

APPENDIX 1.1: TRAFFIC STUDY SCOPING AGREEMENT

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MINAGAR & ASSOCIATES, INC.

Traffic Engineering – Transportation Planning – Intelligent Transportation Systems (ITS) – Civil/Electrical Engineering & CEM Consultants



June 30, 2022

Mr. Jeff Hart, PE
Public Works Director
City of Beaumont
550 East Sixth Street
Beaumont, CA 92223

Subject: TO#69 – PW2022-0874 2nd/Final Review of Scoping Agreement for Orchard Logistics Center dated June 9, 2022, Beaumont, CA

Dear Mr. Hart,

We have completed our 2nd/Final review of TO#69 – PW2022-0874 Scoping Agreement for Orchard Logistics Center dated June 9, 2022, we have the following remaining comment:

- The title of “ATTACHMENT A” is inaccurate. “CITY OF FONTANA COMMENTS” must be changed to “CITY OF BEAUMONT.”

By correcting the above item, the traffic consultant can proceed with the project and there will be no need to resubmit the Scoping Agreement for the 3rd review.

Should you have any questions, I can be contacted conveniently via e-mail at minagarf@minagrinc.com.

Thank you.

Sincerely,

MINAGAR & ASSOCIATES, INC.
(A California Corporation)

Fred Minagar, MS, RCE, PE, FITE
President/Contract City Traffic Engineer



June 9, 2022

Mr. Jeff Hart
City of Beaumont
550 E. Sixth Street
Beaumont, CA 92223

ORCHARD LOGISTICS (PW2022-0874) RESPONSE TO COMMENTS

Mr. Jeff Hart,

This Response to Comments letter has been prepared for the Orchard Logistics Scoping Agreement (dated April 26, 2022), which is located at the northwestern terminus of Nicholas Road in the City of Beaumont. A copy of the City's traffic consultant's comments dated May 20, 2022, are provided in Attachment A.

COMMENT #1

A VMT Assessment is required for this project per the City of Beaumont SB743/VMT Thresholds for CEQA Compliance Related to Transportation Analysis (Beaumont City Council ratified on June 16, 2020).

RESPONSE #1

Comment noted. VMT analysis will be conducted per the City's Guidelines and will be submitted under separate cover for review.

COMMENT #2

On Exhibits 3 & 4 Project Trip Distribution for passenger cars and trucks respectively, while in agreement with the "out" percentages, the "in" percentages out to be very similar.

RESPONSE #2

Inbound trip distribution has been updated to match the outbound trip distribution percentages.

COMMENT #3

While the proposed project trip generation rates and methodologies are acceptable, some of the figures shown on Table 2 Project Trio Generation Summary are wrong and they have to be recalculated and resubmitted. Furthermore, the project's trip generation total for daily, AM & PM were taken from another report, and they have to be presented accurately.

RESPONSE #3

All calculations in Table 2 have been verified. As noted in the text, the Project trip generation assumes 61,000 square feet (10% of the overall square footage) will be evaluated as high-cube cold storage warehousing use with the remaining square footage of 549,000 square feet being evaluated as high-cube fulfillment warehouse use (total of 610,000 square feet). The total values have been updated with bold face text in Table 2 and is the sum of the high-cube cold storage and fulfillment uses. Trip generation referenced in the text match the values in table 2

COMMENT #4

For the Analysis Scenarios on Page 3 of 11, under the second bullet item, the description should be corrected to: Existing Plus Project.

RESPONSE #4

Analysis scenario has been corrected to reflect Existing plus Project.

COMMENT #5

For the Analysis Scenarios on Page 3 of 11, the following two (2) new scenarios must be added: Horizon Year (2045) Without Project & Horizon Year (2045) With Project.

RESPONSE #5

Additional long-range analysis scenarios have been added at the City's request. The RIVCOM traffic model will be used to derive the Horizon Year (2045) Without Project traffic forecasts. Project traffic will then be manually added to develop Horizon Year (2045) With Project conditions.

COMMENT #6

On Page 9 of 11, under Special Issues, 3rd bullet item, the proposed queuing analyses for Perry Street and Perris Blvd, is for another project (Amazon fulfillment Center in the City of Perris), the affected frontages of Orchard Logistics Center must be analyzed.

RESPONSE #6

Third bullet item has been updated to reference the Project driveways at the terminus of both Distribution Way and Nicholas Road.

COMMENT #7

Consult with the City's Planning Division for the inclusion of the following Cumulative Development Projects on Table 4 for including in the report:

- Sundance: 4,450 DUs
- Four Seasons Tract No. 32260 & 33069: 1,890 DUs
- Sundance Corporate Center: 13.60 AC of Commercial/Industrials
- Noble Creek Estates: The remaining DUs
- San Gorgonio Village Phase 2: 22.50 AC of Commercial

- Beyond Beaumont: 6.589 TSF of Commercial

RESPONSE #7

We will reach out to Planning to obtain any updated cumulative projects for inclusion in the traffic study. However, the previous list has been updated to include additional projects. However, please see the following additional responses:

- Sundance: it appears most of this Specific Plan has been developed with the exception of the Altis by TriPointe Homes development.
- Four Seasons Tract No. 32260 & 33069: This Specific Plan is built out.
- Sundance Corporate Center: We will confirm the remaining development as it appears 130,000 square feet of the center has been constructed.
- Noble Creek Estates: assuming all dwelling units (648 dwelling units).
- San Gorgonio Village Phase 2: appears to be built out.
- Beyond Beaumont: included on our current list

If you have any questions or comments, I can be reached at (949) 861-0177.

Respectfully submitted,

URBAN CROSSROADS, INC.



Charlene So, PE
Principal

ATTACHMENT A
CITY OF BEAUMONT COMMENTS



MINAGAR & ASSOCIATES, INC.

Traffic Engineering – Transportation Planning – Intelligent Transportation Systems (ITS) – Civil/Electrical Engineering & CEM Consultants



May 20, 2022

Mr. Jeff Hart, PE
Public Works Director
City of Beaumont
550 East Sixth Street
Beaumont, CA 92223

Subject: TO#69 – PW2022-0874 1st Review of Scoping Agreement for Orchard Logistics Center dated April 26, 2022, Beaumont, CA

Dear Mr. Hart,

We have completed our 1st review of TO#69 – PW2022-0874 Scoping Agreement for Orchard Logistics Center dated April 26, 2022, we have the following comments:

1. A VMT Assessment is required for this project per the City of Beaumont SB743/VMT Thresholds for CEQA Compliance Related to Transportation Analysis (Beaumont City Council ratified on June 16, 2020).
2. On Exhibits 3 & 4 Project Trip Distribution for passenger cars and trucks respectively, while in agreement with the “out” percentages, the “in” percentages out to be very similar.
3. While the proposed project trip generation rates and methodologies are acceptable, some of the figures shown on Table 2 Project Trip Generation Summary are wrong and they have to be recalculated and resubmitted. Furthermore, the project’s trip generation total for daily, AM & PM were taken from another report and they have to be presented accurately.
4. For the Analysis Scenarios on Page 3 of 11, under the second bullet item, the description should be corrected to: Existing Plus Project.
5. For the Analysis Scenarios on Page 3 of 11, the following two (2) new scenarios must be added: Horizon Year (2045) Without Project & Horizon Year (2045) With Project.
6. On Page 9 of 11, under Special Issues, 3rd bullet item, the proposed queuing analyses for Perry Street and Perris Blvd, is for another project (Amazon fulfillment Center in the City of Perris), the affected frontages of Orchard Logistics Center must be analyzed.
7. Consult with the City’s Planning Division for the inclusion of the following Cumulative Development Projects on Table 4 for including in the report:
 - Sundance: 4,450 DUs
 - Four Seasons Tract No. 32260 & 33069: 1,890 DUs
 - Sundance Corporate Center: 13.60 AC of Commercial/Industrials
 - Noble Creek Estates: The remaining DUs
 - San Geronio Village Phase 2: 22.50 AC of Commercial
 - Beyond Beaumont: 6.589 TSF of Commercial



MINAGAR & ASSOCIATES, INC.

Traffic Engineering – Transportation Planning – Intelligent Transportation Systems (ITS) – Civil/Electrical Engineering & CEM Consultants



Should you have any questions, I can be contacted conveniently via e-mail at minagarf@minagrinc.com.

Thank you.

Sincerely,

MINAGAR & ASSOCIATES, INC.
(A California Corporation)

Fred Minagar, MS, RCE, PE, FITE
President/Contract City Traffic Engineer



Project Scoping Form

This scoping form shall be submitted to the Lead Agency to assist in identifying infrastructure improvements that may be required to support traffic from the proposed project.

Project Identification:

Case Number:	PW2022-0874
Related Cases:	
SP No.	
EIR No.	
GPA No.	
CZ No.	
Project Name:	Orchard Logisrics Center
Project Address:	north of Prosperity Way between DistributionRoad and Nicholas Road
Project Opening Year:	2025
Project Description:	610,000 SF warehous building (549,000 square feet of high-cube fulfillment center warehous use and 61,000 square feet of high-cube cold storage warehouse use)

	Consultant:	Developer:
Name:	Urban Crossroads - Charlene So	Orchard Logistics Venture, LLC
Address:	1133 Camelback St, #8329	3501 Jamboree Road, Suite 230
	Newport Beach, CA 92658	Newport Beach, CA 92660
Telephone:	949-861-0177	949-283-5713
Fax/Email:	cso@urbanxroads.com	

Trip Generation Information:

Trip Generation Data Source: ITE Trip Generation Manual (11th Edition), WSP (January 2019)

Current General Plan Land Use:

Industrial

Proposed General Plan Land Use:

Industrial

Current Zoning:

Manufacturing

Proposed Zoning:

Manufacturing

	Existing Trip Generation			Proposed Trip Generation (PCE)		
	In	Out	Total	In	Out	Total
AM Trips				63	29	92
PM Trips				38	78	116

Trip Internalization: ☐ Yes ☒ No (_____% Trip Discount)

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

Potential Screening Checks

Is your project screened from specific analyses (see Page 11 of the guidelines related to LOS assessment and Pages 24-26).

Is the project screened from LOS assessment? ☐ Yes ☒ No

LOS screening justification (see Page 11 of the guidelines): _____

Is the project screened from VMT assessment? ☐ Yes ☒ No

VMT screening justification (see Pages 24-26 of the guidelines): _____

Level of Service Scoping

- Proposed Trip Distribution (Attach Graphic for Detailed Distribution):

North	South	East	West
Varies %	Varies %	Varies %	Varies %

- Attach list of Approved and Pending Projects that need to be considered (provided by the lead agency and adjacent agencies)
- Attach list of study intersections/roadway segments
- Attach site plan
- Note other specific items to be addressed:
 - Site access
 - On-site circulation
 - Parking
 - Consistency with Plans supporting Bikes/Peds/Transit
 - Other _____
- Date of Traffic Counts New counts to be conducted once scoping agreement is approved
- Attach proposed analysis scenarios (years plus proposed forecasting approach)
- Attach proposed phasing approach (if the project is phased)

VMT Scoping

For projects that are not screened, identify the following:

- Travel Demand Forecasting Model Used RIVCOM
- Attach WRCOG Screening VMT Assessment output or describe why it is not appropriate for use
- Attach proposed Model Land Use Inputs and Assumed Conversion Factors (attach)

June 9, 2022

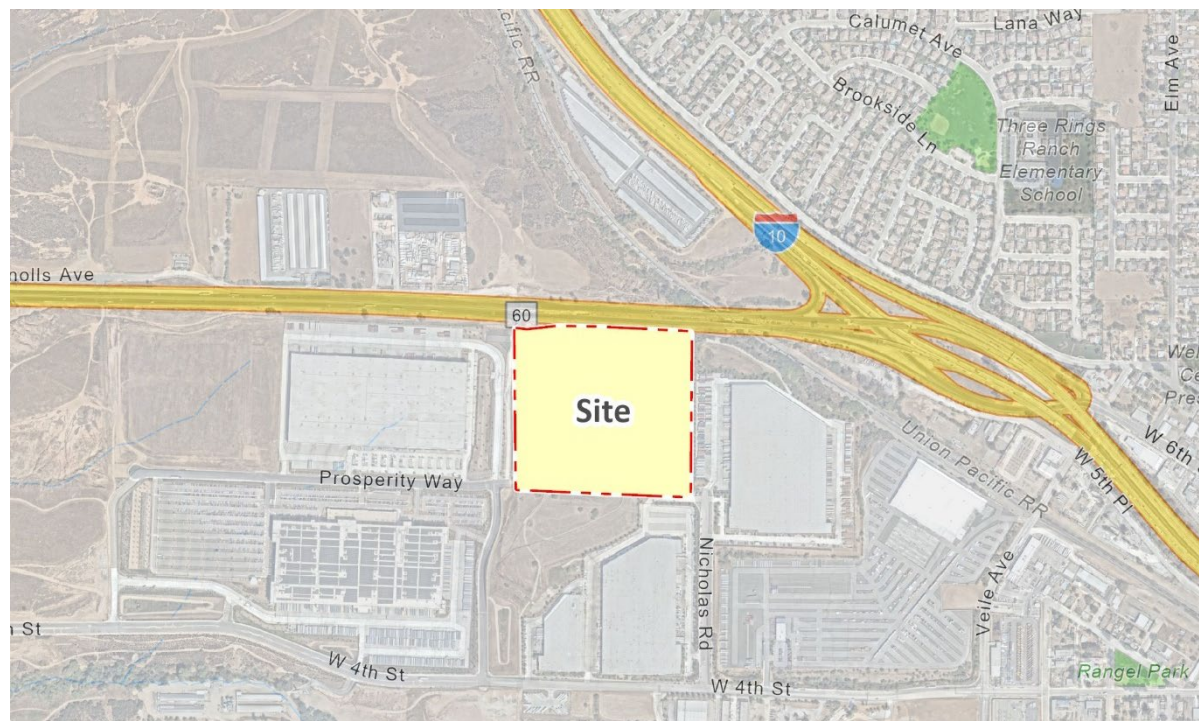
Mr. Jeff Hart
City of Beaumont
550 E. Sixth Street
Beaumont, CA 92223

ORCHARD LOGISTICS (PW2022-0874) SCOPING AGREEMENT (REVISED)

Mr. Jeff Hart,

Urban Crossroads, Inc. is pleased to submit this letter documenting the recommended scoping / assumptions for the proposed Orchard Logistics development (**Project**), which is located south of the SR-60 Freeway, north of 4th Street, and at the northern terminus of Nicolas Road in the City of Beaumont (see Exhibit 1). Our goal is to obtain comments from City of Beaumont staff, to ensure that the traffic study fully addresses the potential impacts of the proposed Project. The remainder of this letter describes the proposed analysis methodology, Project trip generation, and trip distribution, which have been used to establish the proposed Project study area and analysis locations.

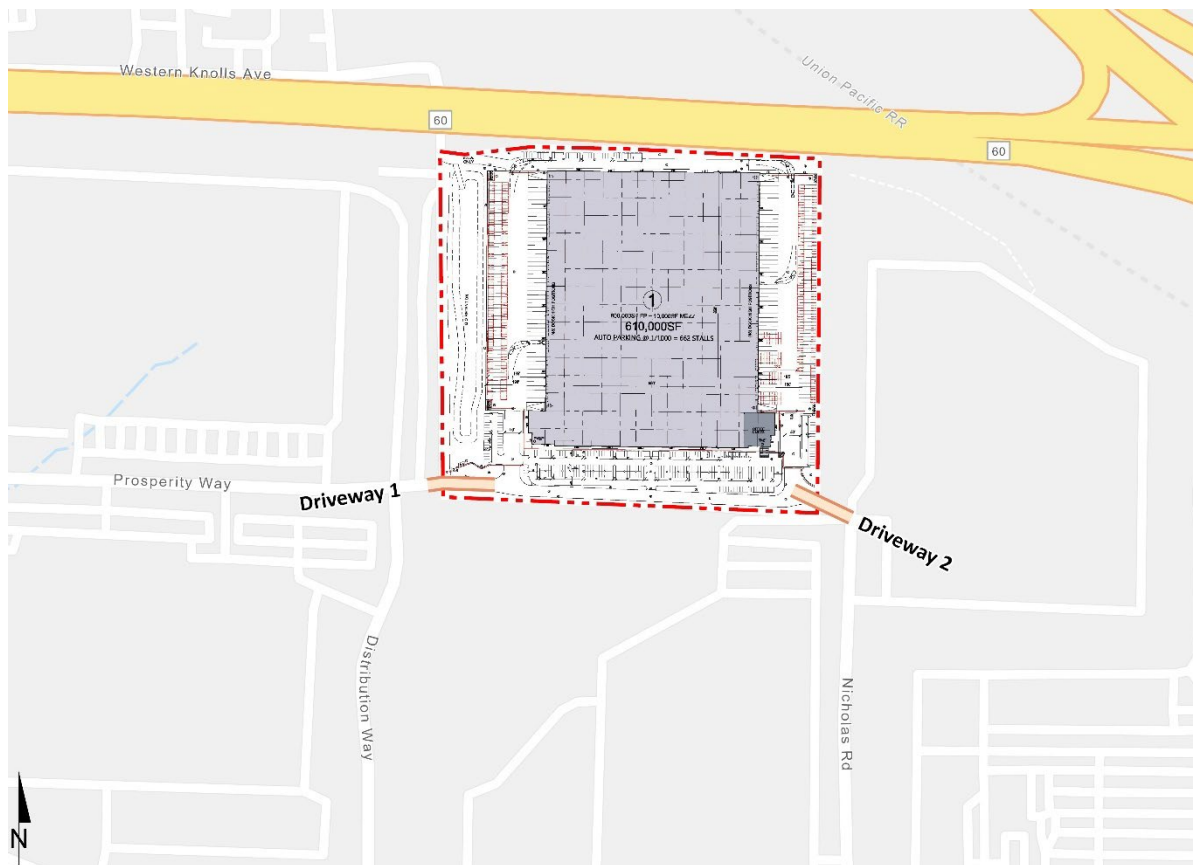
EXHIBIT 1: LOCATION MAP



PROPOSED PROJECT

The Project includes the development of 610,000 square foot warehouse use within a single building. For the purposes of the traffic assessment, the building has conservatively been evaluated assuming 10% high-cube cold storage warehousing use (61,000 square feet) and 90% high-cube fulfillment center warehousing use (549,000 square feet). The Project is anticipated to be constructed in one phase by the year 2025. A preliminary site plan of which the traffic study will be based on is shown on Exhibit 2. Truck access to the Project site would be accommodated via a primary driveway on the southeast corner at Nicolas Road (Driveway 2) with a secondary truck access to the intersection of Prosperity Way and Distribution Way (Driveway 1). Primary auto and emergency vehicle access will be accommodated via Driveway 1 (Prosperity Way at Distribution Way) and secondary access via Driveway 2 (at Nicholas Drive).

