

Traffic Impact Study

RidgeGate King Soopers

Lone Tree, Colorado

Prepared for:

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RidgeGate King Soopers

Lone Tree, Colorado

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1.0 EXECUTIVE SUMMARY

RidgeGate King Soopers is proposed to be located in between the eastbound (EB) and westbound (WB) travel lanes of RidgeGate Parkway, east of Peoria Street in Lone Tree, Colorado. This project is proposed to include an approximate 123,000 square foot King Soopers grocery store with an 18-fueling position gas station, four buildings totaling approximately 23,862 square feet of retail uses, and an approximate 3,352 square foot bank. It is expected that RidgeGate King Soopers will be completed in the next few years. Therefore, analysis was conducted for the 2025 short-term buildout horizon as well as the 2045 long-term twenty-year planning horizon.

The purpose of this traffic study is to identify project traffic generation characteristics to determine potential project traffic related impacts on the local street system and to develop the necessary mitigation measures required for the identified traffic impacts. The following proposed future intersections were incorporated into this traffic study in accordance with the City of Lone Tree standards and requirements:

- RidgeGate Parkway WB & High Note Avenue (#1)
- RidgeGate Parkway WB & Rhapsody Road (#2)
- RidgeGate Parkway EB & High Note Avenue (#3)
- RidgeGate Parkway EB & Rhapsody Road (#4)

In addition, the proposed accesses on westbound RidgeGate Parkway (#5 and #6), High Note Avenue (#7), Rhapsody Road (#8), and along eastbound RidgeGate Parkway (#9 and #10) were evaluated. Each of these accesses are proposed to provide full movement.

Regional access to RidgeGate King Soopers will be provided by Interstate 25 (I-25) and RidgeGate Parkway. Primary access will be provided by RidgeGate Parkway while direct access will be provided by proposed full movement accesses along RidgeGate Parkway, High Note Avenue, and Rhapsody Road.

RidgeGate King Soopers is anticipated to generate approximately 9,856 external weekday daily trips, with 455 of these trips occurring during the morning peak hour and 1,011 trips occurring during the afternoon peak hour. Accounting for pass-by trips, expected net new trips (non-pass-

by) to the surrounding street network results in approximately 6,540 weekday daily new trips, with 280 of these trips occurring during the morning peak hour and 621 of these trips occurring during the afternoon peak hour.

Based on the analysis presented in this report, Kimley-Horn believes RidgeGate King Soopers will be successfully incorporated into the existing and future roadway network. Analysis of the existing street network, the proposed project development, and expected traffic volumes resulted in the following recommendations:

2025 Recommendations

- Bicycle lanes are anticipated to be provided along each side of both High Note Avenue and Rhapsody Road. Crosswalks are also anticipated to be provided at each of the four study area key intersections at RidgeGate Parkway WB & High Note Avenue (#1), RidgeGate Parkway WB & Rhapsody Road (#2), RidgeGate Parkway EB & High Note Avenue (#3), and RidgeGate Parkway EB & Rhapsody Road (#4). Internal to the site, a combination of sidewalk, enhanced paving, and pavement striping will be provided to connect the King Soopers to the retail buildings and the bank on the east side of the project. Through discussion with the project team, onsite bicycle parking options to provide for the safe storage of bikes while customers are shopping should be considered. Additionally, onsite pedestrian connections may be explored further to provide clear, safe, and direct pedestrian connection from sidewalks within the public right-of-way to the store fronts.
- With construction of the project, High Note Avenue and Rhapsody Road are proposed to be constructed with one through lane in each direction on the west and east sides adjacent to the development, respectively, with on-street bicycle lanes. Rhapsody Road is also proposed to include on-street parallel parking along both sides of the roadway. These four intersections are anticipated to be signalized 'T'-intersections operating with full turning movement as appropriate on the one-way couplet, with the exception of the RidgeGate Parkway EB & High Note Avenue (#3) intersection which is anticipated to be a 4-leg signalized full movement intersection. At the T-intersections, R3-1 No Right Turn signs should be installed at the approaches to RidgeGate Parkway and R6-1 "ONE WAY" signs should be posted along RidgeGate Parkway as appropriate to prevent vehicles from turning right and entering oncoming traffic. At the RidgeGate Parkway EB & High Note Avenue (#3) intersection,

appropriate turn movement restriction and one-way signs should be installed to restrict traffic from turning the wrong way (westbound) onto RidgeGate Parkway EB.

- RidgeGate Parkway is anticipated to utilize the existing available pavement width to restripe the roadway to provide three through lanes in each direction within the study area during this horizon. It is recommended that the existing striped-out inside lane along RidgeGate Parkway in both directions be striped as the third through lane. Along RidgeGate Parkway WB, westbound left turn lanes should be provided at the studied intersections. Due to intersection and access spacing, the westbound left turn lane at RidgeGate Parkway WB & High Note Avenue (#1) should provide a length of 190 feet plus a 92-foot taper. A northbound left turn lane with 175 feet in storage length and a 50-foot taper should be provided. The westbound left turn lane at RidgeGate Parkway WB & Rhapsody Road (#2) should provide a length of 190 feet plus 110-foot taper. A northbound left turn lane 120 feet in length with a 50-foot taper should be provided.
- Along RidgeGate Parkway EB, eastbound left turn lanes should also be provided at the studied intersections. The eastbound left turn lane at RidgeGate Parkway EB & High Note Avenue (#3) is recommended to have a length of 190 feet plus 120-foot taper while the eastbound left turn lane at RidgeGate Parkway EB & Rhapsody Road (#4) is recommended to have a length of 101 feet plus 75-foot taper based on access to intersection spacing. At RidgeGate Parkway EB & High Note Avenue (#3) a southbound left turn lane 120 feet in length with a 50-foot taper should be provided and at RidgeGate Parkway EB & Rhapsody Road (#4), a southbound left turn lane should provide 120 feet in length with a 50-foot shared taper should be provided.
- Four full movement accesses are proposed along RidgeGate Parkway, including two along RidgeGate Parkway WB (#5 and #6) and two along RidgeGate Parkway EB (#9 and #10). These accesses are proposed to provide left turn deceleration lanes. The westbound left turn deceleration lane at the RidgeGate Parkway WB Northwest Access (#5) is recommended to have a length of 190 feet plus 100-foot taper. The westbound left turn deceleration lane at the RidgeGate Parkway WB Northeast Access (#6) is recommended to have a length of 190 feet plus 98-foot taper. The eastbound left turn lanes at the RidgeGate Parkway EB Southwest Access (#9) and Southeast Access (#10) are recommended to have lengths of 190 feet plus 105-foot taper and 190 feet plus 84-foot taper, respectively. R1-1 “STOP” signs should be installed for the access approaches exiting the development. In addition, R3-1 No Right Turn signs should be installed underneath the “STOP” signs and R6-1 “ONE WAY” signs should

be posted along RidgeGate Parkway as appropriate at these accesses to prevent vehicles from turning right and entering oncoming traffic.

- At the proposed full movement project accesses along High Note Avenue (#7) and Rhapsody Road (#8) between the two travel directions of RidgeGate Parkway, R1-1 “STOP” signs should be provided at the access approaches exiting the development. At the Rhapsody Road Access (#8), approximately 100 feet of northbound left turn space with a 50-foot shared taper will be available based on the back-to-back southbound left turn lane for the RidgeGate Parkway EB & Rhapsody Road (#4) intersection to the south.
- It is recommended the RidgeGate Parkway WB Northwest Access (#5) provide a minimum throat length of 25 feet and the RidgeGate Parkway WB Northeast Access (#6) should provide a minimum throat length of 50 feet. The East Access & Rhapsody Road (#8) should provide a minimum throat length of 25 feet. The RidgeGate Parkway EB Southwest Access (#9) should provide a minimum throat length of 50 feet, while it is recommended the RidgeGate Parkway EB & Southwest Access (#10) also provide a minimum throat length of 50 feet. These recommended throat depths will accommodate expected exiting vehicle queues throughout the long-term 2045 horizon.

2045 Recommendations

- The north legs of High Note Avenue and Rhapsody Road to the north of RidgeGate Parkway WB are anticipated to be constructed before the 2045 long-term horizon, as is the south leg of Rhapsody Road to the south of RidgeGate Parkway EB. This will create three additional 4-leg intersections (#1, #2, #4). A westbound right turn lane may need to be constructed at RidgeGate Parkway WB & High Note Avenue (#1) and at RidgeGate Parkway WB & Rhapsody Road (#2), with a recommended length of 190 feet plus 120-foot taper. Likewise, an eastbound right turn lane may be needed at the RidgeGate Parkway EB and Rhapsody Road (#4) intersection, with a recommended length of 190 feet plus 120-foot taper.

General Recommendations

Any onsite or offsite improvements should be incorporated into the Civil Drawings and conform to standards of the City of Lone Tree and the Manual on Uniform Traffic Control Devices (MUTCD) – 2009 Edition.

2.0 INTRODUCTION

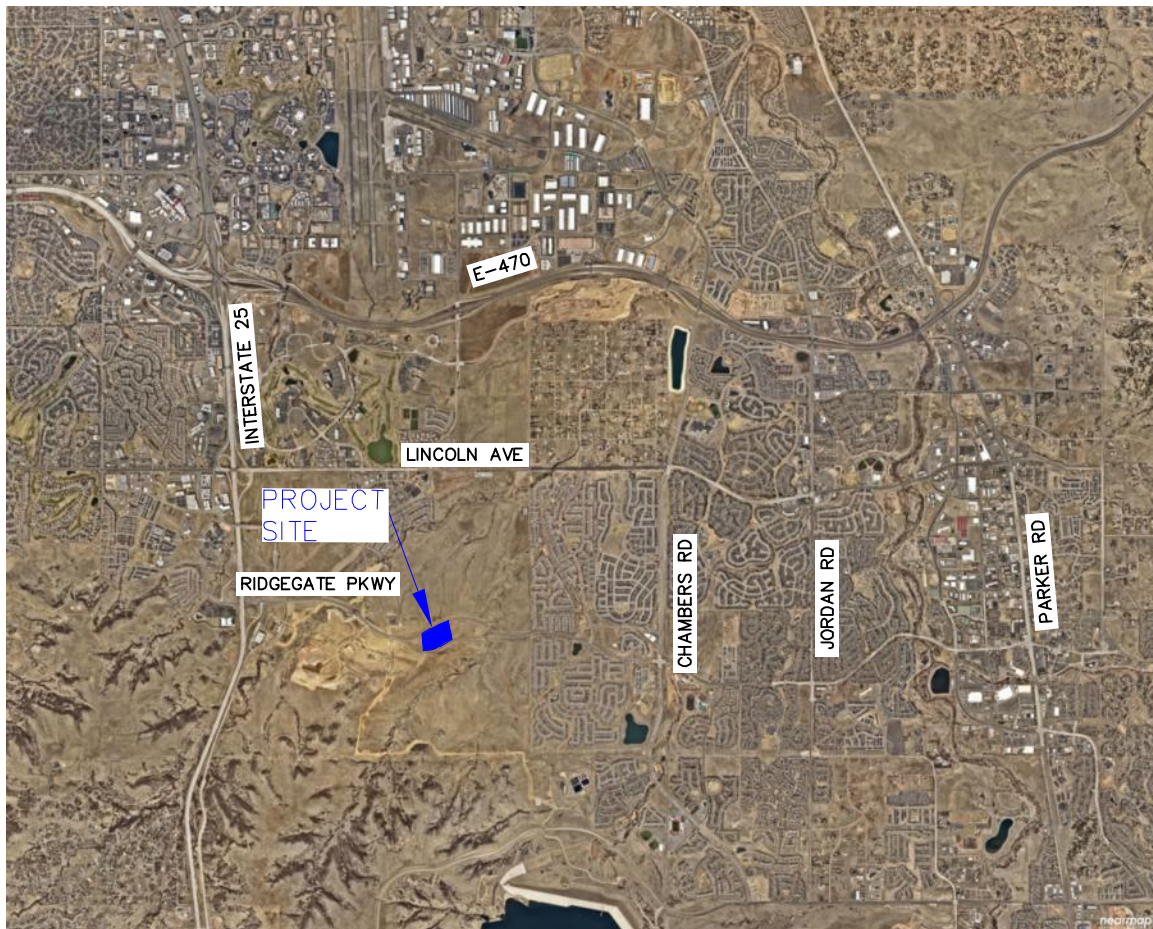
Kimley-Horn and Associates, Inc. has prepared this report to document the results of a Traffic Impact Study for the RidgeGate King Soopers project proposed to be located in between the eastbound (EB) and westbound (WB) travel lanes of RidgeGate Parkway, east of Peoria Street in Lone Tree, Colorado. A vicinity map illustrating the RidgeGate King Soopers development location is shown in **Figure 1**. This project is proposed to include an approximate 123,000 square foot King Soopers grocery store with an 18-fueling position gas station, four buildings totaling approximately 23,862 square feet of retail uses, and an approximate 3,352 square foot bank. A conceptual site plan is attached in **Appendix F**. It is expected that RidgeGate King Soopers will be completed in the next several years; therefore, analysis was conducted for the 2025 short-term buildout horizon as well as the 2045 long-term twenty-year planning horizon.

The purpose of this traffic study is to identify project traffic generation characteristics to determine potential project traffic related impacts on the local street system and to develop the necessary mitigation measures required for the identified traffic impacts. The following proposed future intersections were incorporated into this traffic study in accordance with the City of Lone Tree standards and requirements:

- RidgeGate Parkway WB & High Note Avenue (#1)
- RidgeGate Parkway WB & Rhapsody Road (#2)
- RidgeGate Parkway EB & High Note Avenue (#3)
- RidgeGate Parkway EB & Rhapsody Road (#4)

In addition, the proposed accesses on westbound RidgeGate Parkway (#5 and #6), High Note Avenue (#7), Rhapsody Road (#8), and along eastbound RidgeGate Parkway (#9 and #10) were evaluated. Each of these accesses are proposed to provide full movement.

Regional access to the project will be provided by Interstate 25 (I-25) and RidgeGate Parkway. Primary access will be provided by RidgeGate Parkway while direct access will be provided by proposed full movement accesses along RidgeGate Parkway, High Note Avenue, and Rhapsody Road.



RIDGEGATE KING SOOPERS
LONE TREE, COLORADO
VICINITY MAP

FIGURE 1

3.0 EXISTING AND FUTURE CONDITIONS

3.1 Existing Study Area

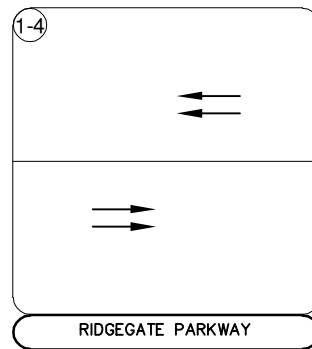
The existing site is comprised of vacant land. The site is bounded to the north and south by the westbound and eastbound travel lanes of RidgeGate Parkway, respectively. Otherwise, surrounding the site is primarily vacant land. The City of Lone Tree Zoning Map refers to the area surrounding the site as “Planned Development District”, specifically the “RidgeGate Planned Development.”



3.2 Existing and Future Roadway Network

RidgeGate Parkway extends east/west primarily with two through lanes in each direction within the study area, although the eastbound direction provides three through lanes through some of the study area. In the study area, RidgeGate Parkway separates the eastbound and westbound travel lanes by as much as approximately 750 feet in some areas. The RidgeGate King Soopers project is proposed to be located within the western portion of this one-way couplet separation between the two directions of travel on RidgeGate Parkway. The posted speed limit is 45 miles per hour. By 2040, the City of Lone Tree 2040 Transportation Plan shows this roadway as providing three through lanes in each direction.

High Note Avenue and Rhapsody Road are proposed future roadways on the west and east sides adjacent to the development, respectively, that will be constructed with on-street bicycle lanes. Rhapsody Road is also proposed to include on-street parallel parking along both sides of the roadway. These roadways will travel in the north/south direction between the two directions of travel of RidgeGate Parkway and are anticipated to provide one through lane in each direction. According to the site plan of this project, these roadways are anticipated to eventually have north and south legs on either side of RidgeGate Parkway. High Note Avenue is identified as a collector on the Southwest Village Preliminary Plan and Final Drawings. Rhapsody Road is identified in the City of Lone Tree 2040 Transportation Plan as “Collector A” and according to the Transportation Plan it is anticipated to primarily provide one through lane in each direction. In the future, Rhapsody Road is anticipated to connect to Lincoln Avenue to the north and “Collector D” to the south.

The intersection lane configuration within the study area is shown in **Figure 2**.



LEGEND	
	Study Area Key Intersection
	Roadway Speed Limit

RIDGEGATE KING SOOPERS
 LONE TREE, COLORADO
 EXISTING GEOMETRY

FIGURE 2

3.3 Existing Traffic Volumes

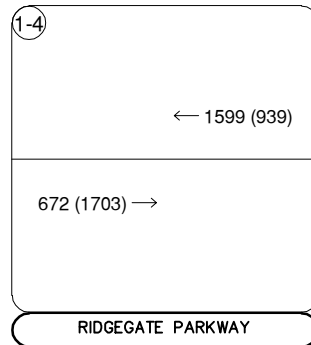
To provide a basis of eastbound and westbound through movement counts adjacent to the project site, existing turning movement counts were conducted at the intersection of RidgeGate Parkway and Peoria Street on Thursday, July 7, 2022, during the weekday morning and afternoon peak hours. The counts were conducted during the morning and afternoon peak hours of adjacent street traffic in 15-minute intervals from 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM on this count date. The existing intersection traffic volumes are shown in **Figure 3** with count sheets provided in **Appendix A**.

3.4 Unspecified Development Traffic Growth

According to traffic projections from the Denver Regional Council of Governments (DRCOG) traffic model, the area surrounding the site is expected to have an average 30-year growth factor of 1.87 based on a 2020 volume of 23,000 vehicles per day (vpd) and future 2050 projection of 43,000 vpd. This growth factor equates to an annual growth rate of 2.11 percent. This annual growth rate was used to estimate short-term 2025 and long-term 2045 traffic volume projections at the key intersections. Future traffic volume projections and growth rate calculations are provided in **Appendix B**. Of note, the south leg of High Note Avenue is anticipated to be constructed with completion of the first phase of the RidgeGate Southwest Village development, which is expected to be completed prior to the 2025 short-term horizon. The volume anticipated to be generated by this development was included in the background traffic volumes for this project, with relevant information from the RidgeGate Southwest Village Traffic Study completed by JR Engineering attached in **Appendix B**.

By 2045, it is anticipated that High Note Avenue and Rhapsody Road will be built out with or without construction of this development. To provide a conservative analysis, estimated volumes were added to these roadways in the 2045 background traffic volumes. As High Note Avenue is anticipated to become a collector road, 4,000 vpd were estimated to travel on the north leg of the roadway. The south leg of High Note Avenue used the average daily traffic (ADT) provided by the Southwest Village Traffic Study of full buildout volumes of 7,750 vpd in 2040—with an additional 100 vpd added onto that to account for any additional through traffic between 2040 and the 2045 horizon. Rhapsody Road is shown as a local collector in the 2040 Transportation Plan and in this study, 4,000 vpd were estimated to travel on the north leg and 4,000 vpd on the south leg of this roadway within the study area. These estimates were distributed to the morning and afternoon

peak hours based on existing travel patterns and were included in the 2045 background traffic volumes. The calculated background traffic volumes for 2025 and 2045 are shown in **Figure 4** and **Figure 5**, respectively.



Thursday, July 7, 2022
 7:15 to 8:15 AM (4:30 to 5:30 PM)

LEGEND

(X) Study Area Key Intersection

XXX(XXX) Weekday AM(PM)
 Peak Hour Traffic Volumes

XX,X00 Estimated Daily Traffic Volume

RIDGEGATE KING SOOPERS
 LONE TREE, COLORADO
 2022 EXISTING TRAFFIC VOLUMES

FIGURE 3



①	②	③	④
← 1726(1058)	← 1726(1058)	733(1822) → 5(5) ↘	768(1860) →
RIDGEGATE PKWY WB & HIGH NOTE AVE	RIDGEGATE PKWY WB & RHAPSODY RD	RIDGEGATE PKWY EB & HIGH NOTE AVE	RIDGEGATE PKWY WB & RHAPSODY RD

LEGEND

(X) Study Area Key Intersection

XXX(XXX) Weekday AM(PM)
Peak Hour Traffic Volumes

XX,X00 Estimated Daily Traffic Volume

RIDGEGATE KING SOOPERS
 LONE TREE, COLORADO
 2025 BACKGROUND TRAFFIC VOLUMES

FIGURE 4



①	②	③	④
<p>↖ 130(80)</p> <p>↙ 65(80)</p> <p>↗ 65(100)</p> <p>← 2675(1495)</p> <p>↘ 60(90)</p> <p>↖ 150(155)</p> <p>↗ 60(140)</p>	<p>↖ 130(80)</p> <p>↙ 65(80)</p> <p>↗ 65(100)</p> <p>← 2595(1565)</p> <p>↘ 30(55)</p> <p>↖ 75(40)</p> <p>↗ 65(140)</p>	<p>↖ 80(95)</p> <p>↙ 45(75)</p> <p>↗ 30(125)</p> <p>→ 1070(2560)</p> <p>↘ 105(185)</p> <p>↖ 180(170)</p> <p>↗ 110(95)</p>	<p>↖ 70(105)</p> <p>↙ 25(30)</p> <p>↗ 25(90)</p> <p>→ 1135(2500)</p> <p>↘ 65(140)</p> <p>↖ 115(90)</p> <p>↗ 65(65)</p>
RIDGEGATE PKWY WB & HIGH NOTE AVE	RIDGEGATE PKWY WB & RHAPSODY RD	RIDGEGATE PKWY EB & HIGH NOTE AVE	RIDGEGATE PKWY WB & RHAPSODY RD

LEGEND

(X) Study Area Key Intersection

XXX(XXX) Weekday AM(PM)
Peak Hour Traffic Volumes

XX,X00 Estimated Daily Traffic Volume

RIDGEGATE KING SOOPERS
LONE TREE, COLORADO
2045 BACKGROUND TRAFFIC VOLUMES

FIGURE 5

4.0 PROJECT TRAFFIC CHARACTERISTICS

4.1 Trip Generation

Site-generated traffic estimates are determined through a process known as trip generation. Rates and equations are applied to the proposed land use to estimate traffic generated by the development during a specific time interval. The acknowledged source for trip generation rates is the *Trip Generation Manual*¹ published by the Institute of Transportation Engineers (ITE). ITE has established trip rates in nationwide studies of similar land uses. For this study, Kimley-Horn used the ITE Trip Generation Report average rates that apply to Free-Standing Discount Superstore (ITE Land Use Code 813), Strip Retail Plaza (ITE Land Use Code 822), Drive-In Bank (ITE Land Use Code 912), and Gasoline/Service Station (ITE Land Use Code 944) for traffic associated with the development.

Since the full buildout of the RidgeGate King Soopers is proposed to contain multiple retail uses, internal capture trips are expected to occur onsite. These internal capture trips are shared trips from vehicles already within the project site. These shared trips reduce the number of total external trips produced by the development. The ITE *Trip Generation Handbook, 3rd Edition* does not provide direct guidance for internal capture trips between various retail uses, however, previous editions of this handbook provided data on retail-to-retail internal capture trip reductions of no lower than 20 percent and as high as 31 percent. To be conservative, a 10 percent internal capture trip reduction was used in this analysis for the morning and afternoon peak periods.

As the project is a large commercial development, pass-by trips are also expected. These pass-by trips are vehicles already on the street network that will be attracted to the site. The pass-by percentages were obtained from the ITE *Trip Generation Manual, 11th Edition – Volume 1: User's Guide and Handbook, 2021*.

RidgeGate King Soopers is anticipated to generate approximately 9,856 external weekday daily trips, with 455 of these trips occurring during the morning peak hour and 1,011 trips occurring during the afternoon peak hour. Accounting for pass-by trips, expected net new trips (non-pass-

¹ Institute of Transportation Engineers, *Trip Generation Manual*, Eleventh Edition, Washington DC, 2021.

by) to the surrounding street network results in approximately 6,540 weekday daily new trips, with 280 of these trips occurring during the morning peak hour and 621 of these trips occurring during the afternoon peak hour. Calculations were based on the procedure and information provided in the ITE *Trip Generation Manual, 11th Edition – Volume 1: User’s Guide and Handbook*, 2021. **Table 1** summarizes the estimated trip generation for the RidgeGate King Soopers development. The trip generation worksheets are included in **Appendix C**.

Table 1 – RidgeGate King Soopers Traffic Generation

Land Use and Size	Weekday Vehicle Trips						
	Daily	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Total Trips							
Free-Standing Discount Superstore (ITE 813) 123,000 Square Feet	6,214	128	101	229	261	272	533
Strip Retail Plaza <40k SF (ITE 822) 23,862 Square Feet	1,300	34	22	56	79	79	158
Drive-In Bank (ITE 912) 3,352 Square Feet	336	17	17	34	35	35	70
Gasoline/Service Station (ITE 944) 18 Fueling Positions	3,096	93	93	186	125	125	250
Total Trips	10,946	272	233	505	500	511	1,011
Total Trips with Internal Capture (10% reduction)	9,856	245	210	455	450	460	910
Non Pass-By Trips							
Free-Standing Discount Superstore (ITE 813) 123,000 Square Feet	3,972	82	65	147	167	174	341
Strip Retail Plaza <40k SF (ITE 822) 23,862 Square Feet	1,170	31	20	51	71	71	142
Drive-In Bank (ITE 912) 3,352 Square Feet	198	11	11	22	21	21	42
Gasoline/Service Station (ITE 944) 18 Fueling Positions	1,200	31	31	62	49	49	98
Total Non Pass-By Trips (New Trips)	6,540	155	127	282	307	314	621
Pass-By Trips							
Free-Standing Discount Superstore (ITE 813) 123,000 Square Feet	1,622	33	26	59	68	71	139
Drive-In Bank (ITE 912) 3,352 Square Feet	106	4	4	8	11	11	22
Gasoline/Service Station (ITE 944) 18 Fueling Positions	1,588	53	53	106	64	64	128
Total Pass-By Trips	3,316	90	83	173	143	146	289

4.2 Trip Distribution

Distribution of site traffic on the street system was based on the area street system characteristics, existing traffic patterns, existing and anticipated surrounding demographic information, and the proposed access system for the project. The directional distribution of traffic is a means to quantify the percentage of site-generated traffic that approaches the site from a given direction and departs the site back to the original source. As noted, a 10 percent internal capture rate was used for trips occurring between retail uses within the development; this reduction was applied before distributing the trips to and from the project site. Following construction of this development but prior to 2045, it is anticipated that the area surrounding the project site will be developed with additional roadway connections in place, as such, unique trip distributions were used for the 2025 and 2045 horizon years to account for this change. **Figure 6** shows the 2025 project non pass-by trip distribution while **Figure 7** shows the 2045 non pass-by trip distribution.

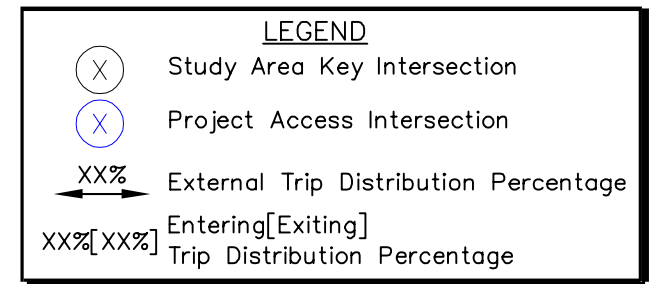
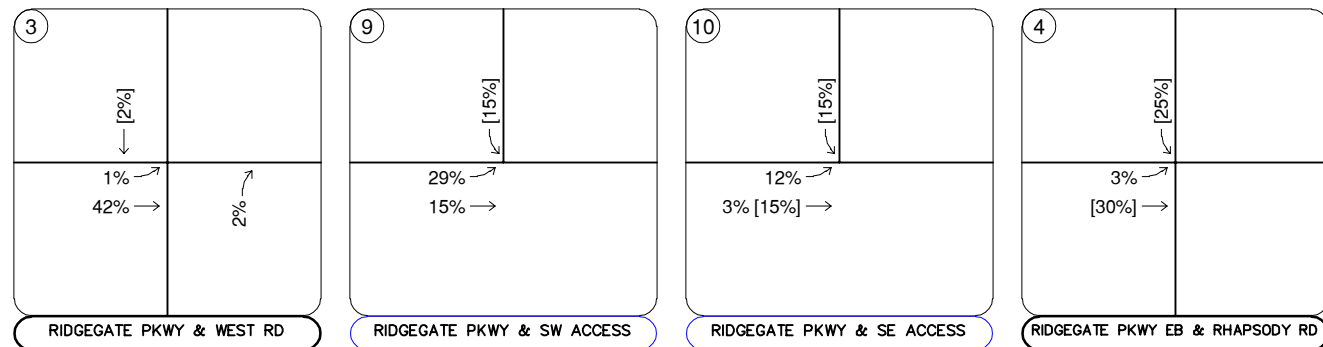
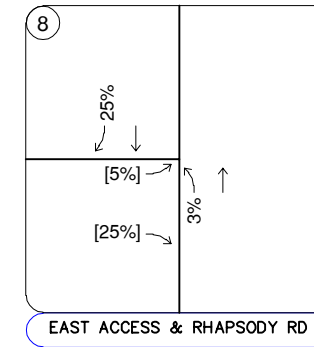
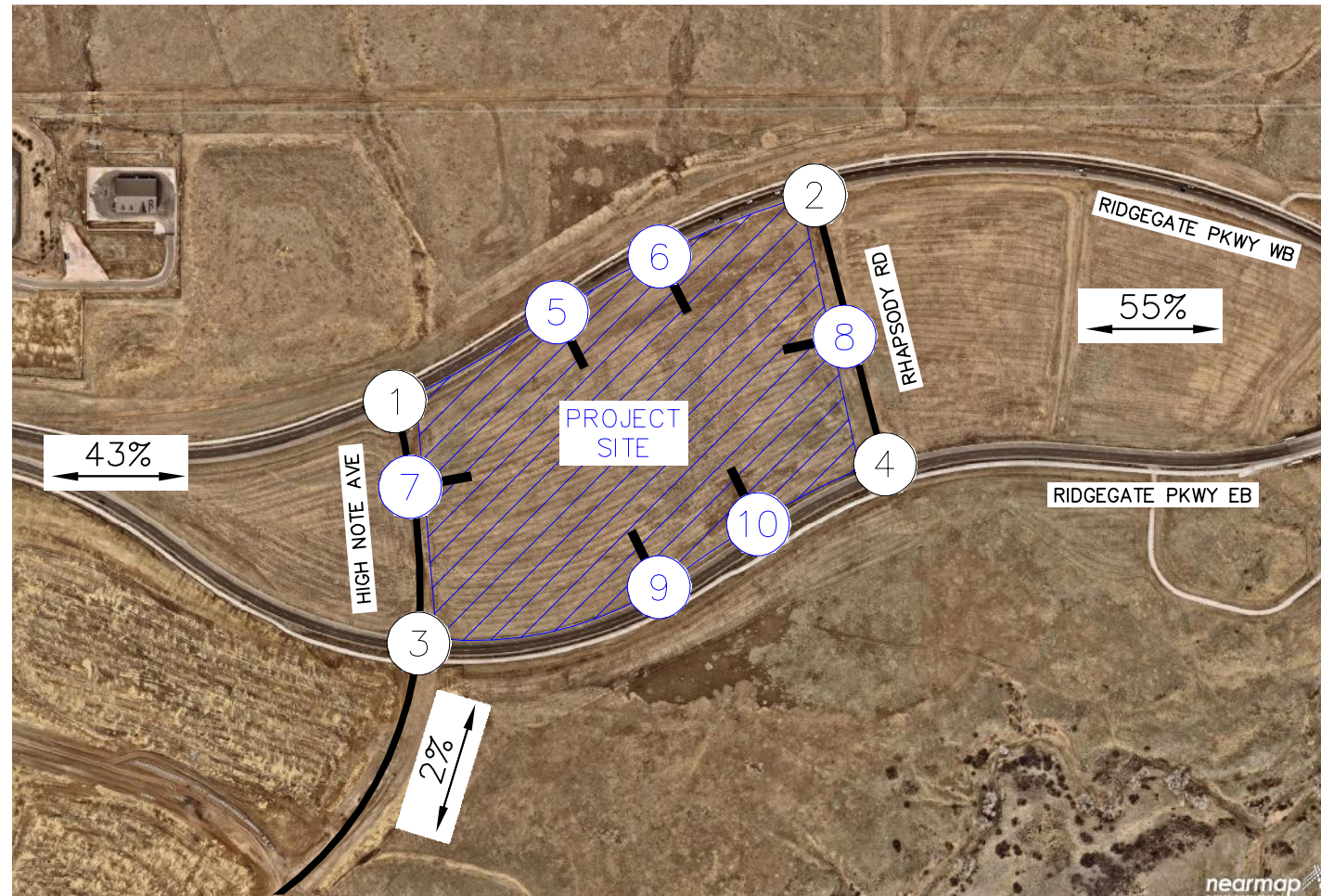
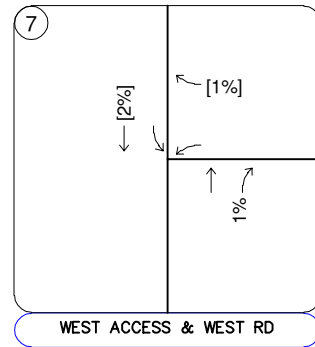
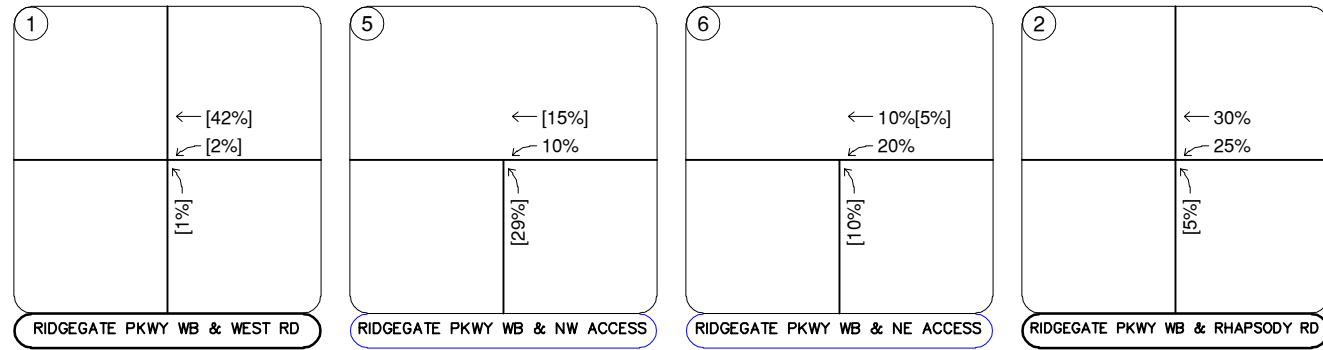
Since this project contains commercial uses, traffic passing by the site is anticipated to be attracted, whether on a random trip or captured from a typical commute trip. A pass-by distribution of traffic is a means to quantify the percentage of project generated traffic that approaches the site from a given direction that then departs the site continuing in that same original direction of travel. The expected morning and afternoon peak hour pass-by trip distributions were estimated based on actual traffic volumes, as shown in **Figures 8** and **9**, respectively.

4.3 Traffic Assignment

RidgeGate King Soopers traffic assignment was obtained by applying the project trip distribution to the estimated traffic generation of the development shown in **Table 1**. Project traffic assignment for the project in the non pass-by condition during 2025 and 2045 are shown in **Figure 10** and **Figure 11**, respectively. The project traffic assignment for the project in the pass-by condition is shown in **Figure 12**.

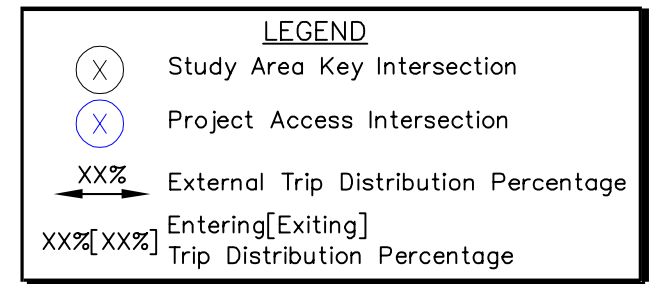
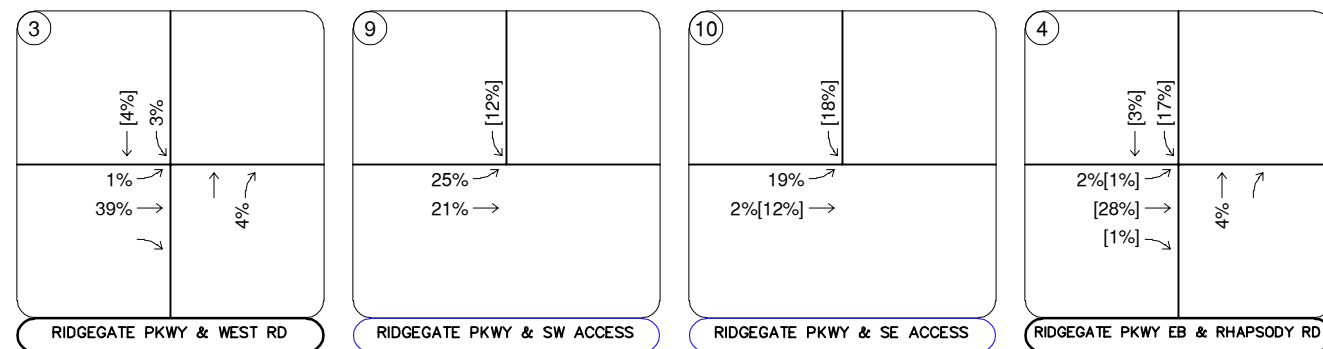
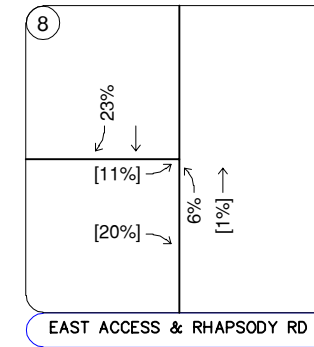
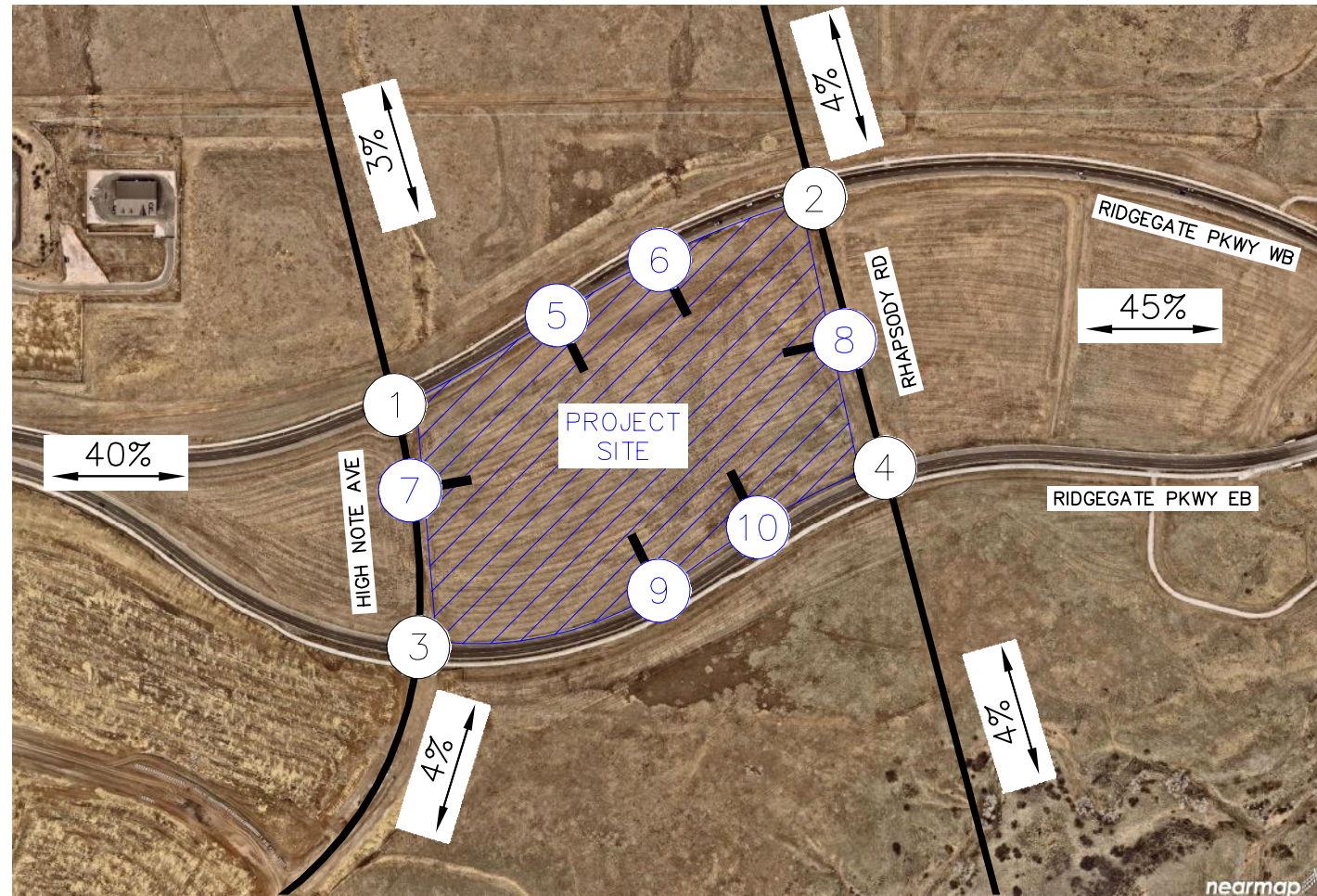
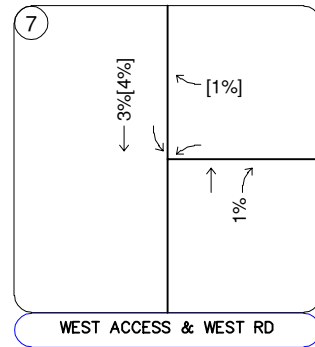
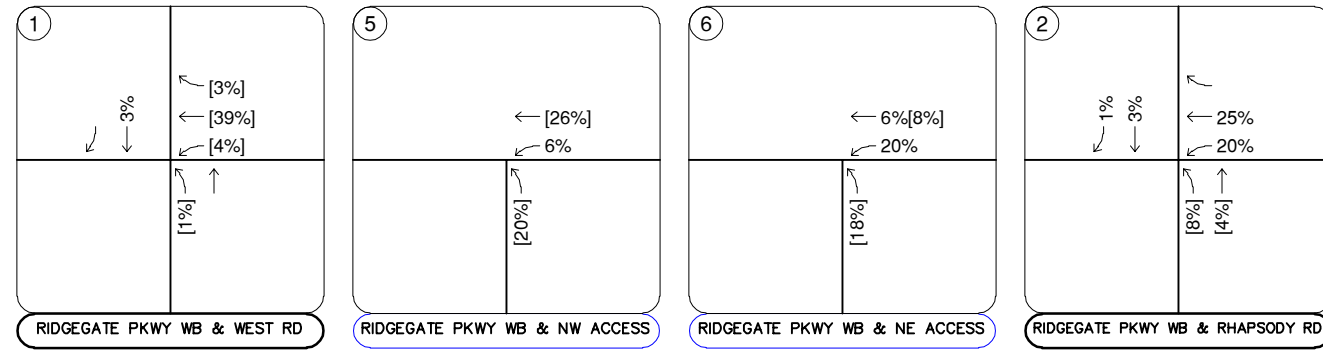
4.4 Total (Background Plus Project) Traffic

Site traffic volumes were added to the background volumes to represent estimated traffic conditions for the short-term 2025 buildout horizon and long-term 2045 twenty-year planning horizon. These total traffic volumes for the study area are illustrated for the 2025 and 2045 horizon years in **Figures 13** and **14**, respectively.



