

SOLAEGUI
ENGINEERS, LTD

WINGFIELD COMMONS
TRAFFIC STUDY

MARCH 2018



Prepared by:
Solaegui Engineers, Ltd.
715 H Street
Sparks, Nevada 89431
(775) 358-1004

RECEIVED-CITY OF SPARKS
MAR 08 2018
COMMUNITY SERVICES
ADMINISTRATION

TABLE OF CONTENTS

EXECUTIVE SUMMARY	3
INTRODUCTION	5
STUDY AREA	5
EXISTING AND PROPOSED LAND USES	5
EXISTING AND PROPOSED ROADWAYS AND INTERSECTIONS	5
TRIP GENERATION	7
TRIP DISTRIBUTION AND ASSIGNMENT	8
EXISTING AND PROJECTED TRAFFIC VOLUMES	8
INTERSECTION ANALYSIS	17
TRAFFIC CRASH REVIEW	22
SITE PLAN REVIEW	22
RECOMMENDATIONS	23
APPENDIX	24

LIST OF FIGURES

FIGURE 1 - VICINITY MAP	4
FIGURE 2 - TRIP DISTRIBUTION	9
FIGURE 3 - TRIP ASSIGNMENT	10
FIGURE 4A - EXISTING TRAFFIC VOLUMES	11
FIGURE 4B - EXISTING TRAFFIC VOLUMES (W/EVENT)	12
FIGURE 5A - EXISTING PLUS PROJECT TRAFFIC VOLUMES	13
FIGURE 5B - EXISTING PLUS PROJECT TRAFFIC VOLUMES (W/EVENT)	14
FIGURE 6 - 2040 BASE TRAFFIC VOLUMES (W/EVENT)	15
FIGURE 7 - 2040 BASE PLUS PROJECT TRAFFIC VOLUMES (W/EVENT)	16

WINGFIELD COMMONS

TRAFFIC STUDY

EXECUTIVE SUMMARY

The proposed Wingfield Commons development is located in the City of Sparks, Nevada. The project site is located directly east of the Golden Eagle Regional Park (GERP) generally south of Vista Boulevard and east of Homerun Drive. The project site is currently undeveloped land except for a few dwelling units that will be removed. The purpose of this study is to address the project's impact upon the adjacent street network. The Vista Boulevard/Homerun Drive/Scorpius Drive, Homerun Drive/Touchdown Drive, and Touchdown Drive/Project Access intersections have been identified for weekday and Saturday AM and PM peak hour capacity analysis for the existing (without GERP event), existing (with GERP event), existing plus project (without GERP event), existing plus project (with GERP event), 2040 base (with GERP event), and 2040 base plus project (with GERP event) scenarios.

The proposed Wingfield Commons development will consist of the construction of 500 single family dwelling units. Project access will be provided from a new proposed access roadway intersecting Touchdown Drive. Wingfield Commons is anticipated to generate 4,760 average daily trips, 375 AM peak hour trips, and 500 PM peak hour trips on a typical weekday and 4,955 average daily trips, 191 AM peak hour trips, and 465 PM peak hour trips on a typical Saturday.

Traffic generated by the Wingfield Commons development will have some impact on the adjacent street network. The following recommendations are made to mitigate project traffic impacts.

It is recommended that any required signing, striping, or traffic control improvements comply with City of Sparks requirements.

It is recommended that the Vista Boulevard/Homerun Drive/Scorpius Drive intersection be improved to include one exclusive left turn lane, one shared left turn-through lane, and one exclusive right turn lane at the south approach.

It is recommended that the existing right turn lane at the west approach of the Vista Boulevard/Homerun Drive/Scorpius Drive intersection be lengthened to provide a minimum of 465 feet of storage/deceleration length with a 180 foot taper in order to serve traffic volumes generated by a major event at the Golden Eagle Regional Park.

It is recommended that the traffic control at the Homerun Drive/Touchdown Drive intersection be modified to include stop sign control at the south and east approaches while the left turn and through movements at the north approach flow free. In addition, it is recommended that an exclusive left turn lane be provided at the north approach.

It is recommended that the Touchdown Drive/Project Access intersection be designed as a three-leg intersection with stop sign control at the east approach and contain an exclusive left turn lane at the north approach.

It is recommended that the project access roadway and the internal residential streets be designed to conform to City of Sparks standards.

It is recommended that connections be made from the proposed subdivision to the existing pedestrian/bicycle network within the Golden Eagle Regional Park.

It is recommended that the project developers provide a traffic circulation plan that discourages or prevents Golden Eagle Regional Park traffic from utilizing the project access road and internal residential streets.

INTRODUCTION

STUDY AREA

The proposed Wingfield Commons development is located in the City of Sparks, Nevada. The project site is located directly east of the Golden Eagle Regional Park (GERP) generally south of Vista Boulevard and east of Homerun Drive. Figure 1 shows the approximate location of the site. The purpose of this study is to address the project's impact upon the adjacent street network. The Vista Boulevard/Homerun Drive/Scorpius Drive, Homerun Drive/Touchdown Drive, and Touchdown Drive/Project Access intersections have been identified for weekday and Saturday AM and PM peak hour capacity analysis for the existing (without GERP event), existing (with GERP event), existing plus project (without GERP event), existing plus project (with GERP event), 2040 base (with GERP event), and 2040 base plus project (with GERP event) scenarios.

EXISTING AND PROPOSED LAND USES

The project site is currently undeveloped land except for a few single family home that will be removed. Adjacent properties generally include the Golden Eagle Regional Park to the west and undeveloped land to the north, south, and east. The proposed Wingfield Commons development will consist of the construction of 500 single family dwelling units. Project access will be provided from a new proposed access road intersecting Touchdown Drive.

EXISTING AND PROPOSED ROADWAYS AND INTERSECTIONS

Vista Boulevard is a four-lane roadway with two through lanes in each direction in the vicinity of the site. The speed limit is posted for 35 miles per hour. Roadway improvements include curb, gutter, and bike lanes on both sides of the street, a sidewalk on the north side of the street, and a raised center median with openings at major intersections.

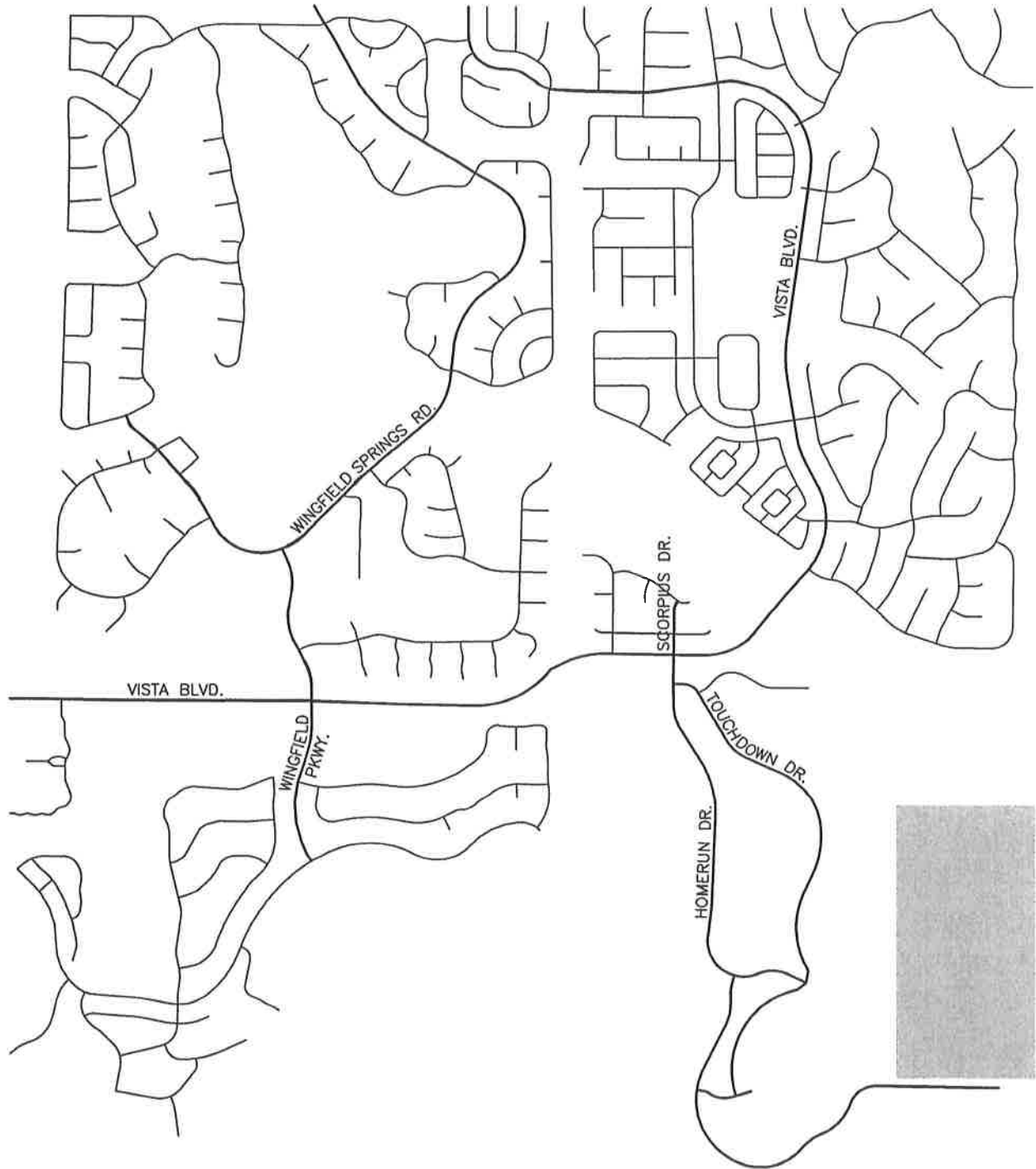
Homerun Drive is a two-lane roadway with one through lane in each direction south of Vista Boulevard. The speed limit is posted for 25 miles per hour. Roadway improvements include paved and graded shoulders with white striped edgelines and a yellow striped centerline. Homerun Drive aligns with Scorpius Drive at the Vista Boulevard intersection.

Scorpius Drive is a two-lane roadway with one through lane in each direction north of Vista Boulevard. The speed limit is not posted but assumed to be 25 miles per hour. Roadway improvements include curb, gutter, and sidewalk on both sides of the street. Scorpius Drive aligns with Homerun Drive at the Vista Boulevard intersection.

Touchdown Drive is a two-lane roadway with one through lane in each direction southeast of Homerun Drive. The speed limit is posted for 15 miles per hour. Roadway improvements include paved and graded shoulders with white striped edgelines and a yellow striped centerline.

LEGEND

PROJECT SITE



WINGFIELD COMMONS

VICINITY MAP
FIGURE 1

The Vista Boulevard/Homerun Drive/Scorpius Drive intersection is a signalized four-leg intersection with protected phasing for the eastbound and westbound left turn movements. The north approach contains one shared left turn-through-right turn lane. The south approach contains one left turn lane and one shared through-right turn lane. The east approach contains one left turn lane, one through lane, and one shared through-right turn lane. The west approach contains one left turn lane, two through lanes, and one right turn lane.

The Homerun Drive/Touchdown Drive intersection is an unsignalized three-leg intersections with stop control at the east approach. The intersection contains one shared left turn-through lane at the north approach, one shared through-right turn lane at the south approach, and one shared left turn-right turn lane at the east approach.

The Touchdown Drive/Project Access intersection does not exist but will be constructed as an unsignalized three-leg intersections with stop control at the east approach. At a minimum, the intersection will be analyzed with one shared left turn-through lane at the north approach, one shared through-right turn lane at the south approach, and one shared left turn-right turn lane at the east approach. This new intersection will be located south of an existing access intersection that will be removed.

TRIP GENERATION

In order to assess the magnitude of traffic impacts of the proposed project on the key intersections, trip generation rates and peak hours had to be determined. Trip generation was calculated based on rates obtained from the Ninth Edition of *ITE Trip Generation* (2012) for Land Use 210: Single Family Detached Housing. Trips generated by the project were calculated for the weekday peak hours occurring between 7:00 and 9:00 AM and 4:00 and 6:00 PM, which correspond to the peak hours of adjacent street traffic, and the Saturday peak hour of generator which is anticipated to correspond to the afternoon peak hour of the Golden Eagle Regional Park. *ITE Trip Generation* does not contain rates for a Saturday AM peak hour. Existing counts on Vista Boulevard indicate that Saturday AM peak hour traffic volumes are approximately 51% of weekday AM peak hour traffic volumes. The AM peak hour trip generation for Saturday was therefore assumed to be 51% of the weekday AM peak hour trip generation. Table 1 shows a summary of the average daily traffic (ADT) volumes and peak hour volumes generated by the project for a weekday and Saturday. The trip generation worksheets are included in the Appendix.

LAND USE	ADT	AM PEAK HOUR			PM PEAK HOUR		
		IN	OUT	TOTAL	IN	OUT	TOTAL
Single Family Detached Housing (500 D.U.)							
Weekday	4,760	94	281	375	315	185	500
Saturday	4,955	48	143	191	250	215	465

TRIP DISTRIBUTION AND ASSIGNMENT

The distribution of the project trips to the key intersections was based on existing peak hour traffic patterns and the locations of attractions and productions in the area. The anticipated trip distribution is shown on Figure 2. The peak hour project trips shown in Table 1 were subsequently assigned to the key intersections based on the trip distribution. Figure 3 shows the project trip assignment at the key intersections during the weekday and Saturday AM and PM peak hours.

EXISTING AND PROJECTED TRAFFIC VOLUMES

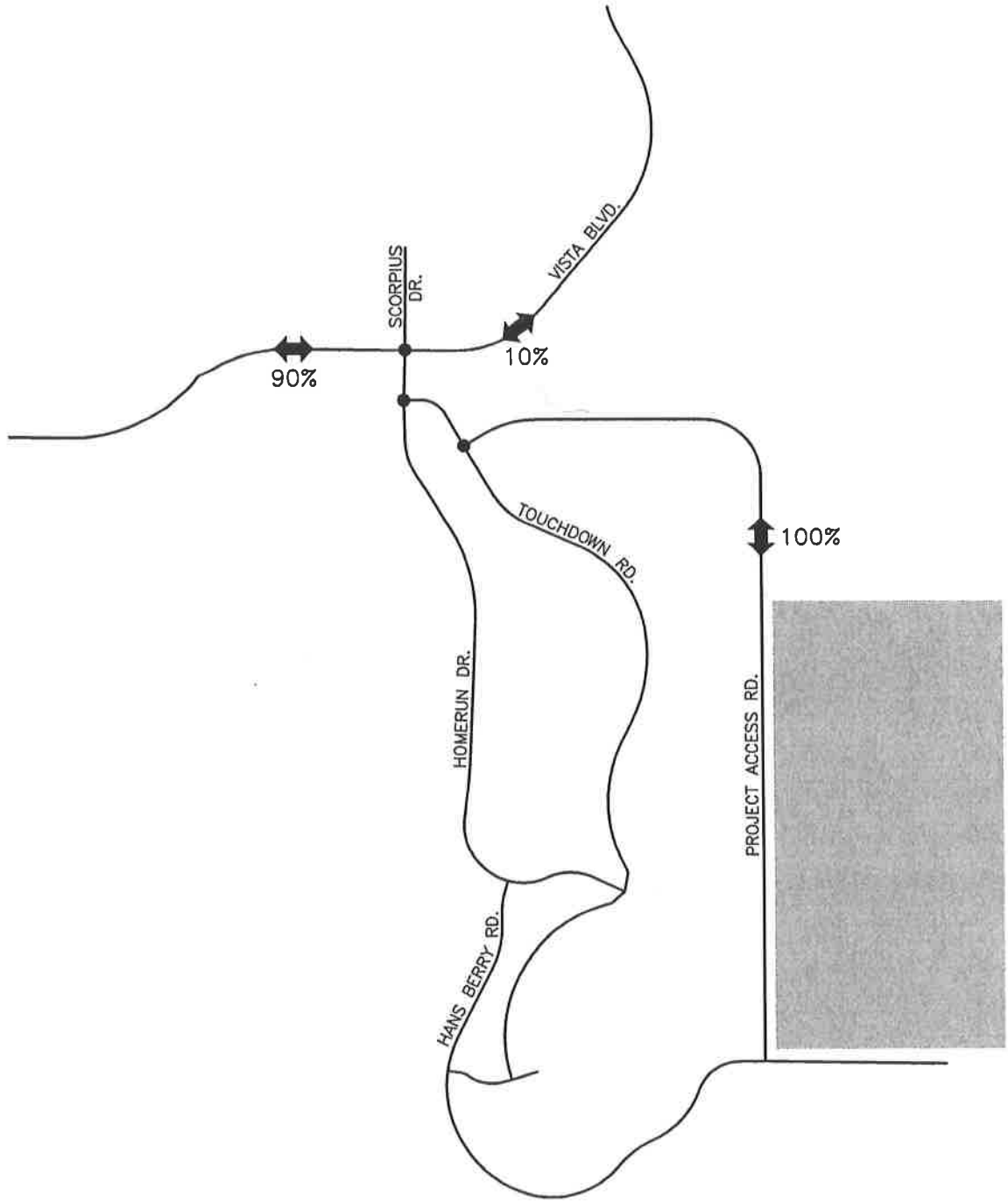
Figure 4A shows the existing peak hour traffic volumes at the key intersections for the weekday AM, weekday PM, Saturday AM, and Saturday PM peak hour scenarios. The existing traffic volumes were obtained from traffic counts taken in February of 2018. A major sporting event was not being held at the Golden Eagle Regional Park when these counts were conducted. Figure 4B shows the existing peak hour traffic volumes (with GERP) event) at the key intersections for all scenarios. These traffic volumes were obtained by supplementing the existing volume shown on Figure 4A with peak ingress and egress traffic volumes generated by a major event at the Golden Eagle Regional Park. The major event traffic volumes were obtained from City of Sparks Parks and Recreation staff.

Figure 5A shows the existing plus project traffic volumes at the key intersections for the weekday and Saturday AM and PM peak hours. The existing plus project traffic volumes were obtained by adding the trip assignment volumes shown on Figure 3 to the existing traffic volumes shown on Figure 4A. Again, these volumes do not include a major event at the Golden Eagle Regional Park. Figure 5B shows the existing plus project peak hour traffic volumes (with event) at the key intersections for the weekday and Saturday AM and PM peak hours. The existing plus project traffic volumes (with event) were obtained by adding the trip assignment volumes shown on Figure 3 to the existing traffic volumes (with event) shown on Figure 4B. These volumes include a major event at the Golden Eagle Regional Park.

Figure 6 shows the 2040 base traffic volumes (with event) at the key intersections for the weekday and Saturday AM and PM peak hours. The 2040 base traffic volumes were obtained by applying a 0.5% average annual growth rate to the existing Vista Boulevard traffic volumes. A 0.2% average annual growth rate was calculated based on 2015 and 2040 average daily traffic volumes obtained from the Regional Transportation Commission's traffic forecasting model. However, the 0.5% average annual growth rate was used in order to ensure conservative results. The 2040 base traffic volumes include a major event at the Golden Eagle Regional Park.

Figure 7 shows the 2040 base plus project traffic volumes (with event) at the key intersections for the weekday and Saturday AM and PM peak hours. The 2040 base plus project traffic volumes were obtained by adding the trip assignment volumes shown on Figure 3 to the 2040 base traffic volumes shown on Figure 6. The 2040 base plus project volumes include a major event at the Golden Eagle Regional Park.

