APPENDIX 1.1:

APPROVED SCOPING AGREEMENT

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SCOPING AGREEMENT

DATE: May 14, 2025
TO: Richard Hirsch, Town of Apple Valley
FROM: Charlene So, Urban Crossroads, Inc.
JOB NO: 16408-03 TA Scope

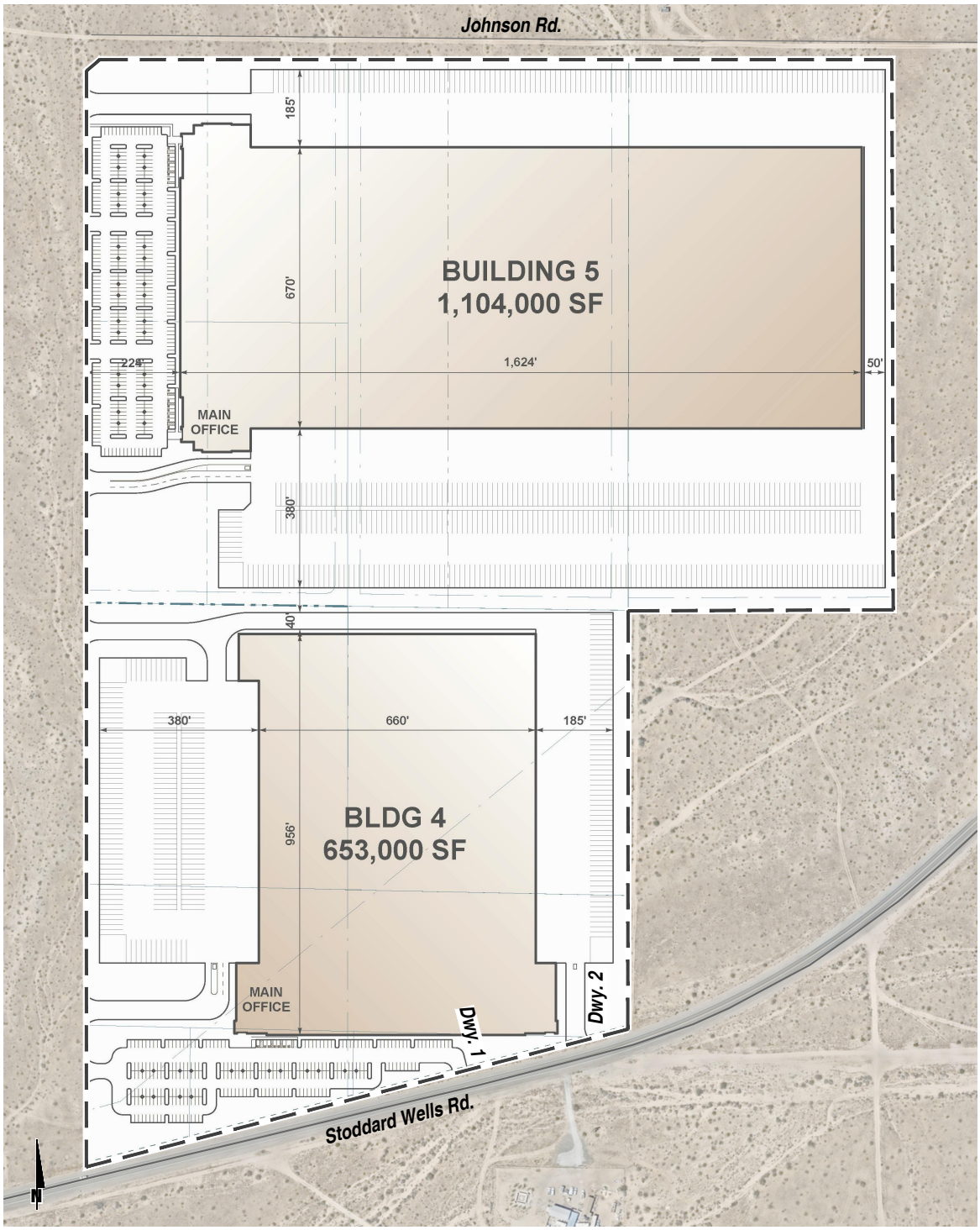
SUBJECT: BELL MOUNTAIN COMMERCE CENTER TRAFFIC STUDY SCOPING AGREEMENT

Urban Crossroads, Inc. has prepared the following Traffic Study Scoping Agreement for the Bell Mountain Commerce Center (Project), which is located north of Stoddard Wells Road and south of Johnson Road in the Town of Apple Valley. This letter describes the proposed Project trip generation, trip distribution, and analysis methodology, which have been used to establish the draft proposed Project study area and analysis locations. The following scoping agreement has been prepared in accordance with the County's Transportation Impact Study Guidelines, dated July 9, 2019 (since the Town does not have their own adopted guidelines).

PROJECT DESCRIPTION

The Project consists of the development of two industrial warehouse and distribution buildings totaling 1,757,000 square feet. For the purposes of the traffic study, it is proposed that the Project mix will assume 15% High-Cube Cold Storage Warehouse use and 85% High-Cube Fulfillment (Non-Sort) Center Warehouse use. A preliminary site plan for the proposed Project is shown on Exhibit 1. The Project is anticipated to have an Opening Year of 2028. Access to both buildings will be accommodated via seven new driveways along New Public Street which is a new north/south roadway connecting Johnson Road to Stoddard Wells Road. Building 4 has two additional driveways proposed on Stoddard Wells Road. All driveways are assumed to allow for full access (no turn restrictions) with the exception of the access points on Stoddard Wells Road which will assume right-in/right-out access only.

EXHIBIT 1: PRELIMINARY SITE PLAN



TRIP GENERATION

Trip generation represents the amount of traffic which is both attracted to and produced by a development. Determining traffic generation for a specific project is therefore based upon forecasting the amount of traffic that is expected to be both attracted to and produced by the specific land uses being proposed for a given development. In order to develop the traffic characteristics of the proposed Project, trip-generation statistics published in the Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition, 2021) was used. The following ITE land use codes and vehicle mixes will be utilized for the proposed Project (Table 1 presents the trip generation rates):

- High-Cube Cold Storage Warehouse (ITE Land Use Code 157) has been used to derive site specific trip generation estimates for up to 263,550 square feet (15% of the total square footage). High-cube cold storage warehouses include warehouses characterized by the storage and/or consolidation of manufactured goods (and to a lesser extent, raw materials) prior to their distribution to retail locations or other warehouses. High-cube cold storage warehouses are facilities typified by temperature-controlled environments for frozen food or other perishable products. The High-Cube Cold Storage Warehouse vehicle mix (passenger cars versus trucks) has been obtained from the ITE's Trip Generation Manual. The truck percentages were further broken down by axle type per the following South Coast Air Quality Management District (SCAQMD) recommended truck mix: 2-Axle = 34.7%; 3-Axle = 11.0%; 4+-Axle = 54.3%.
- High-Cube Fulfillment Center Warehouse has been used to derive site specific trip generation estimates for up to 1,493,450 square feet of the proposed Project (85% of the total square footage). The ITE Trip Generation Manual has trip generation rates for high-cube fulfillment center use for both non-sort and sort facilities (ITE land use code 155). As defined by ITE, *a high-cube warehouse is a building that typically has at least 200,000 gross square feet of floor area, has a ceiling height of 24 feet or more, and is used primarily for the storage and/or consolidation of manufactured goods (and to a lesser extent, raw materials) prior to their distribution to retail locations or other warehouses. A typical high-cube warehouse has a high level of on-site automation and logistics management. The automation and logistics enable highly-efficient processing of goods through the high-cube warehouse.* The ITE Trip Generation Manual has two subcategories for the High-Cube Fulfillment Center use: sort and non-sort. ITE describes a sort facility as a *fulfillment center that ships out smaller items, requiring extensive sorting, typically by manual means*. In comparison, *a non-sort facility is a fulfillment center that ships large box items that are processed primarily with automation rather than through manual means*. Some limited assembly and repackaging may occur within the facility. The non-sort facility sub-land use category has been assumed for the purposes of calculating trip generation for the Project consistent with other surrounding projects in the vicinity. The vehicle mix (passenger cars versus trucks) has been obtained from the ITE's Trip Generation Manual. The truck percentages were further broken down by axle type per the following SCAQMD recommended truck mix: 2-Axle = 16.7%; 3-Axle = 20.7%; 4+-Axle = 62.6%.

Table 2 shows the resulting Project trip generation summary, which shows the Project is anticipated to generate a net total of 3,268 two-way vehicle trip-ends per day with 253 AM peak hour trips and 269 PM peak hour trips (actual vehicles).

Passenger car equivalent (PCE) factors were applied to the trip generation rates for heavy trucks (large 2-axles, 3-axles, 4+-axles). PCEs allow the typical "real-world" mix of vehicle types to be represented as a single, standardized unit, such as the passenger car, to be used for the purposes of capacity and level of service analyses. The PCE factors are consistent with the recommended PCE factors in the County's Guidelines. Table 3 shows the resulting Project trip generation summary in PCE, which shows the Project is anticipated to generate a net total of 4,102 two-way PCE vehicle trip-ends per day with 312 PCE AM peak hour trips and 307 PCE PM peak hour trips. Consistent with the County requirements, the peak hour intersection operations analysis will be conducted using the PCE volumes shown in Table 3.

TRIP DISTRIBUTION

The Project trip distribution represents the directional orientation of traffic to and from the Project site. Trip distribution is the process of identifying the probable destinations, directions or traffic routes that will be utilized by Project traffic. The potential interaction between the planned land uses and surrounding regional access routes are considered, to identify the route where the Project traffic would distribute. The Project trip distribution represents the directional orientation of traffic to and from the Project site. The proposed Project trip distributions are shown on Exhibit 2 for passenger cars and Exhibit 3 for trucks. The Project truck trip distribution patterns adhere to the Town's approved truck routes.

TABLE 1: TRIP GENERATION RATES

Land Use[1]	Units[2]	ITE LU Code	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Actual Vehicle Trip Generation Rates									
High-Cube Fulfillment Center (Non-Sort)[3]	TSF	155	0.122	0.028	0.150	0.062	0.098	0.160	1.810
Passenger Cars			0.112	0.018	0.130	0.057	0.093	0.150	1.580
2-Axle Trucks			0.002	0.001	0.003	0.001	0.001	0.002	0.038
3-Axle Trucks			0.002	0.002	0.004	0.001	0.001	0.002	0.048
4+-Axle Trucks			0.006	0.007	0.013	0.003	0.003	0.006	0.144
High-Cube Cold Storage Warehouse[3]	TSF	157	0.085	0.025	0.110	0.034	0.086	0.120	2.120
Passenger Cars			0.076	0.004	0.080	0.019	0.071	0.090	1.370
2-Axle Trucks			0.003	0.007	0.010	0.005	0.005	0.010	0.260
3-Axle Trucks			0.001	0.002	0.003	0.002	0.001	0.003	0.083
4+-Axle Trucks			0.005	0.011	0.016	0.008	0.008	0.016	0.407
PCE Trip Generation Rates									
High-Cube Fulfillment Center (Non-Sort)[3]	TSF	155	0.122	0.028	0.150	0.062	0.098	0.160	1.810
Passenger Cars			0.112	0.018	0.130	0.057	0.093	0.150	1.580
2-Axle Trucks (PCE = 1.5)			0.003	0.002	0.005	0.002	0.001	0.003	0.058
3-Axle Trucks (PCE = 2.0)			0.005	0.005	0.010	0.003	0.003	0.005	0.119
4+-Axle Trucks (PCE = 3.0)			0.018	0.020	0.038	0.009	0.010	0.019	0.432
High-Cube Cold Storage Warehouse[3]	TSF	157	0.085	0.025	0.110	0.034	0.086	0.120	2.120
Passenger Cars			0.076	0.004	0.080	0.019	0.071	0.090	1.370
2-Axle Trucks (PCE = 1.5)			0.005	0.011	0.016	0.008	0.008	0.016	0.390
3-Axle Trucks (PCE = 2.0)			0.002	0.005	0.007	0.004	0.003	0.007	0.165
4+-Axle Trucks (PCE = 3.0)			0.015	0.034	0.049	0.024	0.025	0.049	1.222

[1] Trip Generation & Vehicle Mix Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 11th Edition (2021).

[2] TSF = thousand square feet

[3] Truck Mix: South Coast Air Quality Management District's (SCAQMD) recommended truck mix, by axle type.
Normalized % - Without Cold Storage: 16.7% 2-Axle trucks, 20.7% 3-Axle trucks, 62.6% 4-Axle trucks.
Normalized % - With Cold Storage: 34.7% 2-Axle trucks, 11.0% 3-Axle trucks, 54.3% 4-Axle trucks.

TABLE 2: PROJECT TRIP GENERATION (ACTUAL VEHICLES)

Land Use	Quantity	Units[1]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Actual Vehicles:									
High-Cube Fulfillment (Non-Sort)	1,493.450	TSF							
Passenger Cars:			167	27	194	85	139	224	2,360
2-axle Trucks:			3	2	5	1	1	2	58
3-axle Trucks:			3	3	6	1	2	3	72
4+-axle Trucks:			9	10	19	4	5	9	216
Total Truck Trips:			15	15	30	6	8	14	346
Total Trips (Actual Vehicles)[2]			182	42	224	91	147	238	2,706
High-Cube Cold Storage	263.550	TSF							
Passenger Cars:			20	1	21	5	19	24	362
2-axle Trucks:			1	2	3	1	1	2	70
3-axle Trucks:			0	1	1	1	0	1	22
4+-axle Trucks:			1	3	4	2	2	4	108
Total Truck Trips:			2	6	8	4	3	7	200
Total Trips (Actual Vehicles)[2]			22	7	29	9	22	31	562
Passenger Cars			187	28	215	90	158	248	2,722
Trucks			17	21	38	10	11	21	546
Total Trips (Actual Vehicles)[2]			**204**	**49**	**253**	**100**	**169**	**269**	**3,268**

[1] TSF = thousand square feet

[2] Total Trips = Passenger Cars + Truck Trips.

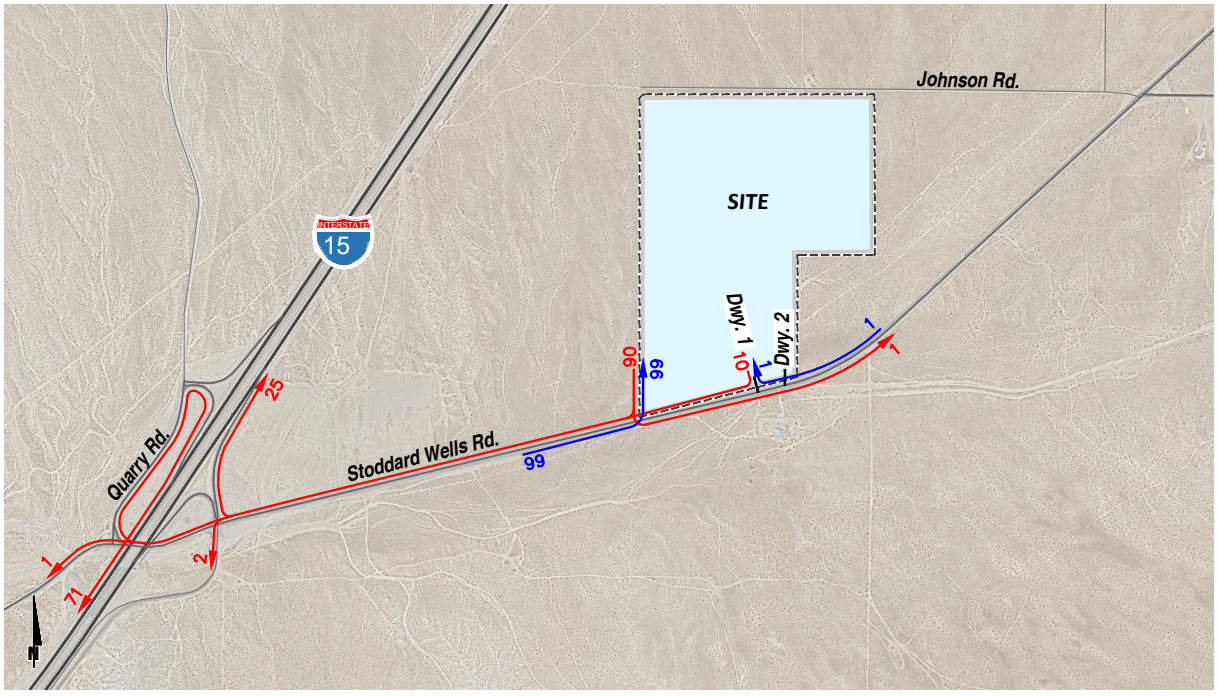
TABLE 3: PROJECT TRIP GENERATION (PCE)

Land Use	Quantity	Units[1]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Passenger Car Equivalent (PCE):									
High-Cube Fulfillment (Non-Sort)	1,493.450	TSF							
Passenger Cars:			167	27	194	85	139	224	2,360
2-axle Trucks:			4	3	7	2	2	4	86
3-axle Trucks:			7	8	15	4	4	8	178
4+-axle Trucks:			27	29	56	13	15	28	646
Total Truck Trips (PCE):			38	40	78	19	21	40	910
Total Trips (PCE)[2]			205	67	272	104	160	264	3,270
High-Cube Cold Storage	263.550	TSF							
Passenger Cars:			20	1	21	5	19	24	362
2-axle Trucks:			1	3	4	2	2	4	104
3-axle Trucks:			1	1	2	1	1	2	44
4+-axle Trucks:			4	9	13	6	7	13	322
Total Truck Trips (PCE):			6	13	19	9	10	19	470
Total Trips (PCE)[2]			26	14	40	14	29	43	832
Passenger Cars			187	28	215	90	158	248	2,722
Trucks			44	53	97	28	31	59	1,380
Total Trips (PCE)[2]			**231**	**81**	**312**	**118**	**189**	**307**	**4,102**

[1] TSF = thousand square feet

[2] Total Trips = Passenger Cars + Truck Trips.

EXHIBIT 2: PROJECT (PASSENGER CAR) TRIP DISTRIBUTION



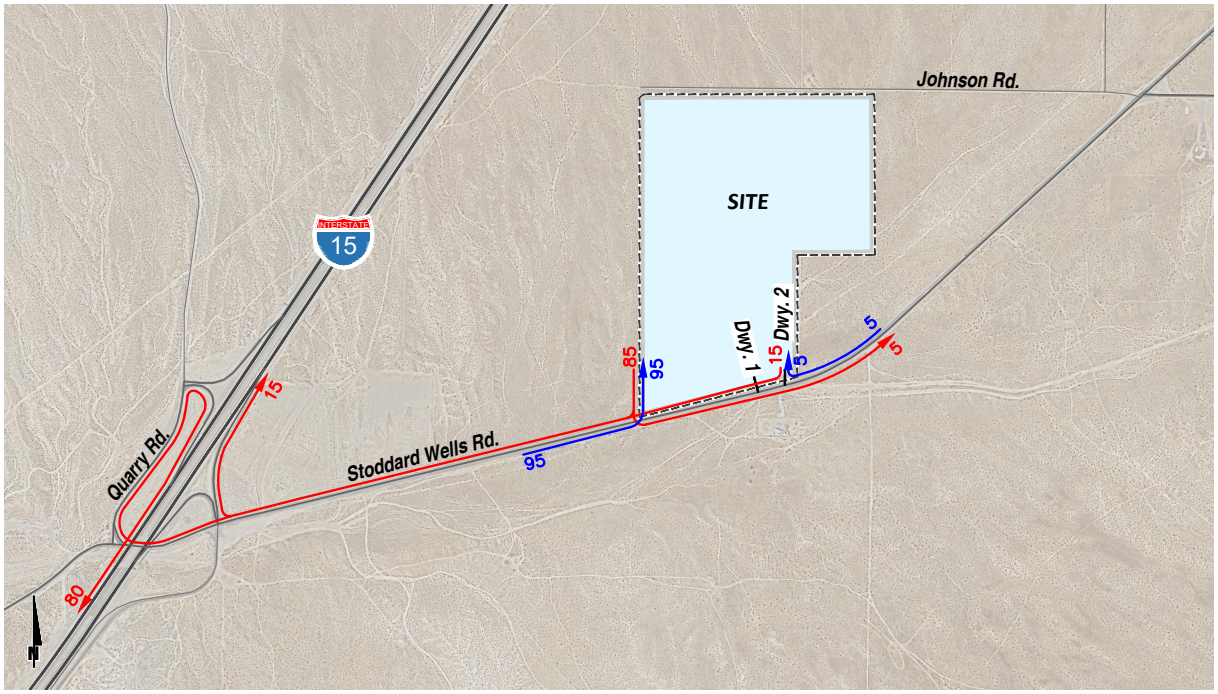
LEGEND:

10 = *Car Percent To/From Project*

= *Inbound*

= *Outbound*

EXHIBIT 3: PROJECT (TRUCK) TRIP DISTRIBUTION



LEGEND:

10 = Truck Percent To/From Project

= Inbound

= Outbound

ANALYSIS SCENARIOS

Consistent with the County's Guidelines, intersection analysis will be provided for the following analysis scenarios:

- Existing (2025) Conditions
- Opening Year Cumulative (2028) Without Project Conditions
- Opening Year Cumulative (2028) With Project Conditions

All study area intersections will be evaluated using the Highway Capacity Manual (HCM) 7th Edition analysis methodology. The study area that is proposed to be evaluated is shown on Exhibit 4 and is listed in Table 4.