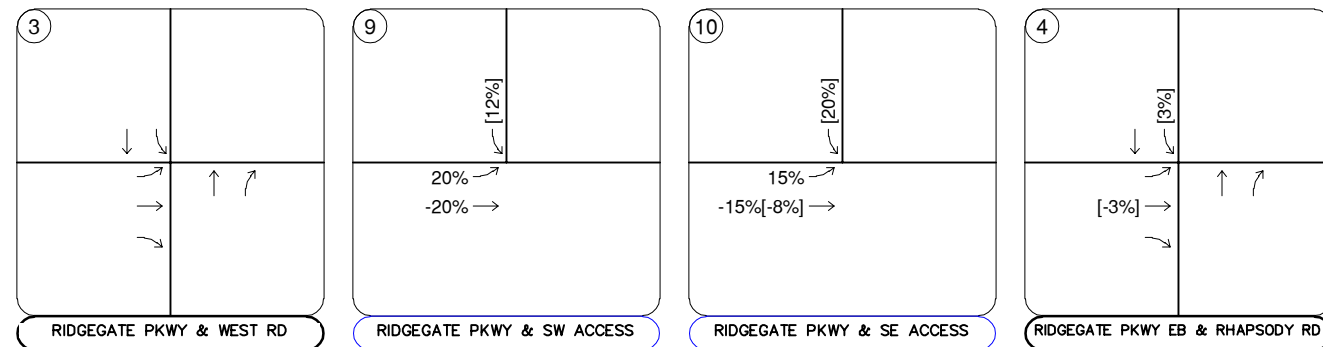
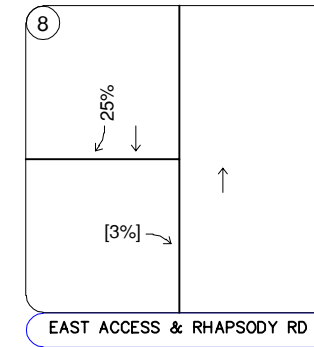
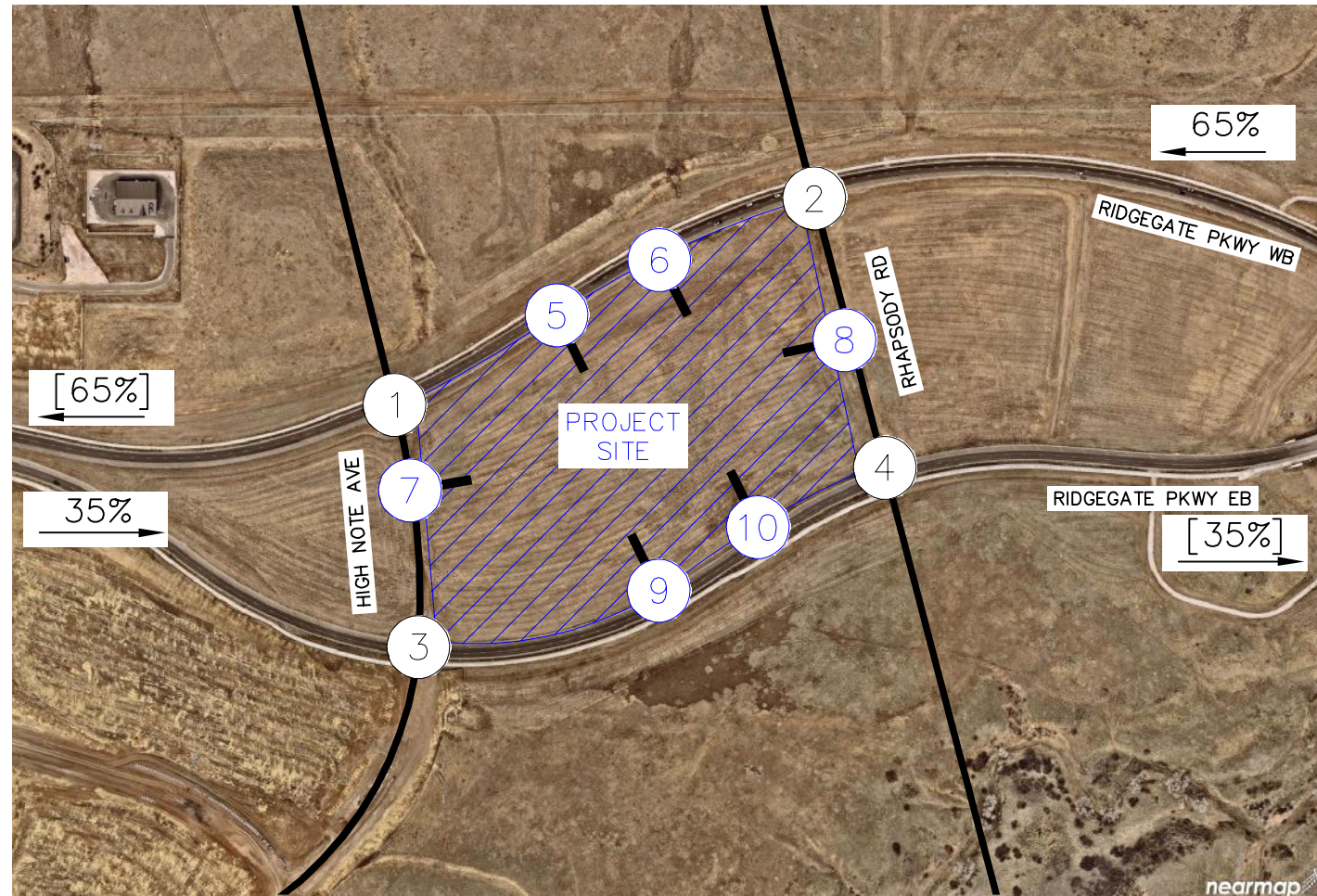
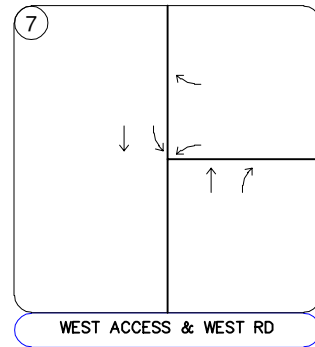
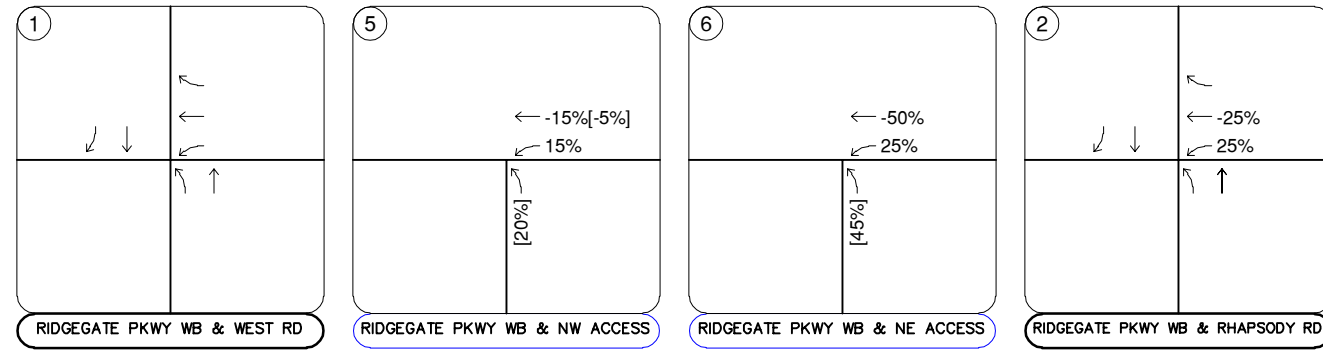
RIDGEGATE KING SOOPERS
LONE TREE, COLORADO
2025 NON PASS-BY TRIP DISTRIBUTION

FIGURE 6



RIDGEGATE KING SOOPERS
LONE TREE, COLORADO
2045 NON PASS-BY TRIP DISTRIBUTION

FIGURE 7

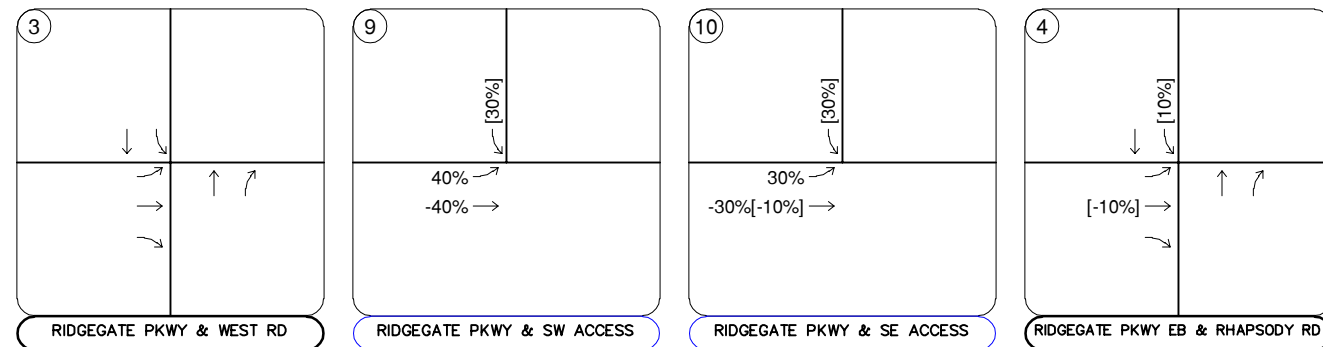
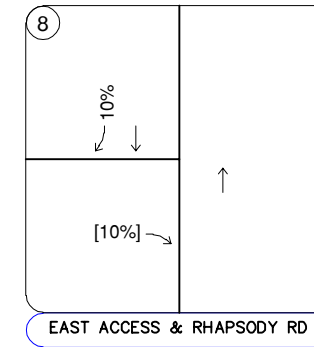
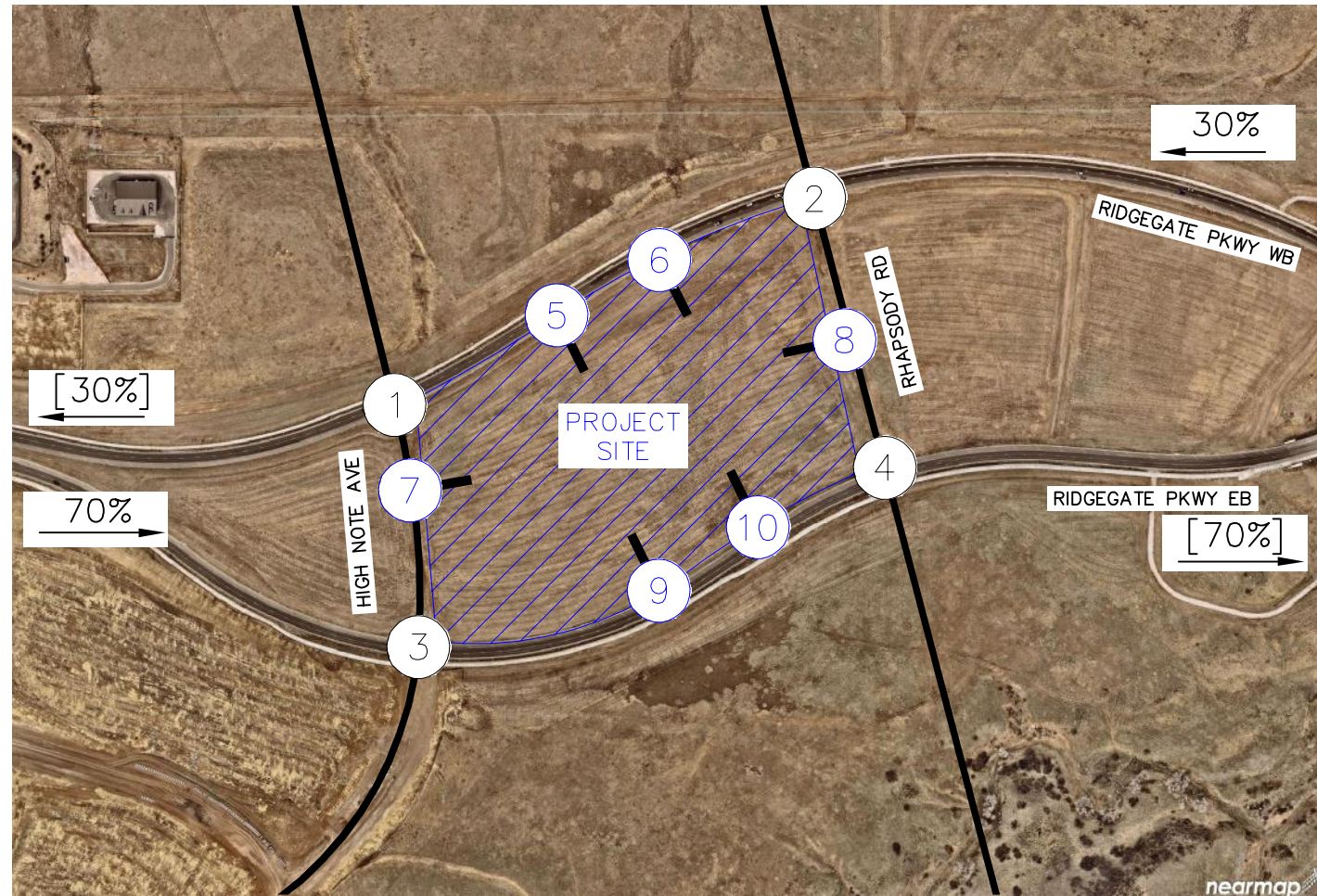
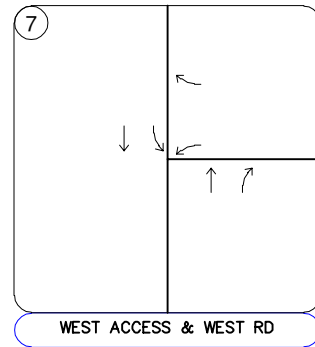
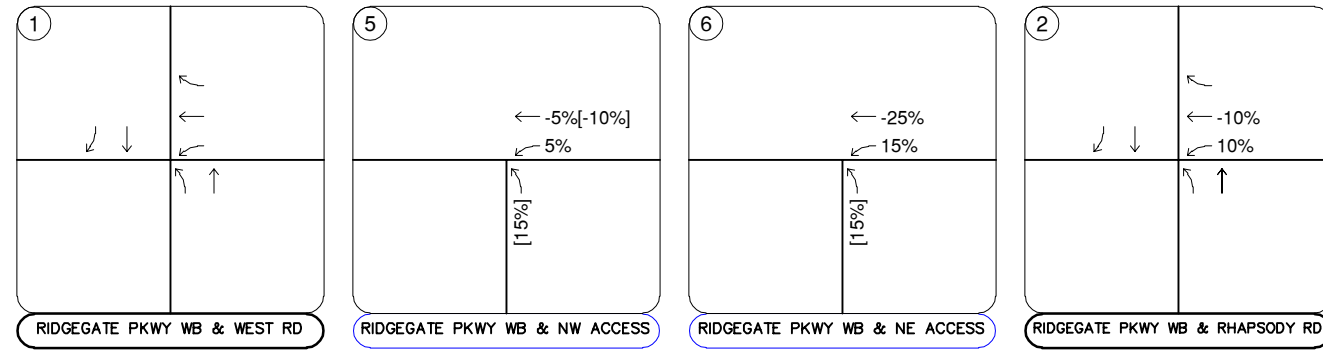


LEGEND

- (X) Study Area Key Intersection
- (X) Project Access Intersection
- XX% External Trip Distribution Percentage
- XX%[XX%] Entering[Exiting] Trip Distribution Percentage

RIDGEGATE KING SOOPERS
LONE TREE, COLORADO
AM PASS-BY TRIP DISTRIBUTION

FIGURE 8

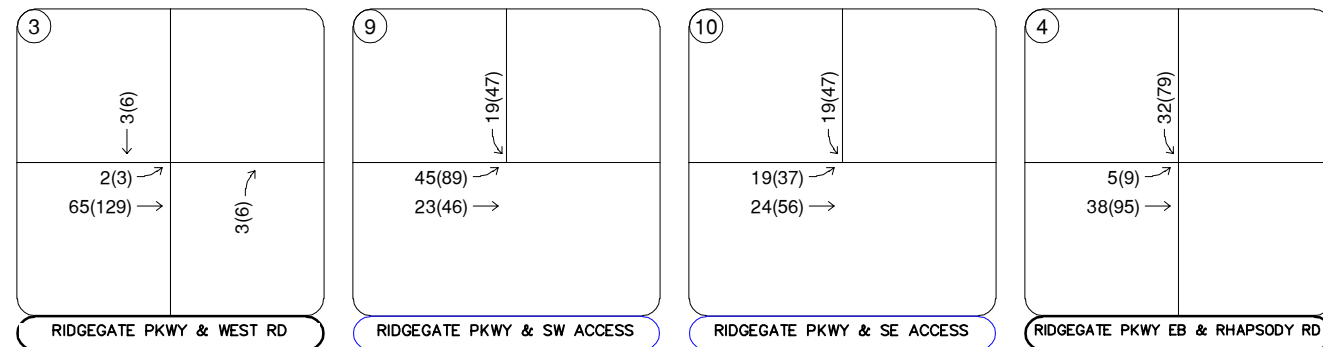
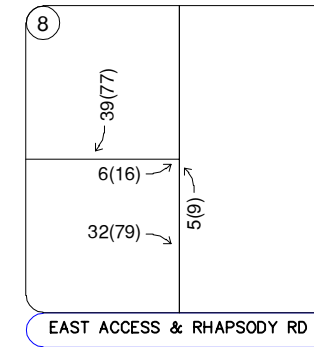
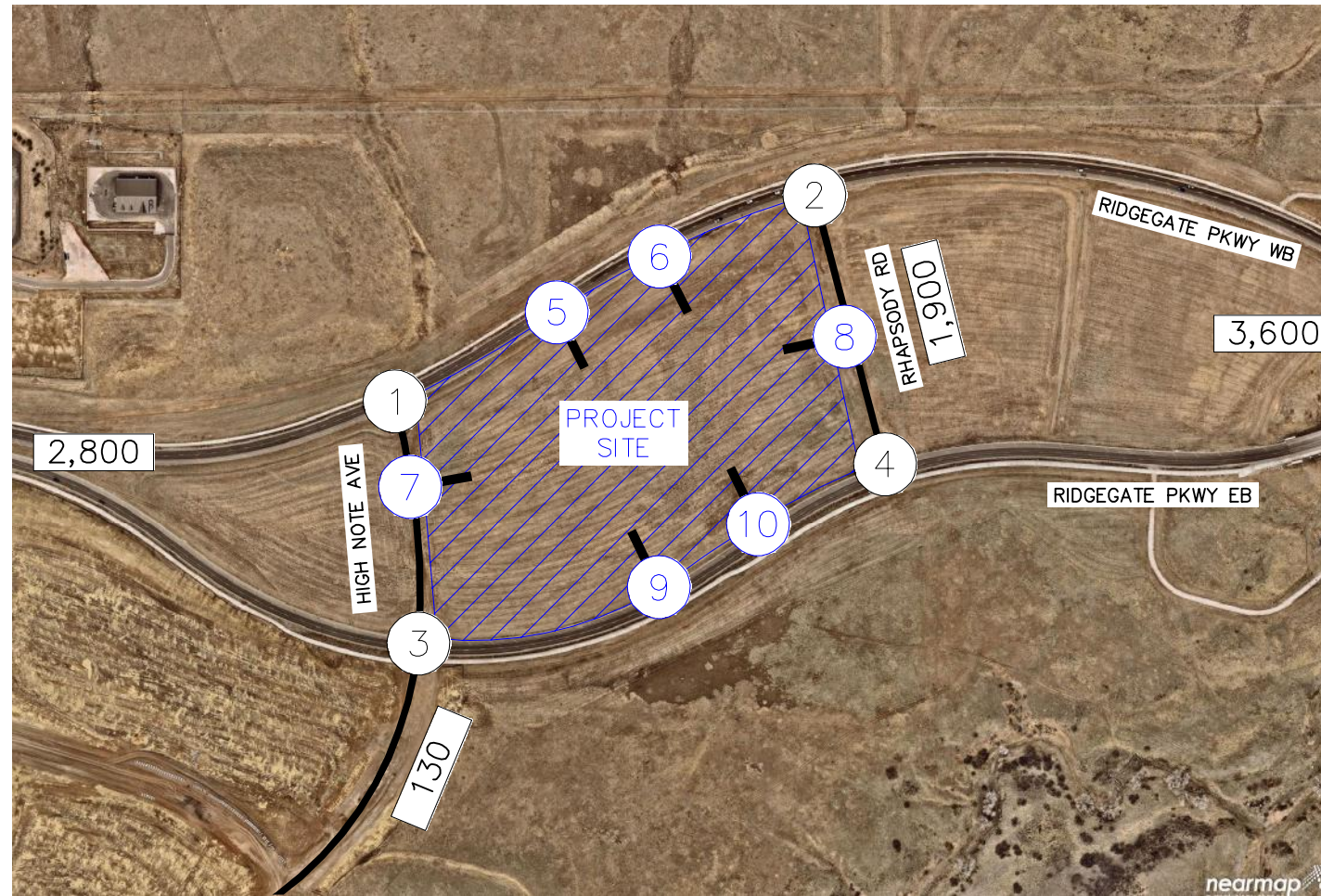
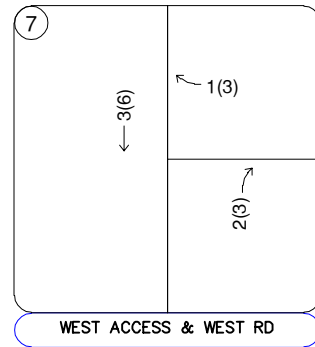
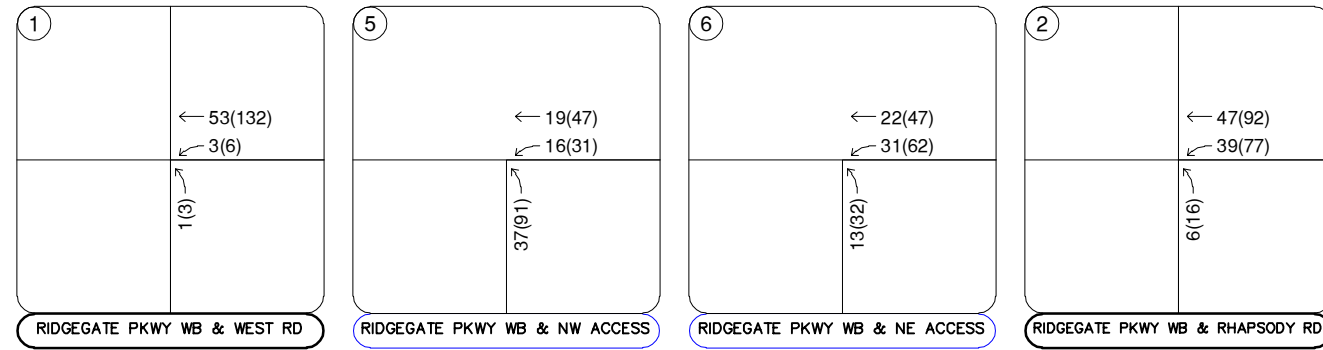


LEGEND

- (X) Study Area Key Intersection
- (X) Project Access Intersection
- XX% External Trip Distribution Percentage
- XX%[XX%] Entering[Exiting] Trip Distribution Percentage

RIDGEGATE KING SOOPERS
LONE TREE, COLORADO
PM PASS-BY TRIP DISTRIBUTION

FIGURE 9

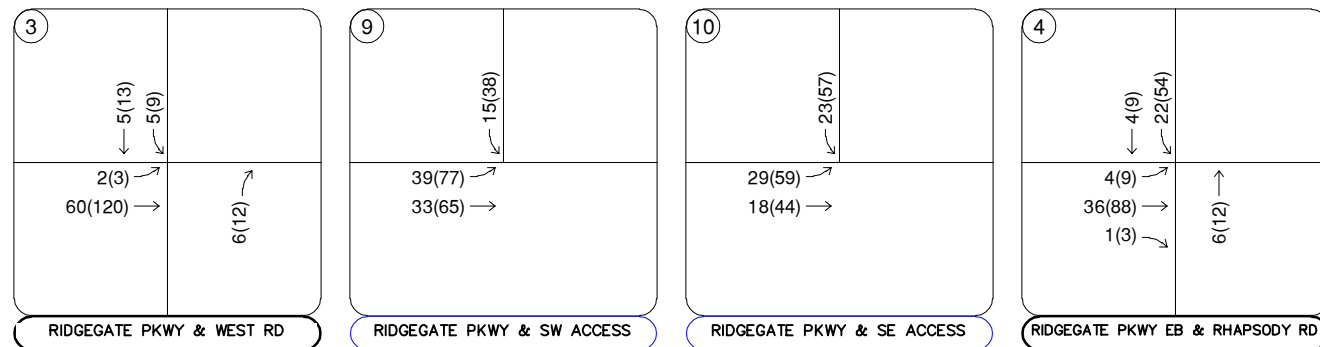
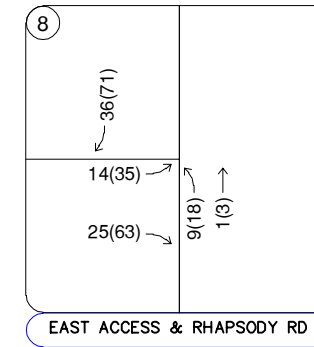
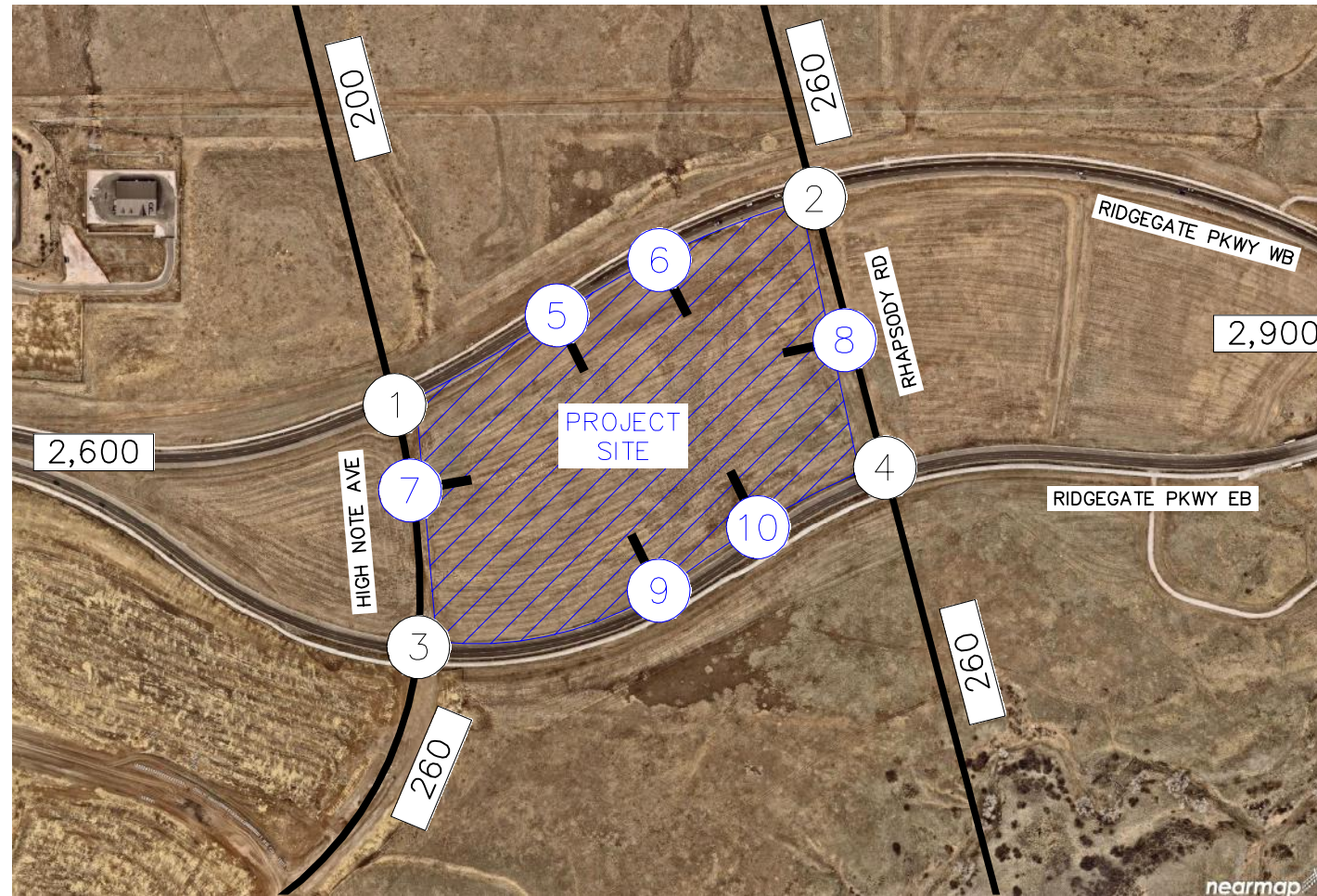
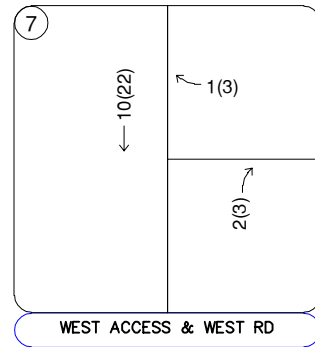
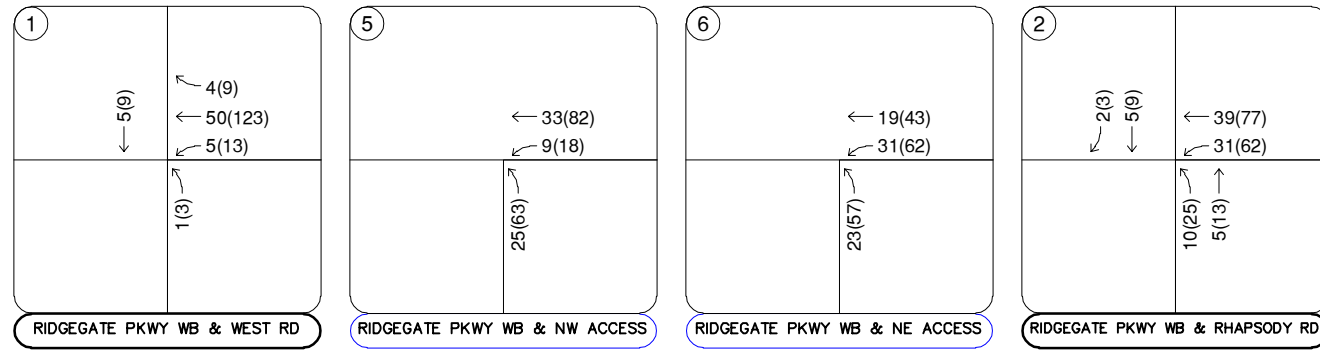


LEGEND

- (X) Study Area Key Intersection
- (X) Project Access Intersection
- XXX(XXX) Weekday AM(PM) Peak Hour Traffic Volumes
- XX,X00 Estimated Daily Traffic Volume

RIDGEGATE KING SOOPERS
LONE TREE, COLORADO
2025 NON PASS-BY TRAFFIC ASSIGNMENT

FIGURE 10

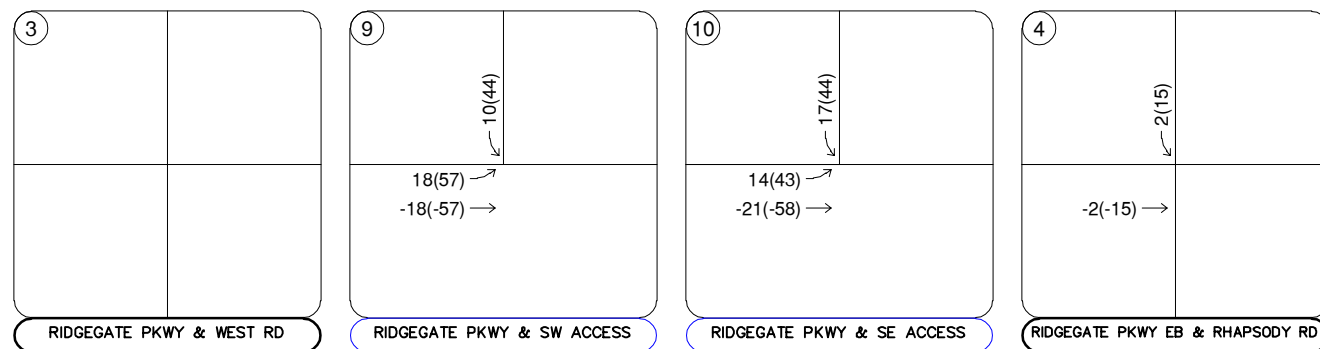
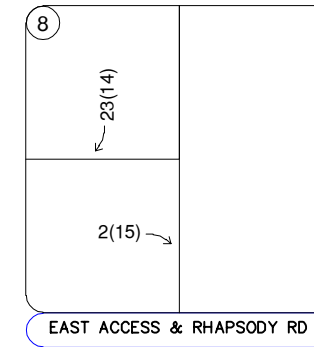
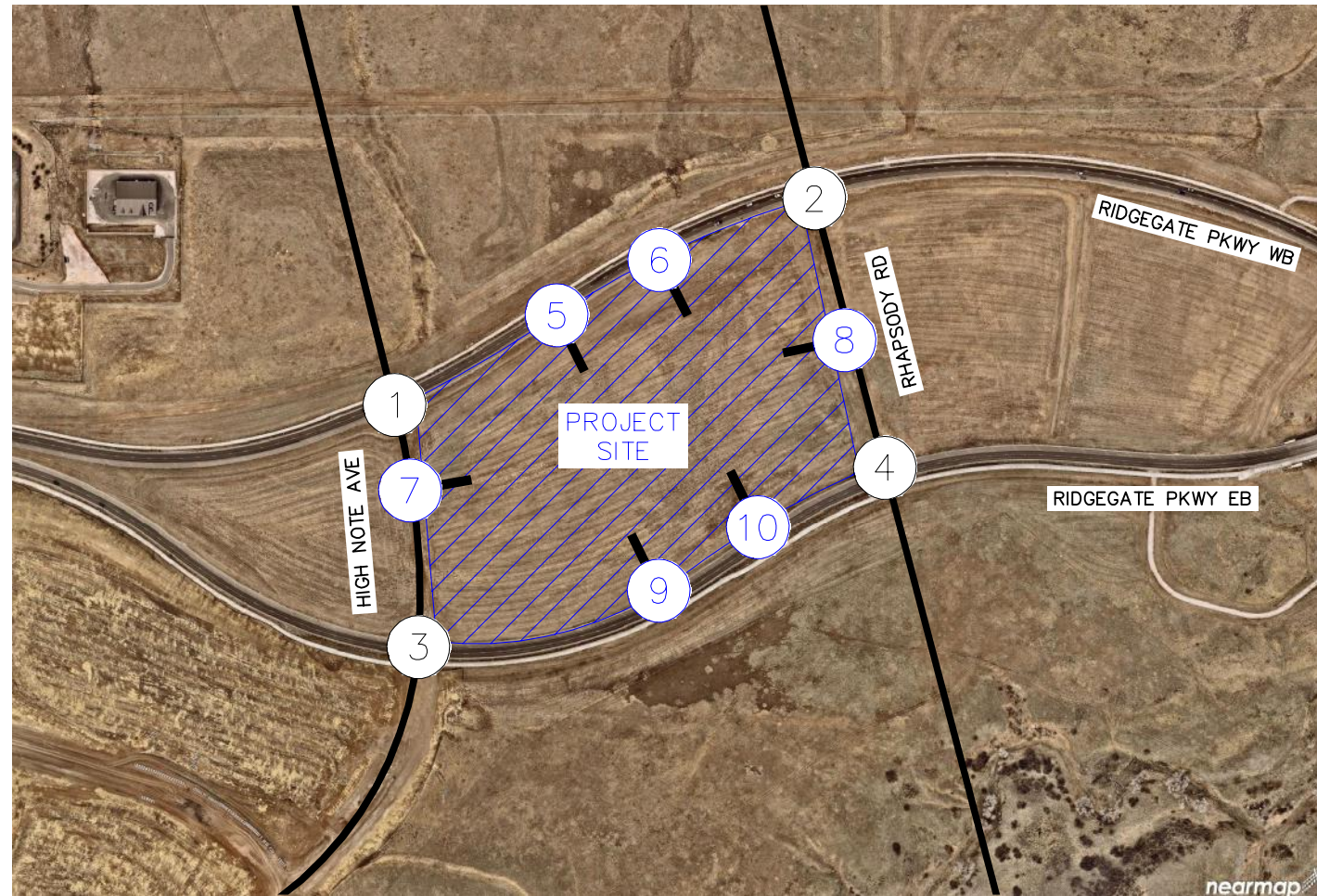
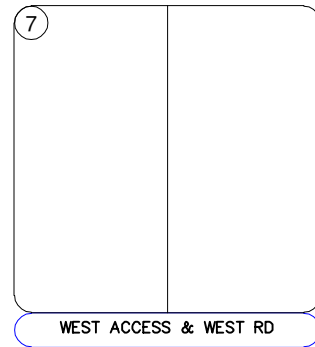
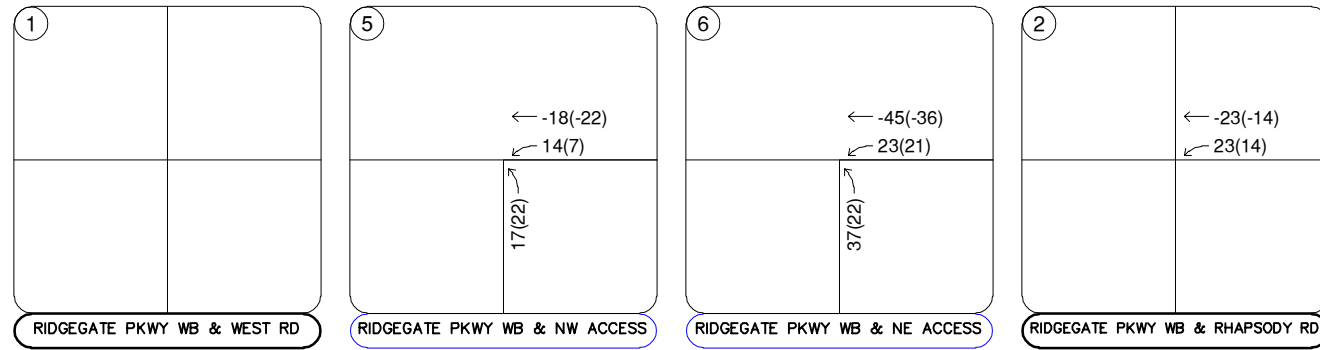


LEGEND

- (X) Study Area Key Intersection
- (X) Project Access Intersection
- XXX(XXX) Weekday AM(PM) Peak Hour Traffic Volumes
- XX,X00 Estimated Daily Traffic Volume

RIDGEGATE KING SOOPERS
 LONE TREE, COLORADO
 2045 NON PASS-BY TRAFFIC ASSIGNMENT

FIGURE 11

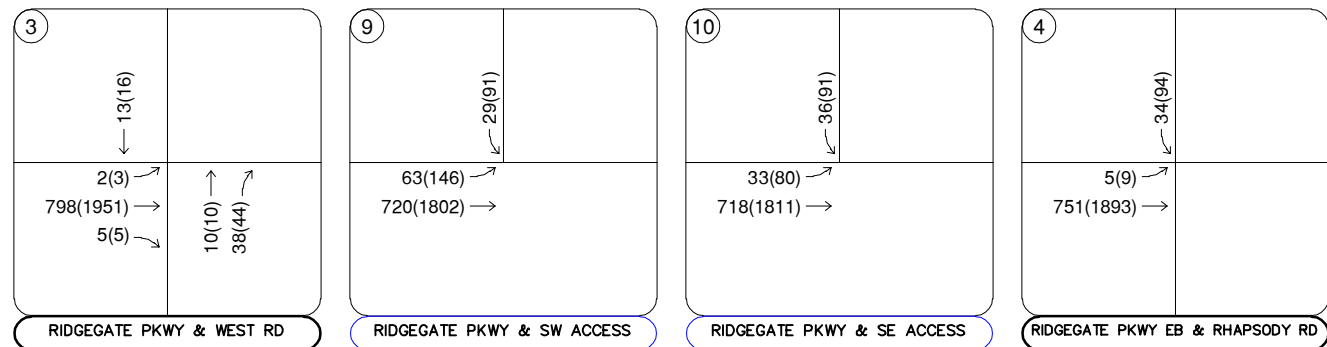
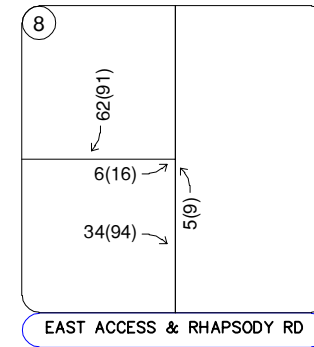
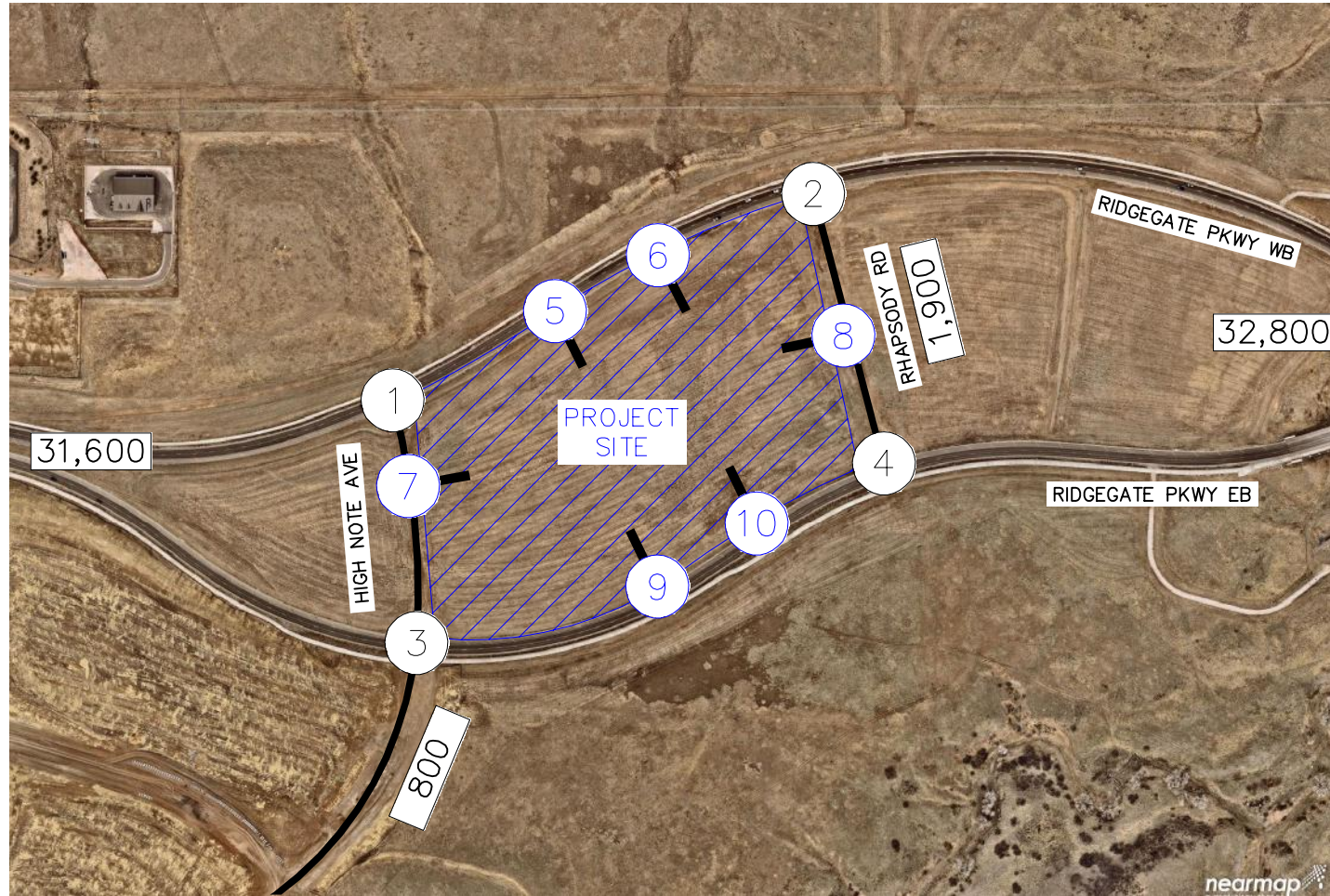
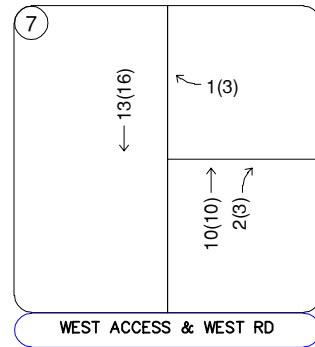
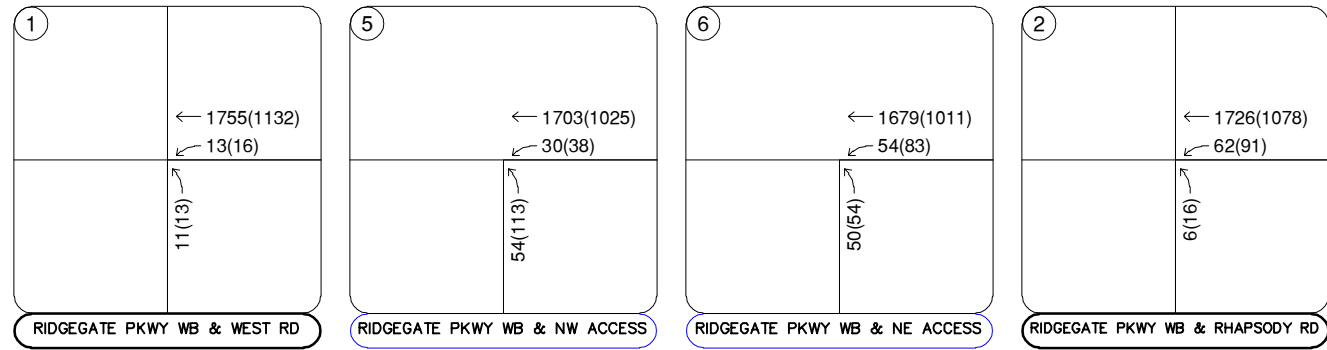


LEGEND

- (X) Study Area Key Intersection
- (X) Project Access Intersection
- XXX(XXX) Weekday AM(PM) Peak Hour Traffic Volumes
- XX,X00 Estimated Daily Traffic Volume

RIDGEGATE KING SOOPERS
LONE TREE, COLORADO
PASS-BY TRAFFIC ASSIGNMENT

FIGURE 12

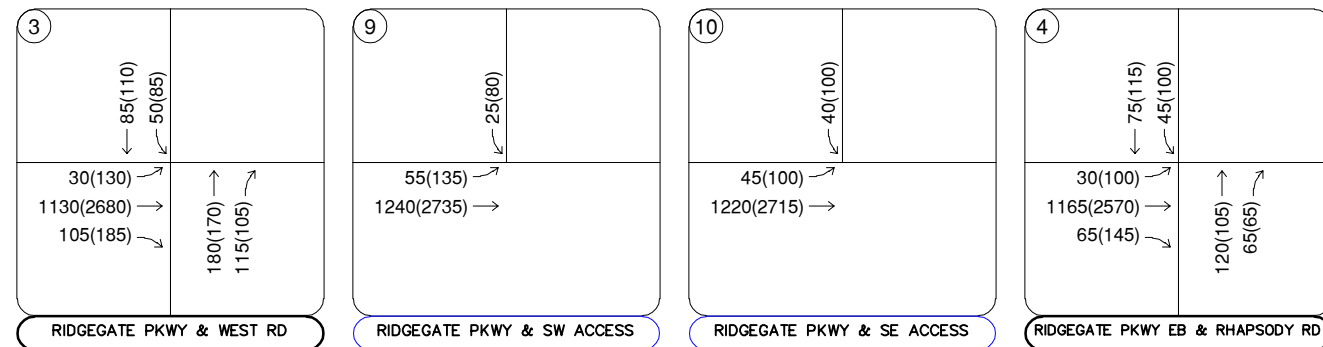
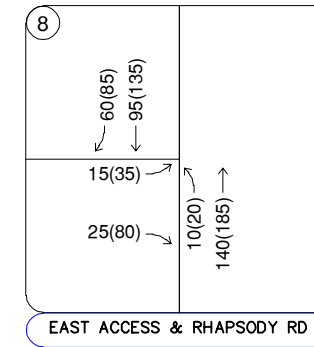
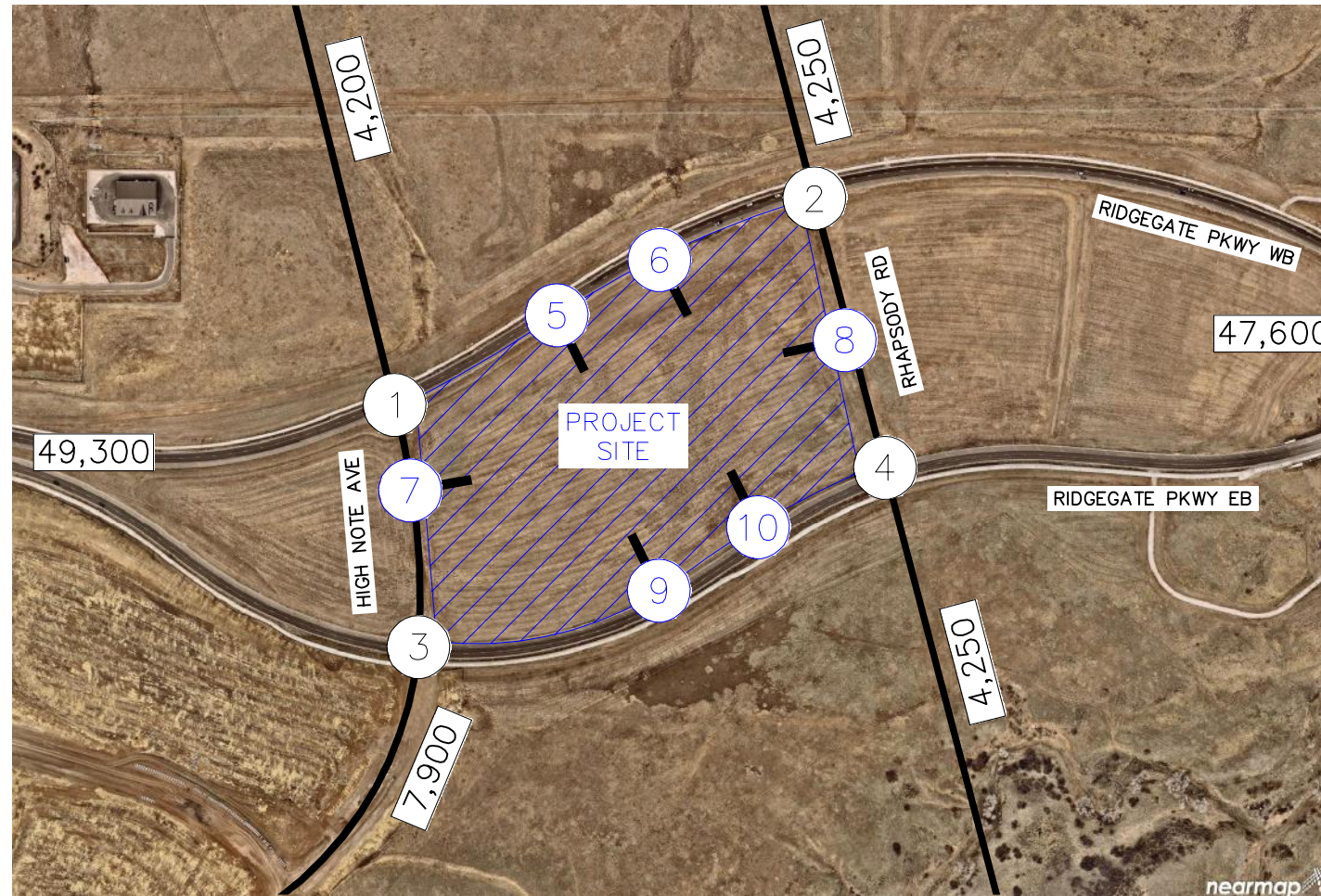
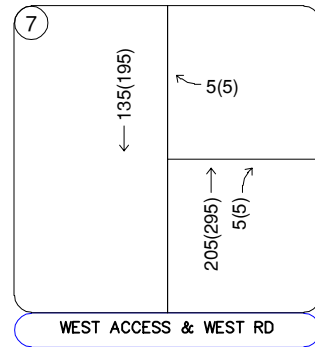
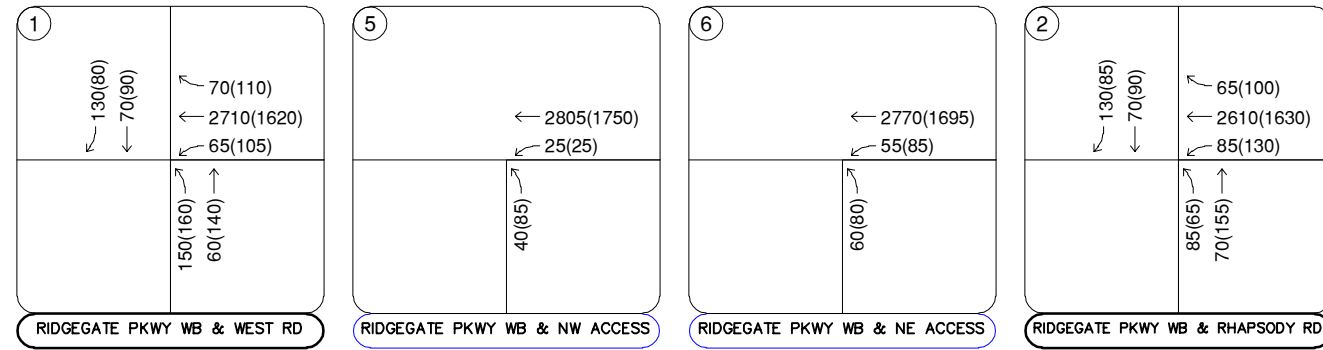


LEGEND

- (X) Study Area Key Intersection
- (X) Project Access Intersection
- XXX(XXX) Weekday AM(PM) Peak Hour Traffic Volumes
- XX,X00 Estimated Daily Traffic Volume

RIDGEGATE KING SOOPERS
 LONE TREE, COLORADO
 2025 TOTAL TRAFFIC VOLUMES

FIGURE 13



LEGEND

- (X) Study Area Key Intersection
- (X) Project Access Intersection
- XXX(XXX) Weekday AM(PM) Peak Hour Traffic Volumes
- XX,X00 Estimated Daily Traffic Volume

RIDGEGATE KING SOOPERS
 LONE TREE, COLORADO
 2045 TOTAL TRAFFIC VOLUMES

FIGURE 14

5.0 TRAFFIC OPERATIONS ANALYSIS

Kimley-Horn's analysis of traffic operations in the site vicinity was conducted to determine potential capacity deficiencies in the 2025 and 2045 development horizons at the identified key intersections. The acknowledged source for determining overall capacity is the current edition of the *Highway Capacity Manual (HCM)*².

