Locust Avenue Industrial Building
Transportation Impact Analysis

City of Rialto

August 3, 2023

Prepared for:

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Keith Rutherfurd, PE

Table of Contents

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

Executive Summary

The proposed Locust Avenue Industrial Building (Project) is located on the east side of Locust Avenue south of Vineyard Avenue at 2271 Locust Avenue. The Project consists of a 191,000 square-foot warehouse building in the northern part of the City of Rialto. The Project is anticipated to be developed in 2024 in one phase. Access to the Project site would be provided by two driveways on Locust Avenue and two driveways on Vineyard Avenue. The existing and proposed zoning designation is Planned Industrial Zone.

The total trip generation for the site is 33 AM peak hour trips, 35 PM peak hour trips, and 328 daily trips based on the Institute of Transportation Engineers (ITE) Warehousing trip rates. However, due to the expected operation of the proposed land use, a portion of the driveway trips would be large trucks; therefore, the City has identified passenger car equivalent (PCE) factors to be applied to truck trips to account for the larger impact of trucks on traffic flow. Consequently, the Project would generate 55 AM peak hour PCE trips, 59 PM peak hour PCE trips, and 552 daily PCE trips for use in the roadway level of service (LOS) analysis.

Five study intersections were included in the roadway LOS analysis, and potential Project effects were evaluated under Existing plus Ambient Growth conditions representing the opening year of the Project. Under Existing plus Ambient Growth conditions, the study intersections would operate at acceptable LOS D or better, and the Project would have no adverse effects based on the City's level of service standards. The study intersections would operate at acceptable levels of service under opening year plus Project conditions and no off-site operational improvements are required.

Ten additional approved, proposed, or recently built development projects were identified in the general area. With the addition of cumulative project traffic, the study intersection of Alder Avenue and SR 210 Westbound would operate at unacceptable LOS E during the PM peak hour assuming the existing intersection lane geometrics. Construction of the SR 210 Alder Ave Interchange Improvements Project is estimated to begin July 2023 and be completed by January 2024. The interchange improvements project consists of additional turn lanes at the westbound and eastbound ramp intersections along Alder Avenue and would result in LOS B during the AM and PM peak hours. The Project's Development Impact Fees (DIF) would cover the Project's share of the cost of the interchange improvements.

Senate Bill 743 (SB 743) has established Vehicle Miles Traveled (VMT) as the metric for identifying California Environmental Quality Act (CEQA) transportation impacts. The City of Rialto has identified that projects generating less than 110 daily vehicle trips can be screened out from project-level VMT assessment. The Project generates 44 net new daily passenger vehicle trips; therefore, the Project can be screened out of CEQA VMT analysis, and a finding of no significant impact can be made.

On-site circulation was reviewed, and no issues were identified. Driveways, aisles, and parking spaces have been provided in accordance with applicable agency standards and are of sufficient size and

configuration to provide good on-site circulation and access to parking. The truck driveway to the east on Vineyard Avenue provides a 48-foot width which will accommodate a queue of three trucks side by side at the access gate while also allowing the egress of a truck vehicle. Truck turning movements in the loading dock area are also shown on the site plan together with required sight lines at driveways. Required sight lines will be maintained at project driveways.

1.0 INTRODUCTION

Stantec Consulting Services Inc. (Stantec) has performed a traffic impact analysis for the proposed Locust Avenue Industrial Building (Project). The Project consists of a 191,000 square-foot warehouse building located on the east side of Locust Avenue at 2271 Locust Avenue in the City of Rialto. This report summarizes the analysis of the Project consistent with the Traffic Impact Analysis (TIA) guidelines contained in the City's *Traffic Impact Analysis Report Guidelines and Requirements* (December 2013). The purpose and objective of this TIA is to evaluate potential operational impacts at local intersections and, if necessary, to identify potential off-site improvements to enhance operations consistent with the City's General Plan. The TIA contains information to be included in the Environmental Impact Report (EIR) being prepared for the Project.

1.1 PROJECT DESCRIPTION

The Project site is located southeast of the intersection of Locust Avenue and Vineyard Avenue, approximately 700 feet north of Casmalia Street. **Figure 1-1** illustrates the Project location and shows the study intersections. The Project is located within the Rialto Airport Specific Plan area. The Project would not change the current General Plan Land Use of Planned Industrial Development nor the current zoning designation of Planned Industrial Zone. The City Case Number is 2022-0060, and the EIR Number is 2022-0055. The Project site is not within another agency Sphere of Influence nor within one mile of a jurisdictional boundary.

The Project consists of a 191,000 square-foot industrial warehouse building situated on approximately 8.9 acres. The land use would be a standard warehouse category. The Project would provide two driveways on Locust Avenue and two driveways on Vineyard Avenue. The driveway on Vineyard Avenue at the eastern edge of the Project site would be the primary truck entrance for the Project. The site plan is illustrated in **Figure 1-2**.

Various existing uses on the site consist of trucking, towing, and construction services, and RV and boat storage. The Project site is bounded by industrial development on the north, south, and west sides with vacant land to the east. State Route 210 (SR 210) is located approximately one-quarter mile south of the site.

The Project would be developed in one phase and is anticipated to open in 2024. This analysis includes the following scenarios:

1. Existing Conditions
2. Existing Plus Ambient Growth
3. Existing Plus Ambient Growth Plus Project

A cumulative (Existing Plus Ambient Growth Plus Project Plus Cumulative Projects) analysis scenario is not applicable to this project because no cumulative development projects were identified by the City.

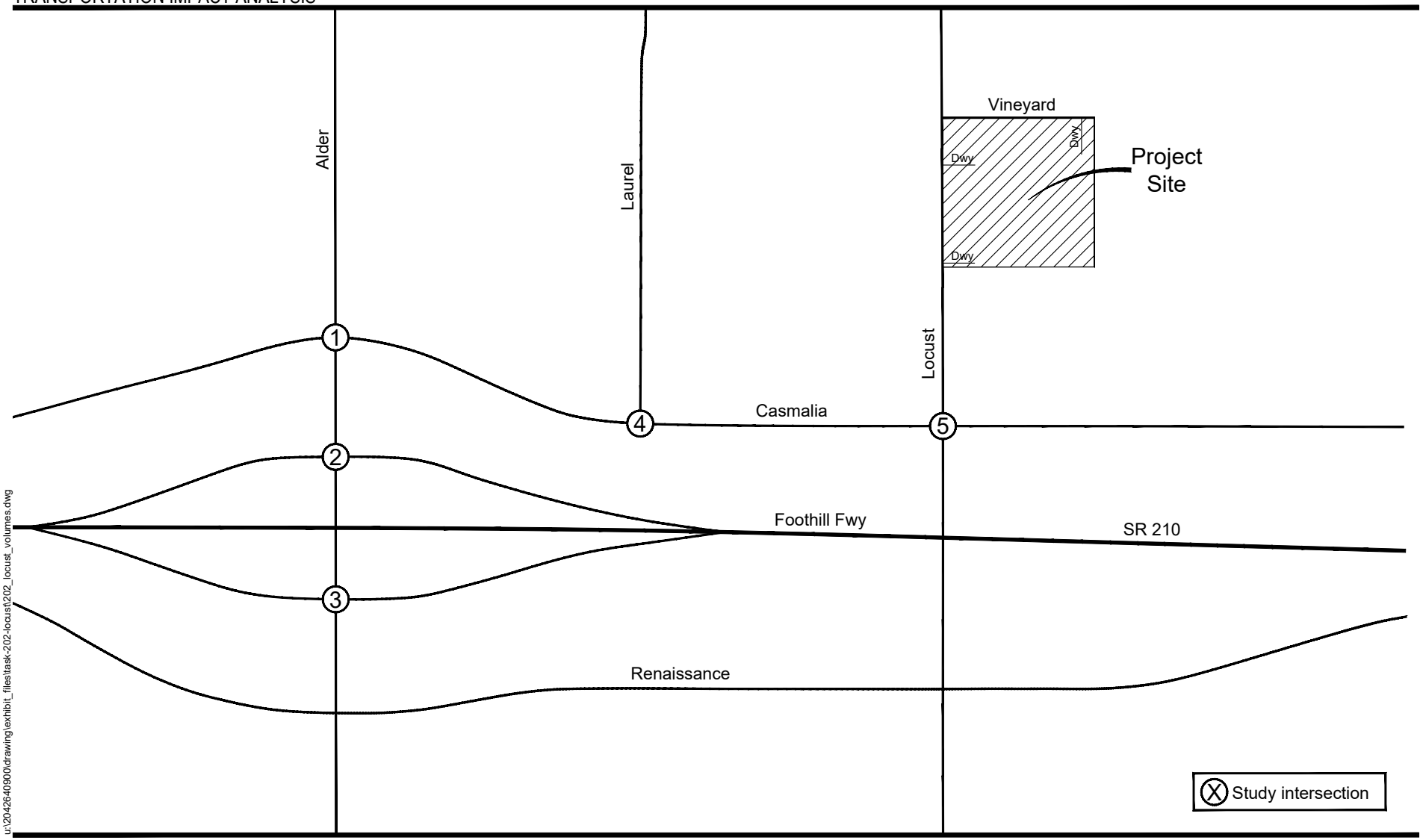

Figure 1-1
Project Location and Study Area

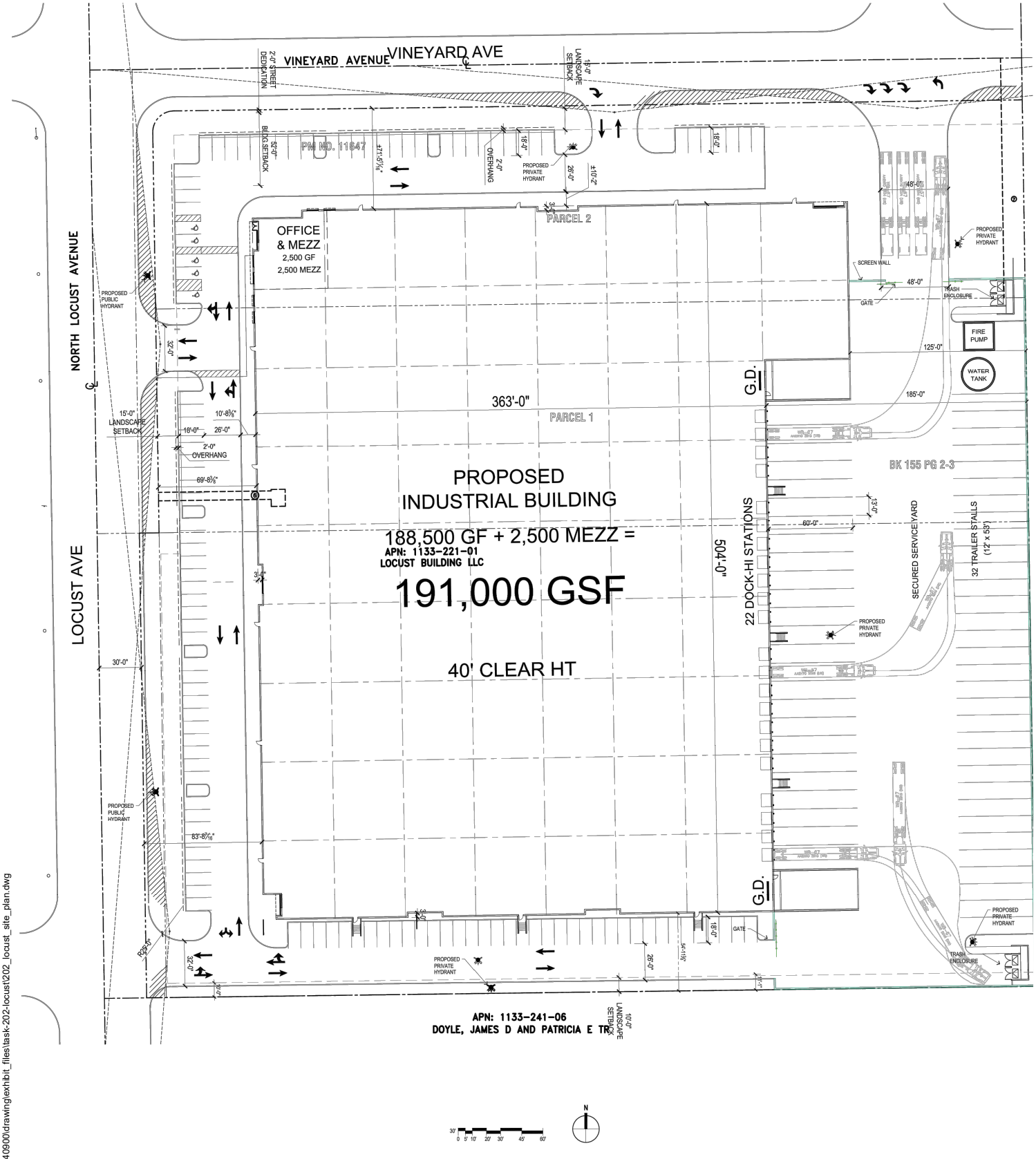

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Figure 1-2
Proposed Site Plan

2.0 AREA CONDITIONS

This Chapter identifies existing transportation conditions in the general study area. Existing traffic volumes are presented, and existing levels of service are summarized.

2.1 STUDY AREA

Based on the proposed warehouse land use, the majority of trips are expected to be oriented toward the SR 210 Freeway. Project traffic is anticipated to travel primarily on Locust Avenue, Casmalia Street, and SR 210. Therefore, the study area was defined to include intersections generally between the Project site and the SR 210 interchange at Alder Avenue. The study intersections include:

		Traffic Control	Jurisdiction
1.	Alder Avenue and Casmalia Street	Signal	Rialto
2.	Alder Avenue and SR 210 Westbound	Signal	Rialto/Caltrans
3.	Alder Avenue and SR 210 Eastbound	Signal	Rialto/Caltrans
4.	Laurel Avenue and Casmalia Street	Signal	Rialto
5.	Locust Avenue and Casmalia Street	Signal	Rialto

2.2 EXISTING TRAFFIC CONTROLS

Figure 2-1 shows the existing lane geometrics and traffic controls at the study intersections.

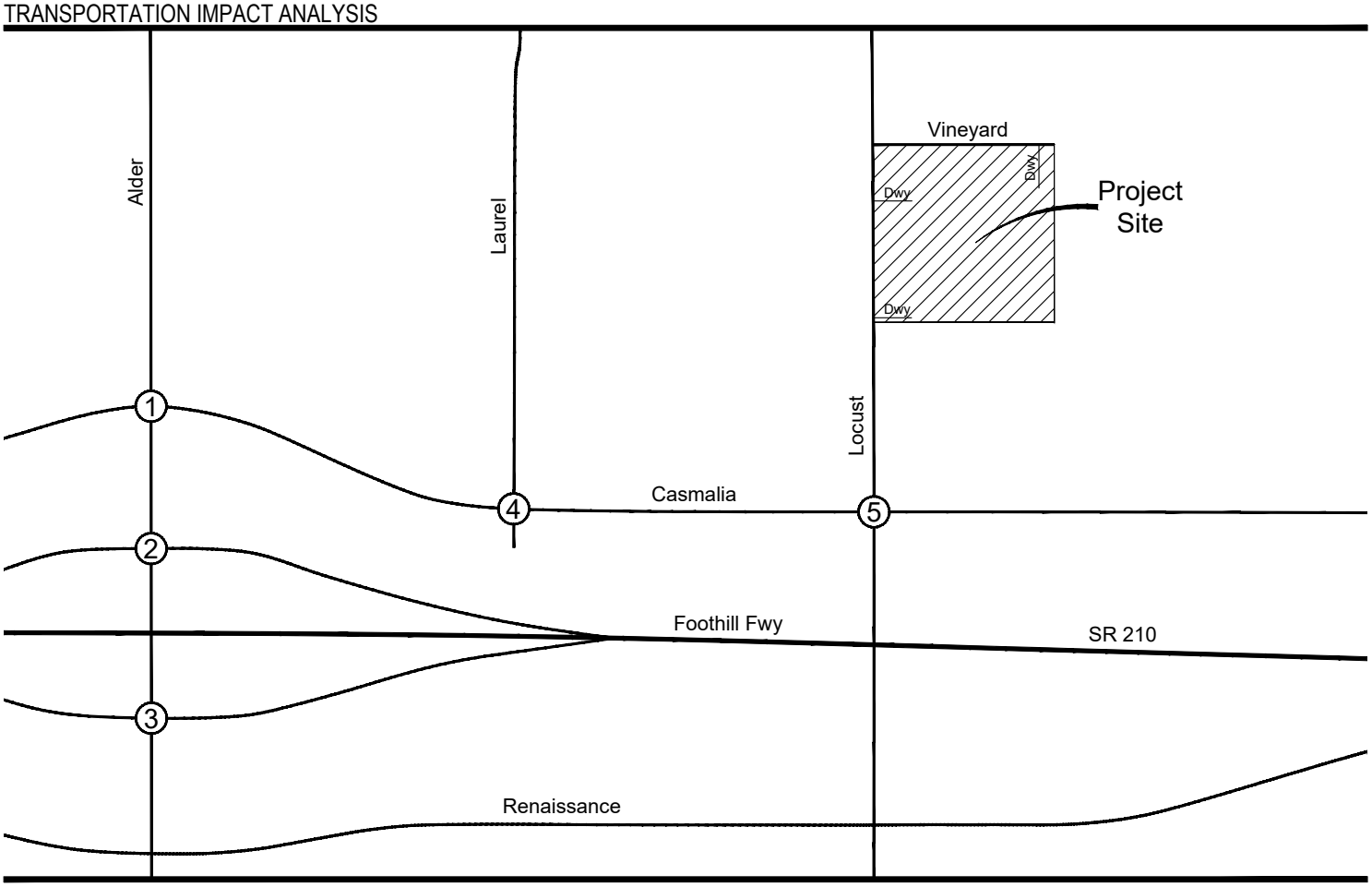
2.3 EXISTING VOLUMES

Peak hour intersection turning movement counts at the study intersections and 24-hour mid-block counts on Locust Avenue were collected in November 2022. Count data is included in **Appendix A**.

Figure 2-2 illustrates the existing traffic volumes in the study area.

2.4 EXISTING DELAY AND LEVEL OF SERVICE

Intersection and roadway analyses have been prepared consistent with the methodologies prescribed in the City's TIA guidelines. Methodology outlined in the Highway Capacity Manual, Sixth Edition (HCM 6) produces estimates of average vehicle delay as a function of intersection capacity and the volumes of traffic passing through the intersections, and is the methodology specified in the City's guidelines. From this a corresponding level of service (LOS) is defined. Traffic LOS is designated "A" through "F" with LOS A representing free flow conditions and LOS F representing severe traffic congestion. **Table 2-1** summarizes the ranges of vehicle delay that correspond to LOS A through LOS F for intersections.



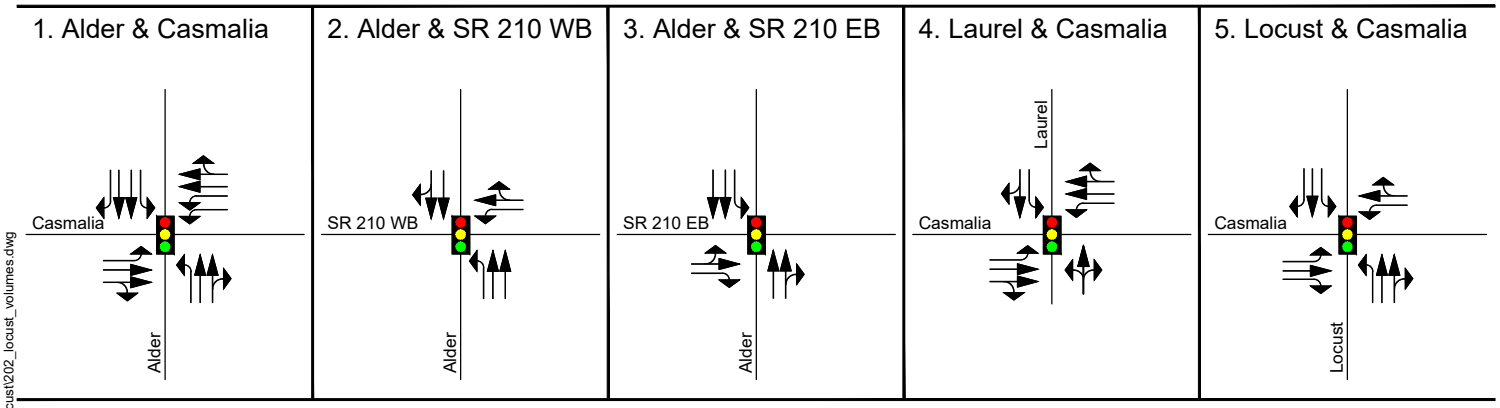


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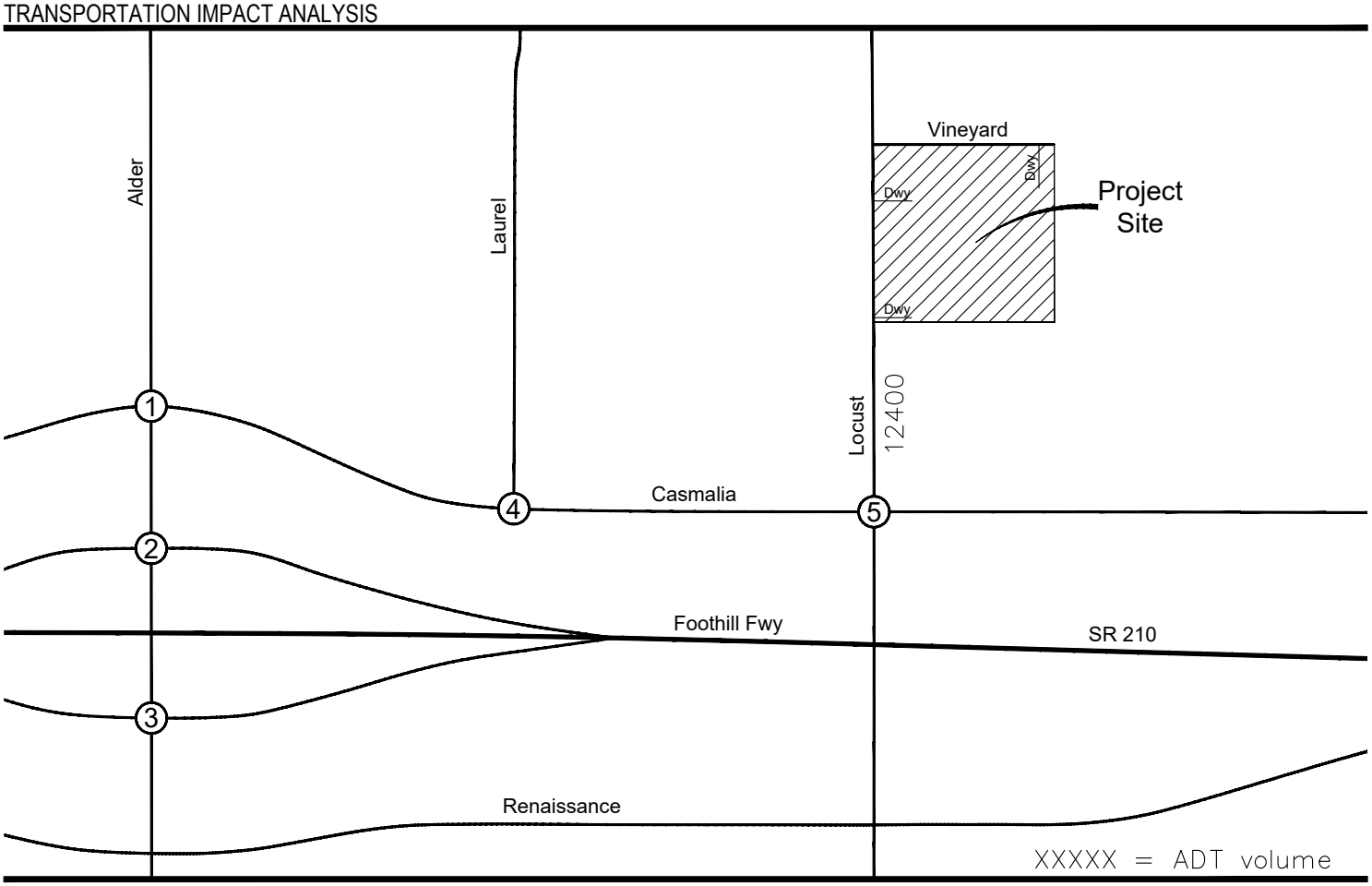
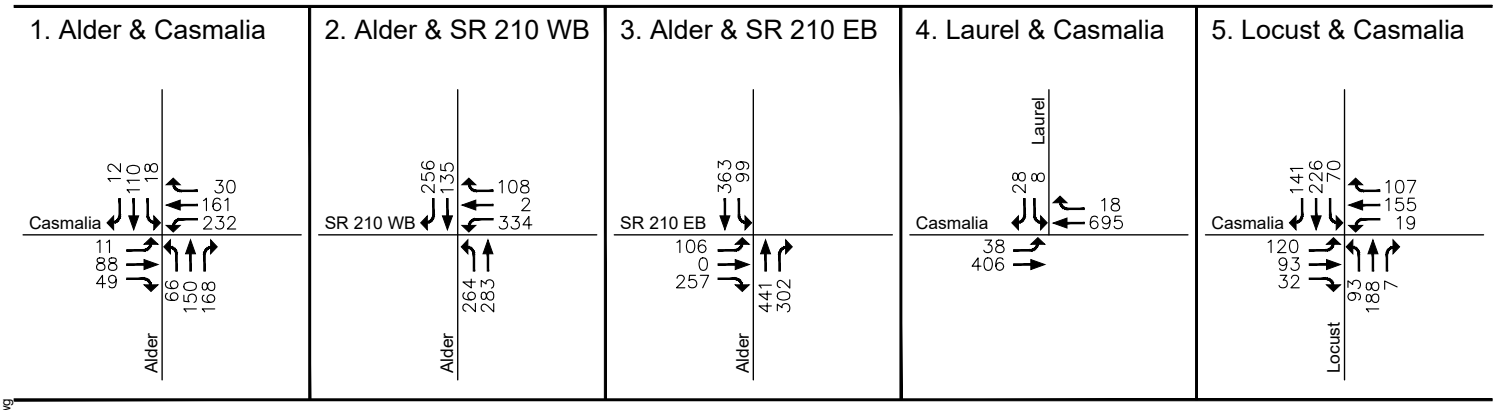
Figure 2-1
Study Intersections Existing Lane Geometrics and Traffic Controls



AM Peak Hour



PM Peak Hour

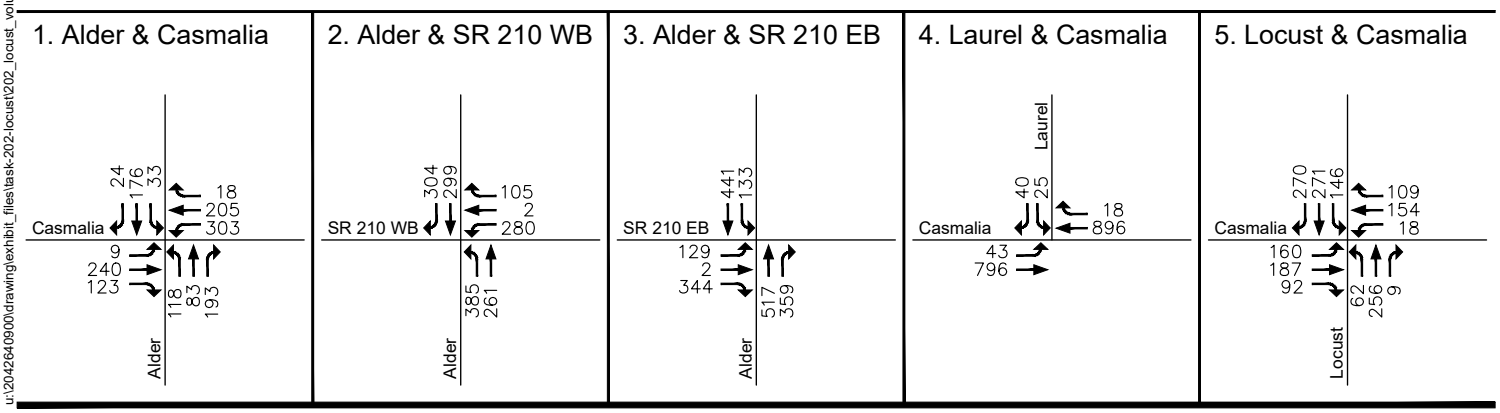


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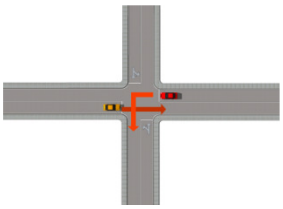
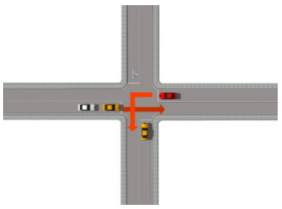
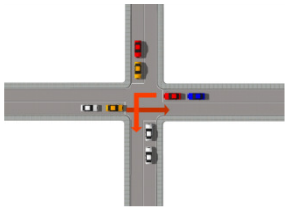
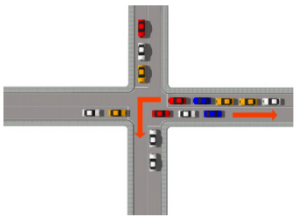
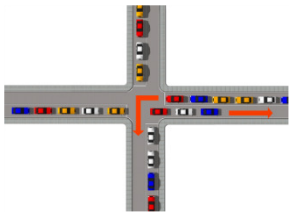
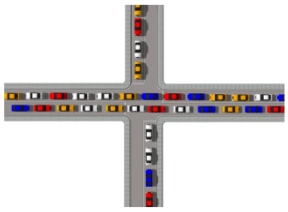
Figure 2-2
Existing Peak Hour Volumes

Table 2-1 Level of Service Descriptions for Signalized and Unsignalized Intersections

LOS	Traffic Flow Description		Signal Control Delay (sec/veh)	Stop Control Delay (sec/veh)
A		Minimal or no vehicle delay	≤ 10	≤ 10
B		Slight delay to vehicles	> 10 – 20	> 10 – 15
C		Moderate vehicle delays, traffic flow remains stable	> 20 – 35	> 15 – 25
D		More extensive delays at intersections	> 35 – 55	> 25 – 35
E		Long queues create lengthy delays	> 55 – 80	> 35 – 50
F		Severe delays and congestion	> 80	> 50

Source: HCM 6 Motorized Vehicle Mode
Delay = average seconds of delay per vehicle

Table 2-2 Intersection Performance Criteria

Delay Methodology

Calculation Methodology

Level of service based on "average vehicle delay" calculated as follows:

- Synchro/HCM delay-based intersection methodology

Performance Standard

Acceptable level of service D defined as follows:

- Stopped delay not to exceed 55 seconds

Level of Service Standards

The City of Rialto 2010 General Plan identifies LOS D or better at signalized intersections during the morning and evening peak hours and require new development to mitigate traffic impacts that degrade the LOS below that level.

Operational improvements would be required at study intersections if the Project would result in either of the following conditions:

A. Cause the intersection LOS to degrade from an acceptable LOS D or better to an unacceptable LOS E or F
B. Addition of project traffic causes the peak hour delay to increase as follows:
    - LOS A/B by 10.0 seconds
    - LOS C by 8.0 seconds
    - LOS D by 5.0 seconds
    - LOS E by 2.0 seconds
    - LOS F by 1.0 second

For the study intersections, the peak hour is the accepted time period used for impact evaluation. Synchro software based on HCM 6 methodology was used to analyze intersection delay and LOS. The delay analysis parameters specified by the City of Rialto are summarized in **Table 2-2**.

Table 2-3 summarizes the delay and LOS for the study intersections during the AM and PM peak hours based on the existing volumes and existing lane configurations (actual delay calculations are included in **Appendix B**). As this table shows, the existing LOS at the study intersections is at an acceptable LOS D or better during the AM and PM peak hours.

Table 2-3 Existing Intersection Delay and Level of Service Summary

Intersection	Traffic Control	AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS
1. Alder & Casmalia	Signal	22.3 sec	C	32.7sec	C
2. Alder & SR 210 WB	Signal	24.9 sec	C	25.4 sec	C
3. Alder & SR 210 EB	Signal	9.8 sec	A	13.1 sec	B
4. Laurel & Casmalia	Signal	30.5 sec	C	34.9 sec	C
5. Locust & Casmalia	Signal	34.6 sec	C	36.2 sec	D
LOS = Level of service sec = seconds of delay					

Roadway link analysis has also been performed for Locust Avenue by comparing the average daily traffic (ADT) volume to the Roadway Capacity Table in the City's TIA guidelines. Roadway volume/capacity (V/C) ratios higher than 1.0 are to be corrected by the opening date of the Project. The daily volume on Locust Avenue is 12,400. Locust Avenue is designated as a Secondary Highway (four lanes); however, the roadway is currently striped with two lanes. The LOS E capacity of the roadway is 18,000 ADT. The existing V/C ratio (12,400 ADT/18,000 ADT) for Locust Avenue is 0.69. The roadway is operating at LOS C or better under existing conditions, and no correction measures are required.

2.5 GENERAL PLAN CIRCULATION ELEMENT

Figure 2-3 illustrates the General Plan Circulation Element in the study area. Locust Avenue and Casmalia Street are designated as Secondary Arterials. SR 210 interchanges are located west of the site at Alder Avenue and east of the site at Ayala Drive. Alder Avenue is classified as a Major Arterial. Ayala Drive is classified as a Secondary Arterial.

2.6 TRANSIT AND ACTIVE TRANSPORTATION

OmniTrans Route 22 serves north and south Rialto via Riverside Avenue and connects with MetroLink. The route travels on Locust Avenue north of the Project site. The Route 22 buses run every 60 minutes Monday through Sunday.

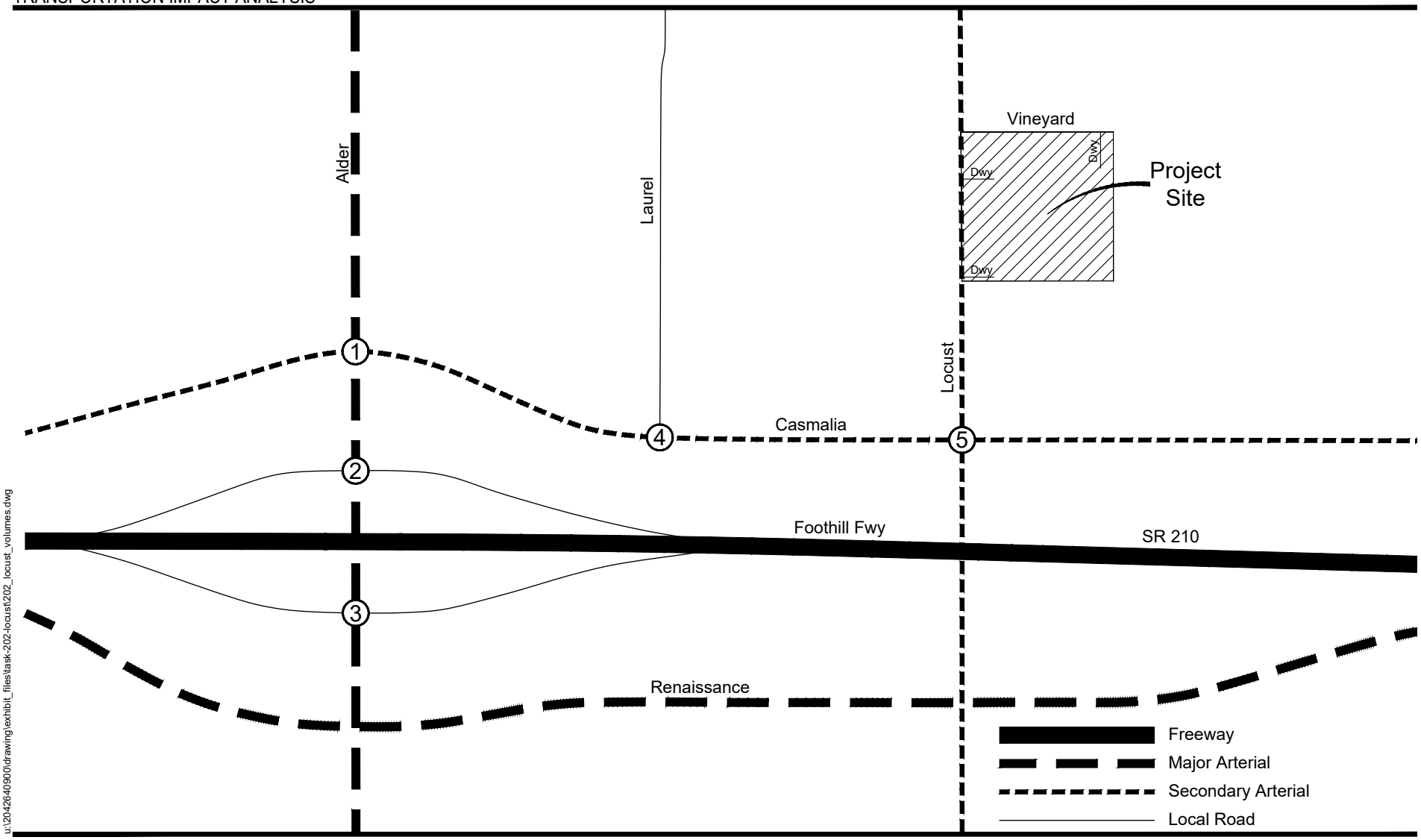


Figure 2-3
General Plan Street Classifications in the Study Area

There are no bicycle facilities on Locust Avenue in the study area north of Casmalia Street. A Class III bike route is located along Casmalia Street.

Sidewalks are not provided along the entire length of Locust Avenue in the Project vicinity. Short segments of sidewalk exist on one side of the street or the other. The Project will provide a sidewalk along the Project frontage on the east side of Locust Avenue and along the south side of Vineyard Avenue.

There is on-street parking on Locust Avenue in vicinity of the site, and the posted speed limit on Locust Avenue is 45 mph.

3.0 PROJECTED FUTURE TRAFFIC

This chapter summarizes the trip generation characteristics of the proposed Project and presents the distribution and assignment of Project trips to the study area street system.

3.1 PROJECT TRAFFIC

3.1.1 Project Trip Generation

As discussed in Chapter 1.0, the Project consists of a 191,000 square-foot warehouse building. The trip rates applied to the Project were obtained from the Warehousing category (Category 150) found in the Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition. Trip rates per total vehicles are provided, and the City's estimate of 40 percent trucks was applied to the total trip generation per the City's TIA guidelines.

The City's TIA guidelines also provide estimates for the truck mix for warehousing uses. Of the truck trips, approximately 70 percent are estimated to be 4-axle trucks, 28 percent are estimated to be 3-axle trucks, and 2 percent are estimated to be 2-axle trucks. Passenger car equivalent (PCE) conversion rates were applied to the truck estimates in accordance with the San Bernardino CMP.

Due to the nature of the proposed land use, no pass-by trip allowance was applied to the Project trips generation estimates. Furthermore, no credit for existing uses on-site was applied to the trip generation estimates to provide a conservative evaluation.

Table 3-1 summarizes the peak hour and daily trip rates and the resulting trip generation for the proposed Project. As this table shows, the Project would generate 55 AM peak hour PCE trips, 59 PM peak hour PCE trips, and 551 daily PCE trips.

3.1.2 Trip Distribution and Assignment

The passenger vehicle and truck trips have different distribution characteristics. The majority of truck trips are expected to travel on SR 210 with 50 percent oriented toward the west and 35 percent toward the east on SR 210. Approximately 10 percent of the truck trips are expected to travel north on the I-15 Freeway, and approximately 5 percent are expected to travel on Locust Avenue south of Casmalia Street. Passenger vehicles are expected to distribute to City streets as well as on SR 210 with the majority of passenger vehicle trips on the freeway. **Figure 3-1** illustrates the passenger vehicle and truck trip distribution.

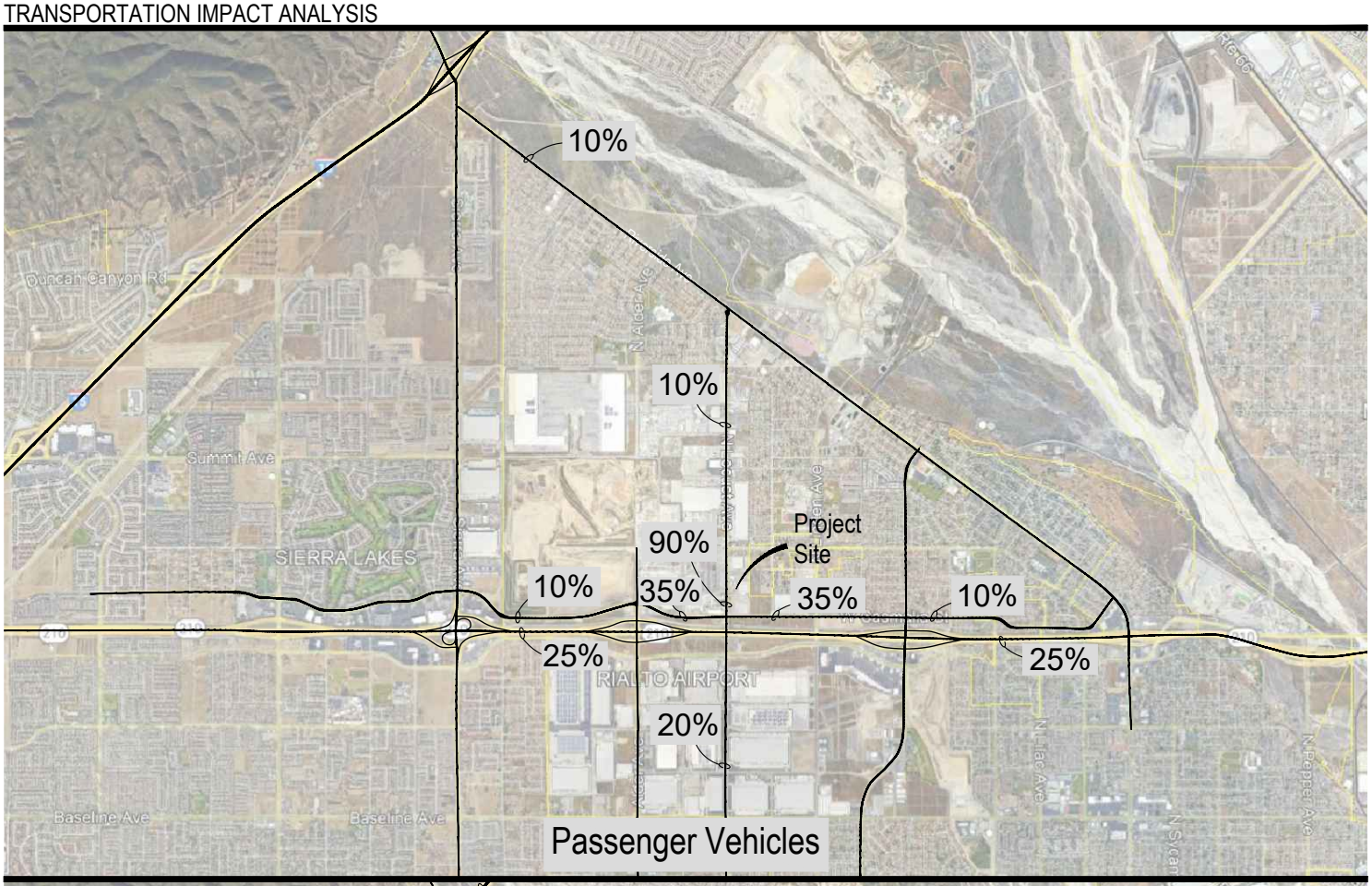
The Project peak hour passenger vehicle and truck PCE trips were assigned to the study intersections based on the distribution patterns presented above. **Figure 3-2** illustrates the total peak hour PCE trips at the study intersections. Individual passenger vehicle and truck PCE trips are provided in **Appendix C**.