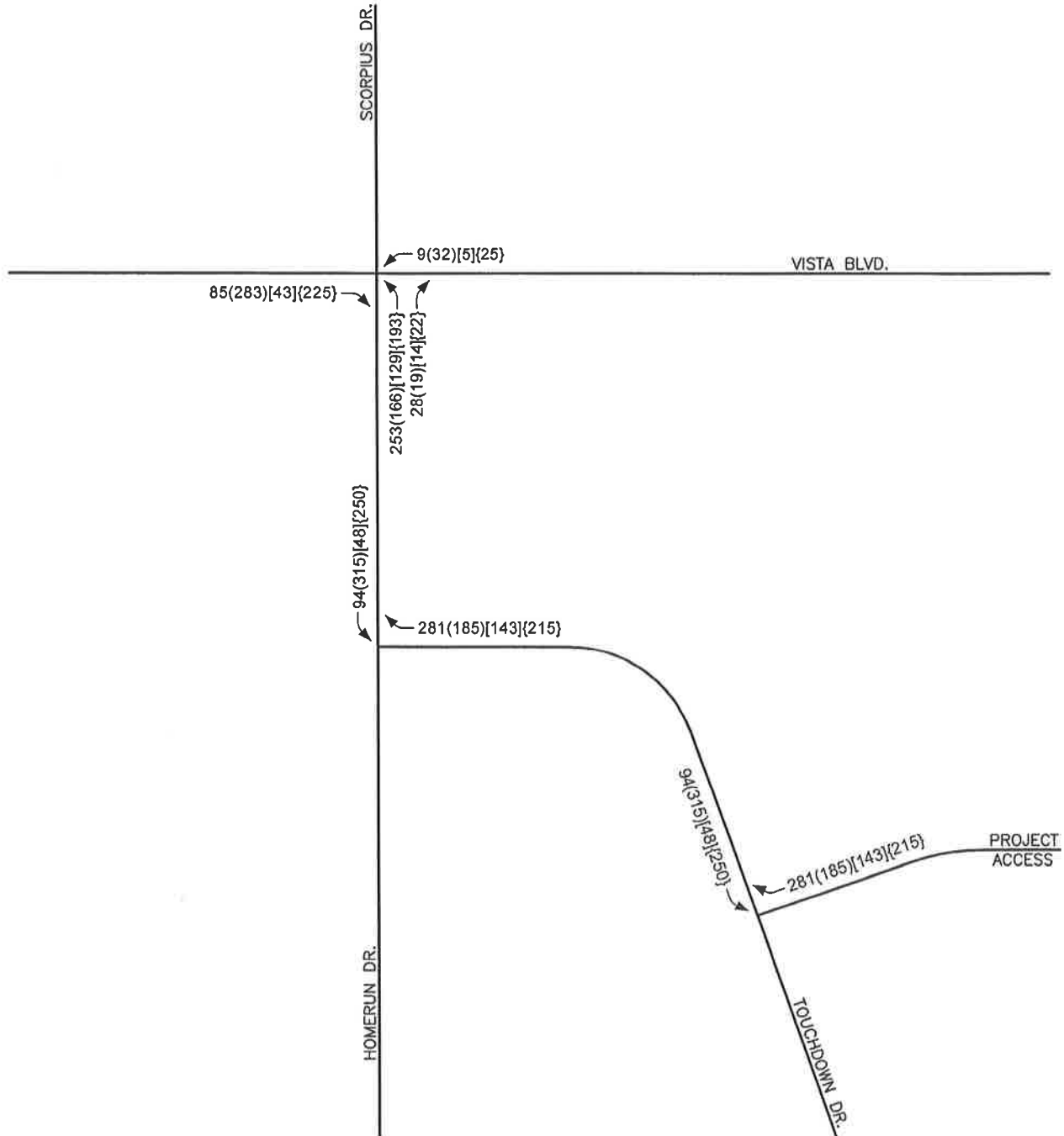
LEGEND
● KEY INTERSECTIONS



WINGFIELD COMMONS
TRIP DISTRIBUTION
FIGURE 2

LEGEND

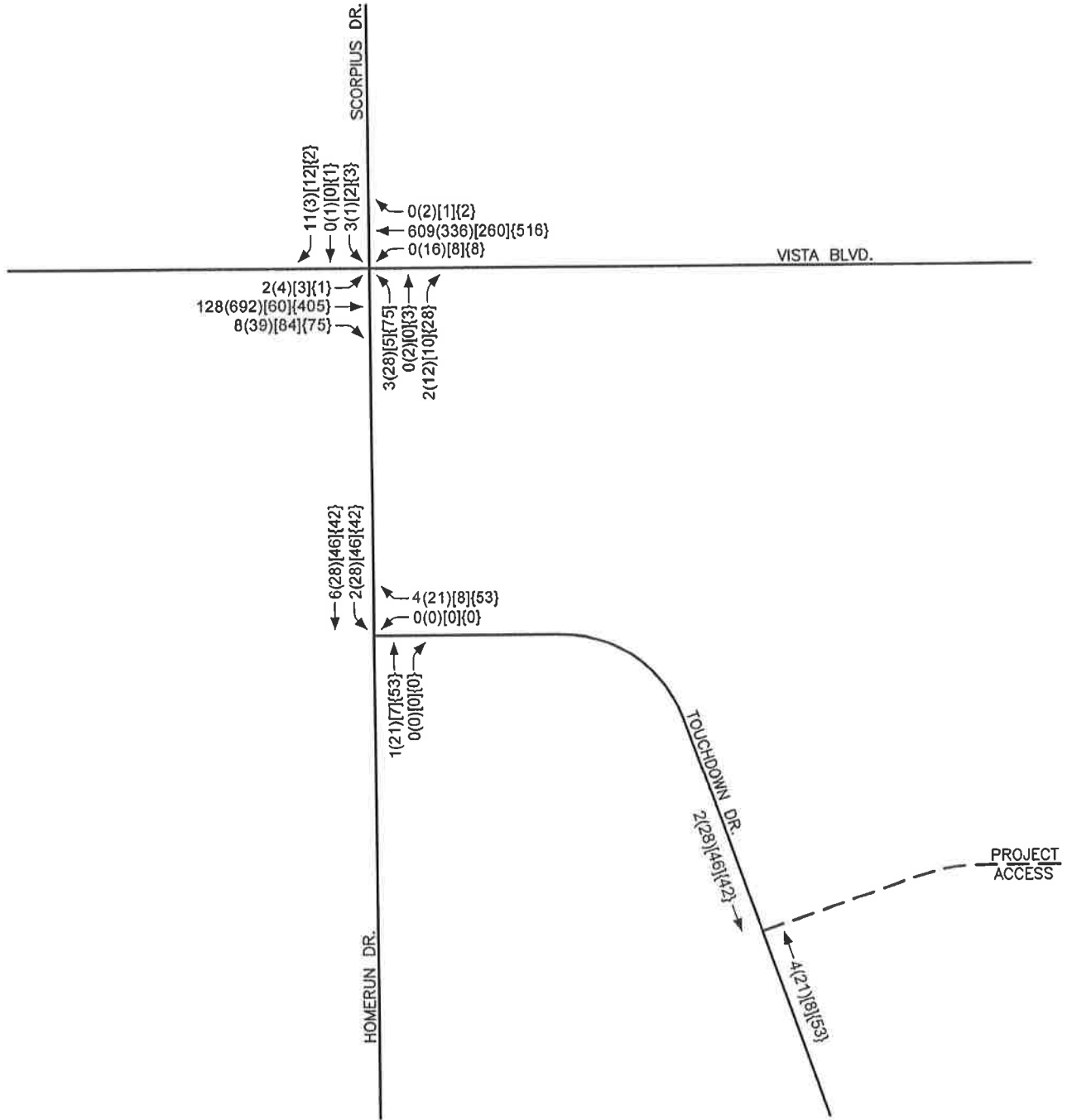
- WEEKDAY AM PEAK HOUR
- (-) WEEKDAY PM PEAK HOUR
- [-] SATURDAY AM PEAK HOUR
- { - } SATURDAY PM PEAK HOUR



WINGFIELD COMMONS
TRIP ASSIGNMENT
FIGURE 3

LEGEND

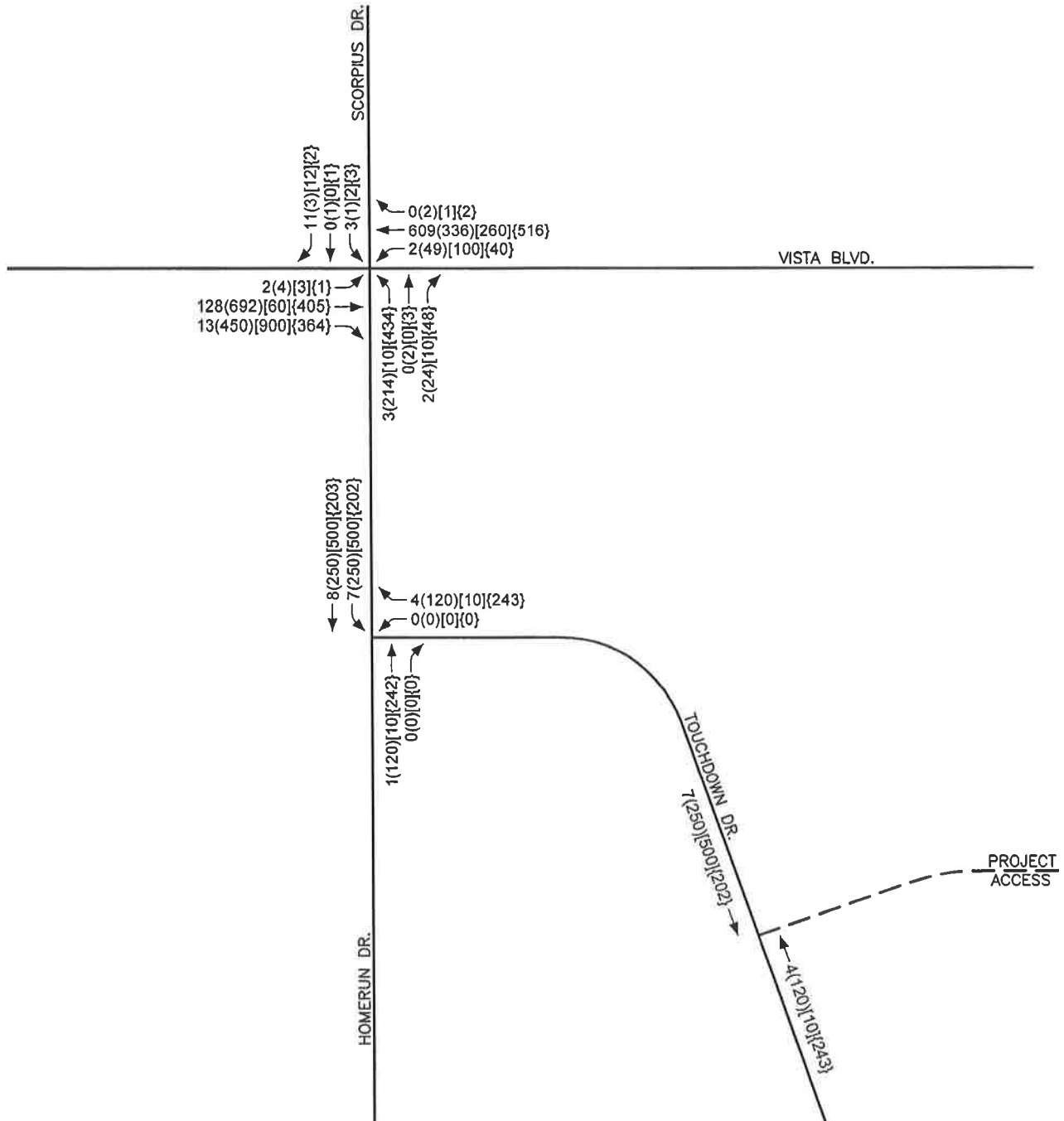
- WEEKDAY AM PEAK HOUR
- (-) WEEKDAY PM PEAK HOUR
- [-] SATURDAY AM PEAK HOUR
- { - } SATURDAY PM PEAK HOUR



WINGFIELD COMMONS
EXISTING TRAFFIC VOLUMES
FIGURE 4A

LEGEND

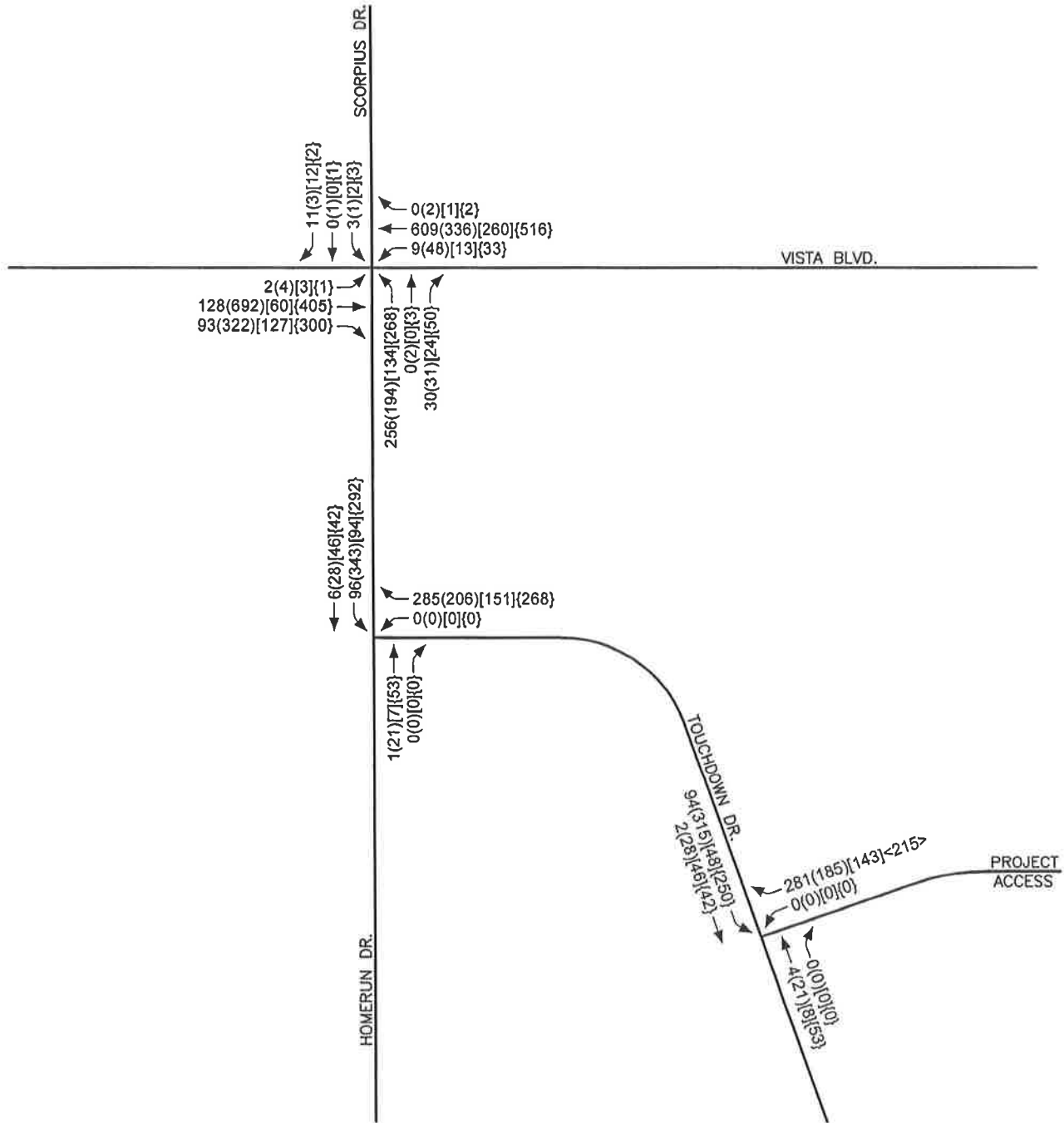
- WEEKDAY AM PEAK HOUR
- (-) WEEKDAY PM PEAK HOUR
- [] SATURDAY AM PEAK HOUR
- { } SATURDAY PM PEAK HOUR