5.1 Analysis Methodology

Capacity analysis results are listed in terms of Level of Service (LOS). LOS is a qualitative term describing operating conditions a driver will experience while traveling on a particular street or highway during a specific time interval. It ranges from A (very little delay) to F (long delays and congestion). For intersections and roadways in this study area, standard traffic engineering practice recommends overall intersection LOS D and movement/approach LOS E as the minimum desirable thresholds for acceptable operations. **Table 2** shows the definition of level of service for signalized and unsignalized intersections.

Table 2 – Level of Service Definitions

Level of Service	Signalized Intersection Average Total Delay (sec/veh)	Unsignalized Intersection Average Total Delay (sec/veh)
A	≤ 10	≤ 10
B	> 10 and ≤ 20	> 10 and ≤ 15
C	> 20 and ≤ 35	> 15 and ≤ 25
D	> 35 and ≤ 55	> 25 and ≤ 35
E	> 55 and ≤ 80	> 35 and ≤ 50
F	> 80	> 50

Definitions provided from the Highway Capacity Manual, Sixth Edition, Transportation Research Board, 2016.

Study area intersections were analyzed based on average total delay analysis for signalized and unsignalized intersections. Under the unsignalized analysis, the LOS for a two-way stop-controlled intersection is determined by the computed or measured control delay and is defined for each minor movement. LOS for a two-way stop-controlled intersection is not defined for the intersection as a whole. LOS for signalized, roundabout, and all-way stop controlled intersections are defined for each approach and for the overall intersection.

² Transportation Research Board, *Highway Capacity Manual*, Sixth Edition, Washington DC, 2016.

5.2 Key Intersection Operational Analysis

Calculations for the operational level of service at the key intersections for the study area are provided in **Appendix D**. Existing peak hour factors were utilized in the 2025 and 2045 horizon analysis years. Synchro traffic analysis software was used to analyze the signalized and unsignalized key intersections for HCM level of service.

RidgeGate Parkway WB and High Note Avenue (#1)

The intersection of RidgeGate Parkway WB and High Note Avenue (#1) is a proposed future intersection on the northwest corner of the project site. This intersection does not exist today and for purposes of this study it is not assumed to be completed prior to construction of this development. In the 2025 horizon, this intersection is anticipated to be signalized to provide safer travel for pedestrians and bicyclists while also providing sufficient gaps for northbound left turning vehicles to turn onto RidgeGate Parkway WB. A westbound left turn lane is anticipated to be provided as well as a northbound left turn lane during the 2025 horizon. An R3-1 No Right Turn sign should be installed on the northbound approach to the intersection and R6-1 “ONE WAY” signs should be posted along RidgeGate Parkway as appropriate to prevent vehicles from turning right and entering oncoming traffic. A northbound through lane will eventually be necessary as the north leg of High Note Avenue is constructed. As such, it is recommended that sufficient pavement width be provided, and chevron striping be placed where the future northbound through lane will be placed. With project traffic, this intersection is anticipated to operate at an acceptable level of service during both the 2025 and 2045 horizon years based on the addition of project traffic and this operational level of service analysis. **Table 3** provides the results of the LOS analysis conducted at this intersection.

Table 3 – RidgeGate Parkway WB & High Note Avenue (#1) LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay	LOS	Delay	LOS
	(sec/veh)		(sec/veh)	
2025 Background Plus Project #	22.3	C	19.2	B
2045 Background ##	32.3	C	25.2	C
2045 Background Plus Project ##	33.7	C	26.5	C

= Signalized 'T'-intersection; ## = Signalized 4-leg intersection

RidgeGate Parkway WB and Rhapsody Road (#2)

The intersection of RidgeGate Parkway WB and Rhapsody Road (#2) is a proposed future intersection on the northeast corner of the project site. This intersection does not exist today and is not anticipated to be completed prior to construction of this development. In the 2025 horizon, this intersection is anticipated to be signalized to provide safer travel for pedestrians and bicyclists while also providing sufficient gaps for northbound left turning vehicles to turn onto RidgeGate Parkway WB. A westbound left turn lane is anticipated to be provided as well as a northbound left turn lane during the 2025 horizon. An R3-1 No Right Turn sign should be installed on the northbound approach to the intersection and R6-1 “ONE WAY” signs should be posted along RidgeGate Parkway as appropriate to prevent vehicles from turning right and entering oncoming traffic. A northbound through lane will eventually be necessary as the north leg of Rhapsody Road is constructed. As such, it is recommended that sufficient pavement width be provided, and chevron striping be placed where the future northbound through lane will be placed. Prior to the 2045 horizon, the north leg of Rhapsody Road is anticipated to be constructed at this intersection. Rhapsody Road is identified as a local collector based on the City of Lone Tree 2040 Transportation Plan and is anticipated to connect to Lincoln Avenue to the north and a road designated as “Collector D” to the south. With project traffic, this intersection is anticipated to operate at an acceptable level of service during both the 2025 and 2045 horizon years based on the addition of project traffic and this operational level of service analysis. **Table 4** provides the results of the LOS analysis conducted at this intersection.

Table 4 – RidgeGate Parkway WB & Rhapsody Road (#2) LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2025 Background Plus Project #	7.1	A	6.8	A
2045 Background ##	12.8	B	11.6	B
2045 Background Plus Project ##	14.2	B	12.2	B

= Signalized 'T'-intersection; ## = Signalized 4-leg intersection

RidgeGate Parkway EB and High Note Avenue (#3)

The intersection of RidgeGate Parkway EB and High Note Avenue (#3) is a proposed future intersection on the southwest corner of the project site. In the 2025 horizon, this intersection is anticipated to be a signalized 4-leg intersection to provide safer travel for pedestrians and bicyclists while also providing sufficient gaps for southbound left turning vehicles to turn onto RidgeGate Parkway EB. For purposes of this analysis, this intersection was assumed to be an unsignalized 'T'-intersection with a south leg constructed by the Southwest Village development without construction of this project in 2025, while this project will construct the north leg of the intersection that will connect High Note Avenue to Ridgegate Parkway WB. Northbound and southbound through lanes as well as an eastbound right turn lane should also be provided as the south leg of High Note Avenue is constructed by Southwest Village prior to completion of this project. If not already constructed by Southwest Village when High Note Avenue is constructed, an eastbound left turn lane is anticipated to be provided as well as a southbound left turn lane during the 2025 horizon. An R3-1 No Right Turn sign should be installed on the southbound approach to the intersection and an R3-2 No Left Turn sign should be installed on the northbound approach if not already installed, while R6-1 "ONE WAY" signs should be posted along RidgeGate Parkway as appropriate to prevent vehicles from turning and entering oncoming traffic. In relation to the project site, this roadway is anticipated to be primarily used for truck traffic accessing the back of the King Soopers and is not expected to attract many trips to the project. With project traffic, this intersection is anticipated to operate at an acceptable level of service during both the 2025 and 2045 horizon years based on the addition of project traffic and this operational level of service analysis. **Table 5** provides the results of the LOS analysis conducted at this intersection.

Table 5 – RidgeGate Parkway EB & High Note Avenue (#3) LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2025 Background Northbound Right	12.4	B	25.8	D
2025 Background Plus Project #	9.6	A	9.1	A
2045 Background #	15.8	B	15.6	B
2045 Background Plus Project #	15.7	B	17.0	B

= Signalized 4-leg intersection

RidgeGate Parkway EB and Rhapsody Road (#4)

The intersection of RidgeGate Parkway EB and Rhapsody Road (#4) is a proposed future intersection on the southeast corner of the project site. This intersection does not exist today and is not anticipated to be completed prior to construction of this development. In the 2025 horizon, this intersection is anticipated to be signalized to provide safer travel for pedestrians and bicyclists while also providing sufficient gaps for southbound left turning vehicles to turn onto RidgeGate Parkway EB. An eastbound left turn lane is anticipated to be provided as well as a southbound left turn lane during the 2025 horizon. An R3-1 No Right Turn sign should be installed on the southbound approach to the intersection and R6-1 “ONE WAY” signs should be posted along RidgeGate Parkway as appropriate to prevent vehicles from turning right and entering oncoming traffic. A southbound through lane will eventually be necessary as the south leg of Rhapsody Road is constructed. As such, it is recommended that sufficient pavement width be provided, and chevron striping be placed where the future southbound through lane will be placed. Prior to the 2045 horizon, the south leg of Rhapsody Road is anticipated to be constructed at this intersection. With project traffic, this intersection is anticipated to operate at an acceptable level of service during both the 2025 and 2045 horizon years based on the addition of project traffic and this operational level of service analysis. **Table 6** provides the results of the LOS analysis conducted at this intersection.

Table 6 – RidgeGate Parkway EB & Rhapsody Road (#4) LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2025 Background Plus Project #	19.6	B	25.8	C
2045 Background ##	21.9	C	27.2	C
2045 Background Plus Project ##	22.6	C	29.9	C

= Signalized 'T'-intersection; ## = Signalized 4-leg intersection

Project Accesses

With completion of the RidgeGate King Soopers project, six accesses are proposed to provide access to the site. It is recommended that R1-1 “STOP” signs be installed on the exiting approach exiting the development at each of these accesses. R3-1 No Right Turn signs should be installed underneath the “STOP” signs for the accesses along the one-way couplet portion of RidgeGate Parkway and R6-1 “ONE WAY” signs should be posted along RidgeGate Parkway as appropriate at these intersections to prevent vehicles from turning right and entering oncoming traffic. **Table 7** provides the results of the level of service for the project street accesses. As shown in the table, each project street access is anticipated to operate acceptably during the morning and afternoon peak hours in both the buildout year 2025 and the 2045 long term horizons.

Table 7 – Project Accesses Level of Service Results

Intersection	2025 Total				2045 Total			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
RidgeGate WB & NW Access (#5) Northbound Left	15.6	C	14.0	B	23.4	C	17.2	C
RidgeGate WB & NE Access (#6) Northbound Left	16.1	C	13.8	B	26.6	D	18.9	C
High Note & West Access (#7) Westbound Approach	8.4	A	8.4	A	8.9	A	9.3	A
Southbound Left	0.0	A	0.0	A	0.0	A	0.0	A
Rhapsody Rd & East Access (#8) Northbound Left	7.3	A	7.4	A	7.5	A	7.7	A
Eastbound Approach	8.7	A	9.1	A	9.4	A	10.2	B
RidgeGate EB & SW Access (#9) Southbound Left	9.8	A	13.5	B	10.6	B	23.1	C
RidgeGate EB & SE Access (#10) Southbound Left	9.8	A	13.5	B	10.7	B	25.2	D

5.3 Vehicle Queuing Analysis

A vehicle queuing analysis was conducted for the study area intersections. The queuing analysis was performed using Synchro presenting the results of the 95th percentile queue lengths. Results are shown in the following **Table 8** with calculations provided within the level of service operational sheets of **Appendix D** for unsignalized intersections and **Appendix E** for signalized intersections.

Table 8 – Turn Lane Queuing Analysis Results

Intersection Turn Lane	Existing Turn Lane Length (feet)	2025 Calculated Queue (feet)	2025 Recommended Length (feet)	2045 Calculated Queue (feet)	2045 Recommended Length (feet)
RidgeGate WB & High Note (#1)					
Westbound Left	DNE	7'	190'+92'T	40'	190'+92'T
Westbound Right	DNE	-	-	11'	190'+120'T
Northbound Left	DNE	25'	175'+50'T	160'	175'+50'T
RidgeGate WB & Rhapsody (#2)					
Westbound Left	DNE	33'	190'+110'T	52'	190'+110'T
Westbound Right	DNE	-	-	17'	190'+120'T
Northbound Left	DNE	25'	120'+50'T	71'	120'+50'T
RidgeGate EB & High Note (#3)					
Eastbound Left	DNE	3'	190'+120'T	47'	190'+120'T
Eastbound Right	DNE	1'	190'+120'T	26'	190'+120'T
Southbound Left	DNE	28'	120'+50'T	108'	120'+50'T
RidgeGate EB & Rhapsody (#4)					
Eastbound Left	DNE	3'	101'+75'T	23'	101'+75'T
Eastbound Right	DNE	-	-	12'	190'+120'T
Southbound Left	DNE	92'	120'+50'S	101'	120'+50'S
RidgeGate WB & NW Access (#5)					
Westbound Left	DNE	0'	190'+100'T	0'	190'+100'T
Northbound Left	DNE	25'	25'	25'	25'
RidgeGate WB & NE Access (#6)					
Westbound Left	DNE	0'	190'+98'T	0'	190'+98'T
Northbound Left	DNE	25'	50'	50'	50'
East Access & Rhapsody (#8)					
Eastbound Approach	DNE	25'	25'	25'	25'
Northbound Left	DNE	25'	100'+50'S	25'	100'+50'S
RidgeGate EB & SW Access (#9)					
Eastbound Left	DNE	0'	190'+105'T	0'	190'+105'T
Southbound Left	DNE	25'	50'	50'	50'
RidgeGate EB & SE Access (#10)					
Eastbound Left	DNE	0'	190'+84'T	0'	190'+84'T
Southbound Left	DNE	25'	50'	50'	50'

DNE = Does Not Exist; **Blue** Text = Recommendation; T = Taper Length; S = Shared Taper
Italicized = Recommended Minimum Throat Length;
 Note: lengths are exactly as shown on roadway improvement plans without rounding

All queues are anticipated to remain within the recommended turn lane lengths through 2045. The following provides a description of the turn lanes recommended at the horizons. The storage and taper lengths along RidgeGate Parkway provided in **Table 8** are based on a standard turn lane length of 190 feet with a 120-foot taper. Where these turn lane and taper lengths are not feasible, the recommended turn lane length provided is the maximum feasible length based on site constraints, with the minimum recommended turn lane length set as 100 feet and the minimum taper length set as 75 feet. Of note, it is not advisable to provide a continuous deceleration/acceleration lane along either direction of RidgeGate Parkway as this would be likely to cause unsafe weaving maneuvers for vehicles entering and exiting the development. For this reason, separate turn lanes have been recommended at each study area intersection. The turn lanes along High Note Avenue and Rhapsody Road were assigned a minimum storage length of 100 feet, with additional storage length provided where advisable to accommodate expected queues. The turn lane exhibit used for the provided turn lane and taper lengths is provided in **Appendix F**.

At the intersection of RidgeGate Parkway WB and High Note Avenue (#1) in 2025, a westbound left turn lane is recommended with a length of 190 feet plus a 92-foot taper, and a northbound left turn lane is recommended to provide a length of 175 feet with a 50-foot taper. In 2025, the RidgeGate Parkway WB and Rhapsody Road (#2) intersection is recommended to provide a westbound left turn lane with a storage length of 190 feet with a 110-foot taper and a northbound left turn lane with a length of 120 feet and a 50-foot taper.

At the RidgeGate Parkway EB and High Note Ave (#3) intersection, an eastbound left turn lane and an eastbound right turn lane are each recommended to provide a length of 190 feet plus a 120-foot taper and a southbound left turn lane with a storage length of 120 feet and a 50-foot taper. In 2025, the RidgeGate Parkway EB and Rhapsody Road (#4) intersection is recommended to provide an eastbound left turn lane with 101 feet of storage length plus a 75-foot taper. A southbound left turn lane should also be provided. The southbound left turn lane should provide 120 feet of storage length plus a shared 50-foot taper. This will allow for 100 feet of storage length and a shared 50-foot taper available for northbound left turns entering the Rhapsody Road Access (#8).

The RidgeGate Parkway WB and NW Access (#5) intersection is recommended to provide a westbound left turn lane with 190 feet in storage length plus a 100-foot taper. A westbound left turn lane is recommended at the RidgeGate Parkway WB and NE Access (#6) intersection with 190 feet in storage length and a 98-foot taper.

The RidgeGate Parkway EB and SW Access (#9) intersection is recommended to provide an eastbound left turn lane with 190 feet in storage length plus a 105-foot taper. An eastbound left turn lane is recommended at the RidgeGate Parkway EB and SE Access (#10) intersection with 190 feet in storage length and a 84-foot taper.

With the projected use of High Note Avenue and Rhapsody Road as local collectors by 2045, it is recommended that westbound right turn lanes be provided at the intersection of RidgeGate Parkway WB & High Note Avenue (#1) as well as at RidgeGate Parkway WB & Rhapsody Road (#2). An eastbound right turn lane should also be constructed at the intersection of RidgeGate Parkway EB & Rhapsody Road (#4). Each of these right turn lanes should be constructed with a length of 190 feet plus a 120-foot taper.

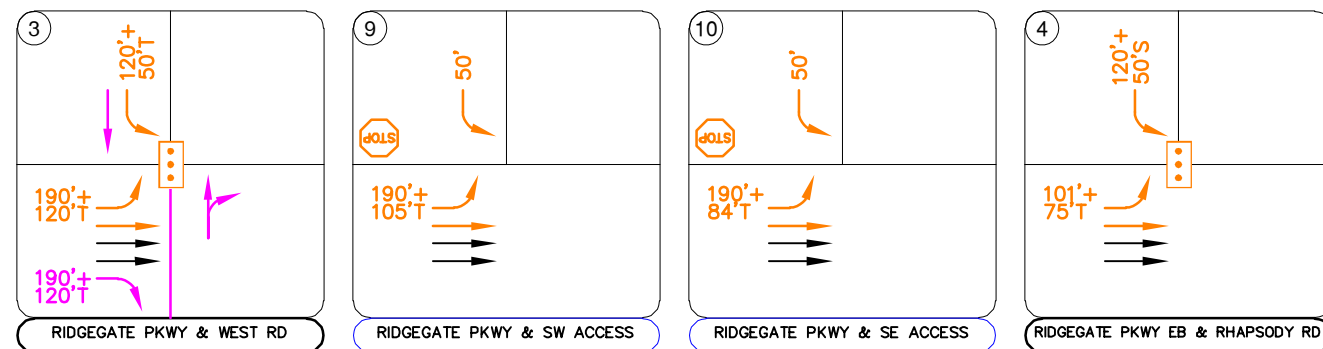
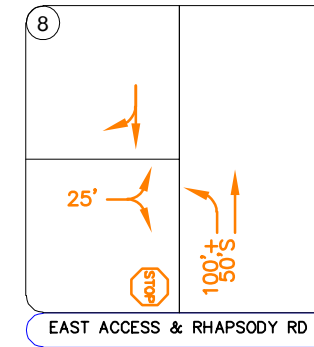
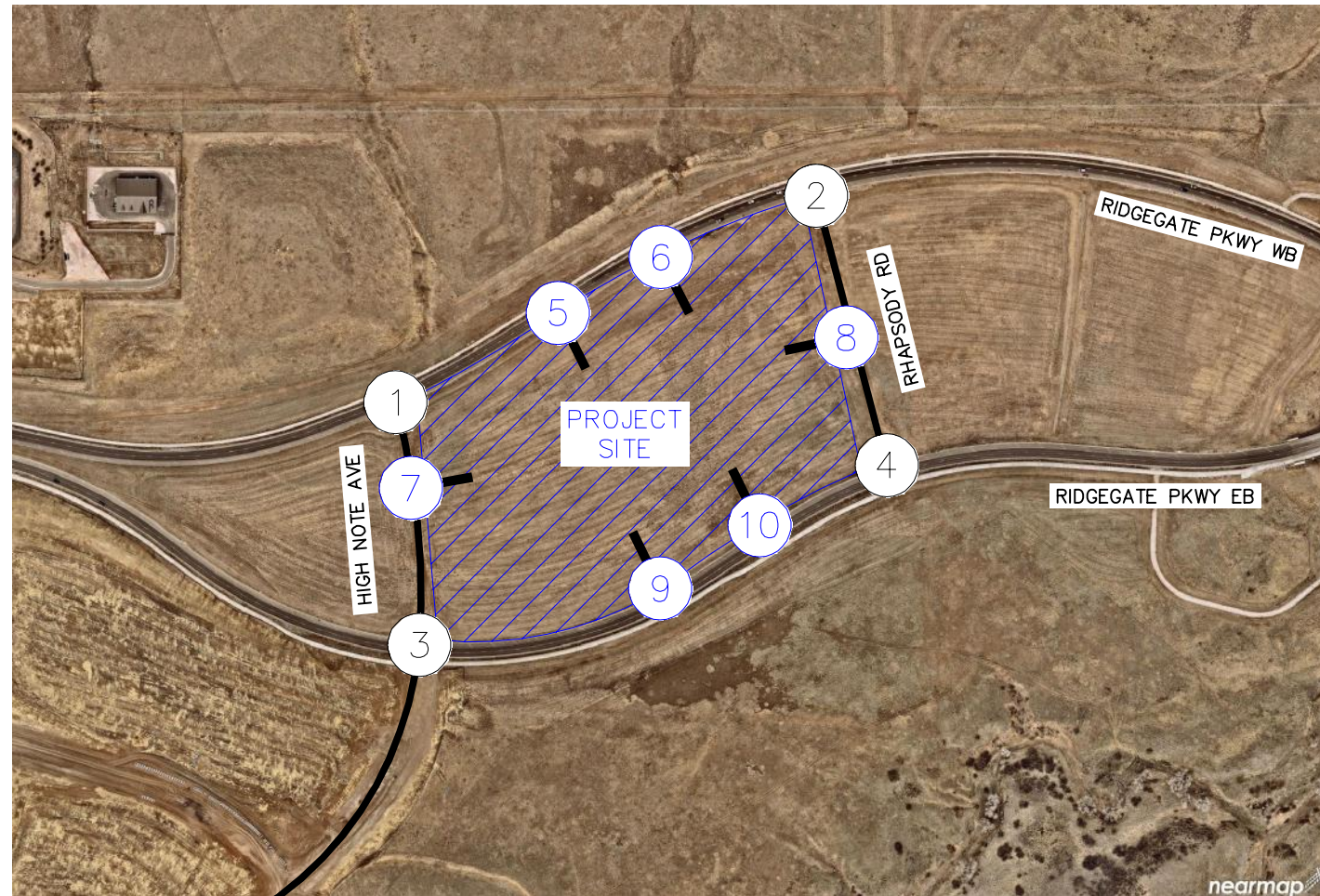
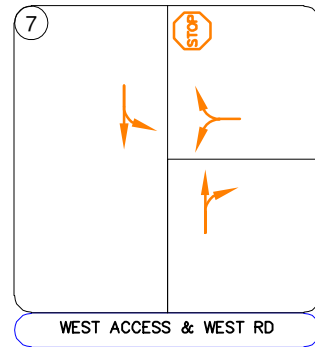
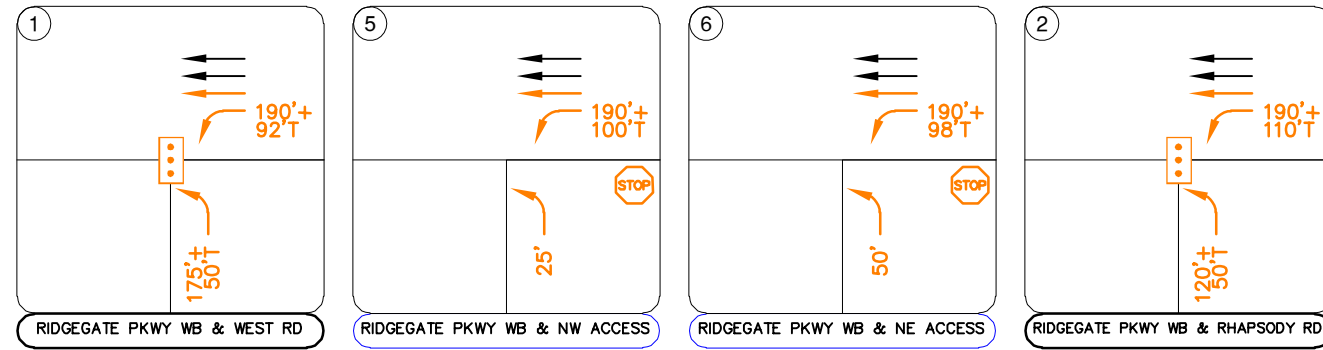
Throat lengths were also evaluated in this queuing analysis. The RidgeGate Parkway WB and NW Access (#5) is recommended to provide a minimum throat length of 25 feet. At the RidgeGate Parkway WB and NE Access (#6), a minimum throat length of 50 feet is recommended. The East Access along Rhapsody Road (#8) should provide at least 25 feet of throat length. The RidgeGate Parkway EB and SW Access (#9) is recommended to provide a minimum throat length of 50 feet. At the RidgeGate Parkway EB and SE Access (#10), a minimum throat length of 50 feet is recommended.

5.4 Pedestrian and Bicycle Evaluation

To address components of a multimodal traffic study, pedestrian and bicycle infrastructure evaluations were conducted. Sidewalk exists along both the eastbound and westbound RidgeGate Parkway couplets within the study area, with the sidewalk south of the eastbound direction able to be utilized as cycle track as it provides approximately a 12 foot width. Bicycle lanes are anticipated to be provided along each side of both High Note Avenue and Rhapsody Road. Crosswalks are also anticipated to be provided at each of the four study area key intersections at RidgeGate Parkway WB & High Note Avenue (#1), RidgeGate Parkway WB & Rhapsody Road (#2), RidgeGate Parkway EB & High Note Avenue (#3), and RidgeGate Parkway EB & Rhapsody Road (#4). As the surrounding area continues to develop as part of the overall RidgeGate East Planned Development, these pedestrian and bicycle facilities will serve the larger community and provide safer access to the development. Internal to the site, a combination of sidewalk, enhanced paving, and pavement striping will be provided to connect the King Soopers to the retail buildings and the bank on the east side of the project. Through discussion with the project team, onsite bicycle parking options to provide for the safe storage of bikes while customers are shopping should be considered. Additionally, onsite pedestrian connections may be explored further to provide clear, safe, and direct pedestrian connection from sidewalks within the public right-of-way to the store fronts.

5.5 Improvement Summary

Based on the results of the intersection operational and vehicle queuing analysis, the key intersection recommended improvements and control are shown in **Figure 15** for the 2025 horizon and in **Figure 16** for the 2045 long-term planning horizon.

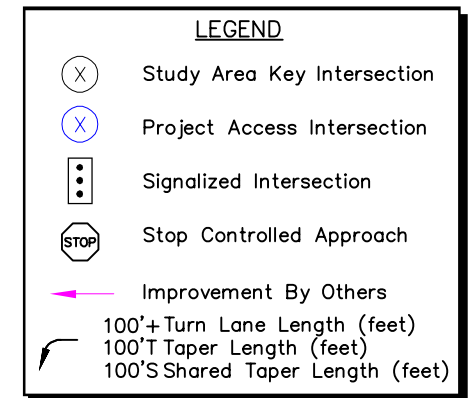
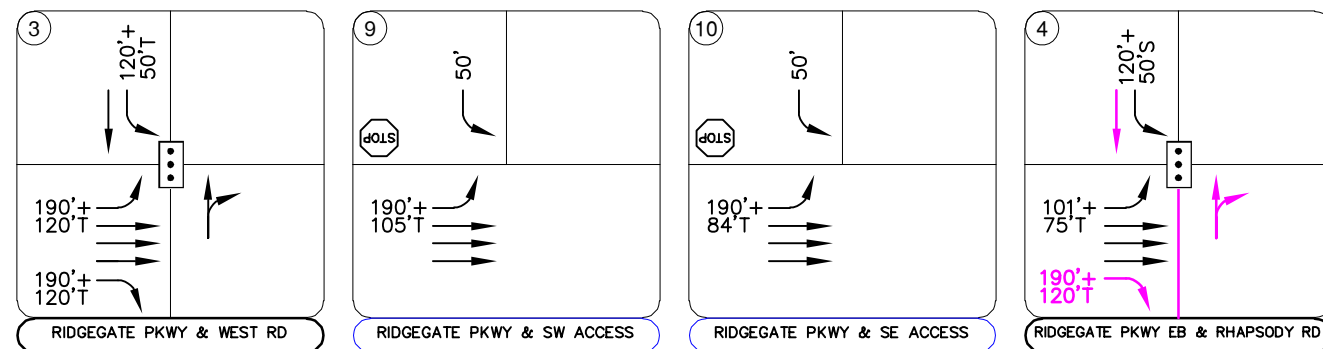
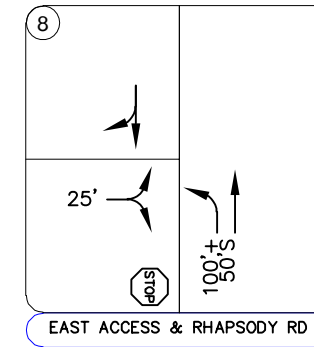
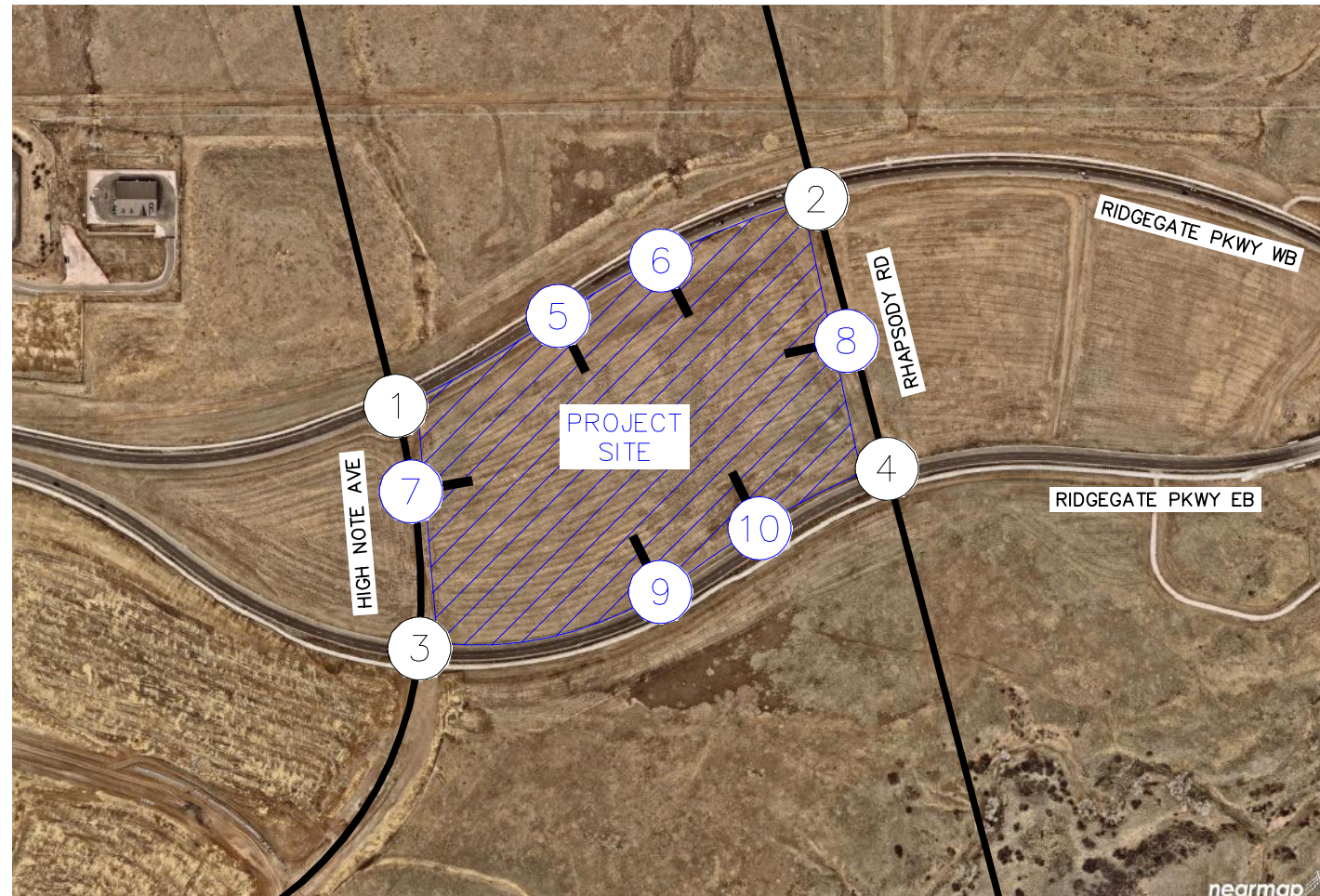
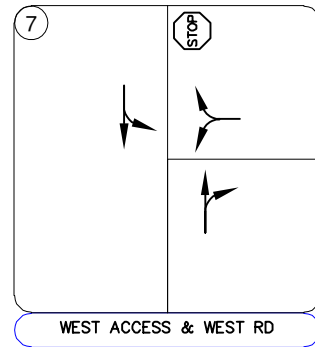
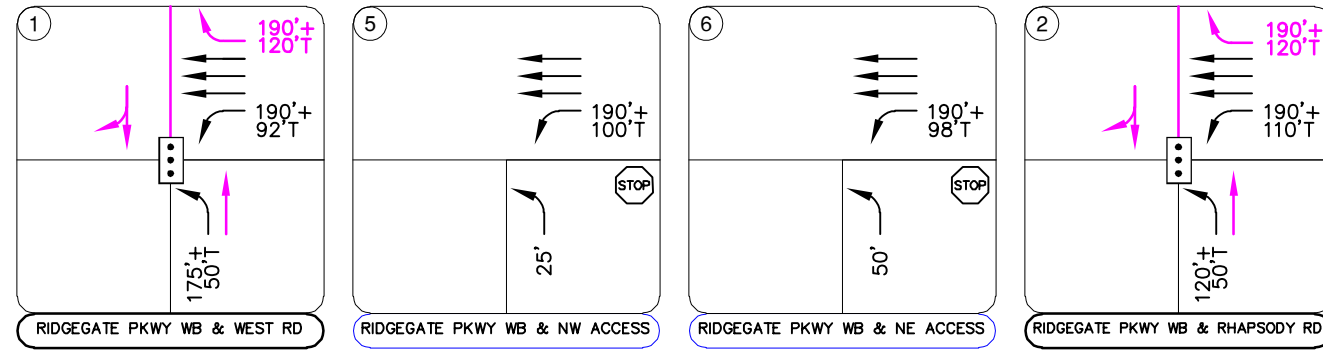


LEGEND

- (X) Study Area Key Intersection
- (X) Project Access Intersection
- ⋮ Signalized Intersection
- STOP Stop Controlled Approach
- Improvement By Others
- Recommended Improvement
- 100'+ Turn Lane Length (feet)
- 100'T Taper Length (feet)
- 100'S Shared Taper Length (feet)

RIDGEGATE KING SOOPERS
LONE TREE, COLORADO
2025 RECOMMENDED GEOMETRY AND CONTROL

FIGURE 15



RIDGEGATE KING SOOPERS
LONE TREE, COLORADO
2045 RECOMMENDED GEOMETRY AND CONTROL

FIGURE 16

6.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the analysis presented in this report, Kimley-Horn believes RidgeGate King Soopers will be successfully incorporated into the existing and future roadway network. Analysis of the existing street network, the proposed project development, and expected traffic volumes resulted in the following recommendations:

2025 Recommendations

- Bicycle lanes are anticipated to be provided along each side of both High Note Avenue and Rhapsody Road. Crosswalks are also anticipated to be provided at each of the four study area key intersections at RidgeGate Parkway WB & High Note Avenue (#1), RidgeGate Parkway WB & Rhapsody Road (#2), RidgeGate Parkway EB & High Note Avenue (#3), and RidgeGate Parkway EB & Rhapsody Road (#4). Internal to the site, a combination of sidewalk, enhanced paving, and pavement striping will be provided to connect the King Soopers to the retail buildings and the bank on the east side of the project. Through discussion with the project team, onsite bicycle parking options to provide for the safe storage of bikes while customers are shopping should be considered. Additionally, onsite pedestrian connections may be explored further to provide clear, safe, and direct pedestrian connection from sidewalks within the public right-of-way to the store fronts.
- With construction of the project, High Note Avenue and Rhapsody Road are proposed to be constructed with one through lane in each direction on the west and east sides adjacent to the development, respectively, with on-street bicycle lanes. Rhapsody Road is also proposed to include on-street parallel parking along both sides of the roadway. These four intersections are anticipated to be signalized 'T'-intersections operating with full turning movement as appropriate on the one-way couplet, with the exception of the RidgeGate Parkway EB & High Note Avenue (#3) intersection which is anticipated to be a 4-leg signalized full movement intersection. At the T-intersections, R3-1 No Right Turn signs should be installed at the approaches to RidgeGate Parkway and R6-1 "ONE WAY" signs should be posted along RidgeGate Parkway as appropriate to prevent vehicles from turning right and entering oncoming traffic. At the RidgeGate Parkway EB & High Note Avenue (#3) intersection, appropriate turn movement restriction and one-way signs should be installed to restrict traffic from turning the wrong way (westbound) onto RidgeGate Parkway EB.

- RidgeGate Parkway is anticipated to utilize the existing available pavement width to restripe the roadway to provide three through lanes in each direction within the study area during this horizon. It is recommended that the existing striped-out inside lane along RidgeGate Parkway in both directions be striped as the third through lane. Along RidgeGate Parkway WB, westbound left turn lanes should be provided at the studied intersections. Due to intersection and access spacing, the westbound left turn lane at RidgeGate Parkway WB & High Note Avenue (#1) should provide a length of 190 feet plus a 92-foot taper. A northbound left turn lane with 175 feet in storage length and a 50-foot taper should be provided. The westbound left turn lane at RidgeGate Parkway WB & Rhapsody Road (#2) should provide a length of 190 feet plus 110-foot taper. A northbound left turn lane 120 feet in length with a 50-foot taper should be provided.
- Along RidgeGate Parkway EB, eastbound left turn lanes should also be provided at the studied intersections. The eastbound left turn lane at RidgeGate Parkway EB & High Note Avenue (#3) is recommended to have a length of 190 feet plus 120-foot taper while the eastbound left turn lane at RidgeGate Parkway EB & Rhapsody Road (#4) is recommended to have a length of 101 feet plus 75-foot taper based on access to intersection spacing. At RidgeGate Parkway EB & High Note Avenue (#3) a southbound left turn lane 120 feet in length with a 50-foot taper should be provided and at RidgeGate Parkway EB & Rhapsody Road (#4), a southbound left turn lane should provide 120 feet in length with a 50-foot shared taper should be provided.
- Four full movement accesses are proposed along RidgeGate Parkway, including two along RidgeGate Parkway WB (#5 and #6) and two along RidgeGate Parkway EB (#9 and #10). These accesses are proposed to provide left turn deceleration lanes. The westbound left turn deceleration lane at the RidgeGate Parkway WB Northwest Access (#5) is recommended to have a length of 190 feet plus 100-foot taper. The westbound left turn deceleration lane at the RidgeGate Parkway WB Northeast Access (#6) is recommended to have a length of 190 feet plus 98-foot taper. The eastbound left turn lanes at the RidgeGate Parkway EB Southwest Access (#9) and Southeast Access (#10) are recommended to have lengths of 190 feet plus 105-foot taper and 190 feet plus 84-foot taper, respectively. R1-1 “STOP” signs should be installed for the access approaches exiting the development. In addition, R3-1 No Right Turn signs should be installed underneath the “STOP” signs and R6-1 “ONE WAY” signs should be posted along RidgeGate Parkway as appropriate at these accesses to prevent vehicles from turning right and entering oncoming traffic.

- At the proposed full movement project accesses along High Note Avenue (#7) and Rhapsody Road (#8) between the two travel directions of RidgeGate Parkway, R1-1 “STOP” signs should be provided at the access approaches exiting the development. At the Rhapsody Road Access (#8), approximately 100 feet of northbound left turn space with a 50-foot shared taper will be available based on the back-to-back southbound left turn lane for the RidgeGate Parkway EB & Rhapsody Road (#4) intersection to the south.
- It is recommended the RidgeGate Parkway WB Northwest Access (#5) provide a minimum throat length of 25 feet and the RidgeGate Parkway WB Northeast Access (#6) should provide a minimum throat length of 50 feet. The East Access & Rhapsody Road (#8) should provide a minimum throat length of 25 feet. The RidgeGate Parkway EB Southwest Access (#9) should provide a minimum throat length of 50 feet, while it is recommended the RidgeGate Parkway EB & Southwest Access (#10) also provide a minimum throat length of 50 feet. These recommended throat depths will accommodate expected exiting vehicle queues throughout the long-term 2045 horizon.

2045 Recommendations

- The north legs of High Note Avenue and Rhapsody Road to the north of RidgeGate Parkway WB are anticipated to be constructed before the 2045 long-term horizon, as is the south leg of Rhapsody Road to the south of RidgeGate Parkway EB. This will create three additional 4-leg intersections (#1, #2, #4). A westbound right turn lane may need to be constructed at RidgeGate Parkway WB & High Note Avenue (#1) and at RidgeGate Parkway WB & Rhapsody Road (#2), with a recommended length of 190 feet plus 120-foot taper. Likewise, an eastbound right turn lane may be needed at the RidgeGate Parkway EB and Rhapsody Road (#4) intersection, with a recommended length of 190 feet plus 120-foot taper.

General Recommendations

Any onsite or offsite improvements should be incorporated into the Civil Drawings and conform to standards of the City of Lone Tree and the Manual on Uniform Traffic Control Devices (MUTCD) – 2009 Edition.