Table 3-1 Project Trip Generation Summary

Land Use	Amount	AM Peak Hour			PM Peak Hour			ADT
		In	Out	Total	In	Out	Total	
Warehouse								
Total Driveway Trips	191 TSF	25	8	33	10	25	35	327
Passenger Vehicle Trips [2]		*15*	*5*	*20*	*6*	*15*	*21*	*196*
Truck Trips [3]		*10*	*3*	*13*	*4*	*10*	*14*	*131*
Passenger Car Equivalent (PCE) Estimates								
Trucks								
4-axle (3.0 PCE)		21	6	27	9	21	30	276
3-axle (2.0 PCE)		6	2	8	2	6	8	74
2-axle (1.5 PCE)		0	0	0	0	0	0	5
Passenger Vehicles		15	5	20	6	15	21	196
Total Truck PCE + Passenger Vehicle Trips		**42**	**13**	**55**	**17**	**42**	**59**	**551**
Trip Rates								
Warehousing[1]	TSF							
Total Vehicles		0.13	0.04	0.17	0.05	0.13	0.18	1.71

Source:
[1] Warehousing – ITE Trip Generation, 11th Edition Category 150
[2] Passenger vehicles = 60% of total driveway trips
[3] Trucks = 40% of total driveway trips: 70% 4-axle, 28% 3-axle, 2% 2-axle

ADT = Average daily traffic
TSF = Thousand square feet
PCE = Passenger car equivalents



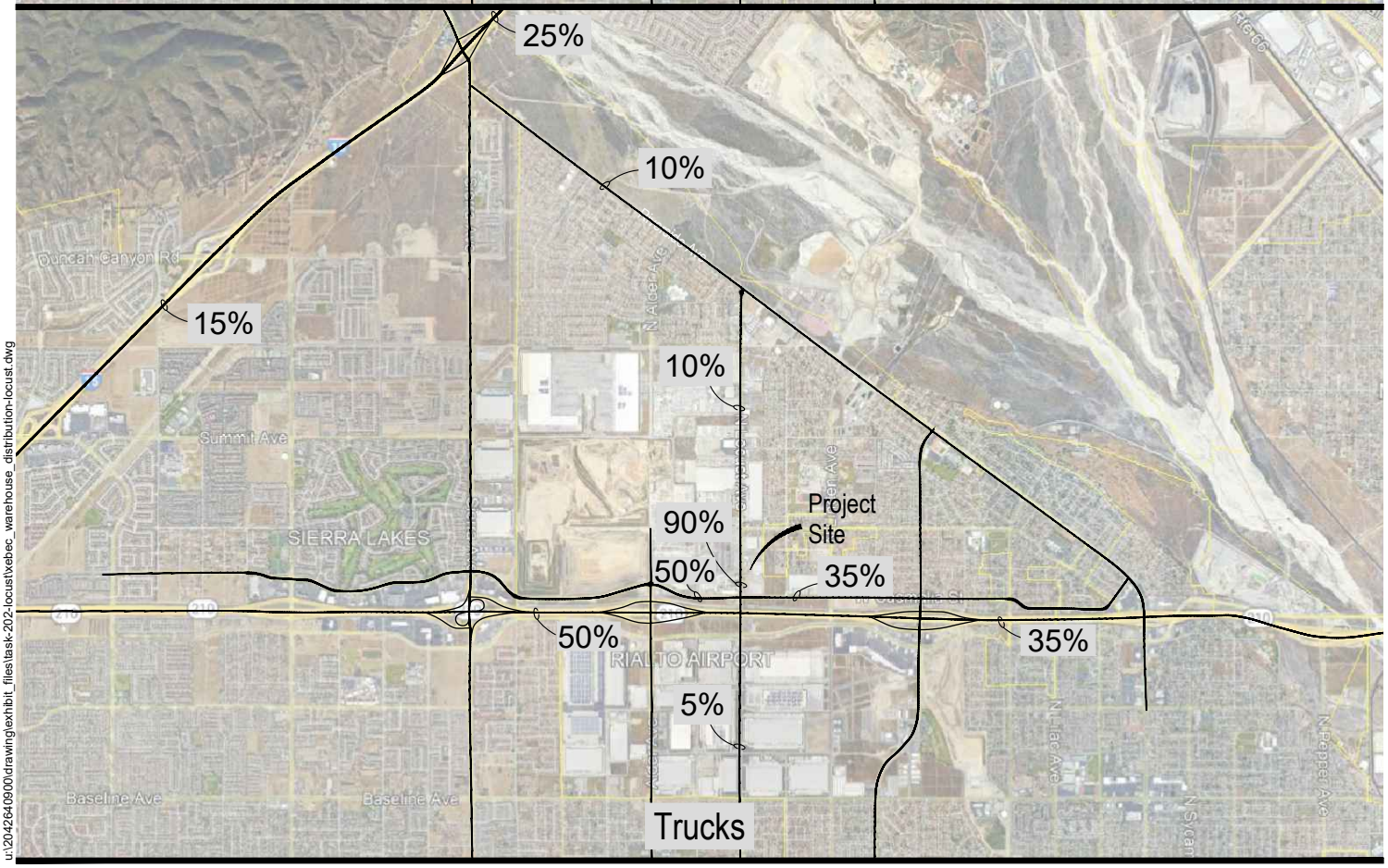


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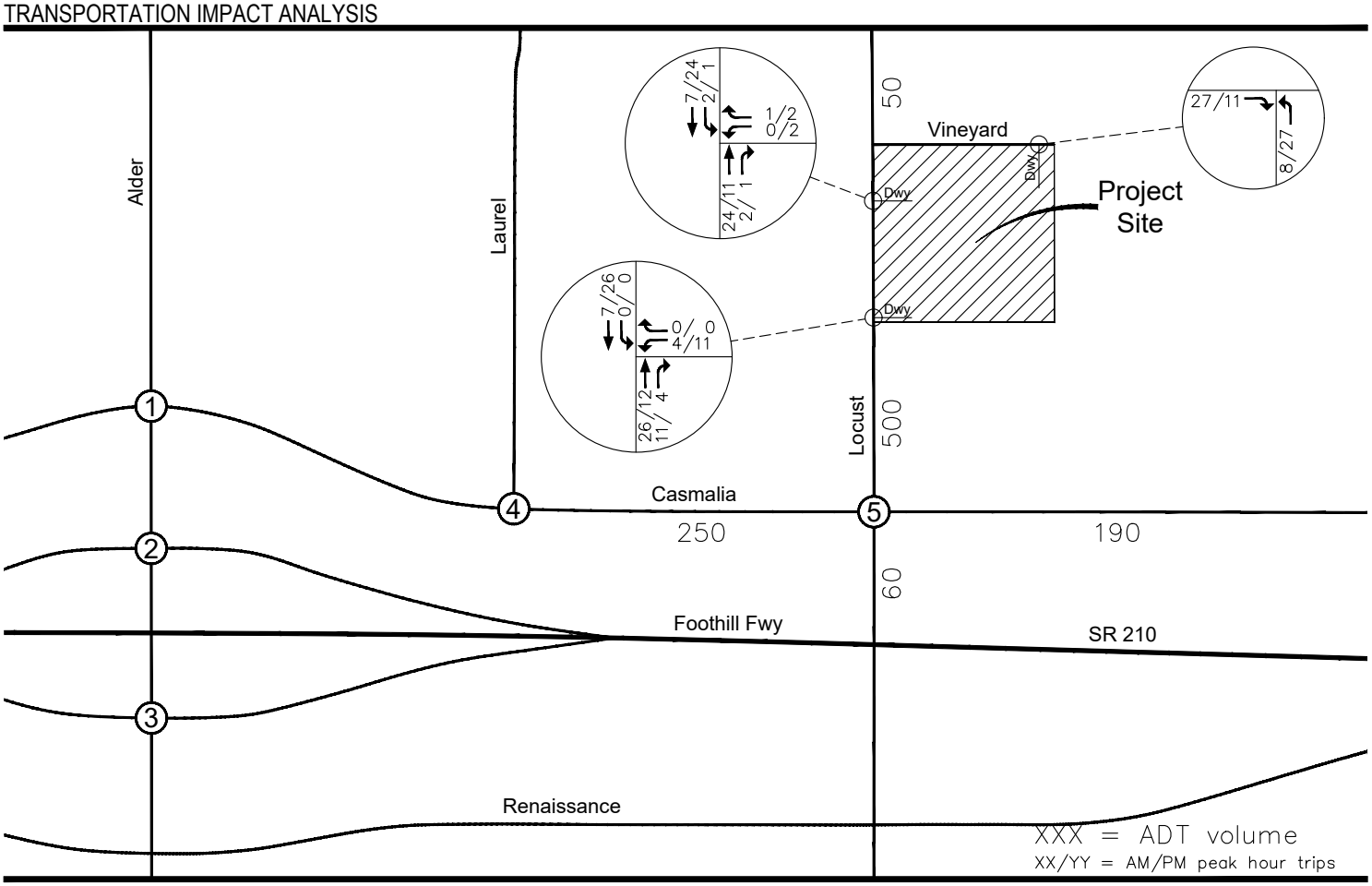
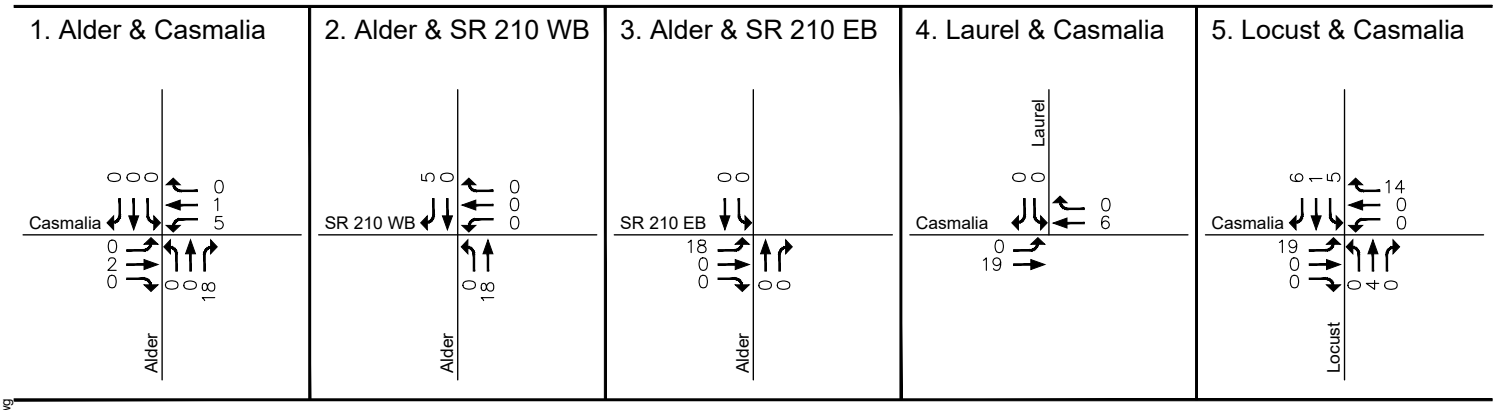
Figure 3-1
Project Trip Distribution



AM Peak Hour



PM Peak Hour

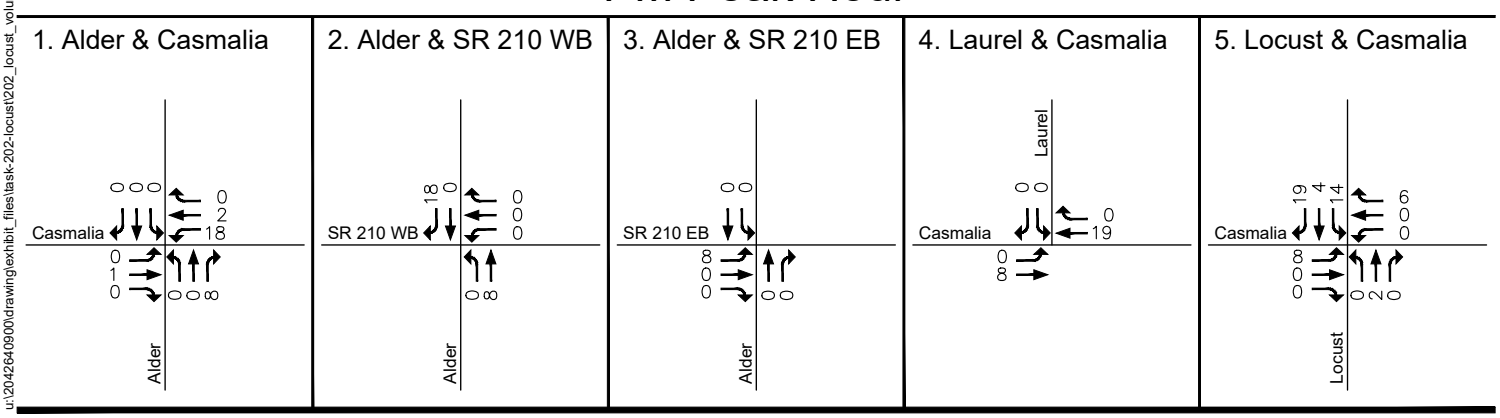


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Figure 3-2
Total Project PCE Peak Hour Trips

3.2 EXISTING PLUS BACKGROUND GROWTH PLUS PROJECT

3.2.1 Ambient Growth

The opening year for the Project is anticipated to be 2024. To obtain 2024 background volumes, an ambient growth rate of one percent per year, approved by City staff, was added to the 2022 peak hour intersection volumes for a total increase of two percent to produce Existing plus Ambient Growth background volumes. The peak hour Existing plus Ambient Growth volumes are illustrated in **Figure 3-3**.

Table 3-2 summarizes the Existing plus Ambient Growth peak hour intersection delay and LOS for the study intersections assuming existing intersection traffic control and lane geometrics. As this table shows, the study intersections would continue to operate at acceptable LOS D or better during the AM and PM peak hours. Delay calculations are included in **Appendix B**.

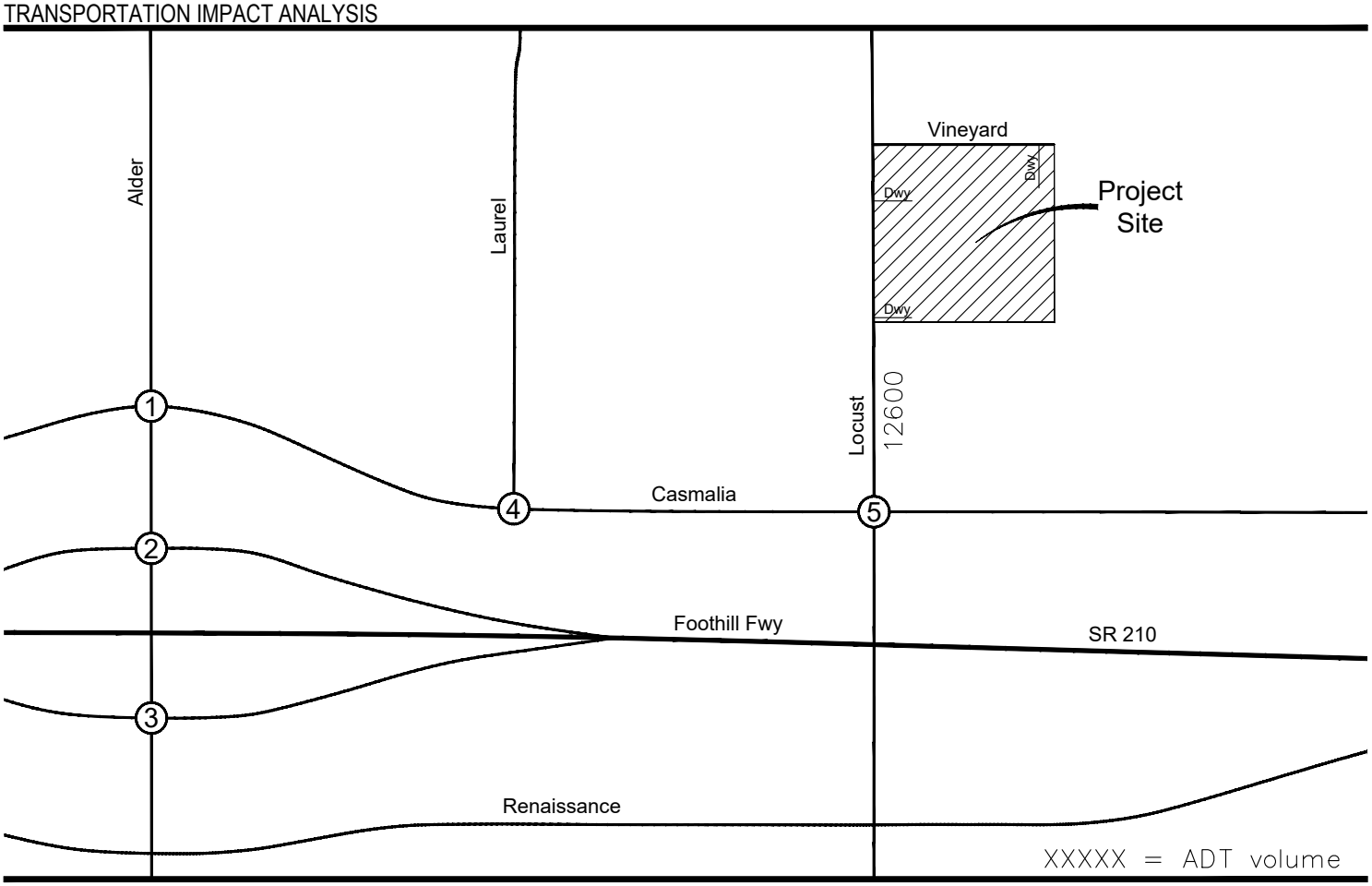
Table 3-2 Existing Plus Ambient Growth Intersection Delay and LOS Summary

Intersection	Traffic Control	AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS
1. Alder & Casmalia	Signal	22.4 sec	C	33.0 sec	C
2. Alder & SR 210 WB	Signal	25.7 sec	C	26.1 sec	C
3. Alder & SR 210 EB	Signal	10.7 sec	B	13.3 sec	B
4. Laurel & Casmalia	Signal	30.8 sec	C	36.5 sec	D
5. Locust & Casmalia	Signal	35.0 sec	C	37.1 sec	D
LOS = Level of service sec = seconds of delay					

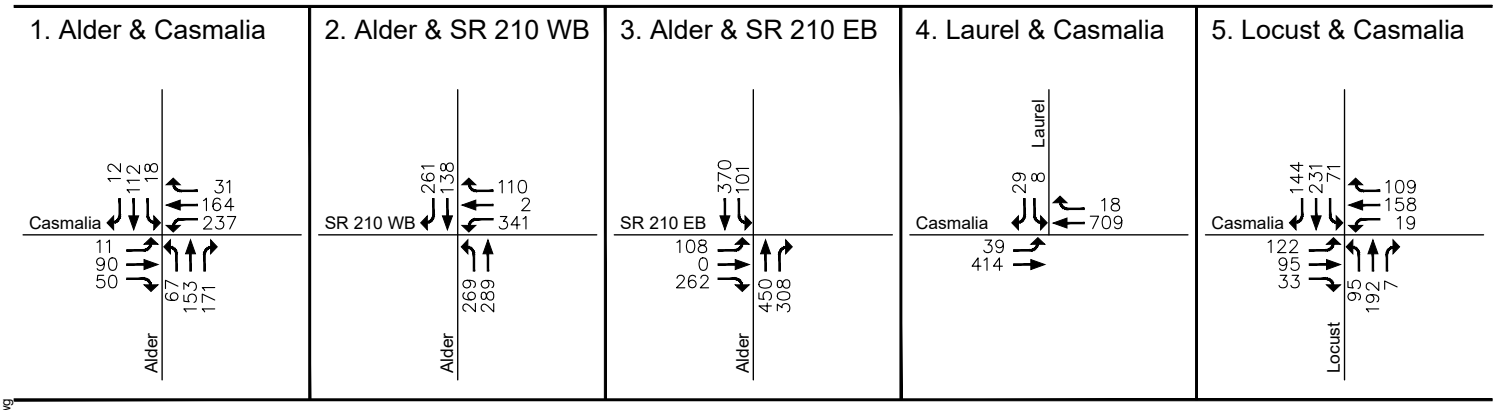
3.2.2 Existing Plus Ambient Growth Plus Project

The Project peak hour PCE trips presented above were added to the Existing plus Ambient Growth peak hour volumes to produce Existing plus Ambient plus Project volumes under opening year (2024) conditions. The AM and PM peak hour Existing plus Ambient plus Project volumes are illustrated in **Figure 3-4**.

Table 3-3 summarizes the Existing plus Ambient plus Project peak hour intersection delay and LOS for the study intersections assuming existing intersection traffic control and lane geometrics. As this table shows, the study intersections would continue to operate at acceptable LOS D or better during the AM and PM peak hours. Delay calculations are included in **Appendix B**.



AM Peak Hour



PM Peak Hour

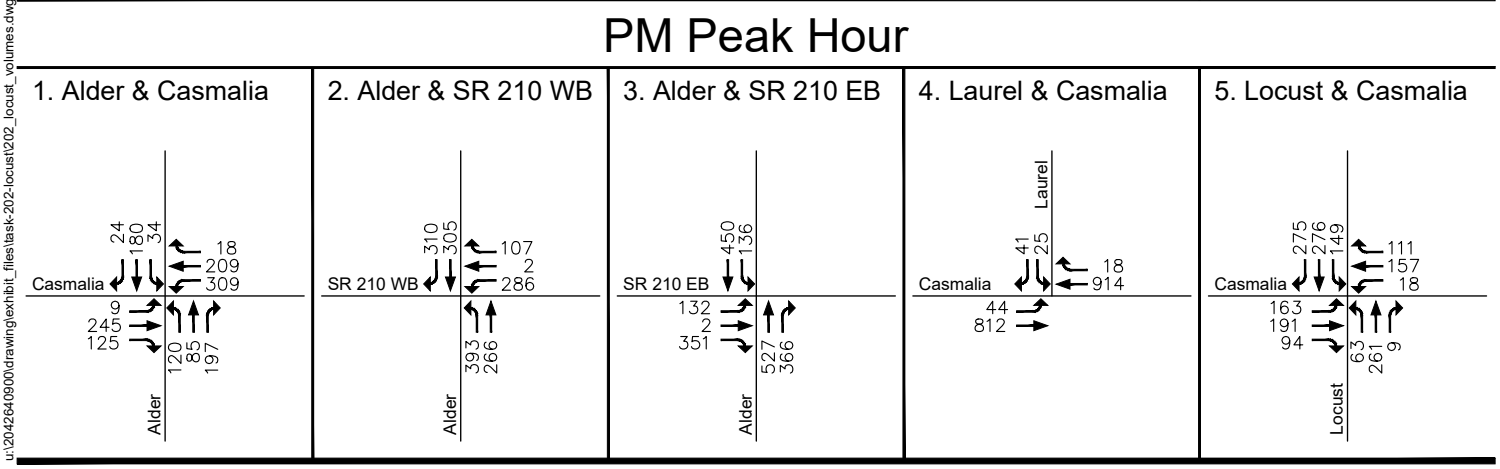


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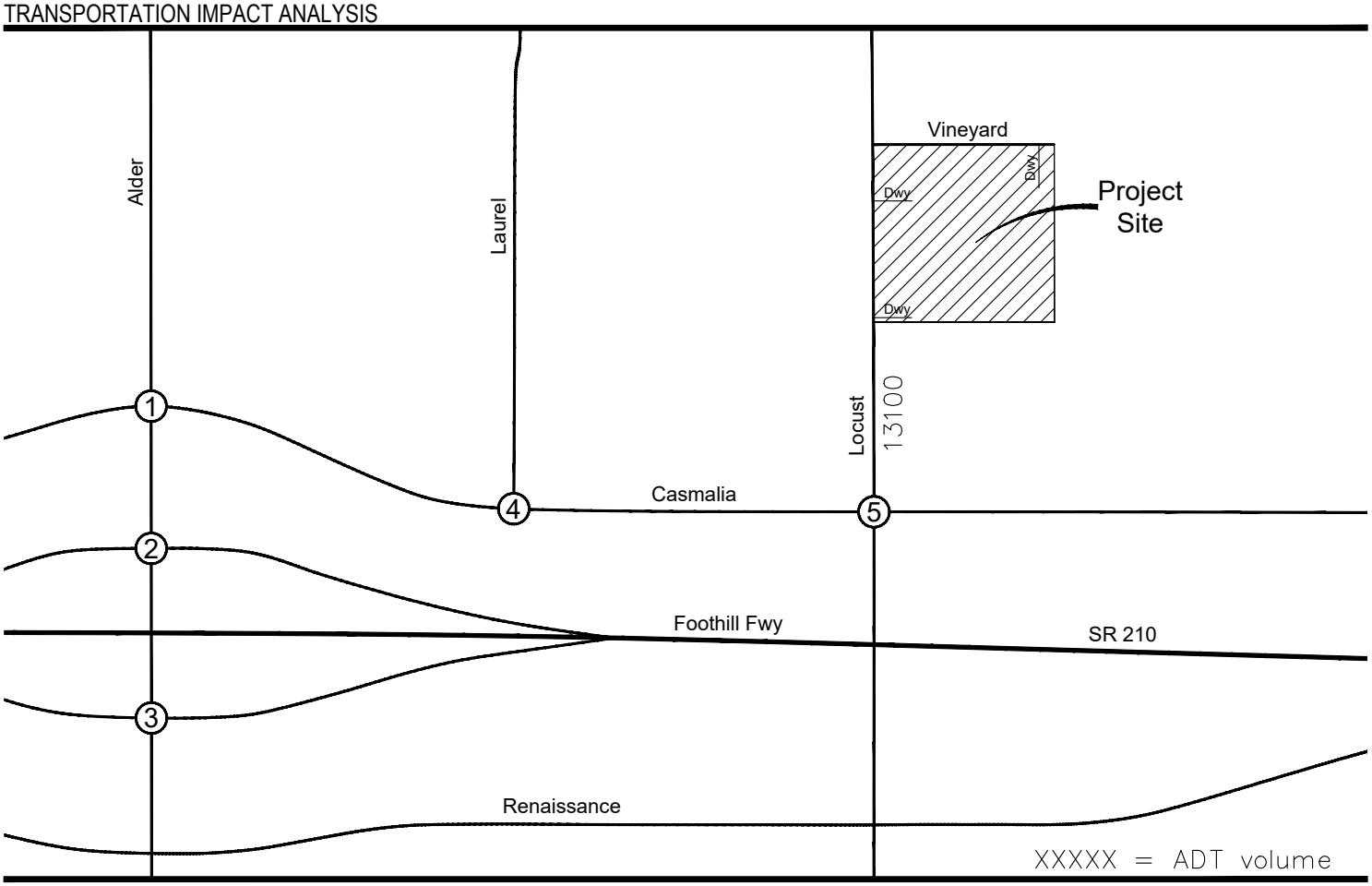
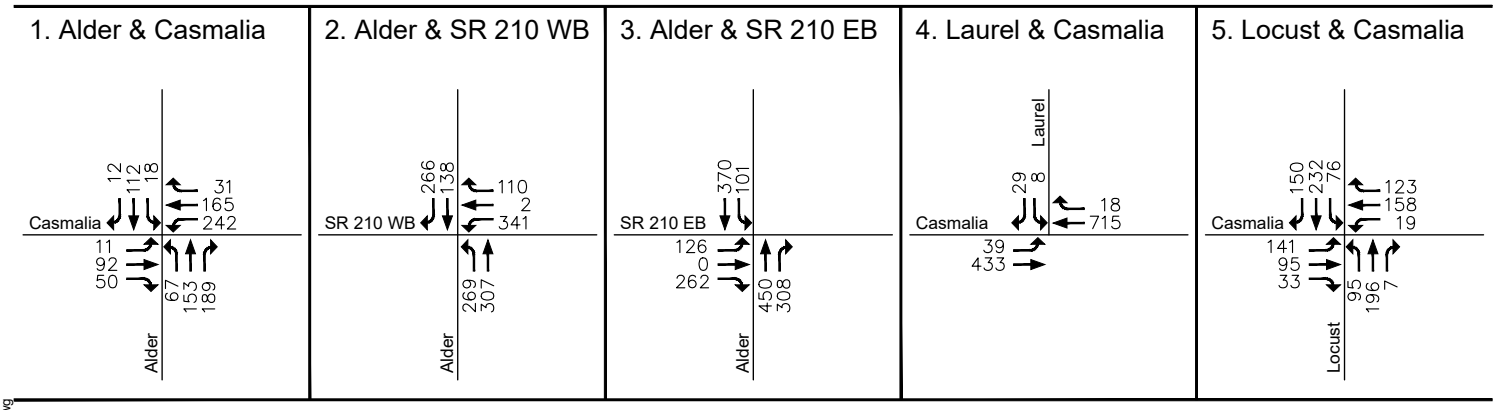
Figure 3-3
Existing Plus Ambient Growth Peak Hour Volumes



AM Peak Hour



PM Peak Hour

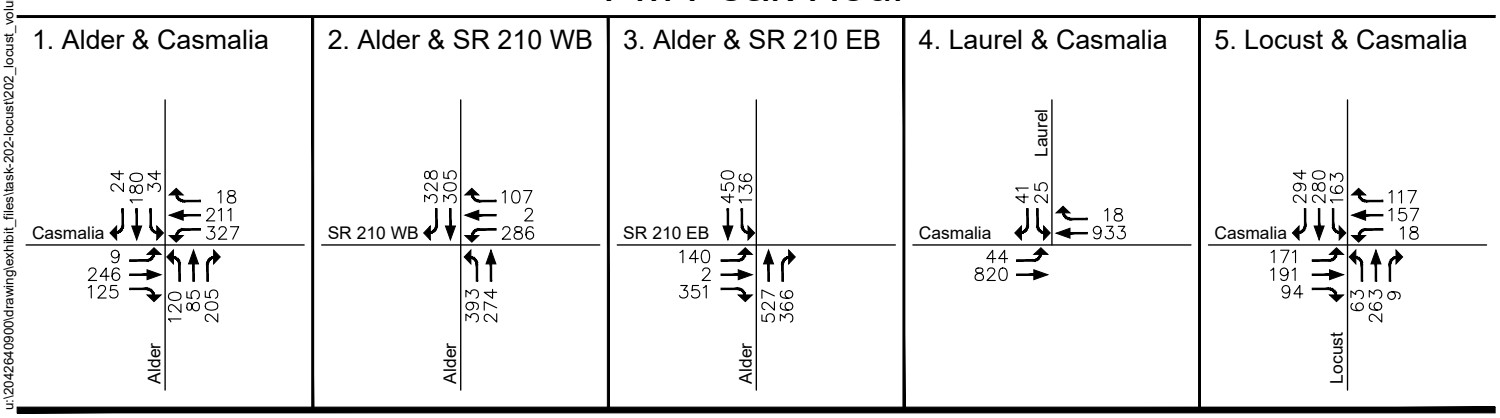


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Figure 3-4
Existing Plus Ambient Plus Project (PCE) Peak Hour Volumes

Table 3-3 Existing Plus Ambient Plus Project Intersection Delay and LOS Summary

Intersection	Traffic Control	AM Peak Hour			PM Peak Hour		
		Delay	LOS	Project Increase	Delay	LOS	Project Increase
1. Alder & Casmalia	Signal	22.2 sec	C	-0.2 sec	33.9 sec	C	0.9 sec
2. Alder & SR 210 WB	Signal	25.4 sec	C	-0.3 sec	25.8 sec	C	-0.3 sec
3. Alder & SR 210 EB	Signal	11.1 sec	B	0.4 sec	13.5 sec	B	0.2 sec
4. Laurel & Casmalia	Signal	30.9 sec	C	0.1 sec	38.5 sec	D	2.0 sec
5. Locust & Casmalia	Signal	38.0 sec	D	3.0 sec	39.9 sec	D	2.8 sec
Adverse Project effects shown in **bold** (see Table 2-1 for impact criteria) LOS = Level of service sec = seconds of delay							

The Project increases the delay at the intersections by less than the level of service threshold standards identified in Table 2-1. It should be noted that the intersection delay represents the weighted average for all movements at the intersection; therefore, when trips are added to a movement with low delay, such as a through or right-turn movement in the non-critical direction, the average delay for the intersection can decrease by a small amount under with-project conditions. This situation occurs at the intersections of Alder Avenue at Casmalia Street and Alder Avenue at SR 210 Westbound during the AM peak hour and at the intersection of Alder Avenue at SR 210 Westbound during the PM peak hour.

Project Driveway Operation

The Project would provide two driveways on Locust Avenue. The traffic from the driveways would be controlled by stop signs. Lines of sight at the Project driveways are shown on the site plan. Delay and level of service for the driveways on Locust Avenue have been determined based on HCM 6 methodology for unsignalized intersections. Since through traffic on Locust Avenue would not stop, the reported delay is based on the delay experienced by the driveway traffic controlled by the stop sign.

Table 3-4 summarizes the delay and LOS for the Project driveways on Locust Avenue. As this table shows, the driveways would operate at LOS D or better during the AM and PM peak hours.

Table 3-4 Project Driveway Delay and LOS Summary

Intersection	Traffic Control	AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS
6. Locust & North Driveway	SSS	9.8 sec	A	20.6 sec	C
7. Locust & South Driveway	SSS	19.1 sec	C	32.7 sec	D
LOS = Level of service SSS = Side street stop sec = seconds of delay					

3.3 CUMULATIVE CONDITIONS

3.3.1 Locations and Description of Other Projects

Ten additional approved, proposed, or recently built development projects within the general area were identified by the City for inclusion in the Cumulative scenario (Existing plus Ambient plus Project plus Cumulative). **Table 3-5** summarizes the cumulative projects and their trip generation, and **Figure 3-5** illustrates the location of the cumulative projects.

Table 3-5 Cumulative Projects Summary

Project Description	Size	Land Use	PCE Trips		
			ADT	AM Peak Hour	PM Peak Hour
1. Lilac Commerce Center	82.958 TSF	Warehouse	504	42	44
2. Orbis Rialto II	117.255 TSF	Warehouse	704	63	67
3. SC Fuels Rialto	48.103 TSF	Warehouse, Office, Truck Service	1,862	329	371
4. Rialto Olive Ave Business Park	679.607 TSF	Warehouse	1,981	194	215
5. Renaissance Place Residential Project	435 DU	Warehouse	398	41	42
6. Rialto Center and Gas Station	10.497 TSF	Convenience Market, Fast Food, Gas Station	8,071	698	569
7. Laurel & Casmalia Development	87.189 TSF	Warehouse	251	23	24
8. Operon Renaissance Rialto	138.9 TSF	Warehouse	827	71	73
9. Compass Darbe Linden & Casmalia	116.707 TSF	Warehouse, Office	698	63	67
10. Rialto Travel Center	2.4 TSF	Convenience Market, Fast Food, Gas Station	5,532	553	515

PCE = Passenger car equivalents
ADT = Average daily traffic
TSF = Thousand square feet
DU = Dwelling Units

Trip distribution and assignment for the cumulative projects were obtained from the traffic studies prepared for the projects (where available) or were estimated from the general distribution prepared for the proposed Project. The cumulative project-generated PCE peak hour trips at the study intersections

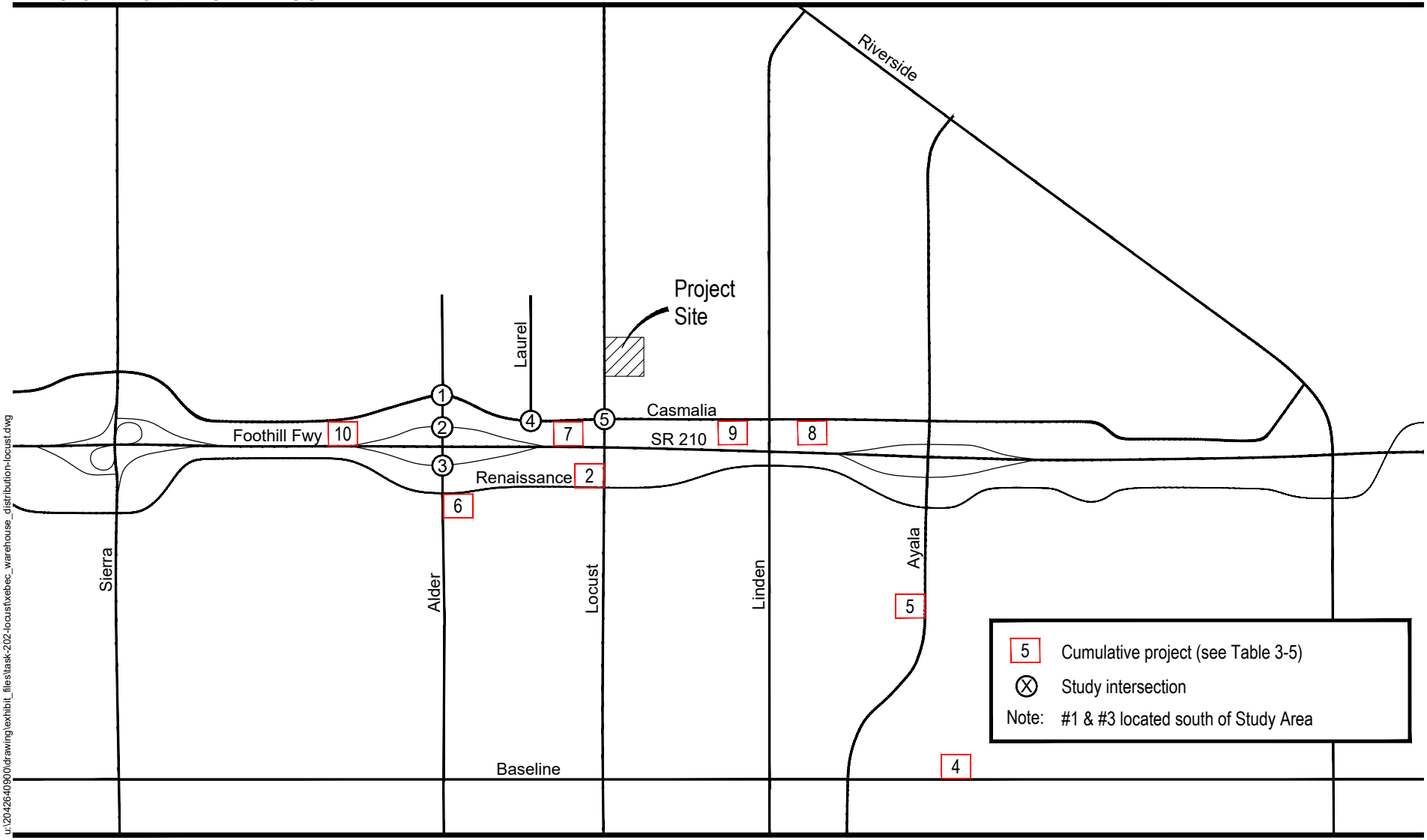

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Figure 3-5
Cumulative Project Location

are illustrated in Appendix C. The PCE peak hour trips from these cumulative projects were added to the Existing plus Ambient plus Project peak hour volumes at the study intersections to produce the Existing plus Ambient plus Project plus Cumulative volumes. **Figure 3-6** illustrates the Cumulative conditions peak hour volumes at the study intersections.

The existing lane geometrics were assumed for the Existing plus Ambient plus Project plus Cumulative analysis scenario; however, signal timing adjustments were made at the study intersections along Alder Avenue. **Table 3-6** summarizes the Existing plus Ambient plus Project plus Cumulative peak hour intersection delay and LOS for the study intersections assuming existing intersection lane geometrics. As this table shows, the study intersections would operate at acceptable LOS D or better during the AM peak hour. During the PM peak hour, the intersection of Alder Avenue and SR 210 Westbound would operate at an unacceptable LOS E. The remaining study intersections would operate at acceptable LOS D or better during the PM peak hour. Delay calculations are included in **Appendix B**.