EXHIBIT 2: PRELIMINARY SITE PLAN



ANALYSIS SCENARIOS

Peak hour operations at each of the study area intersections and site access driveways will be assessed based on the HCM 6th Edition methodology for the following analysis scenarios:

- Existing (2020) Conditions
- Existing plus Project
- Opening Year Cumulative (2025) Without Project
- Opening Year Cumulative (2025) With Project
- Horizon Year (2045) Without Project – to be developed using RIVCOM Traffic Model
- Horizon Year (2045) With Project

PROJECT TRIP GENERATION

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) and the High Cube Warehouse Trip Generation Study (WSP, January 2019) were used to estimate the trip generation. For purposes of this analysis, the following land use codes and vehicle mixes have been utilized:

- High-Cube Fulfillment Center Warehouse has been used to derive site specific trip generation estimates for 549,000 square feet of the proposed Project. 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). While there is sufficient data to support use of the trip generation rates for non-sort facilities, the sort facility rate is unreliable (by ITE's standards) because the rates are based on limited data (i.e., one to two surveyed sites whereas ITE recommends a minimum of 3 site but preferably 5). The proposed Project is speculative and whether a non-sort or sort facility end-user would occupy the buildings is not known at this time. Lastly, the ITE Trip Generation Manual recommends the use of local data sources where available. As such, the best available source for high-cube fulfillment center use would be the trip-generation and vehicle mix statistics published in the High-Cube Warehouse Trip Generation Study (WSP, January 29, 2019) which was commissioned by the Western Riverside Council of Governments (WRCOG) in support of the Transportation Uniform Mitigation Fee (TUMF) update in the County of Riverside. The WSP trip generation rates were published in January 2019 and are based on data collected at 11 local high-cube fulfillment center sites located throughout Southern California (specifically Riverside County and San Bernardino County). However, the WSP study does not include a split for inbound and outbound vehicles, as such, the inbound and outbound splits per the ITE Trip Generation Manual for Land Use Code 154 have been utilized.
- ITE land use code 157 (High-Cube Cold Storage Warehouse) has been used to derive site specific trip generation estimates for up to 61,000 square feet of the proposed Project. 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 latest Trip Generation Manual. The truck percentages were further broken down by axle type per the following SCAQMD recommended truck mix: 2-Axle = 34.7%; 3-Axle = 11.0%; 4+-Axle = 54.3%.

As noted in Table 1, refinements to the raw trip generation estimates have been made to provide a more detailed breakdown of trips between passenger cars and trucks. Trip generation for heavy trucks was further broken down by truck type (or axle type). The total truck percentage is comprised of 3 different truck types: 2-axle, 3-axle, and 4+-axle trucks. Passenger Car Equivalent (PCE) factors were applied to the trip generation rates for heavy trucks (large 2-axes, 3-axes, 4+-axes). 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 City's guidelines.

TABLE 1: PROJECT TRIP GENERATION RATES

Land Use	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 Cold Storage Warehouse ^{1,3}	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
High-Cube Fulfillment Center Warehouse ⁴	TSF	--	0.089	0.033	0.122	0.050	0.115	0.165	2.129
Passenger Cars			0.079	0.024	0.103	0.040	0.104	0.144	1.750
2-4 Axle Trucks			0.004	0.004	0.008	0.005	0.006	0.011	0.162
5+-Axle Trucks			0.005	0.006	0.011	0.005	0.005	0.010	0.217
Passenger Car Equivalent (PCE) Trip Generation									
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
High-Cube Fulfillment Center Warehouse ⁴	TSF	--	0.089	0.033	0.122	0.050	0.115	0.165	2.129
Passenger Cars			0.079	0.024	0.103	0.040	0.104	0.144	1.750
2-4 Axle Trucks (PCE = 2.0)			0.008	0.008	0.016	0.010	0.012	0.022	0.324
5+-Axle Trucks (PCE = 3.0)			0.016	0.017	0.033	0.014	0.016	0.030	0.651

¹ Trip Generation & Vehicle Mix Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, Eleventh 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 % - With Cold Storage: 34.7% 2-Axle trucks, 11.0% 3-Axle trucks, 54.3% 4-Axle trucks.

⁴ Vehicle Mix Source: High Cube Warehouse Trip Generation Study, WSP, January 29, 2019.
Inbound and outbound split source: ITE Trip Generation Manual, Eleventh Edition (2021) for ITE Land Use Code 154.

The Project is estimated to generate a total of 1,304 two-way trips per day on a typical weekday with approximately 73 AM peak hour trips and 97 PM peak hour trips as shown in Table 2 (actual vehicles). For the purposes of the operations analysis, the PCE values shown in Table 2 will be utilized.

TABLE 2: PROJECT TRIP GENERATION SUMMARY

Land Use	Quantity Units ¹	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	
Actual Vehicles:								
High-Cube Cold Storage	61.000 TSF							
Passenger Cars:		5	0	5	1	4	5	84
2-axle Trucks:		0	0	0	0	0	0	16
3-axle Trucks:		0	0	0	0	0	0	6
4+-axle Trucks:		0	1	1	0	1	1	26
Total Truck Trips (Actual Vehicles):		0	1	1	0	1	1	48
Cold Storage Trips (Actual Vehicles) ²		5	1	6	1	5	6	132
High-Cube Fulfillment	549.000 TSF							
Passenger Cars:		44	13	57	22	57	79	962
2-4axle Trucks:		2	2	4	3	3	6	90
5+-axle Trucks:		3	3	6	3	3	6	120
Total Truck Trips (Actual Vehicles):		5	5	10	6	6	12	210
Fulfillment Trips (Actual Vehicles) ²		49	18	67	28	63	91	1,172
Passenger Cars		49	13	62	23	61	84	1,046
Trucks		5	6	11	6	7	13	258
Total Trips (Actual Vehicles) ²		54	19	73	29	68	97	1,304
Passenger Car Equivalent (PCE):								
High-Cube Cold Storage	61.000 TSF							
Passenger Cars:		5	0	5	1	4	5	84
2-axle Trucks:		0	1	1	0	0	0	24
3-axle Trucks:		0	0	0	0	0	0	10
4+-axle Trucks:		1	2	3	1	2	3	76
Total Truck Trips (PCE):		1	3	4	1	2	3	110
Cold Storage Trips (PCE) ²		6	3	9	2	6	8	194
High-Cube Fulfillment (WSP)	549.000 TSF							
Passenger Cars:		44	13	57	22	57	79	962
2-4axle Trucks:		4	4	8	6	6	12	178
5+-axle Trucks:		9	9	18	8	9	17	358
Total Truck Trips (PCE):		13	13	26	14	15	29	536
Total Trips (PCE) ²		57	26	83	36	72	108	1,498
Passenger Cars		49	13	62	23	61	84	1,046
Trucks		14	16	30	15	17	32	646
Total Trips (PCE) ²		63	29	92	38	78	116	1,692

¹ TSF = thousand square feet

² Total Trips = Passenger Cars + Truck Trips.

PROJECT TRIP DISTRIBUTIONS

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 and assignment process represents the directional orientation of traffic to and from the Project site. The trip distribution pattern of passenger cars is heavily influenced by the geographical location of the site, the location of surrounding land uses, and the proximity to the regional freeway system.

The trip distribution pattern for truck traffic is also influenced by the local truck routes. Given these differences, separate trip distributions were generated for both passenger cars and truck trips. The Project passenger car and truck trip distribution patterns are graphically depicted on Exhibits 3 and 4, respectively.

EXHIBIT 3: PROJECT (PASSENGER CAR) TRIP DISTRIBUTION

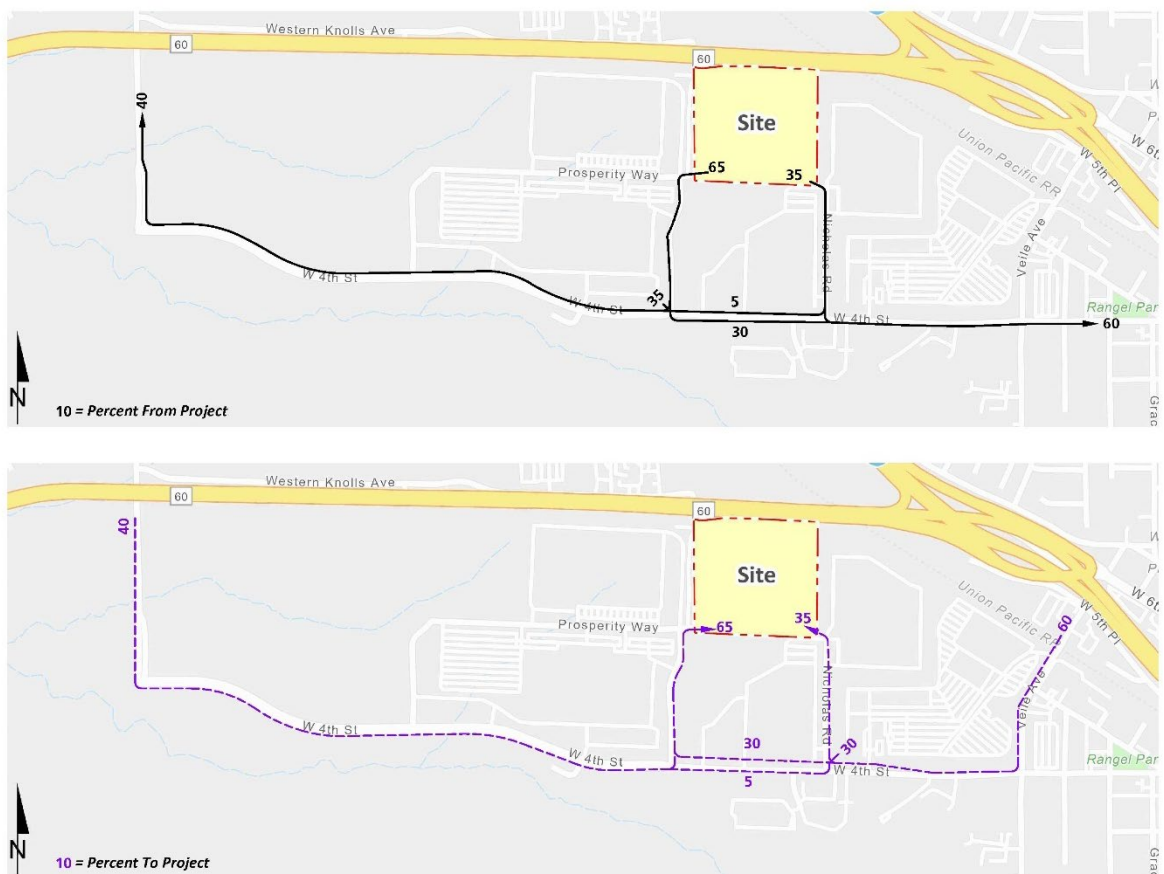
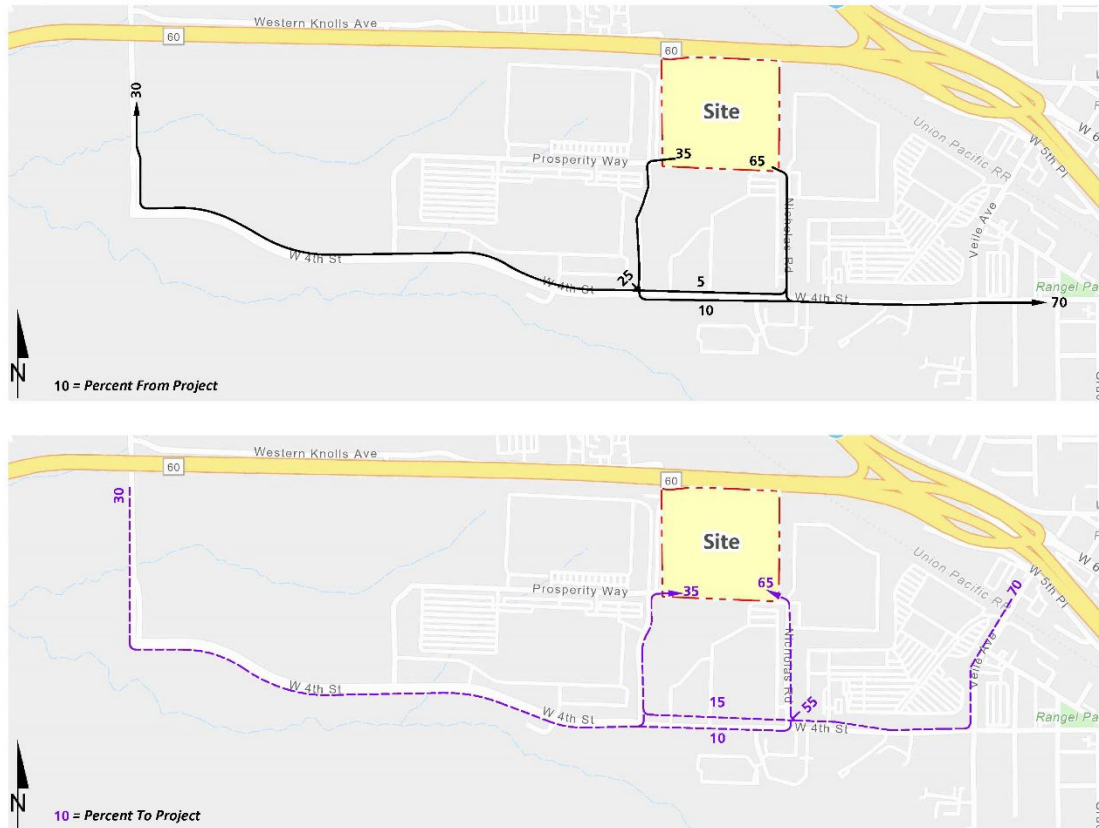


EXHIBIT 4: PROJECT (TRUCK) TRIP DISTRIBUTION



STUDY AREA

Consistent with City Guidelines, the study area limits have been set based upon a threshold of 50 peak hour project trips. In other words, the study area includes any intersection of Collector roadway or higher classification street with another Collector roadway or higher classification street, at which the proposed Project will add 50 or more peak hour trips. The proposed intersection analysis locations have been identified on Exhibit 5 and listed on Table 3.

EXHIBIT 5: STUDY AREA



TABLE 3: LIST OF STUDY INTERSECTIONS

#	Intersections
1	Potrero Bl. & 4th St.
2	Distribution Wy. & Prosperity Wy./Driveway 1
3	Distribution Wy. & 4th St.
4	Nicholas Rd. & Driveway 2
5	Nicholas Rd. & 4th St.
6	Veile Av. & 4th St.

LEVEL OF SERVICE (LOS) CRITERIA

The City of Beaumont has established LOS D as the minimum level of service for all roadways/intersections within the City. Therefore, any intersection operating at LOS E or F will be considered deficient for the purposes of this analysis.

EXISTING COUNT DATA

Traffic counts (classified by vehicle type) will be conducted during a typical Tuesday, Wednesday, or Thursday when local schools are in session and operating on a typical bell schedule. Time periods to be counted will be from 7:00-9:00 AM and 4:00-6:00 PM and will include pedestrian and bicycle counts at each analysis location. No adjustments are proposed to the new traffic counts for the baseline traffic condition as traffic counts will be conducted while local schools are in session.

AMBIENT GROWTH RATE

Consistent with other City of Beaumont traffic studies performed by Urban Crossroads, an ambient growth rate of 2 percent per year, compounded annually, will be used for this analysis (2% per year over 3 years or 6.12%).

DEFICIENCY CRITERIA

To determine whether the addition of project traffic at a study intersection result in a deficiency, the following thresholds of significance will be utilized:

- Any signalized study intersection operating at an acceptable LOS D or better without project in which the addition of project traffic causes the intersection to degrade to LOS E or F shall identify improvements to improve the operations to LOS D or better.
- Any signalized intersection that is operating at LOS E or F without project traffic where the project increases delay by 5.0 seconds or more shall identify improvements to offset the increase in delay.
- An operational improvement would be required if the study determines that either section a) or both sections b) and c) occur at unsignalized study intersections:
 - a) The addition of project related traffic causes the intersection to degrade from an acceptable LOS D or better to LOS E or LOS F.OR
 - b) The project adds 5.0 seconds ore more of delay to an intersection that is already projected to operate without project traffic at LOS E or F,AND
 - c) The intersection meets the peak hour traffic signal warrant after the addition of project traffic.
 - d) If the conditions above are satisfied, improvements should be identified to achieve LOS D or better for case a) above or to pre-project LOS and delay for case b) above.

SPECIAL ISSUES

The following special issues will be addressed as part of the TA:

- A truck turning template will be overlaid on the site plan for Project driveways which are anticipated to be utilized by heavy trucks in order to determine appropriate curb radii and to verify that trucks will have sufficient space to execute turn maneuvers.
- Traffic signal warrant analyses will be conducted for all unsignalized study area intersections for all applicable analysis scenarios.
- Evaluate the peak hour queuing at the Project driveways located along the Project frontages at the terminus of Distribution Way and Nicholas Road.

CUMULATIVE DEVELOPMENT PROJECTS

A list of cumulative development projects and their proposed land uses are shown in Table 4. Exhibit 6 illustrates the locations of these cumulative development projects. Please provide any updated projects for inclusion on the list.