TABLE 4: STUDY AREA INTERSECTIONS

ID	Intersection Location	Jurisdiction
1	Quarry Rd. & I-15 SB Ramps	Caltrans, County
2	Quarry Rd. & Stoddard Wells Rd.	County
3	I-15 NB Ramps & Stoddard Wells Rd.	Caltrans, Apple Valley
4	New Outer I-15 Hwy & Stoddard Wells Rd.	Apple Valley
5	Driveway 1 & Stoddard Wells Rd.	Apple Valley
6	Driveway 2 & Stoddard Wells Rd.	Apple Valley

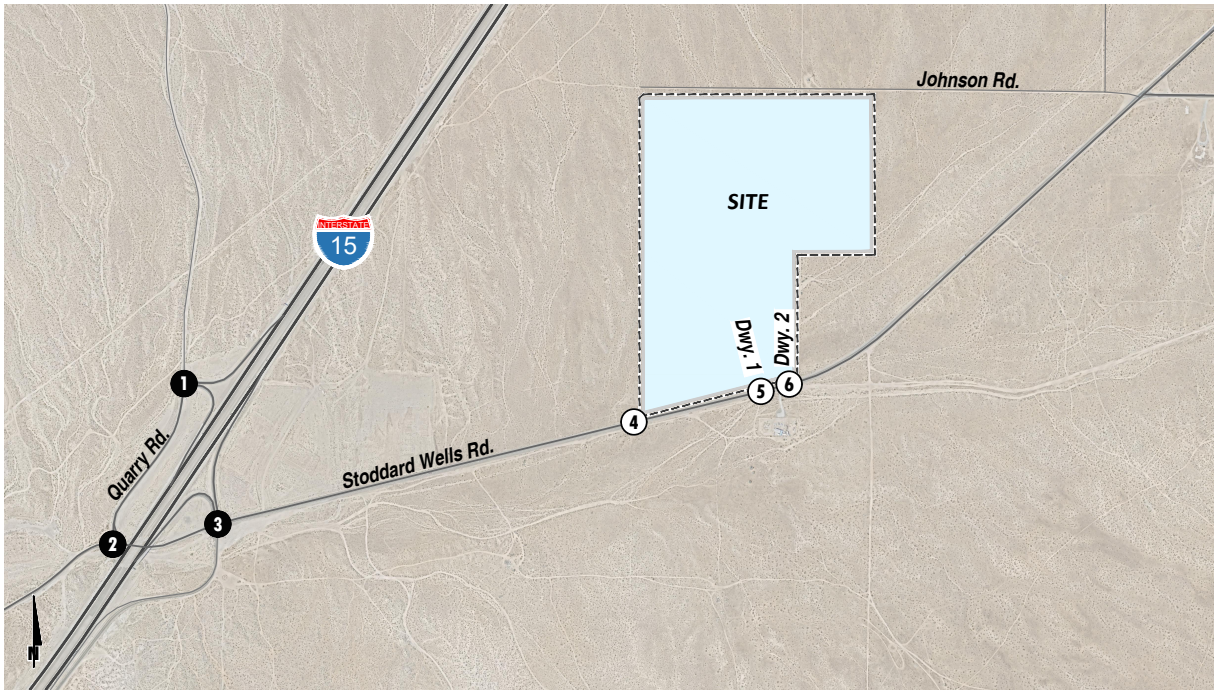
TRAFFIC COUNTS

New traffic counts will be conducted during a typical weekday when local schools are in session and operating on a typical bell schedule. No adjustments are proposed to the traffic counts for the baseline traffic condition with the exception of volume balancing between closely spaced intersections. Traffic counts will be conducted once the scoping agreement has been approved.

AMBIENT GROWTH

Future year traffic forecasts will include background (ambient) growth at 2.0% per year, compounded annually. The total ambient growth is 6.12% for 2028 traffic conditions. The ambient growth factor is intended to approximate regional traffic growth. This ambient growth rate will be added to existing traffic volumes to account for area-wide growth not reflected by cumulative development projects.

EXHIBIT 4: STUDY AREA



LEGEND:

● = *Existing Intersection Analysis Location*

○ = *Future Intersection Analysis Location*

CUMULATIVE PROJECTS

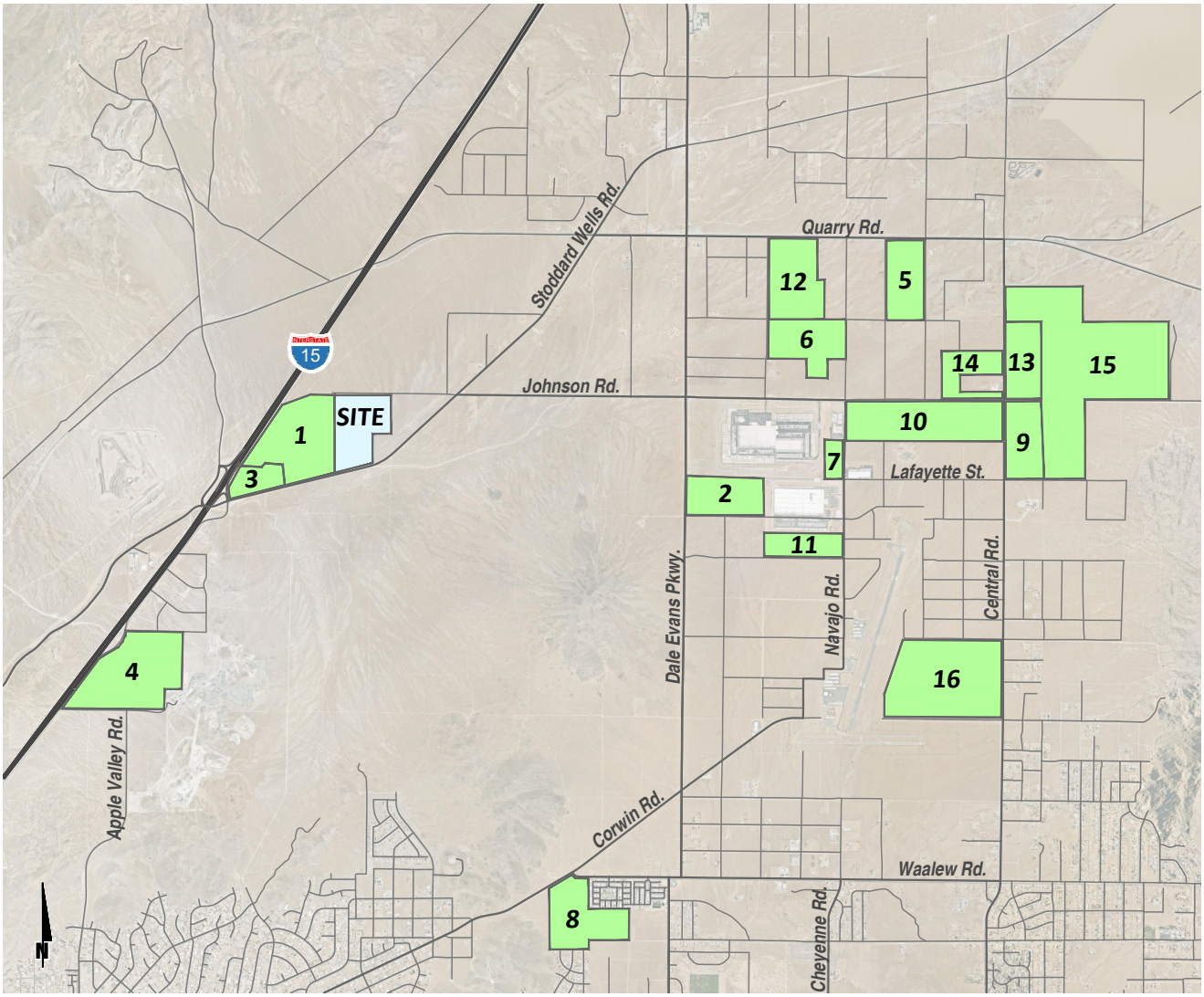
Exhibit 5 shows the locations of the cumulative projects listed on Table 5. It is requested that the Town review the list and also provide any additional current cumulative projects within the study area for inclusion in Traffic Analysis.

TABLE 5: LIST OF CUMULATIVE DEVELOPMENTS

ID	Project Name	Land Use	Quantity	Units[1]
1	Apple Valley 143 (Covington)	High-Cube Fulfillment Center	2,518.500	TSF
2	Lafayette Street Logistics Facility (Redwood Industrial)	High-Cube Fulfillment Center High-Cube Cold Storage	1,026.412 181.132	TSF TSF
3	Love's Travel Center	Travel Center Recreational Vehicle Stop	25 80	VFP Spaces
4	Inland Empire Logistics Center	High-Cube Fulfillment Center	2,600.000	TSF
5	Quarry Pawnee Complex	High-Cube Fulfillment Center	1,460.000	TSF
6	Cordova Complex	High-Cube Fulfillment Center	1,560.000	TSF
7	Green Trucking Solutions Cold Storage	High-Cube Cold Storage	385.004	TSF
8	TTM No. 20306	Single Family Detached Residential	160	DU
9	1M Warehouse	High-Cube Fulfillment Center	1,080.000	TSF
10	Watson High Desert Logistics - East	High-Cube Fulfillment (Non-Sort)	2,800.000	TSF
11	Watson High Desert Logistics - West	High-Cube Fulfillment (Non-Sort)	900.000	TSF
12	Cordova Road Logistics Facility (Redwood West Cordova)	High-Cube Fulfillment Center High-Cube Cold Storage	1,144.330 201.940	TSF TSF
13	Central Business Center (AV 3PL Site 1)	Warehousing	2,134.000	TSF
14	AV 3PL Site 2	Warehousing	2,134.000	TSF
15	North Apple Valley Industrial Park	Warehousing	5,821.709	TSF
16	Lake Creek Logistics	General Light Industrial High-Cube Cold Storage High-Cube Fulfillment Center	348.074 348.074 2,784.588	TSF TSF TSF

[1] DU = Dwelling Units; TSF = Thousand Square Feet; VFP = Vehicle Fueling Positions

EXHIBIT 5: CUMULATIVE PROJECT LOCATION MAP



IDENTIFYING DEFICIENCIES

The identification of project deficiencies is designed to identify potential level of service (LOS) problems and to address them before they occur. This will provide a framework for establishing transportation-related project conditions by the Town.

A project deficiency occurs when a signalized or unsignalized intersection is forecast to degrade intersection operations below the Town's acceptable LOS standard, which is identified in the Town's Circulation Element, or if a project adds five seconds of delay or more to an intersection that operates below acceptable standards without the addition of project traffic.

Additionally, all unsignalized intersections shall be evaluated for a peak hour traffic signal warrant based on the California Manual on Uniform Transportation Control Devices (MUTCD). Any unsignalized intersection that meets the peak hour signal warrant is considered deficient.

IDENTIFYING IMPROVEMENTS AND COST ESTIMATES

Physical improvements shall be identified at all intersections that are forecast to operate deficiently. Improvements under future year conditions must bring intersection operations to acceptable standards, while improvements under opening year conditions must bring intersection operations to better than pre-project conditions.

Opening year improvement costs are the sole responsibility of the project, and future year improvement costs are based on a fair share contribution calculation. The project's fair share contribution for future year improvements can be estimated using the following equation:

$$Fair\ Share\ Percentage = \frac{Project\ Trips}{Future\ Year\ With\ Project - Existing}$$

SITE ACCESS AND CHARACTERISTICS

LOS shall be estimated at all project driveways to ensure they are sized accordingly. The site should be reviewed to ensure that it does not have any design characteristics that would promote inefficient circulation. For example, proposed driveways should provide sufficient length so that vehicles entering the site will not cause subsequent vehicles entering the site to spill back into the Town transportation system. Additionally, driveways should have adequate space between existing/proposed driveways and other existing intersections to limit adverse effects at adjacent facilities and discourage weaving. Finally, the project's parking supply shall satisfy the requirements set forth by the Town.

SPECIAL ISSUES

The following special issues will also be addressed:

- **Vehicle Miles Traveled (VMT):** Per SB743, a VMT analysis will be prepared per the Town's guidelines. This analysis will be prepared under separate cover and will be prepared concurrently to the LOS-based traffic study.
- **Queuing Analysis:** Conduct 95th percentile queuing assessment to ensure turn pockets can accommodate the anticipated peak hour queues at the Project driveways and at the freeway off-ramps.
- **Traffic Signal Warrant Analysis:** Conduct traffic signal warrant analysis for all existing and future unsignalized study area intersections, which also includes all new intersections with full access.

SIGNAL TIMING

It is requested that the Town provide signal timing for any signalized Town-controlled intersections.

If you have any questions, please contact me directly at cso@urbanxroads.com.

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APPENDIX 1.2:

SITE ADJACENT QUEUES

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Intersection: 4: Stoddard Wells Rd. & New Outer I-15 Hwy

Movement	EB	EB	WB	WB	SB
Directions Served	L	T	T	TR	LR
Maximum Queue (ft)	227	370	260	224	101
Average Queue (ft)	90	179	114	71	45
95th Queue (ft)	183	330	200	158	81
Link Distance (ft)		1463	948	948	564
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	250				
Storage Blk Time (%)		3			
Queuing Penalty (veh)		18			

Intersection: 5: Stoddard Wells Rd. & Driveway 1

Movement	SB
Directions Served	R
Maximum Queue (ft)	27
Average Queue (ft)	10
95th Queue (ft)	28
Link Distance (ft)	474
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Zone Summary

Zone wide Queuing Penalty: 18

Intersection: 4: Stoddard Wells Rd. & New Outer I-15 Hwy

Movement	EB	EB	WB	WB	SB
Directions Served	L	T	T	TR	LR
Maximum Queue (ft)	102	221	965	965	579
Average Queue (ft)	45	80	955	955	559
95th Queue (ft)	86	174	964	964	650
Link Distance (ft)		1458	948	948	564
Upstream Blk Time (%)			20	17	76
Queuing Penalty (veh)			217	184	0
Storage Bay Dist (ft)	250				
Storage Blk Time (%)		0			
Queuing Penalty (veh)		1			

Intersection: 5: Stoddard Wells Rd. & Driveway 1

Movement	WB	WB	SB
Directions Served	T	TR	R
Maximum Queue (ft)	326	325	483
Average Queue (ft)	325	325	381
95th Queue (ft)	326	325	597
Link Distance (ft)	310	310	474
Upstream Blk Time (%)	82	70	54
Queuing Penalty (veh)	0	0	0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Zone Summary

Zone wide Queuing Penalty: 402

APPENDIX 3.1:

TRAFFIC COUNTS

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INTERSECTION TURNING MOVEMENT COUNTS

T020624

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

DATE: Tue, Apr 22, 25

LOCATION: Apple Valley
NORTH & SOUTH: Quarry Rd
EAST & WEST: I-15 SB Ramps

PROJECT #: SC5337
LOCATION #: 1
CONTROL: STOP W

NOTES:

AM
PM
MD
OTHER
OTHER

▲ N
◄ W
E ►
S ▼

		NORTHBOUND Quarry Rd			SOUTHBOUND Quarry Rd			EASTBOUND I-15 SB Ramps			WESTBOUND I-15 SB Ramps			
	LANES:	NL X	NT 1	NR 0	SL 0	ST 1	SR X	EL X	ET X	ER X	WL 0	WT X	WR 0	TOTAL
AM	7:00 AM	0	0	12	0	0	0	0	0	0	6	0	0	18
	7:15 AM	0	0	12	0	0	0	0	0	0	4	0	0	16
	7:30 AM	0	1	10	0	0	0	0	0	0	2	0	0	13
	7:45 AM	0	1	11	0	0	0	0	0	0	9	0	0	21
	8:00 AM	0	0	16	0	2	0	0	0	0	5	0	0	23
	8:15 AM	0	1	12	1	0	0	0	0	0	6	0	0	20
	8:30 AM	0	1	15	0	0	0	0	0	0	5	0	0	21
	8:45 AM	0	0	26	0	0	0	0	0	0	8	0	0	34
	VOLUMES	0	4	114	1	2	0	0	0	0	45	0	0	166
	APPROACH %	0%	3%	97%	33%	67%	0%	0%	0%	0%	100%	0%	0%	
	APP/DEPART	118	/	4	3	/	47	0	/	115	45	/	0	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	0	2	69	1	2	0	0	0	0	24	0	0	98
	APPROACH %	0%	3%	97%	33%	67%	0%	0%	0%	0%	100%	0%	0%	
	PEAK HR FACTOR		0.683			0.375			0.000			0.750		0.721
	APP/DEPART	71	/	2	3	/	26	0	/	70	24	/	0	0
PM	4:00 PM	0	2	56	0	1	0	0	0	0	9	0	0	68
	4:15 PM	0	0	37	1	1	0	0	0	0	11	0	1	51
	4:30 PM	0	0	23	1	1	0	0	0	0	10	0	1	36
	4:45 PM	0	0	21	0	0	0	0	0	0	12	0	0	33
	5:00 PM	0	0	22	0	0	0	0	0	0	11	0	0	33
	5:15 PM	0	1	25	1	0	0	0	0	0	7	0	1	35
	5:30 PM	0	0	15	0	0	0	0	0	0	14	0	0	29
	5:45 PM	0	0	18	1	1	0	0	0	0	9	0	0	29
	VOLUMES	0	3	217	4	4	0	0	0	0	83	0	3	316
	APPROACH %	0%	1%	99%	50%	50%	0%	0%	0%	0%	94%	0%	3%	
	APP/DEPART	220	/	6	8	/	87	0	/	223	88	/	0	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	2	137	2	3	0	0	0	0	42	0	2	190
	APPROACH %	0%	1%	99%	40%	60%	0%	0%	0%	0%	91%	0%	4%	
	PEAK HR FACTOR		0.599			0.625			0.000			0.958		0.688
	APP/DEPART	139	/	4	5	/	45	0	/	141	46	/	0	0

U-TURNS					RTOR			
NB	SB	EB	WB	TTL	NRR	SRR	ERR	WRR
0	0	0	0	0	X	X	X	X
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0		0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	1	1	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	2	2	0	0	0	0
0	0	0	2		0	0	0	0

Quarry Rd
NORTH LEG

I-15 SB Ramps WEST LEG EAST LEG **I-15 SB Ramps**

SOUTH LEG
Quarry Rd

		ALL PED + BIKE & SCOOTER					PEDESTRIAN CROSSINGS					BICYCLE & SCOOTER CROSSINGS				
		E LEG	W LEG	S LEG	N LEG	TOTAL	E LEG	W LEG	S LEG	N LEG	TOTAL	EL	WL	SL	NL	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
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	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	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION TUR

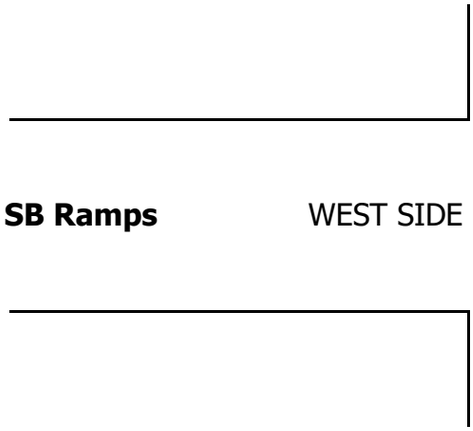
PREPARED BY: AimTD LL

DATE:	LOCATION:	Apple Valley
4/22/25	NORTH & SOUTH:	Quarry Rd
TUESDAY	EAST & WEST:	I-15 SB Ramps

	NOTES:				
PCE Adjusted	Class	1	2	3	4
	Factor	1	1.5	2	3

		NORTHBOUND Quarry Rd			SOUTHBOUNI Quarry Rd	
	LANES:	NL X	NT 1	NR 0	SL 0	ST 1
AM	7:00 AM	0	0	22	0	0
	7:15 AM	0	0	22	0	0
	7:30 AM	0	3	16	0	0
	7:45 AM	0	2	15	0	0
	8:00 AM	0	0	24	0	5
	8:15 AM	0	1	17	1	0
	8:30 AM	0	3	23	0	0
	8:45 AM	0	0	43	0	0
	VOLUMES	0	9	181	1	5
	APPROACH %	0%	4%	96%	18%	82%
	APP/DEPART	190	/	9	6	/
	BEGIN PEAK HR		8:00 AM			
	VOLUMES	0	4	107	1	5
	APPROACH %	0%	4%	96%	18%	82%
	PEAK HR FACTOR		0.642			0.306
	APP/DEPART	111	/	4	6	/
PM	4:00 PM	0	2	59	0	1
	4:15 PM	0	0	44	1	1
	4:30 PM	0	0	25	1	1
	4:45 PM	0	0	23	0	0
	5:00 PM	0	0	24	0	0
	5:15 PM	0	1	29	1	0
	5:30 PM	0	0	15	0	0
	5:45 PM	0	0	20	1	1
	VOLUMES	0	3	238	4	4
	APPROACH %	0%	1%	99%	50%	50%
	APP/DEPART	241	/	6	8	/

BEGIN PEAK HR		4:00 PM				
VOLUMES	0	2	150		2	3
APPROACH %	0%	1%	99%		40%	60%
PEAK HR FACTOR		0.628				0.625
APP/DEPART	152	/	4		5	/



I-15 SB Ramps WEST SIDE

NING MOVEMENT COUNTS

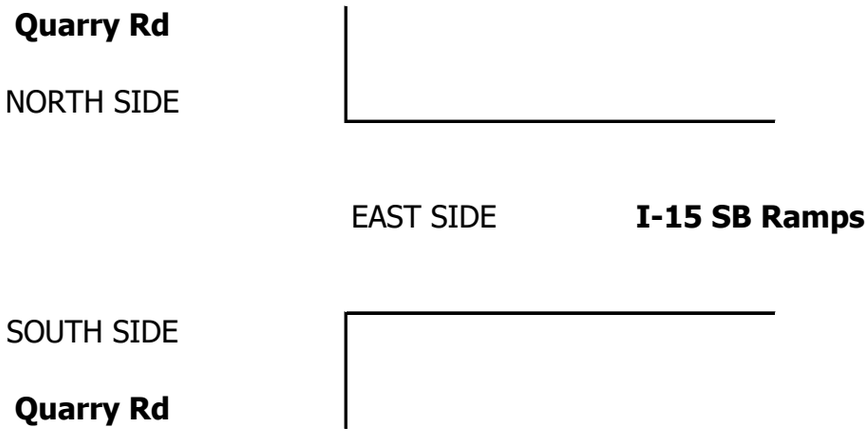
.C. tel: 714 253 7888 cs@aimtd.com

PROJECT #: SC5337
LOCATION #: 1
CONTROL: STOP W

				AM		▲ N	
5	6			PM			
2	2			MD	◄ W		E ►
				OTHER		S ▼	
				OTHER			

D	EASTBOUND I-15 SB Ramps			WESTBOUND I-15 SB Ramps			
SR X	EL X	ET X	ER X	WL 0	WT X	WR 0	TOTAL
0	0	0	0	9	0	0	31
0	0	0	0	4	0	0	26
0	0	0	0	2	0	0	21
0	0	0	0	13	0	0	30
0	0	0	0	5	0	0	33
0	0	0	0	6	0	0	25
0	0	0	0	8	0	0	34
0	0	0	0	8	0	0	51
0 0%	0 0%	0 0%	0 0%	55 100%	0 0%	0 0%	250
60	0	/	182	55	/	0	0
0 0%	0 0%	0 0% 0.000	0 0%	27 100%	0 0% 0.844	0 0%	143 0.701
32	0	/	108	27	/	0	0
0	0	0	0	9	0	0	71
0	0	0	0	11	0	1	58
0	0	0	0	10	0	1	38
0	0	0	0	13	0	0	36
0	0	0	0	12	0	0	36
0	0	0	0	7	0	1	39
0	0	0	0	14	0	0	29
0	0	0	0	10	0	0	32
0 0%	0 0%	0 0%	0 0%	85 97%	0 0%	3 3%	337
89	0	/	242	88	/	0	0

0 0%	0 0%	0 0% 0.000	0 0%	43 96%	0 0% 0.890	2 4%	202 0.715
46	0	/	152	45	/	0	0



U-TURNS				
NB	SB	EB	WB	TTL
				0
				0
				0
				0
				0
				0
				0
				0
0	0	0	0	0
				0
				0
				0
				0
				0
				0
				0
				0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

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

DATE:				
4/22/25	LOCATION:	Apple Valley	PROJECT #:	SC5337
TUESDAY	NORTH & SOUTH:	Quarry Rd	LOCATION #:	1
	EAST & WEST:	I-15 SB Ramps	CONTROL:	STOP W