Table 3-6 Existing Plus Ambient Plus Project Plus Cumulative Intersection Delay and LOS Summary

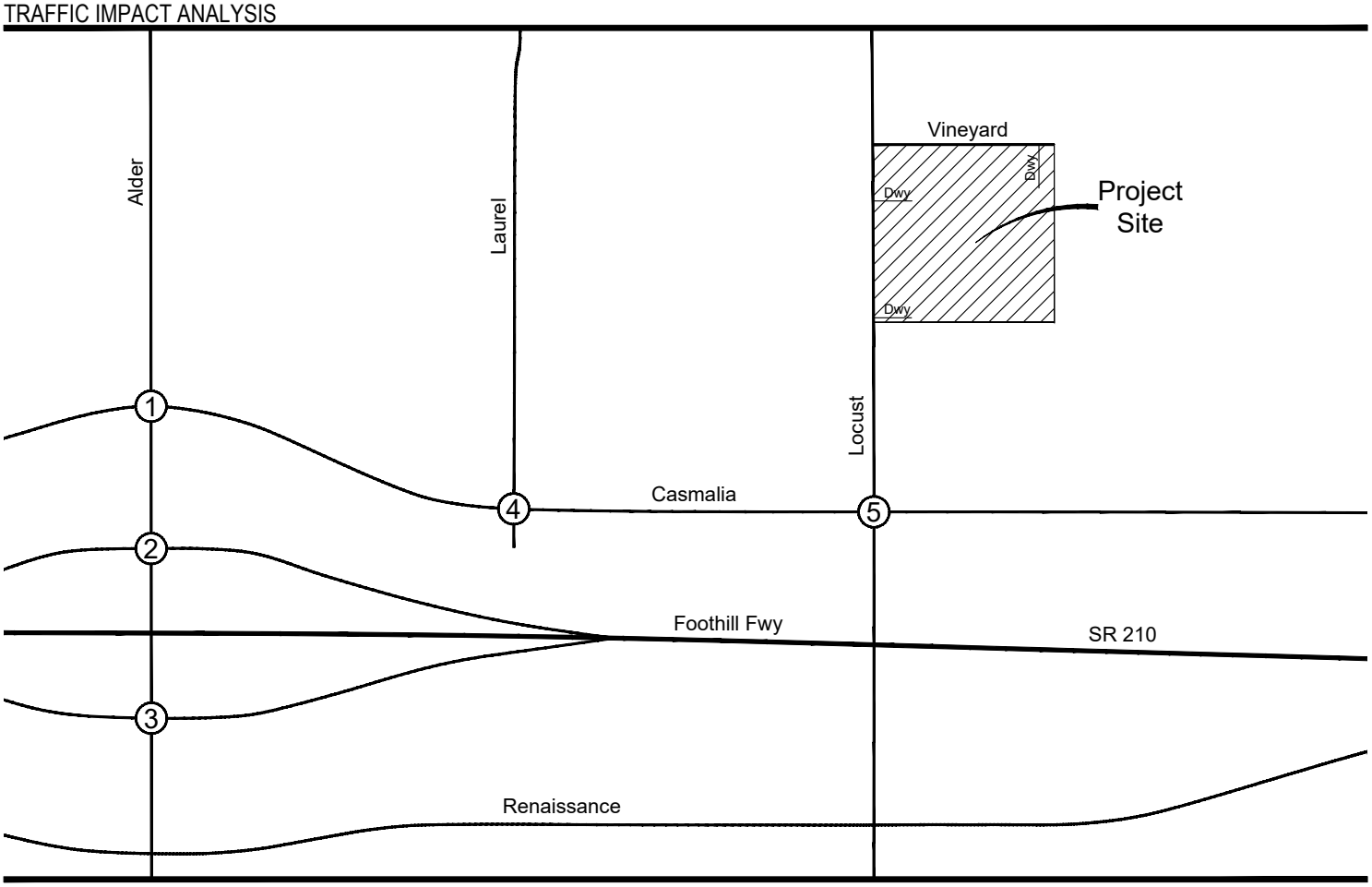
Intersection	Traffic Control	AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS
1. Alder & Casmalia	Signal	33.5 sec	C	54.8 sec	D
2. Alder & SR 210 WB	Signal	31.5 sec	C	55.6 sec	E
3. Alder & SR 210 EB	Signal	19.4 sec	B	21.1 sec	C
4. Laurel & Casmalia	Signal	32.6 sec	C	50.7 sec	D
5. Locust & Casmalia	Signal	40.6 sec	D	46.0 sec	D
LOS = Level of service sec = seconds of delay					

Project Driveway Operation

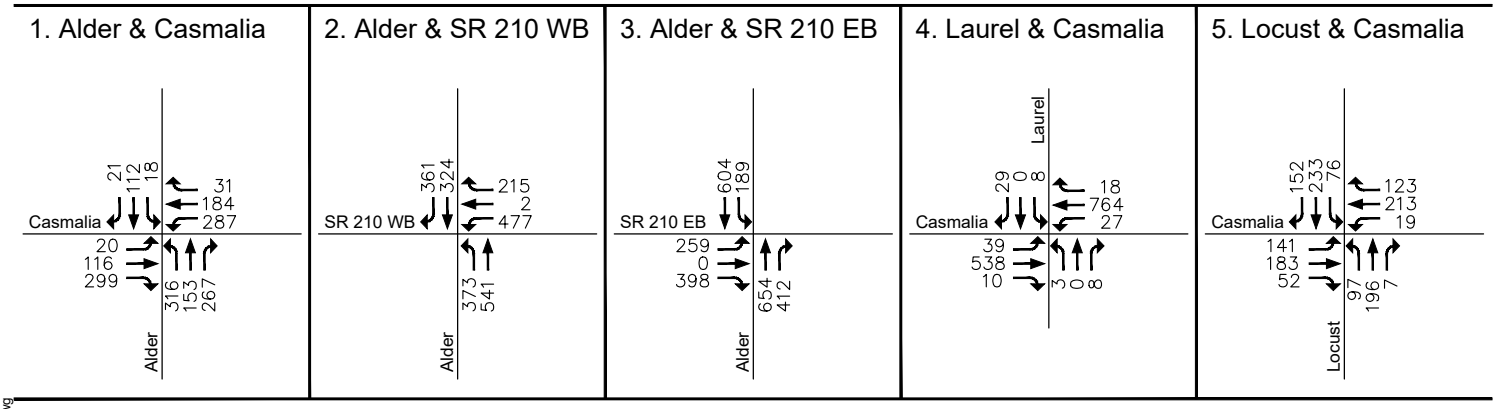
Table 3-7 summarizes the delay and LOS for the Project driveways on Locust Avenue under Cumulative conditions. As this table shows, the driveways would operate at LOS B during the AM and PM peak hours under Existing Plus Ambient Plus Project Plus Cumulative conditions.

Table 3-7 Project Driveway Delay and LOS Summary – Existing Plus Ambient Plus Project Plus Cumulative Conditions

Intersection	Traffic Control	AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS
6. Locust & North Driveway	SSS	9.8 sec	A	20.6 sec	C
7. Locust & South Driveway	SSS	19.1 sec	C	32.7 sec	D
LOS = Level of service SSS = Side street stop sec = seconds of delay					



AM Peak Hour



PM Peak Hour

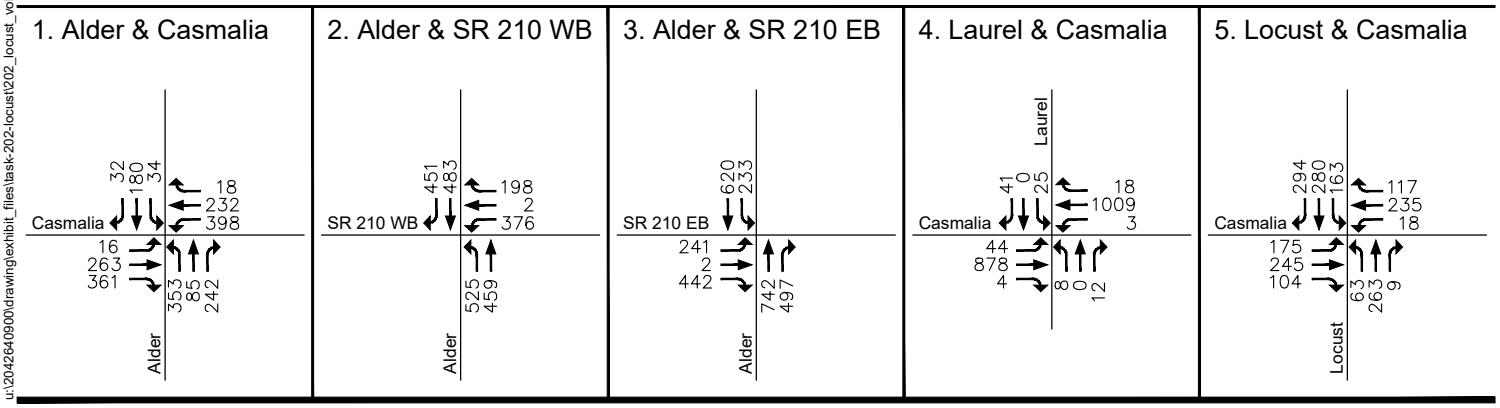


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Figure 3-6

Existing Plus Ambient Plus Project Plus Cumulative Peak Hour Volumes

Interchange Improvements

The SR 210 Alder Ave Interchange Improvements Project will provide improvements to the Alder Avenue interchange to adequately accommodate future traffic volumes. The interchange improvements project consists of widening and restriping of Alder Avenue between Casmalia Street and Renaissance Avenue to provide additional turn lanes and widening of the eastbound and westbound off-ramps to provide one additional turn lane on each ramp. Construction is scheduled for July 2023 through January 2024 based on information provided on the City's website. **Figure 3-7** illustrates the changes to the intersection lane geometrics at the study intersections as a result of the SR 210 Alder Ave Interchange Improvements Project.

Table 3-8 summarizes the Existing plus Ambient plus Project plus Cumulative peak hour intersection delay and LOS for the study intersections with the future lane geometrics. As this table shows, the Alder Avenue interchange intersections would improve to LOS B during the AM and PM peak hours. Delay calculations are included in **Appendix B**.

Table 3-8 Existing Plus Ambient Plus Project Plus Cumulative Intersection Delay and LOS Summary – With Interchange Improvements

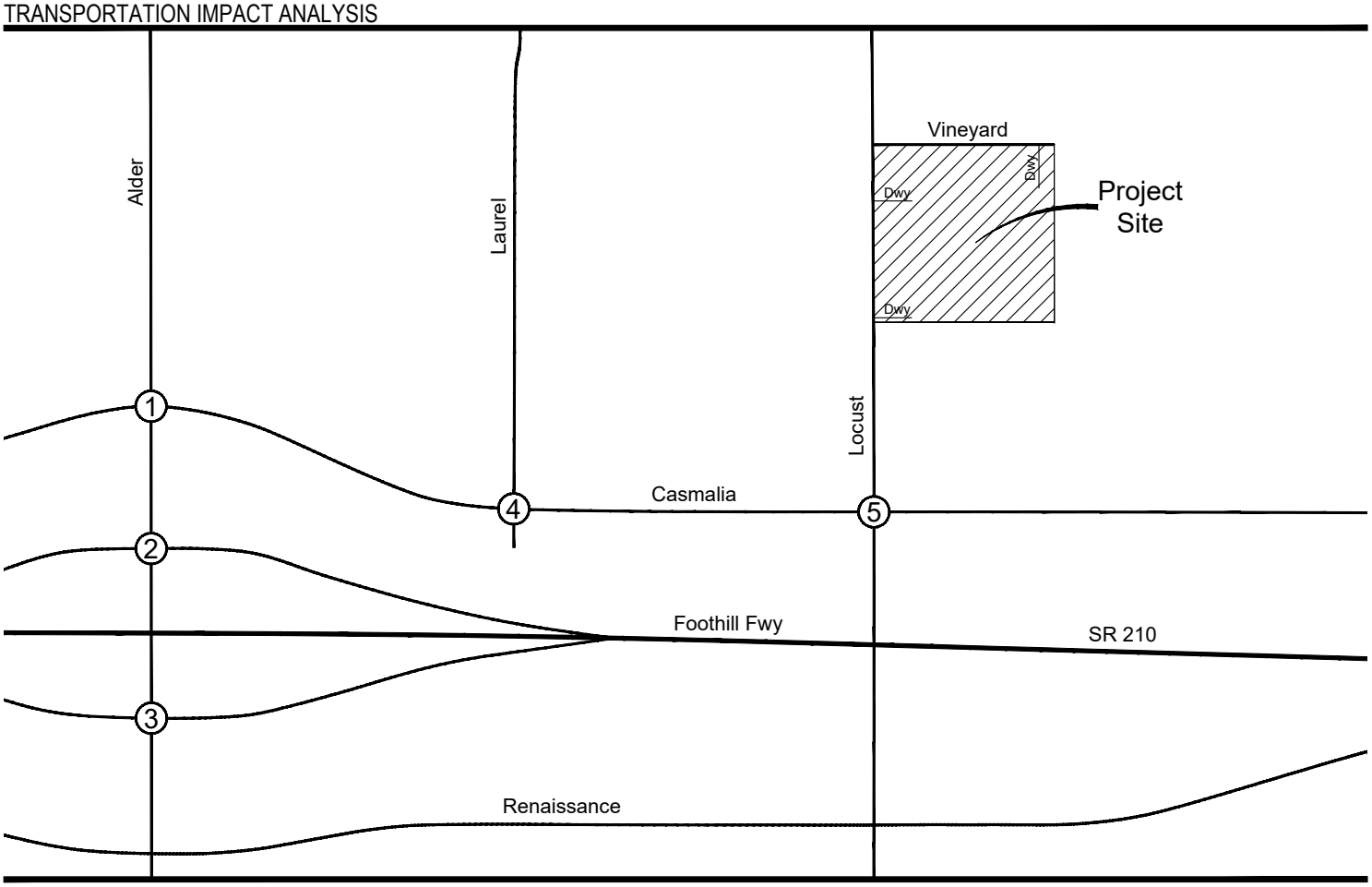
Intersection	Traffic Control	AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS
1. Alder & Casmalia	Signal	26.9 sec	C	41.0 sec	D
2. Alder & SR 210 WB	Signal	16.1 sec	B	18.2 sec	B
3. Alder & SR 210 EB	Signal	12.1 sec	B	17.0 sec	B
LOS = Level of service sec = seconds of delay					

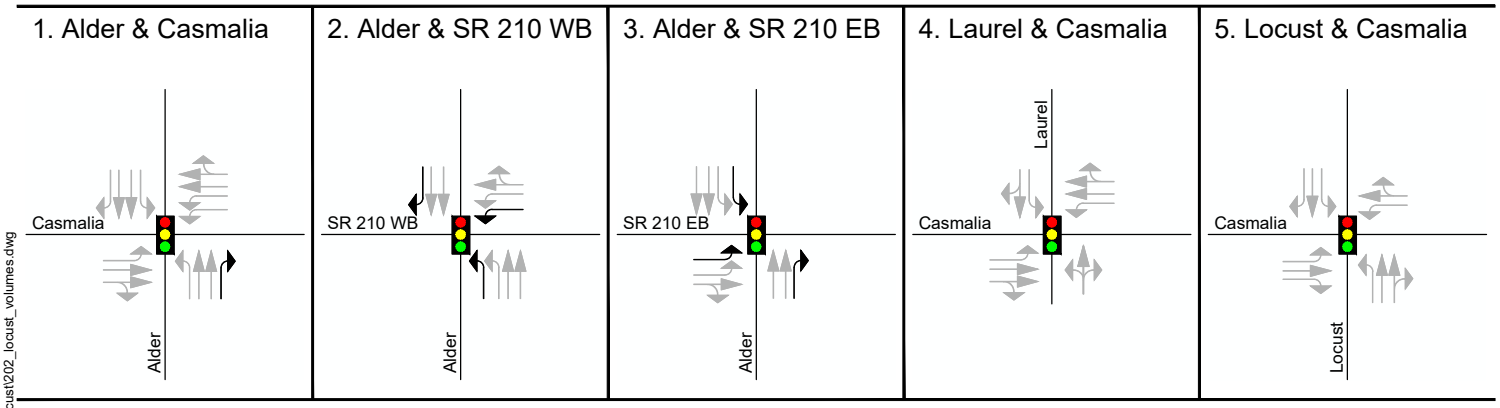
3.4 TRUCK ROUTING PLAN

A truck routing plan was prepared for the Project and is included in **Appendix D**.

3.5 TRUCK MANEUVERING PLANS

The truck maneuvering plans for the Project site are illustrated in **Appendix E**.





Existing lane
Future lane

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Figure 3-7
Study Intersections Future Lane Geometrics

4.0 VEHICLE MILES TRAVELED

Senate Bill 743 (SB 743) has established Vehicle Miles Traveled (VMT) as the metric for identifying California Environmental Quality Act (CEQA) transportation impacts. The City of Rialto has identified that projects generating less than 110 daily vehicle trips can be screened out from project-level VMT assessment.

The VMT assessment is based on passenger vehicle trips. The Project would generate 196 daily passenger vehicle trips, and existing uses on the site generate approximately 152 daily passenger vehicle trips based on General Light Industrial trip rates as shown in **Table 4-1**. The net new trips generated by the Project is 44 daily passenger vehicle trips; therefore, the Project can be screened out of CEQA VMT assessment, and a finding of no significant impact can be made.

Table 4-1 Project Trip Generation Summary – VMT Assessment

Land Use	**Amount**	**ADT**
Existing Uses		
2271 N. Locust Ave	13.656 TSF	
2223 N. Locust Ave	14.27 TSF	
2223B N. Locust Ave	4.934 TSF	
Total Driveway Trips	32.86 TSF	160
Passenger Vehicle Trips		*152*
Truck Trips		*8*
Proposed Project		
Total Driveway Trips	191 TSF	327
Passenger Vehicle Trips[2]		*196*
Truck Trips		*131*
Net New Passenger Vehicle Trips		**44**
Trip Rates		
General Light Industrial[1]	TSF	
Total Vehicles		4.87
Truck Trips		0.25
Source: [1] General Light Industrial – ITE Trip Generation, 11th Edition Category 110 [2] Passenger vehicles = 60% of total driveway trips ADT = Average daily traffic TSF = Thousand square feet		

5.0 OFF-SITE OPERATIONAL IMPROVEMENTS

The intersection delay and LOS evaluation shows that the Project would have no adverse effects on the study intersections, and no off-site intersection operation improvements are required.

With the addition of cumulative project traffic, the SR 210 westbound ramp at Alder Avenue would operate at unacceptable LOS E during the PM peak hour. The SR 210 Alder Ave Interchange Improvements Project would provide additional turn lanes at the westbound and eastbound ramp intersections, as well as at the Casmalia Street intersection. The proposed Project causes less than 1.0 second increase at the Alder Avenue study intersections; therefore, the Project's development impact fees (DIF) would cover the Project's share of the cost of the SR 210 Alder Ave Interchange Improvements Project.

6.0 ON-SITE CIRCULATION

There are no concerns with on-site circulation. Driveways, aisles, and parking spaces have been provided in accordance with applicable agency standards and are of sufficient size and configuration to provide good on-site circulation and access to parking. The truck driveway to the east on Vineyard Avenue provides a 48-foot width which will accommodate a queue of three trucks side by side at the access gate while also allowing the egress of a truck vehicle (see Figure 1-2). Truck turning movements in the loading dock area are also shown on Figure 1-2 together with required sight lines at driveways. Required sight lines will be maintained at project driveways.

7.0 FINDINGS AND RECOMMENDATIONS

The proposed Locust Avenue Industrial Building (Project) is located on the east side of Locust Avenue south of Vineyard Avenue. The Project consists of a 191,000 square-foot warehouse building in the northern part of the City of Rialto. The Project is anticipated to be developed in 2024 in one phase. Access to the Project site would be provided by two driveways on Locust Avenue and two driveways on Vineyard Avenue. The existing and proposed zoning designation is Planned Industrial Zone.

The total trip generation for the site is 33 AM peak hour trips, 35 PM peak hour trips, and 328 daily trips based on the Institute of Transportation Engineers (ITE) Warehousing trip rates. However, due to the expected operation of the proposed land use, a portion of the driveway trips would be large trucks; therefore, the City has identified passenger car equivalent (PCE) factors to be applied to truck trips to account for the larger impact of trucks on traffic flow. Consequently, the Project would generate 55 AM peak hour PCE trips, 59 PM peak hour PCE trips, and 552 daily PCE trips for use in the roadway level of service (LOS) analysis.

Five study intersections were included in the roadway LOS analysis, and potential Project effects were evaluated under Existing plus Ambient Growth conditions representing the opening year of the Project. Under Existing plus Ambient Growth conditions, the study intersections would operate at acceptable LOS D or better, and the Project would have no adverse effects based on the City's level of service standards. The study intersections would operate at acceptable levels of service under opening year plus Project conditions and no off-site operational improvements are required.

Ten additional approved, proposed, or recently built development projects were identified in the general area. With the addition of cumulative project traffic, the study intersection of Alder Avenue and SR 210 Westbound would operate at unacceptable LOS E during the PM peak hour assuming the existing intersection lane geometrics. Construction of the SR 210 Alder Ave Interchange Improvements Project is estimated to begin July 2023 and be completed by January 2024. The interchange improvements project consists of additional turn lanes at the westbound and eastbound ramp intersections along Alder Avenue and would result in LOS B during the AM and PM peak hours. The Project's Development Impact Fees (DIF) would cover the Project's share of the cost of the interchange improvements.

Senate Bill 743 (SB 743) has established Vehicle Miles Traveled (VMT) as the metric for identifying California Environmental Quality Act (CEQA) transportation impacts. The City of Rialto has identified that projects generating less than 110 daily vehicle trips can be screened out from project-level VMT assessment. The Project generates 44 net new daily passenger vehicle trips; therefore, the Project can be screened out of CEQA VMT analysis, and a finding of no significant impact can be made.

There are no concerns with on-site circulation. Driveways, aisles, and parking spaces have been provided in accordance with applicable agency standards and are of sufficient size and configuration to provide good on-site circulation and access to parking. The truck driveway to the east on Vineyard Avenue

provides a 48-foot width which will accommodate a queue of three trucks side by side at the access gate while also allowing the egress of a truck vehicle. Truck turning movements in the loading dock area are also shown on the site plan together with required sight lines at driveways. Required sight lines will be maintained at project driveways.

Appendix A TRAFFIC COUNT DATA

A816

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Thursday, November 17, 2022
JOB #: SC3620

CITY: Rialto
LOCATION: CLASS1 Locust north of Casmalia

AM	NORTHBOUND													
TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
0:00	0	5	1	0	0	0	0	0	1	0	0	0	0	7
0:15	0	9	0	0	0	0	0	1	0	0	0	0	0	10
0:30	0	7	1	0	0	0	0	0	1	0	0	0	0	9
0:45	0	11	0	0	0	0	0	1	0	0	0	0	0	12
1:00	0	10	3	0	0	0	0	2	0	0	0	0	0	15
1:15	0	10	3	0	0	0	0	0	0	0	0	0	0	13
1:30	0	14	2	0	0	1	0	0	0	0	0	0	0	17
1:45	1	14	1	0	2	0	0	0	0	0	0	0	0	18
2:00	0	7	2	0	0	0	0	0	0	0	0	0	0	9
2:15	0	3	2	0	0	0	0	0	0	0	0	0	0	5
2:30	0	15	5	0	0	0	0	0	0	0	1	0	0	21
2:45	0	9	2	0	0	0	0	0	0	0	0	0	0	11
3:00	0	7	1	0	0	0	0	0	1	0	0	0	0	9
3:15	0	10	1	0	0	0	0	0	1	0	0	0	0	12
3:30	0	14	5	0	0	0	0	0	2	0	0	0	0	21
3:45	0	13	5	0	0	0	0	0	2	0	1	0	0	21
4:00	0	18	6	0	0	0	0	0	2	0	0	0	0	26
4:15	0	24	6	0	1	0	0	0	1	0	2	0	0	34
4:30	0	53	8	0	2	0	0	0	4	0	0	0	0	67
4:45	0	89	18	0	3	0	0	0	4	0	0	0	0	114
5:00	0	48	8	0	0	0	0	0	3	0	2	0	0	61
5:15	0	45	13	0	3	0	0	0	1	0	0	0	0	62
5:30	0	106	22	0	0	2	0	0	7	0	0	0	0	137
5:45	1	122	19	0	0	0	0	0	6	0	0	0	0	148
6:00	0	41	10	0	0	1	0	0	7	0	1	0	0	60
6:15	0	44	12	0	9	4	0	0	4	0	0	0	0	73
6:30	2	48	16	0	1	1	0	0	2	0	1	0	0	71
6:45	0	67	17	1	4	1	0	0	3	0	0	0	0	93
7:00	0	55	18	3	4	0	0	0	4	0	0	0	0	84
7:15	0	60	5	4	4	3	0	0	6	0	1	0	0	83
7:30	0	76	15	0	1	0	0	0	2	0	0	0	0	94
7:45	0	105	20	1	1	0	1	1	2	0	2	0	0	133
8:00	0	75	12	1	5	0	0	0	7	1	0	0	0	101
8:15	1	54	16	0	6	2	1	1	7	0	0	0	0	88
8:30	0	41	14	0	1	1	0	0	6	0	1	0	0	64
8:45	1	31	11	0	11	1	0	0	9	0	0	0	0	64
9:00	0	33	7	0	2	1	0	0	5	0	1	0	0	49
9:15	0	28	13	0	0	1	0	0	4	0	2	0	0	48
9:30	1	40	12	0	4	2	0	0	8	0	0	0	0	67
9:45	0	39	9	0	0	0	0	1	9	0	1	0	0	59
10:00	0	35	9	0	5	2	0	1	6	0	0	0	0	58
10:15	0	35	14	0	3	3	0	1	8	0	1	0	0	65
10:30	0	36	8	0	2	0	0	0	7	0	0	0	0	53
10:45	0	35	14	0	3	0	0	0	5	0	2	0	0	59
11:00	0	39	10	0	2	0	0	0	4	0	0	0	0	55
11:15	0	40	7	0	3	1	0	0	2	0	1	0	0	54
11:30	0	42	7	0	5	1	0	0	8	0	0	0	0	63
11:45	0	38	14	0	3	2	0	1	8	0	3	0	0	69
TOTAL	7	1,800	424	10	90	30	2	10	169	1	23	0	0	2,566

AM PEAK HOUR	5:30 AM
AM PEAK VOLUME	418

PM	NORTHBOUND													
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
12:00	0	41	11	0	2	3	0	1	9	0	0	0	0	67
12:15	0	55	15	0	1	0	0	1	7	0	2	0	0	81
12:30	0	46	14	0	3	0	0	1	9	0	0	0	0	73
12:45	0	40	13	0	3	3	0	0	7	0	0	0	0	66
13:00	0	38	15	0	3	2	0	0	7	0	1	0	0	66
13:15	0	48	8	0	3	0	0	0	6	0	0	0	0	65
13:30	0	48	9	0	4	2	0	0	9	0	0	0	0	72
13:45	0	61	21	0	3	2	0	2	7	0	1	0	0	97
14:00	0	52	13	1	5	0	0	1	6	0	1	0	0	79
14:15	0	73	17	0	1	0	0	1	5	0	0	0	0	97
14:30	0	75	15	1	3	2	0	0	13	0	1	0	0	110
14:45	1	77	18	2	2	0	0	0	9	0	0	0	0	109
15:00	0	79	17	0	1	1	0	0	6	0	0	0	0	104
15:15	0	79	17	0	3	1	0	1	2	0	0	0	0	103
15:30	0	119	24	0	3	1	0	0	2	0	2	0	0	151
15:45	0	134	21	0	4	2	0	2	6	0	0	0	0	169
16:00	1	122	18	0	3	2	0	0	7	0	1	0	0	154
16:15	0	101	17	0	6	1	0	1	5	0	0	0	0	131
16:30	0	95	14	1	3	0	0	1	7	0	0	0	0	121
16:45	0	101	12	0	4	1	0	0	4	0	0	0	0	122
17:00	0	86	22	0	1	0	0	0	2	0	0	0	0	111
17:15	0	108	14	0	0	0	0	0	0	0	0	0	0	122
17:30	0	75	14	0	2	0	0	1	1	0	1	0	0	94
17:45	0	60	9	0	3	0	0	0	5	0	0	0	0	77
18:00	0	52	7	1	0	1	0	0	2	0	0	0	0	63
18:15	0	47	6	0	2	0	0	0	2	0	1	0	0	58
18:30	0	51	9	0	4	0	0	0	4	0	0	0	0	68
18:45	0	52	6	0	1	0	0	0	3	0	0	0	0	62
19:00	0	48	3	0	0	0	0	0	0	0	0	0	0	51
19:15	0	41	2	0	2	0	0	0	1	0	0	0	0	46
19:30	0	42	3	1	1	0	0	1	1	0	0	0	0	49
19:45	0	28	2	0	0	0	0	0	2	0	0	0	0	32
20:00	0	38	5	0	0	0	0	0	1	0	0	0	0	44
20:15	0	34	5	0	2	1	0	0	2	0	0	0	0	44
20:30	0	48	3	0	0	0	0	0	0	0	0	0	0	51
20:45	0	41	3	0	2	0	0	0	1	0	0	0	0	47
21:00	0	41	4	1	1	0	0	0	2	0	0	0	0	49
21:15	0	27	4	0	0	0	0	0	2	0	0	0	0	33
21:30	0	38	5	0	1	0	0	0	2	0	0	0	0	46
21:45	0	28	4	0	0	0	0	0	1	0	0	0	0	33
22:00	0	27	3	0	0	0	0	0	1	0	0	0	0	31
22:15	0	20	4	0	0	0	0	0	0	0	0	0	0	24
22:30	0	28	7	0	1	1	0	0	2	0	0	0	0	39
22:45	0	8	7	0	0	0	0	0	1	0	0	0	0	16
23:00	0	19	3	0	0	0	0	0	0	0	0	0	0	22
23:15	0	15	4	0	0	0	0	0	2	0	0	0	0	21
23:30	0	15	1	0	0	1	0	0	0	0	0	0	0	17
23:45	0	22	2	0	0	1	0	0	0	0	0	0	0	25
TOTAL	2	2,623	470	8	83	28	0	14	173	0	11	0	0	3,412

PM PEAK HOUR	3:30 PM
PM PEAK VOLUME	605

TOTAL: AM+PM	9	4,423	894	18	173	58	2	24	342	1	34	0	0	5,978
% OF TOTAL	0.2%	74.0%	15.0%	0.3%	2.9%	1.0%	0.0%	0.4%	5.7%	0.0%	0.6%	0.0%	0.0%	100.0%

Class	1	2	3	4	5	6	7	8	9	10	11	12	13	
TOTAL: ALL	14	9,163	1,842	36	371	134	7	53	668	3	65	0	0	12,356
% OF TOTAL	0.2%	153.3%	30.8%	0.6%	6.2%	2.2%	0.1%	0.9%	11.2%	0.1%	1.1%	0.0%	0.0%	100.0%

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Thursday, November 17, 2022
JOB #: SC3620
CITY: Rialto
LOCATION: CLASS1 Locust north of Casmalia

AM	SOUTHBOUND													
TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
0:00	0	13	1	0	0	0	0	0	1	0	0	0	0	15
0:15	0	8	1	0	0	0	0	0	0	0	0	0	0	9
0:30	0	9	2	0	0	0	0	0	1	0	0	0	0	12
0:45	0	8	1	0	0	0	0	0	0	0	0	0	0	9
1:00	0	13	2	0	0	1	0	0	0	0	0	0	0	16
1:15	0	11	2	0	0	0	0	0	0	0	0	0	0	13
1:30	0	29	3	0	0	0	0	0	0	0	0	0	0	32
1:45	0	12	7	0	0	0	0	0	0	0	0	0	0	19
2:00	0	5	1	0	0	0	0	0	1	0	0	0	0	7
2:15	0	5	0	0	0	2	0	0	0	0	0	0	0	7
2:30	0	16	1	0	0	0	0	0	1	0	0	0	0	18
2:45	0	18	4	0	0	0	0	0	2	0	0	0	0	24
3:00	0	104	17	0	0	0	0	0	0	0	0	0	0	121
3:15	0	23	3	0	1	1	0	0	1	0	0	0	0	29
3:30	0	23	4	0	0	1	0	0	1	0	0	0	0	29
3:45	0	23	2	0	0	4	0	0	4	0	1	0	0	34
4:00	0	13	2	0	1	1	0	0	1	0	0	0	0	18
4:15	0	22	3	0	2	1	0	0	2	0	1	0	0	31
4:30	0	40	9	0	2	1	0	0	1	0	0	0	0	53
4:45	0	51	10	0	1	2	0	0	1	0	1	0	0	66
5:00	0	44	4	0	4	1	0	0	0	0	0	0	0	53
5:15	0	33	10	0	2	0	0	0	4	0	0	0	0	49
5:30	0	55	11	0	0	1	0	1	3	0	1	0	0	72
5:45	0	59	7	0	3	2	0	0	8	0	0	0	0	79
6:00	0	54	13	0	2	0	0	0	7	0	0	0	0	76
6:15	0	39	5	0	3	2	0	0	6	0	1	0	0	56
6:30	0	51	15	0	2	3	0	0	9	0	0	0	0	80
6:45	0	46	11	0	6	1	1	0	8	0	2	0	0	75
7:00	0	55	16	2	2	1	0	0	7	0	0	0	0	83
7:15	0	63	10	1	6	0	0	0	5	0	1	0	0	86
7:30	0	88	20	0	5	0	0	1	6	0	0	0	0	120
7:45	0	89	13	2	6	2	1	1	3	0	0	0	0	117
8:00	0	80	21	0	4	0	0	1	6	0	1	0	0	113
8:15	0	57	19	0	5	0	0	1	6	0	0	0	0	88
8:30	0	87	15	0	4	1	0	0	4	0	1	0	0	112
8:45	0	66	16	0	7	2	0	1	8	0	0	0	0	100
9:00	0	42	8	0	8	2	1	0	7	1	0	0	0	69
9:15	0	64	13	1	4	1	0	0	4	0	2	0	0	89
9:30	0	67	7	0	4	0	0	0	5	0	0	0	0	83
9:45	0	64	17	0	2	1	0	0	8	0	1	0	0	93
10:00	0	75	14	0	3	3	0	0	5	0	0	0	0	100
10:15	1	38	11	0	1	1	1	2	7	0	1	0	0	63
10:30	0	49	9	0	4	1	0	1	9	0	0	0	0	73
10:45	0	62	20	0	4	0	0	0	8	0	1	0	0	95
11:00	0	79	13	0	4	4	1	2	9	0	0	0	0	112
11:15	0	66	13	0	5	0	0	3	8	0	1	0	0	96
11:30	0	40	13	0	4	1	0	0	7	0	0	0	0	65
11:45	1	50	17	0	3	2	0	1	2	0	1	0	0	77
TOTAL	2	2,108	436	6	114	46	5	15	186	1	17	0	0	2,936

AM PEAK HOUR	7:30 AM
AM PEAK VOLUME	438

PM	SOUTHBOUND													
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
12:00	0	64	15	0	4	2	0	1	3	0	0	0	0	89
12:15	0	49	8	0	1	0	0	0	6	0	1	0	0	65
12:30	0	60	17	0	7	1	0	0	4	0	0	0	0	89
12:45	0	58	15	0	1	2	0	0	5	0	1	0	0	82
13:00	0	52	12	0	1	1	0	2	6	0	1	0	0	75
13:15	0	45	13	0	3	2	0	1	8	0	0	0	0	72
13:30	0	67	13	0	5	1	0	0	4	0	2	0	0	92
13:45	0	63	9	0	4	3	0	0	5	1	0	0	0	85
14:00	0	49	10	0	2	0	0	1	10	0	1	0	0	73
14:15	0	64	8	0	4	2	0	1	5	0	0	0	0	84
14:30	0	99	22	1	1	2	0	1	9	0	1	0	0	136
14:45	0	98	11	4	2	1	0	1	7	0	0	0	0	124
15:00	0	94	22	1	3	2	0	2	3	0	0	0	0	127
15:15	1	71	17	0	5	1	0	0	6	0	0	0	0	101
15:30	0	146	33	2	3	1	0	2	1	0	0	0	0	188
15:45	0	115	24	2	6	0	0	0	3	0	0	0	0	150
16:00	2	92	25	1	3	1	0	0	4	0	1	0	0	129
16:15	0	102	13	0	2	0	0	1	4	0	0	0	0	122
16:30	0	208	43	0	3	0	0	1	3	0	1	0	0	259
16:45	0	143	25	0	5	0	0	0	3	0	1	0	0	177
17:00	0	94	28	1	3	0	0	0	4	0	0	0	0	130
17:15	0	77	19	0	2	0	0	0	5	0	0	0	0	103
17:30	0	84	20	0	0	0	0	0	3	0	0	0	0	107
17:45	0	57	12	0	4	0	0	0	0	0	0	0	0	73
18:00	0	38	12	0	2	1	0	0	3	0	0	0	0	56
18:15	0	49	3	0	3	0	0	0	4	0	1	0	0	60
18:30	0	33	9	0	0	2	0	0	2	0	0	0	0	46
18:45	0	39	8	0	1	0	0	0	2	0	1	0	0	51
19:00	0	36	3	0	0	0	0	0	0	0	0	0	0	39
19:15	0	29	2	0	1	0	0	0	0	0	0	0	0	32
19:30	0	25	3	0	0	0	0	0	2	0	0	0	0	30
19:45	0	36	2	0	0	0	0	0	0	0	0	0	0	38
20:00	0	22	4	0	1	1	0	0	1	0	1	0	0	30
20:15	0	24	2	0	0	0	0	0	2	0	0	0	0	28
20:30	0	31	4	0	0	0	0	0	0	0	0	0	0	35
20:45	0	29	2	0	1	0	0	0	0	0	0	0	0	32
21:00	0	24	4	0	0	0	0	0	2	0	0	0	0	30
21:15	0	36	2	0	0	0	0	0	0	0	0	0	0	38
21:30	0	27	3	0	1	1	0	0	2	0	0	0	0	34
21:45	0	20	1	0	0	0	0	0	1	0	0	0	0	22
22:00	0	11	2	0	0	0	0	0	1	0	0	0	0	14
22:15	0	9	2	0	0	0	0	0	1	0	0	0	0	12
22:30	0	10	2	0	0	0	0	0	2	0	0	0	0	14
22:45	0	6	1	0	0	1	0	0	2	0	0	0	0	10
23:00	0	7	2	0	0	0	0	0	0	0	0	0	0	9
23:15	0	8	0	0	0	1	0	0	1	0	1	0	0	11
23:30	0	23	4	0	0	1	0	0	0	0	0	0	0	28
23:45	0	9	1	0	0	0	0	0	1	0	0	0	0	11
TOTAL	3	2,632	512	12	84	30	0	14	140	1	14	0	0	3,442

PM PEAK HOUR	4:15 PM
PM PEAK VOLUME	688

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	5	4,740	948	18	198	76	5	29	326	2	31	0	0	6,378
% OF TOTAL	0.1%	74.3%	14.9%	0.3%	3.1%	1.2%	0.1%	0.5%	5.1%	0.0%	0.5%	0.0%	0.0%	100.0%

Class	1	2	3	4	5	6	7	8	9	10	11	12	13

INTERSECTION TURNING MOVEMENT COUNTS

T218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Thu, Nov 17, 22

LOCATION: Rialto
NORTH & SOUTH: Alder
EAST & WEST: Casmalia

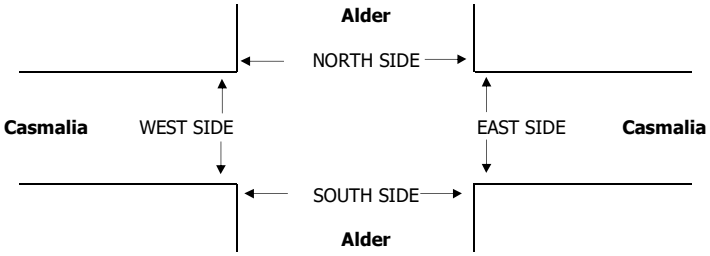
PROJECT #: SC3620
LOCATION #: 1
CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Alder			SOUTHBOUND Alder			EASTBOUND Sierra Lakes			WESTBOUND Casmalia				U-TURNS				
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 1.5	ER 0.5	WL 2	WT 1.5	WR 0.5	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	19	31	27	5	21	0	3	17	7	59	22	2	213	0	0	0	0	0
	7:15 AM	11	40	40	3	23	3	3	23	11	69	33	4	263	0	0	0	0	0
	7:30 AM	29	39	38	0	29	3	5	22	8	51	41	9	274	0	0	0	0	0
	7:45 AM	13	43	43	5	32	2	1	20	11	50	44	13	277	0	1	0	0	1
	8:00 AM	13	28	47	9	26	4	2	23	19	62	43	4	280	0	0	0	0	0
	8:15 AM	16	35	45	2	34	1	1	13	7	51	27	4	236	0	0	0	0	0
	8:30 AM	10	45	28	5	24	4	5	21	13	60	46	3	264	0	0	0	0	0
	8:45 AM	12	38	30	6	27	3	4	23	7	51	29	12	242	0	0	0	0	0
	VOLUMES	123	299	298	35	216	20	24	162	83	453	285	51	2,049	0	1	0	0	1
	APPROACH %	17%	42%	41%	13%	80%	7%	9%	60%	31%	57%	36%	6%						
	APP/DEPART	720	/	375	271	/	752	269	/	494	789	/	428	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	66	150	168	17	110	12	11	88	49	232	161	30	1,094					
	APPROACH %	17%	39%	44%	12%	79%	9%	7%	59%	33%	55%	38%	7%						
	PEAK HR FACTOR		0.906			0.891			0.841			0.970		0.977					
	APP/DEPART	384	/	192	139	/	391	148	/	272	423	/	239	0					
PM	4:00 PM	28	22	68	7	35	4	3	66	33	55	61	7	389	0	0	0	0	0
	4:15 PM	30	23	35	6	45	5	1	61	28	69	41	4	348	0	0	0	1	1
	4:30 PM	32	25	49	8	53	6	2	50	40	99	54	3	421	0	0	0	0	0
	4:45 PM	28	13	41	11	43	9	3	63	22	78	49	4	364	0	0	0	1	1
	5:00 PM	33	11	38	0	36	7	2	76	41	79	52	4	379	0	0	0	0	0
	5:15 PM	42	14	37	3	19	7	1	58	29	53	61	1	325	0	0	0	0	0
	5:30 PM	29	10	42	5	22	4	1	57	30	47	81	1	329	0	1	0	0	1
	5:45 PM	34	7	39	1	16	4	0	57	26	48	41	2	275	0	0	0	0	0
	VOLUMES	256	125	349	41	269	46	13	488	249	528	440	26	2,830	0	1	0	2	3
	APPROACH %	35%	17%	48%	12%	76%	13%	2%	65%	33%	53%	44%	3%						
	APP/DEPART	730	/	165	356	/	1,044	750	/	879	994	/	742	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	118	83	193	32	176	24	9	240	123	301	205	18	1,522					
	APPROACH %	30%	21%	49%	14%	76%	10%	2%	65%	33%	57%	39%	3%						
	PEAK HR FACTOR		0.835			0.866			0.912			0.840		0.904					
	APP/DEPART	394	/	110	232	/	598	372	/	467	524	/	347	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	AM BEGIN PEAK HR			7:15 AM			0	0	0	0	0					
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	2	0	0	2	0	2	0	0	2	0	0	0	0	0
	PM BEGIN PEAK HR			4:00 PM			0	1	0	0	1					

