194	2183	1189	2183	2164	825	1194			850		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)	ana ang ang ang ang ang ang ang ang ang	en ste ken sin en anter stade se ken				de el compositor de la compositor de la compositor de la compositor de la compositor de la compositor de la com				Server and a big radia server at an		
t⊢ (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue tree %	55	87	90	0	87	91	97			93	philip in Lyick (M. Consti	ander ander
civi capacity (ven/n)	- 25	41	229	25	43	3/2	584			/88		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	39	67	867	1250								
Volume Lett	11	28	17	56	sestation de la							
	22	- 33 F0	50	700		861-9494						
Volume to Canacitu	0 60	UC NCF	004 0 02	100				i di Alexandra da Alexanda				<u>alatelojone</u>
Oueue Length 95th (ft)	0.00 71	1.54	0.00 2	10.0 6								9439,039.03
Control Delay (s)	153.3	376.5	nõ	27								
Lane LOS	100.0	<b>0.0.0</b> F	0.0 A	A						Seider Steam	nie werden die die die die die die die die die die	
Approach Delav (s)	153.3	376.5	0.9	2.7								
Approach LOS	F	F			n Riymor (na 199					en an an an an an an an an an an an an an		
Intersection Summary												
Average Delay			15.8									
Intersection Capacity Ut	ilization		95.0%		CU Leve	l of Sen	/ice		- <b>F</b>			
Analysis Period (min)			15									

	1	×	t	1	\$	Ļ	
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	¥		4			র্ন	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Volume (veh/h)	45	40	705	30	60	1065	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vph)	50	44	783	33	67	1183	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)	anter anter anter anter	La seleció masserio da	taratan karatan karata		and and the state of the		
Percent Blockage							
Right turn flare (veh)		superior States and	ha da ta ang kanada		n kan katalogi ta kata kata	dirkaidenn tarais	
Median type	None						
Median storage ven)				Ned altern to data la ju	(dagada) kayaka sara		
Upstream signal (tt)		A AA	611		- <u></u>		
px, platoon unblocked	0.88	0.88		analezan kebisen	0.88		Milita bir högelninkligtelsker höger hann var klassa en den som stører på ser ser ser som som som som som som s
vC, conflicting volume	2117	800	in nin sa sa		817		
vC1, stage 1 cont vol							
VC2, stage 2 com vor	0060	770			700		
tC aincle (a)	2200 C A	//3			192		
$tC_{2}$ strang (s)	0.4	0.2			4.1		
(C, 2 Sidye (S) (F (a)	26	22			<b>_</b>		
n (o)	0.0 0	9.0 87			<u>ح.ح</u> 01		
cM canacity (veh/h)	26	251			790	Million Marias de	
Direction, Lane #	WB 1	NB 1	<u>SB1</u>				
Volume I otal	94	817	1250				
Volume Left	50	0	67		adentationes		
Volume Hight	44	33	0				
	62 • • • •	1700	730	un an an an an an an an an an an an an an	y alawaka waa na	SACHAR BARA	
Volume to Capacity	1.50	0.48	0.09				
Queue Lengin 95in (II)	208	0	8	Sanaa ay ahaa	NIERRONANNE GANK	un sie waar de	
Control Delay (s)	414.2	U.U	J.D				
Lane LOS Approach Delau /o)	г 444 л	<u> </u>	A				
Approach LOS	414.Z	0.0	o.o				
Appidacii LOS	F		11955 Y 12-00 17 12 17 17 17 17 17 17 17 17 17 17 17 17 17	-	- 1		
Intersection Summary							
Average Delay			20.1				
Intersection Capacity UI	unzation		13.2%	IC	U Leve	l of Serv	nce H
Analysis Period (min)			15 		(doliginarida)		

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	1	•	t	1	<b>\</b>	Ļ		
Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations	¥		4Î			4		
Sign Control	Stop		Free			Free		
Grade	0%		0%			0%		
Volume (veh/h)	30	50	305	20	45	480		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90		
Hourly flow rate (vph)	33	56	339	22	50	533		
Pedestrians	le ingi da ja andala	da mid analang mid						
Lane wigin (ft)								
Percent Blockage					a in in a said			
Right turn flare (yeh)								
Median type	None							
Median storage veh)								
Upstream signal (ft)						667		
pX, platoon unblocked	0.78	kana kana kana kana kana kana kana kana		n og en sen sen sen sen sen sen sen sen sen	an dan saya saya saya saya		a na se na se na se na se na se na se na se na se na se na se na se na se na se na se na se na se na se na se Na se na s	
vC, conflicting volume	983	350			361			
vC1, stage 1 conf vol								
vC2, stage 2 conf vol								
vCu, unblocked vol	979	350			361		·	
tC, single (s)	6.4	6.2	6) (dal 196) (dj.		4.1			
tC, 2 stage (s)	~ ~		inininiikiinin	an an the state of the state of the				an sealan series series dan sakan sina sina sina s
IF (S)	0.D	3.3 00			2.2			
old consoity (yob/b)	04 200	92			4400			
	203	090			1130			
Direction, Lane #	WB 1	NB 1	SB 1					
Volume Loft	89	301	583					
Volume Bight		0	0C					
cSH	370	1700	1108					
Volume to Capacity	0.24	0.21	0.04					
Queue Length 95th (ft)	23	0	3	055002020200	Nika per prisa bo			
Control Delay (s)	17.8	0.0	1.2					
Lane LOS	С		Α	parana ang pangkasi ba	a ang salang sana sa sing s		- en en en en en en en en en en en en en	
Approach Delay (s)	17.8	0.0	1.2	8.00.00.8				
Approach LOS	С							
Intersection Summary								
Average Delay			2.2					
Intersection Capacity Ut	ilization		59.8%	IC	U Level	of Service	В	
Analysis Period (min)			15			an an an an an an an an an an an an an a		

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	٭	$\mathbf{i}$	1	t	Ļ	1
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	¥			ৰ	4	
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	50	15	10	250	465	40
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	56	17	11	278	517	44
Pedestrians		وديرود بشيب ورواري				
Lane Width (ft)		i Carlo				
Walking Speed (ft/s)	e vehi estava vites	a besta a la constance de la constanción de la constanción de la constanción de la constanción de la constanció			s di kana sa kana	
Percent Blockage						
Right turn flare (ven)	A1					
Median type	none					
Unetroom cional (ft)		Neise die kantere		1000	nen	
nX nistoon unblocked	ሰ	0.91	0.91	1009	909	
VC conflicting volume	930	520	561			
vC1_stage 1 conf vol			991			
vC2, stage 2 conf vol				S-740-14030-03		
vCu, unblocked vol	800	428	456			
tC, sinale (s)	6.4	6.2	4.1			
tC, 2 stage (s)			d en oord hid fooren.	1996 (NOS NON-VINS)		vergened menommenoefisiele die een die de bestele op een de vierdeel verscheren warmen fersoemskel nadde afwerb
tF (s)	3.5	3.3	2.2			
p0 queue free %	80	97	99			n ann an ann an Ann taol 121 a' 21 a' 21 ann 12 a' 21 ann 12 ann 12 ann 20 ann 20 ann ann ann ann an 2012 an 12
cM capacity (veh/h)	282	505	891			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	72	289	561			
Volume Left	56	11	0			
Volume Right	17	0	44			
cSH	314	891	1700			
Volume to Capacity	0.23	0.01	0.33			
Queue Length 95th (ft)	22	1	0			
Control Delay (s)	19.9	0.5	0.0			
Lane LOS	С	Α	adarah da <u>b</u> ara <u>ada</u> haran	an an an an an an an an an an an an an a	ni santa si sutumber.	
Approach Delay (s)	19.9	0.5	0.0	0.69.89.99		
Approach LOS	С					
Intersection Summary						
Average Delay			1.7			······
Intersection Capacity Ut	ilization		37.3%	IC	U Leve	al of Service A
Analysis Period (min)		a (med a Agendami Gara	15		en e constante e constante e constante e constante e constante e constante e constante e constante e constante	
<ul> <li>- A provide the second state of the se second state of the second state</li></ul>		ay community of the second second second second second second second second second second second second second				



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	*	ţ,		۲	ţ,			44			đ.	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	12	11	11	14	14	14	11	11	11
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.99		1.00	0.99			1.00			0.98	
Fit Protected	0.95	1.00		0.95	1.00			0.99			0.99	
Satd. Flow (prot)	1711	1840		1770	1784			1961	ziologi obio/coolo Sector Cooline		1761	
Flt Permitted	0.25	1.00		0.33	1.00			0.90			0.94	
Satd. Flow (perm)	457	1840		619	1784			1780			1668	
Volume (vph)	60	390	35	60	465	30	50	235	10	35	245	40
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	67	433	39	67	517	33	56	261	11	39	272	44
RTOR Reduction (vph)	0	4	0	0	3	0	0	1	0	0	5	0
Lane Group Flow (vph)	67	468	0	67	547	0	0	327	0	0	350	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	20.9	20.9		20.9	20.9			17.5			17.5	
Effective Green, g (s)	21.9	21.9		21.9	21.9			18.5			18.5	
Actuated g/C Ratio	0.41	0.41		0.41	0.41			0.35			0.35	
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Vehicle Extension (s)	3.0	3.0	-	3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	188	757		255	734			619	8 19 19 19		580	
v/s Ratio Prot		0.25			c0.31	· · · · · · · · · ·						
v/s Ratio Perm	0.15			0.11			odunio visuot Istante est	0.18			c0.21	
v/c Ratio	0.36	0.62		0.26	0.75			0.53			0.60	
Uniform Delay, d1	10.8	12.3	941674	10.3	13.3	913 415		13.9			14.3	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	1.2	1,5		0.6	4,1			0.8			1.8	
Delay (s)	12.0	13.9		10.9	17.4			14.7			16.1	
Level of Service	В	В		В	В			В			В	
Approach Delay (s)		13.6			16.7			14.7			16.1	
Approach LOS		В			В			B			В	
Intersection Summary												
HCM Average Control D	elay		15.3	H	ICM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.61									
Actuated Cycle Length (	s)		53.2	S	um of lo	st time	(s)		8.0			
Intersection Capacity Uti	lization	(	57.3%	IC	CU Leve	l of Serv	/ice		С			
Analysis Period (min)			15									

## HCM Signalized Intersection Capacity Analysis 2: Main Street & South Union St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	٣	4			t.		۲,	î.				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	10	10	16	16	16	10	11	11	12	12	12
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0				
Lane Util. Factor	1.00	1.00		,	1.00		1.00	1.00			1 1. Jan	
Frt	1.00	1.00			0.99		1.00	0.99				
Flt Protected	0.95	1.00			1.00		0.95	1.00	engle en ender en gen gen werd	lay in the second of the	(or entry of or entry of a	
Satd. Flow (prot)	1888	1739			1881		1652	1780				
Flt Permitted	0.25	1.00	a na sa sangan na sa sa sa		1.00		0.95	1.00			ala na si na si na si na si na si na si na si na si na si na si na si na si na si na si na si na si na si na s	en el constructo de constru
Satd. Flow (perm)	498	1739			1881		1652	1780				
Volume (vph)	40	470	0	0	505	40	65	305	25	0	0	0
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	44	522	0	0	561	44	72	339	28	0	0	0
RTOR Reduction (vph)	0	0	0	0	4	0	0	3	0	0	Ō	Ō
Lane Group Flow (vph)	44	522	0	0	601	0	72	364	0	0	0	0
Parking (#/hr)				0	0	0						
Turn Type	Perm						Perm					
Protected Phases		2			6			8				
Permitted Phases	2			all instant introduce		-940 (North Ann 20) (N 7064);	8	1999-1999-1 <del>7</del> 99-1		1999 - 1903 - 1999 - 1999 - 1999		
Actuated Green, G (s)	21.5	21.5			21.5		15.4	15.4		edisêr çel keşe Serve velek ere		
Effective Green, g (s)	22.5	22.5			22.5		16.4	16.4	*****	1999-1993 - 1999 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -	Selecter 240 Artistica e a di	AGGENERART
Actuated q/C Ratio	0.46	0.46			0.46		0.33	0.33		94446		
Clearance Time (s)	5.0	5.0	na na Santanan Addition ni h	*********************	5.0	and the state of the state of the	5.0	5.0	an an an an Anna an Anna an Anna. An an Anna an Anna an Anna an Anna an Anna an Anna an Anna an Anna an Anna an	n an an Anna an Anna Anna Anna Anna Ann		Antalas televases
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0				
Lane Grp Cap (vph)	227	794			858		550	592				
v/s Ratio Prot		0.30			c0.32			c0.20				
v/s Ratio Perm	0.09		ala dependente de la composition.	10000(10010000000000000000000000000000	n de la série é serie de la série de la	909 ministration (Ministration) 909 ministration (Ministration)	0.04					ki da da da da da da da da da da da da da
v/c Ratio	0.19	0.66			0.70		0.13	0.62				
Uniform Delay, d1	8.0	10.4	al former and standard and	nin jaan taabaan na karajar	10.7	a paga mga sa mga sa sa sa sa sa sa sa sa sa sa sa sa sa	11.5	13.8		1999 (Production of the Production of t	ana da se segura se se	enelan az enter
Progression Factor	1.00	1.00			1.00		1.00	1.00				
Incremental Delay, d2	0.4	2.0		endre staften friftender o	2.6		0.1	1.9		-1999 (1999) 1993 (1994) 1993 (1994)		
Delay (s)	8.4	12.4			13.3		11.6	15.7	ekologi kasologi () Kasologi ()			
Level of Service	Α	В	,	4.000.000.000.000	В	1966-1999 - Constraint (Constraint)	В	В		na na manaza é semé n		nijelo (na poslata
Approach Delay (s)		12.1			13.3			15.0			0.0	
Approach LOS		В		al e que para una arriga (a duran	В		alione and the second state	В	( - C) - ( - C) - C) - C) - C) - C)	14207-00-00-00-00-00-00-00-00-00-00-00-00-0	Α	a trode de la com
Intersection Summary												
HCM Average Control De	elay		13.3	H	CM Lev	el of Se	rvice		В			
HCM Volume to Capacity	/ ratio		0.63									
Actuated Cycle Length (s	5)	en an de service de la compañía de la compañía de la compañía de la compañía de la compañía de la compañía de l	49.3	Su	um of lo	st time (	(S)	- en des a verte fractione	8.0	en en en en en en en en en en en en en e		yayan da kata kata kata kata kata kata kata k
Intersection Capacity Util	lization	6	57.5%	IC	U Leve	l of Serv	ice		В			
Analysis Period (min)		an an an an an an Arthress (an Arth	15		, and the second state of the Pro-	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~						
c Critical Lane Group												

#### HCM Signalized Intersection Capacity Analysis 3: Main Street & South Winooski Ave

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	1.		٢	<b>†</b>	7		4.		٢	*	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	11	11	12	12	12	10	10	12
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0		4.0	idalar (ardada) Zashi ya kutata	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	ter ter ter ter ter ter ter ter ter ter	1.00		1.00	1.00	1.00
Frt	1.00	0.98		1.00	1.00	0.85		0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00		1.00		0.95	1.00	1.00
Satd. Flow (prot)	1540	1648		1711	1801	1531		1616		1652	1739	1583
Flt Permitted	0.41	1.00		0.46	1.00	1.00		0.37		0.72	1.00	1.00
Satd. Flow (perm)	671	1648		833	1801	1531		605		1246	1739	1583
Volume (vph)	115	275	35	70	350	160	5	70	25	225	315	85
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	128	306	39	78	389	178	6	78	28	250	350	94
RTOR Reduction (vph)	0	5	0	0	0	106	0	12	0	0	0	61
Lane Group Flow (vph)	128	340	0	78	389	72	0	100	0	250	350	33
Parking (#/hr)	0	0	0				0	0	0			
Turn Type	Perm		ing and the second second second second second second second second second second second second second second s	Perm		Perm	Perm			pm+pt		Perm
Protected Phases		2			6			8		7	4	
Permitted Phases	2	a - Antibiotra ann an t-1		6		6	8	94,43,894,494,497,997,999,99	1999-1999 - 1999 - 1999 - 1999 - 1999 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999	4 4	eri da da este este este este este este este est	4
Actuated Green, G (s)	21.3	21.3		21.0	21.0	21.0		5.5		18.1	18.1	18.1
Effective Green, q (s)	22.3	22.3		22.0	22.0	22.0		6.5	e Alder Miller	19.1	19.1	19.1
Actuated g/C Ratio	0.41	0.41		0.40	0.40	0.40		0.12		0.35	0.35	0.35
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0		5.0	nin te Antoriotic	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3,0		3.0	3.0	3.0		3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	275	676		337	728	619		72		502	611	556
v/s Ratio Prot		0.21			c0.22					0.08	c0.20	
v/s Ratio Perm	0.19			0.09	a n' na serie anna a' san dan da san 0.05	a yang yang di kang di Kang di kang di	c0.16	aan iste ja ja ja ja ja ja ja ja ja ja ja ja ja	0.10		0.02	
v/c Ratio	0.47	0.50		0.23	0.53	0.12		1.38		0.50	0.57	0.06
Uniform Delay, d1	11.7	11.9		10.6	12.3	10.1		23.9	arbari bra'na randara	15.5	14.3	11.7
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00
Incremental Delay, d2	1.2	0.6		0.4	0.8	0.1		238.3	-1	0.8	1.3	0.0
Delay (s)	13.0	12.5		11.0	13,1	10.2		262.3		16.3	15.6	11.7
Level of Service	В	В		В	В	В	1999 - 1999 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -	F		В	В	В
Approach Delay (s)		12.6			12.0			262.3			15.3	
Approach LOS		В			В			F	na tan'ny tanàna mandritry dia kaominina.	anan an	nd oo beloof sood of the	
Intersection Summary												
HCM Average Control De	elay		27.9	Н	CM Lev	el of Se	rvice		С			
HCM Volume to Capacity	y ratio		0.58									
Actuated Cycle Length (s	6)		54.4	S	um of lo	ost time	(S)		8.0			
Intersection Capacity Util	lization		54.2%	IC	CU Leve	I of Ser	vice		Α			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		ង	7	ሻ	Ŀ.			<u>بار ال</u>	7	7	<u>t.</u>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	12	12	16	12	12	12
Total Lost time (s)		4.0	4.0	4.0	4.0			4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	anna (branna ann an
Frt		1.00	0.85	1.00	0.97			1.00	0.85	1.00	0.99	
Flt Protected		1.00	1.00	0.95	1.00			0.98	1.00	0.95	1.00	
Satd. Flow (prot)		1734	1478	1486	1525			1821	1794	1593	1841	elektrojensej Gradunica – G
Flt Permitted		0.97	1.00	0.50	1.00			0.81	1.00	0.64	1.00	
Satd. Flow (perm)		1687	1478	786	1525			1504	1794	1076	1841	
Volume (vph)	15	280	85	55	315	65	75	90	60	105	115	10
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	311	94	61	350	72	83	100	67	117	128	11
RTOR Reduction (vph)	0	0	38	0	9	0	0	0	37	0	3	0
Lane Group Flow (vph)	0	328	56	61	413	0	0	183	30	117	136	0
Parking (#/hr)				0	0	0	0			0		
Turn Type	Perm		Perm	Perm			Perm		Perm	Perm	******	
Protected Phases		2			6	9		8			4	
Permitted Phases	2		2	6			8		8	4		- (
Actuated Green, G (s)		17.3	17.3	17.3	17.3			12.7	12.7	12.7	12.7	
Effective Green, g (s)		18.3	18.3	18.3	18.3			13.7	13.7	13.7	13.7	
Actuated g/C Ratio		0.41	0.41	0.41	0.41			0.30	0.30	0.30	0.30	
Clearance Time (s)		5.0	5.0	5.0	5.0			5.0	5.0	5.0	5.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0			3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		686	601	320	620			458	546	328	560	
v/s Ratio Prot					c0.27						0.07	
v/s Ratio Perm		0.19	0.04	0.08				c0.12	0.02	0.11		1
v/c Ratio		0.48	0.09	0.19	0.67			0.40	0.06	0.36	0.24	
Uniform Delay, d1		9.8	8.2	8.6	10.9			12.4	11.1	12.2	11.8	
Progression Factor		1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.5	0.1	0.3	2.7			0.6	0.0	0.7	0.2	
Delay (s)		10.4	8.3	8.9	13.6	s s s s		13.0	11,1	12.9	12.0	
Level of Service		В	Α	А	В			В	В	В	В	
Approach Delay (s)		9.9			13.0			12.5			12.4	
Approach LOS		А			В			В			В	
Intersection Summary												
HCM Average Control De	elay		11.9	H	ICM Lev	el of Se	rvice		В			
HCM Volume to Capacity	/ ratio		0.48									
Actuated Cycle Length (s	s)		45.0	S	um of lo	ost time	(s)		8.0			
Intersection Capacity Util	ization		65.0%	K	CU Leve	l of Sen	/ice		C			
Analysis Period (min)			15									
c Critical Lane Group												

Clough, Harbour & Associates, LLP CAP

HCM Signalized Intersection Capacity Analysis 20: Howard Street & South Winooski Ave

	۶		$\mathbf{i}$	4			*	Ť	1	\ <b>\</b>	Ļ	4
Movement	EBL2	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR2	SBL	SBT	SBR
Lane Configurations		4			<del>4</del> 4+			ф <b>.</b>			44	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	14	14	14	12	12	12	16	16	16
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.98			0.99			1.00			0.99	
Flt Protected		0.99			0.98			1.00			1.00	
Satd. Flow (prot)		1808			1926			1851			2094	
Flt Permitted		0.94			0.89			0.98			0.99	
Satd. Flow (perm)		1715			1750			1815			2082	
Volume (vph)	15	45	10	20	30	5	15	305	10	5	275	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	50	11	22	33	6	17	339	11	6	306	17
RTOR Reduction (vph)	0	7	0	0	0	0	0	1	0	0	2	0
Lane Group Flow (vph)	0	71	0	0	61	0	0	366	0	0	327	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		3			3			2			6	
Permitted Phases	3			3			2	2		6	6	
Actuated Green, G (s)		15.0			15.0			30.0			30.0	
Effective Green, g (s)		16.0			16.0			31.0			31.0	
Actuated g/C Ratio	stand and one and the second	0.20	. Santa da ta ta sa ta sa sa	ala sa sa kata shi ka si	0.20	·		0.39			0.39	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Lane Grp Cap (vph)		343			350			703			807	
v/s Ratio Prot												
v/s Ratio Perm		c0.04			0.03			c0.20			0.16	
v/c Ratio		0.21			0.17			0.52			0.40	
Uniform Delay, d1		26.7			26.5			18.8			17.8	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.4	Secondation of the second second		1.1			2.7			1.5	
Delay (s)		28.1			27.6			21.5			19.3	
Level of Service	unerski keskultature teste	С	hadi Aprilah di Sak		C	2004-024-02-02-025-02	te ha barente de stera	С	nit deservations addet b		В	
Approach Delay (s)		28.1			27.6			21.5			19.3	
Approach LOS		С			С			С			В	
Intersection Summary												
HCM Average Control D	elay		30.4	Н	CM Lev	el of Se	rvice		С			
HCM Volume to Capacit	y ratio		0.56									
Actuated Cycle Length (	s)		80.0	S	um of k	ost time	(s)		12.0			
Intersection Capacity Uti	lization		63.3%	IC	CU Leve	el of Sen	/ice		В			
Analysis Period (min)	and the second second		15									
c Critical Lane Group												

	6	¥	*	ŧ٧
Movement	SWL2	SWL	SWR S	SWR2
Lane Configurations	٦	¥		
Ideal Flow (vphpl)	1900	1900	1900	1900
Lane Width	14	14	14	14
Total Lost time (s)	4.0	4.0		indenado Anternado
Lane Util. Factor	1.00	1.00	a a statut sta	
Frt	1.00	0.99		
Flt Protected	0.95	0.95		
Satd. Flow (prot)	1888	1885		
Flt Permitted	0.95	0.95		
Satd. Flow (perm)	1888	1885		
Volume (vph)	15	375	10	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	417	11	6
RTOR Reduction (vph)	0	1	0	0
Lane Group Flow (vph)	17	433	0	0
Turn Type	Split			
Protected Phases	4	4		
Permitted Phases				
Actuated Green, G (s)	20.0	20.0		
Effective Green, g (s)	21.0	21.0		
Actuated g/C Ratio	0.26	0.26		
Clearance Time (s)	5.0	5.0		
Lane Grp Cap (vph)	496	495		
v/s Ratio Prot	0.01	c0.23		
v/s Ratio Perm				
v/c Ratio	0.03	0.88		
Uniform Delay, d1	22.0	28.2		
Progression Factor	1.00	1.00		
Incremental Delay, d2	0.1	19.1		
Delay (s)	22.1	47.3		
Level of Service	С	D		
Approach Delay (s)		46.3		
Approach LOS		D		
Intersection Summary				

## HCM Signalized Intersection Capacity Analysis 23: Flynn Avenue & Shelburne St. (Rt 7)

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4	۲		4	7	۲	朴序		۲	4 <b>1</b> +	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	0.99	
Fit Protected		0.96	1.00		0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1797	1583		1808	1583	1770	3534		1770	3500	
Fit Permitted		0.75	1.00		0.78	1.00	0.18	1.00		0.23	1.00	
Satd. Flow (perm)		1393	1583		1462	1583	332	3534		428	3500	
Volume (vph)	55	20	150	30	20	35	130	1090	10	30	885	70
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	61	22	167	33	22	39	144	1211	11	- 33	983	78
RTOR Reduction (vph)	0	0	144	0	0	34	0	1	0	0	7	0
Lane Group Flow (vph)	0	83	23	0	55	5	144	1221	0	33	1054	0
Turn Type	Perm		Perm	Perm	en en traventa en en en en en en entre	Perm	pm+pt			Perm		t and a to be
Protected Phases		4			8		5	2			6	
Permitted Phases	4		4	8	den stadiotare a sector	8	2			6		
Actuated Green, G (s)		8.2	8.2		8.2	8.2	42.6	42.6		31.8	31.8	
Effective Green, g (s)		8.2	8.2		8.2	8.2	42.6	42.6		31.8	31.8	
Actuated g/C Ratio		0.14	0.14		0.14	0.14	0.72	0.72		0.54	0.54	
Clearance Time (s)	Anala in Grupper Salat	4.0	4.0	nd anna taon tao da an	4.0	4.0	3.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		194	221		204	221	407	2560		231	1893	
v/s Ratio Prot							0.04	c0.35			c0.30	
v/s Ratio Perm	وروانيو المحمد والمحمد	c0.06	0.01	و بر دو و بر و و و و و و و و و و	0.04	0.00	0.22		ta ta ana ana ta waxa a waxaa a	0.08	ter et tradesia de la companya de la companya de la companya de la companya de la companya de la companya de la	an ta an tara ta
v/c Ratio		0.43	0.11		0.27	0.02	0.35	0.48		0.14	0.56	
Uniform Delay, d1	el etactoriada encoloria	23.2	22.1	******	22.6	21.8	4.2	3.4	والمترجع والمترجع المرازة المتر	6.7	8.9	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	anian in than	1.5	0.2		0.7	0.0	0.5	0.1		0.3	0.4	el baller til en sånde
Delay (s)		24.7	22.3		23.3	21.9	4./	3.6		7.0	9.2	
Level of Service	jagog ski klivak	C	C	See all see all see all see all see all see all see all see all see all see all see all see all see all see al	C AA T	C	A	A		A	A	viteletin azi
Approach Delay (s)		23.1			22.1			⇒ 3./ •	19 (18 / 17 Sec.)		9.2	
Approach LOS		C			C			A			A	
Intersection Summary												
HCM Average Control D	elay		8.2	Н	CM Lev	el of S	ervice		А			
HCM Volume to Capacit	y ratio		0.54									
Actuated Cycle Length (	s)	ta ka ka ka ka ka ka ka ka ka ka ka ka ka	58.8	S	um of lo	ost time	(s)	n ann aice ann an t-r-r-r	12.0			,
Intersection Capacity Uti	lization		57.9%	10	CU Leve	el of Sei	vice		В			
Analysis Period (min)			15	la stranger på beser for Det sed	en en en angle en ante de der trette	and statute to the second	al al formation a company		n et paparet an et aller			
c Critical Lane Group								0.000				

### HCM Signalized Intersection Capacity Analysis 24: Home Avenue & Shelburne St. (Rt 7)

	۶		$\mathbf{i}$	1	-	×.	1	t	1	1	Ļ	-
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		र्स	7	ሻ	<b>ţ</b>		ኻ	<b>≜</b> †		٢	<u>†</u> 14	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	10	12	16	12	10	10	10	10	10	10
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	0.95		1.00	0.95	
Fnt		1.00	0.85	1.00	0.92		1.00	1.00		1.00	1.00	
Fit Protected		0.97	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1750	1478	1770	1934		1652	3297		1652	3295	
Flt Permitted		0.79	1.00	0.71	1.00		0.21	1.00		0.95	1.00	
Satd. Flow (perm)		1426	1478	1329	1934		370	3297		1652	3295	
Volume (vph)	35	25	155	30	20	25	175	1295	15	40	935	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	39	28	172	33	22	28	194	1439	17	44	1039	17
RTOR Reduction (vph)	0	0	155	0	25	0	0	1	0	0	1	0
Lane Group Flow (vph)	0	67	17	33	25	0	194	1455	0	44	1055	0
Turn Type	Perm		Perm	Perm			om+pt			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2					
Actuated Green, G (s)		6.7	6.7	6.7	6.7		42.0	42.0		3.5	28.5	
Effective Green, g (s)		6.7	6.7	6.7	6.7		43.0	43.0		3.5	29.5	
Actuated g/C Ratio		0.10	0.10	0.10	0.10		0.64	0.64		0.05	0.44	
Clearance Time (s)		4.0	4.0	4.0	4.0		5.0	5.0		4.0	5.0	
Vehicle Extension (s)		1.0	1.0	1.0	1.0		1.5	1.0		1.0	1.0	
Lane Grp Cap (vph)		141	146	132	191		557	2094		85	1436	
v/s Ratio Prot					0.01		0.09	c0.44		0.03	c0.32	
v/s Ratio Perm		c0.05	0.01	0.02			0.13		5 (S. 6918)			
v/c Ratio		0.48	0.12	0.25	0.13	and the second statement for the second	0.35	0.69		0.52	0.73	
Uniform Delay, d1		28.8	27.8	28.2	27.8		11.5	8.1		31.3	15.9	
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.9	0,1	0.4	0.1	ê lêr di şer	1.7	1.9		2.2	3.4	
Delay (s)	W.A.A.A.A.A.A.A.A.A.A.A.A.A.A.A.A.A.A.A	29.8	27.9	28.5	28.0	sana ang ang ang ang ang ang ang ang ang	13.2	10.0	and a second second second second	33.5	19.2	
Level of Service		C	C	C	C		В	A		C	В	
Approach Delay (s)		28.4			28.2		Si izo makaiza	10.4		-5.5.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1	19.8	Walas-de-Stationia
Approach LOS		С			C			В			В	
Intersection Summary												
HCM Average Control D	elay		15.6	H	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.64									
Actuated Cycle Length (	s)		67.7	S	um of lo	ost time (	(S)		8.0			
Intersection Capacity Uti	lization	1	59.5%	IC	CU Leve	I of Serv	/ice		В			
Analysis Period (min)			15									

### HCM Signalized Intersection Capacity Analysis 25: I-189 OFF RAMP & Shelburne St. (Rt 7)

	٦		$\mathbf{i}$	1	←	A.		t	1	1	¥	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				۲	र्भ			<b>∱</b> }			<b>†</b> 14	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	14	12	12	12	12	12	12
Total Lost time (s)				4.0	4.0			4.0			4.0	
Lane Util. Factor				0.95	0.95			0.95			0.95	
Frt				1.00	1.00			1.00			1.00	
Flt Protected				0.95	0.96			1.00			1.00	
Satd. Flow (prot)				1681	1699			3539			3537	
Flt Permitted				0.95	0.96			1.00			1.00	
Satd. Flow (perm)				1681	1699			3539			3537	
Volume (vph)	0	0	0	1455	135	0	0	795	0	0	1430	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	1617	150	0	0	883	0	0	1589	6
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	Ó	0	1	0
Lane Group Flow (vph)	0	0	0	860	907	0	0	883	0	0	1594	0
Turn Type				Perm			Perm					
Protected Phases					8			2			6	
Permitted Phases				8			2			ju je		
Actuated Green, G (s)				28.0	28.0			30.0			30.0	
Effective Green, g (s)				30.0	30.0			32.0			32.0	
Actuated g/C Ratio				0.43	0.43			0.46			0.46	
Clearance Time (s)				6.0	6.0			6.0			6.0	
Vehicle Extension (s)				3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)				720	728			1618			1617	
v/s Ratio Prot								0.25			c0.45	
v/s Ratio Perm				0.51	0.53			na an Na Dhairtean				
v/c Ratio				1.19	1.25			0.55			0.99	
Uniform Delay, d1				20.0	20.0			13.7			18.8	
Progression Factor				1.00	1.00			1.00			1.00	
Incremental Delay, d2				100.8	122.0			0.4			19.0	
Delay (s)				120.8	142.0			14.1			37.7	
Level of Service				F	F			В			D	
Approach Delay (s)		0.0			131.7			14.1			37.7	
Approach LOS		A			F			В			D	
Intersection Summary												
HCM Average Control De	əlay		71.9	F	ICM Lev	el of Se	rvice		Е			
HCM Volume to Capacity	/ ratio		1.11									
Actuated Cycle Length (s	<b>)</b>		70.0	S	Sum of Ic	ost time	(s)		8.0			
Intersection Capacity Util	ization	Ş	90.2%	1	CU Leve	l of Serv	/ice		É		n na ann an threann an an stàit fàr	or of the color famous off
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4.			÷.	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	20	150	70	60	100	20	130	215	50	55	295	25
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	22	167	78	67	111	22	144	239	56	61	328	28
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	267	200	439	417								
Volume Left (vph)	22	67	144	61								
Volume Right (vph)	78	22	56	28							//////////////////////////////////////	en nen nen nen det jagt.
Hadj (s)	-0.12	0.03	0.02	0.02								
Departure Headway (s)	7.4	7.8	6.8	6.9							*****	ner men en
Degree Utilization, x	0.55	0.43	0.83	0.80								
Capacity (veh/h)	432	395	505	499								
Control Delay (s)	19.1	16.7	35.4	31.8			SERVICES ES En services es					
Approach Delay (s)	19.1	16.7	35.4	31.8								n na manana yang di kasi ka
Approach LOS	C	C	E	D								
Intersection Summary												
Delay			28.1									
HCM Level of Service			D									and the second second
Intersection Capacity Uti	lization		73.5%	10	CU Leve	l of Ser	vice		D			
Analysis Period (min)	1999 - 1999 - 1999 - 1999 - 1999 - 1999 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 -		15		سريدي والمراجع ويعارضه	, en la segue destrueren de	2002.0000.0000000000	er of all reader and a be	en an ang ang ang ang ang ang ang ang ang		, en en en en en en en en en en en en en	en en el nomen a filonez
		historia (Second							generales de la secon	<u>Sidebibikin</u> n	elaldan teres	ener het er het het het het het het het het het het

	¥	•	Ť	1	1	Ļ	
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	Y		<del>4</del> 1			ৰ	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Volume (veh/h)	150	5	415	275	5	675	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	· · · · · · · · · · · · · · · · · · ·
Hourly flow rate (vph)	167	6	461	306	6	750	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type	None						
Median storage veh)	ta anti da forma anta anta a			anen estastar real	na many kana ang pagaga	en en de sen d'als agreges est autor a ser	
Upstream signal (ft)						837	
pX, platoon unblocked	0.91						
vC, conflicting volume	1375	614			767		
vC1, stage 1 cont vol	erre takonin (nel Sylan Spins ) de 1			a in the second			
vC2, stage 2 conf vol							
	1412	614	ki ka ka ka ka ka ka ka ka ka ka ka ka ka		/6/		
tC, single (s)	6.4	6.2			4.1		
IC, 2 stage (s)	A E						
IF (S)	0.0 0	3.3			2.2		
p0 queue free %	107	39			99		
civi capacity (veri/ii)	101	492			047		
Direction, Lane #	WB 1	NB 1	SB 1				
Volume Total	172	767	756				
Volume Left	167	0	6			والمرجعة المعرور وارتفق الألف	
Volume Hight	6	306	0			9.1 <i>6</i> .000	
CSH 	141	1/00	847	ananananan anan	velangi nekarat da	con en al ancasta constata	
volume to Capacity	1.22	0.45	0.01				
Queue Length 95th (ft)	256	0	0	sana kanana ka	an an an an an an an an an an an an an a	an chuarachta	
Control Delay (s)	209.7	0.0	0.2				
Lane LUS		~ ~ ~	A				
Approach Delay (s)	209.7	0.0	0.2				
Approach LUS	F						
Intersection Summary							
Average Delay		ana kaominina dia kaominina dia kaominina dia kaominina dia kaominina dia kaominina dia kaominina dia kaominina	21.4			ورور ورور ورور ورور ورور و	
Intersection Capacity Ut	ilization	6 10 10 10 5	64.8%	IC	U Leve	l of Serv	ice A
Analysis Period (min)	anang pangana sara a	an an an an an an an an an an an an an a	15	nant stand as to start			



	٦	-	$\mathbf{i}$	1	<b></b>	×	1	†	1	1	ŧ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			44			ፈቴ			ፈቴ	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	40	0	50	10	0	10	45	1105	5	5	950	35
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	44	0	56	11	0	11	50	1228	6	6	1056	39
Pedestrians			والمتعارية والمتعادية والمتعادية									
Lane Width (ft)												
Walking Speed (ft/s)	s Maasa ana dikis ng	an minerata an Ala	sa na ana ana ana ana ana ana ana ana an	d di madalahini k		da Mandalam Kala	annataeroloileile oli	o ekanisekase eka		na waxaa aa a	salas debite deservas	n an an an an an an an an an an an an an
Percent Blockage						0,						
Hight turn hare (ven)		None			None						i yekasi asala	Hallondan Ma
Median storage veh)		INCHE			INOLIG							
Linstream signal (ft)					e da ciante de la composi Se service de composition			1267				
pX. platoon unblocked						499, 109, 109, 109, 109, 109, 109, 109, 1		1 6-14 1				
vC. conflicting volume	1811	2419	547	1925	2436	617	1094			1233		
vC1, stage 1 conf vol	analogi ( <u>se</u> ntan jaing		a na pangila pangina pang	99,999,999,99 <del>7,999,999,</del> 999,999				enstrumpiges (avi	Antonin (da Kanjina), da su da	999 <del>an 199</del> 99		09999999999999999
vC2, stage 2 conf vol												
vCu, unblocked vol	1811	2419	547	1925	2436	617	1094			1233	, na 1997, e 1997, e 1997, e 1997, e 1997, e 1997, e 1997, e 1997, e 1997, e 1997, e 1997, e 1997, e 1997, e 1	``; ,
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2		2069) 1990 (64 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	2.2		
p0 queue free %	0	100	88	67	100	97	92		ور با می و در در و در میشوند و م	99	*****	a ange tuk net en goe
cM capacity (veh/h)	45	29	481	33	28	433	633			561		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	100	22	664	619	533	567						
Volume Left	44	11	50	0	6	0			Service and the service of the servi			
Volume Right	56	11	0	6	0	39	\$. SA\$14					
cSH	90	62	633	1700	561	1700		hanna bailteachadh an	comer investigation	har he ann h-rae an de	oggegaaten versteret e	an an an an an an an an an an an an an a
Volume to Capacity	1,11	0.36	0.08	0.36	0.01	0.33						
	169	33	6	0	1	0	na an an an an an an an an an an an an a				alashiran salas	www.angingi
Long LOS	213.4 E	93.I	Z.1	U.U	0.3	0.0						
Approach Delay (e)	212 A	02-1	л 14		A A 1							
Approach LOS	<del>- 10.4</del> F	30.1 F			<b>V.</b> I							
	•	1										
Intersection Summary												
Average Delay	2	4	10.0	a an an an an an an an an an an an an an	<b></b>	1 i A A				-	(nyinaya) ay kasini di	
Intersection Capacity Uti	inzation		/5.9%	10	JU Leve	n of Sen	VICe		D			
Analysis Period (min)	arana ana ang ang ang ang ang ang ang ang	on all some all some and some	15	(industrialized)	ele energia de la televida		ana ana ana ana ana ana ana ana ana ana	an an an an an an an an an an an an an a	s ann ann ann an an teo agus			<

Clough, Harbour & Associates, LLP CAP

		$\mathbf{r}$	1	-	1	1		
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations Sign Control Grade	∲ Free 0%			ৰ্ণ Free 0%	۲ Stop 0%			
Volume (veh/h)	155	25	40	170	35	70		Vester Gels Norie Gels
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90		11.11.11.11.11
Hourly flow rate (vph) Pedestrians Lane Width (ft) Walking Speed (ft/s) Percent Blockage	172	28	44	189	39	78		
Right turn flare (veh) Median type Median storage veh) Upstream signal (ft)				331	None			
pX, platoon unblocked vC, conflicting volume vC1, stage 1 conf vol			200		464	186		
VC2, stage 2 cont vol			200		1C 1	106		
tC cinnia (s)			200 // 1		404 6 /	001		dagindej
tC, 2 stage (s)					0.4	0.6		
tF (s)			22		35	22		
p0 queue free %	og Helsen Standerska stander som som som som som som som som som som	eriyinya yasayi jiran	97	Same Same and a state of the second	93	91		Adates (A
cM capacity (veh/h)			1372		538	856		
Direction. Lane #	EB 1	WB 1	NB 1					
Volume Total	200	233	117					
Volume Left	0	44	39	he o hery talloh da	e ordenský tre z skyladženek			(28)34(32)
Volume Right	28	0	78					
cSH	1700	1372	715					
Volume to Capacity	0.12	0.03	0.16		n des references Victoria			
Queue Length 95th (ft)	0	3	15					
Control Delay (s)	0.0	1.7	11.0					
Lane LOS	ang da <u>n</u> an <u>k</u> aran	A	В	ungen også skalagtersen.	ويلد والدروية وي وتشري والتشوي في	a se a de la sete a la arra arra arra arra arra arra arr		
Approach Delay (s) Approach LOS	0.0	1,7	11.0 B					
Intersection Summary								
Average Delay			3.1					
Intersection Capacity Uti	lization		37.1%	IC	CU Leve	I of Servic	e A	
Analysis Period (min)			15					



General Information         Site Information           Ane <sup>++st</sup> EJD         Intersection         ROUTE 7/LOCUST/LEDGE           Date Performed         12/22/05         Analysis Year         2028 RSG C1 & C2 Only           Analysis Time Period         PM PEAK HOUR         Analysis Year         2028 RSG C1 & C2 Only           Project Description         BURLINGTON         East/West Street:         LOCUST/LEDGE         North/South Street:         ROUTE 7           Intersection Orientation:         North-South         Study Period (hrs):         0.25         Vehicle Volumes and Adjustments           Major Street         Northbound         Southbound         Movement         1         2         3         4         5         6           Volume         0         710         300         40         770         15           Peak-Hour Factor, PHF         0.90         0.90         0.90         0.90         0.90           Houry Flow Rate, HFR         0         788         333         44         855         16           Percent Heavy Vehicles         0          2         -         -         -           Median Type         Undivided         0         0         0         0         0		T	WO-WAY STO	P CONTR	OL SUMN	IARY			
Answirt       EJD       Intersection       ROUTE 7/LOCUST/LEDGE         Ag. '/Co.       CHA       Uurisdiction       TOWN OF BURLINGTON         Date Performed       12/22/05       Analysis Year       2028 RSG C1 & C2 Only         Analysis Time Period       PM PEAK HOUR       Analysis Year       2028 RSG C1 & C2 Only         Project Description       BURLINGTON       EastWest Street:       COUST/LEDGE       North/South Street:         EastWest Street:       LOCUST/LEDGE       North/South Street:       ROUTE 7       EastWest Street:         Major Street       Northbound       Southbound       Movement       1       2       3       4       5       6         Volume       0       710       300       40       770       15         Peak-Hour Factor, PHF       0.90       0.90       0.90       0.90       0.90       0.90         Hourly Flow Rate, HFR       0       788       333       44       855       16         Percent Heavy Vehicles       0        2        -         Modian Type       0       0       0       0       0         Median Type       0       2       0       0       0       0	<b>General Information</b>	1		Site II	nformatio	n			
Project Description         BURLINGTON           East/West Street:         LOCUST/LEDGE         North/South Street:         ROUTE 7           Intersection Orientation:         North-South         Study Period (hrs):         0.25           Vehicle Volumes and Adjustments         Morth/South         Southbound           Major Street         North/bound         Southbound           Movement         1         2         3         4         5         6           Volume         0         710         300         40         770         15           Peak-Hour Factor, PHF         0.90         0.90         0.90         0.90         0.90         0.90           Hedian Type         Undivided         Undivided               Median Type         Undivided         0         1         0         0         0           Lanes         0         2         0         0         1         0         0           Movement         7         8         9         10         11         12           Upstream Signal         0         0         0         30         75           Volume         0         660	Anglest Agely/Co. Date Performed Analysis Time Period	EJD CHA 12/22/05 PM PEAK	HOUR	Interse Jurisdio Analysi	ction ction s Year		ROUTE 7 TOWN 0 2028 RSC	7/LOCUST/ F BURLING G C1 & C2	LEDGE GTON Only
East/West Street:         LOCUST/LEDGE         North/South Street:         ROUTE 7           Intersection Orientation:         North-South         Study Period (hrs):         0.25           Wehicle Volumes and Adjustments         Northbound         Southbound           Major Street         Northbound         Southbound           Movement         1         2         3         4         5         6           Volume         0         710         300         40         770         15           Peak-Hour Factor, PHF         0.90         0.90         0.90         0.90         0.90         0.90           Hourly Flow Rate, HFR         0         788         333         44         855         16           Percent Heavy Vehicles         0          -         2             Median Type         Undivided         0         0         0         1         0           RT Channelized         0         2         0         0         1         0           Lanes         0         2         0         0         1         1         1           Upstream Signal         0         1         1         1         1	Project Description BU	RLINGTON							
Intersection Orientation:         North-South         Study Period (hrs):         0.25           Vehicle Volumes and Adjustments         Major Street         Northbound         Southbound           Movement         1         2         3         4         5         6           L         T         R         L         T         R           Volume         0         710         300         40         770         15           Peak-Hour Factor, PHF         0.90         0.90         0.90         0.90         0.90         0.90           Hourly Flow Rate, HFR         0         788         333         44         855         16           Percent Heavy Vehicles         0           2             Median Type         Undivided         0         1         0         0         1         0           Lanes         0         2         0         0         1         0         0           Upstream Signal         0         0         0         0         0         0         0           Minor Street         Westbound         Eastbound         Eastbound         0         0         0	East/West Street: LOCL	IST/LEDGE		North/S	South Street	: ROUTE	7		
Vehicle Volumes and Adjustments           Major Street         Northbound         Southbound           Movement         1         2         3         4         5         6           L         T         R         L         T         R         1         7           Volume         0         710         300         40         770         15           Peak-Hour Factor, PHF         0.90         0.90         0.90         0.90         0.90         0.90           Hourly Flow Rate, HFR         0         788         333         44         855         16           Percent Heavy Vehicles         0           2             Median Type         Undivided         Undivided         0         0         0         0           Ianes         0         2         0         0         1         0         0           Upstream Signal         0         1         1         12         1         1         12           L         T         R         L         T         R         1         1         12           Upstream Signal         0         0	Intersection Orientation:	North-South		Study F	Period (hrs):	0.25			
Major Street         Northbound         Southbound           Movement         1         2         3         4         5         6           L         T         R         L         T         R           Volume         0         710         300         40         770         15           Peak-Hour Factor, PHF         0.90         0.90         0.90         0.90         0.90         0.90           Hourly Flow Rate, HFR         0         788         333         44         855         16           Percent Heavy Vehicles         0           2             Median Type         Undivided         0         0         1         0         0           Lanes         0         2         0         0         1         0         0           Lanes         0         2         0         0         1         0         0            Minor Street         Westbound         Eastbound         Eastbound         11         12           L         T         R         L         T         R           Volume         0         0         660	Vehicle Volumes an	d Adjustments	5						
Movement         1         2         3         4         5         6           L         T         R         L         T         R         L         T         R           Volume         0         710         300         40         770         15           Peak-Hour Factor, PHF         0.90         0.90         0.90         0.90         0.90         0.90         0.90           Hourly Flow Rate, HFR         0         788         333         44         855         16           Percent Heavy Vehicles         0           2             Median Type         Undivided         0          -         -         -           RT Channelized         0         2         0         0         1         0           Lanes         0         2         0         0         1         0           Upstream Signal         0         2         0         0         -         -           Movement         7         8         9         10         11         12           L         T         R         L         T         R         N	Major Street		Northbound				Southbo	und	
L         T         R         L         T         R           Volume         0         710         300         40         770         15           Peak-Hour Factor, PHF         0.90         0.90         0.90         0.90         0.90         0.90         0.90           Hourly Flow Rate, HFR         0         788         333         44         855         16           Percent Heavy Vehicles         0           2             Median Type         Undivided         0          0         0         0           Lanes         0         2         0         0         1         0           Lanes         0         2         0         0         1         0           Upstream Signal         0         1         0         0         0         0           Movement         7         8         9         10         11         12           Volume         0         0         60         30         75           Pef         10ur Factor, PHF         0.90         0.90         0.90         0.90         0.90         0.90         0.90	Movement	1	2	3		4	5		6
Volume         0         710         300         40         770         15           Peak-Hour Factor, PHF         0.90		L	T T	R		L	<u> </u>		R
Peak-Hour Factor, PHF         0.90	Volume Deck Lieur Feeter DUF	0	710	300		40	770		15
Houry Provinate, HPR       0       788       333       44       855       76         Percent Heavy Vehicles       0        2   -       -       <	Peak-Hour Factor, PHF	0.90	0.90	0.90	/	0.90	0.90		0.90
Indext reactly verticles011111Median TypeUndividedRT Channelized0010Lanes020010ConfigurationTTRLTR0Upstream Signal0000Minor StreetWestboundEastboundMovement7891011LTRLTRVolume006003075PeHour Factor, PHF0.900.900.900.900.90Houry Flow Rate, HFR006603383Percent Heavy Vehicles002022Percent Grade (%)00NNN1	Percent Heavy Vobicles	0	/00				000		10
Initial Type         0         0         0           RT Channelized         0         2         0         0         1         0           Lanes         0         2         0         0         1         0           Lanes         0         7         TR         LTR         0         0           Configuration         7         TR         LTR         0         0         0           Upstream Signal         0         0         0         0         0         0         0           Minor Street         Westbound         Eastbound         Eastbound         0         11         12           Movement         7         8         9         10         11         12           L         T         R         L         T         R           Volume         0         0         60         0         30         75           Pe         Hour Factor, PHF         0.90         0.90         0.90         0.90         0.90           Houry Flow Rate, HFR         0         0         66         0         33         83           Percent Grade (%)         0         0         2	Median Type				Undivido	4			
Interfaced020010Lanes0 $T$ $TR$ $LTR$ 0Configuration $T$ $TR$ $LTR$ 0Upstream Signal000Minor StreetWestboundEastboundMovement $T$ $R$ $L$ $T$ $R$ $L$ $T$ $R$ $L$ $T$ $R$ Volume00600 $Percent Factor, PHF0.900.900.90Houny Flow Rate, HFR00660Percent Heavy Vehicles0020Percent Grade (%)0NN$	RT Channelized		1				Ī	<b> </b>	0
Configuration         T         T         TR         LTR         O           Upstream Signal         0 <td< td=""><td>Lanes</td><td>0</td><td></td><td></td><td></td><td>0</td><td>1</td><td></td><td>0</td></td<>	Lanes	0				0	1		0
Upstream Signal         0         0         0           Minor Street         Westbound         Eastbound           Movement         7         8         9         10         11         12           L         T         R         L         T         R           Volume         0         0         60         0         30         75           Percent Factor, PHF         0.90         0.90         0.90         0.90         0.90         0.90           Houny Flow Rate, HFR         0         0         66         0         33         83           Percent Heavy Vehicles         0         0         2         0         2         2           Percent Grade (%)         0         N         N         N         N         N	Configuration	ž	$\frac{1}{r}$			I.TR	<u> </u>		Y
Minor StreetWestboundEastboundMovement789101112LTRLTRVolume006003075Per Hour Factor, PHF0.900.900.900.900.900.90Houry Flow Rate, HFR006603383Percent Heavy Vehicles002022Percent Grade (%)0NNNN	Upstream Signal		0				0		
Movement         7         8         9         10         11         12           L         T         R         L         T         R           Volume         0         0         60         0         30         75           Pe         Hour Factor, PHF         0.90         0.90         0.90         0.90         0.90         0.90           Houry Flow Rate, HFR         0         0         66         0         33         83           Percent Heavy Vehicles         0         0         2         0         2         2           Percent Grade (%)         0         0         N         N         N         N	Minor Street		Westbound				Eastbou	Ind	
L         T         R         L         T         R           Volume         0         0         60         0         30         75           Pe         Hour Factor, PHF         0.90         0.90         0.90         0.90         0.90         0.90           Houry Flow Rate, HFR         0         0         66         0         33         83           Percent Heavy Vehicles         0         0         2         0         2         2           Percent Grade (%)	Movement	7	8	9		10	11		12
Volume         0         0         60         0         30         75           Percent Factor, PHF         0.90 <td< td=""><td></td><td>L</td><td>Т</td><td>R</td><td></td><td>L</td><td>Т</td><td></td><td>R</td></td<>		L	Т	R		L	Т		R
Percent Grade (%)         0.90 <td>Volume</td> <td>0</td> <td>0</td> <td>60</td> <td></td> <td>0</td> <td>30</td> <td></td> <td>75</td>	Volume	0	0	60		0	30		75
Houry Flow Rate, HFR         0         0         66         0         33         83           Percent Heavy Vehicles         0         0         2         0         2         2           Percent Grade (%)         0         0         0         0         0         0         1         0         1	Pe Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Percent Heavy Vehicles         0         0         2         0         2         2           Percent Grade (%)         0         0         0         0         0         0         2	Houny Flow Rate, HFR	• <u>0</u>	0	66		0	33		83
Percent Grade (%)         0         0           Flared Approach         N         N	Percent Heavy Vehicles	0	0	2		0	2		2
Flared Approach N N	Percent Grade (%)		0				0		
	Flared Approach		N				N		
Storage 0 0	Storage		0				0		
RT Channelized 0 0	RT Channelized			0					0
Lanes 0 0 1 0 1 0	Lanes	0	0	1		0	1		0
Configuration R TR	Configuration			R					TR
Delay, Queue Length, and Level of Service	Delay, Queue Length, ar	nd Level of Servie	ce						
Approach NB SB Westbound Eastbound	Approach	NB	SB		Westbound			Eastbound	1
Movement 1 4 7 8 9 10 11 12	Movement	1	4	7	8	9	10	11	12
Lane Configuration LTR R TR	Lane Configuration		LTR			R			TR
v (vph) 44 66 116	v (vph)		44			66			116
C (m) (vph) 619 472 115	C (m) (vph)		619			472			115
v/c 0.07 0.14 1.01	v/c		0.07			0.14			1.01
95% queue length 0.23 0.48 6.66	95% queue length		0.23			0.48			6.66
Control Delay 11.3 13.9 157.5	Control Delay		11.3			13.9			157.5
LOS B B F	LOS		В			В			F
Approach Delay 13.9 157.5	Approach Delav				13.9	I		157.5	1
Approach LOS B F	Approach LOS				B			F	

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	T۱	NO-WAY STO	P CONTR	OL SUN	MARY					
General Information			Site I	nformat	tion					
Ane*'st Agy/Co. Date Performed Analysis Time Period	EJD CHA 12/22/05 PM PEAK	HOUR	IntersectionROUTE 7/SOUTH WILLARDJurisdictionTOWN OF BURLINGTONAnalysis Year2028 RSG C1 & C2 Only							
Project Description BU	RLINGTON									
East/West Street: SOU7	H WILLARD		North/S	South Stre	eet: ROUTE	7				
Intersection Orientation:	North-South	·	Study I	Period (hr	rs): 0.25					
Vehicle Volumes an	d Adjustments	3				-				
Major Street		Northbound				Southbo	und			
Movement	1	2	3		4	5		6		
N /		T	R		L	T		<u> </u>		
Volume	70	640	0		0	825		0		
Peak-Hour Factor, PHF	0.90	0.90	0.90	)	0.90	0.90		0.90		
Porcent Hooley Vehicles		/11	0		0	916		0		
Median Type	2		~	1 In ali si	2			1977 ANT		
PT Channelized				Undivided				~		
anes		4						0		
Configuration	17				U					
Upstream Signal						1		<u>.</u>		
Minor Street		Masthound	1.							
Minor Street	7		0		10			10		
	<u>/</u>	<u>т</u>			1	!I		 		
Volume	0	165						<u>n</u>		
Pe Hour Factor PHE	0.90	0.90	0.90		<u></u>	0 00		0		
Houny Flow Rate, HFR	0	183	0.00		0.00	0.50	<u> </u>	0.30		
Percent Heavy Vehicles	0	2	2		0	2		2		
Percent Grade (%)		0								
Flared Approach		N	1							
Storage		0								
BT Channelized						U U		^		
								0		
Configuration	V				0					
Delay Queue Length an				<u> </u>			<u> </u>			
Approach	NR NR	SR		Weethou	und		Factbour	4		
Movement	1	<u></u>	7	o vesibou		10		u 1 10		
I ane Configuration	, 1 T		/	0		10		12		
v (vph)	77				183					
C (m) (vph)	745				67		ļ			
v/c	0 10				2 73	1				
95% queue lenath	0.34				19.76					
Control Delay	10.04			-	015.0					
	10.4				915.0					
LUG	B			<b>.</b>	<i>۲</i>					
Approach Delay				915.0		<u> </u>				
Approach LOS				F		1				

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HCS2000<sup>TM</sup>

# **BUILD ALTERNATIVE 1 (FOUR-LANE)**

## 2008 AM PEAK HOUR

### HCM Signalized Intersection Capacity Analysis 6: Main Street & Battery Street

	≯		$\mathbf{F}$	<	<b></b>	×	-	Ť	1	1	ŧ	-
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		র্ম	7		֔	*	ሻ	<b>ት</b> ኈ		ሻ	<b>†</b> Ъ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	elenten heten en et
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frt		1.00	0.85		1.00	0.85	1.00	0.99		1.00	1.00	
Fit Protected		0.98	1.00		0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1823	1583		1817	1583	1770	3517		1770	3531	
Flt Permitted		0.85	1.00		0.82	1.00	0.27	1.00		0.95	1.00	
Satd. Flow (perm)		1586	1583		1531	1583	502	3517		1770	3531	
Volume (vph)	15	20	45	50	50	85	65	570	25	90	940	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	22	50	56	56	94	72	633	- 28	100	1044	17
RTOR Reduction (vph)	0	0	44	0	0	73	0	0	0	0	0	0
Lane Group Flow (vph)	0	39	6	0	112	21	72	661	0	100	1061	0
Turn Type	Perm		Prot	Perm		pt+ov	Perm		с	ustom		<u></u>
Protected Phases		4	4		8	81		2		8 99 96 <b>1</b> 9	6	
Permitted Phases	4	**********************		8			2			1		
Actuated Green, G (s)		13.3	13.3		13.3	25.3	74.0	74.0		12.0	91.0	
Effective Green, g (s)		14.3	14.3		14.3	27.3	75.0	75.0		13.0	92.0	DANGALA, DANAHANAN
Actuated g/C Ratio		0.12	0.12		0.12	0.23	0.62	0.62		0.11	0.77	
Clearance Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	-1
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		189	189	<b></b>	182	360	314	2198		192	2707	
v/s Ratio Prot			0.00			0.01		0.19		c0.06	c0.30	
v/s Ratio Perm		0.02			c0.07		0.14	en is die September (Derektig		-contra-constantions-	in an an an an an an an an an an an an an	erenengi pangrejaan
v/c Ratio		0.21	0.03		0.62	0.06	0.23	0.30		0.52	0.39	
Uniform Delay, d1		47.7	46.7	an parte ngagan yang bertak bigip	50.2	36.3	9.8	10.4	ovive od neosciela se se s	50.6	4.7	kolon noniologo
Progression Factor		1.00	1.00		1.00	1.00	0.37	0.40		1.00	1.00	
Incremental Delay, d2		0.5	0.1		6.1	0.1	1.6	0.3	1979 - Harrison Construction Construction Construction Construction Construction Construction Construction Cons	2.5	0.4	1919-949-9419-946-947-9
Delay (s)		48.3	46.8		56.3	36.4	5.2	4.5		53.1	5.1	
Level of Service		D	D		Ε	D	А	Α		D	А	,
Approach Delay (s)		47.4			47.2			4.6			9.2	
Approach LOS		D			D			A			Α	
Intersection Summary												
HCM Average Control D	elay		12.8	H	CM Lev	el of Se	ervice		В			
<b>HCM Volume to Capacit</b>	y ratio		0.41									
Actuated Cycle Length (	s)		120.0	Sı	um of lo	ost time	(s)	a a seconda a construction de la construcción de la construcción de la construcción de la construcción de la c	8.0	na ana ang kasabatan	n, sen en sen sen de la secterada de la se	
Intersection Capacity Uti	lization		52.1%	IC	U Leve	of Ser	vice		Α			
Analysis Period (min)			15					<ul> <li>a construction de la construction</li> </ul>	a a ann an an an an an an an an an an an		na mananan papakén.	
c Critical Lane Group												

CAP Clough, Harbour & Associates, LLP

### HCM Signalized Intersection Capacity Analysis 7: King Street & Battery Street

	٨		$\mathbf{i}$	1	4	×.	1	Ť	1	1	Ļ	-
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	4			¢,		ኻ	<u></u>		ሻ	<u>ቶኬ</u>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0		4.0	4.0	-7,
Lane Util. Factor	1.00	1.00			1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.85			0.90		1.00	1.00		1.00	1.00	2001 a.g. a.g. a.g. balla a.g. mark
Fit Protected	0.95	1.00			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1583			1661		1770	3534		1770	3525	
Flt Permitted	0.40	1.00			0.96		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	750	1583			1608		1770	3534		1770	3525	
Volume (vph)	20	0	10	20	15	110	10	530	5	105	905	25
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	22	0	11	- 22	17	122	11	589	6	117	1006	28
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	22	11	0	0	161	0	11	595	0	117	1034	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2	a dei dependente State dei anter	i l	6	
Permitted Phases	4			8								
Actuated Green, G (s)	16.8	16.8			16.8		1.6	68.9		13.1	80.4	
Effective Green, g (s)	17.8	17.8			17.8		2.6	69.9		14.1	81.4	
Actuated g/C Ratio	0.15	0.15			0.15		0.02	0.58		0.12	0.68	
Clearance Time (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	111	235			239		38	2059		208	2391	
v/s Ratio Prot		0.01					0.01	0.17		c0.07	c0.29	
v/s Ratio Perm	0.03				c0.10							
v/c Ratio	0.20	0.05			0.67		0.29	0.29		0.56	0.43	
Uniform Delay, d1	44.8	43.8			48.4		57.8	12.6		50.0	8.8	
Progression Factor	1.00	1.00			1.00		1.16	0.31		1.19	0.77	
Incremental Delay, d2	0.9	0.1			7.3		4.1	0.3		3.3	0.5	
Delay (s)	45.7	43.9			55.6		70.9	4.2		62.6	7.3	
Level of Service	D	D	and a second second data second		E		Е	Α		E	Α	
Approach Delay (s)		45.1			55.6			5.4		0.03.00.05	12.9	
Approach LOS		D			E			A			В	
Intersection Summary												
HCM Average Control D	elay		14.7	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.48									
Actuated Cycle Length (	s)	المراجعة المحمومين وفريعي وي	120.0	S	um of lo	st time	(s)		14.2			
Intersection Capacity Uti	lization	Į	57.8%	IC	CU Leve	l of Serv	rice		В			
Analysis Period (min)			15									
c Critical Lane Group												

### HCM Signalized Intersection Capacity Analysis 8: Maple Street & Battery Street

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4		۲	<u>†</u>		٢	<b>†</b> ‡	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frt		0.99			0.97		1.00	0.99		1.00	0.99	
Fit Protected		0.97			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1725			1711		1711	3390		1711	3391	
Fit Permitted		0.66	androidere more		0.81	·	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1184			1416		1711	3390		1711	3391	
Volume (vph)	55	20	5	65	40	25	5	465	30	80	805	50
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	61	22	6	72	44	28	6	517	33	89	894	56
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	89	0	0	144	0	6	550	0	89	950	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)	alan daara ta	16.8			16.8	and and the feature of the	1.6	72.1		9.9	80.4	
Effective Green, g (s)		17.8			17.8		2.6	73.1		10.9	81.4	
Actuated g/C Ratio		0.15			0.15	da sular na mana sa ta s	0.02	0.61		0.09	0.68	
Clearance Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		176			210		37	2065		155	2300	
v/s Ratio Prot			na ana mataira				0.00	0.16		c0.05	c0.28	
v/s Ratio Perm		0.08			c0.10	64950	Ğ (2, 3, 4)					
v/c Ratio	ki kato di Anto de andre di	0.51			0.69	ant talena and talent design	0.16	0.27		0.57	0.41	na na ana
Uniform Delay, d1		47.0			48.4		57.6	10.9		52.3	8.6	
Progression Factor	andan da sa sa sa sa sa sa sa sa sa sa sa sa sa	1.00			1.00		0.94	1.00	an an an an an an an an an an an an an a	1.21	0.10	
Incremental Delay, d2		2.3			8.9		1.9	0.3		4.7	0.5	
Delay (s)		49.3			57.4	genning in mediate	56.0	11.3	an an an an an an an an an an an an an a	68.2	1.4	
Level of Service		μ,					E.	B	a cantonain	<b>E</b> .	A	
Approach Delay (s)		49.3	akkenkolovina	si interiore	57.4	ser on the traces		11.7	oganias-na ciraganga	1900 5 45 44 1946	7.1	en anter anter anter
Approach LUS		μ			E			В			A	
Intersection Summary												
HCM Average Control De	əlay		14.5	H	CM Lev	el of Se	rvice		В			
HCM Volume to Capacity	ratio	** . ***	0.47									
Actuated Cycle Length (s	<b>i)</b>		120.0	S	um of k	ost time	(s)		14.2			
Intersection Capacity Util Analysis Period (min)	ization	4	48.2% 15	IC	CU Leve	el of Serv	/ice		А			

HCM Signalized Intersection Capacity Analysis 5: Main Street & Pine Street

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	٭		$\mathbf{i}$	1	-	*	-	†	1	1	Ļ	-
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			<del>ل</del> ه	7		র্ধ	7		<b>đ</b> ə	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0		4.0	4.0		4.0	
Lane Util. Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Frt		1.00			1.00	0.85		1.00	0.85		0.98	
Fit Protected		0.99			1.00	1.00		0.99	1.00		0.99	
Satd. Flow (prot)		1837			1859	1583		1842	1583		1797	
Fit Permitted		0.89			0.99	1.00		0.90	1.00		0.89	
Satd. Flow (perm)		1649			1838	1583		1679	1583		1610	
Volume (vph)	45	160	5	10	255	45	40	140	10	45	130	40
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	50	178	6	11	283	50	44	156	11	50	144	44
RTOR Reduction (vph)	0	0	0	0	0	29	0	0	8	0	0	0
Lane Group Flow (vph)	0	234	0	0	294	21	0	200	3	0	238	0
Turn Type	Perm			Perm		Perm	Perm		Perm	Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2	en sun i des visiters	a da en como con contra de	6		6	8		8	4		
Actuated Green, G (s)		16.3			16.3	16.3		9.4	9.4		9.4	
Effective Green, g (s)	gende spingde enderseder	17.3			17.3	17.3	a tana sa sa sa sa sa sa	10.4	10.4		10.4	
Actuated g/C Ratio		0.43	0.00		0.43	0.43		0.26	0.26		0.26	
Clearance Time (s)	a an an an an an an an an an an an an an	5.0	niatettel (seasta) at tea	an an an an an an an an an an an an an a	5.0	5.0	ne Restaur estat status.	5.0	5.0	with the second second	5.0	
Vehicle Extension (s)		3.0			3.0	3.0		3.0	3.0		3.0	
Lane Grp Cap (vph)		704		the second states and second	785	676		431	406		413	
v/s Ratio Prot												
v/s Ratio Perm		0.14	- 2		c0.16	0.01		0.12	0.00		c0.15	
v/c Ratio		0.33	8.00.00		0.37	0.03		0.46	0.01		0.58	
Uniform Delay, d1		7.7			7.9	6.7		12.7	11.2	and and a second second second second second second second second second second second second second second se	13.1	a caracteria da carac
Progression Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Incremental Delay, d2	inder ander solers	0.3			0.3	0.0		0.8	0.0		1.9	teriskusteres.
Delay (s)		8.0			8.2	6.8		13.5	11.2		15.1	
Level of Service		A		ngnesenene	A	A		В	B		В	jajan opasa
Approach Delay (s)		ð.U ^			8.0			13.4			15.]	
Approach LUS		A			A			В			В	
Intersection Summary									_			
HCM Average Control D	Pelay		10.7	H	CM Le	/el of Se	ervice	ul-Anton transit	В	yar yan ana san part	. 1.1	analaganjan -
HUN VOIUME to Capacit	iy ratio		0.38	() () ()								
Actuated Cycle Length (	S)	ander Herdersteine	40.5	S	um of Ic	ost time	(S)	yn an eise betrate fer	8.0	u an an an an an an an an an an an an an		ana ang kata
Intersection Capacity Ut	ilization		) <del>9</del> .9%	IC	JU Lev€	a of Ser	vice		В			
Analysis Period (min)			15						an an an an an an an an an an an an an a	an an an an Alain	terretaria	ninininininini
c Critical Lane Group												

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Movement	NBT	NBR	SBL	SBT	SWL	SWR		
Lane Configurations	<b>ተ</b> ኬ		٣	<b>^</b>	¥			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Total Lost time (s)	4.0		4.0	4.0	4.0			
Lane Util. Factor	0.95		1.00	0.95	1.00			
Frt	0.95		1.00	1.00	1.00			
Fit Protected	1.00		0.95	1.00	0.95			
Satd. Flow (prot)	3369		1770	3539	1769			
Fit Permitted	1.00		0.29	1.00	0.95			
Satd. Flow (perm)	3369		548	3539	1769			
Volume (vph)	520	245	25	870	270	10		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90		
Adj. Flow (vph)	578	272	28	967	300	11		
RTOR Reduction (vph)	26	0	0	0	2	0		
Lane Group Flow (vph)	824	0	28	967	309	0		
Turn Type	Prot		Perm					
Protected Phases	2			6	8			
Permitted Phases			6					
Actuated Green, G (s)	79.0		79.0	79.0	24.8			
Effective Green, g (s)	80.0	anta da minata da ara	80.0	80.0	25.8			
Actuated g/C Ratio	0.67		0.67	0.67	0.22			
Clearance Time (s)	5.0		5.0	5.0	5.0	en en situa esta esta de sera esta esta esta esta esta esta esta est		
Vehicle Extension (s)	3.0		3.0	3.0	3.0			
Lane Grp Cap (vph)	2246		365	2359	380			
v/s Ratio Prot	0.24			c0.27	c0.17			
v/s Ratio Perm	ala mengeralar. Basa a sa		0.05		ter and a stage to all starts			
v/c Ratio	0.37		0.08	0.41	0.81			
Uniform Delay, d1	8.8	an an an an an an an an an an an an an a	7.0	9.2	44.8			
Progression Factor	1.00		0.99	1.08	1.00			
Incremental Delay, d2	0.5		0.4	0.5	12.6			laar turf
Delay (s)	9.3		/.3	10.4	57.4			
	A		A	В	E			834955
Approach LOS	9.3			10.4	57.4			
Approach LUS	A			В	<b>E</b>			
Intersection Summary								
HCM Average Control D	elay	a sa sa sa sa sa sa sa sa sa sa sa sa sa	16.7		ICM Lev	el of Service	В	
HCM Volume to Capacit	y ratio		0.51					
Actuated Cycle Length (	s)	ant at which a strend to see the	120.0	S	ium of lo	ost time (s)	14.2	
Intersection Capacity Uti	lization		46.3%		CU Leve	I of Service	Α	
Analysis Period (min)		en noord onter players site	15	urana a selangsán so be	ang santana tana tang sara ta			
c Critical Lane Group								

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Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations	ሻነት		*	¥	4	77		
Ideal Flow (vohol)	1900	1900	1900	1900	1900	1900		
Lane Width	11	12	11	12	11	12	a kan dara palatan dapatan di	nige gannige en generatione
Total Lost time (s)	40		40	<u>4</u> n	40	40		
Lane Util. Factor	0.97		1 00	1 00	1 00	0.88		10603/075704334
Ent	0.99		1.00	1 00	1.00	0.85		
Flt Protected	0.96		0.95	1.00	1 00	1.00		
Satd Flow (prot)	3305		1711	1863	1801	2787		
Flt Permitted	0.96	na kana kana kana kana kana kana kana k	0.41	1 00	1 00	1.00		9499 H-660 R
Satd. Flow (perm)	3305		738	1863	1801	2787		
Volume (vpb)	205	20	15	465	370	785		<u></u>
Peak-hour factor PHE	0 00	nan	0 00	0- 0- 0-0-	0.0	, 00 n an		
Adi Flow (vph)	328	22	17	517	0.50 /11	872		
RTOR Reduction (unb)	ر میں ار	~~ N	יי ה	J1/	+ i I Λ	012 A		bigek
Lane Group Flow (vph)	346	<b>ب</b> م	9 17	517	∪ ⊿11	872		11200
Turn Turn	<u>U++U</u>	<u> </u>	Dorm		~rii	Dom		<u>.</u>
Protected Phases	о С		L allil	1900-1800-180 1	0	Lann		92 
Dermitted Dhaces	<b>_</b> 2019/00/00		(in constraint)	<b>4</b>	đ	•		
Actuated Groop G (a)	20.0		5E A	EE O	EE O	EE O		
Effective Green a (a)	00.0 00.0		00.U	0.CC	55.U	55.U		22
Actuated o/C Patia	0.36		0.0	0.50	0.50	30.U		
Actualed g/C Hallo	U.30 E A	ninyainanania	U.51	U.5 I	U.51	U.51 E A	gesterioeoor	1995
Vehicle Extension (a)	ວ.ປ ວຸດ		0.U	<b>5.U</b>	<b>5.U</b>	9.U 9.0		
venicle Extension (S)	3.0		3.0	3.0	3.0	3.0		i Car
Lane Grp Cap (vph)	1196		376	948	917	1419		
v/s Hatio Prot	c0.10	i		0.28	0.23	des la Co <u>lona los de</u> la colonia de Manasar de marco	alaying the desired and	ven.
v/s Hatio Perm			0.02			c0.31		
v/c Hatio	0.29		0.05	0.55	0.45	0.61	data ngabat sa basa	
Uniform Delay, d1	25.0		13.6	18.3	17.2	19.3		
Progression Factor	0.84	en el la complete de la complete	1.00	1.00	1.00	1.00		
Incremental Delay, d2	0.6		0.2	2.3	0.4	0.8		
Delay (s)	21.6		13.8	20.6	17.5	20.1		
Level of Service	С		В	C	В	С		
Approach Delay (s)	21.6			20.4	19.3			
Approach LOS	С			C	В			
Intersection Summary								
HCM Average Control D	elav		19.9	Н	CMIev	el of Service		34
HCM Volume to Capacit	v ratio		0.48					
Actuated Cycle Length (	s)		110.0	¢	um of la	nst time /s\		ş
Intersection Canacity Liti	lization	n de la company de la company de la company de la company de la company de la company de la company de la comp La company de la 4.1%	<u>و</u> ۲		al of Service			
Analysis Period (min)			15					

#### HCM Signalized Intersection Capacity Analysis 16: Flynn Avenue & Pine Street

	۶		$\mathbf{i}$	4	◄	×.		<b>†</b>	1	1	ţ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			¢.			<b>4</b> 1+		ኻ	<b>t</b>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	14	12	12	14	12	12	14	12	11	11	12
Total Lost time (s)		4.0			4.0			4.0	pologici (comencia) Referencia	4.0	4.0	
Lane Util. Factor		1.00			1.00			1.00		1.00	1.00	
Fri		1.00			0.91			0.99		1.00	0.98	
Flt Protected		0.98			1.00			1.00		0.95	1.00	
Satd. Flow (prot)		1948			1806			1973		1711	1759	
Flt Permitted		0.81			0.98			0.99		0.48	1.00	
Satd. Flow (perm)		1600			1779			1953		856	1759	
Volume (vph)	30	45	0	10	55	125	10	240	10	115	165	30
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	33	50	0	11	61	139	11	267	11	128	183	33
RTOR Reduction (vph)	0	0	0	0	103	0	0	2	0	0	6	0
Lane Group Flow (vph)	0	83	0	0	108	0	0	287	0	128	210	0
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4		61.192.192.001	8			2			6		
Actuated Green, G (s)		10.0			10.0			21.8		31.8	31.8	
Effective Green, g (s)		11.0			11.0			22.8		32.8	32.8	
Actuated g/C Ratio	1	0.20			0.20			0.42		0.60	0.60	
Clearance Time (s)		5.0			5.0			5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		322			358			816		608	1057	
v/s Ratio Prot										0.02	c0.12	
v/s Ratio Perm		0.05			c0.06			c0.15		0.10		
v/c Ratio		0.26			0.30			0.35		0.21	0.20	
Uniform Delay, d1		18.4			18.5		87 85 85 83 A	10.9		5.5	4.9	
Progression Factor		1.00			1.00			1.00		1.00	1.00	
Incremental Delay, d2		0.4			0.5			0.3		0.2	0.1	
Delay (s)		18.8	and the last transmission is the		19.0	and which and the		11.1		5.6	5.0	
Level of Service		В			В			В		A	A	
Approach Delay (s)		18.8	oli telene tetro estato.	nin in den star	19.0	i i sta sugar a sugar i sugar sugar sugar sugar sugar sugar sugar sugar sugar sugar sugar sugar sugar sugar su		11.1	alala ata damat tarta di		5.3	and the terms of the sector
Approach LOS		В			В	5 2 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1		В			A	
Intersection Summary												
HCM Average Control D	elay		11.4	H	CM Lev	el of Se	rvice		В			
HCM Volume to Capacity	ratio		0.30					1999-110-1910-1910-1999		24		
Actuated Cycle Length (s	;)		54.6	S	um of k	ost time	(s)		12.0			
Intersection Capacity Util	ization	4	49.2%	IC	U Leve	l of Ser	vice		Α	er en anter en en en en en en en en en en en en en		
Analysis Period (min)			15									

		$\mathbf{r}$	1		1	1								
Movement	EBT	EBR	WBL	WBT	NBL	NBR								
Lane Configurations	*	7	ኻ	র	ሻ	77								
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900								
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	a na na kata ta ta kata ta  Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.88	
Frt	1.00	0.85	1.00	1.00	1.00	0.85								
Flt Protected	1.00	1.00	0.95	0.96	0.95	1.00								
Satd. Flow (prot)	1863	1583	1681	1706	1770	2787								
Fit Permitted	1.00	1.00	0.95	0.55	0.95	1.00								
Satd. Flow (perm)	1863	1583	1681	966	1770	2787								
Volume (vph)	65	90	695	105	220	250								
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90								
Adj. Flow (vph)	72	100	772	117	244	278								
RTOR Reduction (vph)	0	52	0	0	0	66								
Lane Group Flow (vph)	72	48	433	456	244	212								
Turn Type	I	om+ov	Prot		(	custom								
Protected Phases	4	2	3	8	2	23								
Permitted Phases		4				2								
Actuated Green, G (s)	10.9	50.7	38.1	54.0	39.8	82.9								
Effective Green, g (s)	11.9	52.7	39.1	55.0	40.8	83.9								
Actuated g/C Ratio	0.11	0.48	0.36	0.50	0.37	0.76								
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0									
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0									
Lane Grp Cap (vph)	202	758	598	746	657	2126								
v/s Ratio Prot	0.04	0.02	c0.26	0.22	c0.14	80.0								
v/s Ratio Perm		0.01		c0.09										
v/c Ratio	0.36	0.06	0.72	0.61	0.37	0.10								
Uniform Delay, d1	45.5	15.4	30.8	19.8	25.2	3.4								
Progression Factor	1.00	1.00	0.41	0.41	1.02	7.38								
Incremental Delay, d2	1.1	0.0	3.5	1.2	1.6	0.0								
Delay (s)	46.6	15.4	16.1	9.4	27.3	24.8								
Level of Service	D	В	В	Α	С	С								
Approach Delay (s)	28.5			12.7	26.0									
Approach LOS	С			В	С									
Intersection Summary														
HCM Average Control D	elay		18.8	H	ICM Lev	el of Service	В							
HCM Volume to Capacity	y ratio		0.55											
Actuated Cycle Length (s	5)		110.0	S	ium of lo	ost time (s)	14.2							
Intersection Capacity Uti	lization		47.5%	(	CU Leve	I of Service	Α							
Analysis Period (min)			15											
c Critical Lane Group														

#### HCM Signalized Intersection Capacity Analysis 30: Sears Lane & Southern Connector

	٭		$\mathbf{i}$	1	<b>4</b>	×.	1	Ť	1	1	Ļ	-
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		44			44		ኻ	<b>*</b> t,		٣	<b>*</b> t,	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	engels serge elsens site dispe
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frt		0.89			0.98		1.00	0.98		1.00	1.00	
Fit Protected		0.99			0.99		0.95	1.00		0.95	1,00	
Satd. Flow (prot)		1648			1803		1770	3468		1770	3532	
Fit Permitted		0.95			0.91		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1577			1660		1770	3468		1770	3532	
Volume (vph)	5	0	20	30	65	15	80	450	70	5	770	10
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	6	0	22	- 33	72	17	89	500	78	6	856	11
RTOR Reduction (vph)	0	19	0	0	6	0	0	6	0	0	0	0
Lane Group Flow (vph)	0	9	0	0	116	0	89	572	0	6	867	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		i de la pa	6	
Permitted Phases	4			8								
Actuated Green, G (s)		12.5			12.5		9.5	74.7		1.6	66.8	
Effective Green, g (s)		13.5			13.5		10.5	75.7		2.6	67.8	
Actuated g/C Ratio		0.12			0.12		0.10	0.69		0.02	0.62	
Clearance Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		194			204		169	2387		42	2177	
v/s Ratio Prot							c0.05	0.17		0.00	c0.25	
v/s Ratio Perm		0.01			c0.07							
v/c Ratio		0.04	g.g		0.57		0.53	0.24		0.14	0.40	
Uniform Delay, d1		42.6			45.5		47.4	6.4		52.6	10.7	
Progression Factor		1.00			0.87		0.87	1.30		1.22	0.15	
Incremental Delay, d2		0.1	jana sa kasaran sa ka		3.6		2.9	0.2		1.2	0.4	
Delay (s)		42.7			43.0		44.0	8.6		65.5	2.0	
Level of Service	All and a state of the state of the state of the state of the state of the state of the state of the state of t	D	an an an an an an an an an an an an an a		D	ana ang ang ang ang ang ang ang ang ang	D	Α		E	Α	
Approach Delay (s)		42.7			43.0			13.3			2.4	
Approach LOS		D			D			В			A	
Intersection Summary												
HCM Average Control D	elay		10.3	Н	ICM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.44									
Actuated Cycle Length (s	s)		110.0	S	um of lo	st time	(s)		18.2			
Intersection Capacity Uti	lization	4	17.3%	IC	CU Leve	l of Sen	vice		A			
Analysis Period (min)			15									
c Critical Lane Group												

#### CAP Clough, Harbour & Associates, LLP

## HCM Signalized Intersection Capacity Analysis 31: Flynn Avenue & Southern Connector

	٠		$\mathbf{r}$	1		•	1	Ť	1	1	ŧ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		÷Ĵ÷			ф.		۲	<b>≜î</b> ≁î,		٣	<u>ቶ</u> ሴ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frt		0.97			0.98		1.00	1.00		1.00	0.99	an maraistana
Flt Protected		0.98			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1780			1808		1770	3534		1770	3510	been of the state of the state
Flt Permitted		0.81			0.92	belaker behaviore Managelaker	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1460			1675	na hara ya na kanga ya na	1770	3534		1770	3510	
Volume (vph)	45	65	30	15	65	15	65	540	5	5	770	45
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	50	72	33	17	72	17	72	600	6	6	856	50
RTOR Reduction (vph)	0	9	0	0	7	0	0	0	0	0	2	0
Lane Group Flow (vph)	0	146	0	0	99	0	72	606	0	6	904	Ó
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8		anne e construction de la cons			an protein ngana na anang	an an an an an an an an an an an an an a	www.co/tobo/1110.0001.000	49999999999999999
Actuated Green, G (s)		14.9			14.9		8.2	72.3		1.6	65.7	
Effective Green, g (s)		15.9			15.9		9.2	73.3		2.6	66.7	na de la construcción de la construcción de la construcción de la construcción de la construcción de la constru La construcción de la construcción d
Actuated g/C Ratio		0.14			0.14		0.08	0.67		0.02	0.61	
Clearance Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		211			242	*****	148	2355		42	2128	
v/s Ratio Prot							c0.04	0.17	Vénye	0.00	c0.26	
v/s Ratio Perm		c0.10			0.06	1440 - 400 - 140 - 140 - 140 - 140 - 140 - 140 - 140 - 140 - 140 - 140 - 140 - 140 - 140 - 140 - 140 - 140 - 1	alan da san d	al and a factor of the second	ni kuton na na parangan ka	an na na na na na na na na na na na na n		han graf di sed di badi.
v/c Ratio		0.69			0.41		0.49	0.26		0.14	0.42	
Uniform Delay, d1		44.7			42.8	led der stelle in serie kennen for	48.1	7.4		52.6	11.5	
Progression Factor		1.00			1.00		0.83	1.28		1.27	0.36	
Incremental Delay, d2		9.3			1.1		2.4	0.3		1.5	0.6	ann a tha fairt maile
Delay (s)		54.0			43.9		42.4	9.7		68.2	4.7	
Level of Service		D			D		D	Α		Ε	А	
Approach Delay (s)		54.0	1999 - 1999 - 1999 Galair (1999 - 1999) Galair (1999 - 1999)		43.9			13.2			5.2	
Approach LOS		D			D			В			Α	
Intersection Summary												
HCM Average Control D	elay		14.4	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.48									
Actuated Cycle Length (	s)		110.0	S	um of lo	st time	(s)		18.2	an manahatan di Kata	en de l'horen de la beneder de la beneder de la beneder de la beneder de la beneder de la beneder de la benede La beneder de la	
Intersection Capacity Uti	lization	ţ	53.6%	IC	U Leve	l of Sen	rice		A			
Analysis Period (min)			15	2020 - Carlon Channell, a farailte	1.122.0110.0102.02	una de la composición de la composición de la composición de la composición de la composición de la composición	en en en en en en en en en en en en en e	an an an an an an an Aribit (an	oo oo ahaa ahaa ahaa ahaa ahaa ahaa aha		s an an an an an an an an an an an an an	n territik (* 1744 og
c Critical Lane Group												

CAP Clough, Harbour & Associates, LLP
# HCM Signalized Intersection Capacity Analysis 27: Home Avenue & Southern Connector

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4	7		<b>\$</b>		۲	<b>≜</b> 1}		ሻ	<u>ቶ</u> ኈ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00		1.00	0.95	deligi respuis in States a second	1.00	0.95	
Frt		1.00	0.85		0.99		1.00	0.99		1.00	0.99	
Fit Protected		0.98	1.00		0.96		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1827	1583		1766		1770	3504		1770	3513	
Fit Permitted		0.87	1.00		0.56		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1624	1583		1024		1770	3504		1770	3513	
Volume (vph)	50	80	105	40	5	5	135	555	40	5	770	40
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	56	89	117	44	6	6	150	617	44	6	856	44
RTOR Reduction (vph)	0	0	101	0	4	0	0	3	0	0	2	0
Lane Group Flow (vph)	0	145	16	0	52	0	150	658	0	6	898	0
Turn Type	Perm		Perm	Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8								
Actuated Green, G (s)		14.3	14.3		14.3		13.8	72.9		1.6	60.7	
Effective Green, g (s)		15.3	15.3		15.3		14.8	73.9		2.6	61.7	
Actuated g/C Ratio	S Cara	0.14	0.14		0.14		0.13	0.67		0.02	0.56	
Clearance Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		226	220		142		238	2354		42	1970	
v/s Ratio Prot							c0.08	0.19		0.00	c0.26	
v/s Ratio Perm		c0.09	0.01		0.05							
v/c Ratio		0.64	0.07		0.36		0.63	0.28		0.14	0.46	
Uniform Delay, d1		44.8	41.2		42.9		45.0	7.3		52.6	14.2	
Progression Factor		1.00	1.00		1.00		1.00	1.00		1.38	0.17	
Incremental Delay, d2		6.1	0.1		1.6		5.3	0.3		1.4	0.7	
Delay (s)		50.9	41.3		44.5		50.4	7.6		74.0	3.2	
Level of Service		D	D		D		D	Α		E	Α	
Approach Delay (s)		46.6			44.5			15.5			3.6	
Approach LOS		D			D			В			А	
Intersection Summary												
HCM Average Control D	elay		15.0	Н	ICM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.51									
Actuated Cycle Length (	s)		110.0	S	um of lo	ost time	(s)		18.2			
Intersection Capacity Uti	lization		49.5%	10	CU Leve	l of Sen	<i>i</i> ice		Α			
Analysis Period (min)			15									
c Critical Lane Group												

CAP Clough, Harbour & Associates, LLP

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	· · · · · · · · · · · · · · · · · · ·	4.			44			đ.			4	
Sign Control		Stop	tan da Atabas Si Galaga Si		Stop			Stop			Stop	
Volume (vph)	5	100	50	25	100	25	10	165	35	5	135	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	111	56	28	111	28	11	183	39	6	150	6
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	172	167	233	161								
Volume Left (vph)	6	28	11	6							isiyi dashalini i shir Shirishi dashalini	
Volume Right (vph)	56	28	39	6								
Hadj (s)	-0.15	-0.03	-0.06	0.02								
Departure Headway (s)	5.0	5.1	5.0	5.1						·····		
Degree Utilization, x	0.24	0.24	0.32	0.23								
Capacity (veh/h)	653	638	667	641			and a second second second					(for second and a second
Control Delay (s)	9.6	9.7	10.3	9.7								
Approach Delay (s)	9.6	9.7	10.3	9.7								*****
Approach LOS	A	Α	В	A								
Intersection Summary												
Delay			9.9									
HCM Level of Service			Α									
Intersection Capacity Uti	lization		40.4%	IC	CU Leve	l of Ser	vice		A			
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		44			4			<b>.</b>			đ.	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	40	45	55	125	5	55	200	40	10	195	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	44	50	61	139	6	61	222	44	11	217	6
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	100	206	328	233								
Volume Left (vph)	6	61	61	11								
Volume Right (vph)	50	6	44	6								anger andere ber
Hadj (s)	-0.25	0.08	-0.01	0.03								
Departure Headway (s)	5.5	5.6	5.1	5.3							-112-11-14-17-14-17-14-17-14-17-14-17-14-17-14-17-14-17-14-17-14-17-14-17-14-17-14-17-14-17-14-17-14-17-14-17-1	
Degree Utilization, x	0.15	0.32	0.47	0.34								
Capacity (veh/h)	564	581	656	630	, na manan ( ha fin ha handrid y a d				en programme procession and	n (na 1. 1994) (na 1997) (na 1997) (na	adara an san sa sa sa sa sa sa sa sa sa	
Control Delay (s)	9.5	11.3	12.6	11.1						la vist (gg) ligh Status		
Approach Delay (s)	9.5	11.3	12.6	11.1								
Approach LOS	A	В	В	В								
Intersection Summary												
Delay			11.5									
HCM Level of Service			В									
Intersection Capacity Uti	lization		53.7%	(	CU Leve	l of Ser	vice		A			
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		44			44			4			44	******
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	20	110	0	10	15	110	5	55	10	140	20	15
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	22	122	0	11	17	122	6	61	11	156	22	17
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	144	150	78	194				~~~~~				
Volume Left (vph)	22	11	6	156								
Volume Right (vph)	0	122	11	17								
Hadj (s)	0.06	-0.44	-0.04	0.14								
Departure Headway (s)	4.8	4.3	4.8	4.8	aleona del ministration.						an an an an an an an an an an an an an a	100000000000000000000000000000000000000
Degree Utilization, x	0.19	0.18	0.10	0.26								
Capacity (veh/h)	694	769	689	697								
Control Delay (s)	9.0	8.3	8.4	9.6								
Approach Delay (s)	9.0	8.3	8.4	9.6			2004 COLOR IN COLOR (1979)	ndaren bermen deren eta				*******
Approach LOS	Α	A	A	A								
Intersection Summary												
Delay			8.9									
HCM Level of Service			А									
Intersection Capacity Uti	lization		34.7%	(	CU Leve	l of Ser	vice		Α			
Analysis Period (min)			15								. '	

HCM Unsignalized Intersection Capacity Analysis 11: Howard Street & Pine Street

	۶		$\mathbf{i}$	4	<b>4</b>		-	Ť	1	\$	Ļ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			ፋፑ			ፈኈ	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	5	5	15	45	5	40	20	785	30	30	1155	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Houriy flow rate (vpn)	6	6	1/	50	6	44	- 22	872	- 33	33	1283	6
Long Width (ft)												Nakaong kalena
Walking Speed (ft/s)												
Percent Blockage							igen op het det ski					
Right turn flare (veh)	e linde plane i per la i	Nebreksty (selfatssin)	ang nganaganan	alanda yana adan da da	antioeniëni depite	alinia ha muran.	e da galega (galega (galega) kila	New ang sin a saidi sa	an indonyah yasaran j	tine protection (georgian).		
Median type		None		101759 (B) (S	None							
Median storage veh)										nte di pue se primer primer primera	a na na sana sa sa sa sa sa sa sa sa sa sa sa sa sa	ala antigati na sa sa sa sa sa sa sa sa sa sa sa sa sa
Upstream signal (ft)	1.000-000-000 1.000-000-000										1247	
pX, platoon unblocked	e bi sel sel sederado da secon	ter te da la la terratere terratere terratere terratere terratere terratere terratere terratere terratere terr				landa a seconda de secondo	var eki akus kira mekataki					
vC, conflicting volume	1881	2303	644	1661	2289	453	1289			906		
VC1, stage 1 cont vol										a di ka damara		
VCz, stage z coni voi	1991	2203	614	1661	2280	452	1090			006		
tC single (s)	75	2303	6 Q	75	2209 6 5	455 6 0	1209			900 // 1		
tC. 2 stage (s)								, ang tang tang tang tang ta			(909)11109/02011092	
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	83	84	96	1	84	92	96		ang ang ang ang ang ang ang ang ang ang	96	alaanga da sa sa sa sa sa sa sa sa sa sa sa sa sa	
cM capacity (veh/h)	33	35	415	50	36	554	534			747		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	28	100	458	469	675	647						
Volume Left	6	50	22	0	33	0						
Volume Right	17	44	0	33	0	6						
cSH	75	81	534	1700	747	1700	va herbiege (derege adde	inte Parto de Stance accordent		10441.0000.0000.000	and a subsequences	
Volume to Capacity	0.37	1.23	0.04	0.28	0.04	0.38						
Queue Length 95th (II)	35	185	3 ∢_1	0	<u>ব</u>	0				ele constanti de la constanti de la constanti de la constanti de la constanti de la constanti de la constanti		
Lang LOS	/0.2 E	200./ E	۲. <i>۲</i>	0.0	۲.۷	U.U						
Annroach Delay (s)	78.2	265 7	an a		ักด์							
Approach LOS	F	<b>L00.</b> 1 F				901492109949901				39,000,000,000		
Intersection Summary												
Average Delay			12.7									
Intersection Capacity Uti	lization		71.5%	1	CU Leve	l of Sen	vice		C			
Analysis Period (min)			15									