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

AM PM MD OTHER OTHER

▲ N ◄ W E ► S ▼

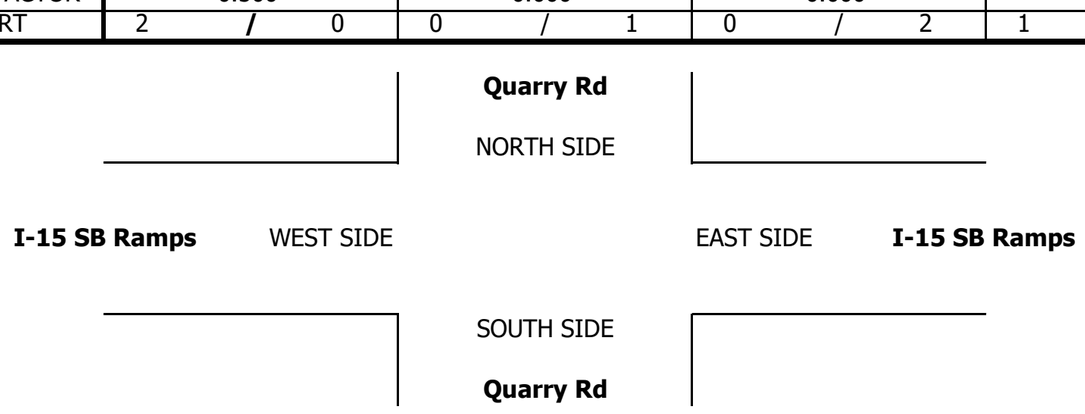
	NORTHBOUND Quarry Rd			SOUTHBOUND Quarry Rd			EASTBOUND I-15 SB Ramps			WESTBOUND I-15 SB Ramps			
LANES:	NL X	NT 1	NR 0	SL 0	ST 1	SR X	EL X	ET X	ER X	WL 0	WT X	WR 0	TOTAL
7:00 AM	0	0	3	0	0	0	0	0	0	0	0	0	3
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	1	0	1	0	0	0	0	0	0	0	2
8:15 AM	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
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
AM VOLUMES	0	1	4	0	1	0	0	0	0	0	0	0	6
AM APPROACH %	0%	20%	80%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
AM APP/DEPART	5	/	1	1	/	1	0	/	4	0	/	0	0
AM BEGIN PEAK HR		8:00 AM											
AM VOLUMES	0	0	1	0	1	0	0	0	0	0	0	0	2
AM APPROACH %	0%	0%	100%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
AM PEAK HR FACTOR		0.250			0.250			0.000			0.000		0.250
AM APP/DEPART	1	/	0	1	/	1	0	/	1	0	/	0	0
4:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	1
4:30 PM	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	1	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	1
5:15 PM	0	0	3	0	0	0	0	0	0	0	0	0	3
5:30 PM	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
PM VOLUMES	0	0	5	0	0	0	0	0	0	2	0	0	7
PM APPROACH %	0%	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	0%	
PM APP/DEPART	5	/	0	0	/	2	0	/	5	2	/	0	0
PM BEGIN PEAK HR		4:00 PM											
PM VOLUMES	0	0	2	0	0	0	0	0	0	1	0	0	3
PM APPROACH %	0%	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	0%	
PM PEAK HR FACTOR		0.500			0.000			0.000			0.250		0.750
PM APP/DEPART	2	/	0	0	/	1	0	/	2	1	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

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

DATE:				
4/22/25	LOCATION:	Apple Valley	PROJECT #:	SC5337
TUESDAY	NORTH & SOUTH:	Quarry Rd	LOCATION #:	1
	EAST & WEST:	I-15 SB Ramps	CONTROL:	STOP W

CLASS 3: 3-AXLE TRUCKS

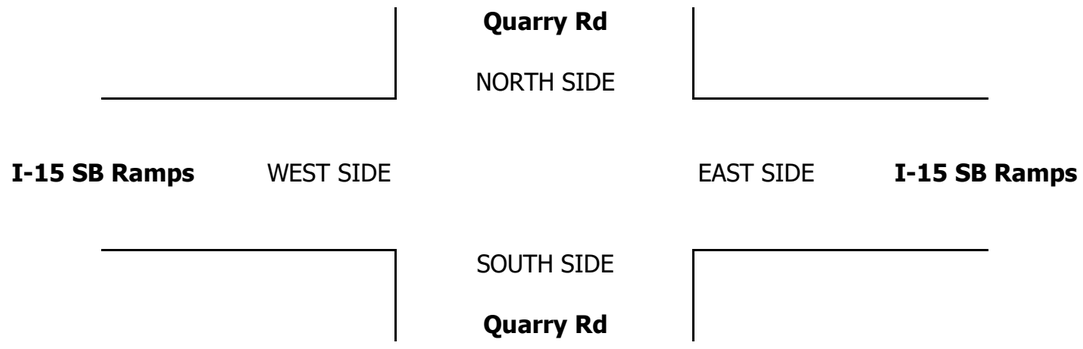
NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

		NORTHBOUND Quarry Rd			SOUTHBOUND Quarry Rd			EASTBOUND I-15 SB Ramps			WESTBOUND I-15 SB Ramps			
	LANES:	NL X	NT 1	NR 0	SL 0	ST 1	SR X	EL X	ET X	ER X	WL 0	WT X	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	3	0	0	3
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	2	0	0	0	0	0	0	0	0	0	2
	7:45 AM	0	0	0	0	0	0	0	0	0	2	0	0	2
	8:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	1
	8:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	1
	8:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	1
	8:45 AM	0	0	3	0	0	0	0	0	0	0	0	0	3
	VOLUMES	0	0	7	0	0	0	0	0	0	6	0	0	13
	APPROACH %	0%	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	0%	
	APP/DEPART	7	/	0	0	/	6	0	/	7	6	/	0	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	0	0	5	0	0	0	0	0	0	1	0	0	6
	APPROACH %	0%	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	0%	
	PEAK HR FACTOR		0.417			0.000			0.000			0.250		0.500
	APP/DEPART	5	/	0	0	/	1	0	/	5	1	/	0	0
PM	4:00 PM	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
	4:30 PM	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
	5:00 PM	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
	5:30 PM	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	1	0	0	1
	VOLUMES	0	0	0	0	0	0	0	0	0	1	0	0	1
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	
	APP/DEPART	0	/	0	0	/	1	0	/	0	1	/	0	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

U-TURNS					RTOR			
NB	SB	EB	WB	TTL	NRR X	SRR X	ERR X	WRR X
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

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

DATE:				
4/22/25	LOCATION:	Apple Valley	PROJECT #:	SC5337
TUESDAY	NORTH & SOUTH:	Quarry Rd	LOCATION #:	1
	EAST & WEST:	I-15 SB Ramps	CONTROL:	STOP W

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

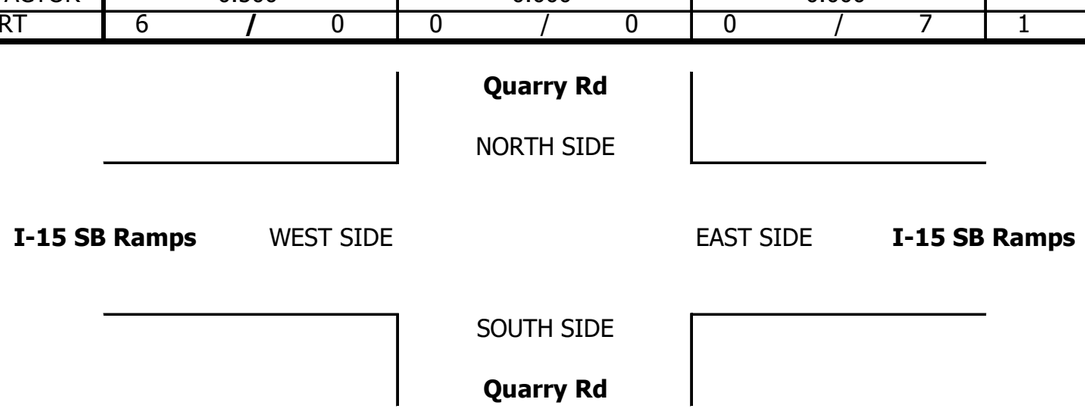
	NORTHBOUND Quarry Rd			SOUTHBOUND Quarry Rd			EASTBOUND I-15 SB Ramps			WESTBOUND I-15 SB Ramps			
LANES:	NL X	NT 1	NR 0	SL 0	ST 1	SR X	EL X	ET X	ER X	WL 0	WT X	WR 0	TOTAL
7:00 AM	0	0	4	0	0	0	0	0	0	0	0	0	4
7:15 AM	0	0	5	0	0	0	0	0	0	0	0	0	5
7:30 AM	0	1	2	0	0	0	0	0	0	0	0	0	3
7:45 AM	0	0	2	0	0	0	0	0	0	1	0	0	3
8:00 AM	0	0	3	0	1	0	0	0	0	0	0	0	4
8:15 AM	0	0	2	0	0	0	0	0	0	0	0	0	2
8:30 AM	0	1	4	0	0	0	0	0	0	1	0	0	6
8:45 AM	0	0	7	0	0	0	0	0	0	0	0	0	7
AM VOLUMES	0	2	29	0	1	0	0	0	0	2	0	0	34
AM APPROACH %	0%	6%	94%	0%	100%	0%	0%	0%	0%	100%	0%	0%	
AM APP/DEPART	31	/	2	1	/	3	0	/	29	2	/	0	0
AM BEGIN PEAK HR		8:00 AM											
AM VOLUMES	0	1	16	0	1	0	0	0	0	1	0	0	19
AM APPROACH %	0%	6%	94%	0%	100%	0%	0%	0%	0%	100%	0%	0%	
AM PEAK HR FACTOR		0.607			0.250			0.000			0.250		0.679
AM APP/DEPART	17	/	1	1	/	2	0	/	16	1	/	0	0
4:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	3	0	0	0	0	0	0	0	0	0	3
4:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	1
PM VOLUMES	0	0	9	0	0	0	0	0	0	0	0	0	10
PM APPROACH %	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PM APP/DEPART	9	/	0	0	/	0	0	/	10	1	/	0	0
PM BEGIN PEAK HR		4:00 PM											
PM VOLUMES	0	0	6	0	0	0	0	0	0	0	0	0	7
PM APPROACH %	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PM PEAK HR FACTOR		0.500			0.000			0.000			0.250		0.583
PM APP/DEPART	6	/	0	0	/	0	0	/	7	1	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

T020624

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

DATE: Tue, Apr 22, 25

LOCATION: Apple Valley
NORTH & SOUTH: Quarry Rd
EAST & WEST: Stoddard Wells Rd

PROJECT #: SC5337
LOCATION #: 2
CONTROL: STOP S

NOTES:

AM
PM
MD
OTHER
OTHER

▲ N
◄ W
E ►
S ▼

	NORTHBOUND Quarry Rd			SOUTHBOUND Quarry Rd			EASTBOUND Stoddard Wells Rd			WESTBOUND Stoddard Wells Rd			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	X	X	X	0	X	0	0	1	X	X	1	0	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	

RTOR			
NRR	SRR	ERR	WRR
X	X	X	X

		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS					RTOR			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB	TTL	NRR	SRR	ERR	WRR
AM	7:00 AM	0	0	0	5	0	1	0	0	0	0	5	16	27	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	4	0	0	0	2	0	0	1	9	16	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	1	0	0	0	2	0	0	6	11	20	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	8	0	0	2	3	0	0	8	8	29	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	6	0	2	1	1	0	0	4	15	29	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	6	0	0	0	0	0	0	4	12	22	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	4	0	1	1	2	0	0	4	15	27	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	8	0	0	0	4	0	0	4	35	51	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	42	0	4	4	14	0	0	36	121	221	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	91%	0%	9%	22%	78%	0%	0%	23%	77%										
	APP/DEPART	0	/	125	46	/	0	18	/	56	157	/	40	0									
	BEGIN PEAK HR		8:00 AM																				
	VOLUMES	0	0	0	24	0	3	2	7	0	0	16	77	129	0	0	0	0		0	0	0	0
	APPROACH %	0%	0%	0%	89%	0%	11%	22%	78%	0%	0%	17%	83%										
	PEAK HR FACTOR		0.000			0.844			0.563			0.596		0.632									
	APP/DEPART	0	/	79	27	/	0	9	/	31	93	/	19	0									
PM	4:00 PM	0	0	0	10	0	1	4	5	0	0	7	68	95	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	12	0	0	1	5	0	0	8	27	53	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	10	0	0	1	9	0	0	4	21	45	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	11	0	0	3	5	0	0	5	19	43	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	11	0	0	3	5	0	0	3	17	39	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	6	0	1	1	1	0	0	0	24	33	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	14	0	0	1	2	0	0	1	19	37	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	8	0	2	1	1	0	0	2	15	29	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	82	0	4	15	33	0	0	30	210	374	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	95%	0%	5%	31%	69%	0%	0%	13%	88%										
	APP/DEPART	0	/	225	86	/	0	48	/	115	240	/	34	0									
	BEGIN PEAK HR		4:00 PM																				
	VOLUMES	0	0	0	43	0	1	9	24	0	0	24	135	236	0	0	0	0		0	0	0	0
	APPROACH %	0%	0%	0%	98%	0%	2%	27%	73%	0%	0%	15%	85%										
	PEAK HR FACTOR		0.000			0.917			0.825			0.530		0.621									
	APP/DEPART	0	/	144	44	/	0	33	/	67	159	/	25	0									

Quarry Rd

NORTH LEG

Stoddard Wells Rd WEST LEG EAST LEG **Stoddard Wells Rd**

SOUTH LEG

Quarry Rd

		ALL PED + BIKE & SCOOTER					PEDESTRIAN CROSSINGS					BICYCLE & SCOOTER CROSSINGS				
		E LEG	W LEG	S LEG	N LEG	TOTAL	E LEG	W LEG	S LEG	N LEG	TOTAL	EL	WL	SL	NL	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
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	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	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION TUR

PREPARED BY: AimTD LL

DATE:	LOCATION:	Apple Valley
4/22/25	NORTH & SOUTH:	Quarry Rd
TUESDAY	EAST & WEST:	Stoddard Wells Rd

	NOTES:				
PCE Adjusted	Class	1	2	3	4
	Factor	1	1.5	2	3

		NORTHBOUND Quarry Rd			SOUTHBOUNI Quarry Rd	
	LANES:	NL X	NT X	NR X	SL 0	ST X
AM	7:00 AM	0	0	0	9	0
	7:15 AM	0	0	0	4	0
	7:30 AM	0	0	0	1	0
	7:45 AM	0	0	0	10	0
	8:00 AM	0	0	0	10	0
	8:15 AM	0	0	0	6	0
	8:30 AM	0	0	0	4	0
	8:45 AM	0	0	0	8	0
	VOLUMES	0	0	0	52	0
	APPROACH %	0%	0%	0%	89%	0%
	APP/DEPART	0	/	200	59	/
	BEGIN PEAK HR		8:00 AM			
	VOLUMES	0	0	0	28	0
	APPROACH %	0%	0%	0%	86%	0%
	PEAK HR FACTOR		0.000			0.650
	APP/DEPART	0	/	122	33	/
PM	4:00 PM	0	0	0	10	0
	4:15 PM	0	0	0	12	0
	4:30 PM	0	0	0	11	0
	4:45 PM	0	0	0	11	0
	5:00 PM	0	0	0	12	0
	5:15 PM	0	0	0	6	0
	5:30 PM	0	0	0	14	0
	5:45 PM	0	0	0	9	0
	VOLUMES	0	0	0	84	0
	APPROACH %	0%	0%	0%	95%	0%
	APP/DEPART	0	/	248	88	/

	BEGIN PEAK HR		4:00 PM			
	VOLUMES	0	0	0	44	0
	APPROACH %	0%	0%	0%	98%	0%
	PEAK HR FACTOR		0.000			0.927
	APP/DEPART	0	/	159	45	/

Stoddard Wells Rd WEST SIDE

NING MOVEMENT COUNTS

.C. tel: 714 253 7888 cs@aimtd.com

PROJECT #: SC5337
LOCATION #: 2
CONTROL: STOP S

				AM		▲ N	
5	6			PM			
2	2			MD	◄ W		E ►
				OTHER		S ▼	
				OTHER			

D	EASTBOUND Stoddard Wells Rd			WESTBOUND Stoddard Wells Rd			
SR 0	EL 0	ET 1	ER X	WL X	WT 1	WR 0	TOTAL
2	0	0	0	0	5	28	44
0	0	2	0	0	1	19	26
0	0	3	0	0	12	19	35
0	5	4	0	0	10	8	36
3	1	1	0	0	7	23	44
0	0	0	0	0	6	17	29
2	3	2	0	0	8	23	42
0	0	6	0	0	9	56	78
7 11%	9 33%	18 67%	0 0%	0 0%	56 22%	192 78%	332
0	26	/	70	247	/	62	0
5 14%	4 32%	9 68% 0.568	0 0%	0 0%	29 19% 0.572	118 81%	192 0.618
0	13	/	37	147	/	33	0
1	7	8	0	0	11	73	109
0	3	7	0	0	11	29	62
0	3	17	0	0	6	21	58
0	3	8	0	0	10	21	53
0	3	7	0	0	7	19	48
1	1	1	0	0	0	28	37
0	1	2	0	0	2	19	38
2	1	3	0	0	3	17	35
4 5%	22 29%	53 71%	0 0%	0 0%	50 18%	226 82%	439
0	75	/	137	276	/	54	0

1 2%	16 28%	40 72% 0.694	0 0%	0 0%	38 21% 0.543	144 79%	282 0.646
0	56	/	84	182	/	39	0

Quarry Rd

NORTH SIDE

EAST SIDE **Stoddard Wells Rd**

SOUTH SIDE

Quarry Rd

U-TURNS				
NB	SB	EB	WB	TTL
				0
				0
				0
				0
				0
				0
				0
				0
0	0	0	0	0
				0
				0
				0
				0
				0
				0
				0
				0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

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

DATE:				
4/22/25	LOCATION:	Apple Valley	PROJECT #:	SC5337
TUESDAY	NORTH & SOUTH:	Quarry Rd	LOCATION #:	2
	EAST & WEST:	Stoddard Wells Rd	CONTROL:	STOP S

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

AM PM MD OTHER OTHER

▲ N ◄ W E ► S ▼

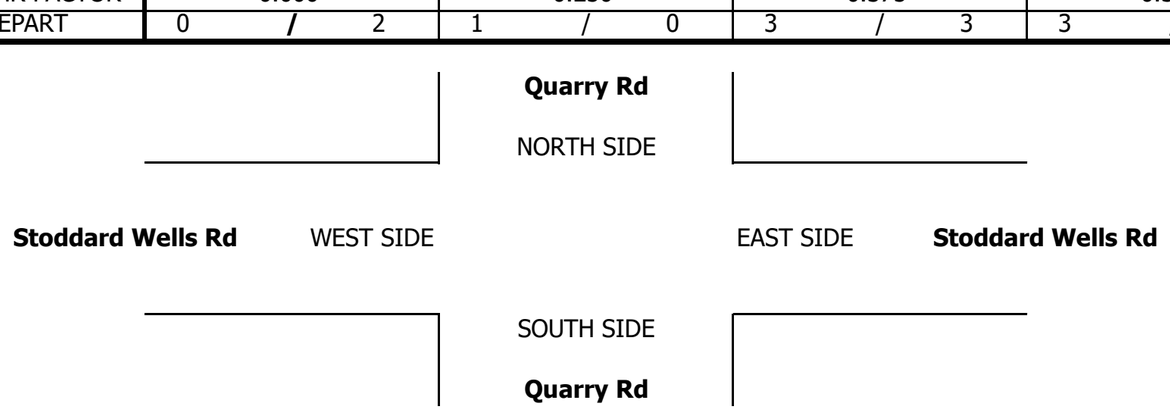
		NORTHBOUND Quarry Rd			SOUTHBOUND Quarry Rd			EASTBOUND Stoddard Wells Rd			WESTBOUND Stoddard Wells Rd			
	LANES:	NL X	NT X	NR X	SL 0	ST X	SR 0	EL 0	ET 1	ER X	WL X	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	3	3
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
	7:45 AM	0	0	0	0	0	0	1	0	0	0	1	0	2
	8:00 AM	0	0	0	0	0	1	0	0	0	0	1	1	3
	8:15 AM	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	1	0	1
	8:45 AM	0	0	0	0	0	0	0	1	0	0	1	1	3
	VOLUMES	0	0	0	0	0	1	1	1	0	0	5	5	13
	APPROACH %	0%	0%	0%	0%	0%	100%	50%	50%	0%	0%	50%	50%	
	APP/DEPART	0	/	6	1	/	0	2	/	1	10	/	6	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	0	0	0	0	0	1	0	1	0	0	3	2	7
	APPROACH %	0%	0%	0%	0%	0%	100%	0%	100%	0%	0%	60%	40%	
	PEAK HR FACTOR		0.000			0.250			0.250			0.625		0.583
	APP/DEPART	0	/	2	1	/	0	1	/	1	5	/	4	0
PM	4:00 PM	0	0	0	0	0	0	1	0	0	0	0	1	2
	4:15 PM	0	0	0	0	0	0	0	0	0	0	2	0	2
	4:30 PM	0	0	0	1	0	0	0	0	0	0	0	0	1
	4:45 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
	5:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	1
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	3	3
	5:30 PM	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
	VOLUMES	0	0	0	2	0	0	1	2	0	0	2	4	11
	APPROACH %	0%	0%	0%	100%	0%	0%	33%	67%	0%	0%	33%	67%	
	APP/DEPART	0	/	5	2	/	0	3	/	4	6	/	2	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	0	0	1	0	0	1	2	0	0	2	1	7
	APPROACH %	0%	0%	0%	100%	0%	0%	33%	67%	0%	0%	67%	33%	
	PEAK HR FACTOR		0.000			0.250			0.375			0.375		0.875
	APP/DEPART	0	/	2	1	/	0	3	/	3	3	/	2	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

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

DATE:				
4/22/25	LOCATION:	Apple Valley	PROJECT #:	SC5337
TUESDAY	NORTH & SOUTH:	Quarry Rd	LOCATION #:	2
	EAST & WEST:	Stoddard Wells Rd	CONTROL:	STOP S

CLASS 3: 3-AXLE TRUCKS

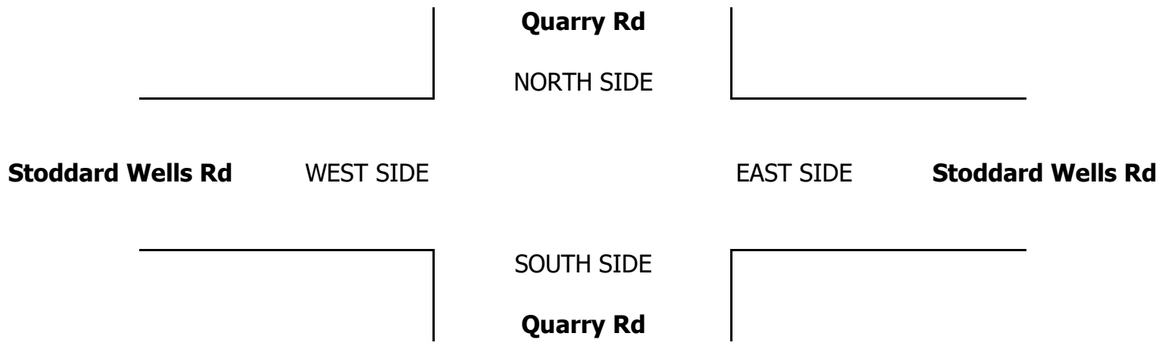
NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