EXHIBIT 6: CUMULATIVE DEVELOPMENT LOCATION MAP

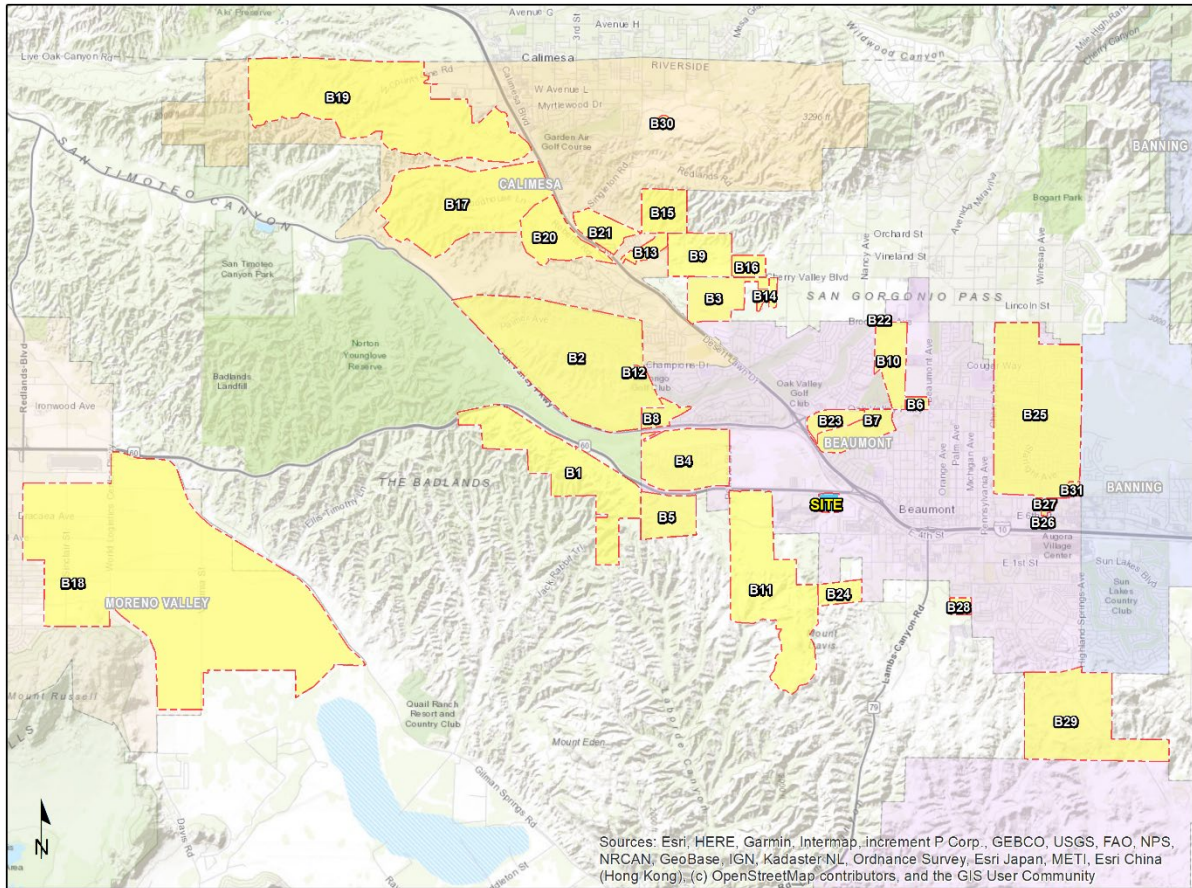


TABLE 4: CUMULATIVE DEVELOPMENT LAND USE SUMMARY

#	Project	Land Use	Quantity ¹
City of Beaumont:			
		High-Cube Fulfillment	4,500.000 TSF
		General Light Industrial	500.000 TSF
B1	Jack Rabbit Trail	Hotel	125 RM
		Restaurant/Retail	251.000 TSF
B2	Fairway Canyon SCPGA	Single Family Residential	1,650 DU
B3	Sunny-Cal Specific Plan	Single Family Residential	571 DU
B4	Heartland (Olivewood)	Single Family Residential	981 DU
B5	Hidden Canyon Industrial	High-Cube Warehouse	2,890.000 TSF
B6	Beaumont Village	Commercial	50.810 TSF
B7	Kirkwood Ranch	Single Family Residential	403 DU
B8	Tournament Hills 3, TM 36307	Single Family Residential	279 DU
B9	I-10 Gateway	High-Cube Warehouse	2,560.000 TSF
B10	Noble Creek Vistas	Single Family Residential	648 DU
B11	Legacy Highlands	High-Cube Fulfillment/Cold Storage	20,206.000 TSF
		Shopping Center	143.000 TSF
B12	Beyond Beaumont Commercial	Shopping Center	6.580 TSF
B13	Sunset Ranch (TR 31450)	Single Family Residential	231 DU
B14	TR 31966	Single Family Residential	60 DU
B15	Holbert Ranch (TTM 30545)	Single Family Residential	131 DU
B16	Borstein Property	Single Family Residential	209 DU
B17	Summerwind Ranch	Single Family Residential	2,537 DU
		Single Family Residential - Attached	411 DU
		Parks	55.1 AC
B18	World Logistics Center	High Cube Warehouse	21,450.000 TSF
B19	Mesa Verde	Single Family Residential	359 DU
		Multifamily Residential	1,720 DU
		Senior Housing - Detached	239 DU
		Senior Housing - Attached	1,086 DU
		Elementary School	1,200 STU
		Shopping Center	250.000 TSF
		High-Cube Warehouse	4,000.000 TSF
B20	Oak Valley Town Center	High-Cube Warehouse	2,250.000 TSF
		Truck/trailer Parking Lot	10.07 AC
		Commercial Retail	751.800 TSF
B21	Oak Valley North Specific Plan	High-Cube Warehouse	1,319.606 TSF
		High-Cube Cold Storage	232.900 TSF
		Multifamily Residential	126 DU
B22	CUP 03629	Mini-Warehouse	90.000 TSF
B23	Oak Valley Village (Mountain Bridge)	Commercial Retail	441.709 TSF
B24	Taurek (Tract no. 31162)	Single Family Residential	244 DU
B25	Sundance (Remaining-Altis by TriPointe)	Senior Housing - Detached	704 DU
B26	Tuscany Townhomes	Multifamily Residential	188 DU
B27	Beaumont Commons	Single Family Residential	120 DU
	American Villas	Single Family Residential	36 DU
	8th Street Condos	Multifamily Residential	16 DU
	Pennsylvania Avenue Apartments	Multifamily Residential	8 DU
B28	Pacific Scene (Tract No. 32850)	Single Family Residential	95 DU
B29	Potrero Creek Estates	Single Family Residential	700 DU
B30	JP Ranch	Single Family Residential	689 DU
		Shopping Center	72.700 TSF
B31	Sundance Corporate Center	General Office	300.000 TSF

¹ AC = Acres; DU = Dwelling Units; RM = Rooms; TSF = Thousand Square Feet; VFP = Vehicle Fueling Positions

If you have any questions or comments, I can be reached at (949) 861-0177.

Respectfully submitted,

URBAN CROSSROADS, INC.

A handwritten signature in black ink that reads "Charlene So". The signature is written in a cursive, flowing style.

Charlene So, PE
Principal

APPENDIX 1.2: SITE ADJACENT QUEUES

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Queuing and Blocking Report

Horizon Year (2045) With Project - AM Peak Hour WITH IMPROVEMENTS

08/10/2022

Intersection: 2: Distribution Wy./Driveway & Prosperity Wy./Driveway 1

Movement	EB	WB	NB	NB	SB
Directions Served	TR	LTR	L	TR	LTR
Maximum Queue (ft)	45	35	169	330	19
Average Queue (ft)	22	10	111	44	1
95th Queue (ft)	39	31	189	203	10
Link Distance (ft)	850	112		1266	483
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)			100		
Storage Blk Time (%)			11		
Queuing Penalty (veh)			5		

Intersection: 4: Nicholas Rd./Driveway & Driveway 2

Movement	EB
Directions Served	LTR
Maximum Queue (ft)	27
Average Queue (ft)	10
95th Queue (ft)	31
Link Distance (ft)	377
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Zone Summary

Zone wide Queuing Penalty: 5

Queuing and Blocking Report

Horizon Year (2045) With Project - PM Peak Hour WITH IMPROVEMENTS

08/10/2022

Intersection: 2: Distribution Wy./Driveway & Prosperity Wy./Driveway 1

Movement	EB	WB	NB	NB	SB
Directions Served	TR	LTR	L	TR	LTR
Maximum Queue (ft)	142	68	169	277	30
Average Queue (ft)	59	22	124	48	4
95th Queue (ft)	100	53	188	191	22
Link Distance (ft)	850	112		1266	483
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)			100		
Storage Blk Time (%)	0		12		
Queuing Penalty (veh)	0		3		

Intersection: 4: Nicholas Rd./Driveway & Driveway 2

Movement	EB
Directions Served	LTR
Maximum Queue (ft)	41
Average Queue (ft)	22
95th Queue (ft)	45
Link Distance (ft)	377
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Zone Summary

Zone wide Queuing Penalty: 3

APPENDIX 3.1: TRAFFIC COUNTS – MAY 2022

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INTERSECTION TURNING MOVEMENT COUNTS

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

DATE: Thu, May 19, 22	LOCATION: NORTH & SOUTH: EAST & WEST:	Beaumont Potrero 4th	PROJECT #: LOCATION #: CONTROL:	SC3432 4 STOP ALL
NOTES:		PM PM NO OTHER ▲ ◀ W S N E ▶		

Add U-Turns to Left Turns

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Potrero			Potrero			4th			4th			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	X	X	X	2	X	0	1	2	X	X	0	1	
7:00 AM	0	0	0	22	0	0	5	4	0	0	5	19	55
7:15 AM	0	0	0	17	0	2	2	3	0	0	5	22	51
7:30 AM	0	0	0	16	0	1	4	2	0	0	1	13	37
7:45 AM	0	0	0	33	0	1	4	4	0	0	4	16	62
8:00 AM	0	0	0	34	0	3	3	4	0	0	2	9	55
8:15 AM	0	0	0	60	0	4	1	3	0	0	5	12	85
8:30 AM	0	0	0	82	0	0	2	3	0	0	3	14	104
8:45 AM	0	0	0	67	0	1	2	3	0	0	2	26	101
VOLUMES	0	0	0	331	0	12	23	26	0	0	27	131	551
APPROACH %	0%	0%	0%	97%	0%	3%	47%	53%	0%	0%	17%	82%	
APP/DEPART	0	0	154	343	/	0	49	/	358	159	/	39	0
BEGIN PEAK HR	8:00 AM												
VOLUMES	0	0	0	243	0	8	8	13	0	0	12	61	345
APPROACH %	0%	0%	0%	97%	0%	3%	38%	62%	0%	0%	16%	84%	
PEAK HR FACTOR	0.000			0.765			0.750			0.652			0.829
APP/DEPART	0	0	69	251	/	0	21	/	256	73	/	20	0
4:00 PM	0	0	0	25	0	1	5	3	0	0	1	39	74
4:15 PM	0	0	0	21	0	0	1	0	0	0	0	38	60
4:30 PM	0	0	0	24	0	0	2	6	0	0	3	28	63
4:45 PM	0	0	0	40	0	2	4	4	0	0	0	32	82
5:00 PM	0	0	0	63	0	1	4	2	0	0	3	63	136
5:15 PM	0	0	0	50	0	0	1	3	0	0	0	45	99
5:30 PM	0	0	0	73	0	0	0	2	0	0	1	120	196
5:45 PM	0	0	0	56	0	1	0	0	0	0	1	50	108
VOLUMES	0	0	0	352	0	5	17	20	0	0	9	415	821
APPROACH %	0%	0%	0%	98%	0%	1%	46%	54%	0%	0%	2%	97%	
APP/DEPART	0	0	433	358	/	0	37	/	374	426	/	14	0
BEGIN PEAK HR	5:00 PM												
VOLUMES	0	0	0	242	0	2	5	7	0	0	5	278	542
APPROACH %	0%	0%	0%	99%	0%	1%	42%	58%	0%	0%	2%	98%	
PEAK HR FACTOR	0.000			0.839			0.500			0.589			0.691
APP/DEPART	0	0	284	245	/	0	12	/	251	285	/	7	0

U-TURNS					
NB	SB	EB	WB	TTL	
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	1	1	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

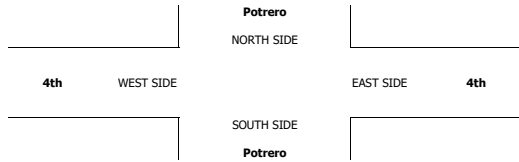
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0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	1	0	2	3

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0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
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38 1 39
28 2 30
32 4 36
63 4 67
45 2 47
120 0 120
50 0 50



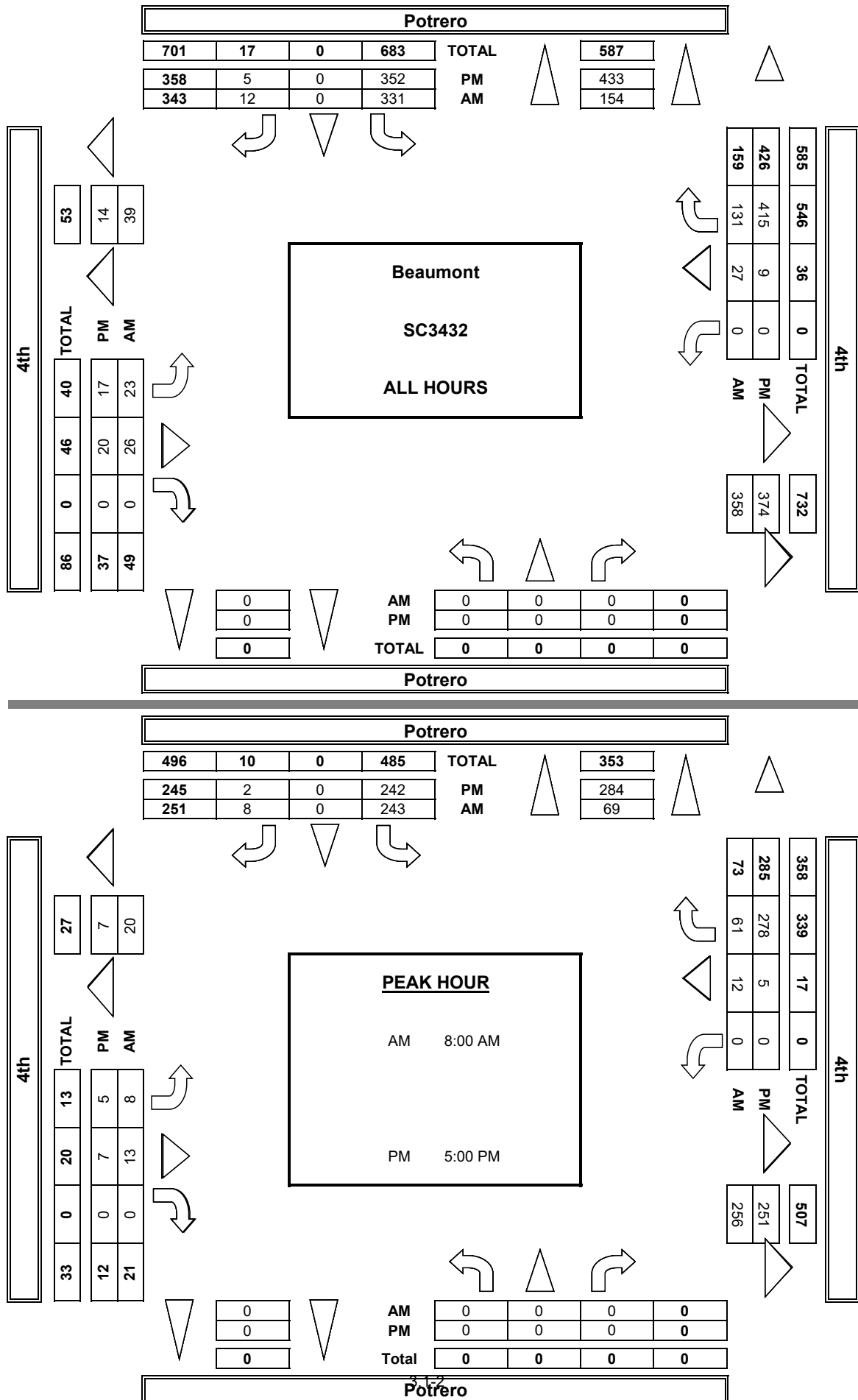
		ALL PED AND BIKE			
		E SIDE	W SIDE	S SIDE	N SIDE
AM	7:00 AM	0	0	0	0
	7:15 AM	0	0	0	0
	7:30 AM	0	0	0	0
	7:45 AM	0	0	0	0
	8:00 AM	0	0	0	0
	8:15 AM	0	1	1	0
	8:30 AM	0	0	0	0
	8:45 AM	0	0	0	0
PM	TOTAL	0	1	1	0
	4:00 PM	0	0	0	0
	4:15 PM	0	0	0	0
	4:30 PM	0	0	0	0
	4:45 PM	0	1	1	0
	5:00 PM	0	0	0	0
	5:15 PM	0	0	0	0
	5:30 PM	0	0	0	0
TOTAL	5:45 PM	0	1	1	0
	TOTAL	0	2	2	0

ALL PED AND BIKE				TOTAL
E SIDE	W SIDE	S SIDE	N SIDE	
0	0	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	2
0	0	0	0	0
0	0	0	0	0
0	1	1	0	2
0	0	0	0	0
0	0	0	0	0
0	1	1	0	2
0	2	2	0	4

PEDESTRIAN CROSSINGS				TOTAL
E SIDE	W SIDE	S SIDE	N SIDE	
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

BICYCLE CROSSINGS				TOTAL
ES	WS	SS	NS	
0	0	0	0	0
0	0	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	2
0	0	0	0	0
0	0	0	0	0
0	1	1	0	2
0	0	0	0	0
0	0	0	0	0
0	1	1	0	2
0	2	2	0	4

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

DATE: 5/19/22 THURSDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Beaumont Potrero 4th	PROJECT #: LOCATION #: CONTROL:	SC3432 4 STOP ALL
CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS	NOTES:		AM PM MD OTHER	▲ ◀ W S ▼ N E ▶