APPENDICES

APPENDIX A

Intersection Count Sheets



Ridgeview Data
Collection

Lone Tree, CO
Ridgegate King Soopers
AM Peak
Ridgegate Pkwy and Peoria St

File Name : Ridgegate and Peoria AM
Site Code : IPO 609
Start Date : 7/7/2022
Page No : 1

Groups Printed- Automobiles - Bicycle and Pedestrian

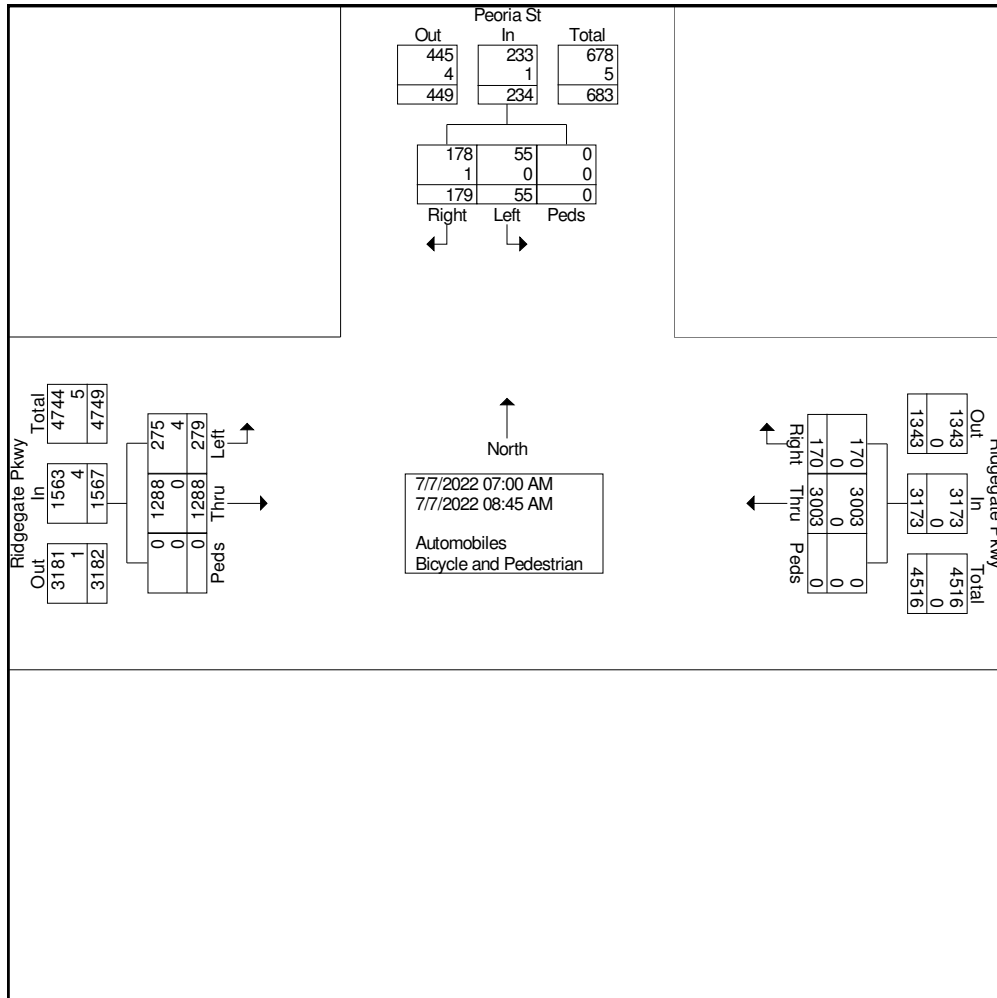
Start Time	Ridgegate Pkwy Eastbound				Ridgegate Pkwy Westbound				Peoria St Southbound				Int. Total
	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	Left	Right	Peds	App. Total	
07:00 AM	34	130	0	164	343	15	0	358	3	21	0	24	546
07:15 AM	30	169	0	199	397	21	0	418	6	22	0	28	645
07:30 AM	37	145	0	182	418	29	0	447	7	24	0	31	660
07:45 AM	41	173	0	214	421	20	0	441	11	19	0	30	685
Total	142	617	0	759	1579	85	0	1664	27	86	0	113	2536
08:00 AM	34	155	0	189	363	24	0	387	6	20	0	26	602
08:15 AM	38	168	0	206	349	18	0	367	10	25	0	35	608
08:30 AM	40	179	0	219	334	17	0	351	7	28	0	35	605
08:45 AM	25	169	0	194	378	26	0	404	5	20	0	25	623
Total	137	671	0	808	1424	85	0	1509	28	93	0	121	2438
Grand Total	279	1288	0	1567	3003	170	0	3173	55	179	0	234	4974
Apprch %	17.8	82.2	0		94.6	5.4	0		23.5	76.5	0		
Total %	5.6	25.9	0	31.5	60.4	3.4	0	63.8	1.1	3.6	0	4.7	
Automobiles	275	1288	0	1563	3003	170	0	3173	55	178	0	233	4969
% Automobiles	98.6	100	0	99.7	100	100	0	100	100	99.4	0	99.6	99.9
Bicycle and Pedestrian	4	0	0	4	0	0	0	0	0	1	0	1	5
% Bicycle and Pedestrian	1.4	0	0	0.3	0	0	0	0	0	0.6	0	0.4	0.1



Ridgeview Data Collection

Lone Tree, CO
Ridgegate King Soopers
AM Peak
Ridgegate Pkwy and Peoria St

File Name : Ridgegate and Peoria AM
Site Code : IPO 609
Start Date : 7/7/2022
Page No : 2



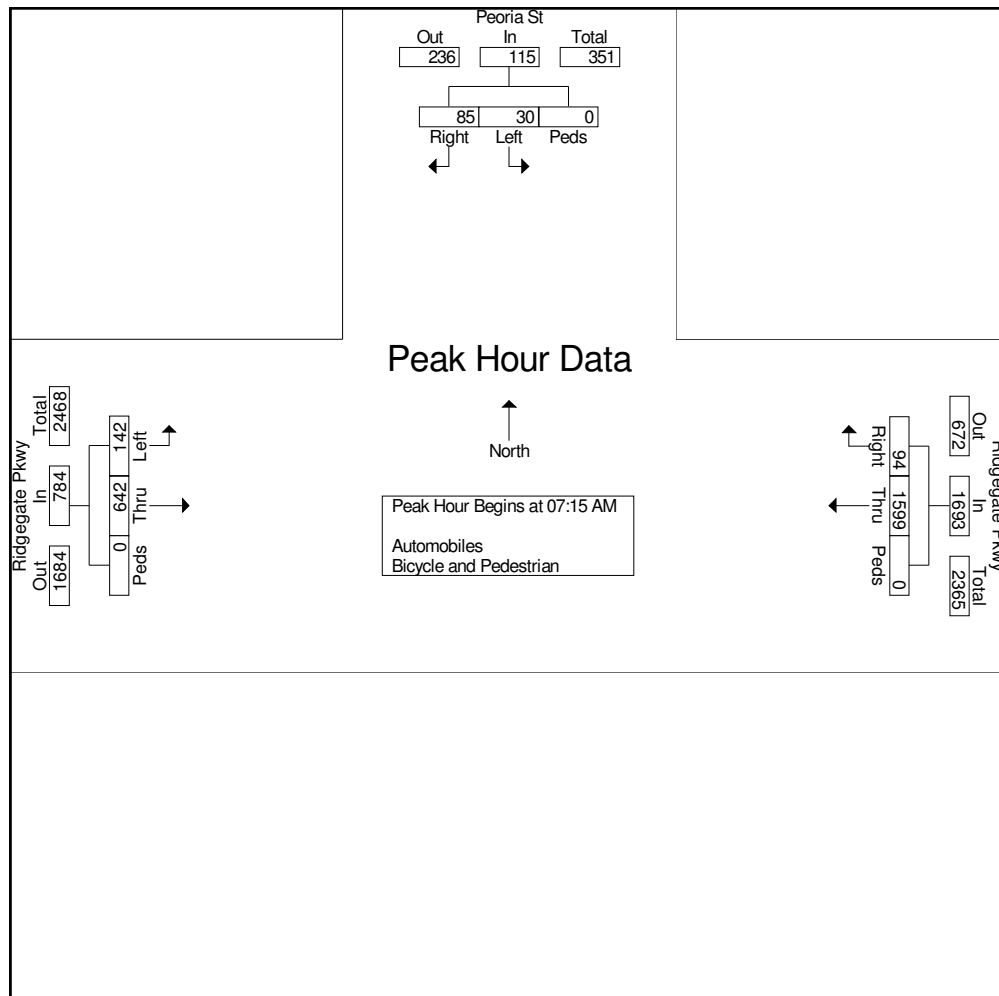


Ridgeview Data
Collection

Lone Tree, CO
Ridgegate King Soopers
AM Peak
Ridgegate Pkwy and Peoria St

File Name : Ridgegate and Peoria AM
Site Code : IPO 609
Start Date : 7/7/2022
Page No : 3

Start Time	Ridgegate Pkwy Eastbound				Ridgegate Pkwy Westbound				Peoria St Southbound				Int. Total
	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	Left	Right	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:15 AM													
07:15 AM	30	169	0	199	397	21	0	418	6	22	0	28	645
07:30 AM	37	145	0	182	418	29	0	447	7	24	0	31	660
07:45 AM	41	173	0	214	421	20	0	441	11	19	0	30	685
08:00 AM	34	155	0	189	363	24	0	387	6	20	0	26	602
Total Volume	142	642	0	784	1599	94	0	1693	30	85	0	115	2592
% App. Total	18.1	81.9	0		94.4	5.6	0		26.1	73.9	0		
PHF	.866	.928	.000	.916	.950	.810	.000	.947	.682	.885	.000	.927	.946





Ridgeview Data
Collection

Lone Tree, CO
Ridgegate King Soopers
PM Peak
Ridgegate Pkwy and Peoria St

File Name : Ridgegate and Peoria PM
Site Code : IPO 609
Start Date : 7/7/2022
Page No : 1

Groups Printed- Automobiles - Bicycle and Pedestrian

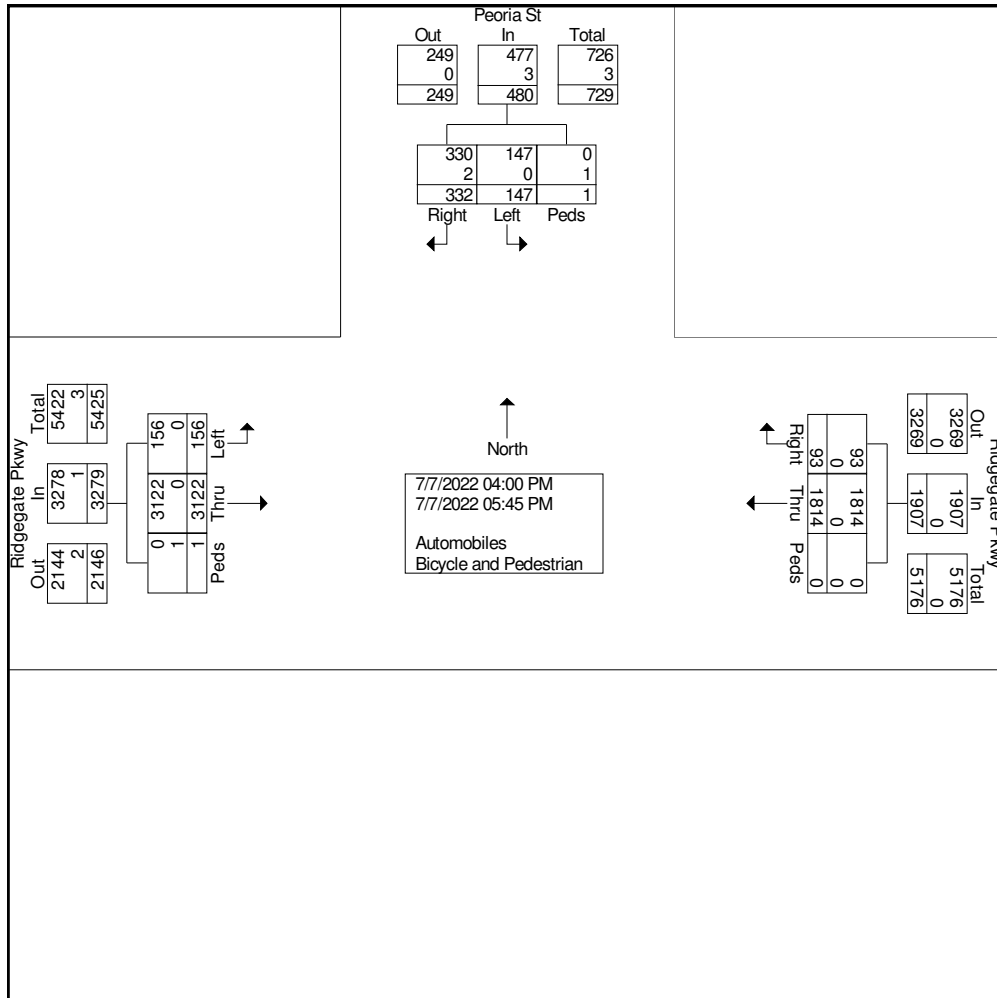
Start Time	Ridgegate Pkwy Eastbound				Ridgegate Pkwy Westbound				Peoria St Southbound				Int. Total
	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	Left	Right	Peds	App. Total	
04:00 PM	14	354	0	368	217	11	0	228	17	40	0	57	653
04:15 PM	15	375	0	390	247	12	0	259	16	43	0	59	708
04:30 PM	27	387	0	414	227	10	0	237	11	44	0	55	706
04:45 PM	18	406	1	425	201	12	0	213	16	38	1	55	693
Total	74	1522	1	1597	892	45	0	937	60	165	1	226	2760
05:00 PM	29	411	0	440	209	11	0	220	30	42	0	72	732
05:15 PM	19	420	0	439	256	13	0	269	22	50	0	72	780
05:30 PM	20	381	0	401	212	14	0	226	18	43	0	61	688
05:45 PM	14	388	0	402	245	10	0	255	17	32	0	49	706
Total	82	1600	0	1682	922	48	0	970	87	167	0	254	2906
Grand Total	156	3122	1	3279	1814	93	0	1907	147	332	1	480	5666
Apprch %	4.8	95.2	0		95.1	4.9	0		30.6	69.2	0.2		
Total %	2.8	55.1	0	57.9	32	1.6	0	33.7	2.6	5.9	0	8.5	
Automobiles	156	3122	0	3278	1814	93	0	1907	147	330	0	477	5662
% Automobiles	100	100	0	100	100	100	0	100	100	99.4	0	99.4	99.9
Bicycle and Pedestrian	0	0	1	1	0	0	0	0	0	2	1	3	4
% Bicycle and Pedestrian	0	0	100	0	0	0	0	0	0	0.6	100	0.6	0.1



Ridgeview Data Collection

Lone Tree, CO
Ridgegate King Soopers
PM Peak
Ridgegate Pkwy and Peoria St

File Name : Ridgegate and Peoria PM
Site Code : IPO 609
Start Date : 7/7/2022
Page No : 2



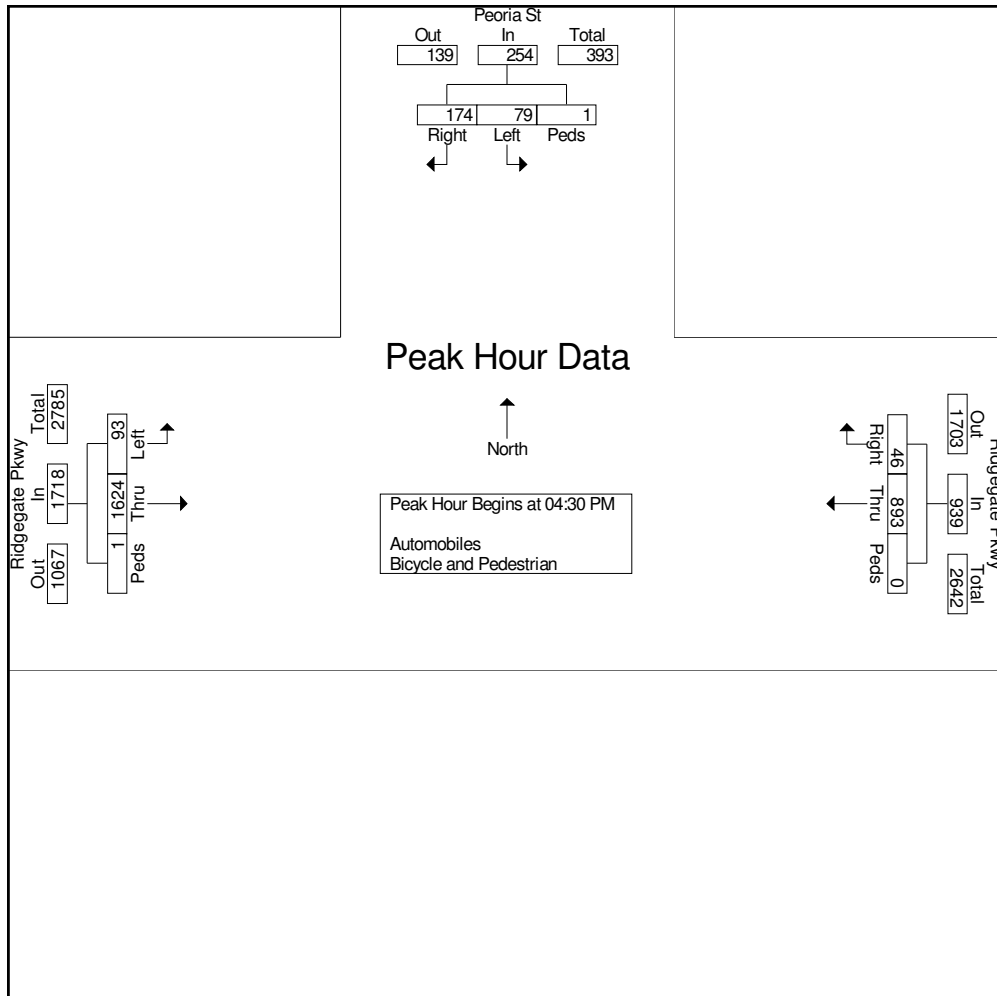


Ridgeview Data
Collection

Lone Tree, CO
Ridgegate King Soopers
PM Peak
Ridgegate Pkwy and Peoria St

File Name : Ridgegate and Peoria PM
Site Code : IPO 609
Start Date : 7/7/2022
Page No : 3

Start Time	Ridgegate Pkwy Eastbound				Ridgegate Pkwy Westbound				Peoria St Southbound				Int. Total
	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	Left	Right	Peds	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:30 PM													
04:30 PM	27	387	0	414	227	10	0	237	11	44	0	55	706
04:45 PM	18	406	1	425	201	12	0	213	16	38	1	55	693
05:00 PM	29	411	0	440	209	11	0	220	30	42	0	72	732
05:15 PM	19	420	0	439	256	13	0	269	22	50	0	72	780
Total Volume	93	1624	1	1718	893	46	0	939	79	174	1	254	2911
% App. Total	5.4	94.5	0.1		95.1	4.9	0		31.1	68.5	0.4		
PHF	.802	.967	.250	.976	.872	.885	.000	.873	.658	.870	.250	.882	.933



APPENDIX B

Future Traffic Projections and Adjacent Traffic Study

DRCOG Traffic Projections: Ridgeway King Soopers

Location	2020	2050	Growth Factor	Annual Growth
Ridgeway Parkway E/O Peoria St	23,000	43,000	1.87	2.11%

TECHNICAL MEMORANDUM

To: Shea Homes & City of Lone Tree



From: Eli Farney, PE, PTOE

Date: May 7, 2021

Subject: RidgeGate Southwest Village – Filing 1 – Traffic Study Conformance Letter

Table of Contents

Section 1: Introduction

Section 2: Existing and Forecasted Traffic Volumes

Section 3: Traffic Operations Analyses

Section 4: Conclusion

Appendices

Appendix A: Traffic Counts

Appendix B: *HCM 6th Edition* Level of Service Reports

2022 Site Generated Traffic

As shown in **Figure 3**, Filing 1 of RidgeGate Southwest Village is expected to contain about 370 single-family homes and 58 town homes. Filing 1 also contains a regional park, community park, and recreation center.

The following volumes were estimated using ITE Trip Generation Manual, 10th Edition:

- Average Daily Trips = 5,005
- AM Entering Site = 115
- AM Exiting Site = 273
- PM Entering Site = 332
- PM Exiting Site = 215

Trip generation values were determined for each phase of the Filing 1 development using the ITE manual. These values are included in the table below. The phases of the development are shown in **Figure 3**.

Trip Generation by Phase

Phase	ADT	AM Entering	AM Exiting	PM Entering	PM Exiting
PA13	179	5	10	12	7
PA14	415	8	25	27	17
PA15	387	8	22	26	15
PA16	488	9	29	31	19
PA17	506	9	28	30	18
PA18	479	9	25	28	16
PA19	264	5	16	17	11
PA20	415	8	25	27	17
PA21	434	9	25	27	19
PA22	312	6	18	21	12
Regional Park	357	5	5	54	28
Community Park	48	5	5	5	5
Rec. Center	721	29	15	27	32
Total	5,005	115	273	332	215

JR routed trips through the external and internal intersections to develop forecasted traffic volumes. **Figure 5** includes the distribution of trips on the external roadways. Most trips are expected to head west from the development to access I-25 and E-470. Distributions were based on the traffic counts collected in 2019.

Figure 7 includes the anticipated site generated traffic volumes for the external intersections in 2022.

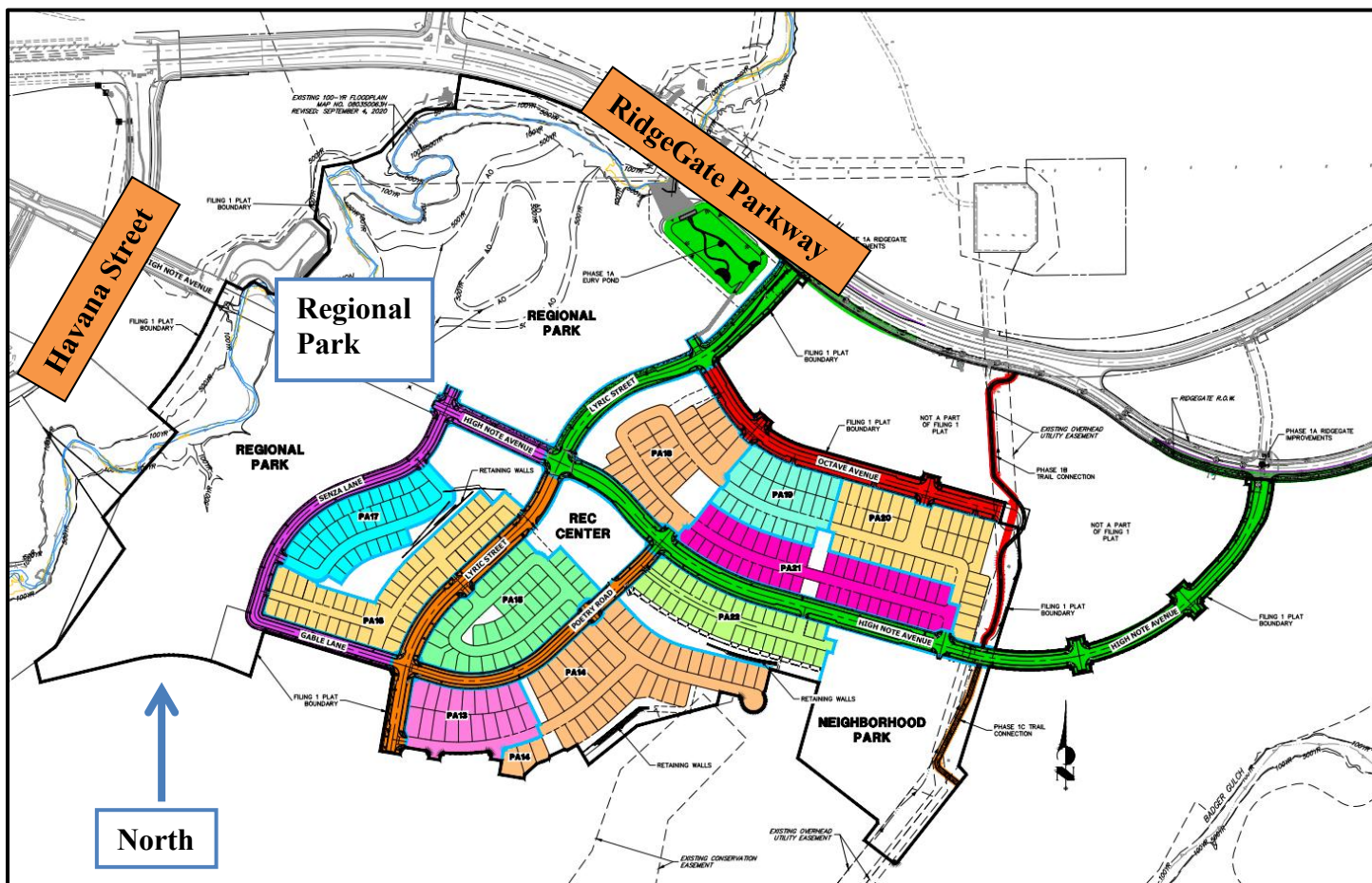


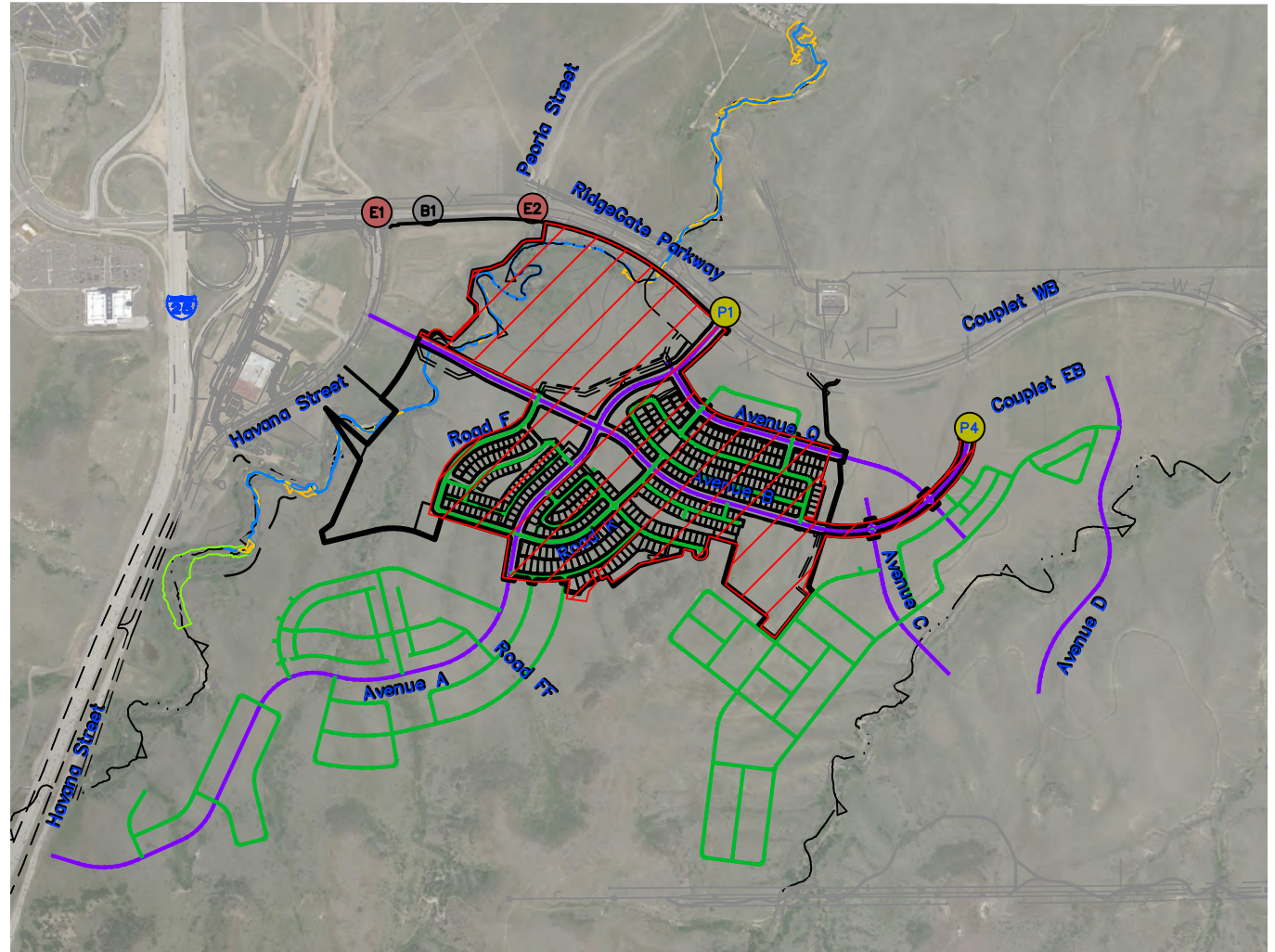
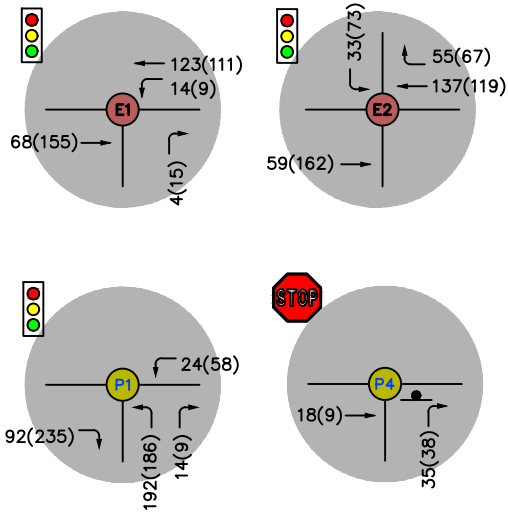
Figure 3 – Limits of Filing 1

2022 Total Traffic – External

Total traffic is the sum of background and site generated traffic. **Figure 8** includes the forecasted total traffic for the external intersections in 2022.

2022 Site Generated Traffic – Internal

Site-generated traffic movements for the internal intersections were also determined by routing the trips generated by the development. Since there is no background traffic through these internal intersections, site generated traffic is equivalent to total traffic. Internal traffic volumes for 2022 are contained in **Figure 9**.

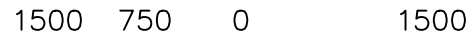


LEGEND

- EXISTING INTERSECTION
- PROPOSED INTERSECTION - EXTERNAL
- PROPOSED INTERSECTION - INTERNAL
- AVERAGE DAILY TRAFFIC (ADT)
- XX (XX) AM (PM) PEAK HOUR TRIP DISTRIBUTION
- COLLECTOR ROAD
- LOCAL ROAD
- PROJECT SITE
- STOP SIGN CONTROL
- SIGNAL CONTROL

SITE GENERATED ADT

- B1 3,100

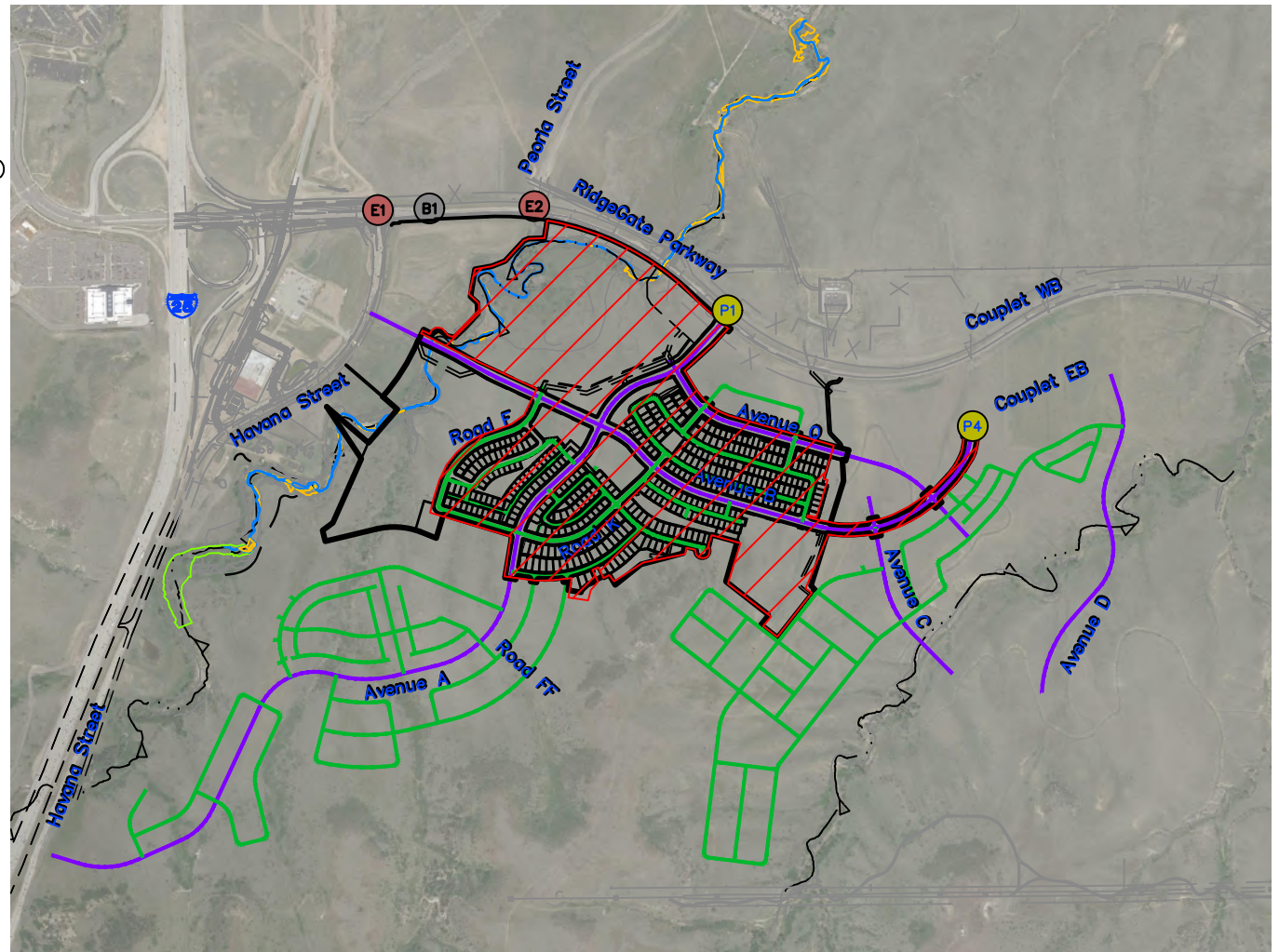
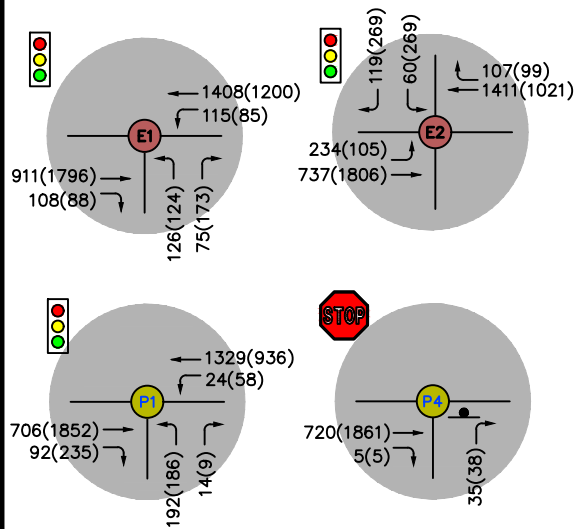


ORIGINAL SCALE: 1" = 1500'

FIGURE 7 – YEAR 2022 SITE GENERATED TRAFFIC – EXTERNAL
 RIDGEGATE SOUTHWEST VILLAGE FILING 1
 PROJ. NO. 15950.01



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LEGEND

- EXISTING INTERSECTION
- PROPOSED INTERSECTION - EXTERNAL
- PROPOSED INTERSECTION - INTERNAL
- AVERAGE DAILY TRAFFIC (ADT)
- XX (XX) AM (PM) PEAK HOUR TRIP DISTRIBUTION
- COLLECTOR ROAD
- LOCAL ROAD
- PROJECT SITE
- STOP SIGN CONTROL
- SIGNAL CONTROL

2022 TOTAL ADT

- B1 34,350

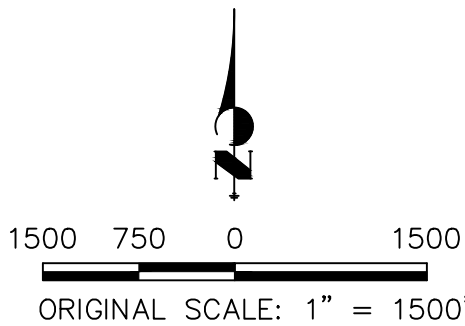


FIGURE 8 – YEAR 2022
TOTAL TRAFFIC – EXTERNAL
RIDGEGATE SOUTHWEST VILLAGE
FILING 1
PROJ. NO. 15950.01



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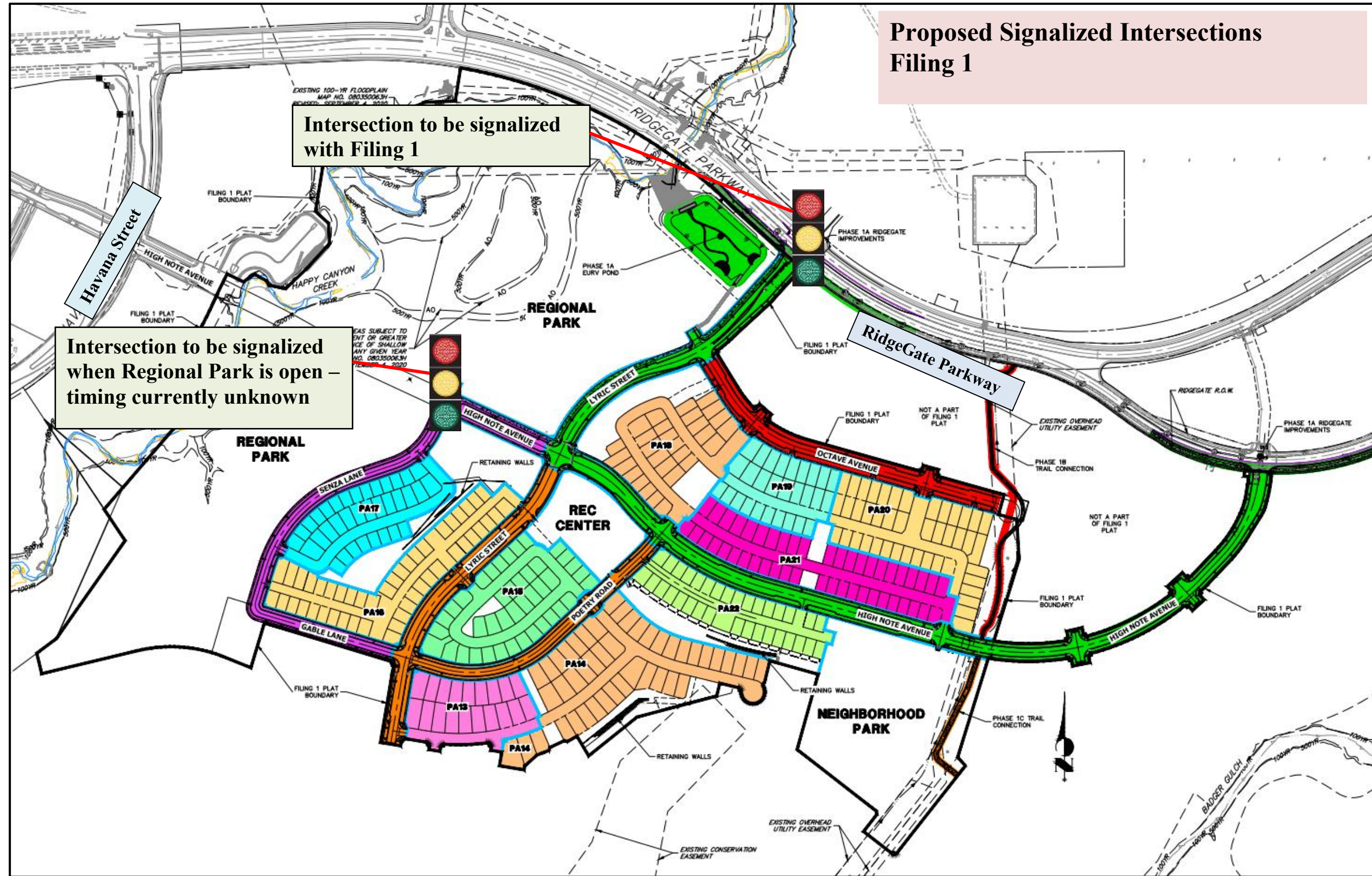


Figure 10 – Proposed Signaled Intersections

**RidgeGate – Southwest Village
Lone Tree, CO**

Traffic Impact Study

Prepared For:

Shea Homes
9380 Station Street, Suite 600
Lone Tree, CO 80124
(303) 791-8180

City of Lone Tree
9220 Kimmer Dr
Lone Tree, CO 80124

Prepared By:



JR Engineering, LLC
7200 S. Alton Way, C400
Centennial, CO 80112

Contact: Eli Farney, PE, PTOE

July 13, 2020

Proposed and Future Parcel Descriptions

The project site encompasses approximately 700 acres. According to the most recent site plan, the site is proposed to be comprised of the following land uses:

- **Zone 1:** Mixed Use (single-family detached residential)
- **Zone 2:** Mixed Use (single family detached residential, school, rec center, and regional park)
- **Zone 3:** Mixed Use (single-family detached residential, single-family detached and attached retirement residential, multifamily residential, and local park)
- **Zone 4:** Mixed Use (single-family detached residential, multifamily residential, commercial, and regional park)

The *RidgeGate Southwest Village Site Layout* by Sage Design Group (dated February 10, 2020) is included in **Appendix D**.

Access to the site is proposed in five locations as follows:

- P1 – RidgeGate Parkway & Avenue A
- P4 – RidgeGate Couplet Eastbound & Avenue B
- P5 – RidgeGate Couplet Eastbound & Avenue D
- P6 – Havana Street & Avenue B
- P7 – Havana Street & Avenue A

Study Area Boundaries

Based on the number of trips anticipated to be generated by the proposed development in RidgeGate Southwest Village, the study area includes new and existing intersections along RidgeGate Parkway and Havana Street. All roadway names, intersections, and spacing are shown in **Figure 2**. The following intersections were analyzed in this study:

Existing Intersections

- E1 – RidgeGate Parkway and Havana Street
- E2 – RidgeGate Parkway and Peoria Street

Proposed External Intersections

- P1 – RidgeGate Parkway & Avenue A
- P2 – RidgeGate Couplet Westbound & Avenue B
- P3 – RidgeGate Couplet Westbound & Avenue D
- P4 – RidgeGate Couplet Eastbound & Avenue B
- P5 – RidgeGate Couplet Eastbound & Avenue D
- P6 – Havana Street & Avenue B
- P7 – Havana Street & Avenue A

Project Traffic

Trip Generation

Trip generation has been calculated from the latest data contained within the Institute of Transportation Engineers' (ITE) *Trip Generation Manual 10th Edition Volume 1, 2017*. Based on the land use and the guidelines within the *Trip Generation Manual*, JR used the appropriate average rates for the AM and PM peak hour traffic and the Weekday average daily traffic (ADT) traffic for each land use.

Based on the site plans for the RidgeGate Southwest Village the parcels were studied as follows:

- Zone 1 – 303 units Single-Family Detached Housing
- Zone 2 – 411 units Single-Family Detached Housing and 500-student School Site
- Zone 3 – 308 units Retirement Homes, 119 units Single-Family Detached, and 310 units Multi-Family Homes
- Zone 4 – 167 units Single-Family Detached Housing, 24 units Retirement Housing, 280 units Multi-Family Housing, 85,000 SF Commercial Site, and a Regional Park

Zone 1 development is expected to generate:

- 2883 weekday trips
- 220 AM peak hour vehicle trips, split 25% entering and 75% exiting
- 294 PM peak hour vehicle trips, split 65% entering and 35% exiting

Zone 2 development is expected to generate:

- 4900 weekday trips
- 636 AM peak hour vehicle trips, split 20% entering and 80% exiting
- 490 PM peak hour vehicle trips, split 65% entering and 35% exiting

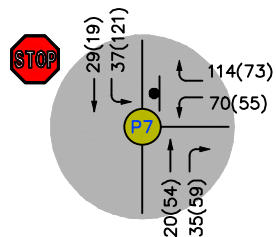
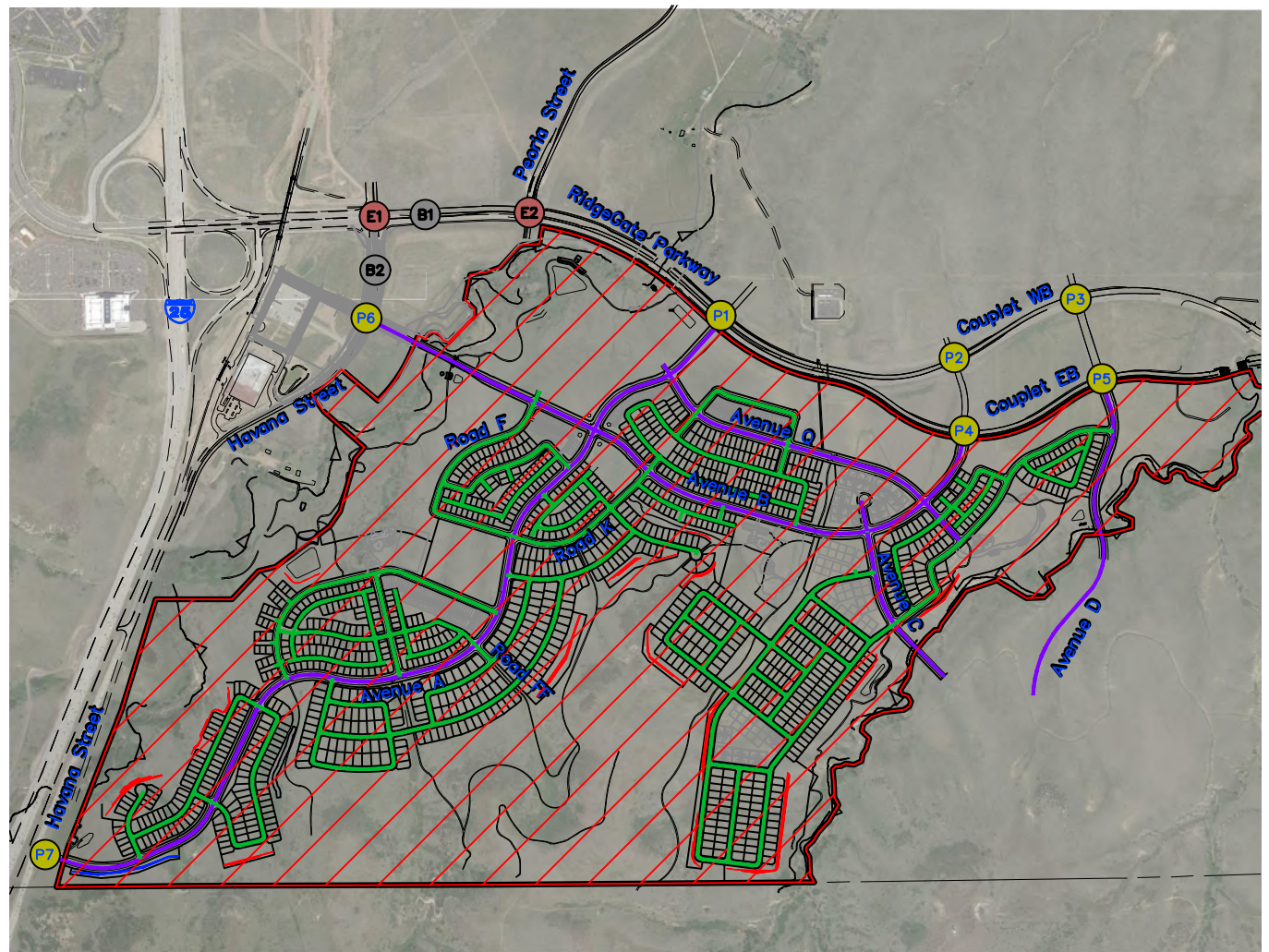
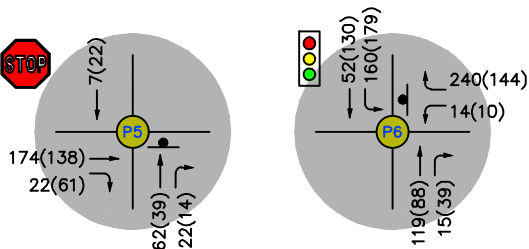
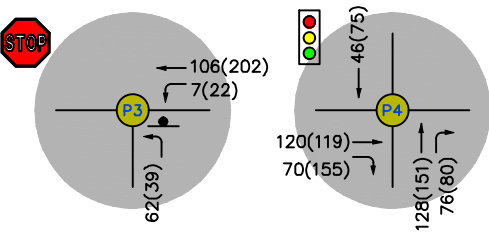
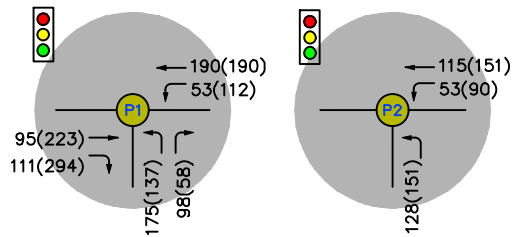
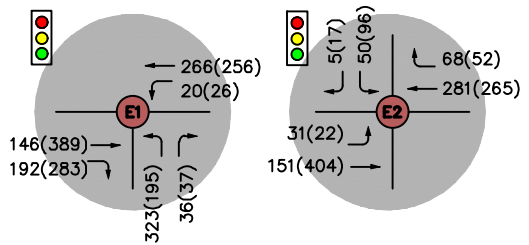
Zone 3 development is expected to generate:

- 4422 weekday trips
- 289 AM peak hour vehicle trips, split 17% entering and 83% exiting
- 367 PM peak hour vehicle trips, split 67% entering and 33% exiting

Zone 4 development is expected to generate:

- 9163 weekday trips
- 431 AM peak hour vehicle trips, split 25% entering and 75% exiting
- 882 PM peak hour vehicle trips, split 63% entering and 37% exiting

In summary, RidgeGate Southwest Village is expected to generate 19,584 weekday trips, including 1,514 AM peak hour trips and 1,857 PM peak hour trips.