INTERSECTION TURNING MOVEMENT COUNTS

T218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Thu, Nov 17, 22

LOCATION: Rialto
NORTH & SOUTH: Alder
EAST & WEST: I-210 WB Ramps

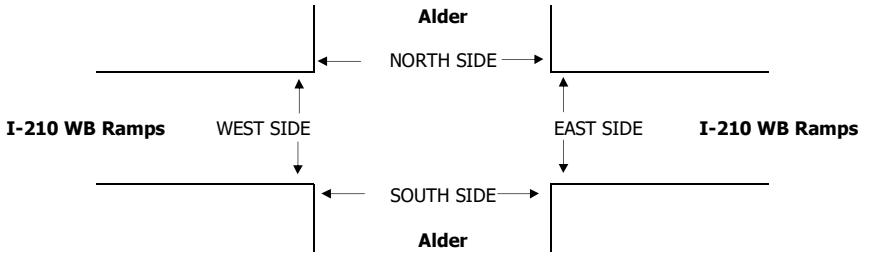
PROJECT #: SC3620
LOCATION #: 2
CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — N / W / E / S

Add U-Turns to Left Turns

		NORTHBOUND Alder			SOUTHBOUND Alder			EASTBOUND I-210 WB Ramps			WESTBOUND I-210 WB Ramps				U-TURNS				
	LANES:	NL 1	NT 2	NR X	SL X	ST 2	SR 0	EL X	ET X	ER X	WL 1	WT 0.5	WR 0.5	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	82	57	0	0	21	65	0	0	0	74	0	21	320	0	0	0	0	0
	7:15 AM	82	69	0	0	29	70	0	0	0	84	1	27	362	0	0	0	0	0
	7:30 AM	56	74	0	0	27	65	0	0	0	83	0	31	336	0	0	0	0	0
	7:45 AM	67	69	0	0	32	57	0	0	0	103	1	30	359	0	0	0	0	0
	8:00 AM	59	71	0	0	47	64	0	0	0	64	0	20	325	0	0	0	0	0
	8:15 AM	63	74	0	0	35	57	0	0	0	54	1	26	310	0	0	0	0	0
	8:30 AM	61	49	0	0	40	64	0	0	0	66	0	33	313	0	0	0	0	0
	8:45 AM	51	53	0	0	36	52	0	0	0	55	2	23	272	0	0	0	0	0
	VOLUMES	521	516	0	0	267	494	0	0	0	583	5	211	2,597	0	0	0	0	0
	APPROACH %	50%	50%	0%	0%	35%	65%	0%	0%	0%	73%	1%	26%						
	APP/DEPART	1,037	/	727	761	/	850	0	/	0	799	/	1,020	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	264	283	0	0	135	256	0	0	0	334	2	108	1,382					
	APPROACH %	48%	52%	0%	0%	35%	65%	0%	0%	0%	75%	0%	24%						
	PEAK HR FACTOR		0.906			0.881			0.000			0.828		0.954					
	APP/DEPART	547	/	391	391	/	469	0	/	0	444	/	522	0					
PM	4:00 PM	98	90	0	0	62	66	0	0	0	64	2	30	412	0	0	0	0	0
	4:15 PM	65	59	0	0	57	63	0	0	0	80	0	22	346	0	0	0	0	0
	4:30 PM	83	69	0	0	108	84	0	0	0	76	0	36	456	0	0	0	0	0
	4:45 PM	97	69	0	0	61	85	0	0	0	75	1	23	411	0	0	0	0	0
	5:00 PM	115	59	0	0	70	77	0	0	0	57	1	27	406	0	0	0	0	0
	5:15 PM	90	64	0	0	60	58	0	0	0	72	0	19	363	0	0	0	0	0
	5:30 PM	106	66	0	0	49	46	0	0	0	63	2	11	343	0	0	0	0	0
	5:45 PM	77	51	0	0	48	47	0	0	0	85	2	27	337	0	0	0	0	0
	VOLUMES	731	527	0	0	515	526	0	0	0	572	8	195	3,074	0	0	0	0	0
	APPROACH %	58%	42%	0%	0%	49%	51%	0%	0%	0%	74%	1%	25%						
	APP/DEPART	1,258	/	722	1,041	/	1,087	0	/	0	775	/	1,265	0					
	BEGIN PEAK HR		4:30 PM																
	VOLUMES	385	261	0	0	299	304	0	0	0	280	2	105	1,636					
	APPROACH %	60%	40%	0%	0%	50%	50%	0%	0%	0%	72%	1%	27%						
	PEAK HR FACTOR		0.928			0.785			0.000			0.864		0.897					
	APP/DEPART	646	/	366	603	/	579	0	/	0	387	/	691	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0
	TOTAL	0	0	1	1	2	0	0	1	1	2	0	0	0	0	0
	AM BEGIN PEAK HR			7:15 AM			0	0	0	1	1					
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	1	0	1	0	0	0	0	0	0	0	1	0	1
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	1	0	1	0	0	0	0	0	0	0	1	0	1
	PM BEGIN PEAK HR			4:30 PM			0	0	0	0	0					

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Thu, Nov 17, 22

LOCATION: Rialto
NORTH & SOUTH: Alder
EAST & WEST: I-210 EB Ramps

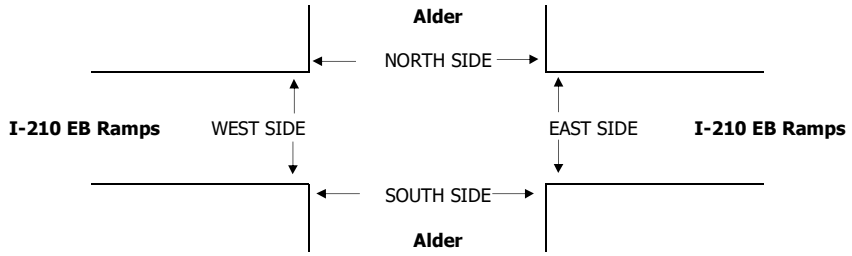
PROJECT #: SC3620
LOCATION #: 3
CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Alder			SOUTHBOUND Alder			EASTBOUND I-210 EB Ramps			WESTBOUND I-210 EB Ramps				U-TURNS				
	LANES:	NL X	NT 2	NR 0	SL 1	ST 2	SR X	EL 0.5	ET 0.5	ER 1	WL X	WT X	WR X	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	0	104	68	28	67	0	35	1	68	0	0	0	371	0	0	0	0	0
	7:15 AM	0	119	65	22	91	0	32	0	66	0	0	0	395	0	0	0	0	0
	7:30 AM	0	102	89	31	79	0	28	0	58	0	0	0	387	0	0	0	0	0
	7:45 AM	0	111	75	25	103	0	25	0	56	0	0	0	395	0	0	0	0	0
	8:00 AM	0	109	73	21	90	0	21	0	77	0	0	0	391	0	0	0	0	0
	8:15 AM	0	119	65	18	71	0	18	2	89	0	0	0	382	0	0	0	0	0
	8:30 AM	0	91	66	14	92	0	21	0	88	0	0	0	372	0	0	0	0	0
	8:45 AM	0	85	61	11	80	0	19	0	87	0	0	0	343	0	0	0	0	0
	VOLUMES	0	840	562	170	673	0	199	3	589	0	0	0	3,036	0	0	0	0	0
	APPROACH %	0%	60%	40%	20%	80%	0%	25%	0%	74%	0%	0%	0%						
	APP/DEPART	1,402	/	1,039	843	/	1,262	791	/	735	0	/	0	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	0	441	302	99	363	0	106	0	257	0	0	0	1,568					
	APPROACH %	0%	59%	41%	21%	79%	0%	29%	0%	71%	0%	0%	0%						
	PEAK HR FACTOR		0.973			0.902			0.926			0.000		0.992					
	APP/DEPART	743	/	547	462	/	620	363	/	401	0	/	0	0					
PM	4:00 PM	0	142	80	36	90	0	46	1	84	0	0	0	479	0	0	0	0	0
	4:15 PM	0	91	79	25	112	0	39	0	86	0	0	0	432	0	0	0	0	0
	4:30 PM	0	112	101	39	145	0	40	0	65	0	0	0	502	0	0	0	0	0
	4:45 PM	0	135	92	39	97	0	31	0	85	0	0	0	479	0	0	0	0	0
	5:00 PM	0	140	94	33	94	0	34	0	84	0	0	0	479	0	0	0	0	0
	5:15 PM	0	130	72	22	105	0	24	2	110	0	0	0	465	0	0	0	0	0
	5:30 PM	0	140	84	19	93	0	32	0	119	0	0	0	487	0	0	0	0	0
	5:45 PM	0	106	87	18	115	0	22	0	105	0	0	0	453	0	0	0	0	0
	VOLUMES	0	996	689	231	851	0	268	3	738	0	0	0	3,776	0	0	0	0	0
	APPROACH %	0%	59%	41%	21%	79%	0%	27%	0%	73%	0%	0%	0%						
	APP/DEPART	1,685	/	1,264	1,082	/	1,589	1,009	/	923	0	/	0	0					
	BEGIN PEAK HR		4:30 PM																
	VOLUMES	0	517	359	133	441	0	129	2	344	0	0	0	1,925					
	APPROACH %	0%	59%	41%	23%	77%	0%	27%	0%	72%	0%	0%	0%						
	PEAK HR FACTOR		0.936			0.780			0.873			0.000		0.959					
	APP/DEPART	876	/	646	574	/	785	475	/	494	0	/	0	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	AM BEGIN PEAK HR	7:15 AM					0	0	0	0	0					
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1
	PM BEGIN PEAK HR	4:30 PM					0	0	0	0	0					

INTERSECTION TURNING MOVEMENT COUNTS

T218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Thu, Nov 17, 22

LOCATION: Rialto
NORTH & SOUTH: Laurel
EAST & WEST: Casmalia

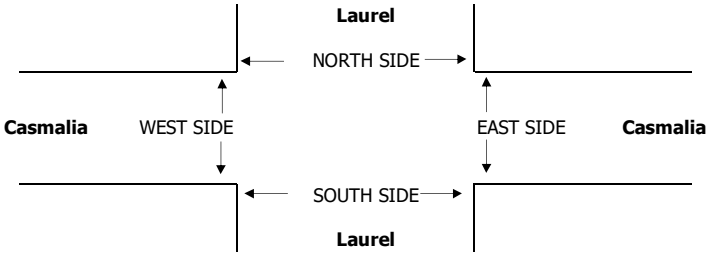
PROJECT #: SC3620
LOCATION #: 4
CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Laurel			SOUTHBOUND Laurel			EASTBOUND Casmalia			WESTBOUND Casmalia				U-TURNS				
	LANES:	NL 0	NT 1	NR 0	SL 1	ST 1	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	0	0	0	1	0	2	3	32	0	0	72	1	111	0	0	0	0	0
	7:15 AM	0	0	1	1	0	2	2	56	0	1	90	1	154	0	0	1	0	1
	7:30 AM	0	0	1	1	0	2	1	52	0	3	108	4	172	0	0	0	3	3
	7:45 AM	0	0	0	2	0	5	6	59	1	1	86	5	165	0	0	3	1	4
	8:00 AM	0	0	0	1	0	4	6	64	0	1	92	2	170	0	0	3	1	4
	8:15 AM	0	0	1	1	0	2	4	52	1	1	81	1	144	0	0	2	0	2
	8:30 AM	0	0	1	0	0	5	1	46	0	2	90	0	145	0	0	0	2	2
	8:45 AM	0	0	1	1	0	6	6	45	0	0	76	4	139	0	0	0	0	0
	VOLUMES	0	0	5	8	0	28	29	406	2	9	695	18	1,200	0	0	9	7	16
	APPROACH %	0%	0%	100%	22%	0%	78%	7%	93%	0%	1%	96%	2%						
	APP/DEPART	5	/	38	36	/	4	437	/	426	722	/	732	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	0	0	2	5	0	13	15	231	1	6	376	12	661					
	APPROACH %	0%	0%	100%	28%	0%	72%	6%	94%	0%	2%	95%	3%						
	PEAK HR FACTOR		0.500			0.643			0.882			0.857		0.961					
	APP/DEPART	2	/	20	18	/	2	247	/	243	394	/	396	0					
PM	4:00 PM	0	0	0	1	0	5	6	122	0	0	108	3	245	0	0	2	0	2
	4:15 PM	0	0	0	4	0	5	4	104	0	0	94	2	213	0	0	2	0	2
	4:30 PM	0	0	0	2	0	10	7	98	0	0	155	1	273	0	0	2	0	2
	4:45 PM	0	0	0	5	0	3	4	103	0	0	110	3	228	0	0	0	0	0
	5:00 PM	0	0	0	2	0	4	1	93	0	0	110	2	212	0	0	0	0	0
	5:15 PM	0	0	0	6	0	8	3	100	0	0	109	1	227	0	0	3	0	3
	5:30 PM	0	0	1	4	0	3	3	90	1	0	120	3	225	0	0	1	0	1
	5:45 PM	0	0	0	1	0	2	5	86	0	0	90	3	187	0	0	0	0	0
	VOLUMES	0	0	1	25	0	40	33	796	1	0	896	18	1,810	0	0	10	0	10
	APPROACH %	0%	0%	100%	38%	0%	62%	4%	96%	0%	0%	98%	2%						
	APP/DEPART	1	/	41	65	/	1	830	/	822	914	/	946	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	0	0	0	12	0	23	21	427	0	0	467	9	959					
	APPROACH %	0%	0%	0%	34%	0%	66%	5%	95%	0%	0%	98%	2%						
	PEAK HR FACTOR		0.000			0.729			0.875			0.763		0.878					
	APP/DEPART	0	/	24	35	/	0	448	/	439	476	/	496	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	AM BEGIN PEAK HR			7:15 AM			0	0	0	0	0					
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
	4:45 PM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	1	1	0	0	2	1	1	0	0	2	0	0	0	0	0
	PM BEGIN PEAK HR			4:00 PM			1	1	0	0	2					

INTERSECTION TURNING MOVEMENT COUNTS

T218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Thu, Nov 17, 22

LOCATION: Rialto
NORTH & SOUTH: Locust
EAST & WEST: Casmalia

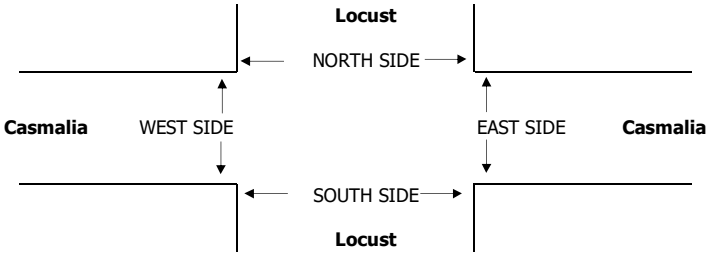
PROJECT #: SC3620
LOCATION #: 5
CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Locust			SOUTHBOUND Locust			EASTBOUND Casmalia			WESTBOUND Casmalia				U-TURNS				
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 1	SR 1	EL 1	ET 1	ER 1	WL 1	WT 1	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	13	50	1	9	35	38	23	9	3	3	20	16	220	0	0	0	0	0
	7:15 AM	18	37	2	8	36	37	28	24	5	4	39	19	257	0	0	0	0	0
	7:30 AM	21	43	1	16	67	43	26	20	7	5	49	24	322	0	0	1	0	1
	7:45 AM	25	64	1	26	65	26	35	25	11	5	35	39	357	0	0	0	0	0
	8:00 AM	29	44	3	20	58	35	30	24	9	5	32	25	314	0	0	0	0	0
	8:15 AM	26	35	7	16	28	44	37	14	5	3	15	17	247	0	0	0	0	0
	8:30 AM	16	23	2	13	44	55	23	17	7	1	23	15	239	0	0	0	0	0
	8:45 AM	11	19	1	10	42	48	20	14	11	1	19	20	216	0	0	0	0	0
	VOLUMES	159	315	18	118	375	326	222	147	58	27	232	175	2,172	0	0	1	0	1
	APPROACH %	32%	64%	4%	14%	46%	40%	52%	34%	14%	6%	53%	40%						
	APP/DEPART	492	/	711	819	/	460	427	/	283	434	/	718	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	93	188	7	70	226	141	119	93	32	19	155	107	1,250					
	APPROACH %	32%	65%	2%	16%	52%	32%	49%	38%	13%	7%	55%	38%						
	PEAK HR FACTOR		0.800			0.867			0.859			0.889		0.875					
	APP/DEPART	288	/	413	437	/	277	244	/	170	281	/	390	0					
PM	4:00 PM	21	73	1	32	43	60	50	47	30	8	41	33	439	0	0	0	0	0
	4:15 PM	10	57	2	18	49	48	45	43	20	3	35	26	356	0	0	0	1	1
	4:30 PM	22	67	2	56	104	98	32	48	19	4	37	19	508	0	0	0	0	0
	4:45 PM	9	59	4	40	75	64	33	49	23	1	41	31	429	0	0	0	0	0
	5:00 PM	18	61	3	32	38	59	33	42	23	2	53	18	382	0	0	0	1	1
	5:15 PM	9	82	6	17	44	39	30	45	22	4	50	13	361	0	0	0	0	0
	5:30 PM	18	46	2	17	48	45	41	43	17	9	60	6	352	0	0	0	0	0
	5:45 PM	20	49	10	10	31	33	19	47	17	2	40	9	287	0	0	0	0	0
	VOLUMES	127	494	30	222	432	446	283	364	171	33	357	155	3,114	0	0	0	2	2
	APPROACH %	20%	76%	5%	20%	39%	41%	35%	44%	21%	6%	66%	28%						
	APP/DEPART	651	/	932	1,100	/	634	818	/	618	545	/	930	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	62	256	9	146	271	270	160	187	92	16	154	109	1,732					
	APPROACH %	19%	78%	3%	21%	39%	39%	36%	43%	21%	6%	55%	39%						
	PEAK HR FACTOR		0.861			0.666			0.864			0.851		0.852					
	APP/DEPART	327	/	525	687	/	378	439	/	343	279	/	486	0					



		PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	AM BEGIN PEAK HR			7:15 AM			0	0	0	0	0					
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
	4:45 PM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	TOTAL	1	2	0	0	3	1	2	0	0	3	0	0	0	0	0
	PM BEGIN PEAK HR			4:00 PM			1	1	0	0	2					

Appendix B DELAY AND LOS CALCULATIONS (SYNCHRO)

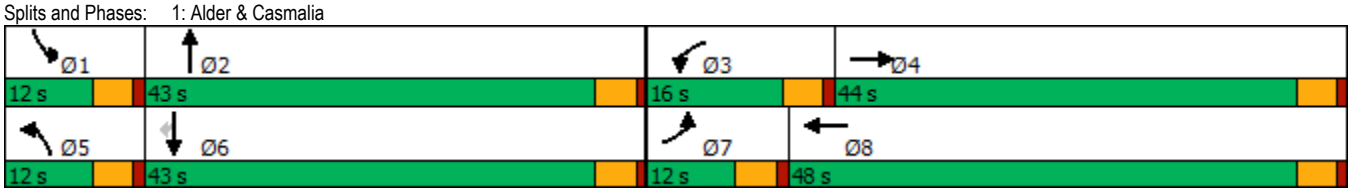
Existing Conditions

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	88	49	232	161	30	66	150	168	18	110	12
Future Volume (vph)	11	88	49	232	161	30	66	150	168	18	110	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180		0	290		0	115		0	210		210
Storage Lanes	1		0	2		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1641	3105	0	3183	3203	0	1641	3023	0	1641	3282	1468
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1641	3105	0	3183	3203	0	1641	3023	0	1641	3282	1468
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		50			22			171				100
Link Speed (mph)		55			55			50			50	
Link Distance (ft)		1715			1375			528			1602	
Travel Time (s)		21.3			17.0			7.2			21.8	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	140	0	237	195	0	67	324	0	18	112	12
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												6
Total Split (s)	12.0	44.0		16.0	48.0		12.0	43.0		12.0	43.0	43.0
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	4.5
Act Effct Green (s)	7.1	8.2		10.6	21.1		7.4	45.8		7.1	38.8	38.8
Actuated g/C Ratio	0.09	0.10		0.13	0.26		0.09	0.57		0.09	0.48	0.48
v/c Ratio	0.08	0.39		0.56	0.23		0.44	0.18		0.12	0.07	0.02
Control Delay	37.4	26.7		39.4	23.3		46.4	4.9		38.1	12.9	0.0
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	37.4	26.7		39.4	23.3		46.4	4.9		38.1	12.9	0.0
LOS	D	C		D	C		D	A		D	B	A
Approach Delay		27.4			32.1			12.1			15.0	
Approach LOS		C			C			B			B	

Intersection Summary

Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 80.4			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.56			
Intersection Signal Delay: 22.3		Intersection LOS: C	
Intersection Capacity Utilization 38.7%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 1: Alder & Casmalia

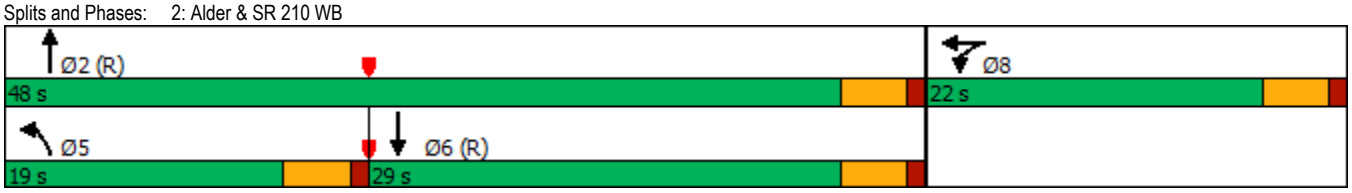


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	334	2	108	264	283	0	0	135	256
Future Volume (vph)	0	0	0	334	2	108	264	283	0	0	135	256
Ideal Flow (vphpl)	1000	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	385		0	250		0	0		0
Storage Lanes	0		0	1		0	1		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	0	0	1641	1473	0	1641	3282	0	0	2960	0
Flt Permitted				0.950			0.950					
Satd. Flow (perm)	0	0	0	1641	1473	0	1641	3282	0	0	2960	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					114						269	
Link Speed (mph)		55			55			50			50	
Link Distance (ft)		1246			1159			678			528	
Travel Time (s)		15.4			14.4			9.2			7.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	352	116	0	278	298	0	0	411	0
Turn Type				Split	NA		Prot	NA			NA	
Protected Phases				8	8		5	2			6	
Permitted Phases												
Total Split (s)				22.0	22.0		19.0	48.0			29.0	
Total Lost Time (s)				4.5	4.5		4.5	4.5			4.5	
Act Effct Green (s)				16.9	16.9		14.0	44.1			25.6	
Actuated g/C Ratio				0.24	0.24		0.20	0.63			0.37	
v/c Ratio				0.89	0.26		0.85	0.14			0.33	
Control Delay				52.1	6.7		45.4	5.7			6.7	
Queue Delay				0.0	0.0		0.0	0.0			0.0	
Total Delay				52.1	6.7		45.4	5.7			6.7	
LOS				D	A		D	A			A	
Approach Delay					40.9			24.9			6.7	
Approach LOS					D			C			A	

Intersection Summary

Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 70			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green, Master Intersection			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.89			
Intersection Signal Delay: 24.9		Intersection LOS: C	
Intersection Capacity Utilization 56.4%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 2: Alder & SR 210 WB

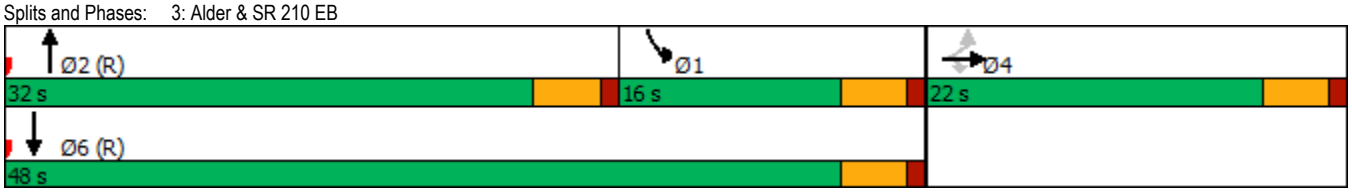


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	106	0	257	0	0	0	0	441	302	99	363	0
Future Volume (vph)	106	0	257	0	0	0	0	441	302	99	363	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		410	0		0	0		0	250		0
Storage Lanes	0		1	0		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1641	1468	0	0	0	0	3082	0	1641	3282	0
Flt Permitted		0.950								0.950		
Satd. Flow (perm)	0	1641	1468	0	0	0	0	3082	0	1641	3282	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			260					287				
Link Speed (mph)		55			55			50			50	
Link Distance (ft)		1496			1406			1653			678	
Travel Time (s)		18.5			17.4			22.5			9.2	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	107	260	0	0	0	0	750	0	100	367	0
Turn Type	Perm	NA	Perm					NA		Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4									
Total Split (s)	22.0	22.0	22.0					32.0		16.0	48.0	
Total Lost Time (s)		4.5	4.5					4.5		4.5	4.5	
Act Effct Green (s)		10.2	10.2					38.0		10.4	50.8	
Actuated g/C Ratio		0.15	0.15					0.54		0.15	0.73	
v/c Ratio		0.45	0.60					0.42		0.41	0.15	
Control Delay		32.4	10.0					7.6		33.4	1.2	
Queue Delay		0.0	0.0					0.0		0.0	0.0	
Total Delay		32.4	10.0					7.6		33.4	1.2	
LOS		C	A					A		C	A	
Approach Delay		16.5						7.6			8.1	
Approach LOS		B						A			A	

Intersection Summary

Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 70			
Offset: 45 (64%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.60			
Intersection Signal Delay: 9.8		Intersection LOS: A	
Intersection Capacity Utilization 56.4%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 3: Alder & SR 210 EB

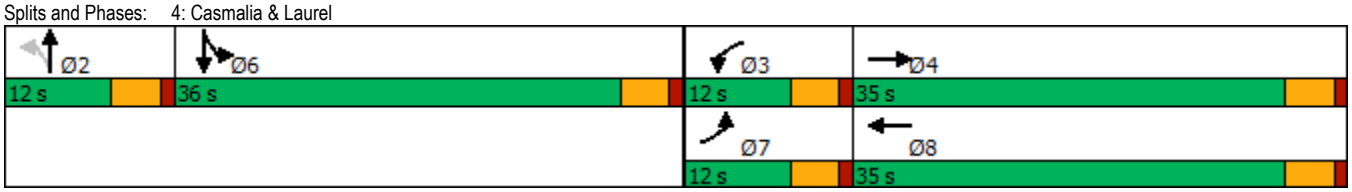


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	38	406	2	16	695	18	0	0	5	8	0	28
Future Volume (vph)	38	406	2	16	695	18	0	0	5	8	0	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	125		0	0		0	250		0
Storage Lanes	1		0	1		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1641	3280	0	1770	3269	0	0	1611	0	1641	1468	0
Flt Permitted	0.950			0.950						0.950		
Satd. Flow (perm)	1641	3280	0	1770	3269	0	0	1611	0	1641	1468	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			3			683			395	
Link Speed (mph)		55			55			30			40	
Link Distance (ft)		1375			1305			181			1978	
Travel Time (s)		17.0			16.2			4.1			33.7	
Peak Hour Factor	0.96	0.96	0.92	0.92	0.96	0.96	0.92	0.92	0.92	0.96	0.92	0.96
Heavy Vehicles (%)	10%	10%	2%	2%	10%	10%	2%	2%	2%	10%	2%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	40	425	0	17	743	0	0	5	0	8	29	0
Turn Type	Prot	NA		Prot	NA			NA		Split	NA	
Protected Phases	7	4		3	8			2		6	6	
Permitted Phases							2					
Total Split (s)	12.0	35.0		12.0	35.0		12.0	12.0		36.0	36.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5			4.5		4.5	4.5	
Act Effct Green (s)	7.4	26.6		7.2	24.3			7.6		32.1	32.1	
Actuated g/C Ratio	0.09	0.32		0.09	0.29			0.09		0.38	0.38	
v/c Ratio	0.28	0.41		0.11	0.79			0.01		0.01	0.04	
Control Delay	45.4	24.2		42.2	34.6			0.0		21.2	0.1	
Queue Delay	0.0	0.0		0.0	0.0			0.0		0.0	0.0	
Total Delay	45.4	24.2		42.2	34.6			0.0		21.2	0.1	
LOS	D	C		D	C			A		C	A	
Approach Delay		26.0			34.8						4.7	
Approach LOS		C			C						A	

Intersection Summary

Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 84.3			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay: 30.5		Intersection LOS: C	
Intersection Capacity Utilization 43.5%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 4: Casmalia & Laurel

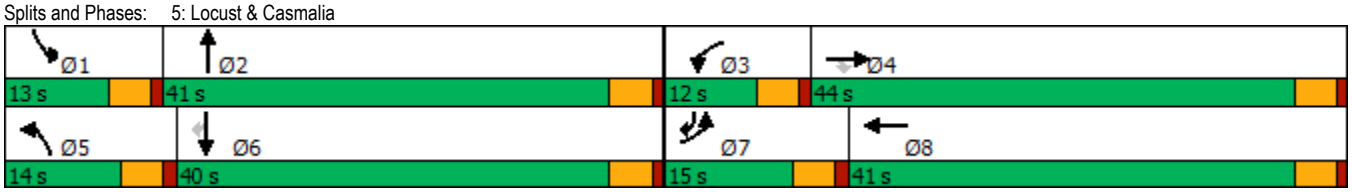


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	120	93	32	19	155	107	93	188	7	70	226	141
Future Volume (vph)	120	93	32	19	155	107	93	188	7	70	226	141
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	110		210	210		0	235		0	150		305
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1641	1727	1468	1641	1622	0	1626	3236	0	1626	1712	1455
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1641	1727	1468	1641	1622	0	1626	3236	0	1626	1712	1455
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			104		34			4				160
Link Speed (mph)		55			55			45			45	
Link Distance (ft)		1305			5280			2485			3750	
Travel Time (s)		16.2			65.5			37.7			56.8	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	11%	11%	11%	11%	11%	11%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	136	106	36	22	298	0	106	222	0	80	257	160
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	pm+ov
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases			4									6
Total Split (s)	15.0	44.0	44.0	12.0	41.0		14.0	41.0		13.0	40.0	15.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	4.5
Act Effct Green (s)	10.4	31.1	31.1	7.2	20.6		9.2	39.2		8.2	35.7	50.6
Actuated g/C Ratio	0.11	0.33	0.33	0.08	0.22		0.10	0.42		0.09	0.38	0.54
v/c Ratio	0.75	0.19	0.06	0.17	0.78		0.67	0.16		0.57	0.40	0.19
Control Delay	68.0	25.0	0.2	46.8	44.9		64.4	19.7		59.7	25.1	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	68.0	25.0	0.2	46.8	44.9		64.4	19.7		59.7	25.1	2.9
LOS	E	C	A	D	D		E	B		E	C	A
Approach Delay		42.8			45.0			34.2			23.5	
Approach LOS		D			D			C			C	

Intersection Summary

Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 94			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 34.6		Intersection LOS: C	
Intersection Capacity Utilization 54.1%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 5: Locust & Casmalia

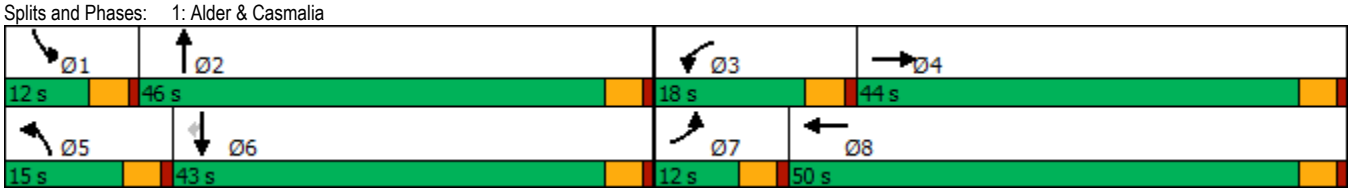


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	240	123	303	205	18	118	83	193	33	176	24
Future Volume (vph)	9	240	123	303	205	18	118	83	193	33	176	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180		0	290		0	115		0	210		210
Storage Lanes	1		0	2		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1641	3114	0	3183	3242	0	1641	2937	0	1641	3282	1468
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1641	3114	0	3183	3242	0	1641	2937	0	1641	3282	1468
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		81			9			214				136
Link Speed (mph)		55			55			50			50	
Link Distance (ft)		1715			1375			528			1602	
Travel Time (s)		21.3			17.0			7.2			21.8	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	10	404	0	337	248	0	131	306	0	37	196	27
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												6
Total Split (s)	12.0	44.0		18.0	50.0		15.0	46.0		12.0	43.0	43.0
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	4.5
Act Effct Green (s)	7.1	15.3		13.5	31.1		10.5	46.5		7.3	38.5	38.5
Actuated g/C Ratio	0.07	0.16		0.14	0.32		0.11	0.48		0.08	0.40	0.40
v/c Ratio	0.08	0.71		0.75	0.23		0.73	0.20		0.30	0.15	0.04
Control Delay	44.7	37.8		52.0	24.3		66.6	6.0		49.7	19.3	0.1
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	44.7	37.8		52.0	24.3		66.6	6.0		49.7	19.3	0.1
LOS	D	D		D	C		E	A		D	B	A
Approach Delay		37.9			40.3			24.1			21.6	
Approach LOS		D			D			C			C	

Intersection Summary

Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 95.9			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.75			
Intersection Signal Delay: 32.7		Intersection LOS: C	
Intersection Capacity Utilization 48.6%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 1: Alder & Casmalia

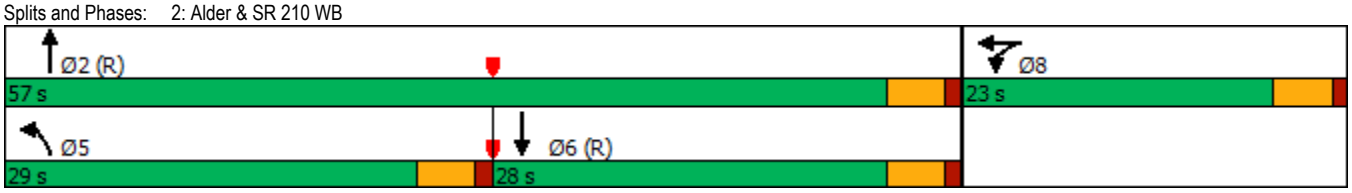


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	280	2	105	385	261	0	0	299	304
Future Volume (vph)	0	0	0	280	2	105	385	261	0	0	299	304
Ideal Flow (vphpl)	1000	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	385		0	250		0	0		0
Storage Lanes	0		0	1		0	1		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	0	0	1641	1473	0	1641	3282	0	0	3032	0
Flt Permitted				0.950			0.950					
Satd. Flow (perm)	0	0	0	1641	1473	0	1641	3282	0	0	3032	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					117						326	
Link Speed (mph)		55			55			50			50	
Link Distance (ft)		1246			1159			678			528	
Travel Time (s)		15.4			14.4			9.2			7.2	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	311	119	0	428	290	0	0	670	0
Turn Type				Split	NA		Prot	NA			NA	
Protected Phases				8	8		5	2			6	
Permitted Phases												
Total Split (s)				23.0	23.0		29.0	57.0			28.0	
Total Lost Time (s)				4.5	4.5		4.5	4.5			4.5	
Act Effct Green (s)				17.6	17.6		23.3	53.4			25.6	
Actuated g/C Ratio				0.22	0.22		0.29	0.67			0.32	
v/c Ratio				0.86	0.29		0.90	0.13			0.56	
Control Delay				54.1	7.6		41.7	4.6			13.8	
Queue Delay				0.0	0.0		0.0	0.0			0.0	
Total Delay				54.1	7.6		41.7	4.6			13.8	
LOS				D	A		D	A			B	
Approach Delay					41.3			26.7			13.8	
Approach LOS					D			C			B	

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green, Master Intersection			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay: 25.4		Intersection LOS: C	
Intersection Capacity Utilization 66.1%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 2: Alder & SR 210 WB

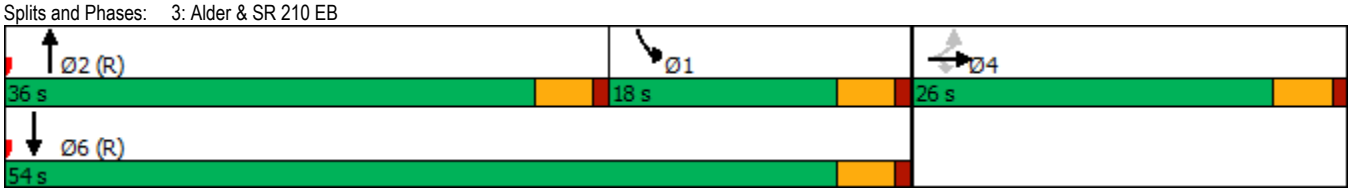


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	129	2	344	0	0	0	0	517	359	133	441	0
Future Volume (vph)	129	2	344	0	0	0	0	517	359	133	441	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		410	0		0	0		0	250		0
Storage Lanes	0		1	0		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1646	1468	0	0	0	0	3082	0	1641	3282	0
Flt Permitted		0.953								0.950		
Satd. Flow (perm)	0	1646	1468	0	0	0	0	3082	0	1641	3282	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			358					259				
Link Speed (mph)		55			55			50			50	
Link Distance (ft)		1496			1406			1653			678	
Travel Time (s)		18.5			17.4			22.5			9.2	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	136	358	0	0	0	0	913	0	139	459	0
Turn Type	Perm	NA	Perm					NA		Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4									
Total Split (s)	26.0	26.0	26.0					36.0		18.0	54.0	
Total Lost Time (s)		4.5	4.5					4.5		4.5	4.5	
Act Effct Green (s)		12.3	12.3					40.7		13.5	58.7	
Actuated g/C Ratio		0.15	0.15					0.51		0.17	0.73	
v/c Ratio		0.54	0.68					0.54		0.50	0.19	
Control Delay		38.3	10.5					11.2		38.5	3.7	
Queue Delay		0.0	0.0					0.0		0.0	0.0	
Total Delay		38.3	10.5					11.2		38.5	3.7	
LOS		D	B					B		D	A	
Approach Delay		18.2						11.2			11.8	
Approach LOS		B						B			B	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 49 (61%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.68
Intersection Signal Delay: 13.1 Intersection LOS: B
Intersection Capacity Utilization 66.1% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 3: Alder & SR 210 EB

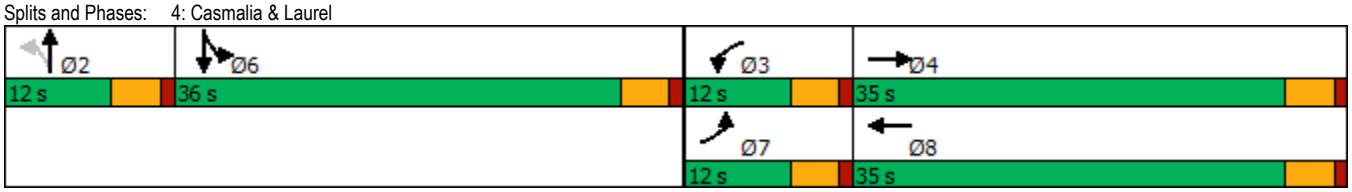


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	43	796	1	0	896	18	0	0	1	25	0	40
Future Volume (vph)	43	796	1	0	896	18	0	0	1	25	0	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	125		0	0		0	250		0
Storage Lanes	1		0	1		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1641	3282	0	1863	3272	0	0	1611	0	1641	1468	0
Flt Permitted	0.950									0.950		
Satd. Flow (perm)	1641	3282	0	1863	3272	0	0	1611	0	1641	1468	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					2			573			369	
Link Speed (mph)		55			55			30			40	
Link Distance (ft)		1375			1305			181			1978	
Travel Time (s)		17.0			16.2			4.1			33.7	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	10%	10%	2%	2%	10%	10%	2%	2%	2%	10%	2%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	49	906	0	0	1038	0	0	1	0	28	45	0
Turn Type	Prot	NA		Prot	NA			NA		Split	NA	
Protected Phases	7	4		3	8			2		6	6	
Permitted Phases							2					
Total Split (s)	12.0	35.0		12.0	35.0		12.0	12.0		36.0	36.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5			4.5		4.5	4.5	
Act Effct Green (s)	7.3	37.5			30.6			7.5		31.6	31.6	
Actuated g/C Ratio	0.08	0.42			0.34			0.08		0.35	0.35	
v/c Ratio	0.37	0.66			0.93			0.00		0.05	0.06	
Control Delay	49.4	23.8			45.8			0.0		21.7	0.1	
Queue Delay	0.0	0.0			0.0			0.0		0.0	0.0	
Total Delay	49.4	23.8			45.8			0.0		21.7	0.1	
LOS	D	C			D			A		C	A	
Approach Delay		25.1			45.8						8.4	
Approach LOS		C			D						A	

Intersection Summary

Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 90.2			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.93			
Intersection Signal Delay: 34.9		Intersection LOS: C	
Intersection Capacity Utilization 50.5%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 4: Casmalia & Laurel