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Potrero			Potrero			4th			4th			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	X	X	X	2	X	0	1	2	X	X	0	1	

AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	2	2
	7:15 AM	0	0	0	0	0	0	1	1	0	0	1	4
	7:30 AM	0	0	0	1	0	0	0	0	0	0	1	2
	7:45 AM	0	0	0	1	0	0	0	0	0	1	3	5
	8:00 AM	0	0	0	0	0	1	0	1	0	0	1	3
	8:15 AM	0	0	0	0	0	2	1	0	0	1	0	4
	8:30 AM	0	0	0	0	0	0	0	1	0	1	2	4
	8:45 AM	0	0	0	1	0	0	1	1	0	0	3	6
	VOLUMES	0	0	0	3	0	3	3	4	0	0	4	16
	APPROACH %	0%	0%	0%	50%	0%	50%	43%	57%	0%	0%	20%	80%
PM	APP/DEPART	0	/	19	6	/	0	7	/	7	20	/	7
	BEGIN PEAK HR	8:00 AM											
	VOLUMES	0	0	0	1	0	3	2	3	0	0	2	6
	APPROACH %	0%	0%	0%	25%	0%	75%	40%	60%	0%	0%	25%	75%
	PEAK HR FACTOR	0.000			0.500			0.625			0.667		
	APP/DEPART	0	/	8	4	/	0	5	/	4	8	/	5
	4:00 PM	0	0	0	2	0	0	0	0	0	0	0	2
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	1	0	0	1	0
	4:45 PM	0	0	0	0	0	1	0	1	0	0	0	2
	5:00 PM	0	0	0	1	0	0	1	0	0	0	1	2
	5:15 PM	0	0	0	0	0	0	0	2	0	0	0	2
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	2
	5:45 PM	0	0	0	1	0	0	0	0	0	0	1	0
	VOLUMES	0	0	0	4	0	1	1	4	0	0	3	8
	APPROACH %	0%	0%	0%	80%	0%	20%	20%	80%	0%	0%	27%	73%
	APP/DEPART	0	/	9	5	/	0	5	/	8	11	/	4
	BEGIN PEAK HR	5:00 PM											
	VOLUMES	0	0	0	2	0	0	1	2	0	0	2	4
	APPROACH %	0%	0%	0%	100%	0%	0%	33%	67%	0%	0%	33%	67%
	PEAK HR FACTOR	0.000			0.500			0.375			0.500		
	APP/DEPART	0	/	5	2	/	0	3	/	4	6	/	2

U-TURNS				
NB	SB	EB	WB	TTL

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0	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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0	0	0	0	0

RTOR			
NRR	SRR	ERR	WRR

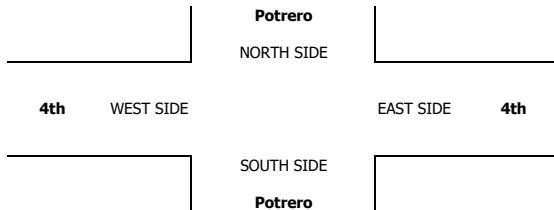
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0	0	0	0

0	0	0	0
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INTERSECTION TURNING MOVEMENT COUNTS

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

DATE: 5/19/22 THURSDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Beaumont Potrero 4th	PROJECT #: LOCATION #: CONTROL:	SC3432 4 STOP ALL
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CLASS 3: 3-AXLE TRUCKS	NOTES:	AM PM MD OTHER OTHER	▲ N ◀ W S ▼	▶ E
-------------------------------------	---------------	----------------------------------	-------------------------	-----

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Potrero			Potrero			4th			4th			
LANES:	NL X	NT X	NR X	SL 2	ST X	SR 0	EL 1	ET 2	ER X	WL X	WT 0	WR 1	TOTAL

AM	7:00 AM	0	0	0	0	0	0	4	0	0	0	1	5
	7:15 AM	0	0	0	0	0	0	2	0	0	0	1	3
	7:30 AM	0	0	0	1	0	0	2	0	0	0	1	4
	7:45 AM	0	0	0	1	0	0	1	0	0	0	3	5
	8:00 AM	0	0	0	1	0	0	3	0	0	0	1	5
	8:15 AM	0	0	0	1	0	0	2	0	0	0	0	3
	8:30 AM	0	0	0	2	0	0	1	0	0	0	1	4
	8:45 AM	0	0	0	0	0	0	1	0	0	0	1	2
	VOLUMES	0	0	0	6	0	0	16	0	0	0	9	31
	APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	100%	
PM	APP/DEPART	0	/	9	6	/	0	16	/	22	9	/	0
	BEGIN PEAK HR	8:00 AM											
	VOLUMES	0	0	0	4	0	0	0	7	0	0	0	14
	APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	100%	
	PEAK HR FACTOR	0.000			0.500			0.583			0.750		
	APP/DEPART	0	/	3	4	/	0	7	/	11	3	/	0
	4:00 PM	0	0	0	1	0	0	0	0	0	0	0	1
	4:15 PM	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
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
PM	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	1	0	0	0	0	0	0	2	3
	5:30 PM	0	0	0	1	0	0	0	0	0	0	2	3
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	3	0	0	0	0	0	0	4	7
	APPROACH %	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	100%	
	APP/DEPART	0	/	4	3	/	0	0	/	3	4	/	0
	BEGIN PEAK HR	5:00 PM											
	VOLUMES	0	0	0	2	0	0	0	0	0	0	4	6
	APPROACH %	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	100%	
	PEAK HR FACTOR	0.000			0.500			0.000			0.500		
	APP/DEPART	0	/	4	2	/	0	0	/	2	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

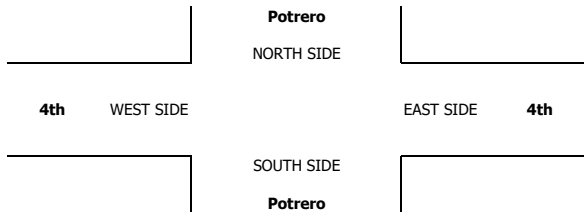
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NRR X	SRR X	ERR X	WRR X
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0	0	0	0
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0	0	0	0
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0	0	0	0
0	0	0	0

0	0	0	0
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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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INTERSECTION TURNING MOVEMENT COUNTS

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

DATE: 5/19/22 THURSDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Beaumont Potrero 4th	PROJECT #: LOCATION #: CONTROL:	SC3432 4 STOP ALL
CLASS 4: 4 OR MORE AXLE TRUCKS	NOTES:		AM PM MD OTHER	▲ ◀ W ▼ N S E ▶

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Potrero			Potrero			4th			4th			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	X	X	X	2	X	0	1	2	X	X	0	1	

AM	7:00 AM	0	0	0	1	0	0	0	0	0	1	2	4
	7:15 AM	0	0	0	2	0	0	1	0	0	3	1	7
	7:30 AM	0	0	0	3	0	0	3	0	0	0	2	8
	7:45 AM	0	0	0	1	0	0	1	0	0	2	3	7
	8:00 AM	0	0	0	0	0	1	0	0	0	2	2	5
	8:15 AM	0	0	0	0	0	0	0	0	0	1	1	2
	8:30 AM	0	0	0	1	0	0	1	0	0	2	1	5
	8:45 AM	0	0	0	0	0	0	0	1	0	1	3	5
	VOLUMES	0	0	0	8	0	1	6	1	0	0	12	15
	APPROACH %	0%	0%	0%	89%	0%	11%	86%	14%	0%	0%	44%	56%
PM	APP/DEPART	0	/	21	9	/	0	7	/	9	27	/	13
	BEGIN PEAK HR	8:00 AM											
	VOLUMES	0	0	0	1	0	1	1	1	0	0	6	7
	APPROACH %	0%	0%	0%	50%	0%	50%	50%	50%	0%	0%	46%	54%
	PEAK HR FACTOR	0.000			0.500			0.500			0.813		
	APP/DEPART	0	/	8	2	/	0	2	/	2	13	/	7
	4:00 PM	0	0	0	2	0	0	0	0	0	0	3	5
	4:15 PM	0	0	0	0	0	0	0	0	0	0	1	1
	4:30 PM	0	0	0	1	0	0	0	0	0	0	2	3
	4:45 PM	0	0	0	1	0	0	0	0	0	0	2	3
	5:00 PM	0	0	0	0	0	0	0	0	0	0	2	2
	5:15 PM	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	5	5
	5:45 PM	0	0	0	1	0	1	0	0	0	0	2	4
	VOLUMES	0	0	0	5	0	1	0	0	0	0	18	24
	APPROACH %	0%	0%	0%	83%	0%	17%	0%	0%	0%	0%	100%	100%
	APP/DEPART	0	/	18	6	/	0	0	/	5	18	/	1
	BEGIN PEAK HR	5:00 PM											
	VOLUMES	0	0	0	1	0	1	0	0	0	0	10	12
	APPROACH %	0%	0%	0%	50%	0%	50%	0%	0%	0%	0%	100%	100%
	PEAK HR FACTOR	0.000			0.250			0.000			0.500		
	APP/DEPART	0	/	10	2	/	0	0	/	1	10	/	1

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

RTOR			
NRR	SRR	ERR	WRR

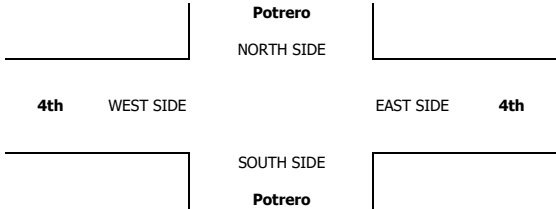
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0	0	0	0

0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0

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0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
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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INTERSECTION TURNING MOVEMENT COUNTS

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

PROJECT #:	SC3432
LOCATION #:	5
CONTROL:	STOP ALL

DATE:
May 19, 22

LOCATION:
NORTH & SOUTH:
EAST & WEST:

Beaumont
Distribution
Prosperity

NOTES:

AM
PM
MD
OTHER
OTHER

▲
N
S
▼

☐ Add U-Turns to Left Turns

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Distribution			Distribution			Prosperity			Prosperity			
LANES:	NL 1	NT 1	NR 0	SL 0	ST 1	SR 0	EL 1	ET X	ER 1	WL 0	WT 1	WR 0	TOTAL
7:00 AM	37	0	0	0	1	1	0	0	8	0	0	0	47
7:15 AM	48	0	0	0	0	0	0	0	7	0	1	0	56
7:30 AM	39	0	0	0	0	0	0	0	6	0	0	0	45
7:45 AM	73	2	1	0	0	0	0	0	2	0	1	0	79
8:00 AM	144	0	0	0	0	0	0	0	4	0	0	0	148
8:15 AM	134	0	0	0	0	0	0	0	18	0	1	0	153
8:30 AM	121	1	0	0	0	0	0	0	16	0	0	0	138
8:45 AM	136	1	0	0	0	1	0	0	23	0	0	0	161
VOLUMES	732	4	1	0	1	2	0	0	84	0	3	0	827
APPROACH %	99%	1%	0%	0%	33%	67%	0%	0%	100%	0%	100%	0%	
APP/DEPART	737	4	4	3	85	84	7	1	3	737	0	0	
BEGIN PEAK HR	8:00 AM												
VOLUMES	535	2	0	0	0	1	0	0	61	0	1	0	600
APPROACH %	100%	0%	0%	0%	0%	100%	0%	0%	100%	0%	100%	0%	
PEAK HR FACTOR	0.932				0.250			0.663		0.250			0.932
APP/DEPART	537	2	2	1	61	61	0	1	537	0	0	0	
4:00 PM	26	0	0	0	0	0	0	0	43	0	0	0	69
4:15 PM	22	1	0	0	1	0	0	0	26	0	0	0	50
4:30 PM	37	1	1	0	2	0	0	0	9	0	0	0	50
4:45 PM	83	1	0	0	2	0	1	0	26	0	0	0	113
5:00 PM	100	1	1	0	1	0	0	0	85	1	0	0	189
5:15 PM	141	2	0	0	1	0	0	0	53	0	1	0	198
5:30 PM	115	1	0	0	0	0	0	0	147	0	0	0	263
5:45 PM	97	0	0	0	1	0	0	0	53	0	0	0	151
VOLUMES	621	7	2	0	3	0	1	0	442	1	1	0	1,083
APPROACH %	99%	1%	0%	0%	100%	0%	0%	0%	100%	50%	50%	0%	
APP/DEPART	630	8	8	8	451	443	0	2	2	622	0	0	
BEGIN PEAK HR	5:00 PM												
VOLUMES	453	4	1	0	3	0	0	0	338	1	1	0	801
APPROACH %	99%	1%	0%	0%	100%	0%	0%	0%	100%	50%	50%	0%	
PEAK HR FACTOR	0.801				0.750			0.575		0.500			0.761
APP/DEPART	458	4	4	3	342	338	1	2	454	0	0	0	

[illegible][illegible]

0	0	0	0
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[illegible][illegible]

0	0	0	0
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Distribution

NORTH SIDE

Prosperity

WEST SIDE

EAST SIDE

Prosperity

SOUTH SIDE

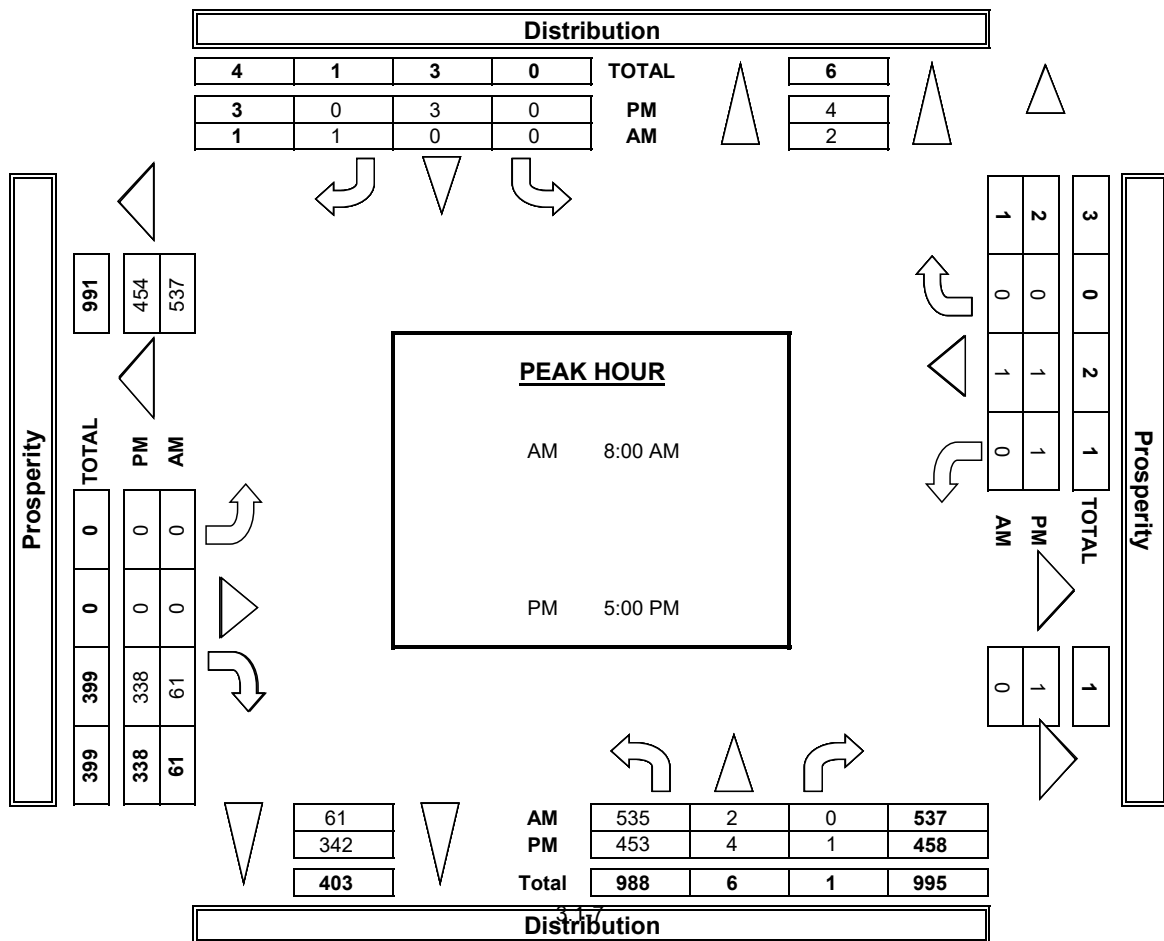
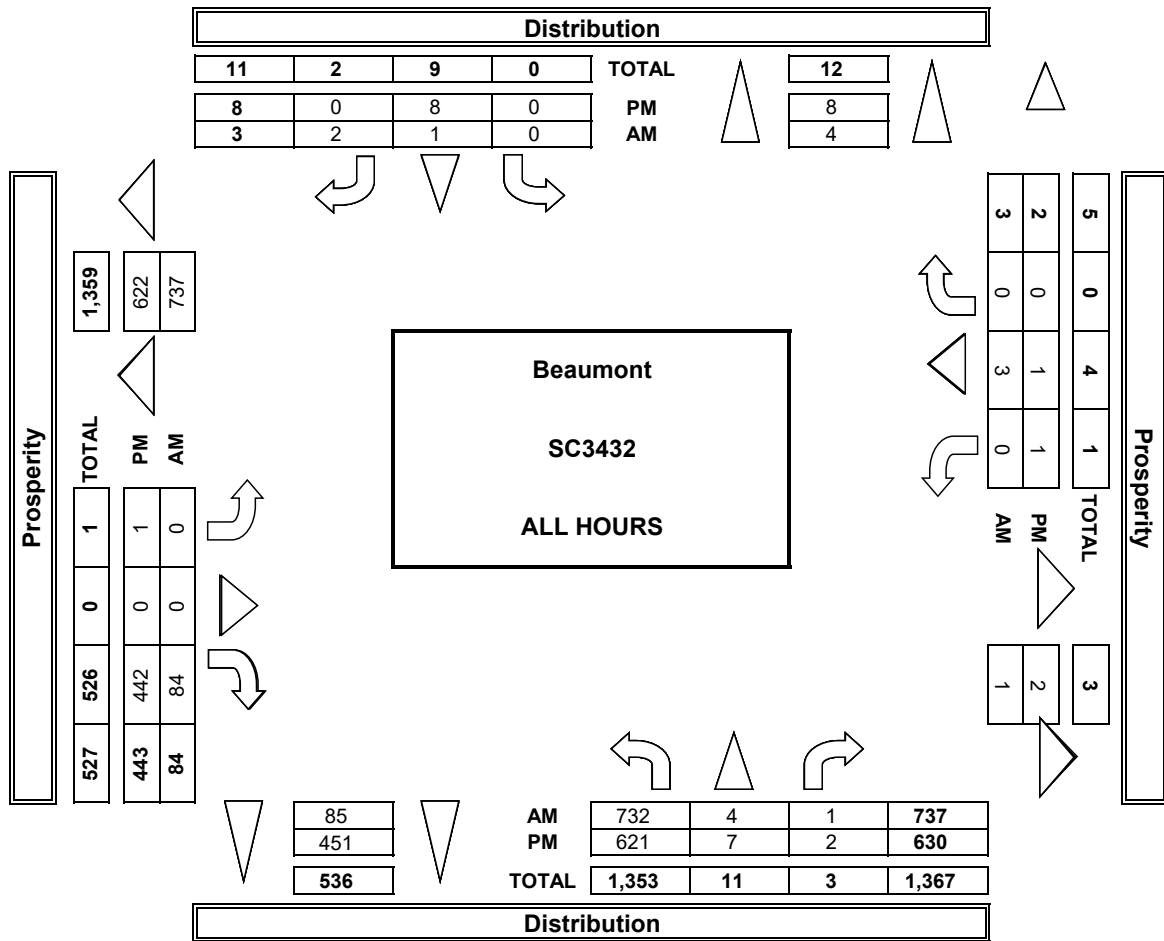
Distribution