		NORTHBOUND Quarry Rd			SOUTHBOUND Quarry Rd			EASTBOUND Stoddard Wells Rd			WESTBOUND Stoddard Wells Rd			
	LANES:	NL X	NT X	NR X	SL 0	ST X	SR 0	EL 0	ET 1	ER X	WL X	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	0	2	0	1	0	0	0	0	0	0	3
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	1	0	0	1	2	4
	7:45 AM	0	0	0	2	0	0	0	1	0	0	1	0	4
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	1
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	1
	8:30 AM	0	0	0	0	0	1	0	0	0	0	1	0	2
	8:45 AM	0	0	0	0	0	0	0	1	0	0	0	3	4
	VOLUMES	0	0	0	4	0	2	0	3	0	0	3	7	19
	APPROACH %	0%	0%	0%	67%	0%	33%	0%	100%	0%	0%	30%	70%	
	APP/DEPART	0	/	7	6	/	0	3	/	7	10	/	5	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	0	0	0	0	0	1	0	1	0	0	1	5	8
	APPROACH %	0%	0%	0%	0%	0%	100%	0%	100%	0%	0%	17%	83%	
	PEAK HR FACTOR		0.000			0.250			0.250			0.500		0.500
	APP/DEPART	0	/	5	1	/	0	1	/	1	6	/	2	0
PM	4:00 PM	0	0	0	0	0	0	0	1	0	0	2	0	3
	4:15 PM	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	2	0	2
	4:45 PM	0	0	0	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
	5:15 PM	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	1	0	1
	5:45 PM	0	0	0	1	0	0	0	0	0	0	1	0	2
	VOLUMES	0	0	0	1	0	0	0	1	0	0	7	0	9
	APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	0	/	0	1	/	0	1	/	2	7	/	7	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	0	0	0	0	0	0	1	0	0	5	0	6
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.000			0.250			0.625		0.500
	APP/DEPART	0	/	0	0	/	0	1	/	1	5	/	5	0

U-TURNS					RTOR			
NB	SB	EB	WB	TTL	NRR X	SRR X	ERR X	WRR X
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0		0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0		0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

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

DATE:				
4/22/25	LOCATION:	Apple Valley	PROJECT #:	SC5337
TUESDAY	NORTH & SOUTH:	Quarry Rd	LOCATION #:	2
	EAST & WEST:	Stoddard Wells Rd	CONTROL:	STOP S

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ▼ S ◄ W E ►

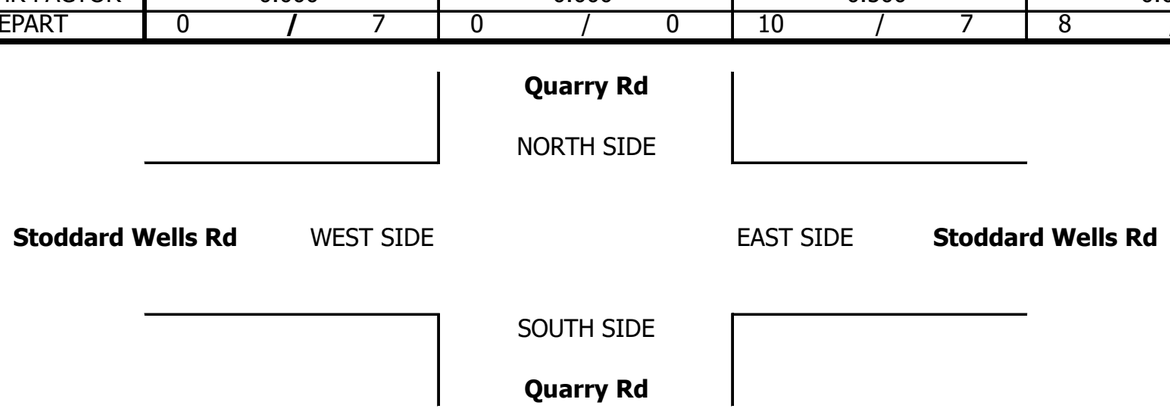
		NORTHBOUND Quarry Rd			SOUTHBOUND Quarry Rd			EASTBOUND Stoddard Wells Rd			WESTBOUND Stoddard Wells Rd			
	LANES:	NL X	NT X	NR X	SL 0	ST X	SR 0	EL 0	ET 1	ER X	WL X	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	0	1	0	0	0	0	0	0	0	5	6
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	5	5
	7:30 AM	0	0	0	0	0	0	0	0	0	0	2	3	5
	7:45 AM	0	0	0	0	0	0	1	0	0	0	0	0	1
	8:00 AM	0	0	0	2	0	0	0	0	0	0	1	3	6
	8:15 AM	0	0	0	0	0	0	0	0	0	0	1	2	3
	8:30 AM	0	0	0	0	0	0	1	0	0	0	1	4	6
	8:45 AM	0	0	0	0	0	0	0	0	0	0	2	8	10
	VOLUMES	0	0	0	3	0	0	2	0	0	0	7	30	42
	APPROACH %	0%	0%	0%	100%	0%	0%	100%	0%	0%	0%	19%	81%	
	APP/DEPART	0	/	32	3	/	0	2	/	3	37	/	7	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	0	0	0	2	0	0	1	0	0	0	5	17	25
	APPROACH %	0%	0%	0%	100%	0%	0%	100%	0%	0%	0%	23%	77%	
	PEAK HR FACTOR		0.000			0.250			0.250			0.550		0.625
	APP/DEPART	0	/	18	2	/	0	1	/	2	22	/	5	0
PM	4:00 PM	0	0	0	0	0	0	1	1	0	0	1	2	5
	4:15 PM	0	0	0	0	0	0	1	1	0	0	1	1	4
	4:30 PM	0	0	0	0	0	0	1	4	0	0	0	0	5
	4:45 PM	0	0	0	0	0	0	0	1	0	0	2	1	4
	5:00 PM	0	0	0	0	0	0	0	1	0	0	2	1	4
	5:15 PM	0	0	0	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
	5:45 PM	0	0	0	0	0	0	0	1	0	0	0	1	2
	VOLUMES	0	0	0	0	0	0	3	9	0	0	6	7	25
	APPROACH %	0%	0%	0%	0%	0%	0%	25%	75%	0%	0%	46%	54%	
	APP/DEPART	0	/	10	0	/	0	12	/	9	13	/	6	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	0	0	0	0	0	3	7	0	0	4	4	18
	APPROACH %	0%	0%	0%	0%	0%	0%	30%	70%	0%	0%	50%	50%	
	PEAK HR FACTOR		0.000			0.000			0.500			0.667		0.900
	APP/DEPART	0	/	7	0	/	0	10	/	7	8	/	4	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

T020624

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

DATE: Tue, Apr 22, 25

LOCATION: Apple Valley
NORTH & SOUTH: I-15 NB Ramps
EAST & WEST: Stoddard Wells Rd

PROJECT #: SC5337
LOCATION #: 3
CONTROL: STOP N/S

NOTES:

AM
PM
MD
OTHER
OTHER

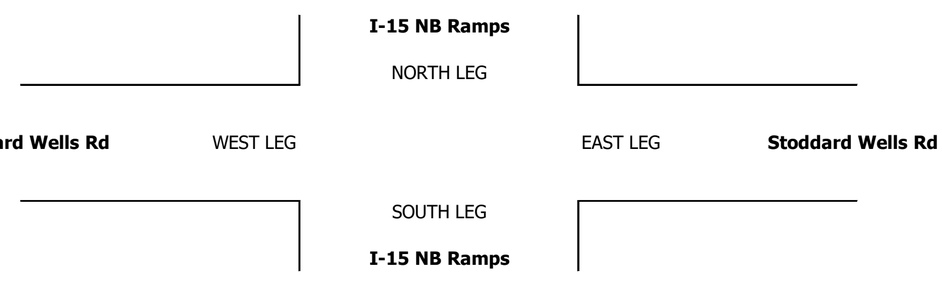
▲ N
◄ W
E ►
S ▼

	NORTHBOUND I-15 NB Ramps			SOUTHBOUND I-15 NB Ramps			EASTBOUND Stoddard Wells Rd			WESTBOUND Stoddard Wells Rd			
LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	

RTOR			
NRR	SRR	ERR	WRR
X	X	X	X

		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS					RTOR			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB	TTL	NRR	SRR	ERR	WRR
AM	7:00 AM	0	5	1	18	1	3	0	0	5	0	18	0	51	0	0	0	0	0	0	0	0	0
	7:15 AM	0	9	1	20	0	1	1	1	4	0	9	0	46	0	0	0	0	0	0	0	0	0
	7:30 AM	2	8	0	34	0	3	2	0	1	1	12	0	63	0	0	0	0	0	0	0	0	0
	7:45 AM	1	6	2	32	0	5	3	1	7	1	12	0	70	0	0	0	0	0	0	0	0	0
	8:00 AM	0	3	0	18	0	5	1	1	5	2	14	0	49	0	0	0	0	0	0	0	0	0
	8:15 AM	0	12	2	25	0	3	1	3	2	1	13	0	62	0	0	0	0	0	0	0	0	0
	8:30 AM	0	12	2	25	0	3	1	1	4	0	16	0	64	0	0	0	0	0	0	0	0	0
	8:45 AM	1	4	0	24	2	5	1	4	6	2	33	0	82	0	0	0	0	0	0	0	0	0
	VOLUMES	4	59	8	196	3	28	10	11	34	7	127	0	487	0	0	0	0	0	0	0	0	0
	APPROACH %	6%	83%	11%	86%	1%	12%	18%	20%	62%	5%	95%	0%										
	APP/DEPART	71	/	69	227	/	44	55	/	215	134	/	159	0									
	BEGIN PEAK HR		8:00 AM																				
	VOLUMES	1	31	4	92	2	16	4	9	17	5	76	0	257	0	0	0	0		0	0	0	0
	APPROACH %	3%	86%	11%	84%	2%	15%	13%	30%	57%	6%	94%	0%										
	PEAK HR FACTOR		0.643			0.887			0.682			0.579		0.784									
	APP/DEPART	36	/	35	110	/	24	30	/	105	81	/	93	0									
PM	4:00 PM	1	2	5	51	0	2	0	5	10	3	72	0	151	0	0	0	0	0	0	0	0	0
	4:15 PM	1	5	7	76	1	1	0	4	13	3	33	0	144	0	0	0	0	0	0	0	0	0
	4:30 PM	0	3	4	33	0	2	2	5	12	1	23	0	85	0	0	0	0	0	0	0	0	0
	4:45 PM	1	4	3	31	0	2	0	5	11	2	21	0	80	0	0	0	0	0	0	0	0	0
	5:00 PM	0	6	1	25	1	2	1	5	9	0	21	0	71	0	0	0	0	0	0	0	0	0
	5:15 PM	0	4	1	21	1	1	1	1	5	0	23	0	58	0	0	0	0	0	0	0	0	0
	5:30 PM	0	6	3	24	0	0	0	1	15	1	20	0	70	0	0	0	0	0	0	0	0	0
	5:45 PM	0	3	0	18	0	2	0	1	8	1	15	0	48	0	0	0	0	0	0	0	0	0
	VOLUMES	3	33	24	279	3	12	4	27	83	11	228	0	707	0	0	0	0	0	0	0	0	0
	APPROACH %	5%	55%	40%	95%	1%	4%	4%	24%	73%	5%	95%	0%										
	APP/DEPART	60	/	37	294	/	97	114	/	330	239	/	243	0									
	BEGIN PEAK HR		4:00 PM																				
	VOLUMES	3	14	19	191	1	7	2	19	46	9	149	0	460	0	0	0	0		0	0	0	0
	APPROACH %	8%	39%	53%	96%	1%	4%	3%	28%	69%	6%	94%	0%										
	PEAK HR FACTOR		0.692			0.638			0.882			0.527		0.762									
	APP/DEPART	36	/	16	199	/	56	67	/	229	158	/	159	0									



		ALL PED + BIKE & SCOOTER					PEDESTRIAN CROSSINGS					BICYCLE & SCOOTER CROSSINGS				
		E LEG	W LEG	S LEG	N LEG	TOTAL	E LEG	W LEG	S LEG	N LEG	TOTAL	EL	WL	SL	NL	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
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	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	0	0	0	0	0	0	0	0	0	0	0	0	0

INTERSECTION TUR

PREPARED BY: AimTD LL

DATE:	LOCATION:	Apple Valley
4/22/25	NORTH & SOUTH:	I-15 NB Ramps
TUESDAY	EAST & WEST:	Stoddard Wells Rd

	NOTES:				
PCE Adjusted	Class	1	2	3	4
	Factor	1	1.5	2	3

		NORTHBOUND I-15 NB Ramps			SOUTHBOUNI I-15 NB Ramps	
		NL	NT	NR	SL	ST
	LANES:	0	1	0	0	1
AM	7:00 AM	0	6	1	21	1
	7:15 AM	0	9	1	21	0
	7:30 AM	4	8	0	45	0
	7:45 AM	1	9	4	41	0
	8:00 AM	0	5	0	31	0
	8:15 AM	0	13	2	43	0
	8:30 AM	0	13	4	40	0
	8:45 AM	2	4	0	39	2
	VOLUMES	7	66	12	279	3
	APPROACH %	8%	78%	14%	86%	1%
	APP/DEPART	84	/	80	322	/
	BEGIN PEAK HR		8:00 AM			
	VOLUMES	2	35	6	152	2
	APPROACH %	4%	82%	14%	86%	1%
	PEAK HR FACTOR		0.618			0.929
	APP/DEPART	42	/	41	177	/
PM	4:00 PM	1	2	5	60	0
	4:15 PM	1	5	7	87	1
	4:30 PM	0	3	4	36	0
	4:45 PM	3	4	3	35	0
	5:00 PM	0	6	1	30	1
	5:15 PM	0	4	1	21	1
	5:30 PM	0	6	3	29	0
	5:45 PM	0	3	0	24	0
	VOLUMES	5	33	24	321	3
	APPROACH %	8%	53%	39%	94%	1%
	APP/DEPART	62	/	37	342	/

	BEGIN PEAK HR		4:00 PM			
	VOLUMES	5	14	19	218	1
	APPROACH %	13%	37%	50%	95%	0%
	PEAK HR FACTOR		0.731			0.643
	APP/DEPART	38	/	16	229	/

I-

Stoddard Wells Rd WEST SIDE

I-

NING MOVEMENT COUNTS

.C. tel: 714 253 7888 cs@aimtd.com

PROJECT #: SC5337
LOCATION #: 3
CONTROL: STOP N/S

				AM		▲ N	
5	6			PM			
2	2			MD	◄ W		E ►
				OTHER		S ▼	
				OTHER			

D	EASTBOUND Stoddard Wells Rd			WESTBOUND Stoddard Wells Rd			
SR	EL	ET	ER	WL	WT	WR	TOTAL
0	0	1	0	0	1	0	
3	0	0	9	0	30	0	70
3	1	1	4	0	17	0	57
6	3	0	1	1	21	0	88
6	4	2	8	1	13	0	88
9	3	3	5	2	20	0	78
5	1	3	2	1	18	0	87
4	1	1	4	0	27	0	93
6	1	6	6	4	57	0	125
41	14	16	39	9	202	0	686
13%	20%	23%	57%	4%	96%	0%	
51	69	/	306	211	/	249	0
23	6	13	17	7	122	0	383
13%	17%	35%	48%	5%	95%	0%	
		0.710			0.529		0.766
26	36	/	170	129	/	147	0
4	0	8	10	3	79	0	172
1	0	6	13	5	38	0	164
2	2	12	14	1	25	0	99
3	0	8	11	2	25	0	94
4	1	8	9	0	25	0	84
2	1	1	5	0	26	0	62
0	0	1	15	1	21	0	76
2	0	3	9	1	18	0	60
18	4	46	86	13	257	0	809
5%	3%	34%	63%	5%	95%	0%	
102	136	/	391	270	/	279	0

10 4%	2 2%	34 40% 0.759	48 57%	11 6%	167 94% 0.544	0 0%	528 0.770
60	84	/	271	178	/	182	0

15 NB Ramps

NORTH SIDE

EAST SIDE **Stoddard Wells Rd**

SOUTH SIDE

15 NB Ramps

U-TURNS				
NB	SB	EB	WB	TTL
				0
				0
				0
				0
				0
				0
				0
				0
0	0	0	0	0
				0
				0
				0
				0
				0
				0
				0
				0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

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

DATE:				
4/22/25	LOCATION:	Apple Valley	PROJECT #:	SC5337
TUESDAY	NORTH & SOUTH:	I-15 NB Ramps	LOCATION #:	3
	EAST & WEST:	Stoddard Wells Rd	CONTROL:	STOP N/S

CLASS 2:	NOTES:
2-AXLE WORK VEHICLES/ TRUCKS	

AM
PM
MD
OTHER
OTHER

▲ N
◄ W
E ►
S ▼

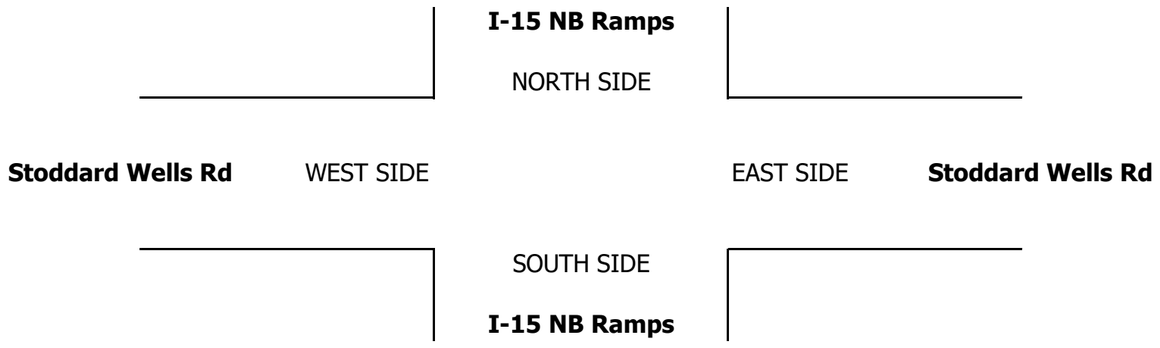
		NORTHBOUND I-15 NB Ramps			SOUTHBOUND I-15 NB Ramps			EASTBOUND Stoddard Wells Rd			WESTBOUND Stoddard Wells Rd			
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	0	1	0	1	0	0	0	0	0	0	3	0	5
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	3	0	0	0	0	0	0	1	0	4
	7:45 AM	0	1	0	2	0	1	0	0	0	0	0	0	4
	8:00 AM	0	0	0	2	0	0	0	0	0	0	2	0	4
	8:15 AM	0	1	0	1	0	0	0	0	0	0	0	0	2
	8:30 AM	0	2	0	1	0	1	0	0	0	0	0	0	4
	8:45 AM	1	0	0	1	0	1	0	1	0	0	0	0	4
	VOLUMES	1	5	0	11	0	3	0	1	0	0	6	0	27
	APPROACH %	17%	83%	0%	79%	0%	21%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	6	/	5	14	/	0	1	/	12	6	/	10	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	1	3	0	5	0	2	0	1	0	0	2	0	14
	APPROACH %	25%	75%	0%	71%	0%	29%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.500			0.875			0.250			0.250		0.875
	APP/DEPART	4	/	3	7	/	0	1	/	6	2	/	5	0
PM	4:00 PM	0	0	0	2	0	0	0	0	0	0	1	0	3
	4:15 PM	0	0	0	2	0	0	0	0	0	0	2	0	4
	4:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
	4:45 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
	5:00 PM	0	0	0	1	0	0	0	1	0	0	0	0	2
	5:15 PM	0	0	0	0	0	1	0	0	0	0	2	0	3
	5:30 PM	0	0	0	1	0	0	0	0	0	0	0	0	1
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	6	0	1	0	4	0	0	5	0	16
	APPROACH %	0%	0%	0%	86%	0%	14%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	0	/	0	7	/	0	4	/	10	5	/	6	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	0	0	4	0	0	0	3	0	0	3	0	10
	APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.500			0.375			0.375		0.625
	APP/DEPART	0	/	0	4	/	0	3	/	7	3	/	3	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
X	X	X	X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

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

DATE:				
4/22/25	LOCATION:	Apple Valley	PROJECT #:	SC5337
TUESDAY	NORTH & SOUTH:	I-15 NB Ramps	LOCATION #:	3
	EAST & WEST:	Stoddard Wells Rd	CONTROL:	STOP N/S

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

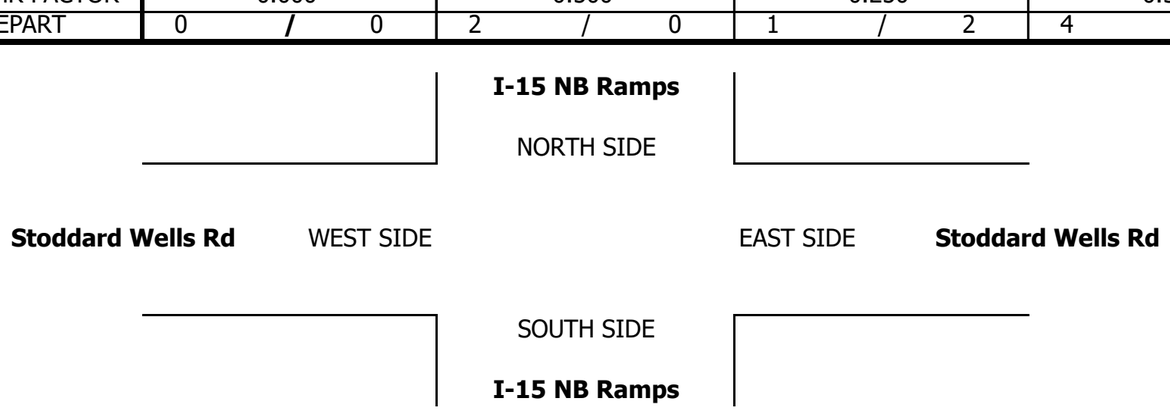
	NORTHBOUND I-15 NB Ramps			SOUTHBOUND I-15 NB Ramps			EASTBOUND Stoddard Wells Rd			WESTBOUND Stoddard Wells Rd			
LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM 7:00 AM	0	0	0	0	0	0	0	0	2	0	0	0	2
7:15 AM	0	0	0	1	0	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	1	0	1	1	0	0	0	2	0	5
7:45 AM	0	0	0	0	0	0	1	1	1	0	1	0	4
8:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
8:15 AM	0	0	0	1	0	0	0	0	0	0	1	0	2
8:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
8:45 AM	0	0	0	0	0	0	0	1	0	0	3	0	4
VOLUMES	0	0	0	3	0	1	2	2	3	0	9	0	20
APPROACH %	0%	0%	0%	75%	0%	25%	29%	29%	43%	0%	100%	0%	
APP/DEPART	0	/	2	4	/	3	7	/	5	9	/	10	0
BEGIN PEAK HR		8:00 AM											
VOLUMES	0	0	0	1	0	0	0	1	0	0	6	0	8
APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	100%	0%	
PEAK HR FACTOR		0.000			0.250			0.250			0.500		0.500
APP/DEPART	0	/	0	1	/	0	1	/	2	6	/	6	0
PM 4:00 PM	0	0	0	0	0	0	0	1	0	0	2	0	3
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	1	0	0	0	0	0	0	2	0	3
4:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	1
5:00 PM	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
5:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
5:45 PM	0	0	0	0	0	0	0	0	1	0	1	0	2
VOLUMES	0	0	0	1	0	1	0	1	1	0	6	0	10
APPROACH %	0%	0%	0%	50%	0%	50%	0%	50%	50%	0%	100%	0%	
APP/DEPART	0	/	0	2	/	1	2	/	2	6	/	7	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	0	0	0	1	0	1	0	1	0	0	4	0	7
APPROACH %	0%	0%	0%	50%	0%	50%	0%	100%	0%	0%	100%	0%	
PEAK HR FACTOR		0.000			0.500			0.250			0.500		0.583
APP/DEPART	0	/	0	2	/	0	1	/	2	4	/	5	0