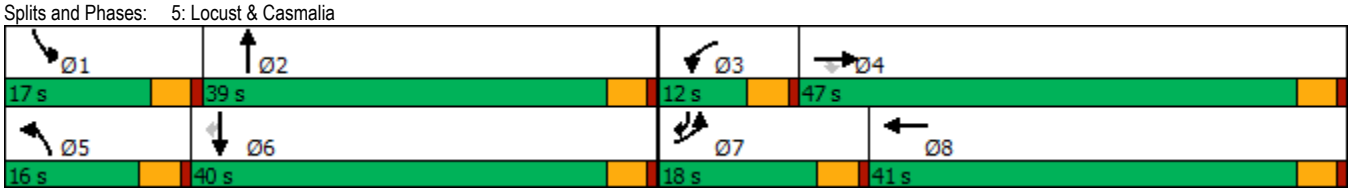


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	160	187	92	18	154	109	62	256	9	146	271	270
Future Volume (vph)	160	187	92	18	154	109	62	256	9	146	271	270
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	110		210	210		0	235		0	150		305
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1641	1727	1468	1641	1620	0	1626	3236	0	1626	1712	1455
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1641	1727	1468	1641	1620	0	1626	3236	0	1626	1712	1455
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			108		32			3				318
Link Speed (mph)		55			55			45			45	
Link Distance (ft)		1305			5280			2485			3750	
Travel Time (s)		16.2			65.5			37.7			56.8	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	11%	11%	11%	11%	11%	11%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	188	220	108	21	309	0	73	312	0	172	319	318
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	pm+ov
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases			4									6
Total Split (s)	18.0	47.0	47.0	12.0	41.0		16.0	39.0		17.0	40.0	18.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	4.5
Act Effct Green (s)	13.6	36.2	36.2	7.2	22.7		9.5	34.6		12.6	40.2	58.3
Actuated g/C Ratio	0.13	0.36	0.36	0.07	0.22		0.09	0.34		0.12	0.40	0.57
v/c Ratio	0.86	0.36	0.18	0.18	0.80		0.48	0.28		0.86	0.47	0.33
Control Delay	78.8	27.1	5.8	50.9	48.9		55.9	26.1		81.3	28.9	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	78.8	27.1	5.8	50.9	48.9		55.9	26.1		81.3	28.9	2.8
LOS	E	C	A	D	D		E	C		F	C	A
Approach Delay		41.5			49.1			31.8			29.7	
Approach LOS		D			D			C			C	

Intersection Summary

Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 101.5			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.86			
Intersection Signal Delay: 36.2		Intersection LOS: D	
Intersection Capacity Utilization 58.7%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 5: Locust & Casmalia



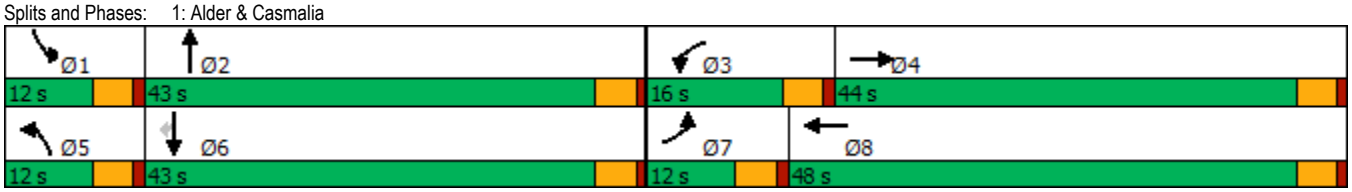
Existing + Ambient Growth Conditions

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	90	50	237	164	31	67	153	171	18	112	12
Future Volume (vph)	11	90	50	237	164	31	67	153	171	18	112	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180		0	290		0	115		0	210		210
Storage Lanes	1		0	2		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1641	3108	0	3183	3203	0	1641	3023	0	1641	3282	1468
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1641	3108	0	3183	3203	0	1641	3023	0	1641	3282	1468
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		51			22			174				100
Link Speed (mph)		55			55			50			50	
Link Distance (ft)		1715			1375			528			1602	
Travel Time (s)		21.3			17.0			7.2			21.8	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	143	0	242	199	0	68	330	0	18	114	12
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												6
Total Split (s)	12.0	44.0		16.0	48.0		12.0	43.0		12.0	43.0	43.0
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	4.5
Act Effct Green (s)	7.1	8.2		10.7	21.2		7.4	45.8		7.1	38.8	38.8
Actuated g/C Ratio	0.09	0.10		0.13	0.26		0.09	0.57		0.09	0.48	0.48
v/c Ratio	0.08	0.40		0.57	0.23		0.45	0.18		0.12	0.07	0.02
Control Delay	37.4	26.7		39.6	23.4		46.7	5.0		38.1	13.0	0.0
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	37.4	26.7		39.6	23.4		46.7	5.0		38.1	13.0	0.0
LOS	D	C		D	C		D	A		D	B	A
Approach Delay		27.4			32.3			12.1			15.0	
Approach LOS		C			C			B			B	

Intersection Summary

Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 80.5			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.57			
Intersection Signal Delay: 22.4		Intersection LOS: C	
Intersection Capacity Utilization 38.8%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 1: Alder & Casmalia

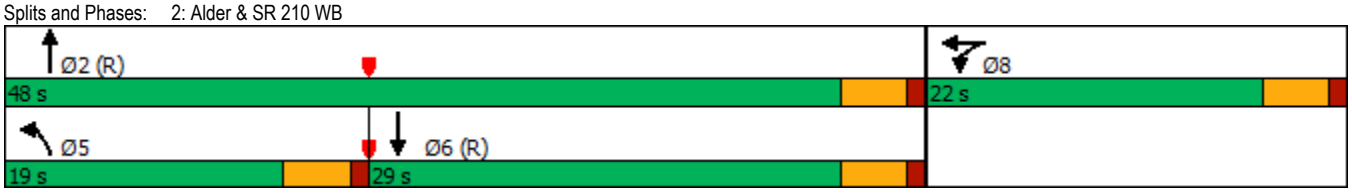


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	341	2	110	269	289	0	0	138	261
Future Volume (vph)	0	0	0	341	2	110	269	289	0	0	138	261
Ideal Flow (vphpl)	1000	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	385		0	250		0	0		0
Storage Lanes	0		0	1		0	1		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	0	0	1641	1473	0	1641	3282	0	0	2960	0
Flt Permitted				0.950			0.950					
Satd. Flow (perm)	0	0	0	1641	1473	0	1641	3282	0	0	2960	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					116						275	
Link Speed (mph)		55			55			50			50	
Link Distance (ft)		1246			1159			678			528	
Travel Time (s)		15.4			14.4			9.2			7.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	359	118	0	283	304	0	0	420	0
Turn Type				Split	NA		Prot	NA			NA	
Protected Phases				8	8		5	2			6	
Permitted Phases												
Total Split (s)				22.0	22.0		19.0	48.0			29.0	
Total Lost Time (s)				4.5	4.5		4.5	4.5			4.5	
Act Effct Green (s)				17.0	17.0		14.0	44.0			25.4	
Actuated g/C Ratio				0.24	0.24		0.20	0.63			0.36	
v/c Ratio				0.90	0.26		0.86	0.15			0.34	
Control Delay				54.0	6.7		50.5	2.9			6.7	
Queue Delay				0.0	0.0		0.0	0.0			0.0	
Total Delay				54.0	6.7		50.5	2.9			6.7	
LOS				D	A		D	A			A	
Approach Delay					42.3			25.9			6.7	
Approach LOS					D			C			A	

Intersection Summary

Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 70			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green, Master Intersection			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay: 25.7		Intersection LOS: C	
Intersection Capacity Utilization 57.3%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 2: Alder & SR 210 WB

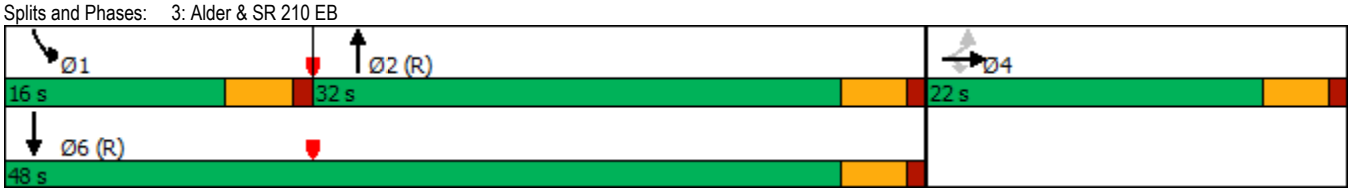


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	108	0	262	0	0	0	0	450	308	101	370	0
Future Volume (vph)	108	0	262	0	0	0	0	450	308	101	370	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		410	0		0	0		0	250		0
Storage Lanes	0		1	0		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1641	1468	0	0	0	0	3082	0	1641	3282	0
Flt Permitted		0.950								0.950		
Satd. Flow (perm)	0	1641	1468	0	0	0	0	3082	0	1641	3282	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			265					286				
Link Speed (mph)		55			55			50			50	
Link Distance (ft)		1496			1406			1653			678	
Travel Time (s)		18.5			17.4			22.5			9.2	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	109	265	0	0	0	0	766	0	102	374	0
Turn Type	Perm	NA	Perm					NA		Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4									
Total Split (s)	22.0	22.0	22.0					32.0		16.0	48.0	
Total Lost Time (s)		4.5	4.5					4.5		4.5	4.5	
Act Effct Green (s)		10.3	10.3					38.6		9.6	50.7	
Actuated g/C Ratio		0.15	0.15					0.55		0.14	0.72	
v/c Ratio		0.45	0.60					0.42		0.45	0.16	
Control Delay		32.4	9.9					7.8		45.0	1.7	
Queue Delay		0.0	0.0					0.0		0.0	0.0	
Total Delay		32.4	9.9					7.8		45.0	1.7	
LOS		C	A					A		D	A	
Approach Delay		16.5						7.8			11.0	
Approach LOS		B						A			B	

Intersection Summary

Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 70			
Offset: 45 (64%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.60			
Intersection Signal Delay: 10.7		Intersection LOS: B	
Intersection Capacity Utilization 57.3%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 3: Alder & SR 210 EB

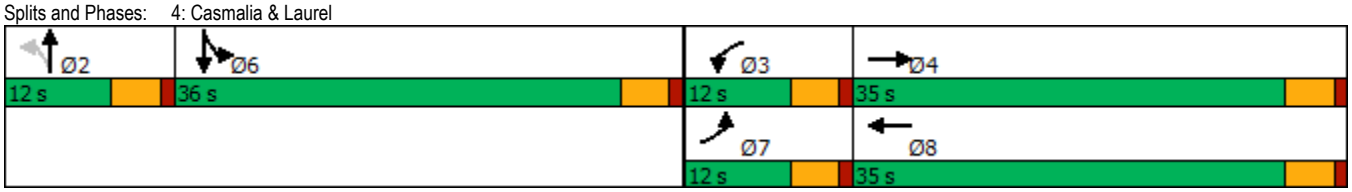


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	414	2	16	709	18	0	0	5	8	0	29
Future Volume (vph)	39	414	2	16	709	18	0	0	5	8	0	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	125		0	0		0	250		0
Storage Lanes	1		0	1		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1641	3280	0	1770	3269	0	0	1611	0	1641	1468	0
Flt Permitted	0.950			0.950						0.950		
Satd. Flow (perm)	1641	3280	0	1770	3269	0	0	1611	0	1641	1468	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					3			680			393	
Link Speed (mph)		55			55			30			40	
Link Distance (ft)		1375			1305			181			1978	
Travel Time (s)		17.0			16.2			4.1			33.7	
Peak Hour Factor	0.96	0.96	0.92	0.92	0.96	0.96	0.92	0.92	0.92	0.96	0.92	0.96
Heavy Vehicles (%)	10%	10%	2%	2%	10%	10%	2%	2%	2%	10%	2%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	41	433	0	17	758	0	0	5	0	8	30	0
Turn Type	Prot	NA		Prot	NA			NA		Split	NA	
Protected Phases	7	4		3	8			2		6	6	
Permitted Phases							2					
Total Split (s)	12.0	35.0		12.0	35.0		12.0	12.0		36.0	36.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5			4.5		4.5	4.5	
Act Effct Green (s)	7.4	26.9		7.2	24.6			7.6		32.1	32.1	
Actuated g/C Ratio	0.09	0.32		0.09	0.29			0.09		0.38	0.38	
v/c Ratio	0.29	0.42		0.11	0.80			0.01		0.01	0.04	
Control Delay	45.7	24.2		42.3	34.9			0.0		21.2	0.1	
Queue Delay	0.0	0.0		0.0	0.0			0.0		0.0	0.0	
Total Delay	45.7	24.2		42.3	34.9			0.0		21.2	0.1	
LOS	D	C		D	C			A		C	A	
Approach Delay		26.1			35.1						4.6	
Approach LOS		C			D						A	

Intersection Summary

Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 84.6			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 30.8		Intersection LOS: C	
Intersection Capacity Utilization 43.9%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 4: Casmalia & Laurel

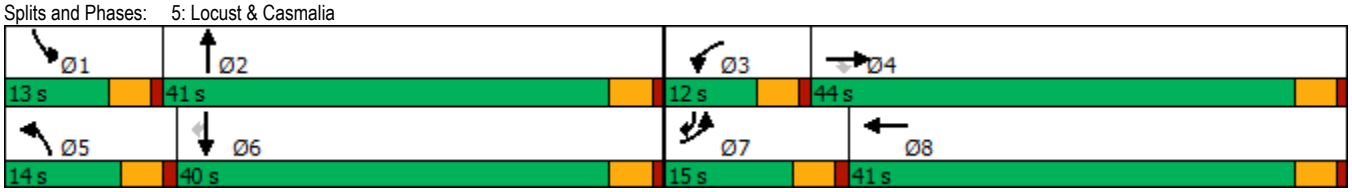


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	122	95	33	19	158	109	95	192	7	71	231	144
Future Volume (vph)	122	95	33	19	158	109	95	192	7	71	231	144
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	110		210	210		0	235		0	150		305
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1641	1727	1468	1641	1622	0	1626	3236	0	1626	1712	1455
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1641	1727	1468	1641	1622	0	1626	3236	0	1626	1712	1455
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			104		34			4				164
Link Speed (mph)		55			55			45			45	
Link Distance (ft)		1305			5280			2485			3750	
Travel Time (s)		16.2			65.5			37.7			56.8	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	11%	11%	11%	11%	11%	11%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	139	108	38	22	304	0	108	226	0	81	263	164
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	pm+ov
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases			4									6
Total Split (s)	15.0	44.0	44.0	12.0	41.0		14.0	41.0		13.0	40.0	15.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	4.5
Act Effct Green (s)	10.6	31.7	31.7	7.2	21.1		9.2	39.2		8.2	35.7	50.7
Actuated g/C Ratio	0.11	0.34	0.34	0.08	0.22		0.10	0.41		0.09	0.38	0.54
v/c Ratio	0.76	0.19	0.07	0.18	0.79		0.68	0.17		0.57	0.41	0.19
Control Delay	69.3	24.8	0.2	47.1	45.2		65.8	20.0		60.6	25.6	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	69.3	24.8	0.2	47.1	45.2		65.8	20.0		60.6	25.6	2.9
LOS	E	C	A	D	D		E	B		E	C	A
Approach Delay		43.2			45.3			34.8			23.8	
Approach LOS		D			D			C			C	

Intersection Summary

Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 94.6			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay: 35.0		Intersection LOS: C	
Intersection Capacity Utilization 54.7%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 5: Locust & Casmalia

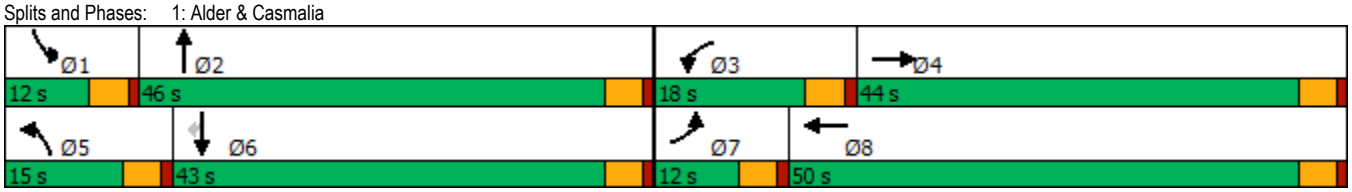


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	245	125	309	209	18	120	85	197	34	180	24
Future Volume (vph)	9	245	125	309	209	18	120	85	197	34	180	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180		0	290		0	115		0	210		210
Storage Lanes	1		0	2		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1641	3114	0	3183	3242	0	1641	2937	0	1641	3282	1468
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1641	3114	0	3183	3242	0	1641	2937	0	1641	3282	1468
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		81			9			219				136
Link Speed (mph)		55			55			50			50	
Link Distance (ft)		1715			1375			528			1602	
Travel Time (s)		21.3			17.0			7.2			21.8	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	10	411	0	343	252	0	133	313	0	38	200	27
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												6
Total Split (s)	12.0	44.0		18.0	50.0		15.0	46.0		12.0	43.0	43.0
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	4.5
Act Effct Green (s)	7.1	15.6		13.5	31.3		10.5	46.5		7.3	38.6	38.6
Actuated g/C Ratio	0.07	0.16		0.14	0.33		0.11	0.48		0.08	0.40	0.40
v/c Ratio	0.08	0.72		0.77	0.24		0.74	0.20		0.31	0.15	0.04
Control Delay	44.8	38.0		53.1	24.3		67.9	6.0		50.1	19.4	0.1
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	44.8	38.0		53.1	24.3		67.9	6.0		50.1	19.4	0.1
LOS	D	D		D	C		E	A		D	B	A
Approach Delay		38.1			40.9			24.4			21.9	
Approach LOS		D			D			C			C	

Intersection Summary

Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 96.2			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay: 33.0		Intersection LOS: C	
Intersection Capacity Utilization 49.1%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 1: Alder & Casmalia

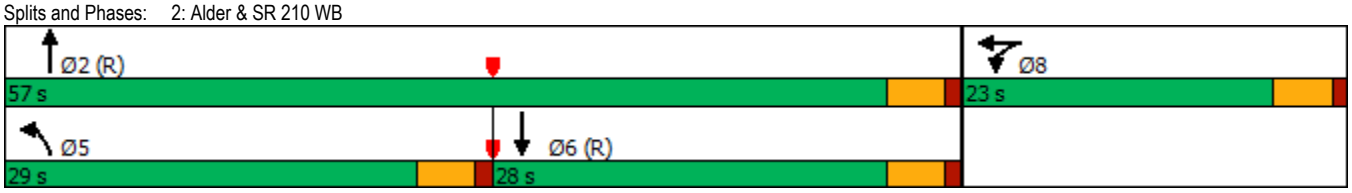


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	286	2	107	393	266	0	0	305	310
Future Volume (vph)	0	0	0	286	2	107	393	266	0	0	305	310
Ideal Flow (vphpl)	1000	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	385		0	250		0	0		0
Storage Lanes	0		0	1		0	1		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	0	0	1641	1472	0	1641	3282	0	0	3032	0
Flt Permitted				0.950			0.950					
Satd. Flow (perm)	0	0	0	1641	1472	0	1641	3282	0	0	3032	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					119						327	
Link Speed (mph)		55			55			50			50	
Link Distance (ft)		1246			1159			678			528	
Travel Time (s)		15.4			14.4			9.2			7.2	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	318	121	0	437	296	0	0	683	0
Turn Type				Split	NA		Prot	NA			NA	
Protected Phases				8	8		5	2			6	
Permitted Phases												
Total Split (s)				23.0	23.0		29.0	57.0			28.0	
Total Lost Time (s)				4.5	4.5		4.5	4.5			4.5	
Act Effct Green (s)				17.8	17.8		23.5	53.2			25.2	
Actuated g/C Ratio				0.22	0.22		0.29	0.66			0.32	
v/c Ratio				0.87	0.29		0.91	0.14			0.58	
Control Delay				55.7	7.6		42.9	4.6			14.2	
Queue Delay				0.0	0.0		0.0	0.0			0.0	
Total Delay				55.7	7.6		42.9	4.6			14.2	
LOS				E	A		D	A			B	
Approach Delay					42.4			27.4			14.2	
Approach LOS					D			C			B	

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green, Master Intersection			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.91			
Intersection Signal Delay: 26.1		Intersection LOS: C	
Intersection Capacity Utilization 67.3%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 2: Alder & SR 210 WB

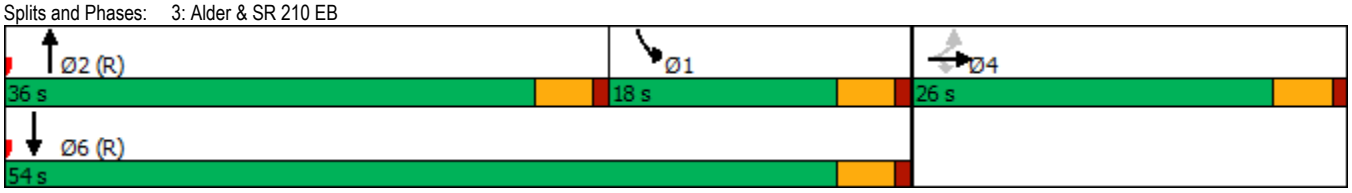


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	132	2	351	0	0	0	0	527	366	136	450	0
Future Volume (vph)	132	2	351	0	0	0	0	527	366	136	450	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		410	0		0	0		0	250		0
Storage Lanes	0		1	0		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1646	1468	0	0	0	0	3082	0	1641	3282	0
Flt Permitted		0.953								0.950		
Satd. Flow (perm)	0	1646	1468	0	0	0	0	3082	0	1641	3282	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			366					259				
Link Speed (mph)		55			55			50			50	
Link Distance (ft)		1496			1406			1653			678	
Travel Time (s)		18.5			17.4			22.5			9.2	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	140	366	0	0	0	0	930	0	142	469	0
Turn Type	Perm	NA	Perm					NA		Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4									
Total Split (s)	26.0	26.0	26.0					36.0		18.0	54.0	
Total Lost Time (s)		4.5	4.5					4.5		4.5	4.5	
Act Effct Green (s)		12.5	12.5					40.5		13.5	58.5	
Actuated g/C Ratio		0.16	0.16					0.51		0.17	0.73	
v/c Ratio		0.55	0.68					0.55		0.51	0.20	
Control Delay		38.3	10.4					11.5		38.8	3.9	
Queue Delay		0.0	0.0					0.0		0.0	0.0	
Total Delay		38.3	10.4					11.5		38.8	3.9	
LOS		D	B					B		D	A	
Approach Delay		18.1						11.5			12.0	
Approach LOS		B						B			B	

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 49 (61%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay: 13.3		Intersection LOS: B	
Intersection Capacity Utilization 67.3%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 3: Alder & SR 210 EB

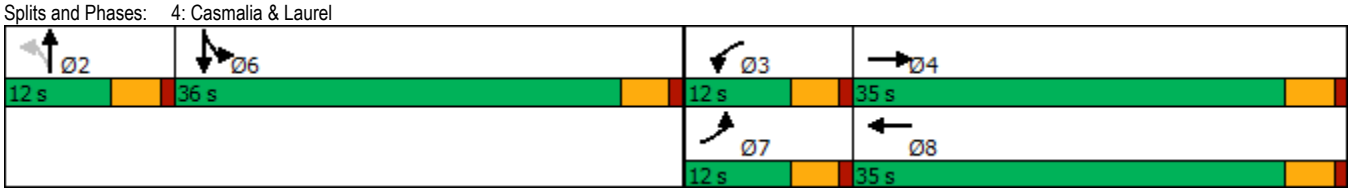


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	812	1	0	914	18	0	0	1	25	0	41
Future Volume (vph)	44	812	1	0	914	18	0	0	1	25	0	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	125		0	0		0	250		0
Storage Lanes	1		0	1		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1641	3282	0	1863	3272	0	0	1611	0	1641	1468	0
Flt Permitted	0.950									0.950		
Satd. Flow (perm)	1641	3282	0	1863	3272	0	0	1611	0	1641	1468	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					2			572			368	
Link Speed (mph)		55			55			30			40	
Link Distance (ft)		1375			1305			181			1978	
Travel Time (s)		17.0			16.2			4.1			33.7	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	10%	10%	2%	2%	10%	10%	2%	2%	2%	10%	2%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	50	924	0	0	1059	0	0	1	0	28	47	0
Turn Type	Prot	NA		Prot	NA			NA		Split	NA	
Protected Phases	7	4		3	8			2		6	6	
Permitted Phases							2					
Total Split (s)	12.0	35.0		12.0	35.0		12.0	12.0		36.0	36.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5			4.5		4.5	4.5	
Act Effct Green (s)	7.3	37.5			30.6			7.5		31.6	31.6	
Actuated g/C Ratio	0.08	0.42			0.34			0.08		0.35	0.35	
v/c Ratio	0.38	0.68			0.95			0.00		0.05	0.06	
Control Delay	49.7	24.1			48.8			0.0		21.7	0.2	
Queue Delay	0.0	0.0			0.0			0.0		0.0	0.0	
Total Delay	49.7	24.1			48.8			0.0		21.7	0.2	
LOS	D	C			D			A		C	A	
Approach Delay		25.4			48.8						8.2	
Approach LOS		C			D						A	

Intersection Summary

Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 90.2			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay: 36.5		Intersection LOS: D	
Intersection Capacity Utilization 51.0%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 4: Casmalia & Laurel

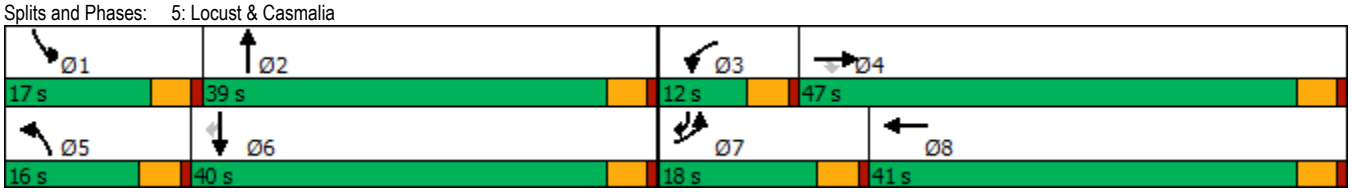


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	163	191	94	18	157	111	63	261	9	149	276	275
Future Volume (vph)	163	191	94	18	157	111	63	261	9	149	276	275
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	110		210	210		0	235		0	150		305
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1641	1727	1468	1641	1620	0	1626	3236	0	1626	1712	1455
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1641	1727	1468	1641	1620	0	1626	3236	0	1626	1712	1455
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			111		32			3				324
Link Speed (mph)		55			55			45			45	
Link Distance (ft)		1305			5280			2485			3750	
Travel Time (s)		16.2			65.5			37.7			56.8	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	11%	11%	11%	11%	11%	11%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	192	225	111	21	316	0	74	318	0	175	325	324
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	pm+ov
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases			4									6
Total Split (s)	18.0	47.0	47.0	12.0	41.0		16.0	39.0		17.0	40.0	18.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	4.5
Act Effct Green (s)	13.6	36.8	36.8	7.2	23.2		9.6	34.6		12.5	40.1	58.2
Actuated g/C Ratio	0.13	0.36	0.36	0.07	0.23		0.09	0.34		0.12	0.39	0.57
v/c Ratio	0.88	0.36	0.18	0.18	0.80		0.49	0.29		0.88	0.48	0.33
Control Delay	82.8	27.0	5.6	51.3	49.1		56.5	26.5		84.8	29.4	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	82.8	27.0	5.6	51.3	49.1		56.5	26.5		84.8	29.4	2.8
LOS	F	C	A	D	D		E	C		F	C	A
Approach Delay		42.8			49.3			32.2			30.7	
Approach LOS		D			D			C			C	

Intersection Summary

Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 102			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay: 37.1		Intersection LOS: D	
Intersection Capacity Utilization 59.4%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 5: Locust & Casmalia



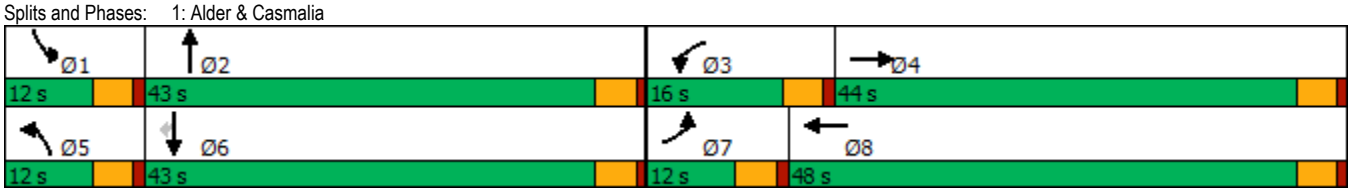
Existing + Ambient + Project (PCE) Conditions

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	92	50	242	165	31	67	153	189	18	112	12
Future Volume (vph)	11	92	50	242	165	31	67	153	189	18	112	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180		0	290		0	115		0	210		210
Storage Lanes	1		0	2		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1641	3108	0	3183	3203	0	1641	3009	0	1641	3282	1468
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1641	3108	0	3183	3203	0	1641	3009	0	1641	3282	1468
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		51			22			193				100
Link Speed (mph)		55			55			50			50	
Link Distance (ft)		1715			1375			528			1602	
Travel Time (s)		21.3			17.0			7.2			21.8	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	145	0	247	200	0	68	349	0	18	114	12
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												6
Total Split (s)	12.0	44.0		16.0	48.0		12.0	43.0		12.0	43.0	43.0
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	4.5
Act Effct Green (s)	7.1	8.2		10.7	21.3		7.4	45.8		7.2	38.8	38.8
Actuated g/C Ratio	0.09	0.10		0.13	0.26		0.09	0.57		0.09	0.48	0.48
v/c Ratio	0.08	0.40		0.58	0.23		0.45	0.19		0.12	0.07	0.02
Control Delay	37.4	26.9		39.9	23.4		46.7	4.8		38.1	13.0	0.0
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	37.4	26.9		39.9	23.4		46.7	4.8		38.1	13.0	0.0
LOS	D	C		D	C		D	A		D	B	A
Approach Delay		27.6			32.5			11.6			15.0	
Approach LOS		C			C			B			B	

Intersection Summary

Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 80.6			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.58			
Intersection Signal Delay: 22.2		Intersection LOS: C	
Intersection Capacity Utilization 38.9%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 1: Alder & Casmalia

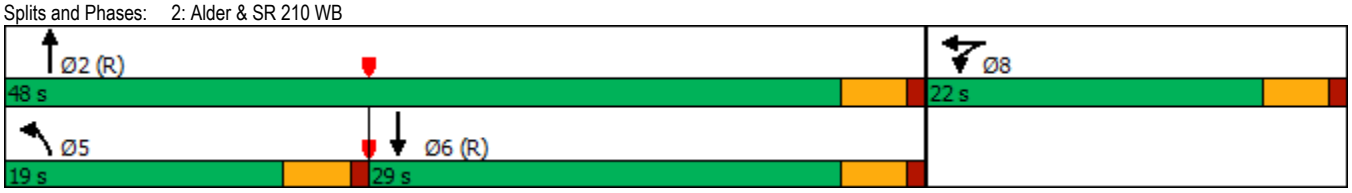


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	341	2	110	269	307	0	0	138	266
Future Volume (vph)	0	0	0	341	2	110	269	307	0	0	138	266
Ideal Flow (vphpl)	1000	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	385		0	250		0	0		0
Storage Lanes	0		0	1		0	1		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	0	0	1641	1473	0	1641	3282	0	0	2957	0
Flt Permitted				0.950			0.950					
Satd. Flow (perm)	0	0	0	1641	1473	0	1641	3282	0	0	2957	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					116						280	
Link Speed (mph)		55			55			50			50	
Link Distance (ft)		1246			1159			678			528	
Travel Time (s)		15.4			14.4			9.2			7.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	359	118	0	283	323	0	0	425	0
Turn Type				Split	NA		Prot	NA			NA	
Protected Phases				8	8		5	2			6	
Permitted Phases												
Total Split (s)				22.0	22.0		19.0	48.0			29.0	
Total Lost Time (s)				4.5	4.5		4.5	4.5			4.5	
Act Effct Green (s)				17.0	17.0		14.0	44.0			25.4	
Actuated g/C Ratio				0.24	0.24		0.20	0.63			0.36	
v/c Ratio				0.90	0.26		0.86	0.16			0.34	
Control Delay				54.0	6.7		50.9	2.9			6.6	
Queue Delay				0.0	0.0		0.0	0.0			0.0	
Total Delay				54.0	6.7		50.9	2.9			6.6	
LOS				D	A		D	A			A	
Approach Delay					42.3			25.3			6.6	
Approach LOS					D			C			A	

Intersection Summary

Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 70			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green, Master Intersection			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay: 25.4		Intersection LOS: C	
Intersection Capacity Utilization 57.4%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 2: Alder & SR 210 WB

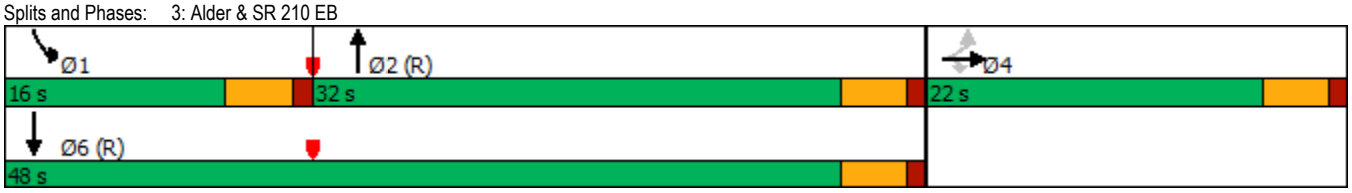


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	126	0	262	0	0	0	0	450	308	101	370	0
Future Volume (vph)	126	0	262	0	0	0	0	450	308	101	370	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		410	0		0	0		0	250		0
Storage Lanes	0		1	0		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1641	1468	0	0	0	0	3082	0	1641	3282	0
Flt Permitted		0.950								0.950		
Satd. Flow (perm)	0	1641	1468	0	0	0	0	3082	0	1641	3282	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			265					286				
Link Speed (mph)		55			55			50			50	
Link Distance (ft)		1496			1406			1653			678	
Travel Time (s)		18.5			17.4			22.5			9.2	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	127	265	0	0	0	0	766	0	102	374	0
Turn Type	Perm	NA	Perm					NA		Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4									
Total Split (s)	22.0	22.0	22.0					32.0		16.0	48.0	
Total Lost Time (s)		4.5	4.5					4.5		4.5	4.5	
Act Effct Green (s)		11.0	11.0					38.0		9.6	50.0	
Actuated g/C Ratio		0.16	0.16					0.54		0.14	0.71	
v/c Ratio		0.50	0.58					0.42		0.46	0.16	
Control Delay		32.8	9.3					8.1		44.9	1.8	
Queue Delay		0.0	0.0					0.0		0.0	0.0	
Total Delay		32.8	9.3					8.1		44.9	1.8	
LOS		C	A					A		D	A	
Approach Delay		16.9						8.1			11.1	
Approach LOS		B						A			B	

Intersection Summary

Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 70			
Offset: 45 (64%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.58			
Intersection Signal Delay: 11.1		Intersection LOS: B	
Intersection Capacity Utilization 57.4%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 3: Alder & SR 210 EB

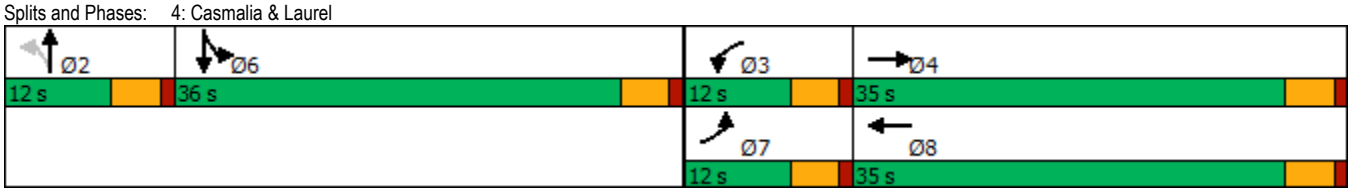


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	433	2	16	715	18	0	0	5	8	0	29
Future Volume (vph)	39	433	2	16	715	18	0	0	5	8	0	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	125		0	0		0	250		0
Storage Lanes	1		0	1		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1641	3280	0	1770	3269	0	0	1611	0	1641	1468	0
Flt Permitted	0.950			0.950						0.950		
Satd. Flow (perm)	1641	3280	0	1770	3269	0	0	1611	0	1641	1468	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					3			673			392	
Link Speed (mph)		55			55			30			40	
Link Distance (ft)		1375			1305			181			1978	
Travel Time (s)		17.0			16.2			4.1			33.7	
Peak Hour Factor	0.96	0.96	0.92	0.92	0.96	0.96	0.92	0.92	0.92	0.96	0.92	0.96
Heavy Vehicles (%)	10%	10%	2%	2%	10%	10%	2%	2%	2%	10%	2%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	41	453	0	17	764	0	0	5	0	8	30	0
Turn Type	Prot	NA		Prot	NA			NA		Split	NA	
Protected Phases	7	4		3	8			2		6	6	
Permitted Phases							2					
Total Split (s)	12.0	35.0		12.0	35.0		12.0	12.0		36.0	36.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5			4.5		4.5	4.5	
Act Effct Green (s)	7.4	27.0		7.2	24.7			7.6		32.1	32.1	
Actuated g/C Ratio	0.09	0.32		0.09	0.29			0.09		0.38	0.38	
v/c Ratio	0.29	0.43		0.11	0.80			0.01		0.01	0.04	
Control Delay	45.8	24.5		42.4	35.1			0.0		21.2	0.1	
Queue Delay	0.0	0.0		0.0	0.0			0.0		0.0	0.0	
Total Delay	45.8	24.5		42.4	35.1			0.0		21.2	0.1	
LOS	D	C		D	D			A		C	A	
Approach Delay		26.2			35.3						4.6	
Approach LOS		C			D						A	

Intersection Summary

Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 84.7			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 30.9		Intersection LOS: C	
Intersection Capacity Utilization 44.1%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 4: Casmalia & Laurel

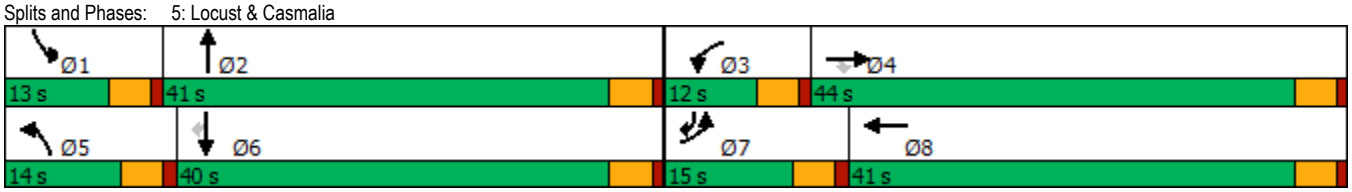


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	141	95	33	19	158	123	95	196	7	76	232	150
Future Volume (vph)	141	95	33	19	158	123	95	196	7	76	232	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	110		210	210		0	235		0	150		305
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1641	1727	1468	1641	1613	0	1626	3236	0	1626	1712	1455
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1641	1727	1468	1641	1613	0	1626	3236	0	1626	1712	1455
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			104		38			3				170
Link Speed (mph)		55			55			45			45	
Link Distance (ft)		1305			5280			2485			3750	
Travel Time (s)		16.2			65.5			37.7			56.8	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	11%	11%	11%	11%	11%	11%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	160	108	38	22	320	0	108	231	0	86	264	170
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	pm+ov
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases			4									6
Total Split (s)	15.0	44.0	44.0	12.0	41.0		14.0	41.0		13.0	40.0	15.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	4.5
Act Effct Green (s)	10.6	32.7	32.7	7.2	22.1		9.2	39.3		8.2	35.7	50.8
Actuated g/C Ratio	0.11	0.34	0.34	0.08	0.23		0.10	0.41		0.09	0.37	0.53
v/c Ratio	0.89	0.18	0.07	0.18	0.80		0.69	0.17		0.62	0.41	0.20
Control Delay	88.0	24.5	0.2	47.8	45.4		67.2	20.6		64.3	26.3	3.0
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	88.0	24.5	0.2	47.8	45.4		67.2	20.6		64.3	26.3	3.0
LOS	F	C	A	D	D		E	C		E	C	A
Approach Delay		54.7			45.5			35.5			24.9	
Approach LOS		D			D			D			C	

Intersection Summary

Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 95.7			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.89			
Intersection Signal Delay: 38.0		Intersection LOS: D	
Intersection Capacity Utilization 56.7%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 5: Locust & Casmalia

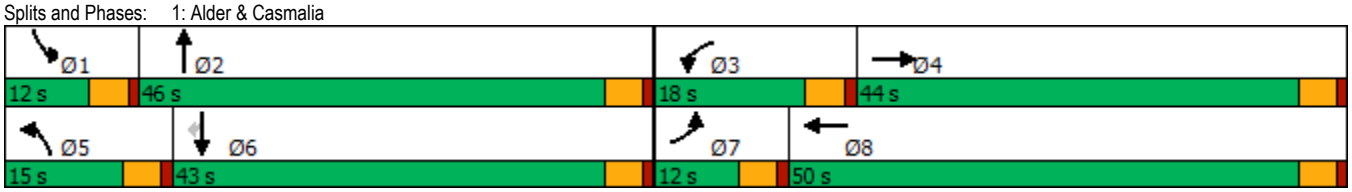


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	246	125	327	211	18	120	85	205	34	180	24
Future Volume (vph)	9	246	125	327	211	18	120	85	205	34	180	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180		0	290		0	115		0	210		210
Storage Lanes	1		0	2		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1641	3114	0	3183	3242	0	1641	2934	0	1641	3282	1468
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1641	3114	0	3183	3242	0	1641	2934	0	1641	3282	1468
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		80			8			228				136
Link Speed (mph)		55			55			50			50	
Link Distance (ft)		1715			1375			528			1602	
Travel Time (s)		21.3			17.0			7.2			21.8	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	10	412	0	363	254	0	133	322	0	38	200	27
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												6
Total Split (s)	12.0	44.0		18.0	50.0		15.0	46.0		12.0	43.0	43.0
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	4.5
Act Effct Green (s)	7.1	15.7		13.5	31.4		10.5	46.5		7.3	38.6	38.6
Actuated g/C Ratio	0.07	0.16		0.14	0.33		0.11	0.48		0.08	0.40	0.40
v/c Ratio	0.08	0.72		0.81	0.24		0.74	0.21		0.31	0.15	0.04
Control Delay	44.9	38.0		56.5	24.4		68.2	5.9		50.2	19.5	0.1
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	44.9	38.0		56.5	24.4		68.2	5.9		50.2	19.5	0.1
LOS	D	D		E	C		E	A		D	B	A
Approach Delay		38.2			43.3			24.1			21.9	
Approach LOS		D			D			C			C	