AM		7:00 AM
		7:15 AM
		7:30 AM
		7:45 AM
		8:00 AM
		8:15 AM
		8:30 AM
		8:45 AM
		TOTAL
PM		4:00 PM
		4:15 PM
		4:30 PM
		4:45 PM
		5:00 PM
		5:15 PM
		5:30 PM
		5:45 PM
		TOTAL

ALL PED AND BIKE				
E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	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	1	1
0	0	0	0	0
0	0	0	0	0
0	0	0	2	2

[illegible][illegible]

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

DATE: 5/19/22 THURSDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Beaumont Distribution Prosperity	PROJECT #: LOCATION #: CONTROL:	SC3432 5 STOP ALL
CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS	NOTES:		AM PM OTHER ▲ ◀ W ▼ N S ▶ E	

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Distribution			Distribution			Prosperity			Prosperity			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	1	1	0	0	1	0	1	X	1	0	1	0	

AM	7:00 AM	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
	7:30 AM	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
	8:00 AM	1	0	0	0	0	0	0	0	0	0	0	1
	8:15 AM	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
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	1	0	0	0	0	0	0	0	0	0	0	1
	APPROACH %	100%	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
	4:15 PM	0	0	0	0	1	0	0	0	0	0	0	1
	4:30 PM	0	1	0	0	1	0	0	0	0	0	0	2
	4:45 PM	0	1	0	0	1	0	0	0	0	0	0	2
	5:00 PM	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
	5:30 PM	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
	VOLUMES	0	2	0	0	3	0	0	0	0	0	0	5
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	
	8:00 AM	1	0	0	0	0	0	0	0	0	0	0	1
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR	0.250			0.000		0.000			0.000			0.250
	APP/DEPART	1	/	0	0	/	0	/	0	0	/	1	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	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	2	/	2	3	/	3	/	0	0	/	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	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

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
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
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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	Distribution	
	NORTH SIDE	
Prosperity	WEST SIDE	EAST SIDE
	SOUTH SIDE	
	Distribution	

INTERSECTION TURNING MOVEMENT COUNTS

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

DATE: 5/19/22 THURSDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Beaumont Distribution Prosperity	PROJECT #: LOCATION #: CONTROL:	SC3432 5 STOP ALL
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CLASS 3: 3-AXLE TRUCKS	NOTES:	AM PM MD OTHER	▲ N ◀ W S ▼	▶ E
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	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Distribution			Distribution			Prosperity			Prosperity			
LANES:	NL 1	NT 1	NR 0	SL 0	ST 1	SR 0	EL 1	ET X	ER 1	WL 0	WT 1	WR 0	TOTAL

AM	7:00 AM	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
	7:30 AM	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
	8:00 AM	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
	8:30 AM	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
	VOLUMES	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
PM	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0
	BEGIN PEAK HR	8:00 AM											
	VOLUMES	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		
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	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
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
PM	5:00 PM	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
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	1	0	0	0	0	0	0	1
	VOLUMES	0	1	0	0	1	0	0	0	0	0	0	2
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0
	APP/DEPART	1	/	1	1	/	1	0	/	0	0	/	0
	BEGIN PEAK HR	5:00 PM											
	VOLUMES	0	0	0	0	1	0	0	0	0	0	0	1
	APPROACH %	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0
	PEAK HR FACTOR	0.000			0.250			0.000			0.000		
	APP/DEPART	0	/	0	1	/	1	0	/	0	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

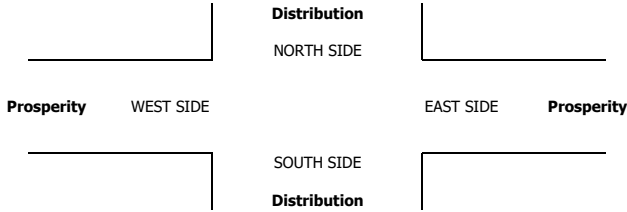
RTOR			
NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

0	0	0	0
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0	0	0	0
0	0	0	0
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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INTERSECTION TURNING MOVEMENT COUNTS

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

DATE: 5/19/22 THURSDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Beaumont Distribution Prosperity	PROJECT #: LOCATION #: CONTROL:	SC3432 5 STOP ALL
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CLASS 4: 4 OR MORE AXLE TRUCKS	NOTES:	AM PM MD OTHER OTHER	▲ N ◀ W S ▼	E ▶
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	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Distribution			Distribution			Prosperity			Prosperity			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	1	1	0	0	1	0	1	X	1	0	1	0	

AM	7:00 AM	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
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	2	0	0	0	0	0	0	0	0	0	2
	8:00 AM	0	0	0	0	0	0	0	1	0	0	0	1
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	1	1	0	0	0	0	0	0	0	0	0	2
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	1	3	0	0	0	0	0	1	0	0	0	5
	APPROACH %	25%	75%	0%	0%	0%	0%	0%	100%	0%	0%	0%	
PM	APP/DEPART	4	/	3	0	/	1	1	/	0	0	/	1
	BEGIN PEAK HR	8:00 AM											
	VOLUMES	1	1	0	0	0	0	0	1	0	0	0	3
	APPROACH %	50%	50%	0%	0%	0%	0%	0%	100%	0%	0%	0%	
	PEAK HR FACTOR	0.250			0.000			0.250			0.000		
	APP/DEPART	2	/	1	0	/	1	1	/	0	0	/	1
	4:00 PM	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
	4:30 PM	0	0	0	0	1	0	0	0	0	0	0	1
	4:45 PM	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
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	1	0	0	0	0	0	0	0	0	0	1
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	1	0	0	1	0	0	0	0	0	0	2
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	1	/	1	1	/	1	0	/	0	0	/	0
	BEGIN PEAK HR	5:00 PM											
	VOLUMES	0	1	0	0	0	0	0	0	0	0	0	1
	APPROACH %	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR	0.250			0.000			0.000			0.000		
	APP/DEPART	1	/	1	0	/	0	0	/	0	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

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	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

0	0	0	0
---	---	---	---

	Distribution	
	NORTH SIDE	
Prosperity	WEST SIDE	EAST SIDE
	SOUTH SIDE	
	Distribution	

INTERSECTION TURNING MOVEMENT COUNTS

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

PROJECT #: SC3432
LOCATION #: 6
CONTROL: SIGNAL

DATE:
u, May 19, 22

LOCATION:
NORTH & SOUTH:
EAST & WEST:

Beaumont
Distribution
4th

NOTES:

AM
PM
MD
OTHER
OTHER

▲
N
S
▼

 Add U-Turns to Left Turns

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Distribution			Distribution			4th			4th			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
7:00 AM	0	0	0	9	0	0	0	14	0	0	31	37	91
7:15 AM	0	0	0	2	0	3	1	12	0	0	24	49	91
7:30 AM	0	0	0	9	0	0	1	14	0	0	15	33	72
7:45 AM	0	0	0	1	0	0	1	15	0	0	21	77	115
8:00 AM	0	0	0	6	0	8	1	12	0	0	19	139	185
8:15 AM	0	0	0	17	0	1	0	13	0	0	36	134	201
8:30 AM	0	0	0	12	0	4	1	17	0	0	49	118	201
8:45 AM	0	0	0	22	0	4	1	12	0	0	62	140	241
VOLUMES	0	0	0	78	0	20	6	109	0	0	257	727	1,197
APPROACH %	0%	0%	0%	80%	0%	20%	5%	95%	0%	0%	26%	74%	
APP/DEPART	0	0	733	98	/	0	115	/	187	984	/	277	0
BEGIN PEAK HR	8:00 AM			57	0	17	3	54	0	0	166	531	828
VOLUMES	0	0	0	77%	0%	23%	3	5%	95%	0%	0%	24%	76%
APPROACH %	0%	0%	0%		0.712		0.792				0.863		
PEAK HR FACTOR	0.000												0.859
APP/DEPART	0	0	534	74	/	0	57	/	111	697	/	183	0
4:00 PM	0	0	0	32	0	2	2	25	0	0	32	27	120
4:15 PM	0	0	0	41	0	3	0	12	0	0	20	26	102
4:30 PM	0	0	0	20	0	0	0	21	0	0	23	36	100
4:45 PM	0	0	0	21	0	7	1	17	0	0	29	82	157
5:00 PM	0	0	0	152	0	11	4	44	0	0	42	96	349
5:15 PM	0	0	0	45	0	9	2	27	0	0	61	135	279
5:30 PM	0	0	0	187	0	14	0	95	0	0	74	117	487
5:45 PM	0	0	0	81	0	2	0	57	0	0	45	96	281
VOLUMES	0	0	0	579	0	48	9	298	0	0	326	615	1,875
APPROACH %	0%	0%	0%	92%	0%	8%	3%	97%	0%	0%	35%	65%	
APP/DEPART	0	0	624	627	/	0	307	/	877	941	/	374	0
BEGIN PEAK HR	5:00 PM			465	0	36	6	223	0	0	222	444	1,396
VOLUMES	0	0	0	93%	0%	7%	3%	97%	0%	0%	33%	67%	
APPROACH %	0%	0%	0%		0.623		0.603				0.849		
PEAK HR FACTOR	0.000												0.717
APP/DEPART	0	0	450	501	/	0	229	/	688	666	/	258	0

[illegible]

RTOR			
NRR X	SRR 0	ERR X	WRR 0
0	0	0	0
0	3	0	0
0	0	0	4
0	0	0	2
0	1	0	9
0	1	0	10
0	3	0	11
0	4	0	19
0	12	0	55

0	9	0	49
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[illegible]

0	1	0	1
0	3	0	4
0	0	0	3
0	7	0	5
0	9	0	36
0	9	0	19
0	12	0	41
0	2	0	44
0	43	0	153

0	32	0	140
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Distribution

NORTH SIDE

4th WEST SIDE

EAST SIDE 4th

SOUTH SIDE

Distribution

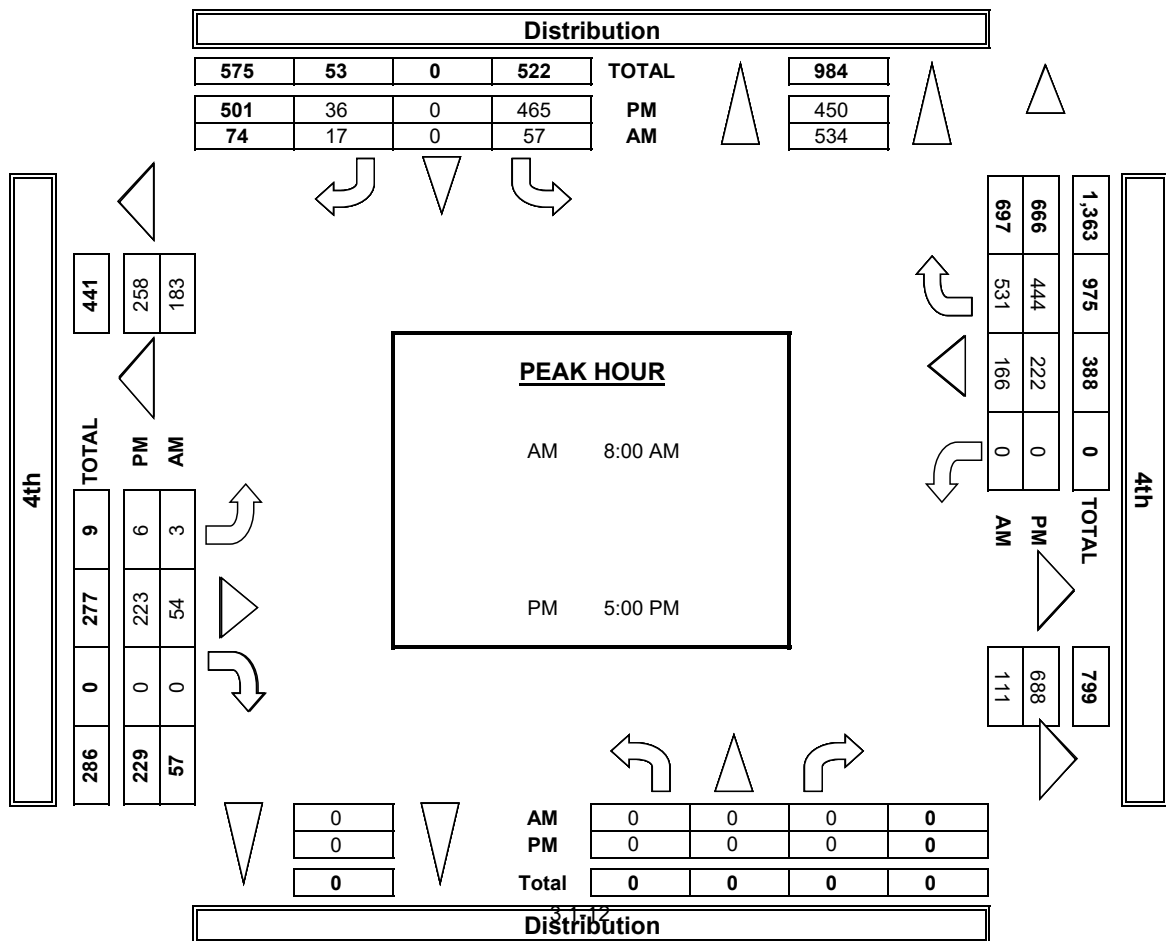
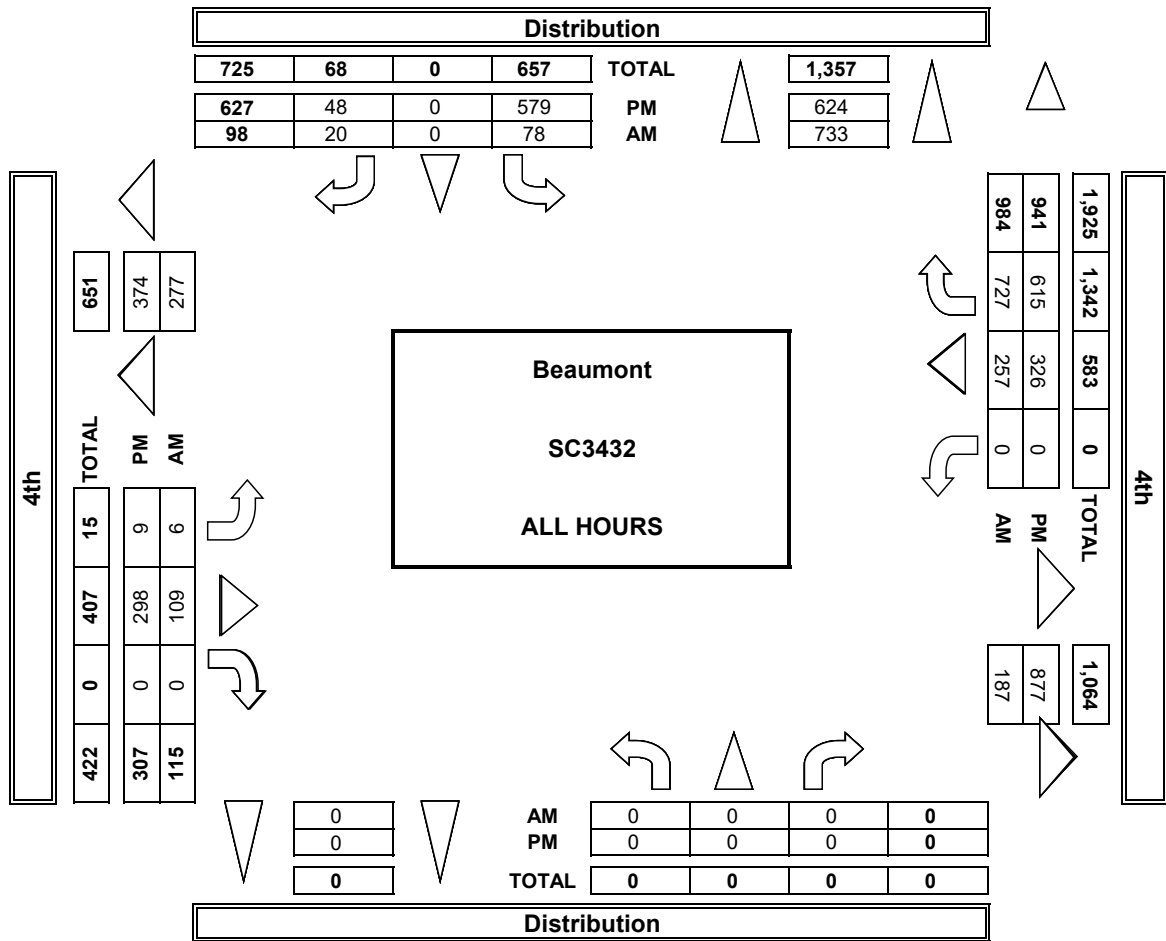
AM	7:00 AM
	7:15 AM
	7:30 AM
	7:45 AM
	8:00 AM
	8:15 AM
	8:30 AM
	8:45 AM
TOTAL	
PM	4:00 PM
	4:15 PM
	4:30 PM
	4:45 PM
	5:00 PM
	5:15 PM
	5:30 PM
	5:45 PM
TOTAL	