LEGEND

- EXISTING INTERSECTION
- PROPOSED INTERSECTION - EXTERNAL
- PROPOSED INTERSECTION - INTERNAL
- AVERAGE DAILY TRAFFIC (ADT)
- XX (XX) AM (PM) PEAK HOUR TRIP DISTRIBUTION
- COLLECTOR ROAD
- LOCAL ROAD
- PROJECT SITE
- STOP SIGN CONTROL
- SIGNAL CONTROL

SITE GENERATED ADT

- B1 8,700
- B2 5,650

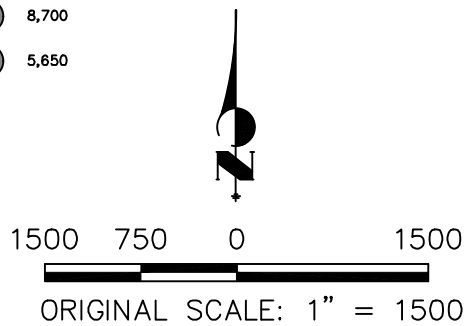
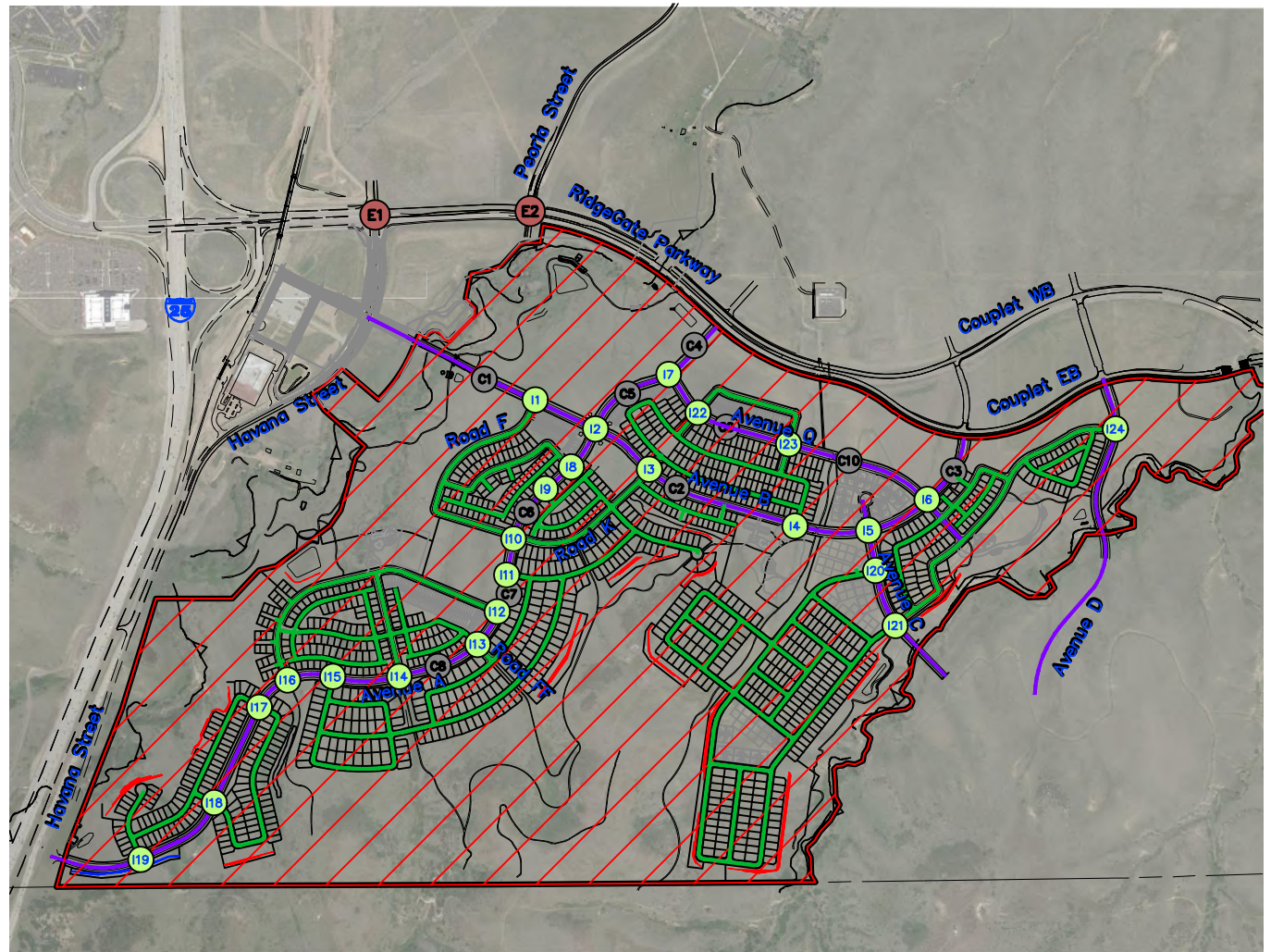
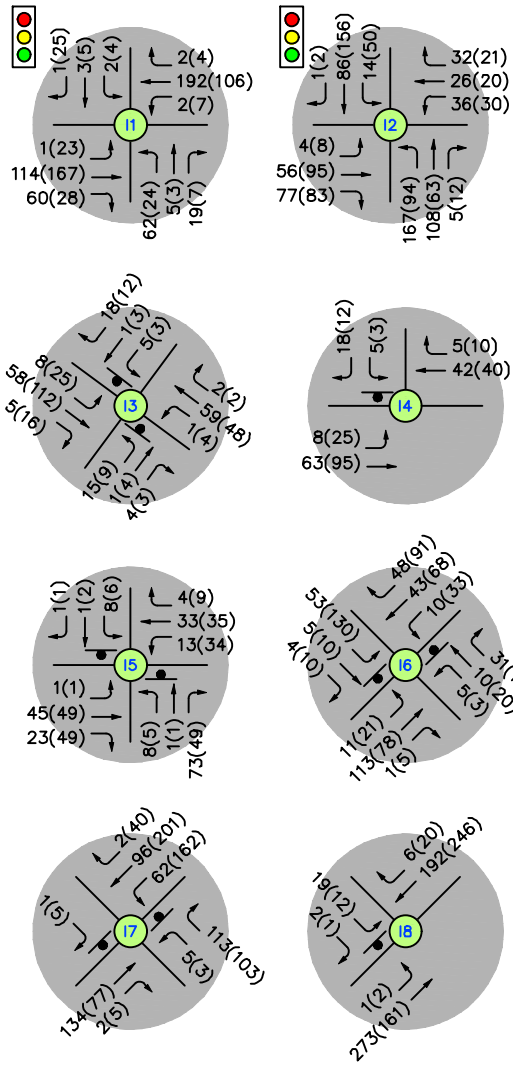


FIGURE 8 – SITE GENERATED TRAFFIC – EXTERNAL
RIDGEGATE SOUTHWEST VILLAGE
 PAGE 18
 PROJ. NO. 15950.00



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LEGEND

EXISTING INTERSECTION	COLLECTOR ROAD
PROPOSED INTERSECTION - EXTERNAL	LOCAL ROAD
PROPOSED INTERSECTION - INTERNAL	PROJECT SITE
AVERAGE DAILY TRAFFIC (ADT)	STOP SIGN CONTROL
XX (XX) AM (PM) PEAK HOUR TRIP DISTRIBUTION	SIGNAL CONTROL

YEAR 2026 ADT

C1	5,650	C6	4,700
C2	2,550	C7	3,000
C3	5,450	C8	1,750
C4	6,600	C9	3,500
C5	2,900	C10	3,450

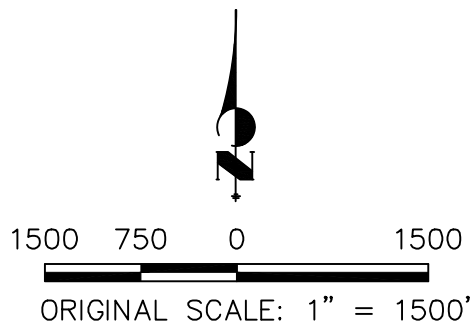
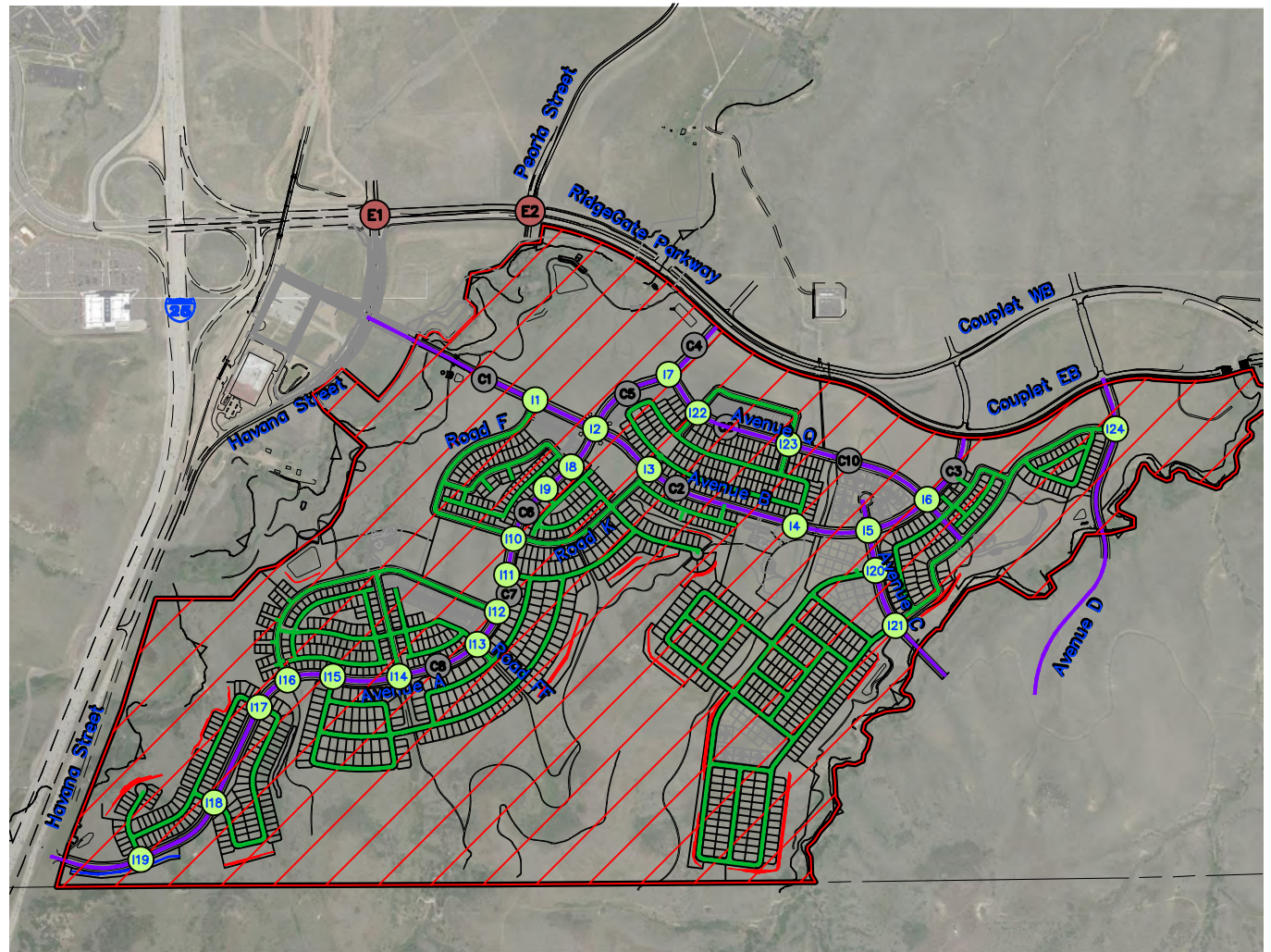
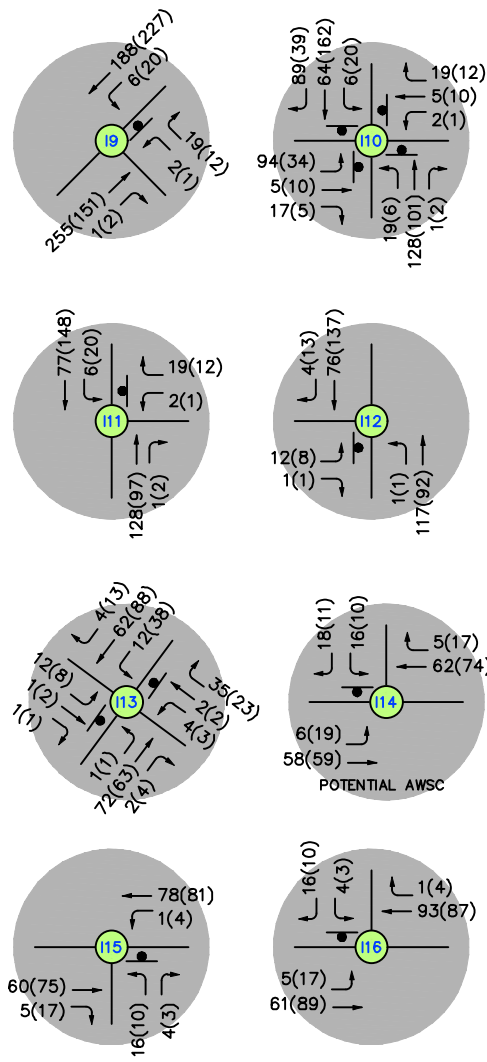


FIGURE 12 – SITE GENERATED TRAFFIC & 2026 – INTERNAL 1 RIDGEGATE SOUTHWEST VILLAGE
 PAGE 22
 PROJ. NO. 15950.00



- LEGEND**
- EXISTING INTERSECTION
 - PROPOSED INTERSECTION - EXTERNAL
 - PROPOSED INTERSECTION - INTERNAL
 - AVERAGE DAILY TRAFFIC (ADT)
 - XX (XX) AM (PM) PEAK HOUR TRIP DISTRIBUTION
 - COLLECTOR ROAD
 - LOCAL ROAD
 - PROJECT SITE
 - STOP SIGN CONTROL
 - SIGNAL CONTROL

SITE GENERATED ADT

C1	5,675	C6	4,350
C2	2,550	C7	3,100
C3	5,475	C8	2,000
C4	6,575	C9	3,350
C5	2,875	C10	3,700

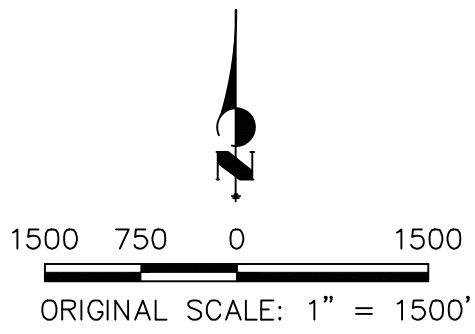
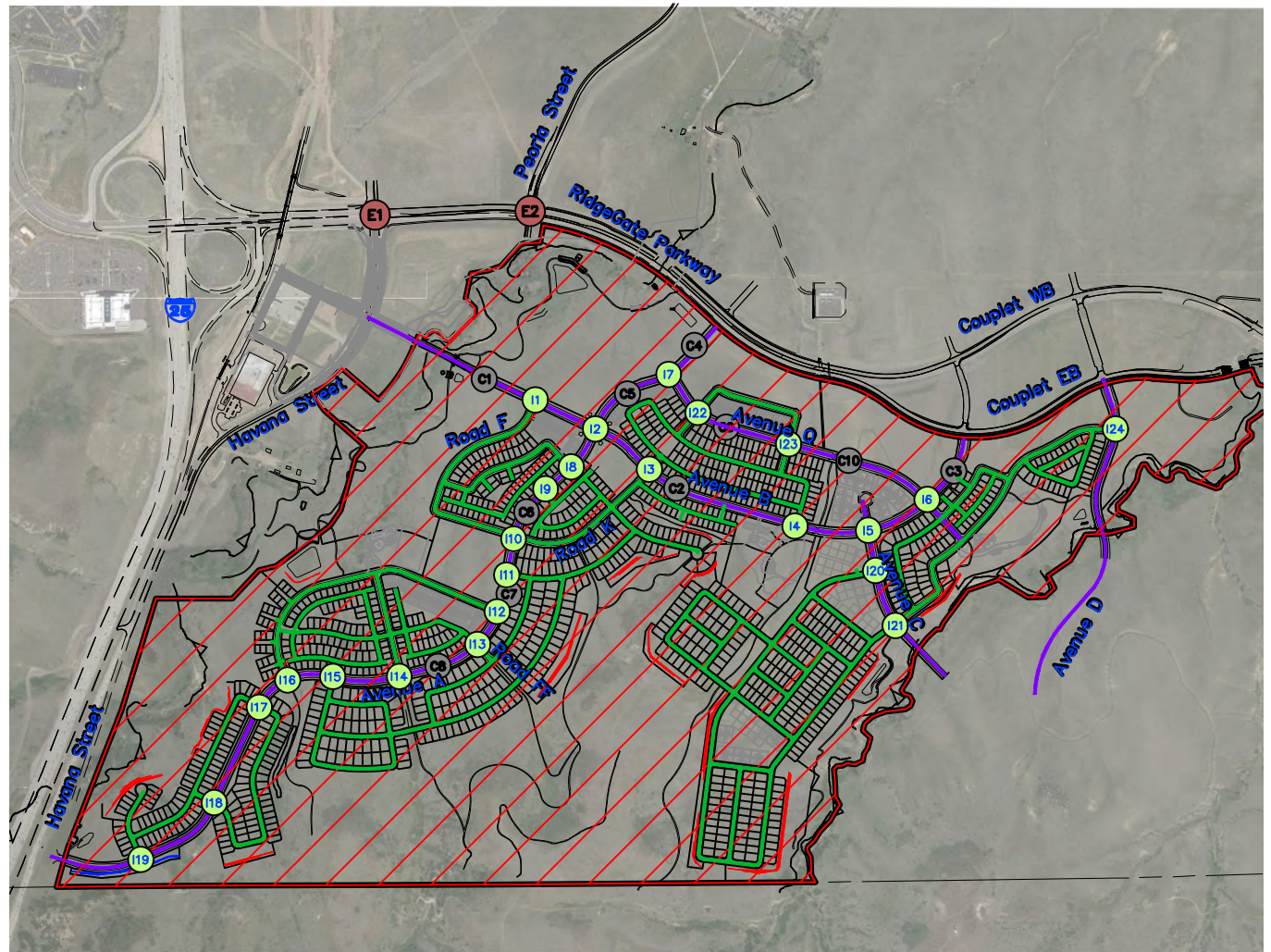
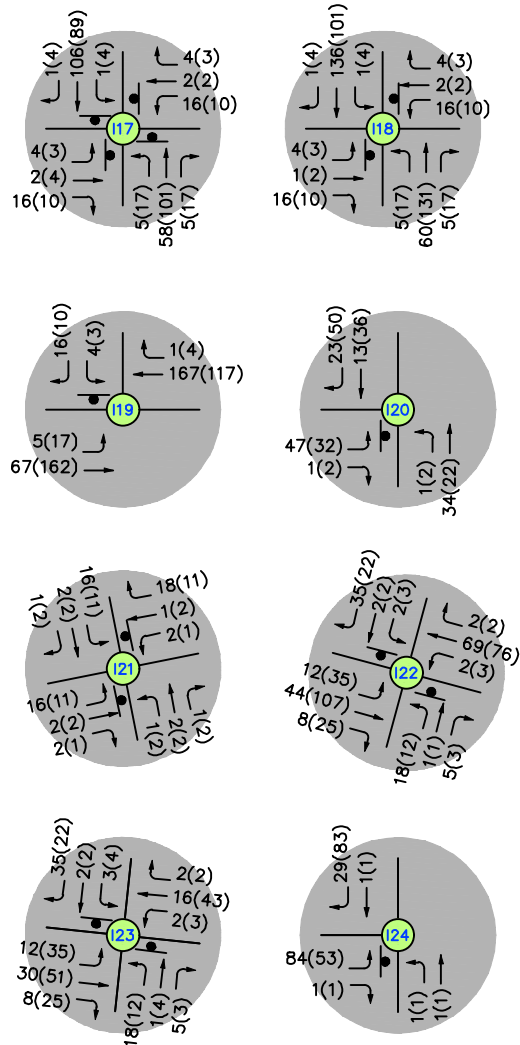


FIGURE 13 – SITE GENERATED TRAFFIC & 2026 – INTERNAL 2 RIDGEGATE SOUTHWEST VILLAGE
PAGE 23
PROJ. NO. 15950.00



LEGEND

- Existing Intersection (Red X)
- Proposed Intersection - External (Yellow X)
- Proposed Intersection - Internal (Green X)
- Average Daily Traffic (ADT) (Grey X)
- AM (PM) Peak Hour Trip Distribution (XX (XX))
- Collector Road (Purple line)
- Local Road (Green line)
- Project Site (Red hatched area)
- Stop Sign Control (Black dot)
- Signal Control (Traffic light symbol)

SITE GENERATED ADT

C1	5,675	C6	4,350
C2	2,550	C7	3,100
C3	5,475	C8	2,000
C4	6,575	C9	3,350
C5	2,875	C10	3,700

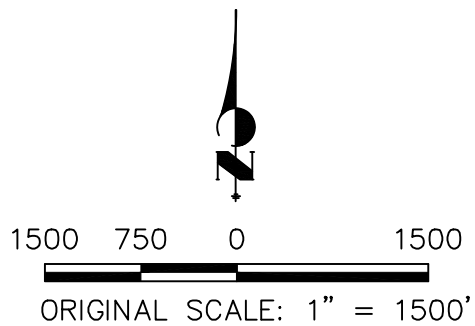
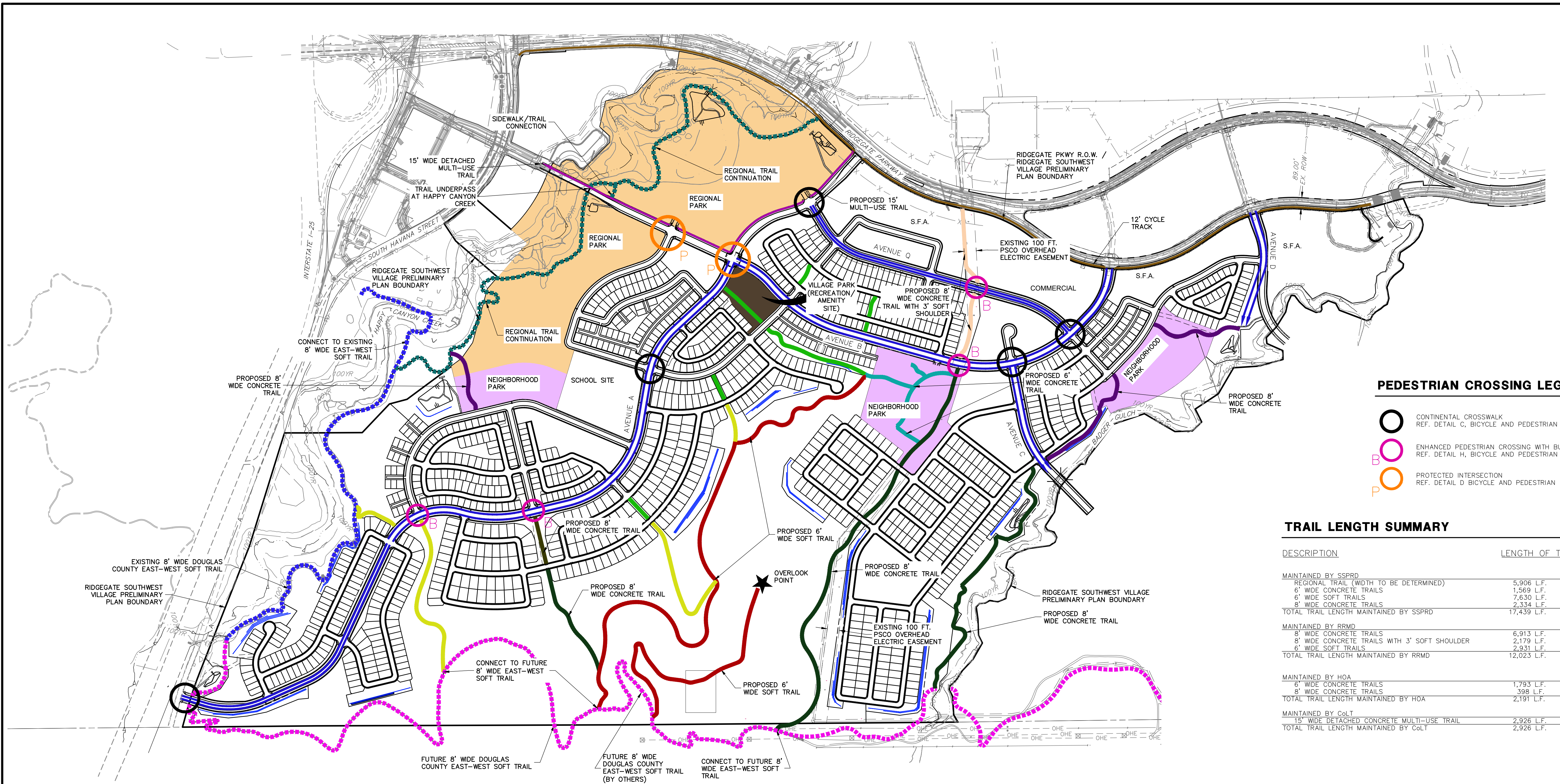


FIGURE 14 – SITE GENERATED TRAFFIC & 2026 – INTERNAL 3 RIDGEGATE SOUTHWEST VILLAGE
 PAGE 24
 PROJ. NO. 15950.00



PEDESTRIAN CROSSING LEGEND

- CONTINENTAL CROSSWALK
REF. DETAIL C, BICYCLE AND PEDESTRIAN DETAILS
- ENHANCED PEDESTRIAN CROSSING WITH BULB-OUT
REF. DETAIL H, BICYCLE AND PEDESTRIAN DETAILS
- PROTECTED INTERSECTION
REF. DETAIL D BICYCLE AND PEDESTRIAN DETAILS

TRAIL LENGTH SUMMARY

DESCRIPTION	LENGTH OF TRAIL
MAINTAINED BY SSPRD	
REGIONAL TRAIL (WIDTH TO BE DETERMINED)	5,906 L.F.
6' WIDE CONCRETE TRAILS	1,569 L.F.
6' WIDE SOFT TRAILS	7,630 L.F.
8' WIDE CONCRETE TRAILS	2,334 L.F.
TOTAL TRAIL LENGTH MAINTAINED BY SSPRD	17,439 L.F.
MAINTAINED BY RRMD	
8' WIDE CONCRETE TRAILS	6,913 L.F.
8' WIDE CONCRETE TRAILS WITH 3' SOFT SHOULDER	2,179 L.F.
6' WIDE SOFT TRAILS	2,931 L.F.
TOTAL TRAIL LENGTH MAINTAINED BY RRMD	12,023 L.F.
MAINTAINED BY HOA	
6' WIDE CONCRETE TRAILS	1,793 L.F.
8' WIDE CONCRETE TRAILS	398 L.F.
TOTAL TRAIL LENGTH MAINTAINED BY HOA	2,191 L.F.
MAINTAINED BY CoLT	
15' WIDE DETACHED CONCRETE MULTI-USE TRAIL	2,926 L.F.
TOTAL TRAIL LENGTH MAINTAINED BY CoLT	2,926 L.F.

TRAIL LEGEND

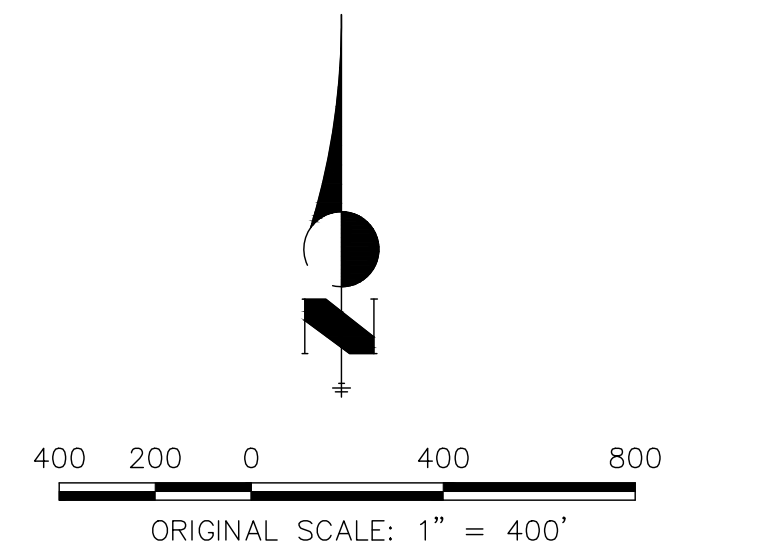
	EXISTING DOUGLAS COUNTY EAST-WEST TRAIL (8' SOFT TRAIL), REF. DETAIL E BICYCLE AND PEDESTRIAN DETAILS.
	FUTURE DOUGLAS COUNTY EAST-WEST TRAIL (8' SOFT TRAIL), REF. DETAIL E BICYCLE AND PEDESTRIAN DETAILS.
	FUTURE REGIONAL TRAIL, WIDTH AND SURFACE TO BE DETERMINED BY FINAL REGIONAL PARK DESIGN
	PROPOSED 6' HOA CONCRETE TRAIL, REF. DETAIL F BICYCLE AND PEDESTRIAN DETAILS.
	PROPOSED 8' HOA CONCRETE TRAIL, REF. DETAIL F BICYCLE AND PEDESTRIAN DETAILS.
	PROPOSED 6' RRMD SOFT TRAIL, REF. DETAIL E BICYCLE AND PEDESTRIAN DETAILS
	PROPOSED 6' SSPRD CONCRETE TRAIL, REF. DETAIL F BICYCLE AND PEDESTRIAN DETAILS.
	PROPOSED 8' RRMD CONCRETE TRAIL, REF. DETAIL F BICYCLE AND PEDESTRIAN DETAILS.
	PROPOSED 8' RRMD CONCRETE TRAIL WITH 3' SOFT SHOULDER, REF. DETAIL G BICYCLE AND PEDESTRIAN DETAILS.
	PROPOSED 6' SSPRD SOFT TRAIL, REF. DETAIL E BICYCLE AND PEDESTRIAN DETAILS.
	PROPOSED 8' SSPRD CONCRETE TRAIL, REF. DETAIL F BICYCLE AND PEDESTRIAN DETAILS.
	15' CONCRETE DETACHED MULTI-USE TRAIL
	12' CYCLE TRACK (RIDGEGATE PARKWAY)
	PROPOSED 6' WIDE BICYCLE LANE, REF. DETAIL A BICYCLE AND PEDESTRIAN DETAILS.
	NEIGHBORHOOD PARK
	VILLAGE PARK (RECREATION CENTER/AMENITY SITE)
	REGIONAL PARK

CONSTRUCTION RESPONSIBILITY

MAINTENANCE RESPONSIBILITY

LINEAR FEET OF TRAIL

DOUGLAS COUNTY	DOUGLAS COUNTY	-
DOUGLAS COUNTY	DOUGLAS COUNTY	-
BY OTHERS (TO BE DETERMINED)	SOUTH SUBURBAN PARKS AND RECREATION DISTRICT	5,906 L.F.
DEVELOPER	HOA	1,793 L.F.
DEVELOPER	HOA	398 L.F.
DEVELOPER	RAMPART RANGE METRO DISTRICT	2,931 L.F.
DEVELOPER	SOUTH SUBURBAN PARKS AND RECREATION DISTRICT	1,569 L.F.
DEVELOPER	RAMPART RANGE METRO DISTRICT	6,913 L.F.
DEVELOPER	RAMPART RANGE METRO DISTRICT	2,179 L.F.
DEVELOPER	SOUTH SUBURBAN PARKS AND RECREATION DISTRICT	7,304 L.F.
DEVELOPER	SOUTH SUBURBAN PARKS AND RECREATION DISTRICT	2,334 L.F.
DEVELOPER	CITY OF LONE TREE	2,926 L.F.
DEVELOPER	CITY OF LONE TREE	-
DEVELOPER	CITY OF LONE TREE	-
DEVELOPER	SOUTH SUBURBAN PARKS AND RECREATION DISTRICT	-
DEVELOPER	HOA	-
SOUTH SUBURBAN PARKS AND RECREATION DISTRICT	SOUTH SUBURBAN PARKS AND RECREATION DISTRICT	-



BICYCLE AND PEDESTRIAN MOBILITY PLAN
 RIDGEGATE SOUTHWEST VILLAGE
 JOB NO. 15950.00
 8/26/2020
 SHEET 1 OF 1



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APPENDIX C

Trip Generation Worksheets

Project Ridgegate King Soopers
 Subject Trip Generation for Free-Standing Discount Superstore
 Designed by TJD Date July 13, 2022 Job No. 096083130
 Checked by _____ Date _____ Sheet No. 1 of 1

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 11th Edition, Average Rates

Land Use Code - Free-Standing Discount Superstore (813)

Independent Variable - 1000 Square Feet (X)

SF = 123,000

X = 123.0

T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (800 Series Page 28)

(T) = 1.86 (X)		Directional Distribution:	56% ent.	44% exit.
(T) = 1.86 *	(123.0)	T =	229	Average Vehicle Trip Ends
		128	entering	101 exiting
		128	+	101 = 229

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (800 Series Page 29)

(T) = 4.33 (X)		Directional Distribution:	49% ent.	51% exit.
(T) = 4.33 *	(123.0)	T =	533	Average Vehicle Trip Ends
		261	entering	272 exiting
		261	+	272 = 533

Weekday (800 Series Page 27)

(T) = 50.52 (X)		Directional Distribution:	50% ent.	50% exit.
(T) = 50.52 *	(123.0)	T =	6214	Average Vehicle Trip Ends
		3107	entering	3107 exiting
		3107	+	3107 = 6214

Non Pass-By Trip Volumes (Per ITE Trip Generation Manual, 11th Edition)

PM Peak Hour =	71%	Non-Pass By	AM Peak Hour =	71%	Non-Pass By
	IN	Out	Total		
AM Peak	91	72	162		PM Peak Hour Rate Applied to AM Peak Hour
PM Peak	185	193	378		
Daily	2206	2206	4412		PM Peak Hour Rate Applied to Daily

Pass-By Trip Volumes (Per ITE Trip Generation Manual, 11th Edition)

PM Peak Hour =	29%	Pass By	AM Peak Hour =	29%	Pass By
	IN	Out	Total		
AM Peak	37	29	66		PM Peak Hour Rate Applied to AM Peak Hour
PM Peak	76	79	143		
Daily	901	901	1802		PM Peak Hour Rate Applied to Daily

Project Ridgegate King Soopers
 Subject Trip Generation for Strip Retail Plaza (<40k)
 Designed by TJD Date July 13, 2022 Job No. 096083130
 Checked by _____ Date _____ Sheet No. 1 of 1

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 11th Edition, Average Rate Equations

Land Use Code - Strip Retail Plaza (<40k) (822)

Independent Variable - 1000 Square Feet Gross Leasable Area (X)

Gross Leasable Area = 23,862 Square Feet

X = 23.862

T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (800 Series Page 230)

Average Weekday		Directional Distribution:	60% ent.	40% exit.
T = 2.36 * (X)		T = 56	Average Vehicle Trip Ends	
T = 2.36 *	23.862	34 entering	22 exiting	
		34 + 22 = 56		

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (800 Series page 231)

Average Weekday		Directional Distribution:	50% ent.	50% exit.
T = 6.59 * (X)		T = 158	Average Vehicle Trip Ends	
T = 6.59 *	23.862	79 entering	79 exiting	
		79 + 79 = 158		

Weekday (800 Series page 229)

Average Weekday		Directional Distribution:	50% entering, 50% exiting	
T = 54.45 * (X)		T = 1300	Average Vehicle Trip Ends	
T = 54.45 *	23.862	650 entering	650 exiting	
		650 + 650 = 1300		

Project Ridgegate King Soopers
 Subject Trip Generation for Drive-In Bank
 Designed by TJD Date July 13, 2022 Job No. 096083130
 Checked by _____ Date _____ Sheet No. 1 of 1

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 11th Edition, Average Rate Equations

Land Use Code - Drive-In Bank (912)

Independent Variable - 1000 Square Feet Gross Floor Area (X)

SF = 3,352
 X = 3.352
 T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (Page 599)

Average Weekday	Directional Distribution:	50% ent.	50% exit.
T = 9.95 (X)	T = 34	Average Vehicle Trip Ends	
T = 9.95 * 3.352	17 entering	17	exiting
	17 + 17 =	34	

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (Page 600)

Average Weekday	Directional Distribution:	50% ent.	50% exit.
T = 21.01 (X)	T = 70	Average Vehicle Trip Ends	
T = 21.01 * 3.352	35 entering	35	exiting
	35 + 35 =	70	

Weekday (Page 598)

Average Weekday	Directional Distribution:	50% entering, 50% exiting	
T = 100.35 (X)	T = 336	Average Vehicle Trip Ends	
T = 100.35 * 3.352	168 entering	168	exiting
	168 + 168 =	336	

Non Pass-By Trip Volumes (Per ITE Trip Generation Manual, 11th Edition)

PM Peak Hour = 65% Non-Pass By	AM Peak Hour = 71% Non-Pass By
IN Out Total	
AM Peak 12 12 24	
PM Peak 23 23 46	
Daily 109 109 218	PM Peak Hour Rate Applied to Daily

Pass-By Trip Volumes (Per ITE Trip Generation Manual, 11th Edition)

PM Peak Hour = 35% Pass By	AM Peak Hour = 29% Pass By
IN Out Total	
AM Peak 5 5 10	
PM Peak 12 12 14	
Daily 59 59 118	PM Peak Hour Rate Applied to Daily

Project Ridgegate King Soopers
 Subject Trip Generation for Gasoline/Service Station
 Designed by TJD Date July 13, 2022 Job No. 096083130
 Checked by _____ Date _____ Sheet No. 1 of 1

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 11th Edition, Average Rate Equations

Land Use Code - Gasoline/Service Station (944)

Independent Variable - Vehicle Fueling Positions (X)

Vehicle Fueling Positions= 18 Positions
 X = 18
 T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (Page 850)

Average Weekday	Directional Distribution:	50% ent.	50% exit.
T = 10.28 (X)	T = 186	Average Vehicle Trip Ends	
T = 10.28 * 18	93 entering	93 exiting	
	93 + 93 = 186		

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (Page 851)

Average Weekday	Directional Distribution:	50% ent.	50% exit.
T = 13.91 (X)	T = 250	Average Vehicle Trip Ends	
T = 13.91 * 18	125 entering	125 exiting	
	125 + 125 = 250		

Weekday (Page 849)

Average Weekday	Directional Distribution:	50% entering, 50% exiting	
T = 172.01 (X)	T = 3096	Average Vehicle Trip Ends	
T = 172.01 * 18	1548 entering	1548 exiting	
	1548 + 1548 = 3096		

Non Pass-By Trip Volumes (Per ITE Trip Generation Manual, 11th Edition)

PM Peak Hour = 43% Non-Pass By	AM Peak Hour = 37% Non-Pass By
IN Out Total	
AM Peak 34 34 69	
PM Peak 54 54 108	
Daily 666 666 1,332	PM Peak Hour Rate Applied to Daily

Pass-By Trip Volumes (Per ITE Trip Generation Manual, 11th Edition)

PM Peak Hour = 57% Pass By	AM Peak Hour = 63% Pass By
IN Out Total	
AM Peak 59 59 117	
PM Peak 71 71 132	
Daily 882 882 1,764	PM Peak Hour Rate Applied to Daily

APPENDIX D

Intersection Analysis Worksheets

Timings
1: High Note Ave & Ridgeway Pkwy WB

2025 Total AM
09/01/2022



Lane Group	WBL	WBT	NBL	Ø6
Lane Configurations	↵	↑↑↑	↵	
Traffic Volume (vph)	13	1779	11	
Future Volume (vph)	13	1779	11	
Turn Type	Perm	NA	Perm	
Protected Phases		8		6
Permitted Phases	8		2	
Detector Phase	8	8	2	
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5
Total Split (s)	67.0	67.0	23.0	23.0
Total Split (%)	74.4%	74.4%	25.6%	26%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	Max	Max
Act Effct Green (s)	62.5	62.5	18.5	
Actuated g/C Ratio	0.69	0.69	0.21	
v/c Ratio	0.01	0.53	0.04	
Control Delay	4.1	5.3	23.2	
Queue Delay	0.0	0.0	0.0	
Total Delay	4.1	5.3	23.2	
LOS	A	A	C	
Approach Delay		5.3		
Approach LOS		A		

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 8:WBTL, Start of Green
 Natural Cycle: 50
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.53
 Intersection Signal Delay: 5.4
 Intersection Capacity Utilization 46.0%
 Analysis Period (min) 15

Intersection LOS: A
ICU Level of Service A

Splits and Phases: 1: High Note Ave & Ridgeway Pkwy WB



HCM 6th Signalized Intersection Summary
 1: High Note Ave & Ridgeway Pkwy WB

2025 Total AM
 09/01/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖	↖↖↖		↖	↖			↖	
Traffic Volume (veh/h)	0	0	0	13	1779	0	11	0	0	0	0	0
Future Volume (veh/h)	0	0	0	13	1779	0	11	0	0	0	0	0
Initial Q (Qb), veh				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
Parking Bus, Adj				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		No
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				14	1873	0	12	0	0	0	0	0
Peak Hour Factor				0.95	0.95	0.92	0.95	0.92	0.95	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				1237	3546	0	446	384	0	0	384	0
Arrive On Green				0.23	0.23	0.00	0.21	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h				1781	5274	0	1781	1870	0	0	1870	0
Grp Volume(v), veh/h				14	1873	0	12	0	0	0	0	0
Grp Sat Flow(s),veh/h/ln				1781	1702	0	1781	1870	0	0	1870	0
Q Serve(g_s), s				0.5	29.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s				0.5	29.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
Prop In Lane				1.00		0.00	1.00		0.00	0.00		0.00
Lane Grp Cap(c), veh/h				1237	3546	0	446	384	0	0	384	0
V/C Ratio(X)				0.01	0.53	0.00	0.03	0.00	0.00	0.00	0.00	0.00
Avail Cap(c_a), veh/h				1237	3546	0	446	384	0	0	384	0
HCM Platoon Ratio				0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)				1.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d), s/veh				10.8	21.8	0.0	28.6	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh				0.0	0.6	0.0	0.1	0.0	0.0	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
%ile BackOfQ(50%),veh/ln				0.2	13.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				10.8	22.3	0.0	28.7	0.0	0.0	0.0	0.0	0.0
LnGrp LOS				B	C	A	C	A	A	A	A	A
Approach Vol, veh/h					1887			12				0
Approach Delay, s/veh					22.2			28.7				0.0
Approach LOS					C			C				
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		23.0				23.0		67.0				
Change Period (Y+Rc), s		4.5				4.5		4.5				
Max Green Setting (Gmax), s		18.5				18.5		62.5				
Max Q Clear Time (g_c+I1), s		2.5				0.0		31.0				
Green Ext Time (p_c), s		0.0				0.0		17.2				
Intersection Summary												
HCM 6th Ctrl Delay					22.3							
HCM 6th LOS					C							

Timings
1: High Note Ave & Ridgeway Pkwy WB

2025 Total PM
09/01/2022



Lane Group	WBL	WBT	NBL	Ø6
Lane Configurations	↵	↕↕↕	↵	
Traffic Volume (vph)	16	1190	13	
Future Volume (vph)	16	1190	13	
Turn Type	Perm	NA	Perm	
Protected Phases		8		6
Permitted Phases	8		2	
Detector Phase	8	8	2	
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5
Total Split (s)	65.0	65.0	25.0	25.0
Total Split (%)	72.2%	72.2%	27.8%	28%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	Max	Max
Act Effct Green (s)	60.5	60.5	20.5	
Actuated g/C Ratio	0.67	0.67	0.23	
v/c Ratio	0.01	0.37	0.04	
Control Delay	4.6	5.4	42.2	
Queue Delay	0.0	0.0	0.0	
Total Delay	4.6	5.4	42.2	
LOS	A	A	D	
Approach Delay		5.4		
Approach LOS		A		

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 8:WBTL, Start of Green
 Natural Cycle: 45
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.37
 Intersection Signal Delay: 5.8
 Intersection Capacity Utilization 34.7%
 Analysis Period (min) 15

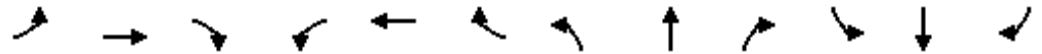
Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 1: High Note Ave & Ridgeway Pkwy WB



HCM 6th Signalized Intersection Summary
 1: High Note Ave & Ridgeway Pkwy WB

2025 Total PM
 09/01/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖	↖↖↖		↖	↑			↗	
Traffic Volume (veh/h)	0	0	0	16	1190	0	13	0	0	0	0	0
Future Volume (veh/h)	0	0	0	16	1190	0	13	0	0	0	0	0
Initial Q (Qb), veh				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
Parking Bus, Adj				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		No
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				17	1280	0	14	0	0	0	0	0
Peak Hour Factor				0.93	0.93	0.92	0.93	0.92	0.93	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				1197	3432	0	486	426	0	0	426	0
Arrive On Green				0.22	0.22	0.00	0.23	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h				1781	5274	0	1781	1870	0	0	1870	0
Grp Volume(v), veh/h				17	1280	0	14	0	0	0	0	0
Grp Sat Flow(s),veh/h/ln				1781	1702	0	1781	1870	0	0	1870	0
Q Serve(g_s), s				0.7	19.1	0.0	0.6	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s				0.7	19.1	0.0	0.6	0.0	0.0	0.0	0.0	0.0
Prop In Lane				1.00		0.00	1.00		0.00	0.00		0.00
Lane Grp Cap(c), veh/h				1197	3432	0	486	426	0	0	426	0
V/C Ratio(X)				0.01	0.37	0.00	0.03	0.00	0.00	0.00	0.00	0.00
Avail Cap(c_a), veh/h				1197	3432	0	486	426	0	0	426	0
HCM Platoon Ratio				0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)				1.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d), s/veh				11.7	18.9	0.0	27.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh				0.0	0.3	0.0	0.1	0.0	0.0	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
%ile BackOfQ(50%),veh/ln				0.2	8.6	0.0	0.2	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				11.8	19.2	0.0	27.2	0.0	0.0	0.0	0.0	0.0
LnGrp LOS				B	B	A	C	A	A	A	A	A
Approach Vol, veh/h					1297			14				0
Approach Delay, s/veh					19.1			27.2				0.0
Approach LOS					B			C				
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		25.0				25.0		65.0				
Change Period (Y+Rc), s		4.5				4.5		4.5				
Max Green Setting (Gmax), s		20.5				20.5		60.5				
Max Q Clear Time (g_c+I1), s		2.6				0.0		21.1				
Green Ext Time (p_c), s		0.0				0.0		10.9				
Intersection Summary												
HCM 6th Ctrl Delay				19.2								
HCM 6th LOS				B								
Notes												
User approved pedestrian interval to be less than phase max green.												