WINGFIELD COMMONS
EXISTING TRAFFIC VOLUMES (W/EVENT)
FIGURE 4B

LEGEND

- WEEKDAY AM PEAK HOUR
- (-) WEEKDAY PM PEAK HOUR
- [-] SATURDAY AM PEAK HOUR
- { - } SATURDAY PM PEAK HOUR

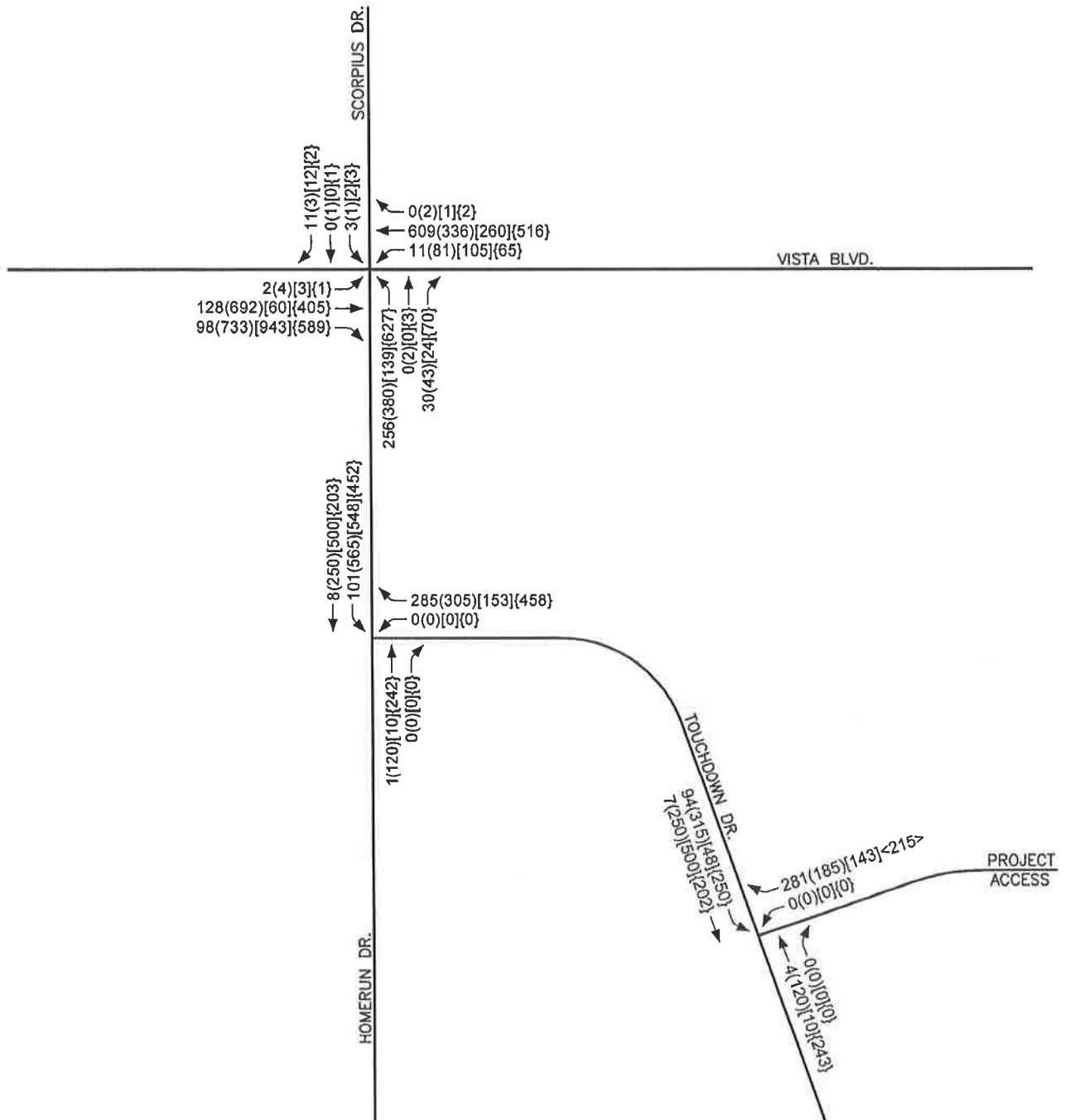


WINGFIELD COMMONS

EXISTING PLUS PROJECT TRAFFIC VOLUMES
FIGURE 5A

LEGEND

- WEEKDAY AM PEAK HOUR
- (-) WEEKDAY PM PEAK HOUR
- [] SATURDAY AM PEAK HOUR
- { } SATURDAY PM PEAK HOUR

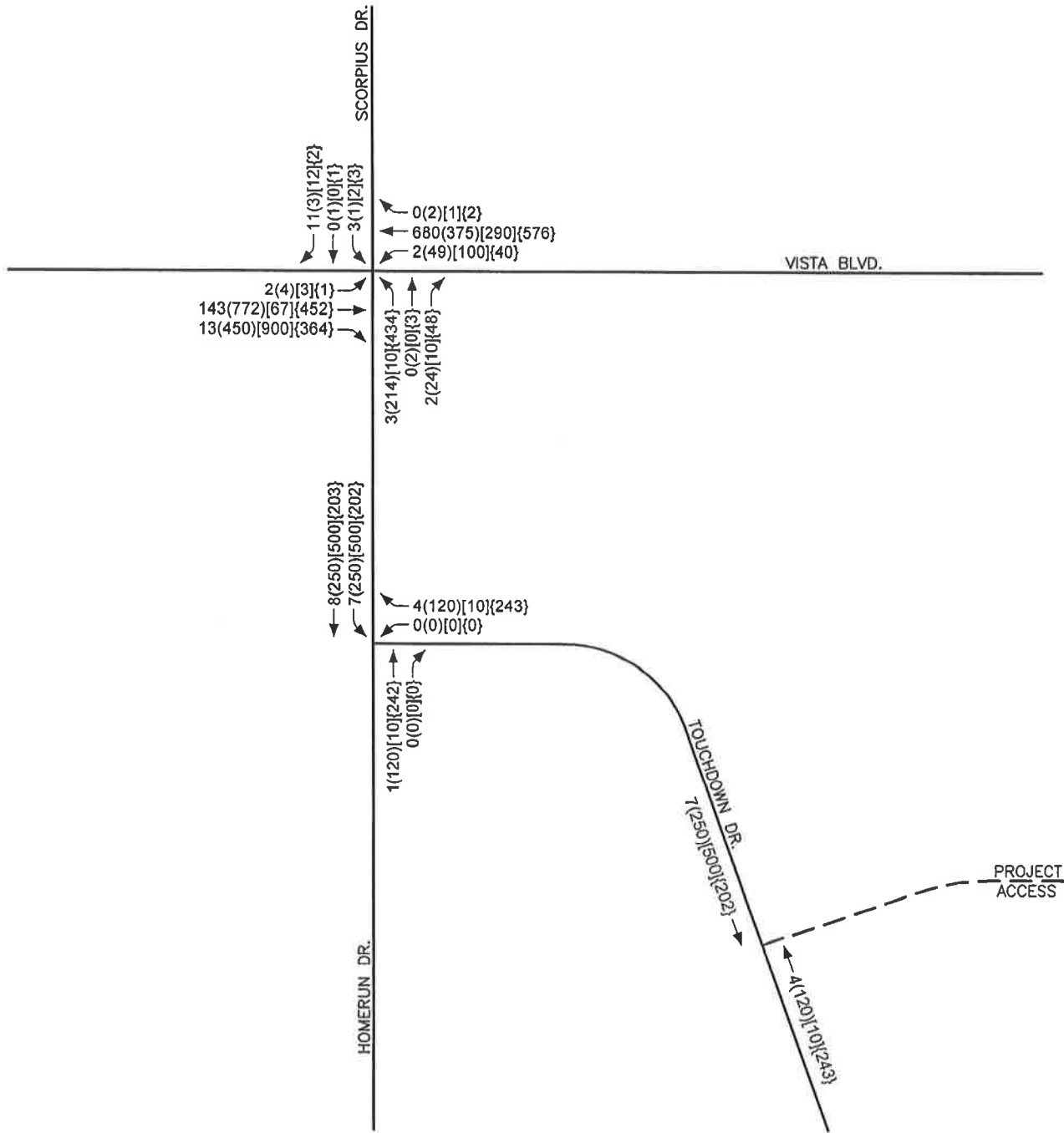


WINGFIELD COMMONS

**EXISTING PLUS PROJECT TRAFFIC VOLUMES (W/EVENT)
FIGURE 5B**

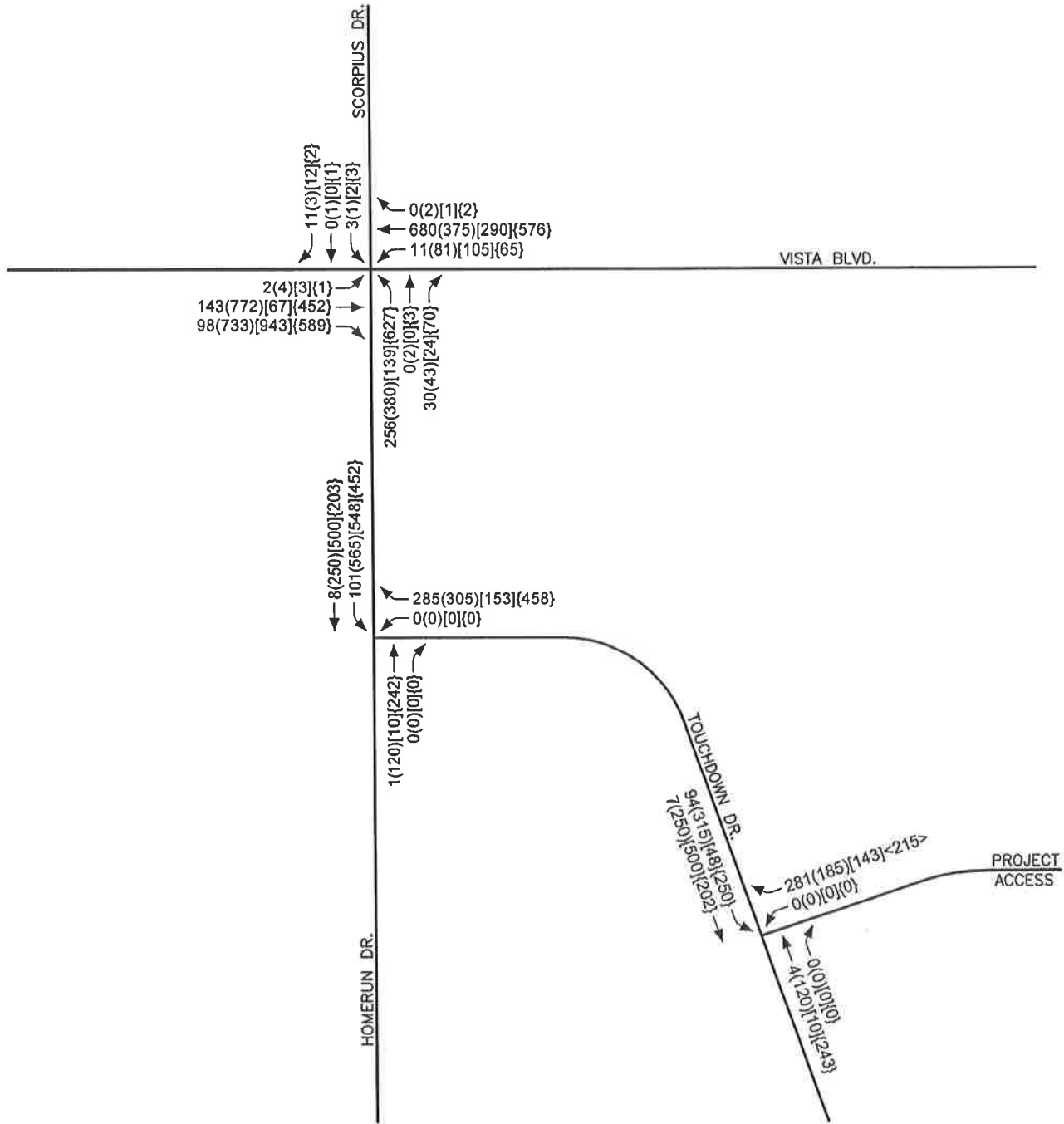
LEGEND

- WEEKDAY AM PEAK HOUR
- (-) WEEKDAY PM PEAK HOUR
- [] SATURDAY AM PEAK HOUR
- { } SATURDAY PM PEAK HOUR



LEGEND

- WEEKDAY AM PEAK HOUR
- (-) WEEKDAY PM PEAK HOUR
- [-] SATURDAY AM PEAK HOUR
- { - } SATURDAY PM PEAK HOUR



WINGFIELD COMMONS

2040 BASE PLUS PROJECT TRAFFIC VOLUMES (W/EVENT)
FIGURE 7

INTERSECTION ANALYSIS

The key intersections were analyzed for capacity based on procedures presented in the *Highway Capacity Manual (6th Edition)*, prepared by the Transportation Research Board, for unsignalized and signalized intersections using the latest version of the Synchro computer software.

The result of capacity analysis is a level of service (LOS) rating for signalized intersections or minor movements at a two-way stop controlled intersection. Level of service is a qualitative measure of traffic operating conditions where a letter grade "A" through "F", corresponding to progressively worsening traffic operation, is assigned to the intersection or minor movement.

The *Highway Capacity Manual* defines level of service for stop controlled intersections in terms of computed or measured control delay for each minor movement. Level of service is not defined for the intersection as a whole. The level of service criteria for unsignalized intersections is shown in Table 2.

LEVEL OF SERVICE	DELAY RANGE (SEC/VEH)
A	≤ 10
B	>10 and ≤ 15
C	>15 and ≤ 25
D	>25 and ≤ 35
E	>35 and ≤ 50
F	>50

Level of service for signalized intersections is stated in terms of the average control delay per vehicle for a peak 15 minute analysis period. The level of service criteria for signalized intersections is shown in Table 3.

LEVEL OF SERVICE	CONTROL DELAY PER VEHICLE (SEC)
A	≤ 10
B	>10 and ≤ 20
C	>20 and ≤ 35
D	>35 and ≤ 55
E	>55 and ≤ 80
F	>80

Table 4A shows a summary of the level of service and delay results at the key intersections for the existing and existing plus project scenarios with no GERP event. The intersection capacity worksheets are included in the Appendix.

TABLE 4A INTERSECTION LEVEL OF SERVICE AND DELAY RESULTS EXISTING AND EXISTING PLUS PROJECT SCENARIOS (NO GERP EVENT)								
INTERSECTION	EXISTING				EXISTING PLUS PROJECT			
	WEEK AM	WEEK PM	SAT. AM	SAT. PM	WEEK AM	WEEK PM	SAT. AM	SAT. PM
Vista/Homerun/Scorpius Signalized w/Existing Lanes	A8.4	A9.9	A8.7	A10.0	B14.9	B13.7	B12.0	B15.4
Signalized w/Added Lanes	N/A	N/A	N/A	N/A	B12.6	B11.7	B11.2	B12.8
Homerun/Touchdown Stop at East leg								
WB Left-Right	A8.3	A8.5	A8.4	A8.8	A9.7	A9.4	A9.0	B10.1
SB Left	A7.2	A7.3	A7.3	A7.4	A7.4	A8.0	A7.4	A7.9
Touchdown/Project Access Unsignalized Three-Leg								
WB Left-Right	N/A	N/A	N/A	N/A	A9.7	A9.8	A8.9	A9.7
SB Left	N/A	N/A	N/A	N/A	A7.4	A7.9	A7.3	A7.8

Table 4B shows a summary of the level of service and delay results at the key intersections for the existing and existing plus project scenarios with a GERP event. The intersection capacity worksheets are included in the Appendix.

TABLE 4B INTERSECTION LEVEL OF SERVICE AND DELAY RESULTS EXISTING AND EXISTING PLUS PROJECT SCENARIOS (WITH GERP EVENT)								
INTERSECTION	EXISTING				EXISTING PLUS PROJECT			
	WEEK AM	WEEK PM	SAT. AM	SAT. PM	WEEK AM	WEEK PM	SAT. AM	SAT. PM
Vista/Homerun/Scorpius Signalized w/Existing Lanes	A9.3	B14.9	D40.5	C21.5	B14.9	D52.2	D46.8	F80.4
Signalized w/Added Lanes	N/A	N/A	N/A	N/A	B12.6	C28.0	C34.6	C30.1
Homerun/Touchdown Stop at East leg								
WB Left-Right	A8.3	A9.6	A8.4	B12.2	A9.7	B11.2	A9.0	C18.3
SB Left	A7.2	A8.1	A8.4	A8.4	A7.4	A9.4	A8.6	A9.5
Touchdown/Project Access Unsignalized Three-Leg								
WB Left-Right	N/A	N/A	N/A	N/A	A9.7	B10.1	A9.0	B11.8
SB Left	N/A	N/A	N/A	N/A	A7.4	A8.3	A7.3	A8.5

Table 4C shows a summary of the level of service and delay results at the key intersections for the 2040 base and 2040 base plus project scenarios with a GERP event. The intersection capacity worksheets are included in the Appendix.

TABLE 4C INTERSECTION LEVEL OF SERVICE AND DELAY RESULTS 2040 BASE AND 2040 BASE PLUS PROJECT SCENARIOS (WITH GERP EVENT)								
INTERSECTION	2040 BASE				2040 BASE PLUS PROJECT			
	WEEK AM	WEEK PM	SAT. AM	SAT. PM	WEEK AM	WEEK PM	SAT. AM	SAT. PM
Vista/Homerun/Scorpius Signalized w/Existing Lanes	A9.6	B15.0	D40.8	C21.9	B15.3	D52.4	D47.2	F81.1
Signalized w/Added Lanes	N/A	N/A	N/A	N/A	B12.8	C28.3	C34.9	C34.8
Homerun/Touchdown Stop at East leg								
WB Left-Right	A8.3	A9.6	A8.4	B12.2	A9.7	B11.2	A9.0	C18.3
SB Left	A7.2	A8.1	A8.4	A8.4	A7.4	A9.4	A8.6	A9.5
Touchdown/Project Access Unsignalized Three-Leg								
WB Left-Right	N/A	N/A	N/A	N/A	A9.7	B10.1	A9.0	B11.8
SB Left	N/A	N/A	N/A	N/A	A7.4	A8.3	A7.3	A8.5

Vista Boulevard/Homerun Drive/Scorpius Drive Intersection

The Vista Boulevard/Homerun Drive/Scorpius Drive intersection was analyzed for capacity as a signalized four-leg intersection for all scenarios. The intersection currently operates at LOS A during the weekday and Saturday AM and PM peak hours with no GERP event. For the existing plus project traffic volumes (no GERP event) the intersection operates at LOS B during the weekday and Saturday AM and PM peak hours. With a GERP event, the intersection currently operates at LOS B or better during the weekday AM and PM peak hours, LOS D during the Saturday AM peak hour, and LOS C during the Saturday PM peak hour. For the existing plus project traffic volumes (with GERP event) the intersection operates at LOS B during the weekday AM peak hour, LOS D during both the weekday PM peak hour and Saturday AM peak hour, and LOS F during the Saturday PM peak hour. For the 2040 base traffic volumes (with GERP Event) the intersection operates at LOS B or better during the weekday AM and PM peak hours, LOS D during the Saturday AM peak hour, and LOS C during the Saturday PM peak hour. For the 2040 base plus project traffic volumes (with GERP event) the intersection operates at LOS B during the weekday AM peak hour, LOS D during both the weekday PM peak hour and Saturday AM peak hour, and LOS F during the Saturday PM peak hour. The intersection was analyzed with the existing approach lanes and signal phasing for all scenarios. The existing intersection does not meet policy LOS D or better operation for the Saturday PM peak hour for the existing plus project and 2040 base plus project scenarios with a GERP event.

The Vista Boulevard/Homerun Drive/Scorpius Drive intersection was subsequently re-analyzed for capacity with additional lanes at the south approach for all “with project” scenarios. For the existing plus project traffic volumes (no GERP event) the intersection operates at LOS B during the weekday and Saturday AM and PM peak hours. For the existing plus project traffic volumes (with GERP event) the intersection operates at LOS B during the weekday AM peak hour and LOS C during the weekday PM peak hour, Saturday AM peak hour, and Saturday PM peak hour. For the 2040 base plus project traffic volumes (with GERP event) the intersection operates at LOS B during the weekday AM peak hour and LOS C during the weekday PM peak hour, Saturday AM peak hour, and Saturday PM peak hour. The lane improvements at the south approach include one left turn lane, one shared left turn-through lane, and one right turn lane. This lane configuration will require split phasing at the north and south approaches. With these improvements the signalized intersection meets policy LOS D or better operation for all scenarios and peak hours.

Homerun Drive/Touchdown Drive Intersection

The Homerun Drive/Touchdown Drive intersection was analyzed as an unsignalized three-leg intersection with stop control at the east approach for all scenarios. The intersection minor movements currently operate at LOS A during the weekday and Saturday AM and PM peak hours with no GERP event. For the existing plus project traffic volumes (no GERP event) the intersection minor movements operate at LOS B or better during the weekday and Saturday AM and PM peak hours. With a GERP event, the intersection minor movements currently operate at LOS B or better during weekday and Saturday AM and PM peak hours. For the existing plus project traffic volumes (with GERP event) the intersection minor movements operate at LOS C or better during the weekday and Saturday AM and PM peak hours. For the 2040 base traffic volumes (with GERP Event) the intersection minor movements operate at LOS B or better during weekday and Saturday AM and PM peak hours. For the 2040 base plus project traffic volumes (with GERP event) the intersection minor movements operate at LOS C or better during the weekday and Saturday AM and PM peak hours. The intersection was analyzed with the existing approach lanes and traffic control for all scenarios. In summary, the existing intersection minor movements operate at acceptable LOS C or better for all scenarios and peak hours.

Touchdown Drive/Project Access Intersection

The Touchdown Drive/Project Access intersection was analyzed as an unsignalized three-leg intersection with stop control at the east approach for the “with project” scenarios. For the existing plus project traffic volumes (no GERP event) the intersection minor movements operate at LOS A during the weekday and Saturday AM and PM peak hours. For the existing plus project traffic volumes (with GERP event) the minor movements operate at LOS B or better during the weekday and Saturday AM and PM peak hours. For the 2040 base plus project traffic volumes (with GERP event) the intersection minor movements operate at LOS B or better during the weekday and Saturday AM and PM peak hours. The intersection was analyzed with single lanes at all approaches. However, it is recommended that an exclusive left turn lane be provided at the north approach. The left turn lane should be designed to maximize storage length. The proposed intersection minor movements operate at acceptable LOS B or better for all scenarios and peak hours.

As discussed above, the improved Vista Boulevard/Homerun Drive/Scorpius Drive intersection, the existing Homerun Drive/Touchdown Drive intersection, and the proposed Touchdown Drive/Project Access intersection are anticipated to operate at acceptable levels of service for all study scenarios and peak hours. However, the spacing of the Vista Boulevard/Homerun Drive and Homerun Drive/Touchdown Drive intersections could potentially result in queuing and storage conflicts on Homerun Drive. Approximately 210 feet of storage length is currently available from the stop bar at the south approach of the Vista Boulevard/Homerun Drive intersection to the Touchdown Drive intersection.

Queue lengths were subsequently reviewed at the south approach of the signalized Vista Boulevard/Homerun Drive intersection based on the lane improvements previously discussed. The capacity analysis results show 95th percentile queue lengths of less than 100 feet for the weekday AM, weekday PM, and Saturday AM peak hours for the existing plus project (with and with GERP event) and 2040 base plus project (with GERP event) scenarios. These queue lengths can easily be accommodated within the ± 210 feet available storage area on Homerun Drive with no impacts anticipated at the Homerun Drive/Touchdown Drive intersection.

For the Saturday PM peak hour, the capacity analysis results indicate 95th percentile queue lengths of approximately 175 feet for the existing plus project (with GERP event) scenario and approximately 225 feet for the 2040 base plus project (with GERP event) scenario. These Saturday PM peak hour queue lengths could potentially exceed the ± 210 feet available storage length on Homerun Drive resulting in potential impacts at the Homerun Drive/Touchdown Drive intersection. If the queue length extends south past Touchdown Drive then the southbound left turn movement at the Homerun Drive/Touchdown Drive intersection could potentially be blocked which in turn could result in the left turn queue extending northward to Vista Boulevard. In order to prevent blockage of the Homerun Drive/Touchdown Drive intersection it is recommended that stop sign control be installed at the south approach of the intersection. "Do Not Block Intersection" pavement markings and appropriate signage are also suggested to inform motorists of the modified intersection operation. The south approach is projected to serve the lowest volume of the three approaches based on the project buildout traffic volumes. In addition, it is recommended that the Homerun Drive/Touchdown Drive intersection be improved to include an exclusive left turn lane at the north approach. This left turn lane should be designed to maximize storage length.

Queuing was also reviewed for the existing right turn lane at the west approach of the Vista Boulevard/Homerun Drive intersection. The right turn lane currently contains approximately 125 feet of combined storage/deceleration length with a 180 foot taper. The capacity analysis results indicate 95th percentile queue lengths of approximately 100 feet or less for the eastbound right turn movement based on the existing plus project traffic volumes on a weekend and Saturday that do not include a GERP event. In addition to queue length, a desirable deceleration length of 115 feet is also needed based on the 35 mile per hour speed limit on Vista Boulevard for a total lane length of 215 feet. The right turn lane should therefore contain a minimum of 215 feet of storage/deceleration length with a 180 foot taper in order to serve existing plus project traffic volumes during non-GERP events.

For GERP events, the Synchro capacity analysis results indicate a maximum 95th percentile queue length of ±350 feet for the Saturday AM peak hour. Again, a desirable deceleration length of 115 feet is also needed based on the 35 mile per hour speed limit on Vista Boulevard which results in a total length of 465 feet. The right turn lane should therefore contain a minimum of 465 feet of storage/deceleration length with a 180 foot taper in order to serve existing plus project and 2040 base plus project traffic volumes during a GERP event.

TRAFFIC CRASH REVIEW

Traffic crash data at the Vista Boulevard/Homerun Drive/Scorpius Drive and Homerun Drive/Touchdown Drive intersections was requested from NDOT Traffic Safety Engineering. Crash data was available for the Vista Boulevard/Homerun Drive/Scorpius Drive intersection for the study period from September 1, 2014 to September 1, 2017. A total of 6 crashes occurred at the Vista Boulevard/Homerun Drive/Scorpius Drive intersection during the three-year period with no fatalities reported. The crash type was 3 non-collisions, 2 rear-end collisions, and 1 sideswipe meeting collision. NDOT Traffic Safety Engineering reported that no crash data exists for the Homerun Drive/Touchdown Drive intersection.

SITE PLAN REVIEW

A copy of the preliminary site plan for the proposed Wingfield Commons development is included with this submittal. The site plan indicates that project access will be provided from a proposed access roadway that intersects Touchdown Drive. The access roadway will start at Touchdown Drive, extend easterly and then southerly along the east boundary of the Golden Eagle Regional Park, before terminating at Hans Berry Road. Various residential streets intersecting the project access road will provide access to the individual lots. The site plan indicates that an emergency access gate will be constructed at the north approach of the Hans Berry Road/Project Access intersection. It is recommended that the project access roadway and the internal residential streets be designed to conform to City of Sparks standards.

A shared pedestrian/bicycle path exists within the Golden Eagle Regional Park. This path connects with the existing sidewalk infrastructure at the signalized Vista Boulevard/Homerun Drive/Scorpius Drive intersection. It is recommended that the proposed subdivision provide a connection to the existing pedestrian/bicycle path within the Golden Eagle Regional Park. In addition, it is recommended that the project developers provide a traffic circulation plan that discourages or prevents Golden Eagle Regional Park traffic from utilizing the project access road and internal residential streets.

RECOMMENDATIONS

Traffic generated by the Wingfield Commons development will have some impact on the adjacent street network. The following recommendations are made to mitigate project traffic impacts.

It is recommended that any required signing, striping, or traffic control improvements comply with City of Sparks requirements.

It is recommended that the Vista Boulevard/Homerun Drive/Scorpius Drive intersection be improved to include one exclusive left turn lane, one shared left turn-through lane, and one exclusive right turn lane at the south approach.

It is recommended that the existing right turn lane at the west approach of the Vista Boulevard/Homerun Drive/Scorpius Drive intersection be lengthened to provide a minimum of 465 feet of storage/deceleration length with a 180 foot taper in order to serve traffic volumes generated by a major event at the Golden Eagle Regional Park.

It is recommended that the traffic control at the Homerun Drive/Touchdown Drive intersection be modified to include stop sign control at the south and east approaches while the left turn and through movements at the north approach flow free. In addition, it is recommended that an exclusive left turn lane be provided at the north approach.

It is recommended that the Touchdown Drive/Project Access intersection be designed as a three-leg intersection with stop sign control at the east approach and contain an exclusive left turn lane at the north approach.

It is recommended that the project access roadway and the internal residential streets be designed to conform to City of Sparks standards.

It is recommended that connections be made from the proposed subdivision to the existing pedestrian/bicycle network within the Golden Eagle Regional Park.

It is recommended that the project developers provide a traffic circulation plan that discourages or prevents Golden Eagle Regional Park traffic from utilizing the project access road and internal residential streets.