Intersection Summary

Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 96.3			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.81			
Intersection Signal Delay: 33.9		Intersection LOS: C	
Intersection Capacity Utilization 49.9%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 1: Alder & Casmalia

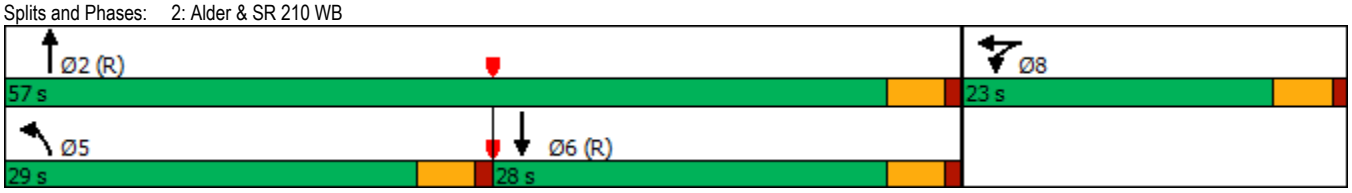


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	286	2	107	393	274	0	0	305	328
Future Volume (vph)	0	0	0	286	2	107	393	274	0	0	305	328
Ideal Flow (vphpl)	1000	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	385		0	250		0	0		0
Storage Lanes	0		0	1		0	1		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	0	0	1641	1472	0	1641	3282	0	0	3026	0
Flt Permitted				0.950			0.950					
Satd. Flow (perm)	0	0	0	1641	1472	0	1641	3282	0	0	3026	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					119						346	
Link Speed (mph)		55			55			50			50	
Link Distance (ft)		1246			1159			678			528	
Travel Time (s)		15.4			14.4			9.2			7.2	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	318	121	0	437	304	0	0	703	0
Turn Type				Split	NA		Prot	NA			NA	
Protected Phases				8	8		5	2			6	
Permitted Phases												
Total Split (s)				23.0	23.0		29.0	57.0			28.0	
Total Lost Time (s)				4.5	4.5		4.5	4.5			4.5	
Act Effct Green (s)				17.8	17.8		23.5	53.2			25.2	
Actuated g/C Ratio				0.22	0.22		0.29	0.66			0.32	
v/c Ratio				0.87	0.29		0.91	0.14			0.59	
Control Delay				55.7	7.6		42.9	4.6			14.0	
Queue Delay				0.0	0.0		0.0	0.0			0.0	
Total Delay				55.7	7.6		42.9	4.6			14.0	
LOS				E	A		D	A			B	
Approach Delay					42.4			27.2			14.0	
Approach LOS					D			C			B	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green, Master Intersection
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 25.8 Intersection LOS: C
Intersection Capacity Utilization 67.8% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 2: Alder & SR 210 WB

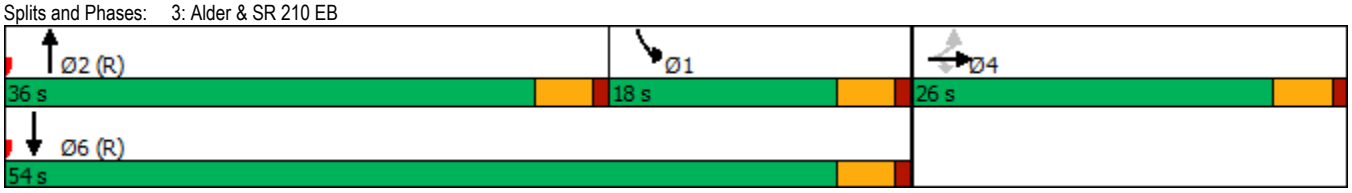


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	140	2	351	0	0	0	0	527	366	136	450	0
Future Volume (vph)	140	2	351	0	0	0	0	527	366	136	450	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		410	0		0	0		0	250		0
Storage Lanes	0		1	0		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1646	1468	0	0	0	0	3082	0	1641	3282	0
Flt Permitted		0.953								0.950		
Satd. Flow (perm)	0	1646	1468	0	0	0	0	3082	0	1641	3282	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			366					259				
Link Speed (mph)		55			55			50			50	
Link Distance (ft)		1496			1406			1653			678	
Travel Time (s)		18.5			17.4			22.5			9.2	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	148	366	0	0	0	0	930	0	142	469	0
Turn Type	Perm	NA	Perm					NA		Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4									
Total Split (s)	26.0	26.0	26.0					36.0		18.0	54.0	
Total Lost Time (s)		4.5	4.5					4.5		4.5	4.5	
Act Effct Green (s)		12.8	12.8					40.2		13.5	58.2	
Actuated g/C Ratio		0.16	0.16					0.50		0.17	0.73	
v/c Ratio		0.56	0.68					0.55		0.51	0.20	
Control Delay		38.4	10.1					11.7		38.9	4.0	
Queue Delay		0.0	0.0					0.0		0.0	0.0	
Total Delay		38.4	10.1					11.7		38.9	4.0	
LOS		D	B					B		D	A	
Approach Delay		18.3						11.7			12.1	
Approach LOS		B						B			B	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 49 (61%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.68
Intersection Signal Delay: 13.5 Intersection LOS: B
Intersection Capacity Utilization 67.8% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 3: Alder & SR 210 EB

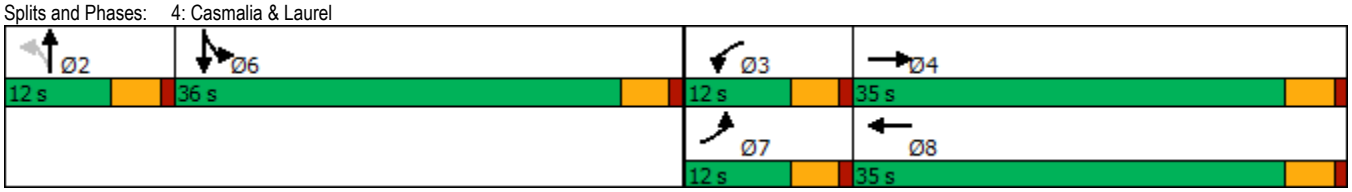


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	820	1	0	933	18	0	0	1	25	0	41
Future Volume (vph)	44	820	1	0	933	18	0	0	1	25	0	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	125		0	0		0	250		0
Storage Lanes	1		0	1		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1641	3282	0	1863	3272	0	0	1611	0	1641	1468	0
Flt Permitted	0.950									0.950		
Satd. Flow (perm)	1641	3282	0	1863	3272	0	0	1611	0	1641	1468	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					2			571			368	
Link Speed (mph)		55			55			30			40	
Link Distance (ft)		1375			1305			181			1978	
Travel Time (s)		17.0			16.2			4.1			33.7	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	10%	10%	2%	2%	10%	10%	2%	2%	2%	10%	2%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	50	933	0	0	1080	0	0	1	0	28	47	0
Turn Type	Prot	NA		Prot	NA			NA		Split	NA	
Protected Phases	7	4		3	8			2		6	6	
Permitted Phases							2					
Total Split (s)	12.0	35.0		12.0	35.0		12.0	12.0		36.0	36.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5			4.5		4.5	4.5	
Act Effct Green (s)	7.3	37.5			30.6			7.5		31.6	31.6	
Actuated g/C Ratio	0.08	0.42			0.34			0.08		0.35	0.35	
v/c Ratio	0.38	0.68			0.97			0.00		0.05	0.06	
Control Delay	49.7	24.3			52.3			0.0		21.7	0.2	
Queue Delay	0.0	0.0			0.0			0.0		0.0	0.0	
Total Delay	49.7	24.3			52.3			0.0		21.7	0.2	
LOS	D	C			D			A		C	A	
Approach Delay		25.6			52.3						8.2	
Approach LOS		C			D						A	

Intersection Summary

Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 90.2			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.97			
Intersection Signal Delay: 38.5		Intersection LOS: D	
Intersection Capacity Utilization 51.5%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 4: Casmalia & Laurel

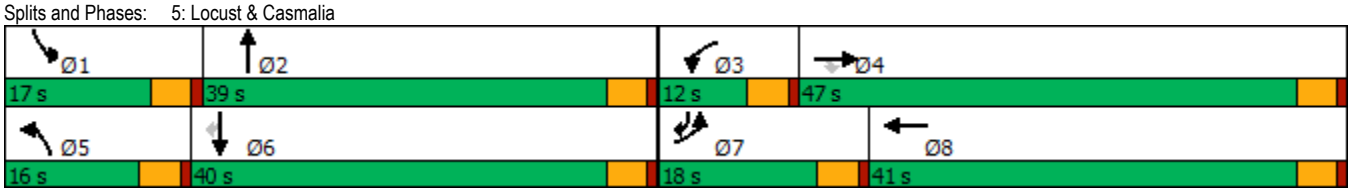


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	171	191	94	18	157	117	63	263	9	163	280	294
Future Volume (vph)	171	191	94	18	157	117	63	263	9	163	280	294
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	110		210	210		0	235		0	150		305
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1641	1727	1468	1641	1617	0	1626	3236	0	1626	1712	1455
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1641	1727	1468	1641	1617	0	1626	3236	0	1626	1712	1455
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			111		34			3				346
Link Speed (mph)		55			55			45			45	
Link Distance (ft)		1305			5280			2485			3750	
Travel Time (s)		16.2			65.5			37.7			56.8	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	11%	11%	11%	11%	11%	11%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	201	225	111	21	323	0	74	320	0	192	329	346
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	pm+ov
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases			4									6
Total Split (s)	18.0	47.0	47.0	12.0	41.0		16.0	39.0		17.0	40.0	18.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	4.5
Act Effct Green (s)	13.6	37.2	37.2	7.2	23.7		9.6	34.7		12.6	40.2	58.2
Actuated g/C Ratio	0.13	0.36	0.36	0.07	0.23		0.09	0.34		0.12	0.39	0.57
v/c Ratio	0.93	0.36	0.18	0.18	0.81		0.49	0.29		0.96	0.49	0.35
Control Delay	91.5	26.8	5.6	51.6	49.2		57.0	26.8		102.9	29.9	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	91.5	26.8	5.6	51.6	49.2		57.0	26.8		102.9	29.9	2.9
LOS	F	C	A	D	D		E	C		F	C	A
Approach Delay		46.6			49.3			32.4			35.3	
Approach LOS		D			D			C			D	

Intersection Summary

Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 102.5			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.96			
Intersection Signal Delay: 39.9		Intersection LOS: D	
Intersection Capacity Utilization 60.5%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 5: Locust & Casmalia



Intersection						
Int Delay, s/veh	0					

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	1	450	2	2	450
Future Vol, veh/h	0	1	450	2	2	450
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	11	2	2	11
Mvmt Flow	0	1	500	2	2	500

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1005	251	0	0	502	0
Stage 1	501	-	-	-	-	-
Stage 2	504	-	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	252	749	-	-	1060	-
Stage 1	575	-	-	-	-	-
Stage 2	606	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	251	749	-	-	1060	-
Mov Cap-2 Maneuver	251	-	-	-	-	-
Stage 1	575	-	-	-	-	-
Stage 2	604	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	749	1060	-
HCM Lane V/C Ratio	-	-	0.001	0.002	-
HCM Control Delay (s)	-	-	9.8	8.4	0
HCM Lane LOS	-	-	A	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	4	0	450	11	0	450
Future Vol, veh/h	4	0	450	11	0	450
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	0	489	12	0	489

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	984	251	0	0	501	0
Stage 1	495	-	-	-	-	-
Stage 2	489	-	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	260	749	-	-	1061	-
Stage 1	579	-	-	-	-	-
Stage 2	615	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	260	749	-	-	1061	-
Mov Cap-2 Maneuver	260	-	-	-	-	-
Stage 1	579	-	-	-	-	-
Stage 2	615	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19.1	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	260	1061	-
HCM Lane V/C Ratio	-	-	0.017	-	-
HCM Control Delay (s)	-	-	19.1	0	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	2	550	1	1	740
Future Vol, veh/h	2	2	550	1	1	740
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	2	598	1	1	804

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1405	300	0	0	599	0
Stage 1	599	-	-	-	-	-
Stage 2	806	-	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	141	697	-	-	976	-
Stage 1	512	-	-	-	-	-
Stage 2	438	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	141	697	-	-	976	-
Mov Cap-2 Maneuver	141	-	-	-	-	-
Stage 1	512	-	-	-	-	-
Stage 2	437	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.6	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	235	976	-
HCM Lane V/C Ratio	-	-	0.019	0.001	-
HCM Control Delay (s)	-	-	20.6	8.7	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection						
Int Delay, s/veh	0.3					

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	11	0	550	4	0	740
Future Vol, veh/h	11	0	550	4	0	740
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	0	598	4	0	804

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1404	301	0	0	602	0
Stage 1	600	-	-	-	-	-
Stage 2	804	-	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	142	696	-	-	973	-
Stage 1	512	-	-	-	-	-
Stage 2	439	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	142	696	-	-	973	-
Mov Cap-2 Maneuver	142	-	-	-	-	-
Stage 1	512	-	-	-	-	-
Stage 2	439	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	32.7	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	142	973	-
HCM Lane V/C Ratio	-	-	0.084	-	-
HCM Control Delay (s)	-	-	32.7	0	-
HCM Lane LOS	-	-	D	A	-
HCM 95th %tile Q(veh)	-	-	0.3	0	-

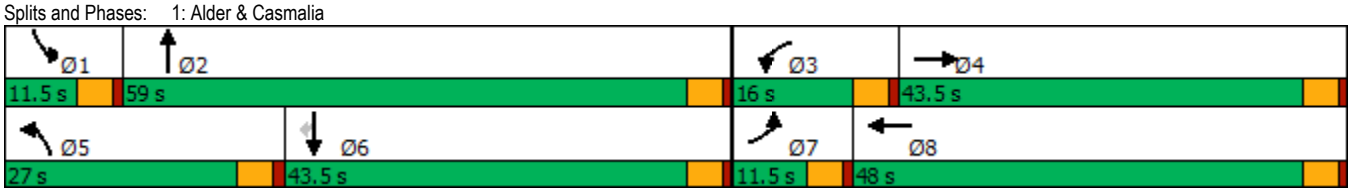
Existing + Ambient + Project (PCE) + Cumualtive Conditions

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	116	299	287	184	31	316	153	267	18	112	12
Future Volume (vph)	20	116	299	287	184	31	316	153	267	18	112	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180		0	290		0	115		0	210		210
Storage Lanes	1		0	2		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1641	2927	0	3183	3210	0	1641	2970	0	1641	3282	1468
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1641	2927	0	3183	3210	0	1641	2970	0	1641	3282	1468
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		305			16			272				126
Link Speed (mph)		55			55			50			50	
Link Distance (ft)		1715			1375			528			1602	
Travel Time (s)		21.3			17.0			7.2			21.8	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	20	423	0	293	220	0	322	428	0	18	114	12
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												6
Total Split (s)	11.5	43.5		16.0	48.0		27.0	59.0		11.5	43.5	43.5
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	4.5
Act Effct Green (s)	7.0	10.4		11.5	21.9		22.5	61.6		7.0	39.1	39.1
Actuated g/C Ratio	0.07	0.10		0.11	0.22		0.22	0.61		0.07	0.39	0.39
v/c Ratio	0.18	0.74		0.81	0.31		0.88	0.22		0.16	0.09	0.02
Control Delay	49.8	21.1		63.0	33.6		65.6	4.4		49.4	20.9	0.1
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	49.8	21.1		63.0	33.6		65.6	4.4		49.4	20.9	0.1
LOS	D	C		E	C		E	A		D	C	A
Approach Delay		22.4			50.4			30.6			22.7	
Approach LOS		C			D			C			C	

Intersection Summary

Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 101.5			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay: 33.5		Intersection LOS: C	
Intersection Capacity Utilization 56.5%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 1: Alder & Casmalia

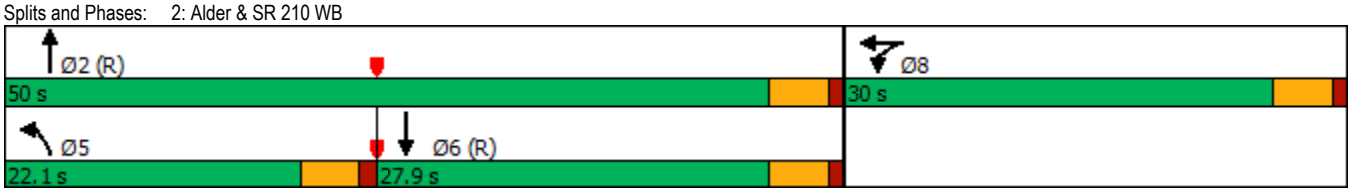


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	477	2	215	324	361	0	0	373	541
Future Volume (vph)	0	0	0	477	2	215	324	361	0	0	373	541
Ideal Flow (vphpl)	1000	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	385		0	250		0	0		0
Storage Lanes	0		0	1		0	1		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	0	0	1641	1470	0	1641	3282	0	0	2990	0
Flt Permitted				0.950			0.950					
Satd. Flow (perm)	0	0	0	1641	1470	0	1641	3282	0	0	2990	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					226						464	
Link Speed (mph)		55			55			50			50	
Link Distance (ft)		1246			1159			678			528	
Travel Time (s)		15.4			14.4			9.2			7.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	502	228	0	341	380	0	0	962	0
Turn Type				Split	NA		Prot	NA			NA	
Protected Phases				8	8		5	2			6	
Permitted Phases												
Total Split (s)				30.0	30.0		22.1	50.0			27.9	
Total Lost Time (s)				4.5	4.5		4.5	4.5			4.5	
Act Effct Green (s)				25.5	25.5		17.6	45.5			23.4	
Actuated g/C Ratio				0.32	0.32		0.22	0.57			0.29	
v/c Ratio				0.96	0.37		0.94	0.20			0.80	
Control Delay				60.2	5.0		64.6	10.8			19.2	
Queue Delay				0.0	0.0		0.0	0.0			0.0	
Total Delay				60.2	5.0		64.6	10.8			19.2	
LOS				E	A		E	B			B	
Approach Delay					43.0			36.2			19.2	
Approach LOS					D			D			B	

Intersection Summary

Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green, Master Intersection			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.96			
Intersection Signal Delay: 31.5		Intersection LOS: C	
Intersection Capacity Utilization 83.4%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 2: Alder & SR 210 WB

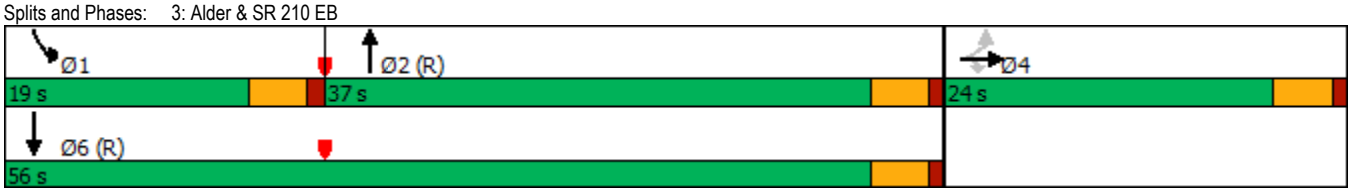


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	259	0	398	0	0	0	0	654	412	189	604	0
Future Volume (vph)	259	0	398	0	0	0	0	654	412	189	604	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		410	0		0	0		0	250		0
Storage Lanes	0		1	0		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1641	1468	0	0	0	0	3091	0	1641	3282	0
Flt Permitted		0.950								0.950		
Satd. Flow (perm)	0	1641	1468	0	0	0	0	3091	0	1641	3282	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			319					209				
Link Speed (mph)		55			55			50			50	
Link Distance (ft)		1496			1406			1653			678	
Travel Time (s)		18.5			17.4			22.5			9.2	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	262	402	0	0	0	0	1077	0	191	610	0
Turn Type	Perm	NA	Perm					NA		Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4									
Total Split (s)	24.0	24.0	24.0					37.0		19.0	56.0	
Total Lost Time (s)		4.5	4.5					4.5		4.5	4.5	
Act Effct Green (s)		16.8	16.8					36.7		13.0	54.2	
Actuated g/C Ratio		0.21	0.21					0.46		0.16	0.68	
v/c Ratio		0.76	0.72					0.70		0.72	0.27	
Control Delay		44.1	14.6					17.8		34.0	10.1	
Queue Delay		0.0	0.0					0.0		0.0	0.0	
Total Delay		44.1	14.6					17.8		34.0	10.1	
LOS		D	B					B		C	B	
Approach Delay		26.2						17.8			15.8	
Approach LOS		C						B			B	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 19.4 Intersection LOS: B
Intersection Capacity Utilization 83.4% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 3: Alder & SR 210 EB

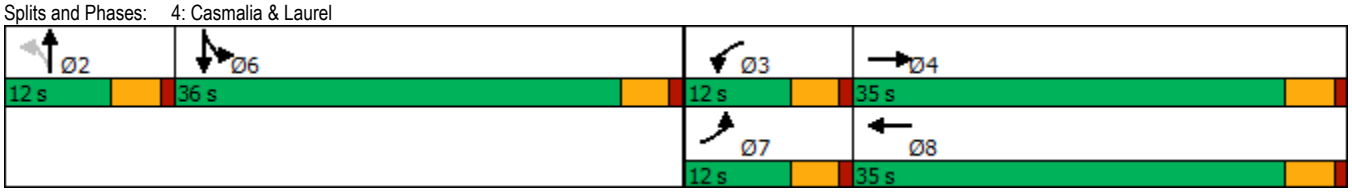


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	538	10	27	764	18	3	0	8	8	0	29
Future Volume (vph)	39	538	10	27	764	18	3	0	8	8	0	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	125		0	0		0	250		0
Storage Lanes	1		0	1		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1641	3277	0	1770	3272	0	0	1655	0	1641	1468	0
Flt Permitted	0.950			0.950				0.329		0.950		
Satd. Flow (perm)	1641	3277	0	1770	3272	0	0	551	0	1641	1468	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			3			121			377	
Link Speed (mph)		55			55			30			40	
Link Distance (ft)		1375			1305			181			1978	
Travel Time (s)		17.0			16.2			4.1			33.7	
Peak Hour Factor	0.96	0.96	0.92	0.92	0.96	0.96	0.92	0.92	0.92	0.96	0.92	0.96
Heavy Vehicles (%)	10%	10%	2%	2%	10%	10%	2%	2%	2%	10%	2%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	41	571	0	29	815	0	0	12	0	8	30	0
Turn Type	Prot	NA		Prot	NA		Perm	NA		Split	NA	
Protected Phases	7	4		3	8			2		6	6	
Permitted Phases							2					
Total Split (s)	12.0	35.0		12.0	35.0		12.0	12.0		36.0	36.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5			4.5		4.5	4.5	
Act Effct Green (s)	7.4	25.8		7.3	25.7			7.6		32.1	32.1	
Actuated g/C Ratio	0.09	0.30		0.09	0.30			0.09		0.37	0.37	
v/c Ratio	0.29	0.58		0.19	0.83			0.08		0.01	0.04	
Control Delay	46.2	28.1		43.8	36.3			0.9		21.5	0.1	
Queue Delay	0.0	0.0		0.0	0.0			0.0		0.0	0.0	
Total Delay	46.2	28.1		43.8	36.3			0.9		21.5	0.1	
LOS	D	C		D	D			A		C	A	
Approach Delay		29.4			36.6			0.9			4.6	
Approach LOS		C			D			A			A	

Intersection Summary

Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 85.7			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 32.6		Intersection LOS: C	
Intersection Capacity Utilization 44.6%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 4: Casmalia & Laurel

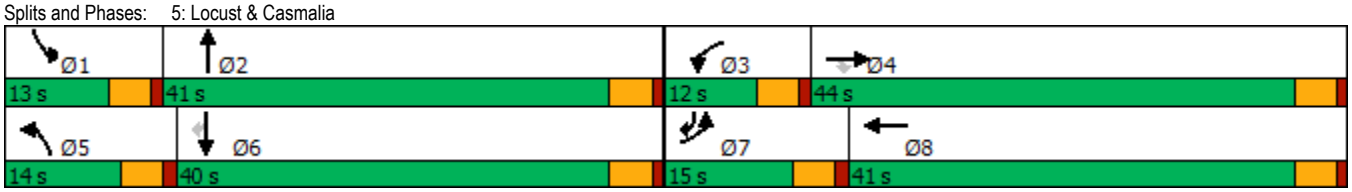


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	141	183	52	19	213	123	97	196	7	76	233	152
Future Volume (vph)	141	183	52	19	213	123	97	196	7	76	233	152
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	110		210	210		0	235		0	150		305
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1641	1727	1468	1641	1632	0	1626	3236	0	1626	1712	1455
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1641	1727	1468	1641	1632	0	1626	3236	0	1626	1712	1455
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			104		28			3				173
Link Speed (mph)		55			55			45			45	
Link Distance (ft)		1305			5280			2485			710	
Travel Time (s)		16.2			65.5			37.7			10.8	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	11%	11%	11%	11%	11%	11%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	160	208	59	22	382	0	110	231	0	86	265	173
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	pm+ov
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases			4									6
Total Split (s)	15.0	44.0	44.0	12.0	41.0		14.0	41.0		13.0	40.0	15.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	4.5
Act Effct Green (s)	10.6	37.2	37.2	7.2	26.6		9.3	39.3		8.2	35.7	50.8
Actuated g/C Ratio	0.11	0.37	0.37	0.07	0.27		0.09	0.39		0.08	0.36	0.51
v/c Ratio	0.93	0.33	0.10	0.19	0.84		0.73	0.18		0.65	0.44	0.21
Control Delay	99.4	25.3	1.2	50.6	49.3		74.2	22.7		69.7	29.0	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	99.4	25.3	1.2	50.6	49.3		74.2	22.7		69.7	29.0	3.2
LOS	F	C	A	D	D		E	C		E	C	A
Approach Delay		49.7			49.3			39.3			27.2	
Approach LOS		D			D			D			C	

Intersection Summary

Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 100.2			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.93			
Intersection Signal Delay: 40.6		Intersection LOS: D	
Intersection Capacity Utilization 59.6%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 5: Locust & Casmalia



Intersection						
Int Delay, s/veh	0					

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	1	450	2	2	450
Future Vol, veh/h	0	1	450	2	2	450
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	11	2	2	11
Mvmt Flow	0	1	500	2	2	500

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1005	251	0	0	502	0
Stage 1	501	-	-	-	-	-
Stage 2	504	-	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	252	749	-	-	1060	-
Stage 1	575	-	-	-	-	-
Stage 2	606	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	251	749	-	-	1060	-
Mov Cap-2 Maneuver	251	-	-	-	-	-
Stage 1	575	-	-	-	-	-
Stage 2	604	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	749	1060	-
HCM Lane V/C Ratio	-	-	0.001	0.002	-
HCM Control Delay (s)	-	-	9.8	8.4	0
HCM Lane LOS	-	-	A	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	4	0	450	11	0	450
Future Vol, veh/h	4	0	450	11	0	450
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	0	489	12	0	489

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	984	251	0	0	501	0
Stage 1	495	-	-	-	-	-
Stage 2	489	-	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	260	749	-	-	1061	-
Stage 1	579	-	-	-	-	-
Stage 2	615	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	260	749	-	-	1061	-
Mov Cap-2 Maneuver	260	-	-	-	-	-
Stage 1	579	-	-	-	-	-
Stage 2	615	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19.1	0	0
HCM LOS	C		

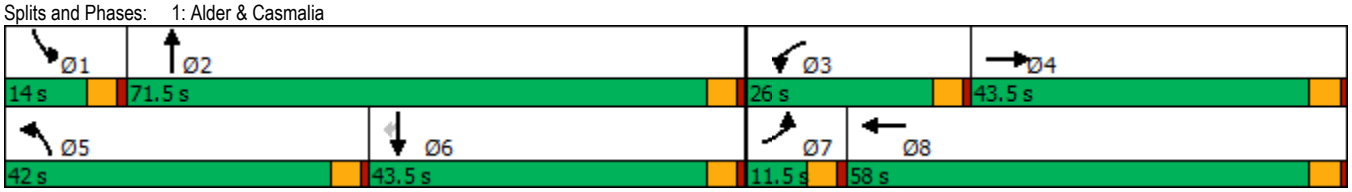
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	260	1061	-
HCM Lane V/C Ratio	-	-	0.017	-	-
HCM Control Delay (s)	-	-	19.1	0	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	263	361	398	232	18	353	85	242	34	180	32
Future Volume (vph)	16	263	361	398	232	18	353	85	242	34	180	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180		0	290		0	115		0	210		210
Storage Lanes	1		0	2		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1641	2996	0	3183	3246	0	1641	2918	0	1641	3282	1468
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1641	2996	0	3183	3246	0	1641	2918	0	1641	3282	1468
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		215			6			269				137
Link Speed (mph)		55			55			50			50	
Link Distance (ft)		1715			1375			528			1602	
Travel Time (s)		21.3			17.0			7.2			21.8	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	18	693	0	442	278	0	392	363	0	38	200	36
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												6
Total Split (s)	11.5	43.5		26.0	58.0		42.0	71.5		14.0	43.5	43.5
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	4.5
Act Effct Green (s)	7.0	30.4		21.5	49.7		37.5	70.6		8.4	39.1	39.1
Actuated g/C Ratio	0.05	0.21		0.15	0.34		0.26	0.48		0.06	0.27	0.27
v/c Ratio	0.23	0.88		0.94	0.25		0.94	0.23		0.40	0.23	0.07
Control Delay	77.1	51.3		91.6	35.5		83.8	7.1		81.6	43.9	0.3
Queue Delay	0.0	0.0		0.0	0.0		0.5	0.0		0.0	0.0	0.0
Total Delay	77.1	51.3		91.6	35.5		84.4	7.1		81.6	43.9	0.3
LOS	E	D		F	D		F	A		F	D	A
Approach Delay		52.0			70.0			47.3			43.4	
Approach LOS		D			E			D			D	

Intersection Summary

Area Type:	Other		
Cycle Length: 155			
Actuated Cycle Length: 146.5			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.94			
Intersection Signal Delay: 54.8		Intersection LOS: D	
Intersection Capacity Utilization 70.6%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 1: Alder & Casmalia

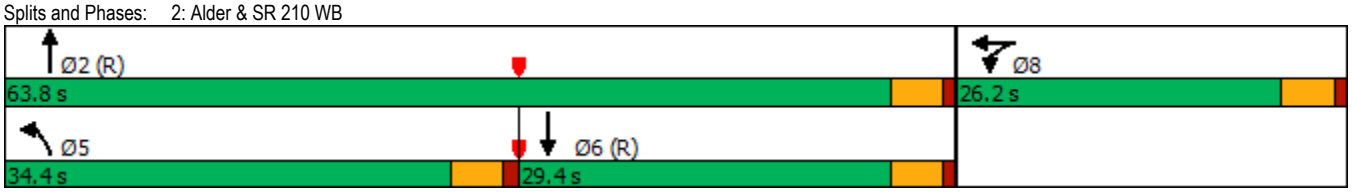


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	376	2	198	525	459	0	0	483	451
Future Volume (vph)	0	0	0	376	2	198	525	459	0	0	483	451
Ideal Flow (vphpl)	1000	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	385		0	250		0	0		0
Storage Lanes	0		0	1		0	1		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	0	0	1641	1470	0	1641	3282	0	0	3046	0
Flt Permitted				0.950			0.950					
Satd. Flow (perm)	0	0	0	1641	1470	0	1641	3282	0	0	3046	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					220						259	
Link Speed (mph)		55			55			50			50	
Link Distance (ft)		1246			1159			678			528	
Travel Time (s)		15.4			14.4			9.2			7.2	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	418	222	0	583	510	0	0	1038	0
Turn Type				Split	NA		Prot	NA			NA	
Protected Phases				8	8		5	2			6	
Permitted Phases												
Total Split (s)				26.2	26.2		34.4	63.8			29.4	
Total Lost Time (s)				4.5	4.5		4.5	4.5			4.5	
Act Effct Green (s)				21.7	21.7		29.9	59.3			24.9	
Actuated g/C Ratio				0.24	0.24		0.33	0.66			0.28	
v/c Ratio				1.06	0.43		1.07	0.24			1.01	
Control Delay				96.7	7.0		86.2	7.9			55.7	
Queue Delay				0.0	0.0		0.0	0.0			0.0	
Total Delay				96.7	7.0		86.2	7.9			55.7	
LOS				F	A		F	A			E	
Approach Delay					65.6			49.7			55.7	
Approach LOS					E			D			E	

Intersection Summary

Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green, Master Intersection			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.07			
Intersection Signal Delay: 55.6		Intersection LOS: E	
Intersection Capacity Utilization 89.0%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 2: Alder & SR 210 WB

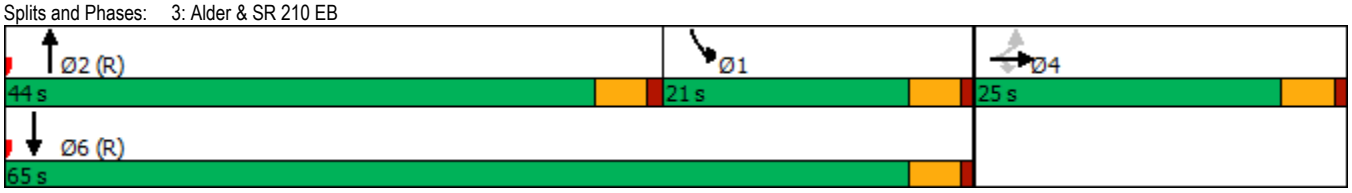


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	241	2	442	0	0	0	0	742	497	233	620	0
Future Volume (vph)	241	2	442	0	0	0	0	742	497	233	620	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		410	0		0	0		0	250		0
Storage Lanes	0		1	0		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1646	1468	0	0	0	0	3085	0	1641	3282	0
Flt Permitted		0.953								0.950		
Satd. Flow (perm)	0	1646	1468	0	0	0	0	3085	0	1641	3282	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			314					229				
Link Speed (mph)		55			55			50			50	
Link Distance (ft)		1496			1406			1653			678	
Travel Time (s)		18.5			17.4			22.5			9.2	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	253	460	0	0	0	0	1291	0	243	646	0
Turn Type	Perm	NA	Perm					NA		Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4									
Total Split (s)	25.0	25.0	25.0					44.0		21.0	65.0	
Total Lost Time (s)		4.5	4.5					4.5		4.5	4.5	
Act Effct Green (s)		17.8	17.8					42.2		16.5	63.2	
Actuated g/C Ratio		0.20	0.20					0.47		0.18	0.70	
v/c Ratio		0.78	0.85					0.82		0.81	0.28	
Control Delay		50.6	26.9					23.1		23.2	0.7	
Queue Delay		0.0	0.0					0.0		0.0	0.0	
Total Delay		50.6	26.9					23.1		23.2	0.7	
LOS		D	C					C		C	A	
Approach Delay		35.3						23.1			6.8	
Approach LOS		D						C			A	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 21.1 Intersection LOS: C
Intersection Capacity Utilization 89.0% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 3: Alder & SR 210 EB

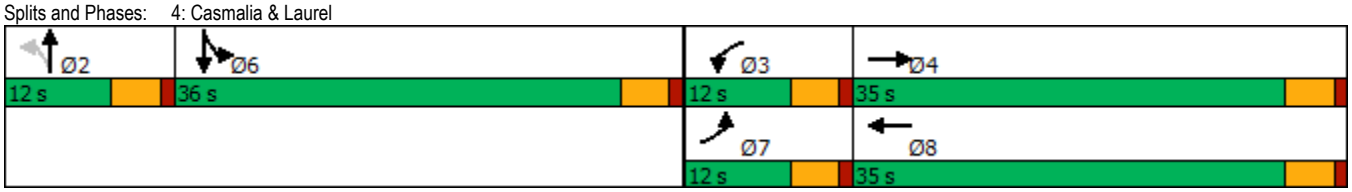


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	878	4	3	1009	18	8	0	12	25	0	41
Future Volume (vph)	44	878	4	3	1009	18	8	0	12	25	0	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	125		0	0		0	250		0
Storage Lanes	1		0	1		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1641	3280	0	1770	3272	0	0	1678	0	1641	1468	0
Flt Permitted	0.950			0.950				0.371		0.950		
Satd. Flow (perm)	1641	3280	0	1770	3272	0	0	634	0	1641	1468	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			2			121			341	
Link Speed (mph)		55			55			30			40	
Link Distance (ft)		1375			1305			181			1978	
Travel Time (s)		17.0			16.2			4.1			33.7	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	10%	10%	2%	2%	10%	10%	2%	2%	2%	10%	2%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	50	1003	0	3	1167	0	0	23	0	28	47	0
Turn Type	Prot	NA		Prot	NA		Perm	NA		Split	NA	
Protected Phases	7	4		3	8			2		6	6	
Permitted Phases							2					
Total Split (s)	12.0	35.0		12.0	35.0		12.0	12.0		36.0	36.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5			4.5		4.5	4.5	
Act Effct Green (s)	7.3	35.3		7.0	30.6			7.5		31.6	31.6	
Actuated g/C Ratio	0.08	0.39		0.08	0.34			0.08		0.35	0.35	
v/c Ratio	0.38	0.78		0.02	1.05			0.14		0.05	0.06	
Control Delay	49.7	30.1		41.3	72.2			1.8		21.7	0.2	
Queue Delay	0.0	0.0		0.0	0.0			0.0		0.0	0.0	
Total Delay	49.7	30.1		41.3	72.2			1.8		21.7	0.2	
LOS	D	C		D	E			A		C	A	
Approach Delay		31.0			72.2			1.8			8.2	
Approach LOS		C			E			A			A	

Intersection Summary

Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 90.2			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 1.05			
Intersection Signal Delay: 50.7		Intersection LOS: D	
Intersection Capacity Utilization 51.9%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 4: Casmalia & Laurel

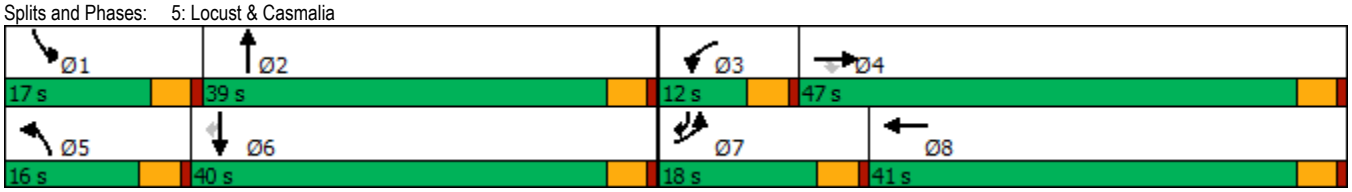


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	175	245	104	18	235	117	63	263	9	163	280	294
Future Volume (vph)	175	245	104	18	235	117	63	263	9	163	280	294
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	110		210	210		0	235		0	150		305
Storage Lanes	1		1	1		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1641	1727	1468	1641	1641	0	1626	3236	0	1626	1712	1455
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1641	1727	1468	1641	1641	0	1626	3236	0	1626	1712	1455
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			122		23			3				346
Link Speed (mph)		55			55			45			45	
Link Distance (ft)		1305			5280			2485			710	
Travel Time (s)		16.2			65.5			37.7			10.8	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	11%	11%	11%	11%	11%	11%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	206	288	122	21	414	0	74	320	0	192	329	346
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	pm+ov
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases			4									6
Total Split (s)	18.0	47.0	47.0	12.0	41.0		16.0	39.0		17.0	40.0	18.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	4.5
Act Effct Green (s)	13.5	43.7	43.7	7.2	30.1		9.7	34.6		12.5	40.0	58.1
Actuated g/C Ratio	0.12	0.40	0.40	0.07	0.28		0.09	0.32		0.11	0.37	0.53
v/c Ratio	1.01	0.42	0.18	0.19	0.88		0.51	0.31		1.03	0.52	0.37
Control Delay	115.6	26.7	5.0	54.8	56.1		61.4	29.9		122.4	33.8	3.1
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	115.6	26.7	5.0	54.8	56.1		61.4	29.9		122.4	33.8	3.1
LOS	F	C	A	D	E		E	C		F	C	A
Approach Delay		52.2			56.0			35.8			41.2	
Approach LOS		D			E			D			D	

Intersection Summary

Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 108.9			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 1.03			
Intersection Signal Delay: 46.0		Intersection LOS: D	
Intersection Capacity Utilization 64.8%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 5: Locust & Casmalia



Intersection						
Int Delay, s/veh	0.1					

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	2	550	1	1	740
Future Vol, veh/h	2	2	550	1	1	740
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	2	598	1	1	804

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1405	300	0	0	599	0
Stage 1	599	-	-	-	-	-
Stage 2	806	-	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	141	697	-	-	976	-
Stage 1	512	-	-	-	-	-
Stage 2	438	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	141	697	-	-	976	-
Mov Cap-2 Maneuver	141	-	-	-	-	-
Stage 1	512	-	-	-	-	-
Stage 2	437	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.6	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	235	976	-
HCM Lane V/C Ratio	-	-	0.019	0.001	-
HCM Control Delay (s)	-	-	20.6	8.7	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection						
Int Delay, s/veh	0.3					

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	11	0	550	4	0	740
Future Vol, veh/h	11	0	550	4	0	740
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	0	598	4	0	804

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1404	301	0	0	602	0
Stage 1	600	-	-	-	-	-
Stage 2	804	-	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	142	696	-	-	973	-
Stage 1	512	-	-	-	-	-
Stage 2	439	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	142	696	-	-	973	-
Mov Cap-2 Maneuver	142	-	-	-	-	-
Stage 1	512	-	-	-	-	-
Stage 2	439	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	32.7	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	142	973	-
HCM Lane V/C Ratio	-	-	0.084	-	-
HCM Control Delay (s)	-	-	32.7	0	-
HCM Lane LOS	-	-	D	A	-
HCM 95th %tile Q(veh)	-	-	0.3	0	-