Timings
1: High Note Ave & Ridgeway Pkwy WB



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT
Lane Configurations	↶	↑↑↑	↷	↶	↑	↓
Traffic Volume (vph)	60	2675	65	150	60	65
Future Volume (vph)	60	2675	65	150	60	65
Turn Type	Perm	NA	Perm	Perm	NA	NA
Protected Phases		8			2	6
Permitted Phases	8		8	2		
Detector Phase	8	8	8	2	2	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	63.0	63.0	63.0	27.0	27.0	27.0
Total Split (%)	70.0%	70.0%	70.0%	30.0%	30.0%	30.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	Max	Max	Max
Act Effect Green (s)	58.5	58.5	58.5	22.5	22.5	22.5
Actuated g/C Ratio	0.65	0.65	0.65	0.25	0.25	0.25
v/c Ratio	0.05	0.85	0.06	0.66	0.14	0.48
Control Delay	5.7	9.7	2.3	33.1	17.5	32.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.7	9.7	2.3	33.1	17.5	32.8
LOS	A	A	A	C	B	C
Approach Delay		9.4			28.6	32.8
Approach LOS		A			C	C

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 8:WBTL, Start of Green
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.85
 Intersection Signal Delay: 12.1
 Intersection LOS: B
 Intersection Capacity Utilization 82.6%
 ICU Level of Service E
 Analysis Period (min) 15

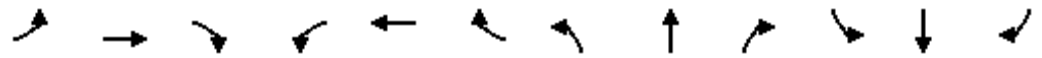
Splits and Phases: 1: High Note Ave & Ridgeway Pkwy WB



HCM 6th Signalized Intersection Summary
 1: High Note Ave & Ridgeway Pkwy WB

2045 Background AM

08/31/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖	↑↑↑	↗	↖	↑			↗	
Traffic Volume (veh/h)	0	0	0	60	2675	65	150	60	0	0	65	130
Future Volume (veh/h)	0	0	0	60	2675	65	150	60	0	0	65	130
Initial Q (Qb), veh				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
Parking Bus, Adj				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		
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				63	2816	68	158	63	0	0	68	137
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				1158	3319	1030	251	468	0	0	138	279
Arrive On Green				0.21	0.21	0.21	0.42	0.42	0.00	0.00	0.25	0.25
Sat Flow, veh/h				1781	5106	1585	1177	1870	0	0	554	1116
Grp Volume(v), veh/h				63	2816	68	158	63	0	0	0	205
Grp Sat Flow(s),veh/h/ln				1781	1702	1585	1177	1870	0	0	0	1670
Q Serve(g_s), s				2.5	47.7	3.1	11.8	1.9	0.0	0.0	0.0	9.4
Cycle Q Clear(g_c), s				2.5	47.7	3.1	21.2	1.9	0.0	0.0	0.0	9.4
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.67
Lane Grp Cap(c), veh/h				1158	3319	1030	251	468	0	0	0	417
V/C Ratio(X)				0.05	0.85	0.07	0.63	0.13	0.00	0.00	0.00	0.49
Avail Cap(c_a), veh/h				1158	3319	1030	251	468	0	0	0	417
HCM Platoon Ratio				0.33	0.33	0.33	1.67	1.67	1.00	1.00	1.00	1.00
Upstream Filter(I)				0.59	0.59	0.59	0.94	0.94	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh				13.4	31.1	13.6	30.5	20.2	0.0	0.0	0.0	28.9
Incr Delay (d2), s/veh				0.1	1.7	0.1	10.8	0.6	0.0	0.0	0.0	4.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.8	21.7	0.9	3.6	0.9	0.0	0.0	0.0	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				13.4	32.8	13.7	41.3	20.8	0.0	0.0	0.0	32.9
LnGrp LOS				B	C	B	D	C	A	A	A	C
Approach Vol, veh/h					2947			221				205
Approach Delay, s/veh					32.0			35.4				32.9
Approach LOS					C			D				C
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		27.0				27.0		63.0				
Change Period (Y+Rc), s		4.5				4.5		4.5				
Max Green Setting (Gmax), s		22.5				22.5		58.5				
Max Q Clear Time (g_c+I1), s		23.2				11.4		49.7				
Green Ext Time (p_c), s		0.0				0.8		8.4				
Intersection Summary												
HCM 6th Ctrl Delay					32.3							
HCM 6th LOS					C							

Timings
1: High Note Ave & Ridgeway Pkwy WB

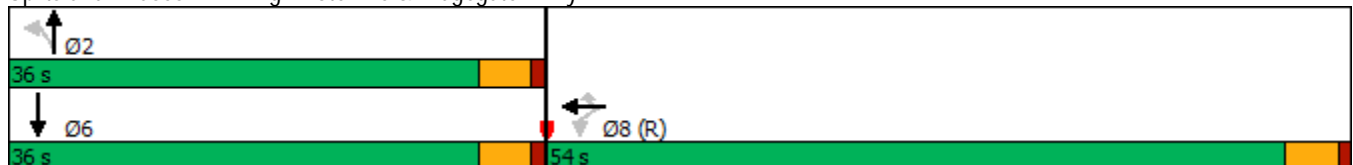


Lane Group	WBL	WBT	WBR	NBL	NBT	SBT
Lane Configurations	↶	↑↑↑	↷	↶	↑	↷
Traffic Volume (vph)	90	1495	100	155	140	80
Future Volume (vph)	90	1495	100	155	140	80
Turn Type	Perm	NA	Perm	Perm	NA	NA
Protected Phases		8			2	6
Permitted Phases	8		8	2		
Detector Phase	8	8	8	2	2	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	54.0	54.0	54.0	36.0	36.0	36.0
Total Split (%)	60.0%	60.0%	60.0%	40.0%	40.0%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	Max	Max	Max
Act Effect Green (s)	49.5	49.5	49.5	31.5	31.5	31.5
Actuated g/C Ratio	0.55	0.55	0.55	0.35	0.35	0.35
v/c Ratio	0.10	0.58	0.12	0.42	0.23	0.28
Control Delay	8.6	10.4	1.5	40.2	35.6	20.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.6	10.4	1.5	40.2	35.6	20.0
LOS	A	B	A	D	D	B
Approach Delay		9.8			38.0	20.0
Approach LOS		A			D	B

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 8:WBTL, Start of Green
 Natural Cycle: 45
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.58
 Intersection Signal Delay: 14.4
 Intersection Capacity Utilization 79.6%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service D

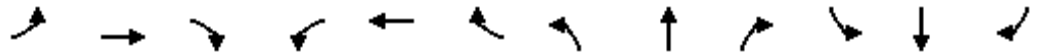
Splits and Phases: 1: High Note Ave & Ridgeway Pkwy WB



HCM 6th Signalized Intersection Summary
 1: High Note Ave & Ridgeway Pkwy WB

2045 Background PM

08/31/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↶	↷	↷	↶	↷			↷	↷
Traffic Volume (veh/h)	0	0	0	90	1495	100	155	140	0	0	80	80
Future Volume (veh/h)	0	0	0	90	1495	100	155	140	0	0	80	80
Initial Q (Qb), veh				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
Parking Bus, Adj				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		No
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				97	1608	108	167	151	0	0	86	86
Peak Hour Factor				0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				980	2808	872	417	655	0	0	300	300
Arrive On Green				0.18	0.18	0.18	0.58	0.58	0.00	0.00	0.35	0.35
Sat Flow, veh/h				1781	5106	1585	1213	1870	0	0	858	858
Grp Volume(v), veh/h				97	1608	108	167	151	0	0	0	172
Grp Sat Flow(s),veh/h/ln				1781	1702	1585	1213	1870	0	0	0	1716
Q Serve(g_s), s				4.1	25.9	5.1	8.6	3.5	0.0	0.0	0.0	6.5
Cycle Q Clear(g_c), s				4.1	25.9	5.1	15.1	3.5	0.0	0.0	0.0	6.5
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.50
Lane Grp Cap(c), veh/h				980	2808	872	417	655	0	0	0	601
V/C Ratio(X)				0.10	0.57	0.12	0.40	0.23	0.00	0.00	0.00	0.29
Avail Cap(c_a), veh/h				980	2808	872	417	655	0	0	0	601
HCM Platoon Ratio				0.33	0.33	0.33	1.67	1.67	1.00	1.00	1.00	1.00
Upstream Filter(I)				0.86	0.86	0.86	0.86	0.86	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh				18.2	27.2	18.7	17.6	12.9	0.0	0.0	0.0	21.1
Incr Delay (d2), s/veh				0.2	0.7	0.3	2.5	0.7	0.0	0.0	0.0	1.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				1.5	11.7	1.8	2.2	1.5	0.0	0.0	0.0	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				18.4	27.9	18.9	20.0	13.6	0.0	0.0	0.0	22.3
LnGrp LOS				B	C	B	C	B	A	A	A	C
Approach Vol, veh/h					1813			318				172
Approach Delay, s/veh					26.9			17.0				22.3
Approach LOS					C			B				C
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		36.0				36.0		54.0				
Change Period (Y+Rc), s		4.5				4.5		4.5				
Max Green Setting (Gmax), s		31.5				31.5		49.5				
Max Q Clear Time (g_c+I1), s		17.1				8.5		27.9				
Green Ext Time (p_c), s		1.2				1.0		12.2				

Intersection Summary

HCM 6th Ctrl Delay	25.2
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Timings
1: High Note Ave & Ridgeway Pkwy WB

2045 Total AM
09/01/2022



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT
Lane Configurations	↵	↑↑↑	↵	↵	↑	↵
Traffic Volume (vph)	65	2710	70	150	60	70
Future Volume (vph)	65	2710	70	150	60	70
Turn Type	Perm	NA	Perm	Perm	NA	NA
Protected Phases		8			2	6
Permitted Phases	8		8	2		
Detector Phase	8	8	8	2	2	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	63.0	63.0	63.0	27.0	27.0	27.0
Total Split (%)	70.0%	70.0%	70.0%	30.0%	30.0%	30.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	Max	Max	Max
Act Effect Green (s)	58.5	58.5	58.5	22.5	22.5	22.5
Actuated g/C Ratio	0.65	0.65	0.65	0.25	0.25	0.25
v/c Ratio	0.06	0.86	0.07	0.68	0.14	0.50
Control Delay	5.7	9.9	1.7	34.4	17.7	33.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.7	9.9	1.7	34.4	17.7	33.3
LOS	A	A	A	C	B	C
Approach Delay		9.6			29.7	33.3
Approach LOS		A			C	C

Intersection Summary

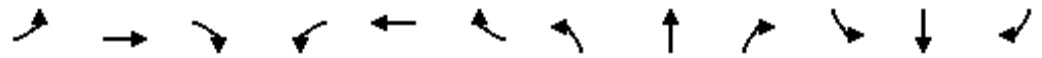
Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 8:WBTL, Start of Green
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.86
 Intersection Signal Delay: 12.4
 Intersection Capacity Utilization 83.6%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service E

Splits and Phases: 1: High Note Ave & Ridgeway Pkwy WB



HCM 6th Signalized Intersection Summary
 1: High Note Ave & Ridgeway Pkwy WB

2045 Total AM
 09/01/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖	↑↑↑	↗	↖	↑			↗	↖
Traffic Volume (veh/h)	0	0	0	65	2710	70	150	60	0	0	70	130
Future Volume (veh/h)	0	0	0	65	2710	70	150	60	0	0	70	130
Initial Q (Qb), veh				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
Parking Bus, Adj				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		No
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				68	2853	74	158	63	0	0	74	137
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				1158	3319	1030	246	468	0	0	147	272
Arrive On Green				0.21	0.21	0.21	0.42	0.42	0.00	0.00	0.25	0.25
Sat Flow, veh/h				1781	5106	1585	1171	1870	0	0	587	1087
Grp Volume(v), veh/h				68	2853	74	158	63	0	0	0	211
Grp Sat Flow(s),veh/h/ln				1781	1702	1585	1171	1870	0	0	0	1675
Q Serve(g_s), s				2.7	48.4	3.4	12.0	1.9	0.0	0.0	0.0	9.7
Cycle Q Clear(g_c), s				2.7	48.4	3.4	21.7	1.9	0.0	0.0	0.0	9.7
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.65
Lane Grp Cap(c), veh/h				1158	3319	1030	246	468	0	0	0	419
V/C Ratio(X)				0.06	0.86	0.07	0.64	0.13	0.00	0.00	0.00	0.50
Avail Cap(c_a), veh/h				1158	3319	1030	246	468	0	0	0	419
HCM Platoon Ratio				0.33	0.33	0.33	1.67	1.67	1.00	1.00	1.00	1.00
Upstream Filter(l)				1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh				13.4	31.4	13.7	30.8	20.2	0.0	0.0	0.0	29.0
Incr Delay (d2), s/veh				0.1	3.2	0.1	12.2	0.6	0.0	0.0	0.0	4.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.9	22.4	1.0	3.7	0.9	0.0	0.0	0.0	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				13.5	34.6	13.8	43.0	20.8	0.0	0.0	0.0	33.2
LnGrp LOS				B	C	B	D	C	A	A	A	C
Approach Vol, veh/h					2995			221				211
Approach Delay, s/veh					33.6			36.6				33.2
Approach LOS					C			D				C
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		27.0				27.0		63.0				
Change Period (Y+Rc), s		4.5				4.5		4.5				
Max Green Setting (Gmax), s		22.5				22.5		58.5				
Max Q Clear Time (g_c+l1), s		23.7				11.7		50.4				
Green Ext Time (p_c), s		0.0				0.9		7.7				
Intersection Summary												
HCM 6th Ctrl Delay						33.7						
HCM 6th LOS						C						

Timings
1: High Note Ave & Ridgeway Pkwy WB

2045 Total PM
09/01/2022

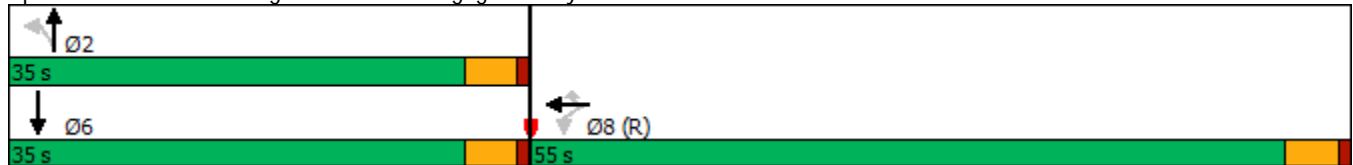


Lane Group	WBL	WBT	WBR	NBL	NBT	SBT
Lane Configurations	↶	↑↑↑	↷	↶	↑	↷
Traffic Volume (vph)	105	1620	110	160	140	90
Future Volume (vph)	105	1620	110	160	140	90
Turn Type	Perm	NA	Perm	Perm	NA	NA
Protected Phases		8			2	6
Permitted Phases	8		8	2		
Detector Phase	8	8	8	2	2	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	55.0	55.0	55.0	35.0	35.0	35.0
Total Split (%)	61.1%	61.1%	61.1%	38.9%	38.9%	38.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	Max	Max	Max
Act Effect Green (s)	50.5	50.5	50.5	30.5	30.5	30.5
Actuated g/C Ratio	0.56	0.56	0.56	0.34	0.34	0.34
v/c Ratio	0.11	0.61	0.13	0.46	0.24	0.30
Control Delay	8.2	10.3	1.4	41.9	36.1	21.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.2	10.3	1.4	41.9	36.1	21.6
LOS	A	B	A	D	D	C
Approach Delay		9.7			39.2	21.6
Approach LOS		A			D	C

Intersection Summary

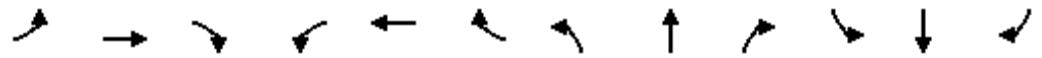
Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 8:WBTL, Start of Green
 Natural Cycle: 50
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.61
 Intersection Signal Delay: 14.4
 Intersection LOS: B
 Intersection Capacity Utilization 61.0%
 ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 1: High Note Ave & Ridgeway Pkwy WB



HCM 6th Signalized Intersection Summary
 1: High Note Ave & Ridgeway Pkwy WB

2045 Total PM
 09/01/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↑↑↑	↗	↙	↑			↗	↙
Traffic Volume (veh/h)	0	0	0	105	1620	110	160	140	0	0	90	80
Future Volume (veh/h)	0	0	0	105	1620	110	160	140	0	0	90	80
Initial Q (Qb), veh				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
Parking Bus, Adj				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		No
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				113	1742	118	172	151	0	0	97	86
Peak Hour Factor				0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				1000	2865	889	393	634	0	0	310	275
Arrive On Green				0.19	0.19	0.19	0.45	0.45	0.00	0.00	0.34	0.34
Sat Flow, veh/h				1781	5106	1585	1201	1870	0	0	914	810
Grp Volume(v), veh/h				113	1742	118	172	151	0	0	0	183
Grp Sat Flow(s),veh/h/ln				1781	1702	1585	1201	1870	0	0	0	1724
Q Serve(g_s), s				4.8	28.2	5.6	10.4	4.5	0.0	0.0	0.0	7.1
Cycle Q Clear(g_c), s				4.8	28.2	5.6	17.5	4.5	0.0	0.0	0.0	7.1
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.47
Lane Grp Cap(c), veh/h				1000	2865	889	393	634	0	0	0	584
V/C Ratio(X)				0.11	0.61	0.13	0.44	0.24	0.00	0.00	0.00	0.31
Avail Cap(c_a), veh/h				1000	2865	889	393	634	0	0	0	584
HCM Platoon Ratio				0.33	0.33	0.33	1.33	1.33	1.00	1.00	1.00	1.00
Upstream Filter(l)				1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh				18.0	27.6	18.4	24.0	17.6	0.0	0.0	0.0	22.0
Incr Delay (d2), s/veh				0.2	1.0	0.3	3.5	0.9	0.0	0.0	0.0	1.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				1.8	12.8	2.0	3.0	2.0	0.0	0.0	0.0	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				18.3	28.5	18.7	27.5	18.5	0.0	0.0	0.0	23.4
LnGrp LOS				B	C	B	C	B	A	A	A	C
Approach Vol, veh/h					1973			323				183
Approach Delay, s/veh					27.4			23.3				23.4
Approach LOS					C			C				C
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		35.0				35.0		55.0				
Change Period (Y+Rc), s		4.5				4.5		4.5				
Max Green Setting (Gmax), s		30.5				30.5		50.5				
Max Q Clear Time (g_c+I1), s		19.5				9.1		30.2				
Green Ext Time (p_c), s		1.1				1.0		12.8				
Intersection Summary												
HCM 6th Ctrl Delay					26.5							
HCM 6th LOS					C							
Notes												
User approved pedestrian interval to be less than phase max green.												

Timings
 2: Rhapsody Road & Ridgeway Pkwy WB

2025 Total AM
 09/01/2022



Lane Group	WBL	WBT	NBL	Ø6
Lane Configurations	↵	↑↑↑	↵	
Traffic Volume (vph)	62	1750	6	
Future Volume (vph)	62	1750	6	
Turn Type	Perm	NA	Perm	
Protected Phases		8		6
Permitted Phases	8		2	
Detector Phase	8	8	2	
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5
Total Split (s)	67.0	67.0	23.0	23.0
Total Split (%)	74.4%	74.4%	25.6%	26%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	Max	Max
Act Effct Green (s)	62.5	62.5	18.5	
Actuated g/C Ratio	0.69	0.69	0.21	
v/c Ratio	0.05	0.52	0.02	
Control Delay	4.5	7.2	29.0	
Queue Delay	0.0	0.0	0.0	
Total Delay	4.5	7.2	29.0	
LOS	A	A	C	
Approach Delay		7.1		
Approach LOS		A		

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 8:WBTL, Start of Green
 Natural Cycle: 50
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.52
 Intersection Signal Delay: 7.2
 Intersection LOS: A
 Intersection Capacity Utilization 45.5%
 ICU Level of Service A
 Analysis Period (min) 15

Splits and Phases: 2: Rhapsody Road & Ridgeway Pkwy WB



HCM 6th Signalized Intersection Summary
 2: Rhapsody Road & Ridgeway Pkwy WB

2025 Total AM
 09/01/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖	↖↖↖		↖	↖			↖	
Traffic Volume (veh/h)	0	0	0	62	1750	0	6	0	0	0	0	0
Future Volume (veh/h)	0	0	0	62	1750	0	6	0	0	0	0	0
Initial Q (Qb), veh				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
Parking Bus, Adj				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	0	0	1870	1870
Adj Flow Rate, veh/h				65	1842	0	6	0	0	0	0	0
Peak Hour Factor				0.95	0.95	0.92	0.95	0.92	0.95	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				1237	3546	0	446	384	0	0	384	0
Arrive On Green				0.69	0.69	0.00	0.21	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h				1781	5274	0	1781	1870	0	0	1870	0
Grp Volume(v), veh/h				65	1842	0	6	0	0	0	0	0
Grp Sat Flow(s),veh/h/ln				1781	1702	0	1781	1870	0	0	1870	0
Q Serve(g_s), s				1.0	15.5	0.0	0.2	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s				1.0	15.5	0.0	0.2	0.0	0.0	0.0	0.0	0.0
Prop In Lane				1.00		0.00	1.00		0.00	0.00		0.00
Lane Grp Cap(c), veh/h				1237	3546	0	446	384	0	0	384	0
V/C Ratio(X)				0.05	0.52	0.00	0.01	0.00	0.00	0.00	0.00	0.00
Avail Cap(c_a), veh/h				1237	3546	0	446	384	0	0	384	0
HCM Platoon Ratio				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	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d), s/veh				4.4	6.6	0.0	28.5	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh				0.1	0.5	0.0	0.1	0.0	0.0	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
%ile BackOfQ(50%),veh/ln				0.3	4.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				4.4	7.1	0.0	28.6	0.0	0.0	0.0	0.0	0.0
LnGrp LOS				A	A	A	C	A	A	A	A	A
Approach Vol, veh/h					1907			6				0
Approach Delay, s/veh					7.0			28.6				0.0
Approach LOS					A			C				
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		23.0				23.0		67.0				
Change Period (Y+Rc), s		4.5				4.5		4.5				
Max Green Setting (Gmax), s		18.5				18.5		62.5				
Max Q Clear Time (g_c+l1), s		2.2				0.0		17.5				
Green Ext Time (p_c), s		0.0				0.0		20.2				
Intersection Summary												
HCM 6th Ctrl Delay				7.1								
HCM 6th LOS				A								

Timings
 2: Rhapsody Road & Ridgeway Pkwy WB

2025 Total PM
 09/01/2022



Lane Group	WBL	WBT	NBL	Ø6
Lane Configurations	↵	↕↕↕	↵	
Traffic Volume (vph)	91	1136	16	
Future Volume (vph)	91	1136	16	
Turn Type	Perm	NA	Perm	
Protected Phases		8		6
Permitted Phases	8		2	
Detector Phase	8	8	2	
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5
Total Split (s)	65.0	65.0	25.0	25.0
Total Split (%)	72.2%	72.2%	27.8%	28%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	Max	Max
Act Effct Green (s)	60.5	60.5	20.5	
Actuated g/C Ratio	0.67	0.67	0.23	
v/c Ratio	0.08	0.36	0.05	
Control Delay	5.3	6.7	27.9	
Queue Delay	0.0	0.0	0.0	
Total Delay	5.3	6.7	27.9	
LOS	A	A	C	
Approach Delay		6.6		
Approach LOS		A		

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 8:WBTL, Start of Green
 Natural Cycle: 45
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.36
 Intersection Signal Delay: 6.9
 Intersection LOS: A
 Intersection Capacity Utilization 33.6%
 ICU Level of Service A
 Analysis Period (min) 15

Splits and Phases: 2: Rhapsody Road & Ridgeway Pkwy WB



HCM 6th Signalized Intersection Summary
 2: Rhapsody Road & Ridgeway Pkwy WB

2025 Total PM
 09/01/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↶	↶↶↶		↶	↶			↶	
Traffic Volume (veh/h)	0	0	0	91	1136	0	16	0	0	0	0	0
Future Volume (veh/h)	0	0	0	91	1136	0	16	0	0	0	0	0
Initial Q (Qb), veh				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
Parking Bus, Adj				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		
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				98	1222	0	17	0	0	0	0	0
Peak Hour Factor				0.93	0.93	0.92	0.93	0.92	0.93	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				1197	3432	0	486	426	0	0	426	0
Arrive On Green				0.67	0.67	0.00	0.23	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h				1781	5274	0	1781	1870	0	0	1870	0
Grp Volume(v), veh/h				98	1222	0	17	0	0	0	0	0
Grp Sat Flow(s),veh/h/ln				1781	1702	0	1781	1870	0	0	1870	0
Q Serve(g_s), s				1.7	9.3	0.0	0.7	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s				1.7	9.3	0.0	0.7	0.0	0.0	0.0	0.0	0.0
Prop In Lane				1.00		0.00	1.00		0.00	0.00		0.00
Lane Grp Cap(c), veh/h				1197	3432	0	486	426	0	0	426	0
V/C Ratio(X)				0.08	0.36	0.00	0.03	0.00	0.00	0.00	0.00	0.00
Avail Cap(c_a), veh/h				1197	3432	0	486	426	0	0	426	0
HCM Platoon Ratio				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	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d), s/veh				5.1	6.4	0.0	27.1	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh				0.1	0.3	0.0	0.1	0.0	0.0	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
%ile BackOfQ(50%),veh/ln				0.5	2.6	0.0	0.3	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				5.3	6.6	0.0	27.2	0.0	0.0	0.0	0.0	0.0
LnGrp LOS				A	A	A	C	A	A	A	A	A
Approach Vol, veh/h					1320			17				0
Approach Delay, s/veh					6.5			27.2				0.0
Approach LOS					A			C				
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		25.0				25.0		65.0				
Change Period (Y+Rc), s		4.5				4.5		4.5				
Max Green Setting (Gmax), s		20.5				20.5		60.5				
Max Q Clear Time (g_c+l1), s		2.7				0.0		11.3				
Green Ext Time (p_c), s		0.0				0.0		11.0				
Intersection Summary												
HCM 6th Ctrl Delay				6.8								
HCM 6th LOS				A								

Timings
2: Main Street & Ridgeway Pkwy WB



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations	↖	↑↑↑	↗	↖	↑	↑	↗
Traffic Volume (vph)	30	2595	65	75	65	65	130
Future Volume (vph)	30	2595	65	75	65	65	130
Turn Type	Perm	NA	Perm	Perm	NA	NA	Perm
Protected Phases		8			2	6	
Permitted Phases	8		8	2			6
Detector Phase	8	8	8	2	2	6	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	67.0	67.0	67.0	23.0	23.0	23.0	23.0
Total Split (%)	74.4%	74.4%	74.4%	25.6%	25.6%	25.6%	25.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	C-Max	C-Max	C-Max	Max	Max	Max	Max
Act Effect Green (s)	62.5	62.5	62.5	18.5	18.5	18.5	18.5
Actuated g/C Ratio	0.69	0.69	0.69	0.21	0.21	0.21	0.21
v/c Ratio	0.03	0.77	0.06	0.29	0.18	0.18	0.40
Control Delay	4.4	11.0	1.5	17.6	15.8	31.0	31.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.4	11.0	1.5	17.6	15.8	31.0	31.0
LOS	A	B	A	B	B	C	C
Approach Delay		10.7			16.7	31.0	
Approach LOS		B			B	C	

Intersection Summary
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 8:WBTL, Start of Green
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.77
 Intersection Signal Delay: 12.3
 Intersection Capacity Utilization 73.6%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service D

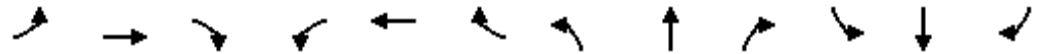
Splits and Phases: 2: Main Street & Ridgeway Pkwy WB



HCM 6th Signalized Intersection Summary
 2: Main Street & Ridgeway Pkwy WB

2045 Background AM

08/31/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↑↑↑	↗	↙	↑			↑	↗
Traffic Volume (veh/h)	0	0	0	30	2595	65	75	65	0	0	65	130
Future Volume (veh/h)	0	0	0	30	2595	65	75	65	0	0	65	130
Initial Q (Qb), veh				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
Parking Bus, Adj				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		
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				32	2732	68	79	68	0	0	68	137
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				1237	3546	1101	287	384	0	0	384	326
Arrive On Green				0.69	0.69	0.69	0.34	0.34	0.00	0.00	0.21	0.21
Sat Flow, veh/h				1781	5106	1585	1177	1870	0	0	1870	1585
Grp Volume(v), veh/h				32	2732	68	79	68	0	0	68	137
Grp Sat Flow(s),veh/h/ln				1781	1702	1585	1177	1870	0	0	1870	1585
Q Serve(g_s), s				0.5	31.6	1.2	4.8	2.3	0.0	0.0	2.7	6.8
Cycle Q Clear(g_c), s				0.5	31.6	1.2	7.5	2.3	0.0	0.0	2.7	6.8
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				1237	3546	1101	287	384	0	0	384	326
V/C Ratio(X)				0.03	0.77	0.06	0.28	0.18	0.00	0.00	0.18	0.42
Avail Cap(c_a), veh/h				1237	3546	1101	287	384	0	0	384	326
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	0.99	0.99	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				4.3	9.0	4.4	27.0	24.2	0.0	0.0	29.5	31.1
Incr Delay (d2), s/veh				0.0	1.7	0.1	2.3	1.0	0.0	0.0	1.0	3.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.1	8.5	0.3	1.4	1.1	0.0	0.0	1.3	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				4.3	10.7	4.5	29.4	25.2	0.0	0.0	30.5	35.0
LnGrp LOS				A	B	A	C	C	A	A	C	D
Approach Vol, veh/h					2832			147			205	
Approach Delay, s/veh					10.5			27.4			33.5	
Approach LOS					B			C			C	
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		23.0				23.0		67.0				
Change Period (Y+Rc), s		4.5				4.5		4.5				
Max Green Setting (Gmax), s		18.5				18.5		62.5				
Max Q Clear Time (g_c+l1), s		9.5				8.8		33.6				
Green Ext Time (p_c), s		0.4				0.5		24.6				
Intersection Summary												
HCM 6th Ctrl Delay					12.8							
HCM 6th LOS					B							

Timings
2: Main Street & Ridgeway Pkwy WB



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations	↖	↑↑↑	↗	↖	↑	↑	↗
Traffic Volume (vph)	55	1565	100	40	140	80	80
Future Volume (vph)	55	1565	100	40	140	80	80
Turn Type	Perm	NA	Perm	Perm	NA	NA	Perm
Protected Phases		8			2	6	
Permitted Phases	8		8	2			6
Detector Phase	8	8	8	2	2	6	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	61.0	61.0	61.0	29.0	29.0	29.0	29.0
Total Split (%)	67.8%	67.8%	67.8%	32.2%	32.2%	32.2%	32.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	C-Max	C-Max	C-Max	Max	Max	Max	Max
Act Effect Green (s)	56.5	56.5	56.5	24.5	24.5	24.5	24.5
Actuated g/C Ratio	0.63	0.63	0.63	0.27	0.27	0.27	0.27
v/c Ratio	0.05	0.53	0.10	0.12	0.30	0.17	0.19
Control Delay	6.6	10.1	1.6	35.3	35.4	26.1	18.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.6	10.1	1.6	35.3	35.4	26.1	18.8
LOS	A	B	A	D	D	C	B
Approach Delay		9.5			35.4	22.5	
Approach LOS		A			D	C	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 8:WBTL, Start of Green
 Natural Cycle: 45
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.53
 Intersection Signal Delay: 12.7
 Intersection LOS: B
 Intersection Capacity Utilization 68.5%
 ICU Level of Service C
 Analysis Period (min) 15

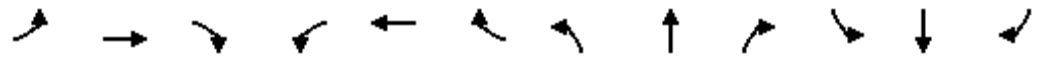
Splits and Phases: 2: Main Street & Ridgeway Pkwy WB



HCM 6th Signalized Intersection Summary
 2: Main Street & Ridgeway Pkwy WB

2045 Background PM

08/31/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↑↑↑	↗	↙	↑			↑	↗
Traffic Volume (veh/h)	0	0	0	55	1565	100	40	140	0	0	80	80
Future Volume (veh/h)	0	0	0	55	1565	100	40	140	0	0	80	80
Initial Q (Qb), veh				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
Parking Bus, Adj				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		No
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				59	1683	108	43	151	0	0	86	86
Peak Hour Factor				0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				1118	3205	995	368	509	0	0	509	431
Arrive On Green				0.63	0.63	0.63	0.54	0.54	0.00	0.00	0.27	0.27
Sat Flow, veh/h				1781	5106	1585	1213	1870	0	0	1870	1585
Grp Volume(v), veh/h				59	1683	108	43	151	0	0	86	86
Grp Sat Flow(s),veh/h/ln				1781	1702	1585	1213	1870	0	0	1870	1585
Q Serve(g_s), s				1.1	16.5	2.4	1.8	3.9	0.0	0.0	3.2	3.8
Cycle Q Clear(g_c), s				1.1	16.5	2.4	5.0	3.9	0.0	0.0	3.2	3.8
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				1118	3205	995	368	509	0	0	509	431
V/C Ratio(X)				0.05	0.53	0.11	0.12	0.30	0.00	0.00	0.17	0.20
Avail Cap(c_a), veh/h				1118	3205	995	368	509	0	0	509	431
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(l)				1.00	1.00	1.00	0.99	0.99	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				6.4	9.3	6.7	16.9	15.8	0.0	0.0	25.0	25.2
Incr Delay (d2), s/veh				0.1	0.6	0.2	0.6	1.5	0.0	0.0	0.7	1.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.4	5.0	0.7	0.5	1.7	0.0	0.0	1.5	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				6.5	9.9	6.9	17.6	17.3	0.0	0.0	25.7	26.2
LnGrp LOS				A	A	A	B	B	A	A	C	C
Approach Vol, veh/h					1850			194			172	
Approach Delay, s/veh					9.6			17.4			26.0	
Approach LOS					A			B			C	
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		29.0				29.0		61.0				
Change Period (Y+Rc), s		4.5				4.5		4.5				
Max Green Setting (Gmax), s		24.5				24.5		56.5				
Max Q Clear Time (g_c+l1), s		7.0				5.8		18.5				
Green Ext Time (p_c), s		0.8				0.6		17.1				
Intersection Summary												
HCM 6th Ctrl Delay				11.6								
HCM 6th LOS				B								

Timings
2: Rhapsody Road & Ridgeway Pkwy WB

2045 Total AM
08/31/2022



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT
Lane Configurations	↵	↑↑↑	↵	↵	↑	↵
Traffic Volume (vph)	85	2610	65	85	70	70
Future Volume (vph)	85	2610	65	85	70	70
Turn Type	Perm	NA	Perm	Perm	NA	NA
Protected Phases		8			2	6
Permitted Phases	8		8	2		
Detector Phase	8	8	8	2	2	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	65.8	65.8	65.8	24.2	24.2	24.2
Total Split (%)	73.1%	73.1%	73.1%	26.9%	26.9%	26.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	Max	Max	Max
Act Effct Green (s)	61.3	61.3	61.3	19.7	19.7	19.7
Actuated g/C Ratio	0.68	0.68	0.68	0.22	0.22	0.22
v/c Ratio	0.07	0.79	0.06	0.46	0.18	0.56
Control Delay	5.0	12.2	1.8	26.7	19.0	37.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.0	12.2	1.8	26.7	19.0	37.4
LOS	A	B	A	C	B	D
Approach Delay		11.7			23.2	37.4
Approach LOS		B			C	D

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 8:WBTL, Start of Green
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.79
 Intersection Signal Delay: 14.0
 Intersection LOS: B
 Intersection Capacity Utilization 78.1%
 ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 2: Rhapsody Road & Ridgeway Pkwy WB



HCM 6th Signalized Intersection Summary
2: Rhapsody Road & Ridgeway Pkwy WB

2045 Total AM
08/31/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↑↑↑	↗	↙	↑			↗	↘
Traffic Volume (veh/h)	0	0	0	85	2610	65	85	70	0	0	70	130
Future Volume (veh/h)	0	0	0	85	2610	65	85	70	0	0	70	130
Initial Q (Qb), veh				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
Parking Bus, Adj				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		No
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				89	2747	68	89	74	0	0	74	137
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				1213	3478	1080	204	409	0	0	129	238
Arrive On Green				0.68	0.68	0.68	0.37	0.37	0.00	0.00	0.22	0.22
Sat Flow, veh/h				1781	5106	1585	1171	1870	0	0	587	1087
Grp Volume(v), veh/h				89	2747	68	89	74	0	0	0	211
Grp Sat Flow(s),veh/h/ln				1781	1702	1585	1171	1870	0	0	0	1675
Q Serve(g_s), s				1.5	33.4	1.3	6.4	2.4	0.0	0.0	0.0	10.1
Cycle Q Clear(g_c), s				1.5	33.4	1.3	16.6	2.4	0.0	0.0	0.0	10.1
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.65
Lane Grp Cap(c), veh/h				1213	3478	1080	204	409	0	0	0	367
V/C Ratio(X)				0.07	0.79	0.06	0.44	0.18	0.00	0.00	0.00	0.58
Avail Cap(c_a), veh/h				1213	3478	1080	204	409	0	0	0	367
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	1.00	1.00
Upstream Filter(l)				1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh				4.8	9.9	4.8	32.3	23.1	0.0	0.0	0.0	31.4
Incr Delay (d2), s/veh				0.1	1.9	0.1	6.6	1.0	0.0	0.0	0.0	6.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.5	9.3	0.3	2.0	1.1	0.0	0.0	0.0	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				4.9	11.8	4.9	39.0	24.0	0.0	0.0	0.0	37.9
LnGrp LOS				A	B	A	D	C	A	A	A	D
Approach Vol, veh/h					2904			163				211
Approach Delay, s/veh					11.4			32.2				37.9
Approach LOS					B			C				D
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		24.2				24.2		65.8				
Change Period (Y+Rc), s		4.5				4.5		4.5				
Max Green Setting (Gmax), s		19.7				19.7		61.3				
Max Q Clear Time (g_c+l1), s		18.6				12.1		35.4				
Green Ext Time (p_c), s		0.1				0.7		22.5				
Intersection Summary												
HCM 6th Ctrl Delay				14.2								
HCM 6th LOS				B								

Timings
2: Rhapsody Road & Ridgeway Pkwy WB

2045 Total PM
08/31/2022



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT
Lane Configurations	↵	↑↑↑	↵	↵	↑	↵
Traffic Volume (vph)	130	1630	100	65	155	90
Future Volume (vph)	130	1630	100	65	155	90
Turn Type	Perm	NA	Perm	Perm	NA	NA
Protected Phases		8			2	6
Permitted Phases	8		8	2		
Detector Phase	8	8	8	2	2	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	61.0	61.0	61.0	29.0	29.0	29.0
Total Split (%)	67.8%	67.8%	67.8%	32.2%	32.2%	32.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	Max	Max	Max
Act Effect Green (s)	56.5	56.5	56.5	24.5	24.5	24.5
Actuated g/C Ratio	0.63	0.63	0.63	0.27	0.27	0.27
v/c Ratio	0.13	0.55	0.10	0.25	0.33	0.38
Control Delay	7.1	10.3	1.6	35.0	33.4	25.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.1	10.3	1.6	35.0	33.4	25.6
LOS	A	B	A	C	C	C
Approach Delay		9.6			33.9	25.6
Approach LOS		A			C	C

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 8:WBTL, Start of Green
 Natural Cycle: 50
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.55
 Intersection Signal Delay: 13.2
 Intersection LOS: B
 Intersection Capacity Utilization 56.8%
 ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 2: Rhapsody Road & Ridgeway Pkwy WB



HCM 6th Signalized Intersection Summary
 2: Rhapsody Road & Ridgeway Pkwy WB

2045 Total PM
 08/31/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↑↑↑	↗	↙	↑			↗	↙
Traffic Volume (veh/h)	0	0	0	130	1630	100	65	155	0	0	90	85
Future Volume (veh/h)	0	0	0	130	1630	100	65	155	0	0	90	85
Initial Q (Qb), veh				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
Parking Bus, Adj				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		No
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				140	1753	108	70	167	0	0	97	91
Peak Hour Factor				0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				1118	3205	995	299	509	0	0	242	227
Arrive On Green				0.63	0.63	0.63	0.54	0.54	0.00	0.00	0.27	0.27
Sat Flow, veh/h				1781	5106	1585	1195	1870	0	0	888	833
Grp Volume(v), veh/h				140	1753	108	70	167	0	0	0	188
Grp Sat Flow(s),veh/h/ln				1781	1702	1585	1195	1870	0	0	0	1720
Q Serve(g_s), s				2.9	17.5	2.4	3.8	4.5	0.0	0.0	0.0	8.0
Cycle Q Clear(g_c), s				2.9	17.5	2.4	11.8	4.5	0.0	0.0	0.0	8.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.48
Lane Grp Cap(c), veh/h				1118	3205	995	299	509	0	0	0	468
V/C Ratio(X)				0.13	0.55	0.11	0.23	0.33	0.00	0.00	0.00	0.40
Avail Cap(c_a), veh/h				1118	3205	995	299	509	0	0	0	468
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh				6.8	9.5	6.7	20.5	15.9	0.0	0.0	0.0	26.8
Incr Delay (d2), s/veh				0.2	0.7	0.2	1.8	1.7	0.0	0.0	0.0	2.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.9	5.3	0.7	1.0	1.9	0.0	0.0	0.0	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				7.0	10.2	6.9	22.3	17.7	0.0	0.0	0.0	29.3
LnGrp LOS				A	B	A	C	B	A	A	A	C
Approach Vol, veh/h				2001				237			188	
Approach Delay, s/veh				9.8				19.0			29.3	
Approach LOS				A				B			C	
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		29.0				29.0		61.0				
Change Period (Y+Rc), s		4.5				4.5		4.5				
Max Green Setting (Gmax), s		24.5				24.5		56.5				
Max Q Clear Time (g_c+I1), s		13.8				10.0		19.5				
Green Ext Time (p_c), s		0.8				0.9		18.3				
Intersection Summary												
HCM 6th Ctrl Delay				12.2								
HCM 6th LOS				B								

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑				↑
Traffic Vol, veh/h	733	5	0	0	0	35
Future Vol, veh/h	733	5	0	0	0	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Stop	Stop	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	200	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	772	5	0	0	0	37

Major/Minor	Major1		Minor1	
Conflicting Flow All	0	0	-	386
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.92
Pot Cap-1 Maneuver	-	-	0	523
Stage 1	-	-	0	-
Stage 2	-	-	0	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	523
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	NB
HCM Control Delay, s	0	12.4
HCM LOS		B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR
Capacity (veh/h)	523	-	-
HCM Lane V/C Ratio	0.07	-	-
HCM Control Delay (s)	12.4	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.2	-	-

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑				↑
Traffic Vol, veh/h	1822	5	0	0	0	38
Future Vol, veh/h	1822	5	0	0	0	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Stop	Stop	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	200	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1959	5	0	0	0	41

Major/Minor	Major1		Minor1	
Conflicting Flow All	0	0	-	980
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.92
Pot Cap-1 Maneuver	-	-	0	214
Stage 1	-	-	0	-
Stage 2	-	-	0	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	214
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	NB
HCM Control Delay, s	0	25.8
HCM LOS		D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR
Capacity (veh/h)	214	-	-
HCM Lane V/C Ratio	0.191	-	-
HCM Control Delay (s)	25.8	-	-
HCM Lane LOS	D	-	-
HCM 95th %tile Q(veh)	0.7	-	-

Timings
 3: Ridgeway Pkwy EB & High Note Ave

2025 Total AM
 09/01/2022

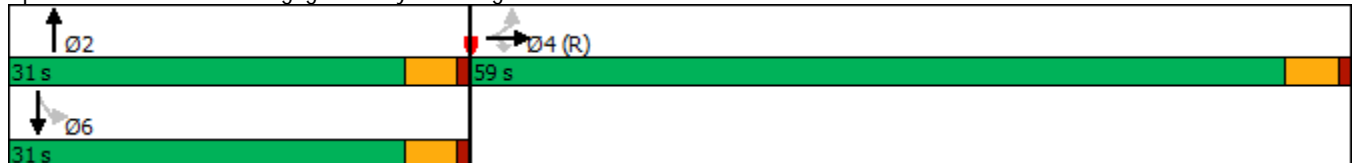


Lane Group	EBL	EBT	EBR	NBT	SBT
Lane Configurations	↶	↑↑↑	↷	↑	↓
Traffic Volume (vph)	2	798	5	10	13
Future Volume (vph)	2	798	5	10	13
Turn Type	Perm	NA	Perm	NA	NA
Protected Phases		4		2	6
Permitted Phases	4		4		
Detector Phase	4	4	4	2	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5
Total Split (s)	59.0	59.0	59.0	31.0	31.0
Total Split (%)	65.6%	65.6%	65.6%	34.4%	34.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Max	C-Max	C-Max	Max	Max
Act Effct Green (s)	54.5	54.5	54.5	26.5	26.5
Actuated g/C Ratio	0.61	0.61	0.61	0.29	0.29
v/c Ratio	0.00	0.27	0.01	0.10	0.03
Control Delay	7.0	8.7	0.8	10.5	15.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	7.0	8.7	0.8	10.5	15.0
LOS	A	A	A	B	B
Approach Delay		8.6		10.5	15.0
Approach LOS		A		B	B

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 4:EBTL, Start of Green
 Natural Cycle: 45
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.27
 Intersection Signal Delay: 8.8
 Intersection LOS: A
 Intersection Capacity Utilization 27.1%
 ICU Level of Service A
 Analysis Period (min) 15

Splits and Phases: 3: Ridgeway Pkwy EB & High Note Ave



HCM 6th Signalized Intersection Summary
 3: Ridgeway Pkwy EB & High Note Ave

2025 Total AM
 09/01/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑↑↑	↗					↖		↖	↑	
Traffic Volume (veh/h)	2	798	5	0	0	0	0	10	38	0	13	0
Future Volume (veh/h)	2	798	5	0	0	0	0	10	38	0	13	0
Initial Q (Qb), veh	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
Parking Bus, Adj	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	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	2	840	5				0	11	40	0	14	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	1079	3092	960				0	104	378	80	551	0
Arrive On Green	0.61	0.61	0.61				0.00	0.29	0.29	0.00	0.29	0.00
Sat Flow, veh/h	1781	5106	1585				0	354	1285	1354	1870	0
Grp Volume(v), veh/h	2	840	5				0	0	51	0	14	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1585				0	0	1639	1354	1870	0
Q Serve(g_s), s	0.0	7.0	0.1				0.0	0.0	2.0	0.0	0.5	0.0
Cycle Q Clear(g_c), s	0.0	7.0	0.1				0.0	0.0	2.0	0.0	0.5	0.0
Prop In Lane	1.00		1.00				0.00		0.78	1.00		0.00
Lane Grp Cap(c), veh/h	1079	3092	960				0	0	483	80	551	0
V/C Ratio(X)	0.00	0.27	0.01				0.00	0.00	0.11	0.00	0.03	0.00
Avail Cap(c_a), veh/h	1079	3092	960				0	0	483	80	551	0
HCM Platoon Ratio	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				0.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	7.0	8.4	7.0				0.0	0.0	23.1	0.0	22.6	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.0				0.0	0.0	0.4	0.0	0.1	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
%ile BackOfQ(50%),veh/ln	0.0	2.2	0.0				0.0	0.0	0.8	0.0	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.0	8.6	7.0				0.0	0.0	23.6	0.0	22.7	0.0
LnGrp LOS	A	A	A				A	A	C	A	C	A
Approach Vol, veh/h		847						51			14	
Approach Delay, s/veh		8.6						23.6			22.7	
Approach LOS		A						C			C	
Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		31.0		59.0		31.0						
Change Period (Y+Rc), s		4.5		4.5		4.5						
Max Green Setting (Gmax), s		26.5		54.5		26.5						
Max Q Clear Time (g_c+I1), s		4.0		9.0		2.5						
Green Ext Time (p_c), s		0.2		6.3		0.0						
Intersection Summary												
HCM 6th Ctrl Delay			9.6									
HCM 6th LOS			A									
Notes												
User approved pedestrian interval to be less than phase max green.												