	4	×	†	1	\$	Ļ		
Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations	¥		<u>†</u> ‡			41		
Sign Control	Stop		Free			Free		
Grade	0%		0%			0%		
Volume (veh/h)	45	80	740	20	75	1110		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90		
Hourly flow rate (vph)	50	89	822	22	83	1233		
Lane Width (ft)								
Walking Speed (ft/s)								
Percent Blockage								
Median type	None							
Median storage veh)	1.10110							
Upstream signal (ft)			611					
pX, platoon unblocked	4647	400		Selection de la companya de la companya de la companya de la companya de la companya de la companya de la comp		egieszikkorietsteki		
vC1, stage 1 conf vol	1017	422			044			
vC2, stage 2 conf vol								
vCu, unblocked vol	1617	422			844			
tC, single (s)	6.8	6.9			4.1			
tC, 2 stage (s)	35	33			22			
p0 queue free %	41	85			89			389390888 
cM capacity (veh/h)	84	580			788			
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2			
Volume Total	139	548	296	494	822			
Volume Left	50	0	0	83	0	ene filmente for to over 10020		()
Volume Right	89	0	22	0	0			
cSH	186	1700	1700	788	1700			
Volume to Capacity	0.75	0.32	0.17	0.11	0.48			
Queue Length 95th (ft)	121	0	0	9	0			
Control Delay (s)	66.0	0.0	0.0	2.9	0.0			
Lane LOS	۲ م م م		yeliy (ara dafadi gadi	Α	landar and and a state of the	the state of states and states and states and states and states and states and states and states and states and		saintanna
Approach Delay (s) Approach LOS	66.U F	0.0		1.1				
Intersection Summary								
Average Delay			4.6					
Intersection Capacity Ut	ilization		71.4%	IC	CU Leve	I of Servi	ce C	
Analysis Period (min)			15					

CAP Clough, Harbour & Associates, LLP

	-	•	Ť	1	1	ł	
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	Y		4			4	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Volume (veh/h)	35	70	430	20	50	320	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vph)	39	78	478	- 22	56	356	
Pedestrians		an a ta bara ta ta ta ta ta ta ta ta					
Lane Width (ft)			60.62.65.65.				
Walking Speed (ft/s)				and a track that we are	there whether the set that		
Percent Blockage							
Right turn flare (veh)	an <b>s</b> anan an a				u yaka kata kata yaka yaka		
Median type	None						
Median storage veh)		Ringlophischi	geventeret	nie wei hen en			
Upstream signal (it)	0.00					667	
pX, platoon unblocked	0.80	100	sosastukaipeide		-		
vc, conflicting volume	900	409			500		
vC1, stage 1 cont vol							
VOZ, Stage z com vol	0/0	480			500		
tC einnia /e)	545 64	+03 6 2			JUU 1		
tC 2 stane (s)		V-4		12123) ISS IN CONTRACT			
tE (s)	35	33			22		
p0 queue free %	84	87	Salay shabaa yada	ana yang malanjarj	95	kani miningalangi	
cM capacity (veh/h)	237	579			1064		
Direction Lane #	WR1	NR 1	CR 1				
Volume Total	117	500	411				
Volume Left	39	000	56	en en en en en en en en en en en en en e			
Volume Bight	78	22	0				
cSH	391	1700	1064				
Volume to Capacity	0.30	0.29	0.05				
Queue Length 95th (ft)	31	0	4			an filosofi (filosofi an filosofia) An filosofia (filosofia)	
Control Delay (s)	18.1	0.0	1.6				
Lane LOS	С		Α				
Approach Delay (s)	18.1	0.0	1.6			5 <u>8 6 6</u> 4	
Approach LOS	С						
Intersection Summany							
Average Delay			07				
Intersection Conscitute	ilization		2.1 50 7%	ır	<u>\  </u>	l of Conii	na R
Analysis Period (min)	mcauvit			18	/0 LCVC		<b>vo</b>
Analysis Period (min)	mzauon		15 15	IL.	NO LEVE	I OI GERVI	ue D

	٠	$\mathbf{i}$	1	Ť	Ļ	4
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	¥			<del>د</del> أ	î.,	
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	70	5	65	390	310	45
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	78	6	72	433	344	50
Pedestrians	interio dischetzelez	lihoj koleza desploj	ni de galacerte de de	y, ceny de part (de 1930 de 194	i ya wana ya kata ya kata ya kata ya kata ya kata ya kata ya kata ya kata ya kata ya kata ya kata ya kata ya k	
Lane Width (ff)						
Vvalking Speed (II/S)	anan kénakat					
Right turn flare (veh)						
Median type	None					
Median storage veh)			07.429.950.099			
Upstream signal (ft)				1089	959	
pX, platoon unblocked	0.91	0.91	0.91	*****		
vC, conflicting volume	947	369	394			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	942	310	338		an an an an an an an an an an an an an a	
tC, single (s)	6.4	6.2	4,1			
tC, 2 stage (s)	οc		<u> </u>			
nn queue free %	0.0 60	0.0 00	<u>د.د</u> ۵۸			
cM canacity (veh/h)	- 03 - 249	667	1117			
Direction Lone #	CD 4	ND 4	eo 4			
Volume Total	<u>LD 1</u> 93	506	304			
Volume Left	78	72	034			
Volume Right	6	Ő	50			
cSH	260	1117	1700	14294466469469469		
Volume to Capacity	0.32	0.06	0.23	ningin interingen opp 1955 - State Print State		
Queue Length 95th (ft)	33	5	0			
Control Delay (s)	25.2	1.8	0.0			
Lane LOS	D	A	dag basa <u>a</u> dasaran da	r segula guadean e ender taño	n an an an an an an an an an an an an an	
Approach Delay (s)	25.2	1.8	0.0			
Approach LOS	D					
Intersection Summary						
Average Delay			3.1			
Intersection Capacity Ut	ilization		57.3%	IC	U Level	el of Service B
Analysis Period (min)			15			

# HCM Signalized Intersection Capacity Analysis 1: Main Street & South Willard St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	4		۲	4			4			ф <b>.</b>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	12	11	11	14	14	14	11	11	11
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.98		1.00	0.99			0.98			0.97	
Fit Protected	0.95	1.00		0.95	1.00			1.00			0.99	
Satd. Flow (prot)	1711	1826		1770	1787			1940			1728	
Flt Permitted	0.28	1.00		0.49	1.00			0.96			0.91	
Satd. Flow (perm)	506	1826		920	1787			1874			1593	
Volume (vph)	40	260	40	30	460	25	20	205	40	45	150	60
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	44	289	44	33	511	28	22	228	44	50	167	67
RTOR Reduction (vph)	0	7	0	0	2	0	0	6	0	0	10	0
Lane Group Flow (vph)	44	326	0	33	537	0	0	288	0	0	274	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	19.7	19.7		19.7	19.7			14.8			14.8	
Effective Green, g (s)	20.7	20.7		20.7	20.7			15.8			15.8	
Actuated g/C Ratio	0.42	0.42		0.42	0.42			0.32			0.32	
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	213	770		388	753			603			513	
v/s Ratio Prot		0.18	1999 1999 1999 1999	ana ang ang ang ang ang ang ang ang ang	c0.30					,	, te di tangga kanang panta	nderren deben redr
v/s Ratio Perm	0.09		5.6.6.2	0.04				0.15			c0.17	
v/c Ratio	0.21	0.42		0.09	0.71	an de la seconda de la seconda de la seconda de la seconda de la seconda de la seconda de la seconda de la sec		0.48	a a ana di kata ng mgan		0.53	
Uniform Delay, d1	9.0	10.0		8.5	11.7			13.3			13.6	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.5	0.4		0.1	3.2			0.6			1.1	
Delay (s)	9.5	10.4		8.6	14.9			13.9			14.7	
Level of Service	Α	В		A	В		61 (S) (S) (S)	В			В	
Approach Delay (s)		10.3			14.6			13.9			14.7	
Approach LOS		B			В	lynten løsteste Samer og som		В			В	
Intersection Summary												
HCM Average Control D	elay		13.4	H	ICM Lev	el of Se	rvice		В			
HCM Volume to Capacit	v ratio		0.56	eren, an en en en en en en en en en en en en en		un an an Araba an Araba an Araba an Araba an Araba an Araba an Araba an Araba an Araba an Araba an Araba an Ar Araba an Araba	e sterste fil erefstetet fillefillet.		ander sterne sterne sterne sterne sterne sterne sterne sterne sterne sterne sterne sterne sterne sterne sterne		5494455459694485	
Actuated Cycle Length (	s)		49.1	S	um of k	ost time	(s)		8.0			
Intersection Capacity Ut	lization		65.1%	ππ. IC	CU Leve	of Ser	vice	ver	C		***************************************	aantaan 1990 oo b
Analysis Period (min)			15									

c Critical Lane Group

# HCM Signalized Intersection Capacity Analysis 2: Main Street & South Union St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	٢	+			4		٢	þ				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	10	10	16	16	16	10	11	11	12	12	12
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0				
Lane Util. Factor	1.00	1.00			1.00		1.00	1.00				
Frt	1.00	1.00			0.98		1.00	0.98				
Flt Protected	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (prot)	1888	1739			1871		1652	1761				
Flt Permitted	0.33	1.00			1.00		0.95	1.00				
Satd. Flow (perm)	650	1739			1871		1652	1761				
Volume (vph)	15	310	0	0	480	60	100	170	30	0	0	0
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	344	0	0	533	67	111	189	33	0	0	0
RTOR Reduction (vph)	0	0	0	0	5	0	0	6	0	0	0	0
Lane Group Flow (vph)	17	344	0	0	595	0	111	216	0	0	0	0
Parking (#/hr)				0	0	0						
Turn Type	Perm					*******	Perm			a hi hindora ya a gala ya igo ya		
Protected Phases		2			6			8				
Permitted Phases	2	an an tha an the state of the state of the state of the state of the state of the state of the state of the stat	en de la constitue de la cons	ers i stret dalla i solo			8		ing internet and the set	994-6-919-64-61-64-97 1		addalalla'danninad
Actuated Green, G (s)	27.1	27.1			27.1		10.8	10.8				
Effective Green, g (s)	28.1	28.1	24494 24494 4449 4459 4459 44	s-energi sender ketala	28.1		11.8	11.8				1. 19 1
Actuated g/C Ratio	0.56	0.56			0.56		0.23	0.23				
Clearance Time (s)	5.0	5.0	per horen ekkene ekken	en den en en en	5.0	27777777777777777777777777777777777777	5.0	5.0	ana dépadenté éssetet.	serven and the Secritican	1997-1996-1997-1997-1997-1997-1997-1997-	042440(CAA)SO
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0				
Lane Grp Cap (vph)	363	971			1045		388	413				
v/s Ratio Prot		0.20		an Sector da	c0.32			c0.12				
v/s Ratio Perm	0.03	499.57.977.79993 1					0.07					
v/c Ratio	0.05	0.35			0.57		0.29	0.52				
Uniform Delay, d1	5.0	6.1	9900000000000000		7.2	Engelsginger (1999):	15.8	16.8		ender and het a		
Progression Factor	1.00	1.00			1.00	5 68 69 68 5	1.00	1.00				
Incremental Delay, d2	0.1	0.2	8460400202	panjar Djer Helioja (1993).	0.7		0.4	1.2				
Delay (s)	5.1	6.3			7.9		16.2	18.0				
Level of Service	А	A	atorio Societado (or	ini nome ni prisvi koje	A	9769696696966996	В	В	aneisnissinsissi			100000000000000
Approach Delay (s)		6.3			7.9			17.4			0.0	
Approach LOS		A	hologo a secondario da	aldaretike bilana ana ki	Α	en den heiner heinen den heinen den heiner heinen heiner heiner heiner heiner heiner heiner heiner heiner heine	(89) - 20) - 20) - 20) (89) - 20) - 20) - 20) - 20) - 20) - 20) - 20) - 20) - 20) - 20) - 20) - 20) - 20) - 20) - 20) - 20) - 20) - 20	В	an di Santa Santa Santa Santa Santa Santa Santa Santa Santa Santa Santa Santa Santa Santa Santa Santa Santa Sa Santa Santa		A	
Intersection Summary												
HCM Average Control D	elay	************************	9.9	Н	CM Lev	el of Se	rvice		A			
HCM Volume to Capacit	y ratio		0.52									
Actuated Cycle Length (s	S)	on the sol of the sol of \$25,000	50.3	Sı	um of lo	st time (	(s)	an an tha she that first first first first first first first first first first first first first first first fi	8.0	eo-controla disensation		1044004400
Intersection Capacity Uti	lization	-	46.3%	IC	U Leve	l of Serv	ice		A			
Analysis Period (min)			15				aana madaha ka			an an an an an an an an an an an an an a		andara sanging
c Critical Lane Group												

#### HCM Signalized Intersection Capacity Analysis 3: Main Street & South Winooski Ave

	٠		$\rightarrow$	✓		₹	1	Ť	1	1	Ļ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	۴	4		۲	<b>†</b>	7		44		ሻ	ł	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	11	11	12	12	12	10	10	12
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0		4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00		1.00	n al frankriger an de fan br>En de fan de fan de fan de fan de fan de fan de fan de fan de fan de fan de fan de fan de fan de fan de fan de f	1.00	1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85		0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00	1	0.95	1.00	1.00		0.99	· · · · · · · · · · · · · · · · · · ·	0.95	1.00	1.00
Satd, Flow (prot)	1540	1669		1711	1801	1531		1626		1652	1739	1583
Fit Permitted	0.47	1.00		0.62	1.00	1.00		0.91		0.73	1.00	1.00
Satd. Flow (perm)	759	1669		1113	1801	1531		1491		1265	1739	1583
Volume (vph)	30	180	5	40	315	135	10	25	5	75	175	65
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	33	200	6	44	350	150	11	28	6	83	194	72
RTOR Reduction (vph)	0	1	0	0	0	81	0	5	0	0	0	49
Lane Group Flow (vph)	33	205	0	44	350	69	0	40	0	83	194	23
Parking (#/hr)	0	0	0				0	0	0			
Turn Type	Perm			Perm		Perm	Perm			pm+pt		Perm
Protected Phases		2			6			8		7	4	
Permitted Phases	2	-doormood/Abooks aboo	ri sina finaniana kwalifu	6	re oranisa (tarab) sa Quita A	6	8			4	ji talayin on Statud	4
Actuated Green, G (s)	26.1	26.1		27.3	27.3	27.3		11.0		19.1	19.1	19.1
Effective Green, g (s)	27.1	27.1		28.3	28.3	28.3		12.0		20.1	20.1	20.1
Actuated g/C Ratio	0.44	0.44		0.46	0.46	0.46		0.19		0.33	0.33	0.33
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0		5.0		5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0		3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	333	732	ándkalaininin en neiminin úteimin	510	825	701		290		437	566	515
v/s Ratio Prot		0.12			c0.19					0.01	c0.11	
v/s Ratio Perm	0.04			0.04		0.04		0.03	in an an an an an an an an an an an an an	0.05		0.01
v/c Ratio	0.10	0.28		0.09	0.42	0.10		0.14		0.19	0.34	0.05
Uniform Delay, d1	10.2	11.1	agaaya gaga gada gada gada gada ah	9.5	11.3	9.5		20.6	oo ayaa ayaa ahaa ahaa ahaa ahaa ahaa ah	15.1	15.8	14.3
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00
Incremental Delay, d2	0.1	0.2		0.1	0.4	0.1	1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -	0.2		0.2	0.4	0.0
Delay (s)	10.3	11.3		9.5	11.6	9.6		20.8		15.3	16.2	14.3
Level of Service	В	В		Α	В	Α	1 - 1	С		В	В	В
Approach Delay (s)		11.2			10.9			20.8			15.6	
Approach LOS		В			В			С			В	
Intersection Summary												
HCM Average Control D	elay		12.7	Н	CM Lev	el of Se	ervice		В			
HCM Volume to Capacit	y ratio		0.35									
Actuated Cycle Length (s	S)		61.8	S	um of lo	ost time	(s)		8.0	******		
Intersection Capacity Uti	lization		44.1%	IC	U Leve	l of Ser	vice		Α			
Analysis Period (min)			15			ene hores resultado parte		uu pro, experienter (ningh	en unen unerrichten?	a ana na kaodim-paositra (1996)		na antan terretaki
c Critical Lane Group												

	٦		$\mathbf{i}$	1		×.	1	t	۴	1	Ļ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		đ	۲	ሻ	<b>Þ</b>			<del>با</del>	7	٢	î.	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	12	12	16	12	12	12
Total Lost time (s)		4.0	4.0	4.0	4.0			4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	
Frt		1.00	0.85	1.00	0.97			1.00	0.85	1.00	0.98	
Fit Protected		1.00	1.00	0.95	1.00			0.98	1.00	0.95	1.00	
Satd. Flow (prot)		1736	1478	1486	1516			1834	1794	1593	1833	
Flt Permitted		0.99	1.00	0.64	1.00			0.89	1.00	0.63	1.00	
Satd. Flow (perm)		1713	1478	1004	1516			1657	1794	1049	1833	
Volume (vph)	5	160	45	20	270	70	60	130	25	20	45	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	6	178	50	22	300	78	67	144	28	22	50	6
RTOR Reduction (vph)	0	0	31	0	12	0	0	0	13	0	4	0
Lane Group Flow (vph)	0	184	19	22	366	0	0	211	15	22	52	0
Parking (#/hr)				0	0	0	0			0		
Turn Type	Perm		Perm	Perm		a land in an a' mark a chaile a'	Perm		Perm	Perm		<u>interinterinterinterinterinterinterinter</u>
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6			8		8	4		
Actuated Green, G (s)		15.2	15.2	15.2	15.2			12.0	12.0	12.0	12.0	
Effective Green, g (s)		16.2	16.2	16.2	16.2			13.0	13.0	13.0	13.0	
Actuated g/C Ratio		0.38	0.38	0.38	0.38			0.31	0.31	0.31	0.31	
Clearance Time (s)		5.0	5.0	5.0	5.0			5.0	5.0	5.0	5.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0			3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		658	567	385	582			510	553	323	565	
v/s Ratio Prot					c0.24						0.03	
v/s Ratio Perm	1999-1997-1991-1997-1997-1997-1997	0.11	0.01	0.02		8.2011.002.00000.00000.0000	an an an an an an an an an an an an an a	c0.13	0.01	0.02	renere estatore a settina fra	
v/c Ratio		0.28	0.03	0.06	0.63			0.41	0.03	0.07	0.09	
Uniform Delay, d1		9.0	8.1	8.2	10.6			11.6	10.2	10.3	10.4	
Progression Factor		1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.2	0.0	0.1	2.1			0.5	0.0	0.1	0.1	
Delay (s)		9.2	8.1	8.3	12.7			12.1	10.2	10.4	10.5	
Level of Service		A	A	A	В			В	В	В	В	
Approach Delay (s)		9.0			12.4			11.9			10.5	
Approach LOS		Α			В			В			В	
Intersection Summary												
HCM Average Control D	elay		11.3	H	ICM Lev	/el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.45									
Actuated Cycle Length (	s)		42.2	S	ium of lo	ost time	(S)		8.0			
Intersection Capacity Uti	lization		42.0%	l(	CU Leve	el of Ser	vice		A			
Analysis Period (min)			15									
c Critical Lane Group												antan na har.

# HCM Signalized Intersection Capacity Analysis 20: Howard Street & South Winooski Ave

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Movement	EBL2	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR2	SBL	SBT	SBR
Lane Configurations		44			4			4			<b>.</b>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	14	14	14	12	12	12	16	16	16
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.97			0.98			1.00			0.99	
Fit Protected		0.99			0.99			1.00			1.00	
Satd. Flow (prot)		1795			1923	8 48 49 E		1853			2091	
Flt Permitted		0.95			0.96			0.98			0.98	
Satd. Flow (perm)		1728			1865			1824			2059	
Volume (vph)	10	30	10	5	20	5	20	305	5	5	95	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	11	33	11	6	22	6	22	339	6	6	106	6
RTOR Reduction (vph)	0	9	0	0	0	0	0	- <b>1</b>	0	0	2	0
Lane Group Flow (vph)	0	46	0	0	34	0	0	366	0	0	116	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		3			3			2			6	
Permitted Phases	3			3			2	2		6	6	
Actuated Green, G (s)		15.0			15.0			30.0			30.0	
Effective Green, g (s)		16.0			16.0			31.0			31.0	
Actuated g/C Ratio		0.20			0.20			0.39			0.39	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Lane Grp Cap (vph)		346			373			707			798	
v/s Ratio Prot												
v/s Ratio Perm		c0.03			0.02			c0.20			0.06	
v/c Ratio		0.13			0.09			0.52			0.14	
Uniform Delay, d1		26.3			26.1			18.8			15.9	
Progression Factor		1.00			1.00			1.00			1.00	Nasia (sing Shina ang di
Incremental Delay, d2		0.8			0.5			2.7			0.4	
Delay (s)		27.1			26.6			21.5			16.3	
Level of Service		С	en et e succest totte e esta te e		С			С			В	
Approach Delay (s)		27.1			26.6			21.5			16.3	
Approach LOS		С			С			С			В	
Intersection Summary												
HCM Average Control D	elay		22.9	Н	CM Lev	el of Se	rvice		С			
HCM Volume to Capacit	y ratio		0.40									
Actuated Cycle Length (	s)		80.0	S	um of lo	ost time	(s)		12.0			
Intersection Capacity Uti	lization		51.0%	IC	U Leve	l of Sen	/ice		A			
Analysis Period (min)			15									
c Critical Lane Group												



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Movement	SWL2	SWL	SWR	SWR2
Lane Configurations	۲	Ŵ		
Ideal Flow (vphpl)	1900	1900	1900	1900
Lane Width	14	14	14	14
Total Lost time (s)	4.0	4.0		
Lane Util. Factor	1.00	1.00		
Frt	1.00	0.98		
Flt Protected	0.95	0.96		
Satd. Flow (prot)	1888	1872		
Flt Permitted	0.95	0.96	un hauth dialachtan	Service Service Contra
Satd. Flow (perm)	1888	1872		
Volume (vph)	5	175	15	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90
Adj. Flow (vph)	6	194	17	6
HICH Heduction (vpn)	U S	1	Ű	0
Lane Group Flow (vpn)	6	216	0	0
Turn Type	Split			
Protected Phases	4	4		
Actuated Crean C (a)	00.0	00 0		
Effective Green, G (S)	20.0	20.0		
Actuated a/C Patio	21.0	21.0		
Clearance Time (c)	U.20	0.20		sininas
Lane Gro Can (ynh)	406	/01		
v/e Batio Prot	490	-431 AN 12		
v/s Ratio Perm	0.00	50.1£		
v/c Batio	0.01	0 44		
Uniform Delay, d1	21.8	24.6		
Progression Factor	1.00	1.00		
Incremental Delay. d2	0.0	2.8	anan di Kab	9-400-000-000-000 
Delay (s)	21.9	27.4		
Level of Service	Ċ	С	an an an tha share an an an an an an an an an an an an an	See Stand Standard
Approach Delay (s)		27.3		
Approach LOS	an an an an an an an an an an an an an a	С		
Intersection Summary				

# HCM Signalized Intersection Capacity Analysis 23: Flynn Avenue & Shelburne St. (Rt 7)

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4	7		\$	7	*	ቶኬ		<b>X</b>	<b>#t</b> .	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	ya na ananya.
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95	las tel sel se se se se se se se se se se se se se	1.00	0.95	
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	0.99	
Fit Protected		0.97	1.00	ŚŚŚ	0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1799	1583		1823	1583	1770	3536		1770	3499	
Flt Permitted		0.77	1.00		0.87	1.00	0.32	1.00		0.30	1.00	
Satd. Flow (perm)		1439	1583		1623	1583	587	3536		561	3499	
Volume (vph)	60	25	110	15	20	15	100	850	5	10	555	45
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj, Flow (vph)	67	28	122	17	22	17	111	944	6	11	617	50
RTOR Reduction (vph)	0	0	99	0	0	14	0	1	0	0	7	0
Lane Group Flow (vph)	0	95	23	0	- 39	3	111	949	0	11	660	<b>0</b>
Turn Type	Perm		Perm	Perm		Perm	pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)		10.5	10.5		10.5	10.5	38.3	38.3		28.7	28.7	
Effective Green, g (s)		10.5	10.5		10.5	10.5	38.3	38.3		28.7	28.7	
Actuated g/C Ratio		0.18	0.18		0.18	0.18	0.67	0.67		0.51	0.51	
Clearance Time (s)		4.0	4.0		4.0	4.0	3.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		266	293		300	293	512	2384		283	1768	
v/s Ratio Prot							0.02	c0.27			0.19	
v/s Ratio Perm		c0.07	0.01		0.02	0.00	0.12			0.02		
v/c Ratio		0.36	0.08		0.13	0.01	0.22	0.40		0.04	0.37	
Uniform Delay, d1		20.2	19.1		19.3	18.9	3.7	4.1		7.1	8.6	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.8	0.1		0.2	0.0	0.2	0.1		0.1	0.1	
Delay (s)		21.0	19.3		19.5	18.9	3.9	4.2		7.1	8.7	
Level of Service		С	В		В	В	Α	Α		А	Α	
Approach Delay (s)		20.0			19.3			4.2		i kon ere ek	8.7	
Approach LOS		С			В			А			А	
Intersection Summary												
HCM Average Control D	elay		7.8	Н	ICM Lev	el of Se	ervice		А			
HCM Volume to Capacit	y ratio		0.39	18 2 8 <sup>2</sup>		6.00.2.0						
Actuated Cycle Length (	s)		56.8	S	um of lo	ost time	(s)		8.0			
Intersection Capacity Uti	lization		51.6%	IC	CU Leve	l of Ser	vice		Α			
Analysis Period (min)			15									
c Critical Lane Group									ŚW. ŚW. WARK			

#### CAP Clough, Harbour & Associates, LLP

# HCM Signalized Intersection Capacity Analysis 24: Home Avenue & Shelburne St. (Rt 7)

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	~~~~~~	র্ম	۲	۲	î,		۴	<b>ት</b> ኬ		٣	<b>*</b> t.	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	10	12	16	12	10	10	10	10	10	10
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	0.95		1.00	0.95	
Fri		1.00	0.85	1.00	0.90		1.00	1.00		1.00	0.99	
Fit Protected		0.96	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1728	1478	1770	1906		1652	3299		1652	3265	
Flt Permitted		0.75	1.00	0.71	1.00		0.35	1.00		0.95	1.00	
Satd. Flow (perm)		1349	1478	1329	1906		608	3299		1652	3265	
Volume (vph)	50	10	240	15	5	10	90	1020	10	10	600	50
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	56	11	267	17	6	11	100	1133	11	11	667	56
RTOR Reduction (vph)	0	0	237	0	10	0	0	1	0	0	7	0
Lane Group Flow (vph)	0	67	30	17	7	0	100	1143	0	11	716	0
Turn Type	Perm		Perm	Perm			om+pt			Prot		a da 1914) Julio Moner
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2					
Actuated Green, G (s)		7.8	7.8	7.8	7.8		45.9	45.9		0.9	28.3	
Effective Green, g (s)		7.8	7.8	7.8	7.8		46.9	46.9		0.9	29.3	
Actuated g/C Ratio	warne futer and row dates	0.11	0.11	0.11	0.11	oo tatu adaasto at a	0.67	0.67		0.01	0.42	
Clearance Time (s)		4.0	4.0	4.0	4.0		5.0	5.0		4.0	5.0	
Vehicle Extension (s)		1.0	1.0	1.0	1.0		1.5	1.0		1.0	1.0	
Lane Grp Cap (vph)		150	164	148	212		682	2207		21	1365	
v/s Ratio Prot					0.00		0.04	c0.35		0.01	c0.22	
v/s Ratio Perm		c0.05	0.02	0.01			0.06					
v/c Ratio	5+10-10-2000-0-0-200	0.45	0.18	0.11	0.03	an an an an an an an an an an an an an a	0.15	0.52		0.52	0.52	
Uniform Delay, d1		29.1	28.3	28.0	27.8		5.4	5.9		34.4	15.2	
Progression Factor	u da ser ser ser ser ser ser ser ser ser ser	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.8	0.2	0.1	0.0		0.5	0.9		10.4	1.4	
Delay (s)	had belev betalation inter-	29.9	28.4	28.2	27.8	Service and a state of the	5.8	6.7	و محمد محمد اور محمد الدول	44.8	16.7	ung alama karana karang
Level of Service		G	Ç,	C	Ç		A	A	5 Se 69 Be	D	B	
Approach Delay (s)		28.7		us se su su su su su su su su su su su su su	28.0	seritige and and an		6.7	eri mente producte		17.1	ana ang ang ang ang ang ang ang ang ang
Approach LOS		C C			C			A			В	
Intersection Summary												
HCM Average Control D	elay		13.4	H	CM Lev	rel of Se	rvice		B			
HCM Volume to Capacit	y ratio		0.48									
Actuated Cycle Length (s	5)		70.1	S	um of Ic	ost time i	(s)		8.0			
Intersection Capacity Uti	lization		51.8%	IC	CU Leve	l of Serv	vice		Α			
Analysis Period (min)			15							2.6.6.6		

c Critical Lane Group

### HCM Signalized Intersection Capacity Analysis 25: I-189 OFF RAMP & Shelburne St. (Rt 7)

	۶		$\mathbf{\tilde{z}}$	4	<b></b>	×.	1	Ť	1	1	↓	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				ኻ	র			4 <b>t</b>			ትኈ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	14	12	12	12	12	12	12
Total Lost time (s)				4.0	4.0			4.0			4.0	
Lane Util. Factor				0.95	0.95			0.95			0.95	
Frt				1.00	1.00			1.00			1.00	
Flt Protected				0.95	0.96			1.00			1.00	
Satd. Flow (prot)				1681	1691			3539			3539	
Fit Permitted				0.95	0.96			1.00			1.00	
Satd. Flow (perm)				1681	1691			3539			3539	
Volume (vph)	0	0	0	1255	50	0	0	700	0	0	925	0
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	1394	56	0	0	778	0	0	1028	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	706	744	0	0	778	0	0	1028	0
Turn Type				Perm		ļ	Perm					
Protected Phases					8	a na palanca a siyaya na siyaya na siyaya na siyaya na siyaya na siyaya na siyaya na siyaya na siyaya na siyay		2	genelenseg forstandet av sender av s	engelen die der bestättigt	6	20100212025055
Permitted Phases				8			2					
Actuated Green, G (s)				28.2	28.2			24.5			24.5	
Effective Green, g (s)				30.2	30.2			26.5			26.5	
Actuated g/C Ratio				0.47	0.47			0.41			0.41	
Clearance Time (s)				6.0	6.0			6.0			6.0	
Vehicle Extension (s)				3.0	3.0			3.0			3.0	an an an an an an an an an an an an an a
Lane Grp Cap (vph)				785	789			1450		84.57878	1450	
v/s Ratio Prot	and the second		1		2.000.00000000000000000000000000000000	anten an dren her mente	Arrester of Sector Andres	0.22	al na sana sa sa sa sana sa sa		c0.29	t gen from an an an an an an an an an an an an an
v/s Ratio Perm				0.42	0.44	(anta 3 S at		SI MARA				
v/c Ratio				0.90	0.94			0.54			0.71	
Uniform Delay, d1				15.9	16.4			14.5	ini india dia dana da Secondari dalam dalam dalam dalam dalam dalam dalam dalam dalam dalam dalam dalam dalam d		15.9	
Progression Factor				1.00	1.00			1.00	en en en en en en en en en en en en en e		1.00	or of each with a second
Incremental Delay, d2				13.1	19.4			0.4			1.6	
Delay (s)				29.0	35.8			14.8		,	17.5	
Level of Service				C	D			В			B	
Approach Delay (s)		0.0			32.5			14.8			17.5	
Approach LOS		Α			С	성사장 (1993) 등 2012년 - 1993년 - 1993년 2012년 - 1993년 - 1993년 - 1993년 - 1993년 - 1993년 - 1993년 - 1993년 - 1993년 - 1993년		В			В	
Intersection Summary												
HCM Average Control De	elay		23.5	H	CM Lev	el of Sen	/ice		C			
HCM Volume to Capacity	ratio	i in a standard a standard a standard a standard a standard a standard a standard a standard a standard a stand	0.83	enterio (non processo and	a na sa ana sa sa sa sa sa sa sa sa sa sa sa sa sa	ing an an an an an an an an an an an an an	and the second second			and a second second second second second second second second second second second second second second second	Antan Alagana Administra	
Actuated Cycle Length (s	)		64.7	S	um of lo	ost time (s	9		8.0			
Intersection Capacity Util	zation	6	8.3%	IC	CU Leve	l of Servi	ce	and standard and a d	С	an an an an an an an an an an an an an a	ana ang ang ang ang ang ang ang ang ang	ang gang si yina tana
Analysis Period (min)			15									

С Critical Lane Group

Clough, Harbour & Associates, LLP

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			¢.			¢ <b>1</b> ,			4	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	100	30	45	155	10	25	325	45	5	145	10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	111	33	50	172	11	28	361	50	6	161	11
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	150	233	439	178								
Volume Left (vph)	6	50	28	6			andara (non co-					
Volume Right (vph)	33	11	50	11			54.1.4.4.1.1.1.1.1.1.1.1.1.4.4.4.4		Cellineero Alerino de 1833	enderstelle endelse og førstelse og førstelse og som en som en som en som en som en som en som en som en som e En en	00.000010.0000	
Hadj (s)	-0.09	0.05	-0.02	0.00								
Departure Headway (s)	6.0	6.0	5.4	5.8		en en en land sen en  neyeliniyanedilini	an taka takan 200 menantak di			er die keiseren die seie	4997999 (Berlent)	
Degree Utilization, x	0.25	0.39	0.66	0.29								
Capacity (veh/h)	517	543	638	553	100000000000000000000000000000000000000							
Control Delay (s)	11.1	12.7	18.1	11.2								
Approach Delay (s)	11.1	12.7	18.1	11.2	9000-000000000000000000000000000000000	944 (1921) (1929) (1929) 944 (1921) (1929)			een benetigen oorte ettertet	01041041041040		
Approach LOS	B	В	C	В								
Intersection Summary												
Delay			14.6									
HCM Level of Service			В		10.0 M 2010 M 2010 M 2010 M 2010 M 2010 M 2010 M 2010 M 2010 M 2010 M 2010 M 2010 M 2010 M 2010 M 2010 M 2010 M			1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 -		20110112220220101200000	a fan de ferrere en fan fan fan ferre	04/24049-0494-0204
Intersection Capacity Uti	lization		59.6%	K	CU Leve	I of Sen	vice		В			
Analysis Period (min)			15				an a standard a sta				erni bişindendekteri	en-traditions
								alainin an an an an an an an an an an an an an				

	-	•	<b>†</b>	1	1	¥		
Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations	¥		<b>\$</b>			<del>र्</del> ग		
Sign Control	Stop		Free			Free		
Grade	0%		0%			0%		
Volume (veh/h)	75	5	385	205	5	340		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90		
Hourly flow rate (vph)	83	6	428	228	6	378		
Pedestrians								
Lane Width (ft)								
Walking Speed (ft/s)			and for the state of the state of the					
Percent Blockage								
Right turn flare (veh)	an ang ang ang ang ang ang ang ang ang a				alatina ang ang ang ang ang ang ang ang ang a		an an an an an an an an an an an an an a	
Median type	None							
Median storage veh)	sangan ginakanana	giriyin tayılatalar		jiininin aasaa		<u>in an an an an an an an an an an an an an</u>	jan defensionali in Biana	
Upstream signal (it)						837		
pA, platoon unblocked	0.04		Alternation					e.
vo, connicarig volume	କଦା	542			969			
vC1, stage 1 cont vol								ed.
VCu unblocked vol	021	510			656			ş
tC single (s)	61 61	542 69			000			<u>8</u>
tC. 2 stage (s)	en den e <b>l Mart</b> ale					(		
tF (s)	3.5	33			22			2
p0 queue free %	72	99		ateryitya/hittifi(R	99			
cM capacity (veh/h)	295	541			932			8
Direction Lane #	WB 1	NB 1	SB 1					 81
Volume Total	89	656	383					
Volume Left	83	0	6	essen Tariz				Š
Volume Right	6	228	Ō					2
cSH	303	1700	932	erre and an and a staffig				
Volume to Capacity	0.29	0.39	0.01					
Queue Length 95th (ft)	30	0	0	eesse (die 2000) die fan	a a de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de La contra de la contr		ana ta mangalang kang kang kang kang kang kang kang k	943
Control Delay (s)	21.7	0.0	0.2	Ś Ś Ś				
Lane LOS	С		Α	en einer einer die seinen (die seine	aanta kata kata ka	en versione Stationen (stat/file		en,
Approach Delay (s)	21.7	0.0	0.2	81/25/52.20				
Approach LOS	С						ana kana anima na ngangang kang	
Intersection Summary								
Average Delay			1.8					
Intersection Capacity Ut	ilization		13.9%	IC	U Leve	l of Service	9	
Analysis Period (min)		n en nomen en de la seguradas	15	en en de la compañía de la compañía de la compañía de la compañía de la compañía de la compañía de la compañía Na compañía de la compañía de la compañía de la compañía de la compañía de la compañía de la compañía de la comp	an ang sina ang sina ang sina sina sina sina sina sina sina sina			~(22)

HCM Unsignalized Intersection Capacity Analysis 22: Birchcliff Pkwy & Shelburne St. (Rt 7)

	۶		7	4	4	×	1	ţ	~	\$	Ļ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			€			41 î.			ፈቴ	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	t of the second s
Volume (veh/h)	20	0	50	10	0	10	50	860	5	5	575	45
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	22	0	56	11	0	11	56	956	6	6	639	50
Pedestrians		an an an an an an an an an an an an an a	Sector of the sector of the	nen mer tildelet for	ti anta a ta ganta ana gana	en an earle the state of the						
Lane Width (ft)												
Walking Speed (ft/s)	en en en en en en en en en en en en en e	Webbie	en en en en en en en en en en en en en e	oenooooo	xuulaalaa aalugaalaa		ang ng kanalagan ng kang kang kang kang kang kang ka				and a state of the second state	erneristadeen tast.
Percent blockage	est nam stand Kan data saipi ya										50. 189 AB	
Median time		Mono			None	á feletetetetetetetetetetetetetetetetetete						waanina ah
Median storage veh)		INCINE			INOLIE							
Upstream signal (ft)								1267				
pX, platoon unblocked		ener energy					58.990 (55.89)				991 (BA1999) 9	
vC, conflicting volume	1275	1747	344	1456	1769	481	689			961		
vC1, stage 1 conf vol	neline one i respondin			(4.11.94) (4.11.44) (4.11.44) (4.11.44) (4.11.94) (4.11.44) (4.11.44) (4.11.44)	en e e compañía de la compañía de la compañía de la compañía de la compañía de la compañía de la compañía de la Compañía de la compañía	ada da Barkatara di Tanggar da Barkatara di Barkatara di Barkatara di Barkatara di Barkatara di Barkatara di Ba	n (na an an Ingeria) a shekara in s		iste i se sur statistica de la seconda de la seconda de la seconda de la seconda de la seconda de la seconda d La seconda de la nd definition of			
vC2, stage 2 conf vol			STARLES STA									
vCu, unblocked vol	1275	1747	344	1456	1769	481	689		- 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 199 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999	961		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4,1		
tC, 2 stage (s)	1			وروم والمراجع والمراجع والمراجع والمراجع								
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue tree %	81	100	91	86	100	98	94		egherigan jakan iki inda kie	99		
civi capacity (ven/n)	115	79	652	/9	$\sim R$	532	901			712		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	78	22	533	483	325	369						
Volume Left	22	11	56	0	6	0		ما دونور در در در ماند. ما در اور در ماند در ماند در ماند در ماند در ماند در ماند ماند ماند ماند ماند ماند مان		an an ann an an an an an an an an an an		
	56	11	0	6	0	50						
Volume to Consolitu	2/9	137	901	1700	712	1/00	uenineos sistemate	a da ang ang ang ang ang ang ang ang ang an	An the state of the state of the state of the state of the state of the state of the state of the state of the	homasenaan koosa	Nganing pananang	en kiedele staatste
	0.20 29	U.10 14	U.UO E	0.20	0.01	0.22	Sonton Anna	nesi ke ke e	i Budhana	Santan cala cala		
Control Delay (s)	20 22 Q	26.2		0	02	0						8459465948
Lane LOS	о С	50.2 F	Δ	0.0	0.3 A	0.0						
Approach Delay (s)	22 A	362	nà						Condestantes por portanes de Condestantes de Condestantes de Condestantes de Condestantes de Condestantes de Condestantes de Condestantes de			
Approach LOS	Č	E										
Intersection Summan												
Average Delay			20									
Intersection Canacity Util	ization		2.0 57 4%	ır	111 ovo	I of Son	iro		R			
Analysis Period (min)			15		r har daarhat 9 ka							



		$\rightarrow$	1		-	1	
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	<b>ħ</b>			ৰ	¥		
Sign Control	Free			Free	Stop		
Grade	0%			0%	0%		
Volume (veh/h)	195	30	110	70	10	40	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vph)	217	33	122	78	11	44	
Pedestrians					ukaden seberationak		
Lane wildin (ii)							
Percent Blockade							
Right turn flare (veh)					990 <i>4990</i> 9908		
Median type					None		
Median storage veh)				Seven de des	110110		
Upstream signal (ft)		geniska byte orgin Render for der state		331		se constitutering Village des televisie	
pX, platoon unblocked	a na sina na sina na sina na sina ang si			ann a stàiteachta an an	a yerda maraka dabibi be		
vC, conflicting volume		5 (S (S (S)	250		556	233	
vC1, stage 1 conf vol							unun unterenterinten erreten erreten en en erreten erreten in in erreten er erreten in geher in erreten erreten
vC2, stage 2 conf vol							
vCu, unblocked vol	norskalden skalebler		250	and the second second second second second second second second second second second second second second secon	556	233	
tC, single (s)			4.1		6.4	6.2	
tC, 2 stage (s)							
IF (S)			2.2		3.5	3.3	
cM canacity (yeh/h)			91		98	94	
			1010			000	
Direction, Lane #	EB 1	WB 1	NB 1				
Volume Lott	250	200	55				
Volume Bight	22	122	11				
cSH	1700	1316	694				
Volume to Capacity	0.15	0.09	0.08	gensen g		èn chu comh-ontais	
Queue Length 95th (ft)	0	8	7	990013589365991 <u>8</u> 65	56950 030 0300 030 03		
Control Delay (s)	0.0	5.2	10.6	60346)3)			
Lane LOS		Α	В		, erst, i dan den fan de syns	yle derekten (kritenie) zeke	
Approach Delay (s)	0.0	5.2	10.6				
Approach LOS			В				
Intersection Summarv							
Average Delay			3.2				
Intersection Capacity Uti	lization		35.2%	IC	U Level	l of Servic	æ A
Analysis Period (min)			15		a ya gala ya kunga kunga kuna gala da	en en sen en sen sen sen sen sen sen sen	

General InformationSite InformationAnplinstEJDIntersectionROUTE 7/LOCUST/LEDGEAg_ y/Co.CHAJurisdictionTOWN OF BURLINGTONDate Performed12/22/05Analysis Year2008 BUILD ALT1Analysis Time PeriodAM PEAK HOURAnalysis Year2008 BUILD ALT1Project DescriptionBURLINGTONAnalysis Year2008 BUILD ALT1East/West Street:LOCUST/LEDGENorth/South Street:ROUTE 7Intersection Orientation:North-SouthStudy Period (hrs):0.25Vehicle Volumes and AdjustmentsNorthboundSouthboundMajor StreetNorthboundSouthboundMovement12345LTRLTRVolume0610265040015Peak-Hour Factor, PHF0.900.900.900.900.90Hourly Flow Rate, HFR0677294044416Percent Heavy Vehicles0Median TypeUndivided0100RT Channelized020010Lanes020010		T	NO-WAY STO	P CONTRO	OL SUMI	MARY					
AnP <sup>1+</sup> 'st       EJD       Intersection       ROUTE 7/LOCUST/LEDGE         Ag       y/Co.       CHA       Jurisdiction       TOWN OF BURLINGTON         Date Performed       12/22/05       Analysis Year       2008 BUILD ALT1         Analysis Time Period       AM PEAK HOUR       Analysis Year       2008 BUILD ALT1         Project Description       BURLINGTON       East/West Street:       LOCUST/LEDGE       North/South Street:       ROUTE 7         Intersection Orientation:       North-South       Study Period (hrs):       0.25       Vehicle Volumes and Adjustments         Major Street       Northbound       Southbound       Southbound         Movement       1       2       3       4       5       6         L       T       R       L       T       R       Volume       0       610       265       0       400       15       Peak-Hour Factor, PHF       0.90	General Informatio	n		Site Information							
Project Description       BURLINGTON         East/West Street:       LOCUST/LEDGE         Intersection Orientation:       North-South       Study Period (hrs):       0.25         Vehicle Volumes and Adjustments       Southbound         Major Street       Northbound       Southbound         Movement       1       2       3       4       5       6         L       T       R       L       T       R         Volume       0       610       265       0       400       15         Peak-Hour Factor, PHF       0.90       0	Anelvst Ag y/Co. Date Performed Analysis Time Period	EJD CHA 12/22/05 AM PEAK	HOUR	Interse Jurisdic Analysi	ction ction s Year		ROUTE 7 TOWN O 2008 BUI	/LOCUS F BURLII LD ALT1	T/LEDGE NGTON		
East/West Street:       LOCUST/LEDGE       North/South Street:       ROUTE 7         Intersection Orientation:       North-South       Study Period (hrs):       0.25         Vehicle Volumes and Adjustments       Major Street       Southbound         Major Street       Northbound       Southbound         Movement       1       2       3       4       5       6         L       T       R       L       T       R         Volume       0       610       265       0       400       15         Peak-Hour Factor, PHF       0.90       0.90       0.90       0.90       0.90       0.90         Hourly Flow Rate, HFR       0       677       294       0       444       16         Percent Heavy Vehicles       0         2           Median Type       Undivided       0       0       0       0       0         RT Channelized       0       2       0       0       1       0         Lanes       0       2       0       0       1       0	Project Description Bl	JRLINGTON									
Intersection Orientation:North-SouthStudy Period (hrs):0.25Vehicle Volumes and AdjustmentsNorthboundSouthboundMajor StreetNorthboundSouthboundMovement123456LTRLTRVolume0610265040015Peak-Hour Factor, PHF0.900.900.900.900.900.90Hourly Flow Rate, HFR0677294044416Percent Heavy Vehicles02Median TypeUndividedRT Channelized020010ConfigurationTTRLTR010	East/West Street: LOC	UST/LEDGE		North/S	outh Stree	t: ROUTE	7				
Vehicle Volumes and Adjustments           Major Street         Northbound         Southbound           Movement         1         2         3         4         5         6           Movement         1         2         3         4         5         6           Movement         1         2         3         4         5         6           Movement         1         7         R         L         T         R           Volume         0         610         265         0         400         15           Peak-Hour Factor, PHF         0.90         0.90         0.90         0.90         0.90         0.90           Hourly Flow Rate, HFR         0         677         294         0         444         16           Percent Heavy Vehicles         0           2             Median Type         Undivided           RT Channelized         0         0         1         0           Lanes         0         2         0         0         1         0           Configuration         T         T         TR         LTR         1	Intersection Orientation:	North-South		Study F	Period (hrs)	): 0.25					
Major StreetNorthboundSouthboundMovement123456LTRLTRVolume0610265040015Peak-Hour Factor, PHF0.900.900.900.900.900.90Hourly Flow Rate, HFR0677294044416Percent Heavy Vehicles02Median TypeUndividedRT Channelized020010Lanes0200100ConfigurationTTRLTR010	Vehicle Volumes ar	nd Adjustments	5								
Movement         1         2         3         4         5         6           L         T         R         L         T         R           Volume         0         610         265         0         400         15           Peak-Hour Factor, PHF         0.90         0.90         0.90         0.90         0.90         0.90         0.90           Hourly Flow Rate, HFR         0         677         294         0         444         16           Percent Heavy Vehicles         0           2             Median Type         Undivided           RT Channelized         0         2         0         0         1         0           Lanes         0         2         0         0         1         0         0	Major Street		Northbound	1			Southbo	und			
L         T         R         L         T         R           Volume         0         610         265         0         400         15           Peak-Hour Factor, PHF         0.90         0.90         0.90         0.90         0.90         0.90           Hourly Flow Rate, HFR         0         677         294         0         444         16           Percent Heavy Vehicles         0           2             Median Type         Undivided           RT Channelized         0         0         0         0         0           Lanes         0         2         0         0         1         0           Configuration         T         T         TR         LTR	Movement		2	3		4	5		6		
Volume         0         610         265         0         400         15           Peak-Hour Factor, PHF         0.90         0.90         0.90         0.90         0.90         0.90         0.90           Hourly Flow Rate, HFR         0         677         294         0         444         16           Percent Heavy Vehicles         0           2             Median Type         Undivided           RT Channelized         0         0         0         0         0           Lanes         0         2         0         0         1         0           Configuration         T         TR         LTR	Valuma	L		H		L	T (00		R		
Peak-Hour Pactor, PHP         0.30         0.30         0.30         0.30         0.90	Volume	0	610	265		0	400		15		
Houring How Hate, Hind         0         0         234         0         444         16           Percent Heavy Vehicles         0           2             Median Type         Undivided           RT Channelized         0         0         0         0           Lanes         0         2         0         0         1         0           Configuration         T         TR         LTR  <	Hourly Flow Rate HER	0.90	677	204		0.90	0.90		16		
Median TypeUndividedRT Channelized00Lanes00ConfigurationTTR	Percent Heavy Vehicles	0	0//	234		2	444				
RT Channelized00Lanes0200ConfigurationTTRLTR	Median Type				Undivide		L	<u> </u>			
Lanes         0         2         0         0         1         0           Configuration         T         TR         LTR	RT Channelized			0	0//0//00	, <u>,</u>		T	0		
Configuration T TR LTR	Lanes	0	2	0		0	1		0		
	Configuration			TR		LTR			·····		
Upstream Signal 0 0	Upstream Signal		0				0				
Minor Street Westbound Eastbound	Minor Street		Westbound				Eastbou	ind			
Movement 7 8 9 10 11 12	Movement	7	7 8		9		11		12		
		L	Т	R		L	T		R		
Volume 0 0 55 0 25 85	Volume	0	0	55		0	25		85		
Pe Hour Factor, PHF 0.90 0.90 0.90 0.90 0.90 0.90 0.90	Pe Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90		
Houry Flow Rate, HFR 0 0 61 0 27 94	Houly Flow Rate, HFR	0	0	61		0	27		94		
Percent Heavy Vehicles 0 0 2 0 2 2	Percent Heavy Vehicles	0	0	2		0	2		2		
Percent Grade (%) 0 0	Percent Grade (%)		0				0				
Flared Approach N N	Flared Approach		N				N				
Storage 0 0	Storage		0				0				
RT Channelized 0 0	RT Channelized			0					0		
Lanes 0 0 1 0 1 0	Lanes	0	0	1		0	1		0		
Configuration R TR	Configuration			R					TR		
Delay, Queue Length, and Level of Service	Delay, Queue Length, a	nd Level of Servio	ce								
Approach NB SB Westbound Eastbound	Approach	NB	SB		Westbound	d		Eastbour	nd		
Movement 1 4 7 8 9 10 11 12	Movement	1	4	7	8	9	10	11	12		
Lane Configuration LTR R TR	Lane Configuration		LTR			R			TR		
v (vph) 0 61 121	v (vph)		0			61			121		
C (m) (vph) 706 527 328	C (m) (vph)		706			527	1	1	328		
v/c 0.00 0.12 0.37	v/c		0.00		· · ·	0.12	1		0.37		
95% queue length 0.00 0.39 1.65	95% queue lenath		0.00			0.39	<u> </u>		1.65		
Control Delay 10.1 12.7 22.3	Control Delav		10.1			127			22.3		
	LOS		R			R	<u> </u>		<u> </u>		
Approach Delay 12 7	Approach Delay			I	127	<u> </u>		22 2			
Approach LOS	Approach LOS						22.3				

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Version 4.1d

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	T۱	NO-WAY STO	P CONTRO	DL SUM	MARY					
General Information			Site Ir	nformati	on					
Anelyst Ag //Co. Date Performed Analysis Time Period	EJD CHA 12/22/05 AM PEAK	HOUR	Interse Jurisdic Analysi	ction ction s Year		ROUTE 7 TOWN O 2008 BUI	7/SOUTH F BURLI LD ALT1	WILLARD NGTON		
Project Description BUI	RLINGTON									
East/West Street: SOUT	H WILLARD		North/S	outh Stree	et: ROUTE	7				
Intersection Orientation:	North-South		Study F	Period (hrs	): 0.25					
Vehicle Volumes and	d Adjustments	3								
Major Street		Northbound				Southbo	und			
Movement	1	2	3		4	5		6		
A / 1	L	T	R		L	T		<u>R</u>		
Volume	60	550	0		0	415		0		
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90		
Houriy Flow Hate, HFR	66	611	0			461		0		
Percent Heavy Venicles	2			l la alístala	2	L				
Median Type				Unaiviae	90	I	-	~		
RT Unannelized		0 1		0				0		
Lanes				0				0		
	<u> </u>									
upstream Signal		0 Mostbound								
Minor Street		Westbound			40	Eastbou	Ind			
wovement		8	9		10	11		12		
3 ¢ - 1	L	1.10	н					H		
Volume	0	145	0		0	0		0		
Lo / Elow Poto UEP	0.90	0.90	0.90		0.90	0.90		0.90		
Percent Heavy Vehicles	0	2				2		2		
Percent Grade (%)		<u> </u>	2		<u>v</u>	<u> </u>				
Flared Approach							1			
Ptorogo		~ ~ ~								
		0	_			0		~		
HI Unannelized			0					0		
		1			0	U		0		
	<u> </u>			<u> </u>			<u> </u>			
Delay, Queue Length, an	d Level of Servic	<u>се</u>	<b>.</b>		•	1				
Approach	NB	SB		Westboun	Id		Lastbou	nd		
Movement	1	4	7	8	9	10	11	12		
Lane Configuration	LT				TR					
v (vph)	66				161					
C (m) (vph)	1100				167					
v/c	0.06				0.96					
95% queue length	0.19				7.40					
Control Delay	8.5				115.5					
LOS	A				F			1		
Approach Delav				115 5			1			
Approach LOS	×									

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Version 4.1d

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# **BUILD ALTERNATIVE 1 (FOUR-LANE)**

# 2008 PM PEAK HOUR

#### HCM Signalized Intersection Capacity Analysis 6: Main Street & Battery Street

	٦		$\mathbf{i}$	4	-	×.	1	ŧ	1	1	Ļ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		र्भ	7	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	4	۲	ሻ	41		٣	朴ト	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frt		1.00	0.85		1.00	0.85	1.00	0.99		1.00	0.99	•
Fit Protected		0.98	1.00		0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1817	1583		1813	1583	1770	3504		1770	3519	
Flt Permitted		0.77	1.00		0.81	1.00	0.32	1.00		0.95	1.00	
Satd. Flow (perm)		1433	1583		1501	1583	603	3504		1770	3519	
Volume (vph)	20	20	65	90	75	120	85	720	50	115	760	30
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	22	22	72	100	83	133	94	800	56	128	844	33
RTOR Reduction (vph)	0	0	60	0	0	93	0	0	0	0	0	0
Lane Group Flow (vph)	0	44	12	0	183	40	94	856	0	128	877	0
Turn Type	Perm		Prot	Perm		pt+ov	Perm		С	ustom		
Protected Phases		4	4		8	81		2		1	6	
Permitted Phases	4			8			2			1		
Actuated Green, G (s)		17.8	17.8		17.8	30.8	58.5	58.5		13.0	76.5	
Effective Green, g (s)		18.8	18.8		18.8	32.8	59.5	59.5		14.0	77.5	
Actuated g/C Ratio		0.17	0.17		0.17	0.30	0.54	0.54		0.13	0.70	
Clearance Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		245	271		257	472	326	1895		225	2479	
v/s Ratio Prot			0.01			0.03		c0.24		c0.07	0.25	
v/s Ratio Perm		0.03			c0.12		0.16		17, 19, 19, 19, 19, 19, 1999 (Sec. 19)			
v/c Ratio		0.18	0.05		0.71	0.08	0.29	0.45		0.57	0.35	0.00.0275
Uniform Delay, d1		39.0	38.1		43.0	27.8	13.7	15.3		45.2	6.4	
Progression Factor		1.00	1.00		1.00	1.00	0.45	0.52		1.00	1.00	
Incremental Delay, d2		0.4	0.1		9.0	0.1	2.0	0.7		3.3	0.4	
Delay (s)		39.4	38.2		52.0	27.9	8.3	8.6		48.4	6.8	
Level of Service		D	D		D	С	Α	Α		D	Α	
Approach Delay (s)		38.6			41.9			8.6			12.1	
Approach LOS		D			D			А			В	
Intersection Summary												
HCM Average Control D	elay		15.9	Н	ICM Lev	/el of S€	ervice		В			
HCM Volume to Capacit	y ratio		0.49		arch (Span							
Actuated Cycle Length (	s)		110.0	S	um of le	ost time	(s)		12.0			
Intersection Capacity Uti	lization		53.8%	1(	CU Leve	el of Ser	vice		Α			
Analysis Period (min)			15									
c Critical Lane Group												

### HCM Signalized Intersection Capacity Analysis 7: King Street & Battery Street

	٭		$\mathbf{r}$	4	<b>4</b>		1	Ť	1	1	Ļ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	4			4		٣	<u>†</u> ‡		ሻ	朴存	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00			1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.98			0.88		1.00	0.99		1.00	0.99	
Flt Protected	0.95	1.00			1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1829			1634		1770	3514		1770	3516	
Fit Permitted	0.39	1.00			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	721	1829			1623		1770	3514		1770	3516	
Volume (vph)	30	40	5	5	10	135	20	690	35	95	785	35
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	- 33	44	6	6	11	150	22	767	39	106	872	39
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	- 33	50	0	0	167	0	22	806	0	106	911	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4	en vervieter Die State Gereier		8		5	2		t i	6	
Permitted Phases	4			8								
Actuated Green, G (s)	16.2	16.2			16.2		3.4	61.0		11.6	69.2	
Effective Green, g (s)	17.2	17.2			17.2		4.4	62.0		12.6	70.2	
Actuated g/C Ratio	0.16	0.16			0.16		0.04	0.56		0.11	0.64	
Clearance Time (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0			3.0	ion dei nagressen Generation	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	113	286			254		71	1981		203	2244	
v/s Ratio Prot		0.03					0.01	0.23		c0.06	c0.26	
v/s Ratio Perm	0.05				c0.10	an an an an an an an an an an an an an a	a mana ang kana sa sa sa sa sa sa sa sa sa sa sa sa sa	· **, • ** • • • • • • • • • • • • • • •				
v/c Ratio	0.29	0.17			0.66		0.31	0.41		0.52	0.41	
Uniform Delay, d1	41.0	40.2			43.6		51.3	13.6	5	45.9	9.7	angelang ngalang pangang
Progression Factor	1.00	1.00			1.00		1.16	0.61		1.22	0.71	
Incremental Delay, d2	1.4	0.3			6.0		2.2	0.6		2.3	0.5	
Delay (s)	42.5	40.5			49.7		61.8	8.9		58.4	7.5	
Level of Service	D	D			D		Е	Α		E	Α	
Approach Delay (s)		41.3			49.7			10.3			12.8	
Approach LOS		D			D			В			В	
Intersection Summary												
HCM Average Control D	elay		15.9	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.46									
Actuated Cycle Length (	s)		110.0	S	um of lo	ost time	(s)		14.2			
Intersection Capacity Uti	lization		55.3%	IC	CU Leve	l of Serv	/ice		В			
Analysis Period (min)			15								en en en en en en en en en en en en en e	
c Critical Lane Group						Sonscription						

### HCM Signalized Intersection Capacity Analysis 8: Maple Street & Battery Street

	۶		$\mathbf{r}$	4	←	×	1	1	1	1	Ļ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4		٣	朴ト		٣	朴诤	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00			0.95		1.00	0.95	
Frt		0.99			0.94			0.99		1.00	0.99	
Flt Protected		0.98			0.98			1.00		0.95	1.00	
Satd. Flow (prot)		1739			1658			3378		1711	3388	
Flt Permitted		0.70			0.83			1.00		0.95	1.00	
Satd. Flow (perm)		1239			1393			3378		1711	3388	
Volume (vph)	50	50	10	75	40	100	0	595	55	95	655	45
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	56	56	11	83	44	111	0	661	61	106	728	50
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	123	0	0	238	0	0	722	0	106	778	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)		22.2			22.2			55.5		11.1	71.6	
Effective Green, g (s)		23.2			23.2			56.5		12.1	72.6	
Actuated g/C Ratio		0.21			0.21	and the second second second second second second second second second second second second second second second		0.51		0.11	0.66	
Clearance Time (s)		5.0			5.0			5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		261			294			1735		188	2236	
v/s Ratio Prot								c0.21		c0.06	0.23	
v/s Ratio Perm		0,10			c0.17							
v/c Ratio		0.47		et al ut al Mudaesa des	0.81	ter fra des et la francésia estructura		0.42		0.56	0.35	
Uniform Delay, d1		38.0			41.3			16.5		46.4	8.3	
Progression Factor		1.00		an an an an an an an an an an an an an a	1.00			0.26		1.40	0.42	
Incremental Delay, d2		1.3			15.1			0.6		3.6	0.4	
Delay (s)	na kala kala kara kara kara kara kara kar	39.4	den andreth en dimet marate		56.3			5.0		68.5	3.9	مىرىمى ئىرىم ۋرايىرىم
Level of Service		D			5		<u> </u>	A		E	A	
Approach Delay (s)	acastriansaras	39.4		NADONATION DI BARRO	56.3		Helen weiselicht sin mit	5.0	Gerlebertsfelsteter	-	11.6	www.siwanutra
Approach LOS		D			E			A			В	
Intersection Summary												
HCM Average Control D	elay		16.3	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacity	v ratio	01001000000000000000000000000000000000	0.54				nen yr an albeller	an da fan de fan de fan de fan de fan de fan de fan de fan de fan de fan de fan de fan de fan de fan de fan de	n an tha na bhailtean an s	ene sources en	******************	
Actuated Cycle Length (s	\$)		110.0	S	um of lo	ost time	(s)		18.2			
Intersection Capacity Uti	lization		50.7%	IC	CU Leve	l of Serv	/ice		A			
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis 5: Main Street & Pine Street

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			ৰ	۲		र्स	7		<del>ф</del>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0		4.0	4.0		4.0	
Lane Util. Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Frt		0.98			1.00	0.85		1.00	0.85		0.99	
Flt Protected		1.00			0.99	1.00		1.00	1.00		0.99	
Satd. Flow (prot)		1831			1845	1583		1854	1583		1829	
Fit Permitted		0.98			0.89	1.00		0.96	1.00		0.89	
Satd. Flow (perm)		1802			1650	1583		1780	1583		1644	
Volume (vph)	10	225	30	70	295	35	10	90	70	70	185	10
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	11	250	33	78	328	39	11	100	78	78	206	11
RTOR Reduction (vph)	0	0	0	0	0	22	0	0	55	0	0	0
Lane Group Flow (vph)	0	294	0	0	406	/ 17	0	111	23	0	295	0
Turn Type	Perm	·		Perm		Perm	Perm		Perm	Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6		6	8		8	4		
Actuated Green, G (s)		19.8			19.8	19.8		13.3	13.3		13.3	
Effective Green, g (s)	Antonio antone a statuto su t	20.8			20.8	20.8		14.3	14.3		14.3	
Actuated g/C Ratio		0.44			0.44	0.44		0.30	0.30		0.30	
Clearance Time (s)		5.0	uertrest de rubudo e refore		5.0	5.0	and the second second	5.0	5.0		5.0	
Vehicle Extension (s)		3.0			3.0	3.0		3.0	3.0		3.0	
Lane Grp Cap (vph)		786			719	690		534	475		493	
v/s Ratio Prot												
v/s Ratio Perm		0.16			c0.25	0.01		0.06	0.01		c0.18	
v/c Ratio		0.37			0.56	0.02		0.21	0.05		0.60	
Uniform Delay, d1		9.1			10.1	7.7	and the second second second second second second second second second second second second second second second	12.5	11.9		14.2	
Progression Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Incremental Delay, d2		0.3			1.0	0.0	a dana sa kara sa sa sa sa sa sa sa sa	0.2	0.0		2.0	
Delay (s)		9.4			11.1	7.7		12.7	11.9		16.2	
Level of Service	anananyan ara	A		ontal mental sector	В	A	NA 490 MININA DALAM	В	В		В	ور ورو ورو ورو ورو ورو ورو
Approach Delay (s)		9.4			10.8			12.4			16.2	
Approach LOS		A			В			В			В	
Intersection Summary												
HCM Average Control D	elay		12.0	Н	CM Lev	el of Se	ervice		В			
HCM Volume to Capacit	y ratio		0.51									
Actuated Cycle Length (	s)		47.7	S	um of lo	ost time	(S)		8.0			
Intersection Capacity Uti	lization		64.5%	IC	CU Leve	el of Ser	vice		С			
Analysis Period (min)			15									
c Critical Lane Group												

	Ť	۲	4	Ļ	4	t		
Movement	NBT	NBR	SBL	SBT	SWL	SWR		
Lane Configurations	<u>ት</u> ኩ		۴	<b>*</b> *	¥			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Total Lost time (s)	4.0		4.0	4.0	4.0			
Lane Util. Factor	0.95	la se i fisiologia Nata da se i se i se i s	1.00	0.95	1.00			
Frt	0.96		1.00	1.00	0.99			
Flt Protected	1.00		0.95	1.00	0.96			
Satd. Flow (prot)	3390		1770	3539	1764			
Fit Permitted	1.00		0.22	1.00	0.96			
Satd. Flow (perm)	3390		407	3539	1764			
Volume (vph)	625	245	20	760	440	30		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90		
Adj. Flow (vph)	694	272	22	844	489	33		
RTOR Reduction (vph)	26	0	0	0	3	0		
Lane Group Flow (vph)	940	0	22	844	519	0		
Turn Type	Prot		Perm					
Protected Phases	2	sinsi indiringi Salah Salah Salah	ing old dag og e	6	8			e de la construcción de la construcción de la construcción de la construcción de la construcción de la constru Construcción de la construcción de l
Permitted Phases			6				a fan fan de fan fan de fan fan de fan de fan de fan de fan de fan de fan de fan de fan de fan de fan de fan de	
Actuated Green, G (s)	58.8		58.8	58.8	35.0			
Effective Green, g (s)	59.8		59.8	59.8	36.0			
Actuated g/C Ratio	0.54		0.54	0.54	0.33			
Clearance Time (s)	5.0		5.0	5.0	5.0		n en gegrupp brennen e forbere for ble ferd versome bevoer.	
Vehicle Extension (s)	3.0		3.0	3.0	3.0			
Lane Grp Cap (vph)	1843	******	221	1924	577	saan mada adalah dagan dagan dagan dagan dagan dagan dagan dagan dagan dagan dagan dagan dagan dagan dagan daga		,
v/s Ratio Prot	c0.28			0.24	c0.29			
v/s Ratio Perm	an ing mangang managang mili		0.05	(),,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		enel elemente mente de la companya de la companya de la companya de la companya de la companya de la companya d	uliene der fühltenen ist bei eine fühltene gesternet.	a esta esta esta en esta estas presta fan steran el esta antifekción de se
v/c Ratio	0.51		0.10	0.44	0.90			
Uniform Delay, d1	15.8		12.1	15.0	35.3			
Progression Factor	1.00		1.21	1.20	1.00			
Incremental Delay, d2	1.0		0.9	0.7	17.1			er en næren som for press formenden en ofter forskal og på stade.
Delay (s)	16.9		15.5	18.7	52.4			
Level of Service	В		В	В	D			an Marin yanga kulomingkan yan 1977 serieta serieta serieta serieta.
Approach Delay (s)	16.9			18.6	52.4			
Approach LOS	В			В	D			sen for for the first sen start is not all one for the sense of the sense of the sense of the sense of the sen
Intersection Summary								
HCM Average Control D	elay		25.4	Н	ICM Lev	el of Service	С	
HCM Volume to Capacit	y ratio		0.66					
Actuated Cycle Length (	s)		110.0	S	um of lo	ost time (s)	14.2	
Intersection Capacity Uti	lization		58.0%	IC	CU Leve	I of Service	В	
Analysis Period (min)			15					<ul> <li>A Construction of the second se second second s second second se</li></ul>
c Critical Lane Group								

	٠	$\rightarrow$	1	1	↓ I	-	
Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	ኣኣ		٢	¥	¥	11	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width	11	12	11	12	11	12	
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0	
Lane Util. Factor	0.97		1.00	1.00	1.00	0.88	
Frt	0.98		1.00	1.00	1.00	0.85	
Flt Protected	0.96		0.95	1.00	1.00	1.00	
Satd. Flow (prot)	3292		1711	1863	1801	2787	
Fit Permitted	0.96		0.24	1.00	1.00	1.00	
Satd. Flow (perm)	3292		437	1863	1801	2787	
Volume (vph)	480	55	15	385	555	750	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	
Adj. Flow (vph)	533	61	17	428	617	833	
RTOR Reduction (vph)	6	0	0	0	0	0	
Lane Group Flow (vph)	588	0	17	428	617	833	
Turn Type			Perm			Perm	
Protected Phases	2		(1000) - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000	4	8		
Permitted Phases			4			8	
Actuated Green, G (s)	52.8		71.0	71.0	71.0	71.0	
Effective Green, g (s)	53.8		72.0	72.0	72.0	72.0	
Actuated g/C Ratio	0.38		0.51	0.51	0.51	0.51	
Clearance Time (s)	5.0		5.0	5.0	5.0	5.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	1265		225	958	926	1433	
v/s Ratio Prot	c0.18	an an an air an an an an an an an an an an an an an	1	0.23	c0.34	ada da Des estistan-statises in polares e	an dan mananan kanan br>Anan
v/s Ratio Perm			0.04			0.30	
v/c Ratio	0.47		0.08	0.45	0.67	0.58	
Uniform Delay, d1	32.3		17.2	21.4	25.1	23.6	
Progression Factor	0.85		1.00	1.00	1.00	1.00	a na an an ann an thu ann an tha ann an tha an tha ann ann ann ann ann ann ann an thair ann an thu dhunnu thai
Incremental Delay, d2	1.2		0.7	1.5	1.8	0.6	
Delay (s)	28.7		17.8	22.9	26.9	24.2	
Level of Service	С		В	C	C	C	
Approach Delay (s)	28.7			22.8	25.3		
Approach LOS	C			C	C		
Intersection Summary							
HCM Average Control D	elay		25.7	H	ICM Lev	el of Service	С
HCM Volume to Capacit	y ratio		0.58				
Actuated Cycle Length (	s)		140.0	S	um of k	ost time (s)	14.2
Intersection Capacity Uti	ilization	ļ	51.3%	IC	CU Leve	of Service	A
Analysis Period (min)			15				

c Critical Lane Group

#### HCM Signalized Intersection Capacity Analysis 16: Flynn Avenue & Pine Street

	۶		$\mathbf{i}$	<	-	×.	1	t	1	1	Ļ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4	,		<del>ф</del>			4		ሻ	4	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	14	12	12	14	12	12	14	12	11	11	12
Total Lost time (s)		4.0			4.0			4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00			1.00		1.00	1.00	
Frt		0.98			0.91			0.98		1.00	0.98	
Fit Protected		0.99			1.00			0.99		0.95	1.00	
Satd. Flow (prot)		1919			1805			1941		1711	1765	
Flt Permitted		0.81			0.96			0.93		0.59	1.00	
Satd. Flow (perm)		1585			1744			1817		1059	1765	
Volume (vph)	40	75	20	25	75	185	15	90	15	180	260	40
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	44	83	22	28	83	206	17	100	17	200	289	44
RTOR Reduction (vph)	0	9	0	0	91	0	0	7	0	0	6	0
Lane Group Flow (vph)	0	140	0	0	226	0	0	127	0	200	327	0
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		11.4			11.4			11.9		23.2	23.2	
Effective Green, g (s)		12.4			12.4			12.9		24.2	24.2	
Actuated g/C Ratio		0.26			0.26			0.27		0.51	0.51	
Clearance Time (s)		5.0			5.0			5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		416			457			496		642	903	
v/s Ratio Prot										0.05	c0.19	
v/s Ratio Perm		0.09			c0.13		\$ # \$ \$	0.07		0.11		
v/c Ratio	desind and state of some so	0.34			0.49			0.26	et en entrat en anne en manda ante	0.31	0.36	
Uniform Delay, d1		14.1			14.8			13.4		6.7	6.9	
Progression Factor	entern in inner enternen einen	1.00			1.00			1.00		1.00	1.00	
Incremental Delay, d2		0.5			0.8			0.3		0.3	0.2	
Delay (s)		14.6	والمراجع والمراجع والمراجع والمراجع		15.6	an haard ahay soo hita.		13.7	tradition and the state of the	7.0	7.2	
Level of Service		В	9 3 4 6 Q		B			В		A	A	gang 2005
Approach Delay (s)	ing index and the charge of	14.6	in the local definition in the	debili debili debili debili debili debili debili debili debili debili debili debili debili debili debili debili	15.6	en mode free brinde drive State		13.7			7.1	olaritzen derrendi
Approach LOS		В			В			В			Α	
Intersection Summary												
HCM Average Control D	elay		11.3	H	CM Lev	el of Se	rvice	5.5.5	В			
HCM Volume to Capacit	y ratio		0.38									
Actuated Cycle Length (	s)		47.3	S	um of k	ost time	(S)		8.0			
Intersection Capacity Uti Analysis Period (min)	lization	4	42.9% 15	IC	CU Leve	el of Serv	vice		Α			

c Critical Lane Group

		$\rightarrow$	1	-	1	1			
Movement	EBT	EBR	WBL	WBT	NBL	NBR			
Lane Configurations	<b>A</b>	7	ሻ	র	ኻ	オオ			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0		n alay a di da da gada gali gali gali gali gali	AND C
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.88			
Frt	1.00	0.85	1.00	1.00	1.00	0.85		ine na na ini ini ini ini ini ini ini ini i	104103
Fit Protected	1.00	1.00	0.95	0.96	0.95	1.00			
Satd. Flow (prot)	1863	1583	1681	1698	1770	2787	en profeser angele an en une en sina and egan.		ayan ay
Flt Permitted	1.00	1.00	0.95	0.48	0.95	1.00			
Satd. Flow (perm)	1863	1583	1681	850	1770	2787			
Volume (vph)	125	300	705	60	135	410			
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90			,6029735
Adj. Flow (vph)	139	333	783	67	150	456			
RTOR Reduction (vph)	0	164	0	0	0	142	lan keli oktoor en een ekstaalet.	en general et an fei an fei general statistister. An de seneral se seneral statister et an fei seneral se seneral se seneral se seneral se seneral se seneral se	39995
Lane Group Flow (vph)	139	169	414	436	150	314			880
Turn Type		om+ov	Prot		(	custom			
Protected Phases	4	2	3	8	2	23			
Permitted Phases		4		2020-2020-20 <del>77</del> 2-20	an na sana di katapan T	2		antan ya mason Maray Astronomi a Bara	.955643
Actuated Green, G (s)	28.3	69.1	49.7	83.0	40.8	95.5			12313
Effective Green, g (s)	29.3	71.1	50.7	84.0	41.8	96.5			
Actuated g/C Ratio	0.21	0.51	0.36	0.60	0.30	0.69			
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0				eeree.
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0				
Lane Grp Cap (vph)	390	804	609	817	528	1921			
v/s Ratio Prot	0.07	0.06	c0.25	0.19	c0.08	0.11			
v/s Ratio Perm		0.04		c0.13			Sandon inda ugʻar ta'larida (1997) I		.692943
v/c Ratio	0.36	0.21	0.68	0.53	0.28	0.16			
Uniform Delay, d1	47.3	19.0	37.8	16.5	37.6	7.6			2-32/13
Progression Factor	1.00	1.00	0.45	0.44	0.70	5.22		99 94949 95 97 96 59 9	
Incremental Delay, d2	0.6	0.1	2.5	0.6	1.3	0.0		an a shekarar a sa sa sa sa sa sa sa sa sa sa sa sa s	forenting.
Delay (s)	47.9	19.1	19.5	7.9	27.5	39.8			
Level of Service	D	В	В	А	С	D	an far an far far far far far stande far stande far far stande far stande far stande far stande far stande far New far far far far far far far far far far		196946
Approach Delay (s)	27.6			13.5	36.7				erente Stastado
Approach LOS	С	ala la de la construction de la construction de la construction de la construction de la construction de la con	-999-999-999-999-999-	В	D				in an an an an an an an an an an an an an
Intersection Summary									
HCM Average Control D	elay		24.3	Н	ICM Lev	el of Service	(	>	
HCM Volume to Capacity	y ratio		0.50						nooyus Nethio
Actuated Cycle Length (s	5)		140.0	S	um of lo	ost time (s)	14.2	<u>2</u>	
Intersection Capacity Uti	lization		46.3%	IC	CU Leve	of Service	1	<b>L</b>	
Analysis Period (min)	ver en antre a participation.		15		an an an tha an an An An An An An An An An An An An An An			anna an an an tao Alais an t-Paris (1976) -	00050
c Critical Lane Group									

#### HCM Signalized Intersection Capacity Analysis 30: Sears Lane & Southern Connector

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			¢‡+		۲	朴体		٣	忭	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frt		0.87			0.97		1.00	0.98		1.00	1.00	
Fit Protected		1.00			0.97		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1623			1750		1770	3481		1770	3534	
Fit Permitted		0.98			0.55		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1602			984	·····	1770	3481		1770	3534	
Volume (vph)	5	0	75	40	10	15	5	525	65	5	990	10
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	6	0	83	44	11	17	6	583	72	6	1100	11
RTOR Reduction (vph)	0	76	0	0	9	0	0	3	0	0	0	0
Lane Group Flow (vph)	0	13	0	0	63	0	6	652	0	6	1111	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		11.5			11.5		1.6	105.7		1.6	105.7	
Effective Green, g (s)		12.5			12.5		2.6	106.7		2.6	106.7	
Actuated g/C Ratio		0.09			0.09	şnış üz ye	0.02	0.76		0.02	0.76	
Clearance Time (s)	e de les du trends analos de	5.0		and a second second second	5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		143			88		33	2653		33	2693	
v/s Ratio Prot							c0.00	0.19		0.00	c0.31	
v/s Ratio Perm		0.01			c0.06							
v/c Ratio		0.09			0.71		0.18	0.25		0.18	0.41	
Uniform Delay, d1		58.5			62.0		67.7	4.9		67.7	5.8	
Progression Factor		1.00			0.92		0.97	0.32		1.37	0.44	
Incremental Delay, d2		0.3			21.2		2.6	0.2		2.2	0.4	
Delay (s)		58.8			78.4		68.3	1.8		94.6	2.9	
Level of Service	a na segunda segunda da  E	a tha tha tha tha tha tha tha tha tha th	en en en en en en en en en en en en en e	E	ana ang sanag sa ang tatun	Ε	A		F	Α	o mala alta anti-	
Approach Delay (s)		58.8	3 (Suppose)		78.4	8		2.4			3.4	
Approach LOS		Ξ			E			Α			A	
Intersection Summary												
HCM Average Control D	elay		8.4	Н	CM Lev	el of Se	rvice		А			
HCM Volume to Capacit	y ratio		0.44									
Actuated Cycle Length (s	s)		140.0	S	um of lo	ost time	(s)		18.2			
Intersection Capacity Uti	lization		44.7%	K	CU Leve	l of Sen	/ice		A			
Analysis Period (min)			15									
c Critical Lane Group			5.00									

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#### HCM Signalized Intersection Capacity Analysis 31: Flynn Avenue & Southern Connector

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4		٦	<b>†</b> ‡		ሻ	朴玲	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frt		0.96			0.99		1.00	1.00		1.00	0.99	
Flt Protected		0.99			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1762	an an an an an an an an an an an an an a		1826		1770	3534		1770	3520	
Fit Permitted		0.82			0.82		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1467			1512		1770	3534		1770	3520	
Volume (vph)	65	120	85	25	95	10	55	520	5	10	1055	40
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	72	133	94	28	106	11	61	578	6	11	1172	44
RTOR Reduction (vph)	0	13	0	0	2	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	286	0	0	143	0	61	584	0	11	1215	<u>0</u>
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		29.6			29.6		8.1	86.0		3.2	81.1	
Effective Green, g (s)		30.6			30.6		9.1	87.0		4.2	82.1	
Actuated g/C Ratio		0.22			0.22		0.06	0.62		0.03	0.59	
Clearance Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		321			330		115	2196		53	2064	
v/s Ratio Prot							c0.03	0.17		0.01	c0.35	
v/s Ratio Perm		c0.20			0.09							1999 - Constant Constant -
v/c Ratio		0.89			0.43		0.53	0.27		0.21	0.59	
Uniform Delay, d1		53.1			47.2		63.4	12.0		66.3	18.3	
Progression Factor		1.00			1.00		0.93	1.49		1.32	0.30	
Incremental Delay, d2		25.2			0.9		4.5	0.3		1.8	1.2	
Delay (s)		78.3			48.1		63.7	18.2		89.1	6.6	
Level of Service		E			D		Ε	В		F	Α	
Approach Delay (s)		78.3			48.1		9 SA 19 30	22.5			7.4	
Approach LOS		E			D			С			А	
Intersection Summary												
HCM Average Control D	elay		23.3	Н	CM Lev	el of Se	rvice		С			
HCM Volume to Capacit	y ratio		0.66									
Actuated Cycle Length (	s)		140.0	S	um of lo	ost time	(s)		18.2			
Intersection Capacity Uti	lization		68.9%	IC	CU Leve	l of Sen	/ice		C			
Analysis Period (min)			15									
c Critical Lane Group												

#### CAP Clough, Harbour & Associates, LLP

# HCM Signalized Intersection Capacity Analysis 27: Home Avenue & Southern Connector

4 Lane Alt 1 2008 PM

	٠		$\mathbf{i}$	1		*	•	t	1	5	ţ	-
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		র্ম	7		4		٣	<b>^</b> ħ		ኻ	<b>≜</b> †	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	- (- (- (- (- (- (- (- (- (- (- (- (- (-
Lane Util. Factor		1.00	1.00		1.00		1.00	0.95		1.00	0.95	
Frt		1.00	0.85		0.99		1.00	0.98		1.00	0.99	
Flt Protected		0.97	1.00		0.97		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1799	1583		1798		1770	3472		1770	3519	
Flt Permitted		0.70	1.00		0.67		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1307	1583		1246		1770	3472		1770	3519	
Volume (vph)	60	25	105	90	50	5	85	515	75	5	1115	45
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	67	28	117	100	56	6	94	572	83	6	1239	50
RTOR Reduction (vph)	0	0	98	0	1	0	0	5	0	0	2	0
Lane Group Flow (vph)	0	95	19	0	161	0	94	650	0	6	1287	0
Turn Type	Perm		Perm	Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		en en en en en en en en en en en en en e	***************					-01
Actuated Green, G (s)		21.8	21.8		21.8		12.0	95.4		1.6	85.0	
Effective Green, g (s)		22.8	22.8		22.8		13.0	96.4		2.6	86.0	
Actuated g/C Ratio		0.16	0.16		0.16		0.09	0.69		0.02	0.61	
Clearance Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		213	258		203		164	2391		33	2162	
v/s Ratio Prot							c0.05	0.19		0.00	c0.37	
v/s Ratio Perm		0.07	0.01		c0.13	*******	,,, -, -, -, -,		-1			
v/c Ratio		0.45	0.07		0.79		0.57	0.27		0.18	0.60	
Uniform Delay, d1		52.9	49.7		56.3		60.8	8.4		67.7	16.4	1999-1999-1999-1997-1997 1997-1997-1997-
Progression Factor		1.00	1.00		1.00		1.00	1.00		1.31	0.23	
Incremental Delay, d2		1.5	0.1		18.9		4.8	0.3		2.2	1.0	
Delay (s)		54.4	49.8		75.2		65.6	8.6		91,1	4.7	
Level of Service		D	D		Е		E	Α		F	Α	
Approach Delay (s)	12 (S-12 3	51.8			75.2			15.8			5.1	
Approach LOS		D			E			В			Α	
Intersection Summary												
HCM Average Control D	elay		17.2	Н	CM Lev	el of Se	rvice		В			
<b>HCM Volume to Capacit</b>	y ratio		0.63									7163053166
Actuated Cycle Length (	s)		140.0	S	um of lo	ost time	(s)		18.2			
Intersection Capacity Uti	lization		63.5%	IC	CU Leve	l of Serv	rice		В			
Analysis Period (min)			15									
c Critical Lane Group												

#### HCM Unsignalized Intersection Capacity Analysis 9: King Street & Pine Street

	٦		$\mathbf{i}$	1	<b>.</b>	*	1	t	1	1	Ļ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			44			¢\$,			4.	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	120	75	50	165	15	15	150	25	25	250	10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	133	83	56	183	17	17	167	28	28	278	11
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	222	256	211	317								
Volume Left (vph)	6	56	17	28		gagadan kasin Basar salah						
Volume Right (vph)	83	17	28	11								
Hadj (s)	-0.19	0.04	-0.03	0.03								
Departure Headway (s)	5.8	5.9	5.9	5.8								20000000000000000000000000000000000000
Degree Utilization, x	0.36	0.42	0.35	0.51		5 16 43 45						
Capacity (veh/h)	545	550	541	580								
Control Delay (s)	12.0	13.2	12.0	14.6								
Approach Delay (s)	12.0	13.2	12.0	14.6	********************			n den en el monten fen				essiisendireeptir
Approach LOS	В	В	В	В								
Intersection Summary												
Delay			13.1									
HCM Level of Service			В									
Intersection Capacity Uti	lization		53.9%	10	CU Leve	el of Ser	vice		Α			
Analysis Period (min)			15									
## HCM Unsignalized Intersection Capacity Analysis 10: Maple Street & Pine Street

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	٦		$\mathbf{r}$	≮	-	*.	1	Ť	1	\$	Ļ	$\checkmark$
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4		e nami na provinski na provinska stanika stanika stanika stanika stanika stanika stanika stanika stanika stanik	4			-\$ <b>-</b> \$			4.	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	10	125	40	50	120	10	60	170	55	15	350	10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	11	139	44	56	133	11	67	189	61	17	389	11
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	194	200	317	417								
Volume Left (vph)	11	56	67	17								
Volume Right (vph)	44	11	61	11				Non-Juliu Andrew H	a na an an gun ann an an a' an a' an a'	enden, erne hunden der hand	an de l'hort warde de les de l	2000-00-0000000
Hadj (s)	-0.09	0.06	-0.04	0.03								
Departure Headway (s)	6.5	6.7	6.0	5.9								angest er en stad tig stre
Degree Utilization, x	0.35	0.37	0.53	0.68								
Capacity (veh/h)	474	467	553	574								tereste apares (24
Control Delay (s)	13.1	13.5	15.6	20.7								
Approach Delay (s)	13.1	13.5	15.6	20.7							2010-012-012-012-012-012-012-012-012-012	
Approach LOS	В	В	C	C								
Intersection Summary												
Delay			16.7									
HCM Level of Service			С									
Intersection Capacity Ut	lization		68.1%	l(	CU Leve	l of Ser	vice		С			
Analysis Period (min)			15									

	٨		$\mathbf{i}$	4	←	۰.	1	Ť	/	\$	¥	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			÷\$+			<b>.</b> î.			£.	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	50	65	5	10	100	95	5	25	10	145	50	10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	56	72	6	11	111	106	6	28	11	161	56	11
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	133	228	44	228								
Volume Left (vph)	56	11	6	161								
Volume Right (vph)	6	106	11	11							1999 - 1999 -	50000 0000 0000 000
Hadi (s)	0.09	-0.23	-0.09	0.15								
Departure Headway (s)	5.0	4.6	5.0	5.0		hall this constitution, or	verserer er n di se di se di se de de de de de de de de de de de de de	-1479)-00-00-00-00-00-00-00-00-00-00-00-00-00			en de la desta de la desta de la desta de la desta de la desta de la desta de la desta de la desta de la desta La desta de la d	
Degree Utilization, x	0.18	0.29	0.06	0.32								
Capacity (veh/h)	669	740	645	676			bernin enlant weerd niederle			andal manang tanakén kéné		0,000,000,000,000
Control Delay (s)	9.1	9.4	8.4	10.3						har each is inn ann ann a'		
Approach Delay (s)	9.1	9.4	8.4	10.3				1-10-10 Arrest (41-2)-10-9	an an an an an an an an an an an an an a			6913216926926929
Approach LOS	Α	A	A	B								
Intersection Summary												
Delay			9.6									
HCM Level of Service			Α							and a second second second		. 6469 ( 1997) ( 1997) ( 1997) ( 1997) ( 1997) ( 1997) ( 1997) ( 1997) ( 1997) ( 1997) ( 1997) ( 1997) ( 1997)
Intersection Capacity Uti	lization		46.0%	IC IC	CU Leve	l of Ser	vice		Α			
Analysis Period (min)			15							······································		na for for the for
	i inin tiponistan) Mariatan di tan											jensen alterse Status service

## HCM Unsignalized Intersection Capacity Analysis 11: Howard Street & Pine Street

	۶		$\mathbf{i}$	4	-	×.	1	Ť	/	1	Ļ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			ፋኈ			<del>ፈ</del> ጉ	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	10	5	20	25	5	30	15	870	50	50	1290	10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	11	6	22	28	6	33	17	967	56	56	1433	11
Pedestrians	in ang salat sa ang sa a	an an an an an an an an an an an an an a		0.440.040.440.400.		- Marine Andrews		and a set of the set of the back	en en fan de fan de fan de fan		مى مەمىرىدىن ئىزىمى،	
Lane Width (ft)												
Walking Speed (ft/s)		adara ang kalang							Selektron korpu	uguhanne eithereiches	n in the state of the state of the state of the state of the state of the state of the state of the state of th	Alto-organization
Percent blockage												angga sinanya
Modian two		Mono			Nono							Malandalahisi
Median storage veh)		INCHO			INDUC							
Linstream signal (ft)											1247	
pX. platoon unblocked					an an an an an an an an an an an an an a						and a second second second	
vC, conflicting volume	2103	2606	722	1881	2583	511	1444			1022		
vC1, stage 1 conf vol	Ann tanan di Afrika di Afri	1999 (American) - 1999 (American)	1999 - 1999 -				1999), a 2009, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997,		ana (1999) - 2012 - 2012 - 2012 Analysian (2012) - 2012 - 2012	ar Yoo Goff (1999) a taabaa	locolo (stationalise da	nyanayangka op
vC2, stage 2 conf vol												
vCu, unblocked vol	2103	2606	722	1881	2583	511	1444			1022		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	and the second of the design is the	anton - Anton and an a	a dre Kalanse 1251 er beserte	undire inderidadente	in staat in de staat de staat de st			1				an arranged
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	45	74	94	7	75	93	96		elang pagan da terrak	92		
cM capacity (ven/n)	20	21	369	30	- 22	508	465			675		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	39	67	500	539	772	728						
Volume Left	11	28	17	0	56	0			::::::::::::::::::::::::::::::::::::::			an alaabeera ah
volume Hight	22	33	405	1700	0	1700						
COTI	45	54	400	1700	6/5 0.00	1700	iiinee iee eel	ala gangan	sagadalana			gange strang.
	0.07 96	1,24	0.04	0.52	U.UO 7	0.43					NEEDER SOLD	099003998
Control Delay (s)	00	147 228 N	ত শ শ	0		0						
	204.0 F	520.0 F	Δ	U.U	<i>Δ</i> .	V.V						
Approach Delay (s)	234 0	328 0	05		t í							
Approach LOS	F	F										
Intersection Summary												
Average Delay			12.6									
Intersection Capacity U	tilization		78.9%	16	CU Leve	l of Ser	vice		D			
Analysis Period (min)	्य्य स्वयत्व संस्थिति संस्थिति हिंद	an da ser an an an an an an an an an an an an an	15				a muna san tu su da da da	ananing ng Kalèng				gangan girindij

	 	×.	Ť	1	1	Ļ	
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	M		<b>†</b> ‡			415	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Volume (veh/h)	25	55	845	20	70	1280	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vph)	28	61	939	- 22	78	1422	
Pedestrians	والمعارضة والمحافظة والمستحد		, en esta de la completa de la comp	an an an an an an an an an an			
Lane Width (ft)							
Walking Speed (ft/s)		ana ana ang ang ang ang ang ang ang ang				sa na farakara kara kara kara	
Percent Blockage							
Hight turn flare (ven)	Mana			2048-08-08-08-08-08-08-08-08-08-08-08-08-08			
Median type	INONE						
filestream cional /ft)			211				
nX niatoon unblocked			UI I			9/19/19/19/19	
vC conflicting volume	1817	481			961		
vC1. stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	1817	481			961	1999-9999 (9919) (9919) (993 1999-999	
tC, single (s)	6.8	6.9			4.1		
tC, 2 stage (s)							n na ann a' fan a' fan i an fann a' mann mann an mann a' mann fan ar an an an an an an an an an an an an an
tF (s)	3.5	3.3			2.2		
p0 queue free %	55	89			89		
cM capacity (veh/h)	62	532			712		
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2		
Volume Total	89	626	335	552	948		
Volume Left	28	0	0	78	0		
Volume Right	61	0	22	0	0		
C5H	157	1700	1700	712	1700	biomenteraturation (* 1	
Volume to Capacity	0.56	0.3/	0.20	0.11	0.56		
Queue Length 95th (ft)	/3	0	0	9	0		
Control Delay (s)	54.I	0.0	0.0	2.9	0.0		
Approach Dolay (c)	г 5/4	<b>^</b>		A A A			
Approach LOS	<del>ун</del> .т F	0.0		1,1			
Intersection Summarv							
Average Delay			2.5				
Intersection Capacity Ut	ilization		76.2%	IC	U Leve	l of Servid	ce D
Analysis Period (min)		ayaanaa oo ta galayaa daga	15	anayaa too kaayaa ka			