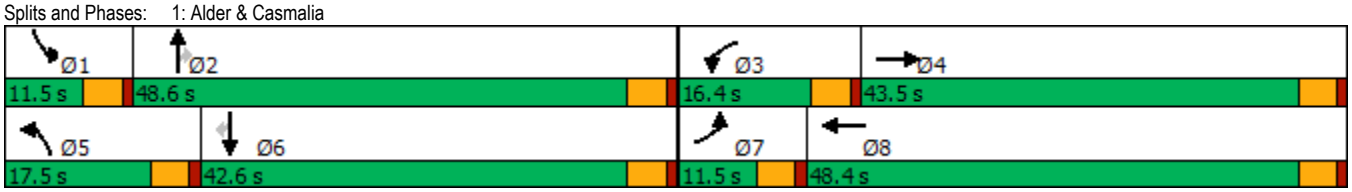
Existing + Ambient + Project (PCE) + Cumulative Conditions with Interchange Improvements

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	116	299	287	184	31	316	153	267	18	112	12
Future Volume (vph)	20	116	299	287	184	31	316	153	267	18	112	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180		0	290		0	115		100	210		210
Storage Lanes	1		0	2		0	2		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1641	2927	0	3183	3210	0	3183	3282	1468	1641	3282	1468
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1641	2927	0	3183	3210	0	3183	3282	1468	1641	3282	1468
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		305			18				272			177
Link Speed (mph)		55			55			50			50	
Link Distance (ft)		1715			1375			528			1602	
Travel Time (s)		21.3			17.0			7.2			21.8	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	20	423	0	293	220	0	322	156	272	18	114	12
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Total Split (s)	11.5	43.5		16.4	48.4		17.5	48.6	48.6	11.5	42.6	42.6
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Act Effct Green (s)	7.0	9.9		11.9	21.9		13.0	51.2	51.2	7.0	38.2	38.2
Actuated g/C Ratio	0.08	0.11		0.13	0.24		0.14	0.56	0.56	0.08	0.42	0.42
v/c Ratio	0.16	0.72		0.70	0.28		0.71	0.08	0.29	0.14	0.08	0.02
Control Delay	43.7	18.7		48.6	28.2		47.4	11.2	2.8	43.3	16.8	0.1
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.7	18.7		48.6	28.2		47.4	11.2	2.8	43.3	16.8	0.1
LOS	D	B		D	C		D	B	A	D	B	A
Approach Delay		19.9			39.9			23.7			18.7	
Approach LOS		B			D			C			B	

Intersection Summary

Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 91			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay: 26.9		Intersection LOS: C	
Intersection Capacity Utilization 48.0%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 1: Alder & Casmalia

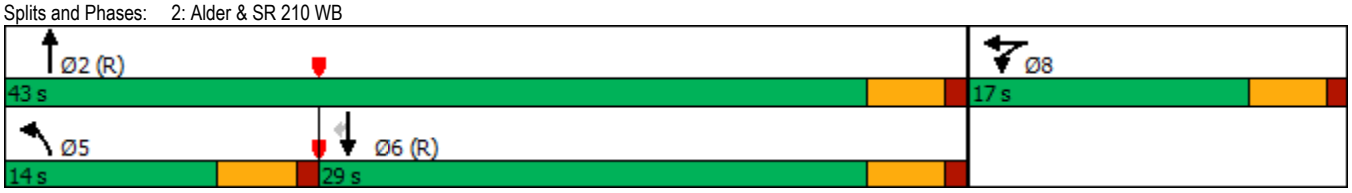


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	477	2	215	324	361	0	0	373	541
Future Volume (vph)	0	0	0	477	2	215	324	361	0	0	373	541
Ideal Flow (vphpl)	1000	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	385		0	250		0	0		100
Storage Lanes	0		0	2		0	2		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	0	0	3183	1470	0	3183	3282	0	0	3282	1468
Flt Permitted				0.950			0.950					
Satd. Flow (perm)	0	0	0	3183	1470	0	3183	3282	0	0	3282	1468
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					226							569
Link Speed (mph)		55			55			50			50	
Link Distance (ft)		1246			1159			678			528	
Travel Time (s)		15.4			14.4			9.2			7.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	502	228	0	341	380	0	0	393	569
Turn Type				Split	NA		Prot	NA			NA	Perm
Protected Phases				8	8		5	2			6	
Permitted Phases												6
Total Split (s)				17.0	17.0		14.0	43.0			29.0	29.0
Total Lost Time (s)				4.5	4.5		4.5	4.5			4.5	4.5
Act Effct Green (s)				12.2	12.2		9.3	38.8			25.1	25.1
Actuated g/C Ratio				0.20	0.20		0.16	0.65			0.42	0.42
v/c Ratio				0.78	0.48		0.69	0.18			0.29	0.60
Control Delay				32.6	7.4		34.5	3.9			12.5	4.4
Queue Delay				0.0	0.0		0.0	0.0			0.0	0.0
Total Delay				32.6	7.4		34.5	3.9			12.5	4.4
LOS				C	A		C	A			B	A
Approach Delay					24.7			18.4			7.7	
Approach LOS					C			B			A	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green, Master Intersection			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 16.1		Intersection LOS: B	
Intersection Capacity Utilization 67.6%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 2: Alder & SR 210 WB

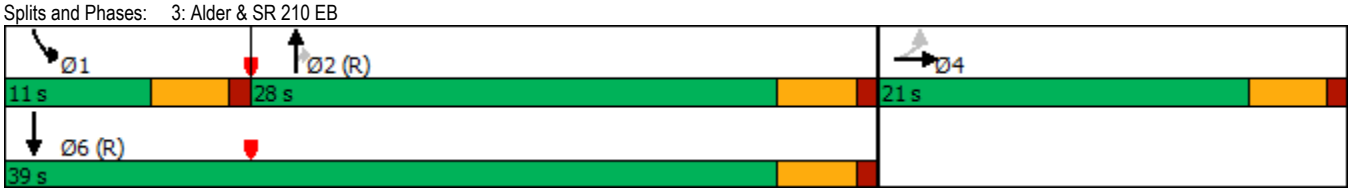


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	259	0	398	0	0	0	0	654	412	189	604	0
Future Volume (vph)	259	0	398	0	0	0	0	654	412	189	604	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		410	0		0	0		0	250		0
Storage Lanes	2		0	0		0	0		1	2		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3183	1468	0	0	0	0	0	3282	1468	3183	3282	0
Flt Permitted	0.950									0.950		
Satd. Flow (perm)	3183	1468	0	0	0	0	0	3282	1468	3183	3282	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		274							416			
Link Speed (mph)		55			55			50			50	
Link Distance (ft)		1496			1406			1653			678	
Travel Time (s)		18.5			17.4			22.5			9.2	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	262	402	0	0	0	0	0	661	416	191	610	0
Turn Type	Perm	NA						NA	Perm	Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4								2			
Total Split (s)	21.0	21.0						28.0	28.0	11.0	39.0	
Total Lost Time (s)	4.5	4.5						4.5	4.5	4.5	4.5	
Act Effct Green (s)	12.4	12.4						26.9	26.9	7.2	38.6	
Actuated g/C Ratio	0.21	0.21						0.45	0.45	0.12	0.64	
v/c Ratio	0.40	0.77						0.45	0.47	0.50	0.29	
Control Delay	21.5	18.1						13.6	3.6	21.6	5.5	
Queue Delay	0.0	0.0						0.0	0.0	0.0	0.0	
Total Delay	21.5	18.1						13.6	3.6	21.6	5.5	
LOS	C	B						B	A	C	A	
Approach Delay		19.4						9.7			9.3	
Approach LOS		B						A			A	

Intersection Summary

Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 60			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay: 12.1		Intersection LOS: B	
Intersection Capacity Utilization 67.6%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 3: Alder & SR 210 EB

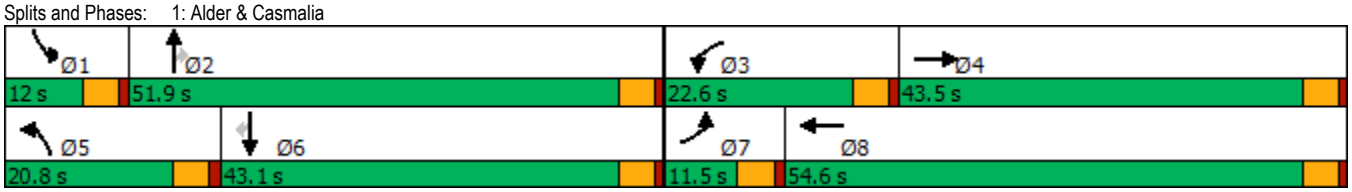


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	263	361	398	232	18	353	85	242	34	180	32
Future Volume (vph)	16	263	361	398	232	18	353	85	242	34	180	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180		0	290		0	115		100	210		210
Storage Lanes	1		0	2		0	2		1	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1641	2996	0	3183	3246	0	3183	3282	1468	1641	3282	1468
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1641	2996	0	3183	3246	0	3183	3282	1468	1641	3282	1468
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		274			7				269			164
Link Speed (mph)		55			55			50			50	
Link Distance (ft)		1715			1375			528			1602	
Travel Time (s)		21.3			17.0			7.2			21.8	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	18	693	0	442	278	0	392	94	269	38	200	36
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Total Split (s)	11.5	43.5		22.6	54.6		20.8	51.9	51.9	12.0	43.1	43.1
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Act Effct Green (s)	7.0	23.5		18.2	41.8		16.4	52.7	52.7	7.3	38.7	38.7
Actuated g/C Ratio	0.06	0.20		0.16	0.36		0.14	0.46	0.46	0.06	0.34	0.34
v/c Ratio	0.18	0.83		0.88	0.23		0.87	0.06	0.33	0.37	0.18	0.06
Control Delay	58.4	35.4		67.5	26.0		68.7	20.9	4.1	64.1	28.6	0.2
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.4	35.4		67.5	26.0		68.7	20.9	4.1	64.1	28.6	0.2
LOS	E	D		E	C		E	C	A	E	C	A
Approach Delay		36.0			51.5			39.7			29.8	
Approach LOS		D			D			D			C	

Intersection Summary

Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 114.8			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay: 41.0		Intersection LOS: D	
Intersection Capacity Utilization 61.1%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 1: Alder & Casmalia

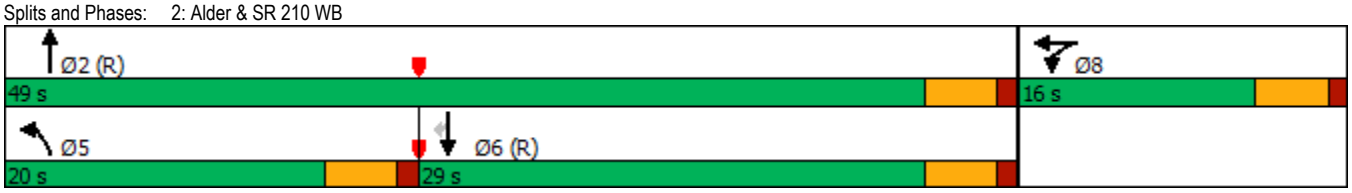


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	376	2	198	525	459	0	0	483	451
Future Volume (vph)	0	0	0	376	2	198	525	459	0	0	483	451
Ideal Flow (vphpl)	1000	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	385		0	250		0	0		100
Storage Lanes	0		0	2		0	2		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	0	0	3183	1470	0	3183	3282	0	0	3282	1468
Flt Permitted				0.950			0.950					
Satd. Flow (perm)	0	0	0	3183	1470	0	3183	3282	0	0	3282	1468
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					220							482
Link Speed (mph)		55			55			50			50	
Link Distance (ft)		1246			1159			678			528	
Travel Time (s)		15.4			14.4			9.2			7.2	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	418	222	0	583	510	0	0	537	501
Turn Type				Split	NA		Prot	NA			NA	Perm
Protected Phases				8	8		5	2			6	
Permitted Phases												6
Total Split (s)				16.0	16.0		20.0	49.0			29.0	29.0
Total Lost Time (s)				4.5	4.5		4.5	4.5			4.5	4.5
Act Effct Green (s)				11.2	11.2		14.9	44.8			25.4	25.4
Actuated g/C Ratio				0.17	0.17		0.23	0.69			0.39	0.39
v/c Ratio				0.76	0.51		0.80	0.23			0.42	0.58
Control Delay				36.1	8.7		36.0	2.6			16.0	5.0
Queue Delay				0.0	0.0		0.0	0.0			0.0	0.0
Total Delay				36.1	8.7		36.0	2.6			16.0	5.0
LOS				D	A		D	A			B	A
Approach Delay					26.6			20.4			10.7	
Approach LOS					C			C			B	

Intersection Summary

Area Type:	Other		
Cycle Length: 65			
Actuated Cycle Length: 65			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green, Master Intersection			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 18.2		Intersection LOS: B	
Intersection Capacity Utilization 76.1%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 2: Alder & SR 210 WB

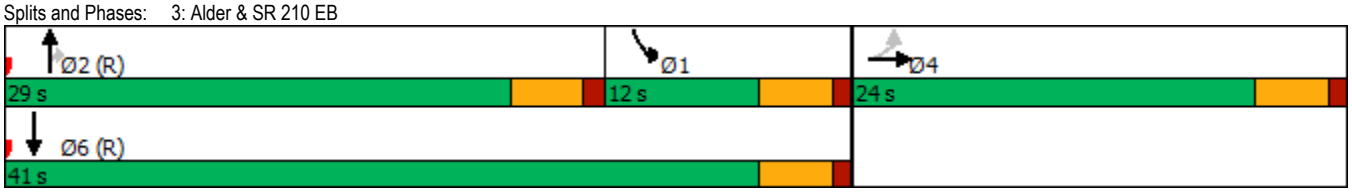


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	241	2	442	0	0	0	0	742	497	233	620	0
Future Volume (vph)	241	2	442	0	0	0	0	742	497	233	620	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		410	0		0	0		0	250		0
Storage Lanes	2		0	0		0	0		1	2		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	3183	1470	0	0	0	0	0	3282	1468	3183	3282	0
Flt Permitted	0.950									0.950		
Satd. Flow (perm)	3183	1470	0	0	0	0	0	3282	1468	3183	3282	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		243							518			
Link Speed (mph)		55			55			50			50	
Link Distance (ft)		1496			1406			1653			678	
Travel Time (s)		18.5			17.4			22.5			9.2	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	251	462	0	0	0	0	0	773	518	243	646	0
Turn Type	Perm	NA						NA	Perm	Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4								2			
Total Split (s)	24.0	24.0						29.0	29.0	12.0	41.0	
Total Lost Time (s)	4.5	4.5						4.5	4.5	4.5	4.5	
Act Effct Green (s)	15.5	15.5						28.5	28.5	7.5	40.5	
Actuated g/C Ratio	0.24	0.24						0.44	0.44	0.12	0.62	
v/c Ratio	0.33	0.86						0.54	0.55	0.66	0.32	
Control Delay	20.5	27.9						16.3	4.2	40.5	10.1	
Queue Delay	0.0	0.0						0.0	0.0	0.0	0.0	
Total Delay	20.5	27.9						16.3	4.2	40.5	10.1	
LOS	C	C						B	A	D	B	
Approach Delay		25.3						11.5			18.4	
Approach LOS		C						B			B	

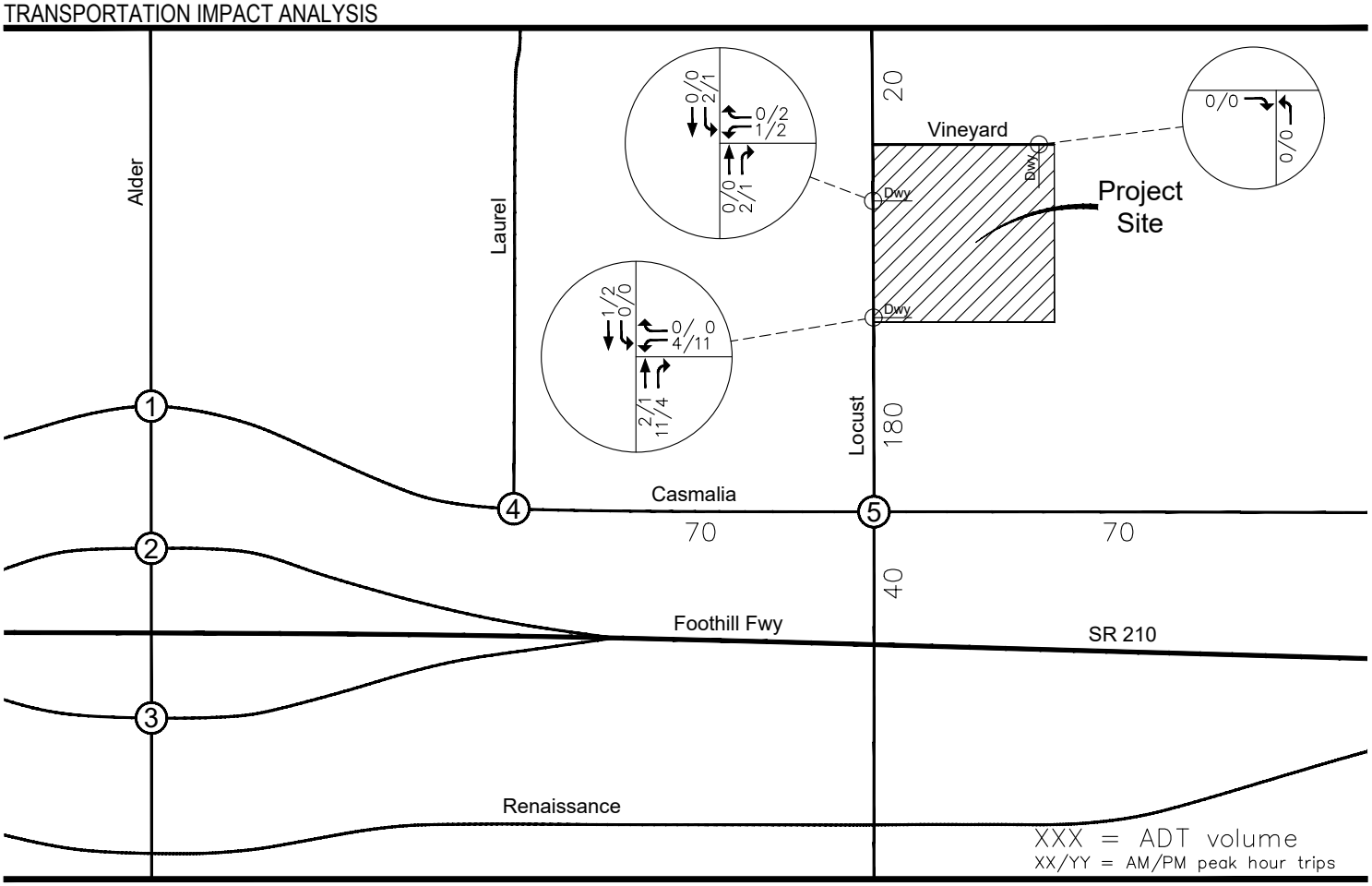
Intersection Summary

Area Type:	Other		
Cycle Length: 65			
Actuated Cycle Length: 65			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.86			
Intersection Signal Delay: 17.0		Intersection LOS: B	
Intersection Capacity Utilization 76.1%		ICU Level of Service D	
Analysis Period (min) 15			

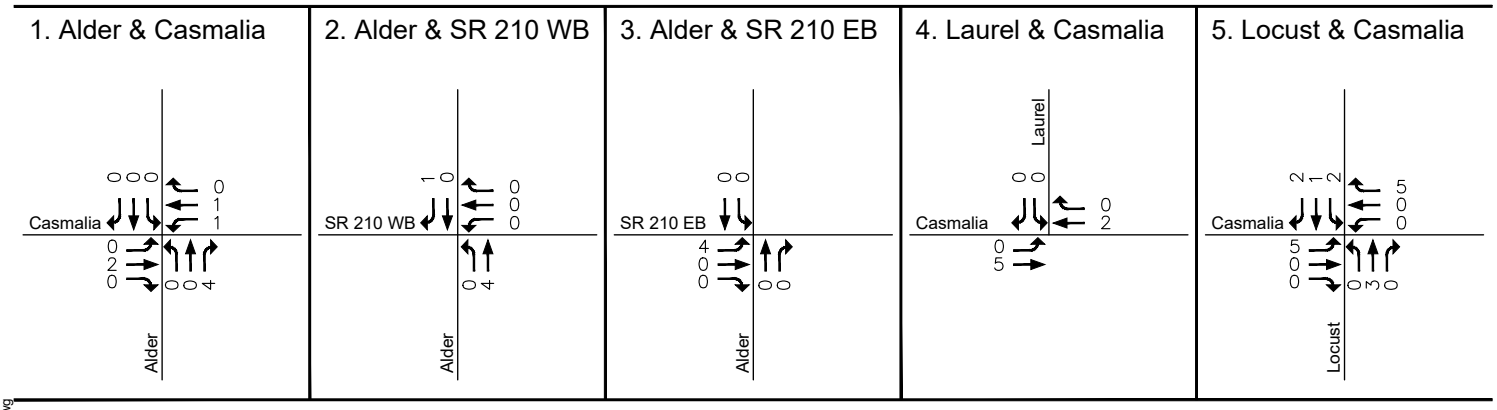
Splits and Phases: 3: Alder & SR 210 EB



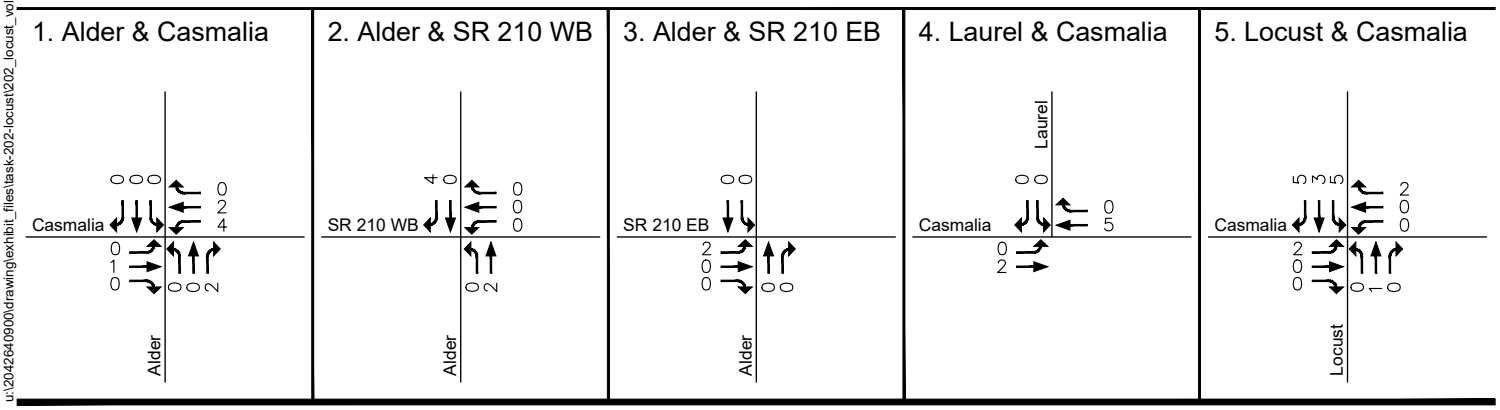
Appendix C PROJECT PEAK HOUR TRIPS



AM Peak Hour



PM Peak Hour



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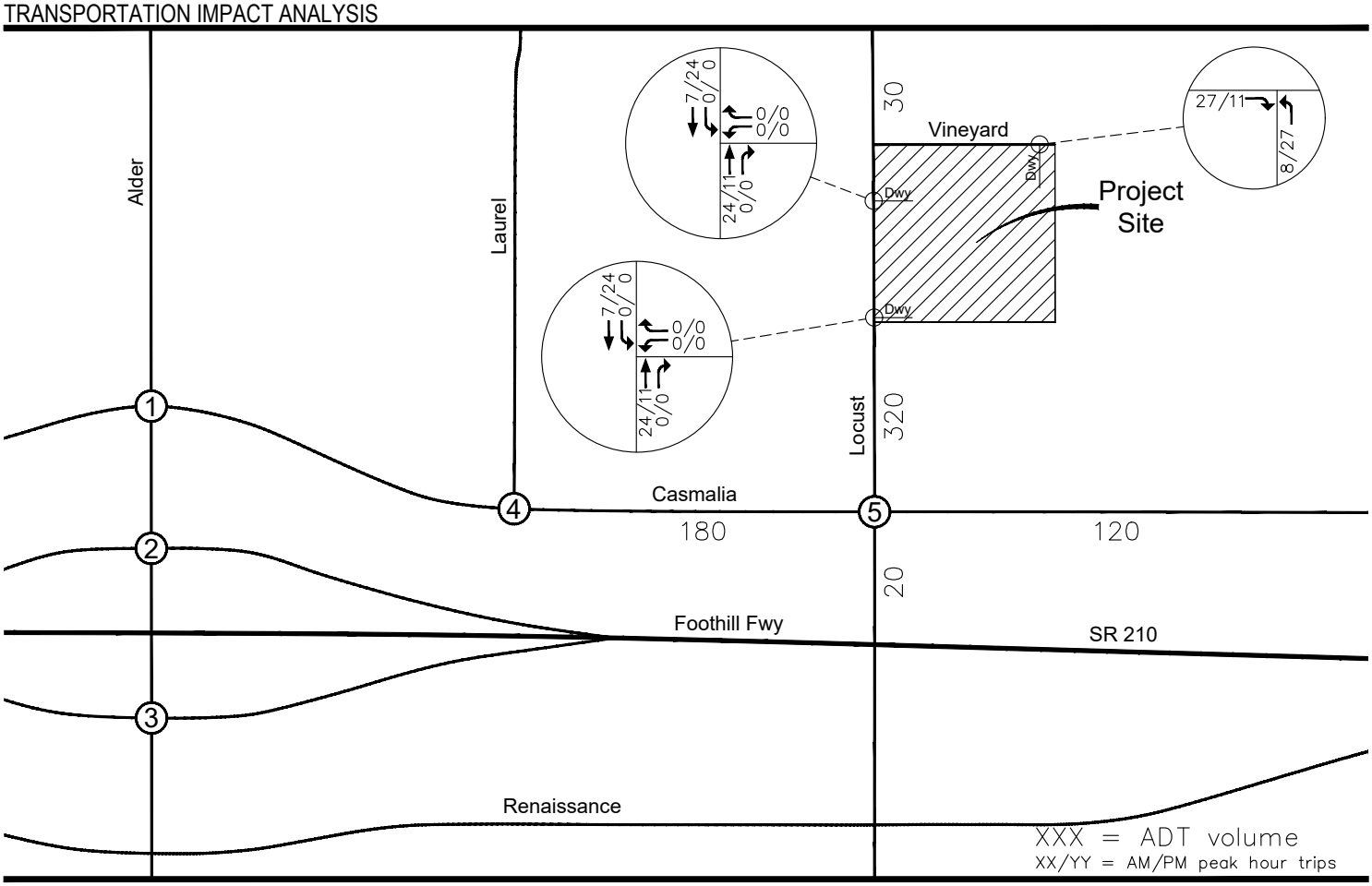
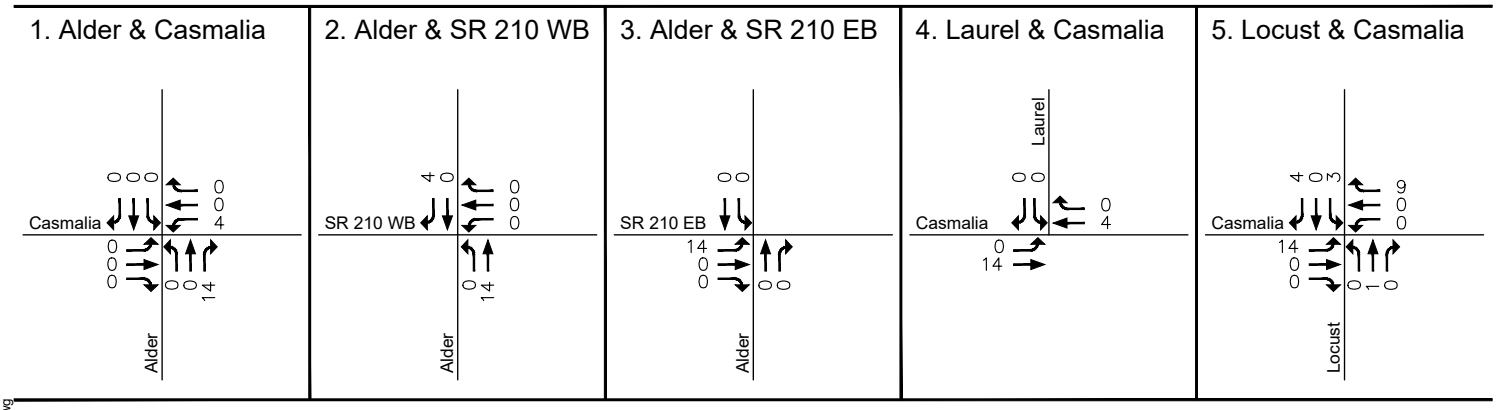
N

Figure C-1
Project Passenger Vehicle Peak Hour Trips



AM Peak Hour



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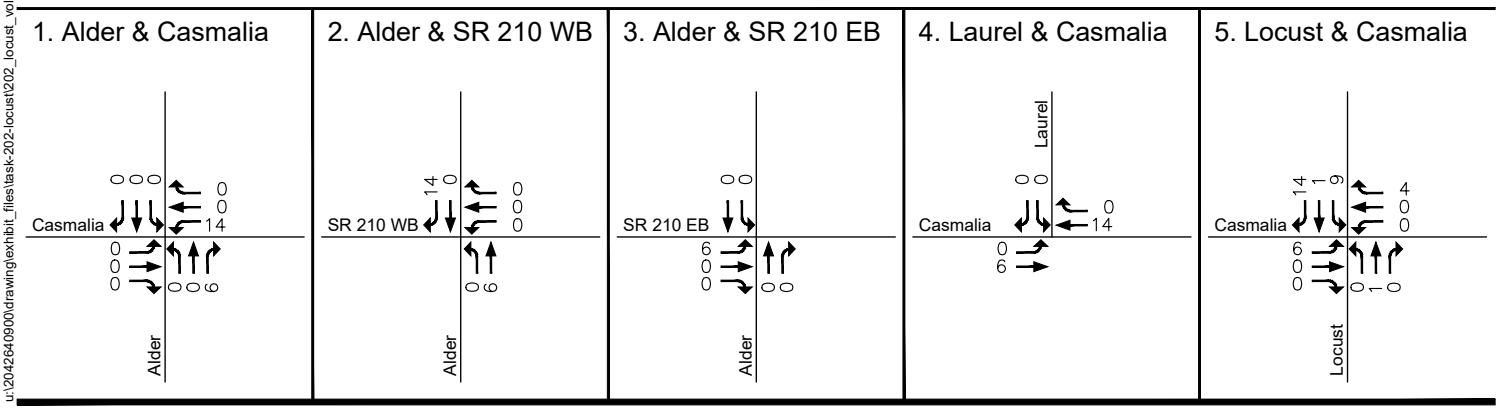

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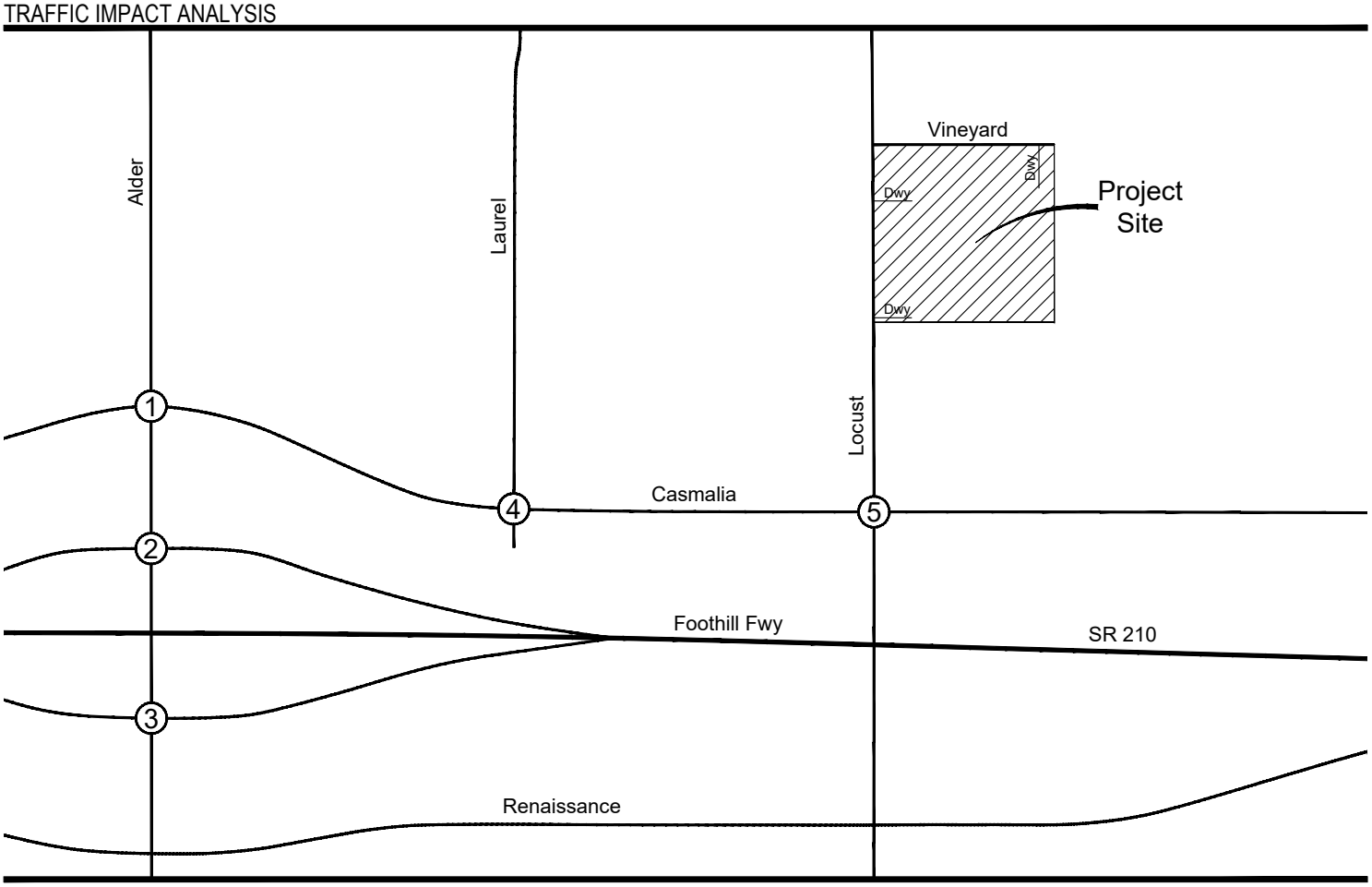
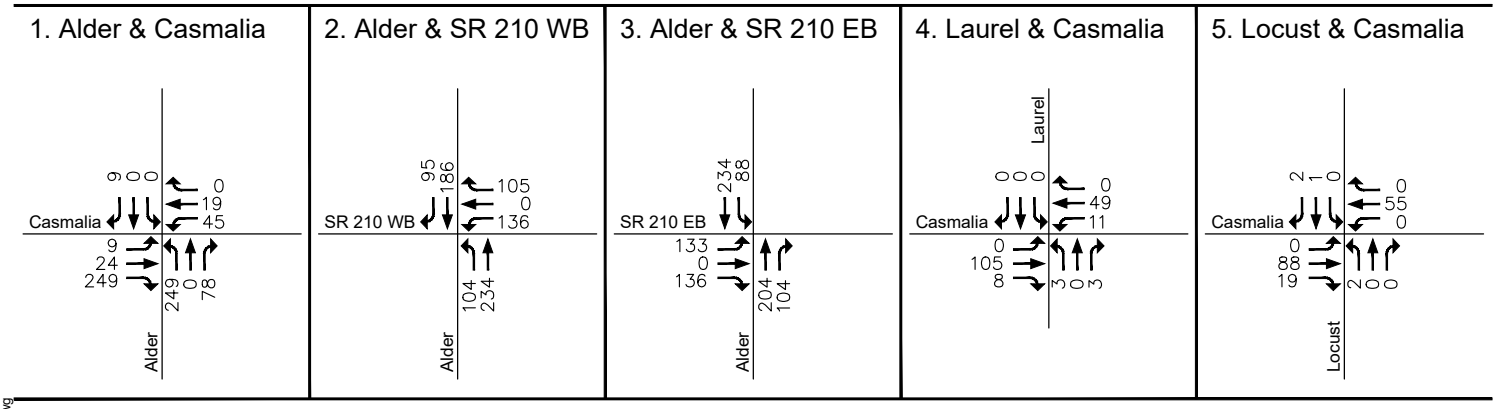
Figure C-2
Project Truck PCE Peak Hour Trips



AM Peak Hour



PM Peak Hour

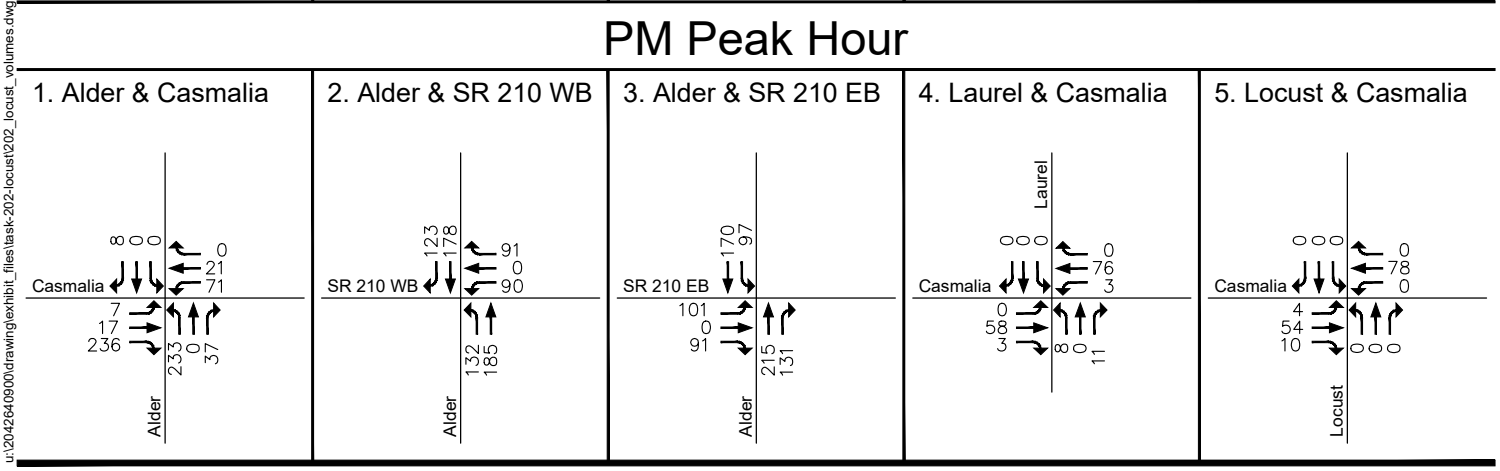


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Figure C-3
Cumulative Project Peak Hour PCE Trips

Appendix D TRUCK ROUTING PLAN

Stantec

Memo

To:	Phil Martin Phil Martin & Associates 2987 NW Fairway Heights Drive Bend, OR 97703 Phone 949-454-1800	From:	Cathy Lawrence 38 Technology Drive, Suite 200 Irvine CA 92618
File:	2042640900	Date:	December 9, 2022

Reference: 2223 and 2271 N. Locust Avenue, Rialto, CA - Industrial Building Truck Routing Plan

The proposed industrial building at 2223 and 2271 N. Locust Avenue consists of a 191,000 square foot warehouse with two driveways on Locust Avenue and one driveway on Vineyard Avenue. Trucks would access the project site via the Vineyard Avenue driveway. Vineyard Avenue is not listed as a truck route on the City's Truck Routes map; therefore, staff has requested a Truck Routing Plan be identified that meets the requirements of Section 18.112.050B(2) of the Rialto Municipal Code. This memorandum summarizes the Truck Routing Plan for the project which is consistent with the aforementioned code.

The project location is shown in **Figure 1** (attached), and the site plan is shown in **Figure 2** (attached).

The project site is located southeast of the intersection of Locust Avenue and Vineyard Avenue. The Project truck driveway is located on Vineyard Avenue approximately 580 feet east of Locust Avenue. The operation of the project is expected to be a typical warehouse use. Hours of operation, number of employees, and items to be stored in the building are not known at this time during the planning stage. The majority of truck traffic is expected to travel along Locust Avenue toward the SR 210 freeway via Casmalia Street with a small amount oriented toward I-15 to the north via Riverside Avenue.

Figure 3 (attached) shows the City of Rialto General Plan Truck Routes map which shows that Locust Avenue, Casmalia Avenue, and Riverside Avenue are designated as truck routes. Project trucks would travel along Vineyard Avenue to access the City Truck Route on Locust Avenue. From there, trucks would access Casmalia Avenue to the south or Riverside Avenue to the north. Vineyard Avenue is not designated as a truck route; however, the land use along the north side of Vineyard Avenue opposite the project site is industrial. The land use along Vineyard Avenue in this section would not be adversely affected by the presence of trucks.

The project truck access is located on Vineyard Avenue which provides a direct link to the City's truck routes and will provide truck routing meeting the requirements of City Municipal Code Section 18.112.050B(2).

Stantec Consulting Services Inc.