APPENDIX

HCM 6th Signalized Intersection Summary
 3: Homerun/Scorpius & Vista

























03/05/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕	↗	↖	↕	↗	↖	↕	↗	↖	↕	↗
Traffic Volume (veh/h)	2	128	8	0	609	0	3	0	2	3	0	11
Future Volume (veh/h)	2	128	8	0	609	0	3	0	2	3	0	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2	142	9	0	677	0	3	0	2	3	0	12
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	198	2369	1057	4	1579	0	319	0	176	113	18	141
Arrive On Green	0.11	0.67	0.67	0.00	0.44	0.00	0.11	0.00	0.11	0.11	0.00	0.11
Sat Flow, veh/h	1781	3554	1585	1781	3647	0	1402	0	1585	156	162	1273
Grp Volume(v), veh/h	2	142	9	0	677	0	3	0	2	15	0	0
Grp Sat Flow(s), veh/h/ln	1781	1777	1585	1781	1777	0	1402	0	1585	1591	0	0
Q Serve(g_s), s	0.0	0.6	0.1	0.0	5.9	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.6	0.1	0.0	5.9	0.0	0.1	0.0	0.1	0.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.20		0.80
Lane Grp Cap(c), veh/h	198	2369	1057	4	1579	0	319	0	176	273	0	0
V/C Ratio(X)	0.01	0.06	0.01	0.00	0.43	0.00	0.01	0.00	0.01	0.05	0.00	0.00
Avail Cap(c_a), veh/h	198	2369	1057	198	1579	0	786	0	704	789	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	17.8	2.6	2.5	0.0	8.6	0.0	17.8	0.0	17.8	17.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.2	0.0	0.0	3.2	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.8	2.7	2.5	0.0	9.4	0.0	17.8	0.0	17.8	18.0	0.0	0.0
LnGrp LOS	B	A	A	A	A	A	B	A	B	B	A	A
Approach Vol, veh/h		153			677			5				15
Approach Delay, s/veh		2.8			9.4			17.8				18.0
Approach LOS		A			A			B				B
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		10.0	0.0	35.0		10.0	10.0	25.0				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		20.0	5.0	20.0		20.0	5.0	20.0				
Max Q Clear Time (g_c+1), s		2.1	0.0	2.6		2.4	2.0	7.9				
Green Ext Time (p_c), s		0.0	0.0	0.7		0.0	0.0	3.5				
Intersection Summary												
HCM 6th Ctrl Delay			8.4									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary
 3: Homerun/Scorpius & Vista

























03/05/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	692	39	16	336	2	28	2	12	1	1	3
Future Volume (veh/h)	4	692	39	16	336	2	28	2	12	1	1	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	4	769	43	18	373	2	31	2	13	1	1	3
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	198	1579	704	198	1611	9	318	24	156	112	57	110
Arrive On Green	0.11	0.44	0.44	0.11	0.44	0.44	0.11	0.11	0.11	0.11	0.11	0.11
Sat Flow, veh/h	1781	3554	1585	1781	3624	19	1412	216	1402	144	513	986
Grp Volume(v), veh/h	4	769	43	18	183	192	31	0	15	5	0	0
Grp Sat Flow(s), veh/h/ln	1781	1777	1585	1781	1777	1867	1412	0	1618	1644	0	0
Q Serve(g_s), s	0.1	6.9	0.7	0.4	2.9	2.9	0.7	0.0	0.4	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.1	6.9	0.7	0.4	2.9	2.9	0.9	0.0	0.4	0.1	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		0.87	0.20		0.60
Lane Grp Cap(c), veh/h	198	1579	704	198	790	830	318	0	180	279	0	0
V/C Ratio(X)	0.02	0.49	0.06	0.09	0.23	0.23	0.10	0.00	0.08	0.02	0.00	0.00
Avail Cap(c_a), veh/h	198	1579	704	198	790	830	789	0	719	809	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	17.8	8.9	7.1	18.0	7.7	7.7	18.2	0.0	17.9	17.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.1	0.2	0.2	0.7	0.7	0.1	0.0	0.2	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.1	3.8	0.4	0.3	1.7	1.7	0.5	0.0	0.2	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.9	9.9	7.3	18.2	8.4	8.4	18.3	0.0	18.1	17.9	0.0	0.0
LnGrp LOS	B	A	A	B	A	A	B	A	B	B	A	A
Approach Vol, veh/h		816			393			46				5
Approach Delay, s/veh		9.8			8.9			18.2				17.9
Approach LOS		A			A			B				B
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		10.0	10.0	25.0		10.0	10.0	25.0				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		20.0	5.0	20.0		20.0	5.0	20.0				
Max Q Clear Time (g_c+I1), s		2.9	2.4	8.9		2.1	2.1	4.9				
Green Ext Time (p_c), s		0.1	0.0	4.0		0.0	0.0	1.8				
Intersection Summary												
HCM 6th Ctrl Delay			9.9									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary

3: Homerun/Scorpius & Vista

03/05/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	60	84	8	260	1	5	0	10	2	0	12
Future Volume (veh/h)	3	60	84	8	260	1	5	0	10	2	0	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	3	67	93	9	289	1	6	0	11	2	0	13
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	198	1579	704	198	1614	6	319	0	176	102	12	153
Arrive On Green	0.11	0.44	0.44	0.11	0.44	0.44	0.11	0.00	0.11	0.11	0.00	0.11
Sat Flow, veh/h	1781	3554	1585	1781	3632	13	1401	0	1585	100	112	1377
Grp Volume(v), veh/h	3	67	93	9	141	149	6	0	11	15	0	0
Grp Sat Flow(s), veh/h/ln	1781	1777	1585	1781	1777	1868	1401	0	1585	1589	0	0
Q Serve(g_s), s	0.1	0.5	1.6	0.2	2.2	2.2	0.0	0.0	0.3	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.1	0.5	1.6	0.2	2.2	2.2	0.1	0.0	0.3	0.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		1.00	0.13		0.87
Lane Grp Cap(c), veh/h	198	1579	704	198	790	830	319	0	176	267	0	0
V/C Ratio(X)	0.02	0.04	0.13	0.05	0.18	0.18	0.02	0.00	0.06	0.06	0.00	0.00
Avail Cap(c_a), veh/h	198	1579	704	198	790	830	786	0	704	787	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	17.8	7.1	7.4	17.9	7.5	7.5	17.8	0.0	17.9	17.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.4	0.1	0.5	0.5	0.0	0.0	0.1	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.3	0.8	0.1	1.2	1.3	0.1	0.0	0.2	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.8	7.1	7.8	18.0	8.0	8.0	17.9	0.0	18.0	18.0	0.0	0.0
LnGrp LOS	B	A	A	B	A	A	B	A	B	B	A	A
Approach Vol, veh/h		163			299			17				15
Approach Delay, s/veh		7.7			8.3			18.0				18.0
Approach LOS		A			A			B				B
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		10.0	10.0	25.0		10.0	10.0	25.0				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		20.0	5.0	20.0		20.0	5.0	20.0				
Max Q Clear Time (g_c+I1), s		2.3	2.2	3.6		2.4	2.1	4.2				
Green Ext Time (p_c), s		0.0	0.0	0.5		0.0	0.0	1.3				
Intersection Summary												
HCM 6th Ctrl Delay			8.7									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary 3: Homerun/Scorpius & Vista





















03/05/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	405	75	8	516	2	75	3	28	3	1	2
Future Volume (veh/h)	1	405	75	8	516	2	75	3	28	3	1	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1	450	83	9	573	2	83	3	31	3	1	2
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	198	1579	704	198	1614	6	318	16	163	176	62	59
Arrive On Green	0.11	0.44	0.44	0.11	0.44	0.44	0.11	0.11	0.11	0.11	0.11	0.11
Sat Flow, veh/h	1781	3554	1585	1781	3632	13	1414	142	1465	506	556	531
Grp Volume(v), veh/h	1	450	83	9	280	295	83	0	34	6	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1868	1414	0	1607	1592	0	0
Q Serve(g_s), s	0.0	3.6	1.4	0.2	4.7	4.7	2.3	0.0	0.9	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	3.6	1.4	0.2	4.7	4.7	2.5	0.0	0.9	0.1	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		0.91	0.50		0.33
Lane Grp Cap(c), veh/h	198	1579	704	198	790	830	318	0	179	297	0	0
V/C Ratio(X)	0.01	0.28	0.12	0.05	0.35	0.35	0.26	0.00	0.19	0.02	0.00	0.00
Avail Cap(c_a), veh/h	198	1579	704	198	790	830	789	0	714	800	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	17.8	8.0	7.3	17.9	8.2	8.2	18.9	0.0	18.2	17.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.5	0.3	0.1	1.2	1.2	0.4	0.0	0.5	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	2.0	0.7	0.1	2.8	2.9	1.4	0.0	0.6	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.8	8.4	7.7	18.0	9.5	9.4	19.3	0.0	18.7	17.9	0.0	0.0
LnGrp LOS	B	A	A	B	A	A	B	A	B	B	A	A
Approach Vol, veh/h		534			584			117				6
Approach Delay, s/veh		8.3			9.6			19.1				17.9
Approach LOS		A			A			B				B
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		10.0	10.0	25.0		10.0	10.0	25.0				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		20.0	5.0	20.0		20.0	5.0	20.0				
Max Q Clear Time (g_c+I1), s		4.5	2.2	5.6		2.1	2.0	6.7				
Green Ext Time (p_c), s		0.3	0.0	2.7		0.0	0.0	2.8				
Intersection Summary												
HCM 6th Ctrl Delay				10.0								
HCM 6th LOS				A								

HCM 6th Signalized Intersection Summary

3: Homerun/Scorpius & Vista























03/05/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	128	93	9	609	0	256	0	30	3	0	11
Future Volume (veh/h)	2	128	93	9	609	0	256	0	30	3	0	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2	142	103	10	677	0	284	0	33	3	0	12
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	177	1271	567	177	1271	0	489	0	388	125	39	310
Arrive On Green	0.10	0.36	0.36	0.10	0.36	0.00	0.24	0.00	0.24	0.24	0.00	0.24
Sat Flow, veh/h	1781	3554	1585	1781	3647	0	1402	0	1585	158	159	1268
Grp Volume(v), veh/h	2	142	103	10	677	0	284	0	33	15	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	0	1402	0	1585	1585	0	0
Q Serve(g_s), s	0.1	1.3	2.2	0.3	7.6	0.0	9.2	0.0	0.8	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.1	1.3	2.2	0.3	7.6	0.0	9.5	0.0	0.8	0.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.20		0.80
Lane Grp Cap(c), veh/h	177	1271	567	177	1271	0	489	0	388	474	0	0
V/C Ratio(X)	0.01	0.11	0.18	0.06	0.53	0.00	0.58	0.00	0.09	0.03	0.00	0.00
Avail Cap(c_a), veh/h	177	1271	567	177	1271	0	759	0	693	770	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	20.4	10.8	11.1	20.5	12.8	0.0	17.9	0.0	14.7	14.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.7	0.1	1.6	0.0	1.1	0.0	0.1	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.8	1.4	0.2	4.9	0.0	5.3	0.0	0.5	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.5	11.0	11.8	20.7	14.4	0.0	19.0	0.0	14.7	14.5	0.0	0.0
LnGrp LOS	C	B	B	C	B	A	B	A	B	B	A	A
Approach Vol, veh/h		247			687			317				15
Approach Delay, s/veh		11.4			14.5			18.6				14.5
Approach LOS		B			B			B				B
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		17.3	10.0	23.0		17.3	10.0	23.0				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		22.0	5.0	18.0		22.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s		11.5	2.3	4.2		2.4	2.1	9.6				
Green Ext Time (p_c), s		0.8	0.0	0.9		0.0	0.0	2.8				
Intersection Summary												
HCM 6th Ctrl Delay			14.9									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary

3: Homerun/Scorpius & Vista

03/05/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	128	93	9	609	0	256	0	30	3	0	11
Future Volume (veh/h)	2	128	93	9	609	0	256	0	30	3	0	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2	142	103	10	677	0	284	0	33	3	0	12
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	197	1417	632	197	1417	0	769	0	251	114	32	203
Arrive On Green	0.11	0.40	0.40	0.11	0.40	0.00	0.16	0.00	0.16	0.16	0.00	0.16
Sat Flow, veh/h	1781	3554	1585	1781	3647	0	2805	0	1585	118	201	1278
Grp Volume(v), veh/h	2	142	103	10	677	0	284	0	33	15	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	0	1402	0	1585	1598	0	0
Q Serve(g_s), s	0.0	1.1	1.9	0.2	6.4	0.0	3.8	0.0	0.8	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	1.1	1.9	0.2	6.4	0.0	4.2	0.0	0.8	0.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.20		0.80
Lane Grp Cap(c), veh/h	197	1417	632	197	1417	0	769	0	251	349	0	0
V/C Ratio(X)	0.01	0.10	0.16	0.05	0.48	0.00	0.37	0.00	0.13	0.04	0.00	0.00
Avail Cap(c_a), veh/h	197	1417	632	197	1417	0	1691	0	772	855	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	17.9	8.5	8.7	18.0	10.1	0.0	17.7	0.0	16.3	16.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.6	0.1	1.2	0.0	0.3	0.0	0.2	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.6	1.1	0.2	3.7	0.0	2.3	0.0	0.5	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.9	8.6	9.3	18.1	11.2	0.0	18.0	0.0	16.6	16.2	0.0	0.0
LnGrp LOS	B	A	A	B	B	A	B	A	B	B	A	A
Approach Vol, veh/h		247			687			317				15
Approach Delay, s/veh		9.0			11.3			17.9				16.2
Approach LOS		A			B			B				B
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		12.2	10.0	23.0		12.2	10.0	23.0				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		22.0	5.0	18.0		22.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s		6.2	2.2	3.9		2.4	2.0	8.4				
Green Ext Time (p_c), s		1.0	0.0	0.9		0.0	0.0	3.1				

Intersection Summary

























HCM 6th Ctrl Delay 12.6
 HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 3: Homerun/Scorpius & Vista

03/05/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	692	322	48	336	2	194	2	31	1	1	3
Future Volume (veh/h)	4	692	322	48	336	2	194	2	31	1	1	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	4	769	275	53	373	2	216	2	34	1	1	3
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	179	1427	637	179	1456	8	423	17	297	115	101	194
Arrive On Green	0.10	0.40	0.40	0.10	0.40	0.40	0.20	0.20	0.20	0.20	0.20	0.20
Sat Flow, veh/h	1781	3554	1585	1781	3624	19	1412	89	1510	145	511	984
Grp Volume(v), veh/h	4	769	275	53	183	192	216	0	36	5	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1867	1412	0	1599	1641	0	0
Q Serve(g_s), s	0.1	8.2	6.3	1.4	3.4	3.4	7.1	0.0	0.9	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.1	8.2	6.3	1.4	3.4	3.4	7.2	0.0	0.9	0.1	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		0.94	0.20		0.60
Lane Grp Cap(c), veh/h	179	1427	637	179	714	750	423	0	314	409	0	0
V/C Ratio(X)	0.02	0.54	0.43	0.30	0.26	0.26	0.51	0.00	0.11	0.01	0.00	0.00
Avail Cap(c_a), veh/h	179	1427	637	215	714	750	713	0	642	734	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	20.2	11.4	10.8	20.8	9.9	9.9	18.9	0.0	16.4	16.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.5	2.1	0.9	0.9	0.8	1.0	0.0	0.2	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.1	5.1	3.8	1.0	2.2	2.3	4.1	0.0	0.6	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.2	12.8	12.9	21.7	10.8	10.8	19.9	0.0	16.6	16.1	0.0	0.0
LnGrp LOS	C	B	B	C	B	B	B	A	B	B	A	A
Approach Vol, veh/h		1048			428			252				5
Approach Delay, s/veh		12.9			12.1			19.4				16.1
Approach LOS		B			B			B				B
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		14.8	10.0	25.0		14.8	10.0	25.0				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		20.0	6.0	19.0		20.0	5.0	20.0				
Max Q Clear Time (g_c+I1), s		9.2	3.4	10.2		2.1	2.1	5.4				
Green Ext Time (p_c), s		0.6	0.0	4.0		0.0	0.0	1.8				
Intersection Summary												
HCM 6th Ctrl Delay				13.7								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 3: Homerun/Scorpius & Vista

03/05/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑↑	↗	↙	↑↑		↙	↖	↗		↕	
Traffic Volume (veh/h)	4	692	322	48	336	2	194	2	31	1	1	3
Future Volume (veh/h)	4	692	322	48	336	2	194	2	31	1	1	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	4	769	275	53	373	2	217	0	34	1	1	3
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	194	1545	689	194	1576	8	684	0	207	110	70	129
Arrive On Green	0.11	0.43	0.43	0.11	0.43	0.43	0.13	0.00	0.13	0.13	0.13	0.13
Sat Flow, veh/h	1781	3554	1585	1781	3624	19	2825	0	1585	123	537	989
Grp Volume(v), veh/h	4	769	275	53	183	192	217	0	34	5	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1867	1412	0	1585	1648	0	0
Q Serve(g_s), s	0.1	7.2	5.5	1.3	3.0	3.0	3.2	0.0	0.9	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.1	7.2	5.5	1.3	3.0	3.0	3.3	0.0	0.9	0.1	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		1.00	0.20		0.60
Lane Grp Cap(c), veh/h	194	1545	689	194	772	812	684	0	207	309	0	0
V/C Ratio(X)	0.02	0.50	0.40	0.27	0.24	0.24	0.32	0.00	0.16	0.02	0.00	0.00
Avail Cap(c_a), veh/h	194	1545	689	232	772	812	1543	0	689	791	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.3	9.4	8.9	18.8	8.2	8.2	18.8	0.0	17.8	17.4	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.1	1.7	0.8	0.7	0.7	0.3	0.0	0.4	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.1	4.1	3.1	0.9	1.8	1.9	1.8	0.0	0.5	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.4	10.5	10.6	19.6	8.9	8.9	19.1	0.0	18.1	17.5	0.0	0.0
LnGrp LOS	B	B	B	B	A	A	B	A	B	B	A	A
Approach Vol, veh/h		1048			428			251				5
Approach Delay, s/veh		10.6			10.2			18.9				17.5
Approach LOS		B			B			B				B
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		11.0	10.0	25.0		11.0	10.0	25.0				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		20.0	6.0	19.0		20.0	5.0	20.0				
Max Q Clear Time (g_c+I1), s		5.3	3.3	9.2		2.1	2.1	5.0				
Green Ext Time (p_c), s		0.7	0.0	4.3		0.0	0.0	1.8				

Intersection Summary

























HCM 6th Ctrl Delay	11.7
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 3: Homerun/Scorpius & Vista

03/05/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	60	127	13	260	1	134	0	24	2	0	12
Future Volume (veh/h)	3	60	127	13	260	1	134	0	24	2	0	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	3	67	113	14	289	1	149	0	27	2	0	13
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	194	1468	655	194	1501	5	372	0	241	100	21	210
Arrive On Green	0.11	0.41	0.41	0.11	0.41	0.41	0.15	0.00	0.15	0.15	0.00	0.15
Sat Flow, veh/h	1781	3554	1585	1781	3632	13	1401	0	1585	76	136	1382
Grp Volume(v), veh/h	3	67	113	14	141	149	149	0	27	15	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1868	1401	0	1585	1595	0	0
Q Serve(g_s), s	0.1	0.5	2.1	0.3	2.3	2.3	4.2	0.0	0.7	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.1	0.5	2.1	0.3	2.3	2.3	4.5	0.0	0.7	0.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		1.00	0.13		0.87
Lane Grp Cap(c), veh/h	194	1468	655	194	734	772	372	0	241	331	0	0
V/C Ratio(X)	0.02	0.05	0.17	0.07	0.19	0.19	0.40	0.00	0.11	0.05	0.00	0.00
Avail Cap(c_a), veh/h	194	1468	655	194	734	772	799	0	724	805	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.3	8.1	8.5	18.4	8.6	8.6	18.4	0.0	16.8	16.7	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.6	0.2	0.6	0.6	0.7	0.0	0.2	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.3	1.1	0.2	1.4	1.5	2.6	0.0	0.4	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.3	8.1	9.1	18.6	9.2	9.2	19.1	0.0	17.0	16.7	0.0	0.0
LnGrp LOS	B	A	A	B	A	A	B	A	B	B	A	A
Approach Vol, veh/h		183			304			176				15
Approach Delay, s/veh		8.9			9.6			18.8				16.7
Approach LOS		A			A			B				B
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		12.0	10.0	24.0		12.0	10.0	24.0				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		21.0	5.0	19.0		21.0	5.0	19.0				
Max Q Clear Time (g_c+11), s		6.5	2.3	4.1		2.4	2.1	4.3				
Green Ext Time (p_c), s		0.5	0.0	0.6		0.0	0.0	1.3				
Intersection Summary												
HCM 6th Ctrl Delay			12.0									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary

3: Homerun/Scorpius & Vista

03/05/2018























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	60	127	13	260	1	134	0	24	2	0	12
Future Volume (veh/h)	3	60	127	13	260	1	134	0	24	2	0	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	3	67	113	14	289	1	149	0	27	2	0	13
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	202	1535	684	202	1569	5	652	0	180	104	13	156
Arrive On Green	0.11	0.43	0.43	0.11	0.43	0.43	0.11	0.00	0.11	0.11	0.00	0.11
Sat Flow, veh/h	1781	3554	1585	1781	3632	13	2802	0	1585	99	112	1376
Grp Volume(v), veh/h	3	67	113	14	141	149	149	0	27	15	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1868	1401	0	1585	1588	0	0
Q Serve(g_s), s	0.1	0.5	1.9	0.3	2.2	2.2	1.7	0.0	0.7	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.1	0.5	1.9	0.3	2.2	2.2	2.1	0.0	0.7	0.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		1.00	0.13		0.87
Lane Grp Cap(c), veh/h	202	1535	684	202	767	807	652	0	180	273	0	0
V/C Ratio(X)	0.01	0.04	0.17	0.07	0.18	0.18	0.23	0.00	0.15	0.05	0.00	0.00
Avail Cap(c_a), veh/h	202	1535	684	202	767	807	1671	0	757	839	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	17.3	7.2	7.6	17.4	7.7	7.7	18.2	0.0	17.6	17.4	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.5	0.1	0.5	0.5	0.2	0.0	0.4	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.3	1.0	0.2	1.3	1.3	1.2	0.0	0.4	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.3	7.3	8.2	17.6	8.2	8.2	18.3	0.0	18.0	17.5	0.0	0.0
LnGrp LOS	B	A	A	B	A	A	B	A	B	B	A	A
Approach Vol, veh/h		183			304			176				15
Approach Delay, s/veh		8.0			8.7			18.3				17.5
Approach LOS		A			A			B				B
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		10.0	10.0	24.0		10.0	10.0	24.0				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		21.0	5.0	19.0		21.0	5.0	19.0				
Max Q Clear Time (g_c+I1), s		4.1	2.3	3.9		2.4	2.1	4.2				
Green Ext Time (p_c), s		0.5	0.0	0.6		0.0	0.0	1.3				
Intersection Summary												
HCM 6th Ctrl Delay			11.2									
HCM 6th LOS			B									

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary 3: Homerun/Scorpius & Vista























03/05/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	405	300	33	516	2	268	3	50	3	1	2
Future Volume (veh/h)	1	405	300	33	516	2	268	3	50	3	1	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1	450	266	37	573	2	298	3	56	3	1	2
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	175	1254	559	175	1281	4	503	21	387	267	99	130
Arrive On Green	0.10	0.35	0.35	0.10	0.35	0.35	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1781	3554	1585	1781	3632	13	1414	81	1516	632	389	510
Grp Volume(v), veh/h	1	450	266	37	280	295	298	0	59	6	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1868	1414	0	1597	1531	0	0
Q Serve(g_s), s	0.0	4.8	6.7	1.0	6.2	6.2	10.0	0.0	1.5	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	4.8	6.7	1.0	6.2	6.2	10.1	0.0	1.5	0.1	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		0.95	0.50		0.33
Lane Grp Cap(c), veh/h	175	1254	559	175	627	659	503	0	408	497	0	0
V/C Ratio(X)	0.01	0.36	0.48	0.21	0.45	0.45	0.59	0.00	0.14	0.01	0.00	0.00
Avail Cap(c_a), veh/h	175	1254	559	175	627	659	752	0	689	759	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	20.8	12.2	12.8	21.2	12.7	12.7	17.9	0.0	14.7	14.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.8	2.9	0.6	2.3	2.2	1.1	0.0	0.2	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	3.1	4.3	0.7	4.4	4.6	5.6	0.0	0.9	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.8	13.0	15.7	21.8	15.0	14.9	19.0	0.0	14.9	14.2	0.0	0.0
LnGrp LOS	C	B	B	C	B	B	B	A	B	B	A	A
Approach Vol, veh/h		717			612			357			6	
Approach Delay, s/veh		14.0			15.3			18.3			14.2	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		18.0	10.0	23.0		18.0	10.0	23.0				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		22.0	5.0	18.0		22.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s		12.1	3.0	8.7		2.1	2.0	8.2				
Green Ext Time (p_c), s		0.9	0.0	2.7		0.0	0.0	2.4				
Intersection Summary												
HCM 6th Ctrl Delay				15.4								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

3: Homerun/Scorpius & Vista

03/05/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	405	300	33	516	2	268	3	50	3	1	2
Future Volume (veh/h)	1	405	300	33	516	2	268	3	50	3	1	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1	450	266	37	573	2	300	0	56	3	1	2
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	195	1404	626	195	1435	5	788	0	263	212	79	86
Arrive On Green	0.11	0.39	0.39	0.11	0.39	0.39	0.17	0.00	0.17	0.17	0.17	0.17
Sat Flow, veh/h	1781	3554	1585	1781	3632	13	2827	0	1585	563	476	519
Grp Volume(v), veh/h	1	450	266	37	280	295	300	0	56	6	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1868	1414	0	1585	1558	0	0
Q Serve(g_s), s	0.0	4.0	5.6	0.9	5.2	5.2	4.3	0.0	1.4	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	4.0	5.6	0.9	5.2	5.2	4.5	0.0	1.4	0.1	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		1.00	0.50		0.33
Lane Grp Cap(c), veh/h	195	1404	626	195	702	738	788	0	263	377	0	0
V/C Ratio(X)	0.01	0.32	0.42	0.19	0.40	0.40	0.38	0.00	0.21	0.02	0.00	0.00
Avail Cap(c_a), veh/h	195	1404	626	195	702	738	1683	0	765	850	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.1	9.5	10.0	18.4	9.9	9.9	17.7	0.0	16.4	15.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.6	2.1	0.5	1.7	1.6	0.3	0.0	0.4	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	2.3	3.3	0.6	3.3	3.5	2.4	0.0	0.8	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.1	10.2	12.1	18.9	11.6	11.5	18.0	0.0	16.8	15.9	0.0	0.0
LnGrp LOS	B	B	B	B	B	B	B	A	B	B	A	A
Approach Vol, veh/h		717			612			356			6	
Approach Delay, s/veh		10.9			12.0			17.8			15.9	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		12.6	10.0	23.0		12.6	10.0	23.0				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		22.0	5.0	18.0		22.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s		6.5	2.9	7.6		2.1	2.0	7.2				
Green Ext Time (p_c), s		1.1	0.0	2.8		0.0	0.0	2.5				
Intersection Summary												
HCM 6th Ctrl Delay				12.8								
HCM 6th LOS				B								
Notes												
User approved volume balancing among the lanes for turning movement.												