ALL PED AND BIKE				
E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	0	3	3
0	0	0	2	2
0	0	0	1	1
0	0	0	1	1
0	0	0	8	8
0	0	0	0	0
0	0	0	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	2
0	0	1	1	2

PEDESTRIAN CROSSINGS				
E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
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	3	3
0	0	0	2	2
0	0	0	1	1
0	0	0	1	1
0	0	0	8	8
0	0	0	0	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	1	1

BICYCLE CROSSINGS				
ES	WS	SS	NS	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	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	0	1
0	0	1	0	0

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

DATE: 5/19/22 THURSDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Beaumont Distribution 4th	PROJECT #: LOCATION #: CONTROL:	SC3432 6 SIGNAL
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CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS	NOTES:	AM PM MD OTHER	▲ N ◀ W S ▶ E ▼
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	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Distribution			Distribution			4th			4th			
LANES:	NL X	NT X	NR X	SL 1	ST X	SR 1	EL 1	ET 2	ER X	WL X	WT 2	WR 0	TOTAL

AM	7:00 AM	0	0	0	0	0	0	0	0	0	2	0	2		
	7:15 AM	0	0	0	0	0	0	0	0	0	3	0	3		
	7:30 AM	0	0	0	0	0	0	0	2	0	0	1	0	3	
	7:45 AM	0	0	0	0	0	0	0	0	0	0	3	0	3	
	8:00 AM	0	0	0	0	0	0	0	0	0	0	1	3	4	
	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	1	0	0	2	0	3	
	8:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	
	VOLUMES	0	0	0	0	0	0	0	3	0	0	13	3	19	
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	81%	19%		
PM	APP/DEPART	0	/	3	0	/	0	3	/	3	16	/	13	0	
	BEGIN PEAK HR	8:00 AM													
	VOLUMES	0	0	0	0	0	0	0	1	0	0	4	3	8	
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	57%	43%		
	PEAK HR FACTOR	0.000			0.000			0.250			0.438			0.500	
	APP/DEPART	0	/	3	0	/	0	1	/	1	7	/	4	0	
	4:00 PM	0	0	0	0	0	0	1	0	1	0	0	2	0	4
	4:15 PM	0	0	0	0	1	0	0	0	0	0	1	1	0	2
	4:30 PM	0	0	0	0	0	0	0	0	2	0	0	1	1	4
	4:45 PM	0	0	0	0	0	0	1	1	1	0	0	0	0	3
PM	5:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	2	
	5:15 PM	0	0	0	0	0	0	0	1	4	0	0	1	0	6
	5:30 PM	0	0	0	0	1	0	0	0	0	0	2	0	3	
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	VOLUMES	0	0	0	2	0	2	2	8	0	0	9	1	24	
	APPROACH %	0%	0%	0%	50%	0%	50%	20%	80%	0%	0%	90%	10%		
	APP/DEPART	0	/	3	4	/	0	10	/	10	10	/	11	0	
	BEGIN PEAK HR	5:00 PM													
	VOLUMES	0	0	0	1	0	0	1	4	0	0	5	0	11	
	APPROACH %	0%	0%	0%	100%	0%	0%	20%	80%	0%	0%	100%	0%		
	PEAK HR FACTOR	0.000			0.250			0.250			0.625			0.458	
	APP/DEPART	0	/	1	1	/	0	5	/	5	5	/	5	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

RTOR			
NRR	SRR	ERR	WRR

0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
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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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	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	0	0
0	0	0	0
0	0	0	0
0	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
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	Distribution		
	NORTH SIDE		
4th	WEST SIDE	EAST SIDE	4th
	SOUTH SIDE		
	Distribution		

INTERSECTION TURNING MOVEMENT COUNTS

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

DATE: 5/19/22 THURSDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Beaumont Distribution 4th	PROJECT #: LOCATION #: CONTROL:	SC3432 6 SIGNAL
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CLASS 3: 3-AXLE TRUCKS	NOTES:	AM PM MD OTHER OTHER	▲ N ◀ W S ▼	E ▶
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	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Distribution			Distribution			4th			4th			
LANES:	NL X	NT X	NR X	SL 1	ST X	SR 1	EL 1	ET 2	ER X	WL X	WT 2	WR 0	TOTAL

AM	7:00 AM	0	0	0	0	0	0	0	3	0	0	1	0	4
	7:15 AM	0	0	0	0	0	0	0	2	0	0	0	0	2
	7:30 AM	0	0	0	0	0	0	0	2	0	0	0	0	2
	7:45 AM	0	0	0	0	0	0	0	3	0	0	0	0	3
	8:00 AM	0	0	0	0	0	0	0	5	0	0	3	0	8
	8:15 AM	0	0	0	0	0	0	0	3	0	0	0	0	3
	8:30 AM	0	0	0	0	0	0	0	4	0	0	2	0	6
	8:45 AM	0	0	0	0	0	0	0	2	0	0	0	0	2
	VOLUMES	0	0	0	0	0	0	0	24	0	0	6	0	30
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
APP/DEPART	0	/	0	0	/	0	24	/	24	6	/	6	0	
BEGIN PEAK HR	8:00 AM													
VOLUMES	0	0	0	0	0	0	0	14	0	0	5	0	19	
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%		
PEAK HR FACTOR	0.000			0.000			0.700			0.417			0.594	
APP/DEPART	0	/	0	0	/	0	14	/	14	5	/	5	0	
PM	4:00 PM	0	0	0	0	0	0	0	1	0	0	1	0	2
	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	3	0	3
	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	1	0	1
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	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	6	0	8
	APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	0	/	0	1	/	0	1	/	2	6	/	6	0
	BEGIN PEAK HR	5:00 PM												
	VOLUMES	0	0	0	1	0	0	0	0	0	0	2	0	3
	APPROACH %	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	100%	0%	
PEAK HR FACTOR	0.000			0.250			0.000			0.500			0.375	
APP/DEPART	0	/	0	1	/	0	0	/	1	2	/	2	0	

	Distribution	
	NORTH SIDE	
4th	WEST SIDE	EAST SIDE 4th
	SOUTH SIDE	
	Distribution	

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

RTOR			
NRR X	SRR 0	ERR X	WRR 0

0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
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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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
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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INTERSECTION TURNING MOVEMENT COUNTS

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

DATE: 5/19/22 THURSDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Beaumont Distribution 4th	PROJECT #: LOCATION #: CONTROL:	SC3432 6 SIGNAL
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CLASS 4: 4 OR MORE AXLE TRUCKS	NOTES:	AM PM MD OTHER	▲ N ◀ W S ▼	E ▶
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	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Distribution			Distribution			4th			4th			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	X	X	X	1	X	1	1	2	X	X	2	0	

AM	7:00 AM	0	0	0	0	0	0	0	1	0	0	8	0	9
	7:15 AM	0	0	0	0	0	0	0	0	0	0	3	0	3
	7:30 AM	0	0	0	0	0	0	0	3	0	0	3	0	6
	7:45 AM	0	0	0	0	0	0	1	2	0	0	5	1	9
	8:00 AM	0	0	0	0	0	1	0	0	0	0	5	0	6
	8:15 AM	0	0	0	0	0	0	0	1	0	0	5	0	6
	8:30 AM	0	0	0	0	0	0	0	1	0	0	8	2	11
	8:45 AM	0	0	0	0	0	0	0	1	0	0	12	0	13
	VOLUMES	0	0	0	0	0	1	1	9	0	0	49	3	63
	APPROACH %	0%	0%	0%	0%	0%	100%	10%	90%	0%	0%	94%	6%	
APP/DEPART	0	/	4	1	/	0	10	/	9	52	/	50	0	
BEGIN PEAK HR	8:00 AM													
VOLUMES	0	0	0	0	0	1	0	3	0	0	30	2	36	
APPROACH %	0%	0%	0%	0%	0%	100%	0%	100%	0%	0%	94%	6%		
PEAK HR FACTOR	0.000			0.250			0.750			0.667			0.692	
APP/DEPART	0	/	2	1	/	0	3	/	3	32	/	31	0	
PM	4:00 PM	0	0	0	0	0	0	0	1	0	0	4	0	5
	4:15 PM	0	0	0	0	0	0	0	2	0	0	0	1	3
	4:30 PM	0	0	0	1	0	0	0	2	0	0	1	0	4
	4:45 PM	0	0	0	0	0	0	0	1	0	0	1	0	2
	5:00 PM	0	0	0	0	0	0	0	1	0	0	5	0	6
	5:15 PM	0	0	0	0	0	0	0	0	0	0	2	1	3
	5:30 PM	0	0	0	0	0	1	0	1	0	0	2	0	4
	5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
	VOLUMES	0	0	0	1	0	1	0	8	0	0	16	2	28
	APPROACH %	0%	0%	0%	50%	0%	50%	0%	100%	0%	0%	89%	11%	
APP/DEPART	0	/	2	2	/	0	8	/	9	18	/	17	0	
BEGIN PEAK HR	5:00 PM													
VOLUMES	0	0	0	0	0	1	0	2	0	0	10	1	14	
APPROACH %	0%	0%	0%	0%	0%	100%	0%	100%	0%	0%	91%	9%		
PEAK HR FACTOR	0.000			0.250			0.500			0.550			0.583	
APP/DEPART	0	/	1	1	/	0	2	/	2	11	/	11	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

RTOR			
NRR	SRR	ERR	WRR
X	0	X	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	1	0	0
0	0	0	0
0	0	0	0
0	1	0	0

0	1	0	0
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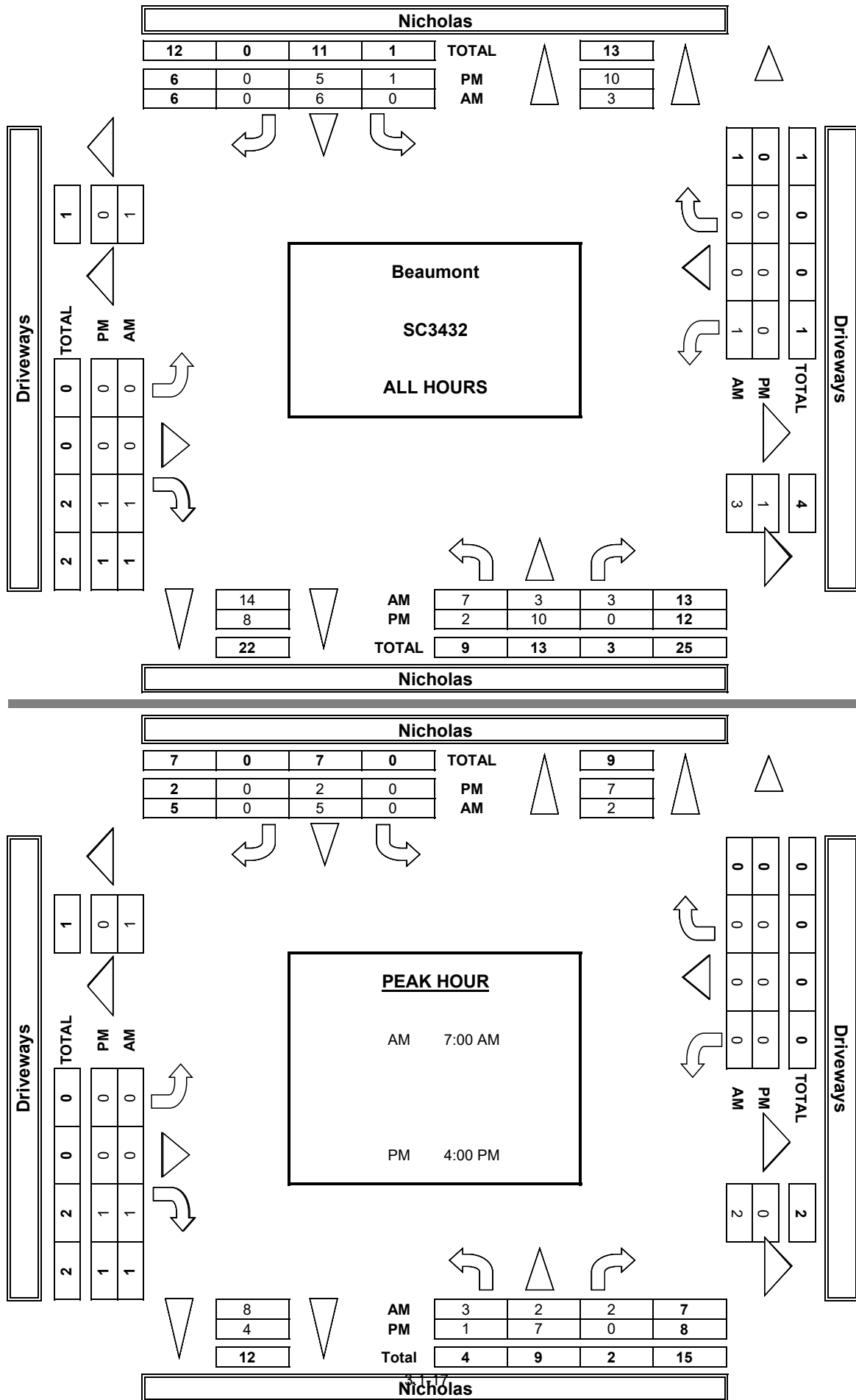
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	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	0	1
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Distribution		Distribution	
NORTH SIDE		EAST SIDE	
4th	WEST SIDE	4th	EAST SIDE
SOUTH SIDE		SOUTH SIDE	
Distribution		Distribution	

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

DATE: 5/19/22 THURSDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Beaumont Nicholas Driveways	PROJECT #: LOCATION #: CONTROL:	SC3432 7 STOP E/W
CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS	NOTES:		AM PM MD OTHER	▲ ◀ W ▼ N S E ▶

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Nicholas			Nicholas			Driveways			Driveways			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	0	1	0	0	1	0	0	1	0	0	1	0	

AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	1	0	0	0	0	0	0	1
	7:30 AM	0	0	0	0	1	0	0	0	0	0	0	1
	7:45 AM	0	0	0	0	1	0	0	0	0	0	0	1
	8:00 AM	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
	8:30 AM	0	0	0	0	1	0	0	0	0	0	0	1
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	4	0	0	0	0	0	0	4
	APPROACH %	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	
PM	4:00 PM	0	1	0	0	1	0	0	0	0	0	0	2
	4:15 PM	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
	4:45 PM	0	1	0	0	0	0	0	0	0	0	0	1
	5:00 PM	0	1	0	0	1	0	0	0	0	0	0	2
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	1	0	0	0	0	0	0	0	0	0	1
	5:45 PM	0	1	0	0	0	0	0	0	0	0	0	1
	VOLUMES	0	6	0	0	2	0	0	0	0	0	0	8
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	
7:00 AM 0.000 0.750 0.000 0.750													
4:00 PM 0.750 0.250 0.000 0.500													

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

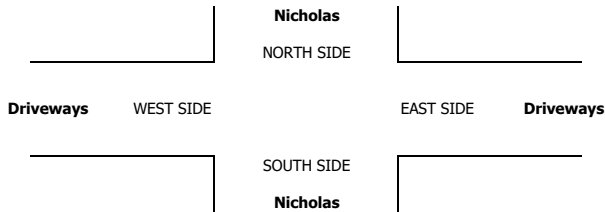
RTOR			
NRR	SRR	ERR	WRR
X	X	X	X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
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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INTERSECTION TURNING MOVEMENT COUNTS

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

DATE: 5/19/22 THURSDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Beaumont Nicholas Driveways	PROJECT #: LOCATION #: CONTROL:	SC3432 7 STOP E/W
CLASS 3: 3-AXLE TRUCKS	NOTES:		AM PM MD OTHER	▲ N ◀ W S ▶ E

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Nicholas			Nicholas			Driveways			Driveways			
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	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
7:30 AM	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
8:00 AM	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
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
VOLUMES	0	1	0	0	0	0	0	0	0	0	0	0	1
APPROACH %	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
APP/DEPART	1	/	1	0	/	0	0	/	0	0	/	0	0
BEGIN PEAK HR	7:00 AM												
VOLUMES	0	1	0	0	0	0	0	0	0	0	0	0	1
APPROACH %	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR	0.250			0.000			0.000			0.000			0.250
APP/DEPART	1	/	1	0	/	0	0	/	0	0	/	0	0
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	0	0	0	0
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%	
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	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				
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

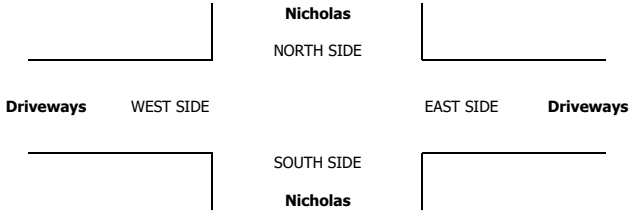
RTOR			
NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
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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INTERSECTION TURNING MOVEMENT COUNTS

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

DATE: 5/19/22 THURSDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Beaumont Nicholas Driveways	PROJECT #: LOCATION #: CONTROL:	SC3432 7 STOP E/W
CLASS 4: 4 OR MORE AXLE TRUCKS	NOTES:		AM PM MD OTHER	▲ ◀ W ▼ N E ▶ S

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Nicholas			Nicholas			Driveways			Driveways			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	0	1	0	0	1	0	0	1	0	0	1	0	