U-TURNS

	NB	SB	EB	WB	TTL
AM 7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
VOLUMES	0	0	0	0	0
BEGIN PEAK HR VOLUMES	0	0	0	0	
PM 4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
VOLUMES	0	0	0	0	0
BEGIN PEAK HR VOLUMES	0	0	0	0	

RTOR

	NRR X	SRR X	ERR X	WRR X
AM 7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
VOLUMES	0	0	0	0
BEGIN PEAK HR VOLUMES	0	0	0	0
PM 4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
VOLUMES	0	0	0	0
BEGIN PEAK HR VOLUMES	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

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

DATE:				
4/22/25	LOCATION:	Apple Valley	PROJECT #:	SC5337
TUESDAY	NORTH & SOUTH:	I-15 NB Ramps	LOCATION #:	3
	EAST & WEST:	Stoddard Wells Rd	CONTROL:	STOP N/S

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

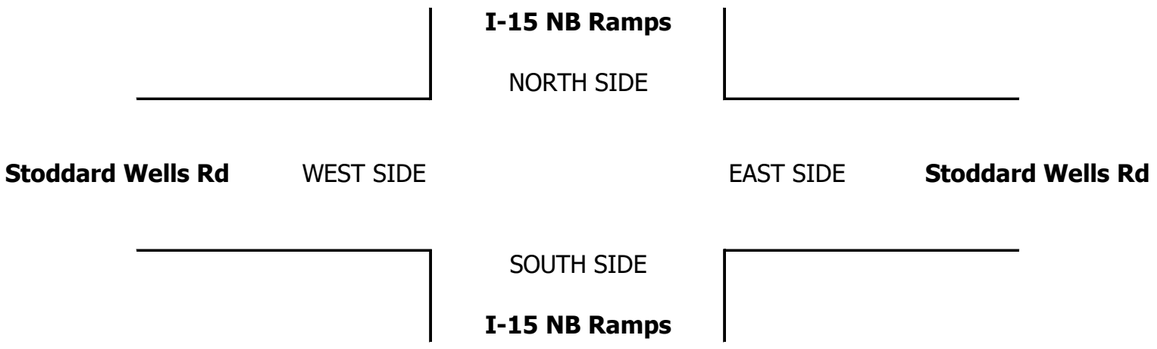
	NORTHBOUND I-15 NB Ramps			SOUTHBOUND I-15 NB Ramps			EASTBOUND Stoddard Wells Rd			WESTBOUND Stoddard Wells Rd			
LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
7:00 AM	0	0	0	1	0	0	0	0	1	0	5	0	7
7:15 AM	0	0	0	0	0	1	0	0	0	0	4	0	5
7:30 AM	1	0	0	4	0	1	0	0	0	0	3	0	9
7:45 AM	0	1	1	4	0	0	0	0	0	0	0	0	6
8:00 AM	0	1	0	6	0	2	1	1	0	0	2	0	13
8:15 AM	0	0	0	8	0	1	0	0	0	0	2	0	11
8:30 AM	0	0	1	7	0	0	0	0	0	0	5	0	13
8:45 AM	0	0	0	7	0	0	0	0	0	1	10	0	18
AM VOLUMES	1	2	2	37	0	5	1	1	1	1	31	0	82
AM APPROACH %	20%	40%	40%	88%	0%	12%	33%	33%	33%	3%	97%	0%	
AM APP/DEPART	5	/	3	42	/	2	3	/	40	32	/	37	0
AM BEGIN PEAK HR		8:00 AM											
AM VOLUMES	0	1	1	28	0	3	1	1	0	1	19	0	55
AM APPROACH %	0%	50%	50%	90%	0%	10%	50%	50%	0%	5%	95%	0%	
AM PEAK HR FACTOR		0.500			0.861			0.250			0.455		0.764
AM APP/DEPART	2	/	2	31	/	1	2	/	30	20	/	22	0
4:00 PM	0	0	0	4	0	1	0	1	0	0	2	0	8
4:15 PM	0	0	0	5	0	0	0	1	0	1	2	0	9
4:30 PM	0	0	0	1	0	0	0	3	1	0	0	0	5
4:45 PM	1	0	0	2	0	0	0	1	0	0	2	0	6
5:00 PM	0	0	0	2	0	1	0	1	0	0	2	0	6
5:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
5:30 PM	0	0	0	2	0	0	0	0	0	0	0	0	2
5:45 PM	0	0	0	3	0	0	0	1	0	0	1	0	5
PM VOLUMES	1	0	0	19	0	2	0	8	1	1	10	0	42
PM APPROACH %	100%	0%	0%	90%	0%	10%	0%	89%	11%	9%	91%	0%	
PM APP/DEPART	1	/	0	21	/	2	9	/	27	11	/	13	0
PM BEGIN PEAK HR		4:00 PM											
PM VOLUMES	1	0	0	12	0	1	0	6	1	1	6	0	28
PM APPROACH %	100%	0%	0%	92%	0%	8%	0%	86%	14%	14%	86%	0%	
PM PEAK HR FACTOR		0.250			0.650			0.438			0.583		0.778
PM APP/DEPART	1	/	0	13	/	2	7	/	18	7	/	8	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
X	X	X	X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



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APPENDIX 3.2:

EXISTING (2025) INTERSECTION ANALYSIS

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Intersection	
Int Delay, s/veh	1.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	28	0	4	117	1	5
Future Vol, veh/h	28	0	4	117	1	5
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	72	72	72	72	72	72
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	39	0	6	163	1	7

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	97	87	0	0	168	0
Stage 1	87	-	-	-	-	-
Stage 2	10	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	908	977	-	-	1422	-
Stage 1	942	-	-	-	-	-
Stage 2	1018	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	907	977	-	-	1422	-
Mov Cap-2 Maneuver	907	-	-	-	-	-
Stage 1	942	-	-	-	-	-
Stage 2	1017	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	9.15	0	1.26
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	907	300	-
HCM Lane V/C Ratio	-	-	0.043	0.001	-
HCM Ctrl Dly (s/v)	-	-	9.1	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	9	29	117	28	5
Future Vol, veh/h	4	9	29	117	28	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Yield	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	63	63	63	63	63	63
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	6	14	46	186	44	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	46	0	-	0	166	139
Stage 1	-	-	-	-	139	-
Stage 2	-	-	-	-	27	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1575	-	-	-	829	915
Stage 1	-	-	-	-	893	-
Stage 2	-	-	-	-	1001	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1575	-	-	-	826	915
Mov Cap-2 Maneuver	-	-	-	-	826	-
Stage 1	-	-	-	-	889	-
Stage 2	-	-	-	-	1001	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	2.24	0	9.58
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	554	-	-	-	838
HCM Lane V/C Ratio	0.004	-	-	-	0.062
HCM Ctrl Dly (s/v)	7.3	0	-	-	9.6
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection	
Int Delay, s/veh	7.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	13	18	7	121	0	2	35	6	152	2	23
Future Vol, veh/h	6	13	18	7	121	0	2	35	6	152	2	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	8	17	23	9	155	0	3	45	8	195	3	29

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	155	0	0	40	0	0	218	217	28	228	228	155
Stage 1	-	-	-	-	-	-	44	44	-	173	173	-
Stage 2	-	-	-	-	-	-	174	173	-	54	55	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1437	-	-	1583	-	-	743	685	1053	732	675	896
Stage 1	-	-	-	-	-	-	976	863	-	833	759	-
Stage 2	-	-	-	-	-	-	832	759	-	963	853	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1437	-	-	1583	-	-	707	677	1053	671	667	896
Mov Cap-2 Maneuver	-	-	-	-	-	-	707	677	-	671	667	-
Stage 1	-	-	-	-	-	-	970	858	-	828	755	-
Stage 2	-	-	-	-	-	-	797	755	-	901	848	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	1.22	0.4	10.46	12.69
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	714	262	-	-	98	-	-	694
HCM Lane V/C Ratio	0.077	0.005	-	-	0.006	-	-	0.327
HCM Ctrl Dly (s/v)	10.5	7.5	0	-	7.3	0	-	12.7
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	1.4

Intersection	
Int Delay, s/veh	2.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	43	2	2	157	2	3
Future Vol, veh/h	43	2	2	157	2	3
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	69	69	69	69	69	69
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	62	3	3	228	3	4

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	127	117	0	0	230	0
Stage 1	117	-	-	-	-	-
Stage 2	10	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	873	941	-	-	1349	-
Stage 1	913	-	-	-	-	-
Stage 2	1018	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	871	941	-	-	1349	-
Mov Cap-2 Maneuver	871	-	-	-	-	-
Stage 1	913	-	-	-	-	-
Stage 2	1016	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	9.45	0	3.07
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	874	720	-
HCM Lane V/C Ratio	-	-	0.075	0.002	-
HCM Ctrl Dly (s/v)	-	-	9.5	7.7	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	16	40	38	144	45	1
Future Vol, veh/h	16	40	38	144	45	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Yield	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	62	62	62	62	62	62
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	26	65	61	232	73	2

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	61	0	-	0	294	177
Stage 1	-	-	-	-	177	-
Stage 2	-	-	-	-	116	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1555	-	-	-	702	871
Stage 1	-	-	-	-	858	-
Stage 2	-	-	-	-	914	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1555	-	-	-	690	871
Mov Cap-2 Maneuver	-	-	-	-	690	-
Stage 1	-	-	-	-	843	-
Stage 2	-	-	-	-	914	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	2.1	0	10.82
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	514	-	-	-	693
HCM Lane V/C Ratio	0.017	-	-	-	0.107
HCM Ctrl Dly (s/v)	7.4	0	-	-	10.8
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.4

Intersection	
Int Delay, s/veh	8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	34	49	11	167	0	5	14	19	218	1	10
Future Vol, veh/h	2	34	49	11	167	0	5	14	19	218	1	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	45	64	14	220	0	7	18	25	287	1	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	220	0	0	109	0	0	332	331	77	308	363	220
Stage 1	-	-	-	-	-	-	82	82	-	249	249	-
Stage 2	-	-	-	-	-	-	249	249	-	59	114	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1362	-	-	1494	-	-	626	592	990	648	568	825
Stage 1	-	-	-	-	-	-	931	831	-	760	704	-
Stage 2	-	-	-	-	-	-	759	704	-	957	805	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1362	-	-	1494	-	-	606	584	990	604	560	825
Mov Cap-2 Maneuver	-	-	-	-	-	-	606	584	-	604	560	-
Stage 1	-	-	-	-	-	-	929	829	-	751	697	-
Stage 2	-	-	-	-	-	-	737	697	-	911	803	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.18	0.46	10.22	16.48
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	739	38	-	-	111	-	-	611
HCM Lane V/C Ratio	0.068	0.002	-	-	0.01	-	-	0.493
HCM Ctrl Dly (s/v)	10.2	7.6	0	-	7.4	0	-	16.5
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	2.7

APPENDIX 3.3:

EXISTING (2025) SIGNAL WARRANTS

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

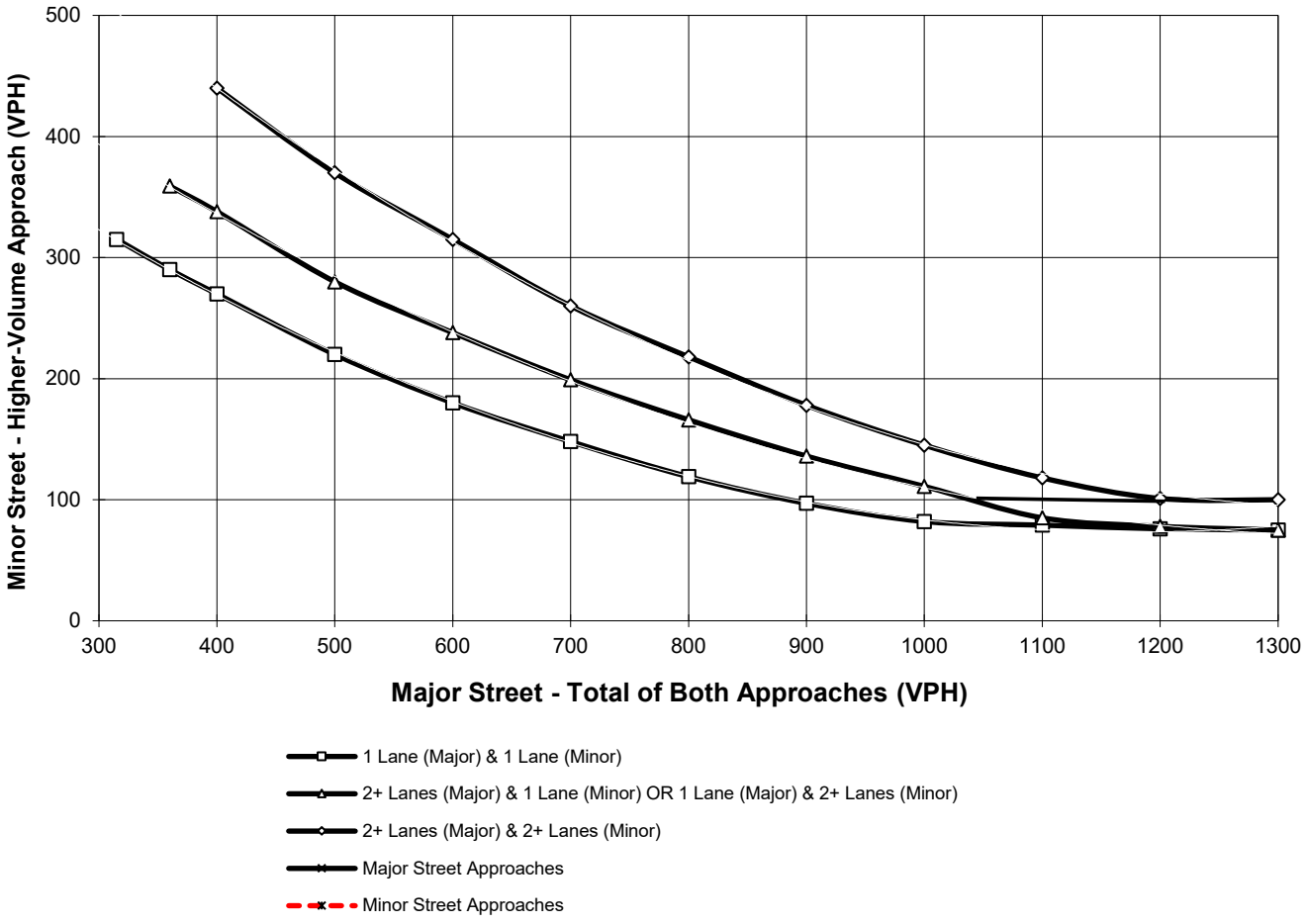
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2025) Conditions - Weekday PM Peak Hour**

Major Street Name = **Quarry Road** Total of Both Approaches (VPH) = **149**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **I-15 SB Ramps** High Volume Approach (VPH) = **44**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

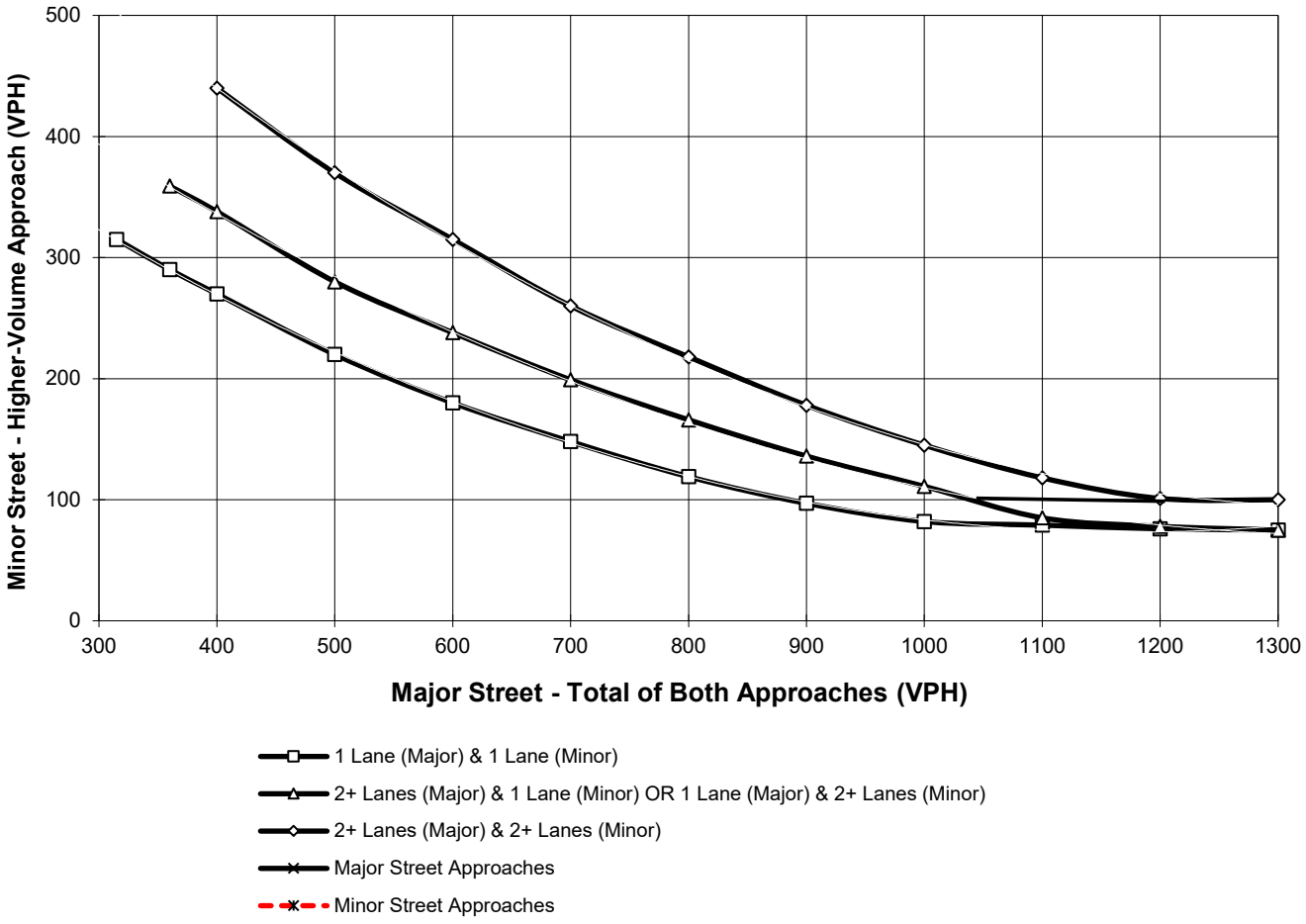
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2025) Conditions - Weekday PM Peak Hour**

Major Street Name = **Stoddard Wells Road** Total of Both Approaches (VPH) = **192**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Quarry Road** High Volume Approach (VPH) = **45**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

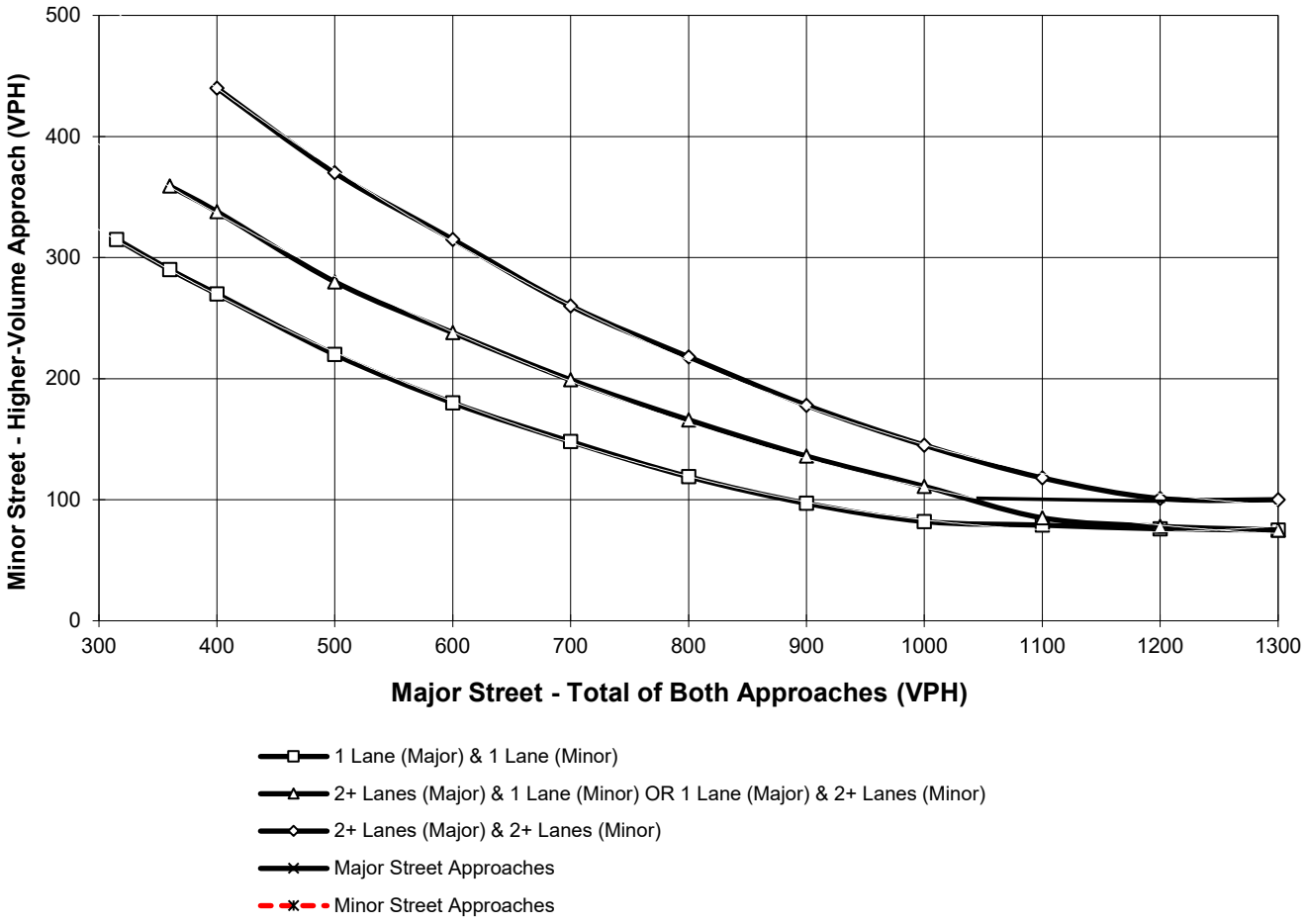
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2025) Conditions - Weekday PM Peak Hour**