HCM 6th TWSC
6: Touchdown & Homerun

03/05/2018

Intersection

Int Delay, s/veh 3.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		T			U
Traffic Vol, veh/h	0	4	1	0	2	6
Future Vol, veh/h	0	4	1	0	2	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	1	0	2	7

Major/Minor

	Minor1	Major1	Major2	Major3	Major4	Major5
Conflicting Flow All	12	1	0	0	1	0
Stage 1	1	-	-	-	-	-
Stage 2	11	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	1008	1084	-	-	1622	-
Stage 1	1022	-	-	-	-	-
Stage 2	1012	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	1007	1084	-	-	1622	-
Mov Cap-2 Maneuver	1007	-	-	-	-	-
Stage 1	1021	-	-	-	-	-
Stage 2	1012	-	-	-	-	-

Approach

	WB	NB	SB
HCM Control Delay, s	8.3	0	1.8
HCM LOS	A		

Minor Lane/Major Mvmt

	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1084	1622
HCM Lane V/C Ratio	-	-	0.004	0.001
HCM Control Delay (s)	-	-	8.3	7.2
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0

HCM 6th TWSC
6: Touchdown & Homerun

03/05/2018

Intersection						
Int Delay, s/veh	3.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↘↙		↔		↕	
Traffic Vol, veh/h	0	21	21	0	28	28
Future Vol, veh/h	0	21	21	0	28	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	23	23	0	31	31

Major/Minor	Minor1	Major1	Major2	Major3	Major4
Conflicting Flow All	116	23	0	0	23
Stage 1	23	-	-	-	-
Stage 2	93	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	880	1054	-	-	1592
Stage 1	1000	-	-	-	-
Stage 2	931	-	-	-	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	862	1054	-	-	1592
Mov Cap-2 Maneuver	862	-	-	-	-
Stage 1	980	-	-	-	-
Stage 2	931	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.5	0	3.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1054	1592
HCM Lane V/C Ratio	-	-	0.022	0.02
HCM Control Delay (s)	-	-	8.5	7.3
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1

HCM 6th TWSC
6: Touchdown & Homerun

03/05/2018

Intersection						
Int Delay, s/veh	3.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	TT		TT			TT
Traffic Vol, veh/h	0	8	7	0	46	46
Future Vol, veh/h	0	8	7	0	46	46
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	9	8	0	51	51

Major/Minor	Minor1	Major1	Major2	Major3	Major4
Conflicting Flow All	161	8	0	0	8
Stage 1	8	-	-	-	-
Stage 2	153	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	830	1074	-	-	1612
Stage 1	1015	-	-	-	-
Stage 2	875	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	803	1074	-	-	1612
Mov Cap-2 Maneuver	803	-	-	-	-
Stage 1	982	-	-	-	-
Stage 2	875	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.4	0	3.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1074	1612	-
HCM Lane V/C Ratio	-	-	0.008	0.032	-
HCM Control Delay (s)	-	-	8.4	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0.1	-

HCM 6th TWSC
6: Touchdown & Homerun

03/05/2018

Intersection

Int Delay, s/veh 4.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	WT		BT		BT	BT
Traffic Vol, veh/h	0	53	53	0	42	42
Future Vol, veh/h	0	53	53	0	42	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	59	59	0	47	47

Major/Minor	Minor1	Major1	Major2	Minor2	Major3	Minor3
Conflicting Flow All	200	59	0	0	59	0
Stage 1	59	-	-	-	-	-
Stage 2	141	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	789	1007	-	-	1545	-
Stage 1	964	-	-	-	-	-
Stage 2	886	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	765	1007	-	-	1545	-
Mov Cap-2 Maneuver	765	-	-	-	-	-
Stage 1	934	-	-	-	-	-
Stage 2	886	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.8	0	3.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1007	1545
HCM Lane V/C Ratio	-	-	0.058	0.03
HCM Control Delay (s)	-	-	8.8	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1

HCM 6th TWSC
6: Touchdown & Homerun

03/05/2018

Intersection

Int Delay, s/veh 8.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		T			↑
Traffic Vol, veh/h	0	285	1	0	96	6
Future Vol, veh/h	0	285	1	0	96	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	317	1	0	107	7

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	222	1	0
Stage 1	1	-	-
Stage 2	221	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	766	1084	-
Stage 1	1022	-	-
Stage 2	816	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	715	1084	-
Mov Cap-2 Maneuver	715	-	-
Stage 1	955	-	-
Stage 2	816	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	6.9
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1084	1622
HCM Lane V/C Ratio	-	-	0.292	0.066
HCM Control Delay (s)	-	-	9.7	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	1.2	0.2

HCM 6th TWSC
6: Touchdown & Homerun

03/05/2018

Intersection						
Int Delay, s/veh	7.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔		↔	
Traffic Vol, veh/h	0	206	21	0	343	28
Future Vol, veh/h	0	206	21	0	343	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	229	23	0	381	31

Major/Minor	Minor1	Major1	Major2	Major3	Major4
Conflicting Flow All	816	23	0	0	23
Stage 1	23	-	-	-	-
Stage 2	793	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	347	1054	-	-	1592
Stage 1	1000	-	-	-	-
Stage 2	446	-	-	-	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	262	1054	-	-	1592
Mov Cap-2 Maneuver	262	-	-	-	-
Stage 1	756	-	-	-	-
Stage 2	446	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.4	0	7.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1054	1592
HCM Lane V/C Ratio	-	-	0.217	0.239
HCM Control Delay (s)	-	-	9.4	8
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.8	0.9

HCM 6th TWSC
6: Touchdown & Homerun

03/05/2018

Intersection

Int Delay, s/veh 6.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		T			↑
Traffic Vol, veh/h	0	151	7	0	94	46
Future Vol, veh/h	0	151	7	0	94	46
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	168	8	0	104	51

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	267	8	0
Stage 1	8	-	-
Stage 2	259	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	722	1074	-
Stage 1	1015	-	-
Stage 2	784	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	674	1074	-
Mov Cap-2 Maneuver	674	-	-
Stage 1	948	-	-
Stage 2	784	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1074	1612
HCM Lane V/C Ratio	-	-	0.156	0.065
HCM Control Delay (s)	-	-	9	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.6	0.2

Intersection						
Int Delay, s/veh	7.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		T		4	
Traffic Vol, veh/h	0	268	53	0	292	42
Future Vol, veh/h	0	268	53	0	292	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	298	59	0	324	47

Major/Minor	Minor1	Major1	Major2	Major3	Major4	Major5
Conflicting Flow All	754	59	0	0	59	0
Stage 1	59	-	-	-	-	-
Stage 2	695	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	377	1007	-	-	1545	-
Stage 1	964	-	-	-	-	-
Stage 2	495	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	296	1007	-	-	1545	-
Mov Cap-2 Maneuver	296	-	-	-	-	-
Stage 1	757	-	-	-	-	-
Stage 2	495	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.1	0	6.9
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWB Ln1	SBL	SBT
Capacity (veh/h)	-	-	1007	1545
HCM Lane V/C Ratio	-	-	0.296	0.21
HCM Control Delay (s)	-	-	10.1	7.9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1.2	0.8

HCM 6th TWSC
7: Touchdown & Access

03/05/2018

Intersection						
Int Delay, s/veh	9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔		↔	
Traffic Vol, veh/h	0	281	4	0	94	2
Future Vol, veh/h	0	281	4	0	94	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	312	4	0	104	2

Major/Minor	Minor1	Major1	Major2	Major3	Major4
Conflicting Flow All	214	4	0	0	4
Stage 1	4	-	-	-	-
Stage 2	210	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	774	1080	-	-	1618
Stage 1	1019	-	-	-	-
Stage 2	825	-	-	-	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	724	1080	-	-	1618
Mov Cap-2 Maneuver	724	-	-	-	-
Stage 1	954	-	-	-	-
Stage 2	825	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	7.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1080	1618
HCM Lane V/C Ratio	-	-	0.289	0.065
HCM Control Delay (s)	-	-	9.7	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	1.2	0.2

HCM 6th TWSC
7: Touchdown & Access

03/05/2018

Intersection						
Int Delay, s/veh	8.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		T			↑
Traffic Vol, veh/h	0	281	21	0	315	28
Future Vol, veh/h	0	281	21	0	315	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	312	23	0	350	31

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	754	23	0	0	23	0
Stage 1	23	-	-	-	-	-
Stage 2	731	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	377	1054	-	-	1592	-
Stage 1	1000	-	-	-	-	-
Stage 2	476	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	293	1054	-	-	1592	-
Mov Cap-2 Maneuver	293	-	-	-	-	-
Stage 1	776	-	-	-	-	-
Stage 2	476	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.8	0	7.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1054	1592
HCM Lane V/C Ratio	-	-	0.296	0.22
HCM Control Delay (s)	-	-	9.8	7.9
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	1.2	0.8

HCM 6th TWSC
7: Touchdown & Access

03/05/2018

Intersection						
Int Delay, s/veh	6.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔		↔	
Traffic Vol, veh/h	0	143	8	0	48	46
Future Vol, veh/h	0	143	8	0	48	46
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	159	9	0	53	51

Major/Minor	Minor1	Major1	Major2	Minor2	Major3	Minor3
Conflicting Flow All	166	9	0	0	9	0
Stage 1	9	-	-	-	-	-
Stage 2	157	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	824	1073	-	-	1611	-
Stage 1	1014	-	-	-	-	-
Stage 2	871	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	796	1073	-	-	1611	-
Mov Cap-2 Maneuver	796	-	-	-	-	-
Stage 1	980	-	-	-	-	-
Stage 2	871	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.9	0	3.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1073	1611
HCM Lane V/C Ratio	-	-	0.148	0.033
HCM Control Delay (s)	-	-	8.9	7.3
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0.1

HCM 6th TWSC
7: Touchdown & Access

03/05/2018

Intersection						
Int Delay, s/veh	7.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔		↕	
Traffic Vol, veh/h	0	215	53	0	250	42
Future Vol, veh/h	0	215	53	0	250	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	239	59	0	278	47





















Major/Minor	Minor1	Major1	Major2	Major3	Major4
Conflicting Flow All	662	59	0	0	59
Stage 1	59	-	-	-	-
Stage 2	603	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	427	1007	-	-	1545
Stage 1	964	-	-	-	-
Stage 2	546	-	-	-	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	348	1007	-	-	1545
Mov Cap-2 Maneuver	348	-	-	-	-
Stage 1	786	-	-	-	-
Stage 2	546	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	6.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1007	1545
HCM Lane V/C Ratio	-	-	0.237	0.18
HCM Control Delay (s)	-	-	9.7	7.8
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.9	0.7

HCM 6th Signalized Intersection Summary
 3: Homerun/Scorpius & Vista

03/05/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	128	13	2	609	0	3	0	2	3	0	11
Future Volume (veh/h)	2	128	13	2	609	0	3	0	2	3	0	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2	142	14	2	677	0	3	0	2	3	0	12
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	198	1579	704	198	1579	0	319	0	176	113	18	141
Arrive On Green	0.11	0.44	0.44	0.11	0.44	0.00	0.11	0.00	0.11	0.11	0.00	0.11
Sat Flow, veh/h	1781	3554	1585	1781	3647	0	1402	0	1585	156	162	1273
Grp Volume(v), veh/h	2	142	14	2	677	0	3	0	2	15	0	0
Grp Sat Flow(s), veh/h/ln	1781	1777	1585	1781	1777	0	1402	0	1585	1591	0	0
Q Serve(g_s), s	0.0	1.0	0.2	0.0	5.9	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	1.0	0.2	0.0	5.9	0.0	0.1	0.0	0.1	0.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.20		0.80
Lane Grp Cap(c), veh/h	198	1579	704	198	1579	0	319	0	176	273	0	0
V/C Ratio(X)	0.01	0.09	0.02	0.01	0.43	0.00	0.01	0.00	0.01	0.05	0.00	0.00
Avail Cap(c_a), veh/h	198	1579	704	198	1579	0	786	0	704	789	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	17.8	7.2	7.0	17.8	8.6	0.0	17.8	0.0	17.8	17.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.1	0.0	0.9	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.6	0.1	0.0	3.2	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.8	7.3	7.1	17.8	9.4	0.0	17.8	0.0	17.8	18.0	0.0	0.0
LnGrp LOS	B	A	A	B	A	A	B	A	B	B	A	A
Approach Vol, veh/h		158			679			5				15
Approach Delay, s/veh		7.5			9.5			17.8				18.0
Approach LOS		A			A			B				B
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		10.0	10.0	25.0		10.0	10.0	25.0				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		20.0	5.0	20.0		20.0	5.0	20.0				
Max Q Clear Time (g_c+I1), s		2.1	2.0	3.0		2.4	2.0	7.9				
Green Ext Time (p_c), s		0.0	0.0	0.7		0.0	0.0	3.5				
Intersection Summary												
HCM 6th Ctrl Delay			9.3									
HCM 6th LOS			A									





















HCM 6th Signalized Intersection Summary 3: Homerun/Scorpius & Vista

03/05/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	692	450	49	336	2	214	2	24	1	1	3
Future Volume (veh/h)	4	692	450	49	336	2	214	2	24	1	1	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	4	769	389	54	373	2	238	2	27	1	1	3
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	176	1402	626	176	1430	8	441	23	314	117	106	207
Arrive On Green	0.10	0.39	0.39	0.10	0.39	0.39	0.21	0.21	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1781	3554	1585	1781	3624	19	1412	110	1491	152	504	984
Grp Volume(v), veh/h	4	769	389	54	183	192	238	0	29	5	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1867	1412	0	1602	1639	0	0
Q Serve(g_s), s	0.1	8.5	10.0	1.4	3.5	3.5	7.9	0.0	0.7	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.1	8.5	10.0	1.4	3.5	3.5	8.1	0.0	0.7	0.1	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		0.93	0.20		0.60
Lane Grp Cap(c), veh/h	176	1402	626	176	701	737	441	0	338	431	0	0
V/C Ratio(X)	0.02	0.55	0.62	0.31	0.26	0.26	0.54	0.00	0.09	0.01	0.00	0.00
Avail Cap(c_a), veh/h	176	1402	626	211	701	737	700	0	632	723	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	20.6	11.8	12.3	21.2	10.3	10.4	19.0	0.0	16.1	15.8	0.0	0.0
Incr Delay (d2), s/veh	0.1	1.5	4.6	1.0	0.9	0.9	1.0	0.0	0.1	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.1	5.3	6.5	1.0	2.3	2.4	4.6	0.0	0.5	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.7	13.4	16.9	22.2	11.3	11.2	20.0	0.0	16.2	15.8	0.0	0.0
LnGrp LOS	C	B	B	C	B	B	B	A	B	B	A	A
Approach Vol, veh/h		1162			429			267				5
Approach Delay, s/veh		14.6			12.6			19.6				15.8
Approach LOS		B			B			B				B
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		15.7	10.0	25.0		15.7	10.0	25.0				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		20.0	6.0	19.0		20.0	5.0	20.0				
Max Q Clear Time (g_c+I1), s		10.1	3.4	12.0		2.1	2.1	5.5				
Green Ext Time (p_c), s		0.6	0.0	3.6		0.0	0.0	1.8				
Intersection Summary												
HCM 6th Ctrl Delay				14.9								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 3: Homerun/Scorpius & Vista

03/05/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	60	900	100	260	1	10	0	10	2	0	12
Future Volume (veh/h)	3	60	900	100	260	1	10	0	10	2	0	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	3	67	778	111	289	1	11	0	11	2	0	13
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	189	1663	742	189	1700	6	305	0	169	97	12	147
Arrive On Green	0.11	0.47	0.47	0.11	0.47	0.47	0.11	0.00	0.11	0.11	0.00	0.11
Sat Flow, veh/h	1781	3554	1585	1781	3632	13	1401	0	1585	100	112	1377
Grp Volume(v), veh/h	3	67	778	111	141	149	11	0	11	15	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1868	1401	0	1585	1589	0	0
Q Serve(g_s), s	0.1	0.5	22.0	2.8	2.2	2.2	0.0	0.0	0.3	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.1	0.5	22.0	2.8	2.2	2.2	0.3	0.0	0.3	0.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		1.00	0.13		0.87
Lane Grp Cap(c), veh/h	189	1663	742	189	832	874	305	0	169	256	0	0
V/C Ratio(X)	0.02	0.04	1.05	0.59	0.17	0.17	0.04	0.00	0.07	0.06	0.00	0.00
Avail Cap(c_a), veh/h	189	1663	742	189	832	874	693	0	607	687	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.8	6.8	12.5	20.0	7.2	7.2	18.9	0.0	18.9	18.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	46.5	4.6	0.4	0.4	0.0	0.0	0.2	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.3	22.0	2.3	1.2	1.3	0.2	0.0	0.2	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.8	6.8	59.0	24.6	7.7	7.6	18.9	0.0	19.1	19.0	0.0	0.0
LnGrp LOS	B	A	F	C	A	A	B	A	B	B	A	A
Approach Vol, veh/h		848			401			22				15
Approach Delay, s/veh		54.7			12.3			19.0				19.0
Approach LOS		D			B			B				B
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		10.0	10.0	27.0		10.0	10.0	27.0				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		18.0	5.0	22.0		18.0	5.0	22.0				
Max Q Clear Time (g_c+I1), s		2.3	4.8	24.0		2.4	2.1	4.2				
Green Ext Time (p_c), s		0.0	0.0	0.0		0.0	0.0	1.4				
Intersection Summary												
HCM 6th Ctrl Delay			40.5									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary

3: Homerun/Scorpius & Vista

03/05/2018























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘	↖	↗	↘	↖	↗	↘
Traffic Volume (veh/h)	1	405	364	40	516	2	434	3	48	3	1	2
Future Volume (veh/h)	1	405	364	40	516	2	434	3	48	3	1	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1	450	321	44	573	2	482	3	53	3	1	2
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	149	1071	478	149	1095	4	635	31	550	337	121	184
Arrive On Green	0.08	0.30	0.30	0.08	0.30	0.30	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	1781	3554	1585	1781	3632	13	1414	86	1512	677	334	506
Grp Volume(v), veh/h	1	450	321	44	280	295	482	0	56	6	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1868	1414	0	1598	1517	0	0
Q Serve(g_s), s	0.0	6.0	10.6	1.4	7.8	7.8	19.5	0.0	1.4	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	6.0	10.6	1.4	7.8	7.8	19.6	0.0	1.4	0.1	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		0.95	0.50		0.33
Lane Grp Cap(c), veh/h	149	1071	478	149	536	563	635	0	581	642	0	0
V/C Ratio(X)	0.01	0.42	0.67	0.29	0.52	0.52	0.76	0.00	0.10	0.01	0.00	0.00
Avail Cap(c_a), veh/h	149	1071	478	149	536	563	642	0	589	649	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	25.1	16.7	18.3	25.7	17.3	17.3	18.3	0.0	12.5	12.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.2	7.3	1.1	3.6	3.5	5.2	0.0	0.1	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	4.3	7.8	1.1	6.1	6.3	10.9	0.0	0.8	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.1	17.9	25.6	26.8	20.9	20.7	23.5	0.0	12.6	12.1	0.0	0.0
LnGrp LOS	C	B	C	C	C	C	C	A	B	B	A	A
Approach Vol, veh/h		772			619			538				6
Approach Delay, s/veh		21.1			21.3			22.4				12.1
Approach LOS		C			C			C				B
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		26.7	10.0	23.0		26.7	10.0	23.0				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		22.0	5.0	18.0		22.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s		21.6	3.4	12.6		2.1	2.0	9.8				
Green Ext Time (p_c), s		0.1	0.0	2.0		0.0	0.0	2.1				
Intersection Summary												
HCM 6th Ctrl Delay			21.5									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary

3: Homerun/Scorpius & Vista

03/05/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	128	98	11	609	0	256	0	30	3	0	11
Future Volume (veh/h)	2	128	98	11	609	0	256	0	30	3	0	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2	142	98	12	677	0	284	0	33	3	0	12
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	177	1271	567	177	1271	0	489	0	388	125	39	310
Arrive On Green	0.10	0.36	0.36	0.10	0.36	0.00	0.24	0.00	0.24	0.24	0.00	0.24
Sat Flow, veh/h	1781	3554	1585	1781	3647	0	1402	0	1585	158	159	1268
Grp Volume(v), veh/h	2	142	98	12	677	0	284	0	33	15	0	0
Grp Sat Flow(s), veh/h/ln	1781	1777	1585	1781	1777	0	1402	0	1585	1585	0	0
Q Serve(g_s), s	0.1	1.3	2.1	0.3	7.6	0.0	9.2	0.0	0.8	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.1	1.3	2.1	0.3	7.6	0.0	9.5	0.0	0.8	0.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.20		0.80
Lane Grp Cap(c), veh/h	177	1271	567	177	1271	0	489	0	388	474	0	0
V/C Ratio(X)	0.01	0.11	0.17	0.07	0.53	0.00	0.58	0.00	0.09	0.03	0.00	0.00
Avail Cap(c_a), veh/h	177	1271	567	177	1271	0	759	0	693	770	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	20.4	10.8	11.1	20.5	12.8	0.0	17.9	0.0	14.7	14.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.7	0.2	1.6	0.0	1.1	0.0	0.1	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.8	1.3	0.2	4.9	0.0	5.3	0.0	0.5	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.5	11.0	11.7	20.7	14.4	0.0	19.0	0.0	14.7	14.5	0.0	0.0
LnGrp LOS	C	B	B	C	B	A	B	A	B	B	A	A
Approach Vol, veh/h		242			689			317				15
Approach Delay, s/veh		11.4			14.5			18.6				14.5
Approach LOS		B			B			B				B
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		17.3	10.0	23.0		17.3	10.0	23.0				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		22.0	5.0	18.0		22.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s		11.5	2.3	4.1		2.4	2.1	9.6				
Green Ext Time (p_c), s		0.8	0.0	0.9		0.0	0.0	2.8				
Intersection Summary												
HCM 6th Ctrl Delay	14.9											
HCM 6th LOS	B											

HCM 6th Signalized Intersection Summary
 3: Homerun/Scorpius & Vista

03/05/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑↑	↗	↙	↑↑		↙	↖	↗		↕	
Traffic Volume (veh/h)	2	128	98	11	609	0	256	0	30	3	0	11
Future Volume (veh/h)	2	128	98	11	609	0	256	0	30	3	0	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2	142	98	12	677	0	284	0	33	3	0	12
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	197	1417	632	197	1417	0	769	0	251	114	32	203
Arrive On Green	0.11	0.40	0.40	0.11	0.40	0.00	0.16	0.00	0.16	0.16	0.00	0.16
Sat Flow, veh/h	1781	3554	1585	1781	3647	0	2805	0	1585	118	201	1278
Grp Volume(v), veh/h	2	142	98	12	677	0	284	0	33	15	0	0
Grp Sat Flow(s), veh/h/ln	1781	1777	1585	1781	1777	0	1402	0	1585	1598	0	0
Q Serve(g_s), s	0.0	1.1	1.8	0.3	6.4	0.0	3.8	0.0	0.8	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	1.1	1.8	0.3	6.4	0.0	4.2	0.0	0.8	0.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.20		0.80
Lane Grp Cap(c), veh/h	197	1417	632	197	1417	0	769	0	251	349	0	0
V/C Ratio(X)	0.01	0.10	0.16	0.06	0.48	0.00	0.37	0.00	0.13	0.04	0.00	0.00
Avail Cap(c_a), veh/h	197	1417	632	197	1417	0	1691	0	772	855	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	17.9	8.5	8.7	18.0	10.1	0.0	17.7	0.0	16.3	16.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.5	0.1	1.2	0.0	0.3	0.0	0.2	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.6	1.0	0.2	3.7	0.0	2.3	0.0	0.5	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.9	8.6	9.2	18.1	11.2	0.0	18.0	0.0	16.6	16.2	0.0	0.0
LnGrp LOS	B	A	A	B	B	A	B	A	B	B	A	A
Approach Vol, veh/h		242			689			317			15	
Approach Delay, s/veh		9.0			11.4			17.9			16.2	
Approach LOS		A			B			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		12.2	10.0	23.0		12.2	10.0	23.0				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		22.0	5.0	18.0		22.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s		6.2	2.3	3.8		2.4	2.0	8.4				
Green Ext Time (p_c), s		1.0	0.0	0.9		0.0	0.0	3.1				

Intersection Summary





















HCM 6th Ctrl Delay 12.6
 HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 3: Homerun/Scorpius & Vista

03/05/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	692	733	81	336	2	380	2	43	1	1	3
Future Volume (veh/h)	4	692	733	81	336	2	380	2	43	1	1	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	4	769	620	90	373	2	422	2	48	1	1	3
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	157	1126	502	157	1148	6	595	21	507	142	149	322
Arrive On Green	0.09	0.32	0.32	0.09	0.32	0.32	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	1781	3554	1585	1781	3624	19	1412	64	1531	198	450	972
Grp Volume(v), veh/h	4	769	620	90	183	192	422	0	50	5	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1867	1412	0	1595	1620	0	0
Q Serve(g_s), s	0.1	10.7	18.0	2.8	4.5	4.5	16.0	0.0	1.2	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.1	10.7	18.0	2.8	4.5	4.5	16.1	0.0	1.2	0.1	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		0.96	0.20		0.60
Lane Grp Cap(c), veh/h	157	1126	502	157	563	591	595	0	528	613	0	0
V/C Ratio(X)	0.03	0.68	1.23	0.57	0.32	0.33	0.71	0.00	0.09	0.01	0.00	0.00
Avail Cap(c_a), veh/h	157	1126	502	157	563	591	674	0	617	701	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	23.7	16.9	19.4	24.9	14.8	14.8	18.1	0.0	13.1	12.7	0.0	0.0
Incr Delay (d2), s/veh	0.1	3.4	122.0	5.0	1.5	1.5	3.0	0.0	0.1	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.1	7.7	34.4	2.3	3.2	3.4	9.0	0.0	0.8	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.8	20.3	141.4	29.9	16.3	16.2	21.1	0.0	13.2	12.8	0.0	0.0
LnGrp LOS	C	C	F	C	B	B	C	A	B	B	A	A
Approach Vol, veh/h		1393			465			472			5	
Approach Delay, s/veh		74.2			18.9			20.2			12.8	
Approach LOS		E			B			C			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.8	10.0	23.0		23.8	10.0	23.0				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		22.0	5.0	18.0		22.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s		18.1	4.8	20.0		2.1	2.1	6.5				
Green Ext Time (p_c), s		0.7	0.0	0.0		0.0	0.0	1.6				
Intersection Summary												
HCM 6th Ctrl Delay			52.2									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary

3: Homerun/Scorpius & Vista





















03/05/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	692	733	81	336	2	380	2	43	1	1	3
Future Volume (veh/h)	4	692	733	81	336	2	380	2	43	1	1	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	4	769	620	90	373	2	423	0	48	1	1	3
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	185	1330	593	185	1356	7	894	0	333	121	107	206
Arrive On Green	0.10	0.37	0.37	0.10	0.37	0.37	0.21	0.00	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1781	3554	1585	1781	3624	19	2825	0	1585	147	508	983
Grp Volume(v), veh/h	4	769	620	90	183	192	423	0	48	5	0	0
Grp Sat Flow(s), veh/h/ln	1781	1777	1585	1781	1777	1867	1412	0	1585	1638	0	0
Q Serve(g_s), s	0.1	8.3	18.0	2.3	3.5	3.5	6.5	0.0	1.2	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.1	8.3	18.0	2.3	3.5	3.5	6.7	0.0	1.2	0.1	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		1.00	0.20		0.60
Lane Grp Cap(c), veh/h	185	1330	593	185	665	699	894	0	333	434	0	0
V/C Ratio(X)	0.02	0.58	1.05	0.49	0.27	0.28	0.47	0.00	0.14	0.01	0.00	0.00
Avail Cap(c_a), veh/h	185	1330	593	185	665	699	1593	0	725	825	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	19.4	12.0	15.1	20.3	10.5	10.5	17.6	0.0	15.5	15.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.8	49.3	2.0	1.0	1.0	0.4	0.0	0.2	0.0	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%), veh/ln	0.1	5.3	19.6	1.7	2.3	2.4	3.6	0.0	0.7	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	19.4	13.9	64.4	22.3	11.5	11.5	18.0	0.0	15.7	15.1	0.0	0.0
LnGrp LOS	B	B	F	C	B	B	B	A	B	B	A	A
Approach Vol, veh/h		1393			465			471				5
Approach Delay, s/veh		36.4			13.6			17.8				15.1
Approach LOS		D			B			B				B
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		15.1	10.0	23.0		15.1	10.0	23.0				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		22.0	5.0	18.0		22.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s		8.7	4.3	20.0		2.1	2.1	5.5				
Green Ext Time (p_c), s		1.4	0.0	0.0		0.0	0.0	1.6				
Intersection Summary												
HCM 6th Ctrl Delay	28.0											
HCM 6th LOS	C											
Notes												
User approved volume balancing among the lanes for turning movement.												























HCM 6th Signalized Intersection Summary
 3: Homerun/Scorpius & Vista

03/05/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	60	943	105	260	1	139	0	24	2	0	12
Future Volume (veh/h)	3	60	943	105	260	1	139	0	24	2	0	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	3	67	826	117	289	1	154	0	27	2	0	13
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	165	1712	764	165	1750	6	343	0	234	86	21	204
Arrive On Green	0.09	0.48	0.48	0.09	0.48	0.48	0.15	0.00	0.15	0.15	0.00	0.15
Sat Flow, veh/h	1781	3554	1585	1781	3632	13	1401	0	1585	71	142	1384
Grp Volume(v), veh/h	3	67	826	117	141	149	154	0	27	15	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1868	1401	0	1585	1596	0	0
Q Serve(g_s), s	0.1	0.5	26.0	3.4	2.4	2.4	5.1	0.0	0.8	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.1	0.5	26.0	3.4	2.4	2.4	5.5	0.0	0.8	0.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		1.00	0.13		0.87
Lane Grp Cap(c), veh/h	165	1712	764	165	856	900	343	0	234	311	0	0
V/C Ratio(X)	0.02	0.04	1.08	0.71	0.17	0.17	0.45	0.00	0.12	0.05	0.00	0.00
Avail Cap(c_a), veh/h	165	1712	764	165	856	900	630	0	558	629	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	22.3	7.4	14.0	23.8	7.9	7.9	21.9	0.0	19.9	19.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	56.9	13.1	0.4	0.4	0.9	0.0	0.2	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.1	0.3	27.6	3.4	1.5	1.5	3.3	0.0	0.5	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.3	7.4	70.9	36.9	8.3	8.3	22.8	0.0	20.2	19.9	0.0	0.0
LnGrp LOS	C	A	F	D	A	A	C	A	C	B	A	A
Approach Vol, veh/h		896			407			181			15	
Approach Delay, s/veh		66.0			16.5			22.4			19.9	
Approach LOS		E			B			C			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		13.0	10.0	31.0		13.0	10.0	31.0				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		19.0	5.0	26.0		19.0	5.0	26.0				
Max Q Clear Time (g_c+I1), s		7.5	5.4	28.0		2.4	2.1	4.4				
Green Ext Time (p_c), s		0.4	0.0	0.0		0.0	0.0	1.5				
Intersection Summary												
HCM 6th Ctrl Delay			46.8									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary
 3: Homerun/Scorpius & Vista

03/05/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	60	943	105	260	1	139	0	24	2	0	12
Future Volume (veh/h)	3	60	943	105	260	1	139	0	24	2	0	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	3	67	826	117	289	1	154	0	27	2	0	13
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	175	1811	808	175	1851	6	565	0	156	90	11	136
Arrive On Green	0.10	0.51	0.51	0.10	0.51	0.51	0.10	0.00	0.10	0.10	0.00	0.10
Sat Flow, veh/h	1781	3554	1585	1781	3632	13	2802	0	1585	101	111	1376
Grp Volume(v), veh/h	3	67	826	117	141	149	154	0	27	15	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1868	1401	0	1585	1587	0	0
Q Serve(g_s), s	0.1	0.5	26.0	3.2	2.2	2.2	2.1	0.0	0.8	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.1	0.5	26.0	3.2	2.2	2.2	2.6	0.0	0.8	0.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		1.00	0.13		0.87
Lane Grp Cap(c), veh/h	175	1811	808	175	905	952	565	0	156	236	0	0
V/C Ratio(X)	0.02	0.04	1.02	0.67	0.16	0.16	0.27	0.00	0.17	0.06	0.00	0.00
Avail Cap(c_a), veh/h	175	1811	808	175	905	952	1332	0	590	662	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	20.8	6.3	12.5	22.2	6.7	6.7	21.8	0.0	21.1	20.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	37.6	9.5	0.4	0.3	0.3	0.0	0.5	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.1	0.3	21.4	3.0	1.2	1.3	1.5	0.0	0.5	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.8	6.3	50.1	31.7	7.0	7.0	22.1	0.0	21.6	21.0	0.0	0.0
LnGrp LOS	C	A	F	C	A	A	C	A	C	C	A	A
Approach Vol, veh/h		896			407			181			15	
Approach Delay, s/veh		46.7			14.1			22.0			21.0	
Approach LOS		D			B			C			C	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		10.0	10.0	31.0		10.0	10.0	31.0				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		19.0	5.0	26.0		19.0	5.0	26.0				
Max Q Clear Time (g_c+I1), s		4.6	5.2	28.0		2.4	2.1	4.2				
Green Ext Time (p_c), s		0.5	0.0	0.0		0.0	0.0	1.5				

Intersection Summary

HCM 6th Ctrl Delay 34.6
 HCM 6th LOS C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary

3: Homerun/Scorpius & Vista

03/05/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	405	589	65	516	2	627	3	70	3	1	2
Future Volume (veh/h)	1	405	589	65	516	2	627	3	70	3	1	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1	450	543	72	573	2	697	3	78	3	1	2
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	115	827	369	115	845	3	817	30	781	426	149	252
Arrive On Green	0.06	0.23	0.23	0.06	0.23	0.23	0.51	0.51	0.51	0.51	0.51	0.51
Sat Flow, veh/h	1781	3554	1585	1781	3632	13	1414	59	1535	699	293	496
Grp Volume(v), veh/h	1	450	543	72	280	295	697	0	81	6	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1868	1414	0	1594	1488	0	0
Q Serve(g_s), s	0.0	8.6	18.0	3.0	11.1	11.1	35.5	0.0	2.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	8.6	18.0	3.0	11.1	11.1	36.5	0.0	2.0	0.1	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		0.96	0.50		0.33
Lane Grp Cap(c), veh/h	115	827	369	115	413	435	817	0	811	827	0	0
V/C Ratio(X)	0.01	0.54	1.47	0.63	0.68	0.68	0.85	0.00	0.10	0.01	0.00	0.00
Avail Cap(c_a), veh/h	115	827	369	115	413	435	865	0	865	877	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	33.9	26.1	29.7	35.3	27.1	27.1	18.2	0.0	9.8	9.4	0.0	0.0
Incr Delay (d2), s/veh	0.0	2.6	227.0	10.2	8.7	8.3	7.9	0.0	0.1	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	6.7	46.2	2.9	9.3	9.6	18.4	0.0	1.2	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.9	28.7	256.7	45.5	35.7	35.3	26.1	0.0	9.9	9.4	0.0	0.0
LnGrp LOS	C	C	F	D	D	D	C	A	A	A	A	A
Approach Vol, veh/h		994			647			778				6
Approach Delay, s/veh		153.2			36.6			24.4				9.4
Approach LOS		F			D			C				A
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		44.5	10.0	23.0		44.5	10.0	23.0				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		42.0	5.0	18.0		42.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s		38.5	5.0	20.0		2.1	2.0	13.1				
Green Ext Time (p_c), s		1.2	0.0	0.0		0.0	0.0	1.5				
Intersection Summary												
HCM 6th Ctrl Delay			80.4									
HCM 6th LOS			F									

HCM 6th Signalized Intersection Summary
 3: Homerun/Scorpius & Vista

03/05/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑↑	↗	↙	↑↑		↙	↖	↗		↔	
Traffic Volume (veh/h)	1	405	589	65	516	2	627	3	70	3	1	2
Future Volume (veh/h)	1	405	589	65	516	2	627	3	70	3	1	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1	450	543	72	573	2	699	0	78	3	1	2
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	161	1153	514	161	1178	4	1152	0	500	303	111	158
Arrive On Green	0.09	0.32	0.32	0.09	0.32	0.32	0.32	0.00	0.32	0.32	0.32	0.32
Sat Flow, veh/h	1781	3554	1585	1781	3632	13	2827	0	1585	653	352	503
Grp Volume(v), veh/h	1	450	543	72	280	295	699	0	78	6	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1868	1414	0	1585	1508	0	0
Q Serve(g_s), s	0.0	5.4	18.0	2.1	7.0	7.0	12.3	0.0	2.0	0.0	0.0	0.0
Cycle Q Clear(g_c),s	0.0	5.4	18.0	2.1	7.0	7.0	12.4	0.0	2.0	0.1	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		1.00	0.50		0.33
Lane Grp Cap(c), veh/h	161	1153	514	161	576	606	1152	0	500	573	0	0
V/C Ratio(X)	0.01	0.39	1.06	0.45	0.49	0.49	0.61	0.00	0.16	0.01	0.00	0.00
Avail Cap(c_a), veh/h	161	1153	514	161	576	606	2401	0	1200	1224	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	23.0	14.5	18.7	23.9	15.0	15.0	17.3	0.0	13.7	13.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.0	55.3	2.0	2.9	2.8	0.5	0.0	0.1	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	3.7	20.1	1.6	5.2	5.4	6.7	0.0	1.1	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.0	15.5	74.1	25.9	18.0	17.8	17.8	0.0	13.8	13.1	0.0	0.0
LnGrp LOS	C	B	F	C	B	B	B	A	B	B	A	A
Approach Vol, veh/h		994			647			777				6
Approach Delay, s/veh		47.5			18.8			17.4				13.1
Approach LOS		D			B			B				B
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		22.5	10.0	23.0		22.5	10.0	23.0				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		42.0	5.0	18.0		42.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s		14.4	4.1	20.0		2.1	2.0	9.0				
Green Ext Time (p_c), s		3.1	0.0	0.0		0.0	0.0	2.2				
Intersection Summary												
HCM 6th Ctrl Delay			30.1									
HCM 6th LOS			C									
Notes												
User approved volume balancing among the lanes for turning movement.												