AM	7:00 AM	1	0	0	0	0	0	0	0	0	0	0	1
	7:15 AM	1	0	0	0	0	0	0	0	0	0	0	1
	7:30 AM	1	0	0	0	2	0	0	0	1	0	0	4
	7:45 AM	0	1	0	0	0	0	0	0	0	0	0	1
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	2	0	0	0	0	0	0	0	0	0	0	2
	8:30 AM	1	0	0	0	0	0	0	0	0	0	0	1
	8:45 AM	0	1	0	0	0	0	0	0	0	0	0	1
	VOLUMES	6	2	0	0	2	0	0	1	0	0	0	11
	APPROACH %	75%	25%	0%	0%	100%	0%	0%	100%	0%	0%	0%	
PM	APP/DEPART	8	/	2	2	/	8	1	/	0	0	/	1
	BEGIN PEAK HR	7:00 AM											
	VOLUMES	1	1	0	0	2	0	0	0	1	0	0	7
	APPROACH %	25%	25%	0%	0%	100%	0%	0%	0%	100%	0%	0%	
	PEAK HR FACTOR	1.000			0.250			0.250			0.000		
	APP/DEPART	4	/	1	2	/	5	1	/	0	0	/	1
	4:00 PM	0	1	0	0	0	0	0	0	0	0	0	1
	4:15 PM	0	1	0	0	0	0	0	0	0	0	0	1
	4:30 PM	0	1	0	0	0	0	0	0	0	0	0	1
	4:45 PM	0	0	0	0	1	0	0	0	0	0	0	1
	5:00 PM	0	0	0	0	1	0	0	0	0	0	0	1
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	1	0	0	0	0	0	0	1
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	3	0	0	3	0	0	0	0	0	0	6
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	3	/	3	3	/	3	0	/	0	0	/	0
	BEGIN PEAK HR	4:00 PM											
	VOLUMES	0	3	0	0	1	0	0	0	0	0	0	4
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR	0.750			0.250			0.000			0.000		
	APP/DEPART	3	/	3	1	/	1	0	/	0	0	/	0

U-TURNS				
NB	SB	EB	WB	TTL
1	0	0	0	1
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
2	0	0	0	2
1	0	0	0	1
0	0	0	0	0
5	0	0	0	5

RTOR			
NRR	SRR	ERR	WRR
X	X	X	X

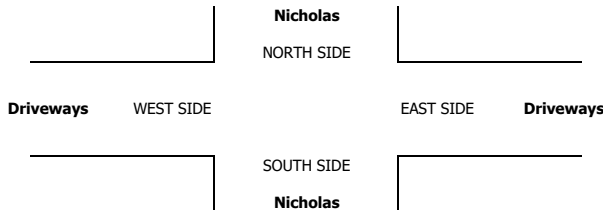
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0	0	0	0
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0	0	0	0
0	0	0	0
0	0	0	0

0	0	0	0
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0	0	0	0	0
0	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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0	0	0	0	0

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0	0	0	0
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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INTERSECTION TURNING MOVEMENT COUNTS

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

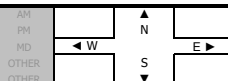
DATE: Thu, May 19, 22

LOCATION: NORTH & SOUTH: EAST & WEST:

Beaumont
Nicholas
4th

PROJECT #: SC3432
LOCATION #: 8
CONTROL: STOP S

NOTES:



Add U-Turns to Left Turns

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Nicholas			Nicholas			4th			4th			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	X	X	X	1	X	1	1	2	X	X	2	0	
7:30 AM	0	0	0	31	0	2	0	34	0	0	67	12	146
7:15 AM	0	0	0	13	0	0	0	16	0	0	66	10	105
7:30 AM	0	0	0	9	0	1	0	19	0	0	60	19	108
7:45 AM	0	0	0	9	0	3	1	17	0	0	109	7	146
8:00 AM	0	0	0	4	0	0	1	19	0	0	167	5	196
8:15 AM	0	0	0	3	0	2	2	31	0	0	166	16	220
8:30 AM	0	0	0	4	0	2	1	28	0	0	177	8	220
8:45 AM	0	0	0	2	0	1	0	38	0	0	188	6	235
VOLUMES	0	0	0	75	0	11	5	202	0	0	1,000	83	1,376
APPROACH %	0%	0%	0%	87%	0%	13%	2%	98%	0%	0%	92%	8%	
APP/DEPART	0	7	88	86	7	0	207	7	277	1,083	7	1,011	0
BEGIN PEAK HR	8:00 AM												
VOLUMES	0	0	0	13	0	5	4	116	0	0	698	35	871
APPROACH %	0%	0%	0%	72%	0%	28%	3%	97%	0%	0%	95%	5%	
PEAK HR FACTOR	0.000			0.750			0.789			0.945			0.927
APP/DEPART	0	7	39	18	7	0	120	7	129	733	7	703	0
4:00 PM	0	0	0	11	0	4	3	73	0	0	63	7	161
4:15 PM	0	0	0	16	0	3	0	53	0	0	35	5	112
4:30 PM	0	0	0	19	0	2	2	48	0	0	66	3	140
4:45 PM	0	0	0	4	0	2	3	66	0	0	121	3	199
5:00 PM	0	0	0	7	0	9	2	181	0	0	151	1	351
5:15 PM	0	0	0	5	0	5	1	96	0	0	179	2	288
5:30 PM	0	0	0	5	0	4	1	284	0	0	192	2	488
5:45 PM	0	0	0	5	0	4	0	124	0	0	128	3	264
VOLUMES	0	0	0	72	0	33	12	925	0	0	935	26	2,005
APPROACH %	0%	0%	0%	69%	0%	31%	1%	99%	0%	0%	97%	3%	
APP/DEPART	0	7	38	105	7	0	938	7	998	962	7	969	0
BEGIN PEAK HR	5:00 PM												
VOLUMES	0	0	0	22	0	22	4	685	0	0	650	8	1,391
APPROACH %	0%	0%	0%	50%	0%	50%	1%	99%	0%	0%	99%	1%	
PEAK HR FACTOR	0.000			0.688			0.604			0.848			0.713
APP/DEPART	0	7	12	44	7	0	689	7	707	658	7	672	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

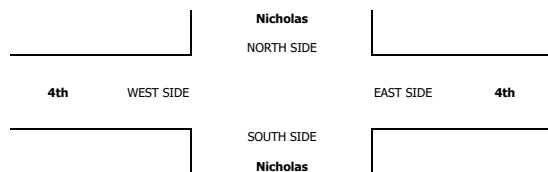
RTOR			
NRR	SRR	ERR	WRR
X	X	X	X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

0	0	0	0
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0	0	0	0	0
0	0	0	1	1
0	0	1	0	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	1	1	2

0	0	0	0	0
0	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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0	0	0	0	0

0	0	0	0
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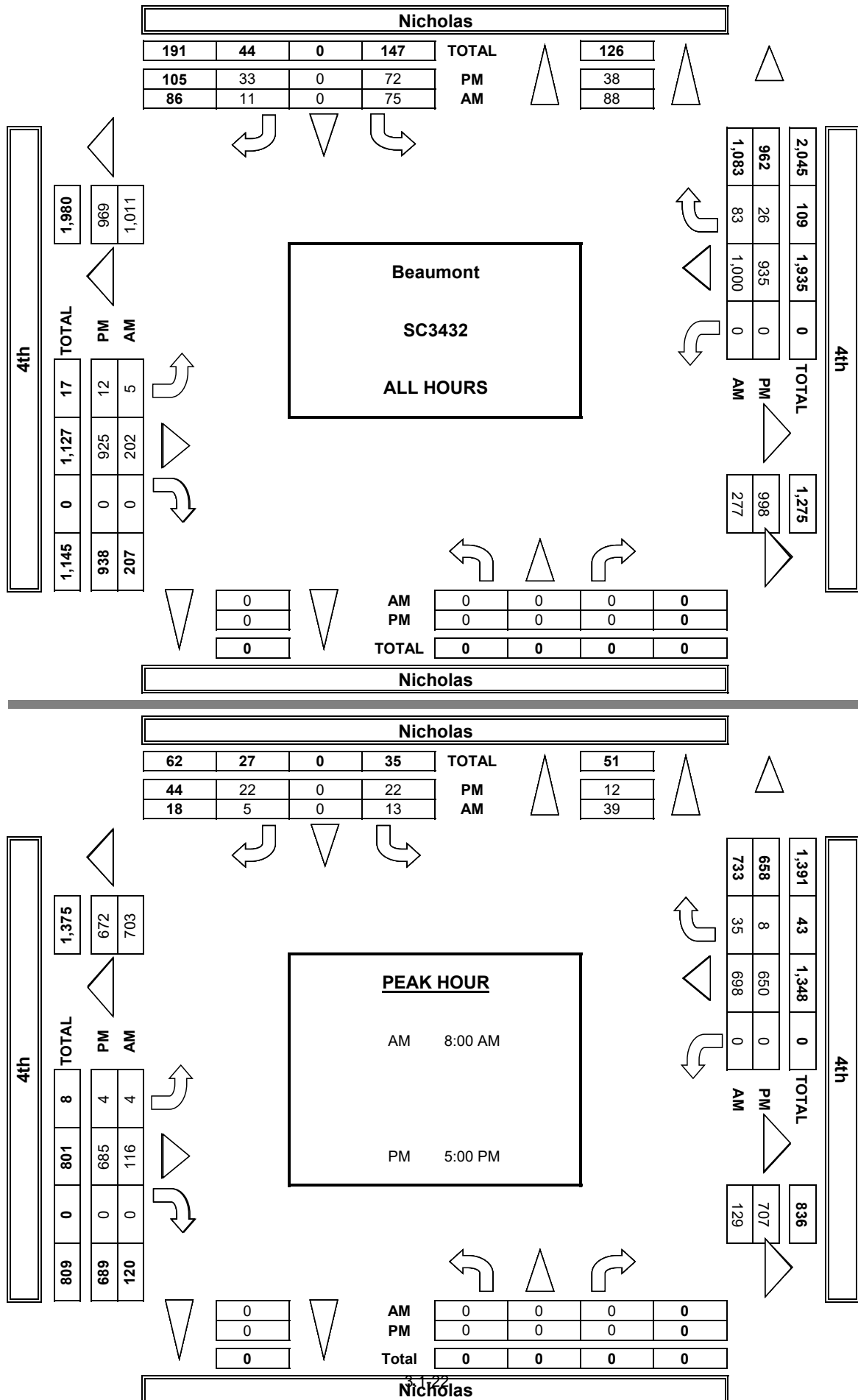
AM	
7:00 AM	
7:15 AM	
7:30 AM	
7:45 AM	
8:00 AM	
8:15 AM	
8:30 AM	
8:45 AM	
TOTAL	
PM	
4:00 PM	
4:15 PM	
4:30 PM	
4:45 PM	
5:00 PM	
5:15 PM	
5:30 PM	
5:45 PM	
TOTAL	

ALL PED AND BIKE				
E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
0	2	0	0	2
0	0	0	0	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	2	0	1	3
0	0	0	0	0
0	2	0	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	0	0	1	1
0	1	0	2	3
0	6	0	3	9

PEDESTRIAN CROSSINGS				
E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
0	2	0	0	2
0	0	0	0	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	2	0	1	3
0	0	0	0	0
0	2	0	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	1	0	2	3
0	6	0	2	8

BICYCLE CROSSINGS				
ES	WS	SS	NS	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	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	1	1

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

DATE: 5/19/22 THURSDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Beaumont Nicholas 4th	PROJECT #: LOCATION #: CONTROL:	SC3432 8 STOP S
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CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS	NOTES:	AM PM MD OTHER	▲ N ◀ W S ▼	▶ E
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	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Nicholas			Nicholas			4th			4th			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	X	X	X	1	X	1	1	2	X	X	2	0	

AM	7:00 AM	0	0	0	0	0	0	0	0	0	3	1	4
	7:15 AM	0	0	0	1	0	0	0	1	0	3	1	6
	7:30 AM	0	0	0	1	0	0	0	1	0	1	0	3
	7:45 AM	0	0	0	1	0	1	0	1	0	3	0	6
	8:00 AM	0	0	0	0	0	0	0	0	0	1	0	1
	8:15 AM	0	0	0	0	0	0	0	0	0	2	1	3
	8:30 AM	0	0	0	1	0	0	0	2	0	1	1	5
	8:45 AM	0	0	0	0	0	0	0	0	0	2	0	2
	VOLUMES	0	0	0	4	0	1	0	5	0	16	4	30
	APPROACH %	0%	0%	0%	80%	0%	20%	0%	100%	0%	80%	20%	
PM	APP/DEPART	0	/	4	5	/	0	5	/	9	20	/	17
	BEGIN PEAK HR	8:00 AM											
	VOLUMES	0	0	0	1	0	0	0	2	0	6	2	11
	APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	75%	25%	
	PEAK HR FACTOR	0.000			0.250			0.250			0.667		
	APP/DEPART	0	/	2	1	/	0	2	/	3	8	/	6
	4:00 PM	0	0	0	0	0	0	1	0	0	1	0	2
	4:15 PM	0	0	0	2	0	0	0	3	0	0	2	7
	4:30 PM	0	0	0	1	0	1	1	1	0	2	0	6
	4:45 PM	0	0	0	0	0	0	0	2	0	0	0	2
	5:00 PM	0	0	0	0	0	0	0	1	0	2	1	4
	5:15 PM	0	0	0	0	0	0	0	1	0	1	0	2
	5:30 PM	0	0	0	0	0	0	0	0	0	1	1	2
	5:45 PM	0	0	0	0	0	0	0	1	0	0	1	2
	VOLUMES	0	0	0	3	0	1	2	9	0	7	5	27
	APPROACH %	0%	0%	0%	75%	0%	25%	18%	82%	0%	58%	42%	
	APP/DEPART	0	/	7	4	/	0	11	/	12	12	/	8
	BEGIN PEAK HR	5:00 PM											
	VOLUMES	0	0	0	0	0	0	0	3	0	4	3	10
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	57%	43%	
	PEAK HR FACTOR	0.000			0.000			0.750			0.583		
	APP/DEPART	0	/	3	0	/	0	3	/	3	7	/	4

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

RTOR			
NRR	SRR	ERR	WRR

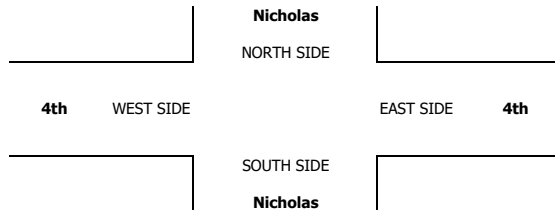
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0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
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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INTERSECTION TURNING MOVEMENT COUNTS

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

DATE: 5/19/22 THURSDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Beaumont Nicholas 4th	PROJECT #: LOCATION #: CONTROL:	SC3432 8 STOP S
CLASS 3: 3-AXLE TRUCKS	NOTES:		AM PM MD OTHER OTHER	▲ ◀ W ▼ ▲ ◀ W ▼ ▲ ◀ W ▼

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Nicholas			Nicholas			4th			4th			
LANES:	NL X	NT X	NR X	SL 1	ST X	SR 1	EL 1	ET 2	ER X	WL X	WT 2	WR 0	TOTAL
7:00 AM	0	0	0	0	0	0	0	4	0	0	2	0	6
7:15 AM	0	0	0	0	0	0	0	2	0	0	0	1	3
7:30 AM	0	0	0	0	0	0	0	4	0	0	0	0	4
7:45 AM	0	0	0	0	0	0	0	1	0	0	1	1	3
8:00 AM	0	0	0	0	0	0	0	5	0	0	1	0	6
8:15 AM	0	0	0	0	0	0	0	4	0	0	0	0	4
8:30 AM	0	0	0	0	0	0	0	4	0	0	2	0	6
8:45 AM	0	0	0	0	0	0	0	2	0	0	0	0	2
VOLUMES	0	0	0	0	0	0	0	26	0	0	6	2	34
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	75%	25%	
APP/DEPART	0	/	2	0	/	0	26	/	26	8	/	6	0
BEGIN PEAK HR	8:00 AM												
VOLUMES	0	0	0	0	0	0	0	15	0	0	3	0	18
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
PEAK HR FACTOR	0.000			0.000			0.750			0.375			0.750
APP/DEPART	0	/	0	0	/	0	15	/	15	3	/	3	0
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	1	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	1	0	0	0	1	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	3	0	3
5:00 PM	0	0	0	0	0	1	0	0	0	0	1	0	2
5:15 PM	0	0	0	0	0	0	0	2	0	0	1	0	3
5:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	1	0	4	0	0	7	1	13
APPROACH %	0%	0%	0%	0%	0%	100%	0%	100%	0%	0%	88%	13%	
APP/DEPART	0	/	1	1	/	0	4	/	4	8	/	8	0
BEGIN PEAK HR	5:00 PM												
VOLUMES	0	0	0	0	0	1	0	2	0	0	4	0	7
APPROACH %	0%	0%	0%	0%	0%	100%	0%	100%	0%	0%	100%	0%	
PEAK HR FACTOR	0.000			0.250			0.250			0.500			0.583
APP/DEPART	0	/	0	1	/	0	2	/	2	4	/	5	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

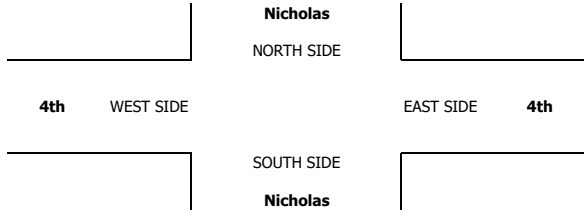
RTOR			
NRR X	SRR X	ERR X	WRR X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
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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INTERSECTION TURNING MOVEMENT COUNTS

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

DATE: 5/19/22 THURSDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Beaumont Nicholas 4th	PROJECT #: LOCATION #: CONTROL:	SC3432 8 STOP S
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CLASS 4: 4 OR MORE AXLE TRUCKS	NOTES:	AM PM MD OTHER	▲ N ◀ W S ▼	E ▶
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	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Nicholas			Nicholas			4th			4th			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	X	X	X	1	X	1	1	2	X	X	2	0	