Major Street Name = **I-15 Northbound Ramps** Total of Both Approaches (VPH) = **235**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Stoddard Wells Road** High Volume Approach (VPH) = **226**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

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APPENDIX 3.4:

EXISTING (2025) OFF-RAMP QUEUES

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Intersection	
Int Delay, s/veh	1.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	28	0	4	117	1	5
Future Vol, veh/h	28	0	4	117	1	5
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	72	72	72	72	72	72
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	39	0	6	163	1	7

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	97	87	0	0	168	0
Stage 1	87	-	-	-	-	-
Stage 2	10	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	908	977	-	-	1422	-
Stage 1	942	-	-	-	-	-
Stage 2	1018	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	907	977	-	-	1422	-
Mov Cap-2 Maneuver	907	-	-	-	-	-
Stage 1	942	-	-	-	-	-
Stage 2	1017	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	9.15	0	1.26
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	907	300	-
HCM Lane V/C Ratio	-	-	0.043	0.001	-
HCM Ctrl Dly (s/v)	-	-	9.1	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	7.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	13	18	7	121	0	2	35	6	152	2	23
Future Vol, veh/h	6	13	18	7	121	0	2	35	6	152	2	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	8	17	23	9	155	0	3	45	8	195	3	29

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	155	0	0	40	0	0	218	217	28	228	228	155
Stage 1	-	-	-	-	-	-	44	44	-	173	173	-
Stage 2	-	-	-	-	-	-	174	173	-	54	55	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1437	-	-	1583	-	-	743	685	1053	732	675	896
Stage 1	-	-	-	-	-	-	976	863	-	833	759	-
Stage 2	-	-	-	-	-	-	832	759	-	963	853	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1437	-	-	1583	-	-	707	677	1053	671	667	896
Mov Cap-2 Maneuver	-	-	-	-	-	-	707	677	-	671	667	-
Stage 1	-	-	-	-	-	-	970	858	-	828	755	-
Stage 2	-	-	-	-	-	-	797	755	-	901	848	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	1.22	0.4	10.46	12.69
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	714	262	-	-	98	-	-	694
HCM Lane V/C Ratio	0.077	0.005	-	-	0.006	-	-	0.327
HCM Ctrl Dly (s/v)	10.5	7.5	0	-	7.3	0	-	12.7
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	1.4

Intersection	
Int Delay, s/veh	2.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	43	2	2	157	2	3
Future Vol, veh/h	43	2	2	157	2	3
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	69	69	69	69	69	69
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	62	3	3	228	3	4

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	127	117	0	0	230	0
Stage 1	117	-	-	-	-	-
Stage 2	10	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	873	941	-	-	1349	-
Stage 1	913	-	-	-	-	-
Stage 2	1018	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	871	941	-	-	1349	-
Mov Cap-2 Maneuver	871	-	-	-	-	-
Stage 1	913	-	-	-	-	-
Stage 2	1016	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	9.45	0	3.07
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	874	720	-
HCM Lane V/C Ratio	-	-	0.075	0.002	-
HCM Ctrl Dly (s/v)	-	-	9.5	7.7	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	34	49	11	167	0	5	14	19	218	1	10
Future Vol, veh/h	2	34	49	11	167	0	5	14	19	218	1	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	45	64	14	220	0	7	18	25	287	1	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	220	0	0	109	0	0	332	331	77	308	363	220
Stage 1	-	-	-	-	-	-	82	82	-	249	249	-
Stage 2	-	-	-	-	-	-	249	249	-	59	114	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1362	-	-	1494	-	-	626	592	990	648	568	825
Stage 1	-	-	-	-	-	-	931	831	-	760	704	-
Stage 2	-	-	-	-	-	-	759	704	-	957	805	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1362	-	-	1494	-	-	606	584	990	604	560	825
Mov Cap-2 Maneuver	-	-	-	-	-	-	606	584	-	604	560	-
Stage 1	-	-	-	-	-	-	929	829	-	751	697	-
Stage 2	-	-	-	-	-	-	737	697	-	911	803	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.18	0.46	10.22	16.48
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	739	38	-	-	111	-	-	611
HCM Lane V/C Ratio	0.068	0.002	-	-	0.01	-	-	0.493
HCM Ctrl Dly (s/v)	10.2	7.6	0	-	7.4	0	-	16.5
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	2.7

APPENDIX 5.1:

OYC (2028) WITHOUT PROJECT INTERSECTION ANALYSIS

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Intersection	
Int Delay, s/veh	2.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	138	0	4	633	1	5
Future Vol, veh/h	138	0	4	633	1	5
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	72	72	72	72	72	72
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	192	0	6	879	1	7

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	455	445	0	0	885	0
Stage 1	445	-	-	-	-	-
Stage 2	10	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	567	617	-	-	773	-
Stage 1	650	-	-	-	-	-
Stage 2	1018	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	566	617	-	-	773	-
Mov Cap-2 Maneuver	566	-	-	-	-	-
Stage 1	650	-	-	-	-	-
Stage 2	1017	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	14.58	0	1.61
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	566	300	-
HCM Lane V/C Ratio	-	-	0.339	0.002	-
HCM Ctrl Dly (s/v)	-	-	14.6	9.7	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	1.5	0	-

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	33	38	633	138	5
Future Vol, veh/h	4	33	38	633	138	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Yield	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	63	63	63	63	63	63
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	6	52	60	1005	219	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	60	0	-	0	628	563
Stage 1	-	-	-	-	563	-
Stage 2	-	-	-	-	65	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1556	-	-	-	450	530
Stage 1	-	-	-	-	574	-
Stage 2	-	-	-	-	963	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1556	-	-	-	448	530
Mov Cap-2 Maneuver	-	-	-	-	448	-
Stage 1	-	-	-	-	572	-
Stage 2	-	-	-	-	963	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.79	0	20.82
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	195	-	-	-	451
HCM Lane V/C Ratio	0.004	-	-	-	0.504
HCM Ctrl Dly (s/v)	7.3	0	-	-	20.8
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	2.8

Intersection	
Int Delay, s/veh	4711.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	91	74	27	645	55	2	53	52	1528	2	24
Future Vol, veh/h	6	91	74	27	645	55	2	53	52	1528	2	24
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	8	117	95	35	827	71	3	68	67	1959	3	31

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	897	0	0	212	0	0	1077	1146	164	1097	1158	862
Stage 1	-	-	-	-	-	-	179	179	-	931	931	-
Stage 2	-	-	-	-	-	-	897	967	-	166	227	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	765	-	-	1371	-	-	198	201	886	~ 192	198	358
Stage 1	-	-	-	-	-	-	827	755	-	~ 323	348	-
Stage 2	-	-	-	-	-	-	337	335	-	~ 841	720	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	765	-	-	1371	-	-	168	188	886	~ 109	185	358
Mov Cap-2 Maneuver	-	-	-	-	-	-	168	188	-	~ 109	185	-
Stage 1	-	-	-	-	-	-	817	746	-	~ 306	330	-
Stage 2	-	-	-	-	-	-	290	318	-	~ 698	712	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.34	0.29	26.21	$ 7755.92
HCM LOS			D	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	304	58	-	-	66	-	-	110
HCM Lane V/C Ratio	0.451	0.01	-	-	0.025	-	-	18.075
HCM Ctrl Dly (s/v)	26.2	9.8	0	-	7.7	0	-	$ 7755.9
HCM Lane LOS	D	A	A	-	A	A	-	F
HCM 95th %tile Q(veh)	2.2	0	-	-	0.1	-	-	238.4

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

Intersection	
Int Delay, s/veh	5.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	129	2	2	1561	2	3
Future Vol, veh/h	129	2	2	1561	2	3
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	69	69	69	69	69	69
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	187	3	3	2262	3	4

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1144	1134	0	0	2265	0
Stage 1	1134	-	-	-	-	-
Stage 2	10	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	223	249	-	-	229	-
Stage 1	310	-	-	-	-	-
Stage 2	1018	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	220	249	-	-	229	-
Mov Cap-2 Maneuver	220	-	-	-	-	-
Stage 1	310	-	-	-	-	-
Stage 2	1005	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	75.51	0	8.37
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	221	228	-
HCM Lane V/C Ratio	-	-	0.861	0.013	-
HCM Ctrl Dly (s/v)	-	-	75.5	20.9	0
HCM Lane LOS	-	-	F	C	A
HCM 95th %tile Q(veh)	-	-	6.7	0	-

Intersection	
Int Delay, s/veh	25.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	16	55	63	1546	131	1
Future Vol, veh/h	16	55	63	1546	131	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Yield	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	62	62	62	62	62	62
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	26	89	102	2494	211	2

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	102	0	-	0	1489	1348
Stage 1	-	-	-	-	1348	-
Stage 2	-	-	-	-	140	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1503	-	-	-	~ 138	186
Stage 1	-	-	-	-	244	-
Stage 2	-	-	-	-	891	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1503	-	-	-	~ 136	186
Mov Cap-2 Maneuver	-	-	-	-	~ 136	-
Stage 1	-	-	-	-	240	-
Stage 2	-	-	-	-	891	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	1.68	0	$ 346.5
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	406	-	-	-	136
HCM Lane V/C Ratio	0.017	-	-	-	1.568
HCM Ctrl Dly (s/v)	7.4	0	-	-	$ 346.5
HCM Lane LOS	A	A	-	-	F
HCM 95th %tile Q(veh)	0.1	-	-	-	15

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

Intersection	
Int Delay, s/veh	56.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	112	73	58	1594	60	5	67	49	975	1	11
Future Vol, veh/h	2	112	73	58	1594	60	5	67	49	975	1	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	147	96	76	2097	79	7	88	64	1283	1	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	2176	0	0	243	0	0	2451	2530	195	2486	2538	2137
Stage 1	-	-	-	-	-	-	201	201	-	2289	2289	-
Stage 2	-	-	-	-	-	-	2251	2329	-	197	249	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	248	-	-	1335	-	-	21	~ 28	851	~ 20	28	63
Stage 1	-	-	-	-	-	-	806	739	-	~ 53	75	-
Stage 2	-	-	-	-	-	-	56	~ 72	-	~ 810	704	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	248	-	-	1335	-	-	16	~ 28	851	-	27	63
Mov Cap-2 Maneuver	-	-	-	-	-	-	16	~ 28	-	-	27	-
Stage 1	-	-	-	-	-	-	796	730	-	~ 53	75	-
Stage 2	-	-	-	-	-	-	42	~ 72	-	~ 650	696	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.21	0.27	$ 1405.58	
HCM LOS			F	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	43	18	-	-	~ 61	-	-	-
HCM Lane V/C Ratio	3.693	0.011	-	-	0.057	-	-	-
HCM Ctrl Dly (s/v)	$ 1405.6	19.7	0	-	7.9	0	-	-
HCM Lane LOS	F	C	A	-	A	A	-	-
HCM 95th %tile Q(veh)	17.9	0	-	-	0.2	-	-	-

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

APPENDIX 5.2:

OYC (2028) WITH PROJECT INTERSECTION ANALYSIS

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Intersection	
Int Delay, s/veh	3.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	181	0	4	687	1	5
Future Vol, veh/h	181	0	4	687	1	5
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	72	72	72	72	72	72
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	251	0	6	954	1	7

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	492	483	0	0	960	0
Stage 1	483	-	-	-	-	-
Stage 2	10	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	539	588	-	-	725	-
Stage 1	625	-	-	-	-	-
Stage 2	1018	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	538	588	-	-	725	-
Mov Cap-2 Maneuver	538	-	-	-	-	-
Stage 1	625	-	-	-	-	-
Stage 2	1017	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	17.41	0	1.66
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	538	300	-
HCM Lane V/C Ratio	-	-	0.467	0.002	-
HCM Ctrl Dly (s/v)	-	-	17.4	10	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	2.5	0	-

Intersection	
Int Delay, s/veh	6.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	35	38	687	181	5
Future Vol, veh/h	4	35	38	687	181	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	63	63	63	63	63	63
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	6	56	60	1090	287	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1151	0	-	0	674	606
Stage 1	-	-	-	-	606	-
Stage 2	-	-	-	-	68	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	614	-	-	-	423	501
Stage 1	-	-	-	-	549	-
Stage 2	-	-	-	-	960	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	614	-	-	-	419	501
Mov Cap-2 Maneuver	-	-	-	-	419	-
Stage 1	-	-	-	-	543	-
Stage 2	-	-	-	-	960	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	1.12	0	31.37
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	185	-	-	-	421
HCM Lane V/C Ratio	0.01	-	-	-	0.702
HCM Ctrl Dly (s/v)	10.9	0	-	-	31.4
HCM Lane LOS	B	A	-	-	D
HCM 95th %tile Q(veh)	0	-	-	-	5.3

Intersection	
Int Delay, s/veh	7533.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	136	74	28	699	69	2	53	55	1663	2	24
Future Vol, veh/h	6	136	74	28	699	69	2	53	55	1663	2	24
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	8	174	95	36	896	88	3	68	71	2132	3	31

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	985	0	0	269	0	0	1206	1294	222	1236	1297	940
Stage 1	-	-	-	-	-	-	237	237	-	1012	1012	-
Stage 2	-	-	-	-	-	-	969	1056	-	224	285	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	710	-	-	1306	-	-	162	164	823	~ 154	163	322
Stage 1	-	-	-	-	-	-	771	713	-	~ 291	319	-
Stage 2	-	-	-	-	-	-	307	304	-	~ 783	680	-
Platoon blocked, %	1	2	1	2	2	2	1	2	2	2	1	1
Mov Cap-1 Maneuver	710	-	-	1306	-	-	133	152	823	~ 75	151	322
Mov Cap-2 Maneuver	-	-	-	-	-	-	133	152	-	~ 75	151	-
Stage 1	-	-	-	-	-	-	761	703	-	~ 273	300	-
Stage 2	-	-	-	-	-	-	259	286	-	~ 639	671	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.28	0.28	35.17	$ 12535.2
HCM LOS			E	F

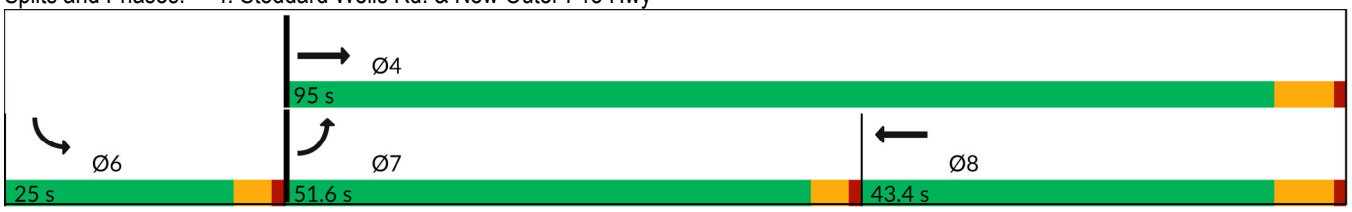
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	255	47	-	-	62	-	-	76
HCM Lane V/C Ratio	0.552	0.011	-	-	0.027	-	-	28.63
HCM Ctrl Dly (s/v)	35.2	10.1	0	-	7.8	0	-	$ 12535.2
HCM Lane LOS	E	B	A	-	A	A	-	F
HCM 95th %tile Q(veh)	3	0	-	-	0.1	-	-	264.3

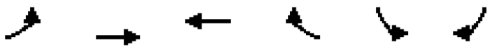
Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	524	1671	753	6
Future Volume (vph)	524	1671	753	6
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	5.0
Minimum Split (s)	9.5	24.5	24.5	22.5
Total Split (s)	51.6	95.0	43.4	25.0
Total Split (%)	43.0%	79.2%	36.2%	20.8%
Yellow Time (s)	3.5	5.5	5.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.5	6.5	4.5
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	None
Act Effct Green (s)	38.6	88.6	45.5	6.8
Actuated g/C Ratio	0.36	0.83	0.43	0.06
v/c Ratio	0.92	1.15	0.51	0.67
Control Delay (s/veh)	53.3	88.3	25.3	21.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	53.3	88.3	25.3	21.3
LOS	D	F	C	C
Approach Delay (s/veh)		80.0	25.3	21.3
Approach LOS		E	C	C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 106.4	
Natural Cycle: 150	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.15	
Intersection Signal Delay (s/veh): 63.6	Intersection LOS: E
Intersection Capacity Utilization 107.0%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 4: Stoddard Wells Rd. & New Outer I-15 Hwy





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	524	1671	753	5	6	154
Future Volume (veh/h)	524	1671	753	5	6	154
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	570	1816	818	5	7	64
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	592	1596	1706	10	9	80
Arrive On Green	0.52	1.00	0.68	0.45	0.06	0.08
Sat Flow, veh/h	1714	1900	3773	23	159	1450
Grp Volume(v), veh/h	570	1816	412	411	72	0
Grp Sat Flow(s),veh/h/ln	1714	1900	1900	1896	1631	0
Q Serve(g_s), s	33.7	88.5	10.9	11.0	4.6	0.0
Cycle Q Clear(g_c), s	33.7	88.5	10.9	11.0	4.6	0.0
Prop In Lane	1.00			0.01	0.10	0.89
Lane Grp Cap(c), veh/h	592	1596	859	857	90	0
V/C Ratio(X)	0.96	1.14	0.48	0.48	0.80	0.00
Avail Cap(c_a), veh/h	767	1597	859	857	317	0
HCM Platoon Ratio	1.50	1.50	1.50	1.00	1.00	1.50
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	24.7	0.0	11.0	11.1	47.9	0.0
Incr Delay (d2), s/veh	19.3	70.1	0.4	0.4	5.9	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.1	31.1	3.6	3.6	2.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	44.0	70.1	11.5	11.6	53.8	0.0
LnGrp LOS	D	F	B	B	D	
Approach Vol, veh/h		2386	823		72	
Approach Delay, s/veh		63.9	11.5		53.8	
Approach LOS		E	B		D	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			95.0		10.3	40.9	54.1
Change Period (Y+Rc), s			6.5		4.5	4.5	6.5
Max Green Setting (Gmax), s			88.5		20.5	47.1	36.9
Max Q Clear Time (g_c+I1), s			90.5		6.6	35.7	13.0
Green Ext Time (p_c), s			0.0		0.1	0.7	4.8

Intersection Summary	
HCM 7th Control Delay, s/veh	50.5
HCM 7th LOS	D

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑↑↱			↱
Traffic Vol, veh/h	0	1677	1179	3	0	20
Future Vol, veh/h	0	1677	1179	3	0	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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, %	0	0	0	0	0	0
Mvmt Flow	0	1823	1282	3	0	22

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	642
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	-	0	421
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	421
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0	0	14.01
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	421
HCM Lane V/C Ratio	-	-	-	0.052
HCM Ctrl Dly (s/v)	-	-	-	14
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.2

Intersection	
Int Delay, s/veh	12.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	150	2	2	1684	2	3
Future Vol, veh/h	150	2	2	1684	2	3
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	69	69	69	69	69	69
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	217	3	3	2441	3	4

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1233	1223	0	0	2443	0
Stage 1	1223	-	-	-	-	-
Stage 2	10	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	~ 197	221	-	-	195	-
Stage 1	281	-	-	-	-	-
Stage 2	1018	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 194	221	-	-	195	-
Mov Cap-2 Maneuver	~ 194	-	-	-	-	-
Stage 1	281	-	-	-	-	-
Stage 2	1003	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	155.03	0	9.5
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	194	194	-
HCM Lane V/C Ratio	-	-	1.133	0.015	-
HCM Ctrl Dly (s/v)	-	-	155	23.7	0
HCM Lane LOS	-	-	F	C	A
HCM 95th %tile Q(veh)	-	-	10.8	0	-

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

Intersection	
Int Delay, s/veh	62.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	16	56	64	1669	152	1
Future Vol, veh/h	16	56	64	1669	152	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	62	62	62	62	62	62
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	26	90	103	2692	245	2

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	2795	0	-	0	1591	1449
Stage 1	-	-	-	-	1449	-
Stage 2	-	-	-	-	142	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	141	-	-	-	~ 119	162
Stage 1	-	-	-	-	~ 218	-
Stage 2	-	-	-	-	890	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	141	-	-	-	~ 97	162
Mov Cap-2 Maneuver	-	-	-	-	~ 97	-
Stage 1	-	-	-	-	~ 176	-
Stage 2	-	-	-	-	890	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	8.01	0	$ 796.35
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	134	-	-	-	97
HCM Lane V/C Ratio	0.182	-	-	-	2.55
HCM Ctrl Dly (s/v)	36	0	-	-	$ 796.3
HCM Lane LOS	E	A	-	-	F
HCM 95th %tile Q(veh)	0.6	-	-	-	22.8

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

Intersection	
Int Delay, s/veh	84.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	134	73	61	1719	100	5	67	50	1043	1	11
Future Vol, veh/h	2	134	73	61	1719	100	5	67	50	1043	1	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	176	96	80	2262	132	7	88	66	1372	1	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	2393	0	0	272	0	0	2653	2784	224	2714	2766	2328
Stage 1	-	-	-	-	-	-	230	230	-	2488	2488	-
Stage 2	-	-	-	-	-	-	2423	2554	-	226	278	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	204	-	-	1303	-	-	15	~ 19	820	~ 14	20	48
Stage 1	-	-	-	-	-	-	778	718	-	~ 40	59	-
Stage 2	-	-	-	-	-	-	44	~ 55	-	~ 782	684	-
Platoon blocked, %		2	-	2	2	2	2	2		2		
Mov Cap-1 Maneuver	204	-	-	1303	-	-	10	~ 19	820	-	19	48
Mov Cap-2 Maneuver	-	-	-	-	-	-	10	~ 19	-	-	19	-
Stage 1	-	-	-	-	-	-	766	707	-	~ 40	59	-
Stage 2	-	-	-	-	-	-	30	~ 55	-	~ 620	674	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.22	0.26	$ 2257.58	
HCM LOS			F	-