HCM 6th TWSC
6: Touchdown & Homerun

03/05/2018

Intersection						
Int Delay, s/veh	4.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	T		T		T	
Traffic Vol, veh/h	0	4	1	0	7	8
Future Vol, veh/h	0	4	1	0	7	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	1	0	8	9

Major/Minor	Minor1	Major1	Major2	Minor2	Major3	Minor3
Conflicting Flow All	26	1	0	0	1	0
Stage 1	1	-	-	-	-	-
Stage 2	25	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	989	1084	-	-	1622	-
Stage 1	1022	-	-	-	-	-
Stage 2	998	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	984	1084	-	-	1622	-
Mov Cap-2 Maneuver	984	-	-	-	-	-
Stage 1	1017	-	-	-	-	-
Stage 2	998	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.3	0	3.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1084	1622
HCM Lane V/C Ratio	-	-	0.004	0.005
HCM Control Delay (s)	-	-	8.3	7.2
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0

HCM 6th TWSC
6: Touchdown & Homerun

03/05/2018

Intersection

Int Delay, s/veh 4.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		B			↑
Traffic Vol, veh/h	0	120	120	0	250	250
Future Vol, veh/h	0	120	120	0	250	250
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	133	133	0	278	278

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	967	133	0	0	133	0
Stage 1	133	-	-	-	-	-
Stage 2	834	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	282	916	-	-	1452	-
Stage 1	893	-	-	-	-	-
Stage 2	426	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	218	916	-	-	1452	-
Mov Cap-2 Maneuver	218	-	-	-	-	-
Stage 1	691	-	-	-	-	-
Stage 2	426	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.6	0	4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	916	1452
HCM Lane V/C Ratio	-	-	0.146	0.191
HCM Control Delay (s)	-	-	9.6	8.1
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0.7

HCM 6th TWSC
6: Touchdown & Homerun

03/05/2018

Intersection						
Int Delay, s/veh	4.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔		↔	
Traffic Vol, veh/h	0	10	10	0	500	500
Future Vol, veh/h	0	10	10	0	500	500
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	11	11	0	556	556

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1679	11	0
Stage 1	11	-	-
Stage 2	1668	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	104	1070	-
Stage 1	1012	-	-
Stage 2	168	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	52	1070	-
Mov Cap-2 Maneuver	52	-	-
Stage 1	506	-	-
Stage 2	168	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.4	0	4.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1070	1608
HCM Lane V/C Ratio	-	-	0.01	0.345
HCM Control Delay (s)	-	-	8.4	8.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	1.6

Intersection						
Int Delay, s/veh	5.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙		↘			↗
Traffic Vol, veh/h	0	243	242	0	202	203
Future Vol, veh/h	0	243	242	0	202	203
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	270	269	0	224	226

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	943	269	0	0	269	0
Stage 1	269	-	-	-	-	-
Stage 2	674	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	291	770	-	-	1295	-
Stage 1	776	-	-	-	-	-
Stage 2	506	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	233	770	-	-	1295	-
Mov Cap-2 Maneuver	233	-	-	-	-	-
Stage 1	622	-	-	-	-	-
Stage 2	506	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.2	0	4.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	770	1295
HCM Lane V/C Ratio	-	-	0.351	0.173
HCM Control Delay (s)	-	-	12.2	8.4
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1.6	0.6

HCM 6th TWSC
6: Touchdown & Homerun

03/05/2018

Intersection						
Int Delay, s/veh	8.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↘ ↙		↔		↕	
Traffic Vol, veh/h	0	285	1	0	101	8
Future Vol, veh/h	0	285	1	0	101	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	317	1	0	112	9

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	234	1	0	0	1
Stage 1	1	-	-	-	-
Stage 2	233	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	754	1084	-	-	1622
Stage 1	1022	-	-	-	-
Stage 2	806	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	702	1084	-	-	1622
Mov Cap-2 Maneuver	702	-	-	-	-
Stage 1	951	-	-	-	-
Stage 2	806	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	6.8
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1084	1622
HCM Lane V/C Ratio	-	-	0.292	0.069
HCM Control Delay (s)	-	-	9.7	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	1.2	0.2

HCM 6th TWSC
6: Touchdown & Homerun

03/05/2018

Intersection						
Int Delay, s/veh	5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔		↔	
Traffic Vol, veh/h	0	153	10	0	548	500
Future Vol, veh/h	0	153	10	0	548	500
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	170	11	0	609	556

Major/Minor	Minor1	Major1	Major2	Major3	Major4
Conflicting Flow All	1785	11	0	0	11
Stage 1	11	-	-	-	-
Stage 2	1774	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	90	1070	-	-	1608
Stage 1	1012	-	-	-	-
Stage 2	149	-	-	-	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	41	1070	-	-	1608
Mov Cap-2 Maneuver	41	-	-	-	-
Stage 1	457	-	-	-	-
Stage 2	149	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	4.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1070	1608
HCM Lane V/C Ratio	-	-	0.159	0.379
HCM Control Delay (s)	-	-	9	8.6
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.6	1.8

HCM 6th TWSC
6: Touchdown & Homerun

03/05/2018

Intersection						
Int Delay, s/veh	9.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔		↔	
Traffic Vol, veh/h	0	458	242	0	452	203
Future Vol, veh/h	0	458	242	0	452	203
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	509	269	0	502	226

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1499	269	0
Stage 1	269	-	-
Stage 2	1230	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	135	770	-
Stage 1	776	-	-
Stage 2	276	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	75	770	-
Mov Cap-2 Maneuver	75	-	-
Stage 1	432	-	-
Stage 2	276	-	-

Approach	WB	NB	SB
HCM Control Delay, s	18.3	0	6.6
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	770	1295
HCM Lane V/C Ratio	-	-	0.661	0.388
HCM Control Delay (s)	-	-	18.3	9.5
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	5.1	1.9

HCM 6th TWSC
7: Touchdown & Access

03/05/2018

Intersection						
Int Delay, s/veh	8.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		T		L	
Traffic Vol, veh/h	0	281	4	0	94	7
Future Vol, veh/h	0	281	4	0	94	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	312	4	0	104	8

Major/Minor	Minor1	Major1	Major2	Major3	Major4	Major5
Conflicting Flow All	220	4	0	0	4	0
Stage 1	4	-	-	-	-	-
Stage 2	216	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	768	1080	-	-	1618	-
Stage 1	1019	-	-	-	-	-
Stage 2	820	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	718	1080	-	-	1618	-
Mov Cap-2 Maneuver	718	-	-	-	-	-
Stage 1	953	-	-	-	-	-
Stage 2	820	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	6.9
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1080	1618
HCM Lane V/C Ratio	-	-	0.289	0.065
HCM Control Delay (s)	-	-	9.7	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	1.2	0.2

HCM 6th TWSC
7: Touchdown & Access

03/05/2018

Intersection						
Int Delay, s/veh	5.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔			↔
Traffic Vol, veh/h	0	185	120	0	315	250
Future Vol, veh/h	0	185	120	0	315	250
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	206	133	0	350	278

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1111	133	0	0	133	0
Stage 1	133	-	-	-	-	-
Stage 2	978	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	231	916	-	-	1452	-
Stage 1	893	-	-	-	-	-
Stage 2	364	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	165	916	-	-	1452	-
Mov Cap-2 Maneuver	165	-	-	-	-	-
Stage 1	638	-	-	-	-	-
Stage 2	364	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.1	0	4.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	916	1452
HCM Lane V/C Ratio	-	-	0.224	0.241
HCM Control Delay (s)	-	-	10.1	8.3
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.9	0.9

HCM 6th TWSC
7: Touchdown & Access

03/05/2018

Intersection

Int Delay, s/veh 2.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		T			T
Traffic Vol, veh/h	0	143	10	0	48	500
Future Vol, veh/h	0	143	10	0	48	500
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	159	11	0	53	556

Major/Minor	Minor1	Minor2	Major1	Major2
Conflicting Flow All	673	11	0	11
Stage 1	11	-	-	-
Stage 2	662	-	-	-
Critical Hdwy	6.42	6.22	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-
Follow-up Hdwy	3.518	3.318	-	2.218
Pot Cap-1 Maneuver	421	1070	-	1608
Stage 1	1012	-	-	-
Stage 2	513	-	-	-
Platoon blocked, %			-	-
Mov Cap-1 Maneuver	401	1070	-	1608
Mov Cap-2 Maneuver	401	-	-	-
Stage 1	963	-	-	-
Stage 2	513	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	0.6
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1070	1608
HCM Lane V/C Ratio	-	-	0.148	0.033
HCM Control Delay (s)	-	-	9	7.3
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0.1

HCM 6th TWSC
7: Touchdown & Access

03/05/2018

Intersection						
Int Delay, s/veh	5.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔		↔	
Traffic Vol, veh/h	0	215	243	0	250	202
Future Vol, veh/h	0	215	243	0	250	202
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	239	270	0	278	224





















Major/Minor	Minor1	Major1	Major2	Major3	Major4
Conflicting Flow All	1050	270	0	0	270
Stage 1	270	-	-	-	-
Stage 2	780	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	252	769	-	-	1293
Stage 1	775	-	-	-	-
Stage 2	452	-	-	-	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	190	769	-	-	1293
Mov Cap-2 Maneuver	190	-	-	-	-
Stage 1	584	-	-	-	-
Stage 2	452	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.8	0	4.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	769	1293	-
HCM Lane V/C Ratio	-	-	0.311	0.215	-
HCM Control Delay (s)	-	-	11.8	8.5	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	1.3	0.8	-

HCM 6th Signalized Intersection Summary
 3: Homerun/Scorpius & Vista





















03/05/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	143	13	2	680	0	3	0	2	3	0	11
Future Volume (veh/h)	2	143	13	2	680	0	3	0	2	3	0	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2	159	14	2	756	0	3	0	2	3	0	12
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	198	1579	704	198	1579	0	319	0	176	113	18	141
Arrive On Green	0.11	0.44	0.44	0.11	0.44	0.00	0.11	0.00	0.11	0.11	0.00	0.11
Sat Flow, veh/h	1781	3554	1585	1781	3647	0	1402	0	1585	156	162	1273
Grp Volume(v), veh/h	2	159	14	2	756	0	3	0	2	15	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	0	1402	0	1585	1591	0	0
Q Serve(g_s), s	0.0	1.2	0.2	0.0	6.8	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	1.2	0.2	0.0	6.8	0.0	0.1	0.0	0.1	0.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.20		0.80
Lane Grp Cap(c), veh/h	198	1579	704	198	1579	0	319	0	176	273	0	0
V/C Ratio(X)	0.01	0.10	0.02	0.01	0.48	0.00	0.01	0.00	0.01	0.05	0.00	0.00
Avail Cap(c_a), veh/h	198	1579	704	198	1579	0	786	0	704	789	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	17.8	7.3	7.0	17.8	8.8	0.0	17.8	0.0	17.8	17.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.1	0.0	1.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.6	0.1	0.0	3.7	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.8	7.4	7.1	17.8	9.9	0.0	17.8	0.0	17.8	18.0	0.0	0.0
LnGrp LOS	B	A	A	B	A	A	B	A	B	B	A	A
Approach Vol, veh/h		175			758			5			15	
Approach Delay, s/veh		7.5			9.9			17.8			18.0	
Approach LOS		A			A			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		10.0	10.0	25.0		10.0	10.0	25.0				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		20.0	5.0	20.0		20.0	5.0	20.0				
Max Q Clear Time (g_c+l1), s		2.1	2.0	3.2		2.4	2.0	8.8				
Green Ext Time (p_c), s		0.0	0.0	0.8		0.0	0.0	3.8				
Intersection Summary												
HCM 6th Ctrl Delay			9.6									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary

























3: Homerun/Scorpius & Vista

03/05/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	772	450	49	375	2	214	2	24	1	1	3
Future Volume (veh/h)	4	772	450	49	375	2	214	2	24	1	1	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	4	858	417	54	417	2	238	2	27	1	1	3
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	168	1475	658	168	1506	7	430	23	309	113	104	204
Arrive On Green	0.09	0.42	0.42	0.09	0.42	0.42	0.21	0.21	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1781	3554	1585	1781	3627	17	1412	110	1491	154	501	983
Grp Volume(v), veh/h	4	858	417	54	204	215	238	0	29	5	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1867	1412	0	1602	1639	0	0
Q Serve(g_s), s	0.1	9.9	11.1	1.5	4.0	4.0	8.3	0.0	0.8	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.1	9.9	11.1	1.5	4.0	4.0	8.5	0.0	0.8	0.1	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		0.93	0.20		0.60
Lane Grp Cap(c), veh/h	168	1475	658	168	738	775	430	0	332	421	0	0
V/C Ratio(X)	0.02	0.58	0.63	0.32	0.28	0.28	0.55	0.00	0.09	0.01	0.00	0.00
Avail Cap(c_a), veh/h	168	1475	658	168	738	775	617	0	544	631	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	21.8	11.9	12.3	22.4	10.2	10.2	20.0	0.0	17.0	16.7	0.0	0.0
Incr Delay (d2), s/veh	0.1	1.7	4.6	1.1	0.9	0.9	1.1	0.0	0.1	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.1	6.2	7.1	1.1	2.6	2.7	4.9	0.0	0.5	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.8	13.6	16.9	23.5	11.2	11.1	21.1	0.0	17.1	16.7	0.0	0.0
LnGrp LOS	C	B	B	C	B	B	C	A	B	B	A	A
Approach Vol, veh/h		1279			473			267			5	
Approach Delay, s/veh		14.7			12.6			20.7			16.7	
Approach LOS		B			B			C			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		16.0	10.0	27.0		16.0	10.0	27.0				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		18.0	5.0	22.0		18.0	5.0	22.0				
Max Q Clear Time (g_c+I1), s		10.5	3.5	13.1		2.1	2.1	6.0				
Green Ext Time (p_c), s		0.5	0.0	4.7		0.0	0.0	2.1				
Intersection Summary												
HCM 6th Ctrl Delay			15.0									
HCM 6th LOS			B									





















HCM 6th Signalized Intersection Summary 3: Homerun/Scorpius & Vista

03/05/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	67	900	100	290	1	10	0	10	2	0	12
Future Volume (veh/h)	3	67	900	100	290	1	10	0	10	2	0	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	3	74	783	111	322	1	11	0	11	2	0	13
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	189	1663	742	189	1701	5	305	0	169	97	12	147
Arrive On Green	0.11	0.47	0.47	0.11	0.47	0.47	0.11	0.00	0.11	0.11	0.00	0.11
Sat Flow, veh/h	1781	3554	1585	1781	3634	11	1401	0	1585	100	112	1377
Grp Volume(v), veh/h	3	74	783	111	157	166	11	0	11	15	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1868	1401	0	1585	1589	0	0
Q Serve(g_s), s	0.1	0.5	22.0	2.8	2.4	2.4	0.0	0.0	0.3	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.1	0.5	22.0	2.8	2.4	2.4	0.3	0.0	0.3	0.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		1.00	0.13		0.87
Lane Grp Cap(c), veh/h	189	1663	742	189	832	875	305	0	169	256	0	0
V/C Ratio(X)	0.02	0.04	1.06	0.59	0.19	0.19	0.04	0.00	0.07	0.06	0.00	0.00
Avail Cap(c_a), veh/h	189	1663	742	189	832	875	693	0	607	687	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.8	6.8	12.5	20.0	7.3	7.3	18.9	0.0	18.9	18.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	48.6	4.6	0.5	0.5	0.0	0.0	0.2	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.3	22.6	2.3	1.4	1.5	0.2	0.0	0.2	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.8	6.8	61.1	24.6	7.8	7.8	18.9	0.0	19.1	19.0	0.0	0.0
LnGrp LOS	B	A	F	C	A	A	B	A	B	B	A	A
Approach Vol, veh/h		860			434			22			15	
Approach Delay, s/veh		56.3			12.1			19.0			19.0	
Approach LOS		E			B			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		10.0	10.0	27.0		10.0	10.0	27.0				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		18.0	5.0	22.0		18.0	5.0	22.0				
Max Q Clear Time (g_c+l1), s		2.3	4.8	24.0		2.4	2.1	4.4				
Green Ext Time (p_c), s		0.0	0.0	0.0		0.0	0.0	1.6				
Intersection Summary												
HCM 6th Ctrl Delay			40.8									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary
 3: Homerun/Scorpius & Vista





















03/05/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	452	364	40	576	2	434	3	48	3	1	2
Future Volume (veh/h)	1	452	364	40	576	2	434	3	48	3	1	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1	502	321	44	640	2	482	3	53	3	1	2
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	149	1071	478	149	1095	3	635	31	550	337	121	184
Arrive On Green	0.08	0.30	0.30	0.08	0.30	0.30	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	1781	3554	1585	1781	3634	11	1414	86	1512	677	334	506
Grp Volume(v), veh/h	1	502	321	44	313	329	482	0	56	6	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1868	1414	0	1598	1517	0	0
Q Serve(g_s), s	0.0	6.9	10.6	1.4	8.9	8.9	19.5	0.0	1.4	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	6.9	10.6	1.4	8.9	8.9	19.6	0.0	1.4	0.1	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		0.95	0.50		0.33
Lane Grp Cap(c), veh/h	149	1071	478	149	536	563	635	0	581	642	0	0
V/C Ratio(X)	0.01	0.47	0.67	0.29	0.58	0.58	0.76	0.00	0.10	0.01	0.00	0.00
Avail Cap(c_a), veh/h	149	1071	478	149	536	563	642	0	589	649	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	25.1	17.0	18.3	25.7	17.7	17.7	18.3	0.0	12.5	12.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.5	7.3	1.1	4.6	4.4	5.2	0.0	0.1	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	4.9	7.8	1.1	7.0	7.3	10.9	0.0	0.8	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.1	18.4	25.6	26.8	22.3	22.1	23.5	0.0	12.6	12.1	0.0	0.0
LnGrp LOS	C	B	C	C	C	C	C	A	B	B	A	A
Approach Vol, veh/h		824			686			538				6
Approach Delay, s/veh		21.2			22.5			22.4				12.1
Approach LOS		C			C			C				B
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		26.7	10.0	23.0		26.7	10.0	23.0				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		22.0	5.0	18.0		22.0	5.0	18.0				
Max Q Clear Time (g_c+l1), s		21.6	3.4	12.6		2.1	2.0	10.9				
Green Ext Time (p_c), s		0.1	0.0	2.1		0.0	0.0	2.2				
Intersection Summary												
HCM 6th Ctrl Delay				21.9								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

3: Homerun/Scorpius & Vista

03/05/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	143	98	11	680	0	256	0	30	3	0	11
Future Volume (veh/h)	2	143	98	11	680	0	256	0	30	3	0	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2	159	98	12	756	0	284	0	33	3	0	12
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	177	1271	567	177	1271	0	489	0	388	125	39	310
Arrive On Green	0.10	0.36	0.36	0.10	0.36	0.00	0.24	0.00	0.24	0.24	0.00	0.24
Sat Flow, veh/h	1781	3554	1585	1781	3647	0	1402	0	1585	158	159	1268
Grp Volume(v), veh/h	2	159	98	12	756	0	284	0	33	15	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	0	1402	0	1585	1585	0	0
Q Serve(g_s), s	0.1	1.5	2.1	0.3	8.7	0.0	9.2	0.0	0.8	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.1	1.5	2.1	0.3	8.7	0.0	9.5	0.0	0.8	0.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.20		0.80
Lane Grp Cap(c), veh/h	177	1271	567	177	1271	0	489	0	388	474	0	0
V/C Ratio(X)	0.01	0.13	0.17	0.07	0.59	0.00	0.58	0.00	0.09	0.03	0.00	0.00
Avail Cap(c_a), veh/h	177	1271	567	177	1271	0	759	0	693	770	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	20.4	10.9	11.1	20.5	13.2	0.0	17.9	0.0	14.7	14.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.7	0.2	2.1	0.0	1.1	0.0	0.1	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.9	1.3	0.2	5.7	0.0	5.3	0.0	0.5	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.5	11.1	11.7	20.7	15.2	0.0	19.0	0.0	14.7	14.5	0.0	0.0
LnGrp LOS	C	B	B	C	B	A	B	A	B	B	A	A
Approach Vol, veh/h		259			768			317			15	
Approach Delay, s/veh		11.4			15.3			18.6			14.5	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		17.3	10.0	23.0		17.3	10.0	23.0				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		22.0	5.0	18.0		22.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s		11.5	2.3	4.1		2.4	2.1	10.7				
Green Ext Time (p_c), s		0.8	0.0	1.0		0.0	0.0	2.9				
Intersection Summary												
HCM 6th Ctrl Delay				15.3								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 3: Homerun/Scorpius & Vista

03/05/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑↑	↗	↙	↑↑		↙	↖	↗		↕	
Traffic Volume (veh/h)	2	143	98	11	680	0	256	0	30	3	0	11
Future Volume (veh/h)	2	143	98	11	680	0	256	0	30	3	0	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2	159	98	12	756	0	284	0	33	3	0	12
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	197	1417	632	197	1417	0	769	0	251	114	32	203
Arrive On Green	0.11	0.40	0.40	0.11	0.40	0.00	0.16	0.00	0.16	0.16	0.00	0.16
Sat Flow, veh/h	1781	3554	1585	1781	3647	0	2805	0	1585	118	201	1278
Grp Volume(v), veh/h	2	159	98	12	756	0	284	0	33	15	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	0	1402	0	1585	1598	0	0
Q Serve(g_s), s	0.0	1.3	1.8	0.3	7.3	0.0	3.8	0.0	0.8	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	1.3	1.8	0.3	7.3	0.0	4.2	0.0	0.8	0.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.20		0.80
Lane Grp Cap(c), veh/h	197	1417	632	197	1417	0	769	0	251	349	0	0
V/C Ratio(X)	0.01	0.11	0.16	0.06	0.53	0.00	0.37	0.00	0.13	0.04	0.00	0.00
Avail Cap(c_a), veh/h	197	1417	632	197	1417	0	1691	0	772	855	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	17.9	8.5	8.7	18.0	10.4	0.0	17.7	0.0	16.3	16.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.5	0.1	1.4	0.0	0.3	0.0	0.2	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.7	1.0	0.2	4.3	0.0	2.3	0.0	0.5	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.9	8.7	9.2	18.1	11.8	0.0	18.0	0.0	16.6	16.2	0.0	0.0
LnGrp LOS	B	A	A	B	B	A	B	A	B	B	A	A
Approach Vol, veh/h		259			768			317				15
Approach Delay, s/veh		9.0			11.9			17.9				16.2
Approach LOS		A			B			B				B
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		12.2	10.0	23.0		12.2	10.0	23.0				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		22.0	5.0	18.0		22.0	5.0	18.0				
Max Q Clear Time (g_c+l1), s		6.2	2.3	3.8		2.4	2.0	9.3				
Green Ext Time (p_c), s		1.0	0.0	1.0		0.0	0.0	3.2				

Intersection Summary												
HCM 6th Ctrl Delay											12.8	
HCM 6th LOS											B	

Notes

User approved volume balancing among the lanes for turning movement.

