	1	*	1	1	1	Ļ		
Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations	Ý		4			র		
Sign Control	Stop		Free			Free		
Grade	0%		0%			0%		
Volume (veh/h)	35	60	350	10	45	525		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90		
Hourly flow rate (vph)	39	67	389	11	50	583		
Pedestrians								
Lane Width (ft)								
Walking Speed (ft/s)								
Percent Blockage								
Right turn flare (veh)								
Median type	None							
Median storage veh)	and a state that the							
Upstream signal (ft)						667		
pX, platoon unblocked	0.74							
vC, conflicting volume	1078	394			400			
vC1, stage 1 conf vol								
vC2, stage 2 conf vol								
vCu, unblocked vol	1104	394			400			
tC, single (s)	6.4	6.2			4.1			
tC, 2 stage (s)	an a start of the output of a total							
tF (s)	3.5	3.3			2.2			
p0 queue free %	77	90			96	al practi facta recording at the transmission		
cM capacity (veh/h)	166	655	(Protection)		1159			
Direction, Lane #	WB 1	NB 1	SB 1					
Volume Total	106	400	633					
Volume Left	39	0	50		an broth tul o do o an an			
Volume Right	67	11	0					
cSH	314	1700	1159	u an an an an an an an an an an an an an	ante da de constante de constante de constante de constante de constante de constante de constante de constante	where we can a serve a set of the state of the state		an an an an ann a' ceannach
Volume to Capacity	0.34	0.24	0.04					
Queue Length 95th (ft)	36	0	3	han an  an an an an an an an an an an an an an a		an an fair an an fair air an an an an an an an an an an an an an		
Control Delay (s)	22.1	0.0	1.2					
Lane LOS	С	Vanigo sta <u>n</u> e d <u>an</u> ee da	А					
Approach Delay (s)	22.1	0.0	1.2		201218			
Approach LOS	С							
Intersection Summary								
Average Delay			2.7					
Intersection Capacity Ut	ilization	(	64.8%	IC	U Level	of Service	С	
Analysis Period (min)			15					

	۶	$\mathbf{i}$	•	Ť	Ļ	4
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	¥			<del>र्</del> ग	4	
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	65	5	10	275	500	55
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	72	6	11	306	556	61
Pedestrians	والمراجع والمحاجمة والمعار والمعار	in the photoe photoe in the	- Salajarga ayakaraya	and the state of the state of the	sinnednisko (sjáloda).	
Lane Width (ft)						
waiking Speed (tt/s)	17 (2017) (B. 16) (B. 16) (B. 16)		san sa sa sa sa sa sa sa sa sa sa sa sa sa		Alakasektekte	
Percent Blockage						
Modion tune	Mono			i si sha in si		
Median storage veh)	INCINE					
Linstream signal (it)				1089	050	
pX. platoon unblocked	0 77	0 77	0 77		000	
vC. conflicting volume	914	586	617			
vC1. stage 1 conf vol				nashirisisinasin'nya	Antinity (Syry)	
vC2, stage 2 conf vol						
vCu, unblocked vol	888	459	499		en de standagen statue	a na haran da ana ang mga mana ang mana ang mga na sa da na na harang na harang na harang na harang ng ng ng ng Ana na harang na harang ng mga mana ng mga na sa da na na na na na na na na na na na na na
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	70	99	99	ومستخرف فالرفعة برزيا والمسترف	an an an an an an an an an an an an an a	
cM capacity (veh/h)	237	461	815			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	78	317	617			
Volume Left	72	11	0			· · · ·
Volume Right	6	0	61			
cSH	246	815	1700	n bernen staden der seiter dass	na estructura an estat	
Volume to Capacity	0.32	0.01	0.36			
Queue Length 95th (ft)	33	1	0		n da anticia de la composición de la composición de la composición de la composición de la composición de la c	
Control Delay (s)	26.3	0.5	0.0			
Lane LUS	D	A	~~~			
Approach LOS	_20.୪ ୮	U.5	0.0			
Interception Summer	0				X-11-11-11	
			20			
Intersection Conocity Liti	ilization		ے۔2 \10 2%	IC		al of Service
Analysis Period (min)	neauon		15.270	ana di Silana Pisa		

## HCM Signalized Intersection Capacity Analysis 1: Main Street & South Willard St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	4		٣	41			44			44	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	12	11	11	14	14	14	11	11	11
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.99		1.00	0.99			0.99			0.98	
Fit Protected	0.95	1.00		0.95	1.00			0.99			0.99	
Satd. Flow (prot)	1711	1839		1770	1784			1947			1756	
Flt Permitted	0.26	1.00		0.34	1.00			0.90			0.94	
Satd. Flow (perm)	471	1839		633	1784			1768			1663	
Volume (vph)	70	385	35	40	460	30	50	215	25	35	235	45
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	78	428	39	44	511	33	56	239	28	39	261	50
RTOR Reduction (vph)	0	4	0	0	3	0	0	3	0	0	5	0
Lane Group Flow (vph)	78	463	0	44	541	0	0	320	0	0	345	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	(****50*76707660766)*C
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	20.3	20.3		20.3	20.3			16.9			16.9	
Effective Green, g (s)	21.3	21.3	9.05 (74.0 <u>5</u> )	21.3	21.3			17.9			17.9	
Actuated g/C Ratio	0.41	0.41		0.41	0.41			0.35			0.35	
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	194	756		260	734			611			575	
v/s Ratio Prot		0.25			c0.30							
v/s Ratio Perm	0.17			0.07				0.18			c0.21	
v/c Ratio	0.40	0.61		0.17	0.74			0.52			0.60	
Uniform Delay, d1	10.8	12.0		9.7	12.9			13.5			14.0	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	1.4	1.5	karans.	0.3	3.9			0.8			1.7	
Delay (s)	12.1	13.5		10.0	16.8			14.4			15.7	
Level of Service	В	В		A	В			В			B	
Approach Delay (s)	al and the standard of the start of the	13.3			16.3			14.4			15.7	
Approach LOS		В			В			B			В	
Intersection Summary												
HCM Average Control D	elay		14.9	H	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.60						e en en en en en en en en en en en en en			un e na el de l'an de 201
Actuated Cycle Length (	s)		51.8	S	um of lo	st time	(s)		8.0			
Intersection Capacity Ut Analysis Period (min)	ilization	6	6.9% 15	IC	CU Leve	l of Sen	/ice		С			

### HCM Signalized Intersection Capacity Analysis 2: Main Street & South Union St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	4			<b>t</b> ,		ሻ	<b>t</b> .				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	10	10	16	16	16	10	11	11	12	12	12
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0				
Lane Util. Factor	1.00	1.00			1.00		1.00	1.00	1			
Frt	1,00	1.00			0.99		1.00	0.98				
Fit Protected	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (prot)	1888	1739			1881		1652	1768				
Fit Permitted	0.27	1.00			1.00		0.95	1.00				
Satd. Flow (perm)	545	1739			1881		1652	1768				
Volume (vph)	35	460	0	0	500	40	65	255	35	0	0	0
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	39	511	0	0	556	44	72	283	39	0	0	0
RTOR Reduction (vph)	0	0	0	0	4	0	0	5	0	0	0	0
Lane Group Flow (vph)	39	511	0	0	596	0	72	317	0	0	0	0
Parking (#/hr)				0	0	0						
Turn Type	Perm						Perm					
Protected Phases		2			6			8				
Permitted Phases	2						8					
Actuated Green, G (s)	21.9	21.9			21.9		13.7	13.7				
Effective Green, g (s)	22.9	22.9			22.9		14.7	14.7				
Actuated g/C Ratio	0.48	0.48			0.48		0.31	0.31				
Clearance Time (s)	5.0	5.0			5.0		5.0	5.0				
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0				
Lane Grp Cap (vph)	260	830			897		506	541	****			
v/s Ratio Prot		0.29			c0.32			c0.18				
v/s Ratio Perm	0.07						0.04				940-940-92010-0-94949900	Anderson and a second
v/c Ratio	0.15	0.62			0.66		0.14	0.59				
Uniform Delay, d1	7.1	9.3			9.6		12.1	14.1				
Progression Factor	1.00	1.00			1.00		1.00	1.00				
Incremental Delay, d2	0.3	1.4			1.9		0.1	1.6				
Delay (s)	7.3	10.7			11.5		12.2	15.7				
Level of Service	Α	В			В		В	В				
Approach Delay (s)		10.4			11.5			15.1			0.0	
Approach LOS		В			В			В			Α	
Intersection Summary												
HCM Average Control D	elay		12.0	H	CM Lev	el of Se	rvice		В			
HCM Volume to Capacity	y ratio		0.60									inggenligting Antigenligting
Actuated Cycle Length (s	5)		48.0	S	um of lo	st time (	(s)		8.0			
Intersection Capacity Uti	lization		51.3%	IC	U Leve	l of Serv	vice		A			
Analysis Period (min)			15									
c Critical Lane Group												

## HCM Signalized Intersection Capacity Analysis 3: Main Street & South Winooski Ave

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	٣	ţ,		ሻ	+	7		<b>.</b> ‡.		ሻ	۸	*
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	11	11	12	12	12	10	10	12
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0		4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00
Frt	1.00	0.99		1.00	1.00	0.85		0.96		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00		1.00		0.95	1.00	1.00
Satd. Flow (prot)	1540	1655		1711	1801	1531		1601		1652	1739	1583
Flt Permitted	0.42	1.00		0.49	1.00	1.00		0.46		0.80	1.00	1.00
Satd. Flow (perm)	680	1655		877	1801	1531		744		1386	1739	1583
Volume (vph)	110	270	25	70	350	155	5	50	25	210	275	95
Peak-hour factor. PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	122	300	28	78	389	172	6	56	28	233	306	106
RTOR Reduction (vph)	0	4	0	0	0	102	Ō	18	ō	0	0	70
Lane Group Flow (vph)	122	324	0	78	389	70	0	72	0	233	306	36
Parking (#/hr)	0	0	0				Ō	Ō	Ō			
Turn Type	Perm			Perm		Perm	Perm			nm+nt		Perm
Protected Phases		2			6			8		7	4	
Permitted Phases	2			6	e active classify <mark>all</mark> ered	6	8			4		4
Actuated Green, G (s)	21.2	21.2		20.8	20.8	20.8		5.0		171	17.1	171
Effective Green, a (s)	22.2	22.2	nes an in Anton And	21.8	21.8	21.8		6.0		18.1	18.1	18.1
Actuated q/C Ratio	0.42	0.42		0.41	0.41	0.41		0.11		0.34	0.34	0.34
Clearance Time (s)	5.0	5.0	100-00-00-000-00-00	5.0	5.0	5.0	nin en en en en en en en en en en en en en	5.0	den Romolyki brody	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0		3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	283	689		359	737	626		84		511	591	538
v/s Ratio Prot		0.20			c0.22					0.07	c0 18	
v/s Ratio Perm	0.18		anija di jeli poposocijači	0.09		0.05		c0.10		0.09		0.02
v/c Ratio	0.43	0.47		0.22	0.53	0.11		0.86		0.46	0.52	0.07
Uniform Delay. d1	11.1	11.3	ann a chuir an an an an an an an an an an an an an	10.2	11.9	9.8	ndela (gloppoperano)	23.2	an a ceanairte de la c	14.7	14.1	11.9
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00
Incremental Delay, d2	1.1	0.5		0.3	0.7	0.1	an an an an an an an an an an an an an a	54.7		0.6	0.8	0.1
Delay (s)	12.1	11.8		10.5	12.6	9.8		77.9		15.3	14.9	11.9
Level of Service	В	В		В	В	A		E		В	В	В
Approach Delay (s)		11.9			11.6			77.9			14.6	
Approach LOS	ala su sa na su su su su su su su su su su su su su	В	energene en en en en en en en en en en en en	angaa kalanga kalanga kala	B		44933809339999999	E	tentellanssolen	ingeletigelisiden fo	В	(99999))))))))))))))))))))))))))))))))
Intersection Summary												
HCM Average Control D	elay		16.0	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.49									
Actuated Cycle Length (s	s)		53.3	S	um of lo	ost time	(s)		8.0			
Intersection Capacity Uti	lization		53.4%	IC	U Leve	l of Ser	vice		Α			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		÷.	7	۲	ţ,			4	1	ሻ	<b>t</b>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	12	12	16	12	12	12
Total Lost time (s)		4.0	4.0	4.0	4.0			4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	
Frt		1.00	0.85	1.00	0.97			1.00	0.85	1.00	0.99	
Flt Protected		1.00	1.00	0.95	1.00			0.98	1.00	0.95	1.00	
Satd. Flow (prot)		1734	1478	1486	1525			1823	1794	1593	1840	
Fit Permitted		0.97	1.00	0.53	1.00			0.82	1.00	0.64	1.00	
Satd. Flow (perm)		1683	1478	830	1525			1520	1794	1081	1840	
Volume (vph)	15	260	85	60	320	65	70	90	60	100	110	10
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	289	94	67	356	72	78	100	67	111	122	11
RTOR Reduction (vph)	0	0	41	0	9	0	0	0	39	0	3	0
Lane Group Flow (vph)	0	306	53	67	419	0	0	178	28	111	130	0
Parking (#/hr)				0	0	0	0			0		
Turn Type	Perm		Perm	Perm			Perm		Perm	Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2	in the Construction of the	2	6	ende veren van 196 en verbeelder		8	1991.1-91.50.1-9 <del>7</del> -99.4	8	4	teesetti teerikiin	
Actuated Green, G (s)		17.4	17,4	17.4	17.4			12.3	12.3	12.3	12.3	
Effective Green, g (s)		18.4	18.4	18.4	18.4			13.3	13.3	13.3	13.3	and a state of the
Actuated g/C Ratio		0.41	0.41	0.41	0.41			0.30	0.30	0.30	0.30	
Clearance Time (s)	NAK 10 NO 100 DA 100 DA 100 DA	5.0	5.0	5.0	5.0		eren en	5.0	5.0	5.0	5.0	8.000 (8.00000000)
Vehicle Extension (s)		3.0	3.0	3.0	3.0			3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		693	608	342	628			452	534	322	547	
v/s Ratio Prot					c0.27						0.07	
v/s Ratio Perm		0.18	0.04	0.08				c0.12	0.02	0.10		
v/c Ratio		0.44	0.09	0.20	0.67			0.39	0.05	0.34	0.24	
Uniform Delay, d1	n da se de la completa de la completa de la completa de la completa de la completa de la completa de la complet	9.5	8.0	8.4	10.7	den demokrative presente	na na mana na m Na mana na  12.5	11.2	12.3	11.9	899999999999999	
Progression Factor		1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.5	0.1	0.3	2.7	1999-1997 - Persona Status		0.6	0.0	0.6	0.2	
Delay (s)		9.9	8.1	8.7	13.4			13.1	11.2	12.9	12.1	
Level of Service		Α	Α	Α	В		-1	В	В	В	В	C. (9-10-10-10-10-10-10-10-10-10-10-10-10-10-
Approach Delay (s)		9.5			12.7			12.6			12.5	
Approach LOS		Α		and and an an an and a s	В			В	11.11.11.11.11.11.11.11.11.11.11	-1949 (1949) (1947) (1949) -	В	9494509 (119449-1496) (1194
Intersection Summary												
HCM Average Control D	elay		11.7	-	ICM Lev	el of Se	rvice		В			
HCM Volume to Capacity	y ratio		0.48									
Actuated Cycle Length (s	5)		44.7	S	um of lo	st time	(s)		8.0		<ul> <li>In a subscription</li> </ul>	
Intersection Capacity Uti	ization		60.6%	IÇ	CU Leve	l of Serv	/ice		В			
Analysis Period (min)			15									
c Critical Lane Group												

## HCM Signalized Intersection Capacity Analysis 20: Howard Street & South Winooski Ave

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Movement	EBL2	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR2	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	14	14	14	12	12	12	16	16	16
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.97			0.99			0.99			0.99	
Fit Protected		0.99			0.98			1.00			1.00	
Satd. Flow (prot)		1794			1926			1848			2092	
Flt Permitted		0.94			0.89			0.98			0.99	
Satd. Flow (perm)		1708			1747			1808			2080	
Volume (vph)	15	45	15	20	30	5	15	240	10	5	235	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	50	17	22	33	6	17	267	11	6	261	17
RTOR Reduction (vph)	0	11	0	0	0	0	0	2	0	0	3	0
Lane Group Flow (vph)	0	73	0	0	61	0	0	293	0	0	281	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		3			3			2			6	
Permitted Phases	3			3			2	2		6	6	
Actuated Green, G (s)		15.0			15.0			30.0			30.0	
Effective Green, g (s)		16.0			16.0			31.0			31.0	
Actuated g/C Ratio		0.20			0.20			0.39			0.39	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Lane Grp Cap (vph)		342			349			701			806	
v/s Ratio Prot												
v/s Ratio Perm		c0.04			0.03			c0.16			0.14	
v/c Ratio		0.21			0.17			0.42			0.35	
Uniform Delay, d1		26.7			26.5			17.9			17.3	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1,4			1.1			1.8			1.2	
Delay (s)		28.2			27.6			19.7			18.5	
Level of Service		С			C			В			В	
Approach Delay (s)		28.2			27.6			19.7			18.5	
Approach LOS		С			С			В			В	
Intersection Summary												
HCM Average Control D	elay		26.9	Н	CM Lev	vel of Se	rvice		С			
HCM Volume to Capacil	ty ratio		0.48									
Actuated Cycle Length (	s)		80.0	S	um of le	ost time	(s)		12.0			
Intersection Capacity Ut	ilization		57.0%	IC	CU Leve	el of Ser	vice		В			
Analysis Period (min)			15									
c Critical Lane Group			703. (S. 4)					00000.201				



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Movement	SWL2	SWL	SWR	SWR2
Lane Configurations	ሻ	¥		
Ideal Flow (vphpl)	1900	1900	1900	1900
Lane Width	14	14	14	14
Total Lost time (s)	4.0	4.0		
Lane Util. Factor	1.00	1.00		
Frt	1.00	1.00		
Flt Protected	0.95	0.95		le a fair a fragma de farmente
Satd. Flow (prot)	1888	1886		
Fit Permitted	0.95	0.95	ang tring to have been a sec	
Satd. Flow (perm)	1888	1886		
Volume (vph)	15	335	5	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	372	6	6
RIOR Reduction (vph)	0	1	Ő	0
Lane Group Flow (vph)	17	383	0	0
Turn Type	Split			
Protected Phases	4	4	An and the state of the	
Permitted Phases				
Actuated Green, G (s)	20.0	20.0	yoyungata yana katala	
Effective Green, g (s)	21.0	21.0		
Actuated g/C Hatio	0.26	0.26	ale operation of	Walan walao awa wa
Clearance Time (s)	5.0	5.0		
Lane Grp Cap (vph)	496	495	4,000 + 1 F VORNS FOR SHOULD -	a an an an an an an an an an an an an an
v/s Ratio Prot	0.01	c0.20		
v/s Hatio Perm				
v/c Hatio	0.03	0.77		
Uniform Delay, d1	22.0	27.3		
Progression Factor	1.00	1.00		
Incremental Delay, d2	0.1	11.2		and and an an an an an an an an an an an an an
Delay (s)	22.1	38.5		
Level of Service	С	D	geologicaetha an a	n ganggang kapatan sa kabu
Approach Delay (s)		37.8	9.20.50	
Approach LOS		D		
Intersection Summary				

# HCM Signalized Intersection Capacity Analysis 23: Flynn Avenue & Shelburne St. (Rt 7)

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		र्भ	7		ন	*	۴	<b>†</b> ‡		۲	<u>ቶ</u> ች	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	0.99	
Flt Protected		0.96	1.00		0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1797	1583		1814	1583	1770	3534		1770	3497	
Fit Permitted		0.74	1.00		0.80	1.00	0.20	1.00		0.26	1.00	
Satd. Flow (perm)		1386	1583		1496	1583	366	3534		486	3497	
Volume (vph)	55	20	145	30	25	35	135	975	10	30	820	70
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	61	22	161	33	28	39	150	1083	11	33	911	78
RTOR Reduction (vph)	0	0	138	0	0	33	0	1	0	0	8	0
Lane Group Flow (vph)	0	83	23	0	61	6	150	1093	0	33	981	0
Turn Type	Perm		Perm	Perm		Perm	pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)		8.3	8.3		8.3	8.3	41.5	41.5		30.5	30.5	
Effective Green, g (s)		8.3	8.3		8.3	8.3	41.5	41.5		30.5	30.5	
Actuated g/C Ratio		0.14	0.14		0.14	0.14	0.72	0.72		0.53	0.53	
Clearance Time (s)		4.0	4.0		4.0	4.0	3.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		199	227		215	227	433	2537		256	1845	
v/s Ratio Prot							0.04	c0.31			c0.28	
v/s Ratio Perm		c0.06	0.01		0.04	0.00	0.21			0.07		
v/c Ratio		0.42	0.10		0.28	0.02	0.35	0.43		0.13	0.53	
Uniform Delay, d1		22.5	21.5		22.1	21.3	4.0	3.3		6.9	9.0	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	an an taite an taite an taite	1.4	0.2		0.7	0.0	0.5	0.1		0.2	0.3	
Delay (s)		24.0	21.7		22.8	21.3	4.5	3.4		7.1	9.3	
Level of Service	and the second state of th	С	С	an an an an an an an an an an an an an a	С	С	A	Α		A	Α	
Approach Delay (s)		22.5			22.2	9 (B G) (S		3.6			9.2	
Approach LOS		С			С			A			A	
Intersection Summary												
HCM Average Control D	elay		8.3	Н	ICM Lev	vel of S	ervice		А			
HCM Volume to Capacit	y ratio		0.51			6.3.83						
Actuated Cycle Length (	s)	ana ang ang ang ang ang ang ang ang ang	57.8	S	um of lo	ost time	e (s)	an ann a ann an ann an t-	12.0			uluulaata casa
Intersection Capacity Ut	ilization		54.7%	K	CU Leve	el of Sei	rvice		A			
Analysis Period (min)	analar dan asar kura		15	a a ta ta ta ta ta ta ta ta ta ta ta ta	المراجع والمراجع والمراجع والمراجع							
c Critical Lane Group									Question of the			

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# HCM Signalized Intersection Capacity Analysis 24: Home Avenue & Shelburne St. (Rt 7)

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$	*	٣	\$		٢	<b>†</b> Ъ		<b>۲</b>	<u>ትኬ</u>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	10	12	16	12	10	10	10	10	10	10
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	0.95		1.00	0.95	
Frt		1.00	0.85	1.00	0.90		1.00	1.00		1.00	1.00	
Flt Protected		0.97	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1750	1478	1770	1909		1652	3297		1652	3295	
Flt Permitted		0.79	1.00	0.71	1.00		0.24	1.00		0.95	1.00	
Satd. Flow (perm)		1415	1478	1329	1909		424	3297		1652	3295	
Volume (vph)	35	25	165	30	20	35	175	1170	15	40	870	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	39	28	183	33	22	39	194	1300	17	44	967	17
RTOR Reduction (vph)	0	0	162	0	35	0	0	1	0	0	1	0
Lane Group Flow (vph)	0	67	21	33	26	0	194	1316	0	44	983	0
Turn Type	Perm		Perm	Perm			om+pt			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2					
Actuated Green, G (s)		7.7	7.7	7.7	7.7		41.5	41.5		3.6	28.3	
Effective Green, g (s)		7.7	7.7	7.7	7.7		42.5	42.5		3.6	29.3	
Actuated g/C Ratio		0.11	0.11	0.11	0.11		0.62	0.62		0.05	0.43	
Clearance Time (s)		4.0	4.0	4.0	4.0		5.0	5.0		4.0	5.0	
Vehicle Extension (s)		1.0	1.0	1.0	1.0		1.5	1.0		1.0	1.0	
Lane Grp Cap (vph)		160	167	150	215		566	2052		87	1414	
v/s Ratio Prot					0.01		0.08	c0.40		0.03	c0.30	· · · · · · · · · · · · · · · · · · ·
v/s Ratio Perm		c0.05	0.01	0.02			0.13					
v/c Ratio		0.42	0.12	0.22	0.12		0.34	0.64	ويتروي والمراجع والمراجع	0.51	0.70	500 AAUNUNUNUNUUU
Uniform Delay, d1		28.2	27.3	27.6	27.3		10.6	8.1		31.5	15.9	
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.6	0.1	0.3	0.1		1.6	1.6		1.7	2.8	
Delay (s)		28.9	27.4	27.8	27.4		12.3	9.7		33.2	18.7	
Level of Service		C	C	C	C		В	Α		С	В	
Approach Delay (s)		27.8			27.5			10.0			19.3	
Approach LOS		C			С			В			В	
Intersection Summary												
HCM Average Control D	elay		15.4	H	ICM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.60									
Actuated Cycle Length (	s)		68.3	S	um of lo	st time	(s)		8.0			
Intersection Capacity Uti	lization		56.1%	IC	CU Leve	l of Serv	/ice		В		e la constanta de la	
Analysis Period (min)			15									

## HCM Signalized Intersection Capacity Analysis 25: I-189 OFF RAMP & Shelburne St. (Rt 7)

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				٣	ភ្			<b>≜</b> t₂			<b>ት</b> ኬ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	14	12	12	12	12	12	12
Total Lost time (s)				4.0	4.0			4.0			4.0	ini depitant (e); Verena depita
Lane Util. Factor		nte desençolari desençolari edine		0.95	0.95	or in 692 mills over 1999	,	0.95		-2	0.95	691 00000 0000 0000 (920
Frt				1.00	1.00			1.00			1.00	
Flt Protected				0.95	0.96		an an an Charles an an	1.00			1.00	i en en el el en el el el el el el el el el el el el el
Satd. Flow (prot)				1681	1700			3539			3537	
Flt Permitted				0.95	0.96			1.00			1.00	
Satd. Flow (perm)				1681	1700			3539			3537	
Volume (vph)	0	0	0	1305	135	0	0	800	0	0	1365	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	1450	150	0	0	889	0	0	1517	6
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	0	0	779	821	0	0	889	0	0	1522	0
Turn Type				Perm			Perm					
Protected Phases				*********	8			2		Detre de la deservición	6	
Permitted Phases				8			2					
Actuated Green, G (s)				28.0	28.0			30.0	n		30.0	*******
Effective Green, g (s)				30.0	30.0			32.0			32.0	
Actuated g/C Ratio				0.43	0.43			0.46			0.46	-Alexandri Alexandri
Clearance Time (s)				6.0	6.0			6.0			6.0	
Vehicle Extension (s)				3.0	3.0		and a second second second	3.0			3.0	
Lane Grp Cap (vph)				720	729			1618			1617	
v/s Ratio Prot	المرادر برداير باليامين	1999-1997 (1999) 1997 - Hand State (1997)		alan dari dalam di seta dis-			alasten teoris dala	0.25	ato e de la construcción de	20.000 (C. 1000) (C. 1000)	c0.43	*****
v/s Ratio Perm				0.46	0.48						539 285 758 16	
v/c Ratio				1.08	1.13			0.55	na a stant nan ha an shi an		0.94	
Uniform Delay, d1				20.0	20.0			13.8			18.1	
Progression Factor				1.00	1.00			1.00			1.00	anini ani ani ani ani ani
Incremental Delay, d2				57.9	73.8			0.4			11.3	
Delay (s)				77.9	93.8			14.2			29.4	
Level of Service				E	F			В			C	
Approach Delay (s)		0.0			86.0			14.2			29.4	
Approach LOS		Α			F			В			С	
Intersection Summary												
HCM Average Control De	elay		48.6	H	CM Lev	el of Sen	vice		D			
HCM Volume to Capacity	ratio		1.03									
Actuated Cycle Length (s	)		70.0	S	um of Ic	ost time (s	<b>)</b>		8.0			
Intersection Capacity Util	ization	8	84.3%	IC	CU Leve	l of Servi	ce		E			
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			¢.,			¢.,			44	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	20	130	60	65	115	15	20	270	55	60	255	25
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	22	144	67	72	128	17	22	300	61	67	283	28
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	233	217	383	378								
Volume Left (vph)	22	72	22	67								
Volume Right (vph)	67	17	61	28								
Hadj (s)	-0.12	0.05	-0.05	0.03								
Departure Headway (s)	6.8	7.0	6.3	6.4								
Degree Utilization, x	0.44	0.42	0.67	0.67			6.6.0.0					
Capacity (veh/h)	457	440	537	526								
Control Delay (s)	15.2	15.1	21.3	21.4						an dalamad nan Na Si		
Approach Delay (s)	15.2	15.1	21.3	21.4								
Approach LOS	C	C	С	С								
Intersection Summary												
Delay			19.0									
HCM Level of Service			С									
Intersection Capacity Uti	lization		68.1%	(	CU Leve	of Ser	vice		C			
Analysis Period (min)			15									

	≮	×.	Ť	~	1	Ļ		
Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations	Y		<b>Þ</b>			<del>ب</del> اً		è
Sign Control	Stop		Free			Free		
Grade	0%		0%			0%		
Volume (veh/h)	145	5	345	210	5	590		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90		
Hourly flow rate (vph)	161	6	383	233	6	656		
Pedestrians		an a satu uyu shi tu suntan sa		·····				
Lane Width (ft)								
Walking Speed (ft/s)		der der derte Gerlinde Gerline			and and the second second	in an with a basis of a sector		
Percent Blockage								
Right turn flare (veh)				ala fina a hada sharada.	alan da katati da katati da katati da katati da katati da katati da katati da katati da katati da katati da kat			
Median type	INONE							
iviedian storage ven)								
upstream signal (ii)	0.05	0.202000	00090038009	1910 (M.S.		୯୪/		
vC. conflicting volume	0.90	500			647			
vC1_stage 1_conf.vol	1107	000			017			
vC2 stage 2 conf vol								
vCu unblocked vol	1176	500			617			Ĵ
tC. single (s)	64	62		hini dan katapatén katap	41			100
tC. 2 stage (s)				aapteep 250 (1886) A				
tF (s)	3.5	3.3			22			į,
p0 queue free %	19	99		and and a state of the	99			
cM capacity (veh/h)	199	571			963			
Direction Lone #			201					2
Volume Total	167	617	661					
Volume Left	161	ريني ۱	100					
Volume Right	i V I R	233	Ň					-
cSH	203	1700	963					
Volume to Capacity	0.82	0.36	0.01					
Queue Length 95th (ft)	149	0	<u></u>					
Control Delav (s)	72.6	0.0	0.2					
Lane LOS	F		A	anan antar (Petri Maly)				
Approach Delay (s)	72.6	0.0	0.2					
Approach LOS	F			naan a tarabaya tarabay ta			onarret Hartardon (Frenched Rick tol.	
Intersection Summary								
Average Delay			8.4	·····				*
Intersection Capacity Ut	llization		50.0%	IC	U Leve	of Servic	<b>)0</b>	ŝ
Analysis Period (min)		2	15				, egy and general and defined and d	

HCM Unsignalized Intersection Capacity Analysis 22: Birchcliff Pkwy & Shelburne St. (Rt 7)

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			đ þ.			ብኈ	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	20	0	50	10	0	10	55	955	5	5	880	20
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	22	0	56	11	0	11	61	1061	6	6	978	22
Pedestrians	en Sugger ander die die geste				anerre title Autor in				and and a second second second second second second second second second second second second second second se			and a state of the
Lane Width (ft)												
waiking Speed (IT/S)		s dela de la dela dela del	an an an an an an an an an an an an an a	See an an an an an an an an an an an an an		an an an an an an an an an an an an an a	Mantaj kanji starist		a (1990) (Produce) (S	ani ing ang ang ang ang ang ang ang ang ang a	distantes terretate	waalaa ahadada
Percent Blockage	Santa (constant)											
Modian type		Nono			Nono				suendensan			
Median storage veh)		INCHE			INOUG							
Upstream signal (ft)				in de juni de la ciencia. National de la ciencia de la ciencia de la ciencia de la ciencia de la ciencia de la	si interativanta Referencia			1267				
pX. platoon unblocked					0.0000000000000000000000000000000000000			3 Ann 64 5	ender Meinieren.	generie (offenere).		
vC. conflicting volume	1664	2189	500	1742	2197	533	1000	ide ginger		1067		
vC1, stage 1 conf vol	and a state of the second second second second second second second second second second second second second s	and days the second defined on	nga na Patrice. Nga na Patrice na Patrice na Patrice na Patrice na Patrice na Patrice na Patrice na Patrice na P	a an an an an an an an an an an an an an		erolain <u>a roha</u> dah			inite and the state of the second	statu seta da tanta da seta da	anan dalah dalar	
vC2, stage 2 conf vol												
vCu, unblocked vol	1664	2189	500	1742	2197	533	1000			1067		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	an an an that the state of the	a ann an an an an an an an an an an an a	ana ang ang ang ang ang ang ang ang ang	-terre to terre to tate to a								
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	61	100	89	76	100	98	91		ser (to the figure refer	99		
cM capacity (ven/h)	57	41	516	46	40	491	688			649		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	78	22	592	536	494	511						
Volume Left	22	11	61	0	6	0			a atat sati ta sama sana sana			
Volume Hight	56	11	0	6	0	22						
CSH	157	84	688	1700	649	1700	anina katalan sana	en en en en en en en en en en en en en e	ade internorma alabase	azantzari). (20. milia)	Watan dara sa ka ka ka ka ka ka ka ka ka ka ka ka ka	and a state of the state of the state of the state of the state of the state of the state of the state of the s
Volume to Capacity	0.49	0.27	0.09	0.32	0.01	0.30						
Control Dolou (a)	96 V 0 V	24 60 0	/ ^	0	00	0						enenania.
Lang LOS	40.4 E	02.0 E	<u>4.4</u> ۸	U.U	0.2	0.0						
Annroach Delay (s)	48.4	62 8	12		Δ <u>Λ</u>							
Approach LOS	E	F			W×1							202022002
Intercection Summon	_	-										
Average Delay			20									
Intersection Canacity Liti	lization		3.U 37 8%	17	<u>111 avr</u>	il of Con	ico		~			
Analysis Period (min)	ULCUNAT		ס <i>י</i> נס, וס 15			a ul oeli	166		v			
A GROUDOR COROCATINES	a talah talah dalah seri		<b>ل ا</b>	auto e tato e otrastastates.								

Movement         EBT         EBR         WBL         WBT         NBL         NBR           Lane Configurations         \$			$\rightarrow$	<b>*</b>		-	1		
Lane Configurations         Pres         Free         Stop           Sign Control         Free         Free         Stop           Grade         0%         0%         0%           Volume (veh/h)         125         20         35         145         35         65           Peak Hour Factor         0.90         0.90         0.90         0.90         0.90         0.90           Pedestrians         139         22         39         161         39         72           Pedestrians         Iane Width (ft)         Walking Speed (ft/s)         Percent Blockage         Fight turn flare (veh)           Median type         None         Median storage veh)         Upstream signal (ft)         331           pX, platoon unblocked         VC, single (s)         4.1         6.4         6.2           CC, stage 1 conf vol         161         389         150         CC           VCL, unblocked vol         161         389         150         CC           C, 2 stage (s)         2.2         3.5         3.3         00         00 queue free %         97         93         92           M capacity (veh/h)         1418         598         896         Direction, Laré #         EB 1	Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Sign Control       Free       Free       Stop         Grade       0%       0%       0%         Ovlume (veh/h)       125       20       35       145       35       65         Peak Hour Factor       0.90       0.90       0.90       0.90       0.90       0.90         Hourly flow rate (vph)       139       22       39       161       39       72         Pedestrians       Lane Width (ft)       Walking Speed (ft/s)       Percent Blockage       161       39       72         Percent Blockage       Right turn flare (veh)       None       Median storage veh)       Volume (veh/m)       331         DX, platoon unblocked       CC, conflicting volume       161       389       150         CQ, unblocked vol       161       389       150       150         CL is stage 1 conf vol	Lane Configurations	4			ধ	¥			
Grade         0%         0%         0%           Volume (veh/h)         125         20         35         145         35         65           Peak Hour Factor         0.90         0.90         0.90         0.90         0.90         0.90           Hourly flow rate (vph)         139         22         39         161         39         72           Pedestrians         Eane Width (ft)         Walking Speed (ft/s)         Percent Blockage         None           Median type         None         None         Median storage veh)         Upstream signal (ft)         331           OX, conflicting volume         161         389         150         C/2, stage 1 conf vol           VC2, stage 2 conf vol         C/C, unblocked vol         161         389         150           C3, stage 1 conf vol         C/C, astiglic (s)         4.1         6.4         6.2           C4, untokced vol         161         389         150         S           C4, antokced vol         1418         538         896         S           Direction, Lane #         EB1         WB1         Yolume Total         161         2.2         3.5         3.3           Odueue free %         97         93	Sign Control	Free			Free	Stop			
Volume (veh/h)       125       20       35       145       35       65         Peak Hour Factor       0.90       0.90       0.90       0.90       0.90       0.90         Hourly flow rate (vph)       139       22       39       161       39       72         Pedestrians       Eane Width (ft)       Walking Speed (ft/s)       Percent Blockage       Right turn flare (veh)         Median storage veh)       None       Median storage veh)       Values       161       389       150         VC1, stage 1 conf vol       72       331       331       334       334       335       335         VC2, stage 2 conf vol       161       389       150       335       335       335         VC2, stage 1 conf vol       161       389       150       335       335       335       335       335       335       335       335       335       335       335       335       336	Grade	0%			0%	0%			
Peak Hour Factor 0.90 0.90 0.90 0.90 0.90 0.90 Hourly flow rate (vph) 139 22 39 161 39 72 Pedestrians Lane Width (ft) Walking Speed (ft/s) Percent Blockage Right turn flare (veh) Median storage veh) Upstream signal (ft) 331 XC, conflicting volume 161 389 150 VC, conflicting volume 161 389 150 VC, conflicting volume 161 389 150 CC, single (s) 4.1 6.4 6.2 C, single (s) 4.1 6.4 6.2 C, single (s) 4.1 6.4 6.2 C, 2 stage (s) F (s) 2.2 3.5 3.3 O queue free % 97 93 92 SM capacity (veh/h) 1418 598 896 Direction, Lane # EB 1 WB 1 NB 1 Volume Left 0 39 39 Volume Right 22 0 72 SH 1700 1418 763 Volume LOS A B Approach Delay (s) 0.0 1.7 10.5 Lane LOS A B Intersection Summary Voerage Delay 3.2 Intersection Capacity Utilization 33.3% ICU Level of Service A Values Period (min) 15	Volume (veh/h)	125	20	35	145	35	65		
Hourly flow rate (vpn) 139 22 39 161 39 72 Pedestrians Lane Width (ft) Walking Speed (ft/s) Percent Blockage Right turn flare (veh) Median type None Median storage veh) Upstream signal (ft) 331 pX, platoon unblocked vG, conflicting volume 161 389 150 vC2, stage 1 conf vol vC2, stage 2 conf vol vC2, stage 2 conf vol vC2, stage 2 conf vol vC2, stage 2 conf vol vC2, stage 3 conf vol vC2, stage 3 conf vol vC2, stage 4 conf vol vC2, stage 5 conf vol vC2, stage 5 conf vol vC2, stage 6 conf vol vC2, stage 6 conf vol vC2, stage 6 conf vol vC2, stage 6 conf vol vC2, stage 6 conf vol vC2, stage 6 conf vol vC2, stage 6 conf vol vC2, stage 6 conf vol vC2, stage 6 conf vol vC2, stage 6 conf vol vC2, stage 6 conf vol vC2, stage 7 s3 s2 conf conf vol volume ree % 97 93 92 conf conf vol volume ree % 97 93 92 conf conf vol volume ref 0 39 39 volume rotal 161 200 111 volume Left 0 39 39 volume rotal 161 200 111 volume to Capacity 0.00 1.17 10.5 ane LOS A B ntersection Summary Verage Delay (s) 0.0 1.7 10.5 Approach LOS B ntersection Capacity Utilization 33.3% ICU Level of Service A values left (min) 15	Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90		
Poiles Walking Speed (ft/s)         Percent Blockage         Right turn flare (veh)         Median type         Median storage veh)         Upstream signal (ft)       331         XP, platoon unblocked         vC, conflicting volume       161         VC2, stage 1 conf vol         VC2, stage 2 conf vol         VC2, stage 2 conf vol         VC2, stage 2 conf vol         VC2, stage (s)         F (s)       2.2         Single (s)       4.1         6.4       6.2         C, 2 stage (s)       53.3         F (s)       2.2       3.5         00 queue free %       97       93       92         SM capacity (veh/h)       1418       598       896         Directon, Lane #       EB 1       WB 1       NB 1         Volume Total       161       200       111         Volume Right       22       0       72         SH       1700       1418       763         Volume Right       22       0       72         SH       1700       14.1       763         Volume Length 95th (ft)       0       2         Darecton Delay (s)	Hourly flow rate (vpn)	139	22	39	161	39	72		
Calle Vidin (V)       Walking Speed (ft/s)         Percent Blockage       Right turn flare (veh)         Median type       None         Median type       None         Upstream signal (ft)       331         DX, platoon unblocked       VC, conflicting volume         VC2, stage 2 conf vol       161         VC2, stage 2 conf vol       VC2, stage 2 conf vol         VC2, stage 2 conf vol       VC2, stage 2 conf vol         VC2, stage 2 conf vol       VC2, stage 2 conf vol         VC2, stage (s)       4.1       6.4       6.2         C, single (s)       4.1       6.4       6.2         C, single (s)       97       93       92         M capacity (veh/h)       1418       598       896         Direction, Lane #       EB 1       WB 1       NB 1         Volume Total       161       200       111         Volume Left       0       39       39         /olume Right       22       0       72         SH       1700       1418       763         /olume to Capacity       0.09       0.03       0.15         Queue Length 95th (ft)       0       2       13         Control Delay (s)	Long Midth (ft)								
Percent Blockage         Right turn flare (veh)         Median type       None         Median type       None         Median type       None         Median type       None         Upstream signal (ft)       331         pX, platoon unblocked       161       389       150         vC1, stage 1 conf vol       vC2, stage 2 conf vol       vC2, unblocked vol       161       389       150         vC2, stage 2 conf vol       vC2, unblocked vol       161       389       150       vC2, stage 2 conf vol       vC2, unblocked vol       161       389       150         vC2, stage 2 conf vol       vC2, atage 3       5       3.3       00       00       141       6.4       6.2       C, 2 stage (s)       F (s)       2.2       3.5       3.3       00       00       00       1418       598       896       00       00       00       00       1418       598       896       00       00       00       1418       763       00       1418       763       00       1418       763       00       1418       763       00       1418       763       00       1418       763       00       00       15       00       00<	Walking Speed (ft/s)								
Right turn flare (veh)       None         Median type       None         Median storage veh)       331         Upstream signal (ft)       331         X, platoon unblocked       vC, conflicting volume         vC2, stage 1 conf vol       vC2, stage 2 conf vol         vC2, stage 2 conf vol       vC2, stage 2 conf vol         vC4, unblocked vol       161       389       150         C3, stage 2 conf vol       vC2, stage 2       vC1         vC4, unblocked vol       161       389       150         C4, stage 1 conf vol       vC4, stage 1 conf vol       vC4, stage 2       vC1         vC4, stage 2 conf vol       vC4, stage 2       vC1       vC4         VC5, stage 2 (s)       5       3.3       vC1       vC2         F (s)       2.2       3.5       3.3       vC1       vC1         vC4 upte free %       97       93       92       vCM capacity (veh/h)       1418       598       896         Direction, Lane #       EB 1       WB 1       NB 1       volume Total       161       200       111         Volume Total       161       200       111       volume to Capacity       0.9       0.03       0.15       volume to Capacity	Percent Blockage				<u>ideride</u> lideride				
Median type         None           Median storage veh)         331           Upstream signal (ft)         331           pX, platoon unblocked         331           vC1, stage 1 conf vol         161         389         150           vC2, stage 2 conf vol         vC2, stage 2 conf vol         vC2, stage 2 conf vol           vC2, stage 2 conf vol         vC2, stage 2 conf vol         vC2, stage 2 conf vol           vC2, stage (s)         4.1         6.4         6.2           (C, 2 stage (s)         2.2         3.5         3.3           00 queue free %         97         93         92           vM capacity (veh/h)         1418         598         896           Direction, Lane #         EB 1         WB 1         NB 1           Volume Total         161         200         111           Volume Left         0         39         39           Volume to Capacity         0.09         0.03         0.15           Queue Length 95th (ft)         0         2         13           Control Delay (s)         0.0         1.7         10.5           .ane LOS         A         B         Approach LOS         B           Intersection Summary	Right turn flare (veh)	den en de ser andere de ser de ser de ser de ser de ser de ser de ser de ser de ser de ser de ser de ser de se Ser de ser de	a by Chan I Georgia	aanina siyaani	2029(08/08/9903);				28648894698689898989 
Median storage veh)       331         Upstream signal (ft)       331         pX, platoon unblocked       161       389       150         VC, conflicting volume       161       389       150         VC1, stage 1 conf vol       VC2, stage 2 conf vol       VC2, stage 2 conf vol       VC2, unblocked vol       161       389       150         VC2, stage 2 conf vol       VC2, unblocked vol       161       389       150       VC2, stage (s)       VC	Median type					None			
Upstream signal (ft)       331         pX, platoon unblocked         vC1, stage 1 conf vol         vC2, stage 2 conf vol         vC2, stage 2 conf vol         vC2, stage 2 conf vol         vC2, stage 2 conf vol         vC2, stage 2 conf vol         vC2, stage 2 conf vol         vC2, stage 2 conf vol         vC2, stage (s)         F (s)       2.2         S0 queue free %       97         93       92         cM capacity (veh/h)       1418         598       896         Direction, Lane #       EB 1         Volume Total       161         161       200         Volume Edf       0         0       39         39       39         Volume Total       161         1700       1418         763         Volume Right       22         0       72         SSH       1700         1700       1418         763         Volume Io Capacity       0.09         0.00       1.7         10.5         Approach Delay (s)       0.0         0.0       1.7	Median storage veh)			entro anti o Monastro dal		,	an an an an an an an an an an an an an a	n an de server an de server parte de server parte de server ander parte de server de server de server de serve En an de server an de server an de server de server de server de server de server de server de server de server	
pX, platoon unblocked VC, conflicting volume 161 389 150 vC1, stage 1 conf vol vC2, stage 2 conf vol VC2, stage 2 conf vol VC2, stage 2 conf vol VC2, stage (s) F (s) 2.2 3.5 3.3 O queue free % 97 93 92 CM capacity (veh/h) 1418 598 896 Direction, Lane # EB 1 WB 1 NB 1 Volume Total 161 200 111 Volume Left 0 39 39 Volume Right 22 0 72 SH 1700 1418 763 Volume to Capacity 0.09 0.03 0.15 Queue Length 95th (ft) 0 2 13 Control Delay (s) 0.0 1.7 10.5 .ane LOS A B Approach Delay (s) 0.0 1.7 10.5 Approach Delay (s	Upstream signal (ft)				331				
vC, conflicting volume       161       389       150         vC1, stage 1 conf vol       vC2, stage 2 conf vol       vc2, stage 2 conf vol         vC2, stage 2 conf vol       161       389       150         iC, single (s)       4.1       6.4       6.2         iC, 2 stage (s)       2.2       3.5       3.3         iF (s)       2.2       3.5       3.3         00 queue free %       97       93       92         cM capacity (veh/h)       1418       598       896         Direction, Lane #       EB 1       WB 1       NB 1         Volume Total       161       200       111         Volume Right       22       0       72         iSH       1700       1418       763         Volume to Capacity       0.09       0.03       0.15         Queue Length 95th (ft)       0       2       13         Control Delay (s)       0.0       1.7       10.5         Lane LOS       A       B       Approach LOS       B         Intersection Summary       3.2       102       Level of Service       A         Analysis Period (min)       15       15       102       103 </td <td>pX, platoon unblocked</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	pX, platoon unblocked								
vC1, stage 1 conf vol         vC2, stage 2 conf vol         vCu, unblocked vol       161       389       150         (C, single (s)       4.1       6.4       6.2         IC, 2 stage (s)	vC, conflicting volume			161		389	150		
V/22, stage 2 cont vol       161       389       150         V/20, unblocked vol       161       389       150         C, single (s)       4.1       6.4       6.2         C, 2 stage (s)       2.2       3.5       3.3         p00 queue free %       97       93       92         p20 queue free %       97       93       92         p20 queue free %       97       93       92         p20 queue free %       97       93       92         p20 queue free %       97       93       92         p20 queue free %       97       93       92         p20 queue free %       97       93       92         p20 queue free %       97       93       92         p20 queue free %       97       93       92         p20 queue free %       97       93       92         p20 queue free %       0.3       93       39         Volume Total       161       200       111         Volume Left       0       39       39         Volume to Capacity       0.09       0.03       0.15         Queue Length 95th (ft)       0       2       13 <t< td=""><td>vC1, stage 1 conf vol</td><td></td><td></td><td></td><td></td><td>den de management de la co</td><td></td><td></td><td></td></t<>	vC1, stage 1 conf vol					den de management de la co			
Volu, unblocked vol     161     389     150       IC, single (s)     4.1     6.4     6.2       IC, 2 stage (s)     2.2     3.5     3.3       500 queue free %     97     93     92       501 queue free %     97     93     92       502 queue free %     97     93     92       503 queue free %     97     93     92       504 capacity (veh/h)     1418     598     896       Direction, Lane #     EB 1     WB 1     NB 1       Volume Total     161     200     111       Volume Left     0     39     39       Volume Right     22     0     72       SSH     1700     1418     763       Volume to Capacity     0.09     0.03     0.15       Queue Length 95th (ft)     0     2     13       Control Delay (s)     0.0     1.7     10.5       .ane LOS     A     B       Approach Delay (s)     0.0     1.7       Approach LOS     B     B       Intersection Summary     3.2       Analysis Period (min)     15	vC2, stage 2 cont vol						1		
C, Single (s)       4.1       6.4       6.2         IC, 2 stage (s)       F (s)       2.2       3.5       3.3         Do queue free %       97       93       92         SM capacity (veh/h)       1418       598       896         Direction, Lane #       EB 1       WB 1       NB 1         Volume Total       161       200       111         Volume Left       0       39       39         Volume Right       22       0       72         SSH       1700       1418       763         Volume to Capacity       0.09       0.03       0.15         Queue Length 95th (ft)       0       2       13         Control Delay (s)       0.0       1.7       10.5         Lane LOS       A       B         Approach Delay (s)       0.0       1.7         Approach LOS       B       B         Intersection Summary       3.2         Average Delay       3.2         Intersection Capacity Utilization       33.3%       ICU Level of Service       A         Analysis Period (min)       15       15       16       16	VCU, UNDIOCKED VOI	<u>Aleka (kera</u>	yîn tan Kankijî (	161	in a state and the state of the state of the state of the state of the state of the state of the state of the s	389	150		
F(s)       2.2       3.5       3.3         o0 queue free %       97       93       92         cM capacity (veh/h)       1418       598       896         Direction, Lane #       EB 1       WB 1       NB 1         Volume Total       161       200       111         Volume Total       161       200       111         Volume Left       0       39       39         Volume Right       22       0       72         :SH       1700       1418       763         Volume to Capacity       0.09       0.03       0.15         Queue Length 95th (ft)       0       2       13         Control Delay (s)       0.0       1.7       10.5         Lane LOS       A       B         Approach Delay (s)       0.0       1.7       10.5         Approach LOS       B       B         Intersection Summary       3.2       1CU Level of Service       A         Analysis Period (min)       15       15       15	tC, single (s)			4,1		0.4	6.2		
100     12.1.2     0.15     0.10       000     1418     598     896       Direction, Lane #     EB 1     WB 1     NB 1       Volume Total     161     200     111       Volume Left     0     39     39       Volume Right     22     0     72       15H     1700     1418     763       Volume to Capacity     0.09     0.03     0.15       Queue Length 95th (ft)     0     2     13       Control Delay (s)     0.0     1.7     10.5       Lane LOS     A     B       Approach Delay (s)     0.0     1.7       Approach LOS     B     B       Intersection Summary     3.2       Average Delay     3.2       Intersection Capacity Utilization     33.3%       ICU Level of Service     A	tF (s)			<b>^</b> 22		35	22		anta ang sang
CM capacity (veh/h)       1418       598       896         Direction, Lane #       EB 1       WB 1       NB 1         Volume Total       161       200       111         Volume Left       0       39       39         Volume Right       22       0       72         SSH       1700       1418       763         Volume to Capacity       0.09       0.03       0.15         Queue Length 95th (ft)       0       2       13         Control Delay (s)       0.0       1.7       10.5         Lane LOS       A       B         Approach Delay (s)       0.0       1.7       10.5         Approach LOS       B       B         Intersection Summary       3.2       1         Average Delay       3.2       1         Intersection Capacity Utilization       33.3%       ICU Level of Service       A	p0 queue free %			97		93	92		
Direction, Lane #         EB 1         WB 1         NB 1           Volume Total         161         200         111           Volume Left         0         39         39           Volume Right         22         0         72           cSH         1700         1418         763           Volume to Capacity         0.09         0.03         0.15           Queue Length 95th (ft)         0         2         13           Control Delay (s)         0.0         1.7         10.5           Lane LOS         A         B           Approach Delay (s)         0.0         1.7           Approach LOS         B           Intersection Summary         3.2           Average Delay         3.2           Intersection Capacity Utilization         33.3%           ICU Level of Service         A	cM capacity (veh/h)		9 6 S S	1418		598	896		
Volume Total         161         200         111           Volume Left         0         39         39           Volume Right         22         0         72           SSH         1700         1418         763           Volume to Capacity         0.09         0.03         0.15           Queue Length 95th (ft)         0         2         13           Control Delay (s)         0.0         1.7         10.5           Lane LOS         A         B           Approach Delay (s)         0.0         1.7           Approach LOS         B           Intersection Summary         3.2           Average Delay         3.2           Intersection Capacity Utilization         33.3%           ICU Level of Service         A	Direction 1 and #	ER 1	M/D 1						
Volume Left         0         39         39           Volume Right         22         0         72           :SH         1700         1418         763           Volume to Capacity         0.09         0.03         0.15           Queue Length 95th (ft)         0         2         13           Control Delay (s)         0.0         1.7         10.5           Lane LOS         A         B           Approach Delay (s)         0.0         1.7           Approach LOS         B           Intersection Summary         3.2           Average Delay         3.2           Intersection Capacity Utilization         33.3%           ICU Level of Service         A           Analysis Period (min)         15	Volume Total	161	200	110					
Volume Right         22         0         72           cSH         1700         1418         763           Volume to Capacity         0.09         0.03         0.15           Queue Length 95th (ft)         0         2         13           Control Delay (s)         0.0         1.7         10.5           Lane LOS         A         B           Approach Delay (s)         0.0         1.7           Approach LOS         B           Intersection Summary         3.2           Average Delay         3.2           Intersection Capacity Utilization         33.3%           ICU Level of Service         A	Volume Left	101	39	39					
SH       1700       1418       763         Volume to Capacity       0.09       0.03       0.15         Queue Length 95th (ft)       0       2       13         Control Delay (s)       0.0       1.7       10.5         Lane LOS       A       B         Approach Delay (s)       0.0       1.7       10.5         Approach LOS       B       B         Intersection Summary       3.2         Average Delay       3.2         Intersection Capacity Utilization       33.3%       ICU Level of Service       A         Analysis Period (min)       15	Volume Right	22	0	72					
Volume to Capacity 0.09 0.03 0.15 Queue Length 95th (ft) 0 2 13 Control Delay (s) 0.0 1.7 10.5 Lane LOS A B Approach Delay (s) 0.0 1.7 10.5 Approach LOS B Intersection Summary Average Delay 3.2 Intersection Capacity Utilization 33.3% ICU Level of Service A Analysis Period (min) 15	cSH	1700	1418	763		00040000000000000000000000000000000000			
Queue Length 95th (ft)       0       2       13         Control Delay (s)       0.0       1.7       10.5         Lane LOS       A       B         Approach Delay (s)       0.0       1.7       10.5         Approach LOS       B       B         Intersection Summary       3.2         Average Delay       3.2         Intersection Capacity Utilization       33.3%       ICU Level of Service         Analysis Period (min)       15	Volume to Capacity	0.09	0.03	0.15					
Control Delay (s)       0.0       1.7       10.5         Lane LOS       A       B         Approach Delay (s)       0.0       1.7       10.5         Approach LOS       B       B         Intersection Summary       3.2         Average Delay       3.3%       ICU Level of Service       A         Analysis Period (min)       15	Queue Length 95th (ft)	0	2	13					
Lane LOS A B Approach Delay (s) 0.0 1.7 10.5 Approach LOS B Intersection Summary Average Delay 3.2 Intersection Capacity Utilization 33.3% ICU Level of Service A Analysis Period (min) 15	Control Delay (s)	0.0	1.7	10.5					
Approach Delay (s)       0.0       1.7       10.5         Approach LOS       B         Intersection Summary         Average Delay       3.2         Intersection Capacity Utilization       33.3%       ICU Level of Service         Analysis Period (min)       15	Lane LOS	en de entre la tradic.	Α	В				·	
Approach LOS     B       Intersection Summary     3.2       Average Delay     3.2       Intersection Capacity Utilization     33.3%     ICU Level of Service       Analysis Period (min)     15	Approach Delay (s)	0.0	1.7	10.5					
ntersection Summary Average Delay 3.2 Intersection Capacity Utilization 33.3% ICU Level of Service A Analysis Period (min) 15	Approach LOS			В					
Average Delay     3.2       Intersection Capacity Utilization     33.3%       ICU Level of Service     A       Analysis Period (min)     15	Intersection Summary								
ntersection Capacity Utilization 33.3% ICU Level of Service A Analysis Period (min) 15	Average Delay	 		3.2					
Analysis Period (min) 15	Intersection Capacity Uti	lization		33.3%	IC	U Leve	of Service	Α	
	Analysis Period (min)		an sharan da shirin i	15	hikiwantatatata	n (systematic and the	na la la statulara e propila e a fa e provincia da statul		و و و و و و و و و و و و و و و و و و و

#### CAP Clough, Harbour & Associates, LLP

	TV	VO-WAY STO	P CONTROL	SUMMARY				
General Information			Site Info	rmation				
Analyst A∉ y/Co. Date Performed Analysis Time Period	EJD CHA 12/22/05 PM PEAK	HOUR	Intersectior Jurisdiction Analysis Ye	ear	ROUTE 7 TOWN O 2008 BUI	7/LOCUST/ F BURLING LD ALT1	LEDGE GTON	
Project Description BUI	RLINGTON			<u> </u>				
East/West Street: LOCU	IST/LEDGE		North/South	n Street: HOUIE	/			
Intersection Orientation:	North-South		Study Peric	od (nrs): 0.25				
Vehicle Volumes and	d Adjustments				<b>O</b> • • • •			
Major Street		Northbound			Southbo	und	0	
viovement	1	<u> </u>		4	с Т		<u> </u>	
Volume	0	580	265	30	690		15	
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90		0.90	
Hourly Flow Rate, HFR	0	644	294	33	766		16	
Percent Heavy Vehicles	0			2				
Median Type			U	ndivided				
RT Channelized			0				0	
anes	0	2	0	0	1		0	
Configuration		Т	TR	LTR				
Jpstream Signal	0				0			
Minor Street		Westbound			Eastbou	ind		
Movement	7	8	9	10	11		12	
	L	Т	R	L	Т		R	
/olume	0	0	55	0	25		75	
Pe Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90		0.90	
HOULY Flow Hate, HFH	0	0	61	0	27		83	
Percent Heavy Venicles	0	0	2	0	2		2	
Percent Grade (%)		0			<u> </u>			
-lared Approach		N			N			
Storage		0			0			
RT Channelized			0				0	
anes	0	0	1	0	1		0	
Configuration			<u> </u>					
Delay, Queue Length, an	d Level of Servic	:e						
pproach	NB	SB	We	stbound		Eastbound	1	
Novement	1	4	7	8 9	10	11	12	
ane Configuration		LTR		R			TR	
(vph)		33		61			110	
; (m) (vph)		726		541			182	
/c		0.05		0.11	1		0.60	
5% queue length		0.14		0.38			3.34	
Control Delay		10.2		12.5		1	51.1	
.OS		В		В			F	
oproach Delav			1	2.5		51.1	<u> </u>	
oproach LOS		÷ •		B	51.1 F			

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 $HCS2000^{\mathrm{TM}}$ 

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Version 4.1d

	Т\	NO-WAY STO	P CONTR	OL SUMI	MARY					
General Information			Site I	nformati	on					
Analvst Ag //Co. Date Performed Analysis Time Period	EJD CHA 12/22/05 PM PEAK	HOUR	Interse Jurisdi Analys	ction ction is Year		ROUTE 7 TOWN O 2008 BU	7/SOUTH F BURLIN ILD ALT1	WILLARD VGTON	)	
Project Description BU	RLINGTON									
East/West Street: SOUT	H WILLARD		North/S	South Stree	et: ROUTE	7				
Intersection Orientation:	North-South		Study I	Period (hrs)	): 0.25					
Vehicle Volumes and	d Adjustments	S								
Major Street		Northbound				Southbo	ound			
Movement	1	2	3		4	5		6		
	L	T	R		L	T		R		
Volume	75	505	0		0	735		0		
Peak-Hour Factor, PHF	0.90	0.90	0.90	/	0.90	0.90		0.90		
Porcent Health Vehicles	83	567			0	816		0		
Median Type	<u> </u>			Undivida	2					
RT Channelized				Unaivide	20					
anes	0	1			0					
Configuration		1			<u> </u>			0		
Upstream Signal		0							******	
Minor Street		Westhound				Eastha				
Movement	7	8	<u>م</u>		10			12		
		Т	R		10	T	<u> </u>	R		
Volume	0	150	0		0	0				
Pe Hour Factor, PHF	0.90	0.90	0.90	)	0.90	0.90		0.90		
Houny Flow Rate, HFR	0	166	0		0	0		0		
Percent Heavy Vehicles	0	2	2		0	2		2		
Percent Grade (%)		0				0			******	
Flared Approach		N				N				
Storage		0				0				
RT Channelized			0					0	******	
Lanes	0	1	0		0	0		0		
Configuration			TR							
Delay, Queue Length, an	d Level of Servic	ce						é		
Approach	NB	SB	T	Westboun	d		Fastbour	nd		
Movement	1	4	7	8	9	10	11	12		
Lane Configuration			· · · · · · · · · · · · · · · · · · ·	<u> </u>	TR		+			
v (vph)	<u></u>		1		166	1	+			
C(m)(vph)	812				07		<del> </del>			
	012				3/	<u> </u>	<b>_</b>	_	-	
05% augus longth	0.10				1./1	<u> </u>	<u> </u>			
So /o queue lengin	0.34				13.30		<b></b>			
Control Delay	9.9				435.0	<b> </b>	Į		-	
LUS	A			<i>F</i>				<u> </u>		
Approach Delay	[	<b>1</b>		435.0						
Approach LOS										

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# **BUILD ALTERNATIVE 1 (FOUR-LANE)**

# 2028 AM PEAK HOUR

## HCM Signalized Intersection Capacity Analysis 6: Main Street & Battery Street

	۶		$\mathbf{i}$	1		*	-	Ť	1	1	Ļ	-
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		÷1	7		র	۴	ሻ	<b>^</b> Ъ		٣	<b>≜</b> 1⇒	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	2010-012-012-0-000-020-
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frt		1.00	0.85		1.00	0.85	1.00	0.99		1.00	1.00	
Fit Protected		0.97	1.00		0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1808	1583		1817	1583	1770	3506		1770	3531	
Fit Permitted		0.81	1.00		0.83	1.00	0.24	1.00		0.95	1.00	
Satd. Flow (perm)		1504	1583		1541	1583	452	3506		1770	3531	
Volume (vph)	15	10	45	50	50	85	65	590	40	125	1035	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	11	50	56	56	94	72	656	44	139	1150	17
RTOR Reduction (vph)	0	0	44	0	0	71	0	0	0	0	0	0
Lane Group Flow (vph)	0	28	6	0	112	23	72	700	0	139	1167	0
Turn Type	Perm		Prot	Perm		pt+ov	Perm		С	ustom		
Protected Phases		4	4		8	8 1		2			6	
Permitted Phases	4			8			2			1		
Actuated Green, G (s)		13.3	13.3		13.3	27.7	71.6	71.6		14.4	91.0	
Effective Green, g (s)		14.3	14.3		14.3	29.7	72.6	72.6		15.4	92.0	
Actuated g/C Ratio		0.12	0.12		0.12	0.25	0.60	0.60		0.13	0.77	
Clearance Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		179	189		184	392	273	2121		227	2707	
v/s Ratio Prot			0.00			0.01		0.20		c0.08	c0.33	
v/s Ratio Perm		0.02			c0.07		0.16					
v/c Ratio		0.16	0.03		0.61	0.06	0.26	0.33		0.61	0.43	
Uniform Delay, d1		47.4	46.7		50.2	34.5	11.1	11.7		49.5	4.9	
Progression Factor		1.00	1.00		1.00	1.00	0.38	0.44		1.00	1.00	
Incremental Delay, d2		0.4	0.1		5.6	0.1	2.2	0.4		4.8	0.5	
Delay (s)		47.8	46.8		55.8	34.5	6.5	5.5		54.3	5.4	
Level of Service		D	D		E	С	A	Α		D	Α	
Approach Delay (s)		47.2			46.1			5.6			10.6	
Approach LOS		D			D			А			В	
Intersection Summary												
HCM Average Control D	elay		13.3	Н	CM Lev	vel of Se	ervice		В			
HCM Volume to Capacit	y ratio		0.45									
Actuated Cycle Length (	s)		120.0	S	um of k	ost time	(S)		8.0			
Intersection Capacity Uti	ilization		54.8%	IC	CU Leve	el of Ser	vice		A			inidening init. Selektropicki
Analysis Period (min)			15	·								
c Critical Lane Group												

## HCM Signalized Intersection Capacity Analysis 7: King Street & Battery Street

	۶		$\mathbf{F}$	<		۰.	1	†	/	1	ţ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	۲	4			44		٢	ቶኈ		۴	4 <b>1</b>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00			1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.85			0.89		1.00	1.00		1.00	1.00	
Fit Protected	0.95	1.00			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1583			1646		1770	3534		1770	3526	
Flt Permitted	0.39	1.00			0.97		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	720	1583			1609		1770	3534		1770	3526	
Volume (vph)	25	0	5	15	10	120	5	555	5	110	1000	25
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	28	0	6	17	11	133	6	617	6	122	1111	28
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	28	6	Û	0	161	0	6	623	0	122	1139	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								anta da antica da antic
Actuated Green, G (s)	16.5	16.5			16.5		1.6	68.9		13.4	80.7	
Effective Green, g (s)	17.5	17.5			17.5		2.6	69.9		14.4	81.7	
Actuated g/C Ratio	0.15	0.15			0.15		0.02	0.58		0.12	0.68	
Clearance Time (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	105	231			235	<u></u>	38	2059		212	2401	<del></del>
v/s Ratio Prot		0.00					0.00	0.18		c0.07	c0.32	
v/s Ratio Perm	0.04	2000 - 10 <sup>2</sup> (1997) - 109	energi nga pagangan ganagan gan		c0.10	nde te de die ste die die die d	والروارية والمتركبة والمراجع والمراجع	nin ola ile site in alle o		1999 - Angel State (1999 - 1999 -	er rener Helsen van	tet antigete gegendere
v/c Ratio	0.27	0.03			0.69		0.16	0.30		0.58	0.47	
Uniform Delay, d1	45.5	43.9			48.6		57.6	12.7	ni ni seni seni segur se	49.9	9.0	
Progression Factor	1.00	1.00			1.00		1.04	0.63		1.23	0.75	
Incremental Delay, d2	1.4	0.0	4 mm 5 m 1 mm m m		8.0	ters from an an strategy	1.9	0.4	ala ha na katan kada ana	3.5	0.6	
Delay (s)	46.9	44.0			56.6		61.7	8.3		64.7	7.4	
Level of Service	D	D			E	an parto a fa directori	E	Α	nder stremmten benefitet streftet for	Е	Α	(han 1999) (h
Approach Delay (s)		46.4			56.6			8.9			12.9	
Approach LOS		D			Е			А			В	en el el el el el el el el el el el el el
Intersection Summary												
HCM Average Control D	elay		15.6	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.52									
Actuated Cycle Length (	s)		120.0	S	um of lo	st time (	(s)	an an an de an an ann an An Braidh, fra	14.2			entri sti Atroni tifi
Intersection Capacity Uti	lization	. (	60.5%	IC	U Leve	l of Serv	ice		B			
Analysis Period (min)			15	a an an ann an Antard (19			nagatan kancalan ka				en en en en en en en en en en en en en e	ana sa katala sa sa sa sa sa sa sa sa sa sa sa sa sa
c Critical Lane Group												

# HCM Signalized Intersection Capacity Analysis 8: Maple Street & Battery Street

	۶	-+	$\mathbf{i}$	4		*	•	Ť	1	- <b>\</b>	ţ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			44		٣	<b>*</b> ħ		ሻ	ትኈ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frt		0.99			0.96		1.00	0.99		1.00	0.99	
Fit Protected		0.97			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1724			1696		1711	3390		1711	3388	
Flt Permitted		0.63			0.82		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1127			1419		1711	3390		1711	3388	
Volume (vph)	60	20	5	70	40	40	5	465	30	80	875	60
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	67	22	6	78	44	44	6	517	33	89	972	67
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	95	0	0	166	0	6	550	0	89	1039	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)		18.3			18.3		1.6	71.0		9.5	78.9	
Effective Green, g (s)		19.3			19.3		2.6	72.0		10.5	79.9	
Actuated g/C Ratio		0.16			0.16		0.02	0.60		0.09	0.67	
Clearance Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		181			228		37	2034		150	2256	
v/s Ratio Prot							0.00	0.16		c0.05	c0.31	
v/s Ratio Perm		0.08			c0.12	k Dasie				5.356806		
v/c Ratio		0.52			0.73		0.16	0.27		0.59	0.46	
Uniform Delay, d1		46.1			47.9		57.6	11.5		52.7	9.7	
Progression Factor		1.00			1.00		0.78	1.55		1.20	0.13	
Incremental Delay, d2		2.7			11.0		1.9	0.3		5.6	0.6	
Delay (s)	a batab bata katabata	48.9	andassa an an an an an an an an an an an an an		58.9		46.9	18.1	entre en en el set en en en en en en en	68.8	1.9	
Level of Service		D			<b>E</b>		D	B		E	A	
Approach Delay (s)	vienie enité déservi	48.9	201102304253445053	an an an an an an an an an an an an an a	58.9			18.4	men del de la gradita de la dela		7.2	anto stabili anto additi anto
Approach LOS		D			E			В			A	
Intersection Summary												
HCM Average Control D	elay		16.9	H	CM Lev	el of Se	rvice		В			
HCM Volume to Capacity	y ratio		0.52									
Actuated Cycle Length (s	<b>3)</b>		120.0	S	um of lo	ost time	(S)		14.2			
Intersection Capacity Uti	lization	Ę	51.5%	IC	U Leve	l of Serv	vice		A			
Analysis Period (min)			15				(† 178 de 14					

HCM Signalized Intersection Capacity Analysis 5: Main Street & Pine Street

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		44			đ.	1		f.	7		£,	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0		4.0	4.0		4.0	
Lane Util. Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Frt		0.99			1.00	0.85		1.00	0.85		0.98	
Flt Protected		0.99			1.00	1.00		0.99	1.00		0.99	
Satd. Flow (prot)		1833			1857	1583		1843	1583		1800	
Fit Permitted		0.90			0.97	1.00		0.90	1.00		0.89	
Satd. Flow (perm)		1659			1815	1583		1679	1583		1619	
Volume (vph)	45	165	10	15	225	45	40	145	15	45	140	40
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	50	183	11	17	250	50	44	161	17	50	156	44
RTOR Reduction (vph)	0	0	0	0	0	29	0	0	13	0	0	0
Lane Group Flow (vph)	0	244	0	0	267	21	0	205	4	0	250	0
Turn Type	Perm			Perm		Perm	Perm		Perm	Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6		6	8		8	4		
Actuated Green, G (s)		15.4			15.4	15.4		9.4	9.4		9.4	
Effective Green, g (s)		16.4			16.4	16.4		10.4	10.4		10.4	
Actuated g/C Ratio		0.41			0.41	0.41		0.26	0.26		0.26	
Clearance Time (s)		5.0			5.0	5.0		5.0	5.0		5.0	
Vehicle Extension (s)		3.0			3.0	3.0		3.0	3.0		3.0	
Lane Grp Cap (vph)		687			752	656		441	416		425	<u> </u>
v/s Ratio Prot												
v/s Ratio Perm		0.15			c0.15	0.01		0.12	0.00		c0.15	
v/c Ratio		0.36		318 S B	0.36	0.03		0.46	0.01		0.59	
Uniform Delay, d1		8.0			8.0	6.9		12.3	10.8		12.7	
Progression Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Incremental Delay, d2		0.3			0.3	0.0		0.8	0.0		2.1	
Delay (s)		8.3			8.3	6.9		13.0	10.8		14.8	
Level of Service		А			A	А		В	В		В	
Approach Delay (s)		8.3			8.0			12.9			14.8	
Approach LOS		A			A			В			В	
Intersection Summary												
HCM Average Control D	elay		10.8	Н	CM Lev	el of Se	ervice		В			
HCM Volume to Capacit	y ratio		0.38									
Actuated Cycle Length (	s)		39.6	S	um of lo	ost time	(S)		8.0			
Intersection Capacity Ut	lization	Ç	59.9%	IC	CU Leve	of Ser	vice		В			
Analysis Period (min)			15									
c Critical Lane Group												

	1	۲	4	Ļ	¥	ŧ⁄ –		
Movement	NBT	NBR	SBL	SBT	SWL	SWR		
Lane Configurations	<b>*</b> 14		ሻ	<b>*</b> *	Ŵ			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Total Lost time (s)	4.0		4.0	4.0	4.0			
Lane Util. Factor	0.95		1.00	0.95	1.00			
Frt	0.95		1.00	1.00	1.00			
Flt Protected	1.00		0.95	1.00	0.95			
Satd. Flow (prot)	3367		1770	3539	1769			
Flt Permitted	1.00		0.29	1.00	0.95			
Satd. Flow (perm)	3367		538	3539	1769			
Volume (vph)	520	250	20	955	285	10		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90		
Adj. Flow (vph)	578	278	22	1061	317	11		
RTOR Reduction (vph)	28	0	0	0	2	0		
Lane Group Flow (vph)	828	0	22	1061	326	0		
Turn Type	Prot		Perm					
Protected Phases	2			6	8			
Permitted Phases			6					
Actuated Green, G (s)	77.4		77.4	77.4	26.4			
Effective Green, g (s)	78.4		78.4	78.4	27.4			
Actuated g/C Ratio	0.65		0.65	0.65	0.23			
Clearance Time (s)	5.0		5.0	5.0	5.0			
Vehicle Extension (s)	3.0		3.0	3.0	3.0			
Lane Grp Cap (vph)	2200		351	2312	404			
v/s Ratio Prot	0.25			c0.30	c0.18			
v/s Ratio Perm			0.04					
v/c Ratio	0.38		0.06	0.46	0.81			
Uniform Delay, d1	9.6		7.5	10.3	43.8			
Progression Factor	1.00		0.38	0.41	1.00			
Incremental Delay, d2	0.5		0.3	0.6	11.3			
Delay (s)	10.1		3.2	4.8	55.1			
Level of Service	В	a garagan	A	A	E			
Approach Delay (s)	10.1			4.8	55.1			
Approach LOS	В			A	E			
Intersection Summary								
HCM Average Control D	elay		14.1	Н	ICM Lev	el of Service	В	
HCM Volume to Capacit	y ratio		0.55					
Actuated Cycle Length (s	s)		120.0	S	um of lo	ost time (s)	14.2	
Intersection Capacity Uti	lization		49.5%	I(	CU Leve	el of Service	A	
Analysis Period (min)	14.1 - e-14.1 - e-14.1 - 14.1 - 14.1 - 14.1 - 14.1 - 14.1 - 14.1 - 14.1 - 14.1 - 14.1 - 14.1 - 14.1 - 14.1 - 1	e tasta ser e com	15			and a state of the state of the state of the		
c Critical Lane Group								



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Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	ኻኣፋ		۴	*	¥	11	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width	11	12	11	12	11	12	ala di kawa manda ya na panya kata kata kata na panda na pi pinata na pi na pangangi kata pina pina pina pina p Ala di kawa manda ya na pina pina pina pina pina pina pina
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0	
Lane Util. Factor	0.97	- 1979-999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 -	1.00	1.00	1.00	0.88	en en en se presente de la complete de la complete de la complete de la construction de la complete de la compl
Frt	0.99		1.00	1.00	1.00	0.85	
Flt Protected	0.96		0.95	1.00	1.00	1.00	enne ne pe pe pe pe penne pe penne al provinsi pe para dan pane pe pe para bana ne ne na penne dan manya na na I
Satd. Flow (prot)	3306		1711	1863	1801	2787	
Flt Permitted	0.96		0.39	1.00	1.00	1.00	
Satd. Flow (perm)	3306		703	1863	1801	2787	
Volume (vph)	305	20	15	465	380	875	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	
Adj. Flow (vph)	339	22	17	517	422	972	
RTOR Reduction (vph)	3	0	0	0	0	0	
Lane Group Flow (vph)	358	0	17	517	422	972	
Turn Type			Perm			Perm	
Protected Phases	2	- 1992-905-992-992-993-993-995-995- 1992-992-992-992-992-992-992-992-992-992		4	8	a da na Stalji na Stala Stala Stala Stala	
Permitted Phases			4			8	
Actuated Green, G (s)	40.8		53.0	53.0	53.0	53.0	
Effective Green, g (s)	41.8		54.0	54.0	54.0	54.0	
Actuated g/C Ratio	0.38		0.49	0.49	0.49	0.49	
Clearance Time (s)	5.0		5.0	5.0	5.0	5.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	1256		345	915	884	1368	
v/s Ratio Prot	c0.11			0.28	0.23	a (and methodology energy) and provide solution (	alana ang mangka ng mga ng mga ang ng
v/s Ratio Perm			0.02	s. Carlos M		c0.35	
v/c Ratio	0.28		0.05	0.57	0.48	0.71	
Uniform Delay, d1	23.7		14.6	19.7	18.6	21.9	
Progression Factor	0.91		1.00	1.00	1.00	1.00	nammat n. f. n. Fordund agam n. f. 1970. d. n. n. e 29 stor 52 stor 52 store and ScoreScommution estimation Sco
Incremental Delay, d2	0.6		0.3	2.5	0.4	1.8	
Delay (s)	22.2		14.9	22.2	19.0	23.7	
Level of Service	C		В	C	В	C	
Approach Delay (s)	22.2			22.0	22.3		
Approach LOS	С			C	C		
Intersection Summary							
HCM Average Control D	elay		22.2	Н	CM Lev	el of Service	С
HCM Volume to Capacit	y ratio		0.52				
Actuated Cycle Length (	5)		110.0	Si	um of Ic	st time (s)	14.2
Intersection Capacity Uti	lization	4	47.3%	IC	U Leve	I of Service	Α
Analysis Period (min)			15				

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			44			đ.		ሻ	<b>1</b> 4	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	14	12	12	14	12	12	14	12	11	11	12
Total Lost time (s)		4.0			4.0			4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00			1.00		1.00	1.00	0.6469.0660.0660
Frt		1.00			0.91			0.99		1.00	0.98	
Flt Protected		0.98			1.00			1.00		0.95	1.00	
Satd. Flow (prot)		1947			1799			1973		1711	1762	
Fit Permitted		0.69			0.98			0.99		0.47	1.00	
Satd. Flow (perm)		1372			1771			1951		838	1762	
Volume (vph)	35	50	0	10	55	140	10	240	10	130	180	30
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	39	56	0	11	61	156	11	267	11	144	200	33
RTOR Reduction (vph)	0	0	0	0	118	0	0	2	0	0	5	0
Lane Group Flow (vph)	0	95	0	0	110	0	0	287	0	144	228	0
Turn Type	Perm			Perm		211 2222	Perm			pm+pt		
Protected Phases		4			8			2	******	1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		8.7			8.7			20.4		32.3	32.3	
Effective Green, g (s)		9.7			9.7			21.4		33.3	33.3	
Actuated g/C Ratio		0.18			0.18			0.40		0.62	0.62	
Clearance Time (s)		5.0			5.0			5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		248			320			777		648	1093	
v/s Ratio Prot										0.03	c0.13	
v/s Ratio Perm		c0.07			0.06			c0.15		0.11		
v/c Ratio		0.38			0.34			0.37		0.22	0.21	
Uniform Delay, d1		19.4			19.2			11.4		5.0	4.4	
Progression Factor		1.00			1.00			1.00		1.00	1.00	
Incremental Delay, d2		1.0			0.6			0.3		0.2	0.1	
Delay (s)		20.4			19.9			11.7		5.2	4.5	
Level of Service		С			В			В		A	Α	
Approach Delay (s)		20.4			19.9			11.7			4.8	
Approach LOS		C			В			В			Α	
Intersection Summary												
HCM Average Control D	elay		11.8	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacity	y ratio		0.33									1.00000000000000
Actuated Cycle Length (s	3)		53.7	S	um of Ic	st time	(S)		12.0			
Intersection Capacity Util Analysis Period (min)	lization	<b>}</b>	53.1% 15	IC	CU Leve	l of Ser	vice		A			

		$\mathbf{i}$	<	-	1	1	
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	۸	*	ሻ	র	ሻ	77	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.88	
Frt	1.00	0.85	1.00	1.00	1.00	0.85	
Flt Protected	1.00	1.00	0.95	0.97	0.95	1.00	
Satd. Flow (prot)	1863	1583	1681	1716	1770	2787	
Flt Permitted	1.00	1.00	0.95	0.56	0.95	1.00	
Satd. Flow (perm)	1863	1583	1681	991	1770	2787	
Volume (vph)	60	115	720	170	225	265	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	
Adj. Flow (vph)	67	128	800	189	250	294	
RTOR Reduction (vph)	0	68	0	0	0	67	
Lane Group Flow (vph)	67	60	482	507	250	227	
Turn Type		om+ov	Prot		C	custom	
Protected Phases	4	2	3	8	2	23	
Permitted Phases		4				2	
Actuated Green, G (s)	9.7	49.5	39.3	54.0	39.8	84.1	
Effective Green, g (s)	10.7	51.5	40.3	55.0	40.8	85.1	
Actuated g/C Ratio	0.10	0.47	0.37	0.50	0.37	0.77	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	181	741	616	761	657	2156	
v/s Ratio Prot	0.04	0.03	c0.29	0.24	c0.14	0.08	
v/s Ratio Perm		0.01		c0.09			
v/c Ratio	0.37	0.08	0.78	0.67	0.38	0.11	
Uniform Delay, d1	46.5	16.2	31.0	20.6	25.3	3.1	
Progression Factor	1.00	1.00	0.36	0.37	0.64	1.07	
Incremental Delay, d2	1.3	0.0	4.6	1.6	1.6	0.0	
Delay (s)	47.8	16.2	15,8	9.2	17.9	3.3	
Level of Service	D	В	В	Α	В	Α	
Approach Delay (s)	27.1			12.4	10.0		
Approach LOS	С			В	В		
Intersection Summary							
HCM Average Control De	elay		13.3		ICM Lev	el of Service	
HCM Volume to Capacity	y ratio		0.58				
Actuated Cycle Length (s	3)		110.0	S	um of lo	ost time (s)	
Intersection Capacity Util	lization		50.2%	1(	CU Leve	of Service	
Analysis Period (min)			15				
c Critical Lane Group							

# HCM Signalized Intersection Capacity Analysis 30: Sears Lane & Southern Connector

	٠		$\mathbf{i}$	1	4	۰.	-	Ť	1	1	Ļ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			44		٣	<u></u>		ሻ	ትኄ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frt		0.89			0.97		1.00	0.98		1.00	1.00	
Fit Protected		0.99			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1641			1786		1770	3469		1770	3529	
Flt Permitted		0.95			0.88		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1580			1600		1770	3469		1770	3529	
Volume (vph)	5	0	25	45	65	25	85	460	70	10	810	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	6	0	28	50	72	28	94	511	78	11	900	17
RTOR Reduction (vph)	0	24	0	0	8	0	0	6	0	0	1	0
Lane Group Flow (vph)	0	10	0	0	142	0	94	583	0	11	916	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)		14.4			14.4		9.1	72.8		1.6	65.3	
Effective Green, g (s)		15.4			15.4		10.1	73.8		2.6	66.3	
Actuated g/C Ratio		0.14			0.14		0.09	0.67		0.02	0.60	
Clearance Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		221			224		163	2327		42	2127	
v/s Ratio Prot							c0.05	0.17		0.01	c0.26	
v/s Ratio Perm		0.01			c0.09							
v/c Ratio		0.04			0.64		0.58	0.25		0.26	0.43	
Uniform Delay, d1		40.9			44.6		47.9	7.2		52.8	11.7	
Progression Factor		1.00			1.19		1.04	0.51		1.33	0.45	
Incremental Delay, d2		0.1			5.7		4.8	0.3		2.3	0.4	
Delay (s)		41.0			59.1		54.5	3.9		72.5	5.7	
Level of Service		D			E	ada ta antina ta antina ta an	D	А		Е	Α	
Approach Delay (s)		41.0			59.1			10.9			6.5	
Approach LOS		D			E			В			А	
Intersection Summary												
HCM Average Control D	elay		13.2	H	ICM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.48									
Actuated Cycle Length (	s)	a a state the state of the	110.0	S	um of lo	ost time	(s)		18.2			
Intersection Capacity Uti	ilization		53.1%	IC	CU Leve	l of Ser	vice		A			
Analysis Period (min)			15					·				
c Critical Lane Group												

## HCM Signalized Intersection Capacity Analysis 31: Flynn Avenue & Southern Connector

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		¢‡>			4		٢	<b>ት</b> ኈ		ሻ	<b>*</b> 1,	
Ideal Flow (vphpi)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0			4.0	
Lane Util. Factor		1.00			1.00		1.00	0.95			0.95	
Frt		0.97			0.98		1.00	1.00			0.99	
Flt Protected		0.99			0.99		0.95	1.00			1.00	
Satd. Flow (prot)		1780			1808		1770	3530			3503	
Fit Permitted		0.87			0.90		0.95	1.00			1.00	
Satd. Flow (perm)		1563			1645		1770	3530			3503	
Volume (vph)	35	75	35	15	65	15	75	560	10	0	820	60
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	39	83	39	17	72	17	83	622	11	0	911	67
RTOR Reduction (vph)	0	11	0	0	7	0	0	1	0	0	3	0
Lane Group Flow (vph)	0	150	0	0	99	0	83	632	0	0	975	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		l	6	
Permitted Phases	4			8								
Actuated Green, G (s)		14.6			14.6		8.7	79.2			65.5	
Effective Green, g (s)		15.6			15.6		9.7	80.2			66.5	
Actuated g/C Ratio		0.14			0.14		0.09	0.73			0.60	
Clearance Time (s)		5.0			5.0		5.0	5.0			5.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		222			233		156	2574			2118	
v/s Ratio Prot			20120				c0.05	0.18			c0.28	
v/s Ratio Perm		c0.10			0.06							
v/c Ratio		0.67			0.43		0.53	0.25			0.46	
Uniform Delay, d1		44.8			43.1		48.0	4.9			11.9	
Progression Factor		1.00			1.00		0.82	1.04			0.36	
Incremental Delay, d2	a natu taata ay kana da na taan t	7.9			1.3		3.3	0.2			0.7	
Delay (s)		52.7			44.4		42.8	5.3			5.0	
Level of Service		D	hadaa hara daga daaraa da daga		D	21 deletered alacest	D	A	and design a second		A	
Approach Delay (s)		52.7			44.4			9.7			5.0	
Approach LOS		D			D			A			A	
Intersection Summary												
HCM Average Control D	elay		12.7	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.50									
Actuated Cycle Length (s	s)		110.0	S	um of lo	st time	(s)		18.2			
Intersection Capacity Uti	lization		53.9%	IC	CU Leve	l of Sen	/ice		A	in in ini an Failtean		
Analysis Period (min)			15									
c Critical Lane Group												

# HCM Signalized Intersection Capacity Analysis 27: Home Avenue & Southern Connector

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		र्स	7		4		۴	<u>ት</u> ኈ		ኻ	<b>≜</b> ↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00		1.00	0.95		1.00	0.95	
Frt		1.00	0.85		0.99		1.00	0.99		1.00	0.99	
Fit Protected		0.98	1.00		0.96		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1826	1583		1774		1770	3489		1770	3508	
Fit Permitted		0.86	1.00		0.48		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1594	1583		878		1770	3489		1770	3508	
Volume (vph)	60	90	115	50	10	5	155	580	60	5	815	50
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	67	100	128	56	11	6	172	644	67	6	906	56
RTOR Reduction (vph)	0	0	98	0	3	0	0	4	0	0	3	0
Lane Group Flow (vph)	0	167	30	0	70	0	172	707	0	6	959	0
Turn Type	Perm		Perm	Perm			Prot			Prot		
Protected Phases		- 4			8		5	2		1	6	
Permitted Phases	4		4	8								
Actuated Green, G (s)		15.3	15.3		15.3		14.7	71.9		1.6	58.8	
Effective Green, g (s)		16.3	16.3		16.3		15.7	72.9		2.6	59.8	
Actuated g/C Ratio		0.15	0.15		0.15		0.14	0.66		0.02	0.54	
Clearance Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		236	235		130		253	2312		42	1907	
v/s Ratio Prot							c0.10	0.20		0.00	c0.27	
v/s Ratio Perm		c0.10	0.02		0.08							
v/c Ratio		0.71	0.13		0.54		0.68	0.31		0.14	0.50	
Uniform Delay, d1		44.6	40.7		43.3		44.8	7.8		52.6	15.8	
Progression Factor		1.00	1.00		1.00		1.00	1.00		1.39	0.18	
Incremental Delay, d2		9.3	0.2		4.2		7.1	0.3		1.4	0.9	
Delay (s)		53.9	40.9		47.5		51.8	8.2		74.6	3.7	
Level of Service		D	D		D		D	Α		E	Α	
Approach Delay (s)		48.3			47.5			16.7			4,1	
Approach LOS		D			D			В			A	
Intersection Summary												
HCM Average Control D	elay		16.4	H	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.57									
Actuated Cycle Length (	s)		110.0	Su	um of lo	ost time	(s)		18.2			
Intersection Capacity Uti	lization		53.0%	IC	U Leve	l of Sen	/ice		A			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		¢.,			4			4			đ.	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	10	110	45	25	105	25	10	165	35	10	150	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	11	122	50	28	117	28	11	183	39	11	167	6
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	183	172	233	183								
Volume Left (vph)	11	28	11	1								
Volume Right (vph)	50	28	39	6								(****)/******
Hadi (s)	-0.12	-0.03	-0.06	0.03								
Departure Headway (s)	5.2	5.3	5.1	5.2	aya ba ba na ana ana ana an						-0-1	
Degree Utilization, x	0.26	0.25	0.33	0.27								
Capacity (veh/h)	636	623	659	632			na an ann an Anna Anna					· /· · · · · · · · · · · · · · · · · ·
Control Delay (s)	10.0	10.0	10.6	10.1								
Approach Delay (s)	10.0	10.0	10.6	10.1								
Approach LOS	В	В	В	B								
Intersection Summary												
Delay			10.2									
HCM Level of Service			В									
Intersection Capacity Uti	lization		36.1%		CU Leve	l of Ser	vice		A			
Analysis Period (min)			15									
										din kara-da kedi Shara ya kara		

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			<del>,</del>			¢ <b>\$</b> ,	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	40	40	55	125	5	50	200	40	5	210	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	44	44	61	139	6	56	222	44	6	233	6
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	94	206	322	244								
Volume Left (vph)	6	61	56	6								
Volume Right (vph)	44	6	44	6						1999 - 2019 - 2019 - 2019 - 2019 - 2019 - 2019 - 2019 - 2019 - 2019 - 2019 - 2019 - 2019 - 2019 - 2019 - 2019 -	1	
Hadi (s)	-0.24	0.08	-0.01	0.02								
Departure Headway (s)	5.6	5.6	5.1	5.3					en en en en en en en en en en en en en e	2010-1010 (Contraction Contra	ienska ener er insenistinen	************
Degree Utilization, x	0.15	0.32	0.46	0.36								
Capacity (veh/h)	560	581	656	635								
Control Delay (s)	9.5	11.3	12.4	11.2								
Approach Delay (s)	9.5	11.3	12.4	11.2								terre das para terre
Approach LOS	Α	В	В	В								
Intersection Summary												
Delay			11.5									
HCM Level of Service			В									
Intersection Capacity Uti	lization		53.9%	I(	CU Leve	l of Sen	vice		Α			
Analysis Period (min)			15								Andria de Cambra Andria de Matematica	

	٦		$\mathbf{i}$	✓		×.		Ť	1	5	¥	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			¢.,			£,			4.	
Sign Control		Stop			Stop			Stop			Stop	is de lie de Veldense sei
Volume (vph)	20	160	0	10	15	115	5	50	15	145	20	20
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	22	178	0	11	17	128	6	56	17	161	22	22
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	200	156	78	206								
Volume Left (vph)	22	11	6	161								
Volume Right (vph)	0	128	17	22								
Hadi (s)	0.06	-0.44	-0.08	0.13								
Departure Headway (s)	4.9	4.5	5.0	5.0								
Degree Utilization, x	0.27	0.19	0.11	0.29					a da interior			
Capacity (veh/h)	689	745	656	672								
Control Delay (s)	9.7	8.5	8.6	10.0								
Approach Delay (s)	9.7	8.5	8.6	10.0							1997-000 (1997-1990) - 1997-1997 (1997-1997) 1997-1997 (1997-1997) - 1997 (1997-1997) - 1997 (1997-1997) - 1997	
Approach LOS	Α	A	Α	Α								
Intersection Summary												
Delay			9.4									
HCM Level of Service			Α									
Intersection Capacity Uti	lization		37.8%	IC	CU Leve	of Ser	vice		A			
Analysis Period (min)			15						e estan di en Crevit	a da da estatuta Sera		
											anali nini nyanga Grénaliya (Grénalia)	
HCM Unsignalized Intersection Capacity Analysis 11: Howard Street & Pine Street