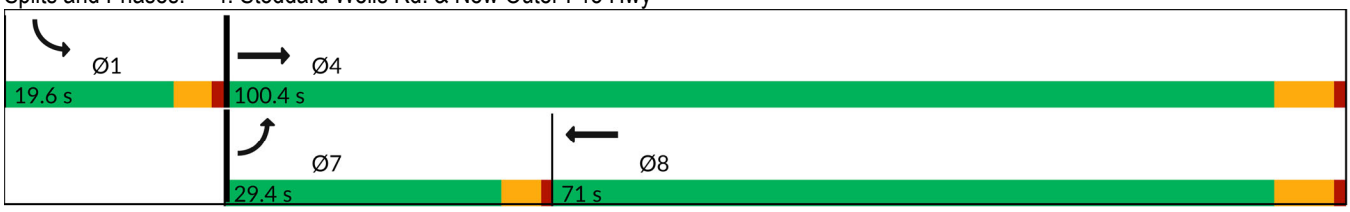
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	30	16	-	-	~ 58	-	-	-
HCM Lane V/C Ratio	5.426	0.013	-	-	0.062	-	-	-
HCM Ctrl Dly (s/v)	$ 2257.6	22.9	0	-	7.9	0	-	-
HCM Lane LOS	F	C	A	-	A	A	-	-
HCM 95th %tile Q(veh)	19.5	0	-	-	0.2	-	-	-

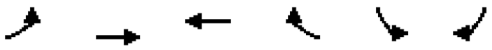
Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	313	1136	1751	12
Future Volume (vph)	313	1136	1751	12
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	1
Permitted Phases				
Detector Phase	7	4	8	1
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	5.0
Minimum Split (s)	9.5	24.5	24.5	9.5
Total Split (s)	29.4	100.4	71.0	19.6
Total Split (%)	24.5%	83.7%	59.2%	16.3%
Yellow Time (s)	3.5	5.5	5.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.5	6.5	4.5
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	None
Act Effct Green (s)	24.5	93.3	64.3	10.2
Actuated g/C Ratio	0.21	0.81	0.56	0.09
v/c Ratio	0.93	0.80	0.94	0.87
Control Delay (s/veh)	78.2	11.7	34.9	32.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	78.2	11.7	34.9	32.1
LOS	E	B	C	C
Approach Delay (s/veh)		26.1	34.9	32.1
Approach LOS		C	C	C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 114.5	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay (s/veh): 31.0	Intersection LOS: C
Intersection Capacity Utilization 101.1%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 4: Stoddard Wells Rd. & New Outer I-15 Hwy





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	313	1136	1751	5	12	333
Future Volume (veh/h)	313	1136	1751	5	12	333
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1800	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	340	1235	1903	5	13	171
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	357	1485	1979	5	14	190
Arrive On Green	0.21	0.78	0.54	0.54	0.13	0.13
Sat Flow, veh/h	1714	1900	3789	10	114	1501
Grp Volume(v), veh/h	340	1235	930	978	185	0
Grp Sat Flow(s),veh/h/ln	1714	1900	1805	1898	1624	0
Q Serve(g_s), s	23.4	48.5	58.9	59.0	13.4	0.0
Cycle Q Clear(g_c), s	23.4	48.5	58.9	59.0	13.4	0.0
Prop In Lane	1.00			0.01	0.07	0.92
Lane Grp Cap(c), veh/h	357	1485	967	1017	205	0
V/C Ratio(X)	0.95	0.83	0.96	0.96	0.90	0.00
Avail Cap(c_a), veh/h	357	1493	974	1024	205	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	46.7	8.1	26.6	26.6	51.5	0.0
Incr Delay (d2), s/veh	34.9	4.1	20.0	19.5	36.2	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.1	14.8	28.1	29.4	7.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	81.6	12.3	46.6	46.1	87.7	0.0
LnGrp LOS	F	B	D	D	F	
Approach Vol, veh/h		1575	1908		185	
Approach Delay, s/veh		27.2	46.3		87.7	
Approach LOS		C	D		F	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			99.9		19.6	29.4	70.5
Change Period (Y+Rc), s			6.5		4.5	4.5	6.5
Max Green Setting (Gmax), s			93.9		15.1	24.9	64.5
Max Q Clear Time (g_c+I1), s			50.5		15.4	25.4	61.0
Green Ext Time (p_c), s			15.3		0.0	0.0	3.0

Intersection Summary		
HCM 7th Control Delay, s/veh		40.2
HCM 7th LOS		D

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1148	2137	2	0	38
Future Vol, veh/h	0	1148	2137	2	0	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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, %	0	0	0	0	0	0
Mvmt Flow	0	1248	2323	2	0	41

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	1163
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.8
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	-	0	197
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	197
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0	0	28.01
HCM LOS			D

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	197
HCM Lane V/C Ratio	-	-	-	0.209
HCM Ctrl Dly (s/v)	-	-	-	28
HCM Lane LOS	-	-	-	D
HCM 95th %tile Q(veh)	-	-	-	0.8

APPENDIX 5.3:

OYC (2028) WITHOUT PROJECT SIGNAL WARRANTS

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

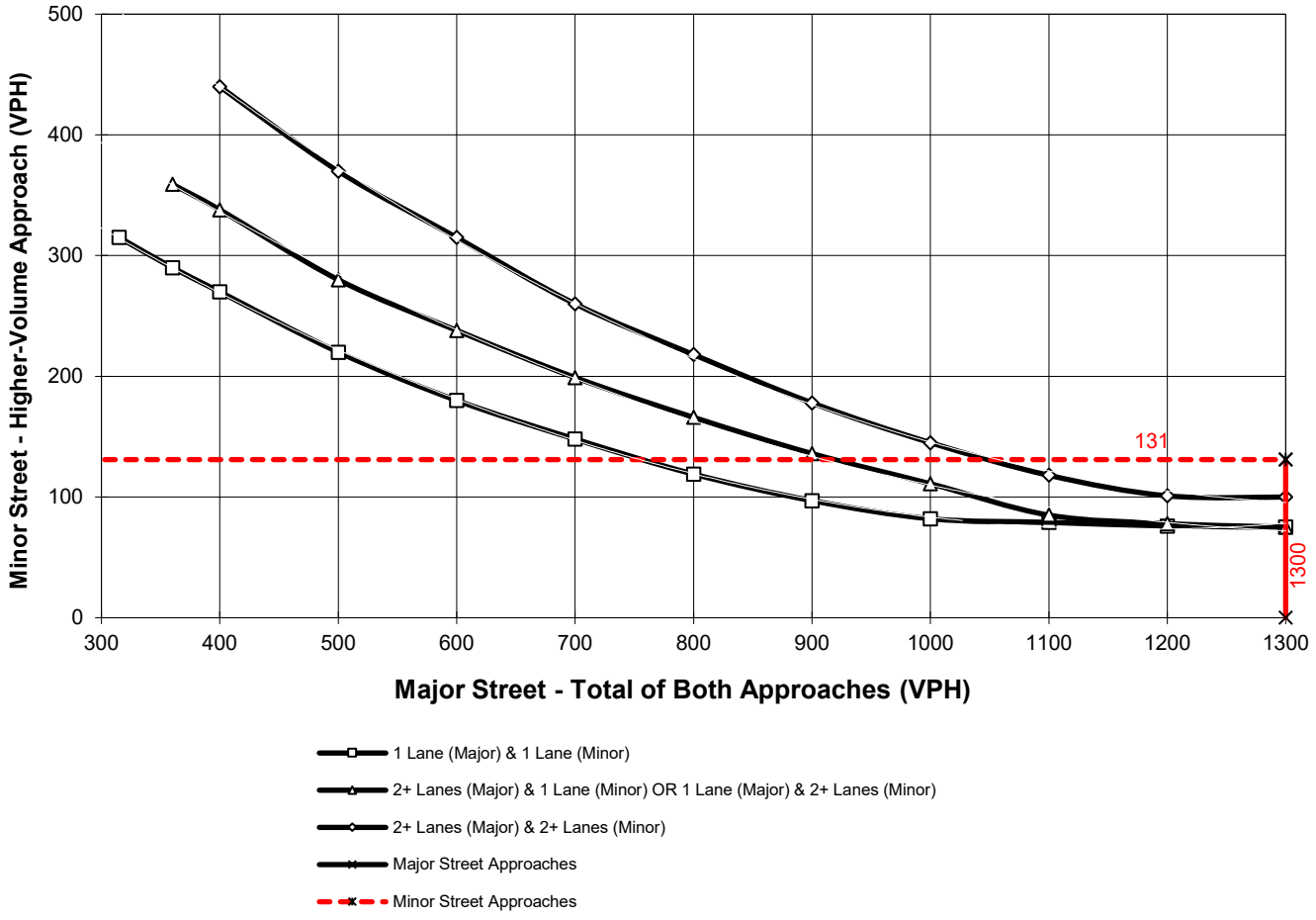
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **OYC NP (2028) Conditions - Weekday PM Peak Hour**

Major Street Name = **Quarry Road**
Total of Both Approaches (VPH) = **1495**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **I-15 SB Ramps**
High Volume Approach (VPH) = **131**
Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

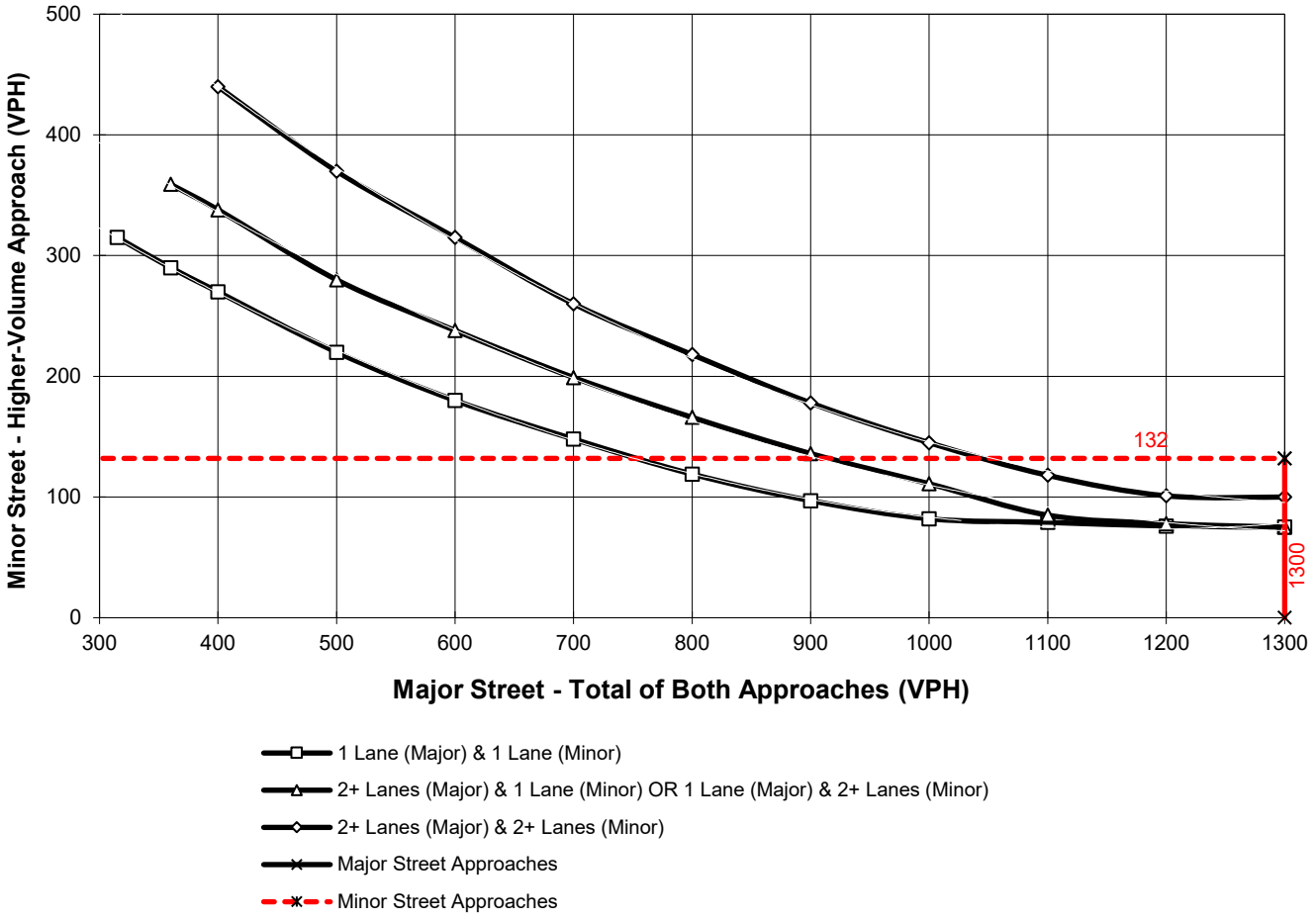
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **OYC NP (2028) Conditions - Weekday PM Peak Hour**

Major Street Name = **Stoddard Wells Road** Total of Both Approaches (VPH) = **1577**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Quarry Road** High Volume Approach (VPH) = **132**
Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

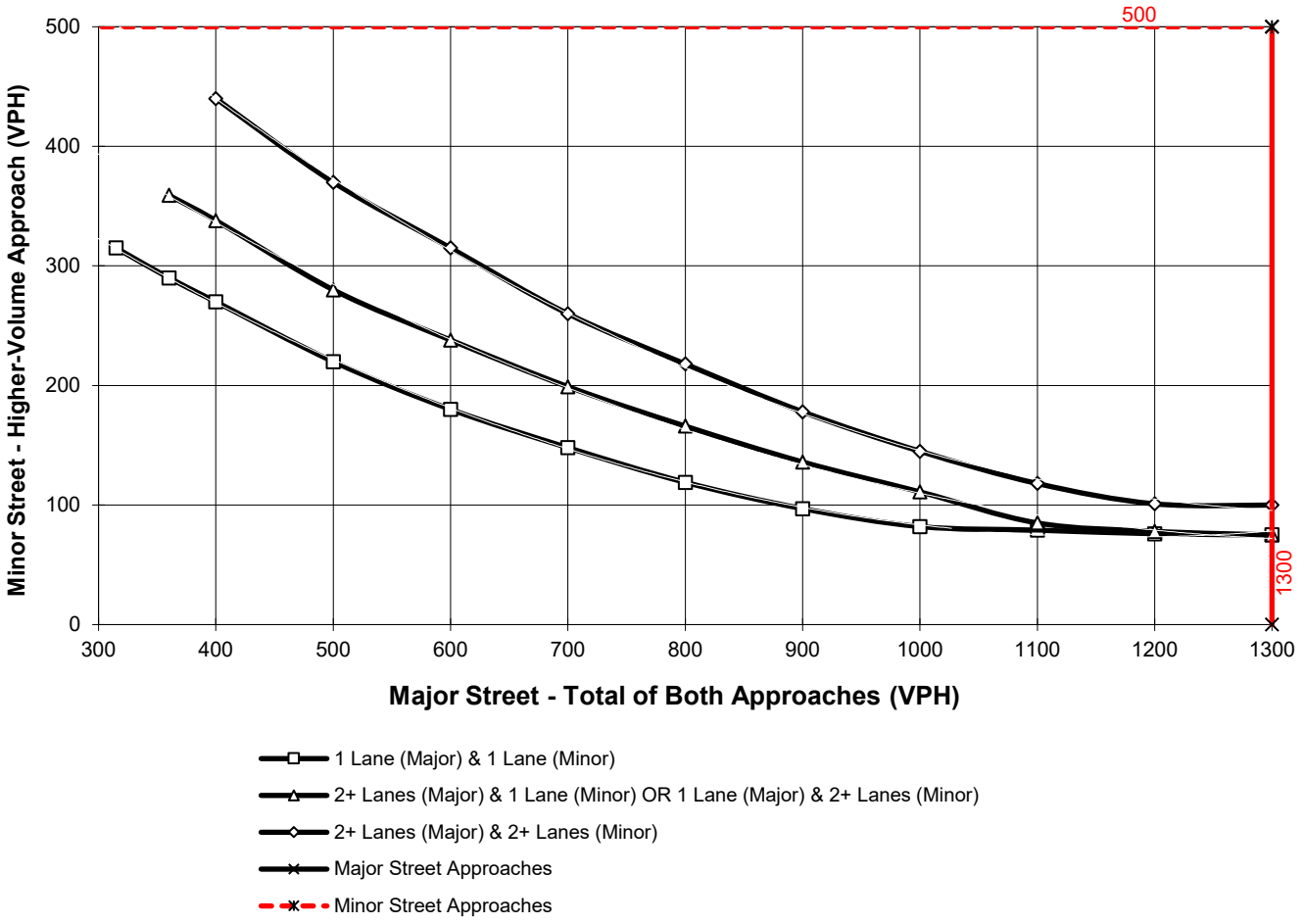
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **OYC NP (2028) Conditions - Weekday PM Peak Hour**

Major Street Name = **I-15 Northbound Ramps** Total of Both Approaches (VPH) = **1803**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Stoddard Wells Road** High Volume Approach (VPH) = **1022**
Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	OYC NP (2028)
				CALC IA	DATE 06/24/25
Jurisdiction: Town of Apple Valley				CHK IA	DATE 06/24/25
Major Street: Stoddard Wells Rd.				Critical Approach Speed (Major)	55 mph
Minor Street: Wrangler Rd.				Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **29,612** vpd Minor Street Future ADT = **2,190** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ..... √

or

In built up area of isolated community of < 10,000 population .....

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT: Vehicles Per Day on Major Street (Total of Both Approaches)		Minimum Requirements EADT: Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
	Urban	Rural	Urban	Rural
CONDITION A - Minimum Vehicular Volume				
Satisfied: XX / Not Satisfied: RURAL XX				
Number of lanes for moving traffic on each approach				
Major Street: 1 **29,612** / Minor Street: 1 **2,190**	8,000	5,600 *	2,400	1,680 *
2 + / 1	9,600	6,720	2,400	1,680
2 + / 2 +	9,600	6,720	3,200	2,240
1 / 2 +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied: XX / Not Satisfied				
Number of lanes for moving traffic on each approach				
Major Street: 1 **29,612** / Minor Street: 1 **2,190**	12,000	8,400 *	1,200	850 *
2 + / 1	14,400	10,080	1,200	850
2 + / 2 +	14,400	10,080	1,600	1,120
1 / 2 +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied: XX / Not Satisfied	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ..... A: 100% B: 100%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

APPENDIX 5.4:

OYC (2028) WITHOUT PROJECT OFF-RAMP QUEUES

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Intersection	
Int Delay, s/veh	2.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	138	0	4	633	1	5
Future Vol, veh/h	138	0	4	633	1	5
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	72	72	72	72	72	72
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	192	0	6	879	1	7

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	455	445	0	0	885	0
Stage 1	445	-	-	-	-	-
Stage 2	10	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	567	617	-	-	773	-
Stage 1	650	-	-	-	-	-
Stage 2	1018	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	566	617	-	-	773	-
Mov Cap-2 Maneuver	566	-	-	-	-	-
Stage 1	650	-	-	-	-	-
Stage 2	1017	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	14.58	0	1.61
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	566	300	-
HCM Lane V/C Ratio	-	-	0.339	0.002	-
HCM Ctrl Dly (s/v)	-	-	14.6	9.7	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	1.5	0	-

Intersection	
Int Delay, s/veh	4711.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	91	74	27	645	55	2	53	52	1528	2	24
Future Vol, veh/h	6	91	74	27	645	55	2	53	52	1528	2	24
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	8	117	95	35	827	71	3	68	67	1959	3	31

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	897	0	0	212	0	0	1077	1146	164	1097	1158	862
Stage 1	-	-	-	-	-	-	179	179	-	931	931	-
Stage 2	-	-	-	-	-	-	897	967	-	166	227	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	765	-	-	1371	-	-	198	201	886	~ 192	198	358
Stage 1	-	-	-	-	-	-	827	755	-	~ 323	348	-
Stage 2	-	-	-	-	-	-	337	335	-	~ 841	720	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	765	-	-	1371	-	-	168	188	886	~ 109	185	358
Mov Cap-2 Maneuver	-	-	-	-	-	-	168	188	-	~ 109	185	-
Stage 1	-	-	-	-	-	-	817	746	-	~ 306	330	-
Stage 2	-	-	-	-	-	-	290	318	-	~ 698	712	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.34	0.29	26.21	$ 7755.92
HCM LOS			D	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	304	58	-	-	66	-	-	110
HCM Lane V/C Ratio	0.451	0.01	-	-	0.025	-	-	18.075
HCM Ctrl Dly (s/v)	26.2	9.8	0	-	7.7	0	-	$ 7755.9
HCM Lane LOS	D	A	A	-	A	A	-	F
HCM 95th %tile Q(veh)	2.2	0	-	-	0.1	-	-	238.4

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

Intersection	
Int Delay, s/veh	5.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	129	2	2	1561	2	3
Future Vol, veh/h	129	2	2	1561	2	3
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	69	69	69	69	69	69
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	187	3	3	2262	3	4

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1144	1134	0	0	2265	0
Stage 1	1134	-	-	-	-	-
Stage 2	10	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	223	249	-	-	229	-
Stage 1	310	-	-	-	-	-
Stage 2	1018	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	220	249	-	-	229	-
Mov Cap-2 Maneuver	220	-	-	-	-	-
Stage 1	310	-	-	-	-	-
Stage 2	1005	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	75.51	0	8.37
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	221	228	-
HCM Lane V/C Ratio	-	-	0.861	0.013	-
HCM Ctrl Dly (s/v)	-	-	75.5	20.9	0
HCM Lane LOS	-	-	F	C	A
HCM 95th %tile Q(veh)	-	-	6.7	0	-

Intersection	
Int Delay, s/veh	56.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	112	73	58	1594	60	5	67	49	975	1	11
Future Vol, veh/h	2	112	73	58	1594	60	5	67	49	975	1	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	147	96	76	2097	79	7	88	64	1283	1	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	2176	0	0	243	0	0	2451	2530	195	2486	2538	2137
Stage 1	-	-	-	-	-	-	201	201	-	2289	2289	-
Stage 2	-	-	-	-	-	-	2251	2329	-	197	249	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	248	-	-	1335	-	-	21	~ 28	851	~ 20	28	63
Stage 1	-	-	-	-	-	-	806	739	-	~ 53	75	-
Stage 2	-	-	-	-	-	-	56	~ 72	-	~ 810	704	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	248	-	-	1335	-	-	16	~ 28	851	-	27	63
Mov Cap-2 Maneuver	-	-	-	-	-	-	16	~ 28	-	-	27	-
Stage 1	-	-	-	-	-	-	796	730	-	~ 53	75	-
Stage 2	-	-	-	-	-	-	42	~ 72	-	~ 650	696	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.21	0.27	$ 1405.58	
HCM LOS			F	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	43	18	-	-	~ 61	-	-	-
HCM Lane V/C Ratio	3.693	0.011	-	-	0.057	-	-	-
HCM Ctrl Dly (s/v)	$ 1405.6	19.7	0	-	7.9	0	-	-
HCM Lane LOS	F	C	A	-	A	A	-	-
HCM 95th %tile Q(veh)	17.9	0	-	-	0.2	-	-	-

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

APPENDIX 5.5:

OYC (2028) WITH PROJECT OFF-RAMP QUEUES

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Intersection	
Int Delay, s/veh	3.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	181	0	4	687	1	5
Future Vol, veh/h	181	0	4	687	1	5
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	72	72	72	72	72	72
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	251	0	6	954	1	7