HCM 6th Signalized Intersection Summary 3: Homerun/Scorpius & Vista

03/05/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	775	733	81	375	2	380	2	43	1	1	3
Future Volume (veh/h)	4	775	733	81	375	2	380	2	43	1	1	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	4	861	625	90	417	2	422	2	48	1	1	3
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	157	1126	502	157	1149	6	595	21	507	142	149	322
Arrive On Green	0.09	0.32	0.32	0.09	0.32	0.32	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	1781	3554	1585	1781	3627	17	1412	64	1531	198	450	972
Grp Volume(v), veh/h	4	861	625	90	204	215	422	0	50	5	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1867	1412	0	1595	1620	0	0
Q Serve(g_s), s	0.1	12.4	18.0	2.8	5.0	5.0	16.0	0.0	1.2	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.1	12.4	18.0	2.8	5.0	5.0	16.1	0.0	1.2	0.1	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		0.96	0.20		0.60
Lane Grp Cap(c), veh/h	157	1126	502	157	563	591	595	0	528	613	0	0
V/C Ratio(X)	0.03	0.76	1.24	0.57	0.36	0.36	0.71	0.00	0.09	0.01	0.00	0.00
Avail Cap(c_a), veh/h	157	1126	502	157	563	591	674	0	617	701	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	23.7	17.5	19.4	24.9	15.0	15.0	18.1	0.0	13.1	12.7	0.0	0.0
Incr Delay (d2), s/veh	0.1	5.0	126.1	5.0	1.8	1.7	3.0	0.0	0.1	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.1	8.9	35.3	2.3	3.7	3.9	9.0	0.0	0.8	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.8	22.5	145.5	29.9	16.8	16.7	21.1	0.0	13.2	12.8	0.0	0.0
LnGrp LOS	C	C	F	C	B	B	C	A	B	B	A	A
Approach Vol, veh/h		1490			509			472			5	
Approach Delay, s/veh		74.1			19.1			20.2			12.8	
Approach LOS		E			B			C			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.8	10.0	23.0		23.8	10.0	23.0				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		22.0	5.0	18.0		22.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s		18.1	4.8	20.0		2.1	2.1	7.0				
Green Ext Time (p_c), s		0.7	0.0	0.0		0.0	0.0	1.7				
Intersection Summary												
HCM 6th Ctrl Delay			52.4									
HCM 6th LOS			D									





















HCM 6th Signalized Intersection Summary
 3: Homerun/Scorpius & Vista

03/05/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	775	733	81	375	2	380	2	43	1	1	3
Future Volume (veh/h)	4	775	733	81	375	2	380	2	43	1	1	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	4	861	625	90	417	2	423	0	48	1	1	3
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	185	1330	593	185	1357	7	894	0	333	121	107	206
Arrive On Green	0.10	0.37	0.37	0.10	0.37	0.37	0.21	0.00	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1781	3554	1585	1781	3627	17	2825	0	1585	147	508	983
Grp Volume(v), veh/h	4	861	625	90	204	215	423	0	48	5	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1867	1412	0	1585	1638	0	0
Q Serve(g_s), s	0.1	9.6	18.0	2.3	3.9	3.9	6.5	0.0	1.2	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.1	9.6	18.0	2.3	3.9	3.9	6.7	0.0	1.2	0.1	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		1.00	0.20		0.60
Lane Grp Cap(c), veh/h	185	1330	593	185	665	699	894	0	333	434	0	0
V/C Ratio(X)	0.02	0.65	1.05	0.49	0.31	0.31	0.47	0.00	0.14	0.01	0.00	0.00
Avail Cap(c_a), veh/h	185	1330	593	185	665	699	1593	0	725	825	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	19.4	12.4	15.1	20.3	10.6	10.6	17.6	0.0	15.5	15.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	2.4	51.9	2.0	1.2	1.1	0.4	0.0	0.2	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.1	6.2	20.3	1.7	2.6	2.7	3.6	0.0	0.7	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.4	14.9	67.0	22.3	11.8	11.8	18.0	0.0	15.7	15.1	0.0	0.0
LnGrp LOS	B	B	F	C	B	B	B	A	B	B	A	A
Approach Vol, veh/h		1490			509			471				5
Approach Delay, s/veh		36.7			13.7			17.8				15.1
Approach LOS		D			B			B				B
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		15.1	10.0	23.0		15.1	10.0	23.0				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		22.0	5.0	18.0		22.0	5.0	18.0				
Max Q Clear Time (g_c+1), s		8.7	4.3	20.0		2.1	2.1	5.9				
Green Ext Time (p_c), s		1.4	0.0	0.0		0.0	0.0	1.8				
Intersection Summary												
HCM 6th Ctrl Delay			28.3									
HCM 6th LOS			C									
Notes												
User approved volume balancing among the lanes for turning movement.												

HCM 6th Signalized Intersection Summary
 3: Homerun/Scorpius & Vista






















03/05/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	67	943	105	290	1	139	0	24	2	0	12
Future Volume (veh/h)	3	67	943	105	290	1	139	0	24	2	0	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	3	74	831	117	322	1	154	0	27	2	0	13
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	165	1712	764	165	1751	5	343	0	234	86	21	204
Arrive On Green	0.09	0.48	0.48	0.09	0.48	0.48	0.15	0.00	0.15	0.15	0.00	0.15
Sat Flow, veh/h	1781	3554	1585	1781	3634	11	1401	0	1585	71	142	1384
Grp Volume(v), veh/h	3	74	831	117	157	166	154	0	27	15	0	0
Grp Sat Flow(s), veh/h/ln	1781	1777	1585	1781	1777	1868	1401	0	1585	1596	0	0
Q Serve(g_s), s	0.1	0.6	26.0	3.4	2.7	2.7	5.1	0.0	0.8	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.1	0.6	26.0	3.4	2.7	2.7	5.5	0.0	0.8	0.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		1.00	0.13		0.87
Lane Grp Cap(c), veh/h	165	1712	764	165	856	900	343	0	234	311	0	0
V/C Ratio(X)	0.02	0.04	1.09	0.71	0.18	0.18	0.45	0.00	0.12	0.05	0.00	0.00
Avail Cap(c_a), veh/h	165	1712	764	165	856	900	630	0	558	629	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	22.3	7.4	14.0	23.8	8.0	8.0	21.9	0.0	19.9	19.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	59.2	13.1	0.5	0.5	0.9	0.0	0.2	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.1	0.3	28.3	3.4	1.7	1.7	3.3	0.0	0.5	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.3	7.4	73.2	36.9	8.4	8.4	22.8	0.0	20.2	19.9	0.0	0.0
LnGrp LOS	C	A	F	D	A	A	C	A	C	B	A	A
Approach Vol, veh/h		908			440			181			15	
Approach Delay, s/veh		67.6			16.0			22.4			19.9	
Approach LOS		E			B			C			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		13.0	10.0	31.0		13.0	10.0	31.0				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		19.0	5.0	26.0		19.0	5.0	26.0				
Max Q Clear Time (g_c+l1), s		7.5	5.4	28.0		2.4	2.1	4.7				
Green Ext Time (p_c), s		0.4	0.0	0.0		0.0	0.0	1.7				
Intersection Summary												
HCM 6th Ctrl Dela			47.2									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary

3: Homerun/Scorpius & Vista

























03/05/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	67	943	105	290	1	139	0	24	2	0	12
Future Volume (veh/h)	3	67	943	105	290	1	139	0	24	2	0	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	3	74	831	117	322	1	154	0	27	2	0	13
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	175	1811	808	175	1852	6	565	0	156	90	11	136
Arrive On Green	0.10	0.51	0.51	0.10	0.51	0.51	0.10	0.00	0.10	0.10	0.00	0.10
Sat Flow, veh/h	1781	3554	1585	1781	3634	11	2802	0	1585	101	111	1376
Grp Volume(v), veh/h	3	74	831	117	157	166	154	0	27	15	0	0
Grp Sat Flow(s), veh/h/ln	1781	1777	1585	1781	1777	1868	1401	0	1585	1587	0	0
Q Serve(g_s), s	0.1	0.5	26.0	3.2	2.4	2.4	2.1	0.0	0.8	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.1	0.5	26.0	3.2	2.4	2.4	2.6	0.0	0.8	0.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		1.00	0.13		0.87
Lane Grp Cap(c), veh/h	175	1811	808	175	905	952	565	0	156	236	0	0
V/C Ratio(X)	0.02	0.04	1.03	0.67	0.17	0.17	0.27	0.00	0.17	0.06	0.00	0.00
Avail Cap(c_a), veh/h	175	1811	808	175	905	952	1332	0	590	662	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	20.8	6.3	12.5	22.2	6.7	6.7	21.8	0.0	21.1	20.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	39.3	9.5	0.4	0.4	0.3	0.0	0.5	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.1	0.3	22.0	3.0	1.4	1.4	1.5	0.0	0.5	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.8	6.3	51.8	31.7	7.2	7.1	22.1	0.0	21.6	21.0	0.0	0.0
LnGrp LOS	C	A	F	C	A	A	C	A	C	C	A	A
Approach Vol, veh/h		908			440			181			15	
Approach Delay, s/veh		48.0			13.7			22.0			21.0	
Approach LOS		D			B			C			C	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		10.0	10.0	31.0		10.0	10.0	31.0				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		19.0	5.0	26.0		19.0	5.0	26.0				
Max Q Clear Time (g_c+I1), s		4.6	5.2	28.0		2.4	2.1	4.4				
Green Ext Time (p_c), s		0.5	0.0	0.0		0.0	0.0	1.7				
Intersection Summary												
HCM 6th Ctrl Delay			34.9									
HCM 6th LOS			C									
Notes												
User approved volume balancing among the lanes for turning movement.												

HCM 6th Signalized Intersection Summary

3: Homerun/Scorpius & Vista

03/05/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	452	589	65	576	2	627	3	70	3	1	2
Future Volume (veh/h)	1	452	589	65	576	2	627	3	70	3	1	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1	502	548	72	640	2	697	3	78	3	1	2
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	115	827	369	115	845	3	817	30	781	426	149	252
Arrive On Green	0.06	0.23	0.23	0.06	0.23	0.23	0.51	0.51	0.51	0.51	0.51	0.51
Sat Flow, veh/h	1781	3554	1585	1781	3634	11	1414	59	1535	699	293	496
Grp Volume(v), veh/h	1	502	548	72	313	329	697	0	81	6	0	0
Grp Sat Flow(s), veh/h/ln	1781	1777	1585	1781	1777	1868	1414	0	1594	1488	0	0
Q Serve(g_s), s	0.0	9.8	18.0	3.0	12.7	12.7	35.5	0.0	2.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	9.8	18.0	3.0	12.7	12.7	36.5	0.0	2.0	0.1	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		0.96	0.50		0.33
Lane Grp Cap(c), veh/h	115	827	369	115	413	435	817	0	811	827	0	0
V/C Ratio(X)	0.01	0.61	1.49	0.63	0.76	0.76	0.85	0.00	0.10	0.01	0.00	0.00
Avail Cap(c_a), veh/h	115	827	369	115	413	435	865	0	865	877	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	33.9	26.5	29.7	35.3	27.7	27.7	18.2	0.0	9.8	9.4	0.0	0.0
Incr Delay (d2), s/veh	0.0	3.3	232.9	10.2	12.2	11.7	7.9	0.0	0.1	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	7.7	47.2	2.9	10.7	11.0	18.4	0.0	1.2	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.9	29.8	262.6	45.5	39.9	39.3	26.1	0.0	9.9	9.4	0.0	0.0
LnGrp LOS	C	C	F	D	D	D	C	A	A	A	A	A
Approach Vol, veh/h		1051			714			778				6
Approach Delay, s/veh		151.2			40.2			24.4				9.4
Approach LOS		F			D			C				A
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		44.5	10.0	23.0		44.5	10.0	23.0				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		42.0	5.0	18.0		42.0	5.0	18.0				
Max Q Clear Time (g_c+I1), s		38.5	5.0	20.0		2.1	2.0	14.7				
Green Ext Time (p_c), s		1.2	0.0	0.0		0.0	0.0	1.2				
Intersection Summary												
HCM 6th Ctrl Delay	81.1											
HCM 6th LOS	F											

HCM 6th Signalized Intersection Summary

3: Homerun/Scorpius & Vista

03/05/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘	↖	↗	↘		↕	
Traffic Volume (veh/h)	1	452	589	65	576	2	627	3	70	3	1	2
Future Volume (veh/h)	1	452	589	65	576	2	627	3	70	3	1	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1	502	487	72	640	2	699	0	78	3	1	2
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	137	1041	464	137	1064	3	871	0	388	66	22	44
Arrive On Green	0.08	0.29	0.29	0.08	0.29	0.29	0.24	0.00	0.24	0.08	0.08	0.08
Sat Flow, veh/h	1781	3554	1585	1781	3634	11	3563	0	1585	862	287	575
Grp Volume(v), veh/h	1	502	487	72	313	329	699	0	78	6	0	0
Grp Sat Flow(s), veh/h/ln	1781	1777	1585	1781	1777	1868	1781	0	1585	1724	0	0
Q Serve(g_s), s	0.0	7.5	19.0	2.5	9.8	9.8	12.0	0.0	2.5	0.2	0.0	0.0
Cycle Q Clear(g_c), s	0.0	7.5	19.0	2.5	9.8	9.8	12.0	0.0	2.5	0.2	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		1.00	0.50		0.33
Lane Grp Cap(c), veh/h	137	1041	464	137	520	547	871	0	388	133	0	0
V/C Ratio(X)	0.01	0.48	1.05	0.52	0.60	0.60	0.80	0.00	0.20	0.05	0.00	0.00
Avail Cap(c_a), veh/h	137	1041	464	137	520	547	1153	0	513	133	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	27.6	18.9	22.9	28.8	19.7	19.7	23.0	0.0	19.5	27.7	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.6	55.2	3.6	5.1	4.8	3.1	0.0	0.3	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	5.5	20.0	2.1	7.8	8.1	8.8	0.0	1.6	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.7	20.5	78.1	32.4	24.8	24.5	26.1	0.0	19.7	27.9	0.0	0.0
LnGrp LOS	C	C	F	C	C	C	C	A	B	C	A	A
Approach Vol, veh/h		990			714			777			6	
Approach Delay, s/veh		48.8			25.4			25.5			27.9	
Approach LOS		D			C			C			C	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		20.9	10.0	24.0		10.0	10.0	24.0				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		21.0	5.0	19.0		5.0	5.0	19.0				
Max Q Clear Time (g_c+I1), s		14.0	4.5	21.0		2.2	2.0	11.8				
Green Ext Time (p_c), s		1.9	0.0	0.0		0.0	0.0	2.2				

Intersection Summary

HCM 6th Ctrl Delay 34.8
 HCM 6th LOS C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th TWSC
6: Touchdown & Homerun

03/05/2018

Intersection						
Int Delay, s/veh	4.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔		↕	
Traffic Vol, veh/h	0	4	1	0	7	8
Future Vol, veh/h	0	4	1	0	7	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	1	0	8	9

Major/Minor	Minor1	Major1	Major2	Major3	Major4
Conflicting Flow All	26	1	0	0	1
Stage 1	1	-	-	-	-
Stage 2	25	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	989	1084	-	-	1622
Stage 1	1022	-	-	-	-
Stage 2	998	-	-	-	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	984	1084	-	-	1622
Mov Cap-2 Maneuver	984	-	-	-	-
Stage 1	1017	-	-	-	-
Stage 2	998	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.3	0	3.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1084	1622	-
HCM Lane V/C Ratio	-	-	0.004	0.005	-
HCM Control Delay (s)	-	-	8.3	7.2	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

HCM 6th TWSC
6: Touchdown & Homerun

03/05/2018

Intersection

Int Delay, s/veh 4.3

Movement

	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔		↔	↔
Traffic Vol, veh/h	0	120	120	0	250	250
Future Vol, veh/h	0	120	120	0	250	250
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	133	133	0	278	278

Major/Minor

	Minor1	Major1	Major2
Conflicting Flow All	967	133	0
Stage 1	133	-	-
Stage 2	834	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	282	916	1452
Stage 1	893	-	-
Stage 2	426	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	218	916	1452
Mov Cap-2 Maneuver	218	-	-
Stage 1	691	-	-
Stage 2	426	-	-

Approach

	WB	NB	SB
HCM Control Delay, s	9.6	0	4
HCM LOS	A		

Minor Lane/Major Mvmt

	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	916	1452
HCM Lane V/C Ratio	-	-	0.146	0.191
HCM Control Delay (s)	-	-	9.6	8.1
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0.7

HCM 6th TWSC
6: Touchdown & Homerun

03/05/2018

Intersection						
Int Delay, s/veh	4.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	10	10	0	500	500
Future Vol, veh/h	0	10	10	0	500	500
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	11	11	0	556	556

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1679	11	0
Stage 1	11	-	-
Stage 2	1668	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	104	1070	1608
Stage 1	1012	-	-
Stage 2	168	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	52	1070	1608
Mov Cap-2 Maneuver	52	-	-
Stage 1	506	-	-
Stage 2	168	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.4	0	4.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	1070	1608	-
HCM Lane V/C Ratio	-	0.01	0.345	-
HCM Control Delay (s)	-	8.4	8.4	0
HCM Lane LOS	-	A	A	A
HCM 95th %ile Q(veh)	-	0	1.6	-

HCM 6th TWSC
6: Touchdown & Homerun

03/05/2018

Intersection						
Int Delay, s/veh	5.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↘↙		↔		↖↗	
Traffic Vol, veh/h	0	243	242	0	202	203
Future Vol, veh/h	0	243	242	0	202	203
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	270	269	0	224	226

Major/Minor	Minor1	Major1	Major2	Major3	Major4
Conflicting Flow All	943	269	0	0	269
Stage 1	269	-	-	-	-
Stage 2	674	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	291	770	-	-	1295
Stage 1	776	-	-	-	-
Stage 2	506	-	-	-	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	233	770	-	-	1295
Mov Cap-2 Maneuver	233	-	-	-	-
Stage 1	622	-	-	-	-
Stage 2	506	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.2	0	4.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	770	1295
HCM Lane V/C Ratio	-	-	0.351	0.173
HCM Control Delay (s)	-	-	12.2	8.4
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1.6	0.6

HCM 6th TWSC
6: Touchdown & Homerun

03/05/2018

Intersection						
Int Delay, s/veh	8.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	T		T		T	
Traffic Vol, veh/h	0	285	1	0	101	8
Future Vol, veh/h	0	285	1	0	101	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	317	1	0	112	9

Major/Minor	Minor1	Major1	Major2	Major3	Major4
Conflicting Flow All	234	1	0	0	1
Stage 1	1	-	-	-	-
Stage 2	233	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	754	1084	-	-	1622
Stage 1	1022	-	-	-	-
Stage 2	806	-	-	-	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	702	1084	-	-	1622
Mov Cap-2 Maneuver	702	-	-	-	-
Stage 1	951	-	-	-	-
Stage 2	806	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	6.8
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1084	1622
HCM Lane V/C Ratio	-	-	0.292	0.069
HCM Control Delay (s)	-	-	9.7	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	1.2	0.2

HCM 6th TWSC
6: Touchdown & Homerun

03/05/2018

Intersection						
Int Delay, s/veh	7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔		↔	
Traffic Vol, veh/h	0	305	120	0	565	250
Future Vol, veh/h	0	305	120	0	565	250
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	339	133	0	628	278

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1667	133	0	0	133
Stage 1	133	-	-	-	-
Stage 2	1534	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	106	916	-	-	1452
Stage 1	893	-	-	-	-
Stage 2	196	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	52	916	-	-	1452
Mov Cap-2 Maneuver	52	-	-	-	-
Stage 1	437	-	-	-	-
Stage 2	196	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.2	0	6.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	916	1452
HCM Lane V/C Ratio	-	-	0.37	0.432
HCM Control Delay (s)	-	-	11.2	9.4
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1.7	2.2

HCM 6th TWSC
6: Touchdown & Homerun

03/05/2018

Intersection						
Int Delay, s/veh	5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔		↔	
Traffic Vol, veh/h	0	153	10	0	548	500
Future Vol, veh/h	0	153	10	0	548	500
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	170	11	0	609	556

Major/Minor	Minor1	Major1	Major2	Major2	Major2	Major2
Conflicting Flow All	1785	11	0	0	11	0
Stage 1	11	-	-	-	-	-
Stage 2	1774	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	90	1070	-	-	1608	-
Stage 1	1012	-	-	-	-	-
Stage 2	149	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	41	1070	-	-	1608	-
Mov Cap-2 Maneuver	41	-	-	-	-	-
Stage 1	457	-	-	-	-	-
Stage 2	149	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	4.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1070	1608	-
HCM Lane V/C Ratio	-	-	0.159	0.379	-
HCM Control Delay (s)	-	-	9	8.6	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.6	1.8	-

HCM 6th TWSC
6: Touchdown & Homerun

03/05/2018

Intersection						
Int Delay, s/veh	9.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔		↔	
Traffic Vol, veh/h	0	458	242	0	452	203
Future Vol, veh/h	0	458	242	0	452	203
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	509	269	0	502	226

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1499	269	0	0	269
Stage 1	269	-	-	-	-
Stage 2	1230	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	135	770	-	-	1295
Stage 1	776	-	-	-	-
Stage 2	276	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	75	770	-	-	1295
Mov Cap-2 Maneuver	75	-	-	-	-
Stage 1	432	-	-	-	-
Stage 2	276	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	18.3	0	6.6
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	770	1295
HCM Lane V/C Ratio	-	-	0.661	0.388
HCM Control Delay (s)	-	-	18.3	9.5
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	5.1	1.9

HCM 6th TWSC
7: Touchdown & Access

03/05/2018

Intersection						
Int Delay, s/veh	8.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	T		T		T	
Traffic Vol, veh/h	0	281	4	0	94	7
Future Vol, veh/h	0	281	4	0	94	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	312	4	0	104	8

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	220	4	0
Stage 1	4	-	-
Stage 2	216	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	768	1080	-
Stage 1	1019	-	-
Stage 2	820	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	718	1080	-
Mov Cap-2 Maneuver	718	-	-
Stage 1	953	-	-
Stage 2	820	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	6.9
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1080	1618
HCM Lane V/C Ratio	-	-	0.289	0.065
HCM Control Delay (s)	-	-	9.7	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	1.2	0.2

HCM 6th TWSC
7: Touchdown & Access

03/05/2018

Intersection						
Int Delay, s/veh	5.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		T			Y
Traffic Vol, veh/h	0	185	120	0	315	250
Future Vol, veh/h	0	185	120	0	315	250
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	206	133	0	350	278

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1111	133	0	0	133	0
Stage 1	133	-	-	-	-	-
Stage 2	978	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	231	916	-	-	1452	-
Stage 1	893	-	-	-	-	-
Stage 2	364	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	165	916	-	-	1452	-
Mov Cap-2 Maneuver	165	-	-	-	-	-
Stage 1	638	-	-	-	-	-
Stage 2	364	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.1	0	4.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	916	1452
HCM Lane V/C Ratio	-	-	0.224	0.241
HCM Control Delay (s)	-	-	10.1	8.3
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.9	0.9

HCM 6th TWSC
7: Touchdown & Access

03/05/2018

Intersection						
Int Delay, s/veh	2.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	0	143	10	0	48	500
Future Vol, veh/h	0	143	10	0	48	500
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	159	11	0	53	556

Major/Minor	Minor1	Major1	Major2	Major3	Major4
Conflicting Flow All	673	11	0	0	11
Stage 1	11	-	-	-	-
Stage 2	662	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	421	1070	-	-	1608
Stage 1	1012	-	-	-	-
Stage 2	513	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	401	1070	-	-	1608
Mov Cap-2 Maneuver	401	-	-	-	-
Stage 1	963	-	-	-	-
Stage 2	513	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	0.6
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1070	1608
HCM Lane V/C Ratio	-	-	0.148	0.033
HCM Control Delay (s)	-	-	9	7.3
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0.1

HCM 6th TWSC
7: Touchdown & Access

03/05/2018

Intersection

Int Delay, s/veh 5.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔			↔
Traffic Vol, veh/h	0	215	243	0	250	202
Future Vol, veh/h	0	215	243	0	250	202
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	239	270	0	278	224

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1050	270	0
Stage 1	270	-	-
Stage 2	780	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	252	769	-
Stage 1	775	-	-
Stage 2	452	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	190	769	-
Mov Cap-2 Maneuver	190	-	-
Stage 1	584	-	-
Stage 2	452	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.8	0	4.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	769	1293	-
HCM Lane V/C Ratio	-	-	0.311	0.215	-
HCM Control Delay (s)	-	-	11.8	8.5	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	1.3	0.8	-