	٭		$\mathbf{i}$	∢	<b></b>	۰.	1	Ť	1	1	Ļ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			44			4 î h			ፋኈ	
Sign Control		Stop			Stop			Free			Free	
Grade	ne la brieden de la b	0%		de petro e a cherro de composico de	0%			0%	an that the state of a later		0%	a landar a sa sa sa sa sa sa sa sa sa sa sa sa s
Volume (veh/h)	5	5	10	35	5	40	20	795	30	35	1245	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Houriy now rate (vpn)	6	6	11	39	6	44	- 22	883	33	39	1383	6
Lone Width (ft)												
Walking Speed (ft/s)		ferinder (1946) de	yeane yeagaagege	osese gangerij	919009910099	194925121414) -				An in the Arithmetic Angel		
Percent Blockage												
Right turn flare (veh)	ili estala engle estala de se	and a stand and a standard and a standard and a standard and a standard and a standard and a standard and a st	an da an sharan basa				tooni (1979) (1979) Looni (1979)	a na sina na sina si sa si sa si si si si si si si si si si si si si	an in the second second		n - Branderski († 1920) 194	andi Sali Abgorangik
Median type		None			None							
Median storage veh)												
Upstream signal (ft)									643 4949		1247	
pX, platoon unblocked			and a state of the state of the state of the state of the state of the state of the state of the state of the s	s (art) is internet dis (12)	Servician der anti-Addate	1999, 1999, 199 <u>9, 1999</u> , 1997	ana ana ana ana ana ana ana ana ana ana	404 (JA104- (J7662)	et in ett wishing in th	- Section of the section of the	n kalen (dag (over etter	alestiaten alesierik
vC, conflicting volume	1997	2425	694	1728	2411	458	1389			917		
vC1, stage 1 cont vol						80.444.444					Alamas kasara	
vCu, unblocked vol	1007	2425	604	1708	2/11	459	1280			017		
tC. single (s)	75	65	6.9	75	65		41	intelation of the provi		<u> </u>		
tC, 2 stage (s)					<b></b>						vite propositistes cos	000000000000000000000000000000000000000
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	79	81	97	11	81	92	95			95		1997 - Santo Maria da Brazilia da Brazilia
cM capacity (veh/h)	26	29	385	44	29	550	489			740		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	22	89	464	475	731	697		US CONTRACT				
Volume Left	6	39	22	0	39	0	and the second second second					
Volume Right	11	44	0	33	0	6	0-0000					
CSH Volume to Course	51	//	489	1700	740	1700		oline and the second	Secondadore	dan da da da da da da da da da da da da da	anti anti anti anti anti anti anti anti	en de la constance de la constance de la constance de la constance de la constance de la constance de la const
Volume to Capacity	0.44	1.16	0.05	0.28	0.05	0.41			en 16 (20, 60)	Careford and a		
Control Delay (e)	40	COL	4 1 / /	0	4 4 1	0						
Lane LOS	122.2 F	243.4 F	ι. <del>4</del> Δ	0.0	ι.4	0.0						
Approach Delay (s)	122.2	249.4	0.7		07				estilie detricen Stationalistation	o on disconstruction Generalization (Second		
Approach LOS	F	F										
Intersection Summary												
Average Delay			10.7									
Intersection Capacity Ut	ilization		74.5%	K	CU Leve	l of Sen	vice		D			
Analysis Period (min)			15			and a factor of the						

	•	×	Ť	1	1	Ļ			
Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations	¥		<b>†</b> ‡			-¢†			
Sign Control	Stop		Free			Free			
Grade	0%		0%			0%			
Volume (veh/h)	75	85	745	20	80	1185			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	en en en en en en en en en en en en en e		
Hourly flow rate (vph)	83	94	828	22	89	1317			
Pedestrians									
Lane width (ff)									dinina (in spiri
Porcont Blockado									
Right turn flare (veh)									
Median type	None								
Median storage veh)						la projeta na principal da Alfred			lijaligo izdano deljičeo igitoria:
Upstream signal (ft)			611			presi Constrati Nationali di Ast			
pX, platoon unblocked	an an an an an an an an an an an an an a	e geta kongra konska mangra na		aya maanin aarina.	an da manana mangkan paga da pana	an an an an an an an an an an an an an a			a na an an an an an an an an an an an an
vC, conflicting volume	1675	425			850				
vC1, stage 1 conf vol									
vC2, stage 2 conf vol					6.44.200				
vCu, unblocked vol	1675	425	an taona da ana a	nasimistikisiteerika	850	an an an an an an an an an an an an an a			r (1959 - 1959 - 1959) (1959 - 1959)
tC, single (s)	6.8	6.9			4.1				azine (na cine) Azine (na cine)
tC, 2 stage (s)	00	<u> </u>	ne an an an an an an an an an an an an an		ററ				
nn queue free %	ა.ວ ∩	0.0 84			2.2 80				
cM canacity (yeh/h)	76	578			784				
	521 <b>7</b> 7 2	310.4	<b>.</b>		197 05 0				
Direction, Lane #	170	NB I	NB 2	501	382				
Volume Loft	1/0	 	290	920 90	0/0				
Volume Right	00 Q/	o A	20	09	ň	ga hala inder och inder Stationer inder			
cSH	142	1700	1700	784	1700	en de la company de la Cold			
Volume to Capacity	1.25	0.32	0.18	0.11	0.52				
Queue Length 95th (ft)	268	0	0	10	0	og and a state of the state of the state of the state of the state of the state of the state of the state of th			per exponenti de l'Addit d'Addit.
Control Delay (s)	219.9	0.0	0.0	3.0	0.0				
Lane LOS	F			Α					
Approach Delay (s)	219.9	0.0		1.1					
Approach LOS	F								
Intersection Summary									
Average Delay			16.7						
Intersection Capacity U	tilization	1991 - 1993	75.7%	IC	CU Leve	l of Servi	e l	2	
Analysis Period (min)			15						

	1	۰.	1	1	1	Ŧ	
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	¥		4			સ	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Volume (veh/h)	60	65	435	30	50	330	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vph)	67	72	483	33	56	367	
Pedestrians	in and a the dash and a straight of the	anter la contrara constante d	recolocità di stato de la de		والمتعادين والمتعادين	-2 martin standard in the standard	
Lane Width (ft)							
Walking Speed (ft/s)		en en en en en en en en en en en en en e		linksferiel and a wear	004056664666	ta ang ang ang ang ang ang ang ang ang an	
Percent Blockage							
Modion time	None						
Median storage yeb)	NULLE						
Inetream eignal (ff)						667	
nX niatoon unblocked	ሰ					007	
vC conflicting volume	978	500			517		
vC1. stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	974	500		gan da sa sa sa sa sa	517	and transfer of a badded	
tC, single (s)	6.4	6.2		ieninen seinen Seinen	4.1		
tC, 2 stage (s)							
tF (s)	3.5	3.3			2.2		
p0 queue free %	70	87			95		
cM capacity (veh/h)	226	571			1049		
Direction, Lane #	WB 1	NB 1	SB 1				
Volume Total	139	517	422				
Volume Left	67	0	56				
Volume Right	72	33	0				
cSH	329	1700	1049				
Volume to Capacity	0.42	0.30	0.05				
Queue Length 95th (ft)	50	0	4				
Control Delay (s)	23.7	0.0	1.6				
	U 7 00 7	**	A A				
Approach LOS		<b>U.U</b>	1.b				
	U						
Intersection Summary							
Average Delay			3.7				
Analysis Pariod (min)	mzation		0∠.∠%o	IC	U Level	or Servi	Ce B
miaiysis reflou (IIIII)			10				

	٦	$\mathbf{\tilde{\mathbf{v}}}$	1	Ť	Ļ			
Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations	Y			÷.	\$⇒			
Sign Control	Stop			Free	Free			
Grade	0%			0%	0%			
Volume (veh/h)	70	10	75	400	330	60		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90		
Hourly flow rate (vph)	78	11	83	444	367	67		
Pedestrians	tatilita a taka kata a t		na manana kana bashari da	under Fürstellunder de				enderstretende states
Lane Width (ft)								
Walking Speed (ft/s)	ta da serie da da da da			vérově, Anator Enrolma Anator	naana firatara ka			a pasta kon Asia base
Percent Blockage								
Right turn flare (ven)	<b>K</b> 12222							
Median type	None							
Viedian storage ven)		gunden distanting	nga injaga kana gina kana ka	1000	nen			
opstream signal (ii)	0 O O	Λ QΛ	0 00	1009	303			
$\gamma C$ conflicting volume	1011	100	433					
vC1_stage 1 conf vol	1011	τυυ	τοv					
vC2_stage 2 conf vol								
vCu, unblocked vol	1012	333	370	999599999999999 999599999999999	jajatukon terang	ala nder system betre ner jerne ser gen		
tC. single (s)	6.4	6.2	4.1					
tC, 2 stage (s)	2011-000-000-000-000-000-000-000-000-000							*********
tF (s)	3.5	3.3	2.2					
p0 queue free %	65	98	92					
cM capacity (veh/h)	220	638	1069					
Direction, Lane #	EB 1	NB 1	SB 1					
Volume Total	89	528	433					
Volume Left	78	83	0					
Volume Right	11	0	67					
cSH	239	1069	1700	energia e desta e consideratoria	Na balan baran kata kata bara			
Volume to Capacity	0.37	0.08	0.25					
Queue Length 95th (ft)	41	6	0		An instantion of the second second second second second second second second second second second second second	legene (närse som en segigen er som en		
Control Delay (s)	28.7	2,1	0.0					
Lane LOS	D	A		i oggangarikan) asa	teregisteren der			
Approach Delay (s) Approach LOS	28.7 D	2.1	0.0					63.53.53.53
Intersection Summary	_							
Average Delay			3.5					
Intersection Capacity UI	ilization		60.7%	IC	U Leve	l of Service	В	
Analysis Period (min)	an ann an tha an thaile an tha		15		or and the second second second second second second second second second second second second second second s	un agus taith an Thui	la ni benezi men na menerata da kanan da na na banan da na pologo na na haran yang kanan kana da pologo na polo Dan benezi menerata da kanan da pologo na na banan da na pologo na na haran yang kanan kanan da pologo na pologo	naga (awa (Galiyola C

	٨		$\mathbf{i}$	1	4	Ł	1	t	1	1	Ļ	-
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	۲,	4		٣	ĥ			4			4	
Ideal Flow (vphpi)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	12	11	11	14	14	14	11	11	11
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.99		1.00	0.99			0.97			0.97	
Flt Protected	0.95	1.00		0.95	1.00			1.00			0.99	
Satd, Flow (prot)	1711	1835		1770	1785			1926			1728	
Flt Permitted	0.25	1.00		0.35	1.00			0.97			0.82	
Satd. Flow (perm)	449	1835		651	1785			1877			1442	
Volume (vph)	45	320	35	30	405	25	20	265	75	85	170	65
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	50	356	39	33	450	28	22	294	83	94	189	72
RTOR Reduction (vph)	0	6	0	0	3	0	0	7	0	0	7	0
Lane Group Flow (vph)	50	389	0	33	475	0	0	392	0	0	348	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	20.1	20.1		20.1	20.1			25.9			25.9	
Effective Green, g (s)	21.1	21.1		21.1	21.1	ni de la composita. Se composita		26.9			26.9	
Actuated g/C Ratio	0.35	0.35		0.35	0.35			0.44			0.44	
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	156	637		226	619			830			638	
v/s Ratio Prot		0.21			c0.27							
v/s Ratio Perm	0.11			0.05				0.21			c0.24	
v/c Ratio	0.32	0.61		0.15	0.77			0.47			0.55	
Uniform Delay, d1	14.6	16.4		13.7	17.7			11.9			12.5	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	1.2	1.7		0.3	5.7		53833	0.4			1.0	
Delay (s)	15.8	18.2		14.0	23.3			12.4			13.4	
Level of Service	В	В		В	С			В			В	
Approach Delay (s)		17.9			22.7			12.4			13.4	
Approach LOS		В			С			B			В	
Intersection Summary												
HCM Average Control D	elay		17.1	F	ICM Lev	el of Se	rvice		B			
HCM Volume to Capacit	y ratio		0.58									
Actuated Cycle Length (	3)		60.8	S	um of Ic	ost time	(S)		8.0			
Intersection Capacity Uti	lization		80.0%	10	CU Leve	l of Sen	vice		D			
Analysis Period (min)			15									

# HCM Signalized Intersection Capacity Analysis 2: Main Street & South Union St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	۸			4		۲	<b>1</b> 2				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	10	10	16	16	16	10	11	11	12	12	12
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0				
Lane Util. Factor	1.00	1.00			1.00		1.00	1.00				
Frt	1.00	1.00			0.98		1.00	0.96				
Fit Protected	0.95	1.00			1.00		0.95	1.00				
Satd. Flow (prot)	1888	1739			1868		1652	1724				
Flt Permitted	0.35	1.00			1.00		0.95	1.00				
Satd. Flow (perm)	700	1739			1868		1652	1724				
Volume (vph)	20	330	0	0	430	60	110	190	75	0	0	0
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	22	367	0	0	478	67	122	211	83	0	0	0
RTOR Reduction (vph)	0	0	0	0	6	0	0	14	0	0	Ó	0
Lane Group Flow (vph)	22	367	0	0	539	0	122	280	0	0	0	0
Parking (#/hr)				0	0	0						
Turn Type	Perm						Perm					
Protected Phases		2			6			8				
Permitted Phases	2						8					
Actuated Green, G (s)	22.6	22.6			22.6		10.6	10.6				
Effective Green, g (s)	23.6	23.6			23.6		11.6	11.6				
Actuated g/C Ratio	0.52	0.52			0.52		0.25	0.25				
Clearance Time (s)	5.0	5.0			5.0		5.0	5.0				
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0				
Lane Grp Cap (vph)	362	900			967		420	439				
v/s Ratio Prot		0.21			c0.29			c0.16				
v/s Ratio Perm	0.03						0.07					
v/c Ratio	0.06	0.41			0.56		0.29	0.64				
Uniform Delay, d1	5.5	6.7			7.5		13.7	15.1				
Progression Factor	1.00	1.00			1.00		1.00	1.00				
Incremental Delay, d2	0.1	0.3		unan da sub transferia da an	0.7		0.4	3.0				
Delay (s)	5.6	7.0			8.2		14.1	18.2		5 - 2 - 6 - 2 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5		
Level of Service	A	Α	un de la companya de la companya de la companya de la companya de la companya de la companya de la companya de		A		<b>B</b>	B				
Approach Delay (s)		6.9			8.2			17.0			0.0	
Approach LOS		A			A			В			A	
Intersection Summary												
HCM Average Control D	elay		10.5	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacity	y ratio		0.55									
Actuated Cycle Length (s	3)	و معروف کې د ورو و ورو و	45.6	Sı	um of lo	st time	(s)		8.0			
Intersection Capacity Uti	lization		17.5%	IC	U Leve	l of Serv	rice		A			
Analysis Period (min)	ulaan gebilaan ees	hanna an ann an an an an	15			Second States and States and	to and the second second	and a start of the start of	an data da tara sa			
c Critical Lane Group												

# HCM Signalized Intersection Capacity Analysis 3: Main Street & South Winooski Ave

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	ţ,		٣	¥	7		£,		ሻ	4	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	11	11	12	12	12	10	10	12
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0		4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	50 (2000) (2012) (2012) 2017	1.00	1.00	1.00		1.00	90 90 00 00 00 00 00 00 00 00 00 00 00 0	1.00	1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85		0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	,	0.99	-1	0.95	1.00	1.00
Satd. Flow (prot)	1540	1670		1711	1801	1531		1626		1652	1739	1583
Flt Permitted	0.49	1.00		0.61	1.00	1.00		0.88	1911 - 1913 - 1914 - 1915 - 1915 - 1915 - 1915 - 1915 - 1915 - 1915 - 1915 - 1915 - 1915 - 1915 - 1915 - 1915 -	0.73	1.00	1.00
Satd. Flow (perm)	787	1670		1106	1801	1531		1451		1265	1739	1583
Volume (vph)	30	190	5	40	295	115	10	25	5	100	235	55
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adi, Flow (vph)	33	211	6	44	328	128	11	28	6	111	261	61
RTOR Reduction (vph)	0	1	Ō	0	0	76	0		Ō	0	0	41
Lane Group Flow (vph)	33	216	0	44	328	52	Ô	40	0	111	261	20
Parking (#/hr)	0	0	0			er solories	Ō	0	Ō			
Turn Type	Perm			Perm		Perm	Perm			pm+pt		Perm
Protected Phases		2	exercisii		6			R		7	4	
Permitted Phases	2	an da sa kabupatén di kabupatén di kabupatén di kabupatén di kabupatén di kabupatén di kabupatén di kabupatén Kabupatén di kabupatén  and a freiten som det me	6		6	8			4		4	
Actuated Green, G (s)	19.5	19.5		20.2	20.2	20.2		89	90000000000000000000000000000000000000	16.3	16.3	16.3
Effective Green, a (s)	20.5	20.5	1999 - Carl Constant, 1999 - Carl Carl Carl Carl Carl Carl Carl Carl	21.2	21.2	21.2		9.9	569635039666669943	17.3	17.3	17.3
Actuated o/C Ratio	0.40	0.40		0.41	0.41	0.41		0.19		0.33	0.33	0.33
Clearance Time (s)	5.0	5.0	540 TECH CUDATACIA	5.0	5.0	5.0	ntata (ten Awalan)	5.0	encentéresekherte,	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0		3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	312	662		454	739	628		278		449	582	530
v/s Ratio Prot		0 13			c0.18			<b></b> · ·		0.02	c0 15	
v/s Ratio Perm	0.04			0.04	~~	0.03		0.03		0.07	~~~	0.01
v/c Ratio	0.11	0.33	gaga gagaga	0.10	0.44	0.08		0.14	ulle insi da	0.25	0 45	0.04
Uniform Delay, d1	9.8	10.8	en en en en en en en en en en en en en e	9.4	11.0	9.3	an jan populaçi ayan	17.4		12.5	13.5	11.6
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	1 00
Incremental Delay, d2	0.2	0.3		0.1	0.4	0.1	() - ministry (1993) ()	0.2		0.3	0.6	0.0
Delay (s)	10.0	11.1		9.5	11.4	9.4	ndender (nd men Posterier	17.6		12.8	14.0	11.6
Level of Service	А	B	reja da judajnji (kalijski)	A	B	A	olocial de la constant de la constant de la constant de la constant de la constant de la constant de la constan La constant de la cons	В	1944293939393939393939393	В	B	B
Approach Delay (s)		11.0	ę.		10.7			17.6			13.4	
Approach LOS	n Maria (Adada (Adada)	B	in an an an an an an an an an an an an an		В			B	hadana dagi yando	appenen (en pope	В	
Intersection Summary												
HCM Average Control D	elay		12.0	Н	CM Lev	el of Se	ervice		В			
HCM Volume to Capacit	y ratio		0.39		hisridanshi							
Actuated Cycle Length (s	5)	a an an an an an an an An An An	51.7	S	um of lo	ost time	(s)		8.0	en, eestereinditsidit		
Intersection Capacity Uti	lization	4	14.6%	10	U Leve	l of Ser	viće		A			
Analysis Period (min)	n ana shekara ang kati		15					a an an an an an an an an an an an an an	an an teann teann tha tha tha tha tha tha tha tha tha tha	e en ser de la décembre de la décembre de la décembre de la décembre de la décembre de la décembre de la décemb La décembre de la déc		
c Critical Lane Group												

CAP Clough, Harbour & Associates, LLP

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		र्भ	۴	ሻ	4			ર્શ	٢	ሻ	4	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	12	12	16	12	12	12
Total Lost time (s)		4.0	4.0	4.0	4.0			4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	
Frt		1.00	0.85	1.00	0.97			1.00	0.85	1.00	0.99	
Flt Protected		1.00	1.00	0.95	1.00			0.99	1.00	0.95	1.00	
Satd. Flow (prot)		1736	1478	1486	1516			1838	1794	1593	1840	
Flt Permitted		0.99	1.00	0.63	1.00			0.90	1.00	0.61	1.00	
Satd. Flow (perm)		1715	1478	989	1516			1683	1794	1025	1840	
Volume (vph)	5	175	45	15	250	65	55	150	25	20	60	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	6	194	50	17	278	72	61	167	28	22	67	6
RTOR Reduction (vph)	0	0	32	0	12	0	0	0	12	0	3	0
Lane Group Flow (vph)	0	200	18	17	338	0	0	228	16	22	70	0
Parking (#/hr)				0	0	0	0			0		
Turn Type	Perm		Perm	Perm			Perm		Perm	Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6			8		8	4		
Actuated Green, G (s)		14.3	14.3	14.3	14.3			12.3	12.3	12.3	12.3	
Effective Green, g (s)		15.3	15.3	15.3	15.3			13.3	13.3	13.3	13.3	
Actuated g/C Ratio		0.37	0.37	0.37	0.37			0.32	0.32	0.32	0.32	
Clearance Time (s)		5.0	5.0	5.0	5.0			5.0	5.0	5.0	5.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0			3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		631	544	364	558			538	574	328	588	
v/s Ratio Prot					c0.22						0.04	
v/s Ratio Perm		0.12	0.01	0.02				c0.14	0.01	0.02		
v/c Ratio		0.32	0.03	0.05	0.61			0.42	0.03	0.07	0.12	
Uniform Delay, d1		9.4	8.4	8.5	10.7			11.1	9.7	9.8	10.0	
Progression Factor		1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.3	0.0	0.1	1.9			0.5	0.0	0.1	0.1	
Delay (s)		9.7	8.4	8.5	12.6			11.7	9.7	9.9	10.1	
Level of Service		Α	Α	А	В			В	A	Α	В	
Approach Delay (s)		9.4			12.4			11.5			10.1	
Approach LOS		A			В			В			В	
Intersection Summary												
HCM Average Control D	elay		11.1	ŀ	ICM Lev	vel of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.44									
Actuated Cycle Length (	s)		41.6	5	Sum of l	ost time	(s)		8.0			
Intersection Capacity Uti	lization		41.4%	J	CU Leve	el of Ser	vice		Α			
Analysis Period (min)			15									
c Critical Lane Group												

### HCM Signalized Intersection Capacity Analysis 20: Howard Street & South Winooski Ave

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Movement	EBL2	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR2	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	14	14	14	12	12	12	16	16	16
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.98			0.98			1.00			0.99	
Flt Protected		0.99			0.99			1.00			1.00	
Satd. Flow (prot)		1792			1923			1854			2092	
Flt Permitted		0.93			0.96			0.99			0.98	
Satd. Flow (perm)		1690			1864			1833			2062	
Volume (vph)	15	30	10	5	20	5	15	295	5	5	100	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	33	11	6	22	6	17	328	6	6	111	6
RTOR Reduction (vph)	0	9	0	0	0	0	0	1	0	0	2	0
Lane Group Flow (vph)	0	52	0	0	34	0	0	350	0	0	121	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		3			3			2			6	
Permitted Phases	3			3			2	2		6	6	
Actuated Green, G (s)		15.0			15.0			30.0			30.0	
Effective Green, g (s)		16.0			16.0			31.0			31.0	
Actuated g/C Ratio		0.20			0.20			0.39			0.39	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Lane Grp Cap (vph)		338			373			710			799	
v/s Ratio Prot												
v/s Ratio Perm		c0.03			0.02			c0.19			0.06	
v/c Ratio		0.15			0.09			0.49			0.15	
Uniform Delay, d1		26.4			26.1			18.6		·	15.9	·
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.0			0.5			2.4			0.4	
Delay (s)		27.4			26.6			21.0			16.3	
Level of Service		С			С			С			В	
Approach Delay (s)		27.4			26.6	19. 29. B. 10.		21.0			16.3	
Approach LOS		С			С			С			В	
Intersection Summary												
HCM Average Control D	elay	a anti-statistica and a	22.9	Н	CM Lev	/el of Se	rvice	an a frank and a start and a start	С	ور و و و و و و و و و و و و و و		
HCM Volume to Capacit	y ratio		0.40									
Actuated Cycle Length (	s)		80.0	S	um of lo	ost time	(s)		12.0			en an activities et al.
Intersection Capacity Ut	ilization		49.3%	10	CU Leve	el of Ser	vice		A			
Analysis Period (min)			15			ور و و و و و و و و و و و و و						an an an an a
c Critical Lane Group												

	<b>\$</b>	¥	*	ŧ⁄.
Movement	SWL2	SWL	SWR	SWR2
Lane Configurations	*	Ŵ		
Ideal Flow (vphpl)	1900	1900	1900	1900
Lane Width	14	14	14	14
Total Lost time (s)	4.0	4.0		
Lane Util. Factor	1.00	1.00		
Frt	1.00	0.99		
Flt Protected	0.95	0.96		
Satd. Flow (prot)	1888	1878		
Flt Permitted	0.95	0.96		
Satd. Flow (perm)	1888	1878		
Volume (vph)	5	190	10	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90
Adj. Flow (vph)	6	211	11	6
RTOR Reduction (vph)	0	1	0	0
Lane Group Flow (vph)	6	227	0	0
Turn Type	Split	9		
Protected Phases	4	4		
Permitted Phases				
Actuated Green, G (s)	20.0	20.0		
Effective Green, g (s)	21.0	21.0		
Actuated g/C Ratio	0.26	0.26	en el regen de contra de contra	
Clearance Time (s)	5.0	5.0		
Lane Grp Cap (vph)	496	493		
v/s Ratio Prot	0.00	c0.12		
v/s Ratio Perm				
v/c Ratio	0.01	0.46		
Uniform Delay, d1	21.8	24.7		
Progression Factor	1.00	1.00		
Incremental Delay, d2	0.0	3.1		
Delay (s)	21.9	27.8		
Level of Service	C	C	den det har ne stor	eta (getata matrix sea
Approach Delay (s)		27.7		
Approach LOS		С		
Intersection Summan				

# HCM Signalized Intersection Capacity Analysis 23: Flynn Avenue & Shelburne St. (Rt 7)

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		र्स	7		र्स	7	٣	朴诤		٣	<b>ተ</b> ኈ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	0.99	
Flt Protected		0.97	1.00		0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1802	1583		1823	1583	1770	3536		1770	3508	
Fit Permitted		0.78	1.00		0.87	1.00	0.29	1.00		0.30	1.00	
Satd. Flow (perm)		1456	1583		1621	1583	533	3536		561	3508	
Volume (vph)	60	30	105	15	20	15	115	850	5	10	625	40
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	67	33	117	17	22	17	128	944	6	11	694	44
RTOR Reduction (vph)	0	0	96	0	0	14	0	1	0	0	6	0
Lane Group Flow (vph)	0	100	21	0	39	3	128	949	0	11	732	0
Turn Type	Perm		Perm	Perm		Perm	pm+pt			Perm		
Protected Phases		4			8		5	2			6	onstingsonni Geografia
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)		10.7	10.7		10.7	10.7	39.8	39.8		30.1	30.1	
Effective Green, g (s)		10.7	10.7		10.7	10.7	39.8	39.8		30.1	30.1	
Actuated g/C Ratio		0.18	0.18		0.18	0.18	0.68	0.68		0.51	0.51	
Clearance Time (s)		4.0	4.0		4.0	4.0	3.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		266	290		296	290	483	2406		289	1805	
v/s Ratio Prot							0.03	c0.27			0.21	
v/s Ratio Perm		c0.07	0.01		0.02	0.00	0.15			0.02		
v/c Ratio		0.38	0.07		0.13	0.01	0.27	0.39		0.04	0.41	
Uniform Delay, d1		21.0	19.8		20.0	19.6	3.9	4.1		7.0	8.7	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.9	0.1		0.2	0.0	0.3	0.1		0.1	0.1	
Delay (s)		21.9	19.9		20.2	19.6	4.2	4.2		7.1	8.9	
Level of Service	wannanna anna	С	B	and a table to a table to a table to a table to a table to a table to a table to a table to a table to a table to	С	В	A	A		A	А	and a start of the start of the
Approach Delay (s)		20.8			20.0			4.2			8.8	
Approach LOS		С			С			A			A	
Intersection Summary												
HCM Average Control D	elay		8.0	Н	CM Lev	el of Se	ervice		A			
HCM Volume to Capacit	y ratio		0.39									
Actuated Cycle Length (	s)		58.5	S	um of k	ost time	(S)		8.0			
Intersection Capacity Uti	lization		51.9%	IC	CU Leve	of Ser	vice		Α			
Analysis Period (min)			15									
c Critical Lane Group									6 (0. H. Style			

# HCM Signalized Intersection Capacity Analysis 24: Home Avenue & Shelburne St. (Rt 7)

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		র	7	ሻ	4		ሻ	<u>†</u> †		ኻ	<b>4</b> ħ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	10	12	16	12	10	10	10	10	10	10
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	0.95		1.00	0.95	
Frt		1.00	0.85	1.00	0.90		1.00	1.00		1.00	0.99	
Fit Protected		0.96	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1728	1478	1770	1906		1652	3299		1652	3268	
Fit Permitted		0.75	1.00	0.71	1.00		0.31	1.00		0.95	1.00	
Satd. Flow (perm)		1349	1478	1329	1906	a ferrar a ferrar e a 644 November 1997 - Color	542	3299		1652	3268	
Volume (vph)	50	10	250	15	5	10	90	1035	10	10	660	50
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	56	11	278	17	6	11	100	1150	11	11	733	56
RTOR Reduction (vph)	0	0	247	0	10	0	0	1	0	0	6	0
Lane Group Flow (vph)	0	67	31	17	7	0	100	1160	0	11	783	0
Turn Type	Perm		Perm	Perm			om+pt			Prot		
Protected Phases		4			8		5	2		1	6	enterini energi energi
Permitted Phases	4		4	8			2					
Actuated Green, G (s)		7.8	7.8	7.8	7.8		45.9	45.9		0.9	28.3	
Effective Green, g (s)		7.8	7.8	7.8	7.8		46.9	46.9	nin georg	0.9	29.3	
Actuated g/C Ratio		0.11	0.11	0.11	0.11		0.67	0.67		0.01	0.42	
Clearance Time (s)		4.0	4.0	4.0	4.0		5.0	5.0		4.0	5.0	
Vehicle Extension (s)		1.0	1.0	1.0	1.0		1.5	1.0		1.0	1.0	
Lane Grp Cap (vph)		150	164	148	212		656	2207		21	1366	
v/s Ratio Prot	forde referencies restrict	te en est de est est est est est est		-1979-1999-1999-1999-1999-1999-1999-199	0.00	ni en den den de la deservación de	0.04	c0.35	adipat padapadan arat ng An	0.01	c0.24	ne el el este de la companya de la companya de la companya de la companya de la companya de la companya de la c
v/s Ratio Perm		c0.05	0.02	0.01			0.06					
v/c Ratio		0.45	0.19	0.11	0.03	(	0.15	0.53		0.52	0.57	
Uniform Delay, d1		29.1	28.3	28.0	27.8	ounce new com En recorder com	6.0	5.9	en Genderin oosta Einen oosta	34.4	15.6	
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.8	0.2	0.1	0.0		0.5	0.9		10,4	1.8	
Delay (s)		29.9	28.5	28.2	27.8		6.5	6.8		44.8	17.4	1
Level of Service		С	C	C	C		A	Α		D	В	
Approach Delay (s)		28.8			28.0			6.8			17.7	
Approach LOS		C	ienienische Analiesen		С			Α	in telepinet bisa 6 Siya di capa		В	
Intersection Summary												
HCM Average Control D	elay		13.8	H	CM Lev	iel of Se	rvice		В			
HCM Volume to Capacit	y ratio	an an ann an Angellan a' Chuide Mh	0.50				1991-1993 (1991-1993) 1991-1993 (1991-1993)	na esca contractiva				anan an an Angelanda
Actuated Cycle Length (s	s)		70.1	S	um of Ic	st time i	(s)		8.0	ál ás háptingi.		
Intersection Capacity Uti	lization	an ann an Airtean an Airtean I	52.2%	IC	CU Leve	l of Serv	/ice		A	un de la compañsión de la compañsión de la compañsión de la compañsión de la compañsión de la compañsión de la La compañsión de la compañs	n och (och stadilikki	ngendanderaklir
Analysis Period (min)			15									

# HCM Signalized Intersection Capacity Analysis 25: I-189 OFF RAMP & Shelburne St. (Rt 7)

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				ሻ	र्स			<b>*</b> t.			<b>*L</b>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	14	12	12	12	12	12	12
Total Lost time (s)				4.0	4.0			4.0			4.0	
Lane Util. Factor				0.95	0.95			0.95			0.95	a para ang para na para
Frt				1.00	1.00			1.00			1.00	
Flt Protected				0.95	0.96			1.00			1.00	
Satd. Flow (prot)				1681	1691			3539			3539	
Flt Permitted				0.95	0.96			1.00			1.00	
Satd. Flow (perm)				1681	1691			3539		alaan adamaa Seena daaraa	3539	
Volume (vph)	0	0	0	1235	50	0	0	785	0	0	1000	0
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	1372	56	0	0	872	0	0	1111	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	695	733	0	0	872	0	0	1111	0
				Perm			Perm					
Protected Phases		1999-1999-1999-1999 1999-1999			8	ind all all services and	societaisteniour.	2		com e 1960-0051650	6	1976-1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -
Permitted Phases				8			2					
Actuated Green, G (s)	an an an an an an an an an an an an an a			28.1	28.1	saan prakon die anter Vielander S	***************	25.8			25.8	
Effective Green, g (s)	d. 49 Ma. 49			30.1	30.1			27.8			27.8	
Actuated g/C Ratio				0.46	0.46	ning binkens brus in bink sidnus kris		0.42		nerni fersiki terriki sistemat	0.42	
Clearance Time (s)				6.0	6.0			6.0			6.0	
Vehicle Extension (s)				3.0	3.0			3.0			3.0	sereinterterterterter
Lane Grp Cap (vph)				768	772			1493			1493	
v/s Ratio Prot	an dhaadda a	Angled and desired	Sana ang Kapagana ang	an an an tha an tha faillean sa	eri ne din festalanin	yangin kang kang dapilak na	and a factor of a second second second second second second second second second second second second second s	0.25			c0.31	lanna an an Andrea
v/s Ratio Perm				0.41	0.43						SING SAL	
v/c Ratio	999-0-00-000-000-000-0-00 199-0-00	2 ( a (* )* )* a a constant (* ) a ( a ( a ( ) )* )	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	0.90	0.95		a na falina ing mangang mang m	0.58		anga tang kang kang kang kang kang kang kang k	0.74	regenered av se
Uniform Delay, d1				16.6	17.2			14.6	siterige issue		16.1	
Progression Factor				1.00	1.00		ta nadinga na penangkatan	1.00	nan antar (ana atao at		1.00	ana ang panganagi
Incremental Delay, d2				14.1	20.7			0.6			2.1	
Delay (s)			regen un un antile de com	30.7	37.9	1994,000 (Jone 1997) 1997,000 (Jone 1997)	-2012-09-04-09-02-02-02-02-02-02-02-02-02-02-02-02-02-	15.2			18.1	harden en de en en de en en en en en en en en en en en en en
Level of Service				C	D			B		99.000 (29.000) 99.000 (29.000)	В	
Approach Delay (s)		0.0			34.4			15.2			18.1	alan jara katan
Approach LOS		A			С			В			В	
Intersection Summary												
HCM Average Control De	elay		24.2	H	ICM Lev	vel of Ser	vice		C		6.5.5.5	
HCM Volume to Capacity	ratio		0.85									
Actuated Cycle Length (s	<b>}</b>		65.9	S	um of lo	ost time (	s)		8.0			
Intersection Capacity Util	ization	e	9.8%	IC	CU Leve	el of Serv	ice		С			
Analysis Period (min)			15									
o Critical Lana Crown				an an an an an an an an an an an an an a	ene wordere een	Aleksen en eller av ev de	1944) (1994) (1994) 1944) (1994)	anderstyle (sin de la de la de la de la de la de la de la de la de la de la de la de la de la de la de la de la		a	Actor (2000) (2000) (2000)	

	٠		$\mathbf{i}$	1	-	×.	1	†	1	×	Ļ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<b>4</b> 3-			÷.			ţ.			£.	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	90	0	55	145	10	20	335	55	5	150	10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	100	0	61	161	11	22	372	61	6	167	11
Direction, Lane #	EB 1	WB1	NB 1	SB 1								
Volume Total (vph)	106	233	456	183								
Volume Left (vph)	6	61	22	6					ele la trabajo de presidente El trabajo de presidente de presidente de presidente de presidente de presidente d			
Volume Right (vph)	0	11	61	11								
Hadj (s)	0.04	0.06	-0.04	0.00								
Departure Headway (s)	6.2	5.9	5.2	5.7					S		·····	
Degree Utilization, x	0.18	0.38	0.66	0.29								
Capacity (veh/h)	488	552	659	575					ereta di anato mandareta di			energen bis oordege
Control Delay (s)	10.6	12.6	17.9	11.0								
Approach Delay (s)	10.6	12.6	17.9	11.0								2012/01/2012/2012
Approach LOS	В	В	C	В								
Intersection Summary												
Delay			14.5									
HCM Level of Service			В				241 - Alexandra Selfan	- 1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1				
Intersection Capacity Uti	lization		54.5%	10	CU Leve	l of Sen	vice		Α			
Analysis Period (min)		sider of the second	15			gagaga gagaga	en al consetto Sileitasenas	in the contraction instantion of the		si giridaki da		

	-	•	Ť	1	1	¥			
Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations	¥		4			4			
Sign Control	Stop		Free			Free			
Grade	0%		0%			0%			
Volume (veh/h)	90	5	365	210	5	355			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90			
Hourly flow rate (vph)	100	6	406	233	6	394			
Pedestrians			en de la companya						
Lane Width (ft)									
Walking Speed (ft/s)		en el este de la companya		en man tylen og en forma store at en me	na antar trata trata tra				
Percent Blockage									
Right turn flare (veh)		senten en en en el como el como el como el como en el como en el como en el como el como el como el como el co		antanina dalara					
Median type	None								
Median storage veh)	in inininin samma	angenetikengelagasaya	uga an an an an an an an an an an an an an	veriligerichteren	alamian kata da sa kata sa kata sa kata sa kata sa kata sa kata sa kata sa kata sa kata sa kata sa kata sa kat	an an an an an an an an an an an an an a		rr a mar a cliante de la Canton de La Calebrador.	
Upstream signal (ff)						837			
pX, platoon unblocked	~~~			ninin (margina margina) Margina (margina)			i da di kalendara ku kara ku k		o a solocitto de Cordel
vC, conflicting volume	928	522			639				
VC1, stage 1 cont vol			en anter anter anter a						
vC2, stage 2 cont vol	000	500			~~~				
	928	522	iyoyoosaasaa		639	and geletiged distances		interinalista data da interneta data	Alexandri Alexandri
tC, Sirigie (S)	0.4	0,2	0.0000000000		4.1				
(C, Z  staye(S))	25	99							es en en en en en en en en en en en en en
u (s) nA queue free %	0.0 88	0.0			2.2 00				
cM canacity (veh/h)	200	55 55/	lalah panya daring sa kasari San San San San San San San San San San		99 045				
					UTU .				
Jirection, Lane #	WB I	NB I	<u>58 I</u>						
	106	639	400						
Volume Leit Volume Dieht	100	0	0					delentione constant	
volume night -cu	202	1700	045						
Johume to Consoitu	003	0011	940						
	 20	0.00 A	0.01 ^						
Control Delay (e)	221	٥Ň	റാ						
ane LOS		0.0	د. Δ						
Annroach Delav (e)	231	٥n	ົດົ	rigal diski aasa aasi Saraa					
Approach LOS	C								
ntersection Summary									
Average Delay			2.2						
Intersection Capacity Ut	ilization		44.0%	IC	U Leve	l of Service		Α	
Analysis Period (min)			15		1999 - Serie Constantin († 1993) 1993 - Serie Frank, fransk († 1993)	<ul> <li>Second configuration and second s second second se second second s</li></ul>	n yn ar ar ar ar yn ar yn ar yn ar yn ar ar yn ar ar yn ar ar yn ar ar yn ar ar yn ar ar yn ar ar yn ar ar yn y Yn ar yn a		

HCM Unsignalized Intersection Capacity Analysis 22: Birchcliff Pkwy & Shelburne St. (Rt 7)

	٠		$\mathbf{F}$	4		•	1	Ť	1	4	ţ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$			44			<b>ብ ኈ</b>			đ þ	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	25	0	60	10	0	10	40	870	5	5	635	60
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	28	0	67	11	0	11	44	967	6	6	706	67
Pedestrians	uter to estimate a substance.				a tat sa statu sa ta ana sa st							
Lane Width (ft)					0.00							
Walking Speed (ft/s)	natal Alekakasa	nekinikasi kasu	alasalarisyi Alayya	1717-1727-17417-17 <u>7</u> 5-17417-41	ka ka Antonia.	States Actor Constantinue	usa menantra herren	a an an taon an taon an taon	ad desting the sectors.	le de electro de latera		
Percent Blockage												
Right turn flare (ven)		81					de holioù de priviez					
Median type		None	60.01130.05		None							
Unetream signal (ft)				lingska sjenovijske			ja na kisin sa	4007				
nX nistoon unblocked								120/				
vC conflicting volume	1222	1811	286	1/20	18/2	186	770			070	igo parspars	
vC1, stage 1 conf vol		. <b></b>	000	1700	1072	TUU	112			312		
vC2. stage 2 conf vol										an an an Air		
vCu, unblocked vol	1333	1811	386	1489	1842	486	772			972	agent der de Elfereig	
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	an de la companya de la companya de la companya de la companya de la companya de la companya de la companya de			an an an tao an tao an tao an tao an tao an tao an tao an tao an tao an tao an tao an tao an tao an tao an tao	ini nanja ng Kinda Batala.		norum in standards		annele den cine	ann agus a fh Saith Gaile.		ev (ostrojno se jej s
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	73	100	89	85	100	98	95			99		
cM capacity (veh/h)	105	73	612	73	70	527	839			705		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	94	22	528	489	358	419			이상 것 같아.			
Volume Left	28	11	44	0	6	0						
Volume Right	67	11	0	6	0	67						
cSH	252	128	839	1700	705	1700						
Volume to Capacity	0.37	0.17	0.05	0.29	0.01	0.25				n Cardanas Michaela		
Queue Length 95th (ft)	41	15	4	0	1	0	i se i se i se se se se se se se se se se se se se		en de graden de centra de s			
Control Delay (s)	27.6	38.9	1.4	0.0	0.3	0.0						
Lane LOS	D	E	A	en en en en en en en en en en en en en e	A	lesgetilsen-getilsettilter.	o-decimente ante	a an an an an an an an an an an an an an		ing saibu sa gaping kabupa		and galacterizations.
Approach Delay (s)	27.6	38.9	0.8		0.1	90.00			Suga Gerdari			
Approach LOS	D	E										
Intersection Summary												
Average Delay			2.3									
Intersection Capacity Uti	lization		60.5%	I,	CU Leve	el of Serv	/ice		В			
Analysis Period (min)			15									

CAP Clough, Harbour & Associates, LLP

		$\mathbf{i}$	1	-	1	1	
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations Sign Control Grade	∲ Free 0%			ৰ্ণ Free 0%	Y Stop 0%		
Volume (veh/h)	215	35	135	85	10	45	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vph)	239	39	150	94	11	50	
Pedestrians							
Walking Speed (ft/s)							
Percent Blockage				el a Balanari An an			
Right turn flare (veh)							
Median type					None		
Median storage ven)		levin oin dei ei		204	ling biologick		
pX, platoon unblocked				001			
vC, conflicting volume			278		653	258	
vC1, stage 1 conf vol						an an an an an an an an an an an an an a	
vC2, stage 2 conf vol							
VCU, UNDIOCKED VOI			278	ini ini depensi	653 64	258 6 0	
tC. 2 stage (s)	ASTRACTION (A)				0.4	0.2	
tF (s)			2.2		3.5	3.3	
p0 queue free %	alganga sang dalamang sang		88		97	94	
cM capacity (veh/h)			1285		382	780	
Direction, Lane #	EB 1	WB 1	NB 1				
Volume Total	278	244	61				
Volume Left	0	150	11				
	1700	1285	50 656				
Volume to Capacity	0.16	0.12	0.09				
Queue Length 95th (ft)	0	10	8	125/185435.00460			
Control Delay (s)	0.0	5.4	11.1				
Lane LOS		A	В		fogi-jangen instanten	ing menganika Sini kanang kanang kanang	1997 see fer 199 set set set state and the set state and the state of the state of the state of the state of the
Approach LOS	0.0	5.4	11.] B				
			D				
Intersection Summary							
Average Delay	ization		3.4 19.7%	r مرا	111 000	of Convine	<b>A</b>
Analysis Period (min)	ia cativiti		15 no. 1	16	IU LEVE		Δ



	T	<b>WO-WAY STO</b>	P CONTR	OL SUN	<b>MARY</b>			
General Information			Site I	nformat	tion			
Analyst Ag //Co. Date Performed Analysis Time Period	EJD CHA 12/22/05 AM PEAK	HOUR	Interse Jurisdi Analys	ction ction is Year		ROUTE 7 TOWN 0 2028 BUI	7/LOCUST OF BURLIN ILD ALT1	T/LEDGE NGTON
Project Description BU	RLINGTON		<b>.</b>					
East/West Street: LOCL	IST/LEDGE		North/S	South Stre	et: ROUTE	7		
Intersection Orientation.	Nonin-Souin		Sludy I	Period (nr	s): 0.25			
Vehicle Volumes an	d Adjustment	5						
Major Street		Northbound			4	Southbo	bund	
					4			<u> </u>
Volume	0	590	295		0	430		15
Peak-Hour Factor, PHF	0.90	0.90	0.90	,	0.90	0.90		0.90
Hourly Flow Rate, HFR	0	655	327	7	0	477		16
Percent Heavy Vehicles	0				2			
Median Type				Undivid	ded			
RT Channelized			0					0
Lanes	0	2	0		0	1		0
Configuration		<u>т</u>	TR		LTR			
Upstream Signal		0				0		
Minor Street		Westbound	nd 10			Eastbou	und	
Movement	7	8	9		10	11		12
	L.		R			<u> </u>		R
Volume	0	0	60		0	30		85
How A Flow Bate HFB	0.90	0.90	0.90	<u></u>	0.90	0.90		0.90
Percent Heavy Vehicles		0	2		0	2		
Percent Grade (%)			<u> </u>		<u> </u>			£.
Flared Approach		N N	I					
Storage		0						
BT Channelized			0					0
lanes		- <u> </u>	1		0	4		0
Configuration		<u>~</u>	R			+ /		
Delay Queue Length ar	d Level of Servi	<u>.</u>					1	
Approach	NB	SB	1	Westbou	Ind		Eastbour	
Movement	1	4	7	8	9	10	11	12
Lane Configuration		I TR	•	Ĭ				
v (vph)		0			66			127
C (m) (vnh)		699			523	-		200
		0.00			0.13			230
95% queue length		0.00	1		0.10			0.44
Control Delay		10.2	<u> </u>		10.43		<u> </u>	2.12
		10.2 D			12.9		1	20./
Approach Dolou	12.9 B 12.9 B							
			12.9 26.7 B					
Approach LUS			1	В			D	

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	Ť	WO-WAY STO	P CONTROI	L SUMM	IARY			
General Information	l		Site Inf	ormatio	n	<u></u>		
Analyst Ag //Co. Date Performed Analysis Time Period	EJD CHA 12/22/05 AM PEAK	HOUR	Intersecti Jurisdictic Analysis	on on Year		ROUTE : TOWN C 2028 BU	7/SOUTH \F BURLII ILD ALT1	WILLARD NGTON
Project Description BU	RLINGTON							
East/West Street: SOUT	H WILLAHD		North/Sou	uth Street:	: ROUTE	7		
intersection Onentation:	North-South		Study Pel	riod (nrs):	0.25			
Vehicle Volumes and	d Adjustment	S						
Major Street		Northbound				Southbo	ound	-
	1	2	3		4	5		6
Volume	60	520			L	1		<u> </u>
Peak-Hour Factor, PHF	0.90	0.90	0.90		0	445 0 00		0 00
Hourly Flow Rate, HFR	66	588	0.00		0.00	494		0.30
Percent Heavy Vehicles	2				2			
Median Type				Undivideo	/		A	
RT Channelized			0					0
Lanes	0	1	0		0	1		0
Configuration	LŤ					T		
Upstream Signal		0				0		
Minor Street		Westbound				Eastbou	und	
Movement	7	8	9		10	11		12
	L	Т	R		L	T		R
Volume	0	190	0		0	0		0
Pe Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Houry Flow Rate, HFR	0	211	0		0	0		0
Percent Heavy Vehicles	. 0	2	2		0	2		2
Percent Grade (%)		0				0		
Flared Approach		N				N		
Storage		0				0		
RT Channelized			0					0
Lanes	0	1	0		0	0		0
Configuration			TR					
Delay, Queue Length, an	d Level of Servi	ce						
Approach	NB	SB	W	estbound			Eastbour	nd
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT				TR		1	
v (vph)	66				211		1	
C (m) (vph)	1070		1		165		<u> </u>	
v/c	0.06		1		1 28			
95% queue length	0.20		+		12.00		<u> </u>	
Control Delay	8.E.C		1		2100		┠────	
	Δ.υ		<u> </u>		210.U	1	<u> </u>	
Approach Delevi			<u>                                      </u>	010.0	r	ļ	<u> </u>	<u> </u>
Approach LOO	w =		E F 218.0					
Approach LUS			1	F				

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# BUILD ALTERNATIVE 1 (FOUR-LANE) 2028 PM PEAK HOUR

# HCM Signalized Intersection Capacity Analysis 6: Main Street & Battery Street

	٭		$\mathbf{\tilde{\mathbf{A}}}$	1			-	<b>†</b>	/	\$	Ļ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<del>ب</del> اً	7		र्भ	1	٣	<b>*</b> 15		ኻ	<b>≜</b> †	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frt		1.00	0.85		1.00	0.85	1.00	0.99		1.00	0.99	en en en en en en en en en en en en en e
Flt Protected		0.99	1.00		0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1837	1583		1804	1583	1770	3506		1770	3518	
Flt Permitted		0.88	1.00		0.75	1.00	0.34	1.00		0.95	1.00	
Satd. Flow (perm)		1637	1583		1395	1583	626	3506		1770	3518	
Volume (vph)	20	50	95	95	50	135	90	750	50	110	725	30
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	22	56	106	106	56	150	100	833	56	122	806	33
RTOR Reduction (vph)	0	0	88	0	0	107	0	0	0	0	0	0
Lane Group Flow (vph)	0	78	18	0	162	44	100	889	0	122	839	0
Turn Type	Perm		Prot	Perm		pt+ov	Perm		С	ustom		
Protected Phases		4	4		8	81		2			6	
Permitted Phases	4			8			2			1		
Actuated Green, G (s)		17.3	17.3		17.3	29.9	59.4	59.4		12.6	77.0	
Effective Green, g (s)		18.3	18.3		18.3	31.9	60.4	60.4		13.6	78.0	
Actuated g/C Ratio		0.17	0.17		0.17	0.29	0.55	0.55		0.12	0.71	
Clearance Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		272	263		232	459	344	1925		219	2495	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
v/s Ratio Prot			0.01			0.03		c0.25		c0.07	0.24	
v/s Ratio Perm		0.05			c0.12	, ,	0.16				- 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 199 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997	
v/c Ratio		0.29	0.07		0.70	0.09	0.29	0.46		0.56	0.34	
Uniform Delay, d1		40.1	38.7		43.2	28.5	13.3	15.0		45.4	6.1	t ( north an an an an an an an an an an an an an
Progression Factor		1.00	1.00		1.00	1.00	0.39	0.46		1.00	1.00	
Incremental Delay, d2		0.6	0.1		8.8	0.1	1.9	0.7		3.1	0.4	
Delay (s)		40.7	38.8		52.1	28.6	7.1	7.7		48.4	6.5	
Level of Service		D	D		D	С	А	Α		D	А	
Approach Delay (s)		39.6			40.8			7.6			11.8	
Approach LOS		D			D			А			В	
Intersection Summary												
HCM Average Control D	elay		15.9	Н	CM Lev	el of Se	ervice		В			
HCM Volume to Capacit	y ratio		0.49									
Actuated Cycle Length (	s)		110.0	S	um of lo	ost time	(S)		12.0			
Intersection Capacity Ut	ilization		53.5%	IC	CU Leve	el of Ser	vice		A			
Analysis Period (min)			15									
c Critical Lane Group												

## HCM Signalized Intersection Capacity Analysis 7: King Street & Battery Street

	۶		$\mathbf{r}$	1	<b></b>		1	†	1	\$	Ļ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	٣	4			4		ሻ	朴存		ሻ	<b>†</b> 14	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00			1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.98			0.88		1.00	0.99		1.00	0.99	
Flt Protected	0.95	1.00			1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1829			1627		1770	3515		1770	3516	
Fit Permitted	0.40	1.00			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	746	1829			1615		1770	3515		1770	3516	
Volume (vph)	30	40	5	5	5	130	20	730	35	105	775	35
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	33	44	6	6	6	144	22	811	39	117	861	39
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	- 33	50	0	0	156	0	22	850	0	117	900	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		t.	6	
Permitted Phases	4			8								
Actuated Green, G (s)	15.4	15.4			15.4		3.4	61.5		11.9	70.0	
Effective Green, g (s)	16.4	16.4			16.4		4.4	62.5		12.9	71.0	
Actuated g/C Ratio	0.15	0.15			0.15		0.04	0.57		0.12	0.65	
Clearance Time (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	111	273			241		71	1997		208	2269	
v/s Ratio Prot		0.03					0.01	c0.24		c0.07	0.26	
v/s Ratio Perm	0.04				c0.10							********
v/c Ratio	0.30	0.18			0.65		0.31	0.43		0.56	0.40	
Uniform Delay, d1	41.7	40.9			44.1		51.3	13.5		45.9	9.3	an an an an an an an an an an an an an a
Progression Factor	1.00	1.00			1.00		1.13	0.65		1.18	0.73	
Incremental Delay, d2	1.5	0.3			5.9		2.2	0.6		3.3	0.5	
Delay (s)	43.2	41.3			49.9		60.2	9.3		57.3	7.2	
Level of Service	D	D			D		E	Α		Ε	A	
Approach Delay (s)		42.0			49.9			10.6			13.0	
Approach LOS		D			D			В			В	
Intersection Summary												
HCM Average Control D	elay		15.9	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.48									
Actuated Cycle Length (	s)		110.0	S	um of lo	st time	(s)		18.2			
Intersection Capacity Uti	lization	1	54.4%	IC	U Leve	l of Serv	/ice		A			
Analysis Period (min)			15									
c Critical Lane Group												

#### CAP Clough, Harbour & Associates, LLP

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			44		۲	<b>1</b> 14		۲	<b>ተ</b> ኩ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00			0.95		1.00	0.95	
Frt		0.99			0.94			0.99		1.00	0.99	
Flt Protected		0.97			0.98			1.00		0.95	1.00	
Satd. Flow (prot)		1744			1656			3376		1711	3380	
Flt Permitted		0.64			0.83			1.00		0.95	1.00	
Satd. Flow (perm)		1148			1402			3376		1711	3380	
Volume (vph)	60	50	5	75	40	105	0	625	60	105	625	55
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	67	56	6	83	44	117	0	694	67	117	694	61
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	129	0	0	244	0	0	761	0	117	755	0
Turn Type	Perm		er en en en Vanzen er en	Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)		22.3			22.3			54.9		11.6	71.5	
Effective Green, g (s)		23.3			23.3			55.9		12.6	72.5	
Actuated g/C Ratio		0.21			0.21			0.51		0.11	0.66	
Clearance Time (s)		5.0			5.0		ulu stala da Rođeni	5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		243			297			1716		196	2228	
v/s Ratio Prot								c0.23		c0.07	0.22	
v/s Ratio Perm		0.11			c0.17					466 Q 12		
v/c Ratio		0.53			0.82			0.44		0.60	0.34	
Uniform Delay, d1		38.5			41.4	galeskonel og di Se nore og en se		17.2		46.3	8.2	
Progression Factor		1.00			1.00			0.24		1.40	0.39	
Incremental Delay, d2		2.2			16.5			0.7		4.6	0.4	
Delay (s)		40.7			57.8			4.8		69.2	3.6	
Level of Service		D			E			Α		E	A	
Approach Delay (s)		40.7			57.8			4.8			12.4	
Approach LOS		D	Shuin Ng (G). Ng mga ng mga		E			Α			В	
Intersection Summary												
HCM Average Control D	elay		16.9	H	CM Lev	el of Se	rvice		В			
HCM Volume to Capacity	y ratio		0.56									
Actuated Cycle Length (s	<b>3)</b>		110.0	S	um of k	ost time	(s)		18.2			
Intersection Capacity Uti Analysis Period (min)	lization	4	49.9% 15	IC	CU Leve	el of Serv	/ice		Α			

### HCM Signalized Intersection Capacity Analysis 5: Main Street & Pine Street

	۶		$\mathbf{r}$	1	-	×	1	t	1	- <b>\</b>	Ļ	~
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		÷			र्स	7		र्भ	7		<b>4</b>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0		4.0	4.0		4.0	
Lane Util. Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Frt		0.98			1.00	0.85		1.00	0.85		0.99	
Fit Protected		1.00			0.99	1.00		1.00	1.00		0.99	
Satd. Flow (prot)		1825			1842	1583		1854	1583		1828	
Fit Permitted		0.99			0.88	1.00		0.97	1.00		0.88	
Satd. Flow (perm)		1808			1641	1583		1798	1583		1634	
Volume (vph)	5	175	30	85	290	30	10	95	70	60	160	10
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	6	194	33	94	322	33	11	106	78	67	178	11
RTOR Reduction (vph)	0	0	0	0	0	17	0	0	59	0	0	0
Lane Group Flow (vph)	0	233	0	0	416	16	0	117	19	0	256	0
Turn Type	Perm			Perm		Perm	Perm		Perm	Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6		6	8		8	4		
Actuated Green, G (s)		22.8			22.8	22.8		11.0	11.0		11.0	
Effective Green, g (s)		23.8			23.8	23.8		12.0	12.0		12.0	
Actuated g/C Ratio		0.49			0.49	0.49		0.25	0.25		0.25	
Clearance Time (s)	anter to a contrat.	5.0		tana area ta ta ta ta	5.0	5.0		5.0	5.0		5.0	
Vehicle Extension (s)		3.0			3.0	3.0		3.0	3.0		3.0	
Lane Grp Cap (vph)		885			804	775		444	391		403	
v/s Ratio Prot												
v/s Ratio Perm		0.13			c0.25	0.01		0.07	0.01		c0.16	
v/c Ratio	Sector Sector	0.26			0.52	0.02		0.26	0.05		0.64	
Uniform Delay, d1		7.3	and the second second second second	And a second state	8.5	6.4		14.7	14.0		16.3	
Progression Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Incremental Delay, d2		0.2			0.6	0.0		0.3	0.1		3.3	
Delay (s)		7.4			9.0	6.4		15.1	14.0		19.6	
Level of Service	na juga kina katala in	A	(antoine contractor)	waangaalaa ka ka ka ka ka ka ka ka ka ka ka ka k	A	A		В	В		В	وروار و مردی و دروار و دروار و دروار
Approach Delay (s)		7.4			8.8			14.6			19.6	
Approach LOS		A			A			В			В	
Intersection Summary												
HCM Average Control D	elay		12.0	Н	CM Lev	/el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.49	99.69.69.C								
Actuated Cycle Length (s	s)	addaeddara franco o r	48.6	S	um of lo	ost time	(s)		8.0			
Intersection Capacity Uti	lization		60.3%	10	CU Leve	el of Ser	vice		В			
Analysis Period (min)		and the state of the state of the	15									
c Critical Lane Group												

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Movement	NBT	NBR	SBL	SBT	SWL	SWR		
Lane Configurations	<b>ተ</b> ኈ		۴	<b>^</b>	¥			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Total Lost time (s)	4.0		4.0	4.0	4.0			
Lane Util. Factor	0.95		1.00	0.95	1.00			
Frt	0.96		1.00	1.00	0.99			
Fit Protected	1.00		0.95	1.00	0.96			
Satd. Flow (prot)	3393		1770	3539	1764			
Flt Permitted	1.00		0.20	1.00	0.96			
Satd. Flow (perm)	3393		376	3539	1764			
Volume (vph)	660	250	20	725	445	30		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90		
Adj. Flow (vph)	733	278	22	806	494	33		
RTOR Reduction (vph)	25	0	0	0	2	0		
Lane Group Flow (vph)	986	0	22	806	525	0		
Turn Type	Prot		Perm					######################################
Protected Phases	2			6	8			
Permitted Phases			6					
Actuated Green, G (s)	58.6		58.6	58.6	35.2			
Effective Green, g (s)	59.6		59.6	59.6	36.2			an manana katang sa katang sebahan katang sebahan katang sebahan katang sebahan katang sebahan katang sebahan k
Actuated g/C Ratio	0.54		0.54	0.54	0.33			
Clearance Time (s)	5.0		5.0	5.0	5.0			n an general en en en en en en en en en en en en en
Vehicle Extension (s)	3.0		3.0	3.0	3.0			
Lane Grp Cap (vph)	1838	******	204	1917	581	<del>*************************************</del>		
v/s Ratio Prot	c0.29			0.23	c0.30			
v/s Ratio Perm	, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1	n di stri tri tri fangela	0.06	an an an an an an an an an an an an an a	ang mengaha seri pada pada pada pada pada pada pada pad	e da esca a da esta con estas da da está con el el estas en el	allan olmo oligan ya da kada shekara kana kada sada sada	a se se se se se se se se se se se se se
v/c Ratio	0.54		0.11	0.42	0.90			
Uniform Delay, d1	16.3	1	12.3	15.0	35.2			
Progression Factor	1.00		1.22	1.21	1.00			
Incremental Delay, d2	1.1		1.0	0.6	17.4			an an an an an an an an an an an an an a
Delay (s)	17.4		15.9	18.7	52.6			
Level of Service	В		В	В	D			
Approach Delay (s)	17.4			18.7	52.6			
Approach LOS	В			В	D			1992 - Nel School e servicies di servicies en la entre el encomentario de demetina.
Intersection Summary								
HCM Average Control D	elay		25.7	H	ICM Lev	el of Service	С	
<b>HCM Volume to Capacit</b>	y ratio		0.68					
Actuated Cycle Length (	s)		110.0	S	um of lo	st time (s)	14.2	
Intersection Capacity Uti	lization	i i i i i i i i i i i i i i i i i i i	59.4%	K	CU Leve	l of Service	В	
Analysis Period (min)			15		<ul> <li>as a second proceeding</li> </ul>			a aa ah ah mada ah ah ah ah ah ah ah ah ah ah ah ah ah
c Critical Lane Group								

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Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	<u></u> ኘ		٣	<b></b>	*	**	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width	11	12	11	12	11	12	en en en en en en en en en en en en en e
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0	
Lane Util. Factor	0.97	an ta kang ta kang ta kang sa ta ka	1.00	1.00	1.00	0.88	lan negeri kan kan kan kan kan kan kan kan kan kan
Frt	0.99		1.00	1.00	1.00	0.85	
Flt Protected	0.96	angen keningen er	0.95	1.00	1.00	1.00	ere stere mente strene enne mente en en else internetienen en else en strenet al ser i strenet internet interne
Satd. Flow (prot)	3295		1711	1863	1801	2787	
Flt Permitted	0.96		0.23	1.00	1.00	1.00	n en en en en en en en en en en en en en
Satd. Flow (perm)	3295		415	1863	1801	2787	
Volume (vph)	495	50	15	405	570	720	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	
Adj. Flow (vph)	550	56	17	450	633	800	
RTOR Reduction (vph)	5	0	0	0	0	0	
Lane Group Flow (vph)	601	0	17	450	633	800	
Turn Type			Perm			Perm	
Protected Phases	2			4	8		
Permitted Phases			4			8	
Actuated Green, G (s)	52.8		71.0	71.0	71.0	71.0	
Effective Green, g (s)	53.8		72.0	72.0	72.0	72.0	
Actuated g/C Ratio	0.38		0.51	0.51	0.51	0.51	
Clearance Time (s)	5.0		5.0	5.0	5.0	5.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	1266		213	958	926	1433	
v/s Ratio Prot	c0.18	, , , , , , , , , , , , , , , , , , ,	ala da sel si si su se se	0.24	c0.35	anna changan dan hadar da da da da da da da da da da da da da	
v/s Ratio Perm			0.04			0.29	
v/c Ratio	0.47		0.08	0.47	0.68	0.56	
Uniform Delay, d1	32.5		17.2	21.8	25.5	23.2	
Progression Factor	0.74		1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.2		0.7	1.7	2.1	0.5	
Delay (s)	25.3		18.0	23.4	27.6	23.6	
Level of Service	C		В	C	C	C	
Approach Delay (s)	25.3			23.2	25.4		
Approach LOS	С			c	С		
Intersection Summary							
HCM Average Control D	elay		25.0	H	ICM Lev	vel of Service	C
HCM Volume to Capacit	y ratio		0.59			enne en en en en en en en en en en en en	
Actuated Cycle Length (	s)		140.0	S	um of lo	ost time (s)	14.2
Intersection Capacity Uti	lization	Ę	52.4%	IC	CU Leve	el of Service	A
Analysis Period (min)			15				

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			44		٣	ţ,	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	14	12	12	14	12	12	14	12	11	11	12
Total Lost time (s)		4.0			4.0			4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00			1.00		1.00	1.00	
Frt		0.98			0.91			0.98		1.00	0.98	
Flt Protected		0.99			1.00			0.99		0.95	1.00	
Satd. Flow (prot)		1924			1805			1935		1711	1764	
Flt Permitted		0.72			0.97			0.94		0.60	1.00	
Satd. Flow (perm)		1398			1751			1833		1078	1764	
Volume (vph)	40	85	20	25	75	185	15	95	20	180	255	40
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	44	94	22	28	83	206	17	106	22	200	283	44
RTOR Reduction (vph)	0	9	0	0	98	0	0	8	0	0	6	0
Lane Group Flow (vph)	0	151	0	0	219	0	0	137	0	200	321	0
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		8.8			8.8			14.4		25.4	25.4	
Effective Green, g (s)		9.8			9.8			15.4		26.4	26.4	
Actuated g/C Ratio		0.21			0.21			0.33		0.56	0.56	
Clearance Time (s)		5.0			5.0			5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		293			367			603		703	995	
v/s Ratio Prot										0.04	c0.18	
v/s Ratio Perm		0.11			c0.13			0.07		0.12		
v/c Ratio		0.52			0.60			0.23		0.28	0.32	
Uniform Delay, d1		16.4			16.7			11.4		5.4	5.4	
Progression Factor		1.00			1.00			1.00		1.00	1.00	
Incremental Delay, d2		1.5			2.6			0.2		0.2	0.2	
Delay (s)		17.9			19.3			11.6		5.6	5.6	
Level of Service		В			В			В		Α	Α	
Approach Delay (s)		17.9			19.3			11.6			5.6	
Approach LOS		B			В			В			Α	
Intersection Summary												
HCM Average Control D	elay		11.9	H	CM Lev	el of Se	rvice		В			
HCM Volume to Capacity	y ratio		0.37									
Actuated Cycle Length (s	5)		46.8	S	um of k	ost time	(s)		8.0			
Intersection Capacity Uti	lization	4	43.7%	IC	CU Leve	of Serv	/ice		Α			
Analysis Period (min)			15									

	-+	$\mathbf{i}$	1	<b></b>	-	1			
Movement	EBT	EBR	WBL	WBT	NBL	NBR			
Lane Configurations	ŧ	۲	ሻ	র্ব	¥	77			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0			1
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.88			
Frt	1.00	0.85	1.00	1.00	1.00	0.85			- ,
Flt Protected	1.00	1.00	0.95	0.96	0.95	1.00			
Satd. Flow (prot)	1863	1583	1681	1703	1770	2787			
Fit Permitted	1.00	1.00	0.95	0.44	0.95	1.00			
Satd. Flow (perm)	1863	1583	1681	771	1770	2787			
Volume (vph)	160	350	655	80	165	385			
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90			
Adj. Flow (vph)	178	389	728	89	183	428			
RTOR Reduction (vph)	0	177	0	0	0	139			
Lane Group Flow (vph)	178	212	398	419	183	289			
Turn Type		om+ov	Prot		(	custom			
Protected Phases	4	2	3	8	2	23			
Permitted Phases		4				2			
Actuated Green, G (s)	30.3	73.1	45.7	81.0	42.8	93.5			
Effective Green, g (s)	31.3	75.1	46.7	82.0	43.8	94.5		*****	
Actuated g/C Ratio	0.22	0.54	0.33	0.59	0.31	0.68			
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0				
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0				
Lane Grp Cap (vph)	417	849	561	762	554	1881	<del></del>	*******	
v/s Ratio Prot	0.10	0.08	c0.24	0.18	c0.10	0.10			
v/s Ratio Perm	t al plantat aparta	0.06		c0.14	an sa taon an an sa sa mila ng mila sa				, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997, 1997
v/c Ratio	0.43	0.25	0.71	0.55	0.33	0.15			
Uniform Delay, d1	46.7	17.4	40.7	17.7	36.9	8.2		a fan de fan fan de fan de fan de fan de fan de fan de fan de fan de fan de fan de fan de fan de fan de fan de	
Progression Factor	1.00	1.00	0.47	0.47	0.73	4.53			
Incremental Delay, d2	0.7	0.2	3.5	0.7	1.6	0.0			na fan yn fersande san ferstaan ferfangel fe
Delay (s)	47.4	17.5	22.8	9.0	28.5	37.4			
Level of Service	D	В	С	А	С	D		2010-000 (2000) - 1000 (1000) -	
Approach Delay (s)	26.9			15.8	34.7				
Approach LOS	С			В	С			ning mening ang ang pinang pinang pangkang pan	
Intersection Summary									
HCM Average Control D	elay		24.7	4	ICM Lev	el of Service		С	
HCM Volume to Capacit	y ratio		0.53						
Actuated Cycle Length (s	S)		140.0	S	Sum of lo	ost time (s)	1	4.2	
Intersection Capacity Uti	lization		48.6%	li (	CU Leve	el of Service		A	
Analysis Period (min)			15				······································		
c Critical Lane Group					6 6 <b>6</b> 6 6				

### HCM Signalized Intersection Capacity Analysis 30: Sears Lane & Southern Connector

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			¢.		ሻ	<b>*</b> ħ		٣	<b>≜</b> ↑₽	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	a da para da sera da se da sera da se
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frt		0.88			0.97		1.00	0.98		1.00	1.00	
Fit Protected		0.99			0.97		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1630			1752		1770	3477		1770	3536	
Fit Permitted		0.97			0.51		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1587			928		1770	3477		1770	3536	
Volume (vph)	10	0	80	45	10	15	10	525	70	15	985	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	11	0	89	50	11	17	11	583	78	17	1094	6
RTOR Reduction (vph)	0	80	0	0	8	0	0	3	0	0	0	0
Lane Group Flow (vph)	0	20	0	0	70	0	11	658	0	17	1100	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)		12.4			12.4		3.2	103.1		3.3	103.2	
Effective Green, g (s)		13.4			13.4		4.2	104.1		4.3	104.2	
Actuated g/C Ratio		0.10			0.10		0.03	0.74		0.03	0.74	54 (23 - 14) S (3
Clearance Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		152			89		53	2585		54	2632	
v/s Ratio Prot							0.01	0.19		c0.01	c0.31	
v/s Ratio Perm		0.01			c0.08							
v/c Ratio		0.13			0.78	949 (S. (S.	0.21	0.25		0.31	0.42	
Uniform Delay, d1		58.0			61.9		66.3	5.7		66.4	6.6	
Progression Factor		1.00			0.93		0.98	0.47		1.32	0.49	
Incremental Delay, d2		0.4			31.3		1.8	0.2		2.7	0.4	
Delay (s)		58.3			88.7		67.1	2.9		90.1	3.6	
Level of Service		E			F		E	Α	ute to a terraria a	F	Α	
Approach Delay (s)		58.3			88.7	e de deve		3.9			4.9	
Approach LOS		E			F			A			A	
Intersection Summary												
HCM Average Control D	elay		10.6	H	ICM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.44									
Actuated Cycle Length (	s)		140.0	S	um of lo	st time	(s)		14.2			
Intersection Capacity Uti	lization	4	14.7%	1(	CU Leve	l of Sen	/ice		A			
Analysis Period (min)			15									
c Critical Lane Group												

## HCM Signalized Intersection Capacity Analysis 31: Flynn Avenue & Southern Connector

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$			4		٢	<b>≜</b> ∱}		ኻ	<b>≜</b> ⊅	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frt		0.97			0.98		1.00	1.00		1.00	0.99	
Flt Protected		0.98			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1772			1816		1770	3533		1770	3515	
Fit Permitted		0.77			0.86		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1391			1574		1770	3533		1770	3515	
Volume (vph)	110	140	80	25	90	15	75	485	5	10	1050	50
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	122	156	89	28	100	17	83	539	6	11	1167	56
RTOR Reduction (vph)	0	9	0	0	4	0	0	0	0	0	2	0
Lane Group Flow (vph)	0	358	0	0	141	0	83	545	0	11	1221	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)		37.6			37.6		11.0	78.0		3.2	70.2	
Effective Green, g (s)		38.6			38.6		12.0	79.0		4.2	71.2	
Actuated g/C Ratio		0.28			0.28		0.09	0.56		0.03	0.51	
Clearance Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		384			434		152	1994		53	1788	
v/s Ratio Prot							c0.05	0.15		0.01	c0.35	
v/s Ratio Perm		c0.26			0.09							
v/c Ratio		0.93			0.33		0.55	0.27		0.21	0.68	
Uniform Delay, d1		49.4			40.3		61.4	15.7		66.3	25.9	
Progression Factor		1.00			1.00		0.98	1.33		1.39	0.33	
Incremental Delay, d2		29.4			0.4		3.9	0.3		1.8	2.0	
Delay (s)		78.8			40.8		63.7	21.3		93.8	10.6	
Level of Service		E			D		E	С		F	В	
Approach Delay (s)		78.8			40.8			26.9			11.3	
Approach LOS		E			D			С			В	
Intersection Summary												
HCM Average Control D	elay		27.7	H	ICM Lev	el of Se	rvice		С			
HCM Volume to Capacit	y ratio		0.75									
Actuated Cycle Length (	s)		140.0	S	um of lo	ost time	(s)		18.2			
Intersection Capacity Uti	lization	y de las de las. Se estas de las d	72.3%	K	CU Leve	of Ser	vice		C			
Analysis Period (min)			15									
c Critical Lane Group					sa sa manana a							

# HCM Signalized Intersection Capacity Analysis 27: Home Avenue & Southern Connector

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<del>ب</del> اً	7		<b>₽</b>		ኻ	朴诤		۴	<b>†</b> ‡	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00		1.00	0.95		1.00	0.95	
Frt		1.00	0.85		1.00		1.00	0.97		1.00	0.99	
Flt Protected		0.96	1.00		0.97		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1792	1583		1797		1770	3445		1770	3514	
Fit Permitted		0.67	1.00		0.65		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1257	1583		1196		1770	3445		1770	3514	
Volume (vph)	75	20	130	95	50	5	105	485	105	5	1090	55
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	83	22	144	106	56	6	117	539	117	6	1211	61
RTOR Reduction (vph)	0	0	120	0	1	0	0	8	0	0	2	0
Lane Group Flow (vph)	0	105	24	0	167	0	117	648	0	6	1270	0
Turn Type	Perm		Perm	Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8								
Actuated Green, G (s)		22.6	22.6		22.6		13.3	94.6		1.6	82.9	
Effective Green, g (s)		23.6	23.6		23.6		14.3	95.6		2.6	83.9	
Actuated g/C Ratio		0.17	0.17		0.17		0.10	0.68		0.02	0.60	
Clearance Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		212	267		202		181	2352		33	2106	
v/s Ratio Prot							c0.07	0.19		0.00	c0.36	
v/s Ratio Perm		0.08	0.02		c0.14							
v/c Ratio		0.50	0.09		0.83		0.65	0.28		0.18	0.60	
Uniform Delay, d1		52.8	49.1		56.2		60.4	8.7		67.7	17.6	
Progression Factor		1.00	1.00		1.00		1.00	1.00		1.30	0.22	
Incremental Delay, d2		1.8	0.1		23.4		7.7	0.3		1.9	0.9	
Delay (s)		54.6	49.3		79.6		68.1	9.0		90.2	4.9	
Level of Service		D	D		E		E	A		F	Α	
Approach Delay (s)		51.5	1915) 1915)		79.6			17.9			5.3	
Approach LOS		D			E			В			А	
Intersection Summary												
HCM Average Control D	elay		19.0	Н	ICM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.65									
Actuated Cycle Length (s	5)		140.0	S	um of lo	ost time	(s)		18.2			
Intersection Capacity Uti	lization		63.4%	16	CU Leve	l of Sen	/ice		В			
Analysis Period (min)			15									
c Critical Lane Group						9 <b>9</b> 9 9						

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<b>.</b>		*****	<i>.</i>			<u>4</u> 4			ۍ.	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	125	85	50	165	15	5	155	25	20	240	10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	139	94	56	183	17	6	172	28	22	267	11
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	239	256	206	300								<u></u>
Volume Left (vph)	6	56	6	22								
Volume Right (vph)	94	17	28	11		an na an an an an an an an an an an an a					-119-19-19-19-19-19-19-19-19-19-19-19-19	
Hadi (s)	-0.20	0.04	-0.04	0.03								
Departure Headway (s)	5.7	5.9	5.9	5.8			aan waadd o canadda	anın va di 494 yılan beşeşiri.	nundminde konfinisieren e	**************	ie contentratio (terr	h Skarde an George
Degree Utilization, x	0.38	0.42	0.34	0.48							da la Angels	
Capacity (veh/h)	566	554	540	573		A	ula sun a datad utar	-01-01000000000000000				/seduction(96)
Control Delay (s)	12.2	13.1	11.9	14.1		Şirlişe Neşiniyeye Şirlişe Meşiniyeye						
Approach Delay (s)	12.2	13.1	11.9	14.1							-0-040-0-040-000-050-05	1200010020010922
Approach LOS	В	B	В	В								
Intersection Summary												
Delay			12.9									
HCM Level of Service			В									
Intersection Capacity Uti	lization		57.1%	10	CU Leve	l of Ser	vice		В			
Analysis Period (min)			15						1	t stratisticka statisticka and		e e subre e processiones

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			\$			4			4	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	130	40	50	125	5	60	175	55	15	350	10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	144	44	56	139	6	67	194	61	17	389	11
Direction, Lane #	EB 1	WB1	NB 1	SB 1								
Volume Total (vph)	194	200	322	417							*****	
Volume Left (vph)	6	56	67	17								
Volume Right (vph)	44	6	61	11								
Hadj (s)	-0.10	0.07	-0.04	0.03								
Departure Headway (s)	6.6	6.7	6.0	5.9								
Degree Utilization, x	0.35	0.37	0.54	0.69								
Capacity (veh/h)	472	464	553	573								
Control Delay (s)	13.1	13.6	15.9	20.8								
Approach Delay (s)	13.1	13.6	15.9	20.8								
Approach LOS	B	В	C	С								
Intersection Summary												
Delay			16.8									
HCM Level of Service			С									
Intersection Capacity Ut	lization		68.3%		CU Leve	el of Ser	vice		C			
Analysis Period (min)			15									
	VSedista dela k											

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			÷\$÷			£.	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	95	5	10	110	110	5	20	15	140	50	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	106	6	11	122	122	6	22	17	156	56	6
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	117	256	44	217								
Volume Left (vph)	6	11	6	156								
Volume Right (vph)	6	122	17	6								and the second second second second second second second second second second second second second second second
Hadj (s)	0.01	-0.24	-0.17	0.16								
Departure Headway (s)	4.9	4.5	4.9	5.0		na un una companyo	97670-6776-6767-6767 1976-0-6776-6767			nia métro regio de rech	na-baranda kiloaran (hKD)	
Degree Utilization, x	0.16	0.32	0.06	0.30								
Capacity (veh/h)	676	754	654	671								
Control Delay (s)	8.8	9.6	8.3	10.2					kiçiri det naşarılı A səst dön sərə			
Approach Delay (s)	8.8	9.6	8.3	10.2					en anen alera ara da da da da da da da da da da da da da			elaselleisteren.
Approach LOS	Α	A	A	B								
Intersection Summary												
Delay			9.6									
HCM Level of Service			А						- 1 - 17 - 1			and manifest and an
Intersection Capacity Uti	lization		40.2%	K	CU Leve	l of Ser	vice		Α			
Analysis Period (min)			15					n an an an Anna An An An An An An An An An An An An An				

HCM Unsignalized Intersection Capacity Analysis 11: Howard Street & Pine Street

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			44			412			<del>ብ</del> ጉ	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%	the standard street and standard		0%			0%	
Volume (veh/h)	10	5	20	25	5	30	15	910	50	45	1270	10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	11	6	22	28	6	33	17	1011	56	50	1411	11
Pedestrians		والمراجع المتحديق	ويتفرد الإعتباليترو	والمتراوية والمتراوية والمتراوية		se in stadowiazdanize	-	anter de transitations de la competencia de la competencia de la competencia de la competencia de la competencia	ny disperientiko Welio (ki			utorente antorente e
Lane Width (ft)												
Walking Speed (IT/S)										ganstaaanta	halandankarina	anteatharath
Picht turn flore (uch)									8	a nga nga nga nga nga nga nga nga nga ng	00500020000000	
Median type		None			None		1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 -					
Median storage veh)		140110			110/10							
Uostream signal (ft)						dela instruction dese Sectores construction					1247	
pX. platoon unblocked	an den sen se den sen e		besta (darete jalla gedis (o	ang di sheding dining ag	an da da karanta da kara da kara da kara da kara da kara da kara da kara da kara da kara da kara da kara da ka Kara da kara da		an an an an an an an an an an an an an a			yanan karangan >Karang karang k		0901091090990999
vC, conflicting volume	2092	2617	711	1903	2594	533	1422			1067		
vC1, stage 1 conf vol				andar dara dara da bala		n de la desta d'herra de		······································	, i monte este a construction (° d	ule le foul de la sur de	*****	-19-75-19-19-19-19-19-19-19-19-19-19-19-19-19-
vC2, stage 2 conf vol												
vCu, unblocked vol	2092	2617	711	1903	2594	533	1422			1067		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4,1		
tC, 2 stage (s)		internet internet.			na pasta da mina da sina	unidense i <u>an</u> ele <u>ab</u> ailete	anan a <u>a</u> n <u>a</u> a aa	alistek izet, keizet	- Antonio antonio	eden an teachtailteach a		
t⊢ (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue tree %	46	/4 04	94	4	/5	93	96	i de factoria de como		92		Sinige hinddog
civi capacity (ven/n)	21	21	3/5	29	- 22	491	475			649		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	39	67	522	561	756	717						
Volume Lett	11	28	1/	0	50	0						
	22 AE	- 33 50	475	1700	0 640	1700			9000 (C) 530			
Volume to Consolity	40	32 1 00	4/3	1700	049	0 40	ing ng pangang sa pangang pangang pangang pangang pangang pangang pangang pangang pangang pangang pangang pang Pangang pangang					
	00.0 88	1.20	ับ.บ <del>ค</del> ว	_U.SS ∩	0.00	0.42	169000000000000000000000000000000000000		6			en al anti-
Control Delay (s)	229 8	347.0	10	00	U							
Lane LOS	F	F	ι. <b>5</b> Δ	0.0	<i>с.</i> 1 А	<b>v.</b> v						
Approach Delay (s)	229.8	.347.0	0.5		<b>f</b>							
Approach LOS	F	F						50098-01578-0177775 5	energi kata Aliya			na an an an an an an an an an an an an a
Interception Summary												
Average Delay			10.0									
Intersection Canacity 11	ilization		12.0 70 /0/	17	2111 over	d of Con	lina		n			
Analysis Period (min)	meetivii		15				VILO		L/			
Analysis Feriou (IIIII)			10									

	<pre>f</pre>	×.	1	1	\$	Ļ				
Movement	WBL	WBR	NBT	NBR	SBL	SBT				
Lane Configurations	¥		<b>†</b> ‡			4 <b>†</b>				
Sign Control	Stop		Free			Free				
Grade	0%		0%			0%				
Volume (veh/h)	35	50	890	15	70	1255				
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				
Hourly flow rate (vph) Pedestrians	39	56	989	17	78	1394				
Lane Width (ft)										
Walking Speed (ft/s)	alangahaa saranik	ana dana katabasa té	alem Alitade Gerdaanse.		Sasta Statesta					
Percent Blockage										
Right turn flare (ven)	<b>6 1</b>		den ander ander ander ander ander ander ander ander ander ander ander ander ander ander ander ander ander ander							
Median type	None									
Nedian storage ven)			<b>044</b>	Second Second						
Dystream signal (ii)		99999999	OII							
$\gamma \Lambda$ , platoon unblocked	1050	503			1006	oolidadeelaan				
vC1_stage 1 confive	1000	000			1000					
vC1, stage 1 conf vol	sa si si si si si si si si si si si si si									
vCu, unblocked vol	1850	503			1006					
tC single (s)	8.8	000			1000	adamini daharahi				
tC 2 stage (s)				9139-809-9148-999 9		olo contra bela (se)				
tF (s)	3.5	33			22					
p0 queue free %	33	89	bûravyî nerî pîrtînê vermî j	aniyo face yaniyo fa	89	980-069-0699-0669- 				
cM capacity (veh/h)	58	514			685					
Direction Lane #	WB 1	NR 1	NR 2	SR 1	SB 2					
Volume Total	94	659	346	543	930					
Volume Left	39	000	0.0	78	000					
Volume Right	56	ŏ	17	. Ŭ	ŏ					
cSH	122	1700	1700	685	1700					
Volume to Capacity	0.77	0.39	0.20	0.11	0.55					
Queue Length 95th (ft)	112	0	0	10	0	ciilea cirilea ( chi ya cilea ( chi				
Control Delay (s)	97.2	0.0	0.0	3.0	0.0					
Lane LOS	F			Α	dy daet server med af dae se wil (daet)					
Approach Delay (s)	97.2	0.0		1.1						
Approach LOS	F									
Intersection Summary										
Average Delay			10							
Intersection Canacity 11	tilization		76 9%			il of Servic	<u>م</u>			
Analysis Period (min)	meanon		15							
		watered end of a discount	UU I UU	tation and the strength of the state	en de martil en des anna texte					
	1	•	1	1	1	Ļ				
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Movement	WBL	WBR	NBT	NBR	SBL	SBT				
Lane Configurations	¥		¢ĵ			র্ন				
Sign Control	Stop		Free			Free				
Grade	0%		0%			0%				
Volume (veh/h)	45	70	360	10	75	505				
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				
Hourly flow rate (vph)	50	78	400	11	83	561				
Pedestrians	ka majarah daja peperahanti	ngi tang palabahakaka	egiset en specie de sinte de site		anto, como o propo	and beginning a stranger		inis na suite di si	and and a large second	- da mangang na pang na na na na na na na na na na na na na
Lane Width (ft)	9 <b>60 66 66</b> 6		200-02.01							
walking Speed (ft/s)	ana (tanà dia kao	Alexandra (Alexandra)	99999999999	Andrijan Aprobijem.	n (m. 1997). Maria	ennel (avut - 180			enes and the Market Adams.	A SHARE AND A COMPANY CONT
Percent blockage										
Median type	None									
Median storage veh)	INDUIG									
Linstream signal (ft)						667				
pX. platoon unblocked	0.73									
vC, conflicting volume	1133	406			411					
vC1, stage 1 conf vol	an de ser an se se se se se se se se se se se se se	and daroport generation .	na konstanta (ana kabara)	anda tang pengerah	nan terangkatal nabela da	ala indrata paga kata panan	and and series (see respectively)		eginikeritateken ja sidake	an de la construction de la construction de la construction de la construction de la construction de la constru La construction de la construction d
vC2, stage 2 conf vol										
vCu, unblocked vol	1182	406			411					
tC, single (s)	6.4	6.2			4.1					
tC, 2 stage (s)										
tF (s)	3.5	3.3			2.2					
p0 queue free %	65	88		ومناطقتين فرمتين وزروز	93	وروبين والإيران والمراجع		1910 - 1049 - 1467 - 167 Anit 4 107	- 	
cM capacity (ven/h)	143	645			1148					
Direction, Lane #	WB 1	NB 1	SB 1							
Volume Total	128	411	644							
Volume Left	50	0	83	artu (su dogočaju			lateriki en dense anisat gipta e	n a star a star a star a star a star a star a star a star a star a star a star a star a star a star a star a s	Medical and services	
	/8 074	1700	1 4 4 0							
Volume to Conseilu	2/1 1017	1700	1148			kerne kan be		entra anti-		rtaan oo goo yaayaa da ahaa ahaada .
Oueue Length 95th /ft)	0.47 50	U.24 A	0.07 A					81234000104009		
Control Delay (s)	206	nn	10							
Lane LOS		0.0	Δ							
Approach Delay (s)	29.6	0.0	1.9							
Approach LOS	D							ana fades (1961/492		
Intersection Summary										
Average Delay			4.2							
Intersection Capacity Ut	ilization	1	67.1%	IC	U Leve	l of Servic	)e	С		
Analysis Period (min)			15						· ··· ·····	

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	٭	$\mathbf{r}$	*	Ť	Ļ	1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR					
Lane Configurations	¥			র্ব	4						
Sign Control	Stop			Free	Free						
Grade	0%			0%	0%						
Volume (veh/h)	70	15	10	280	485	60		landa kini dan Referensi			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90					
Hourly flow rate (vph)	78	17	11	311	539	67					
Pedestrians			i antoni di su fuere destrute	1.1							
Lane Width (ft)											
Walking Speed (ft/s)	an deservative stations of the	en estado e tradecente de constantes	ve se over littler til et de ser og			a fa ann fa suid spina a dh' ann a su	an an an an an an an an an an an an an a				
Percent Blockage											
Right turn flare (veh)	an an an an an an an an an an an an an a			terita da de Antonio	n ta ka ka ka ka ka ka ka ka ka ka ka ka ka			an an an an an an an an an an an an an a	lan kan perinte seren dari se	in the second second second second second second second second second second second second second second second	an shekarar
Median type	None										
Median storage ven)		Siderlah (1994)	likeliken streds			ganaan ay ahaan ahaan ahaan ahaan ahaan ahaan ahaan ahaan ahaan ahaan ahaan ahaan ahaan ahaan ahaan ahaan ahaa Ahaan ahaan  ilyiki kolon likisi sebe		Qeringiya walayiyi			
Opstream signal (II)	0 77	A 77	∧ <b>-</b>	1088	959						
px, platoon unblocked	0.77	0.77	0.77		and the section		ovosoveninėsios:				
vC, connicting volume	ano	512	000						Sector		
vC2, stage 2 conf vol											
vCu, unblocked vol	877	143	186								
tC single (s)	64	0 6.2	-00 								
tC 2 stage (s)				assessand				n di tanggan panga			
tF (s)	3.5	33	22								
p0 queue free %	68	96	99	ning mentioper of the for the second	909-090-09090-000 1	jan dan kapan serah jarah	ana ing panganang pang	gan sanggandan	영상 위험 영양 영양		
cM capacity (veh/h)	241	472	827								
Direction. Lane #	EB 1	NB 1	SB 1								
Volume Total	94	322	606								
Volume Left	78	11	0					Reliefersyfskriutern			
Volume Right	17	0	67								
cSH	264	827	1700					te entre d'Attra de terde			
Volume to Capacity	0.36	0.01	0.36								
Queue Length 95th (ft)	39	1	0							an talah si si si si si si si si si si si si si	nan karan karang karang karang karang karang karang karang karang karang karang karang karang karang karang ka Karang karang
Control Delay (s)	26.0	0.5	0.0								
Lane LOS	D	Α									
Approach Delay (s)	26.0	0.5	0.0								
Approach LOS	D										
Intersection Summary											
Average Delay	dimenter ( - )	an an an an an an an an an an an an an a	2.6								
Intersection Capacity Ut	ilization		40.6%	IC	CU Leve	I of Service	9		A		
Analysis Period (min)			15								





### HCM Signalized Intersection Capacity Analysis 1: Main Street & South Willard St

	٦		$\mathbf{i}$	1	-	•	•	t	1	<b>\</b>	Ļ	-
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	٢	4		ሻ	4			44			<del>.</del>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	12	11	11	14	14	14	11	11	11
Total Lost time (s)	4.0	4.0		4.0	4.0	da iska oga oche: Santanak oche:		4.0		ing ang kabupatèn Sebatén (kabupatèn	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.99		1.00	0.99			1.00			0.98	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.99	
Satd. Flow (prot)	1711	1839		1770	1785			1965			1761	
Flt Permitted	0.25	1.00		0.35	1.00			0.90			0.94	
Satd. Flow (perm)	453	1839		654	1785			1776			1669	
Volume (vph)	60	375	35	60	470	30	50	230	5	35	245	40
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0,90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	67	417	39	67	522	33	56	256	6	39	272	44
RTOR Reduction (vph)	0	5	0	0	3	0	0	1	0	0	- 5	0
Lane Group Flow (vph)	67	451	0	67	552	0	0	317	0	0	350	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	2007-000-000-00-00-00-00-00-00-00-00-00-0
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	21.0	21.0		21.0	21.0	per en en en en en en en en en en en en en		17.3	en en en en en en en en en en en en en e	ann a can ta bar ta shi	17.3	
Effective Green, g (s)	22.0	22.0		22.0	22.0			18.3			18.3	
Actuated g/C Ratio	0.41	0.41		0.41	0.41			0.34	provide provident Arrena		0.34	enere energi
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0	an de la carre de la Contra angles de la c		5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	244 YO ALL ALL ALL ALL ALL ALL ALL ALL ALL AL
Lane Grp Cap (vph)	188	762		271	740			612			575	
v/s Ratio Prot		0.25		angen an ear e sangarge	c0.31	en en en ander de de de de de de de de de de de de de	ann dan sederari	i needo a sin an an an an an an an an an an an an an	And Stars (general) sansa		a an an an an an an an an an an an an an	da Mada ya kata ya kata ya kata ya kata ya kata ya kata ya kata ya kata ya kata ya kata ya kata ya kata ya kat Na kata ya kata ya kata ya kata ya kata ya kata ya kata ya kata ya kata ya kata ya kata ya kata ya kata ya kata
v/s Ratio Perm	0.15			0.10				0.18	5. 461 (S. 160)		c0.21	
v/c Ratio	0.36	0.59		0.25	0.75	kon an an an an an an an an an an an an an		0.52			0.61	
Uniform Delay, d1	10.7	12.1		10.1	13.2			13.9			14.4	
Progression Factor	1.00	1.00	9999 - 1997 - 1998 - 1998 - 1998 - 1998 - 1998 - 1998 - 1998 - 1998 - 1998 - 1998 - 1998 - 1998 - 1998 - 1998 -	1.00	1.00		a na manana ang mat	1.00			1.00	(kynepitic), hyn
Incremental Delay, d2	1.2	1.2		0.5	4.1			0.7			1.8	
Delay (s)	11.8	13.3	n an an an an an an an an an an an an an	10.6	17.3		ang ina situ tana araw	14.6	1	ini e Charlester	16.3	
Level of Service	В	В		В	В	en en de sei Seulen est seine		В			В	9112124025
Approach Delay (s)		13.1			16.6			14.6			16.3	,
Approach LOS		В			В			В			В	
Intersection Summary												
HCM Average Control D	elay		15.2	Н	CM Lev	el of Sei	vice		В	5 5 G		
HCM Volume to Capacit	y ratio	an an a' fhairteann 1766 fe	0.61			ana amin'ny fisiana	- and a standard and a standard and a standard a standard a standard a standard a standard a standard a standar Standard a standard a st			e exection en le défin		
Actuated Cycle Length (	s)		53.1	S	um of lo	ost time (	s)		8.0			
Intersection Capacity Uti	lization	6	67.0%	IC	CU Leve	l of Serv	rice	en sayacıtla Şepteri İ	C	ana ana amin' dia 1999. Ny INSEE dia mampika amin' amin' amin' amin' amin' amin' amin' amin' amin' amin' amin' amin' amin' amin' amin' a		esa(====================================
Analysis Period (min)			15									