Timings
 3: Ridgeway Pkwy EB & High Note Ave

2025 Total PM
 09/01/2022

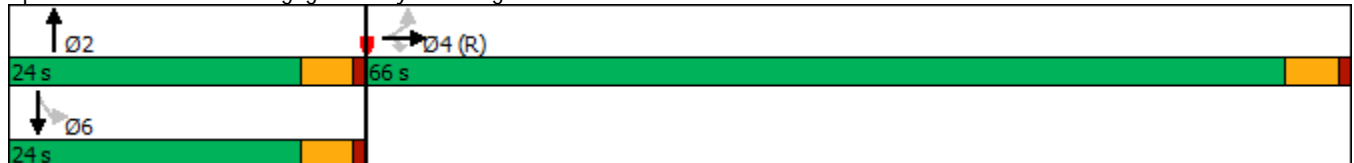


Lane Group	EBL	EBT	EBR	NBT	SBT
Lane Configurations	↶	↑↑↑	↷	↑	↓
Traffic Volume (vph)	3	1951	5	10	16
Future Volume (vph)	3	1951	5	10	16
Turn Type	Perm	NA	Perm	NA	NA
Protected Phases		4		2	6
Permitted Phases	4		4		
Detector Phase	4	4	4	2	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5
Total Split (s)	66.0	66.0	66.0	24.0	24.0
Total Split (%)	73.3%	73.3%	73.3%	26.7%	26.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Max	C-Max	C-Max	Max	Max
Act Effct Green (s)	61.5	61.5	61.5	19.5	19.5
Actuated g/C Ratio	0.68	0.68	0.68	0.22	0.22
v/c Ratio	0.00	0.60	0.00	0.16	0.04
Control Delay	4.7	8.6	0.6	23.5	22.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	4.7	8.6	0.6	23.5	22.6
LOS	A	A	A	C	C
Approach Delay		8.6		23.5	22.6
Approach LOS		A		C	C

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 4:EBTL, Start of Green
 Natural Cycle: 55
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.60
 Intersection Signal Delay: 9.1
 Intersection Capacity Utilization 49.4%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 3: Ridgeway Pkwy EB & High Note Ave



HCM 6th Signalized Intersection Summary
 3: Ridgeway Pkwy EB & High Note Ave

2025 Total PM
 09/01/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑↑↑	↗					↑		↖	↑	
Traffic Volume (veh/h)	3	1951	5	0	0	0	0	10	44	0	16	0
Future Volume (veh/h)	3	1951	5	0	0	0	0	10	44	0	16	0
Initial Q (Qb), veh	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
Parking Bus, Adj	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	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	3	2098	5				0	11	47	0	17	0
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	1217	3489	1083				0	67	287	80	405	0
Arrive On Green	0.68	0.68	0.68				0.00	0.22	0.22	0.00	0.22	0.00
Sat Flow, veh/h	1781	5106	1585				0	310	1323	1345	1870	0
Grp Volume(v), veh/h	3	2098	5				0	0	58	0	17	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1585				0	0	1632	1345	1870	0
Q Serve(g_s), s	0.0	19.9	0.1				0.0	0.0	2.6	0.0	0.6	0.0
Cycle Q Clear(g_c), s	0.0	19.9	0.1				0.0	0.0	2.6	0.0	0.6	0.0
Prop In Lane	1.00		1.00				0.00		0.81	1.00		0.00
Lane Grp Cap(c), veh/h	1217	3489	1083				0	0	354	80	405	0
V/C Ratio(X)	0.00	0.60	0.00				0.00	0.00	0.16	0.00	0.04	0.00
Avail Cap(c_a), veh/h	1217	3489	1083				0	0	354	80	405	0
HCM Platoon Ratio	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				0.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	4.5	7.7	4.5				0.0	0.0	28.6	0.0	27.9	0.0
Incr Delay (d2), s/veh	0.0	0.8	0.0				0.0	0.0	1.0	0.0	0.2	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
%ile BackOfQ(50%),veh/ln	0.0	5.4	0.0				0.0	0.0	1.1	0.0	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	4.5	8.4	4.5				0.0	0.0	29.6	0.0	28.1	0.0
LnGrp LOS	A	A	A				A	A	C	A	C	A
Approach Vol, veh/h		2106						58			17	
Approach Delay, s/veh		8.4						29.6			28.1	
Approach LOS		A						C			C	
Timer - Assigned Phs		2		4				6				
Phs Duration (G+Y+Rc), s		24.0		66.0				24.0				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		19.5		61.5				19.5				
Max Q Clear Time (g_c+I1), s		4.6		21.9				2.6				
Green Ext Time (p_c), s		0.2		22.8				0.0				
Intersection Summary												
HCM 6th Ctrl Delay			9.1									
HCM 6th LOS			A									

Timings
3: High Note Ave & Ridgeway Pkwy EB

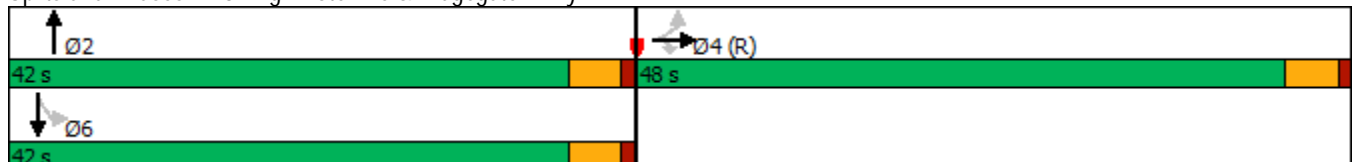


Lane Group	EBL	EBT	EBR	NBT	SBL	SBT
Lane Configurations	↖	↑↑↑	↗	↑	↘	↑
Traffic Volume (vph)	30	1070	105	180	45	80
Future Volume (vph)	30	1070	105	180	45	80
Turn Type	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		2		6
Permitted Phases	4		4		6	
Detector Phase	4	4	4	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	48.0	48.0	48.0	42.0	42.0	42.0
Total Split (%)	53.3%	53.3%	53.3%	46.7%	46.7%	46.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	Max	Max	Max
Act Effct Green (s)	43.5	43.5	43.5	37.5	37.5	37.5
Actuated g/C Ratio	0.48	0.48	0.48	0.42	0.42	0.42
v/c Ratio	0.04	0.46	0.14	0.40	0.13	0.11
Control Delay	12.5	16.2	3.1	17.6	24.4	23.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.5	16.2	3.1	17.6	24.4	23.1
LOS	B	B	A	B	C	C
Approach Delay		14.9		17.6		23.6
Approach LOS		B		B		C

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 4:EBTL, Start of Green
 Natural Cycle: 45
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.46
 Intersection Signal Delay: 16.1
 Intersection Capacity Utilization 82.6%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service E

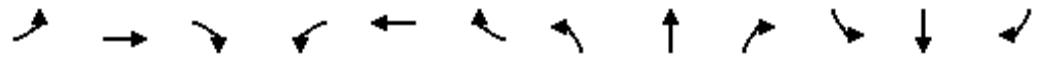
Splits and Phases: 3: High Note Ave & Ridgeway Pkwy EB



HCM 6th Signalized Intersection Summary
 3: High Note Ave & Ridgeway Pkwy EB

2045 Background AM

08/31/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑↑	↗					↖		↘	↑	
Traffic Volume (veh/h)	30	1070	105	0	0	0	0	180	110	45	80	0
Future Volume (veh/h)	30	1070	105	0	0	0	0	180	110	45	80	0
Initial Q (Qb), veh	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
Parking Bus, Adj	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	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	32	1126	111				0	189	116	47	84	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	861	2468	766				0	452	277	395	779	0
Arrive On Green	0.48	0.48	0.48				0.00	0.42	0.42	0.83	0.83	0.00
Sat Flow, veh/h	1781	5106	1585				0	1085	666	1074	1870	0
Grp Volume(v), veh/h	32	1126	111				0	0	305	47	84	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1585				0	0	1751	1074	1870	0
Q Serve(g_s), s	0.9	13.2	3.5				0.0	0.0	11.1	1.8	0.7	0.0
Cycle Q Clear(g_c), s	0.9	13.2	3.5				0.0	0.0	11.1	12.9	0.7	0.0
Prop In Lane	1.00		1.00				0.00		0.38	1.00		0.00
Lane Grp Cap(c), veh/h	861	2468	766				0	0	729	395	779	0
V/C Ratio(X)	0.04	0.46	0.14				0.00	0.00	0.42	0.12	0.11	0.00
Avail Cap(c_a), veh/h	861	2468	766				0	0	729	395	779	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(l)	1.00	1.00	1.00				0.00	0.00	1.00	0.93	0.93	0.00
Uniform Delay (d), s/veh	12.2	15.4	12.9				0.0	0.0	18.5	8.0	4.4	0.0
Incr Delay (d2), s/veh	0.1	0.6	0.4				0.0	0.0	1.8	0.6	0.3	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
%ile BackOfQ(50%),veh/ln	0.3	4.6	1.2				0.0	0.0	4.7	0.3	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.3	16.0	13.3				0.0	0.0	20.3	8.5	4.7	0.0
LnGrp LOS	B	B	B				A	A	C	A	A	A
Approach Vol, veh/h		1269						305			131	
Approach Delay, s/veh		15.7						20.3			6.1	
Approach LOS		B						C			A	
Timer - Assigned Phs		2		4				6				
Phs Duration (G+Y+Rc), s		42.0		48.0				42.0				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		37.5		43.5				37.5				
Max Q Clear Time (g_c+l1), s		13.1		15.2				14.9				
Green Ext Time (p_c), s		1.9		9.0				0.6				
Intersection Summary												
HCM 6th Ctrl Delay			15.8									
HCM 6th LOS			B									

Timings
3: High Note Ave & Ridgeway Pkwy EB



Lane Group	EBL	EBT	EBR	NBT	SBL	SBT
Lane Configurations	↶	↑↑↑	↷	↑	↶	↑
Traffic Volume (vph)	125	2560	185	170	75	95
Future Volume (vph)	125	2560	185	170	75	95
Turn Type	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		2		6
Permitted Phases	4		4		6	
Detector Phase	4	4	4	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	64.0	64.0	64.0	26.0	26.0	26.0
Total Split (%)	71.1%	71.1%	71.1%	28.9%	28.9%	28.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	Max	Max	Max
Act Effct Green (s)	59.5	59.5	59.5	21.5	21.5	21.5
Actuated g/C Ratio	0.66	0.66	0.66	0.24	0.24	0.24
v/c Ratio	0.11	0.82	0.18	0.67	0.51	0.23
Control Delay	5.9	14.0	1.9	39.6	34.0	21.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.9	14.0	1.9	39.6	34.0	21.7
LOS	A	B	A	D	C	C
Approach Delay		12.8		39.6		27.1
Approach LOS		B		D		C

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 4:EBTL, Start of Green
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.82
 Intersection Signal Delay: 15.7
 Intersection Capacity Utilization 79.6%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service D

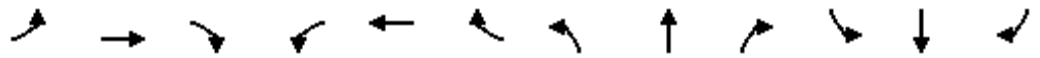
Splits and Phases: 3: High Note Ave & Ridgeway Pkwy EB



HCM 6th Signalized Intersection Summary
 3: High Note Ave & Ridgeway Pkwy EB

2045 Background PM

08/31/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	125	2560	185	0	0	0	0	170	95	75	95	0
Future Volume (veh/h)	125	2560	185	0	0	0	0	170	95	75	95	0
Initial Q (Qb), veh	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
Parking Bus, Adj	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	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	134	2753	199				0	183	102	81	102	0
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	1178	3376	1048				0	270	150	180	447	0
Arrive On Green	0.66	0.66	0.66				0.00	0.24	0.24	0.48	0.48	0.00
Sat Flow, veh/h	1781	5106	1585				0	1128	629	1094	1870	0
Grp Volume(v), veh/h	134	2753	199				0	0	285	81	102	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1585				0	0	1757	1094	1870	0
Q Serve(g_s), s	2.5	35.7	4.4				0.0	0.0	13.3	6.4	2.9	0.0
Cycle Q Clear(g_c), s	2.5	35.7	4.4				0.0	0.0	13.3	19.6	2.9	0.0
Prop In Lane	1.00		1.00				0.00		0.36	1.00		0.00
Lane Grp Cap(c), veh/h	1178	3376	1048				0	0	420	180	447	0
V/C Ratio(X)	0.11	0.82	0.19				0.00	0.00	0.68	0.45	0.23	0.00
Avail Cap(c_a), veh/h	1178	3376	1048				0	0	420	180	447	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(l)	1.00	1.00	1.00				0.00	0.00	1.00	0.99	0.99	0.00
Uniform Delay (d), s/veh	5.6	11.2	5.9				0.0	0.0	31.1	29.4	18.6	0.0
Incr Delay (d2), s/veh	0.2	2.3	0.4				0.0	0.0	8.6	7.8	1.2	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
%ile BackOfQ(50%),veh/ln	0.8	10.5	1.2				0.0	0.0	6.5	1.8	1.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	5.8	13.5	6.3				0.0	0.0	39.7	37.2	19.8	0.0
LnGrp LOS	A	B	A				A	A	D	D	B	A
Approach Vol, veh/h		3086						285			183	
Approach Delay, s/veh		12.7						39.7			27.5	
Approach LOS		B						D			C	
Timer - Assigned Phs		2		4				6				
Phs Duration (G+Y+Rc), s		26.0		64.0				26.0				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		21.5		59.5				21.5				
Max Q Clear Time (g_c+I1), s		15.3		37.7				21.6				
Green Ext Time (p_c), s		0.8		19.6				0.0				
Intersection Summary												
HCM 6th Ctrl Delay			15.6									
HCM 6th LOS			B									

Timings
3: Ridgeway Pkwy EB & High Note Ave

2045 Total AM
08/31/2022

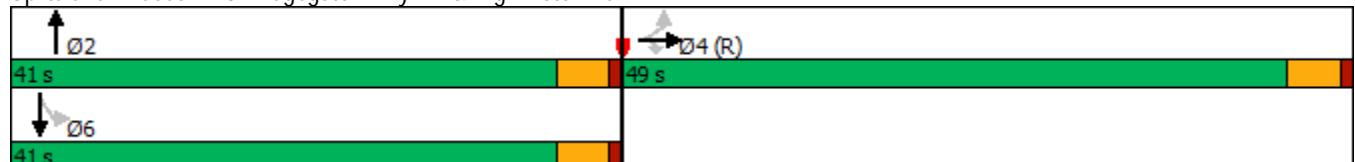


Lane Group	EBL	EBT	EBR	NBT	SBL	SBT
Lane Configurations	↶	↑↑↑	↷	↑	↶	↑
Traffic Volume (vph)	30	1130	105	180	50	85
Future Volume (vph)	30	1130	105	180	50	85
Turn Type	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		2		6
Permitted Phases	4		4		6	
Detector Phase	4	4	4	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	49.0	49.0	49.0	41.0	41.0	41.0
Total Split (%)	54.4%	54.4%	54.4%	45.6%	45.6%	45.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	Max	Max	Max
Act Effect Green (s)	44.5	44.5	44.5	36.5	36.5	36.5
Actuated g/C Ratio	0.49	0.49	0.49	0.41	0.41	0.41
v/c Ratio	0.04	0.47	0.13	0.42	0.15	0.12
Control Delay	12.0	15.8	2.9	18.4	25.8	24.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.0	15.8	2.9	18.4	25.8	24.2
LOS	B	B	A	B	C	C
Approach Delay		14.6		18.4		24.8
Approach LOS		B		B		C

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 4:EBTL, Start of Green
 Natural Cycle: 45
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.47
 Intersection Signal Delay: 16.1
 Intersection LOS: B
 Intersection Capacity Utilization 53.7%
 ICU Level of Service A
 Analysis Period (min) 15

Splits and Phases: 3: Ridgeway Pkwy EB & High Note Ave



HCM 6th Signalized Intersection Summary
 3: Ridgeway Pkwy EB & High Note Ave

2045 Total AM
 08/31/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑↑	↗					↖		↘	↑	
Traffic Volume (veh/h)	30	1130	105	0	0	0	0	180	115	50	85	0
Future Volume (veh/h)	30	1130	105	0	0	0	0	180	115	50	85	0
Initial Q (Qb), veh	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
Parking Bus, Adj	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	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	32	1189	111				0	189	121	53	89	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	881	2525	784				0	432	277	377	759	0
Arrive On Green	0.49	0.49	0.49				0.00	0.41	0.41	0.81	0.81	0.00
Sat Flow, veh/h	1781	5106	1585				0	1065	682	1069	1870	0
Grp Volume(v), veh/h	32	1189	111				0	0	310	53	89	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1585				0	0	1748	1069	1870	0
Q Serve(g_s), s	0.8	13.8	3.4				0.0	0.0	11.5	2.2	0.9	0.0
Cycle Q Clear(g_c), s	0.8	13.8	3.4				0.0	0.0	11.5	13.7	0.9	0.0
Prop In Lane	1.00		1.00				0.00		0.39	1.00		0.00
Lane Grp Cap(c), veh/h	881	2525	784				0	0	709	377	759	0
V/C Ratio(X)	0.04	0.47	0.14				0.00	0.00	0.44	0.14	0.12	0.00
Avail Cap(c_a), veh/h	881	2525	784				0	0	709	377	759	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(l)	1.00	1.00	1.00				0.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	11.7	15.0	12.4				0.0	0.0	19.3	9.2	5.1	0.0
Incr Delay (d2), s/veh	0.1	0.6	0.4				0.0	0.0	2.0	0.8	0.3	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
%ile BackOfQ(50%),veh/ln	0.3	4.8	1.2				0.0	0.0	4.9	0.4	0.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.8	15.6	12.7				0.0	0.0	21.3	10.0	5.5	0.0
LnGrp LOS	B	B	B				A	A	C	A	A	A
Approach Vol, veh/h		1332						310			142	
Approach Delay, s/veh		15.3						21.3			7.1	
Approach LOS		B						C			A	
Timer - Assigned Phs		2		4				6				
Phs Duration (G+Y+Rc), s		41.0		49.0				41.0				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		36.5		44.5				36.5				
Max Q Clear Time (g_c+l1), s		13.5		15.8				15.7				
Green Ext Time (p_c), s		1.9		9.6				0.6				
Intersection Summary												
HCM 6th Ctrl Delay			15.7									
HCM 6th LOS			B									

Timings
 3: Ridgeway Pkwy EB & High Note Ave

2045 Total PM
 08/31/2022

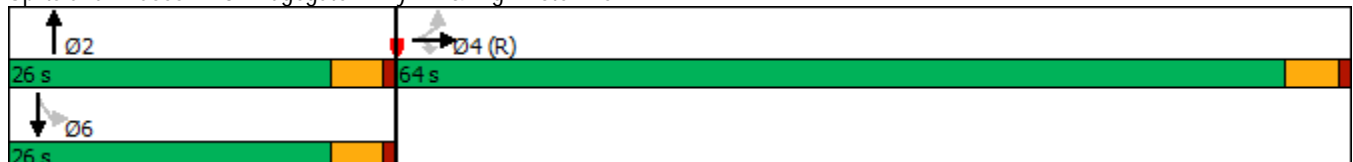


Lane Group	EBL	EBT	EBR	NBT	SBL	SBT
Lane Configurations	↖	↑↑↑	↗	↑	↘	↑
Traffic Volume (vph)	130	2680	185	170	85	110
Future Volume (vph)	130	2680	185	170	85	110
Turn Type	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		2		6
Permitted Phases	4		4		6	
Detector Phase	4	4	4	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	64.0	64.0	64.0	26.0	26.0	26.0
Total Split (%)	71.1%	71.1%	71.1%	28.9%	28.9%	28.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	Max	Max	Max
Act Effct Green (s)	59.5	59.5	59.5	21.5	21.5	21.5
Actuated g/C Ratio	0.66	0.66	0.66	0.24	0.24	0.24
v/c Ratio	0.12	0.86	0.18	0.70	0.61	0.27
Control Delay	5.9	15.4	1.2	41.2	41.2	22.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.9	15.4	1.2	41.2	41.2	22.2
LOS	A	B	A	D	D	C
Approach Delay		14.1		41.2		30.5
Approach LOS		B		D		C

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 4:EBTL, Start of Green
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.86
 Intersection Signal Delay: 17.2
 Intersection LOS: B
 Intersection Capacity Utilization 83.1%
 ICU Level of Service E
 Analysis Period (min) 15

Splits and Phases: 3: Ridgeway Pkwy EB & High Note Ave



HCM 6th Signalized Intersection Summary
 3: Ridgeway Pkwy EB & High Note Ave

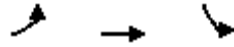
2045 Total PM
 08/31/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑↑	↗					↖		↘	↑	
Traffic Volume (veh/h)	130	2680	185	0	0	0	0	170	105	85	110	0
Future Volume (veh/h)	130	2680	185	0	0	0	0	170	105	85	110	0
Initial Q (Qb), veh	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
Parking Bus, Adj	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	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	140	2882	199				0	183	113	91	118	0
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	1178	3376	1048				0	258	160	171	447	0
Arrive On Green	0.66	0.66	0.66				0.00	0.24	0.24	0.48	0.48	0.00
Sat Flow, veh/h	1781	5106	1585				0	1082	668	1083	1870	0
Grp Volume(v), veh/h	140	2882	199				0	0	296	91	118	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1585				0	0	1750	1083	1870	0
Q Serve(g_s), s	2.6	39.5	4.4				0.0	0.0	13.9	7.6	3.4	0.0
Cycle Q Clear(g_c), s	2.6	39.5	4.4				0.0	0.0	13.9	21.5	3.4	0.0
Prop In Lane	1.00		1.00				0.00		0.38	1.00		0.00
Lane Grp Cap(c), veh/h	1178	3376	1048				0	0	418	171	447	0
V/C Ratio(X)	0.12	0.85	0.19				0.00	0.00	0.71	0.53	0.26	0.00
Avail Cap(c_a), veh/h	1178	3376	1048				0	0	418	171	447	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(l)	1.00	1.00	1.00				0.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	5.6	11.9	5.9				0.0	0.0	31.4	30.5	18.8	0.0
Incr Delay (d2), s/veh	0.2	3.0	0.4				0.0	0.0	9.7	11.4	1.4	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
%ile BackOfQ(50%),veh/ln	0.8	11.8	1.2				0.0	0.0	6.9	2.2	1.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	5.8	14.8	6.3				0.0	0.0	41.1	41.8	20.2	0.0
LnGrp LOS	A	B	A				A	A	D	D	C	A
Approach Vol, veh/h		3221						296			209	
Approach Delay, s/veh		13.9						41.1			29.6	
Approach LOS		B						D			C	
Timer - Assigned Phs		2		4				6				
Phs Duration (G+Y+Rc), s		26.0		64.0				26.0				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		21.5		59.5				21.5				
Max Q Clear Time (g_c+l1), s		15.9		41.5				23.5				
Green Ext Time (p_c), s		0.8		16.7				0.0				
Intersection Summary												
HCM 6th Ctrl Delay			17.0									
HCM 6th LOS			B									

Timings
4: Ridgeway Pkwy EB & Rhapsody Road

2025 Total AM
09/01/2022



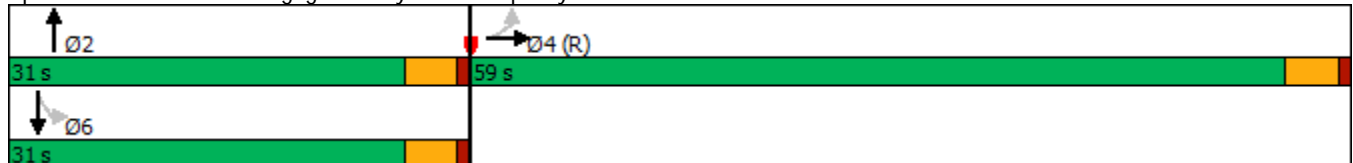
Lane Group	EBL	EBT	SBL	Ø2
Lane Configurations	↶	↶↶↶	↷	
Traffic Volume (vph)	5	804	34	
Future Volume (vph)	5	804	34	
Turn Type	Perm	NA	Perm	
Protected Phases		4		2
Permitted Phases	4		6	
Detector Phase	4	4	6	
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5
Total Split (s)	59.0	59.0	31.0	31.0
Total Split (%)	65.6%	65.6%	34.4%	34%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	Max	Max
Act Effct Green (s)	54.5	54.5	26.5	
Actuated g/C Ratio	0.61	0.61	0.29	
v/c Ratio	0.00	0.27	0.09	
Control Delay	6.0	6.4	23.8	
Queue Delay	0.0	0.0	0.0	
Total Delay	6.0	6.4	23.8	
LOS	A	A	C	
Approach Delay		6.4		
Approach LOS		A		

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 4:EBTL, Start of Green
 Natural Cycle: 45
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.27
 Intersection Signal Delay: 7.1
 Intersection Capacity Utilization 27.2%
 Analysis Period (min) 15

Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 4: Ridgeway Pkwy EB & Rhapsody Road



HCM 6th Signalized Intersection Summary
 4: Ridgeway Pkwy EB & Rhapsody Road

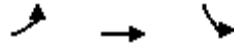
2025 Total AM
 09/01/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↶↶↶						↶		↶	↶	
Traffic Volume (veh/h)	5	804	0	0	0	0	0	0	0	34	0	0
Future Volume (veh/h)	5	804	0	0	0	0	0	0	0	34	0	0
Initial Q (Qb), veh	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
Parking Bus, Adj	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	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	5	846	0				0	0	0	36	0	0
Peak Hour Factor	0.95	0.95	0.92				0.92	0.92	0.92	0.95	0.92	0.95
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	1079	3092	0				0	551	0	604	551	0
Arrive On Green	0.20	0.20	0.00				0.00	0.00	0.00	0.29	0.00	0.00
Sat Flow, veh/h	1781	5274	0				0	1870	0	1781	1870	0
Grp Volume(v), veh/h	5	846	0				0	0	0	36	0	0
Grp Sat Flow(s),veh/h/ln	1781	1702	0				0	1870	0	1781	1870	0
Q Serve(g_s), s	0.2	12.6	0.0				0.0	0.0	0.0	1.3	0.0	0.0
Cycle Q Clear(g_c), s	0.2	12.6	0.0				0.0	0.0	0.0	1.3	0.0	0.0
Prop In Lane	1.00		0.00				0.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	1079	3092	0				0	551	0	604	551	0
V/C Ratio(X)	0.00	0.27	0.00				0.00	0.00	0.00	0.06	0.00	0.00
Avail Cap(c_a), veh/h	1079	3092	0				0	551	0	604	551	0
HCM Platoon Ratio	0.33	0.33	0.33				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	0.00				0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	14.3	19.3	0.0				0.0	0.0	0.0	22.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.0				0.0	0.0	0.0	0.2	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
%ile BackOfQ(50%),veh/ln	0.1	5.5	0.0				0.0	0.0	0.0	0.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.3	19.5	0.0				0.0	0.0	0.0	23.1	0.0	0.0
LnGrp LOS	B	B	A				A	A	A	C	A	A
Approach Vol, veh/h		851						0			36	
Approach Delay, s/veh		19.4						0.0			23.1	
Approach LOS		B									C	
Timer - Assigned Phs		2		4				6				
Phs Duration (G+Y+Rc), s		31.0		59.0				31.0				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		26.5		54.5				26.5				
Max Q Clear Time (g_c+I1), s		0.0		14.6				3.3				
Green Ext Time (p_c), s		0.0		6.2				0.1				
Intersection Summary												
HCM 6th Ctrl Delay			19.6									
HCM 6th LOS			B									

Timings
4: Ridgeway Pkwy EB & Rhapsody Road

2025 Total PM
09/01/2022



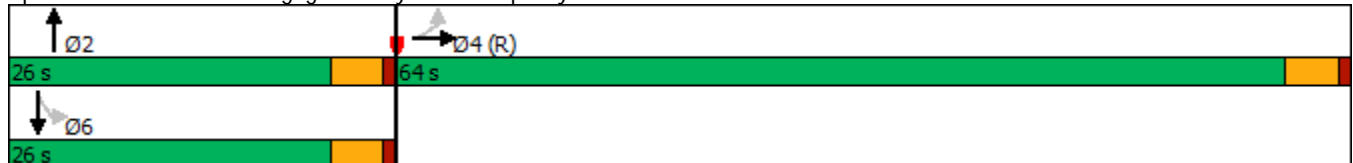
Lane Group	EBL	EBT	SBL	Ø2
Lane Configurations	↶	↶↶↶	↷	
Traffic Volume (vph)	9	1940	94	
Future Volume (vph)	9	1940	94	
Turn Type	Perm	NA	Perm	
Protected Phases		4		2
Permitted Phases	4		6	
Detector Phase	4	4	6	
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5
Total Split (s)	64.0	64.0	26.0	26.0
Total Split (%)	71.1%	71.1%	28.9%	29%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	Max	Max
Act Effct Green (s)	59.5	59.5	21.5	
Actuated g/C Ratio	0.66	0.66	0.24	
v/c Ratio	0.01	0.62	0.30	
Control Delay	4.8	6.7	31.0	
Queue Delay	0.0	0.0	0.0	
Total Delay	4.8	6.7	31.0	
LOS	A	A	C	
Approach Delay		6.7		
Approach LOS		A		

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 4:EBTL, Start of Green
 Natural Cycle: 55
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.62
 Intersection Signal Delay: 7.8
 Intersection Capacity Utilization 50.2%
 Analysis Period (min) 15

Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 4: Ridgeway Pkwy EB & Rhapsody Road



HCM 6th Signalized Intersection Summary
 4: Ridgeway Pkwy EB & Rhapsody Road

2025 Total PM
 09/01/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↑↑↑						↖		↗	↑	
Traffic Volume (veh/h)	9	1940	0	0	0	0	0	0	0	94	0	0
Future Volume (veh/h)	9	1940	0	0	0	0	0	0	0	94	0	0
Initial Q (Qb), veh	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
Parking Bus, Adj	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	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	10	2086	0				0	0	0	101	0	0
Peak Hour Factor	0.93	0.93	0.92				0.92	0.92	0.92	0.93	0.92	0.93
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	1178	3376	0				0	447	0	506	447	0
Arrive On Green	0.22	0.22	0.00				0.00	0.00	0.00	0.24	0.00	0.00
Sat Flow, veh/h	1781	5274	0				0	1870	0	1781	1870	0
Grp Volume(v), veh/h	10	2086	0				0	0	0	101	0	0
Grp Sat Flow(s),veh/h/ln	1781	1702	0				0	1870	0	1781	1870	0
Q Serve(g_s), s	0.4	33.2	0.0				0.0	0.0	0.0	4.1	0.0	0.0
Cycle Q Clear(g_c), s	0.4	33.2	0.0				0.0	0.0	0.0	4.1	0.0	0.0
Prop In Lane	1.00		0.00				0.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	1178	3376	0				0	447	0	506	447	0
V/C Ratio(X)	0.01	0.62	0.00				0.00	0.00	0.00	0.20	0.00	0.00
Avail Cap(c_a), veh/h	1178	3376	0				0	447	0	506	447	0
HCM Platoon Ratio	0.33	0.33	0.33				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	0.00				0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	12.1	24.9	0.0				0.0	0.0	0.0	27.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.9	0.0				0.0	0.0	0.0	0.9	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
%ile BackOfQ(50%),veh/ln	0.1	15.0	0.0				0.0	0.0	0.0	1.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.1	25.8	0.0				0.0	0.0	0.0	28.5	0.0	0.0
LnGrp LOS	B	C	A				A	A	A	C	A	A
Approach Vol, veh/h		2096						0			101	
Approach Delay, s/veh		25.7						0.0			28.5	
Approach LOS		C									C	
Timer - Assigned Phs		2		4				6				
Phs Duration (G+Y+Rc), s		26.0		64.0				26.0				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		21.5		59.5				21.5				
Max Q Clear Time (g_c+I1), s		0.0		35.2				6.1				
Green Ext Time (p_c), s		0.0		16.6				0.2				
Intersection Summary												
HCM 6th Ctrl Delay			25.8									
HCM 6th LOS			C									

Timings
4: Ridgeway Pkwy EB & Main Street



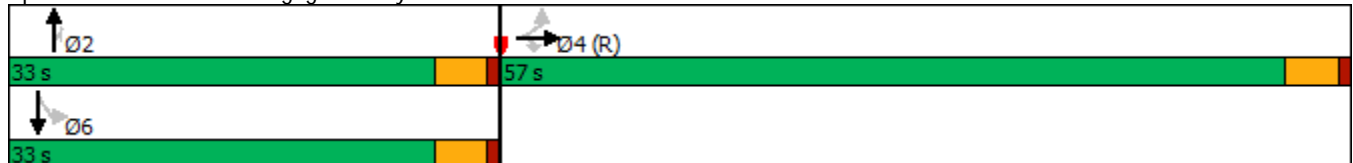
Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations	↘	↑↑↑	↗	↑	↗	↘	↑
Traffic Volume (vph)	25	1135	65	115	65	25	70
Future Volume (vph)	25	1135	65	115	65	25	70
Turn Type	Perm	NA	Perm	NA	Perm	Perm	NA
Protected Phases		4		2			6
Permitted Phases	4		4		2	6	
Detector Phase	4	4	4	2	2	6	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	57.0	57.0	57.0	33.0	33.0	33.0	33.0
Total Split (%)	63.3%	63.3%	63.3%	36.7%	36.7%	36.7%	36.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	C-Max	C-Max	C-Max	Max	Max	Max	Max
Act Effect Green (s)	52.5	52.5	52.5	28.5	28.5	28.5	28.5
Actuated g/C Ratio	0.58	0.58	0.58	0.32	0.32	0.32	0.32
v/c Ratio	0.03	0.40	0.07	0.21	0.12	0.07	0.13
Control Delay	5.0	5.7	0.5	23.7	6.5	38.0	37.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.0	5.7	0.5	23.7	6.5	38.0	37.3
LOS	A	A	A	C	A	D	D
Approach Delay		5.4		17.5			37.5
Approach LOS		A		B			D

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 4:EBTL, Start of Green
 Natural Cycle: 45
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.40
 Intersection Signal Delay: 8.9
 Intersection Capacity Utilization 73.6%
 Analysis Period (min) 15

Intersection LOS: A
 ICU Level of Service D

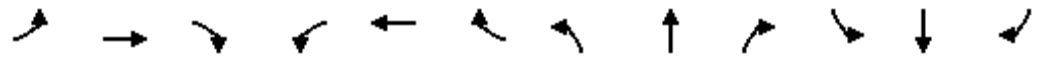
Splits and Phases: 4: Ridgeway Pkwy EB & Main Street



HCM 6th Signalized Intersection Summary
 4: Ridgeway Pkwy EB & Main Street

2045 Background AM

08/31/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑↑	↗					↑	↗	↘	↑	
Traffic Volume (veh/h)	25	1135	65	0	0	0	0	115	65	25	70	0
Future Volume (veh/h)	25	1135	65	0	0	0	0	115	65	25	70	0
Initial Q (Qb), veh	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
Parking Bus, Adj	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	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	26	1195	68				0	121	68	26	74	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	1039	2979	925				0	592	502	402	592	0
Arrive On Green	0.19	0.19	0.19				0.00	0.32	0.32	0.63	0.63	0.00
Sat Flow, veh/h	1781	5106	1585				0	1870	1585	1194	1870	0
Grp Volume(v), veh/h	26	1195	68				0	121	68	26	74	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1585				0	1870	1585	1194	1870	0
Q Serve(g_s), s	1.1	18.4	3.2				0.0	4.3	2.8	0.9	1.4	0.0
Cycle Q Clear(g_c), s	1.1	18.4	3.2				0.0	4.3	2.8	5.2	1.4	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	1039	2979	925				0	592	502	402	592	0
V/C Ratio(X)	0.03	0.40	0.07				0.00	0.20	0.14	0.06	0.12	0.00
Avail Cap(c_a), veh/h	1039	2979	925				0	592	502	402	592	0
HCM Platoon Ratio	0.33	0.33	0.33				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(l)	0.90	0.90	0.90				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	15.6	22.6	16.4				0.0	22.5	22.0	13.3	11.5	0.0
Incr Delay (d2), s/veh	0.0	0.4	0.1				0.0	0.8	0.6	0.3	0.4	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
%ile BackOfQ(50%),veh/ln	0.4	8.3	1.0				0.0	2.0	1.1	0.3	0.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.6	22.9	16.6				0.0	23.2	22.5	13.6	12.0	0.0
LnGrp LOS	B	C	B				A	C	C	B	B	A
Approach Vol, veh/h		1289						189			100	
Approach Delay, s/veh		22.5						23.0			12.4	
Approach LOS		C						C			B	
Timer - Assigned Phs		2		4				6				
Phs Duration (G+Y+Rc), s		33.0		57.0				33.0				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		28.5		52.5				28.5				
Max Q Clear Time (g_c+l1), s		6.3		20.4				7.2				
Green Ext Time (p_c), s		0.8		9.8				0.4				
Intersection Summary												
HCM 6th Ctrl Delay			21.9									
HCM 6th LOS			C									

Timings
4: Ridgeway Pkwy EB & Main Street



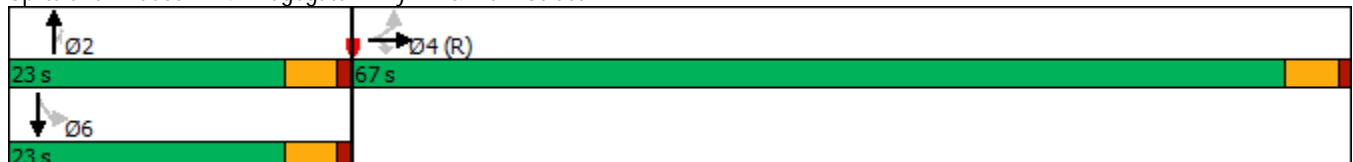
Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations	↖	↑↑↑	↗	↑	↗	↖	↑
Traffic Volume (vph)	90	2500	140	90	65	30	105
Future Volume (vph)	90	2500	140	90	65	30	105
Turn Type	Perm	NA	Perm	NA	Perm	Perm	NA
Protected Phases		4		2			6
Permitted Phases	4		4		2	6	
Detector Phase	4	4	4	2	2	6	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	67.0	67.0	67.0	23.0	23.0	23.0	23.0
Total Split (%)	74.4%	74.4%	74.4%	25.6%	25.6%	25.6%	25.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	C-Max	C-Max	C-Max	Max	Max	Max	Max
Act Effect Green (s)	62.5	62.5	62.5	18.5	18.5	18.5	18.5
Actuated g/C Ratio	0.69	0.69	0.69	0.21	0.21	0.21	0.21
v/c Ratio	0.08	0.76	0.13	0.25	0.21	0.12	0.30
Control Delay	4.0	5.9	1.0	32.1	25.1	21.8	23.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.0	5.9	1.0	32.1	25.1	21.8	23.1
LOS	A	A	A	C	C	C	C
Approach Delay		5.6		29.2			22.8
Approach LOS		A		C			C

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 4:EBTL, Start of Green
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.76
 Intersection Signal Delay: 7.5
 Intersection Capacity Utilization 68.5%
 Analysis Period (min) 15

Intersection LOS: A
 ICU Level of Service C

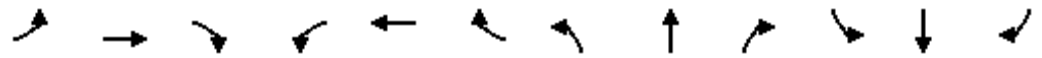
Splits and Phases: 4: Ridgeway Pkwy EB & Main Street



HCM 6th Signalized Intersection Summary
 4: Ridgeway Pkwy EB & Main Street

2045 Background PM

08/31/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑↑	↗					↑	↗	↘	↑	
Traffic Volume (veh/h)	90	2500	140	0	0	0	0	90	65	30	105	0
Future Volume (veh/h)	90	2500	140	0	0	0	0	90	65	30	105	0
Initial Q (Qb), veh	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
Parking Bus, Adj	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	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	97	2688	151				0	97	70	32	113	0
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	1237	3546	1101				0	384	326	278	384	0
Arrive On Green	0.23	0.23	0.23				0.00	0.21	0.21	0.41	0.41	0.00
Sat Flow, veh/h	1781	5106	1585				0	1870	1585	1218	1870	0
Grp Volume(v), veh/h	97	2688	151				0	97	70	32	113	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1585				0	1870	1585	1218	1870	0
Q Serve(g_s), s	3.8	44.2	6.8				0.0	3.9	3.3	1.7	3.6	0.0
Cycle Q Clear(g_c), s	3.8	44.2	6.8				0.0	3.9	3.3	5.6	3.6	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	1237	3546	1101				0	384	326	278	384	0
V/C Ratio(X)	0.08	0.76	0.14				0.00	0.25	0.21	0.12	0.29	0.00
Avail Cap(c_a), veh/h	1237	3546	1101				0	384	326	278	384	0
HCM Platoon Ratio	0.33	0.33	0.33				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(l)	0.48	0.48	0.48				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	12.1	27.6	13.2				0.0	30.0	29.7	24.1	22.1	0.0
Incr Delay (d2), s/veh	0.1	0.8	0.1				0.0	1.6	1.5	0.8	1.9	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
%ile BackOfQ(50%),veh/ln	1.2	19.8	2.1				0.0	1.9	1.4	0.5	1.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.1	28.4	13.4				0.0	31.5	31.2	24.9	24.1	0.0
LnGrp LOS	B	C	B				A	C	C	C	C	A
Approach Vol, veh/h		2936						167			145	
Approach Delay, s/veh		27.1						31.4			24.3	
Approach LOS		C						C			C	
Timer - Assigned Phs		2		4				6				
Phs Duration (G+Y+Rc), s		23.0		67.0				23.0				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		18.5		62.5				18.5				
Max Q Clear Time (g_c+l1), s		5.9		46.2				7.6				
Green Ext Time (p_c), s		0.5		14.8				0.4				
Intersection Summary												
HCM 6th Ctrl Delay			27.2									
HCM 6th LOS			C									

Timings
4: Ridgeway Pkwy EB & Rhapsody Road

2045 Total AM
08/31/2022

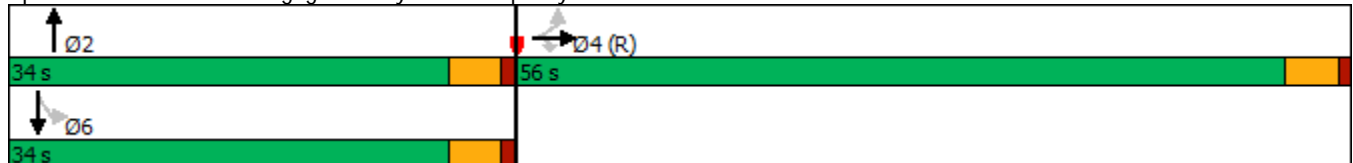


Lane Group	EBL	EBT	EBR	NBT	SBL	SBT
Lane Configurations	↙	↑↑↑	↘	↑	↘	↑
Traffic Volume (vph)	30	1165	65	120	45	75
Future Volume (vph)	30	1165	65	120	45	75
Turn Type	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		2		6
Permitted Phases	4		4		6	
Detector Phase	4	4	4	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	56.0	56.0	56.0	34.0	34.0	34.0
Total Split (%)	62.2%	62.2%	62.2%	37.8%	37.8%	37.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	Max	Max	Max
Act Effct Green (s)	51.5	51.5	51.5	29.5	29.5	29.5
Actuated g/C Ratio	0.57	0.57	0.57	0.33	0.33	0.33
v/c Ratio	0.03	0.42	0.07	0.32	0.13	0.13
Control Delay	5.7	6.6	0.7	20.6	32.0	31.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.7	6.6	0.7	20.6	32.0	31.1
LOS	A	A	A	C	C	C
Approach Delay		6.2		20.6		31.4
Approach LOS		A		C		C