Cathy Lawrence PE
Transportation Engineer
Phone: 949 923 6064
Cathy.Lawrence@stantec.com

Keith Rutherfurd PE
Principal
Phone: 949 923 6952
Keith.Rutherfurd@stantec.com

Attachment:
Figure 1 Project Location
Figure 2 Site Plan
Figure 3 Project Truck Routing Plan

c. file

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Figure 1
General Project Location

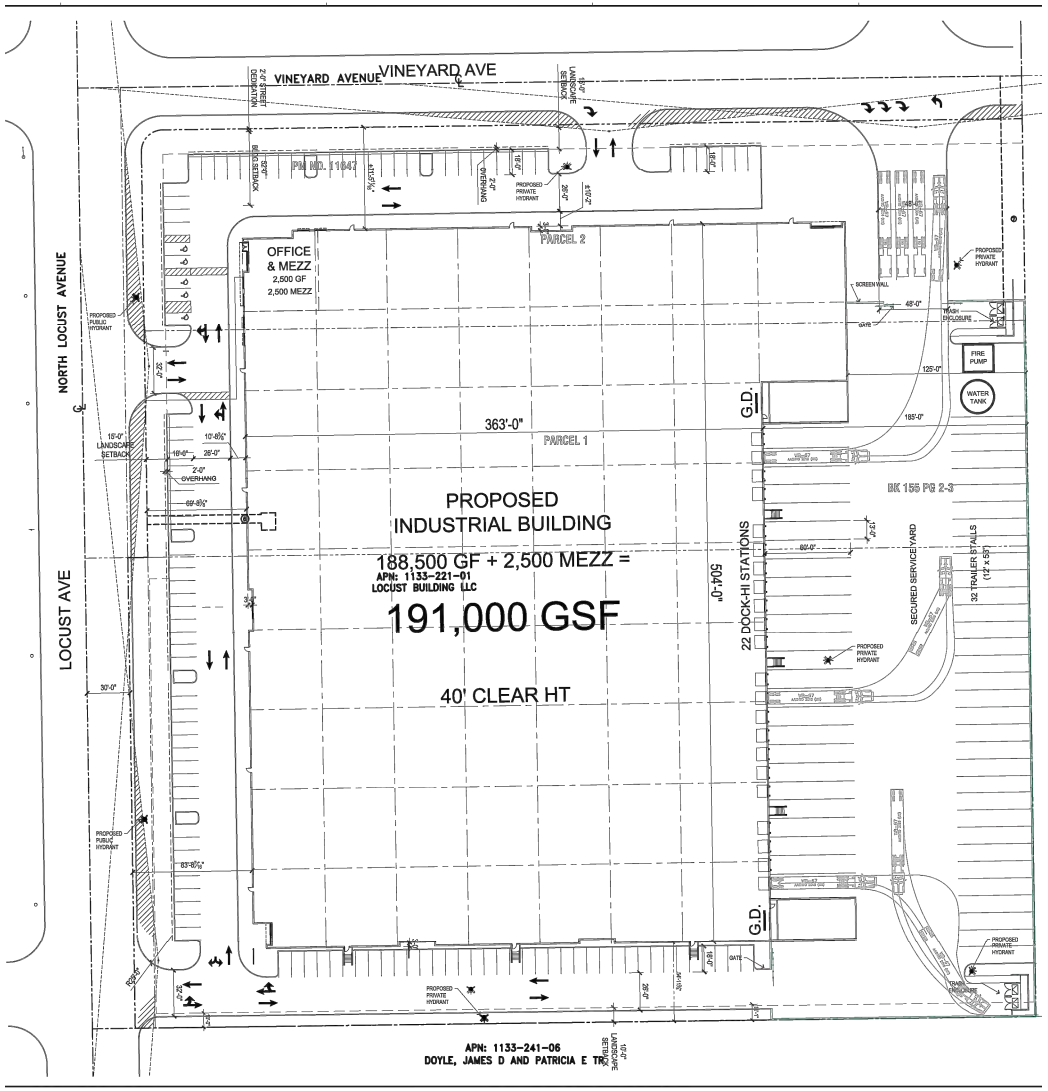

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Figure 2
Site Plan
A.2

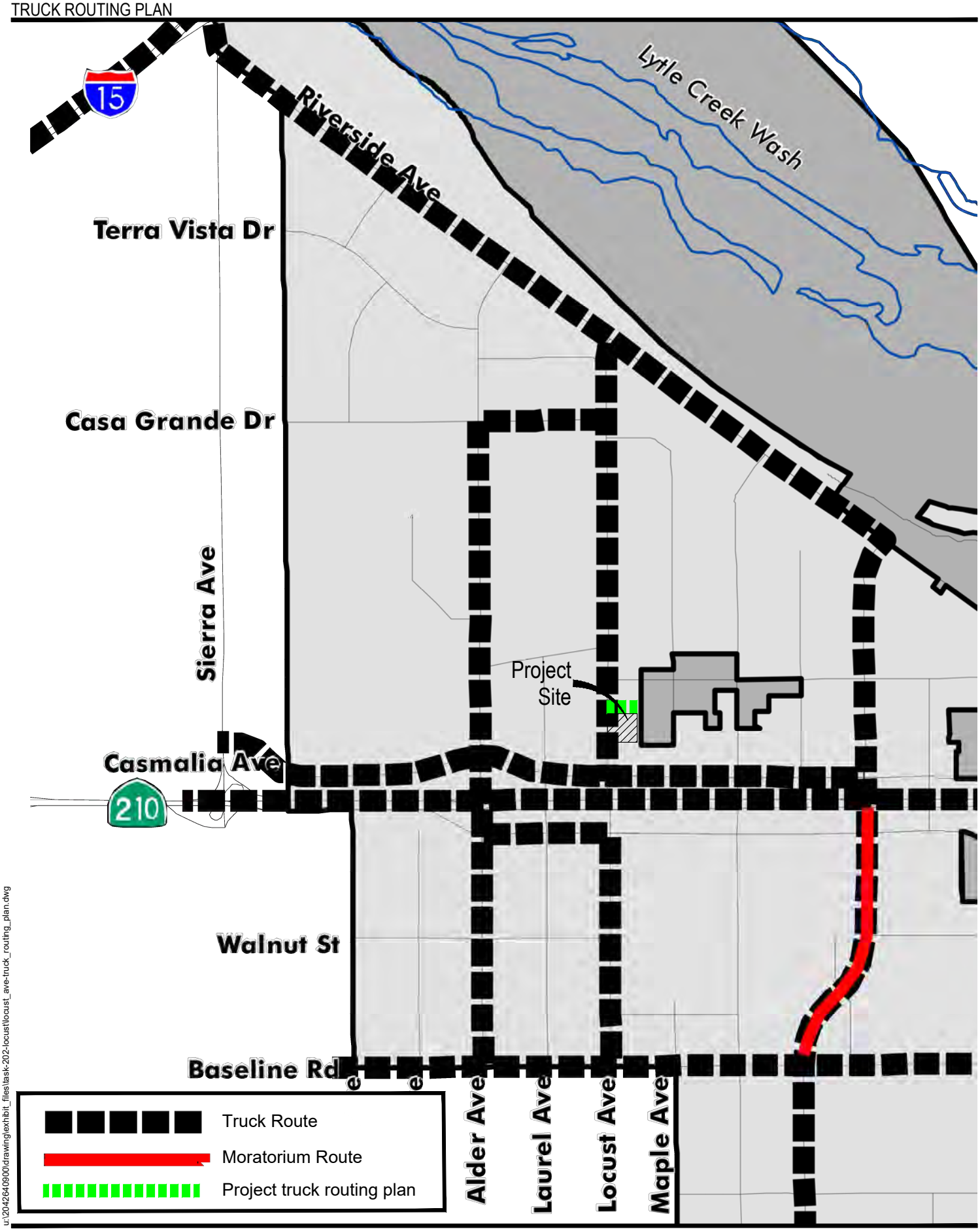

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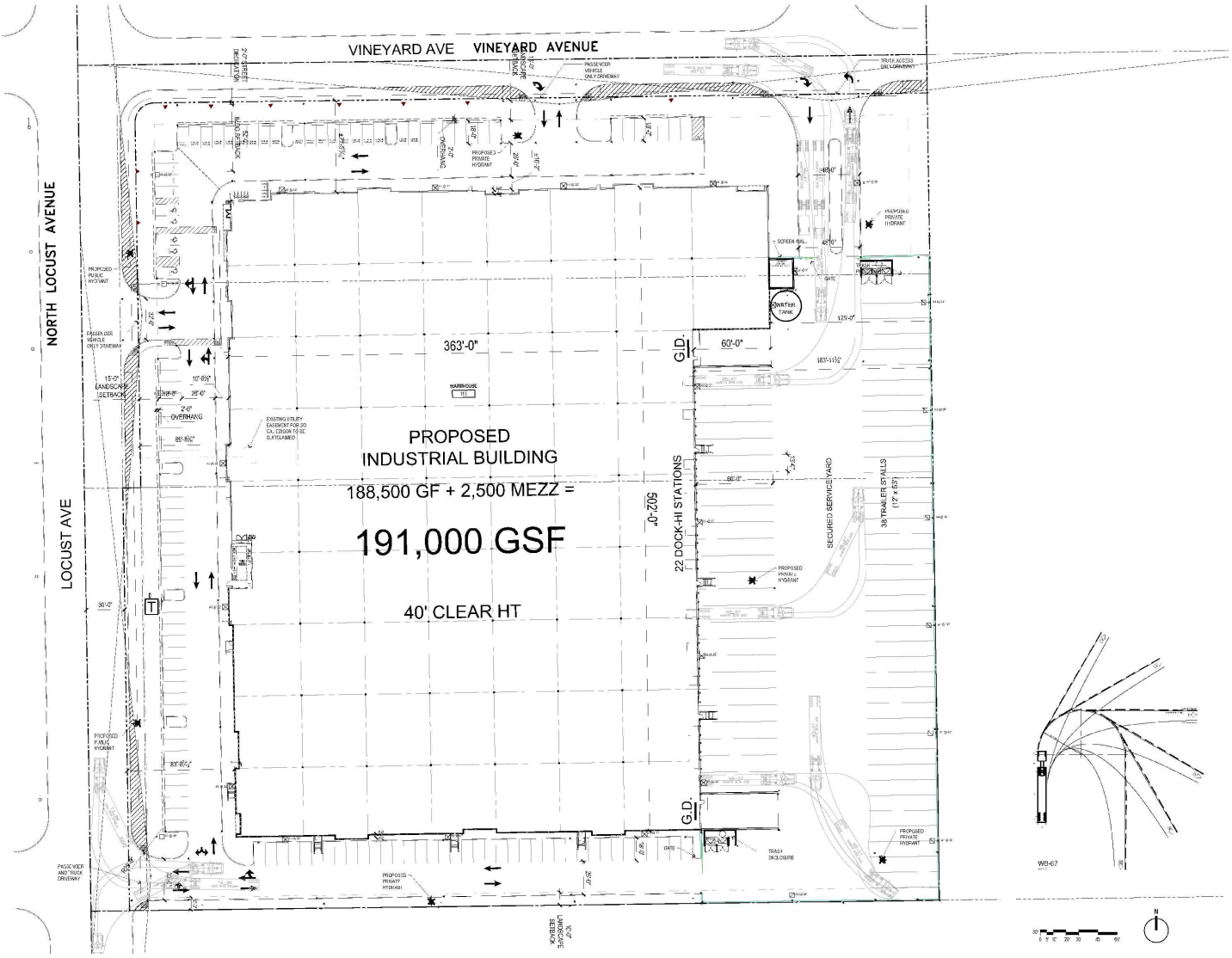
Figure 3

City of Rialto General Plan Truck Route Map - Project Truck Routing Plan

Appendix E TRUCK MANEUVERING PLANS



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Source: Architects Orange

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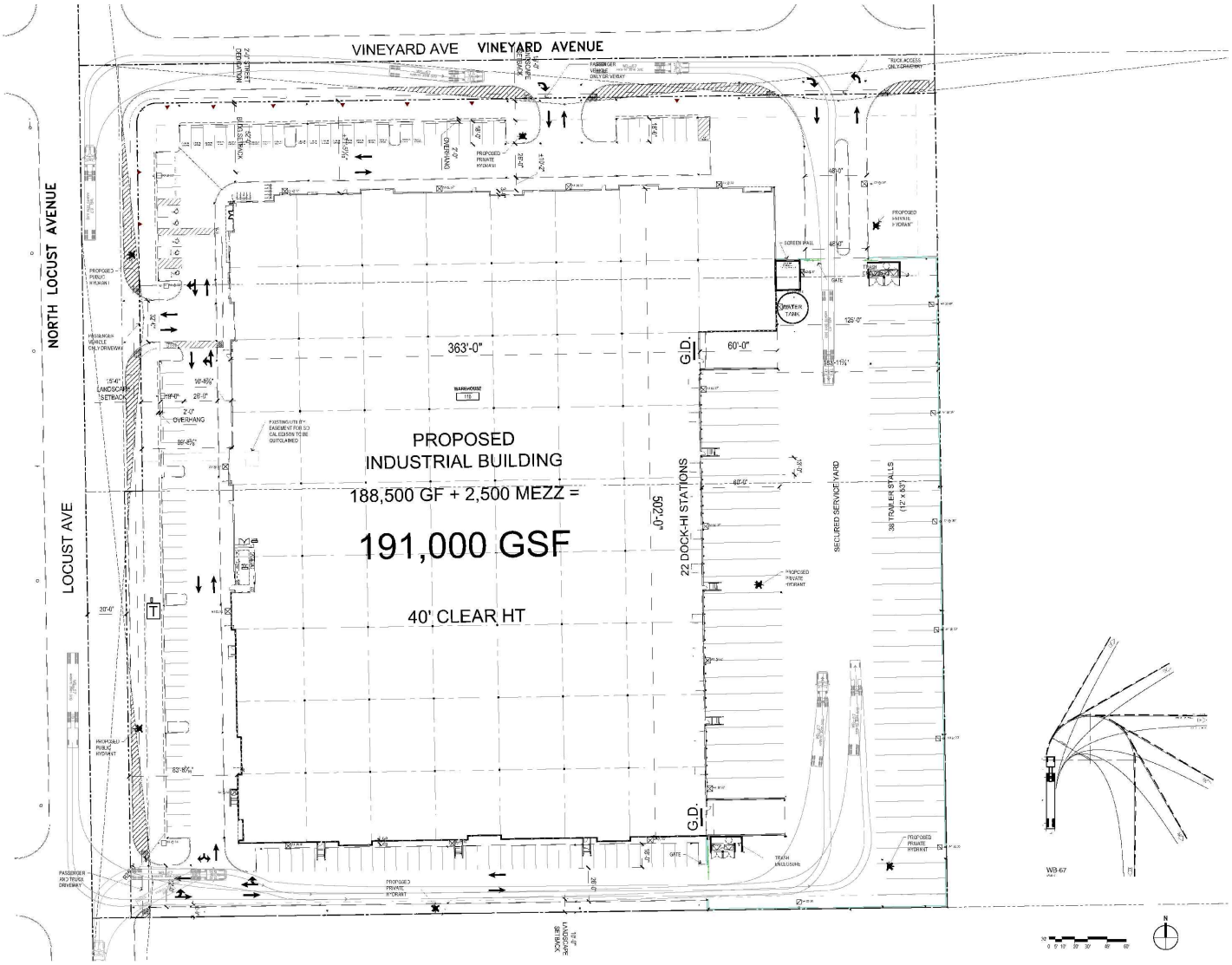
Figure E-1
Truck Maneuvering Plan



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Source: Architects Orange

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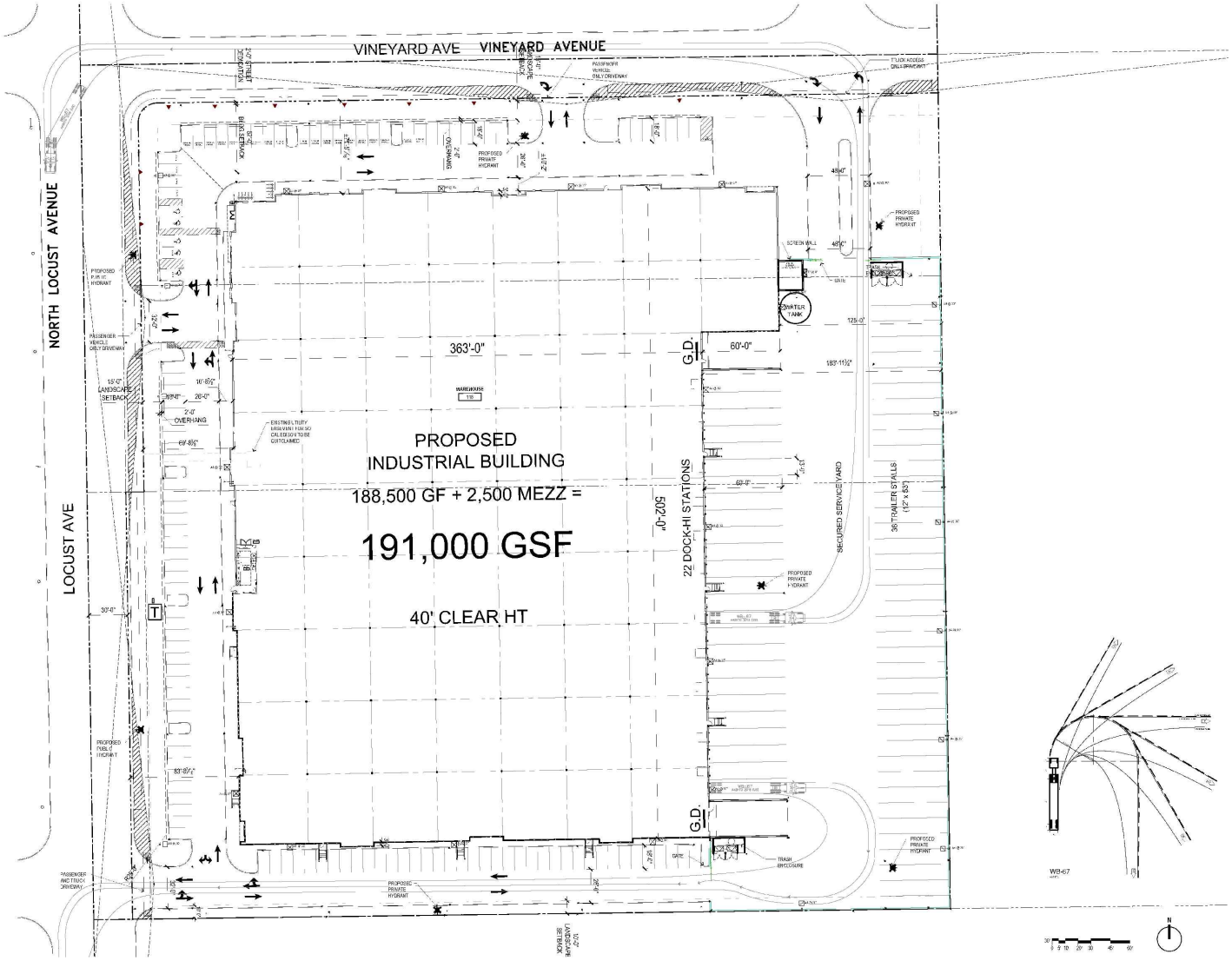
Figure E-2
Truck Maneuvering Plan - Inbound



Source: Architects Orange

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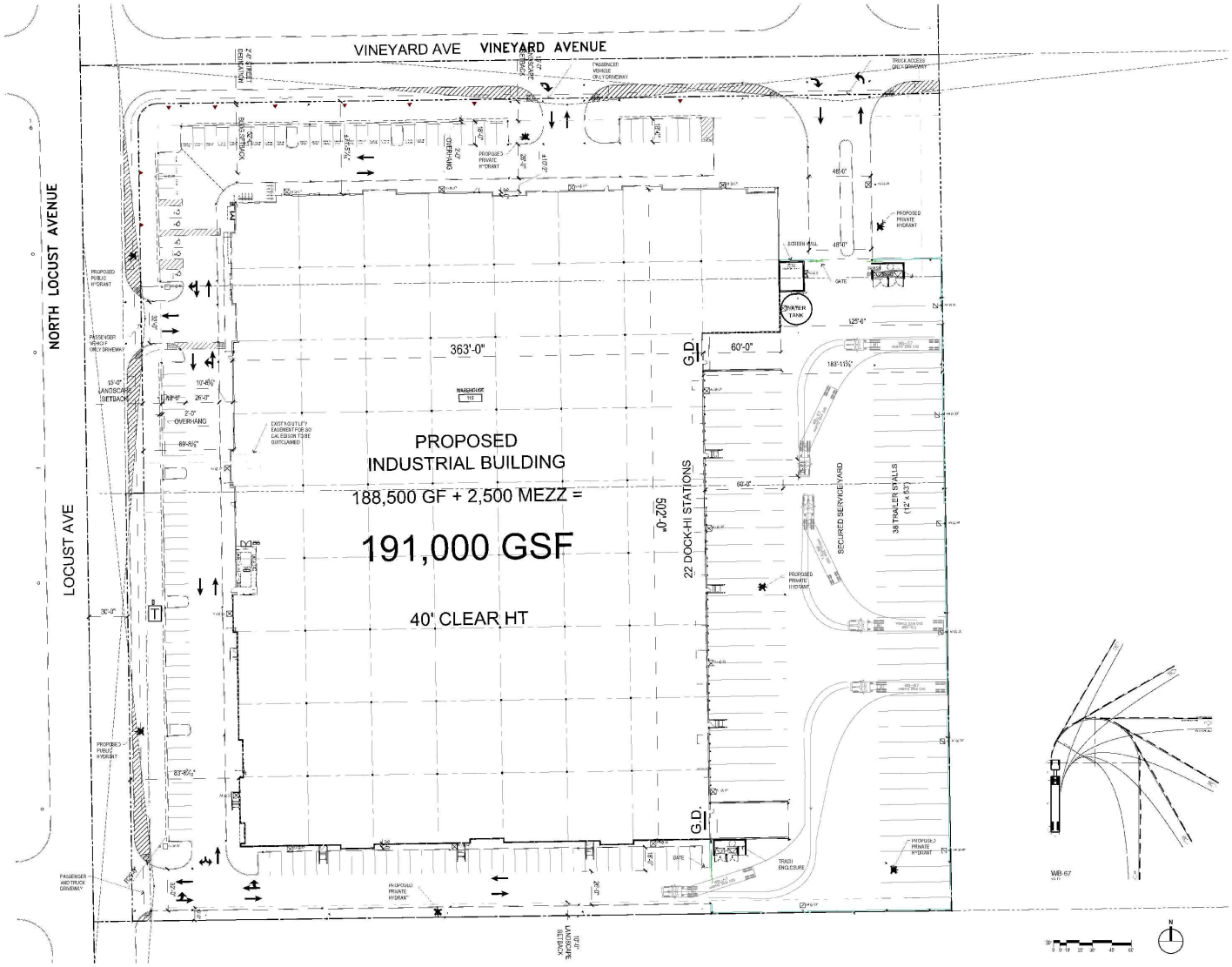
Figure E-3
Truck Maneuvering Plan - Outbound



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Source: Architects Orange

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Figure E-4
Truck Maneuvering Plan - Trailer Outbound

Appendix F APRPOVED SCOPING AGREEMENT FOR TRAFFIC IMPACT ANALYSIS

Exhibit B

SCOPING AGREEMENT FOR TRAFFIC IMPACT ANALYSIS

This following form shall be used to acknowledge preliminary approval of the scope for the traffic impact analysis (TIA) of the following project. The TIA must follow the City of Rialto Traffic Impact Analysis – Report Guidelines and Requirements, adopted by the City Council on _____.

City of Rialto

Traffic Impact Analysis

Scoping Agreement

Case No. 2022-0060

Related Cases -

SP No. _____

EIR No. 2022-0055

GPA No. _____

ZC No. _____

Project Name: Xebec Locust Ave Industrial Building

Project Address: 2223 & 2271 N. Locust Ave

Project Description: 192,000 square foot warehouse

	Consultant	Developer
Name:	Stantec Consulting Services Inc.	Xebec Realty
Address:	38 Technology Drive, Suite 200 Irvine CA 92618	3010 Old Ranch Parkway, Suite 480 Seal Beach CA 90740
Telephone:	949-923-6064	562-284-5001
Fax:		

1. Trip Generation Source: ITE 11th Edition, Category 150 - Warehousing (trucks estimated at 40% of total trips based on City guidelines)

Existing GP Land Use Planned Industrial Dev (PID) Proposed Land Use Warehouse

Current Zoning: Planned Industrial Zone Proposed Zoning: Planned Industrial Zone

Total Daily Project Trips: 552 (PCE)

	Current Trip Generation			Proposed Trip Generation		
	In	Out	Total	In	Out	Total
AM Trips	Nom.	Nom.	Nom.	42 (PCE)	13 (PCE)	55 (PCE)
PM Trips	Nom.	Nom.	Nom.	17 (PCE)	42 (PCE)	59 (PCE)

Internal Trip Allowance Yes ☐ No ☑ (_____ % Trip Discount)

Pass-By Trip Allowance Yes ☐ No ☑ (_____ % Trip Discount)

For appropriate land uses, a pass-by trip discount may be allowed not to exceed 25%. Discount trips shall be indicated on a report figure for intersections and access locations.

2. Trip Geographic Distribution: N 10/10% S 20/5 % E 35/35 % W 35/50 %
Passenger Car/Truck Distribution
(Detailed exhibits of trip distribution must be attached with Trucks as a separate exhibit)

3. Background Growth Traffic

Project Completion Year: 2024 Annual Background Growth Rate: 1.0 %

Other Phase Years _____

Other area projects to be considered: TBD

(Contact Planning for Lists. Correlate projects to exhibit map and also indicate which projects have been included in study area forecasts for existing + background growth + project + cumulative)

Model/Forecast methodology: N/A

4. Study Intersections: (NOTE: Subject to revision after other projects, trip generation and distribution are determined, or comments from other agencies received.)

1. N. Locust Ave & W. Casmalia St
2. Alder Ave & W. Casmalia St
3. Alder Ave & SR 210 WB Ramps
4. Alder Ave & SR 210 EB Ramps
5. Laurel Ave & Casmalia St
6. N. Locust Ave & Project Driveways
7. _____
8. _____
9. _____
10. _____

5. Study Roadway Segments: (NOTE: Subject to revision after other projects, trip generation and distribution are determined, or comments from other agencies received.)

1. N. Locust Ave n/o W. Casmalia St
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

6. Other Jurisdictional Impacts

Is this project within any other Agency's Sphere of Influence or within one-mile of another jurisdictional boundary? Yes ☐ No ☑

If so, name of Jurisdiction: _____

7. Site Plan (please attach 11" x 17" legible copy)

8. Specific issues to be addressed in the Study (in addition to the standard analysis described in the Guideline) (to be filled out by the City of Rialto Public Works Department) (NOTE: If the traffic study states that "a traffic signal is warranted" (or "a traffic signal appears to be warranted," or similar statement) at an existing un-signalized intersection under existing conditions, 8-hour approach traffic volume information must be submitted in addition to the peak hourly turning movement counts for that intersection.)

_____
_____
_____
_____
_____
_____

9. Existing Conditions

Traffic count data must be new or within one year. Provide traffic count dates if using other than new counts.

Date of counts: _____

NOTE Fees are due and must be submitted with, or prior to submittal of this form. The City will not process the Scoping Agreement prior to the receipt of the processing fee.

Fees Paid: $_____ Date _____

Recommended:

Scoping Agreement Submittal date _____

Scoping Agreement Resubmittal date _____

Applicant/Engineer Date

Land Use Concurrence:

Development Services Department Date

Approved by:

Justin Schlaefli Digitally signed by Justin Schlaefli
Date: 2022.10.24 06:44:04 -07'00'

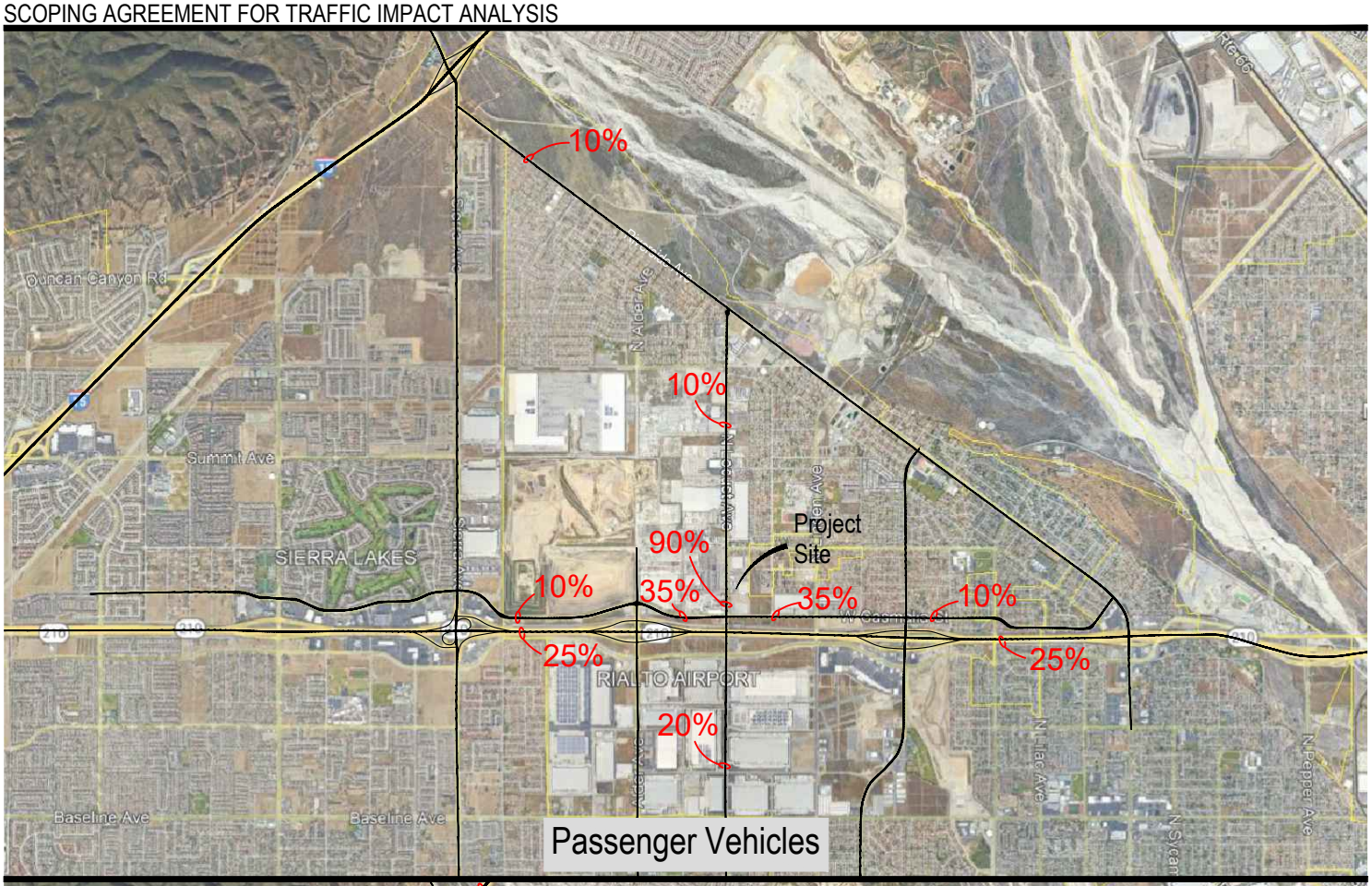
Public Works Department Date

NOTE:

The Applicant/Engineer acknowledges that the Scoping Agreement is intended to assist in the preparation of any required TIA. It is preliminary in nature and the City does not have sufficient data to determine the ultimate conditions that may be imposed for the project. It does not provide nor limit the requirements imposed on the Project but is intended only to provide initial input into the parameters for review of the traffic generated by the Project and the initial areas to be considered and studied. Subsequent changes to scope of required analysis to be included in the TIA may be required by the Transportation Commission, Planning Commission, and/or the City Council upon Public Works Director/City Engineer review and approval.

Locust Avenue Industrial Building - Trip Generation Summary

	Units	ADT	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Trips								
Warehouse								
Total Vehicles	192 TSF	328	25	8	33	10	25	35
Trucks								
4-axle (3.0 PCE)		276	21	6	27	9	21	30
3-axle (2.0 PCE)		74	6	2	8	2	6	8
2-axle (1.5 PCE)		5	0	0	0	0	0	0
Passenger Vehs		197	15	5	20	6	15	21
Total PCE Trips		**552**	**42**	**13**	**55**	**17**	**42**	**59**
Trip Rates - ITE 150 Warehousing								
Total	TSF	1.71	0.13	0.04	0.17	0.05	0.13	0.18
Truck Estimate = 40% of total trip generation, 70% 4-axle, 28% 3-axle, 2% 2-axle								



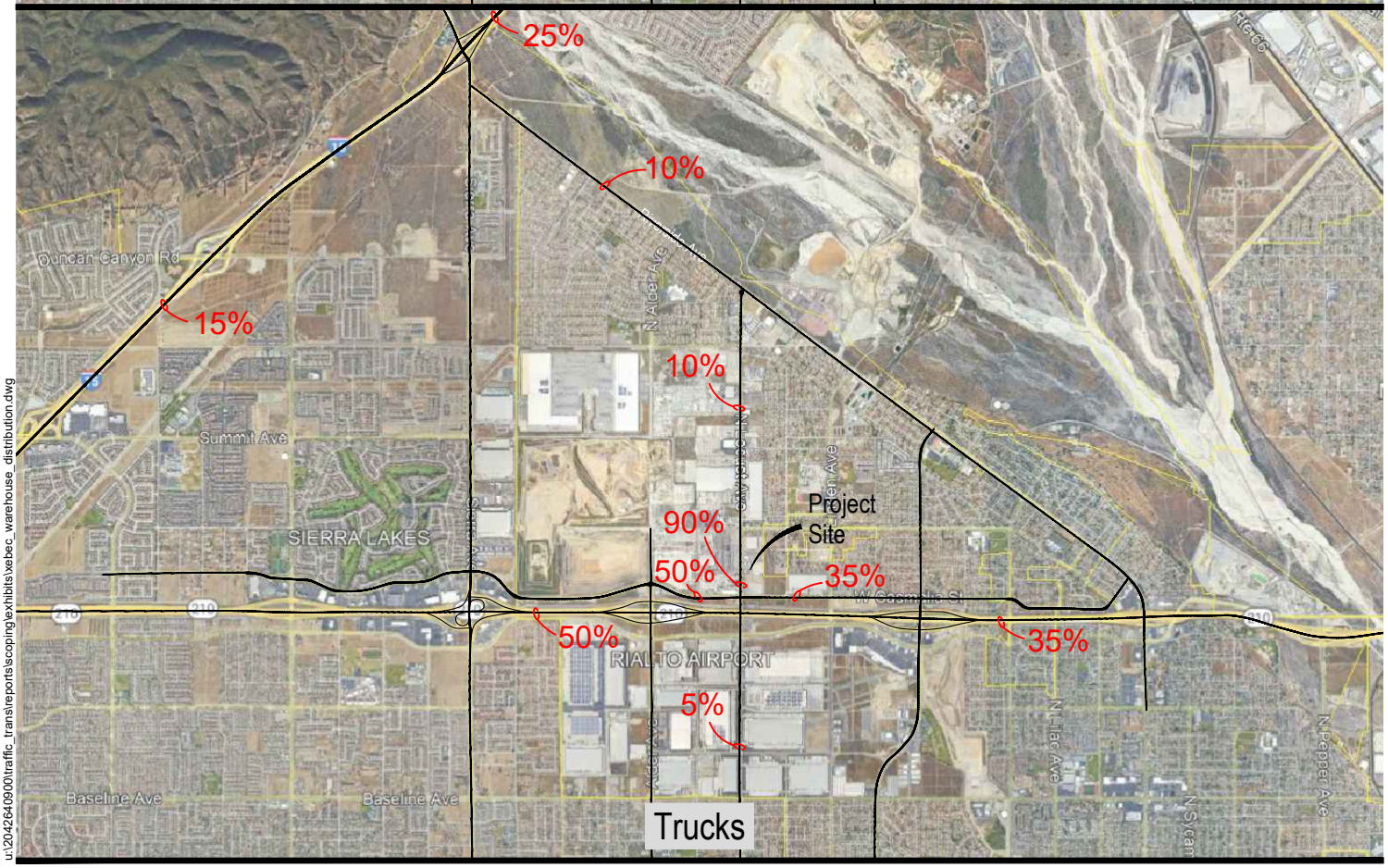


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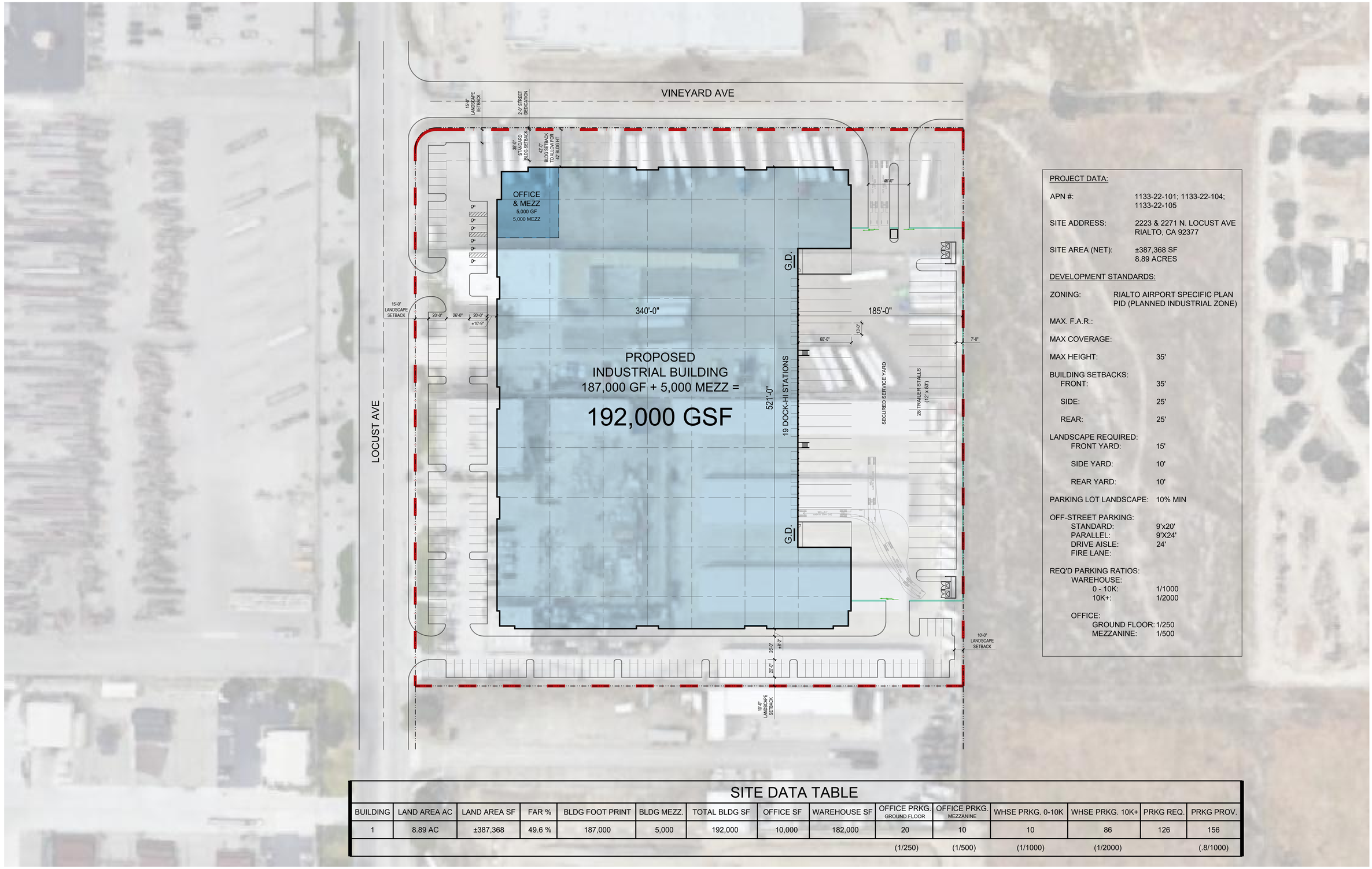
Figure 1
General Project Distribution



PROJECT DATA:

APN #:	1133-22-101; 1133-22-104; 1133-22-105
SITE ADDRESS:	2223 & 2271 N. LOCUST AVE RIALTO, CA 92377
SITE AREA (NET):	±387,368 SF 8.89 ACRES

DEVELOPMENT STANDARDS:

ZONING:	RIALTO AIRPORT SPECIFIC PLAN PID (PLANNED INDUSTRIAL ZONE)
MAX. F.A.R.:	
MAX COVERAGE:	
MAX HEIGHT:	35'
BUILDING SETBACKS:	
FRONT:	35'
SIDE:	25'
REAR:	25'
LANDSCAPE REQUIRED:	
FRONT YARD:	15'
SIDE YARD:	10'
REAR YARD:	10'
PARKING LOT LANDSCAPE:	10% MIN
OFF-STREET PARKING:	
STANDARD:	9'x20'
PARALLEL:	9'X24'
DRIVE AISLE:	24'
FIRE LANE:	
REQ'D PARKING RATIOS:	
WAREHOUSE:	
0 - 10K:	1/1000
10K+:	1/2000
OFFICE:	
GROUND FLOOR:	1/250
MEZZANINE:	1/500

SITE DATA TABLE

BUILDING	LAND AREA AC	LAND AREA SF	FAR %	BLDG FOOT PRINT	BLDG MEZZ.	TOTAL BLDG SF	OFFICE SF	WAREHOUSE SF	OFFICE PRKG. GROUND FLOOR	OFFICE PRKG. MEZZANINE	WHSE PRKG. 0-10K	WHSE PRKG. 10K+	PRKG REQ.	PRKG PROV.
1	8.89 AC	±387,368	49.6 %	187,000	5,000	192,000	10,000	182,000	20	10	10	86	126	156
									(1/250)	(1/500)	(1/1000)	(1/2000)		(.8/1000)

N

40' 0 5' 10' 20' 40' 60' 80'

XEBEC

2223 & 2271 N. LOCUST AVE INDUSTRIAL BUILDING

RIALTO, CA

CONCEPTUAL SITE PLAN

Architecture. Design. Relationships.

A2

2022-153
2022-02-21