#### HCM Signalized Intersection Capacity Analysis 2: Main Street & South Union St

	≯		$\mathbf{i}$	1		×.	-	<b>†</b>	1	1	Ļ	-
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	¥		*******	<b>Ļ</b>		۴	<b>t</b> .				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	10	10	16	16	16	10	11	11	12	12	12
Total Lost time (s)	4.0	4.0		neda de rado de Response	4.0		4.0	4.0				
Lane Util, Factor	1.00	1.00			1.00	a (a	1.00	1.00				
Frt	1.00	1.00			0.99		1.00	0.99				
Flt Protected	0.95	1.00			1.00	nderstaartes eester ee	0.95	1.00	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1			an an tha tha sha tha tha tha tha tha tha tha tha tha t
Satd. Flow (prot)	1888	1739			1882		1652	1779				
Flt Permitted	0.31	1.00		an sa sa sa sa sa sa sa sa sa sa sa sa sa	1.00		0.95	1.00		en allerer berefterer.	andra of the first sector sec	ne negle green stêre
Satd. Flow (perm)	621	1739	an inin inings Carlon an Arm		1882		1652	1779				
Volume (vph)	40	455	0	0	510	40	65	230	20	Ô	0	0
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adi, Flow (vph)	44	506	0	0	567	44	72	256	22	0	0	0
RTOR Reduction (vph)	0	0	Ō	Ō	3	0	ō	-3		ō	ō	ō
Lane Group Flow (vph)	44	506	0	0	608	0	72	275	0	0	0	Õ
Parking (#/hr)				Ō	Ō	Ō						
	Perm						Perm					
Protected Phases		2	<u>enintristenis</u> t		6			8	unden famfall			
Permitted Phases	2	en e obtente o <del>ver</del> te (nj			0468736666 <b>7</b> 8888	2020-2020-2020-2020-2020-2020-2020-202	8	dan da sila da la	staliskolistie teleosi	49999999999999999999999999999999999999	1120220-04-03	999999999999
Actuated Green, G (s)	25.4	25.4			25.4	New York Constant	10.7	10.7				
Effective Green, g (s)	26.4	26.4	2017-00-00-00-00-00 2017-00-00-00-00-00-00-00-00-00-00-00-00-00		26.4	00403-000000000000000000000000000000000	11.7	11.7			****	Kaska akt
Actuated g/C Batio	0.54	0.54			0.54		0.24	0.24				
Clearance Time (s)	5.0	5.0		transform and each	5.0		5.0	5.0	2010-01/2010-2000 			01100300090000
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0				
Lane Grp Cap (vph)	338	947			1024		399	429				
v/s Batio Prot		0.29			c0 32			c0 15				
v/s Batio Perm	0.07				~~~~		0.04					
v/c Batio	0.13	0.53			0.59	ionistica inizializatio Statutica	0.18	0.64				
Uniform Delay, d1	5.4	7.1		organizatio (space	74	angesiyeniyeni	14.6	16.5				sellen of an ar
Progression Factor	1.00	1.00			1.00		1.00	1.00				
Incremental Delay, d2	0.2	0.6			0.9		02	33				
Delay (s)	5.6	77			84		14.8	19.8				
Level of Service	A	A	niyaanaa (niyaanaa)	n men na serie a serie de	A		В	B				
Approach Delay (s)		7.5		in an an an an an an an an an an an an an	8.4		usen <del>s</del> s	18.8			0.0	
Approach LOS	s an family a chias	A	ala da su da su da su da su da su da su da su da su da su da su da su da su da su da su da su da su da su da s La su da su da su da su da su da su da su da su da su da su da su da su da su da su da su da su da su da su da s		A	Shirin manangan sa sa sa sa sa sa sa sa sa sa sa sa sa		В	ander den den	na na na na na na na na na na na na na n	A	
Intersection Summary												
HCM Average Control D	elay		10.5	Н	CM Lev	el of Se	rvice		В			
<b>HCM Volume to Capacit</b>	y ratio		0.57									
Actuated Cycle Length (s	s)		48.5	S	um of lo	st time	(s)		8.0			
Intersection Capacity Uti	lization	ţ	53.2%	IC	CU Leve	l of Serv	/ice		A			
Analysis Period (min)			15		a ya ma aktytentete			·····				. Arts a Dolare
c Critical Lane Group												

#### HCM Signalized Intersection Capacity Analysis 3: Main Street & South Winooski Ave

	٭		$\mathbf{i}$	1	-	۰.	1	<b>†</b>	1	1	ţ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	٣	4Î		ሻ	ŧ	7		4		۲	*	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	11	11	12	12	12	10	10	12
Total Lost time (s)	4.0	4.0	tiyini tokin jalani Seri Minarahi	4.0	4.0	4.0		4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00
Frt	1.00	0.99	5 6 6 6	1.00	1.00	0.85		0.95		1.00	1.00	0.85
Flt Protected	0.95	1.00	- ( ( )	0.95	1.00	1.00	Arra (1997-2007-9	1.00	-1	0.95	1.00	1.00
Satd, Flow (prot)	1540	1659		1711	1801	1531		1583		1652	1739	1583
Flt Permitted	0.42	1.00	terin dan seriesi dari seriesi dari	0.51	1.00	1.00	and an an and a start of the start of the start of the start of the start of the start of the start of the star	0.40	an san an an an an an an an an an an an an a	0.86	1.00	1.00
Satd. Flow (perm)	683	1659		913	1801	1531		635		1502	1739	1583
Volume (vph)	110	260	20	70	350	165	5	35	25	225	280	90
Peak-hour factor PHF	0.90	0.90	0.90	0.90	0.90	0.90	0	0.90	0 90	0.90	n 90	0 90
Adi, Flow (vph)	122	289	22	78	389	183	6	39	28	250	311	100
BTOB Beduction (voh)	 0	- 3		Ň	000	108	ň			^	Ň	88
Lane Group Flow (vph)	122	308	۰ ۱	78	389	75	о О	49	Ň	250	211	34
Parking (#/hr)	ō	0 0	ň				ň	ň	ñ			
Turn Type	Perm			Perm		Porm	Perm	<u> </u>		nm+nt		Porm
Protected Phases		•			6		1 0111	9		<b>p</b> iii+pi 7	Х	
Permitted Phases	2			6	· · · · · · · · · · · · · · · · · · ·	8	8	¥.		r A	7	1
Actuated Green G (s)	21 0	21.0		207	20.7	207	U State	18		16.9	16.9	16 9
Effective Green a (s)	22.0	22.0		21 7	21.7	217	0940409936403	O - 5 Q		17.8	17.8	17.0
Actuated o/C Batio	0.42	0.42		Ω <u>4</u> 1	Ω <u>4</u> 1	0.41		0.0		0.24	n 34	0.34
Clearance Time (s)	50	5 0		5 N	50	<u></u> 5Λ		5.0		<del>Υ.Υ.</del> 5 Λ	5 N	5.0
Vehicle Extension (s)	30	3.0		3.0	30	30		30		2.0	20	2.0
Lane Grn Can (ynh)	285	601		375	7/0	620		70		5.0 520	506	<u> </u>
v/s Ratio Prot	200	010		070	~0.22	023		10		0.07	- 000 - 010	004
v/s Ratio Perm	Λ 1 <u>8</u>			0 00	vv.22	0.05		~0.09		0.07	UU.10	0.02
v/c Patio	0.10	0.45		0.03	0.52	0.00		0.00		0.03	0 52	0.02
Uniform Delay d1	10.40	11 O		10.0	117	06		0.70		14.0	4/1	11.00
Progression Eactor	10.3	1 00		10.0	1 00	9.0 1.00		1.00		14.2	14.1	11.9
Incremental Delay, d2	1.00	0.5		0.3	0.7	1.00 ∩ 1		26.3		0.7	0.0	1.00
Delay (s)	120	115		10.3	121	0.1		20.0 10 0		1/0	16.1	0.0
Level of Service	R	B		R	26-7 R	<b>σ.</b> γ				D	19.1 D	
Approach Delay (s)		116			11 /	~		190				
Approach LOS		B			B			<del>40.3</del> D			B	
Intersection Summary												
HCM Average Control D	elay		14.1	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.47									
Actuated Cycle Length (	s)	ee eennen Sterreb	52.8	S	um of lo	st time	(S)	en este meste i statis	8.0	saanta maafiik	***************************************	ooneo astruk
Intersection Capacity Uti	lization		54.2%	Ī	U Leve	l of Ser	viće		A			
Analysis Period (min)			15			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~						
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis 4: Main Street & St. Paul St

	۶	-+	$\mathbf{i}$	1	4	*.	1	†	1	6	Ļ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		र्स	7	ሻ	4			چ ا	*	ኻ	<b>t</b> ,	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	12	12	16	12	12	12
Total Lost time (s)		4.0	4.0	4.0	4.0			4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	
Frt		1.00	0.85	1.00	0.97			1.00	0.85	1.00	0.98	
Flt Protected		1.00	1.00	0.95	1.00			0.98	1.00	0.95	1.00	
Satd. Flow (prot)		1735	1478	1486	1525			1823	1794	1593	1829	
Flt Permitted		0.98	1.00	0.59	1.00			0.82	1.00	0.65	1.00	
Satd. Flow (perm)		1700	1478	923	1525			1526	1794	1093	1829	
Volume (vph)	10	220	85	55	320	65	65	85	60	105	110	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	11	244	94	61	356	72	72	94	67	117	122	17
RTOR Reduction (vph)	0	0	49	0	9	0	0	0	41	0	5	0
Lane Group Flow (vph)	0	255	45	61	419	0	0	166	26	117	134	0
Parking (#/hr)				0	0	0	0			0		
Turn Type	Perm		Perm	Perm			Perm		Perm	Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6			8		8	4		
Actuated Green, G (s)		17.4	17.4	17.4	17.4			12.4	12.4	12.4	12.4	
Effective Green, g (s)		18.4	18.4	18.4	18.4			13.4	13.4	13.4	13.4	
Actuated g/C Ratio		0.41	0.41	0.41	0.41			0.30	0.30	0.30	0.30	
Clearance Time (s)		5.0	5.0	5.0	5.0			5.0	5.0	5.0	5.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0			3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		698	607	379	626			456	537	327	547	
v/s Ratio Prot					c0.27						0.07	
v/s Ratio Perm		0.15	0.03	0.07				c0.11	0.01	0.11		
v/c Ratio		0.37	0.07	0.16	0.67			0.36	0.05	0.36	0.25	
Uniform Delay, d1		9.2	8.0	8.3	10.7			12.3	11.2	12.3	11.9	
Progression Factor		1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.3	0.1	0.2	2.7			0.5	0.0	0.7	0.2	
Delay (s)		9.5	8.1	8.5	13.5			12.8	11.2	13.0	12.1	
Level of Service		Α	А	А	В			В	В	В	В	
Approach Delay (s)		9.1			12.8			12.4			12.5	
Approach LOS		А			В			В			В	
Intersection Summary												
HCM Average Control D	elay	a deservation and a second second	11.7		ICM Lev	el of Se	vice		В			
HCM Volume to Capacity	y ratio		0.47									
Actuated Cycle Length (s	3)		44.8	S	um of lo	ost time (	s)		8.0			
Intersection Capacity Uti	lization	(	51.0%	10	CU Leve	I of Serv	ice		В			
Analysis Period (min)	a para anti-	en sontes a la dana	15	taan aharada ahaa ahaa	tanan tanan mana	andre filmen men er	an staat of the	an tana ara tanta a	and a property for the second			
c Critical Lane Group			8 89 68 S									

CAP Clough, Harbour & Associates, LLP

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Movement	EBL2	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR2	SBL	SBT	SBR
Lane Configurations		44			44			4	<u>, , , , , , , , , , , , , , , , , , , </u>		<b>.</b> ‡.	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	14	14	14	12	12	12	16	16	16
Total Lost time (s)		4.0			4.0		len i en letter i treine Statuer Artike ook	4.0			4.0	
Lane Util. Factor	2010-00-00-00-00-00-00-00-00-00-00-00-00-	1.00	21.0001.01001.000000		1.00			1.00	2020-2020-00-2022-2		1.00	-99-69-69-69-69-69-69-69-69-69-69-69-69-
Frt		0.97			0.99			1.00			0.99	
Flt Protected		0.99			0.98	· · · · · · · · · · · · · · · · · · ·		1.00	,		1.00	
Satd. Flow (prot)		1794			1926			1852			2092	
Flt Permitted		0.94			0.89			0.97			0.99	
Satd. Flow (perm)		1708			1747			1811			2081	
Volume (vph)	15	45	15	20	30	5	15	240	5	5	240	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	50	17	22	33	6	17	267	6	6	267	17
RTOR Reduction (vph)	0	11	0	0	0	0	0	1	0	0	3	0
Lane Group Flow (vph)	0	73	0	0	61	0	0	289	0	0	287	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		3			3		19	2			6	
Permitted Phases	3			3			2	2		6	6	
Actuated Green, G (s)		15.0			15.0			30.0			30.0	
Effective Green, g (s)		16.0			16.0			31.0			31.0	
Actuated g/C Ratio		0.20			0.20			0.39			0.39	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Lane Grp Cap (vph)		342			349		*****	702	******	danid danlarda andar a da da da da da da da da da da da da d	806	
v/s Ratio Prot												
v/s Ratio Perm	, , , , , , , , , , , , , , , , , , ,	c0.04			0.03			c0.16	bee brone model free ender te		0.14	al fan frigt frigt oan de st
v/c Ratio		0.21			0.17		a de dere	0.41			0.36	
Uniform Delay, d1		26.7			26.5			17.9		ana ang ang ang ang ang ang ang ang ang	17.4	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.4			1.1			1.8			1.2	
Delay (s)		28.2			27.6			19.6			18.6	
Level of Service		С			С			В			В	
Approach Delay (s)		28.2			27.6			19.6			18.6	
Approach LOS		С			С			В			В	
Intersection Summary												
HCM Average Control D	elay		27.6	Н	CM Lev	el of Se	rvice		С			
HCM Volume to Capacit	y ratio		0.48									
Actuated Cycle Length (	s)		80.0	S	um of lo	st time	(s)		12.0			
Intersection Capacity Uti	lization	ţ	57.3%	IC	U Leve	l of Sen	/ice		В			
Analysis Period (min)			15									
c Critical Lane Group								(1993) 1993		ġ. (1 de la j		

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Movement	SWL2	SWL	SWR	SWR2
Lane Configurations	ኻ	Y		
Ideal Flow (vphpl)	1900	1900	1900	1900
Lane Width	14	14	14	14
Total Lost time (s)	4.0	4.0		
Lane Util. Factor	1.00	1.00	······································	
Frt	1.00	0.99		
Flt Protected	0.95	0.95		
Satd. Flow (prot)	1888	1884		
Flt Permitted	0.95	0.95		
Satd. Flow (perm)	1888	1884		
Volume (vph)	15	340	10	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	378	11	6
RTOR Reduction (vph)	0	1	0	0
Lane Group Flow (vph)	17	394	0	0
Turn Type	Split			
Protected Phases	4	4		
Permitted Phases				
Actuated Green, G (s)	20.0	20.0		
Effective Green, g (s)	21.0	21.0		
Actuated g/C Ratio	0.26	0.26		
Clearance Time (s)	5.0	5.0		
Lane Grp Cap (vph)	496	495		
v/s Ratio Prot	0.01	c0.21		
v/s Ratio Perm			19 A 19	
v/c Ratio	0.03	0.80		
Uniform Delay, d1	22.0	27.5		
Progression Factor	1.00	1.00		
Incremental Delay, d2	0.1	12.5		
Delay (s)	22.1	40.0		
Level of Service	С	D		
Approach Delay (s)		39.3		
Approach LOS		D		
Intersection Summary				

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#### HCM Signalized Intersection Capacity Analysis 23: Flynn Avenue & Shelburne St. (Rt 7)

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		র	7		£.	*	ሻ	<b>*</b> t <b>,</b>		٣	<b>*</b> tə	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	0.99	
Flt Protected		0.96	1.00		0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1797	1583		1814	1583	1770	3534		1770	3498	
Flt Permitted		0.74	1.00		0.80	1.00	0.19	1.00		0.25	1.00	
Satd. Flow (perm)		1386	1583		1496	1583	358	3534		470	3498	
Volume (vph)	55	20	150	30	25	35	135	1005	10	30	835	70
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	61	22	167	- 33	28	39	150	1117	11	33	928	78
RTOR Reduction (vph)	0	0	143	0	0	33	0	1	0	0	8	0
Lane Group Flow (vph)	0	83	24	0	61	6	150	1127	0	33	998	0
Turn Type	Perm		Perm	Perm		Perm	pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)		8.3	8.3		8.3	8.3	41.9	41.9		30.9	30.9	
Effective Green, g (s)		8.3	8.3		8.3	8.3	41.9	41.9		30.9	30.9	
Actuated g/C Ratio		0.14	0.14		0.14	0.14	0.72	0.72		0.53	0.53	
Clearance Time (s)		4.0	4.0		4.0	4.0	3.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		198	226		213	226	428	2544		250	1857	
v/s Ratio Prot							0.04	c0.32			c0.29	
v/s Ratio Perm		c0.06	0.02		0.04	0.00	0.21			0.07		
v/c Ratio		0.42	0.11		0.29	0.02	0.35	0.44		0.13	0.54	
Uniform Delay, d1		22.8	21.7		22.3	21.5	4.0	3.4		6.9	9.0	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.4	0.2		0.7	0.0	0.5	0.1		0.2	0.3	
Delay (s)		24.2	21.9		23.0	21.5	4.5	3.5		7.1	9.3	
Level of Service		С	С		С	С	А	А		Α	А	
Approach Delay (s)		22.7			22.4			3.6			9.2	
Approach LOS		С			С			A			A	
Intersection Summary												
HCM Average Control D	elay		8.3	Н	CM Lev	/el of S	ervice		Α			
HCM Volume to Capacit	y ratio		0.52									
Actuated Cycle Length (	s)		58.2	S	um of lo	ost time	(s)		12.0			
Intersection Capacity Uti	lization		55.5%	l I	CU Leve	el of Sei	rvice		В			
Analysis Period (min)			15									
c Critical Lane Group												

# HCM Signalized Intersection Capacity Analysis 24: Home Avenue & Shelburne St. (Rt 7)

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		র্ম	7	٣	<b>ţ</b>		٣	ትቴ		٦	<u>*t</u> ,	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	10	12	16	12	10	10	10	10	10	10
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	0.95		1.00	0.95	
Frt		1.00	0.85	1.00	0.90		1.00	1.00		1.00	1.00	
Flt Protected		0.97	1.00	0.95	1.00		0.95	1.00		0.95	1.00	ali v jena produka veza
Satd. Flow (prot)		1747	1478	1770	1909		1652	3297		1652	3292	
Flt Permitted		0.78	1.00	0.71	1.00		0.24	1.00		0.95	1.00	
Satd. Flow (perm)		1400	1478	1323	1909		409	3297		1652	3292	
Volume (vph)	40	25	185	30	20	35	190	1195	15	40	880	20
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	44	28	206	33	22	39	211	1328	17	44	978	22
RTOR Reduction (vph)	0	0	182	0	35	0	0	1	0	0	2	0
Lane Group Flow (vph)	0	72	24	33	26	0	211	1344	0	44	998	0
Turn Type	Perm		Perm	Perm			om+pt			Prot		
Protected Phases	1941 A. C. C. C. C. C. C. C. C. C. C. C. C. C.	4			8		5	2	oolahodi selata degira se	00000000000000000000000000000000000000	6	0440000000000000
Permitted Phases	4		4	8			2					
Actuated Green, G (s)		7.9	7.9	7.9	7.9		41.5	41.5		3.6	28.3	n shi sin Winness shi si s
Effective Green, g (s)		7.9	7.9	7.9	7.9		42.5	42.5		3.6	29.3	
Actuated g/C Ratio		0.12	0.12	0.12	0.12		0.62	0.62		0.05	0.43	Aren Bernardin an Antol
Clearance Time (s)		4.0	4.0	4.0	4.0		5.0	5.0		4.0	5.0	
Vehicle Extension (s)		1.0	1.0	1.0	1.0		1.5	1.0		1.0	1.0	
Lane Grp Cap (vph)		161	170	153	220		559	2046		87	1408	
v/s Ratio Prot	ala a manadari ka kura dar	er er er er er en en er er er er er er er er er er er er er	ang pananana kar	origen en argea di secte este	0.01		0.09	c0.41	a beer an wale (sector)	0.03	c0.30	arjudajunikistasa
v/s Ratio Perm		c0.05	0.02	0.02		Antonenato	0.14			System of the		
v/c Ratio		0.45	0.14	0.22	0.12		0.38	0.66		0.51	0.71	ella elistetti tette
Uniform Delay, d1		28.3	27.2	27.5	27.2		11.7	8.3	eleciyên kûrê herên k Baranî û kûrên kûrên	31.6	16.1	
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	louiseus mensioni
Incremental Delay, d2		0.7	0.1	0.3	0.1		1.9	1.7		1.7	3.0	
Delay (s)		29.0	27.4	27.7	27.3	an an an an an an an an an an an an an a	13.6	10.0		33.3	19.1	-999-997-999-99
Level of Service		C	C	C	C		В	Α		С	В	
Approach Delay (s)		27.8			27.4		an ya shekara ta sa	10.5			19.7	1-11-12-11-12-11-12-11-12-11-12-11-12-11-12-11-12-11-12-11-12-11-12-11-12-11-12-11-12-11-12-11-12-11-12-11-12-
Approach LOS		C			C			В			B	
Intersection Summary												
HCM Average Control D	elay		15.9	H	CM Lev	el of Se	rvice		В			
HCM Volume to Capacity	y ratio		0.61									
Actuated Cycle Length (s	3)		68.5	S	um of lo	st time	(s)		8.0			
Intersection Capacity Uti	lization		57.0%	IC	CU Leve	l of Serv	/ice		В		a da um da casta a second	en anna e ann an dùrai
Analysis Period (min)			15									

## HCM Signalized Intersection Capacity Analysis 25: I-189 OFF RAMP & Shelburne St. (Rt 7)

4 Lane Alt 1 2028 PM

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				٣	ধ			4 <b>†</b> }			<b>≜</b> ∱	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	14	12	12	12	12	12	12
Total Lost time (s)				4.0	4.0			4.0			4.0	
Lane Util. Factor				0.95	0.95			0.95			0.95	
Frt				1.00	1.00			1.00			1.00	
Flt Protected				0.95	0.96			1.00			1.00	
Satd. Flow (prot)				1681	1699			3539			3537	
Flt Permitted				0.95	0.96			1.00			1.00	
Satd. Flow (perm)				1681	1699			3539	in an the state of		3537	
Volume (vph)	0	0	0	1445	140	0	0	765	0	0	1405	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	1606	156	0	0	850	0	0	1561	6
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0		0
Lane Group Flow (vph)	0	0	0	858	904	0	0	850	0	0	1566	0
Turn Type				Perm			Perm					
Protected Phases			*****************		8			2		a de anter en anter en en en esta en en en esta en en en esta en en en en en en en en en en en en en	6	ubilite en altra en acto
Permitted Phases				8			2					
Actuated Green, G (s)				28.0	28.0	1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -		30.0		ana a an estan gradana a	30.0	
Effective Green, g (s)				30.0	30.0			32.0			32.0	
Actuated g/C Ratio				0.43	0.43			0.46	2010-10-10-10-10-10-10-10-10-10-10-10-10-		0.46	
Clearance Time (s)	sprogstate Stations			6.0	6.0			6.0	konstringen seka Stanton den seka		6.0	
Vehicle Extension (s)				3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)				720	728			1618			1617	
v/s Ratio Prot		dan mengangan peringka baha		ش و شاه می و می اور ا	and and bride of a state		na nganga la gala galan	0.24	andre for for the second	perentan di perenta	c0.44	
v/s Ratio Perm				0.51	0.53							
v/c Ratio				1.19	1.24			0.53			0.97	
Uniform Delay, d1	eencendereg Generalie			20.0	20.0			13.6			18.5	
Progression Factor				1.00	1.00	-9-1-1		1.00			1.00	
Incremental Delay, d2				99.7	120.3			0.3			15.4	
Delay (s)				119.7	140.3			13.9			33.9	arten af strengt fanne
Level of Service				<b>F</b>	E.			В			C	
Approach Delay (s)		0.0			130.3			13.9			33.9	
Approach LOS		Α	ngi di ar. Native est		F			B			C	
Intersection Summary												
HCM Average Control De	elay		70.5	-	ICM Lev	el of Ser	vice		E			
HCM Volume to Capacity	ratio		1.10									
Actuated Cycle Length (s	)		70.0	S	Sum of Ic	ost time (	s)		8.0			
Intersection Capacity Util	ization	8	9.4%	ļ	CU Leve	l of Servi	ce		Е			
Analysis Period (min)			15									
c Critical Lane Group				-		a a ta a a a barrella						

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			¢.,			<b>4</b> 1,			<b>.</b>	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	20	135	60	75	110	15	20	275	65	55	265	25
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	22	150	67	83	122	17	22	306	72	61	294	28
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	239	222	400	383								
Volume Left (vph)	22	83	22	61								
Volume Right (vph)	67	17	72	28		,				00104004040404040404040	**********	and a second second second second second second second second second second second second second second second
Hadi (s)	-0.11	0.06	-0.06	0.02								
Departure Headway (s)	7.1	7.3	6.5	6.6	99999-99999999999999999999999999999999			episa da mana manana ana	16		ana ana ting ting ting an	al stand Charles
Degree Utilization, x	0.47	0.45	0.72	0.70								
Capacity (veh/h)	443	429	530	515								
Control Delay (s)	16.1	16.1	24.2	23.5					entralej kada selara Referencia			
Approach Delay (s)	16.1	16.1	24.2	23.5			an an an an an an an an an an an an an a					
Approach LOS	С	C	С	C								
Intersection Summary												
Delay			21.0									
HCM Level of Service			С								· ····· · · · · · · · · · · · · · · ·	
Intersection Capacity Uti	lization		67.7%	J(	CU Leve	l of Sen	vice		С			
Analysis Period (min)		:	15				a ana ang atao (ang ang	an sa na an san manaka		بالإيرية بسيائه سيئيا مار		ann a nn Chailt Albhai

	1	*	Ť	1	\$	Ļ	
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	¥		<b>ţ</b> ,			র্ন	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Volume (veh/h)	150	5	355	190	5	595	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vph)	167	6	394	211	6	661	
Pedestrians	h in the state in the state		nistaliya istati alia			lan an an an an an an an an an an an an a	
Lane Width (ft)							
waiking Speed (tt/s)			a en anta a sua a sua a sua a sua a sua a sua a sua a sua a sua a sua a sua a sua a sua a sua a sua a sua a su				
Percent blockage							
Median type	None						
Median storage veh)	110110	1997, Siy Cas					
Upstream signal (ft)		in Geologia estatu Secologia estatua				837	
pX, platoon unblocked	0.94	al de la gerra de la g		199009900990099			a na kana na na na na na na na na na na na na
vC, conflicting volume	1172	500			606		
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	1182	500			606		
tC, single (s)	6.4	6.2			4.1		
tC, 2 stage (s)	والمواليور المالية						
(► (S)	3.5	3.3			2.2		
pu queue tree %	15	99			99	Alisa na padais	
	197	97 F			912		
Direction, Lane #	WB 1	NB 1	SB 1				
Volume Total	172	606	667				
Volume Lett	16/	U 044	6 ^				
	0 201	211	070				
Volume to Canacity	0.96	0.36	972	agadasi sala sa			
Queue Length 95th (ft)	161	0.00 0	0.01 0				
Control Delay (s)	79.9	្រុំ	02				
Lane LOS	F		A				
Approach Delay (s)	79.9	0.0	0.2				
Approach LOS	F				e e contra se calinda a disp		
Intersection Summarv							
Average Delav			9.6				
Intersection Capacity Ut	ilization	1	50.6%	IC	U Level	of Ser	vice A
Analysis Period (min)			15		a na sa sa sa sa sa sa sa sa sa sa sa sa sa	n fan stratege	

HCM Unsignalized Intersection Capacity Analysis 22: Birchcliff Pkwy & Shelburne St. (Rt 7)

	٠		$\mathbf{i}$	1		×.	1	t	1	1	Ļ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			<del>ፈ</del> ጉ			đ Þ	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	-9-1
Volume (veh/h)	35	0	60	10	0	10	65	980	5	5	885	30
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	39	0	67	11	0	11	72	1089	6	6	983	33
Pedestrians				,								
Lane Width (ft)												
Walking Speed (ft/s)			alah ing pada si pangan		an a shekara ta Gar		a sa sa sa sa sa sa sa sa sa sa sa sa sa					
Percent Blockage												
Right turn flare (veh)	en kombrake			e de la companya de la companya de la companya de la companya de la companya de la companya de la companya de La companya de la companya de la companya de la companya de la companya de la companya de la companya de la comp		ulative Actolation Actor			gang bahasi désérak be	uli aleri Mereke	kolecier active en interior	vertieringsterings
Median type		None			None							
Nedian storage ven)						det angevare just		4007	det de la company		Statistica (Statistica (Statistica (Statistica (Statistica (Statistica (Statistica (Statistica (Statistica (St	
pX platoon unblocked								1207				
vC conflicting volume	1711	2250	508	1806	2264	<b>5</b> 17	1017			1004		9.9.9.9.9.9.9
vC1_stage 1 conf vol		6690		1000	<i>6.6.</i> 97		1017			1034	iyadan da tagat ng	
vC2_stage 2 conf vol												
vCu, unblocked vol	1711	2250	508	1806	2264	547	1017			1094		
tC. single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			41		
tC, 2 stage (s)	al and a faith of a faith of a faith of a faith of a faith of a faith of a faith of a faith of a faith of a fai	an an an an an an an an an an an an an a	an an tain an Annaichean. An tainn an tainn an tainn an tainn an tainn an tainn an tainn an tainn an tainn an tainn an tainn an tainn an t	ang manang kanang mengenakan sebagai kanang mengenakan kanang mengenakan sebagai kanang mengenakan sebagai kan Sebagai kanang sebagai			1994 (1995) - Colorador 1994 (1996) - Colorador 1995 (1996) - Colorador	9940049294949494949		anan siyatata ta sa	i tore di otta da fa	
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	25	100	87	72	100	98	89			99		
cM capacity (veh/h)	52	36	510	39	36	481	678			633		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	106	22	617	550	497	525						
Volume Left	39	11	72	0	6	0		,			oʻopani istindiatarin	
Volume Right	67	11	0	6	0	- 33						
cSH	120	73	678	1700	633	1700						
Volume to Capacity	0.88	0.31	0,11	0.32	0.01	0.31						
Queue Length 95th (ft)	136	28	9	0	1	0						
Control Delay (s)	119.2	74.9	2.8	0.0	0.3	0.0				6 00 00 0		
Lane LOS	F	F	A	alangip jara karanga	A		utiok teologia	ta da ser de la completa de la completa de la completa de la completa de la completa de la completa de la comp		youwara karaki wa	n da ju en a deguna en perjor.	ter an an an an an an an an an an an an an
Approach Delay (s)	119.2	/4.9	1.5		0.1			645 12 13 1				
Approach LUS	F	~										
Intersection Summary												
Average Delay			6.9									
Intersection Capacity Uti	ilization		71.1%	I(	CU Leve	el of Sen	vice		C			
Analysis Period (min)			15									

		$\mathbf{i}$	1	4	-	1	
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	4			¢,	¥		
Sign Control	Free			Free	Stop		
Grade	0%	enerse en en en en en en en en en en en en en	ana ang ang ang ang ang ang ang ang ang	0%	0%	la fan find fr <u>ank ka</u> ntan staffen.	
Volume (veh/h)	155	25	40	170	35	70	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Pedestrians	116	20	chek.	109	92	10	
Lane Width (ft)							
Walking Speed (ft/s)		al ne sui na destru	an an an an an an an an an an an an an a				aan aan aa daa ahaa maada ahaa ahaa daa mada daa yaa daa daa daa daa daa daa daa
Percent Blockage							
Right turn flare (veh)	ور معدد و مرز مرد م	an ya amata na sa tanta ya tanan		en estas ser a substat			
Median type					None		
Median storage ven)		de elle tette		004			
nX nlatoon unblocked				୍ତ୍ତା			
vC. conflicting volume			200		464	186	
vC1, stage 1 conf vol		dod do esta esta da an					nan mahanda pikan kan kan kan kan kan kan kan kan kan
vC2, stage 2 conf vol							
vCu, unblocked vol	Setter state and state states and states and states and states and states and states and states and states and		200		464	186	
tC, single (s)			4.1		6.4	6.2	
tC, 2 stage (s)		arian kanang	20		9 6	00	
n0 queue free %			2.2 97		0.0 Q3	ی.ی ۹1	
cM capacity (veh/h)			1372		538	856	
Direction Lane #	FR 1	WB1	NR 1				
Volume Total	200	233	117				
Volume Left	0	44	39				
Volume Right	28	0	78				
cSH	1700	1372	715	1050 CAAA70A.A3	ta disata seriesa da seriesa da seriesa	ing basis were sold and a famous	
Volume to Capacity	0.12	0.03	0.16				
Queue Length 95th (II)	0	3	15				
Lane LOS	0.0	ι. <i>ι</i> Δ	TI.U R				
Approach Delay (s)	0.0	1.7	11.0				
Approach LOS			B	1049459901690497		aga mata Kasiri Mahiri Mahiri M	
Intersection Summary							
Average Delay			3.1				
Intersection Capacity Uti	ilization		37.1%	IC	U Leve	l of Servic	e A
Analysis Period (min)			15				

	T	WO-WAY STO	P CONTR	OL SUM	MARY				
General Information			Site I	nformati	on				
Analvst A y/Co. Date Performed Analysis Time Period	EJD CHA 12/22/05 PM PEAK	( HOUR	Interse Jurisdic Analysi	ction ction is Year		ROUTE 7 TOWN 0 2028 BUI	7/LOCUST F BURLIN ILD ALT1	/LEDGE IGTON	
Project Description BU	RLINGTON								
East/west Street: LOCL	North South		North/S	South Stree	et: HOUIE	7		·····	
	Nonin-South		Bludy F	renou (nrs	): 0.25				
venicle volumes an	d Adjustment	S	1			<u> </u>			
Major Street		Northbound				Southbo	bund		
		<u> </u>			4			0	
Volume	0	575	310		35	695		10	
Peak-Hour Factor, PHF	0.90	0.90	0.90	)	0.90	0.90		0.90	
Hourly Flow Rate, HFR	0	638	344		38	772		11	
Percent Heavy Vehicles	0				2				
Median Type				Undivide	ed				
RT Channelized			0					0	
Lanes	0	2	0		0	1		0	
Configuration		Т	TR		LTR				
Upstream Signal		0				0			
Minor Street		Westbound				Eastbou	und		
Movement	7 8		9		10	11		12	
Value -	L	1	H R		L	Т		<u>R</u>	
Volume	0 00	0 00	55		0	30		75	
Ho V Flow Bate HFB	0.30	0.90	61		0.90	0.90		0.90	
Percent Heavy Vehicles	0	0	2		0	2		2	
Percent Grade (%)	Ť.				<u> </u>	<u>+</u>			
Flared Approach		N N							
Storage		0							
BT Channelized			0					<u>^</u>	
lanes	···  ·····		1		<u>^</u>	4		0	
Configuration			R		•	<u>'</u>		TR	
Delay Queue Length an	d Level of Servi	~ <b>/</b>					<u> </u>		
Approach	NB	SB		Westhoun	d	T	Fasthoun	d	
Movement	1	4	7	8		10	11	1 12	
Lane Configuration	*	, I TR		<u> </u>		10	1		
v (vph)		28			61			116	
C(m)(vnb)		600			502			157	
		0.05			0.10	-		13/	
05% augus longth		0.03			0.12		<u> </u>	0.74	
Sontrol Dolou		0.17			0.39		<u> </u>	4.57	
		10.4			12.8		ļ	74.4	
		В						F	
Approach Delay				12.8		74.4			
Approach LOS			1	В		1	F		

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	TV	VO-WAY STO	P CONTRO	OL SUMN	IARY			
General Information	ł		Site Ir	nformatic	n	·		
Analvst Ag //Co. Date Performed Analysis Time Period	EJD CHA 12/22/05 PM PEAK	HOUR	Intersed Jurisdic Analysi	ction ction s Year		ROUTE 7 TOWN O 2028 BUI	7/SOUTH F BURLIN LD ALT1	WILLARD IGTON
Project Description BU	RLINGTON		<b>b</b> ( ) ( )					
East/West Street: SOUT	H WILLAHD		North/S	outh Street	: ROUIE )	7		
	North-South		piùdy r	enou (nrs).	0.25			
Venicle volumes an	a Adjustments							·······
Major Street			1 3		4	Southbo	und	~
	1	- <u>-</u>			4			<u>0</u>
Volume	80	495	0		0	740		0
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Hourly Flow Rate, HFR	88	550	0		0	822		0
Percent Heavy Vehicles	2				2			<b></b>
Median Type				Undivide	d			
RT Channelized			0					0
Lanes	0	1	0		0	1		0
Configuration	LT					Т		
Upstream Signal		0				0		
Minor Street		Westbound 7 8				Eastbou	ınd	
Movement	7	7 8 7 8		9		11		12
	L	Т	R		L	Т		R
Volume	0	160	0		0	0		0
Pe Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Houny Flow Hate, HFK	0		0		0	0		0
Percent Heavy Vehicles			2		0	2		2
Percent Grade (%)		0				0		
riared Approach		N				N		
Storage		0				0		
RT Channelized			0					0
Lanes	0	1	0		0	0		0
Configuration								
Delay, Queue Length, an	d Level of Servic	e	-					
Approach	NB	SB		Westbound			Eastboun	d
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT				TR			
v (vph)	88				177			
C (m) (vph)	807				96			
v/c	0.11				1.84			
95% queue length	0.37				14.65			
Control Delay	10.0				491.5			
LOS	В				F		İ	
Approach Delav				491 5	I		L	
Approach LOS				E				

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### NULL ALTERNATIVE 2008 AM PEAK HOUR

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<del>بر</del>	7		<del>ب</del> اً	7	٢	ብ <b>ት</b>		ሻ	ቶኈ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frt		1.00	0.85		1.00	0.85	1.00	0.99		1.00	1.00	
Flt Protected		0.98	1.00		0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1823	1583		1821	1583	1770	3513		1770	3531	
Fit Permitted		0.81	1.00		0.83	1.00	0.24	1.00		0.95	1.00	
Satd. Flow (perm)		1514	1583		1554	1583	452	3513		1770	3531	
Volume (vph)	15	20	45	55	65	100	60	750	40	100	1035	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	22	50	61	72	111	67	833	44	111	1150	17
RTOR Reduction (vph)	0	0	44	0	0	85	0	0	0	0	0	0
Lane Group Flow (vph)	0	39	6	0	133	26	67	877	0	111	1167	0
Turn Type	Perm		Prot	Perm		pt+ov	Perm		с	ustom		
Protected Phases		4	4		8	8 1		2			6	
Permitted Phases	4	e o ta fastale steve		8			2			1		
Actuated Green, G (s)		15.6	15.6		15.6	28.8	80.5	80.5		13.2	98.7	
Effective Green, g (s)		16.6	16.6		16.6	30.8	81.5	81.5		14.2	99.7	
Actuated g/C Ratio		0.13	0.13		0.13	0.24	0.63	0.63		0.11	0.77	
Clearance Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		193	202		198	375	283	2202		193	2708	
v/s Ratio Prot			0.00			0.02		0.25		c0.06	c0.33	
v/s Ratio Perm		0.03		5. 1. January 10. 1997	c0.09		0.15					
v/c Ratio		0.20	0.03		0.67	0.07	0.24	0.40		0.58	0.43	
Uniform Delay, d1		50.8	49.7		54.1	38.5	10.6	12.1		55.0	5.3	
Progression Factor		1.00	1.00		1.00	1.00	0.34	0.36		1.00	1.00	
Incremental Delay, d2	Wenter bei wier Getanner	0.5	0.1		8.6	0.1	1.8	0.5		4.1	0.5	
Delay (s)		51.3	49.7		62.7	38.6	5.4	4.8		59.1	5.8	
Level of Service	ista kantaka da	D	D	ana ata ara dag	E	D	Α	Α	وروبية والمحادثة والمراج	E	A	an para strassas
Approach Delay (s)		50.4			51.7			4.8			10.4	
Approach LOS		D			D			A			В	
Intersection Summary												
HCM Average Control De	elay		13.7	Н	CM Lev	el of Se	ervice		В			
HCM Volume to Capacity	y ratio		0.45									
Actuated Cycle Length (s	5)		130.0	S	um of lo	ost time	(s)		8.0			
Intersection Capacity Util	lization		55.6%	IC	U Leve	Lof Ser	vice		В			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	4			<b>.</b>		ኻ	ትኈ		ሻ	ትኈ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0		4.0	4.0	en en en en en en en en en en en en en e
Lane Util. Factor	1.00	1.00			1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.85			0.92		1.00	1.00		1.00	1.00	
Flt Protected	0.95	1.00			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1583			1686		1770	3535		1770	3526	
Fit Permitted	0.43	1.00			0.90		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	794	1583			1547		1770	3535		1770	3526	- 77 M - 27 M - 27 M - 27 M - 27 M - 27 M - 27 M - 27 M - 27 M - 27 M - 27 M - 27 M - 27 M - 27 M - 27 M - 27 M
Volume (vph)	20	0	10	55	20	115	10	715	5	120	990	25
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	22	0	11	61	22	128	11	794	6	133	1100	28
<b>RTOR Reduction (vph)</b>	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	22	11	0	0	211	0	11	800	0	133	1128	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8								
Actuated Green, G (s)	22.2	22.2			22.2		3.2	72.3	paresi nog posigor Najva os najva	14.3	83.4	
Effective Green, g (s)	23.2	23.2			23.2		4.2	73.3		15.3	84.4	
Actuated g/C Ratio	0.18	0.18			0.18		0.03	0.56		0.12	0.65	
Clearance Time (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	142	283			276		57	1993		208	2289	
v/s Ratio Prot		0.01					0.01	0.23		c0.08	c0.32	
v/s Ratio Perm	0.03				c0.14							
v/c Ratio	0.15	0.04			0.76		0.19	0.40		0.64	0.49	
Uniform Delay, d1	45.1	44.2			50.8		61.2	16.0		54.7	11.8	
Progression Factor	1.00	1.00			1.00		1.25	0.39		1.23	0.76	
Incremental Delay, d2	0.5	0.1			11.9		1.5	0.6		5.9	0.7	
Delay (s)	45.6	44.2			62.7		78.0	6.8		72.9	9.7	
Level of Service	D	D			E		E	Α		Ε	А	
Approach Delay (s)		45.2			62.7		c in th	7.7			16.3	
Approach LOS		D			E			А			В	
Intersection Summary												
HCM Average Control D	elay		18.0	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.56									
Actuated Cycle Length (	s)		130.0	S	um of lo	st time (	(s)		14.2			
Intersection Capacity Uti	lization	6	32.7%	IC	CU Leve	l of Serv	rice		В			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4		۲	<b>↑</b> Ъ		ካ	<b>ተ</b> ኩ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frt		0.91			0.98		1.00	0.98		1.00	0.99	
Flt Protected		1.00			0.97		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1629			1708		1711	3365		1711	3382	
Flt Permitted		0.98			0.70		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1601			1236		1711	3365		1711	3382	
Volume (vph)	5	20	55	115	40	30	5	645	80	85	895	75
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	6	22	61	128	44	33	6	717	89	94	994	83
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	89	0	0	205	0	6	806	0	94	1077	0
Turn Type	Perm			Perm			Prot	25 (S) (S) (		Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)		24.6			24.6		1.6	72.9		11.3	82.6	
Effective Green, g (s)		25.6			25.6		2.6	73.9		12.3	83.6	
Actuated g/C Ratio		0.20			0.20		0.02	0.57		0.09	0.64	
Clearance Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		315			243		34	1913		162	2175	
v/s Ratio Prot							0.00	0.24		c0.05	c0.32	
v/s Ratio Perm		0.06			c0.17							
v/c Ratio		0.28			0.84		0.18	0.42		0.58	0.50	
Uniform Delay, d1		44.4			50.3		62.6	15.9		56.4	12.1	
Progression Factor		1.00			1.00		1.00	1.00		1.36	0.26	
Incremental Delay, d2		0.5			22.5		2.5	0.7		4.7	0.7	
Delay (s)		44.9			72.8		65.1	16.6		81.2	3.9	
Level of Service		D			E		E	В		F	A	
Approach Delay (s)		44.9			72.8			17.0			10.1	
Approach LOS	380 (S. 15-15)	D			E			В			В	
Intersection Summary												
HCM Average Control D	əlay		19.5	H	CM Lev	el of Se	rvice		В			
HCM Volume to Capacity	/ ratio		0.57							an atom a an inte		annaan Palanum
Actuated Cycle Length (s	)		130.0	S	um of lo	ost time	(S)		14.2			
Intersection Capacity Util	ization	) Natainestationes	50.8%	IC	CU Leve	l of Serv	/ice	en en en en en en en en en en en en en e	B		n i sana sa sa sa sa sa sa sa sa sa sa sa sa sa	
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			<del>4</del>	7	****	র্ম	۲		¢ <b>1</b> ,	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0		4.0	4.0		4.0	
Lane Util. Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Frt		1.00			1.00	0.85		1.00	0.85		0.97	
Fit Protected		0.99			1.00	1.00		0.98	1.00		0.99	
Satd. Flow (prot)		1833			1861	1583		1831	1583		1790	
Fit Permitted		0.87			0.99	1.00		0.84	1.00		0.89	
Satd. Flow (perm)	<u></u>	1611			1851	1583		1559	1583		1611	
Volume (vph)	50	145	5	5	265	45	55	105	5	45	120	45
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	56	161	6	6	294	50	61	117	6	50	133	50
RTOR Reduction (vph)	0	0	0	0	0	28	0	0	4	0	0	0
Lane Group Flow (vph)	0	223	0	0	300	22	0	178	2	0	233	0
Turn Type	Perm			Perm		Perm	Perm		Perm	Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6		6	8		8	4		
Actuated Green, G (s)		17.2			17.2	17.2		9.7	9.7		9.7	
Effective Green, g (s)		18.2			18.2	18.2		10.7	10.7		10.7	
Actuated g/C Ratio		0.44			0.44	0.44		0.26	0.26		0.26	
Clearance Time (s)	and the subscription of	5.0	57 S T C C T C C C C C C C C C C C C C C C		5.0	5.0	e des la sub-sub-sub-sub-sub-	5.0	5.0		5.0	
Vehicle Extension (s)		3.0			3.0	3.0		3.0	3.0		3.0	
Lane Grp Cap (vph)	at the second second second	703			808	691		400	406		413	
v/s Ratio Prot												
v/s Ratio Perm		0.14		and here and	c0.16	0.01		0.11	0.00		c0.14	
v/c Ratio		0.32			0.37	0.03		0.45	0.00		0.56	
Uniform Delay, d1	مەرىپىدىنى ئىزىمەر ئىزىرتەر	7.7			7.9	6.7		13.0	11.5		13.5	
Progression Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Incremental Delay, d2		0.3	ana ang sa sa sa sa sa sa sa sa sa sa sa sa sa	Selected detection	0.3	0.0	lone and stranged to	0.8	0.0		1.8	
Delay (s)		7.9			8.2	6.7		13.8	11.5		15.2	
Level of Service		A			A	A		В	В	ener de la compañía de la compañía de la compañía de la compañía de la compañía de la compañía de la compañía d	В	dan barahar sa dan di
Approach Delay (s)		7.9			8.0			13.7			15.2	
Approach LOS		A			A			В			В	
Intersection Summary												
HCM Average Control D	elay		10.8	Н	ICM Lev	el of Se	ervice		В			
HCM Volume to Capacity	y ratio		0.38									
Actuated Cycle Length (s	s)	a daga magbaran maran.	41.7	S	um of lo	ost time	(s)		8.0	بالمراجع والمراجع والمراجع		
Intersection Capacity Uti	lization		53.1%	)ا	CU Leve	el of Ser	vice		Α			
Analysis Period (min)	a ana ang ang ang ang ang ang ang ang an		15		at water recently a constant	an a su aite dia suite di ess						
c Critical Lane Group												

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Movement	EBL	EBR	NBL	NBT	SBT	SBR			
Lane Configurations	ሻ	7	ሻ	4	۴	7			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Lane Width	11	12	11	12	11	12			an dina di kana da kana di kang kang kang kang kang kang kang kang
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00			
Frt	1.00	0.85	1.00	1.00	1.00	0.85		riston den från och den skala skala för 1994 med skala skala skala skala skala skala skala skala skala skala skala skala skala skala skala skala skala	
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00			
Satd. Flow (prot)	1711	1583	1711	1863	1801	1583			
Flt Permitted	0.95	1.00	0.51	1.00	1.00	1.00			
Satd. Flow (perm)	1711	1583	918	1863	1801	1583			
Volume (vph)	45	120	85	245	230	190			
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90			
Adj. Flow (vph)	50	133	94	272	256	211			a (a a filia) a filing a filing a filing a
RTOR Reduction (vph)	0	73	0	0	0	0			
Lane Group Flow (vph)	50	60	94	272	256	211			
Turn Type		Prot	Perm			Perm			
Protected Phases	2	2		4	8	9			nelet establishte by Marender,
Permitted Phases			4			8			
Actuated Green, G (s)	30.8	30.8	23.0	23.0	23.0	23.0	an an an an an an an an an an an an an a		
Effective Green, g (s)	31.8	31.8	24.0	24.0	24.0	24.0			
Actuated g/C Ratio	0.45	0.45	0.34	0.34	0.34	0.34	and was not been to be a stand of the second standard of the second standard standard standard standard standard		
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0			
Lane Grp Cap (vph)	777	719	315	639	617	543			
v/s Ratio Prot	0.03	c0.04	terre internet internetien	c0.15	0.14	an an an an an an an an an an an an an a	intronominist notici con constantici d	adari karan karan karan dari bara di karan baran.	indani matikanakan
v/s Ratio Perm			0.10			0.13			
v/c Ratio	0.06	0.08	0.30	0.43	0.41	0.39		Columbia de la construction de la construcción de la construcción de la construcción de la construcción de la c	
Uniform Delay, d1	10.7	10.8	16.8	17.7	17.6	17.4			
Progression Factor	0.43	0.75	1.00	1.00	1.00	1.00		, 1999 (M. 1997), 1997 (M. 1997), 1997 (M. 1997), 1997 (M. 1997), 1997 (M. 1997), 1997), 1997 (M. 1997), 1997	
Incremental Delay, d2	0.1	0.2	2.4	2.1	0.5	0.5			
Delay (s)	4.8	8.3	19.2	19.8	18.1	17.9	- ( ), ( . ( ) / ( ) / ) / ) / ) / ) / ) / ) / ) / ) / .		0.11040.0000.00000.00000
Level of Service	A	A	B	B	В	В			
Approach Delay (s)	7.3			19.6	18.0	· · · · · · · · · · · · · · · · · · ·	<ul> <li>A second characteristic particular production (1).</li> </ul>		
Approach LOS	A			B	B				8.8.8.8
Intersection Summary									
HCM Average Control D	elay		16.7	Н	CM Le	vel of Service	e se se se E		
HCM Volume to Capacity	y ratio		0.23						
Actuated Cycle Length (s	3)		70.0	S	um of le	ost time (s)	14.2	6	
Intersection Capacity Uti	lization		42.1%	IC	CU Leve	el of Service	Ą		
Analysis Period (min)			15						



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		¢‡,			÷\$			÷Ĵ.		ሻ	<b>t</b> a	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	14	12	12	14	12	12	14	12	11	11	12
Total Lost time (s)		4.0			4.0			4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00			1.00		1.00	1.00	
Frt		1.00			0.93			0.99		1.00	0.98	
Flt Protected		0.98			1.00			1.00		0.95	1.00	
Satd. Flow (prot)		1948			1837			1973		1711	1759	
Flt Permitted		0.75			0.97			0.99		0.51	1.00	
Satd. Flow (perm)		1482			1792			1954		927	1759	
Volume (vph)	30	45	0	10	55	75	10	235	10	110	165	30
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	33	50	0	11	61	83	11	261	11	122	183	33
RTOR Reduction (vph)	0	0	0	0	66	0	0	2	0	0	5	0
Lane Group Flow (vph)	0	83	0	0	89	0	0	282	0	122	211	0
Turn Type	Perm			Perm			Perm			om+pt		
Protected Phases		4			8		1	2		1	6	: :::/::::::::::::::::::::::::::::::::
Permitted Phases	4			8		ooloo yaa oku Galaataa	2			6		
Actuated Green, G (s)		7.6			7.6			29.2		39.9	39.9	
Effective Green, g (s)		8.6			8.6			30.2		40.9	40.9	
Actuated g/C Ratio		0.14			0.14			0.50		0.68	0.68	
Clearance Time (s)		5.0			5.0			5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		211			255			977		715	1191	
v/s Ratio Prot						energi ginanga papakan kan		un kan basa sana at		0.02	c0.12	
v/s Ratio Perm		c0.06			0.05			c0.14		0.10		
v/c Ratio		0.39			0.35			0.29		0.17	0.18	
Uniform Delay, d1		23.5			23,4	8 8 9 8 8		8.8		3.9	3.6	
Progression Factor		1.00			1.00			1.00		1.00	1.00	
Incremental Delay, d2		1.2			0.8			0.2		0.1	0.1	
Delay (s)		24.7			24.2			9.0		4.1	3.6	
Level of Service		C			C			Α		Α	Α	
Approach Delay (s)		24.7			24.2			9.0			3.8	
Approach LOS		C			C			A			Α	
Intersection Summary												
HCM Average Control De	elay		11.2	H	CM Lev	el of Se	rvice		В			
HCM Volume to Capacity	/ ratio	aan saada dhin dh	0.28	1999-1996 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1 1997 -			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	nan da ser ser ser ser ser ser ser ser ser ser	- and a state of the second second second second second second second second second second second second second			
Actuated Cycle Length (s	<b>)</b>		60.4	S	um of la	st time	(s)		12.0			
Intersection Capacity Util	ization	ی اور این اور اور اور اور اور اور اور اور اور اور	17.0%	ĪC	CU Leve	l of Sen	/ice		A			92490900000000
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		44			¢‡>		۲	41		٣	ተኩ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frt		0.93			0.97		1.00	1.00		1.00	0.99	
Flt Protected		0.99			0.97		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1713			1760		1770	3527		1770	3501	
Flt Permitted		0.87			0.66		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1511			1187		1770	3527		1770	3501	
Volume (vph)	35	40	80	150	65	60	195	635	15	110	840	65
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	39	- 44	89	167	72	67	217	706	17	122	933	72
<b>RTOR Reduction (vph)</b>	0	29	0	0	8	0	0	1	0	0	3	Ó
Lane Group Flow (vph)	0	143	0	0	298	0	217	722	0	122	1002	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4	2. S. C. 55		8		5	2		s <b>1</b>	6	
Permitted Phases	4			8								
Actuated Green, G (s)		38.3			38.3		23.0	66.6		13.9	57.5	
Effective Green, g (s)		39.3			39.3		24.0	67.6		14.9	58.5	
Actuated g/C Ratio		0.28		58 SH 1947	0.28		0.17	0.48		0.11	0.42	
Clearance Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		424			333		303	1703		188	1463	
v/s Ratio Prot				christoppinger og 1965 og forskiller			c0.12	0.20		0.07	c0.29	
v/s Ratio Perm		0.09			c0.25							
v/c Ratio		0.34			0.90		0.72	0.42		0.65	0.68	
Uniform Delay, d1		40.0			48.4		54.8	23.5		60.0	33.2	
Progression Factor		1.00	62.66		1.49		0.93	1.03		1.00	1.00	
Incremental Delay, d2		0.5			24.0		7.5	0.7		7.5	1.3	
Delay (s)		40.5			95.8		58.5	25.0		67.5	34.6	
Level of Service		D		tatual national successions	F		E	С		E	С	
Approach Delay (s)		40.5			95.8			32.7			38.1	
Approach LOS		D			F			С			D	
Intersection Summary												
HCM Average Control D	elay		43.2	F	ICM Lev	el of Se	rvice		D			
HCM Volume to Capacit	y ratio		0.76									
Actuated Cycle Length (	s)		140.0	S	Sum of Ic	ost time	(S)		18.2			
Intersection Capacity Ut	ilization	(	58.1%		CU Leve	l of Ser	vice		C			
Analysis Period (min)	adamatication to the events of	na via zavatka in ili nime	15		aunder web freihören	and being a set of a factor	antana tata ta		ana da anti terre tarte d	dependential interest	ente altabase i concerna	nadaralizzator e offen
c Critical Lane Group												



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		44			<b>.</b>			<b>4</b> 6		ሻ	ቶሴ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frt		0.89			0.98		1.00	1.00		1.00	1.00	
Fit Protected		0.99			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1648			1790		1770	3533		1770	3532	
Fit Permitted		0.94			0.89		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1562			1611		1770	3533		1770	3532	
Volume (vph)	5	0	20	30	45	15	80	825	10	5	1050	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	6	0	22	33	50	17	89	917	11	6	1167	17
RTOR Reduction (vph)	0	20	0	0	5	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	8	0	0	95	0	89	928	0	6	1184	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		<b>1</b>	6	
Permitted Phases	4			8								
Actuated Green, G (s)		12.9			12.9		12.4	104.3		1.6	93.5	
Effective Green, g (s)		13.9			13.9		13.4	105.3		2.6	94.5	
Actuated g/C Ratio		0.10			0.10		0.10	0.75		0.02	0.68	
Clearance Time (s)		5.0	e e una contra contra e contra		5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		155			160		169	2657		33	2384	
v/s Ratio Prot							c0.05	0.26		0.00	c0.34	
v/s Ratio Perm		0.01			c0.06							
v/c Ratio		0.05			0.59		0.53	0.35		0.18	0.50	
Uniform Delay, d1		57.1	ور مسروق و محمد مسروق د اس	Manager and the state	60.3	والمعرفين والمعرفين والمراجع	60.3	5.8		67.7	11.1	
Progression Factor		1.00			0.99		0.91	1.08		1.31	1,12	
Incremental Delay, d2		0.1	and a contract of the standard	oo ahaa ahaa ahaa	5.7	ula ta tota kanabarta k	2.8	0.3		1.9	0.5	
Delay (s)		57.2			65.6		57.7	6.6		90.7	13.0	
Level of Service		E	140 M-240 M-240 M-240 M-240 M-240 M-240 M-240 M-240 M-240 M-240 M-240 M-240 M-240 M-240 M-240 M-240 M-240 M-240		E		F	A		F	В	0.1240.1420.49
Approach LOO		5/.2			65.6			11.1			13.4	
Approach LUS		E			E			В			В	
Intersection Summary												
HCM Average Control D	elay		15.2	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.51									
Actuated Cycle Length (	S)	د برید در دفته محمد	140.0	S	um of lo	st time	(s)		18.2	a substant a si si si		
Intersection Capacity Uti	lization	Ę	54.4%	IC	U Leve	I of Serv	vice		A			
Analysis Period (min)	a nganta na na na na	a the base see to see to	15		a baarda a harran	. Second a second		n waa ku cababababababababababababababababababab	alan araa ahaa ahaa ahaa ahaa ahaa ahaa ah			
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$			44		ሻ	<b>≜</b> ₽		٦	ቶሴ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frt		0.97			0.98		1.00	1.00		1.00	0.99	17
Fit Protected		0.98			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1780			1808		1770	3536		1770	3517	odano (da mitalio)
Flt Permitted		0.76			0.90		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1378			1642	nan (al Calendra an Indonesia	1770	3536		1770	3517	
Volume (vph)	45	65	30	15	65	15	65	855	5	5	1050	45
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	50	72	33	17	72	17	72	950	6	6	1167	50
RTOR Reduction (vph)	0	8	0	0	5	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	147	0	0	101	0	72	956	0	6	1216	Ó
Turn Type	Perm			Perm	******	********	Prot			Prot		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			1749 - 1742 - 1748 - 1749 - 1749 - 1749 - 1749 - 1749 - 1749 - 1749 - 1749 - 1749 - 1749 - 1749 - 1749 - 1749 -	ala la constante de la constante de la constante de la constante de la constante de la constante de la constant	ra ki farka ta fala ta Briti.			
Actuated Green, G (s)		18.1			18,1		9.5	99.1		1.6	91.2	
Effective Green, g (s)		19.1			19.1		10.5	100.1		2.6	92.2	
Actuated g/C Ratio		0.14			0.14		0.08	0.71		0.02	0.66	
Clearance Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	and the second second second second second second second second second second second second second second secon
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		188			224		133	2528		33	2316	
v/s Ratio Prot		atan kenistin. Wata dénéran					c0.04	0.27		0.00	c0.35	
v/s Ratio Perm		c0.11			0.06		regardingen beselden.	te staa factor factor oo oo	1	an a fa ti ann an ta		an na sin tana si na si
v/c Ratio		0.78			0.45		0.54	0.38		0.18	0.52	
Uniform Delay, d1		58.4			55.6		62.4	7.8		67.7	12.5	ologo and a second second second second second second second second second second second second second second s
Progression Factor		1.00			1.00		0.91	1,42		1.41	0.09	
Incremental Delay, d2		18.9			1.4		4.1	0.4		2.4	0.8	
Delay (s)		77.3			57.1		61.2	11.5		98.1	1.9	
Level of Service		E			E		Ε	В		F	Α	
Approach Delay (s)		77.3			57.1			15.0			2.4	
Approach LOS		Ε			Ε			В			А	
Intersection Summary												
HCM Average Control D	elay		14.5	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.57									
Actuated Cycle Length (	s)	united in the second	140.0	S	um of lo	st time	(s)		18.2			
Intersection Capacity Uti	lization	6	51.3%	IC	CU Leve	l of Sen	/ice		B			
Analysis Period (min)	maas autonikooseessi siis		15									
c Critical Lane Group												



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		र्स	7		4		ሻ	<b>†</b> ‡		ኻ	<b>≜</b> †	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00		1.00	0.95		1.00	0.95	
Frt		1.00	0.85		0.98		1.00	0.99		1.00	0.99	
Fit Protected		0.98	1.00		0.96		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1827	1583		1766		1770	3513		1770	3520	
Fit Permitted		0.87	1.00		0.53		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1618	1583		969		1770	3513		1770	3520	
Volume (vph)	50	80	105	35	5	5	135	870	45	10	1045	40
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	56	89	117	39	6	6	150	967	50	11	1161	44
RTOR Reduction (vph)	0	0	84	0	3	0	0	1	0	0	1	0
Lane Group Flow (vph)	0	145	33	0	48	0	150	1016	0	11	1204	0
Turn Type	Perm		Perm	Perm			Prot			Prot		
Protected Phases		4			8		5	2			6	
Permitted Phases	4		4	8								****
Actuated Green, G (s)		17.4	17.4		17.4		16.3	98.2		3.2	85.1	
Effective Green, g (s)		18.4	18.4		18.4		17.3	99.2		4.2	86.1	
Actuated g/C Ratio		0.13	0.13		0.13		0.12	0.71		0.03	0.61	
Clearance Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		213	208		127		219	2489		53	2165	
v/s Ratio Prot							c0.08	0.29		0.01	c0.34	
v/s Ratio Perm		c0.09	0.02		0.05							
v/c Ratio		0.68	0.16		0.37		0.68	0.41		0.21	0.56	
Uniform Delay, d1		58.0	53.9		55.5		58.7	8.4		66.3	15.8	
Progression Factor	130 69 65 6	1.00	1.00		1.00		1.00	1.00		1.13	0.38	
Incremental Delay, d2		8.6	0.4		1.9		8.6	0.5		1.7	0.9	
Delay (s)		66.6	54.3		57.4		67.3	8.9		76.7	6.9	
Level of Service		E	D		E		E	Α		Е	Α	
Approach Delay (s)		61.1			57.4			16.4			7.5	
Approach LOS		E			Ε			В			А	
Intersection Summary												
HCM Average Control D	elay		17.5	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.59									
Actuated Cycle Length (s	s)		140.0	S	um of lo	st time	(s)		18.2			
Intersection Capacity Uti	lization		56.8%	IC	U Leve	l of Sen	vice		В			
Analysis Period (min)			15									
c Critical Lane Group								des operations				

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EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
	4			4			4			4	
	Stop			Stop			Stop			Stop	
5	100	95	20	100	25	10	135	25	5	120	5
0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
6	111	106	22	111	28	11	150	28	6	133	6
EB 1	WB 1	NB 1	SB 1								
222	161	189	144								
6	22	11	6								
106	28	28	6								
-0.25	-0.04	-0.04	0.02								
4.8	5.0	5.0	5.2								
0.29	0.23	0.26	0.21								
698	655	659	635								
9.7	9.5	9.8	9.5						6.02.62.22		
9.7	9.5	9.8	9.5								
A	A	A	Α								
		9.7									
		А									
ization		36.6%	IC	U Leve	l of Ser	vice		Α			
		15									
	▲ <b>EBL</b> 5 0.90 6 <b>EB 1</b> 222 6 106 -0.25 4.8 0.29 698 9.7 9.7 A ization	▶       ►         EBL       EBT         ♣       Stop         5       100         0.90       0.90         6       111         EB1       WB1         222       161         6       22         106       28         -0.25       -0.04         4.8       5.0         0.29       0.23         698       655         9.7       9.5         A       A	▲       ▲       ▲         EBL       EBT       EBR         Stop       5       100       95         0.90       0.90       0.90       6         6       111       106       111       106         EB1       WB1       NB1       222       161       189       6       22       11         106       28       28       -0.25       -0.04       -0.04       4.8       5.0       5.0       0.29       0.23       0.26       698       655       659       9.7       9.8       9.7       9.5       9.8       A	▲       ▲       ▲       ▲         EBL       EBT       EBR       WBL         Stop       5       100       95       20         0.90       0.90       0.90       0.90       0.90         6       111       106       22         EB1       WB1       NB1       SB1         222       161       189       144         6       22       11       6         106       28       28       6         -0.25       -0.04       -0.04       0.02         4.8       5.0       5.0       5.2         0.29       0.23       0.26       0.21         698       655       659       635         9.7       9.5       9.8       9.5         A       A       A       A         ization       36.6%       IC       15	EBL       EBT       EBR       WBL       WBT         ♣       ♣       ♣       ♣         Stop       5       100       95       20       100         0.90       0.90       0.90       0.90       0.90       0.90         6       111       106       22       111         EB 1       WB 1       NB 1       SB 1         222       161       189       144         6       22       11       6         106       28       28       6         -0.25       -0.04       -0.04       0.02         4.8       5.0       5.0       5.2         0.29       0.23       0.26       0.21         698       655       659       635         9.7       9.5       9.8       9.5         A       A       A       A         9.7       9.5       9.8       9.5         A       A       A       A         4       A       A       A         9.7       9.5       9.8       9.5         A       A       A       A         A       A       A	EBL       EBT       EBR       WBL       WBT       WBR         Stop       Stop       5       100       95       20       100       25         0.90       0.90       0.90       0.90       0.90       0.90       0.90         6       111       106       22       111       28         EB 1       WB 1       NB 1       SB 1       200       0.90 <td>EBL       EBT       EBR       WBL       WBT       WBR       NBL         Stop       Stop      </td> <td>EBL       EBT       EBR       WBL       WBT       WBR       NBL       NBT</td> <td>EBL       EBT       EBR       WBL       WBT       WBR       NBL       NBT       NBR         4       4       4       4       4       4       4       4       4       4       5       100       95       20       100       25       10       135       25       0.90</td> <td><math display="block">\begin{array}{c c c c c c c c c c c c c c c c c c c </math></td> <td>EBL       EBT       EBR       WBL       WBT       WBR       NBL       NBT       NBR       SBL       SBT         4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       5       100       95       20       100       25       10       135       25       5       120       0.91       0.91</td>	EBL       EBT       EBR       WBL       WBT       WBR       NBL         Stop       Stop	EBL       EBT       EBR       WBL       WBT       WBR       NBL       NBT	EBL       EBT       EBR       WBL       WBT       WBR       NBL       NBT       NBR         4       4       4       4       4       4       4       4       4       4       5       100       95       20       100       25       10       135       25       0.90	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	EBL       EBT       EBR       WBL       WBT       WBR       NBL       NBT       NBR       SBL       SBT         4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       5       100       95       20       100       25       10       135       25       5       120       0.91       0.91

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		÷			4			¢ <b>1</b> >			44	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	55	55	55	130	5	60	160	40	10	195	30
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	61	61	61	144	6	67	178	44	11	217	33
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	128	211	289	261								
Volume Left (vph)	6	61	67	11								
Volume Right (vph)	61	6	44	33								
Hadj (s)	-0.24	0.08	-0.01	-0.03								
Departure Headway (s)	5.5	5.7	5.3	5.3								
Degree Utilization, x	0.20	0.33	0.42	0.39								
Capacity (veh/h)	566	576	630	630								
Control Delay (s)	9.9	11.5	12.2	11.6								
Approach Delay (s)	9.9	11.5	12.2	11.6								
Approach LOS	A	В	В	В								
Intersection Summary												
Delay			11.5									
HCM Level of Service			В									
Intersection Capacity Uti	lization		53.7%	1	CU Leve	el of Sen	vice		Α			
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			¢1,			÷Ĵ.			£.	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	20	110	0	10	15	105	5	55	10	135	20	15
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	22	122	0	11	17	117	6	61	11	150	22	17
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	144	144	78	189				*******				
Volume Left (vph)	22	11	6	150								
Volume Right (vph)	0	117	11	17	101 101 01 01 01 01 01 01 01 01 01 01 01							
Hadj (s)	0.06	-0.44	-0.04	0.14								
Departure Headway (s)	4.8	4.3	4.8	4.8								
Degree Utilization, x	0.19	0.17	0.10	0.25								
Capacity (veh/h)	698	772	693	699	· · · · · · · · · · · · · · · · · · ·							an an an an an an an an an an an an an a
Control Delay (s)	9.0	8.2	8,4	9.5								
Approach Delay (s)	9.0	8.2	8.4	9.5								
Approach LOS	A	A	A	Α								
Intersection Summary												
Delay			8.9						n e a se			
HCM Level of Service			А									
Intersection Capacity Uti	lization		34.3%	IC IC	CU Leve	el of Ser	vice		Α			
Analysis Period (min)			15									
										dan da katala ka	idiadena prop	AN AND AND AN AND A

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		÷			<b>↓</b>			44			44	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	5	5	15	80	5	35	20	280	30	15	335	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	6	17	89	6	39	22	311	- 33	17	372	6
Pedestrians	a da anticipada da anticipada a					hainheitheathasan	nin kunden kale	sister and the second second	de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la			sinan kananan
Lane widin (II)												
Percent Blockage												
Right turn flare (veh)						1914 (1914) (1914) 1914 - State State (1915)						
Median type		None			None		ted visie bier juzi Sen visie statu					
Median storage veh)	andyni (der (193) and						doffectoring each	40.400-0100900		hanges sproksis		9444449944037
Upstream signal (ft)												
pX, platoon unblocked						2010-1-0300-000-0		1		19-11-19-19-19-19-19-19-19-19-19-19-19-1		
vC, conflicting volume	822	797	375	800	783	328	378			344		
vC1, stage 1 conf vol	al alterna talah yin deritera			a a filia da la secta a defini de la sec	Straige transforment							
vC2, stage 2 conf vol												
vCu, unblocked vol	822	797	375	800	783	328	378	i i i i i i i i i i i i i i i i i i i		344	van karistaan s	anakini kan
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4,1			4,1		
10, 2 stage (s)	2 6	λQ	- 22	οc	10	<b>^ ^</b>	20	den i den gi den de		<u></u>		
n (o) n0 queue free %	0.0 QR	4.0 Q2	0.0 QR	0.0 69	4.0 QR	0.0 Q5	2.2 QR			<i>د.د</i> ۵۵		
cM capacity (veh/h)	266	309	671	284	315	714	1181			1215		
Direction Lone #	ED 4	1MD 1		00 1								
Volume Total	201	100	1 OKI	204								
Volume Left	20 6	20	20									
Volume Bight	17	39	33	Ŕ			s sing da ka					
cSH	436	347	1181	1215			1997 (499 1997 (1997) 1997 (499 1997 (1997 (1997 (1997 (1997 (1997 (1997 (1997 (1997 (1997 (1997 (1997 (1997 (1997 (1997 (1997 (1997		Sector (1997) (30.7		1993) AN AN AN AN AN AN AN AN AN AN AN AN AN	999990899999 99999
Volume to Capacity	0.06	0.38	0.02	0.01								
Queue Length 95th (ft)	5	44	1	1								
Control Delay (s)	13.8	21.7	0.7	0.5								
Lane LOS	В	С	А	Α								
Approach Delay (s)	13.8	21.7	0.7	0.5								
Approach LOS	В	С										
Intersection Summary												
Average Delay			4.0									
Intersection Capacity Uti	lization		44.3%	I	CU Leve	l of Serv	<i>i</i> ice		Α			
Analysis Period (min)			15		مەربىيە مەربىيە بىرىيە							

	1	×.	†	1	1	Ļ		
Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations	Y		Ъ			֔		
Sign Control	Stop		Free			Free		
Grade	0%		0%			0%		
Volume (veh/h)	70	60	255	35	50	350		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90		
Hourly flow rate (vph)	78	67	283	39	56	389		
Pedestrians								
Lane Width (ft)								
Walking Speed (ft/s)								
Percent Blockage								
Right turn flare (veh)	or and a consider a constant of		charts of the transfer of a start of the	an an an an an an an an an an an an an a			that faith at a faith of a faith and a star a star a star at the star at the star	
Median type	None							
Median storage veh)			en en en <u>en e</u> n en en en en en en en en en en en en en			والمراجع والمراجع والمراجع والمراجع		
Upstream signal (ft)			611					
pX, platoon unblocked	0.91	0.91			0.91			
vC, conflicting volume	803	303			322			
vC1, stage 1 cont vol	dele si dele delettere			Al-Data State Constants	a di da cara da cara da cara da cara da cara da cara da cara da cara da cara da cara da cara da cara da cara d	land de Care es Sacité eta Egy activ		
vC2, stage 2 cont vol	704	00 <b>-</b>			<u> </u>			
	/84	235		da da kata	256			
tC, single (s)	6.4	6.2			4.1			
10, 2 Slage (S) +E /~		~ ~ ~		niannial an 199				Mashidalariki inisi belerini pisebytety
n (s) n0 queue free %	0.0 75	0,0 01			2.2 05			
old capacity (yeh/h)	75 215	91 700			90			
	515	700			1130			
Direction, Lane #	WB 1	NB 1	<u>SB 1</u>					
Volume I otal	144	322	444					
	/8 60	0	56					ing indigung an agus anns an an an an an an an an an an an an an
	6/ 407	1700	1100					
Volume to Conneitu	421	1/00	1193					
Oucline to Capacity	0.34	0.19	0.05					
Control Dolou (a)	37 177	U A A	4 4 2			inin del altres		
Lane LOS	11.1 ^	<b>U.U</b>	1.9 ^					
Annroach Delay (c)	177	0.0	۳ ۲ <b>۲</b> ۲					
Approach LOS	 C	<b>v</b> .v	1.0					
Intersection Summary								
Average Delav			3.5					
Intersection Capacity UI	lilization		54.3%	) IC	ULeve	l of Servir	e A	
Analysis Period (min)		ugegogen handde filfario	15					anan Senan ana bida da bida da da se

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Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations	¥		<b>1</b>			ਜੀ		
Sign Control	Stop		Free			Free		
Grade	0%		0%			0%		
Volume (veh/h)	10	30	320	15	10	320		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90		
Hourly flow rate (vph)	11	33	356	17	11	356		
Pedestrians								
Lane Width (ft)								
Walking Speed (ft/s)						ورواد المتعادية المتعادية المتعادية		
Percent Blockage								
Right turn flare (veh)	enni da britani da da da		un de la company and an an an an an an an an an an an an an	n stern da triancia da se				
Median type	None							
Median storage veh)		lantalan selen asera	ing to substant and the	wieren anderen anderen				<i>Calmentine</i> (
Upstream signal (ft)	~ ~ ·					667		
pX, platoon unblocked	0.94				u de la companya de la companya de la companya de la companya de la companya de la companya de la companya de La companya de la companya de la companya de la companya de la companya de la companya de la companya de la comp	e konstanten er er er er er er er er er er er er er		en even and en
vC, conflicting volume	/42	364			3/2			1000000
VCT, stage T cont vol		Secondaria		ner and an an an an an an an an an an an an an	abiwi egyatak w			
VGZ, Stage Z com Vol	700	004			070			
tC cincle (c)	/20 6 A	304			3/2			Selekterige
tC, Single (S) $tC = 2$ stage (c)	0.4	0.2			4,1			
10, 2 31aye (3) 15 (e)	2 C	22			<u></u>			
n) queue free %	97	9,5 95	andre ander ander		<i>م.ح</i> ۵۵			
cM canacity (veh/h)	366	681			1186			Bilaia
Direction Lone H		ND 4	00.4		1100			
Volume Total	14	370	267					
Volume Left		012	11					
Volume Bight	22	17	'n					
cSH	560	1700	1186					
Volume to Capacity	0.08	0.22	0.01					
Queue Lenath 95th (ft)	6	0						19499493
Control Delay (s)	12.0	0.0	0.3					
Lane LOS	B		A	ersen tenne (d. 1999) T		->>>00500000000000000000000000000000000		59388333
Approach Delay (s)	12.0	0.0	0.3					
Approach LOS	В		er neve belan a staffet (* 1643)	an an Star Star		ra politico ponte de la tradición de la casa de la casa de la casa de la casa de la casa de la casa de la casa		esterriti
Intersection Summary								
Average Delay			0.8			,		
Intersection Capacity Ut	tilization		34.9%	IC	U Leve	l of Servic	e A	
Analysis Period (min)			15			<ol> <li>Construction of Construction Construction</li> </ol>	an an an an an an an an an an an an an a	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1



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Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Ŵ			ধ	<u></u> Ть	
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	10	5	65	335	305	25
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	11	6	72	372	339	28
Pedestrians		en el contractor de la contractor de la contractor de la contractor de la contractor de la contractor de la con			n han start fan her samt fan str	
Lane Width (ft)						
Walking Speed (ft/s)	unsaya gararigangi	uhanesi deshi gudisi	an an an an an an an an an an an an an a	agata daga agataga	n daga tengga kabaratan	
Percent Blockage						
Right turn flare (ven)			a an an an an an an an an an an an an an			
Median type	none					
Upetream cignal (ft)				1000	050	
nY nlatoon unblocked				1003	303	
vC conflicting volume	969	252	367			
vC1_stage 1 conf vol			001	ang dan pang paga		
vC2. stage 2 conf vol						
vCu, unblocked vol	869	353	367	oeriovitsi kosposits		
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)			ana in an an an an an an an an an an an an an		99999999999999999999999999999999999999	
tF (s)	3.5	3,3	2.2	i gili yi yi yazi i ya May ili ya kata a		
p0 queue free %	96	99	94			
cM capacity (veh/h)	303	691	1192			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	17	444	367			
Volume Left	11	72	0			
Volume Right	6	0	28			
cSH	372	1192	1700		u kana sing sang sang sang sang sang sang sang sa	
Volume to Capacity	0.04	0.06	0.22			
Queue Length 95th (ft)	4	5 	0		kanaka kata kata kata kata kata kata kat	
Long LOS	15.1	T.9 ^	0.0	21.29.39.39	0.634361454.5	
Lane LUS Approach Delou (a)	ں 161	A 1 0	<u>^</u>			
Approach LOS	ю. С	1.9	U.U			
Intercection Summary	~					
Average Delay			1.0			
Intersection Consolity LIN	lization	1	।.उ इ <u>०</u> :10/	pr.		l of Convice
Analysis Period (min)	ιιζατιυΠ		15 15	16	o revei	



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	4		۲	4			<del>4</del> )			ф.	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	12	11	11	14	14	14	11	11	11
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.98		1.00	0.99			0.98			0.97	
Flt Protected	0.95	1.00		0.95	1.00			1.00			0.99	
Satd. Flow (prot)	1711	1828		1770	1787			1939			1729	
Fit Permitted	0.28	1.00		0.51	1.00			0.95			0.91	
Satd. Flow (perm)	499	1828		949	1787			1851			1595	
Volume (vph)	40	250	35	30	460	25	25	205	40	45	155	60
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	44	278	39	33	511	28	28	228	44	50	172	67
RTOR Reduction (vph)	0	6	0	0	2	0	0	5	0	0	10	0
Lane Group Flow (vph)	44	311	0	33	537	0	0	295	0	0	279	0
Turn Type	Perm	4 (S. (S. (S.	9 G S S	Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2		ego ga jago deg Sa contras del	6			8			4		
Actuated Green, G (s)	19.5	19.5		19.5	19.5			15.0			15.0	
Effective Green, g (s)	20.5	20.5		20.5	20.5			16.0			16.0	
Actuated g/C Ratio	0.42	0.42		0.42	0.42			0.33			0.33	
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	208	763		396	746			603			520	
v/s Ratio Prot		0.17		1999-999 (June 1999) (June 1999)	c0.30	5 · · · · · · · · · · · · · · · · · · ·				ant de Catalant e antes	*****	en for eine en forsterele over
v/s Ratio Perm	0.09			0.03				0.16			c0.17	
v/c Ratio	0.21	0.41		0.08	0.72			0.49			0.54	
Uniform Delay, d1	9.1	10.0		8.6	11.9			13.3	a a a a		13.5	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.5	0.4		0.1	3.3			0.6			1.1	
Delay (s)	9.6	10.4		8.7	15.2			13.9			14.6	
Level of Service	Α	В		A	B			В			B	
Approach Delay (s)		10.3			14.9			13.9			14.6	
Approach LOS		В			В		i de la composición de la composición de la composición de la composición de la composición de la composición d	B			В	
Intersection Summary												
HCM Average Control D	elay		13.5	H	ICM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.57		a a construction de la seguidad de		e le construer de cântânțe	esten siter sett		a san ana ang dipalaha	an an the province of the fact has	a ann an an Arthur
Actuated Cycle Length (	s)		49.1	S	um of lo	ost time i	(S)		8.0			
Intersection Capacity Uti	lization	•••••••••••••••••••••••••••••••••••••••	63.6%	IC	CU Leve	l of Serv	/ice		В			en en altre production d'Altre d'Altre d'Altre d'Altre d'Altre d'Altre d'Altre d'Altre d'Altre d'Altre d'Altre Altre de la constante de la constante d'Altre de la constante de la constante d'Altre de la constante d'Altre d
Analysis Period (min)			15	lagi dagilgi d								


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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	*			t,		٦	<b>1</b> +				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	10	10	16	16	16	10	11	11	12	12	12
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0				
Lane Util. Factor	1.00	1.00		en beerte ee febreature	1.00		1.00	1.00		1999 (an triad cher Algea		ane and a fail
Frt	1.00	1.00			0.98		1.00	0.96				
Fit Protected	0.95	1.00	ata (postanta a ana a		1.00	9,843,443,499,493,49	0.95	1.00	en de la deservación de la deservación de la deservación de la deservación de la deservación de la deservación La deservación de la deservación de la deservación de la deservación de la deservación de la deservación de la d	, and a state of the state of the state of the state of the state of the state of the state of the state of the	de en a nej elitiketij	50059999999999999999999 9
Satd. Flow (prot)	1888	1739			1871		1652	1735				
Flt Permitted	0.33	1.00	ini Afrika Aryan yili ka	interest per la presenta de la competencia de la competencia de la competencia de la competencia de la competen La competencia de la competencia de la competencia de la competencia de la competencia de la competencia de la c	1.00	e fonde te de la ferre de la ferre de la ferre de la ferre de la ferre de la ferre de la ferre de la ferre de l	0.95	1.00	ana ang karang karang karang karang karang karang karang karang karang karang karang karang karang karang kara Karang karang			
Satd. Flow (perm)	649	1739			1871		1652	1735				
Volume (vph)	15	270	0	0	475	60	100	170	55	0	0	0
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	300	0	0	528	67	111	189	61	0	0	0
RTOR Reduction (vph)	0	0	0	0	5	0	0	12	Ô	Ō	ō	ō
Lane Group Flow (vph)	17	300	0	0	590	0	111	238	0	0	0	0
Parking (#/hr)				0	0	0					- 	
Turn Type	Perm						Perm					
Protected Phases		2			6			8				
Permitted Phases	2						8				Aroo	n teorenograpisean.
Actuated Green, G (s)	25.3	25.3			25.3		10.4	10.4				
Effective Green, g (s)	26.3	26.3			26.3		11.4	11.4	an geographic characteric			ana na ana ana ana ang sa
Actuated g/C Ratio	0.55	0.55			0.55		0.24	0.24				
Clearance Time (s)	5.0	5.0			5.0		5.0	5.0				
Vehicle Extension (s)	3.0	3.0		ta de caras Antes as se	3.0		3.0	3.0		isi dan kalendar. Serena dan kalendar		
Lane Grp Cap (vph)	355	951			1023		392	411	••••••••••••••••••••••••••••			****
v/s Ratio Prot		0.17			c0.32			c0.14				
v/s Ratio Perm	0.03						0.07			e te travéra en el mitra el travéra de la mitra de la		
v/c Ratio	0.05	0.32			0.58		0.28	0.58				
Uniform Delay, d1	5.1	6.0			7.2		15.0	16.2				anger proposition and a state
Progression Factor	1.00	1.00			1.00		1.00	1.00				
Incremental Delay, d2	0.1	0.2			0.8		0.4	2.0				an tanàn amin'ny fi
Delay (s)	5.1	6.2			8.0		15.4	18.2				
Level of Service	Α	А			А		В	В				namesta fostande
Approach Delay (s)		6.1			8.0		On coloris an	17.3			0.0	
Approach LOS		А			А			В		1997 (1997) - Angeler (1997) 1997 - Angeler (1997)	Α	
Intersection Summary												
HCM Average Control D	elay		10.2	H	CM Lev	el of Sei	vice		B			
HCM Volume to Capacit	y ratio		0.54									
Actuated Cycle Length (s	s)		48.1	Si	um of lo	st time (	s)		8.0		u -unite -unitedation	<
Intersection Capacity Uti	lization	4	17.6%	IC	U Level	of Serv	ice		A			
Analysis Period (min)			15					a a cara antes estas de la	an an an an an an Arthodola			a alama pertantata
c Critical Lane Group												



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	۲	đ,		۲	¥	7		4		ሻ	*	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	11	11	12	12	12	10	10	12
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0		4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00
Frt	1.00	0.99		1.00	1.00	0.85		0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	New 2007 1020 1220 1220	0.99		0.95	1.00	1.00
Satd, Flow (prot)	1540	1668		1711	1801	1531		1626		1652	1739	1583
Flt Permitted	0.47	1.00		0.64	1.00	1.00	ngan, ang ng mg na ang ng	0.90	an a contra constanta	0.73	1.00	1.00
Satd. Flow (perm)	765	1668		1161	1801	1531		1480		1265	1739	1583
Volume (vph)	30	155	5	45	310	135	10	25	5	70	190	80
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	33	172	6	50	344	150		28	6	78	211	89
RTOR Reduction (vph)	0	1	0	0	0	84	0	5	Ō	Ō	0	60
Lane Group Flow (vph)	33	177	0	50	344	66	0	40	0	78	211	29
Parking (#/hr)	0	0	0				0	0	Ō			
Turn Type	Perm			Perm		Perm	Perm			om+pt		Perm
Protected Phases		2			6			8		7	4	
Permitted Phases	2	999 (		6	699685555555555555555555555555555555555		8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8		01999104106924	4		4
Actuated Green, G (s)	23.2	23.2		24.5	24.5	24.5		10.1		17.9	17.9	17.9
Effective Green, g (s)	24.2	24.2		25.5	25.5	25.5	a dadin digilik antiban dirija	11.1	de la Bren e de classe com	18.9	18.9	18.9
Actuated g/C Ratio	0.42	0.42		0.44	0.44	0.44		0.19		0.33	0.33	0.33
Clearance Time (s)	5.0	5.0	20.000000000000000000000000000000000000	5.0	5.0	5.0		5.0	na večesna se ekilent	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0		3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	321	701		514	797	678		285		441	571	519
v/s Ratio Prot		0.11			c0.19					0.01	c0 12	
v/s Ratio Perm	0.04			0.04	an distriction Theory of	0.04		0.03	in den san de la companye de la companye de la companye de la companye de la companye de la companye de la comp La companye de la companye de la companye de la companye de la companye de la companye de la companye de la comp	0.05		0.02
v/c Ratio	0.10	0.25		0.10	0.43	0.10		0.14		0.18	0.37	0.06
Uniform Delay, d1	10.1	10.8		9.3	11.1	9.3		19.3	te dan yang kang kang kang kang kang kang kang k	13.9	14.8	13.2
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00
Incremental Delay, d2	0.1	0.2		0.1	0.4	0.1	1992/2002/2002/2002/2007	0.2	an bearing a faile a f	0.2	0.4	0.0
Delay (s)	10.3	11.0		9.4	11.4	9.4		19.5		14.0	15.2	13.3
Level of Service	В	В		Α	В	Α		В	in an an an an an an an an an an an an an	B	В	В
Approach Delay (s)		10.9			10.7			19.5			14.5	
Approach LOS	224000-00000000000000000000000000000000	В			В		, , , , , , , , , , , , , , , , , , ,	В	nja posto na posto na plana	alan yang kuloka dan da	В	
Intersection Summary												
HCM Average Control D	elav		12.3	Н	CM Lev	el of Se	ervice		В			
HCM Volume to Capacit	v rátio		0.36				88.88.400.84					
Actuated Cycle Length (s	s)	0840-027-0270-0270-0270-02	57.6	S	um of lo	st time	(s)		8.0			
Intersection Capacity Uti	lization	2	13.5%	IC	CU Leve	l of Ser	vice		A			
Analysis Period (min)	en en en en en en en en en en en en en e	aanta ahiintiintii	15	na an an an an an Antara an Antar An Anna an Anna an Anna an Anna an Anna an Anna an Anna an Anna an Anna an An			ann an tha tha tha tha tha tha tha tha tha tha	www.eerooco.com No		saannaa salimpin (a)		
c Critical Lane Group												



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	<u>,</u>	<del>4</del>	7	ሻ	4			র্ব	7	ሻ	<b>ĵ</b> .	-
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	12	12	16	12	12	12
Total Lost time (s)		4.0	4.0	4.0	4.0			4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	
Frt		1.00	0.85	1.00	0.97			1.00	0.85	1.00	0.98	
Flt Protected		1.00	1.00	0.95	1.00			0.98	1.00	0.95	1.00	
Satd. Flow (prot)		1735	1478	1486	1517			1834	1794	1593	1833	
Flt Permitted		0.98	1.00	0.65	1.00			0.89	1.00	0.63	1.00	
Satd. Flow (perm)		1709	1478	1024	1517			1658	1794	1049	1833	
Volume (vph)	5	140	45	25	275	70	60	130	20	25	45	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	6	156	50	28	306	78	67	144	22	28	50	6
RTOR Reduction (vph)	0	0	31	0	12	0	0	0	10	0	4	0
Lane Group Flow (vph)	0	162	19	28	372	0	0	211	12	28	52	0
Parking (#/hr)				0	0	0	0			0		
Turn Type	Perm		Perm	Perm			Perm		Perm	Perm		
Protected Phases		2	ni Admostrat Manifi Admostrati		6			8			4	
Permitted Phases	2		2	6		ang an estimotion of the source of	8		8	4	n an an thair a suith an an an an an an an an an an an an an	u in State and a
Actuated Green, G (s)		15.3	15.3	15.3	15.3			12.2	12.2	12.2	12.2	
Effective Green, g (s)		16.3	16.3	16.3	16.3			13.2	13.2	13.2	13.2	
Actuated g/C Ratio		0.38	0.38	0.38	0.38			0.31	0.31	0.31	0,31	
Clearance Time (s)		5.0	5.0	5.0	5.0			5.0	5.0	5.0	5.0	na manja a Tabuti
Vehicle Extension (s)		3.0	3.0	3.0	3.0			3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		655	567	393	582	****		515	557	326	569	
v/s Ratio Prot					c0.25						0.03	
v/s Ratio Perm		0.09	0.01	0.03		terostatettosta (1894) u	1999-000-000-000-000-000-000-000-000-000	c0.13	0.01	0.03		0440306666666699
v/c Ratio		0.25	0.03	0.07	0.64			0.41	0.02	0.09	0.09	
Uniform Delay, d1		8.9	8.2	8.3	10.7			11.6	10.2	10.4	10.4	
Progression Factor		1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.2	0.0	0.1	2.3			0.5	0.0	0.1	0.1	ويتر ويتر ويتر ويترون ويترو
Delay (s)		9.1	8.2	8.4	13.0			12.1	10.2	10.5	10.5	
Level of Service		Α	А	Α	В			В	В	В	В	
Approach Delay (s)		8.9			12.7			11.9			10.5	
Approach LOS		Α			В		*****	В	and a failed and a failed a		В	in inn de service
Intersection Summary												
HCM Average Control D	elay		11.5	H	ICM Lev	el of Se	rvice		В			
HCM Volume to Capacity	y ratio		0.46		19. G (S)							
Actuated Cycle Length (s	3)		42.5	S	um of lo	ost time	(s)		8.0	u - un sus construito		
Intersection Capacity Uti	lization		47.6%	1(	CU Leve	l of Sen	/ice		Α			
Analysis Period (min)			15									an ann an tha tha th
c Critical Lane Group												