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 4:EBTL, Start of Green
 Natural Cycle: 45
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.42
 Intersection Signal Delay: 9.9
 Intersection LOS: A
 Intersection Capacity Utilization 48.2%
 ICU Level of Service A
 Analysis Period (min) 15

Splits and Phases: 4: Ridgeway Pkwy EB & Rhapsody Road



HCM 6th Signalized Intersection Summary
 4: Ridgeway Pkwy EB & Rhapsody Road

2045 Total AM
 08/31/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↑↑↑	↷					↑		↶	↑	↷
Traffic Volume (veh/h)	30	1165	65	0	0	0	0	120	65	45	75	0
Future Volume (veh/h)	30	1165	65	0	0	0	0	120	65	45	75	0
Initial Q (Qb), veh	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
Parking Bus, Adj	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	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	32	1226	68				0	126	68	47	79	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	1019	2922	907				0	375	202	371	613	0
Arrive On Green	0.19	0.19	0.19				0.00	0.33	0.33	0.66	0.66	0.00
Sat Flow, veh/h	1781	5106	1585				0	1143	617	1189	1870	0
Grp Volume(v), veh/h	32	1226	68				0	0	194	47	79	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1585				0	0	1759	1189	1870	0
Q Serve(g_s), s	1.3	19.0	3.2				0.0	0.0	7.5	2.0	1.4	0.0
Cycle Q Clear(g_c), s	1.3	19.0	3.2				0.0	0.0	7.5	9.5	1.4	0.0
Prop In Lane	1.00		1.00				0.00		0.35	1.00		0.00
Lane Grp Cap(c), veh/h	1019	2922	907				0	0	577	371	613	0
V/C Ratio(X)	0.03	0.42	0.07				0.00	0.00	0.34	0.13	0.13	0.00
Avail Cap(c_a), veh/h	1019	2922	907				0	0	577	371	613	0
HCM Platoon Ratio	0.33	0.33	0.33				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(l)	1.00	1.00	1.00				0.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	16.2	23.3	16.9				0.0	0.0	22.9	14.1	10.7	0.0
Incr Delay (d2), s/veh	0.1	0.4	0.2				0.0	0.0	1.6	0.7	0.4	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
%ile BackOfQ(50%),veh/ln	0.5	8.6	1.0				0.0	0.0	3.3	0.5	0.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.2	23.8	17.1				0.0	0.0	24.4	14.8	11.1	0.0
LnGrp LOS	B	C	B				A	A	C	B	B	A
Approach Vol, veh/h		1326						194			126	
Approach Delay, s/veh		23.3						24.4			12.5	
Approach LOS		C						C			B	
Timer - Assigned Phs		2		4				6				
Phs Duration (G+Y+Rc), s		34.0		56.0				34.0				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		29.5		51.5				29.5				
Max Q Clear Time (g_c+I1), s		9.5		21.0				11.5				
Green Ext Time (p_c), s		1.0		10.0				0.5				
Intersection Summary												
HCM 6th Ctrl Delay			22.6									
HCM 6th LOS			C									

Timings
4: Ridgeway Pkwy EB & Rhapsody Road

2045 Total PM
08/31/2022

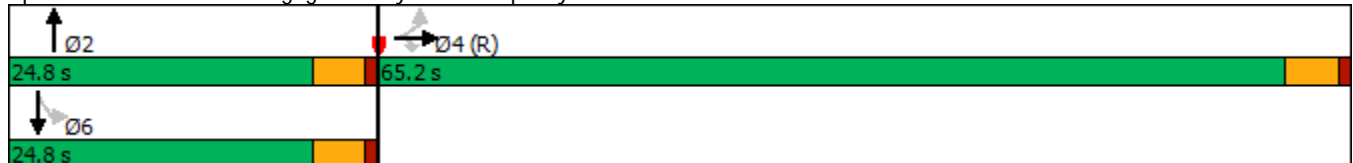


Lane Group	EBL	EBT	EBR	NBT	SBL	SBT
Lane Configurations	↶	↑↑↑	↷	↑	↶	↑
Traffic Volume (vph)	100	2570	145	105	100	115
Future Volume (vph)	100	2570	145	105	100	115
Turn Type	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		2		6
Permitted Phases	4		4		6	
Detector Phase	4	4	4	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	65.2	65.2	65.2	24.8	24.8	24.8
Total Split (%)	72.4%	72.4%	72.4%	27.6%	27.6%	27.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	Max	Max	Max
Act Effct Green (s)	60.7	60.7	60.7	20.3	20.3	20.3
Actuated g/C Ratio	0.67	0.67	0.67	0.23	0.23	0.23
v/c Ratio	0.09	0.81	0.14	0.46	0.48	0.30
Control Delay	5.2	7.8	1.7	33.7	38.3	31.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.2	7.8	1.7	33.7	38.3	31.1
LOS	A	A	A	C	D	C
Approach Delay		7.4		33.7		34.4
Approach LOS		A		C		C

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 4:EBTL, Start of Green
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.81
 Intersection Signal Delay: 10.6
 Intersection Capacity Utilization 75.9%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service D

Splits and Phases: 4: Ridgeway Pkwy EB & Rhapsody Road



HCM 6th Signalized Intersection Summary
 4: Ridgeway Pkwy EB & Rhapsody Road

2045 Total PM
 08/31/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑↑	↗					↑		↘	↑	
Traffic Volume (veh/h)	100	2570	145	0	0	0	0	105	65	100	115	0
Future Volume (veh/h)	100	2570	145	0	0	0	0	105	65	100	115	0
Initial Q (Qb), veh	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
Parking Bus, Adj	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	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	108	2763	156				0	113	70	108	124	0
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	1201	3444	1069				0	244	151	242	422	0
Arrive On Green	0.22	0.22	0.22				0.00	0.23	0.23	0.45	0.45	0.00
Sat Flow, veh/h	1781	5106	1585				0	1081	669	1201	1870	0
Grp Volume(v), veh/h	108	2763	156				0	0	183	108	124	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1585				0	0	1750	1201	1870	0
Q Serve(g_s), s	4.3	46.1	7.1				0.0	0.0	8.1	7.2	3.8	0.0
Cycle Q Clear(g_c), s	4.3	46.1	7.1				0.0	0.0	8.1	15.3	3.8	0.0
Prop In Lane	1.00		1.00				0.00		0.38	1.00		0.00
Lane Grp Cap(c), veh/h	1201	3444	1069				0	0	395	242	422	0
V/C Ratio(X)	0.09	0.80	0.15				0.00	0.00	0.46	0.45	0.29	0.00
Avail Cap(c_a), veh/h	1201	3444	1069				0	0	395	242	422	0
HCM Platoon Ratio	0.33	0.33	0.33				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(l)	1.00	1.00	1.00				0.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	13.1	29.3	14.2				0.0	0.0	30.1	27.0	20.2	0.0
Incr Delay (d2), s/veh	0.1	2.1	0.3				0.0	0.0	3.9	5.8	1.8	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
%ile BackOfQ(50%),veh/ln	1.4	21.2	2.3				0.0	0.0	3.8	2.0	1.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.2	31.4	14.4				0.0	0.0	34.0	32.8	21.9	0.0
LnGrp LOS	B	C	B				A	A	C	C	C	A
Approach Vol, veh/h		3027						183			232	
Approach Delay, s/veh		29.9						34.0			27.0	
Approach LOS		C						C			C	
Timer - Assigned Phs		2		4				6				
Phs Duration (G+Y+Rc), s		24.8		65.2				24.8				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		20.3		60.7				20.3				
Max Q Clear Time (g_c+I1), s		10.1		48.1				17.3				
Green Ext Time (p_c), s		0.7		11.8				0.3				
Intersection Summary												
HCM 6th Ctrl Delay			29.9									
HCM 6th LOS			C									

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations			↵ ↑↑↑	↵		
Traffic Vol, veh/h	0	0	30	1727	54	0
Future Vol, veh/h	0	0	30	1727	54	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	32	1818	57	0

Major/Minor	Major2	Minor1		
Conflicting Flow All	0	0	791	-
Stage 1	-	-	0	-
Stage 2	-	-	791	-
Critical Hdwy	5.34	-	5.74	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	6.04	-
Follow-up Hdwy	3.12	-	3.82	-
Pot Cap-1 Maneuver	-	-	395	0
Stage 1	-	-	-	0
Stage 2	-	-	369	0
Platoon blocked, %			-	
Mov Cap-1 Maneuver	-	-	395	-
Mov Cap-2 Maneuver	-	-	395	-
Stage 1	-	-	-	-
Stage 2	-	-	369	-

Approach	WB	NB
HCM Control Delay, s		15.6
HCM LOS		C

Minor Lane/Major Mvmt	NBLn1	WBL	WBT
Capacity (veh/h)	395	-	-
HCM Lane V/C Ratio	0.144	-	-
HCM Control Delay (s)	15.6	-	-
HCM Lane LOS	C	-	-
HCM 95th %tile Q(veh)	0.5	-	-

Intersection

Int Delay, s/veh 1.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations			↵ ↑↑↑	↵		
Traffic Vol, veh/h	0	0	38	1083	113	0
Future Vol, veh/h	0	0	38	1083	113	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	41	1165	122	0

Major/Minor

	Major2	Minor1		
Conflicting Flow All	0	0	548	-
Stage 1	-	-	0	-
Stage 2	-	-	548	-
Critical Hdwy	5.34	-	5.74	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	6.04	-
Follow-up Hdwy	3.12	-	3.82	-
Pot Cap-1 Maneuver	-	-	519	0
Stage 1	-	-	-	0
Stage 2	-	-	496	0
Platoon blocked, %			-	
Mov Cap-1 Maneuver	-	-	519	-
Mov Cap-2 Maneuver	-	-	519	-
Stage 1	-	-	-	-
Stage 2	-	-	496	-

Approach

	WB	NB
HCM Control Delay, s		14
HCM LOS		B

Minor Lane/Major Mvmt

	NBLn1	WBL	WBT
Capacity (veh/h)	519	-	-
HCM Lane V/C Ratio	0.234	-	-
HCM Control Delay (s)	14	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.9	-	-

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations			↵ ↑↑↑	↵		
Traffic Vol, veh/h	0	0	25	2805	40	0
Future Vol, veh/h	0	0	25	2805	40	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	26	2953	42	0

Major/Minor	Major2	Minor1		
Conflicting Flow All	0	0	1233	-
Stage 1	-	-	0	-
Stage 2	-	-	1233	-
Critical Hdwy	5.34	-	5.74	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	6.04	-
Follow-up Hdwy	3.12	-	3.82	-
Pot Cap-1 Maneuver	-	-	237	0
Stage 1	-	-	-	0
Stage 2	-	-	213	0
Platoon blocked, %			-	
Mov Cap-1 Maneuver	-	-	237	-
Mov Cap-2 Maneuver	-	-	237	-
Stage 1	-	-	-	-
Stage 2	-	-	213	-

Approach	WB	NB
HCM Control Delay, s		23.4
HCM LOS		C

Minor Lane/Major Mvmt	NBLn1	WBL	WBT
Capacity (veh/h)	237	-	-
HCM Lane V/C Ratio	0.178	-	-
HCM Control Delay (s)	23.4	-	-
HCM Lane LOS	C	-	-
HCM 95th %tile Q(veh)	0.6	-	-

Intersection						
Int Delay, s/veh	0.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations			↵ ↑↑↑	↵		
Traffic Vol, veh/h	0	0	25	1750	85	0
Future Vol, veh/h	0	0	25	1750	85	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	27	1882	91	0

Major/Minor	Major2	Minor1		
Conflicting Flow All	0	0	807	-
Stage 1	-	-	0	-
Stage 2	-	-	807	-
Critical Hdwy	5.34	-	5.74	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	6.04	-
Follow-up Hdwy	3.12	-	3.82	-
Pot Cap-1 Maneuver	-	-	387	0
Stage 1	-	-	-	0
Stage 2	-	-	362	0
Platoon blocked, %			-	
Mov Cap-1 Maneuver	-	-	387	-
Mov Cap-2 Maneuver	-	-	387	-
Stage 1	-	-	-	-
Stage 2	-	-	362	-

Approach	WB	NB
HCM Control Delay, s		17.2
HCM LOS		C

Minor Lane/Major Mvmt	NBLn1	WBL	WBT
Capacity (veh/h)	387	-	-
HCM Lane V/C Ratio	0.236	-	-
HCM Control Delay (s)	17.2	-	-
HCM Lane LOS	C	-	-
HCM 95th %tile Q(veh)	0.9	-	-

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations			↵ ↑↑↑	↵		
Traffic Vol, veh/h	0	0	54	1703	50	0
Future Vol, veh/h	0	0	54	1703	50	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	57	1793	53	0

Major/Minor	Major2	Minor1		
Conflicting Flow All	0	0	831	-
Stage 1	-	-	0	-
Stage 2	-	-	831	-
Critical Hdwy	5.34	-	5.74	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	6.04	-
Follow-up Hdwy	3.12	-	3.82	-
Pot Cap-1 Maneuver	-	-	377	0
Stage 1	-	-	-	0
Stage 2	-	-	352	0
Platoon blocked, %			-	
Mov Cap-1 Maneuver	-	-	377	-
Mov Cap-2 Maneuver	-	-	377	-
Stage 1	-	-	-	-
Stage 2	-	-	352	-

Approach	WB	NB
HCM Control Delay, s		16.1
HCM LOS		C

Minor Lane/Major Mvmt	NBLn1	WBL	WBT
Capacity (veh/h)	377	-	-
HCM Lane V/C Ratio	0.14	-	-
HCM Control Delay (s)	16.1	-	-
HCM Lane LOS	C	-	-
HCM 95th %tile Q(veh)	0.5	-	-

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations			↵ ↑↑↑	↵		
Traffic Vol, veh/h	0	0	83	1069	54	0
Future Vol, veh/h	0	0	83	1069	54	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	89	1149	58	0

Major/Minor	Major2	Minor1		
Conflicting Flow All	0	0	638	-
Stage 1	-	-	0	-
Stage 2	-	-	638	-
Critical Hdwy	5.34	-	5.74	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	6.04	-
Follow-up Hdwy	3.12	-	3.82	-
Pot Cap-1 Maneuver	-	-	469	0
Stage 1	-	-	-	0
Stage 2	-	-	445	0
Platoon blocked, %			-	
Mov Cap-1 Maneuver	-	-	469	-
Mov Cap-2 Maneuver	-	-	469	-
Stage 1	-	-	-	-
Stage 2	-	-	445	-

Approach	WB	NB
HCM Control Delay, s		13.8
HCM LOS		B

Minor Lane/Major Mvmt	NBLn1	WBL	WBT
Capacity (veh/h)	469	-	-
HCM Lane V/C Ratio	0.124	-	-
HCM Control Delay (s)	13.8	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.4	-	-

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations			↵ ↑↑↑	↵		
Traffic Vol, veh/h	0	0	62	2696	59	0
Future Vol, veh/h	0	0	62	2696	59	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	65	2838	62	0

Major/Minor	Major2	Minor1
Conflicting Flow All	0	0 1265
Stage 1	-	- 0
Stage 2	-	- 1265
Critical Hdwy	5.34	- 5.74
Critical Hdwy Stg 1	-	- -
Critical Hdwy Stg 2	-	- 6.04
Follow-up Hdwy	3.12	- 3.82
Pot Cap-1 Maneuver	-	- 228 0
Stage 1	-	- - 0
Stage 2	-	- 205 0
Platoon blocked, %		-
Mov Cap-1 Maneuver	-	- 228 -
Mov Cap-2 Maneuver	-	- 228 -
Stage 1	-	- - -
Stage 2	-	- 205 -

Approach	WB	NB
HCM Control Delay, s		26.6
HCM LOS		D

Minor Lane/Major Mvmt	NBLn1	WBL	WBT
Capacity (veh/h)	228	-	-
HCM Lane V/C Ratio	0.272	-	-
HCM Control Delay (s)	26.6	-	-
HCM Lane LOS	D	-	-
HCM 95th %tile Q(veh)	1.1	-	-

Intersection						
Int Delay, s/veh	0.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations			↵ ↑↑↑	↵		
Traffic Vol, veh/h	0	0	85	1695	80	0
Future Vol, veh/h	0	0	85	1695	80	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	91	1823	86	0

Major/Minor	Major2	Minor1		
Conflicting Flow All	0	0	911	-
Stage 1	-	-	0	-
Stage 2	-	-	911	-
Critical Hdwy	5.34	-	5.74	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	6.04	-
Follow-up Hdwy	3.12	-	3.82	-
Pot Cap-1 Maneuver	-	-	344	0
Stage 1	-	-	-	0
Stage 2	-	-	319	0
Platoon blocked, %			-	
Mov Cap-1 Maneuver	-	-	344	-
Mov Cap-2 Maneuver	-	-	344	-
Stage 1	-	-	-	-
Stage 2	-	-	319	-

Approach	WB	NB
HCM Control Delay, s		18.9
HCM LOS		C

Minor Lane/Major Mvmt	NBLn1	WBL	WBT
Capacity (veh/h)	344	-	-
HCM Lane V/C Ratio	0.25	-	-
HCM Control Delay (s)	18.9	-	-
HCM Lane LOS	C	-	-
HCM 95th %tile Q(veh)	1	-	-

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	0	1	10	2	0	13
Future Vol, veh/h	0	1	10	2	0	13
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	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1	11	2	0	14

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	26	12	0	0	13
Stage 1	12	-	-	-	-
Stage 2	14	-	-	-	-
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	1069	-	-	1606
Stage 1	1011	-	-	-	-
Stage 2	1009	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	989	1069	-	-	1606
Mov Cap-2 Maneuver	989	-	-	-	-
Stage 1	1011	-	-	-	-
Stage 2	1009	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1069	1606
HCM Lane V/C Ratio	-	-	0.001	-
HCM Control Delay (s)	-	-	8.4	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0

Intersection						
Int Delay, s/veh	0.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	0	3	10	3	0	16
Future Vol, veh/h	0	3	10	3	0	16
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	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	3	11	3	0	17

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	30	13	0	0	14	0
Stage 1	13	-	-	-	-	-
Stage 2	17	-	-	-	-	-
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	984	1067	-	-	1604	-
Stage 1	1010	-	-	-	-	-
Stage 2	1006	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	984	1067	-	-	1604	-
Mov Cap-2 Maneuver	984	-	-	-	-	-
Stage 1	1010	-	-	-	-	-
Stage 2	1006	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1067	1604
HCM Lane V/C Ratio	-	-	0.003	-
HCM Control Delay (s)	-	-	8.4	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	0	5	205	5	0	135
Future Vol, veh/h	0	5	205	5	0	135
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	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	5	216	5	0	142

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	361	219	0	0	221	0
Stage 1	219	-	-	-	-	-
Stage 2	142	-	-	-	-	-
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	715	919	-	-	1380	-
Stage 1	869	-	-	-	-	-
Stage 2	915	-	-	-	-	-
Platoon blocked, %	1	1	-	-	1	-
Mov Cap-1 Maneuver	715	919	-	-	1380	-
Mov Cap-2 Maneuver	715	-	-	-	-	-
Stage 1	869	-	-	-	-	-
Stage 2	915	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	919	1380
HCM Lane V/C Ratio	-	-	0.006	-
HCM Control Delay (s)	-	-	8.9	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	5	295	5	0	195
Future Vol, veh/h	0	5	295	5	0	195
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	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	5	317	5	0	210

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	530	320	0	0	322
Stage 1	320	-	-	-	-
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	575	842	-	-	1269
Stage 1	799	-	-	-	-
Stage 2	879	-	-	-	-
Platoon blocked, %	1	1	-	-	1
Mov Cap-1 Maneuver	575	842	-	-	1269
Mov Cap-2 Maneuver	575	-	-	-	-
Stage 1	799	-	-	-	-
Stage 2	879	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.3	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	842	1269
HCM Lane V/C Ratio	-	-	0.006	-
HCM Control Delay (s)	-	-	9.3	0
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0

HCM 6th TWSC
8: Rhapsody Road & East Access

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Intersection						
Int Delay, s/veh	3.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	6	34	5	0	0	62
Future Vol, veh/h	6	34	5	0	0	62
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	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	36	5	0	0	65

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	43	33	65	0	-	0
Stage 1	33	-	-	-	-	-
Stage 2	10	-	-	-	-	-
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	968	1041	1537	-	-	-
Stage 1	989	-	-	-	-	-
Stage 2	1013	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	965	1041	1537	-	-	-
Mov Cap-2 Maneuver	894	-	-	-	-	-
Stage 1	986	-	-	-	-	-
Stage 2	1013	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.7	7.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1537	-	1016	-	-
HCM Lane V/C Ratio	0.003	-	0.041	-	-
HCM Control Delay (s)	7.3	-	8.7	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection						
Int Delay, s/veh	5.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	16	94	9	0	0	91
Future Vol, veh/h	16	94	9	0	0	91
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	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	101	10	0	0	98

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	69	49	98	0	-	0
Stage 1	49	-	-	-	-	-
Stage 2	20	-	-	-	-	-
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	936	1020	1495	-	-	-
Stage 1	973	-	-	-	-	-
Stage 2	1003	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	929	1020	1495	-	-	-
Mov Cap-2 Maneuver	870	-	-	-	-	-
Stage 1	966	-	-	-	-	-
Stage 2	1003	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.1	7.4	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1495	-	995	-	-
HCM Lane V/C Ratio	0.006	-	0.119	-	-
HCM Control Delay (s)	7.4	-	9.1	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.4	-	-

HCM 6th TWSC
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Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y		Y	↑	↑	
Traffic Vol, veh/h	15	25	10	140	95	60
Future Vol, veh/h	15	25	10	140	95	60
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	26	11	147	100	63

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	301	132	163	0	0
Stage 1	132	-	-	-	-
Stage 2	169	-	-	-	-
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	765	948	1425	-	-
Stage 1	911	-	-	-	-
Stage 2	904	-	-	-	-
Platoon blocked, %	1	1	1	-	-
Mov Cap-1 Maneuver	759	948	1425	-	-
Mov Cap-2 Maneuver	759	-	-	-	-
Stage 1	903	-	-	-	-
Stage 2	904	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.4	0.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1425	-	867	-	-
HCM Lane V/C Ratio	0.007	-	0.049	-	-
HCM Control Delay (s)	7.5	-	9.4	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

HCM 6th TWSC
8: Rhapsody Road & East Access

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Intersection						
Int Delay, s/veh	2.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	35	80	20	185	135	85
Future Vol, veh/h	35	80	20	185	135	85
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	38	86	22	199	145	91

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	434	191	236	0	-	0
Stage 1	191	-	-	-	-	-
Stage 2	243	-	-	-	-	-
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	641	900	1342	-	-	-
Stage 1	867	-	-	-	-	-
Stage 2	845	-	-	-	-	-
Platoon blocked, %	1	1	1	-	-	-
Mov Cap-1 Maneuver	630	900	1342	-	-	-
Mov Cap-2 Maneuver	675	-	-	-	-	-
Stage 1	853	-	-	-	-	-
Stage 2	845	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.2	0.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1342	-	817	-	-
HCM Lane V/C Ratio	0.016	-	0.151	-	-
HCM Control Delay (s)	7.7	-	10.2	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.5	-	-

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↑↑↑			↘	
Traffic Vol, veh/h	63	773	0	0	29	0
Future Vol, veh/h	63	773	0	0	29	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	-
Veh in Median Storage, #	-	108	183	552	-	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	66	814	0	0	31	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	0	0	458	-
Stage 1	-	-	0	-
Stage 2	-	-	458	-
Critical Hdwy	5.34	-	5.74	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	6.04	-
Follow-up Hdwy	3.12	-	3.82	-
Pot Cap-1 Maneuver	-	-	*787	0
Stage 1	-	-	-	0
Stage 2	-	-	*787	0
Platoon blocked, %	-	-	1	-
Mov Cap-1 Maneuver	-	-	*787	-
Mov Cap-2 Maneuver	-	-	*787	-
Stage 1	-	-	-	-
Stage 2	-	-	*787	-

Approach	EB	SB
HCM Control Delay, s		9.8
HCM LOS		A

Minor Lane/Major Mvmt	EBL	EBT	SBLn1
Capacity (veh/h)	-	-	787
HCM Lane V/C Ratio	-	-	0.039
HCM Control Delay (s)	-	-	9.8
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	0.1

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↵	↑↑↑			↵	
Traffic Vol, veh/h	146	1849	0	0	91	0
Future Vol, veh/h	146	1849	0	0	91	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	-
Veh in Median Storage, #	-	108	183	552	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	157	1988	0	0	98	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	0	0	1109	-
Stage 1	-	-	0	-
Stage 2	-	-	1109	-
Critical Hdwy	5.34	-	5.74	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	6.04	-
Follow-up Hdwy	3.12	-	3.82	-
Pot Cap-1 Maneuver	-	-	*521	0
Stage 1	-	-	-	0
Stage 2	-	-	*521	0
Platoon blocked, %	-	-	1	-
Mov Cap-1 Maneuver	-	-	*521	-
Mov Cap-2 Maneuver	-	-	*521	-
Stage 1	-	-	-	-
Stage 2	-	-	*521	-

Approach	EB	SB
HCM Control Delay, s		13.5
HCM LOS		B

Minor Lane/Major Mvmt	EBL	EBT	SBLn1
Capacity (veh/h)	-	-	521
HCM Lane V/C Ratio	-	-	0.188
HCM Control Delay (s)	-	-	13.5
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.7

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↑↑↑			↘	
Traffic Vol, veh/h	55	1240	0	0	25	0
Future Vol, veh/h	55	1240	0	0	25	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	-
Veh in Median Storage, #	-	108	183	552	-	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	58	1305	0	0	26	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	0	0	638	-
Stage 1	-	-	0	-
Stage 2	-	-	638	-
Critical Hdwy	5.34	-	5.74	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	6.04	-
Follow-up Hdwy	3.12	-	3.82	-
Pot Cap-1 Maneuver	-	-	*669	0
Stage 1	-	-	-	0
Stage 2	-	-	*669	0
Platoon blocked, %	-	-	1	-
Mov Cap-1 Maneuver	-	-	*669	-
Mov Cap-2 Maneuver	-	-	*669	-
Stage 1	-	-	-	-
Stage 2	-	-	*669	-

Approach	EB	SB
HCM Control Delay, s		10.6
HCM LOS		B

Minor Lane/Major Mvmt	EBL	EBT	SBLn1
Capacity (veh/h)	-	-	669
HCM Lane V/C Ratio	-	-	0.039
HCM Control Delay (s)	-	-	10.6
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.1

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↑↑↑			↘	
Traffic Vol, veh/h	135	2735	0	0	80	0
Future Vol, veh/h	135	2735	0	0	80	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	-
Veh in Median Storage, #	-	108	183	552	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	145	2941	0	0	86	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	0	0	1466	-
Stage 1	-	-	0	-
Stage 2	-	-	1466	-
Critical Hdwy	5.34	-	5.74	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	6.04	-
Follow-up Hdwy	3.12	-	3.82	-
Pot Cap-1 Maneuver	-	-	*284	0
Stage 1	-	-	-	0
Stage 2	-	-	*284	0
Platoon blocked, %	-	-	1	-
Mov Cap-1 Maneuver	-	-	*284	-
Mov Cap-2 Maneuver	-	-	*284	-
Stage 1	-	-	-	-
Stage 2	-	-	*284	-

Approach	EB	SB
HCM Control Delay, s		23.1
HCM LOS		C

Minor Lane/Major Mvmt	EBL	EBT	SBLn1
Capacity (veh/h)	-	-	284
HCM Lane V/C Ratio	-	-	0.303
HCM Control Delay (s)	-	-	23.1
HCM Lane LOS	-	-	C
HCM 95th %tile Q(veh)	-	-	1.2

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↑↑↑			↘	
Traffic Vol, veh/h	33	771	0	0	36	0
Future Vol, veh/h	33	771	0	0	36	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	-
Veh in Median Storage, #	-	10830	43840	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	35	812	0	0	38	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	0	0	395	-
Stage 1	-	-	0	-
Stage 2	-	-	395	-
Critical Hdwy	5.34	-	5.74	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	6.04	-
Follow-up Hdwy	3.12	-	3.82	-
Pot Cap-1 Maneuver	-	-	*787	0
Stage 1	-	-	-	0
Stage 2	-	-	*787	0
Platoon blocked, %	-	-	1	-
Mov Cap-1 Maneuver	-	-	*787	-
Mov Cap-2 Maneuver	-	-	*787	-
Stage 1	-	-	-	-
Stage 2	-	-	*787	-

Approach	EB	SB
HCM Control Delay, s		9.8
HCM LOS		A

Minor Lane/Major Mvmt	EBL	EBT	SBLn1
Capacity (veh/h)	-	-	787
HCM Lane V/C Ratio	-	-	0.048
HCM Control Delay (s)	-	-	9.8
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	0.2

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 6th TWSC
 10: Ridgeway Pkwy EB & SE Access

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Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↑↑↑			↘	
Traffic Vol, veh/h	80	1858	0	0	91	0
Future Vol, veh/h	80	1858	0	0	91	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	-
Veh in Median Storage, #	-	10830	43840	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	86	1998	0	0	98	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	0	0	971	-
Stage 1	-	-	0	-
Stage 2	-	-	971	-
Critical Hdwy	5.34	-	5.74	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	6.04	-
Follow-up Hdwy	3.12	-	3.82	-
Pot Cap-1 Maneuver	-	-	*521	0
Stage 1	-	-	-	0
Stage 2	-	-	*521	0
Platoon blocked, %	-	-	1	-
Mov Cap-1 Maneuver	-	-	*521	-
Mov Cap-2 Maneuver	-	-	*521	-
Stage 1	-	-	-	-
Stage 2	-	-	*521	-

Approach	EB	SB
HCM Control Delay, s		13.5
HCM LOS		B

Minor Lane/Major Mvmt	EBL	EBT	SBLn1
Capacity (veh/h)	-	-	521
HCM Lane V/C Ratio	-	-	0.188
HCM Control Delay (s)	-	-	13.5
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.7

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↑↑↑			↘	
Traffic Vol, veh/h	45	1220	0	0	40	0
Future Vol, veh/h	45	1220	0	0	40	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	-
Veh in Median Storage, #	-	10830	43840	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	47	1284	0	0	42	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	0	0	608	-
Stage 1	-	-	0	-
Stage 2	-	-	608	-
Critical Hdwy	5.34	-	5.74	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	6.04	-
Follow-up Hdwy	3.12	-	3.82	-
Pot Cap-1 Maneuver	-	-	*669	0
Stage 1	-	-	-	0
Stage 2	-	-	*669	0
Platoon blocked, %	-	-	1	-
Mov Cap-1 Maneuver	-	-	*669	-
Mov Cap-2 Maneuver	-	-	*669	-
Stage 1	-	-	-	-
Stage 2	-	-	*669	-

Approach	EB	SB
HCM Control Delay, s		10.7
HCM LOS		B

Minor Lane/Major Mvmt	EBL	EBT	SBLn1
Capacity (veh/h)	-	-	669
HCM Lane V/C Ratio	-	-	0.063
HCM Control Delay (s)	-	-	10.7
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.2

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↑↑↑			↘	
Traffic Vol, veh/h	100	2715	0	0	100	0
Future Vol, veh/h	100	2715	0	0	100	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	-
Veh in Median Storage, #	-	108	304	384	-	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	108	2919	0	0	108	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	0	0	1384	-
Stage 1	-	-	0	-
Stage 2	-	-	1384	-
Critical Hdwy	5.34	-	5.74	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	6.04	-
Follow-up Hdwy	3.12	-	3.82	-
Pot Cap-1 Maneuver	-	-	*284	0
Stage 1	-	-	-	0
Stage 2	-	-	*284	0
Platoon blocked, %	-	-	1	-
Mov Cap-1 Maneuver	-	-	*284	-
Mov Cap-2 Maneuver	-	-	*284	-
Stage 1	-	-	-	-
Stage 2	-	-	*284	-

Approach	EB	SB
HCM Control Delay, s		25.2
HCM LOS		D

Minor Lane/Major Mvmt	EBL	EBT	SBLn1
Capacity (veh/h)	-	-	284
HCM Lane V/C Ratio	-	-	0.379
HCM Control Delay (s)	-	-	25.2
HCM Lane LOS	-	-	D
HCM 95th %tile Q(veh)	-	-	1.7

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

APPENDIX E

Queue Analysis Worksheets

1: High Note Ave & Ridgeway Pkwy WB



Lane Group	WBL	WBT	NBL
Lane Group Flow (vph)	14	1873	12
v/c Ratio	0.01	0.53	0.04
Control Delay	4.1	5.3	23.2
Queue Delay	0.0	0.0	0.0
Total Delay	4.1	5.3	23.2
Queue Length 50th (ft)	2	97	5
Queue Length 95th (ft)	m4	109	14
Internal Link Dist (ft)		344	
Turn Bay Length (ft)	150		150
Base Capacity (vph)	1229	3531	289
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.01	0.53	0.04

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues

2025 Total PM

1: High Note Ave & Ridgeway Pkwy WB

09/01/2022



Lane Group	WBL	WBT	NBL
Lane Group Flow (vph)	17	1280	14
v/c Ratio	0.01	0.37	0.04
Control Delay	4.6	5.4	42.2
Queue Delay	0.0	0.0	0.0
Total Delay	4.6	5.4	42.2
Queue Length 50th (ft)	2	71	6
Queue Length 95th (ft)	m7	83	25
Internal Link Dist (ft)	344		
Turn Bay Length (ft)	150		150
Base Capacity (vph)	1189	3418	321
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.01	0.37	0.04

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

1: High Note Ave & Ridgeway Pkwy WB



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	68	2853	74	158	63	211
v/c Ratio	0.06	0.86	0.07	0.68	0.14	0.50
Control Delay	5.7	9.9	1.7	34.4	17.7	33.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.7	9.9	1.7	34.4	17.7	33.3
Queue Length 50th (ft)	10	202	0	39	15	102
Queue Length 95th (ft)	m16	258	m5	#160	30	171
Internal Link Dist (ft)		344			300	217
Turn Bay Length (ft)	150		275	150		
Base Capacity (vph)	1150	3305	1054	233	465	426
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.86	0.07	0.68	0.14	0.50

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

2045 Total PM

1: High Note Ave & Ridgeway Pkwy WB

09/01/2022



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	113	1742	118	172	151	183
v/c Ratio	0.11	0.61	0.13	0.46	0.24	0.30
Control Delay	8.2	10.3	1.4	41.9	36.1	21.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.2	10.3	1.4	41.9	36.1	21.6
Queue Length 50th (ft)	23	138	0	88	74	69
Queue Length 95th (ft)	40	158	11	m143	m121	123
Internal Link Dist (ft)		344			300	217
Turn Bay Length (ft)	150		275	150		
Base Capacity (vph)	993	2853	940	375	631	601
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.61	0.13	0.46	0.24	0.30

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
 2: Rhapsody Road & Ridgegate Pkwy WB

2025 Total AM
 09/01/2022



Lane Group	WBL	WBT	NBL
Lane Group Flow (vph)	65	1842	6
v/c Ratio	0.05	0.52	0.02
Control Delay	4.5	7.2	29.0
Queue Delay	0.0	0.0	0.0
Total Delay	4.5	7.2	29.0
Queue Length 50th (ft)	10	158	3
Queue Length 95th (ft)	22	190	13
Internal Link Dist (ft)		932	
Turn Bay Length (ft)	150		150
Base Capacity (vph)	1229	3531	289
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.05	0.52	0.02
Intersection Summary			

Queues
 2: Rhapsody Road & Ridgegate Pkwy WB

2025 Total PM
 09/01/2022



Lane Group	WBL	WBT	NBL
Lane Group Flow (vph)	98	1222	17
v/c Ratio	0.08	0.36	0.05
Control Delay	5.3	6.7	27.9
Queue Delay	0.0	0.0	0.0
Total Delay	5.3	6.7	27.9
Queue Length 50th (ft)	17	96	8
Queue Length 95th (ft)	33	119	25
Internal Link Dist (ft)		932	
Turn Bay Length (ft)	150		150
Base Capacity (vph)	1189	3418	321
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.08	0.36	0.05
Intersection Summary			

Queues

2045 Total AM

2: Rhapsody Road & Ridgeway Pkwy WB

08/31/2022



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	89	2747	68	89	74	211
v/c Ratio	0.07	0.79	0.06	0.46	0.18	0.56
Control Delay	5.0	12.2	1.8	26.7	19.0	37.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.0	12.2	1.8	26.7	19.0	37.4
Queue Length 50th (ft)	15	345	1	26	21	105
Queue Length 95th (ft)	29	410	13	47	39	178
Internal Link Dist (ft)		932			261	323
Turn Bay Length (ft)	150		150	150		
Base Capacity (vph)	1205	3463	1097	192	407	375
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.79	0.06	0.46	0.18	0.56

Intersection Summary

Queues

2045 Total PM

2: Rhapsody Road & Ridgeway Pkwy WB

08/31/2022



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	140	1753	108	70	167	188
v/c Ratio	0.13	0.55	0.10	0.25	0.33	0.38
Control Delay	7.1	10.3	1.6	35.0	33.4	25.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.1	10.3	1.6	35.0	33.4	25.6
Queue Length 50th (ft)	29	187	0	30	73	74
Queue Length 95th (ft)	52	224	17	71	136	135
Internal Link Dist (ft)		932			261	323
Turn Bay Length (ft)	150		150	150		
Base Capacity (vph)	1111	3192	1033	282	507	492
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.55	0.10	0.25	0.33	0.38

Intersection Summary

Queues

2025 Total AM

3: Ridgeway Pkwy EB & High Note Ave

09/01/2022



Lane Group	EBL	EBT	EBR	NBT	SBT
Lane Group Flow (vph)	2	840	5	51	14
v/c Ratio	0.00	0.27	0.01	0.10	0.03
Control Delay	7.0	8.7	0.8	10.5	15.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	7.0	8.7	0.8	10.5	15.0
Queue Length 50th (ft)	0	75	0	4	6
Queue Length 95th (ft)	3	96	1	30	19
Internal Link Dist (ft)		911		236	372
Turn Bay Length (ft)	150		200		
Base Capacity (vph)	1071	3079	965	518	548
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.00	0.27	0.01	0.10	0.03

Intersection Summary

Queues

2025 Total PM

3: Ridgeway Pkwy EB & High Note Ave

09/01/2022



Lane Group	EBL	EBT	EBR	NBT	SBT
Lane Group Flow (vph)	3	2098	5	58	17
v/c Ratio	0.00	0.60	0.00	0.16	0.04
Control Delay	4.7	8.6	0.6	23.5	22.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	4.7	8.6	0.6	23.5	22.6
Queue Length 50th (ft)	1	204	0	19	8
Queue Length 95th (ft)	3	244	1	51	28
Internal Link Dist (ft)		911		236	372
Turn Bay Length (ft)	150		200		
Base Capacity (vph)	1209	3474	1087	372	403
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.00	0.60	0.00	0.16	0.04

Intersection Summary

Queues

2045 Total AM

3: Ridgeway Pkwy EB & High Note Ave

08/31/2022



Lane Group	EBL	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	32	1189	111	310	53	89
v/c Ratio	0.04	0.47	0.13	0.42	0.15	0.12
Control Delay	12.0	15.8	2.9	18.4	25.8	24.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.0	15.8	2.9	18.4	25.8	24.2
Queue Length 50th (ft)	9	156	0	105	19	31
Queue Length 95th (ft)	24	193	26	174	m48	70
Internal Link Dist (ft)		869		217		372
Turn Bay Length (ft)	150		200		150	
Base Capacity (vph)	875	2514	838	740	353	755
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.47	0.13	0.42	0.15	0.12

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

3: Ridgeway Pkwy EB & High Note Ave

08/31/2022



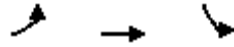
Lane Group	EBL	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	140	2882	199	296	91	118
v/c Ratio	0.12	0.86	0.18	0.70	0.61	0.27
Control Delay	5.9	15.4	1.2	41.2	41.2	22.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.9	15.4	1.2	41.2	41.2	22.2
Queue Length 50th (ft)	26	416	0	153	37	46
Queue Length 95th (ft)	47	495	21	#248	#108	81
Internal Link Dist (ft)		869		217		372
Turn Bay Length (ft)	150		200		150	
Base Capacity (vph)	1170	3361	1113	423	150	445
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.86	0.18	0.70	0.61	0.27

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

4: Ridgeway Pkwy EB & Rhapsody Road

09/01/2022



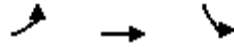
Lane Group	EBL	EBT	SBL
Lane Group Flow (vph)	5	846	36
v/c Ratio	0.00	0.27	0.09
Control Delay	6.0	6.4	23.8
Queue Delay	0.0	0.0	0.0
Total Delay	6.0	6.4	23.8
Queue Length 50th (ft)	1	46	15
Queue Length 95th (ft)	m3	58	38
Internal Link Dist (ft)		318	
Turn Bay Length (ft)	150		150
Base Capacity (vph)	1071	3079	415
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.00	0.27	0.09

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

4: Ridgeway Pkwy EB & Rhapsody Road

09/01/2022



Lane Group	EBL	EBT	SBL
Lane Group Flow (vph)	10	2086	101
v/c Ratio	0.01	0.62	0.30
Control Delay	4.8	6.7	31.0
Queue Delay	0.0	0.0	0.0
Total Delay	4.8	6.7	31.0
Queue Length 50th (ft)	2	124	47
Queue Length 95th (ft)	m3	138	92
Internal Link Dist (ft)		318	
Turn Bay Length (ft)	150		150
Base Capacity (vph)	1170	3361	336
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.01	0.62	0.30

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues

2045 Total AM

4: Ridgegate Pkwy EB & Rhapsody Road

08/31/2022



Lane Group	EBL	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	32	1226	68	194	47	79
v/c Ratio	0.03	0.42	0.07	0.32	0.13	0.13
Control Delay	5.7	6.6	0.7	20.6	32.0	31.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.7	6.6	0.7	20.6	32.0	31.1
Queue Length 50th (ft)	4	64	0	67	22	36
Queue Length 95th (ft)	m10	76	3	123	m48	m73
Internal Link Dist (ft)		318		204		346
Turn Bay Length (ft)	150		150		150	
Base Capacity (vph)	1012	2909	934	603	351	610
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.42	0.07	0.32	0.13	0.13

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues

2045 Total PM

4: Ridgegate Pkwy EB & Rhapsody Road

08/31/2022



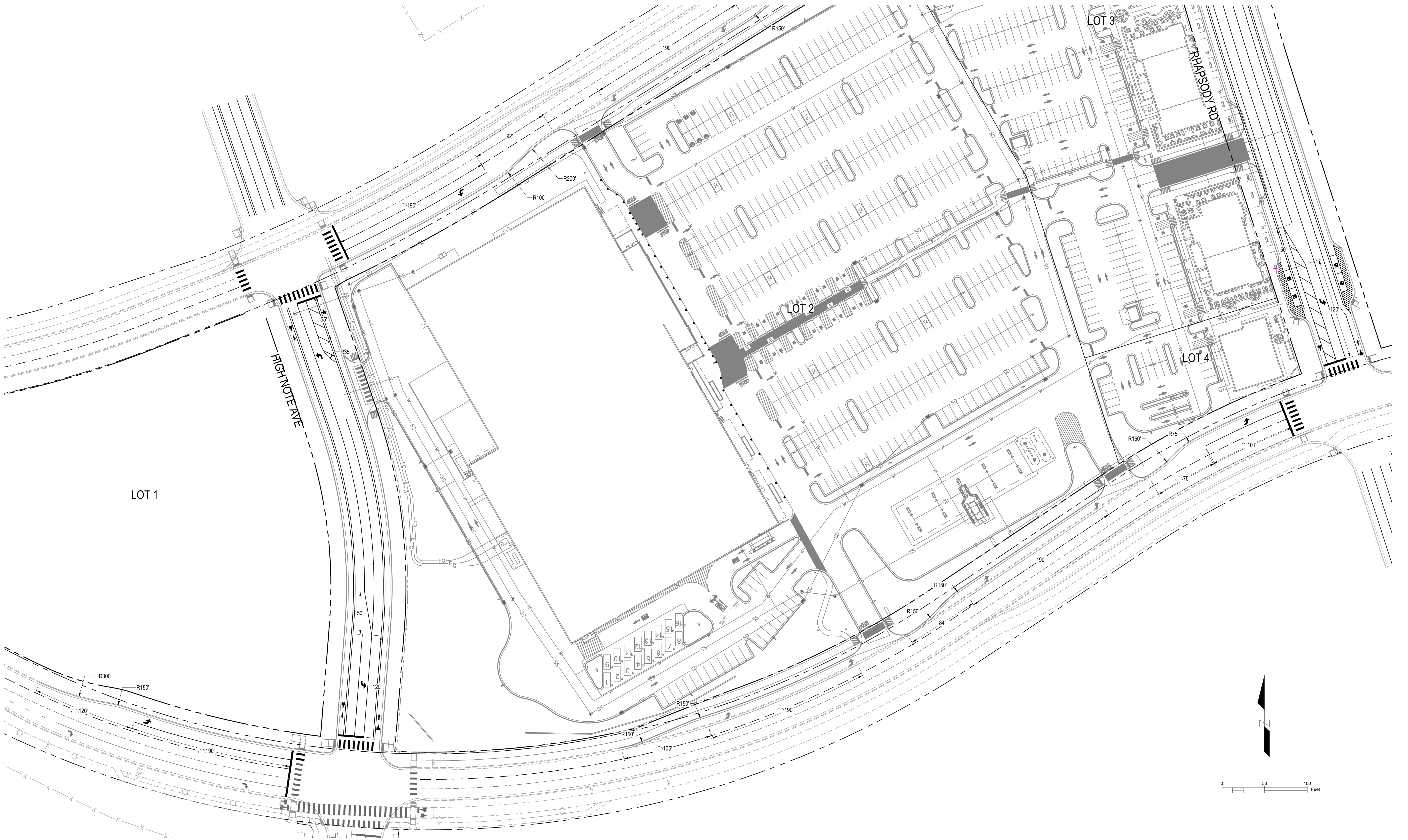
Lane Group	EBL	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	108	2763	156	183	108	124
v/c Ratio	0.09	0.81	0.14	0.46	0.48	0.30
Control Delay	5.2	7.8	1.7	33.7	38.3	31.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.2	7.8	1.7	33.7	38.3	31.1
Queue Length 50th (ft)	14	160	1	88	48	53
Queue Length 95th (ft)	m23	232	m12	153	101	105
Internal Link Dist (ft)		318		204		346
Turn Bay Length (ft)	150		150		150	
Base Capacity (vph)	1193	3429	1110	401	224	420
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.81	0.14	0.46	0.48	0.30

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

APPENDIX F

Conceptual Site Plan and Turn Lane Exhibit



LOT 1

LOT 2

LOT 3

LOT 4

HIGHNOTE AVE

RHAPSODY RD

0 50 100 Feet



LOT 3

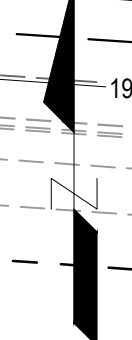
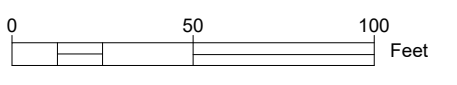
LOT 5

LOT 6

LOT 2

LOT 4

RHAPSODY RD





LOT 3

LOT 5

LOT 6

LOT 7

LOT 4

RIVERSSODY RD

0 50 100 Feet