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	492	483	0	0	960	0
Stage 1	483	-	-	-	-	-
Stage 2	10	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	539	588	-	-	725	-
Stage 1	625	-	-	-	-	-
Stage 2	1018	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	538	588	-	-	725	-
Mov Cap-2 Maneuver	538	-	-	-	-	-
Stage 1	625	-	-	-	-	-
Stage 2	1017	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	17.41	0	1.66
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	538	300	-
HCM Lane V/C Ratio	-	-	0.467	0.002	-
HCM Ctrl Dly (s/v)	-	-	17.4	10	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	2.5	0	-

Intersection	
Int Delay, s/veh	7533.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	136	74	28	699	69	2	53	55	1663	2	24
Future Vol, veh/h	6	136	74	28	699	69	2	53	55	1663	2	24
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	8	174	95	36	896	88	3	68	71	2132	3	31

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	985	0	0	269	0	0	1206	1294	222	1236	1297	940
Stage 1	-	-	-	-	-	-	237	237	-	1012	1012	-
Stage 2	-	-	-	-	-	-	969	1056	-	224	285	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	710	-	-	1306	-	-	162	164	823	~ 154	163	322
Stage 1	-	-	-	-	-	-	771	713	-	~ 291	319	-
Stage 2	-	-	-	-	-	-	307	304	-	~ 783	680	-
Platoon blocked, %	1	2	1	2	2	2	1	2	2	2	1	1
Mov Cap-1 Maneuver	710	-	-	1306	-	-	133	152	823	~ 75	151	322
Mov Cap-2 Maneuver	-	-	-	-	-	-	133	152	-	~ 75	151	-
Stage 1	-	-	-	-	-	-	761	703	-	~ 273	300	-
Stage 2	-	-	-	-	-	-	259	286	-	~ 639	671	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.28	0.28	35.17	$ 12535.2
HCM LOS			E	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	255	47	-	-	62	-	-	76
HCM Lane V/C Ratio	0.552	0.011	-	-	0.027	-	-	28.63
HCM Ctrl Dly (s/v)	35.2	10.1	0	-	7.8	0	-	$ 12535.2
HCM Lane LOS	E	B	A	-	A	A	-	F
HCM 95th %tile Q(veh)	3	0	-	-	0.1	-	-	264.3

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

Intersection	
Int Delay, s/veh	12.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	150	2	2	1684	2	3
Future Vol, veh/h	150	2	2	1684	2	3
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	69	69	69	69	69	69
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	217	3	3	2441	3	4

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1233	1223	0	0	2443	0
Stage 1	1223	-	-	-	-	-
Stage 2	10	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	~ 197	221	-	-	195	-
Stage 1	281	-	-	-	-	-
Stage 2	1018	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 194	221	-	-	195	-
Mov Cap-2 Maneuver	~ 194	-	-	-	-	-
Stage 1	281	-	-	-	-	-
Stage 2	1003	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	155.03	0	9.5
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	194	194	-
HCM Lane V/C Ratio	-	-	1.133	0.015	-
HCM Ctrl Dly (s/v)	-	-	155	23.7	0
HCM Lane LOS	-	-	F	C	A
HCM 95th %tile Q(veh)	-	-	10.8	0	-

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

Intersection	
Int Delay, s/veh	84.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	134	73	61	1719	100	5	67	50	1043	1	11
Future Vol, veh/h	2	134	73	61	1719	100	5	67	50	1043	1	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	176	96	80	2262	132	7	88	66	1372	1	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	2393	0	0	272	0	0	2653	2784	224	2714	2766	2328
Stage 1	-	-	-	-	-	-	230	230	-	2488	2488	-
Stage 2	-	-	-	-	-	-	2423	2554	-	226	278	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	204	-	-	1303	-	-	15	~ 19	820	~ 14	20	48
Stage 1	-	-	-	-	-	-	778	718	-	~ 40	59	-
Stage 2	-	-	-	-	-	-	44	~ 55	-	~ 782	684	-
Platoon blocked, %		2	-	2	2	2	2	2		2		
Mov Cap-1 Maneuver	204	-	-	1303	-	-	10	~ 19	820	-	19	48
Mov Cap-2 Maneuver	-	-	-	-	-	-	10	~ 19	-	-	19	-
Stage 1	-	-	-	-	-	-	766	707	-	~ 40	59	-
Stage 2	-	-	-	-	-	-	30	~ 55	-	~ 620	674	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.22	0.26	$ 2257.58	
HCM LOS			F	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	30	16	-	-	~ 58	-	-	-
HCM Lane V/C Ratio	5.426	0.013	-	-	0.062	-	-	-
HCM Ctrl Dly (s/v)	$ 2257.6	22.9	0	-	7.9	0	-	-
HCM Lane LOS	F	C	A	-	A	A	-	-
HCM 95th %tile Q(veh)	19.5	0	-	-	0.2	-	-	-

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

APPENDIX 5.6:

OYC (2028) WITH PROJECT INTERSECTION ANALYSIS WITH IMPROVEMENTS

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Intersection	
Int Delay, s/veh	2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	181	0	4	687	1	5
Future Vol, veh/h	181	0	4	687	1	5
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	-	-	0	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	251	0	6	954	1	7

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	15	6	0	0	960	0
Stage 1	6	-	-	-	-	-
Stage 2	10	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	1008	1083	-	-	725	-
Stage 1	1023	-	-	-	-	-
Stage 2	1018	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	1007	1083	-	-	725	-
Mov Cap-2 Maneuver	1007	-	-	-	-	-
Stage 1	1023	-	-	-	-	-
Stage 2	1017	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	9.76	0	1.66
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1007	300	-
HCM Lane V/C Ratio	-	-	0.25	0.002	-
HCM Ctrl Dly (s/v)	-	-	9.8	10	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	1	0	-

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	35	38	687	181	5
Future Vol, veh/h	4	35	38	687	181	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	63	63	63	63	63	63
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	6	56	60	1090	287	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1151	0	-	0	129	60
Stage 1	-	-	-	-	60	-
Stage 2	-	-	-	-	68	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	614	-	-	-	871	1011
Stage 1	-	-	-	-	967	-
Stage 2	-	-	-	-	960	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	614	-	-	-	861	1011
Mov Cap-2 Maneuver	-	-	-	-	861	-
Stage 1	-	-	-	-	957	-
Stage 2	-	-	-	-	960	-

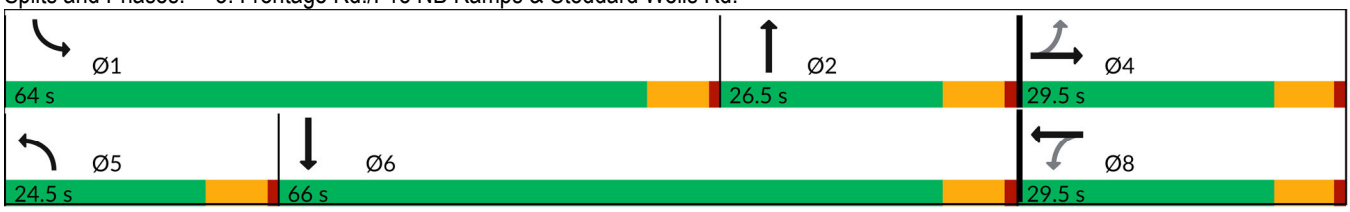
Approach	EB	WB	SB
HCM Ctrl Dly, s/v	1.12	0	11.31
HCM LOS			B

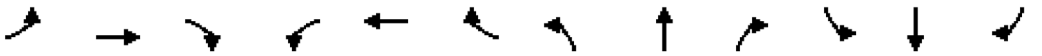
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	185	-	-	-	865
HCM Lane V/C Ratio	0.01	-	-	-	0.341
HCM Ctrl Dly (s/v)	10.9	0	-	-	11.3
HCM Lane LOS	B	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	1.5

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	6	136	28	699	2	53	1663	2
Future Volume (vph)	6	136	28	699	2	53	1663	2
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5
Total Split (s)	29.5	29.5	29.5	29.5	24.5	26.5	64.0	66.0
Total Split (%)	24.6%	24.6%	24.6%	24.6%	20.4%	22.1%	53.3%	55.0%
Yellow Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None
Act Effct Green (s)	23.0	23.0	23.0	23.0	10.0	11.4	57.5	33.2
Actuated g/C Ratio	0.21	0.21	0.21	0.21	0.09	0.10	0.52	0.30
v/c Ratio	0.11	0.55	0.18	1.00	0.01	0.52	0.99	0.05
Control Delay (s/veh)	41.8	42.2	40.5	76.4	47.5	41.0	46.6	9.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	41.8	42.2	40.5	76.4	47.5	41.0	46.6	9.2
LOS	D	D	D	E	D	D	D	A
Approach Delay (s/veh)		42.2		75.2		41.1		46.0
Approach LOS		D		E		D		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 111.5	
Natural Cycle: 140	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.00	
Intersection Signal Delay (s/veh): 53.8	Intersection LOS: D
Intersection Capacity Utilization 92.1%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 3: Frontage Rd./I-15 NB Ramps & Stoddard Wells Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	136	74	28	699	69	2	53	55	1663	2	24
Future Volume (veh/h)	6	136	74	28	699	69	2	53	55	1663	2	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.04	1.04	1.00	1.04	1.04	1.00	1.04	1.04	1.04	1.04	1.04
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1976	1976	1800	1976	1976	1900	1976	1976	1872	1976	1976
Adj Flow Rate, veh/h	7	148	42	30	760	37	2	58	30	1808	2	13
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	76	316	90	220	798	39	10	106	55	1852	137	889
Arrive On Green	0.32	0.32	0.32	0.32	0.32	0.32	0.01	0.13	0.13	0.78	0.90	0.60
Sat Flow, veh/h	656	1480	420	1148	3737	182	1810	1227	635	3566	228	1481
Grp Volume(v), veh/h	7	0	190	30	402	395	2	0	88	1808	0	15
Grp Sat Flow(s),veh/h/ln	656	0	1900	1148	1976	1943	1810	0	1862	1783	0	1709
Q Serve(g_s), s	1.1	0.0	8.6	2.3	21.4	21.4	0.1	0.0	4.8	50.4	0.0	0.3
Cycle Q Clear(g_c), s	22.6	0.0	8.6	11.0	21.4	21.4	0.1	0.0	4.8	50.4	0.0	0.3
Prop In Lane	1.00		0.22	1.00		0.09	1.00		0.34	1.00		0.87
Lane Grp Cap(c), veh/h	76	0	406	220	422	415	10	0	160	1852	0	1026
V/C Ratio(X)	0.09	0.00	0.47	0.14	0.95	0.95	0.20	0.00	0.55	0.98	0.00	0.01
Avail Cap(c_a), veh/h	76	0	406	220	422	415	302	0	346	1903	0	1026
HCM Platoon Ratio	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	47.1	0.0	31.7	36.1	36.1	36.1	53.2	0.0	44.9	11.3	0.0	7.8
Incr Delay (d2), s/veh	0.5	0.0	0.8	0.3	31.7	32.2	10.0	0.0	2.9	15.2	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	3.7	0.6	12.4	12.2	0.1	0.0	2.3	12.5	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	47.6	0.0	32.6	36.4	67.8	68.3	63.2	0.0	47.8	26.5	0.0	7.8
LnGrp LOS	D		C	D	E	E	E		D	C		A
Approach Vol, veh/h		197			827			90			1823	
Approach Delay, s/veh		33.1			66.9			48.2			26.4	
Approach LOS		C			E			D			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	62.4	15.8		29.5	7.1	71.1		29.5				
Change Period (Y+Rc), s	6.5	6.5		6.5	6.5	6.5		6.5				
Max Green Setting (Gmax), s	57.5	20.0		23.0	18.0	59.5		23.0				
Max Q Clear Time (g_c+I1), s	52.4	6.8		24.6	2.1	2.3		23.4				
Green Ext Time (p_c), s	3.5	0.3		0.0	0.0	0.1		0.0				

Intersection Summary												
HCM 7th Control Delay, s/veh			38.9									
HCM 7th LOS			D									

Intersection	
Int Delay, s/veh	0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	150	2	2	1684	2	3
Future Vol, veh/h	150	2	2	1684	2	3
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	-	-	0	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	69	69	69	69	69	69
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	217	3	3	2441	3	4

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	13	3	0	0	2443	0
Stage 1	3	-	-	-	-	-
Stage 2	10	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	1011	1087	-	-	195	-
Stage 1	1026	-	-	-	-	-
Stage 2	1018	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	996	1087	-	-	195	-
Mov Cap-2 Maneuver	996	-	-	-	-	-
Stage 1	1026	-	-	-	-	-
Stage 2	1003	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	9.63	0	9.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	997	194	-
HCM Lane V/C Ratio	-	-	0.221	0.015	-
HCM Ctrl Dly (s/v)	-	-	9.6	23.7	0
HCM Lane LOS	-	-	A	C	A
HCM 95th %tile Q(veh)	-	-	0.8	0	-

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	16	56	64	1669	152	1
Future Vol, veh/h	16	56	64	1669	152	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	62	62	62	62	62	62
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	26	90	103	2692	245	2

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	2795	0	-	0	245	103
Stage 1	-	-	-	-	103	-
Stage 2	-	-	-	-	142	-
Critical Hdwy	4	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	153	-	-	-	748	957
Stage 1	-	-	-	-	926	-
Stage 2	-	-	-	-	890	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	153	-	-	-	615	957
Mov Cap-2 Maneuver	-	-	-	-	615	-
Stage 1	-	-	-	-	761	-
Stage 2	-	-	-	-	890	-

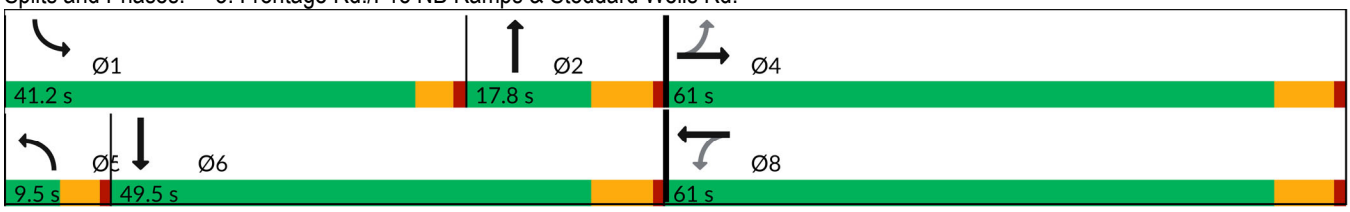
Approach	EB	WB	SB
HCM Ctrl Dly, s/v	7.39	0	14.69
HCM LOS			B

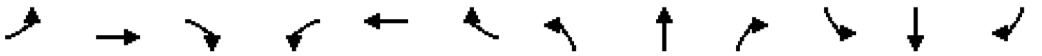
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	145	-	-	-	616
HCM Lane V/C Ratio	0.169	-	-	-	0.4
HCM Ctrl Dly (s/v)	33.3	0	-	-	14.7
HCM Lane LOS	D	A	-	-	B
HCM 95th %tile Q(veh)	0.6	-	-	-	1.9

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	2	134	61	1719	5	67	1043	1
Future Volume (vph)	2	134	61	1719	5	67	1043	1
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	24.5	24.5	24.5	24.5	9.5	16.5	9.5	16.5
Total Split (s)	61.0	61.0	61.0	61.0	9.5	17.8	41.2	49.5
Total Split (%)	50.8%	50.8%	50.8%	50.8%	7.9%	14.8%	34.3%	41.3%
Yellow Time (s)	5.5	5.5	5.5	5.5	3.5	5.5	3.5	5.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	6.5	6.5	4.5	6.5	4.5	6.5
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None
Act Effct Green (s)	54.5	54.5	54.5	54.5	5.0	10.8	36.7	25.0
Actuated g/C Ratio	0.46	0.46	0.46	0.46	0.04	0.09	0.31	0.21
v/c Ratio	0.03	0.25	0.14	1.08	0.07	0.66	1.05	0.03
Control Delay (s/veh)	20.5	18.1	20.0	76.7	57.2	59.4	80.5	12.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	20.5	18.1	20.0	76.7	57.2	59.4	80.5	12.0
LOS	C	B	C	E	E	E	F	B
Approach Delay (s/veh)		18.1		74.9		59.3		79.7
Approach LOS		B		E		E		E

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 119.5	
Natural Cycle: 150	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.08	
Intersection Signal Delay (s/veh): 72.2	Intersection LOS: E
Intersection Capacity Utilization 102.4%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 3: Frontage Rd./I-15 NB Ramps & Stoddard Wells Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	134	73	61	1719	100	5	67	50	1043	1	11
Future Volume (veh/h)	2	134	73	61	1719	100	5	67	50	1043	1	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.04	1.04	1.00	1.04	1.04	1.00	1.04	1.00	1.04	1.04	1.04
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1800	1976	1976	1800	1976	1976	1900	1976	1900	1872	1976	1976
Adj Flow Rate, veh/h	2	146	79	66	1868	55	5	73	21	1134	1	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	61	556	301	609	1761	52	12	119	34	1107	133	532
Arrive On Green	0.69	0.69	0.69	0.69	0.92	0.69	0.01	0.12	0.12	0.62	0.58	0.58
Sat Flow, veh/h	265	1206	653	1321	3820	112	1810	1475	424	3566	345	1382
Grp Volume(v), veh/h	2	0	225	66	962	961	5	0	94	1134	0	5
Grp Sat Flow(s),veh/h/ln	265	0	1859	1321	1976	1956	1810	0	1900	1783	0	1727
Q Serve(g_s), s	0.0	0.0	5.4	2.4	54.5	54.5	0.3	0.0	5.6	36.7	0.0	0.1
Cycle Q Clear(g_c), s	54.5	0.0	5.4	7.8	54.5	54.5	0.3	0.0	5.6	36.7	0.0	0.1
Prop In Lane	1.00		0.35	1.00		0.06	1.00		0.22	1.00		0.80
Lane Grp Cap(c), veh/h	61	0	857	609	911	901	12	0	153	1107	0	664
V/C Ratio(X)	0.03	0.00	0.26	0.11	1.06	1.07	0.43	0.00	0.61	1.02	0.00	0.01
Avail Cap(c_a), veh/h	61	0	857	609	911	901	77	0	182	1107	0	664
HCM Platoon Ratio	1.50	1.50	1.50	1.50	2.00	1.50	1.50	1.50	1.50	2.00	1.50	1.50
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	45.5	0.0	10.7	12.1	4.6	5.4	58.3	0.0	50.2	22.4	0.0	15.4
Incr Delay (d2), s/veh	0.2	0.0	0.2	0.1	45.7	49.3	23.3	0.0	4.4	33.5	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	2.0	0.6	13.6	14.7	0.2	0.0	2.8	14.9	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	45.7	0.0	10.8	12.2	50.3	54.7	81.7	0.0	54.6	55.9	0.0	15.4
LnGrp LOS	D		B	B	F	F	F		D	F		B
Approach Vol, veh/h		227			1989			99			1139	
Approach Delay, s/veh		11.1			51.2			56.0			55.7	
Approach LOS		B			D			E			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	41.2	16.0		61.0	5.3	52.0		61.0				
Change Period (Y+Rc), s	4.5	6.5		6.5	4.5	6.5		6.5				
Max Green Setting (Gmax), s	36.7	11.3		54.5	5.0	43.0		54.5				
Max Q Clear Time (g_c+I1), s	38.7	7.6		56.5	2.3	2.1		56.5				
Green Ext Time (p_c), s	0.0	0.1		0.0	0.0	0.0		0.0				

Intersection Summary			
HCM 7th Control Delay, s/veh		50.2	
HCM 7th LOS		D	

APPENDIX 5.7:

OYC (2028) WITH PROJECT OFF-RAMP QUEUES WITH IMPROVEMENTS

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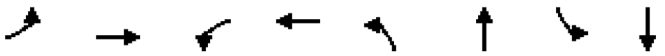
Intersection	
Int Delay, s/veh	2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	181	0	4	687	1	5
Future Vol, veh/h	181	0	4	687	1	5
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	-	-	0	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	251	0	6	954	1	7

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	15	6	0	0	960	0
Stage 1	6	-	-	-	-	-
Stage 2	10	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	1008	1083	-	-	725	-
Stage 1	1023	-	-	-	-	-
Stage 2	1018	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	1007	1083	-	-	725	-
Mov Cap-2 Maneuver	1007	-	-	-	-	-
Stage 1	1023	-	-	-	-	-
Stage 2	1017	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	9.76	0	1.66
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1007	300	-
HCM Lane V/C Ratio	-	-	0.25	0.002	-
HCM Ctrl Dly (s/v)	-	-	9.8	10	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	1	0	-



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	7	228	30	835	2	118	1808	28
v/c Ratio	0.11	0.55	0.18	1.00	0.01	0.52	0.99	0.05
Control Delay (s/veh)	41.8	42.2	40.5	76.4	47.5	41.0	46.6	9.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	41.8	42.2	40.5	76.4	47.5	41.0	46.6	9.2
Queue Length 50th (ft)	4	132	18	294	1	55	601	0
Queue Length 95th (ft)	18	223	47	#453	10	114	#845	14
Internal Link Dist (ft)		809		1992		899		1124
Turn Bay Length (ft)	100		150					
Base Capacity (vph)	64	412	166	832	291	366	1823	998
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.55	0.18	1.00	0.01	0.32	0.99	0.03

Intersection Summary

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

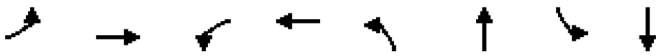
Intersection	
Int Delay, s/veh	0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	150	2	2	1684	2	3
Future Vol, veh/h	150	2	2	1684	2	3
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	-	-	0	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	69	69	69	69	69	69
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	217	3	3	2441	3	4

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	13	3	0	0	2443	0
Stage 1	3	-	-	-	-	-
Stage 2	10	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	1011	1087	-	-	195	-
Stage 1	1026	-	-	-	-	-
Stage 2	1018	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	996	1087	-	-	195	-
Mov Cap-2 Maneuver	996	-	-	-	-	-
Stage 1	1026	-	-	-	-	-
Stage 2	1003	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	9.63	0	9.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	997	194	-
HCM Lane V/C Ratio	-	-	0.221	0.015	-
HCM Ctrl Dly (s/v)	-	-	9.6	23.7	0
HCM Lane LOS	-	-	A	C	A
HCM 95th %tile Q(veh)	-	-	0.8	0	-



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	2	225	66	1977	5	127	1134	13
v/c Ratio	0.03	0.25	0.14	1.08	0.07	0.66	1.05	0.03
Control Delay (s/veh)	20.5	18.1	20.0	76.7	57.2	59.4	80.5	12.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	20.5	18.1	20.0	76.7	57.2	59.4	80.5	12.0
Queue Length 50th (ft)	1	90	29	~856	4	78	~478	1
Queue Length 95th (ft)	6	145	59	#990	18	#153	#606	15
Internal Link Dist (ft)		809		1997		899		1124
Turn Bay Length (ft)	100		150					
Base Capacity (vph)	59	891	481	1838	75	201	1085	663
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.25	0.14	1.08	0.07	0.63	1.05	0.02

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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