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Movement	EBL2	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR2	SBL	SBT	SBR
Lane Configurations		44			<del>(</del> ‡+			¢ <b>‡</b> ,			¢.	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	14	14	14	12	12	12	16	16	16
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.98			0.98			1.00			1.00	kan di saka saka sa Kangata ngita saka
Flt Protected		0.99			0.99			1.00			1.00	
Satd. Flow (prot)		1813			1923			1852			2097	
Flt Permitted		0.95			0.96			0.98			0.99	
Satd. Flow (perm)		1740			1866			1816			2075	
Volume (vph)	10	30	5	5	20	5	20	280	5	5	140	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	11	33	6	6	22	6	22	311	6	6	156	6
RTOR Reduction (vph)	0	5	0	0	0	0	0	1	0	0	2	0
Lane Group Flow (vph)	0	45	0	0	34	0	0	338	0	0	166	0
Turn Type	Perm			Perm			Perm			Perm		0.0000000
Protected Phases		3			3			2			6	
Permitted Phases	3			3			2	2		6	6	
Actuated Green, G (s)		15.0			15.0			30.0			30.0	
Effective Green, g (s)		16.0			16.0			31.0			31.0	
Actuated g/C Ratio		0.20			0.20			0.39			0.39	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Lane Grp Cap (vph)		348			373			704			804	
v/s Ratio Prot												
v/s Ratio Perm		c0.03			0.02			c0.19			0.08	
v/c Ratio		0.13			0.09			0.48			0.21	
Uniform Delay, d1		26.3			26.1			18.4			16.3	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.8			0.5			2.3			0.6	
Delay (s)		27.1			26.6			20.8			16.9	
Level of Service		С			С			С			В	
Approach Delay (s)		27.1			26.6			20.8			16.9	
Approach LOS		С			С			С			В	
Intersection Summary												
HCM Average Control D	elay		22.5	Н	CM Lev	el of Se	rvice		С			
HCM Volume to Capacit	y ratio		0.39									
Actuated Cycle Length (	s)		80.0	S	um of lo	ost time	(s)		12.0			
Intersection Capacity Uti	lization		51.5%	IC	CU Leve	l of Serv	/ice		Α			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	SWL2	SWL	SWR	SWR2
Lane Configurations	ሻ	¥7		
Ideal Flow (vphpl)	1900	1900	1900	1900
Lane Width	14	14	14	14
Total Lost time (s)	4.0	4.0		
Lane Util. Factor	1.00	1.00		
Frt	1.00	0.97		
Fit Protected	0.95	0.96	1	
Satd. Flow (prot)	1888	1853		
Flt Permitted	0.95	0.96		
Satd. Flow (perm)	1888	1853		
Volume (vph)	5	160	35	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90
Adj. Flow (vph)	6	178	39	6
<b>RTOR Reduction (vph)</b>	0	1	0	0
Lane Group Flow (vph)	6	222	0	0
Turn Type	Split			
Protected Phases	4	4		
Permitted Phases				
Actuated Green, G (s)	20.0	20.0		
Effective Green, g (s)	21.0	21.0		
Actuated g/C Ratio	0.26	0.26		
Clearance Time (s)	5.0	5.0		
Lane Grp Cap (vph)	496	486		
v/s Ratio Prot	0.00	c0.12		
v/s Ratio Perm				
v/c Ratio	0.01	0.46		
Uniform Delay, d1	21.8	24.7	n a na an taon an an an an an an an an an an an an an	a sheka na wasayi da
Progression Factor	1.00	1.00		
Incremental Delay, d2	0.0	3.1	; - ; ; - ; - ; - ; , , , ,	
Delay (s)	21.9	27.8		
Level of Service	С	С	· · · · · · · · · · · · · · · · · · ·	
Approach Delay (s)		27.6		
Approach LOS		С		
Intersection Summary				

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		t) L	7		র্ন	7	ሻ	<u></u>		٣	<u></u> ቀር <sub>ተ</sub>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	0.99	
Flt Protected		0.97	1.00		0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1799	1583		1796	1583	1770	3536		1770	3492	ala a ser e cara cara cara cara cara cara cara
Fit Permitted		0.78	1.00		0.79	1.00	0.33	1.00		0.32	1.00	
Satd. Flow (perm)		1445	1583		1477	1583	618	3536		603	3492	
Volume (vph)	60	25	95	15	5	25	75	785	5	40	515	50
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	67	28	106	17	6	28	83	872	6	44	572	56
RTOR Reduction (vph)	0	0	87	0	0	23	0	1	0	0	10	0
Lane Group Flow (vph)	0	95	19	0	23	5	83	877	0	44	618	0
Turn Type	Perm		Perm	Perm		Perm	pm+pt			Perm	******	
Protected Phases		4			8		5	2			6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)		8.9	8.9		8.9	8.9	33.5	33.5		24.9	24.9	
Effective Green, g (s)		8.9	8.9		8.9	8.9	33.5	33.5		24.9	24.9	
Actuated g/C Ratio		0.18	0.18		0.18	0.18	0.66	0.66		0.49	0.49	
Clearance Time (s)		4.0	4.0		4.0	4.0	3.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		255	280		261	280	516	2350		298	1725	
v/s Ratio Prot							0.01	c0.25			0.18	
v/s Ratio Perm		c0.07	0.01		0.02	0.00	0.09			0.07		
v/c Ratio		0.37	0.07		0.09	0.02	0.16	0.37		0.15	0.36	
Uniform Delay, d1		18.3	17.3		17.4	17.1	3.3	3.8		7.0	7.8	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.9	0.1		0.1	0.0	0.1	0.1		0.2	0.1	
Delay (s)		19.2	17.4		17.5	17.2	3.5	3.9		7.2	8.0	
Level of Service		В	В		В	В	A	A		А	А	
Approach Delay (s)		18.2			17.3			3.8			7.9	
Approach LOS		В			В			A			А	
Intersection Summary												
HCM Average Control D	elay		7.2	Н	CM Lev	el of Se	ervice		Α			
HCM Volume to Capacit	y ratio		0.37									
Actuated Cycle Length (:	s)		50.4	S	um of lo	ost time	(s)		8.0			
Intersection Capacity Uti	lization		49.8%	IC	CU Leve	of Ser	vice		Α			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		र्भ	7	٣	ĥ		٣	ተኩ		ኻ	<u>ት</u> ኩ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	10	12	16	12	10	10	10	10	10	10
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	0.95	· •	1.00	0.95	
Frt		1.00	0.85	1.00	0.90		1.00	1.00		1.00	0.99	
Flt Protected		0.96	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1728	1478	1770	1906		1652	3296		1652	3261	
Flt Permitted		0.75	1.00	0.71	1.00		0.39	1.00		0.95	1.00	
Satd. Flow (perm)		1349	1478	1329	1906		674	3296		1652	3261	
Volume (vph)	50	10	240	15	5	10	85	980	15	10	545	50
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	56	11	267	17	6	11	94	1089	17	11	606	56
RTOR Reduction (vph)	0	0	237	0	10	0	0	1	0	0	8	0
Lane Group Flow (vph)	0	67	30	17	7	0	94	1105	0	11	654	0
Turn Type	Perm		Perm	Perm			om+pt			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2					
Actuated Green, G (s)		7.8	7.8	7.8	7.8		45.9	45.9		0.9	28.3	
Effective Green, g (s)		7.8	7.8	7.8	7.8		46.9	46.9		0.9	29.3	
Actuated g/C Ratio		0.11	0.11	0.11	0.11		0.67	0.67		0.01	0.42	
Clearance Time (s)		4.0	4.0	4.0	4.0		5.0	5.0		4.0	5.0	
Vehicle Extension (s)		1.0	1.0	1.0	1.0		1.5	1.0		1.0	1.0	
Lane Grp Cap (vph)		150	164	148	212		709	2205		21	1363	
v/s Ratio Prot					0.00		0.03	c0.34		0.01	c0.20	
v/s Ratio Perm		c0.05	0.02	0.01			0.05				uinen in in Martinen	
v/c Ratio		0.45	0.18	0.11	0.03		0.13	0.50		0.52	0.48	
Uniform Delay, d1		29.1	28.3	28.0	27.8		4.8	5.8		34.4	14.9	
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.8	0.2	0.1	0.0		0.4	0.8		10.4	1.2	
Delay (s)		29.9	28.4	28.2	27.8		5.2	6.6		44.8	16.1	
Level of Service		С	С	C	C		A	Α		D	В	
Approach Delay (s)		28.7	an an an an an an an an an an an an an a		28.0			6.5			16.5	
Approach LOS		C	an an sa sa		C		8.9.8.9	A			В	
Intersection Summary												
HCM Average Control D	elay		13.1	H	CM Lev	el of Se	rvice		B			
HCM Volume to Capacit	y ratio		0.48									
Actuated Cycle Length (:	s)		70.1	S	um of Ic	ost time i	(s)		12.0			
Intersection Capacity Uti	lization		50.9%	IC	CU Leve	l of Serv	vice		А			
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		nun marat na marata na span p		ኻ	र्स			<b>∱</b> î₀	CONTRACTOR AND AND AND AND AND AND AND AND AND AND		<b>ት</b> ኬ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	14	12	12	12	12	12	12
Total Lost time (s)				4.0	4.0			4.0			4.0	
Lane Util. Factor				0.95	0.95			0.95			0.95	
Frt				1.00	1.00			1.00			1.00	
Flt Protected				0.95	0.96			1.00			1.00	
Satd. Flow (prot)				1681	1691			3539			3539	
Flt Permitted				0.95	0.96			1.00			1.00	
Satd. Flow (perm)				1681	1691			3539			3539	
Volume (vph)	0	0	0	1250	50	0	0	655	0	0	870	0
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	1389	56	0	0	728	0	0	967	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	703	742	0	0	728	0	0	967	0
Turn Type				Perm			Perm	States and				
Protected Phases					8			2			6	
Permitted Phases				8			2					
Actuated Green, G (s)				28.2	28.2			23.2			23.2	
Effective Green, g (s)				30.2	30.2			25.2			25.2	
Actuated g/C Ratio		time to the second		0.48	0.48			0.40			0.40	
Clearance Time (s)				6.0	6.0			6.0			6.0	
Vehicle Extension (s)				3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)				801	805			1407			1407	
v/s Ratio Prot								0.21			c0.27	
v/s Ratio Perm				0.42	0.44							
v/c Ratio		ور و و و و و و و و و و و و و و و و و و		0.88	0.92			0.52			0.69	
Uniform Delay, d1				14.9	15.5			14.5			15.8	
Progression Factor	Novimientos se se se	ke konserver ode opposition		1.00	1.00	todo v zaslo učena koncelar		1.00			1.00	
Incremental Delay, d2				10.7	15.8			0.3			1.4	a
Delay (s)				25.6	31.3			14.8	leinin industriation		17.2	an a share a san ta she a s
Level of Service				C	<u> </u>			B			В	
Approach Delay (s)	i sinak kaga sa	0.0	gir Coloradoria	ka shi na ya kazariyi.	28.6		unya takan dala kejeleje	14.8	Sectory and a sector		17.2	in ann Archailteac
Approach LUS		A			G		ê Chêrê	В			В	
Intersection Summary												
HCM Average Control De	əlay		21.9	Sec. H	ICM Lev	el of Se	rvice		C			
HCM Volume to Capacity	ratio		0.81									
Actuated Cycle Length (s	)		63.4	S	um of lo	st time (	(s)		8.0			
Intersection Capacity Util Analysis Period (min)	ization	6	6.7% 15	IC	CU Leve	l of Serv	/ice		С			



	≯		$\mathbf{\hat{z}}$	1	<b>←</b>	K	•	†	1	1	ŧ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4						¢.			4 <b>1</b> ,	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	100	Ó	5	155	5	25	325	35	0	140	15
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	111	0	6	172	6	28	361	39	0	156	17
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	117	183	428	172								
Volume Left (vph)	6	6	28	0								
Volume Right (vph)	0	6	39	17							rodubred (second).	
Hadj (s)	0.04	0.02	-0.01	-0.02								
Departure Headway (s)	5.9	5.7	5.1	5.4								
Degree Utilization, x	0.19	0.29	0.60	0.26								
Capacity (veh/h)	535	564	680	609								
Control Delay (s)	10.3	11.1	15.4	10.3								
Approach Delay (s)	10.3	11.1	15.4	10.3								
Approach LOS	B	B	С	В								
Intersection Summary												
Delay			12.9									
HCM Level of Service			В									
Intersection Capacity Util	ization		49.1%	IC	CU Leve	l of Sen	/ice		A			
Analysis Period (min)			15	nigari shi astiri 1944	a a sa an an an an an an an an an an an an an		202223-01/05-01-0-0	Nel-Mallor in Generalistic			nefer verberetentigt i 11 e	

	4	×	†	1	1	ţ
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		4			ধ
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	75	5	355	200	5	335
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	83	6	394	222	6	372
Pedestrians	an Albahan Albah	1.)	alahiya (asari)	and a state of the leader of the start of the		and a state of the second state
Lane Width (ft)						
Walking Speed (tt/s)	in an an an an an an an an an an an an an		inis insini isistata	yalah yang katika katika	Ang ang ang ang ang ang ang ang ang ang a	el a filmana filmana ta ba
Percent Blockage						
Right turn flare (ven)					niji kali kandarana	
Median type	INONE		0.000.000.000			
Vieulan storage ven)						00-
opstream signal (it)						୪୪୮
$p\Lambda$ , platoon unblocked	000	ene			647	
vC1_stage 1_conf_vol	003	500			017	
vC1, stage 1 confluor	6109113716003		10.000 BM (80)			
VCz, stage z com vol	880	506			617	4.0077697693
tC sinnle (s)	603 64	62			/ 1	
tC. 2 stage (s)	0.7	<b>V.</b> 6			<b>~7</b> ≁ ₽	
tF (s)	35	32			20	
p0 queue free %	73	99		estere (dagi)	99	
cM capacity (veh/h)	312	567	i i se se		963	
Direction Lone #		ND 1	CD 4		~~~	
Volume Total	00	617	<u></u>			
Volume Left	60 03	<b>ر یں</b> م	-910 2			
Volume Right	00 A	- 222	u A			
cSH	321	1700	963			
Volume to Canacity	0.28	0.36	0.01			
Queue Length 95th (ft)	28	0.00	0.01			
Control Delay (s)	20.5	٥Ň	οž			
Lane LOS	<del>с те</del>		A			
Approach Delay (s)	20.5	0.0	0.2			
Approach LOS	C		in e and a star of the star of the star of the star of the star of the star of the star of the star of the star			
Intersection Summany						
Average Delow			17			
Interception Concelled	lliantion		1.7		111	
Analysis Pariod (min)	mzanon	4	1 E	IU.		UI Serv
miaiysis reliuu (IIIII)			10			

	ヽ <i>ヽ</i> / * + *
Movement EBL EBT EBR WBL WBT WBR N	NBL NBT NBR SBL SBT SBI
Lane Configurations	đh đh
Sign Control Stop Stop	Free Free
Grade 0% 0%	0% 0%
Volume (veh/h) 20 0 50 10 0 10	20 830 5 5 570 4
Peak Hour Factor 0.90 0.90 0.90 0.90 0.90 0.90 0	0.90 0.90 0.90 0.90 0.90 0.90
Hourly flow rate (vph) 22 0 56 11 0 11	<b>22 922 6 6 633 4</b>
Pedestrians	
Lane Width (ft)	
VValking Speed (IVS)	
Pictet turn flore (uch)	
Madian tuna None None	
Median storage veh)	
Upstream signal (ft)	1267
pX. platoon unblocked	1 <b></b>
vC, conflicting volume 1183 1639 339 1353 1658 464 6	678 928
vC1, stage 1 conf vol	en mener henden vara den standen en de Seren de oeren een de stand stand de sterde sterde een de sterde een de Een mener hende een stande een de Seren de oeren de oeren stand stand de sterde sterde een de sterde een de ste
vC2, stage 2 conf vol	
vCu, unblocked vol 1183 1639 339 1353 1658 464 6	678 928
tC, single (s) 7.5 6.5 6.9 7.5 6.5 6.9	4.1 4.1
tC, 2 stage (s)	
tF(s) 3.5 4.0 3.3 3.5 4.0 3.3 2	2.2 2.2
pu queue free % 84 100 92 89 100 98	98 99
civi capacity (venin) 138 96 657 97 94 545 9	910 733
Direction, Lane # EB 1 WB 1 NB 1 NB 2 SB 1 SB 2	
Volume Total 78 22 483 467 322 361	
Volume Left 22 11 22 0 6 0	
Volume Hight 56 11 0 6 0 44	
COH 317 165 910 1700 733 1700	
Oueue Length 95th (ft) 24 11 2 0 1 0	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	
Approach Delay (s) 20.0 30.3 0.4 0.1	
Approach LOS C D	
Intersection Summary	
Average Delay 1.5	
Intersection Capacity Utilization 48.7% ICU Level of Service	e A
Analysis Period (min) 15	



		$\rightarrow$	1		1	1		
Movement	EBT	EBR	WBL	WBT	NBL	NBR		
Lane Configurations	4			<del>ب</del> ا	Ŵ			1011/16/201
Sign Control	Free			Free	Stop			
Grade	0%			0%	0%	1	n fan it en neften it fan sterne en een sterne sterne fan sterne fan it fan sterne fan sterne sterne sterne ste	
Volume (veh/h)	195	30	110	70	10	40		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90		
Hourly flow rate (vph)	217	33	122	78	11	44		
Pedestrians					a shi ka shi shekara	annal desarrantana.		
Lane Width (ff)								
Percent Pleekage		halan haratagada						Reinia
Right turn flare (yeh)								3465) -
Median type					None			120207
Median storage veh)								
Upstream signal (ft)				331				
pX, platoon unblocked				a na an an an an an an an an an an an an	1-1			2010-005
vC, conflicting volume			250		556	233		
vC1, stage 1 conf vol	ana katamatan kata katu							
vC2, stage 2 conf vol								
vCu, unblocked vol			250	in the state of the state of the state of the state of the state of the state of the state of the state of the	556	233		sternious
tC, Single (s)			4,1		6.4	6.2		
10, 2  stage (s)	<u>delete</u> ta este		20		0 E	<b>^</b> ^		onee
n0 queue free %			<u>م</u> بد 10		୍ ୦.୦ ପ୍ରଥ	3.3 Q/		
cM capacity (veh/h)			1316		447	806		3483
Direction Lane #	EB 1	WB 1	NP 1			000		
Volume Total	250	200	56					
Volume Left	0	122	11 8					
Volume Right	33	0	44		19 3 S S			
cSH	1700	1316	694			Ayur Son Albur ( Hanni Habir)		00000
Volume to Capacity	0.15	0.09	0.08		109-195 (5) de			
Queue Length 95th (ft)	0	8	7					
Control Delay (s)	0.0	5.2	10.6					
Lane LOS		A	В					- surface
Approach Delay (s)	0.0	5.2	10.6					
Approach LUS			В					
Intersection Summary								
Average Delay			3.2				· · · · · · · · · · · · · · · · · · ·	
Intersection Capacity Uti	lization		35.2%	IC	U Leve	l of Servic	e A	
Analysis Period (min)			15					



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General Information         Site Information         ROUTE 7L OCUSTLEDGE           An privit An privit An with the section         ROUTE 7L OCUSTLEDGE TOWN OF BURLINGTON         Intersection         TOWN OF BURLINGTON           Data Performed         122205         Analysis Year         2008 BUILD ALT2           Project Description         BURLINGTON         ExatWest Street         2008 BUILD ALT2           StatWest Street         North/South Street         ROUTE 7           Intersection Orientation:         North-South         Study Period (hrs):         0.25           Vehicle Volumes and Adjustments         Major Street         North/South Street:         Southbound           Movement         1         2         3         4         5         6           More Factor, PHF         0.90         0.90         0.90         0.90         0.90         0.90         0.90           Percent Heavy Vehicles         0         -         -         2         -         -           More Street         Westbound         Eastbound         Eastbound         Eastbound         -         -           More Street         Westbound         Eastbound         Eastbound         -         -         -           Volume         0         0         66		Т	WO-WAY STO	P CONTR	OL SUN	IMARY			
Anelvist         EJD         Intersection         ROUTE 7/LOCUST/LEGGE           Date Performed         12/22/05         Analysis Tree         20/08 BUIL D ALT2           Analysis Time Period         AM PEAK HOUR         20/08 BUIL D ALT2           Project Description         BURLINGTON         20/08 BUIL D ALT2           Malysis Time Period         AM PEAK HOUR         20/08 BUIL D ALT2           Project Description         BURLINGTON         Study Period (hrs): 0.25           Vehicle Volumes and Adjustments         North/South Street:         ROUTE 7           Milersection Orientation:         North/South Street:         ROUTE 7           Movement         1         2         3         4         5         6           Volume         0         565         280         5         390         15           Peak-Hour Factor, PHF         0.90         0.90         0.90         0.90         0.90         0.90           Percent Heavy Vehicles         0         -         -         2         -         -           Mourt File Male, HFR         0         627         311         5         433         16           Percent Heavy Vehicles         0         -         -         -         -         - <th>General Information</th> <th>1</th> <th></th> <th>Site II</th> <th>nformat</th> <th>ion</th> <th></th> <th></th> <th></th>	General Information	1		Site II	nformat	ion			
Project Description         BURLINGTON           EastWest Street:         North/South Street:         ROUTE 7           Intersection Orientation:         North/South         Study Period (hrs):         0.25           Vehicle Volumes and Adjustments         Major Street         North/South         Southbound           Movement         1         2         3         4         5         6           L         T         R         L         T         R         90         15           Peak-Hour Factor, PHF         0.90         0.90         0.90         0.90         0.90         0.90           Hourly Flow Rate, HFR         0         627         311         5         433         16           Percent Heavy Vehicles         0         - <td< th=""><th>Anelvst A y/Co. Date Performed Analysis Time Period</th><th>EJD CHA 12/22/05 AM PEAH</th><th>(HOUR</th><th>Interse Jurisdic Analysi</th><th>ction ction s Year</th><th></th><th>ROUTE TOWN C 2008 BU</th><th>7/LOCUS F BURL ILD ALT2</th><th>ST/LEDGE INGTON 2</th></td<>	Anelvst A y/Co. Date Performed Analysis Time Period	EJD CHA 12/22/05 AM PEAH	(HOUR	Interse Jurisdic Analysi	ction ction s Year		ROUTE TOWN C 2008 BU	7/LOCUS F BURL ILD ALT2	ST/LEDGE INGTON 2
EastWest Street:         ROUTS 7           Interesection Orientation:         North/South         Study Period (rs):         0.25           Vehicle Volumes and Adjustments         Southbound         Southbound         Southbound           Morement         1         2         3         4         5         6           Volume         0         565         280         5         390         15           Perek-Hour Factor, PHF         0.90	Project Description BU	RLINGTON							
Bitudy Fend (hrs): 0.25           Vehicle Volumes and Adjustments         Southbound           Major Street         Northbound         Southbound           L         T         R         L         T         R           Volume         0         565         280         5         390         15           Peak-Hour Factor, PHF         0.90 </td <td>East/West Street: LOCL</td> <td>IST/LEDGE</td> <td></td> <td>North/S</td> <td>South Stre</td> <td>et: ROUTE</td> <td>7</td> <td></td> <td></td>	East/West Street: LOCL	IST/LEDGE		North/S	South Stre	et: ROUTE	7		
Vehicle Volumes and Adjustments         Northbound         Southbound           Major Street         1         2         3         4         5         6           Wovement         1         2         3         4         5         6           Volume         0         565         280         5         390         15           Peak-Hour Factor, PHF         0.90         0.90         0.90         0.90         0.90         0.90           Houry Flow Rate, HFR         0         627         311         5         433         16           Percent Heavy Vehicles         0          -         2         -         <	intersection Orientation:	North-South		Study F	Period (hrs	s): <i>0.25</i>			
Major Street         Northbound         Southbound           Movement         1         2         3         4         5         6           Volume         0         565         280         5         390         15           Peak-Hour Factor, PHF         0.90	Vehicle Volumes an	d Adjustment	S						
Wovement         1         2         3         4         5         6           Volume         0         565         280         5         390         15           Peak-Hour Factor, PHF         0.90	Major Street		Northbound	1			Southbo	ound	
L         I         H         L         I         H           Volume         0         5565         280         5         390         15           Peak-Hour Factor, PHF         0.90         0.90         0.90         0.90         0.90         0.90         0.90           Hourly Flow Rate, HFR         0         627         311         5         433         16           Percent Heavy Vehicles         0          -         <		1	2	3		4	5		6
Outline         D </td <td>Volume</td> <td></td> <td></td> <td>H</td> <td></td> <td>L</td> <td></td> <td></td> <td><u> </u></td>	Volume			H		L			<u> </u>
Haury Flow Rate, HFR         0         627         311         5         433         16           Percent Heavy Vehicles         0          -         2          - <t< td=""><td>Peak-Hour Factor PHF</td><td>0.90</td><td><u> </u></td><td>280</td><td></td><td>0 00</td><td>390</td><td></td><td>15</td></t<>	Peak-Hour Factor PHF	0.90	<u> </u>	280		0 00	390		15
Percent Heavy Vehicles         0         -         -         2         -	Hourly Flow Rate, HFR	0	627	311		5	433		16
Median Type         Undivided           RT Channelized         0         0         1         0           Lanes         0         2         0         0         1         0           Configuration         T         TR         LTR         0         0         0           Upstream Signal         0         T         RT         LTR         0         0           Minor Street         Westbound         Eastbound         Eastbound         0         11         12           Movement         7         8         9         10         11         12         12           Hour Factor, PHF         0.90 <td< td=""><td>Percent Heavy Vehicles</td><td>0</td><td></td><td></td><td></td><td>2</td><td></td><td></td><td>~~</td></td<>	Percent Heavy Vehicles	0				2			~~
RT Channelized       0       2       0       0       1       0         Lanes       0       2       0       0       1       0         Configuration       T       TR       LTR       0         Westbound       Eastbound       0       0         Minor Street       Westbound       Eastbound       0         Movement       7       8       9       10       11       12         L       T       R       L       T       R       585         Pr       Hour Factor, PHF       0.90       0.90       0.90       0.90       0.90         Hour Factor, PHF       0.90       0       0       66       0       16       94         Percent Heavy Vehicles       0       0       2       0       2       2         Percent Grade (%)       0       0       0       0       0       0         RT Channelized       0       0       1       0       1       0         Configuration       R       0       1       0       1       0         Configuration       I       4       7       8       9       10       11 <td>Median Type</td> <td></td> <td></td> <td></td> <td>Undivid</td> <td>led</td> <td></td> <td></td> <td></td>	Median Type				Undivid	led			
Lanes         0         2         0         0         1         0           Configuration         T         TR         LTR         0	RT Channelized			0			T		0
Configuration         T         TR         LTR         0           Upstream Signal         0 <t< td=""><td>Lanes</td><td>0</td><td>2</td><td>0</td><td></td><td>0</td><td>1</td><td>— İ</td><td>0</td></t<>	Lanes	0	2	0		0	1	— İ	0
Upstream Signal         0         Eastbound           Minor Street         Vestbound         Eastbound           Movement         7         8         9         10         11         12           L         T         R         L         T         R           Volume         0         0         60         0         15         85           Pr         Hour Factor, PHF         0.90	Configuration		Т	TR		LTR			
Minor StreetWestboundEastboundMovement789101112LTRLTRVolume006001585PrHour Factor, PHF0.900.900.900.900.900.90Houry Flow Rate, HFR006601694Percent Heavy Vehicles002022Percent Grade (%)002022Percent Grade (%)000000Flared ApproachN00000RT Channelized001000Lanes001010Configuration147891011Movement14789101112Lane ConfigurationLTRRTRTRTRV(vph)5661100110392V(vph)72654139222V(vph)0.020.411.13392Move Length0.020.411.13392V(ch)56611.012.617.7O0.020.411.130.020.411.13Control Delay0.020.411.16.017.7	Upstream Signal		0				0		
Movement         7         8         9         10         11         12           L         T         R         L         T         R           Volume         0         0         60         0         15         85           Pr         Hour Factor, PHF         0.90	Minor Street		Westbound				Eastbou	ind	
L         T         R         L         T         R           Volume         0         0         60         0         15         85           Pr         Hour Factor, PHF         0.90         0.9	Movement	7	8	9		10	11		12
Volume         0         0         60         0         15         85           Pr         Hour Factor, PHF         0.90		L	Т	R		L	Т		R
Pr         Hour Factor, PHF         0.90	Volume	0	0	60		0	15		85
Hcc.ry Flow Rate, HFR       0       0       66       0       16       94         Percent Heavy Vehicles       0       0       2       0       2       2         Percent Grade (%)       0       0       0       2       0       2       2         Flared Approach       N       0       0       0       0       0       0       0         Storage       0 <td>Pr Hour Factor, PHF</td> <td>0.90</td> <td>0.90</td> <td>0.90</td> <td></td> <td>0.90</td> <td>0.90</td> <td></td> <td>0.90</td>	Pr Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Percent Heavy Vehicles         0         0         2         0         2         2           Percent Grade (%)         0	Houny Flow Rate, HFR	0	0	66		0	16		94
Percent Grade (%)00Flared ApproachNNStorage00RT Channelized00Lanes01010ConfigurationRDelay, Queue Length, and Level of ServiceApproachNBMovement11478910112Lane ConfigurationLTRRTRConfigurationLTR1478910120566110C (m) (vph)7265% queue length0.020.0112.60.020.4111.3Control Delay10.0AB00	Percent Heavy Vehicles	0	0	2		0	2		2
Hared ApproachNNStorage000RT Channelized001Lanes001O010ConfigurationR7Delay, Queue Length, and Level of Service $R$ $TR$ Delay, Queue Length, and Level of Service $R$ $TR$ Delay, Queue Length, and Level of Service $R$ $TR$ Delay, Queue Length, and Level of Service $R$ $TR$ Delay, Queue Length, and Level of Service $R$ $TR$ Delay, Queue Length, and Level of Service $R$ $TR$ Delay, Queue Length, and Level of Service $R$ $TR$ Delay, Queue Length, and Level of Service $R$ $TR$ Delay, Queue Length, and Level of Service $R$ $R$ $Approach$ $NB$ $SB$ WestboundMovement1 $4$ $7$ $R$ $R$ $TR$ $A$ $R$ $TR$ $R$ $TR$ $R$ $R$ $TR$ $R$ $R$ $TR$ $R$ $R$ $TR$ $Q(ph)$ $5$ $66$ $C$ $0.01$ $0.12$ $Q(ph)$ $0.02$ $0.41$ $1.13$ $Q(ph)$ $10.0$ $12.6$ $17.7$ $Q(ph)$ $A$ $B$ $C$	Percent Grade (%)		0				0		
Storage00RT Channelized000Lanes0010ConfigurationR7Delay, Queue Length, and Level of Service $R$ $TR$ Movement147891478910Lane ConfigurationLTRRTRV (vph)566110C (m) (vph)726541392 $V(c$ 0.010.120.28 $D5\%$ queue length0.020.411.13Control Delay10.012.617.7 $OS$ ABC	Flared Approach		N				N		
RT Channelized0010Lanes001010ConfigurationRRTRDelay, Queue Length, and Level of ServiceApproachNBSBWestboundEastboundMovement14789101112Lane ConfigurationLTRRTRTRv (vph)566110110C (m) (vph)726541392 $V(c$ 0.010.120.28 $D5\%$ queue length0.020.411.13Control Delay10.012.6177.7 $-OS$ ABCC	Storage		0				0		
Lanes001010ConfigurationRTRDelay, Queue Length, and Level of ServiceSBWestboundEastboundMovement14789101112Lane ConfigurationLTRR7789101112Lane ConfigurationLTRFR77 <t< td=""><td>RT Channelized</td><td></td><td></td><td>0</td><td></td><td></td><td></td><td></td><td>0</td></t<>	RT Channelized			0					0
Configuration         R         TR           Delay, Queue Length, and Level of Service         TR           Approach         NB         SB         Westbound         Eastbound           Movement         1         4         7         8         9         10         11         12           Lane Configuration         LTR         R         R         TR           v (vph)         5         66         110         110           C (m) (vph)         726         541         392           v/c         0.01         0.12         0.28           95% queue length         0.02         0.41         1.13           Control Delay         10.0         12.6         17.7           LOS         A         B         C         C	Lanes	0	0	1		0	1		0
Delay, Queue Length, and Level of Service         NB         SB         Westbound         Eastbound           Movement         1         4         7         8         9         10         11         12           Lane Configuration         LTR         R         7         8         9         10         11         12           V (vph)         LTR         R         R         110         7 <td>Configuration</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>TR</td>	Configuration								TR
ApproachNBSBWestboundEastboundMovement14789101112Lane Configuration $LTR$ $R$ $R$ $TR$ / (vph)566110C (m) (vph)726541392//c0.010.120.28 $D5\%$ queue length0.020.411.13Control DelayABC	Delay, Queue Length, ar	d Level of Servi	ce						
Movement         1         4         7         8         9         10         11         12           Lane Configuration $LTR$ $R$ $R$ $TR$ $TR$ v (vph)         5         66         110         110           C (m) (vph)         726         541         392           v/c         0.01         0.12         0.28           95% queue length         0.02         0.41         1.13           Control Delay         10.0         12.6         17.7           LOS         A         B         C	Approach	NB	SB		Westbour	nd		Eastbou	ind
Lane Configuration         LTR         R         TR           v (vph)         5         66         110           C (m) (vph)         726         541         392           v/c         0.01         0.12         0.28           05% queue length         0.02         0.41         1.13           Control Delay         10.0         12.6         17.7	Movement	1	4	7	8	9	10	11	12
v (vph)         5         66         110           C (m) (vph)         726         541         392           v/c         0.01         0.12         0.28           95% queue length         0.02         0.41         1.13           Control Delay         10.0         12.6         17.7           LOS         A         B         C	Lane Configuration		LTR			R		[	TR
C (m) (vph)         726         541         392           u/c         0.01         0.12         0.28           95% queue length         0.02         0.41         1.13           Control Delay         10.0         12.6         17.7           LOS         A         B         C	v (vph)		5			66			110
//c         0.01         0.12         0.28           05% queue length         0.02         0.41         1.13           Control Delay         10.0         12.6         17.7           LOS         A         B         C	C (m) (vph)		726			541			392
0.02         0.41         1.13           Control Delay         10.0         12.6         17.7           LOS         A         B         C	//c		0.01			0.12	1		0.28
Control Delay         10.0         12.6         17.7           LOS         A         B         C	95% queue length		0.02			0.41			1 13
	Control Delay		10.0	1		12.6			177
	_OS		A			R			
Approach Delay 12.6 17.7	Approach Delay				126	<i>U</i>		177	
Approach LOS	Approach LOS				، د. ن P				

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Version 4.1d

Version 4.1d

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	l	WU-WAY SIU	PCONTRO					
General Information	n		Site In	format	ion			
Analyst A y/Co. Date Performed Analysis Time Period Project Description <i>P</i> (	EJD CHA 12/22/05 AM PEAI	K HOUR	Intersec Jurisdict Analysis	tion tion s Year		ROUTE : TOWN C 2008 BU	7/SOUTH DF BURL ILD ALT	H WILLARD INGTON 2
Figet Description BL			North (C	auth Otra	at DOUTE			
Intersection Orientation	North-South		Study P	prind (hr	et. <u>HOUTE</u>	/		
Vehicle Volumes ar	d Adjuctmont	~			5). 0.20			
Major Street		Northbound				Southbo	und	
Movement	1	2	3		A			6
	L	T	R			- <u>-</u> т		R
Volume	55	510	0		0	410		0
Peak-Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Hourly Flow Rate, HFR	61	566	0		0	455		0
Percent Heavy Vehicles	2				- 2	++		÷÷
Median Type				led				
RT Channelized			0					0
Lanes	0	1	0		0	1		0
Configuration	<i>LT</i>					Ť		
Upstream Signal		0	L			0		
Minor Street		Westbound				Eastbou	und	
Movement	7	8	9		10			12
	L	Т	R		L	T		R
Volume	0	145	0		0	0		0
PF HOUR FACTOR, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Porcent Heavy Vehicles	0	161	0		0	0		0
Percent Reavy Vehicles			2		0	<u> </u>		2
Flored Appresch		<u>_</u>						
		N				N		
Storage		0				0		
RT Channelized			0					0
	0	1	0		0	0		0
			<u>  /H</u>					
<u>Delay, Queue Length, a</u>	nd Level of Servi	ice						····
Approach	NB	SB	<u>, Мания на конструкция н</u>	Vestbour	br		Eastbou	und
Movement	1	4	7	8	9	10	11	12
_ane Configuration	LT		L		TR			
/ (vph)	61				161			
C (m) (vph)	1106				183			
//c	0.06				0.88			
95% queue length	0.17		T T		6.52		1	
Control Delay	8.4				89.9	1		
_OS	A		İ — İ		F			
Approach Delav							1	1
Approach LOS	<u> </u>			 		1		

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Version 4.1d

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## NULL ALTERNATIVE 2008 PM PEAK HOUR

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		र्भ	۲		র্ম	*	٣	<b>†</b> ‡		ሻ	<u>ት</u> ኩ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frt		1.00	0.85		1.00	0.85	1.00	0.99		1.00	0.99	
Fit Protected		0.98	1.00		0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1830	1583		1813	1583	1770	3503		1770	3521	
Flt Permitted		0.73	1.00		0.79	1.00	0.29	1.00		0.95	1.00	
Satd. Flow (perm)		1366	1583		1475	1583	546	3503		1770	3521	
Volume (vph)	20	35	65	90	75	190	85	1010	75	100	850	30
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	22	39	72	100	83	211	94	1122	83	111	944	33
RTOR Reduction (vph)	0	0	60	0	0	95	0	0	0	0	0	0
Lane Group Flow (vph)	0	61	12	0	183	116	94	1205	0	111	977	0
Turn Type	Perm		Prot	Perm		pt+ov	Perm		С	ustom		***************************************
Protected Phases		4	4		8	81		2		S (1	6	
Permitted Phases	4			8			2			1		
Actuated Green, G (s)		21.5	21.5		21.5	35.5	83.8	83.8		14.0	102.8	
Effective Green, g (s)		22.5	22.5		22.5	37.5	84.8	84.8		15.0	103.8	
Actuated g/C Ratio		0.16	0.16		0.16	0.27	0.61	0.61		0.11	0.74	
Clearance Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		220	254		237	424	331	2122		190	2611	
v/s Ratio Prot			0.01			0.07		c0.34		c0.06	0.28	
v/s Ratio Perm		0.04			c0.12		0.17					
v/c Ratio		0.28	0.05		0.77	0.27	0.28	0.57		0.58	0.37	
Uniform Delay, d1		51.6	49.7		56.3	40.5	13.1	16.6		59.5	6.5	
Progression Factor		1.00	1.00		1.00	1.00	0.38	0.44		1.00	1.00	
Incremental Delay, d2		0.7	0.1		14.4	0.4	1.8	0.9		4.5	0.4	
Delay (s)		52.3	49.7		70.7	40.8	6.8	8.2		64.1	6.9	
Level of Service		D	D		Е	D	Α	А		E	Α	
Approach Delay (s)		50.9			54.7			8.1			12.7	
Approach LOS		D			D			А			В	
Intersection Summary												
HCM Average Control D	elay		18.1	Н	ICM Lev	/el of Se	ervice		В			
HCM Volume to Capacity	y ratio		0.58									
Actuated Cycle Length (s	S)		140.0	S	um of lo	ost time	(s)		12.0			
Intersection Capacity Uti	lization		62.6%	l (	CU Leve	el of Ser	vice		В			
Analysis Period (min)			15	the law M								
c Critical Lane Group									en deinigen im Rohige Gegenen			in den legens. Den General

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	۲	4	*****************		4		٢	朴玲		٢	4†	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00			1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.97			0.88		1.00	1.00		1.00	0.99	
Fit Protected	0.95	1.00			1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1812			1631		1770	3524		1770	3519	
Flt Permitted	0.30	1.00			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	566	1812			1622		1770	3524		1770	3519	
Volume (vph)	30	45	10	5	10	160	15	980	30	90	880	35
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	33	50	11	6	11	178	17	1089	33	100	978	39
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	33	61	0	0	195	0	17	1122	0	100	1017	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)	21.5	21.5			21.5		3,4	84.5		12.8	93.9	
Effective Green, g (s)	22.5	22.5			22.5		4.4	85.5		13.8	94.9	
Actuated g/C Ratio	0.16	0.16			0.16		0.03	0.61		0.10	0.68	
Clearance Time (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	91	291			261		56	2152		174	2385	
v/s Ratio Prot		0.03					0.01	c0.32		c0.06	0.29	2009009009
v/s Ratio Perm	0.06				c0.12							
v/c Ratio	0.36	0.21			0.75		0.30	0.52		0.57	0.43	
Uniform Delay, d1	52.4	51.0			56.0		66.3	15.6		60.3	10.2	
Progression Factor	1.00	1.00			1.00		1.19	0.37		1.21	0.73	
Incremental Delay, d2	2.5	0.4			11.1		2.4	0.7		4.3	0.5	
Delay (s)	54.8	51.4			67.1		81.5	6.4		77.4	7.9	
Level of Service	D	D			Ε		F	А		E	Α	
Approach Delay (s)		52.6			67.1			7.5			14.2	
Approach LOS		D			E			А			В	
Intersection Summary												
HCM Average Control D	elay		16.7	, Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.57									
Actuated Cycle Length (	s)		140.0	S	um of lo	st time	(s)		18.2			
Intersection Capacity Uti	lization	(	52.1%	IC	U Leve	l of Serv	vice		В			
Analysis Period (min)	1		15									
c Critical Lane Group				en de la color. Contecto de la								

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<b>4</b> 3-			4		<b>N</b> i	<b>*t</b>		٣	<u> </u>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00			0.95		1.00	0.95	
Frt		0.99			0.95			0.98		1.00	0.99	
Flt Protected		0.98			0.98			1.00		0.95	1.00	
Satd. Flow (prot)		1736			1667			3364		1711	3386	
Fit Permitted		0.72			0.77			1.00		0.95	1.00	
Satd. Flow (perm)		1281			1314			3364		1711	3386	
Volume (vph)	50	45	10	115	35	95	0	880	110	95	745	55
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	56	50	11	128	39	106	0	978	122	106	828	61
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	117	0	0	273	0	0	1100	0	106	889	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)		31.8			31.8			74.3		12.7	92.0	
Effective Green, g (s)		32.8			32.8			75.3		13.7	93.0	
Actuated g/C Ratio		0.23			0.23			0.54		0.10	0.66	
Clearance Time (s)		5.0			5.0			5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		300			308			1809		167	2249	
v/s Ratio Prot								c0.33		c0.06	0.26	
v/s Ratio Perm		0.09			c0.21		c) Nevier 2 Revisit et al		ling tan isri Guala tan sila	da da sistema Receiendar		
v/c Ratio		0.39			0.89			0.61		0.63	0.40	
Uniform Delay, d1		45.2			51.8	27 (Series (Ser		22.2		60.7	10.7	
Progression Factor		1.00			1.00			0.43		1.35	0.40	
Incremental Delay, d2		0.8			24.8			1.2		7,1	0.5	
Delay (s)		46.0			76.6			10.8		89.4	4.8	
Level of Service		D			E			В		F	A	
Approach Delay (s)		46.0			76.6			10.8			13.8	
Approach LOS		D	949344		E			B			В	
Intersection Summary												
HCM Average Control De	əlay		20.9	н	CM Lev	el of Se	rvice		C			
HCM Volume to Capacity	ratio		0.69									a ann an an Annaicheach
Actuated Cycle Length (s	9		140.0	S	um of lo	st time i	(s)		18.2			
Intersection Capacity Util	ization	(	62.1%	IC	U Leve	l of Serv	/ice		В			
Analysis Period (min)			15									



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		44			¢.	7		ଣ	7		£.	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0		4.0	4.0		4.0	
Lane Util. Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Frt		0.98			1.00	0.85		1.00	0.85		0.99	
Fit Protected		1.00			0.99	1.00		1.00	1.00		0.98	
Satd. Flow (prot)		1826			1840	1583		1856	1583		1813	
Flt Permitted		0.98			0.87	1.00		0.97	1.00		0.86	
Satd. Flow (perm)		1800			1620	1583		1804	1583		1587	
Volume (vph)	10	190	30	70	210	40	5	65	55	70	120	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	- 11	211	33	78	233	- 44	6	72	61	78	133	17
RTOR Reduction (vph)	0	0	0	0	0	23	0	0	46	0	0	0
Lane Group Flow (vph)	0	255	0	0	311	21	0	78	15	0	228	0
Turn Type	Perm			Perm		Perm	Perm		Perm	Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6		6	8		8	4		
Actuated Green, G (s)		20.3			20.3	20.3		10.4	10.4		10.4	
Effective Green, g (s)		21.3			21.3	21.3		11.4	11.4		11.4	
Actuated g/C Ratio		0.47			0.47	0.47		0.25	0.25		0.25	
Clearance Time (s)		5.0			5.0	5.0		5.0	5.0		5.0	
Vehicle Extension (s)		3.0			3.0	3.0		3.0	3.0		3.0	
Lane Grp Cap (vph)		843			758	741		452	397		398	
v/s Ratio Prot												
v/s Ratio Perm		0.14			c0.19	0.01		0.04	0.01		c0.14	
v/c Ratio		0.30			0.41	0.03		0.17	0.04		0.57	
Uniform Delay, d1		7.5			8.0	6.5		13.4	12.9		14.9	
Progression Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Incremental Delay, d2		0.2			0.4	0.0		0.2	0.0		2.0	
Delay (s)		7.7			8.3	6.5		13.5	12.9		16.9	
Level of Service		Α			А	Α		В	В		В	
Approach Delay (s)		7.7			8.1			13.3			16.9	
Approach LOS		А			А			В			В	
Intersection Summary												
HCM Average Control D	elay		10.8	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.41									
Actuated Cycle Length (s	5)		45.5	S	um of lo	ost time	(S)		8.0			
Intersection Capacity Uti	lization	5	55.1%	IÇ	CU Leve	l of Ser	vice		В			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBR	NBL	NBT	SBT	SBR			
Lane Configurations	ሻ	1	ሻ	<b>≜</b>	۸	7			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Lane Width	11	12	11	12	11	12		na na na na na na na na na na na na na n	and a second second second second second second second second second second second second second second second
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00		in militari ya Militari mana mana mana mata ina kata ina kata ina kata ina kata ina kata ina kata ina kata ina	
Ert	1.00	0.85	1.00	1.00	1.00	0.85			
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00			
Satd. Flow (prot)	1711	1583	1711	1863	1801	1583			
Fit Permitted	0.95	1.00	0.37	1.00	1.00	1.00			
Satd. Flow (perm)	1711	1583	674	1863	1801	1583			
Volume (vph)	135	60	145	105	435	175			
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90			
Adj. Flow (vph)	150	67	161	117	483	194			8888-9404-956 
<b>RTOR Reduction (vph)</b>	0	45	0	0	0	0			
Lane Group Flow (vph)	150	22	161	117	483	194	en on a meneral particular a second contrast of the second		aaaagaaligaaga
Turn Type		Prot	Perm			Perm			
Protected Phases	2	2		4	8				1999/1999
Permitted Phases		n og sinder i Studieter	4			8			
Actuated Green, G (s)	45.8	45.8	78.0	78.0	78.0	78.0			
Effective Green, g (s)	46.8	46.8	79.0	79.0	79.0	79.0			
Actuated g/C Ratio	0.33	0.33	0.56	0.56	0.56	0.56	a di Chan da kana da kana da kana yang mang mang mang mang da pang da pang da pang da pang da pang da pang da p	an a priori anta anti con contratti tata a para (a.	///////////////////////////////////////
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0			an-la-deradar
Lane Grp Cap (vph)	572	529	380	1051	1016	893			
v/s Ratio Prot	c0.09	0.01	ne and in the second states of	0.06	c0.27		tanianini padmini dan da sina sina sebuah da si	en en en en en en en en en en en en en e	994 - 994 - 994 - 994 - 994 - 994 - 994 - 994 - 994 - 994 - 994 - 994 - 994 - 994 - 994 - 994 - 994 - 994 - 99 - 1994 - 994 - 994 - 994 - 994 - 994 - 994 - 994 - 994 - 994 - 994 - 994 - 994 - 994 - 994 - 994 - 994 - 994 - 9 - 1994 - 994 - 994 - 994 - 994 - 994 - 994 - 994 - 994 - 994 - 994 - 994 - 994 - 994 - 994 - 994 - 994 - 994 - 9
v/s Ratio Perm			0.24			0.12			
v/c Ratio	0.26	0.04	0.42	0.11	0.48	0.22	***************************************		1210-57050425
Uniform Delay, d1	34.0	31.5	17.5	14.2	18.2	15.1		<u>.</u>	
Progression Factor	0.71	0.35	1.00	1.00	1.00	1.00			-19992009 
Incremental Delay, d2	0.8	0.1	3.4	0.2	0.4	0.1			
Delay (s)	24.9	11.0	20.9	14.4	18.5	15.3		and a second second second second second second second second second second second second second second second	1997 Construction
Level of Service	C	В	C	В	В	В			
Approach Delay (s)	20.6			18.2	17.6				
Approach LOS	C S			B	В				
Intersection Summary									
HCM Average Control D	lelav		18.3	н	ICM Lev	el of Service	P		
HCM Volume to Capacit	v ratio		0.40	seleteti (1997)	997.000.000.000.000.000.000.000.000.000.				1024SH93
Actuated Cycle Length (	ś)		140.0	S	um of lo	ost time (s)	14.2		Sedûnar
Intersection Capacity Ut	ilization	energia de la companya de la companya de la companya de la companya de la companya de la companya de la company E	52.9%	- I(	CU Leve	I of Service	Α		second de la compañía de la compañía de la compañía de la compañía de la compañía de la compañía de la compañía La compañía de la compañía de la compañía de la compañía de la compañía de la compañía de la compañía de la comp
Analysis Period (min)			15						



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<b>\$</b>			44			<del>.</del>		ኻ	t.	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	14	12	12	14	12	12	14	12	11	11	12
Total Lost time (s)		4.0			4.0			4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00			1.00		1.00	1.00	
Frt		0.98			0.92			0.98		1.00	0.98	andiri (Horise) Sectore
Fit Protected		0.99			0.99			0.99		0.95	1.00	an an an the second second second second second second second second second second second second second second
Satd. Flow (prot)		1919			1819			1934		1711	1759	
Flt Permitted		0.74			0.96			0.94		0.64	1.00	
Satd. Flow (perm)		1450			1758			1826		1153	1759	
Volume (vph)	40	75	20	25	75	145	15	75	15	140	215	40
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	44	83	22	28	83	161	17	83	17	156	239	44
RTOR Reduction (vph)	0	10	0	0	77	0	0	7	0	0	7	0
Lane Group Flow (vph)	0	139	0	0	195	0	0	110	0	156	276	0
Turn Type	Perm		State 2018	Perm			Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		8.8			8.8			15.7		27.1	27.1	
Effective Green, g (s)		9.8			9.8			16.7		28.1	28.1	
Actuated g/C Ratio		0.20			0.20			0.34		0.58	0.58	
Clearance Time (s)		5.0			5.0			5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		292			354			627		752	1017	
v/s Ratio Prot										0.03	c0.16	
v/s Ratio Perm		0.10			c0.11			0.06		0.09		
v/c Ratio		0.48			0.55			0.18		0.21	0.27	
Uniform Delay, d1		17.1		2015-0212	17.4			11.1	6 6 4 4	5.0	5.1	
Progression Factor		1.00			1.00			1.00		1.00	1.00	
Incremental Delay, d2		1.2			1.7			0.1		0.1	0.1	
Delay (s)		18.4			19.2			11.3		5.1	5.3	
Level of Service		В			B			В		A	Α	
Approach Delay (s)	an an an an an an an an an an an an an a	18.4	والمتحافظ والمحافظ والمحافظ والمحافظ	an an an an an an an an an	19.2			11.3			5.2	
Approach LOS	6.000	В		<u>G 19 69 69</u>	В		88 M (28 M)	В			A	
Intersection Summarv												
HCM Average Control De	əlav		11.8	н	CMLev	el of Se	rvice		R			
HCM Volume to Capacity	/ ratio		0.32									
Actuated Cycle Length (s	<b>a</b>		48.6	S	um of lo	st time	(s)		80			
Intersection Capacity Util	ization	99399999999999999999999999999999999999	40.4%	U I	U Leve	l of Sen	/ice		<u>А</u>			errenisainili:
Analysis Period (min)			15									



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			<del>.</del>		٢	<b>ት</b> ሴ		শ	<b>^t</b> +	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	and the first strength
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frt		0.91			0.95		1.00	0.99		1.00	0.99	al agend parts (Arrand
Fit Protected		0.99			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1684			1726		1770	3518		1770	3509	ana je na se je se se se
Fit Permitted		0.85			0.52		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1442			917		1770	3518		1770	3509	
Volume (vph)	80	70	275	145	50	125	105	725	30	90	735	45
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	89	78	306	161	56	139	117	806	33	100	817	50
RTOR Reduction (vph)	0	48	0	0	17	0	0	2	0	0	2	0
Lane Group Flow (vph)	0	425	0	0	339	0	117	837	0	100	865	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		52.2			52.2		13.4	54.5		12,1	53.2	
Effective Green, g (s)		53.2			53.2		14.4	55.5		13.1	54.2	
Actuated g/C Ratio		0.38			0.38		0.10	0.40		0.09	0.39	
Clearance Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		548			348		182	1395		166	1358	
v/s Ratio Prot							c0.07	0.24		0.06	c0.25	
v/s Ratio Perm		0.29			c0.37							
v/c Ratio		0.77			0.97		0.64	0.60		0.60	0.64	
Uniform Delay, d1		38.1			42.7		60.3	33.5		60.9	34.9	
Progression Factor		1.00			0.56		1.09	1.06		0.99	1.14	
Incremental Delay, d2		6.8	the second second second		40.4		7.2	1.8		5.5	0.9	
Delay (s)		44.9			64.4		73.2	37.3		65.7	40.8	
Level of Service	Alessa da traduces	D			E		Е	D		E	D	
Approach Delay (s)		44.9			64.4			41.7			43.4	
Approach LOS		D			E			D			D	
Intersection Summary					dha Ali							
HCM Average Control D	elay		45.8	Н	CM Lev	el of Se	rvice		D			
HCM Volume to Capacity	y ratio		0.78									
Actuated Cycle Length (s	5)		140.0	S	um of lo	ost time	(s)		18.2			
Intersection Capacity Uti	lization	7	6.5%	IC	CU Leve	l of Serv	/ice		D			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			<b>4</b> .		ኻ	ቀኁ		٢	<b>≜</b> 1,	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frt		0.87			0.94		1.00	1.00		1.00	1.00	
Flt Protected		1.00			0.97		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1623			1708		1770	3525		1770	3535	
Fit Permitted		0.98			0.52		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1600			911		1770	3525		1770	3535	
Volume (vph)	5	0	75	- 35	0	25	5	890	25	5	1140	10
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	6	0	83	39	0	28	6	989	28	6	1267	11
RTOR Reduction (vph)	0	76	0	0	20	0	0	1	0	0	0	0
Lane Group Flow (vph)	0	13	0	0	47	0	6	1016	0	6	1278	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4	9. E E E		8		5	2		<b>1</b>	6	
Permitted Phases	4			8								
Actuated Green, G (s)		10.0			10.0		1.6	107.2		1.6	107.2	
Effective Green, g (s)		11.0			11.0		2.6	108.2		2.6	108.2	
Actuated g/C Ratio		0.08			0.08		0.02	0.77		0.02	0.77	
Clearance Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		126			72		33	2724		33	2732	
v/s Ratio Prot			d sandh air				c0.00	0.29		0.00	c0.36	
v/s Ratio Perm		0.01			c0.05							
v/c Ratio		0.10			0.65		0.18	0.37		0.18	0.47	
Uniform Delay, d1	te lane at at the stream taget of the	59.9			62.6		67.7	5.1		67.7	5.7	
Progression Factor		1.00	0424544		0.82		0.87	0.93		1.00	0.64	
Incremental Delay, d2	no service destructions	0.3			18.1	an tha tha tha tha shake	2.4	0.4		1.9	0.4	
Delay (s)		60.2			69.7		61.3	5.1	e An EA	69.6	4.0	
Level of Service	neone en alema	L	laithice chiaice	anna an tao an tao an tao	E	alay dari barin sana	E	A	na (1975) na she marke (anasha da g	E	A	
Approach Delay (s)		60.2			69.7			5.4			4.3	
Approach LOS		E			E			A			A	
Intersection Summary												
HCM Average Control D	elay		8.6	Н	CM Lev	el of Se	rvice		Α			
HCM Volume to Capacity	y ratio		0.48									
Actuated Cycle Length (s	5)		140.0	S	um of lo	ost time	(s)		18.2			
Intersection Capacity Uti	lization	4	18.6%	IC	U Leve	l of Serv	rice		Α			
Analysis Period (min)	under maar te see ste		15			territori della della della della della della della della della della della della della della della della della						
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			44		٦	<b>≜</b> ↑		۲	<b>*</b> 14	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	0.95	<u>i da se da se s</u>	1.00	0.95	
Frt		0.96			0.98		1.00	1.00	,	1.00	1.00	ele e en el promo d'altre de la composi-
Fit Protected		0.99			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1762			1805		1770	3536		1770	3522	
Fit Permitted		0.84			0.69		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1494			1270		1770	3536		1770	3522	
Volume (vph)	65	120	85	40	75	15	55	840	5	10	1200	40
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	72	133	94	44	83	17	61	933	6	11	1333	44
RTOR Reduction (vph)	0	13	0	0	4	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	286	0	0	140	0	61	939	0	11	1376	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		( <b>1</b>	6	
Permitted Phases	4			8								
Actuated Green, G (s)		29.1			29.1		7.8	86.5		3.2	81.9	
Effective Green, g (s)		30.1			30.1		8.8	87.5		4.2	82.9	
Actuated g/C Ratio		0.22			0.22		0.06	0.62		0.03	0.59	
Clearance Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		321			273		111	2210		53	2086	
v/s Ratio Prot							c0.03	0.27		0.01	c0.39	
v/s Ratio Perm		c0.19			0.11							
v/c Ratio		0.89			0.51		0.55	0.42		0.21	0.66	
Uniform Delay, d1		53.4			48.5		63.7	13.4		66.3	19.1	
Progression Factor		1.00			1.00		0.85	1.50		1.15	0.59	
Incremental Delay, d2		25.2			1.6		5.1	0.6		1.8	1.5	
Delay (s)		78.6			50.1		59.5	20.6		78.0	12.7	
Level of Service		E			D		Е	С		Ε	В	
Approach Delay (s)		78.6			50.1			23.0			13.3	
Approach LOS		E			D			С			B	
Intersection Summary												
HCM Average Control D	elay		25.5	Н	CM Lev	el of Se	rvice		С			
HCM Volume to Capacit	y ratio		0.71								e hinai da bia Nota da bia	
Actuated Cycle Length (	s)		140.0	S	um of lo	ost time	(s)		18.2			
Intersection Capacity Uti	lization		59.6%	IC	U Leve	l of Ser	vice		C			
Analysis Period (min)			15	1. 1. 1								
c Critical Lane Group			na ann ann ann ann. Talainn ann ann ann ann ann ann ann ann ann									



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<del>ل</del> ة	*		44		ኻ	<u>ቀ</u> ሴ		ሻ	<b>ት</b> ሴ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	64 99 8 4 TO ( TO ( TO )
Lane Util. Factor		1.00	1.00		1.00		1.00	0.95		1.00	0.95	
Frt		1.00	0.85		0.99		1.00	0.99	·, · . · · · · · · · · · · · · · · · · ·	1.00	0.99	
Flt Protected		0.97	1.00		0.97		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1799	1583		1798		1770	3496		1770	3521	
Flt Permitted		0.70	1.00		0.67		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1306	1583		1242		1770	3496		1770	3521	
Volume (vph)	60	25	105	90	50	5	85	835	75	5	1275	45
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	67	28	117	100	56	6	94	928	83	6	1417	50
RTOR Reduction (vph)	0	0	98	0	1	0	0	3	0	0	1	0
Lane Group Flow (vph)	0	95	19	0	161	0	94	1008	0	6	1466	0
Turn Type	Perm		Perm	Perm			Prot			Prot		
Protected Phases		4	6.6.6.6		8		5	2		1	6	
Permitted Phases	4		4	8								
Actuated Green, G (s)		21.4	21.4		21.4		11.7	95.8		1.6	85.7	
Effective Green, g (s)		22.4	22.4		22.4		12.7	96.8		2.6	86.7	
Actuated g/C Ratio		0.16	0.16		0.16		0.09	0.69		0.02	0.62	
Clearance Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0	3.0		3.0	<u> </u>	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		209	253		199		161	2417		33	2181	
v/s Ratio Prot							c0.05	0.29		0.00	c0.42	
v/s Ratio Perm		0.07	0.01		c0.13							
v/c Ratio		0.45	0.07		0.81		0.58	0.42		0.18	0.67	
Uniform Delay, d1	statta tana ana amin'	53.3	50.0		56.7		61.1	9.4		67.7	17.4	
Progression Factor		1.00	1.00		1.00		1.00	1.00		1.31	0.25	
Incremental Delay, d2		1.6	0.1		21.0		5.3	0.5		2.0	1.3	
Delay (s)		54.8	50.1		77.8		66.4	9.9		90.3	5.6	
Level of Service		D	D		E		E	Α		F	Α	
Approach Delay (s)		52.2			77.8			14.7			5.9	
Approach LOS		D			E			В			А	
Intersection Summary												
HCM Average Control D	elay		16.5	H	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.69									
Actuated Cycle Length (	s)		140.0	Sı	um of lo	st time (	(s)		18.2			
Intersection Capacity Uti	lization		67.9%	IC	U Leve	l of Serv	rice		C			
Analysis Period (min)		-	15									
c Critical Lane Group												



SBL	ont	
	OC	SBR
	÷‡+	
	Stop	
20	175	25
0.90	0.90	0.90
22	194	28
	6.8.80	
	nan san De Roek de se	A desili destrue (repr
······		D D D D D D D D D D D D D D D D D D D
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	20 ).90 22	20 175 20 175 3.90 0.90 22 194

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		44			¢.			÷Ĵ.			4	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	10	140	75	50	115	10	40	105	55	25	210	50
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	11	156	83	56	128	11	44	117	61	28	233	56
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	250	194	222	317								
Volume Left (vph)	11	56	44	28								
Volume Right (vph)	83	11	61	56				1977-1979-1979 - 675 (1975) 1977-1979 - 1979 - 1979 - 1979 - 1979 - 1979 - 1979 - 1979 - 1979 - 1979 - 1979 - 1979 - 1979 - 1979 - 1979 - 1	in indialaise in eachdra	an an an Anna an Anna an Anna an Anna Anna Anna Anna Anna Anna Anna Anna Anna Anna Anna Anna Anna Anna Anna An Anna Anna	gentes en Wellenden.	
Hadj (s)	-0.16	0.06	-0.09	-0.05								
Departure Headway (s)	5.7	6.0	5.7	5.6					na nyaénga disintah tanja			
Degree Utilization, x	0.39	0.32	0.35	0,49								
Capacity (veh/h)	574	535	565	601				te (wiet regel) die begreet	- 84.6 - 46.1 <u>- 1</u> 9.6 - 66.6			navenne anna an
Control Delay (s)	12.3	11.8	11.8	13.8							\$\$\$.8.C	
Approach Delay (s)	12.3	11.8	11.8	13.8			******			-1999-1991-1991-1994-1997-1	00000000000000000000000000000000000000	ta na till an takkar (r spilar
Approach LOS	B	B	В	В								
Intersection Summary												
Delay			12.6								(a. (a) ai a	
HCM Level of Service			В					en en en en en freder d'here de e	- 1			
Intersection Capacity Uti	lization		52.0%	IC	U Leve	l of Ser	vice		Α			
Analysis Period (min)			15									uniona antes a consecta a consecta a consecta a consecta a consecta a consecta a consecta a consecta a consecta

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			<del>4</del> )-			ф.			÷	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	65	5	10	100	80	5	25	10	100	50	10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	72	6	11	111	89	6	28	11	111	56	11
Direction, Lane #	EB 1	WB 1	NB 1	SB 1						-10-10-10-10-10-10-10-10-10-10-10-10-10-		
Volume Total (vph)	83	211	44	178								
Volume Left (vph)	6	11	6	111								
Volume Right (vph)	6	89	11	11			1.991				unerten detend under	nynest, nederendet ef
Hadj (s)	0.01	-0.21	-0.09	0.12								
Departure Headway (s)	4.7	4.4	4.7	4.8	, 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 199 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -	******					nan san si san si	walio in cirin an
Degree Utilization, x	0.11	0.26	0.06	0.24								
Capacity (veh/h)	710	781	701	709			ageg 19.000, 600, 19.000 a			-1979-1990-997-997-997-997-997-997-997-997-997-		n tha ann an tha tha tha tha tha tha tha tha tha tha
Control Delay (s)	8.3	8.8	8.0	9.2			i en e	199 (S. 199 S			9.9.9.9	
Approach Delay (s)	8.3	8.8	8.0	9.2							1979 (1979 (1979 (1979 (1979 (1979 (1979 (1979 (1979 (1979 (1979 (1979 (1979 (1979 (1979 (1979 (1979 (1979 (19	
Approach LOS	A	A	Α	Α		inisis og i sign Gran Balaini						
Intersection Summary												
Delay			8.8	60 (ST 18 18								
HCM Level of Service			Α								alan mengenakan sebuah sebuah sebuah sebuah sebuah sebuah sebuah sebuah sebuah sebuah sebuah sebuah sebuah sebu	
Intersection Capacity Uti	lization		35.2%	IC	U Leve	l of Ser	vice		Α			
Analysis Period (min)		· · · · · · · · · · · · · · · · · · ·	15		2003 - 100 -						an managaran (katalar)	
			ani Siki Kaken			ene kieren	801/2016/881/263	000000000000	adalada ang ang ang ang ang ang ang ang ang an		estate de la composite	detelessere.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		44			4			¢‡+			4	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	10	5	20	75	5	25	15	215	50	20	495	10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	11	6	22	83	6	28	17	239	56	22	550	11
Pedestrians			and the figure should be the	en en al a company esta da de	el e de sue en le la Antolin de la		والمحمد والمرارك والمحمد والمرارك والمرارك		en en en en en en en en en en en en en e	renetati eset atta antituati	v de dat verke eek veerdeer de	
Lane Width (ft)												
Walking Speed (ft/s)			era konstala sa sa sa s				n in den sterie (den stari):	Antonia antonia antonia antonia antonia a		i der bester bester bei erster		ina ang ang ang ang ang ang ang ang ang a
Percent Blockage												
Hight turn hare (ven)		Nices		inghi ninghi kingang	NISSA					uninini katel		innetheletige
Median storage yeb)		INCHE			NOLIE							
Instream signal (ff)												
nX. platoon unblocked			88 88 88 88 S									
vC. conflicting volume	931	928	556	925	906	267	561			294		
vC1, stage 1 conf vol	n den de service	an an an an an an an an an an an an an a	10002020		alada <u>san</u> sa			an naga galaging ngili aga	in de la companya de la companya de la companya de la companya de la companya de la companya de la companya de La companya de la companya de la companya de la companya de la companya de la companya de la companya de la comp			
vC2, stage 2 conf vol												
vCu, unblocked vol	931	928	556	925	906	267	561			294		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)	a tet manata dat anno											
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	95	98	96	64	98	96	98	a ha shi a shi ka shi ka shi ka sa shi	en en statue (a statue (a statue)	98	atentikan tana ara	and strength of the
cM capacity (veh/h)	229	259	531	229	267	772	1010			1267		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	39	117	311	583								
Volume Left	11	83	17	22	Setters - set of a state state.	e Antonio de Contra de Contra de Contra de Contra de Contra de Contra de Contra de Contra de Contra de Contra d	an an an an an an an an an an an an an a	tali i di ta di sent merritatan	- mandar march à the develop de Marcolor	stational restate to the		
Volume Right	22	28	56	11								
CSH Values to Oceanity	348	2//	1010	1267			Shashalaa a		an an an an an an an an an an an an an a		i yang ung punkasin sak	
Oucline to Capacity	0.11	0.42	0.02	0.02								
Control Dolow (a)	9	07 t	1 ~~~	ן הב		yahaya nahirana					(genergenigen)	angennenine.
	-10.7 C	47.1 D	υ.ο Δ	0.3 Δ								
Annroach Delay (e)	167	271	 	nr		61351051051						
Approach LOS	C.	D	0.0	0.0								an basada
·		~										
intersection Summary												
Average Delay	<u>19</u>		4.1						ala kang sa karat <u>a</u> sinaka k	56466666666666666		holekaran korren.
Intersection Capacity Uti	lization		52.3%		JU Leve	l of Serv	nce		A			
Analysis Period (min)			15									



	-	*	Ť	1	1	Ļ			
Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations	Y		4			र्स			
Sign Control	Stop		Free			Free			alda Seelasta Secondo Secondo
Grade	0%		0%			0%			
Volume (veh/h)	55	30	215	25	50	555			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90			
Hourly flow rate (vph)	61	33	239	28	56	617			
Pedestrians	e fan ei hierne fan de			nienzenzi ezzientez	******		et e se se se se se se se se se se se se s	ne na evite kinetana urakita tautu utuk	
Lane Width (ft)									
Walking Speed (ft/s)		delikara karda kara	Anto para papanta la prés			(na the Street States Street		-1.4	
Percent Blockage									
Hight turn flare (ven)	NI.			taliai anti itani ada	analah ya kata sa k		la falglan ika (ménéri kusi mukaki kekatapan (asepata).		la Grand generation and
Median storage yeb	INOULE								
Unetream cignal (ft)			C44					la de la complete de la complete de la complete de la complete de la complete de la complete de la complete de	
nX platoon unblocked			011						
vC conflicting volume	981	253	nia lato del della d		267				
vC1_stage 1 conf vol	an la co <b>rrect</b> a de la co				<b>6. U</b> I				
vC2_stage 2 conf vol									Niji dala kanta
vCu, unblocked vol	981	253	949 (993) (993) 1949 (993) (993)		267				
tC, single (s)	6.4	6.2			4.1				
tC, 2 stage (s)	ويرو ومنابع ويتبار والتروين	eres a fransista		ala niyeta da ya sa sa sa sa sa	ka se estas factoris (estas).	and formed of an electropic production		tiges ( information of the second second second 2000)	nalyde algedea
tF (s)	3.5	3.3			2.2				
p0 queue free %	77	96		anta da fan de fan de fan fan de fan	96				l en el la tradaciónes
cM capacity (veh/h)	265	786			1297				
Direction, Lane #	WB 1	NB 1	SB 1						
Volume Total	94	267	672						S. (3) 54. (1
Volume Left	61	0	56						
Volume Right	- 33	28	0						
cSH	346	1700	1297						
Volume to Capacity	0.27	0.16	0.04						
Queue Length 95th (ft)	27	0	3	lador oznici czeredzieri	a da su da su da su da su da su da su da su da su da su da su da su da su da su da su da su da su da su da su Na su da su da su da su da su da su da su da su da su da su da su da su da su da su da su da su da su da su da s	and a state to the second state of the second state of the second state of the second state of the second state	a paga sa kana sa kana kana kana sa kana sa kana kan		
Control Delay (s)	19.3	0.0							
Lane LOS	C		A	ogikowszań wszoweko	a soo a soo a soo a soo a soo a soo a soo a soo a soo a soo a soo a soo a soo a soo a soo a soo a soo a soo a s			Andrea Barrantes estas lizza de acorea Antonio estas en en de la dura esta	na provinska presi
Approach LOC	19.3	0.0	1,1						
Approach LUS	C								
Intersection Summary									
Average Delay		and at at states of a	2.5						
Intersection Capacity Ut	ilization	1	59.7%	IC	U Level	l of Serv	ce	В	
Analysis Period (min)	naagar aa og tuustus use t		15						

	1	×.	Ť	1	\$	Ļ				
Movement	WBL	WBR	NBT	NBR	SBL	SBT				
Lane Configurations	M		<b>t</b> }			<del>ل</del> ه				
Sign Control	Stop		Free			Free				
Grade	0%		0%			0%				
Volume (veh/h)	20	20	240	10	20	435				
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90		1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -		
Hourly flow rate (vph)	22	22	267	11	22	483				
Pedestrians										
Lane Width (ft)										
Walking Speed (ft/s)										
Percent Blockage										
Right turn flare (veh)		a a station and the first second as the								
Median type	None									
Median storage veh)	Abdaalaasteersteers			و د مورد المراجع المراجع المراجع المراجع الم				a de la companya de la companya de la companya de la companya de la companya de la companya de la companya de Na companya de la companya de la companya de la companya de la companya de la companya de la companya de la comp		
Upstream signal (ft)						667				
pX, platoon unblocked	0.85									
vC, conflicting volume	800	272			278					
vC1, stage 1 conf vol				sinan das Astronam		541754554-544-5528-84	e a la casa da casa da casa da casa da casa da casa da casa da casa da casa da casa da casa da casa da casa da			
vC2, stage 2 cont vol										
VCu, unblocked vol	/64	272	alaran winata dari		278		andra and a state of the state of the state of the state of the state of the state of the state of the state of		eninistin (martalasia) atau esta d	as (* 10 čezi) v 1949
tC, single (s)	6.4	6.2			4.1					
10, 2 stage (s)	οc	<u></u>	kashdaqiddi qab	est og kombiliser	~ ~	ining internet second				- ANN ANN ANN ANN ANN ANN ANN ANN ANN AN
nr (a)	0.0 02	0.3 07			2.2					6000000
old concerts (uch/h)	30 240	9/ 766		san san san san san san san san san san	90 1005	Ngananaki sa				SAMAGANG
	OIU	100			1200					
Direction, Lane #	WB1	NB 1	581							
Volume Loft	44	2/8	506							
Volume Leit	22 ~~	U	22 **	unkeringeseptik	halimisteriosopos	90300400324988				Si nasika
	<u> </u>	1700	1005							
Volume to Conneitu	44 I 0 10	0.46	1280	(1997) Alexandre						
Oucure Longth 95th (ft)	0.10	0.10	0.02							
Control Delay (a)	0	0 0 0	ו ה ב							
	14.1 D	0.0	د.ت ۸							<u>88/1997</u>
Annroach Delou (e)	1/1	0.0	n r							<u> 1998</u>
Approach LOS	IH.I R	U.U	<b>v.</b> ə							
Internet of C	2									
mersection Summary										
Average Delay	erres contactor		1.1				an an an an an an an an an an an an an a	inin ilinin elemente	beletter transformation and the state	andes glenner
Intersection Capacity UI	ulization	2	19.2%	IC	U Leve	ot Servic	e	A		
Analysis Period (min)			15							

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Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	¥.			র্ম	ţ,		
Sign Control	Stop			Free	Free		
Grade	0%			0%	0%	na na danazan tanak ama uta karan kanan ata ta una za na wanata na haranga nama na karana na za da da da da da d	
Volume (veh/h)	25	5	25	205	415	35	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vph)	28	6	28	228	461	39	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)	ور ور ور ور ور ور ور ور ور						
Percent Blockage							
Right turn flare (veh)	le rolage af de en totelle de fert			a de la del se de la decembra de la del se de la del se de la del se de la decembra de la del se de la del se	alas kata taka kata		
Median type	None				u dan dan dan da		
Median storage ven)			alai (da alaininda)	4000	~~~		vierteier.
Opstream signal (II)	^	A 07	A 07	1088	959		
px, platoon unblocked	0.87	0.87	0.87				a de palere
vC, connicting volume	/04	481	500				
vC1, stage 1 cont vol		0.650.050.2410			ayahaiyatata		50E6A
VCL, unblocked vol	707	400	422				1956 (11)
tC single (s)	64	-+00 6.2	тсс <u> </u>				2696-165
tC. 2 stage (s)							
tF (s)	3.5	3.3	22	ini dan Nyini tasi ting Nyini tasi ting			
p0 queue free %	92	99	97	in all an an an an an an an an an an an an an	en de la compañía de la facta de la compañía de la compañía de la compañía de la compañía de la compañía de la Compañía de la compañía	estigs-	
cM capacity (veh/h)	329	563	984				
Direction. Lane #	EB 1	NB 1	SB 1				
Volume Total	33	256	500				
Volume Left	28	28	0				278898
Volume Right	6	0	39				
cSH	353	984	1700		100000000000000000000000000000000000000		tojspins
Volume to Capacity	0.09	0.03	0.29				
Queue Length 95th (ft)	8	2	0				
Control Delay (s)	16.3	1.2	0.0				
Lane LOS	С	Α					
Approach Delay (s)	16.3	1.2	0.0				
Approach LOS	С						
Intersection Summary							
Average Delay			1.1			(*************************************	
Intersection Capacity Ut	ilization	4	1.7%	IC	U Level	el of Service A	
Analysis Period (min)			15				



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	<b>1</b> 2		ሻ	4			<b>4</b> 4			<b>4</b> 14	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	12	11	11	14	14	14	11	11	11
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.99		1.00	0.99			1.00			0.98	
Fit Protected	0.95	1.00		0.95	1.00			0.99			0.99	
Satd. Flow (prot)	1711	1839		1770	1783			1966			1764	
Flt Permitted	0.29	1.00		0.33	1.00			0.91			0.94	
Satd. Flow (perm)	530	1839		614	1783			1807			1664	
Volume (vph)	70	385	35	40	420	30	45	225	5	35	245	35
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	78	428	39	44	467	33	50	250	6	39	272	39
RTOR Reduction (vph)	0	4	0	0	4	0	0	1	0	0	4	0
Lane Group Flow (vph)	78	463	0	44	496	0	0	305	0	0	346	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	18.4	18.4		18.4	18.4			16.3			16.3	
Effective Green, g (s)	19.4	19.4		19.4	19.4			17.3			17.3	
Actuated g/C Ratio	0.39	0.39		0.39	0.39			0.35			0.35	
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	209	724		242	702		10000000000000000000000000000000000000	634			584	
v/s Ratio Prot		0.25			c0.28						·	
v/s Ratio Perm	0.15			0.07				0.17			c0.21	
v/c Ratio	0.37	0.64		0.18	0.71			0.48		10000000000000000000000000000000000000	0.59	
Uniform Delay, d1	10.6	12.1		9.8	12.6			12.5			13.1	
Progression Factor	1.00	1.00		1.00	1.00			1.00		5211 - 14 - 14 - 14 - 14 - 14 - 14 - 14 -	1.00	
Incremental Delay, d2	1.1	1.9		0.4	3.3			0.6			1.6	
Delay (s)	11.8	14.0		10.1	15.8			13.1			14.7	
Level of Service	В	В		В	В			В			В	
Approach Delay (s)		13.7			15.4			13.1			14.7	
Approach LOS		В			В			В			B	
Intersection Summary												
HCM Average Control D	elay		14.3	H	ICM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.58				an de ana anter de Gra	un autor traun anter Statif	n man mattaini ba	an an an an Anna An An An An An An An An An An An An An		
Actuated Cycle Length (	s)		49.3	S	um of lo	ost time	(S)		8.0			
Intersection Capacity Uti	lization	6	\$2.8%	IC	CU Leve	l of Serv	/ice		В	erre entre en tender befolde	- 11. AN AN AN AN AN AN AN AN AN AN AN AN AN	
Analysis Period (min)			15									



	≯		$\rightarrow$	-			1	Ť	1	4	Ļ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	•			ţ,		ሻ	<b>Ĺ</b> ,				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	10	10	16	16	16	10	11	11	12	12	12
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0				
Lane Util. Factor	1.00	1.00			1.00		1.00	1.00			n je na sere nastala je da	an arises the second
Frt	1.00	1.00			0.99	anian intel (1991) Salah di Kangalari	1.00	0.98	la contra da serie da serie Contra da serie da serie da serie da serie da serie da serie da serie da serie da s			
Flt Protected	0.95	1.00		and a spectrum of a	1.00		0.95	1.00				a dytypyytyten (per
Satd, Flow (prot)	1888	1739			1879		1652	1759				
Fit Permitted	0.31	1.00		nya kana mataga kata	1.00	ana dhaatayaya	0.95	1.00	an an an Anna Anna Anna An	an an an an an an an an an an an an an a	ister et elle sole et e	anga gu aibeanna
Satd. Flow (perm)	610	1739			1879		1652	1759				
Volume (vph)	50	445	0	0	455	40	65	250	45	0	۵	0
Peak-hour factor PHE	0.90	0.90	n 9ñ	ററ്	0.90	0 90	n an	ngn	0 90	nañ	n añ	nañ
Adi, Flow (vph)	56	494	0	0	506	44	72	278	5.00 50	0.VV 0	οο Λ	0.00
BTOB Beduction (vob)	ñ	, i i	ň	ň		'n	้ก	2,0		Š Š	ň	Ň
Lane Group Flow (vph)	56	494	Ŷ	۰ ۱	546	v ۵	72	322	v ۸	S	v م	v ۱
Parking (#/hr)				ŏ	0	ŏ	i in Galerador	<b>V</b> ££	• •		v See See	
Turn Type	Perm						Perm					
Protected Phases		2			6			8				
Permitted Phases	2	server and a transmit	2000/00/00/00/00/00/00	2000/00/00 / COMANS	an an an an taon an an an an an an an an an an an an an	lindert er beiter beiter beiter beiter beiter beiter beiter beiter beiter beiter beiter beiter beiter beiter b	 8	<b></b>	0.000028000000	69w900000000000	490005040499999	
Actuated Green, G (s)	20.2	20.2			20.2		13.6	13.6				
Effective Green, a (s)	21.2	21.2	,009-2006-2007-2004 	debistates ba	21.2	563 A.S. (1997) (1997) (1997) (19	14.6	14.6	1997 (12.073) (13.4779) (13.973) 1997 (12.073) (13.4779) (13.973)		ada sabashas	hannan Saladi
Actuated g/C Ratio	0.46	0.46			0.46		0.32	0.32				
Clearance Time (s)	5.0	5.0	2042 (Alexandra) (Alexa)	atta Artu-euro	5.0	an i più che vite i dei	5.0	5.0				
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0				
Lane Grp Cap (vph)	280	798			862		522	556			100000000000000000000000000000000000000	
v/s Ratio Prot		0.28	ung kanisi		c0 29			c0 18				Manaphat
v/s Ratio Perm	0.09		en statelikasia	a biy yan na saya		Correction (Cor	0.04					
v/c Ratio	0.20	0.62			0.63		0 14	0.58				
Uniform Delay, d1	74	94			95		113	13.2				
Progression Factor	1.00	1 00			1 00		1 00	1 00				
Incremental Delay, d2	0.4	1.4			1.5	5001-0501-0555-0555-0 5	01	15	0.00000049586300000049	999.000/1000 199	den den Crass	99999999999
Delay (s)	7.8	10.9			111		114	14.7				
Level of Service	A	В			R		B	R				
Approach Delay (s)		10.6			111			141			00	
Approach LOS		В	nige nikologija (na kolo	aliotta a staat	В			В			A	
Intersection Summary												
HCM Average Control D	elay		11.7	Н	CM Lev	el of Se	rvice		В			
<b>HCM Volume to Capacit</b>	y ratio		0.57							8.8.00.53		
Actuated Cycle Length (s	s)		46.2	S	um of lo	st time	(s)		8.0			
Intersection Capacity Uti	lization	l de la companya de la companya de la companya de la companya de la companya de la companya de la companya de l	58.9%	IC	U Leve	l of Sen	<i>l</i> ice		В			
Analysis Period (min)			15		a ana amin'ny fisiana		5	saan an de Soldenders		eenee oo oo oo oo oo oo oo oo oo oo oo oo o	an an an an thair a bha	
c Critical Lane Group												

	٨		$\rightarrow$	1			1	<b>†</b>	1	<b>\$</b>	Ļ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	٣	4		۲	*	7		<u>ب</u>		ሻ	<b>≜</b>	*
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	11	11	12	12	12	10	10	12
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0		4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00		1.00	enni of energy of energy of e	1.00	1.00	1.00
Frt	1.00	0.99		1.00	1.00	0.85		0.96		1.00	1.00	0.85
Flt Protected	0.95	1.00	2 Marca 2000 Anno 2000 Anno 2000 Anno 2000 Anno 2000 Anno 2000 Anno 2000 Anno 2000 Anno 2000 Anno 2000 Anno 200	0.95	1.00	1.00		1.00		0.95	1.00	1.00
Satd, Flow (prot)	1540	1658		1711	1801	1531		1605		1652	1739	1583
Flt Permitted	0.48	1.00	5	0.51	1.00	1.00	ng kang diging di sasa karan.	0.58		0.80	1.00	1.00
Satd, Flow (perm)	783	1658		918	1801	1531		927		1384	1739	1583
Volume (vph)	110	250	20	75	290	160	5	55	25	225	275	80
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adi, Flow (vph)	122	278	22	83	322	178	6	61	28	250	306	89
RTOR Reduction (vph)	0	3	0	0	0	110	Ō	16	ō	- ñ	ñ	57
Lane Group Flow (vph)	122	297	0	83	322	68	0	79	0	250	306	32
Parking (#/hr)	0	0	Ō				Ō	ō	ŏ			
Turn Type	Perm			Perm		Perm	Perm			nm+nt		Perm
Protected Phases		2			6		1 01.11	R		7	4	
Permitted Phases	2		000000000000000000000000000000000000000	6		6	8 8	<b>-</b>		<u>م</u>		4
Actuated Green, G (s)	18.5	18.5		18.3	18.3	18.3		51		172	172	172
Effective Green, g (s)	19.5	19.5	and deep where of the c	19.3	19.3	19.3	2020-001-040-040-00	6.1	operneere deer	18.2	18.2	18.2
Actuated g/C Ratio	0.38	0.38		0.38	0.38	0.38		0.12		0.36	0.36	0.36
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0	i de el contratorio de la contratorio de la contratorio de la contratorio de la contratorio de la contratorio d	5.0		5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0		3.0	da basa ngen kasi Kabupatèn kasi	3.0	3.0	3.0
Lane Grp Cap (vph)	301	638		349	686	583		112		540	624	568
v/s Ratio Prot		c0 18			0.18					0.07	CO 18	
v/s Ratio Perm	0.16			0.09		0.04		c0 09		0.09		0 02
v/c Ratio	0.41	0.47		0.24	0.47	0.12		0.71		0.00	049	0.02
Uniform Delay, d1	11.4	11.7		10.7	11.8	10.2	uçalızta aztaşı.	21 4		13.4	12.6	10.6
Progression Factor	1.00	1.00		1.00	1 00	1 00		1 00		1 00	1 00	1 00
Incremental Delay, d2	0.9	0.5		0.4	05	01		18.4	alitiku (ka 196)	06	0.6	0.0
Delay (s)	12.3	12.2		11.0	12.3	103		39.9		14.0	13.3	10.7
Level of Service	B	B		B	B			D		R	B	R
Approach Delay (s)		12.2			11.5			39.8			132	
Approach LOS		В		a dan dan seria dalah	В			D			B	
Intersection Summary												
HCM Average Control D	elay		13.9	Н	CM Lev	el of Se	ervice		В			
HCM Volume to Capacit	v ratio		0.44									Generality
Actuated Cycle Length (s	S)		50.7	S	um of lo	st time	(s)		8.0			
Intersection Capacity Uti	lization	5	51.1%	ĪC	U Leve	l of Ser	viće		A			
Analysis Period (min)	ana ang katalok da katalok da katalok da katalok da katalok da katalok da katalok da katalok da katalok da kat Na katalok da katalok da katalok da katalok da katalok da katalok da katalok da katalok da katalok da katalok da		15		5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 -	20100-11.077-17775			aanaa ada Biin	a yana malaka wayo		-999666666666
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		ধ	7	ሻ	4			র্	7	ሻ	î.	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	12	12	16	12	12	12
Total Lost time (s)		4.0	4.0	4.0	4.0			4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	
Frt		1.00	0.85	1.00	0.97			1.00	0.85	1.00	0.98	
Flt Protected		1.00	1.00	0.95	1.00			0.98	1.00	0.95	1.00	
Satd. Flow (prot)		1733	1478	1486	1516			1826	1794	1593	1829	
Flt Permitted		0.96	1.00	0.56	1.00			0.84	1.00	0.65	1.00	
Satd. Flow (perm)		1672	1478	879	1516			1572	1794	1092	1829	
Volume (vph)	15	220	80	55	245	65	60	90	60	100	110	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	244	89	61	272	72	67	100	67	111	122	17
RTOR Reduction (vph)	0	0	53	0	14	0	0	0	37	0	4	0
Lane Group Flow (vph)	0	261	36	61	330	0	0	167	30	111	135	0
Parking (#/hr)				0	0	0	0			0		
Turn Type	Perm		Perm	Perm			Perm		Perm	Perm		
Protected Phases		2			6			8		enderedeter Statistick	4	
Permitted Phases	2		2	6			8		8	4		1194194994944114
Actuated Green, G (s)		11.3	11.3	11.3	11.3			14.0	14.0	14.0	14.0	
Effective Green, g (s)		12.3	12.3	12.3	12.3			15.0	15.0	15.0	15.0	
Actuated g/C Ratio		0.31	0.31	0.31	0.31			0.37	0.37	0.37	0.37	
Clearance Time (s)		5.0	5.0	5.0	5.0			5.0	5.0	5.0	5.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0		en dy pasy dy Santos generati	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		510	451	268	463			585	668	406	681	
v/s Ratio Prot					c0.22						0.07	
v/s Ratio Perm		0.16	0.02	0.07		****************		c0.11	0.02	0.10	n a georgia de la constantina de la constantina de la constantina de la constantina de la constantina de la co La constantina de la constantina de la constantina de la constantina de la constantina de la constantina de la c	an an an an an an an an an an an an an a
v/c Ratio		0.51	0.08	0.23	0.71			0.29	0.04	0.27	0.20	
Uniform Delay, d1		11.5	10.0	10.5	12.4			8.9	8.1	8.8	8.6	11/12/1-9-1-9-1-1
Progression Factor		1.00	1.00	1.00	1.00		la se de la composición Al 1990 de la composición de la composición de la composición de la composición de la c	1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.9	0.1	0.4	5.1			0.3	0.0	0.4	0.1	and all and a second second second second second second second second second second second second second second
Delay (s)		12.4	10.0	10.9	17.6			9.2	8.1	9.2	8.7	
Level of Service		В	В	В	В			А	А	А	Α	n provinské pravbas
Approach Delay (s)		11.8			16.6			8.9			8.9	
Approach LOS		В			В			Α			А	,
Intersection Summary												
HCM Average Control De	elay		12.2	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacity	ratio		0,40									
Actuated Cycle Length (s	)		40.3	S	um of lo	st time (	(s)		8.0			
Intersection Capacity Util	ization	ţ	57.3%	K	CU Leve	l of Serv	rice		В			
Analysis Period (min)			15							a and a construction of the second second		an an an an an an an an an an an an an a
c Critical Lane Group												
	≯	-	$\rightarrow$	1		×.	1	1	1	<b>\</b>	¥	$\checkmark$
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Movement	EBL2	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR2	SBL	SBT	SBR
Lane Configurations		4.			£.			4			<u>ፈъ</u>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	14	14	14	12	12	12	16	16	16
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00		er mandeler el de la seguera de	1.00	ni nanjaranja kesis
Frt		0.98			0.99			1.00			0.99	
Flt Protected		0.99			0.98	of multiply and not to a		1.00	nie wie wet week in de week ste		1.00	agen der ander
Satd. Flow (prot)		1808			1926			1852			2094	
Flt Permitted		0.94			0.89			0.97		and a second state of the	0.99	artan sita arta
Satd, Flow (perm)		1715			1750			1805			2085	
Volume (vph)	15	45	10	20	30	5	15	230	5	5	275	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	50	11	22	33	6	17	256	6	6	306	17
RTOR Reduction (vph)	0	7	0	0	0	0	0	1	0	Ō	2	0
Lane Group Flow (vph)	0	71	0	0	61	0	0	278	0	0	327	0
Turn Type	Perm		9 6 G S	Perm			Perm			Perm		
Protected Phases		3	alm again guaing a		3	Sense dan Arvintenaspang		2			6	n her an der der
Permitted Phases	3			3		ondo son anti-	2	2		6	6	
Actuated Green, G (s)		15.0			15.0		an an an an an an an an an an an an an a	30.0			30.0	
Effective Green, g (s)		16.0			16.0			31.0			31.0	
Actuated g/C Ratio		0.20			0.20			0.39			0.39	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Lane Grp Cap (vph)		343			350	****		699			808	<u>inatan matanak</u>
v/s Ratio Prot							en de la comp					
v/s Ratio Perm	ala ya na safa ya mana ka kata ya ka ka ka ka ka ka ka ka ka ka ka ka ka	c0.04	94 ( ) - O ( ) ( - O ( ) - O (	1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	0.03		an indiana ang sa sa sa sa sa sa sa sa sa sa sa sa sa	0.15			c0.16	ternis (second vides
v/c Ratio		0.21			0.17			0.40			0.40	
Uniform Delay, d1		26.7			26.5		000000000000000000000000000000000000000	17.7	220-221-200-2003 	ana ana ana ana ang ang ang ang ang ang	17.8	1641-000316406
Progression Factor		1.00			1.00		éczegy ég	1.00			1.00	
Incremental Delay, d2		1.4			1.1			1.7			1.5	
Delay (s)		28.1		in in the second Constant and an an	27.6		in in den der Charlen German	19.4			19.3	
Level of Service		С			С			В			В	turk an transformer agenet
Approach Delay (s)		28.1			27.6			19.4			19.3	
Approach LOS		Ċ			С			В			В	
Intersection Summary												
HCM Average Control D	elay		27.6	Н	CM Lev	el of Sei	rvice		С			
HCM Volume to Capacity	y ratio		0.48									
Actuated Cycle Length (s	5)		80.0	Si	um of lo	st time (	s)		12.0			
Intersection Capacity Uti	lization	e e e	57.2%	IC	U Level	l of Serv	ice		В			
Analysis Period (min)			15									
c Critical Lane Group							ianto de la Receiencia da					



Movement	SWL2	SWL	SWR	SWR2					
Lane Configurations	ħ	¥.							
Ideal Flow (vphpl)	1900	1900	1900	1900					
Lane Width	14	14	14	14		, ,			
Total Lost time (s)	4.0	4.0							
Lane Util. Factor	1.00	1.00							
Frt	1.00	0.99							
Flt Protected	0.95	0.96							
Satd. Flow (prot)	1888	1876							
Flt Permitted	0.95	0.96							
Satd. Flow (perm)	1888	1876							
Volume (vph)	15	325	25	5					
Peak-hour factor, PHF	0.90	0.90	0.90	0.90					
Adj. Flow (vph)	17	361	28	6	an ship na dabb				
<b>RTOR Reduction (vph)</b>	0	1	0	0					
Lane Group Flow (vph)	17	394	0	0					
Turn Type	Split								
Protected Phases	4	4							
Permitted Phases		ense oskipe Brode genoe							
Actuated Green, G (s)	20.0	20.0							
Effective Green, g (s)	21.0	21.0							
Actuated g/C Ratio	0.26	0.26							
Clearance Time (s)	5.0	5.0					9.3.44		
Lane Grp Cap (vph)	496	492							
v/s Ratio Prot	0.01	c0.21							
v/s Ratio Perm						an an tha an tha an tha an tha an tha an tha an tha an tha an tha an tha an tha an tha an tha an tha an tha an Tha an tha an tha an tha an tha an tha an tha an tha an tha an tha an tha an tha an tha an tha an tha an tha an			
v/c Ratio	0.03	0.80							
Uniform Delay, d1	22.0	27.6		1				en en de la compañía de la compañía de la compañía de la compañía de la compañía de la compañía de la compañía Na compañía de la compañía de la compañía de la compañía de la compañía de la compañía de la compañía de la comp	s en en en en en en en en en en en en en
Progression Factor	1.00	1.00							
Incremental Delay, d2	0.1	12.9				a ang menapangkangka			
Delay (s)	22.1	40.4							
Level of Service	С	D	- 2000 (An December of Second		ang a pragganisi na		eleni eleneri (elen	and a character and a share	6 (6 (3 (3 (3 (3 (3 (3 (3 (3 (3 (3 (3 (3 (3
Approach Delay (s)		39.7							
Approach LOS		D	· · · · · · · · · · · · · · · · · · ·	a na antina ana filana					
Intersection Summary									



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4	7		र्भ	۴	ኘ	<u>ት</u> ኩ		ሻ	<b>†</b> 1+	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	0.99	
Fit Protected		0.96	1.00		0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1787	1583		1793	1583	1770	3533		1770	3493	
Flt Permitted		0.72	1.00		0.75	1.00	0.22	1.00		0.28	1.00	
Satd. Flow (perm)		1348	1583		1397	1583	401	3533		528	3493	
Volume (vph)	55	10	115	35	10	20	90	900	10	55	790	75
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	61	11	128	39	11	22	100	1000	- 11	61	878	83
RTOR Reduction (vph)	0	0	108	0	0	19	0	1	0	0	8	0
Lane Group Flow (vph)	0	72	20	0	50	3	100	1010	0	61	953	0
Turn Type	Perm		Perm	Perm		Perm	pm+pt			Perm		
Protected Phases		4			8	5. 63 62 <i>0</i> .	5	2			6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)		9.2	9.2		9.2	9.2	41.4	41.4		32.6	32.6	
Effective Green, g (s)		9.2	9.2		9.2	9.2	41.4	41.4		32.6	32.6	
Actuated g/C Ratio		0.16	0.16		0,16	0.16	0.71	0.71		0.56	0.56	
Clearance Time (s)		4.0	4.0		4.0	4.0	3.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0	3.0	19 (j. st. s)	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		212	249		219	249	395	2496		294	1943	
v/s Ratio Prot							0.02	c0.29			c0.27	
v/s Ratio Perm		c0.05	0.01		0.04	0.00	0.16			0.12		
v/c Ratio		0.34	0.08		0.23	0.01	0.25	0.40		0.21	0.49	
Uniform Delay, d1		22.0	21.1		21.6	20.9	3.7	3.5		6.5	7.9	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	ور و دو استوری است	1.0	0.1		0.5	0.0	0.3	0.1		0.4	0.2	
Delay (s)		23.0	21.2		22.1	20.9	4.1	3.6		6.9	8.1	
Level of Service	elensileisen en en tieren	С	С		С	С	Α	A		Α	Α	
Approach Delay (s)		21.8			21.8			3.7			8.1	
Approach LOS		С			С			A			A	
Intersection Summary												
HCM Average Control D	elay		7.6	Н	CM Lev	el of S	ervice		Α			
HCM Volume to Capacit	y ratio		0.46									
Actuated Cycle Length (	s)		58.6	S	um of lo	ost time	(S)		12.0			
Intersection Capacity Uti	lization		52.1%	IC	CU Leve	el of Sei	vice		A			
Analysis Period (min)	utile and entities as the sec	Sector Sector Comments	15									
c Critical Lane Group												



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		र्स	*	ሻ	ţ,		ኻ	<u>ቶኒ</u>		۲	<b>ት</b> ሴ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	10	12	16	12	10	10	10	10	10	10
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	0.95		1.00	0.95	an sa na sana sa sa sa sa sa sa sa sa sa sa sa sa sa
Frt		1.00	0.85	1.00	0.90		1.00	1.00		1.00	1.00	
Flt Protected		0.97	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1750	1478	1770	1909		1652	3296		1652	3291	
Flt Permitted		0.79	1.00	0.71	1.00		0.28	1.00		0.95	1.00	
Satd. Flow (perm)		1415	1478	1329	1909		485	3296		1652	3291	
Volume (vph)	35	25	120	30	20	35	165	1050	15	40	810	20
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	39	28	133	33	22	39	183	1167	17	44	900	22
RTOR Reduction (vph)	0	0	120	0	35	0	0	1	0	0	2	0
Lane Group Flow (vph)	0	67	13	33	26	0	183	1183	0	44	920	0
Turn Type	Perm		Perm	Perm			om+pt			Prot		
Protected Phases		4			8		5	2	*******************	1	6	14 de 19 de 19 de 19 de 19 de 19 de 19 de 19 de 19 de 19 de 19 de 19 de 19 de 19 de 19 de 19 de 19 de 19 de 19 La decembra de la decembra de 19 de 19 de 19 de 19 de 19 de 19 de 19 de 19 de 19 de 19 de 19 de 19 de 19 de 19 d
Permitted Phases	4		4	8			2					
Actuated Green, G (s)		6.7	6.7	6.7	6.7		42.0	42.0		3.5	28.5	
Effective Green, g (s)		6.7	6.7	6.7	6.7		43.0	43.0		3.5	29.5	
Actuated g/C Ratio		0.10	0.10	0.10	0.10		0.64	0.64		0.05	0.44	
Clearance Time (s)		4.0	4.0	4.0	4.0		5.0	5.0		4.0	5.0	
Vehicle Extension (s)		1.0	1.0	1.0	1.0		1.5	1.0		1.0	1.0	
Lane Grp Cap (vph)		140	146	132	189		601	2093		85	1434	
v/s Ratio Prot					0.01		0.08	c0.36		0.03	c0.28	entrien en ander
v/s Ratio Perm		c0.05	0.01	0.02			0.12					
v/c Ratio		0.48	0.09	0.25	0.14	2000-000-000-000-000-000-00-00-00-00-00-	0.30	0.57	en en en en en en en en en en en en en e	0.52	0.64	9998-9999-9999-9999-999 1999-9999-9999-9
Uniform Delay, d1	. di . di . di . di	28.8	27.7	28.2	27.9		8.3	7.0		31.3	15.0	
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.9	0.1	0.4	0.1		1.3	1.1		2.2	2.2	
Delay (s)		29.8	27.8	28.5	28.0		9.6	8.1		33.5	17.2	
Level of Service		C	С	C	С		A	A		C	B	
Approach Delay (s)	·	28.5			28.2			8.3			17.9	
Approach LOS	AST SERVICE	C	59 80 (B) S		С			Α			B	
Intersection Summary												
HCM Average Control D	elay		14.1	H	CM Lev	el of Se	rvice		В			50506000
HCM Volume to Capacity	y ratio		0.56		nya di kata mangalar sakalari.			an an an an an Ardyn 1997 (f.			e veleti dala ta di selle di dila. N	en son an an an an an an an an an an an an an
Actuated Cycle Length (s	s)		67.7	S	um of lo	st time i	(S)		8.0	9,2000		
Intersection Capacity Util	ization		52.8%	IC	CU Leve	l of Serv	vice		Α	and the set of the set		
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis 25: I-189 OFF RAMP & Shelburne St. (Rt 7)

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				×	÷.			<b>≜</b> î∌			<b>≜</b> 14	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	14	12	12	12	12	12	12
Total Lost time (s)				4.0	4.0			4.0			4.0	
Lane Util. Factor				0.95	0.95			0.95			0.95	
Frt				1.00	1.00			1.00		Sec. 0. a.	1.00	
Flt Protected				0.95	0.96			1.00			1.00	
Satd. Flow (prot)				1681	1700			3539			3537	
Flt Permitted				0.95	0.96			1.00			1.00	
Satd. Flow (perm)				1681	1700			3539			3537	
Volume (vph)	0	0	0	1295	135	0	0	740	0	0	1260	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	1439	150	0	0	822	0	0	1400	6
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	0	0	774	815	0	0	822	0	0	1405	0
Turn Type				Perm			Perm					
Protected Phases					8			2			6	
Permitted Phases				8			2					
Actuated Green, G (s)				28.0	28.0			29.5			29.5	
Effective Green, g (s)				30.0	30.0			31.5			31.5	
Actuated g/C Ratio	anna chairteachanna	ang alamatan sa sa sa sa sa sa sa sa sa sa sa sa sa		0.43	0.43			0.45			0.45	
Clearance Time (s)				6.0	6.0			6.0			6.0	
Vehicle Extension (s)				3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)				726	734			1604			1603	
v/s Ratio Prot	ane a constant	and when the state of the state		and for the second second				0.23			c0.40	
v/s Ratio Perm				0.46	0.48							
v/c Ratio				1.07	1.11			0.51			0.88	
Uniform Delay, d1				19.8	19.8			13.5			17.2	
Progression Factor	alla and a state of the state of the state of the state of the state of the state of the state of the state of	den Ergengenster kannen ka	umaa aa aa	1.00	1.00	u katometata da	ana ana mana ang	1.00	Companya ang ang ang ang ang ang ang ang ang an		1.00	
Incremental Delay, d2	200420-08-03			52.4	67.7	9 (H GR 9)		0.3			5.7	
Delay (s)	liaideki tetrad		i Mili Mili Mara	/2.2	87.5	kanan senara sa	25./AS/ASIA-AAAAA	13.8	ster en station des autors des		23.0	010.04400.0144
Level of Service		<u>^</u> ^		E	- F			В			Ç	
Approach Delay (S)		0.0			80.0		ulika poto	13.8			23.0	anisiisteen taista
Approach EUG		A						В			C	
Intersection Summary												
HCM Average Control De	əlay		44.8	H	CM Lev	el of Sei	vice		D			
HCM Volume to Capacity	ratio		0.99									
Actuated Cycle Length (s	)		69.5	S	um of lo	st time (	S)		8.0			
Intersection Capacity Util Analysis Period (min)	ization	8	1.1% 15	IC	CU Leve	l of Serv	ice		D			

c Critical Lane Group

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<i>ф</i> ,			đ.			<b>4</b>			ጨ	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	20	155	60	30	110	15	20	270	45	65	250	25
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	22	172	67	33	122	17	22	300	50	72	278	28
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	261	172	372	378								
Volume Left (vph)	22	33	22	72								
Volume Right (vph)	67	17	50	28						fallen ind nånge grittelt.	14513-1460 (123-244-146) 	14940041314-4446444
Hadj (s)	-0.10	0.01	-0.03	0.03	initia and and a							
Departure Headway (s)	6.6	7.0	6.2	6.2						5-6-6-6-6-6-6-6-6-6-6-6-6-6-6-6-6-6-6-6	20106-0012-002-002-0	
Degree Utilization, x	0.48	0.33	0.64	0.65								
Capacity (veh/h)	483	434	546	538	*******			de a substation de la substation	a je for en alle fersele a s		i da da baran katak da sa	09993793893898.02390
Control Delay (s)	15.5	13.4	19.5	20.2								
Approach Delay (s)	15.5	13.4	19.5	20.2								
Approach LOS	C	В	C	c								
Intersection Summary												
Delay			18.0									
HCM Level of Service			С					····· [** , **** ** . ** . ** . ** . **		-1		er an an an an an an an an an an an an an
Intersection Capacity Uti	lization		59.1%	IC	CU Leve	l of Sen	vice		В			
Analysis Period (min)			15									
							ainicean an ior	ation de la company			enenenee	al dan Berti

	<	*	Ť	1	1	↓ · · · · · · · · · · · · · · · · · · ·
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		î.≱			र्भ
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	145	5	335	200	5	590
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	161	6	372	222	6	656
Pedestrians		lan kana ang kasara	antari ang ang ang ang ang ang ang ang ang ang			
Lane Width (ff)						
waiking Speed (ft/s)		ana anata				
Percent Biockage						
Modion type	Nona	ki dan singan siyang			lating kaping	
Median storage veh)	INCINE			(511636955)(99)		
Hostream signal (ff)						832
pX. platoon unblocked	0.92					<b>55</b>
vC. conflicting volume	1150	483			594	
vC1, stage 1 conf vol		a lagra (1977) ang sa sa sa sa sa sa sa sa sa sa sa sa sa				
vC2, stage 2 conf vol						
vCu, unblocked vol	1163	483		2000-000-000-000-000-000-000-000-000-00	594	und bezaltet als maar og menodenne men men for de for soldt soldt strender og soldt soldt for som og af for forsende for de forsende for de forsende for de forsende for de forsende for de forsende for de forsende for de forsende for de forsende for de forsende for de forsende for de forsende for de forsende for de forsende for de forsende for de forsende fors
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						· · · · · · · · · · · · · · · · · · ·
tF (s)	3.5	3.3			2.2	
p0 queue free %	18	99	te norither start in the de		99	
cM capacity (ven/h)	198	583			982	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	167	594	661			
Volume Left	161	0	6	colines parestants	www.autorecomerciantes	
Volume Right	6	222	0			
COM Maluma ta Canadhu	202	1/00	982			
Volume to Capacity	150	0.35	0.01			
Control Dolou (c)	100	0 0	U cn	i in the second		
Lane LOS	73.7 F	0.0	υ.2 Δ			
Annroach Delay (s)	797	٥n	nô			
Approach LOS	F					
Intersection Summary						
Average Delay			87			
Intersection Capacity I It	ilization	F	0.0%	ic.	[] [evel	el of Service A
Analysis Period (min)			15		~ ~~~~~	₹



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		44			¢‡+			4î þ			41.	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	20	0	50	10	0	10	10	935	5	5	890	15
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	22	0	56	- <b>11</b> -	0	11	11	1039	6	6	989	17
Pedestrians			dirini dalari	Verincener	alitakidin			ang ang ang ang ang ang ang ang ang ang		anine unatione	Canadala da da	
Walking Speed (ft/s)										e e e e e e e e e e e e e e e e e e e		
Percent Blockade												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)				ina serie de la companya da c			ang kang barang barang barang barang barang barang barang barang barang barang barang barang barang barang bar Barang barang barang barang barang barang barang barang barang barang barang barang barang barang barang barang	1 - Constantin - Cliptica († 19	an an tha an tha an tha an tha an tha an tha an tha an tha an tha an tha an tha an tha an tha an tha an tha an Tha an tha an tha an tha an tha an tha an tha an tha an tha an tha an tha an tha an tha an tha an tha an tha an		hydryd y hindina (a 1943 fafar fafa	
Upstream signal (ft)								1267				
pX, platoon unblocked												
vC, conflicting volume	1561	2075	503	1625	2081	522	1006			1044		
vC1, stage 1 conf vol		ad victor di glassi e Mercue	leonetra les series		bila da kata kata kata kata kata kata kata				وروعه ومحمد ومحمد ومعاد		dan mender and an and an an an an an an an an an an an an an	
vC2, stage 2 cont vol	4 5 4 4	0075	-00	4005								
VCu, unbiocked voi	1561	2075	503	1625	2081	522	1006	-		1044	sterioteko izaenteko	stolet the second
tC 2 stage (s)	/.ə	0.0	0.9	<i>.</i> ,	6.5	0.9	4.1			4,1		
tF (s)	35	40	22	25	40	22	<b></b>			20		
p0 queue free %	69	100	89	81	100	98	98			<u>4.</u> 90		
cM capacity (veh/h)	73	52	514	59	51	499	685			662		
Direction Lane #	FB 1	WB 1	NB 1	NB 2	SR 1	SR 2						
Volume Total	78	22	531	525	500	511						
Volume Left	22	11	11	0	6	0	ing an an an an an an an an an an an an an					
Volume Right	56	11	0	6	0	17						
cSH	188	106	685	1700	662	1700						onderson en site officieres
Volume to Capacity	0.41	0.21	0.02	0.31	0.01	0.30						
Queue Length 95th (ft)	47	19	1	0	1	0						
Control Delay (s)	37.0	47.6	0.5	0.0	0.2	0.0			12 S (8)			
Lane LOS	E	E.	A	www.comercie	A	Losanija naslej (steko		hissi hisabarah	inenberin Grandsann	an an an an an an an an an an an an an a	14-ku-ses-suscentration and	wasan manan ka
Approach LOS	3/.U	47.6 F	0.2		0.1							
Approach LOS	E											
Intersection Summary												
Average Delay			2.0		Antonio antonio de como se	an an the second state of the second state		alaya taka da shekar m	ne se se se se se se se se se se se se se	and a start of the start of the		and the state
Intersection Capacity Uti	lization		14.3%	IC	CU Leve	l of Serv	/ice		Α			
Analysis Period (min)	an an an an an an an an an an an an an a	and the state of the	15	سدوروشيدر وشريقا فبالدروز وار								

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Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations Sign Control	∳ Free			र्भ Free	<b>₩</b> Stop		
Grade	0%			0%	0%		
Volume (veh/h)	125	20	35	145	35	65	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Houriy flow rate (vpn)	139	22	39	161	39	12	
I ane Width (ft)							
Walking Speed (ft/s)					ilit gente filtere.		
Percent Blockage	inali da gore						
Right turn flare (veh)							
Median type					None		
Median storage veh)			and An Actual Association				
Upstream signal (ff)				331			
vC conflicting volume			161		200	160	
vC1_stage 1 conf vol			101		203	190	
vC2, stage 2 conf vol							
vCu, unblocked vol	an da an an an an an an an an an an an an an	an on daardaa	161	haliya kaji te basti (kre .	389	150	n ha dahar perangkan perangkan pertekan pertekan pertekan pertekan pertekan di pertekan dari pertekan pertekan An
tC, single (s)			4.1		6.4	6.2	
tC, 2 stage (s)							
tF (s)			2.2		3.5	3.3	
p0 queue tree %			97		93	92	
civi capacity (veni/ii)			1410		290	090	
Direction, Lane #	EB 1	WB 1	NB 1				
Volume I otal	161	200	111	999490408-15			
Volume Leit	0 00	39 0	39 70		unieriorioriorioriorioriorio		
cSH	1700	1418	763				
Volume to Capacity	0.09	0.03	0.15				
Queue Length 95th (ft)	0	2	13		40049400-9747-9761-8	essenten terreter	
Control Delay (s)	0.0	1.7	10.5				
Lane LOS		А	В				
Approach Delay (s)	0.0	1.7	10.5				
Approach LOS			В				
Intersection Summary							
Average Delay	1		3.2				
Intersection Capacity Uti	lization		33.3%	IC	CU Leve	l of Servid	ce A
Analysis Period (min)			15				



	T۱	<b>NO-WAY STO</b>	P CONTR	OL SUMN	IARY			
<b>General Information</b>			Site II	nformatic	n			
Anelyst A(y/Co. Date Performed Analysis Time Period	EJD CHA 12/22/05 PM PEAK	HOUR	Interse Jurisdic Analysi	ction ction is Year		ROUTE 7 TOWN O 2008 BUI	7/LOCUST/ F BURLING LD ALT2	LEDGE GTON
Project Description BUI	RLINGTON						····	
East/West Street: LOCU	ST/LEDGE		North/S	South Street	: HOUIE 7	7		
intersection Orientation:	North-South		Study	Period (nrs):	0.25			
Vehicle Volumes and	d Adjustments	<b>}</b>						
Major Street		Northbound				Southbo	und	
wovement	1		3		4	5		6
Volume		545	270		20	600		15
Peak-Hour Factor, PHF	0.90	0.90	0.90	)	0.90	0.90		0.90
Hourly Flow Rate, HFR	0	605	300		33	766		16
Percent Heavy Vehicles	0				2			
Median Type				Undivide	d			
RT Channelized			0				I	0
Lanes	0	2	0		0	1		0
Configuration		Т	TR		LTR			
Upstream Signal		0				0		
Minor Street		Westbound				Eastbou	ınd	
Movement	7	8	9		10	11		12
	L	Т	R		L	Т		R
Volume	0	0	60		0	30		75
Pe Hour Factor, PHF	0.90	0.90	0.90	<u> </u>	0.90	0.90		0.90
Hourry Flow Hate, HFH	0	0	66		0	33		83
Percent Heavy Vehicles	0	0	2		0			2
		0					-	
Flareo Approach		N				N N		
Storage		0				0		
HI Channelized			0		-			0
Lanes		0				1		0
Conliguration			<u> </u>	<u>.</u>		L		IH
Delay, Queue Length, an	d Level of Servic	<u>&gt;e</u>	T		¢	T		
Approach	NB	SB		Westbound	1		Lastbound	1
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LTR			R			TR
v (vph)		33			66			116
C (m) (vph)		747			555			174
v/c		0.04			0.12			0.67
95% queue length		0.14			0.40			3.90
Control Delay		10.0			12.4			59.5
LOS		В			В			F
Approach Delay			12.4 59.5					
Approach LOS				В			F	

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	TV	VO-WAY STO	P CONTR	OL SUMN	IARY			
<b>General Information</b>			Site Ir	nformatic	n			······
Analvst A y/Co. Date Performed Analysis Time Period	EJD CHA 12/22/05 PM PEAK	HOUR	Intersed Jurisdic Analysi	ction ction s Year	dela dela dela dela dela dela dela dela	ROUTE 7 TOWN O 2008 BUI	7/SOUTH F BURLIN LD ALT2	WILLARD IGTON
Project Description BU	RLINGTON							
East/West Street: SOUT	H WILLARD		North/S	outh Street	: ROUTE ;	7		
Intersection Orientation:	North-South		Study F	eriod (hrs):	. 0.25			
Vehicle Volumes and	d Adjustments	}						
Major Street		Northbound				Southbo	und	
Movement	1	2	3		4	5		6
Nolumo o		100	H R		<u> </u>			<u>R</u>
Peak-Hour Eactor PHE	0.00	480			0 00	/35		0
Hourly Flow Bate HFR	72	533	0.90		0.90	916		0.90
Percent Heavy Vehicles	2				2			
Median Type				Undivide		1		
RT Channelized			0				1	0
Lanes	0	1	0	1	0	1	1	0
Configuration	LT					T		
Upstream Signal		0				0		
Minor Street		Westbound				Eastbou	Ind	
Movement	7	8	9		10	11		12
	L	Т	R		L	Т		R
Volume	0	160	0		0	0		0
Pr Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90
Houry Flow Rate, HFR	0	177	0		0	0		0
Percent Heavy Vehicles	0	2	2		0	2		2
Percent Grade (%)		0				0		
Flared Approach		N				N		
Storage		0				0		
RT Channelized			0					0
Lanes	0	1	0		0	0		0
Configuration								
Delay, Queue Length, an	d Level of Servic	e						
Approach	NB	SB		Westbound	1		Eastboun	d
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT				TR			
v (vph)	72				177			
C (m) (vph)	812				107			
v/c	0.09				1.65			
95% queue length	0.29				13.62			
Control Delay	9.9				402.0			
LOS	A		1		F			
Approach Delay				402.0				
Approach LOS			1	402.0				

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## NULL ALTERNATIVE 2028 AM PEAK HOUR

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<del>ب</del> ا ا	Ŧ		র	7	ሻ	ትኈ		ኻ	<b>ቶ</b> ሴ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0	op	4.0	4.0	on of an arts
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frt		1.00	0.85		1.00	0.85	1.00	0.99	-for participation	1.00	1.00	(lang a tinidi baha)
Fit Protected		0.98	1.00		0.98	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1823	1583		1830	1583	1770	3512		1770	3532	oliniselle societation
Flt Permitted		0.77	1.00		0.87	1.00	0.23	1.00		0.95	1.00	
Satd. Flow (perm)		1440	1583		1618	1583	420	3512		1770	3532	enderen gertreite
Volume (vph)	15	20	45	50	90	70	55	735	40	115	1100	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	22	50	56	100	78	61	817	44	128	1222	17
RTOR Reduction (vph)	0	0	43	0	0	58	0	0	0	0	0	0
Lane Group Flow (vph)	0	39	7	0	156	20	61	861	0	128	1239	0
Turn Type	Perm		Prot	Perm		pt+ov	Perm		C	ustom		
Protected Phases		4	4		8	81		2		1	6	
Permitted Phases	4			8		un un de la competen	2		ana senara dagan dagana	1		9999-1119-11199-11199 1999-1999-1999-19
Actuated Green, G (s)		16.9	16.9		16.9	31.3	78.0	78.0		14.4	97.4	
Effective Green, g (s)		17.9	17.9		17.9	33.3	79.0	79.0		15.4	98.4	11 M M M M M M M M M M M M M M M M M M
Actuated g/C Ratio		0.14	0.14		0.14	0.26	0.61	0.61		0.12	0.76	
Clearance Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		198	218		223	405	255	2134		210	2673	
v/s Ratio Prot			0.00			0.01		0.25		c0.07	c0.35	
v/s Ratio Perm		0.03			c0.10		0.15	2	a far at at far welt ar meer far a			
v/c Ratio		0.20	0.03		0.70	0.05	0.24	0.40		0.61	0.46	
Uniform Delay, d1		49.7	48.5		53.5	36.4	11.7	13.3		54.4	5.9	::::::::::::::::::::::::::::::::::::
Progression Factor		1.00	1.00		1.00	1.00	0.36	0.39		1.00	1.00	
Incremental Delay, d2		0.5	0.1		9.2	0.1	2.0	0.5		4.9	0.6	
Delay (s)		50.2	48.6		62.7	36.5	6.3	5.7		59.4	6.5	
Level of Service		D	D		E	D	Α	Α		Ε	Α	
Approach Delay (s)		49.3			54.0			5.7			11.4	
Approach LOS		D			D			Α			В	
Intersection Summary												
HCM Average Control D	elay		14.5	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.49									
Actuated Cycle Length (s	s)	·	130.0	S	um of lo	ost time	(S)		8.0			
Intersection Capacity Uti	lization	5	58.4%	IC	CU Leve	l of Ser	vice		В			
Analysis Period (min)	And an over the factor of		15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	٦ <b>۴</b>	4			4		٦	<b>≜</b> †		ሻ	ተኩ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00			1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.85			0.92		1.00	1.00		1.00	1.00	
Fit Protected	0.95	1.00			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1583	tal tartul ad statutes		1683		1770	3535		1770	3527	
Flt Permitted	0.43	1.00			0.90		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	801	1583			1532		1770	3535		1770	3527	
Volume (vph)	20	0	10	60	15	120	5	695	5	125	1045	25
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	22	0	11	67	17	133	6	772	6	139	1161	28
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	22	11	0	0	217	0	6	778	0	139	1189	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)	22.3	22.3			22.3		1.6	71.8		14.7	84.9	
Effective Green, g (s)	23.3	23.3			23.3		2.6	72.8		15.7	85.9	
Actuated g/C Ratio	0.18	0.18			0.18		0.02	0.56		0.12	0.66	
Clearance Time (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	144	284			275		35	1980		214	2331	
v/s Ratio Prot		0.01					0.00	0.22		c0.08	c0.34	
v/s Ratio Perm	0.03				c0.14							
v/c Ratio	0.15	0.04			0.79		0.17	0.39		0.65	0.51	
Uniform Delay, d1	45.0	<b>44.1</b>			51.0		62.6	16.1		54.5	11.3	
Progression Factor	1.00	1.00			1.00		1.20	0.48		1.28	0.73	
Incremental Delay, d2	0.5	0.1			13.9		2.2	0.5		6.1	0.7	
Delay (s)	45.5	44.2			64.9		77.6	8.3		75.6	8.9	545-6505
Level of Service	D	D		NG SARAH SA MANYA SA	E		E	Α		E	Α	
Approach Delay (s)		45.1			64.9			8.8			15.9	
Approach LOS		D			E			A			В	
Intersection Summary												
HCM Average Control D	elay		18.5	Н	CM Lev	el of Sei	rvice		В			
HCM Volume to Capacit	y ratio		0.58									
Actuated Cycle Length (	S)		130.0	S	um of lo	st time (	(s)		14.2			
Intersection Capacity Uti	lization	(	\$4.5%	IC	U Leve	l of Serv	rice		C			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<del>4</del> 2			4		٦	ተኩ		ሻ	<u></u>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frt		0.99			0.98		1.00	0.98		1.00	0.99	
Flt Protected		0.97			0.97		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1724			1724		1711	3369		1711	3379	
Flt Permitted		0.67			0.78		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1201			1388		1711	3369		1711	3379	
Volume (vph)	60	20	5	125	70	25	5	620	70	90	950	85
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	67	22	6	139	78	28	6	689	78	100	1056	94
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	95	0	0	245	0	6	767	0	100	1150	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)		26.2			26.2		1.6	70.8		11.8	81.0	
Effective Green, g (s)		27.2			27.2		2.6	71.8		12.8	82.0	
Actuated g/C Ratio		0.21			0.21		0.02	0.55		0.10	0.63	
Clearance Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		251			290		34	1861		168	2131	
v/s Ratio Prot							0.00	0.23		c0.06	c0.34	
v/s Ratio Perm		0.08			c0.18							
v/c Ratio		0.38			0.84		0.18	0.41		0.60	0.54	
Uniform Delay, d1		44.1		Constant of	49.4		62.6	16.9		56.1	13.4	
Progression Factor		1.00			1.00		1.00	1.00		1.23	0.30	
Incremental Delay, d2		1.0			19.6		2.5	0.7		5.0	0.9	
Delay (s)		45.1			69.0		65.1	17.5		74.2	4.9	
Level of Service		D			E		E	В		E	A	
Approach Delay (s)		45.1			69.0			17.9			10.4	
Approach LOS		D			E	5 N N N		B	a des sestementes de la		В	
Intersection Summary												
HCM Average Control D	elay		20.3	H	CM Lev	el of Se	rvice		C			
HCM Volume to Capacity	y ratio	0.61				-94900-049979	-0.105.700055	nder verster för földet.	an an an an tha Salain	ne with a third of a first	usteretetetetetetetetetetetetetetetetetet	en en en en en en en en en en en en en e
Actuated Cycle Length (s	<b>.</b>	130.0 Sum of lost time (s)					(S)		14.2			
Intersection Capacity Uti	lization		58.7%	ĪC	CU Leve	l of Serv	, vice		В			or sam napititisi
Analysis Period (min)			15		, sije des site.							



	<u>م</u>		$\mathbf{i}$	<ul> <li>Image: A set of the</li></ul>		•	-	<b>†</b>	1	-	↓ I	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		44			र्भ	1		र्स	7		<u>4</u> 34	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0		4.0	4.0		4.0	
Lane Util. Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Frt		1.00			1.00	0.85		1.00	0.85		0.98	1993 - 1993 - 1993 - 1993 - 1994 - 1994 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 -
Flt Protected		0.99			1.00	1.00		0.98	1.00		0.99	
Satd. Flow (prot)		1835			1857	1583		1831	1583		1795	
Flt Permitted		0.89			0.98	1.00		0.84	1.00		0.88	
Satd. Flow (perm)		1645			1818	1583		1565	1583		1599	
Volume (vph)	45	145	5	15	225	45	55	105	5	50	125	40
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	50	161	6	17	250	50	61	117	6	56	139	44
RTOR Reduction (vph)	0	0	0	0	0	29	0	0	4	0	0	0
Lane Group Flow (vph)	0	217	0	0	267	21	0	178	2	0	239	0
Turn Type	Perm			Perm		Perm	Perm		Perm	Perm		
Protected Phases		2			6			8		8 9 9 A	4	
Permitted Phases	2	n tantan katawa	to present them to result	6		6	8		8	4		
Actuated Green, G (s)		16.2			16.2	16.2		9.8	9.8		9.8	
Effective Green, g (s)		17.2			17.2	17.2		10.8	10.8		10.8	
Actuated g/C Ratio		0.42			0.42	0.42		0.26	0.26		0.26	
Clearance Time (s)	t et too af that a too a too	5.0			5.0	5.0		5.0	5.0		5.0	
Vehicle Extension (s)		3.0			3.0	3.0		3.0	3.0		3.0	
Lane Grp Cap (vph)		693			766	667		414	419		423	
v/s Ratio Prot												
v/s Ratio Perm		0.13			c0.15	0.01		0.11	0.00		c0.15	
v/c Ratio		0.31			0.35	0.03		0.43	0.00		0.57	
Uniform Delay, d1		7.9			8.0	6.9		12.4	11.0		13.0	
Progression Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Incremental Delay, d2		0.3			0.3	0.0		0.7	0.0		1.7	
Delay (s)		8.1			8.3	6.9		13.2	11.0		14.7	
Level of Service		A		al materia in a la sura	Α	A		В	В		В	
Approach Delay (s)		8.1			8.1			13.1			14.7	
Approach LOS		A			A			В			В	
Intersection Summary												
HCM Average Control D	elay		10.7	Н	ICM Lev	el of Se	ervice		В			
HCM Volume to Capacit	y ratio		0.37									
Actuated Cycle Length (	s)		40.8	S	um of lo	ost time	(S)		8.0			
Intersection Capacity Uti	lization	C.	51.5%	10	CU Leve	el of Ser	vice		Α			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	۲	7	۲	*	*	*
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	12	11	12	11	12
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Fit Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1711	1583	1711	1863	1801	1583
Flt Permitted	0.95	1.00	0.51	1.00	1.00	1.00
Satd. Flow (perm)	1711	1583	918	1863	1801	1583
Volume (vph)	65	115	95	250	230	240
Peak-hour factor. PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adi, Flow (vph)	72	128	106	278	256	267
RTOR Reduction (vph)	0	70	0	0	0	0
Lane Group Flow (vph)	72	58	106	278	256	267
Turn Type		Prot	Perm			Perm
Protected Phases	2	2		4	8	
Permitted Phases			4			8
Actuated Green, G (s)	30.8	30.8	23.0	23.0	23.0	23.0
Effective Green. a (s)	31.8	31.8	24.0	24.0	24.0	24.0
Actuated g/C Ratio	0.45	0.45	0.34	0.34	0.34	0.34
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Gro Cap (voh)	777	719	315	639	617	543
v/s Ratio Prot	c0.04	0.04		0.15	0.14	
v/s Ratio Perm			0.12			c0.17
v/c Ratio	0.09	0.08	0.34	0.44	0.41	0.49
Uniform Delay, d1	10.9	10.8	17.1	17.8	17.6	18.2
Progression Factor	1.27	2.97	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.2	0.2	2.9	2.2	0.5	0.7
Delav (s)	14.0	32.3	20.0	19.9	18.1	18.9
Level of Service	B	С	В	В	В	В
Approach Delay (s)	25.8	ni mananan Alan		19.9	18.5	
Approach LOS	C			В	В	
Intersection Summary						
HCM Average Control D	elav		20.3	H	CMLev	el of Service
HCM Volume to Capacit	v ratio		0.26			
Actuated Cycle Length (	s)		70.0	Si	um of lo	ost time (s)
Intersection Capacity Ulti	lization	a.0993033603997	42.1%	ĨC	ULeve	l of Service
Analysis Period (min)			15			



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$			4			44		٣	<b>t</b> ,	<u></u>
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	14	12	12	14	12	12	14	12	11	11	12
Total Lost time (s)		4.0			4.0			4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00			1.00		1.00	1.00	
Frt		1.00			0.93			0.99		1.00	0.98	
Flt Protected		0.98			1.00			1.00		0.95	1.00	
Satd. Flow (prot)		1947			1832			1973		1711	1761	
Flt Permitted		0.71			0.98			0.99		0.51	1.00	
Satd. Flow (perm)		1410			1794			1953		927	1761	
Volume (vph)	35	50	0	10	55	80	10	235	10	110	175	30
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	39	56	0	11	61	89	11	261	11	122	194	33
RTOR Reduction (vph)	0	0	0	0	70	0	0	2	0	0	5	0
Lane Group Flow (vph)	0	95	0	0	91	0	0	281	0	122	222	0
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		7.6			7.6			29.0		39.6	39.6	
Effective Green, g (s)		8.6			8.6			30.0		40.6	40.6	
Actuated g/C Ratio		0.14			0.14			0.50		0.68	0.68	
Clearance Time (s)		5.0			5.0			5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0	***		3.0		3.0	3.0	
Lane Grp Cap (vph)		202			257	69409236849P		975		712	1190	
v/s Ratio Prot										0.02	c0.13	
v/s Ratio Perm		c0.07			0.05			c0.14		0.10		ga geografia Sugagapana
v/c Ratio		0.47			0.35			0.29		0.17	0.19	
Uniform Delay, d1		23.7			23.2	8-9-9-63 8-		8.8		4.0	3.6	
Progression Factor	a ana an ann a bhair bh	1.00	is-dono na prod	Asterna Contestantes	1.00		an an an an an an an an an an an an an a	1.00		1.00	1.00	
Incremental Delay, d2		1.7			0.8			0.2		0.1	0.1	
Delay (s)		25.4	nintritete erstwaan	ennelsen og sen formasjon for	24.1		NAAN WAARAAN	9.0	Terminal Market	4.1	3.7	a da anticidado de como
Level of Service		C C			C Q			A		A	A	
Approach Delay (s)		25.4			24.1		anton a chuirtean a baile	9.0			3.8	ský korpetenti pre
Approach LUS		U C			C			A			A	
Intersection Summary												
HCM Average Control De	elay		11.4	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacity	/ ratio		0.30		e a conservation (period) of			n, mantana aya 1970		er er en en et er er fikken i k	ana ana amin'ny fisiana amin'ny fisiana amin'ny fisiana amin'ny fisiana amin'ny fisiana amin' amin' amin' amin'	nen na 1999 (1997) 1997 - State State (1997)
Actuated Cycle Length (s	<b>;)</b>		60.1	S	um of lo	ost time	(s)		12.0			
Intersection Capacity Util	ization	4	49.9%	IC	U Leve	l of Ser	vice		Α			
Analysis Period (min)			15									aintaintean Stationa

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			<del>ډ</del> ‡،		ሻ	<b>*</b> Ъ		٢	ለኪ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	******	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00		\$ <del>0</del> 8 1	1.00		1.00	0.95		1.00	0.95	
Frt		0.93			0.98		1.00	1.00	en en en en en en en en en en en en en e	1.00	0.98	-,
Fit Protected		0.99			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1712			1773		1770	3522	5	1770	3484	
Fit Permitted		0.87			0.67		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1504			1225		1770	3522		1770	3484	na bilana tang Ana
Volume (vph)	35	45	90	170	105	60	200	595	20	115	865	100
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	39	50	100	189	117	67	222	661	22	128	961	111
RTOR Reduction (vph)	0	29	0	0	5	0	0	1	0	0	6	0
Lane Group Flow (vph)	0	160	0	0	368	0	222	682	0	128	1066	0
Turn Type	Perm			Perm			Prot			Prot		<u></u>
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		ala na serie a serie da serie da serie da serie da serie da serie da serie da serie da serie da serie da serie	8		-billio-strukt (sources	- 54 a - 67 mar - 70 a - 70 a - 70 a - 70 a - 70 a - 70 a - 70 a - 70 a - 70 a - 70 a - 70 a - 70 a - 70 a - 70		den en transpoler, d			okong ta ta kanga
Actuated Green, G (s)		45.0		Adouncius notes do Maria da Calendar	45.0		26.5	59.3		14.5	47.3	
Effective Green, g (s)		46.0			46.0	and a star to be an include	27.5	60.3	ani manancompicinya	15.5	48.3	ana da antes da sera da sera da sera da sera da sera da sera da sera da sera da sera da sera da sera da sera d Notas da sera da sera da sera da sera da sera da sera da sera da sera da sera da sera da sera da sera da sera d
Actuated g/C Ratio		0.33			0.33		0.20	0.43		0.11	0.34	
Clearance Time (s)		5.0			5.0		5.0	5.0	en den et en nen bezenten.	5.0	5.0	1997-001 002 004 1197 1997-001 002 004 1197
Vehicle Extension (s)		3.0	8 13 8 6 G		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		494		******	403		348	1517		196	1202	<u></u>
v/s Ratio Prot		da da da servizio Se della contra della s			u e cumun Menterado	singingingin Singer atti (Sir	c0.13	0.19		0.07	c0.31	
v/s Ratio Perm	61.0000 0000 00 0000 00	0.11		a balan da ana ang ana ina a	c0.30	erili and an and an an an an an an an an an an an an an	499 99 99 99 99 99 99 99 99 99 99 99 99	an an an an an an an an an an an an an a		a ben hillen om statter open	ei yn gyn yr en yr yn gynnig	ni (orași deneră înte
v/c Ratio		0.32			0.91		0.64	0.45		0.65	0.89	
Uniform Delay, d1		35.3	nga na kali pin kaon na manganj		45.1	1997 (1997) - A A A A A A A A A A A A A A A A A A	51.7	28.1	arean and an an an an an an an an an an an an an	59.7	43.3	la de sa de contra de la deservició de la contra de la deservició de la contra de la deservició de la contra d Contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra d
Progression Factor		1.00		50-63-69-4j	0.61	8 (S. (S.))	1,04	0.72		1.00	1.00	
Incremental Delay, d2		0.4			22.9		3.6	0.9	14,11,124-00,11,14,14,14,14,14,14,14,14,14,14,14,14,	7.6	8.2	594574999999999999
Delay (s)		35.7			50.3		57.2	21.1		67.3	51.5	
Level of Service		D			D		Ε	С		E	D	100000000000000000000000000000000000000
Approach Delay (s)		35.7			50.3			30.0			53.1	
Approach LOS		D			D			С			D	· · · · · · · · · · · · · · · · · · ·
Intersection Summary												
HCM Average Control D	elay		43.6	Н	CM Lev	el of Se	rvice		D			
HCM Volume to Capacit	y ratio		0.84									
Actuated Cycle Length (	s)		140.0	S	um of lo	st time	(s)		18.2	u la anna da Chillein	ana ang kang kang kang kang kang kang ka	oonaan ay ahaa ahaa ahaa ahaa ahaa ahaa ah
Intersection Capacity Uti	lization	7	79.9%	IC	CU Leve	l of Ser	vice		D			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		44			¢‡,		ሻ	<b>≜</b> ↑		ሻ	ትኈ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	inening:
Frt		0.89			0.97		1.00	1.00		1.00	1.00	n, a desta sport ege
Fit Protected		0.99			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1641			1786		1770	3529		1770	3535	5 · · · · 5 · · · · · · · · · · · · · ·
Fit Permitted		0.94			0.89		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1560			1624		1770	3529		1770	3535	el este este este de la participarte
Volume (vph)	5	0	25	45	65	25	85	790	15	10	1110	10
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	6	0	28	50	72	28	94	878	17	11	1233	11
RTOR Reduction (vph)	0	24	0	0	6	0	0	1	0	0	0	0
Lane Group Flow (vph)	0	10	0	0	144	0	94	894	0	11	1244	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		u de s <b>r</b> s	6	
Permitted Phases	4	te principalite de production de la construcción de la construcción de la construcción de la construcción de la	5+5+5,645++45++45,4445,6	8			under Gereinen er det gelegen			daan oo ahaa sadda ahaa s	en er en filse kenne kenne som en som en som en som en som en som en som en som en som en som en som en som en	en men en sen de la deste
Actuated Green, G (s)		17.1			17.1		12.7	98.5		3.2	89.0	
Effective Green, g (s)		18.1			18.1		13.7	99.5		4.2	90.0	
Actuated g/C Ratio		0.13			0.13		0.10	0.71		0.03	0.64	
Clearance Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		202		************************	210		173	2508		53	2273	nta du un de la desta de la desta de la desta de la desta de la desta de la desta de la desta de la desta de la
v/s Ratio Prot							c0.05	0.25		0.01	c0.35	
v/s Ratio Perm		0.01			c0.09							1
v/c Ratio		0.05			0.69		0.54	0.36		0.21	0.55	
Uniform Delay, d1		53.4			58.2		60.2	7.8		66.3	13.8	
Progression Factor		1.00	0.29450-15		1.02		0.87	1.54		0.75	1.11	
Incremental Delay, d2		0.1			8.9		3.3	0.4		1.0	0.5	
Delay (s)		53.5			68.4		55.8	12.5		51.0	15.8	
Level of Service		D			Е		Е	В		D	В	
Approach Delay (s)		53.5			68.4			16.6			16.1	
Approach LOS		D			E			В			В	
Intersection Summary												
HCM Average Control D	elay		20.0	Н	CM Lev	el of Se	rvice		С			
HCM Volume to Capacit	y ratio		0.57									
Actuated Cycle Length (	s)		140.0	S	um of lo	st time	(s)		18.2			
Intersection Capacity Uti	lization	•	51.2%	ા	CU Leve	l of Ser	vice		В			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			¢.		ሻ	<b>*</b> t.		٢	<b>≜</b> 1	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	·, · , · · · · · · · · · ·	4.0			4.0		4.0	4.0		4.0	4.0	and a state of the
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frt	······································	0.97	- 1 1 <sub>2</sub> 1 1 , 1 , 1	nynes y sonlynd (synlyns	0.98		1.00	1.00	,	1.00	0.99	
Fit Protected		0.99			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1780			1802		1770	3536		1770	3514	
Fit Permitted		0.86			0.87		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1541			1574		1770	3536		1770	3514	nden statistikansete
Volume (vph)	35	75	35	15	55	15	80	835	5	5	1120	55
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj, Flow (vph)	39	83	39	17	61	17	89	928	6	6	1244	61
RTOR Reduction (vph)	0	9	0	0	6	0	0	0	0	0	2	0
Lane Group Flow (vph)	0	152	0	0	89	0	89	934	0	6	1303	Ó
Turn Type	Perm			Perm			Prot		****	Prot		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8				·	antan testas prisedas das dita	nalinina (hepanetana (h)	hain kalanga palan melahin me	her tind vie Adhiert strik.
Actuated Green, G (s)		17.7			17.7		11.6	99.5		1.6	89.5	
Effective Green, g (s)		18.7			18.7		12.6	100.5		2.6	90.5	
Actuated g/C Ratio		0.13			0.13		0.09	0.72		0.02	0.65	
Clearance Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		206			210		159	2538		33	2272	
v/s Ratio Prot							c0.05	0.26		0.00	c0.37	Alexander en en
v/s Ratio Perm		c0.10	-1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999		0.06			, , , , , , , , , , , , , , , , , , ,	,	i na sena provinsi Lina se incluira de la companya de la companya de la companya de la companya de la companya de la companya de la		
v/c Ratio		0.74			0.42		0.56	0.37		0.18	0.57	
Uniform Delay, d1		58.3	********	ng a tin nanan taki d	55.7	2000 100 100 100 100 100 100 100 100 100	61.0	7.6	1993 H. H. H. H. H. H. H. H. H. H. H. H. H.	67.7	13.9	an an an an an an an an an an an an an a
Progression Factor		1.00			1.00		0.89	1.72		1.38	0.29	
Incremental Delay, d2		13.0			1.4		3.9	0.4		2.3	0.9	
Delay (s)		71.3			57.1		58.1	13.4		95.7	4.9	
Level of Service		Е			Е		Ε	В		F	Α	
Approach Delay (s)		71.3			57.1			17.3			5.3	
Approach LOS		E			E			В			Α	
Intersection Summary												
HCM Average Control D	elay		16.1	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.60									
Actuated Cycle Length (	s)		140.0	S	um of lo	st time	(s)		18.2			
Intersection Capacity Uti	lization	(	61.5%	IC	CU Leve	l of Ser	vice		В			
Analysis Period (min)			15									
c Critical Lane Group												



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		đ	7		44		۲	<b>≜</b> t		٢	<u>†1</u> ,	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00		1.00	0.95		1.00	0.95	
Frt		1.00	0.85		0.98		1.00	0.99	·	1.00	0.99	
Flt Protected		0.98	1.00		0.97		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1826	1583		1764		1770	3509		1770	3516	
Flt Permitted		0.85	1.00		0.44		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1576	1583		805		1770	3509		1770	3516	
Volume (vph)	60	90	115	50	10	10	155	845	50	15	1105	50
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	67	100	128	56	11	11	172	939	56	17	1228	56
RTOR Reduction (vph)	0	0	79	0	4	0	0	2	0	0	2	0
Lane Group Flow (vph)	0	167	49	0	74	0	172	993	0	17	1282	0
Turn Type	Perm		Perm	Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8								
Actuated Green, G (s)		19.2	19.2		19.2		17.6	96.4		3.2	82.0	
Effective Green, g (s)		20.2	20.2		20.2		18.6	97.4		4.2	83.0	
Actuated g/C Ratio		0.14	0.14		0.14		0.13	0.70		0.03	0.59	
Clearance Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		227	228		116		235	2441		53	2084	
v/s Ratio Prot		0.000					c0.10	0.28		0.01	c0.36	
v/s Ratio Perm		c0.11	0.03	and defining a string.	0.09							
v/c Ratio		0.74	0.22		0.64		0.73	0.41		0.32	0.62	
Uniform Delay, d1	ala di sana sa sa sa sa sa	57.3	52.9		56.4		58.3	9.0		66.5	18.3	
Progression Factor		1.00	1.00		1.00	5 12 (J. Q. Q.	1.00	1.00		1.16	0.32	
Incremental Delay, d2	u a companya a companya a com	11.7	0.5	Valando Islano za ostro	10.9		11.1	0.5	ىرى بىرى بىلىرى بىرى بىرى بىرى بىر	2.9	1.1	a an triana a
Delay (s)		69.0	53.4		67.3		69.4	9.5		80.2	7.0	
Level of Service	han san an an an an an an an an an an an an a	E	D Matagalata	an an an an an an an an an an an an an a	E.	en and an an an an an an an an an an an an an	<b>E</b>	А	un batala da carda da car	F	A	anan marta
Approach Delay (s)		62.2			67.3			18.4			7.9	
Approach LOS		E			E			В			A	
Intersection Summary												
HCM Average Control D	elay	Sector Sector Sector Sector	19.5	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.65									
Actuated Cycle Length (	s)	un en deur en digt en antañ e	140.0	S	um of lo	ost time	(s)		18.2			
Intersection Capacity Uti	lization		61.3%	lC	CU Leve	l of Sen	/ice		B			
Analysis Period (min)	en en en en en en en en en en en en en e	ugang na kanamata	15	an againt tha again an t	an ang taga ang taga ta			a an an an an an an an an an an an an an	La companya de la companya de la companya de la companya de la companya de la companya de la companya de la com			
c Uritical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			¢.			<del>(</del> ]}	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	85	105	20	155	25	10	135	30	5	135	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	94	117	22	172	28	11	150	33	6	150	6
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	217	222	194	161								
Volume Left (vph)	6	22	11	6								
Volume Right (vph)	117	28	33	6								
Hadj (s)	-0.28	-0.02	-0.06	0.02								
Departure Headway (s)	4.9	5.2	5.3	5.4								
Degree Utilization, x	0.30	0.32	0.28	0.24					inin tenten. Geografia			
Capacity (veh/h)	670	644	620	607								
Control Delay (s)	10.0	10.6	10.3	10.1								
Approach Delay (s)	10.0	10.6	10.3	10.1								
Approach LOS	В	B	В	В						in a la casa da General des con		
Intersection Summary												
Delay			10.3									
HCM Level of Service			В									
Intersection Capacity Util	lization		39.5%	K	CU Leve	l of Ser	vice		A			
Analysis Period (min)			15									
Approach Delay (s) Approach LOS Intersection Summary Delay HCM Level of Service Intersection Capacity Util Analysis Period (min)	IU.U 10.0 B	10.6 10.6 B	10.3 10.3 B 10.3 B 39.5% 15	10.1 10.1 B	CU Leve	I of Ser	vice		A			

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			<u>.</u>			<b>.</b>			<u>.</u>	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	70	55	55	140	5	60	165	40	5	220	30
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	78	61	61	156	6	67	183	44	6	244	33
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	144	222	294	283			<u></u>					
Volume Left (vph)	6	61	67	6								
Volume Right (vph)	61	6	44	33				an (anna chuir ann ann an			1974-1977, 1977, 1977, 1977, 1977, 1977, 1977, 1977, 1977, 1977, 1977, 1977, 1977, 1977, 1977, 1977, 1977, 197	
Hadj (s)	-0.21	0.07	-0.01	-0.03								
Departure Headway (s)	5.7	5.9	5.5	5.5							1470 - 177 (A.C.	na se se se se se se se se se se se se se
Degree Utilization, x	0.23	0.36	0.45	0.43								niojusti usu Vanuenai
Capacity (veh/h)	536	556	610	613								10012010121000126
Control Delay (s)	10.5	12.1	12.8	12.5								
Approach Delay (s)	10.5	12.1	12.8	12.5								4)
Approach LOS	B	В	В	В								
Intersection Summary												
Delay			12.2									
HCM Level of Service			В					en e strete a verdikie			a a fan stad yn stad yn gan	
Intersection Capacity Uti	lization		59.5%	l	CU Leve	el of Ser	vice		B			
Analysis Period (min)			15							al se se se se se se se se se se se se se		er en freisigen fanner.
		distanti de la companya de								ologiado)		

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			¢ <b>1</b> ,			¢.			÷Ĵ.	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	20	120	0	10	15	110	5	50	15	145	20	15
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	22	133	0	11	17	122	6	56	17	161	22	17
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	156	150	78	200								
Volume Left (vph)	22	11	6	161								
Volume Right (vph)	0	122	17	17								
Hadj (s)	0.06	-0.44	-0.08	0.15								
Departure Headway (s)	4.8	4.4	4.8	4.9								
Degree Utilization, x	0.21	0.18	0.10	0.27								
Capacity (veh/h)	691	762	684	691								
Control Delay (s)	9.1	8.3	8.4	9.7		9.99 A.G.						
Approach Delay (s)	9.1	8.3	8.4	9.7								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay			9.0							() († († († (†		
HCM Level of Service			Α									
Intersection Capacity Uti	lization		35.4%	K	CU Leve	el of Ser	vice		Α			
Analysis Period (min)			15									
			generation									

	۶		$\mathbf{i}$	4	<b>4</b>	×	1	†	۲	1	Ļ	~
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		<del>4</del> 2-			¢\$,			<b>4</b> Ъ			<u>,</u>	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	5	5	10	80	5	35	20	300	30	15	365	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	6	11	89	6	39	22	333	33	17	406	6
Pedestrians	- to at some the second	é un un monte un en										
Lane Width (ft)												
Walking Speed (ft/s)		or and the caller	adalah birdan		la de la completa de partes	den en en anter de treterie			u de la calencia de la calencia de la calencia de la calencia de la calencia de la calencia de la calencia de l			
Percent Blockage												
Right turn flare (veh)	na ana ang ang ang ang ang ang ang ang a	in <b>k</b> anistrati	an an an an an an an an an an an an an a	hang kang tang tang tang ta	en <b>er e</b> stander de	sanan galanti		intertritiensk intersk in	Anista da gela mission	Ang san dan sangara	anan an an an an an an an an an an an an	selvelikov (kestato)
Median type		None			None							
libetroom cional (tt)							BUGAGSAGS					
nX nistoon unblocked												
vC conflicting volume	878	853	408	850	830	350	411			367		
vC1, stage 1 conf vol	····			000	000	000			North Argentials			
vC2. stage 2 conf vol												
vCu, unblocked vol	878	853	408	850	839	350	411	e na na seconda da seconda da seconda da seconda da seconda da seconda da seconda da seconda da seconda da sec Esta da seconda da seconda da seconda da seconda da seconda da seconda da seconda da seconda da seconda da secon	in dan dan birti (diraya	367	9,0000 9700 900 20 (r	
tC, single (s)	7.1	6.5	6.2	7,1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)			nan an an an an an an an an an an an an		(1), (1), (1), (2), (2), (2), (3), (3), (3), (3), (3), (3), (3), (3		i	an sign against an garaith		u bekone gont bondag kommu		iya da walati ka kuji da gala
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	98	98	66	98	94	98			99		
cM capacity (veh/h)	244	287	643	265	292	693	1148			1192		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	22	133	389	428			1. S S S					
Volume Left	6	89	22	17								
Volume Right	11	39	33	6			opros octobale Periodados o com					
cSH	374	324	1148	1192		tin a successive serve	araana in soo waxa					
Volume to Capacity	0.06	0.41	0.02	0.01								
Queue Length 95th (ft)	5	48	1 	1	waangegaa oo a	koli gindanana		ndensado (Jano)	an an an an an an an an an an an an an a	en de la compañía de la compañía de la compañía de la compañía de la compañía de la compañía de la compañía de	u da kana sta mada atar	an an an an an an an an an an an an an a
Control Delay (s)	15.2	23.6	0.7	0.5								
Lane LUS		0	A	A	AN BANGAR		i an an an an an an an an an an an an an		asian na sana			sine and a second
Approach LOS	19.2	C	U./	U.5								
Approach LOO	v	V										
Intersection Summary												
Average Delay			4.1	ada garangi makalan karaka di	<u>ing ang ang ang ang ang ang ang ang ang a</u>		needdae o er fan far	angen gagen han start s				
Intersection Capacity Uti	lization		45.7%	10	CU Leve	l of Sen	rice		A			
Analysis Period (min)			15						juna natar panapana a			



	-		<b>†</b>	1	1	Ļ				
Movement	WBL	WBR	NBT	NBR	SBL	SBT				
Lane Configurations	Y		4			4				20077032000
Sign Control	Stop		Free			Free				
Grade	0%		0%			0%				2011-2012
Volume (veh/h)	105	65	270	45	50	375				
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				
Hourly flow rate (vph)	117	72	300	50	56	417				
Pedestrians										
Lane Width (ft)										
Walking Speed (ft/s)										
Percent Blockage										
Right turn flare (veh)	for a second state of the second second second second second second second second second second second second s				t an to the month of a first of					
Median type	None									
Median storage veh)	andani tatani shi kasi na ini				e dat see staat die staat t		et autorito de la construction de la construction de la construction de la construction de la construction de l			
Upstream signal (ff)			611							
pX, platoon unblocked	0.91	0.91	an an an an an an an an an an an an an a	petre etc. and a second second	0.91	an Colonador a Colta do Arrando Arra	en de la compañía de la compañía de la compañía de la compañía de la compañía de la compañía de la compañía de	se nava prosent de succeso d		
vC, conflicting volume	853	325			350					
VC1, stage 1 cont vol	o and the state of the		ana ang ang ang ang ang ang ang ang ang	940250406845	n gana ang ang ang ang ang ang ang ang a	ninesinstensteinen	warrata katabata sa s	inistration in the second second		
VC2, stage 2 cont vol	000	0F0			004					39953
tC, unbiocked voi	838	250	najasi Pontesi	lande de la	284		en kalsiste internetister	iani narahara		de la com
tC, Single (s)	0.4	0.2			4.1					199933 199933
10, 2 stage (s) 1E/e	ם מ	2.2			<u>.</u>			an an an an an an an an an an an an an a		di dette
n) queue free %	6.6 03	0.0 00			2.2 05					
cM canacity (veh/h)	201	30 710			1160					shinek
	231		~~ .		1100					(A)SSD krossess
Direction, Lane #	100		581							
Volume Loft	109	330	- 412 56							
Volume Right	70	50						Section and		istinis;
cSH	375	1700	1160	80.88.89.99						89293
Volume to Capacity	0.50	0.21	0.05							
Queue Length 95th (ft)	68	0.21	4							
Control Delay (s)	23.9	٥Õ	14							
Lane LOS	С		A			ondin en sinteres	olatini di solo di di di			508965
Approach Delay (s)	23.9	0.0	1.4							
Approach LOS	C		een alle alle faith an an an an an an an an an an an an an	an an in the state of the state	na an an an an an an an an an an an an a					ukoski (
Intersection Summarv										
Average Delay			5.1							Tect (UNITED V
Intersection Capacity Ut	ilization		59.2%	IC	U Leve	of Servic	9	В		
Analysis Period (min)		neer oo kadaa da da da da gada	15		· · · · · · · · · · · · · · · · · · ·		an taun taun taun taun taun taun taun ta	na atangangang Tilagi	ter e tre kennergerekeljourjeg	on a grad

	1	•	1	1	1	Ļ	
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	¥,¥		4			ৰ	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Volume (veh/h)	35	35	325	25	15	310	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vph)	39	39	361	28	17	344	
Pedestrians	antala mangana sa Alia			- Malanatak antara da ara	wingers in statistications	en en en en en en en en en en en en en e	
Lane Width (ft)							
Walking Speed (ft/s)	Web and Statemer	enderen bazen Merkate	nyak taun yaan inga anta				
Percent Blockage							
Hight turn flare (veh)	ta an an an an an an an an an an an an an		an an an an an an an an an an an an an a	in-landan indian	a de la compañía de la compañía de la compañía de la compañía de la compañía de la compañía de la compañía de l	landa yana da shina ka sa ka ka wa ƙa	
Median type	None		ija di si ja jen				
Median storage ven)			shishden biri	Selad Sales areas	na si sa sa sa sa sa sa sa sa sa sa sa sa sa		
Upstream signal (II)	0.04					667	
px, platoon unblocked	0.94	<b>N7</b> F			-		
vCt. connicuity volume	/03	3/5			398		
vC1, stage 1 conti vol		des de com	gada na sa sa sa sa sa sa sa sa sa sa sa sa sa		Noffinial Antonio	Gibisilada astrona astrona	
VC2, Staye 2 colli vol	720	275			200		
tC einnie (e)	64	60			309		
tC 2 stane (s)	0.4	0.2			₩ <b>.</b> ]		
tF (s)	35	2.2			<b>_</b>		
n0 queue free %	89	94			99		
cM canacity (veh/h)	358	671			1170		
Direction 1 and #	MR 1	NR 1	CD 1				
Volume Total	79	200	261				
Volume Left	20 20		17				
Volume Right	20	ୁହ	Λ		(deservation)		
cSH	467	1700	1170				
Volume to Canacity	0.17	0.23	0.01				
Queue Length 95th (ft)	15	0.20	1				
Control Delay (s)	14.2	0.0	0.5	ini (shanda) aya Aya ya ƙasar			
Lane LOS	В		A		0.04738880.0888	enn athaith (air an Airtean Airtean) Airtean	
Approach Delay (s)	14.2	0.0	0.5				
Approach LOS		and the second second second second second second second second second second second second second second second	en en en i Thin Thinkin	na a ta cha an an an an an an an an an an an an an	an madalana maraka kab	na ana amin'ny soratra dia kaodim-paositra dia kaominina dia kaominina dia kaominina dia kaominina dia kaominin	
	B	1999-1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -					
Intersection Summary	B						
Average Delay	B		1.6				
Intersection Summary Average Delay Intersection Capacity Util	B		1.6 39.3%	IC	:U Leve	l of Service	A



	٠	$\mathbf{F}$	1	Ť	₽	4
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Ŵ			র্ম	ţ,	
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	15	10	70	345	310	35
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	17	11	78	383	344	39
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)		وروار والمراجع والمراجع والمراجع	والمعرفة والمتركبة والمتركبة	· · ·		
Percent Blockage						
Right turn flare (veh)		elektri ereced			Neddersteideide	
Median type	None					
Niedian storage ven)			<u>Gendentaanse</u>	4000	050	
Upstream signal (II)				1089	959	
$p_{\Lambda}$ , platoon unbiocked	003	0CA	202			
vC1_stage_1_conf_vol	900	004	ంరం			
vC1, stage 1 confivel						
VCu, unblocked vol	903	364	383			
tC single (s)	64	62	41			
tC. 2 stage (s)						
tF(s)	3.5	3.3	2.2		e litele beste det de 1995 - Statele Statele	
p0 queue free %	94	98	93	<	er en fan fan fan fan ferste fer	ya kumulok ya kuma kuna kuta kuta kuta kuta kuna kumu kumu kuta kuta kuta kuta kuta kuta kuta kut
cM capacity (veh/h)	288	681	1175			
Direction Lane #	FB 1	NB 1	SR 1			
Volume Total	28	461	383			
Volume Left	 17	78	0	980-1090-1090-1090 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 19 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 -		
Volume Right	11	0	39			
cSH	374	1175	1700	11341349344434144450	466666666666	
Volume to Capacity	0.07	0.07	0.23			
Queue Length 95th (ft)	6	5	0			
Control Delay (s)	15.4	2.0	0.0			
Lane LOS	С	Α				
Approach Delay (s)	15.4	2.0	0.0			
Approach LOS	C					
Intersection Summary						
Average Delay			1.5			
Intersection Capacity Ut	ilization		53.8%	IC	CU Leve	el of Service A
Analysis Period (min)			15			



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	٦	<b>1</b> ,		ሻ	Т.			£,			đ.	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	12	11	11	14	14	14	11	11	11
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Ert	1.00	0.98		1.00	0.99			0.97			0.97	
Flt Protected	0.95	1.00		0.95	1.00			1.00			0.99	
Satd. Flow (prot)	1711	1829		1770	1785			1927			1730	
Flt Permitted	0.29	1.00		0.42	1.00			0.97			0.91	
Satd. Flow (perm)	524	1829		784	1785			1881			1580	
Volume (vph)	45	285	40	40	400	25	20	270	75	45	170	65
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	50	317	44	44	444	28	22	300	83	50	189	72
RTOR Reduction (vph)	0	7	0	0	3	0	0	8	0	0	9	0
Lane Group Flow (vph)	50	354	0	44	469	0	0	397	0	0	302	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	18.4	18.4		18.4	18.4			19.8			19.8	
Effective Green, g (s)	19.4	19.4		19.4	19.4			20.8			20.8	
Actuated g/C Ratio	0.37	0.37		0.37	0.37			0.39			0.39	
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	192	669		287	653			738			620	
v/s Ratio Prot		0.19			c0.26			a na segura segura segura segura segura segura segura segura segura segura segura segura segura segura segura s				alan dari da bata da an
v/s Ratio Perm	0.10			0.06				c0.21			0.19	
v/c Ratio	0.26	0.53		0.15	0.72			0.54			0.49	
Uniform Delay, d1	11.8	13.2		11.3	14.4			12.4			12.1	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.7	0.8		0.2	3.8			0.8			0.6	
Delay (s)	12.5	14.0		11.5	18.2			13.2			12.7	
Level of Service	В	В		В	В			В			В	
Approach Delay (s)		13.8			17.7			13.2			12.7	
Approach LOS		В		5.22	В			В			В	
Intersection Summary												
HCM Average Control D	elay		14.6	F. S. S. F.	ICM Lev	el of Se	rvice		В			
HCM Volume to Capacity	y ratio		0.56									
Actuated Cycle Length (s	3)		53.0	S	ium of lo	st time	(s)		8.0			
Intersection Capacity Uti	lization	f	58.6%	10	CU Leve	l of Serv	/ice		С			
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	ŧ			<b>Ъ</b>		٣	4				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	10	10	16	16	16	10	11	11	12	12	12
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0				
Lane Util. Factor	1.00	1.00			1.00		1.00	1.00				
Frt	1.00	1.00			0.98		1.00	0.96				
Flt Protected	0.95	1.00	• • •		1.00		0.95	1.00				
Satd. Flow (prot)	1888	1739			1868		1652	1720				
Flt Permitted	0.36	1.00			1.00		0.95	1.00				
Satd. Flow (perm)	708	1739			1868		1652	1720				
Volume (vph)	20	295	0	0	430	60	110	175	75	0	0	0
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	22	328	0	0	478	67	122	194	83	0	0	0
RTOR Reduction (vph)	0	0	0	0	6	0	0	16	0	0	0	0
Lane Group Flow (vph)	22	328	0	0	539	0	122	261	0	0	0	0
Parking (#/hr)				0	0	0						
Turn Type	Perm						Perm					
Protected Phases		2			6			8			an an an an a' Galainn a' Galain	anga anga Bhile Joshok
Permitted Phases	2						8					en ser en en en en en en en en en en en en en
Actuated Green, G (s)	23.1	23.1			23.1		10.4	10.4				
Effective Green, g (s)	24.1	24.1			24.1		11.4	11.4				
Actuated g/C Ratio	0.53	0.53			0.53		0.25	0.25				
Clearance Time (s)	5.0	5.0			5.0		5.0	5.0				
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0				
Lane Grp Cap (vph)	372	913			981		410	427				
v/s Ratio Prot		0.19			c0.29			c0.15				
v/s Ratio Perm	0.03				10419204241404		0.07			1997) 1979 - March Brande	herd had been and a standard and a	090000000000000000000000000000000000000
v/c Ratio	0.06	0.36			0.55		0.30	0.61				
Uniform Delay, d1	5.3	6.4			7.3		14.0	15.3				
Progression Factor	1.00	1.00			1.00		1.00	1.00		istinti interne Servici interne		
Incremental Delay, d2	0.1	0.2			0.6		0.4	2.6				
Delay (s)	5.4	6.6			7.9		14.4	17.9				
Level of Service	Α	A			А		В	В				
Approach Delay (s)		6.5		5.0.2.3	7.9			16.8			0.0	
Approach LOS		А			А			В			Α	
Intersection Summary												
HCM Average Control D	elay		10.3	H	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.53									
Actuated Cycle Length (s	3)		45.9	Sı	um of lo	st time	(s)		8.0			
Intersection Capacity Uti	lization	4	16.7%	IC	U Leve	l of Serv	/ice		A			
Analysis Period (min)			15									
c Critical Lane Group												

CAP Clough, Harbour & Associates, LLP

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	4		ሻ	*	7	****	4		ኻ	¥	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	11	11	12	12	12	10	10	12
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0		4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00
Frt	1.00	0.99		1.00	1.00	0.85		0.98	in de les rest Sterresterres	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	,	0.99		0.95	1.00	1.00
Satd. Flow (prot)	1540	1668		1711	1801	1531		1626		1652	1739	1583
Flt Permitted	0.50	1.00		0.64	1.00	1.00	d officers and the factor of the second second second second second second second second second second second s	0.69		0.73	1.00	1.00
Satd. Flow (perm)	804	1668		1161	1801	1531		1137		1265	1739	1583
Volume (vph)	30	155	5	45	285	115	10	25	5	105	240	65
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	33	172	6	50	317	128	11 11	28	6	117	267	72
RTOR Reduction (vph)	0	1	0	0	0	76	0	5	Ō	0	0	48
Lane Group Flow (vph)	33	177	0	50	317	52	0	40	0	117	267	24
Parking (#/hr)	0	0	0				0	Ō	Ō			
	Perm			Perm		Perm	Perm			pm+pt		Perm
Protected Phases		2	generation de la completación de la completación de la completación de la completación de la completación de la Completación de la completación de l		6			8		7	4	
Permitted Phases	2	1999-1999-1999-1999-1999-1999-1999-199	010000000000000000000000000000000000000	6	an da kata kata baga baga	6 6	880-880 SEC. 8	(1999) - Serie (1999) - Serie (1999) - Serie (1999) - Serie (1999) - Serie (1999) - Serie (1999) - Serie (1999)		4 A	an an an an an an an an an an an an an a	4
Actuated Green, G (s)	18.8	18.8		197	19.7	197		6.0		16.3	16.3	163
Effective Green, g (s)	19.8	19.8	nd Antologia (1993) Antologia (1993)	20.7	20.7	20.7	un dia kana dia ka	7.0	ja nabra araa kata kata kata kata kata kata ka	17.3	17.3	17.3
Actuated g/C Ratio	0.39	0.39		0.40	0.40	0.40		0.14		0.34	0.34	0.34
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0		5.0	354 m.CoX(10404/10499)	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0		3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	311	645		469	728	619		155		475	588	535
v/s Ratio Prot		0.11			c0 18	y sy sa s				0.03	c0 15	
v/s Ratio Perm	0.04		Reasonation and a	0.04		0.03	alanan da kada	0.04		0.05		0.02
v/c Ratio	0.11	0.27		0.11	0.44	0.08		0.26		0.25	0 45	0.05
Uniform Delay, d1	10.0	10.8	ola napro specielaria	9.5	11.0	9.4		19.8		12.4	13.3	11.4
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00	Materia (Mari	1.00	1 00	1 00
Incremental Delay, d2	0.2	0.2	en nyenyen han hyen	0.1	0.4	0.1	telen der uddridend	0.9	eperation and a second	0.3	0.6	0.0
Delay (s)	10.2	11.0		9.6	11.4	9.5		20.7		12.6	13.8	11.4
Level of Service	В	В	-Seiressin - Heriologia	Α	В	A		С		В	B	В
Approach Delay (s)		10.9			10.7			20.7			13.1	
Approach LOS	a (a fa bayan biya (1257) ya ani	В			В	eine de la de la de la de la de la de la de la de la de la de la de la de la de la de la de la de la de la de l La de la de la de la de la de la de la de la de la de la de la de la de la de la de la de la de la de la de la d		С	generation (		В	
Intersection Summary												
HCM Average Control D	elay		12.0	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	v ratio		0.39									
Actuated Cycle Length (s	5)	an the state of the states	51.2	S	um of lo	ost time	(s)		8.0	Ren eren solandar		001007778409785
Intersection Capacity Uti	lization	4	14.3%	Ī	U Leve	l of Ser	vice		Ā			
Analysis Period (min)		ana ang kalang kalang kalang kalang kalang kalang kalang kalang kalang kalang kalang kalang kalang kalang kala Kalang kalang kalang kalang kalang kalang kalang kalang kalang kalang kalang kalang kalang kalang kalang kalang				<u>ে বিশেষ বিশেষি</u> য়					ende inderendigi	
c Critical Lane Group												



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		র্ম	7	ኻ	ţ,			র্ম	7	۲	<b>1</b>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	12	12	16	12	12	12
Total Lost time (s)		4.0	4.0	4.0	4.0			4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	
Frt		1.00	0.85	1.00	0.97			1.00	0.85	1.00	0.98	
Fit Protected		1.00	1.00	0.95	1.00			0.98	1.00	0.95	1.00	
Satd. Flow (prot)		1735	1478	1486	1516			1834	1794	1593	1833	
Flt Permitted		0.98	1.00	0.65	1.00			0.89	1.00	0.62	1.00	
Satd. Flow (perm)		1711	1478	1019	1516			1667	1794	1044	1833	
Volume (vph)	5	145	45	15	245	65	60	135	20	25	45	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0,90	0.90	0.90
Adj. Flow (vph)	6	161	50	17	272	72	67	150	22	28	50	6
RTOR Reduction (vph)	0	0	32	0	13	0	0	0	10	0	4	0
Lane Group Flow (vph)	0	167	18	17	331	0	0	217	12	28	52	0
Parking (#/hr)			és sue s	0	0	0	0			0		6.000.000.005
Turn Type	Perm		Perm	Perm			Perm		Perm	Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6			8		8	4		tati (Canada Dalayan)
Actuated Green, G (s)		14.0	14.0	14.0	14.0			12.7	12.7	12.7	12.7	
Effective Green, g (s)		15.0	15.0	15.0	15.0			13.7	13.7	13.7	13.7	
Actuated g/C Ratio		0.36	0.36	0.36	0.36			0.33	0.33	0.33	0,33	
Clearance Time (s)		5.0	5.0	5.0	5.0			5.0	5.0	5.0	5.0	-1-0-0000000000000000000000000000000000
Vehicle Extension (s)		3.0	3.0	3.0	3.0			3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		615	532	367	545	····		548	589	343	602	
v/s Ratio Prot					c0.22						0.03	
v/s Ratio Perm		0.10	0.01	0.02				c0.13	0.01	0.03	contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra	411411111111111111111111111
v/c Ratio		0.27	0.03	0.05	0.61		, staa	0.40	0.02	0.08	0.09	
Uniform Delay, d1		9.5	8.7	8.7	10.9			10.8	9.5	9.7	9.7	
Progression Factor		1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.2	0.0	0.1	1.9			0.5	0.0	0.1	0.1	
Delay (s)		9.7	8.7	8.7	12.9			11.3	9.5	9.8	9.7	
Level of Service		Α	Α	Α	В			В	Α	Α	Α	
Approach Delay (s)		9.5			12.7			11.1			9.7	
Approach LOS		Α			В			В			А	
Intersection Summary												
HCM Average Control D	elay		11.2	H	ICM Lev	el of Sei	vice		В		********	
HCM Volume to Capacity	y ratio		0.43									
Actuated Cycle Length (s	5)		41.7	S	um of lo	ost time (	s)		8.0	nananan (intilinti	na na ina ina di kati na ina ina 197	na an an an an 2000 an 201
Intersection Capacity Uti	lization		43.9%	I(	CU Leve	l of Serv	ice		Α			
Analysis Period (min)			15		a and an and a second second second second second second second second second second second second second second							
c Critical Lane Group												

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Movement	EBL2	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR2	SBL	SBT	SBR
Lane Configurations		4			÷‡÷			4			<u>ډ</u> ۍ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	14	14	14	12	12	12	16	16	16
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.99			0.98			1.00			1.00	
Flt Protected		0.99			0.99			1.00		ni a senteni opra	1.00	(11.1.1.1.1.1.1.1.4.1.1.4.1.
Satd. Flow (prot)		1808			1923			1854			2098	
Flt Permitted		0.92			0.96			0.98			0.99	and the set of the set
Satd. Flow (perm)		1697			1865			1827			2078	
Volume (vph)	15	30	5	5	20	5	15	280	5	5	150	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	33	6	6	22	6	17	311	6	6	167	6
RTOR Reduction (vph)	0	5	0	0	0	0	0	<u> </u>	0	0	2	Ō
Lane Group Flow (vph)	0	51	0	0	34	0	0	333	0	0	177	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		3			3			2	(A		6	of historikistette
Permitted Phases	3			3			2	2		6	6	
Actuated Green, G (s)		15.0			15.0			30.0		and an one of a state of the spectra	30.0	Second Contractor
Effective Green, g (s)		16.0			16.0			31.0			31.0	
Actuated g/C Ratio		0.20			0.20			0.39			0.39	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Lane Grp Cap (vph)		339			373			708			805	
v/s Ratio Prot												
v/s Ratio Perm		c0.03		1999 (1997) (1997) (1995)	0.02	. 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 199 1		c0.18		alended en el de caracter (	0.09	olegi et menzi sular
v/c Ratio		0.15			0.09			0.47			0.22	
Uniform Delay, d1		26.4			26.1		2004 - 2004 - 2004 - 200 2004 - 2004 - 2004 - 2007 - 2007 - 2007 - 2007 - 2007 - 2007 - 2007 - 2007 - 2007 - 2007 - 2007 - 2007 - 2007 -	18.4	-97020900-0-0-00-0940		16.4	ana ang ang ang ang ang ang ang ang ang
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.9			0.5	- 200 2010 - 2010		2.2			0.6	ala da Karanata
Delay (s)		27.3			26.6			20.6			17.0	
Level of Service		С			С			С			В	al multiplication of the second of the secon
Approach Delay (s)		27.3			26.6			20.6			17.0	
Approach LOS		С			С			С	5		В	an ann a' sheara
Intersection Summary												
HCM Average Control D	elay		23.1	H	CM Lev	el of Se	rvice		С			
HCM Volume to Capacit	y ratio		0.41									
Actuated Cycle Length (s	s)		80.0	S	um of lo	st time	(s)	a a succession	12.0	a and a second se	e en nationalist	
Intersection Capacity Uti	lization		51.2%	IC	U Leve	l of Sen	/ice		A	<u>.</u>		
Analysis Period (min)			15									
c Critical Lane Group												



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Movement	SWL2	SWL	SWR	SWR2
Lane Configurations	ኻ	Ŵ		
Ideal Flow (vphpl)	1900	1900	1900	1900
Lane Width	14	14	14	14
Total Lost time (s)	4.0	4.0		
Lane Util. Factor	1.00	1.00		
Frt	1.00	0.97		
Fit Protected	0.95	0.96		
Satd. Flow (prot)	1888	1858		
Flt Permitted	0.95	0.96		
Satd. Flow (perm)	1888	1858		
Volume (vph)	5	190	35	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90
Adj. Flow (vph)	6	211	39	6
RTOR Reduction (vph)	0	1	0	0
Lane Group Flow (vph)	6	255	0	0
Turn Type	Split			
Protected Phases	4	4		
Permitted Phases				
Actuated Green, G (s)	20.0	20.0		
Effective Green, g (s)	21.0	21.0		
Actuated g/C Ratio	0.26	0.26		
Clearance Time (s)	5.0	5.0		
Lane Grp Cap (vph)	496	488		
v/s Ratio Prot	0.00	c0.14		
v/s Ratio Perm				
v/c Ratio	0.01	0.52		
Uniform Delay, d1	21.8	25.2		
Progression Factor	1,00	1.00		
Incremental Delay, d2	0.0	4.0		
Delay (s)	21.9	29.2		
Level of Service	С	С		
Approach Delay (s)		29.0		
Approach LOS		С		

Intersection Summary

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		र्स	7		ቆ	7	ሻ	<u></u>		۲	<u></u>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	tion the second	4.0	4.0	4.0	4.0		4.0	4.0	an an an an an an an an an an an an an a
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	0.99	na na minina di secondo di se
Flt Protected		0.96	1.00		0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1791	1583		1796	1583	1770	3535		1770	3496	
Fit Permitted		0.75	1.00		0.75	1.00	0.32	1.00		0.33	1.00	
Satd. Flow (perm)		1404	1583		1399	1583	600	3535		616	3496	
Volume (vph)	60	15	95	15	5	30	75	765	5	40	570	50
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	67	17	106	17	6	33	83	850	6	- 44	633	56
<b>RTOR Reduction (vph)</b>	0	0	93	0	0	29	0	1	0	0	7	0
Lane Group Flow (vph)	0	84	13	0	23	4	83	855	0	44	682	0
Turn Type	Perm		Perm	Perm		Perm	pm+pt			Perm		
Protected Phases	51.51	4			8		5	2			6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)		6.5	6.5		6.5	6.5	38.5	38.5		29.8	29.8	
Effective Green, g (s)		6.5	6.5		6.5	6.5	38.5	38.5		29.8	29.8	
Actuated g/C Ratio		0.12	0.12		0.12	0.12	0.73	0.73		0.56	0.56	
Clearance Time (s)	en estatuto funcciona	4.0	4.0		4.0	4.0	3.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		172	194		172	194	540	2568		346	1966	
v/s Ratio Prot							0.01	c0.24			0.19	
v/s Ratio Perm		c0.06	0.01		0.02	0.00	0.10			0.07		
v/c Ratio		0.49	0.07		0.13	0.02	0.15	0.33		0.13	0.35	
Uniform Delay, d1		21.7	20.6		20.7	20.5	2.4	2.6		5.5	6.3	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	Antologia de la construction de la	2.2	0.1		0.4	0.0	0.1	0.1		0.2	0.1	
Delay (s)		23.9	20.7		21.1	20.5	2.6	2.7		5.6	6.4	
Level of Service		С	С	ularet daribi kedabadari	С	С	Α	A		A	A	
Approach Delay (s)		22.1			20.7			2.7			6.4	
Approach LOS		С			С			A			A	
Intersection Summary												
HCM Average Control D	elay		6.5	Н	CM Lev	el of S	ervice		А			
HCM Volume to Capacit	y ratio		0.36									
Actuated Cycle Length (	s)		53.0	S	um of lo	ost time	(S)		8.0			
Intersection Capacity Uti	lization		48.8%	١Ç	CU Leve	of Sei	vice		A			
Analysis Period (min)	and the state of the second		15	tan manager as such as a	and more than t			1				
c Critical Lane Group												
	۶		$\mathbf{F}$	<	4	Ł	1	†	1	1	ţ	~
---------------------------	----------	-------	--------------	------	----------	----------	----------------------------	-------	---	-----------------------	------------------------	----------------------
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		र्भ	1	٣	41		٣	ተኈ		٦	<b>^</b> 14	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	10	12	16	12	10	10	10	10	10	10
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	0.95		1.00	0.95	
Frt		1.00	0.85	1.00	0.90		1.00	1.00		1.00	0,99	
Flt Protected		0.96	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1728	1478	1770	1906		1652	3296		1652	3265	
Flt Permitted		0.75	1.00	0.71	1.00		0.35	1.00		0.95	1.00	
Satd. Flow (perm)		1349	1478	1329	1906		614	3296		1652	3265	
Volume (vph)	50	10	255	15	5	10	90	965	15	10	595	50
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	56	11	283	17	6	11	100	1072	17	11	661	56
RTOR Reduction (vph)	0	0	252	0	10	0	0	1	0	0	7	0
Lane Group Flow (vph)	0	67	31	17	7	0	100	1088	0	11	710	0
Turn Type	Perm		Perm	Perm			pm+pt			Prot		
Protected Phases		4			8		5	2		1	6	to de substant autor
Permitted Phases	4		4	8			2				- 19 Mar - 19 Mar - 19	
Actuated Green, G (s)		7.8	7.8	7.8	7.8		45.9	45.9		0.9	28.3	
Effective Green, g (s)		7.8	7.8	7.8	7.8		46.9	46.9		0.9	29.3	
Actuated g/C Ratio		0.11	0.11	0.11	0.11		0.67	0.67		0.01	0.42	
Clearance Time (s)		4.0	4.0	4.0	4.0		5.0	5.0		4.0	5.0	
Vehicle Extension (s)		1.0	1.0	1.0	1.0		1.5	1.0		1.0	1.0	
Lane Grp Cap (vph)		150	164	148	212		685	2205		21	1365	
v/s Ratio Prot					0.00		0.04	c0.33	(	0.01	c0.22	
v/s Ratio Perm		c0.05	0.02	0.01			0.06					
v/c Ratio		0.45	0.19	0.11	0.03		0.15	0.49		0.52	0.52	-1-24-727-86932-734
Uniform Delay, d1		29.1	28.3	28.0	27.8		5.3	5.7		34.4	15.2	
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.8	0.2	0.1	0.0		0.4	0.8		10.4	1.4	
Delay (s)		29.9	28.5	28.2	27.8		5.8	6.5		44.8	16.6	
Level of Service		С	C	C	C		A	Α		D	В	
Approach Delay (s)		28.8			28.0			6.5			17.0	
Approach LOS		C			С		99368	A			В	
Intersection Summary												
HCM Average Control D	elay		13.5	H	CM Lev	el of Se	ervice		В			
HCM Volume to Capacit	y ratio		0.47				oo oo oo oo oo oo oo oo oo		, er en sen en en en en sen sen sen sen sen	usun meneri kana diba		
Actuated Cycle Length (	5)		70.1	S	um of lo	ost time	(S)		8.0			
Intersection Capacity Uti	lization		50.4%	IC	CU Leve	l of Ser	vice		Α			aaantoo Barinii
Analysis Period (min)			15									



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				ሻ	र्भ			<b>↑</b> Ъ			ተኩ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	14	12	12	12	12	12	12
Total Lost time (s)				4.0	4.0			4.0			4.0	
Lane Util. Factor				0.95	0.95			0.95			0.95	
Frt				1.00	1.00			1.00			1.00	
Flt Protected				0.95	0.96			1.00			1.00	
Satd. Flow (prot)				1681	1691			3539			3539	
Flt Permitted				0.95	0.96			1.00			1.00	
Satd, Flow (perm)				1681	1691			3539			3539	
Volume (vph)	0	0	0	1260	50	0	0	700	0	0	940	0
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	1400	56	0	0	778	0	0	1044	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	709	747	0	0	778	0	0	1044	0
Turn Type				Perm			Perm					
Protected Phases					8			2			6	
Permitted Phases				8			2					
Actuated Green, G (s)	·			28.2	28.2			24.8			24.8	
Effective Green, g (s)				30.2	30.2			26.8			26.8	
Actuated g/C Ratio				0.46	0.46			0.41			0.41	
Clearance Time (s)				6.0	6.0			6.0			6.0	
Vehicle Extension (s)				3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)				781	786			1459			1459	
v/s Ratio Prot								0.22			c0.29	
v/s Ratio Perm				0.42	0.44							
v/c Ratio				0.91	0.95			0.53			0.72	
Uniform Delay, d1				16.1	16.7		8494949	14.4			15.9	
Progression Factor				1.00	1.00			1.00	en a da constructiva da la		1.00	
Incremental Delay, d2				14.2	20.9			0.4			1.7	
Delay (s)				30.3	37.5			14.8			17.6	
Level of Service				C	D			В			В	
Approach Delay (s)	an an an an an an an an an an an an an a	0.0	dan dan sekara s		34.0	ر مىلىدۇر ئىرىمىدىدىدى ئىلىرى	ور و در در در در در در در در در در در در در	14.8			17.6	
Approach LOS		A			C		99 (9) (2) (2)	В			B	
Intersection Summary												
HCM Average Control De	elay		24.2	H	CM Lev	el of Se	rvice		C			
HCM Volume to Capacity	ratio	er er en er er er en en er er er en er er er er er er er er er er er er er	0.84		aan ah sa sa sa sa sa sa sa sa sa sa sa sa sa	een een de bekelde de be	ana ana amin' amin' amin' amin' amin' amin' amin' amin' amin' amin' amin' amin' amin' amin' amin' amin' amin' a Amin' amin' amin' amin' amin' amin' amin' amin' amin' amin' amin' amin' amin' amin' amin' amin' amin' amin' amin		an an an an an an an an an an an an an a	un met fin her so fil fil	narradistra artekidi.	an-an-thompsonii
Actuated Cycle Length (s	)		65.0	S	um of lo	st time	(s)		8.0			
Intersection Capacity Util	ization	e	8.9%	IC	CU Leve	l of Serv	/ice		С			1999 - S. M. H. S. S. M. H. S. S. M. H. S. S. S. S. S. S. S. S. S. S. S. S. S.
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Sign Control		Stop	on interior Antonio (199		Stop			Stop			Stop	
Volume (vph)	5	110	0	10	155	10	20	330	45	5	145	15
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	122	0	11	172	11	22	367	50	6	161	17
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	128	194	439	183								
Volume Left (vph)	6	11	22	6								
Volume Right (vph)	0	11	50	17						en de la deserver de la deserver de la deserver de la deserver de la deserver de la deserver de la deserver de		
Hadj (s)	0.04	0.01	-0.02	-0.01			Keraid					
Departure Headway (s)	6.0	5.8	5.2	5.6								
Degree Utilization, x	0.21	0.32	0.63	0.28								
Capacity (veh/h)	523	552	666	590		on and a second second second second second second second second second second second second second second seco			arvenes and particular year an			(111) (111)
Control Delay (s)	10.7	11.5	16.5	10.7							80.91	
Approach Delay (s)	10.7	11.5	16.5	10.7	******		563 M.C	n an an an an an an an an an an an an an		un (muunaa (miat)		elie en merechikop
Approach LOS	B	В	C	B								
Intersection Summary												
Delay			13.6	Nues de 18								
HCM Level of Service			В							******		(
Intersection Capacity Uti	lization		48.1%	IC	CU Leve	l of Sen	vice		Α			
Analysis Period (min)			15				- 19 19 19 19 19 19 19 19 19 19 19 19 19		alas 1993 (1997), 1997), 1997), 199		an a san an an an an an an an an an an an an a	e y navel fallen fan de fan

	×	×.	†	1	1	Ļ	
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	¥		<b>Ъ</b>			្ន	
Sign Control	Stop		Free			Free	
Grade	0%	1	0%			0%	
Volume (veh/h)	80	5	355	185	5	385	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	, news sectors and the sector sectors and an experimental sector sectors and sectors and sectors and sectors an
Hourly flow rate (vph)	89	6	394	206	6	428	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)	en de la composition de la comp	ala an tao an tao an tao an tao an tao an tao an tao an tao an tao an tao an tao an tao an tao an tao an tao a	and a second second second second			alaat ah too promote a status t	
Median type	None						
Median storage veh)	ana ang ang ang ang ang ang ang ang ang	Series de Anne Seren			Salatina (constante actuale)	ana ang kanakarang kanaka	
Upstream signal (It)						837	
pX, platoon unblocked							
vC, conflicting volume	936	497			600		
VCT, stage T cont vol			sidente de la composición			Estganisch voorstaat datum	
VCz, stage z coni voi	006	407		49 - 19 - 19 - 19 - 19 - 19 - 19 - 19 -	- <u></u>		
	900	497			600		
tC 2 stane (s)	0.4	0.2			4.1		
tF (s)	35	22	an istalar sizalat territa Majartika sizalat territa		20		
n0 queue free %	70	99		90.909.699.09	<u>مم</u>		
cM capacity (veh/h)	292	573	ginga sanaga	9325349739	977		
Direction Lone #	 M/B 1		CD 4				
Volume Total	01	600	422				
Volume Left	9 <del>4</del> 80	000	400 6		134394873		
Volume Bight	6	206	ں م				
cSH	301	1700	977				
Volume to Capacity	0.31	0.35	0.01				
Queue Length 95th (ft)	33	0	0				
Control Delay (s)	22.3	0.0	0.2				
Lane LOS	С		A			a oteletation teletaista. A	
Approach Delay (s)	22.3	0.0	0.2				
Approach LOS	С		en angen egetikke	an san an an an an 1977 T	s	aanaan di di di Kirke	
Intersection Summary							
Average Delay			1.9				
Intersection Capacity Ut	ilization		41.4%	IC	U Level	l of Servic	e A
Analysis Period (min)	an an an an tao tao tao tao tao tao tao tao tao tao		15		n na por esta por a construint esta de la construint esta de la construint esta de la construint esta de la con La construint esta de la construint esta de la construint esta de la construint esta de la construint esta de la	999-999-999-999-9998-9998-9998-9998-99	
Volume to Capacity Queue Length 95th (ft) Control Delay (s) Lane LOS Approach Delay (s) Approach LOS Intersection Summary Average Delay Intersection Capacity Ut Analysis Period (min)	0.31 33 22.3 C 22.3 C	0.35 0 0.0 0.0	0.01 0 0.2 A 0.2 1.9 11.4% 15	IC	U Level	of Servic	e A



	٨	->	$\mathbf{F}$	¥		×	1	†	1	1	Ļ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		ф.			¢.			ብኈ			ፈቴ	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%		nana para tabu	0%	
Volume (veh/h)	25	0	60	10	0	10	25	815	5	5	620	75
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	28	0	67	11	0	11	28	906	6	6	689	83
Pedestrians		en ante a succesta en altres			Sections of sectors of second							
Lane Width (ft)												
Walking Speed (tt/s)	ala alimpininga	an an an an an an an an an an an an an a		Helefold and the legant of	والمراجع والمتلاح والمتلاحين				e in algo i dire in faint	alla e que celere e		uning Davas Robert Albert
Percent Blockage												
Modion time (ven)		Nono	i i politica i degracije		NICOS	gei Shikoinata	kojsku sklaza kojska			nivituitettette		
Median storage yeb)		INCIDE			INOLIE	09399660293						
Unstream signal (ft)								1967				
pX. platoon unblocked								1201				
vC, conflicting volume	1261	1708	386	1386	1747	456	772			911		
vC1, stage 1 conf vol	1993 (1999) - 1993 (1993) (1993) 1993 (1999) - 1993 (1993) (1993) (1993)			and a start of the second second second second second second second second second second second second second s	pana pagangan mangapat			en de la company.	adadan salarin salinas	us quant de la companya.		ki tulet tang tuliya
vC2, stage 2 conf vol												
vCu, unblocked vol	1261	1708	386	1386	1747	456	772			911		an en ann da ann da
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4,1			4.1		
tC, 2 stage (s)	an teo este de la composition	er en anter er anere	ander andere andere de state de service de service de service de service de service de service de service de s				and the new second second					
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	77	100	89	87	100	98	97		Andrewspiece and a second	99		
civi capacity (ven/n)	120	86	612	88	82	552	839			743		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	94	22	481	458	350	428	51 (S 16-19)					
Volume Left	28	11	28	0	6	0						
Volume Right	67	11	0	6	0	83						
CSH Values In Osciela	2/8	153	839	1700	743	1700		eri di Sirati da Canata		Alta international data in the		
Volume to Capacity	0.34	0.15	0.03	0.27	0.01	0.25						
Control Dolou (c)	30 01 E	12	ა იი	0	ן ה ה	0			egergehistersjone	Geotogeograph	unist debuiction de	Singungeran
Long LOS	24.3	ം ഗ2.0 ന	0.9	0.0	U.Z	0.0						
Annroach Delay (e)	24 5	326			~ ^					hana ar an an an an an an an an an an an an an		
Approach LOS	с С	D			V. F							
Interpretion Cummer	-	-										
Average Delay			~ ~ ~									
Intersection Canadity Little	lization		U.ک /مم دع	12	511 I	IN CA-	***					
Analysis Period (min)	າະລາບເປ		ンン.U70 1 に	R.	JO LEVE	a or gen	mce		A			
		a na ang sa sa sa sa sa	UI.			ana ana ang sa sa sa sa sa sa sa sa sa sa sa sa sa						

MovementEBTEBRWBLWBTNBLNBRLane ConfigurationsImage: control sign ControlImage: control sign ControlImage: control sign Contr	
Lane Configurations         Image: height for the system         Image: h	
Volume (veh/h)         215         35         135         85         10         45           Peak Hour Factor         0.90         0.90         0.90         0.90         0.90         0.90           Hourly flow rate (vph)         239         39         150         94         11         50           Pedestrians         Lane Width (ft)         Valking Speed (ft/s)         Valking Speed (ft/s)         Valking Speed (ft/s)	
Peak Hour Factor         0.90         0.90         0.90         0.90         0.90           Hourly flow rate (vph)         239         39         150         94         11         50           Pedestrians         Lane Width (ft)         Valking Speed (ft/s)         50         50         50	
Hourly flow rate (vph) 239 39 150 94 11 50 Pedestrians Lane Width (ft) Walking Speed (ft/s)	
Pedestrians Lane Width (ft) Walking Speed (ft/s)	
Lane Wollin (ii) Walking Speed (ft/s)	
Percent Blockage	
Right turn flare (veh)	1995
Median type None	
Median storage veh)	10,002,00
Upstream signal (ft) 331	
pX, platoon unblocked	
vC, conflicting volume 278 653 258	
	West.
VCz, słage z culii vol VCu unblocked vol 278 653 259	9498 9498
1C  single (s)	NA
tC, 2 stage (s)	100
tF (s) 2.2 3.5 3.3	
p0 queue free % 88 97 94	Alexandra and a second
cM capacity (veh/h) 1285 382 780	
Direction, Lane # EB 1 WB 1 NB 1	
Volume Total 278 244 61	
Volume Left 0 150 11	
Volume Right 39 0 50	
CSH 1700 1285 656	3838
Ousue Length 95th (ff) 0 10 9	
Control Delay (s) $0.054$ 11 1	Nesij
Lane LOS A B	308 1
Approach Delay (s) 0.0 5.4 11.1	94Q
Approach LOS B	94925
Intersection Summary	
Average Delay 3.4	200
Intersection Capacity Utilization 38.7% ICU Level of Service A	
Analysis Period (min) 15	

	TV								
General Information			Site I	nform	ation				
Analyst A y/Co. Date Performed Analysis Time Period	EJD CHA 12/22/05 AM PEAK	HOUR	Interse Jurisdi Analys	ection ction is Year		ROUTE 7 TOWN O 2028 BUI	7/LOCUST F BURLIN ILD ALT2	/LEDGE GTON	
Project Description BUI	RLINGTON		<b>I</b>	<b>~ ~</b>					
East/West Street: LOCU	S1/LEDGE		North/S	South S	treet: ROUTE	7			
	Nonn-South		Study	Period (	nrs): 0.25				
Vehicle Volumes and	Adjustments				1	<b>A</b>			
Major Street		Northbound			4	Southbo	ound	~	
wovement		∠ ⊤			4	<u>с</u> Т		0	
Volume	0	550	280	)	0	440		15	
Peak-Hour Factor, PHF	0.90	0.90	0.90	2	0.90	0.90		0.90	
Hourly Flow Rate, HFR	0	611	311	1	0	488		16	
Percent Heavy Vehicles	0				2				
Median Type				Undi	vided				
RT Channelized			0					0	
Lanes	0	2	0		0	1		0	
Configuration		Т	TR		LTR				
Upstream Signal		0				0			
Minor Street		Westbound				Eastbou	ind		
Movement	7	8	9		10	11		12	
		Т	R		L	T		R	
Volume	0	0	65	1	0	15		85	
How Elow Poto HEP	0.90	0.90	0.90	)	0.90	0.90		0.90	
Percent Heavy Vehicles	0	0	2		0	10		94 	
Percent Grade (%)		<u>v</u>			<u> </u>	<u> </u>		2	
Flared Approach									
Storage									
BT Channelized		V						0	
		0	1		0	4		0	
Configuration		V	R					TR	
Delay Queue Length an	d Level of Servic	<u> </u>	<u> </u>				1	***	
Approach	NR	SR	T	Westh	ound		Easthoun	d	
Movement	1	1	7			10	41	1 12	
Lane Configuration			,		9	10	11	TD	
v (vph)			<u> </u>		70			110	
$\nabla (vph)$		706			12			110	
		/ 30	1		547		<u> </u>	308	
		0.00	ļ	<u> </u>	0.13			0.30	
95% queue length		0.00	ļ	<u> </u>	0.45	<u> </u>	Į	1.23	
Control Delay		9.9	ļ		12.6		ļ	18.9	
LOS		A		<u> </u>	В		L	<u> </u>	
Approach Delay	**	***		12.6	3	18.9			
Approach LOS			В		С				

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HCS2000<sup>TM</sup>

Version 4.1d

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	T	<b>WO-WAY STO</b>	OP CONTROL SUMMARY							
General Information			Site In	formatio	n					
Analyst As y/Co. Date Performed Analysis Time Period	EJD CHA - 12/22/05 AM PEAK	HOUR	Intersec Jurisdic Analysis	tion tion s Year		ROUTE 7 TOWN O 2028 BUI	7/SOUTH V F BURLIN LD ALT2	VILLARD GTON		
Project Description BUI	RLINGTON		<b>b b b b</b>							
East/West Street: SOUT	H WILLARD		North/S	outh Street	: ROUTE :	7				
Intersection Orientation:	Nonn-South		Study P	eriod (nrs):	0.25					
Vehicle Volumes and	d Adjustment	S								
Major Street		Northbound			-	Southbo	und	-		
Movement	1	2	3		4	5		<u>6</u>		
Volume	L	100			<u> </u>	155		<u> </u>		
Peak-Hour Factor PHF	00	0.90	0 90		<u></u>	433 n an				
Hourly Flow Bate, HFR	66	544	0.00		0.00	505		0.00		
Percent Heavy Vehicles	2				2					
Median Type		<b>I</b>	-	Undivideo						
RT Channelized			0				1	0		
Lanes	0	1	0		0	1	1	0		
Configuration	LT					Т				
Upstream Signal		0				0				
Minor Street		Westbound				Eastbou	ınd			
Movement	7	8	9		10	11		12		
	L	Т	R		L	Т		R		
Volume	0	180	0		0	0		0		
He Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90		
Porcont Hoovy Vohiolog	0	200	0		0	0		0		
Percent Grade (%)		2	2			<u> </u>				
Flared Approach			1				1			
Clared Apploach										
Storage		· · · · · · · · · · · · · · · · · · ·				0				
					0			0		
Configuration	0	/			0	0		0		
	l		///							
Approach	NR		1	Moethound		1	Factbourg	4		
Movement	1	30		o	0	10		10		
Lane Configuration	, 1 T	- <del>1</del>		0		10		12		
	66				200					
C(m)(unh)	1060				200		L			
	0.06				1/3					
	0.00				1.10					
oo /o queue iengin	0.20		<u> </u>		10.57					
Control Delay	8.6				1/0.7					
105	A		<u>                                     </u>		F	<u> </u>		1		
Approach Delay	÷÷		ļ	170.7						
Approach LOS			1	F		1				

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# NULL ALTERNATIVE 2028 PM PEAK HOUR

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		स	7		ų	7	ሻ	<b>†</b> 1-		ሻ	<b>≜</b> ↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frt		1.00	0.85		1.00	0.85	1.00	0.99		1.00	0.99	
Flt Protected		0.98	1.00		0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1830	1583		1812	1583	1770	3499		1770	3521	
Flt Permitted		0.74	1.00		0.79	1.00	0.30	1.00		0.95	1.00	5 (S) (S) (S)
Satd. Flow (perm)		1372	1583		1470	1583	552	3499		1770	3521	
Volume (vph)	20	35	80	95	75	205	90	975	80	85	840	30
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	22	39	89	106	83	228	100	1083	89	94	933	- 33
RTOR Reduction (vph)	0	0	74	0	0	102	0	0	0	0	0	0
Lane Group Flow (vph)	0	61	15	0	189	126	100	1172	0	94	966	0
Turn Type	Perm		Prot	Perm		pt+ov	Perm		С	ustom		
Protected Phases		4	4		8	81		2		1	6	
Permitted Phases	4			8			2			1		
Actuated Green, G (s)		22.3	22.3		22.3	34.8	84.5	84.5		12.5	102.0	
Effective Green, g (s)		23.3	23.3		23.3	36.8	85.5	85.5		13.5	103.0	
Actuated g/C Ratio		0.17	0.17		0.17	0.26	0.61	0.61		0.10	0.74	
Clearance Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		228	263		245	416	337	2137		171	2590	
v/s Ratio Prot			0.01			0.08		c0.33		c0.05	0.27	
v/s Ratio Perm		0.04			c0.13		0.18					
v/c Ratio		0.27	0.06		0.77	0.30	0.30	0.55		0.55	0.37	
Uniform Delay, d1		50.9	49.1		55.8	41.3	13.0	16.0		60.3	6.7	
Progression Factor		1.00	1.00		1.00	1.00	0.31	0.37		1.00	1.00	
Incremental Delay, d2		0.6	0.1		13.9	0.4	1.9	0.9		3.6	0.4	
Delay (s)		51.5	49.2		69.7	41.7	6.0	6.8		63.9	7.2	
Level of Service		D	D		Е	D	А	Α		Ε	A	
Approach Delay (s)		50.1			54.4			6.7			12.2	
Approach LOS		D			D			А			В	
Intersection Summary												
HCM Average Control D	elay		17.8	H	ICM Lev	vel of Se	ervice		В			
HCM Volume to Capacit	y ratio		0.57									
Actuated Cycle Length (	s)		140.0	S	um of lo	ost time	(s)		12.0			
Intersection Capacity Uti	ilization	6-32-60-64 <b>(</b>	62.0%	10	CU Leve	el of Ser	vice		В			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	٢	4			4		ኻ	<u>ት</u> ኈ		Υ	<u>ት</u> ኩ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00			1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.98			0.88		1.00	1.00		1.00	0.99	
Fit Protected	0.95	1.00			1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1829			1633		1770	3523		1770	3519	
Flt Permitted	0.32	1.00			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	600	1829			1623		1770	3523		1770	3519	
Volume (vph)	30	40	5	5	10	140	15	970	30	110	870	35
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	33	44	6	6	11	156	17	1078	33	122	967	39
<b>RTOR Reduction (vph)</b>	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	33	50	0	0	173	0	17	1111	0	122	1006	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		- 4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)	19.7	19.7			19.7		3.4	84.6		14.5	95.7	
Effective Green, g (s)	20.7	20.7			20.7		4.4	85.6		15.5	96.7	
Actuated g/C Ratio	0.15	0.15			0.15		0.03	0.61		0.11	0.69	
Clearance Time (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	89	270			240		56	2154		196	2431	
v/s Ratio Prot		0.03					0.01	c0.32		c0.07	0.29	
v/s Ratio Perm	0.06				c0.11							
v/c Ratio	0.37	0.19			0.72		0.30	0.52		0.62	0.41	
Uniform Delay, d1	53.8	52.3			56.9		66.3	15.4		59.5	9.4	
Progression Factor	1.00	1.00			1.00		1.14	0.38		1.19	0.71	
Incremental Delay, d2	2.6	0.3			10.2		2.4	0.7		5.7	0.5	
Delay (s)	56.4	52.6			67.1		77.8	6.5		76.6	7.2	
Level of Service	E	D			E		E	А		Ε	Α	
Approach Delay (s)		54.1			67.1			7.6			14.7	
Approach LOS		D			E			A			В	
Intersection Summary												
HCM Average Control D	elay		16.4	Н	CM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.56									
Actuated Cycle Length (	5)		140.0	S	um of lo	ost time	(s)		18.2			
Intersection Capacity Uti	lization		30.6%	IC	CU Leve	l of Serv	/ice		В			
Analysis Period (min)			15									
c Critical Lane Group		n na jedni svida dal Vrdi Gregorija (dalja)										

CAP

#### HCM Signalized Intersection Capacity Analysis 8: Maple Street & Battery Street

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4		٣	<u>ተ</u> ኩ		ኻ	<b>4</b> ↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00			0.95		1.00	0.95	
Frt		0.99			0.95			0.98		1.00	0.99	
Flt Protected		0.97			0.98			1.00		0.95	1.00	
Satd. Flow (prot)		1734			1666			3356		1711	3381	
Flt Permitted		0.69			0.77			1.00		0.95	1.00	
Satd. Flow (perm)		1226			1313			3356		1711	3381	
Volume (vph)	60	45	10	120	35	100	0	855	125	100	715	60
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	67	50	11	133	39	111	0	950	139	111	794	67
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	128	0	0	283	0	0	1089	0	111	861	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		9 S G B						
Actuated Green, G (s)		32.8	orten eta escarta a	en son estatutatione	32.8			72.9		13.1	91.0	
Effective Green, g (s)		33.8			33.8			73.9		14.1	92.0	
Actuated g/C Ratio		0.24			0.24			0.53		0.10	0.66	
Clearance Time (s)		5.0			5.0			5.0	9.0.00	5.0	5.0	
Vehicle Extension (s)		3.0			3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		296			317			1771		172	2222	
v/s Ratio Prot			an the sheet of sector and			un en son en transition det		c0.32	10.000 (100 a balance)	c0.06	0.25	
v/s Ratio Perm		0.10			c0.22				87.73 87.73			
v/c Ratio		0.43	Silalahari dalari sila		0.89			0.61	tan analah sarat sarat sarat sarat sarat sarat sarat sarat sarat sarat sarat sarat sarat sarat sarat sarat sara	0.65	0.39	
Uniform Delay, d1		45.0			51.3			23.1		60.5	11.0	
Progression Factor		1.00	payan ang ang ang ang ang ang ang ang ang a	ungles gingen palasien d	1.00	esterioranegos		0.43	aaring saga in oo ari	1.33	0.41	La sa sa sa sa sa sa sa sa sa sa sa sa sa
Incremental Delay, d2		1.0			25.5			1.0		7.6	0.5	
Delay (s)	(alishikika)Alistad	46.0			/6.8		(entri-stational)	11.0		87.8	5.0	89009297259702
Level of Service		10.0			= - C - C			B		F	A	
Approach Delay (s)		46.0			/6.8			11.0			14.4	
Approach LUS		U		100-1200-13	E			В			8	
Intersection Summary												
HCM Average Control D	elay		21.7	H	CM Lev	el of Se	rvice		C			
HCM Volume to Capacit	y ratio		0.70	<ul> <li>man a second distribution of the</li> </ul>								
Actuated Cycle Length (s	9)		140.0	S	um of Ic	ost time	(s)		18.2			
Intersection Capacity Uti	lization	(	61.8%	IC	CU Leve	I of Sen	vice		В	a da se se de a server a ser		
Analysis Period (min)			15									



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		ф,	• · · ·		र्भ	7		र्स	7		4	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0		4.0	4.0		4.0	
Lane Util. Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Frt		0.98			1.00	0.85		1.00	0.85		0.99	
Flt Protected		1.00			0.99	1.00		1.00	1.00		0.98	
Satd. Flow (prot)		1829			1837	1583		1855	1583		1814	
Fit Permitted		0.98			0.86	1.00		0.97	1.00		0.87	
Satd. Flow (perm)		1802			1604	1583		1800	1583		1604	
Volume (vph)	10	180	25	75	195	35	5	60	55	65	120	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	11	200	28	83	217	39	6	67	61	72	133	17
RTOR Reduction (vph)	0	0	0	0	0	21	0	0	46	0	0	0
Lane Group Flow (vph)	0	239	0	0	300	18	0	73	15	0	222	0
Turn Type	Perm			Perm		Perm	Perm		Perm	Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6		6	8		8	4		
Actuated Green, G (s)		20.3			20.3	20.3		10.2	10.2		10.2	
Effective Green, g (s)		21.3	ta antico e atra ana ana atra		21.3	21.3		11.2	11.2		11.2	
Actuated g/C Ratio		0.47			0.47	0.47		0.25	0.25		0.25	
Clearance Time (s)		5.0			5.0	5.0		5.0	5.0		5.0	
Vehicle Extension (s)		3.0			3.0	3.0		3.0	3.0		3.0	
Lane Grp Cap (vph)		847			754	744		445	391		397	
v/s Ratio Prot											Sector and a	
v/s Ratio Perm		0.13			c0.19	0.01		0.04	0.01		c0.14	
v/c Ratio		0.28			0.40	0.02		0.16	0.04	89.49.49.69	0.56	
Uniform Delay, d1		7.3	la parte productionales		7.8	6.4		13.4	13.0		14.9	
Progression Factor		1.00			1.00	1.00		1.00	1.00		1.00	
Incremental Delay, d2		0.2	en andre andre andre andre andre andre andre andre andre andre andre andre andre andre andre andre andre andre		0.3	0.0	Ayuta a sa ta ta sha ya sa sa	0.2	0.0		1.7	
Delay (s)		7.5			8.2	6.4		13.6	13.0		16.6	
Level of Service	and shaharana 66 See wat	A	man gewande of options.	040444 <u>04440</u> 0446	A	A	See a la statut acció	В	B		B	an an an an an an an an an an an an an a
Approach Delay (s)		7,5			8.0			13.3			16.6	
Approach LOS		A			A			В			В	
Intersection Summary												
HCM Average Control D	elay		10.7	Н	ICM Lev	el of Se	ervice		В			
HCM Volume to Capacit	y ratio		0.40									
Actuated Cycle Length (	s)		45.3	S	um of lo	ost time	(S)		8.0			
Intersection Capacity Uti	lization		53.4%		CU Leve	el of Ser	vice		A			
Analysis Period (min)	hand a the second of solars and	ana na marina ana a	15			utut sus testas es	Augusta and the second	ana ana ang ang ang ang ang ang ang ang				
c Critical Lane Group						0.000						

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Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations	ሻ	7	ሻ	*	<b>^</b>	1		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Width	11	12	11	12	11	12	and notice of a property of a property of a second second second second second second second second second second	na hana a an an an an an an an an an an an a
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00		· · · · · · · · · · · · · · · · · · ·
Frt	1.00	0.85	1.00	1.00	1.00	0.85		
Fit Protected	0.95	1.00	0.95	1.00	1.00	1.00		
Satd. Flow (prot)	1711	1583	1711	1863	1801	1583		
Flt Permitted	0.95	1.00	0.37	1.00	1.00	1.00		
Satd. Flow (perm)	1711	1583	674	1863	1801	1583		
Volume (vph)	155	65	160	95	435	190		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90		
Adj. Flow (vph)	172	72	178	106	483	211		
<b>RTOR Reduction (vph)</b>	0	48	0	0	0	0		ni ofenin i Santa na Gran s Santa Santa
Lane Group Flow (vph)	172	24	178	106	483	211	an an an an an an an an an an an an an a	
Turn Type		Prot	Perm			Perm		
Protected Phases	2	2		4	8		an an Alina an Alina an an Alina an Alina an Alina an Alina an Alina an Alina an Alina an Alina an Alina Alina	ne ne en en en en en en en en en en en e
Permitted Phases			4			8		
Actuated Green, G (s)	45.8	45.8	78.0	78.0	78.0	78.0		
Effective Green, g (s)	46.8	46.8	79.0	79.0	79.0	79.0		
Actuated g/C Ratio	0.33	0.33	0.56	0.56	0.56	0.56		
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	572	529	380	1051	1016	893		
v/s Ratio Prot	c0.10	0.02	1. Series of 12 - Sector 12 - Sector 12 - Sector 12 - Sector 12 - Sector 12 - Sector 12 - Sector 12 - Sector 12	0.06	c0.27	an an an an an an an an an an an an an a		
v/s Ratio Perm			0.26			0.13		
v/c Ratio	0.30	0.05	0.47	0.10	0.48	0.24		
Uniform Delay, d1	34.5	31.5	18.1	14.1	18.2	15.3		
Progression Factor	0.59	0.38	1.00	1.00	1.00	1.00		an na mata ta mana ta pana da barangan ta pana da barangan ta pana da barangan ta pana da barangan ta pana da b
Incremental Delay, d2	0.9	0.1	4.1	0.2	0.4	0.1		
Delay (s)	21.2	11.9	22.2	14.3	18.5	15.5		an an an an an an an an an an an an an a
Level of Service	C	В	C	В	В	В		
Approach Delay (s)	18.5			19.2	17.6	<ul> <li>Second Strategy Constraints</li> </ul>	ana ang ang ang ang ang ang ang ang ang	na energia da seconda de seconda de seconda de seconda da seconda da seconda da seconda da seconda da seconda Esta de seconda da seconda de seconda de seconda de seconda de seconda de seconda de seconda de seconda de secon
Approach LOS	В			В	B			
Intersection Summary								
HCM Average Control D	)elay		18.1	ŀ	ICM Le	vel of Service	В	
HCM Volume to Capaci	ty ratio		0.41				n een na maar kaar een maar kaar kaar kaar kaar kaar kaar yn haar yn de staar yn de staar yn de staar yn de sta I	n en en en en en en en en en en en en en
Actuated Cycle Length (	s)		140.0	S	ium of l	ost time (s)	14.2	
Intersection Capacity Ut	ilization		52.9%	10	CU Leve	el of Service	Α	
Analysis Period (min)	vsis Period (min)		16					

	٠	>	$\mathbf{i}$	<	-	×.	1	<b>†</b>	1	<b>&gt;</b>	↓ I	-
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			\$			4		ሻ	ţ,	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	14	12	12	14	12	12	14	12	11	11	12
Total Lost time (s)		4.0			4.0			4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00			1.00		1.00	1.00	
Ert		0.98			0.92			0.97		1.00	0.98	
Flt Protected		0.99			1.00			0.99		0.95	1.00	
Satd. Flow (prot)		1924			1815			1923		1711	1760	
Flt Permitted		0.83			0.96			0.93		0.62	1.00	
Satd. Flow (perm)	0.000	1625			1743			1800		1120	1760	
Volume (vph)	40	85	20	25	75	155	15	70	20	150	225	40
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	44	94	22	28	83	172	17	78	22	167	250	44
RTOR Reduction (vph)	0	8	0	0	77	0	0	11	0	0	7	0
Lane Group Flow (vph)	0	152	0	0	206	0	0	106	0	167	287	0
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		10.9			10.9			12.9		24.4	24.4	
Effective Green, g (s)		11.9			11.9			13.9		25.4	25.4	
Actuated g/C Ratio		0.25			0.25			0.29		0.53	0.53	
Clearance Time (s)		5.0			5.0	203-5-6		5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		403			432	5 43 45 SX		521		685	931	
v/s Ratio Prot										0.04	c0.16	
v/s Ratio Perm		0.09			c0.12			0.06		0.09		
v/c Ratio		0.38			0.48			0.20		0.24	0.31	
Uniform Delay, d1		15.0			15.4			12.9		6.2	6.4	
Progression Factor		1.00			1.00			1.00		1.00	1.00	
Incremental Delay, d2		0.6	Na de contra		0.8			0.2		0.2	0.2	
Delay (s)		15.6			16.2			13.1		6.4	6.5	
Level of Service		В			В			В		Α	A	
Approach Delay (s)		15.6			16.2			13.1			6.5	
Approach LOS		В		98 (6 <b>1</b> 6) (6	В		88) (S. 1937) -	В			A	
Intersection Summary												
HCM Average Control D	elay		11.4	H	CM Lev	el of Se	rvice		В			
HCM Volume to Capacity	y ratio		0.34									
Actuated Cycle Length (s	s) –		48.0	S	um of lo	sttime	(S)		8.0			
Intersection Capacity Uti	lization	4	41.2%	IC	U Leve	l of Serv	vice		А			
Analysis Period (min)			15	anini ayelan Subata Subata							onora cadova di. Natazi na dista	ashqarikalinin Protomografi

### HCM Signalized Intersection Capacity Analysis 29: Lakeside Avenue & Battery Street

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4		ሻ	<b>1</b>		٣	<b>†</b> ‡	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frt		0.92			0.95		1.00	0.99		1.00	0.99	
Fit Protected		0.99			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1693			1724		1770	3519		1770	3497	
Flt Permitted		0.82			0.51		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1403			899		1770	3519		1770	3497	
Volume (vph)	105	95	310	155	55	140	135	745	30	95	690	60
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	117	106	344	172	61	156	150	828	- 33	106	767	67
RTOR Reduction (vph)	0	40	0	0	17	0	0	2	0	0	4	0
Lane Group Flow (vph)	0	527	0	0	372	0	150	859	0	106	830	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		57.0		14 21 29 19	57.0	9.0000000000	17.7	48.3		13.5	44.1	
Effective Green, g (s)		58.0			58.0		18.7	49.3		14.5	45.1	
Actuated g/C Ratio		0.41			0.41		0.13	0.35		0.10	0.32	
Clearance Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		581			372		236	1239		183	1127	
v/s Ratio Prot							c0.08	0.24		0.06	c0.24	
v/s Ratio Perm		0.38			c0.41							
v/c Ratio		0.91			1.00		0.64	0.69		0.58	0.74	
Uniform Delay, d1		38.5			41.0		57.4	38.9		59.8	42.2	
Progression Factor		1.00			0.53		1.11	1.12		1.02	1.10	
Incremental Delay, d2		17.8			45.6		5.2	3.0		4.0	2.3	
Delay (s)		56.3			67.3	6.00.000	69.2	46.4		65.2	48.7	
Level of Service		Е			Ε		Ε	D		Ε	D	
Approach Delay (s)		56.3			67.3			49.8			50.6	
Approach LOS		E			Ε			D			D	
Intersection Summary												
HCM Average Control D	elay		53.7	Н	CM Lev	el of Se	rvice		D			
HCM Volume to Capacit	y ratio		0.85			endele des agist. Se dito est di s						
Actuated Cycle Length (s	S)		140.0	S	um of lo	ost time i	(s)		18.2			
Intersection Capacity Uti	lization		77,4%	IC	U Leve	l of Serv	rice		D			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4		٢	<b>↑</b> ₽		٦	41	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frt		0.88			0.97		1.00	0.99		1.00	1.00	
Fit Protected		0.99			0.97		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1630			1752		1770	3519		1770	3537	
Fit Permitted		0.97			0.51		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1587			928		1770	3519		1770	3537	
Volume (vph)	10	0	80	45	10	15	5	885	35	5	1145	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj, Flow (vph)	11	0	89	50	11	17	6	983	39	6	1272	6
RTOR Reduction (vph)	0	80	0	0	8	0	0	1	0	0	0	0
Lane Group Flow (vph)	0	20	0	0	70	0	6	1021	0	6	1278	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4	an an an an an an an an an an an an an a	la sul como constata en s	8	a dan san barra da Stanta	e de la la la constance de				· · · · · · · · · · · · · · · · · · ·		
Actuated Green, G (s)		12.4			12.4		1.6	104.8		1.6	104.8	
Effective Green, g (s)	An An An An An An An An An An An An An A	13.4	Marte Herrickin er stat (Alika)		13.4	and the Arriston Commercia	2.6	105.8	anda talah dan Artana dan	2.6	105.8	daturt na marinea.
Actuated g/C Hatio		0.10			0.10		0.02	0.76		0.02	0.76	
Clearance Time (s)		5.0	i Angino yaka da da	a alga, su su giù e re	5.0	la constanta da la constanta da la constanta da la constanta da la constanta da la constanta da la constanta d	5.0	5.0	ulur selver selver selver s	5.0	5.0	geochang diaodeon
Venicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	-04314-04-04-04-04-04-04-04-04-04-04-04-04-04	152	net notice to be a marked		89		33	2659		33	2673	
v/s Hatio Prot							c0.00	0.29		0.00	c0.36	
v/s Ratio Perm	ana katari katari	0.01	gunnin sono p	ush di wasa da kati kasi	c0.08	9.04 (12) AN (611) AN (63)		an ya <u>na mana ana sa</u>	- ma duel to ha ha contena na m	557 <u>22</u> 57 A 2782 (278	an an an an an an an an an an an an an a	
V/C Hatio		0.13			0.78		0.18	0.38		0.18	0.48	
Uniform Delay, d1		58.0	saan sa ka ka ka ka ka ka ka ka ka ka ka ka ka		61.9		67.7	5.9	teri data i Seri da terizo da	67.7	6.5	an an an an an an an an an an an an an a
Progression Factor		1.00			0.84		1.02	0.43		1.06	0.62	
Incremental Delay, d2	ni de sectores	0.4		in in in in it.	34.9		2.4	0.4	gang kalan sa bakaran sa	1.5	0.3	in felinifelisen
Delay (s)		58.3			87.1		11.1	2.9		/3.2	4.4	
Level of Service		E			r nəd		E disebuta	A		E Suidestate	A	an an an an an an an an an an an an an a
Approach LOS		ວວ.ວ 			0/.I			3.3 ^			4.8	
Approach LUS			1023-042-9225595 and 2019-00-047620000	and a subscription of the		5.000 100 M 10100 11 6 11 11 1 10 11 10 11 10 11 10 10 10 10	1	A		bellike as have been been been	A	
Intersection Summary					<u></u>							
HCM Average Control D	elay	sterste state se se se se	8.9	H	CM Lev	el of Se	rvice	an an an an an an an an an an an an an a	A	ne deservation and the		
HCM Volume to Capacit	y ratio		0.51									Santa ang santa santa santa santa santa santa santa santa santa santa santa santa santa santa santa santa santa Santa santa santa santa santa santa santa santa santa santa santa santa santa santa santa santa santa santa sant
Actuated Cycle Length (s	5)	ang papang katatatan sa	140.0	S	um of lo	st time	(S)		18.2	مەلەر تەرىخىلەر ئەرىخەر ئەرىخەر ئەرىخەر ئەرىخەر ئەرىخەر ئەرىخەر ئەرىخەر ئەرىخەر ئەرىخەر ئەرىخە ئەرىخە ئەرىخەر ئەرىخە ئەرىخەر ئەرىخەر ئەرىخەر ئەرىخەر ئەرىخەر ئەرىخەر ئەرىخەر ئەرىخەر ئەرىخەر ئەرىخەر ئەرىخەر ئەرىخەر ئەرىخەر ئ		ejijin primarena.
Intersection Capacity Uti	lization	4	19.1%	IC	U Leve	l of Sen	/ice		A			
Analysis Period (min)	anan si garana a	seessaaad a	15	Mikodowelstwar	konganga (16kapita kilatan)	\$\$\$\$,00000100001000		handen statet an Antonia	nin ang senarahan.	an an an an an an an an an an an an an a	konstructure and a second	ann an Antoine
c Unitical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		44			4		۲	<b>†</b> Ъ		ሻ	<b>†</b> Ъ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frt		0.96			0.98		1.00	1.00		1.00	0.99	
Fit Protected		0.99			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1770			1805		1770	3536		1770	3518	
Fit Permitted		0.81			0.72		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1453			1326		1770	3536		1770	3518	
Volume (vph)	90	140	85	40	75	15	70	820	5	10	1210	50
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	100	156	94	44	83	17	78	911	6	11	1344	56
RTOR Reduction (vph)	0	10	0	0	4	0	0	0	0	0	2	0
Lane Group Flow (vph)	0	340	0	0	140	0	78	917	0	11	1398	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)		33.7			33.7		10.5	81.9		3.2	74.6	
Effective Green, g (s)		34.7			34.7		11.5	82.9		4.2	75.6	
Actuated g/C Ratio		0.25			0.25		0.08	0.59		0.03	0.54	
Clearance Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		360			329		145	2094		53	1900	
v/s Ratio Prot							c0.04	0.26		0.01	c0.40	
v/s Ratio Perm	anta sut anno sa tamin itana	c0.23			0.11							the first of the state from
v/c Ratio		0.95			0.43		0.54	0.44		0.21	0.74	
Uniform Delay, d1		51.7			44.3		61.7	15.7		66.3	24.6	
Progression Factor		1.00			1.00		0.88	1.46		1.16	0.70	
Incremental Delay, d2	an developmente ferre	33.2		needinineen iereenitie	0.9	Aler George States (11746)	3.5	0.6		1.8	2.3	
Delay (s)		84.9			45.2		57.9	23.5		78.5	19.6	
Level of Service		F	an da mana da da da da da da da da da da da da da	Service and the second second second second second second second second second second second second second seco	D	succession were	E	С	edalaria Mandatatata	E	В	and a contract
Approach Delay (s)		84.9			45.2			26.2			20.0	
Approach LOS		٣			D			С			C	
Intersection Summary												
HCM Average Control D	elay		31.2	Н	CM Lev	el of Se	rvice		С			
HCM Volume to Capacit	y ratio		0.78									
Actuated Cycle Length (s	5)		140.0	S	um of lo	st time	(s)		18.2			
Intersection Capacity Uti	lization		74.3%	IC	CU Leve	l of Serv	/ice		D			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		ধ	1		4		٦,	<b>†</b> ‡		٣	<b>†</b> 1+	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00		1.00	0.95		1.00	0.95	
Frt		1.00	0.85		0.98		1.00	0.98		1.00	0.99	
Fit Protected		0.96	1.00		0.97		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1792	1583		1779		1770	3480		1770	3517	
Flt Permitted		0.65	1.00		0.66		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1208	1583		1201		1770	3480		1770	3517	
Volume (vph)	75	20	130	90	45	20	110	800	100	10	1275	55
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	83	22	144	100	50	22	122	889	111	11	1417	61
RTOR Reduction (vph)	0	0	120	0	4	0	0	4	0	0	2	0
Lane Group Flow (vph)	0	105	24	0	168	0	122	996	0	11	1476	0
Turn Type	Perm		Perm	Perm			Prot			Prot		
Protected Phases		4			8		5	2			6	
Permitted Phases	4		4	8								
Actuated Green, G (s)		22.3	22.3		22.3		13.8	93.3		3.2	82.7	
Effective Green, g (s)		23.3	23.3		23.3		14.8	94.3		4.2	83.7	
Actuated g/C Ratio		0.17	0.17		0.17		0.11	0.67		0.03	0.60	
Clearance Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		201	263		200		187	2344		53	2103	
v/s Ratio Prot							c0.07	0.29		0.01	c0.42	
v/s Ratio Perm		0.09	0.02		c0.14							
v/c Ratio		0.52	0.09		0.84		0.65	0.42		0.21	0.70	
Uniform Delay, d1		53.3	49.4		56.5		60.1	10.4		66.3	19.5	
Progression Factor		1.00	1.00		1.00		1.00	1.00		1.27	0.22	
Incremental Delay, d2		2.4	0.2		25.3		7.9	0.6		1.3	1.3	
Delay (s)		55.7	49.5		81.9		68.0	11.0		85.3	5.7	
Level of Service		E	D	te de sent sufficiente en sent	F		E	В		F	Α	
Approach Delay (s)		52.1			81.9			17.2			6.3	
Approach LOS		D			F			В			A	
Intersection Summary												
HCM Average Control D	elay	a transma	18.4	Н	ICM Lev	el of Se	rvice		В			
HCM Volume to Capacit	y ratio		0.72									
Actuated Cycle Length (	s)		140.0	S	um of Ic	ost time	(s)		18.2			
Intersection Capacity Uti	ilization		68.9%	10	CU Leve	l of Sen	<i>v</i> ice		C			
Analysis Period (min)			15	and and second second	taan taala ahaa taa ka taa	the design of the state of the						
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			<b>.</b> î.			<u>.</u>	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	135	80	40	165	15	15	100	15	25	165	25
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	150	89	44	183	17	17	111	17	28	183	28
Direction, Lane #	EB 1	WB1	NB 1	SB 1								
Volume Total (vph)	244	244	144	239								
Volume Left (vph)	6	44	17	28								
Volume Right (vph)	89	17	17	28				a de la construction de la construction de la construcción de la construcción de la construcción de la constru La construcción de la construcción de la construcción de la construcción de la construcción de la construcción d				046804-1469-1469-1469-
Hadj (s)	-0,18	0.03	-0.01	-0.01								
Departure Headway (s)	5.2	5.4	5.7	5.5	an a bha chuidhean an thaochtaire							
Degree Utilization, x	0.35	0.37	0.23	0.36		Gunninderforden. Staassenderforden					ig igi gap	
Capacity (veh/h)	634	614	564	603					a an an an an an an an an an an an an an		energi en en en en en en en en en en en en en	1022220202020202020
Control Delay (s)	11.1	11.5	10.3	11.6								
Approach Delay (s)	11.1	11.5	10.3	11.6			nang ng panganan sa panga	odod oroset s stopposito				oleco va spatialis
Approach LOS	В	B	B	В								
Intersection Summary												
Delay			11.2									
HCM Level of Service			В						279,79,899,99,79,29,29,99,99,999,999,999,999			9797610461079404
Intersection Capacity Uti	lization		49.5%	10	CU Leve	l of Ser	vice		A			
Analysis Period (min)			15			a an an a fairte an an an 2010. An					1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 -	
			Selected and							<u>energi den ser</u>		

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			<b>.</b>			4.	<u></u>
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	15	150	80	50	135	10	30	105	55	20	215	50
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	17	167	89	56	150	11	33	117	61	22	239	56
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	272	217	211	317								
Volume Left (vph)	17	56	- 33	22								
Volume Right (vph)	89	11	61	56								Sharamana (1999) Ar
Hadj (s)	-0.15	0.05	-0.11	-0.06								
Departure Headway (s)	5.7	6.0	5.9	5.7								
Degree Utilization, x	0.43	0.36	0.34	0.50						9 19 19 19 19 19 19 19 19 19 19 19 19 19		
Capacity (veh/h)	569	533	544	582								
Control Delay (s)	13.1	12.5	11.9	14.4								
Approach Delay (s)	13.1	12.5	11.9	14.4								
Approach LOS	B	В	В	В								
Intersection Summary												
Delay			13.1									
HCM Level of Service			В							erenting for anti- 400		· · · · / · · · · · · · · · / / / · ·
Intersection Capacity Uti	lization		50.7%	IC	CU Leve	l of Ser	vice		A			
Analysis Period (min)			15									
										enden et cont	<u>kan di kana kana kana kana kana kana kana kan</u>	

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		¢.			¢.			<b>.</b>			£ <b>1</b> +	
Sign Control		Stop			Stop			Stop			Stop	delandelta dan Selata dalar
Volume (vph)	5	70	5	10	105	90	5	20	15	115	50	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0,90
Hourly flow rate (vph)	6	78	6	11	117	100	6	22	17	128	56	6
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	89	228	44	189								
Volume Left (vph)	6	11	6	128								
Volume Right (vph)	6	100	17	6				1000.000000000000000000000000000000000		na esta da seconda		ana ang ang ang ang ang ang ang ang ang
Hadj (s)	0.01	-0.22	-0.17	0.15								
Departure Headway (s)	4.8	4.4	4.7	4.9								
Degree Utilization, x	0.12	0.28	0.06	0.25							an) an indiana Na san an ing	
Capacity (veh/h)	700	775	694	695							***********	
Control Delay (s)	8.4	9.1	8.0	9.5	7.9.00							
Approach Delay (s)	8.4	9.1	8.0	9.5								
Approach LOS	A	Α	Α	A								
Intersection Summary												
Delay			9.0									
HCM Level of Service			Α									***
Intersection Capacity Uti	lization		36.8%	IC	CU Leve	l of Ser	vice		A			
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		44			<b>4</b> 3-			ф <b>.</b>			4	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	10	5	25	65	5	25	15	200	50	25	500	10
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	11	6	28	72	6	28	17	222	56	28	556	11
Pedestrians	A. 2014 January and Arward	and the second state and the	Produktion and Antonia and			and de la colonación de	nan mala an taonimh a la d	an an an an an an an an an an an an an a			an fays at an et game far e	a shekara ta ta ta ta ta ta ta ta ta ta ta ta ta
Lane Width (ft)												
vvalking Speed (ff/s)					himi yani ingini					-lour-horade notati		
Percent Blockage												
Median tune		Nona			Nono		yanga kanak				ister dagi ing	dikenagajup
Median storage veh)		INUIIC			INCHIC				6060880884			
Upstream signal (ft)												
pX. platoon unblocked												
vC. conflicting volume	931	928	561	931	906	250	567			278		
vC1, stage 1 conf vol	*************		an an an an an an an an an an an an an a		an na manana kata na kata sa sa			an an an an an an an an an an an an an a		-49-49-59-59-59-59-59-59-59-59-59-59-59-59-59	alaala yo dhahadi xaad	an an an an an an an an an an an an an a
vC2, stage 2 conf vol												
vCu, unblocked vol	931	928	561	931	906	250	567			278		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)	teriti dagat dalamat		area de la contra de ser de ser de ser	والمراجع والرواقين والمشار	a da fa gala analar a da ang		a na sana ang sana sa sa sa sa sa sa					
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	95	98	95	68	98	96	98			98		a hanan ay fiyay mada
civi capacity (ven/n)	228	258	527	224	266	789	1005			1285		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	- 44	106	294	594	5.560 (5.468.3					9. (9. S) S		
Volume Left	11	72	17	28		la barta secondera	Standard and and a comme	vezz Arezzaria a a a a		1. og fan de ferste skrivere op	ala mantena a comunica a com	1140-90mm-commu
Volume Right	28	28	56	11								
COH Volume te Conseitu	301	2/9	1005	1285				- AND AND AND AND AND AND AND AND AND AND		Heine der der der der der der der der der de		Man Astron
Oucle Longth 95th (ft)	10	0.38	U.UZ	0.02								
Control Delay (c)	16 /	42 95 6		ے م د					gedikasin perm			
Lane LOS	+۰.۴۰ ۲	20.0 D	ψ. <i>1</i> Δ	υ.υ Δ								
Approach Delay (s)	164	25.6		ົ້ຄົ								
Approach LOS	с. С	D	<b></b>	<b>.</b>								a de la calenda
Intercontine Output	-	-										
Average Delay												
Average Delay	igntice.		ර.ර දා දුලු/		SET 1	n					biological de la compañía de la compañía de la compañía de la compañía de la compañía de la compañía de la com	NAN TANK
Analysis Period (min)	ization		აა.ა% 15	IÇ	JU Leve	I OI Serv	ICE		A			

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Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	Y		4			÷	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Volume (veh/h)	65	30	200	50	50	555	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vph)	72	33	222	56	56	617	
Pedestrians	Selectore and the	sa hasaasa she Aasaas	an an an an an an an an an an an an an a		ni Alain in Garana in Ar	Section in the sector	
Lane Width (ft)							
walking Speed (II/S)							
Percent Blockage							
Modion time	Niona	hingi ana	n hada sa kara sa kara sa kara sa kara sa kara sa kara sa kara sa kara sa kara sa kara sa kara sa kara sa kara Kara sa kara sa kara sa kara sa kara sa kara sa kara sa kara sa kara sa kara sa kara sa kara sa kara sa kara sa				
Median storage veh)	INOTIE					960 (SI-22)	
Instream signal (ft)			611				
nX platoon unblocked			UII				
vC. conflicting volume	978	250			278		
vC1. stage 1 conf vol		100 Nor			•••• • •		
vC2. stage 2 conf vol							
vCu, unblocked vol	978	250	an waxaa ay aagaa ah		278	selitere i spraenere	alda namazan dan kanan dara dan manakan musikin dari dari dari dari dala dari da basi da basi dari dari dari da An
tC, single (s)	6.4	6.2			4.1		
tC, 2 stage (s)				an an an an an an an an an an an an an a			
tF (s)	3.5	3.3			2.2		
p0 queue free %	73	96			96		
cM capacity (veh/h)	266	789			1285		
Direction, Lane #	WB 1	NB 1	SB 1				
Volume Total	106	278	672	8824			
Volume Left	72	0	56		ويتركب والمراجع والمراجعين		
Volume Right	33	56	0				
cSH	336	1700	1285		ngagawaanga bawaa ay	and a state of the	
volume to Capacity	0.31	0.16	0.04				
Queue Length 95th (ft)	33	0	3	aquaanaataa	gillagageterende	(polygebacket) gebac	
Control Delay (S)	20.5	0.0	1.1				
Lane LUS Approach Dolou (c)	00 E	<u>^</u>	A A		NS (MARKS)		
Approach LOS	20.5 C	0.0					
Intersection Summarv							
Average Delav			2.8				
Intersection Capacity Ut	ilization		61.0%	IC	U Leve	l of Serv	/ice B
Analysis Period (min)	aa aanaa tarahiy	ayaa ahaa ka ta ka ta ya da ya da ya da ya da ya ya ya ya ya ya ya ya ya ya ya ya ya	15	aleria endergede <u>ter</u>		ಂದ ಮುಂದಾ ಮಾಡಿಗಿತ್ತ	
,				un de Arte de Televier	n sana ang ang ang ang ang ang ang ang ang		An an an an an an an an an an an an an an



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Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	¥7		¢ĵ			<del>ب</del>	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Volume (veh/h)	30	20	245	15	5	455	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vph)	33	22	272	17	6	506	
Pedestrians			eta atuante da cara cara cara				
Lane Width (ft)							
Walking Speed (ft/s)		104-00-00-00-00-00-00-00-00-00-00-00-00-0		al e antes e tra espectarement			
Percent Blockage						<u>a o 4 89</u>	
Right turn flare (veh)		ani kabututututu	una da Santa Cara anta	ingenesiineettees	an an an an an an an an an an an an an a	n geografi Alderia Angelege	
Median type	None						
Median storage ven)		taren an an an an an an an an an an an an an	an an an an an an an an an an an an an a		kaliokuken alda in	soni <b>Sucie</b> tainon	
Upstream signal (ft)	^ ^F					667	
pX, platoon unblocked	0.85	~~-			~~~~		
vC, conflicting volume	/9/	281			289		
VC1, stage 1 cont vol		ktimiji (pistoloju)		ulan (senap) (ari	Marka Grandana		
VCZ, Stage Z coni vol	761	004			200		
tC cincle (c)	/01 2/1	201			209		
$C_{2}$ stage (s)	0,4	0.2			4,1		
10, 2  staye(s)	2 6	2.2			00		
n (s) n) queue free %	9.9 80	0.0 07			100		
cM canacity (veh/h)	315	758	0.000		1073		
					1670		
Direction, Lane #			501				
Volume Loft		~ ~ 03	ູວເເ				
Volume Diaht		U 477	0 A				
	<u>۲۲</u> ۸۱۱	1700	1070				
Volume to Canacity	-+++ Λ 14	017	0.00				
Oueue Length 95th (ft)	0.14 12	V.17 A	0.00 ^				
Control Delay (s)	151	٥Ň	n í				
Lane LOS	с.		Δ	NATIONAL DEFINE			
Annroach Delay (s)	151	nn	ิกา์				
Approach LOS	C						
Interesting Comment	-						
intersection Summary							
Average Delay		en an an an an an an an an an an an an an	1.1				
Intersection Capacity U	unzation		37.9%	IL.	U Leve	i of Servi	CE A
Analysis Period (min)	ى بىرى بىرى بىرى بىرى بىرى بىرى بىرى بىر		15				



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Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	¥			র্ম	£		
Sign Control	Stop			Free	Free		
Grade	0%			0%	0%	a na na manana kana kana na kana kana na kana na kana kana kana kana kana kana kana kana kana kana kana kana ka Kana kana kana kana kana kana kana kana	
Volume (veh/h)	35	5	30	205	440	40	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Hourly flow rate (vph)	39	6	33	228	489	44	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type	None						
Median storage veh)	es la la su de seu contra a su			h induiteire a du co du anna t	un esta mana a constata a constata da con		
Upstream signal (ff)				1089	959		
pX, platoon unblocked	0.86	0.86	0.86				
vC, conflicting volume	806	511	533				
vC1, stage 1 conf vol	salada a destar:	Markalaki dalar	leiri de tradición de s	v na vsevilske ve	in Galerian (Salitican) (Salitican)		
vC2, stage 2 cont vol		400	450				
	//3	430	455				State State State State State State State State State State State State State State State State State State Sta
tC, Single (S)	0.4	0.2	4,1				
10, 2  staye(5)	2 E	20	<u></u>		Anistinatur (sing		
n (o)	9.9 87	0.0 QQ	2.2 QG				
cM capacity (veh/h)	304	536	QAR				dia anti any depinin'n de
Dispetion Lane #		NID 4	00.4				
Unection, Lane #			501				
Volume Loft	44 20	201	ಂತತ್ರ				
Volume Right	55 6	ാ	U 				
CCH	201	0/0	1700		onii:) - 60 (80 (8		
Volume to Canacity	014	0.04	0.31				
Queue Length 95th (ft)	12	3	ο.ο. Λ				
Control Delay (s)	18 0	15	٥Ň				
Lane LOS	C	A			kansongenereng		
Approach Delay (s)	18.0	1.5	0.0				
Approach LOS	С						
Intersection Summarv							
Average Delav			1.4				
Intersection Capacity Ut	ilization		46.1%	IC	U Leve	of Service A	
Analysis Period (min)	999 - 19 - 19 91 - 19 <del>1</del> 9 19 19 19 19 19 19 19 19 19 19 19 19 19	an an an an an an an an an an an an an a		an ay an an an an an an an an an an an an an			
		alan kandadaa k		versen en services			and and an and all and a second second second second second second second second second second second second s



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	×	4		¥;	î.			÷Ĵ,			÷Ĵ.	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	12	11	11	14	14	14	11	11	11
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00	-99	1.00	1.00	,,		1.00			1.00	an an ta thair an air an air an air an air an air an air an air an air an air an air an air an air an air an ai
Frt	1.00	0.99		1.00	0.99	gi shukini e Galactini		0.99			0.99	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.99	
Satd. Flow (prot)	1711	1839		1770	1785			1958			1768	
Flt Permitted	0.29	1.00		0.34	1.00			0.92			0.94	
Satd. Flow (perm)	525	1839		634	1785			1809			1670	
Volume (vph)	60	370	35	60	420	25	45	235	15	35	255	30
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	67	411	39	67	467	28	50	261	17	39	283	33
RTOR Reduction (vph)	0	5	0	0	3	0	0	2	0	0	3	0
Lane Group Flow (vph)	67	445	0	67	492	0	0	326	0	0	352	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2	an an direment parlament dara sun	u de la companya de la companya de la companya de la companya de la companya de la companya de la companya de La companya de la companya de la companya de la companya de la companya de la companya de la companya de la comp	6			8	en de la desta de la desta de la desta de la desta de la desta de la desta de la desta de la desta de la desta La desta de la desta de la desta de la desta de la desta de la desta de la desta de la desta de la desta de la d	48 - 17 - 18 - 18 - 18 - 18 - 18 - 18 - 1	4	200.040900000000
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	18.4	18.4		18.4	18.4	//////////////////////////////////////		17.0			17.0	en en en en en en en en en en en en en e
Effective Green, g (s)	19.4	19.4		19.4	19.4			18.0			18.0	
Actuated g/C Ratio	0.39	0.39		0.39	0.39			0.36			0.36	an an an an an an an an an an an an an a
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	- Ann an 1997 - 1997 Augusta
Lane Grp Cap (vph)	203	711		245	690			649			599	
v/s Ratio Prot		0.24			c0.28	ana kana kana kana sa mata kana da	649 - 1992 ( 1999 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -	ang sa kaga ng sa sa s		an an an an an an an an an an an an an a	terre entre en esteren.	erendi beledi de ere
v/s Ratio Perm	0.13			0.11				0.18			c0.21	
v/c Ratio	0.33	0.63		0.27	0.71			0.50			0.59	1999-1940-1940-1940-1940-1940-1940-1940-
Uniform Delay, d1	10.8	12.5		10.6	13.0			12.6			13.1	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	1.0	1.7		0.6	3.5			0.6			1.5	
Delay (s)	11.8	14.2		11.2	16.5			13.2			14.6	
Level of Service	В	В		В	В			В			В	
Approach Delay (s)		13.9			15.9			13.2			14.6	
Approach LOS		8			В			В			В	
Intersection Summary												
HCM Average Control D	elay		14.5	F	ICM Lev	el of Ser	vice		В			
HCM Volume to Capacit	y ratio		0.58									
Actuated Cycle Length (s	s)		50.2	S	sum of Ic	st time (	s)		8.0			
Intersection Capacity Uti	lization	f	63.7%	10	CU Leve	l of Servi	ce		В			
Analysis Period (min)			15									



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	٢	4			t.		٣	ţ,				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	10	10	16	16	16	10	11	11	12	12	12
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0				
Lane Util. Factor	1.00	1.00	()	ter barne bit som grung i	1.00	ni da serie de la serie de la serie de la serie de la serie de la serie de la serie de la serie de la serie de	1.00	1.00			a da ang ang ang ang ang ang ang ang ang an	inani ing Kalangsia.
Frt	1.00	1.00		le de les parentes de Présidentes de la company	0.99		1.00	0.98				
Flt Protected	0.95	1.00	ana ana amin'ny faritr'o dia mandritry. Ny faritr'o dia mandritry dia mandritry dia mandritry dia mandritry dia mandritry dia mandritry dia mandritry d	-948 (-488 - 586 (-1886 (-1886 - 586 (-1886 (-1886 (-1886 (-1886 (-1886 (-1886 (-1886 (-1886 (-1886 (-1886 (-1 1886 (-1886)))))))))))))))))))))))))))))))))))	1.00	a a guada suntana a	0.95	1.00	(eelenselen en en eelen		***************	
Satd. Flow (prot)	1888	1739			1879		1652	1768				
Flt Permitted	0.35	1.00	(17) - 17 - 17 - 17 - 17 - 17 - 17 - 17 -	daaraa daga ka dar	1.00	an an an an an an an an an an an an an a	0.95	1.00	sta tege vilgesterer ses			
Satd. Flow (perm)	699	1739			1879		1652	1768				
Volume (vph)	45	445	0	0	455	40	65	220	30	0	0	0
Peak-hour factor PHE	0.90	0.90	0 9Ň	n 9ñ	0.90	0.90	0 90	n 90	n an	n añ	ററ്	n qõ
Adi, Flow (vph)	50	494	0	0	506	44	72	244	33	0.00	0.00	00
BTOB Beduction (vph)	Ō	ο	ō	ň	4	'n	'n	- c	ñ	ň	ň	ň
Lane Group Flow (vph)	50	494	анаана <b>х</b> аа О	n N	546	о О	72	272	Ň	n N	n N	N N
Parking (#/hr)				۰.	Ő	Ň	• <b></b> 50.05.405.5					<b>`</b>
	Porm				<u> </u>	~	Parm					
Protected Phases	1 QUIT	2			ß		T CHH	8				
Permitted Phases	2						R R	•				
Actuated Green G (s)	22 8	22 A			22 R	<u>ti ing kapisan</u>	103	10.3			dagi ng kalabasa	ante a constante de la constante de la constante de la constante de la constante de la constante de la constante
Effective Green a (s)	23.8	23.8			23.8	90664350068	11.3	11 3	000000000000000000000000000000000000000	derterentert		0400103410
Actuated q/C Ratio	0.52	0.52			0.52		0.25	0.25				
Clearance Time (s)	5.0	5 O			5.0		5 O	5.0 5.0				
Vehicle Extension (s)	3.0	3.0			3.0		2.0	2.0				
Lana Gra Can (vob)	266	010			0.0		410	420				
u/c Patio Prot	300	000		terokezeté	900		4 I U	409	obenden.	a (hatala/aga tag) '		
v/s Patio Porm	0.07	0.20			GU.23		0.04	00.10				94697990135
v/s Hallo Felli	0.07	0.54			0 56		0.04	0 60		dan katala		
Uniform Dolay, dt	U.14 5.6	0.04 7 0			0.00		10.10	15.02				
Prograssion Easter	0.0 1 00	1.2			1.0		10.4	10.2				
Incremental Delay, d2	0.0	1.00			1.00		1,00	1.00				
Dolay (a)	U.2 E 7	U./			0.7		U.2	2.0 170				
Lovel of Service	ی. ۸	1.J ^			0.U ^		10.0 D	17.0 D				
Approach Dolou (c)	<b>^</b>	~~~			0 A		D	16 O			<u>^</u> ^	
Approach LOS		7.7 A			о.0 А			10.9 B			U.U A	
Intersection Summarv												
HCM Average Control D	elav		10.0	Н	CMLev	el of Se	rvice		B			
HCM Volume to Capacity	v ratio		0.54	• •					-			
Actuated Cycle Length (	;) ;)		45 5	S	um of lo	st time	(c)		80			
Intersection Canacity 1 Iti	lization		56 4%	יט רו		l of San	(		0.0 R			
Analysis Period (min)			15					0.880.880.890.8				8499666899
c Critical Lane Group												<u>ja ja ja ja ja ja ja ja ja ja ja ja ja j</u>
ntersection Summary HCM Average Control D HCM Volume to Capacity Actuated Cycle Length (s ntersection Capacity Uti Analysis Period (min) Critical Lane Group	elay y ratio s) lization	~ ;	10.0 0.54 45.5 56.4% 15	H Si IC	CM Lev um of lo XU Leve	el of Se st time I of Sen	rvice (s) /ice		B 8.0 B		~	

	٦		$\rightarrow$	1		×.	1	1	1	<b>\</b>	Ļ	-
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	1.		ሻ	4	7		£.		۲	۸	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	11	11	11	12	12	12	10	10	12
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0		4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	alanan silas la ser yeras	1.00	1	1.00	1.00	1.00
Frt	1.00	0.99		1.00	1.00	0.85		0.95		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00		1.00	n e en jarne an danse	0.95	1.00	1.00
Satd. Flow (prot)	1540	1657		1711	1801	1531		1583		1652	1739	1583
Flt Permitted	0.49	1.00	enter en enter en enter en enter en enter en enter en enter en enter en enter en enter en enter en enter en en	0.53	1.00	1.00		0.55	6 () -	0.88	1.00	1.00
Satd. Flow (perm)	797	1657		961	1801	1531		880		1525	1739	1583
Volume (vph)	115	235	20	75	285	160	5	35	25	225	265	70
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	n 90	0 90
Adi, Flow (vph)	128	261	22	83	317	178	6	39	28	250	294	78
RTOR Reduction (vph)	0	3	0	Ō	0	110	Ō	24	Ō	Ō	Ō	51
Lane Group Flow (vph)	128	280	0 0	83	317	68	ο 0	49	0	250	294	27
Parking (#/hr)	0	0	Ō			y	Ō	0	Ō			
Turn Type	Perm			Perm		Perm	Perm			nm+nt		Perm
Protected Phases		2			6			8		piiii pi 7	4	
Permitted Phases	2	99.99999999999999999999999999999999999		6	den i Colona Scola, <b>199</b> 4 (d.	6	8			anii 1995. 4		4
Actuated Green, G (s)	18.6	18.6		18.3	18.3	18.3		48	linder verste gever	167	167	167
Effective Green, a (s)	19.6	19.6		19.3	19.3	19.3		5.8	99999999999999999999999999999999999999	17.7	17.7	177
Actuated g/C Ratio	0.39	0.39		0.38	0.38	0.38		0.12		0.35	0.35	0.35
Clearance Time (s)	5.0	5.0	Red Verdamonte d'Arde	5.0	5.0	5.0	Anterest til ette som som som som	5.0		5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	nan kasang kas Mang kasang	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	311	646		369	691	587		101		557	612	557
v/s Ratio Prot		0.17			c0.18					0.07	c0 17	
v/s Ratio Perm	0.16	0.0000000000000000000000000000000000000	aga ngganganangga.	0.09		0.04	sings (and and a single	0.06		0.09		0.02
v/c Ratio	0.41	0.43		0.22	0.46	0.12		0.49		0.45	0.48	0.05
Uniform Delay, d1	11.2	11.3		10.5	11.6	10.0		20.9		12.8	12.7	10.8
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	1.00
Incremental Delay, d2	0.9	0.5	alan 119 ang 11 ang 11 ang 12 ang 12 ang 12 ang 12 ang 12 ang 12 ang 12 ang 12 ang 12 ang 12 ang 12 ang 12 ang	0.3	0.5	0.1		3.7	ala mananya (kalanja)	0.6	0.6	0.0
Delay (s)	12.0	11.7	9 9 9 C	10.8	12.1	10.1		24.5		13.4	13.3	10.8
Level of Service	В	В	te est strande de la service	В	В	В	ang se sana tina da entra sa	С	Contras e reconstruction de la construcción de la construcción de la construcción de la construcción de la cons	В	B	B
Approach Delay (s)		11.8			11.3			24.5	5.60.60.52		13.0	
Approach LOS		В	1999-1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -		В			С			В	
Intersection Summary												
HCM Average Control D	elay		12.6	Н	ICM Lev	el of Se	ervice		В			
HCM Volume to Capacit	y ratio		0.41			9 19 C 4						
Actuated Cycle Length (s	3)		50.3	S	um of lo	ost time	(s)		8.0			
Intersection Capacity Uti	lization		50.8%	IC	CU Leve	l of Ser	vice		A			
Analysis Period (min)			15					anantina karanta pangalan	an e na na anta a seria de 1990.			n an an an tha start an an an an an an an an an an an an an
c Critical Lane Group												



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4	*	×	î.			র্ব	7	ሻ	î.	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	10	12	12	16	12	12	12
Total Lost time (s)		4.0	4.0	4.0	4.0			4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	
Frt		1.00	0.85	1.00	0.97			1.00	0.85	1.00	0.98	
Flt Protected		1.00	1.00	0.95	1.00			0.98	1.00	0.95	1.00	al an air an an an an an an an an an an an an an
Satd. Flow (prot)		1733	1478	1486	1513			1827	1794	1593	1829	
Flt Permitted		0.96	1.00	0.58	1.00			0.85	1.00	0.66	1.00	oo taa oo taa ta yaab
Satd. Flow (perm)		1670	1478	905	1513			1583	1794	1104	1829	
Volume (vph)	15	210	75	55	230	65	55	85	55	100	110	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	233	83	61	256	72	61	94	61	111	122	17
RTOR Reduction (vph)	0	O	53	0	15	0	0	0	36	0	4	0
Lane Group Flow (vph)	0	250	30	61	313	0	0	155	25		135	0
Parking (#/hr)				0	0	0	Ó			0		
Turn Type	Perm		Perm	Perm			Perm		Perm	Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6	eko efereteren eta erreteko erreteko erreteko erreteko erreteko erreteko erreteko erreteko erreteko erreteko er	******	8		8	4		
Actuated Green, G (s)		10.9	10.9	10.9	10.9			13.9	13.9	13.9	13.9	
Effective Green, g (s)	4494449053666666666	11.9	11.9	11.9	11.9	2779.0000.000.0000.0000		14.9	14.9	14.9	14.9	00000000000000
Actuated g/C Ratio		0.30	0.30	0.30	0.30			0.37	0.37	0.37	0.37	
Clearance Time (s)		5.0	5.0	5.0	5.0		alla hera hera hera hera hera hera hera her	5.0	5.0	5.0	5.0	konstitelinen en der
Vehicle Extension (s)		3.0	3.0	3.0	3.0			3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		499	442	271	452			593	672	413	685	
v/s Ratio Prot					c0.21						0.07	
v/s Ratio Perm	an an an an an an an an an an an an an a	0.15	0.02	0.07	on the state of the state of the state of the state of the state of the state of the state of the state of the	8896999999999		0.10	0.01	c0.10		5005592560390
v/c Ratio		0.50	0.07	0.23	0.69			0.26	0.04	0.27	0.20	
Uniform Delay, d1	· ( • 55 ( ) - 5-17 ( • 6 ( • 6 ) • 6 )	11.5	10.0	10.5	12.3	ang na sang na sang na sang na	angada kuna panjeraje kanje	8.6	7.9	8.7	8.4	
Progression Factor		1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	
Incremental Delay, d2	den seren al seren de se	0.8	0.1	0.4	4.6	2949 CONTRACTOR		0.2	0.0	0.4	0.1	
Delay (s)		12.3	10.1	10.9	16.9			8.9	7.9	9.0	8.5	
Level of Service	449,499,499,499,499,499,499	В	В	В	B	1911-1919-1944 - Edit Alexandria 1911-1919 - Edit Alexandria	n de la grada de la deservertario.	A	A	A	Α	294141919999997
Approach Delay (s)		11.7			16.0			8.6			8.8	
Approach LOS		В			В			Α			Α	
Intersection Summary												
HCM Average Control De	elay		11.9	Н	ICM Lev	el of Se	rvice		В			
HCM Volume to Capacity	y ratio		0.38									
Actuated Cycle Length (s	3)		39.8	S	um of lo	st time	(s)		8.0			
Intersection Capacity Uti	lization		55.5%	I,	CU Leve	l of Serv	rice		В			
Analysis Period (min)			15								a a se na se a se a se a se a se a se a	
c Critical Lane Group												

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Movement	EBL2	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR2	SBL	SBT	SBR
Lane Configurations		4			<del>(</del> ]}			44			£.	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	14	14	14	12	12	12	16	16	16
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	de secol com to tot pa
Frt		0.98			0.99		dan din Goland Matalah	1.00			0.99	
Flt Protected		0.99		an a fa an a fa an an an an fa fa an a fa an far an far an far an far an far an far an far an far an far an fa	0.98	ana da sera da sera da sera da sera da sera da sera da sera da sera da sera da sera da sera da sera da sera da	ania (1997), (1997), (1997)	1.00		1	1.00	
Satd. Flow (prot)		1808			1926			1852			2095	
Flt Permitted		0.94		1999 (1997) - 1997 (1997) - 1997 1997 (1997) - 1997 (1997) - 1997 1997 (1997) - 1997 (1997) - 1997 (1997) - 1997	0.89			0.97	ens des Hones Audes des	teranteria de la compositione de la compositione de la compositione de la compositione de la compositione de la	0.99	den de processe d'autor. Anna de processe d'autor
Satd. Flow (perm)		1715			1750			1804			2086	
Volume (vph)	15	45	10	20	30	5	15	230	5	5	285	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	50	11	22	33	6	17	256	6	6	317	17
RTOR Reduction (vph)	0	7	0	0	0	0	0	1	0	0	2	0
Lane Group Flow (vph)	0	71	0	0	61	0	0	278	0	0	338	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		3		an ga an taon fa lan ga an an Ar	3			2			6	an da ann an an ann an ann an an an an an an
Permitted Phases	3			3			2	2		6	6	
Actuated Green, G (s)		15.0		ner en de de la de de de de de de de de de de de de de	15.0			30.0	ndhiana teoré non-cia 1010 étail		30.0	***********
Effective Green, g (s)		16.0			16.0			31.0			31.0	
Actuated g/C Ratio		0.20			0.20		ana katika Alipa katika	0.39	2009-0000000000000000000000000000000000		0.39	00.000.0000
Clearance Time (s)		5.0			5.0			5.0	9.9.19 M.		5.0	
Lane Grp Cap (vph)		343			350			699			808	
v/s Ratio Prot												
v/s Ratio Perm		c0.04		ang ang kapalang pang	0.03	ana to a to dige a regeration	nis in this sector sector sector sector sector sector sector sector sector sector sector sector sector sector s	0.15	1999 - 1999 -	a parametri di kasipa	c0.16	
v/c Ratio		0.21			0.17			0.40			0.42	
Uniform Delay, d1	2005-000-000-003-003-004 2005-000-00-000-00-00-00-00-00-00-00-00-0	26.7	91999990999999999999999999999999999999	andalariya (araka araka	26.5		senar Breende naer Henrig Benne	17.7	nas reconstruction de la classifié	-99 Holes (1997 Holes (1997 Holes (1997 Holes (1997 Holes (1997 Holes (1997 Holes (1997 Holes (1997 Holes (1997	17.9	anna creathac
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.4	27,71,275,765,265,000,87,97		1.1	en de Sen de Auger (* 1978)		1.7		ana alia da di sudi di sudi	1.6	ing an early of the special
Delay (s)		28.1			27.6			19.4		hain gin kapa dan Santa dan generat	19.5	
Level of Service		С			С			В			В	ala (anana landar anan
Approach Delay (s)		28.1			27.6			19.4			19.5	
Approach LOS		С			С	1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1		В		, (* 644) (* 1994) (* 1994) 1997 - Calendary (* 1994)	В	1999 (1999 (1999 (1999 (1999 (1999 (1999 (1999 (1999 (1999 (1999 (1999 (1999 (1999 (1999 (1999 (1999 (1999 (19
Intersection Summary												
HCM Average Control D	elay		27.9	Н	CM Lev	el of Se	rvice		С			
HCM Volume to Capacit	y ratio		0.49									
Actuated Cycle Length (s	s)		80.0	S	um of lo	st time	(s)	, o posto o construcción	12.0			
Intersection Capacity Uti	lization		57.6%	IC	U Leve	l of Sen	vice		В			
Analysis Period (min)			15									e la constanti de la constanti de la constanti de la constanti de la constanti de la constanti de la constanti La constanti de la constanti de la constanti de la constanti de la constanti de la constanti de la constanti de
c Critical Lane Group												

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Movement	SWL2	SWL	SWR	SWR2
Lane Configurations	ሻ	Y		
Ideal Flow (vphpl)	1900	1900	1900	1900
Lane Width	14	14	14	14
Total Lost time (s)	4.0	4.0		
Lane Util. Factor	1.00	1.00		
Frt	1.00	0.99		
Flt Protected	0.95	0.96		
Satd. Flow (prot)	1888	1879		
Flt Permitted	0.95	0.96		
Satd. Flow (perm)	1888	1879		00000000
Volume (vph)	15	335	20	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	372	22	6
RTOR Reduction (vph)	0	1	0	0
Lane Group Flow (vph)	17	399	0	0
Turn Type	Split			
Protected Phases	4	4		
Permitted Phases				
Actuated Green, G (s)	20.0	20.0		ang ang kang kanang kanang
Effective Green, g (s)	21.0	21.0		
Actuated g/C Ratio	0.26	0.26	har bet schrager ranner	nungangati mengawanan ta
Clearance Time (s)	5.0	5.0		
Lane Grp Cap (vph)	496	493	a sa sa sa sa sa sa sa sa sa sa sa sa sa	daaraa ahaan ah
v/s Ratio Prot	0.01	c0.21		
v/s Ratio Perm	or and the state of the state of the state of the state of the state of the state of the state of the state of	a di kata ja dagi kan ka		
v/c Hatio	0.03	0.81		
Uniform Delay, d1	22.0	27.6		
Progression Factor	1.00	1.00		
Incremental Delay, d2	0.1	13.4	ar da bi tabaha a sa sa	
Delay (s)	22.1	41.1		
Level of Service	С	D	sector contractors	A STAN A STAN A STA A - ST
Approach Delay (s)		40.3		
Approach LOS		D		
Intersection Summary				

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		र्भ	7		<del>4</del>	7	ኻ	<b>*</b> ħ		ሻ	<b>*</b> 14	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95		1.00	0.95	
Frt		1.00	0.85		1.00	0.85	1.00	1.00		1.00	0.99	
Fit Protected		0.96	1.00		0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1793	1583		1795	1583	1770	3533		1770	3494	
Fit Permitted		0.74	1.00		0.76	1.00	0.21	1.00		0.29	1.00	
Satd. Flow (perm)		1385	1583		1419	1583	383	3533		534	3494	
Volume (vph)	55	15	130	30	10	15	100	890	10	45	810	75
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	61	17	144	33	11	17	111	989	11	50	900	83
RTOR Reduction (vph)	0	0	121	0	0	14	0	1	0	0	8	0
Lane Group Flow (vph)	0	78	23	0	44	3	111	999	0	50	975	0
Turn Type	Perm		Perm	Perm		Perm	pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)		9.0	9.0		9.0	9.0	39.9	39.9		31.2	31.2	
Effective Green, g (s)		9.0	9.0		9.0	9.0	39.9	39.9		31.2	31.2	
Actuated g/C Ratio		0.16	0.16		0.16	0.16	0.70	0.70		0.55	0.55	
Clearance Time (s)		4.0	4.0		4.0	4.0	3.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		219	250		224	250	383	2477		293	1916	
v/s Ratio Prot							0.02	c0.28			c0.28	
v/s Ratio Perm		c0.06	0.01		0.03	0.00	0.18			0.09		
v/c Ratio		0.36	0.09		0.20	0.01	0.29	0.40		0.17	0.51	
Uniform Delay, d1		21.4	20.5		20.8	20.2	3.9	3.5		6.4	8.0	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.0	0.2		0.4	0.0	0.4	0.1		0.3	0.2	
Delay (s)		22.4	20.6		21.2	20.2	4.3	3.6		6.7	8.3	8494-8-8
Level of Service	www.colory.colory.colory.col	С	С	an an an an an an an an an an an an an a	С	С	Α	A		А	A	
Approach Delay (s)		21.2			21.0			3.7			8.2	
Approach LOS		С			С			A			A	
Intersection Summary												
HCM Average Control D	elay		7.7	F	ICM Lev	el of S	ervice		А			
HCM Volume to Capacit	y ratio		0.48									
Actuated Cycle Length (	s)		56.9	S	ium of lo	ost time	(s)		12.0			
Intersection Capacity Uti	lization		52.1%	(	CU Leve	el of Sei	rvice		Α			
Analysis Period (min)			15	e durat a su su su s	un mana a sa sa sa						an an an an an an an	
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4	*	ኻ	î,		٣	<b>≜</b> †		٣	<b>^</b> £	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	10	12	16	12	10	10	10	10	10	10
Total Lost time (s)		4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00		1.00	0.95	al este des transmus	1.00	0.95	
Frt		1.00	0.85	1.00	0.90		1.00	1.00		1.00	1.00	
Fit Protected		0.97	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1747	1478	1770	1909		1652	3296		1652	3294	
Flt Permitted		0.78	1.00	0.71	1.00		0.26	1.00		0.95	1.00	
Satd. Flow (perm)		1400	1478	1323	1909		459	3296		1652	3294	
Volume (vph)	40	25	140	30	20	35	175	1045	15	40	840	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	44	28	156	33	22	39	194	1161	17	44	933	17
RTOR Reduction (vph)	0	0	140	0	35	0	0	1	0	0	1	0
Lane Group Flow (vph)	0	72	16	33	26	0	194	1177	0	44	949	0
Turn Type	Perm		Perm	Perm			om+pt			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2					
Actuated Green, G (s)		6.8	6.8	6.8	6.8		42.0	42.0		3.5	28.5	
Effective Green, g (s)		6.8	6.8	6.8	6.8		43.0	43.0		3.5	29.5	
Actuated g/C Ratio		0.10	0.10	0.10	0.10		0.63	0.63		0.05	0.44	
Clearance Time (s)		4.0	4.0	4.0	4.0		5.0	5.0		4.0	5.0	
Vehicle Extension (s)		1.0	1.0	1.0	1.0		1.5	1.0		1.0	1.0	
Lane Grp Cap (vph)		140	148	133	191		590	2090		85	1433	
v/s Ratio Prot					0.01		0.08	c0.36		0.03	c0.29	
v/s Ratio Perm		c0.05	0.01	0.02			0.13					
v/c Ratio		0.51	0.11	0.25	0.14		0.33	0.56		0.52	0.66	
Uniform Delay, d1		28.9	27.7	28.1	27.8		9.2	7.1		31.3	15.2	
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.3	0.1	0.4	0.1		1.5	1.1		2.2	2.4	
Delay (s)		30.3	27.9	28.5	27.9		10.7	8.2		33.5	17.6	
Level of Service		C	C	C	C		B	A		С	В	
Approach Delay (s)	an an an an an an an an an an an an an a	28.6			28.1			8.5	وللمستعد فحتني متترج والرامي		18.3	- <u></u>
Approach LOS		C			C			A			В	
Intersection Summary												
HCM Average Control D	elay		14.5	Н	ICM Lev	el of Se	rvice		В			
HCM Volume to Capacity	y ratio		0.57									a and and a state of the state
Actuated Cycle Length (s	5)		67.8	S	um of lo	st time	(s)		8.0			
Intersection Capacity Uti	lization	ļ	53.6%	IC	CU Leve	l of Serv	vice		А			
Analysis Period (min)			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				٣	র			<b>↑</b> Ъ			<b>†</b> Ъ	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	14	12	12	12	12	12	12
Total Lost time (s)				4.0	4.0			4.0			4.0	
Lane Util. Factor				0.95	0.95			0.95			0.95	·····
Frt				1.00	1.00			1.00			1.00	
Flt Protected				0.95	0.96			1.00			1.00	
Satd. Flow (prot)				1681	1700			3539			3537	
Flt Permitted				0.95	0.96			1.00			1.00	
Satd. Flow (perm)				1681	1700			3539			3537	
Volume (vph)	0	0	0	1415	140	0	0	710	0	0	1320	5
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	1572	156	0	0	789	0	0	1467	6
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	0	0	841	887	0	0	789	0	0	1472	0
Turn Type				Perm			Perm					
Protected Phases			Poline Miranian (nom	epolenski i historie	8			2			6	erradia tata 18
Permitted Phases				8			2					
Actuated Green, G (s)				28.0	28.0		01000000000000000000000000000000000000	30.0	e dan kan yang kalang kalang Bang ka		30.0	an an the state of the second second
Effective Green, g (s)				30.0	30.0			32.0			32.0	
Actuated g/C Ratio				0.43	0.43			0.46			0.46	an an an an an an an an an an an an an a
Clearance Time (s)				6.0	6.0		Grava a	6.0			6.0	
Vehicle Extension (s)				3.0	3.0	hunnium - inter <sub>en</sub> utrature		3.0			3.0	
Lane Grp Cap (vph)				720	729			1618			1617	
v/s Ratio Prot	anga malan dikin darak	n an an an an an an an an an an an an an			an Angelingsteingen	Conner i vel 1961 v		0.22	1999 - 1999 - 1999 - 1999 - 1999 - 1999 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999	an an an an an an an an an an an an an a	c0.42	nininininininini
v/s Ratio Perm				0.50	0.52							
v/c Ratio	5999 (1993) AND (1993)	1997.0000.000000		1.17	1.22	enter el terre a contectadora de	1997 - 1997 -	0.49		ana de parte de la composi	0.91	d Martinet of States
Uniform Delay, d1				20.0	20.0			13.3			17.7	
Progression Factor	1999-1997 - 1999 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -			1.00	1.00			1.00		ranges replaced signs	1.00	an fan ei staar de seere
Incremental Delay, d2	in dikastraju Veničenica ka			90.2	109.8	eterion interación Escala a Mandasa		0.2			8.1	
Delay (s)				110.2	129.8			13.5		1	25.8	a visiona consta
Level of Service				F	F			В			С	
Approach Delay (s)		0.0		19 million (1977-04)	120.3		1997 ( Jane and Graffing and	13.5	ويعتر ويتري ويستري والمركبين ويتريه		25.8	0.000000000
Approach LOS		A			F			В			C	
Intersection Summary												
HCM Average Control De	əlay		64.3	-	ICM Lev	el of Se	rvice		E			
HCM Volume to Capacity	ratio		1.06									
Actuated Cycle Length (s	)		70.0	S	Sum of Ic	ost time	(s)		8.0		ġ.ġ.ġ.ġ	
Intersection Capacity Util	ization	8	86.2%	1(	CU Leve	of Serv	/ice		Е			
Analysis Period (min)			15									ingeneeldes Weigenoordes

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			¢‡,			<b>4</b> +			4	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	20	165	60	35	125	15	20	275	55	50	260	25
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	22	183	67	39	139	17	22	306	61	56	289	28
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	272	194	389	372							a a a a a a a a a a a a a a a a a a a	
Volume Left (vph)	22	39	22	56								
Volume Right (vph)	67	17	61	28								
Hadj (s)	-0.10	0.02	-0.05	0.02								
Departure Headway (s)	6.9	7.2	6.4	6.5								
Degree Utilization, x	0.52	0.39	0.69	0.67					la bis bir san si			
Capacity (veh/h)	467	425	531	517								
Control Delay (s)	17.0	14.8	22.7	22.0								
Approach Delay (s)	17.0	14.8	22.7	22.0								
Approach LOS	С	В	C	C								
Intersection Summary												
Delay			20.0									
HCM Level of Service			С									
Intersection Capacity Ut	lization		56.7%	1(	CU Leve	el of Ser	vice		В			
Analysis Period (min)			15									
				sini da sini singi	usunnunu	u en anti-					ad a lastation dat	
	4	×	1	1	1	Ļ						
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Movement	WBL	WBR	NBT	NBR	SBL	SBT						
Lane Configurations	Y		4			র্ন						
Sign Control	Stop		Free			Free						
Grade	0%		0%			0%						
Volume (veh/h)	150	5	340	175	0	605						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	en de trier e trevière internetie trevener e e	en de seu este de la constante set d'al				
Hourly flow rate (vph)	167	6	378	194	0	672						
Pedestrians		gi di kana kana kana kana kana kana kana kan			tinin ny kaodim-							
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)					kang napadang							
Median type	None											
Median storage veh)				ala su na su su su su su su su su su su su su su	an an an an an an an an an an an an an a							
Upstream signal (ft)						837						
pX, platoon unblocked	0.92	an an an an an an an an an an an an an a										
vC, conflicting volume	1147	475			572				n in service an service			
vC1, stage 1 conf vol			krististis etentistaani	tikalaatkateataa	0.0000000000000000000000000000000000000		Na sana sa sa sa sa sa sa sa sa sa sa sa sa sa		na a parto da Regela de contra porta da contra regelar da porta da contra da contra da contra da contra da cont			
VC2, stage 2 cont vol	4400	475			670							
	64	4/5		11-11-11-11-11-11-11-11-11-11-11-11-11-	5/2							
tC, 2 stage (s)	U,4	0.4			4,1							
tF (s)	3.5	3.3	dala mala mala magi References a financia		22							
p0 queue free %	16	99	999 A.S. (1993 A.S.)	an in a static and a static static static static static static static static static static static static stati An an an an an an an an an an an an an an	100	9999600000999999999999999		heye a daal baad balan yayaan				
cM capacity (veh/h)	199	590			1001							
Direction, Lane #	WB 1	NB 1	SB 1									
Volume Total	172	572	672		- 10 - 10 - 10 - 10 - 10 - 10 - 10 - 10							
Volume Left	167	0	0									
Volume Right	6	194	0									
CSH	203	1700	1001									
Volume to Capacity	0.85	0.34	0.00									
Control Dolov (a)	159	0	U A A	u ja sie nie				alahiji cantakansak				
	//.0 F	0.0	0.0									
Approach Delay (s)	778	0.0	0.0									
Approach LOS	F					en en en en en en en en en en en en en e						
Intersection Summary												
Average Delay			95									
Intersection Capacity Ut	ilization		47.1%	IC	U Level	of Servi	ce	A				
Analysis Period (min)			15									



HCM Unsignalized Intersection Capacity Analysis 22: Birchcliff Pkwy & Shelburne St. (Rt 7)

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		44			4			ፈሴ			វាធ	
Sign Control	ning ting tablik Kara kanalah	Stop			Stop			Free			Free	
Grade		0%			0%			0%		a an an an an an an an an an an an an an	0%	
Volume (veh/h)	25	0	60	10	0	10	10	920	5	5	890	30
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	28	0	67	11	0	11	11	1022	6	6	989	33
Pedestrians											a na sa sa sa sa sa sa sa sa sa sa sa	
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)			** ** *-*-									
Upstream signal (ft)								1267				
pX, platoon unblocked												
vC, conflicting volume	1561	2067	511	1619	2081	514	1022			1028		
vC1, stage 1 conf vol	Alestado Vickova Aleste verte.	ennen tettetett.	45 (3 NO - 1 NA COLO - 1 NA	uniter de contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de	and normalization to the star of the	under under nach die bestehe	datable dan Strebure di	Andered alternative freedow				anta antara atama
vC2, stage 2 conf vol												
vCu, unblocked vol	1561	2067	511	1619	2081	514	1022	AN PROFESSION AND		1028		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
IC, 2 stage (s)						<u> </u>				an da an an an an an an an an an an an an an	torena en viero das	hanka kata kata
	3.5	4.0	ತ,ತ ೧7	3.5	4.0	<u>ଏ.ଏ</u>	2.2			2.2		
pu queue free %	02 70	100	87 600	81 76	100	98	98		andaladaci testa	99	engendaanstateelee	jagangan ipi
	1.9	94	<b>000</b>	00	<b>91</b>	9UC	0/3			0/1		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume   otal	94	22	522	517	500	528						
Volume Left	28	11	11	0	6	0	an an an an an an an an an an an an an a		na nganganana sa	generation and the	ambada aya	u alau kataputen
	6/	11	U	6	0	33						
COH	184	105	6/5	1700	6/1	1700	inin nininin ni	ingeler sterre	an en en en en en en en en en en en en en	(Alexandra Alexandra)		owikister
Oucline to Capacity	0.51	0.21	0.02	0.30	0.01	0.31						andra Arrigada Maria Milayad
Control Dalaw (a)	04 40 E	19	ן הב	0	00	0					a an an an an an an an an an an an an an	
Long LOS	43.0 E	40.4	U.S ^	0.0	U.Z	0.0	9150-14055 					
	10 E			NEXIGNER	А А 4	99699966			anishing parasit		Nogodki večenos	
Approach LOS	_+0.0 ⊏	40.4 C	V.4		<b>U.</b> I	12000000000000000000000000000000000000	ada da per an	adar es adar p			050,000,000,000	1050 ( <u>1</u> 50)
	E	E	000000 MARQ 44 46 100 23 100 1000	****								
Intersection Summary												
Average Delay			2.5	a and a start of the second								
Intersection Capacity Uti	lization		44.8%	K	CU Leve	l of Sen	vice		Α			
Analysis Period (min)			15					a la la la companya de la companya de la companya de la companya de la companya de la companya de la companya d	5	و معرف محمد محمد م		

Movement     EBT     EBR     WBL     WBT     NBL     NBR       Lane Configurations     Image: Control form     Free     Free     Stop       Grade     0%     0%     0%     0%       Volume (veh/h)     155     25     40     170     35     70       Peak Hour Factor     0.90     0.90     0.90     0.90     0.90     0.90       Hourly flow rate (vph)     172     28     44     189     39     78       Pedestrians     Eane Width (ft)     Valking Speed (ft/s)     Percent Blockage     Free     None       Median type     None     None     None     None     None       Median storage veh)     Upstream signal (ft)     331     231     201
Lane Configurations       Image: Constraint of the second se
Sign Control         Free         Free         Stop           Grade         0%         0%         0%         0%           Volume (veh/h)         155         25         40         170         35         70           Peak Hour Factor         0.90         0.90         0.90         0.90         0.90         0.90           Hourly flow rate (vph)         172         28         44         189         39         78           Pedestrians         Lane Width (ft)         Valking Speed (ft/s)         Valking
Grade         0%         0%         0%           Volume (veh/h)         155         25         40         170         35         70           Peak Hour Factor         0.90         0.90         0.90         0.90         0.90         0.90           Hourly flow rate (vph)         172         28         44         189         39         78           Pedestrians         Lane Width (ft)         Valking Speed (ft/s)
Volume (veh/h)         155         25         40         170         35         70           Peak Hour Factor         0.90         0.90         0.90         0.90         0.90         0.90           Hourly flow rate (vph)         172         28         44         189         39         78           Pedestrians         Image: Seed (ft/s)           Percent Blockage         Image: Seed (ft/s)         Image: Seed (ft/s)         Image: Seed (ft/s)         Image: Seed (ft/s)           Median type         None         None         Image: Seed (ft/s)         Image: Seed (ft/s)           Upstream signal (ft)         331         Image: Seed (ft/s)         Image: Seed (ft/s)
Peak Hour Factor       0.90       0.90       0.90       0.90       0.90         Hourly flow rate (vph)       172       28       44       189       39       78         Pedestrians       Lane Width (ft)       Valking Speed (ft/s)       Valking Speed (ft/s)       Valking Speed (ft/s)       Valking Speed (ft/s)         Percent Blockage       None       Valking Speed (ft/s)       Valking Speed (ft/s)       Valking Speed (ft/s)         Median type       None       None       None       Valking Speed (ft/s)       Valking Speed (ft/s)         Median type       None       None       None       Valking Speed (ft/s)       Valking Speed (ft/s)         Vestream signal (ft)       331       Valking Speed (ft/s)       Valking Speed (ft/s)       Valking Speed (ft/s)         Vestream signal (ft)       Sign (ft/s)       Sign (ft/s)       Sign (ft/s)       Sign (ft/s)         Vestream signal (ft)       Sign (ft/s)       Sign (ft/s)       Sign (ft/s)       Sign (ft/s)         Vestream signal (ft/s)       Sign (ft/s)       Sign (ft/s)       Sign (ft/s)       Sign (ft/s)         Vestream sign (ft/s)       Sign (ft/s)       Sign (ft/s)       Sign (ft/s)       Sign (ft/s)       Sign (ft/s)         Vestream sign (ft/s)       Sign (ft/s)       Sign (ft/s)
Hourly flow rate (vph)     172     28     44     189     39     78       Pedestrians     Lane Width (ft)     Lane Width (ft)     Lane Width (ft)     Lane Width (ft)       Walking Speed (ft/s)     Percent Blockage     Right turn flare (veh)     None       Median type     None       Median storage veh)     Upstream signal (ft)     331       pX, platoon unblocked     000     104     100
Pedestrians         Lane Width (ft)         Walking Speed (ft/s)         Percent Blockage         Right turn flare (veh)         Median type         Median storage veh)         Upstream signal (ft)       331         pX, platoon unblocked         Cooptilisting vehices
Lane Width (ft) Walking Speed (ft/s) Percent Blockage Right turn flare (veh) Median type None Median storage veh) Upstream signal (ft) 331 pX, platoon unblocked
Walking Speed (ft/s) Percent Blockage Right turn flare (veh) Median type None Median storage veh) Upstream signal (ft) 331 pX, platoon unblocked C sconfliction velues
Percent Blockage       Right turn flare (veh)       Median type     None       Median storage veh)       Upstream signal (ft)     331       pX, platoon unblocked     100
Right turn flare (veh)     None       Median type     None       Median storage veh)     Upstream signal (ft)       331     331       pX, platoon unblocked     000
Median type     None       Median storage veh)     Upstream signal (ft)       331     331       pX, platoon unblocked     000
Upstream signal (ft) 331 pX, platoon unblocked
pX, platoon unblocked
px, platoon unbiockeu
vC, connicility volume 200 464 186
vor, slage i contivol
1C single (s) 41 64 62
tC. 2 stage (s)
tF (s) 2.2 3.5 3.3
p0 queue free % 97 93 91
cM capacity (veh/h) 1372 538 856
Direction Lane # FB 1 WB 1 NB 1
Volume Total 200 233 117
Volume Left 0 44 39
Volume Right 28 0 78
cSH 1700 1372 715
Volume to Capacity 0.12 0.03 0.16
Queue Length 95th (ft) 0 3 15
Control Delay (s) 0.0 1.7 11.0
Lane LOS A B
Approach Delay (s) 0.0 1.7 11.0
Approach LOS B
Intersection Summary
Average Delay 3.1
Intersection Capacity Utilization 37.1% ICU Level of Service A
Analysis Period (min) 15



	Т	WO-WAY STO	P CONTROL	SUMMARY						
General Information	1		Site Info	Site Information						
Analyst A y/Co. Date Performed Analysis Time Period	EJD CHA 12/22/05 PM PEAK	(HOUR	Intersectio Jurisdictic Analysis N	on on /ear	ROUTE 7/L TOWN OF 2028 BUILL	ROUTE 7/LOCUST/LEDGE TOWN OF BURLINGTON 2028 BUILD ALT2				
Project Description BU	RLINGTON		b) 11 (0		······					
East/west Street: LUCC	North South		North/Sou	ith Street: HOUT	= /					
	North-South		Study Per	100 (nrs): 0.25						
venicie volumes an	a Adjustment	S								
Major Street		Northbound			Southbour					
WOVEINEIN		<u>∠</u>	- 3	4	5 T	<u>6</u>				
Volume	0	525	290	45	695	15				
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90				
Hourly Flow Rate, HFR	0	583	322	50	772	16				
Percent Heavy Vehicles	0		==	2						
Median Type				Undivided						
RT Channelized			0			0				
Lanes	0	2	0	0	1	0				
Configuration		T	TR	LTR						
Upstream Signal		0			0					
Minor Street		Westbound			Eastbound	d				
Movement	7	8	9	10	11	12				
	L	Т	R	L	Т	R				
Volume	0	0	60	0	25	80				
Pe Hour Factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90				
Houny Flow Rate, HFR	0	0	66	0	27	88				
Percent Heavy Vehicles	0	0	2	0	2	2				
Percent Grade (%)		0			0					
Flared Approach		N			N					
Storage		0			0					
RT Channelized			0			0				
Lanes	0	0	1	0	1	0				
Configuration			<u> </u>			TR				
Delay, Queue Length, ar	nd Level of Servi	ce								
Approach	NB	SB	W	Westbound		astbound				
Movement	1	4	7	89	10	11 12				
Lane Configuration		LTR		R		TR				
v (vph)		50		66		115				
C (m) (vph)		747		555		180				
//c		0.07	l l	0.12		0.64				
95% queue length		0.21		0.40		3.66				
Control Delay		10.2	tt	12.4		54.9				
_OS		В	1	B						
Approach Delav			I	12.4		54.9				
Approach LOS				B	F					

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	T\	NO-WAY STO	P CONTR	OL SUMM	MARY						
<b>General Information</b>			Site II	Site Information							
Analyst Agʻy/Co. Date Performed Analysis Time Period	HOUR	Interse Jurisdic Analysi	ction ction s Year		ROUTE 7/SOUTH WILLARD TOWN OF BURLINGTON 2028 BUILD ALT2						
Project Description BU	RLINGTON										
East/West Street: SOUT	H WILLARD		North/South Street: ROUTE 7								
Intersection Orientation:	North-South		Study F	Period (hrs)	: 0.25						
Vehicle Volumes and	d Adjustments	5									
Major Street		Northbound				Southbo					
Movement	1	2	3		4	5		6			
Makuma		T 100	R			T		<u>R</u>			
Volume Pook Hour Easter, DHE	65	460	0		0	755		0			
Hourly Flow Pate HED	0.90	<u> </u>	0.90		0.90	0.90		0.90			
Percent Heavy Vehicles	2	511			2	038		U			
Median Type				2							
RT Channelized			0			T		0			
Lanes	0	1	0		0	1					
Configuration	LT				•••	$\frac{1}{T}$		<u> </u>			
Upstream Signal		0				0					
Minor Street		Westbound				Eastbou	ind				
Movement	7	8	9	·····	10	11		12			
	L	Т	R		Ļ	Т		R			
Volume	0	180	0		0	0		0			
Pe Hour Factor, PHF	0.90	0.90	0.90		0.90	0.90		0.90			
Houly Flow Rate, HFR	0	200	0		0	0		0			
Percent Heavy Vehicles	0	2	2	2		2		2			
Percent Grade (%)		0				0					
Flared Approach		N				N					
Storage		0				0					
RT Channelized			0					0			
Lanes	0	1	0		0	0		0			
Configuration											
Delay, Queue Length, an	d Level of Servic	e									
Approach	NB	SB		Westbound		Eastbound		d			
Movement	1	4	7	8	9	10	11	12			
Lane Configuration	LT				TR						
v (vph)	72				200						
C (m) (vph)	796				107						
v/c	0.09				1.87						
95% queue length	0.30				16.24						
Control Delay	10.0				492.2						
LOS	A				F						
Approach Delav				492.2	I		L				
Approach LOS				F							

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