AM	7:00 AM	0	0	0	0	0	0	1	0	0	7	1	9
	7:15 AM	0	0	0	0	0	0	1	0	0	4	2	7
	7:30 AM	0	0	0	2	0	1	0	2	0	2	0	7
	7:45 AM	0	0	0	2	0	0	0	1	0	8	2	13
	8:00 AM	0	0	0	1	0	0	0	0	0	3	0	4
	8:15 AM	0	0	0	0	0	0	2	0	0	5	1	8
	8:30 AM	0	0	0	1	0	1	0	0	0	10	1	13
	8:45 AM	0	0	0	1	0	0	0	2	0	13	1	17
	VOLUMES	0	0	0	7	0	2	0	9	0	52	8	78
	APPROACH %	0%	0%	0%	78%	0%	22%	0%	100%	0%	87%	13%	
PM	APP/DEPART	0	/	8	9	/	0	9	/	16	60	/	54
	BEGIN PEAK HR	8:00 AM											
	VOLUMES	0	0	0	3	0	1	0	4	0	31	3	42
	APPROACH %	0%	0%	0%	75%	0%	25%	0%	100%	0%	91%	9%	
	PEAK HR FACTOR	0.000			0.500			0.500			0.607		
	APP/DEPART	0	/	3	4	/	0	4	/	7	34	/	32
	4:00 PM	0	0	0	0	0	0	0	1	0	0	4	3
	4:15 PM	0	0	0	0	0	1	0	2	0	0	1	0
	4:30 PM	0	0	0	1	0	0	0	2	0	0	2	1
	4:45 PM	0	0	0	3	0	0	0	2	0	0	1	0
	5:00 PM	0	0	0	1	0	0	0	1	0	0	4	0
	5:15 PM	0	0	0	0	0	0	0	2	0	0	1	0
	5:30 PM	0	0	0	1	0	0	0	0	0	0	3	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0
	VOLUMES	0	0	0	6	0	1	0	10	0	17	4	38
	APPROACH %	0%	0%	0%	86%	0%	14%	0%	100%	0%	81%	19%	
	APP/DEPART	0	/	4	7	/	0	10	/	16	21	/	18
	BEGIN PEAK HR	5:00 PM											
	VOLUMES	0	0	0	2	0	0	0	3	0	0	9	0
	APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	100%	0%	
	PEAK HR FACTOR	0.000			0.500			0.375			0.563		
	APP/DEPART	0	/	0	2	/	0	3	/	5	9	/	9

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

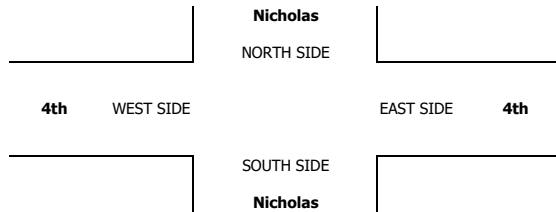
RTOR			
NRR	SRR	ERR	WRR
X	X	X	X
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
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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INTERSECTION TURNING MOVEMENT COUNTS

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

DATE: Thu, May 19, 22	LOCATION: NORTH & SOUTH: EAST & WEST:	Beaumont Veile 4th	PROJECT #: SC3432 LOCATION #: 10 CONTROL: SIGNAL
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NOTES:

AM	PM	MD	OTHER

Add U-Turns to Left Turns

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Veile			Veile			4th			4th			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	1	1	1	1	1	1	1	1	1	1	1	0	
7:30 AM	38	5	1	6	3	32	12	22	20	0	23	1	163
7:15 AM	43	1	1	4	4	23	8	8	21	0	20	6	139
7:30 AM	37	3	1	6	16	14	7	17	8	2	23	5	139
7:45 AM	43	3	2	3	9	35	5	9	12	1	28	2	152
8:00 AM	81	8	0	0	7	33	15	11	9	2	58	4	228
8:15 AM	100	5	0	0	7	32	5	10	21	1	60	4	245
8:30 AM	90	7	1	2	3	33	10	12	16	1	55	1	231
8:45 AM	133	7	1	3	7	35	7	8	25	1	42	0	269
VOLUMES	565	39	7	24	56	237	69	97	132	8	309	23	1,566
APPROACH %	92%	6%	1%	8%	18%	75%	23%	33%	44%	2%	91%	7%	
APP/DEPART	611	7	131	317	196	298	298	128	44%	340	7	1,111	0
BEGIN PEAK HR	8:00 AM												
VOLUMES	404	27	2	5	24	133	37	41	71	5	215	9	973
APPROACH %	93%	6%	0%	3%	15%	82%	25%	28%	48%	2%	94%	4%	
PEAK HR FACTOR	0.768			0.900			0.931			0.881			0.904
APP/DEPART	433	7	73	162	100	149	48	229	752	0	752	0	
4:00 PM	35	1	3	1	14	18	10	32	27	0	11	4	156
4:15 PM	23	0	0	4	18	13	25	29	35	0	15	5	167
4:30 PM	40	3	1	4	18	12	30	19	37	0	12	0	176
4:45 PM	64	7	0	3	18	17	7	12	23	0	39	2	192
5:00 PM	99	4	1	2	10	15	33	55	114	0	20	2	355
5:15 PM	108	5	0	6	15	43	18	26	51	0	46	3	321
5:30 PM	94	3	0	1	10	27	71	89	128	0	69	1	493
5:45 PM	84	2	0	2	14	21	27	54	76	1	41	2	324
VOLUMES	547	25	5	23	117	166	221	316	491	1	253	19	2,184
APPROACH %	95%	4%	1%	8%	38%	54%	21%	31%	48%	0%	93%	7%	
APP/DEPART	577	265	306	609	1,028	344	273	7	966	0	966	0	
BEGIN PEAK HR	5:00 PM												
VOLUMES	385	14	1	11	49	106	149	224	369	1	176	8	1,493
APPROACH %	96%	4%	0%	7%	30%	64%	20%	30%	50%	1%	95%	4%	
PEAK HR FACTOR	0.885			0.648			0.644			0.661			0.757
APP/DEPART	400	171	166	419	742	236	185	667	0				

Veile

NORTH SIDE

4th WEST SIDE

EAST SIDE 4th

Veile

SOUTH SIDE

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

RTOR

NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
1	0	3	2
0	0	2	0
0	0	3	1
0	0	7	1
0	0	5	0
0	0	14	0
1	0	43	8

0 0 29 2

0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
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	0	9	2
0	0	9	2
0	0	11	0
0	0	9	0
0	0	41	1
0	0	27	1
0	0	43	0
0	0	21	1
1	0	170	7

0 0 132 3

ALL PED AND BIKE

E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	3	3
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
0	0	0	4	4
0	0	0	0	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	1	1

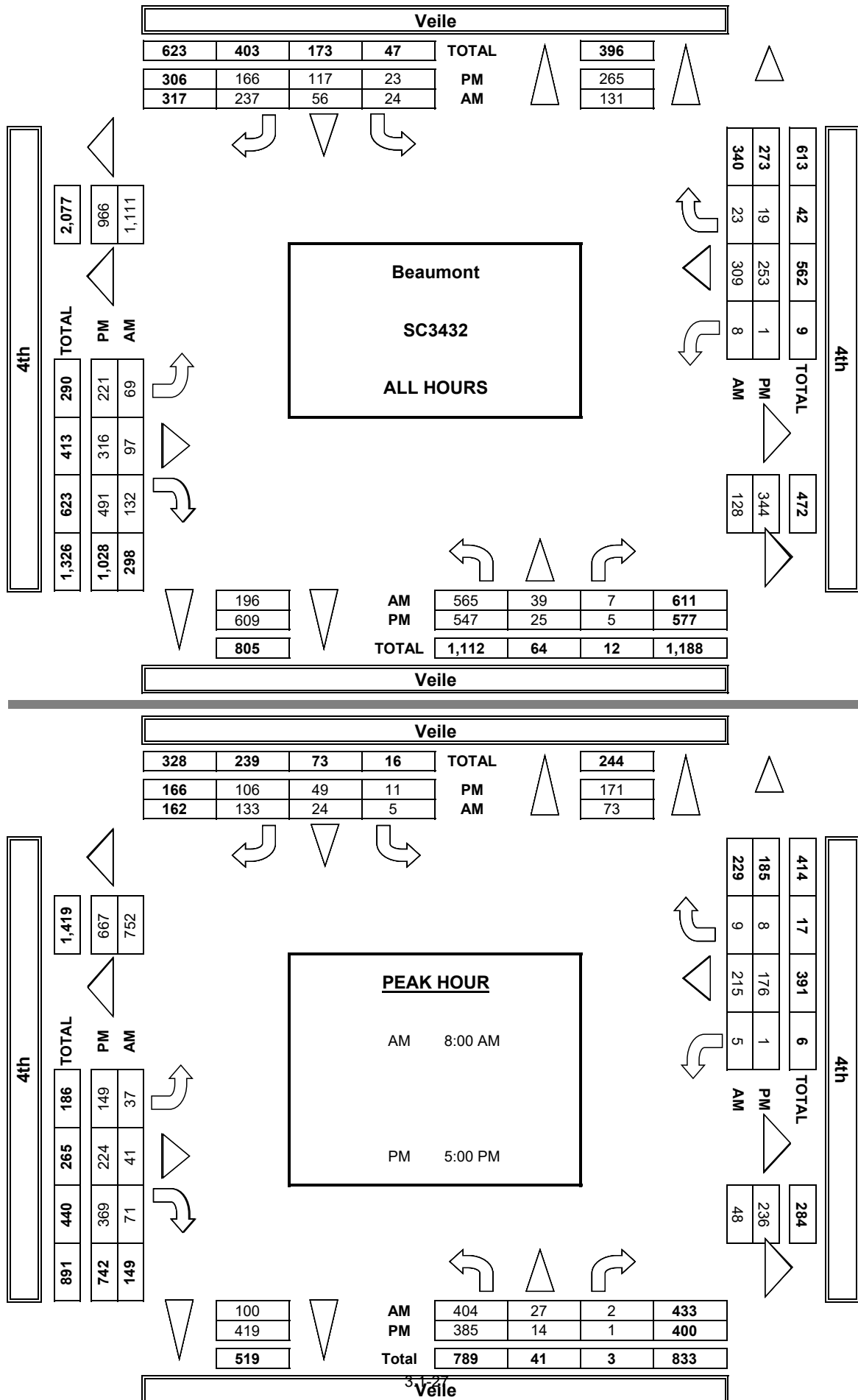
PEDESTRIAN CROSSINGS

E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	3	3
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
0	0	0	4	4
0	0	0	0	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	1	1

BICYCLE CROSSINGS

ES	WS	SS	NS	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	3	3
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
0	0	0	4	4
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	1	1

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

DATE: 5/19/22 THURSDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Beaumont Veile 4th	PROJECT #: LOCATION #: CONTROL:	SC3432 10 SIGNAL
CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS	NOTES:		AM PM MD OTHER OTHER	▲ ◀ W ▼ N S E ▶

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Veile			Veile			4th			4th			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	1	1	1	1	1	1	1	1	1	1	1	0	

AM	7:00 AM	4	0	0	2	2	4	0	1	0	0	1	1	15
	7:15 AM	4	0	1	1	0	2	0	0	3	0	1	3	15
	7:30 AM	2	0	0	0	0	0	1	4	0	0	1	0	8
	7:45 AM	1	0	1	1	2	1	1	1	2	0	4	1	15
	8:00 AM	1	0	0	0	0	0	0	3	1	0	2	0	7
	8:15 AM	2	0	0	0	0	1	0	0	0	0	0	1	4
	8:30 AM	1	0	0	1	0	1	1	0	1	0	3	0	8
	8:45 AM	3	0	0	1	0	0	0	0	1	0	0	0	5
	VOLUMES	18	0	2	6	4	9	3	9	8	0	12	6	77
	APPROACH %	90%	0%	10%	32%	21%	47%	15%	45%	40%	0%	67%	33%	
	APP/DEPART	20	/	9	19	/	12	20	/	17	18	/	39	0
PM	BEGIN PEAK HR	8:00 AM												
	VOLUMES	7	0	0	2	0	2	1	3	3	0	5	1	24
	APPROACH %	100%	0%	0%	50%	0%	50%	14%	43%	43%	0%	83%	17%	
	PEAK HR FACTOR	0.583			0.500			0.438			0.500			0.750
	APP/DEPART	7	/	2	4	/	3	7	/	5	6	/	14	0
	4:00 PM	0	0	0	0	2	1	0	1	0	0	0	1	5
	4:15 PM	4	0	0	0	4	0	2	2	0	0	1	2	15
	4:30 PM	1	0	0	0	1	0	3	1	1	0	1	0	8
	4:45 PM	1	1	0	1	3	0	1	1	0	0	1	0	9
	5:00 PM	1	0	0	0	0	0	0	1	1	0	0	0	3
	5:15 PM	1	0	0	0	1	0	0	1	1	0	0	0	4
	5:30 PM	1	0	0	0	0	0	0	2	0	0	2	0	5
	5:45 PM	0	0	0	0	1	1	0	0	0	0	0	1	3
	VOLUMES	9	1	0	1	12	2	6	9	3	0	5	4	52
	APPROACH %	90%	10%	0%	7%	80%	13%	33%	50%	17%	0%	56%	44%	
	APP/DEPART	10	/	11	15	/	15	18	/	10	9	/	16	0
	BEGIN PEAK HR	5:00 PM												
	VOLUMES	3	0	0	0	2	1	0	4	2	0	2	1	15
	APPROACH %	100%	0%	0%	0%	67%	33%	0%	67%	33%	0%	67%	33%	
	PEAK HR FACTOR	0.750			0.375			0.750			0.375			0.750
	APP/DEPART	3	/	1	3	/	4	6	/	4	3	/	6	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

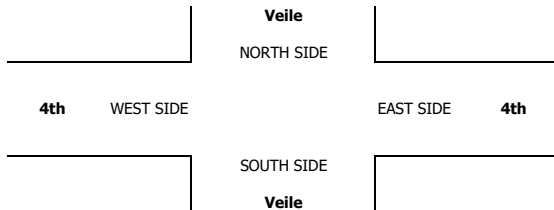
RTOR			
NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

0	0	1	1
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	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	0
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INTERSECTION TURNING MOVEMENT COUNTS

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

DATE: 5/19/22 THURSDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Beaumont Veile 4th	PROJECT #: LOCATION #: CONTROL:	SC3432 10 SIGNAL
CLASS 3: 3-AXLE TRUCKS	NOTES:		AM PM MD OTHER OTHER	▲ N ◀ W S E ▶ ▼

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Veile			Veile			4th			4th			
LANES:	NL 1	NT 1	NR 1	SL 1	ST 1	SR 1	EL 1	ET 1	ER 1	WL 1	WT 1	WR 0	TOTAL

AM	7:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	1
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	1	0	0	0	0	1	0	2	0	0	0	0	4
	7:45 AM	0	0	0	0	0	0	1	1	0	0	1	0	3
	8:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	2
	8:15 AM	1	0	0	0	0	0	1	2	0	0	0	0	4
	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	1	0	0	0	0	0	1
	VOLUMES	2	0	0	0	0	2	4	6	0	0	1	0	15
	APPROACH %	100%	0%	0%	0%	0%	100%	40%	60%	0%	0%	100%	0%	
APP/DEPART	2	/	4	2	/	0	10	/	6	1	/	5	0	
BEGIN PEAK HR	8:00 AM													
VOLUMES	1	0	0	0	0	1	2	3	0	0	0	0	7	
APPROACH %	100%	0%	0%	0%	0%	100%	40%	60%	0%	0%	0%	0%		
PEAK HR FACTOR	0.250			0.250			0.417			0.000			0.438	
APP/DEPART	1	/	2	1	/	0	5	/	3	0	/	2	0	
PM	4:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	1
	4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	1	0	0	0	0	1	0	0	0	0	2	0	4
	5:00 PM	2	0	0	0	0	0	0	0	0	0	0	0	2
	5:15 PM	0	0	0	0	0	1	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	1	0	0	0	0	0	0	1	0	0	0	0	2
	VOLUMES	4	0	1	0	0	2	0	1	0	0	3	0	11
	APPROACH %	80%	0%	20%	0%	0%	100%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	5	/	0	2	/	0	1	/	2	3	/	9	0
	BEGIN PEAK HR	5:00 PM												
	VOLUMES	3	0	0	0	0	1	0	1	0	0	0	0	5
	APPROACH %	100%	0%	0%	0%	0%	100%	0%	100%	0%	0%	0%	0%	
PEAK HR FACTOR	0.375			0.250			0.250			0.000			0.625	
APP/DEPART	3	/	0	1	/	0	1	/	1	0	/	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

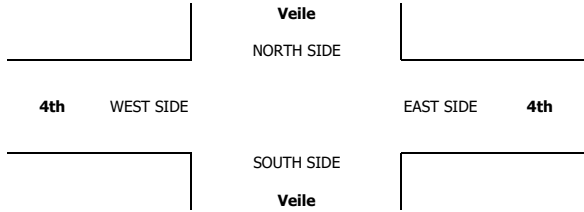
RTOR			
NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
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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INTERSECTION TURNING MOVEMENT COUNTS

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

DATE: 5/19/22 THURSDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Beaumont Veile 4th	PROJECT #: LOCATION #: CONTROL:	SC3432 10 SIGNAL
CLASS 4: 4 OR MORE AXLE TRUCKS	NOTES:		AM PM MD OTHER	▲ ◀ W S N E ▶

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Veile			Veile			4th			4th			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	1	1	1	1	1	1	1	1	1	1	1	0	

AM	7:00 AM	0	1	0	0	0	5	2	0	0	0	4	0	12
	7:15 AM	2	0	0	0	0	4	0	0	1	0	0	0	7
	7:30 AM	1	0	0	0	1	3	1	2	1	0	0	0	9
	7:45 AM	1	0	0	1	0	7	1	2	2	0	2	0	16
	8:00 AM	0	0	0	0	0	6	1	1	0	0	0	2	10
	8:15 AM	0	0	0	0	0	4	1	0	2	0	1	0	8
	8:30 AM	3	0	0	1	1	7	0	0	1	0	1	0	14
	8:45 AM	3	1	0	0	0	12	1	1	1	0	1	0	20
	VOLUMES	10	2	0	2	2	48	7	6	8	0	9	2	96
	APPROACH %	83%	17%	0%	4%	4%	92%	33%	29%	38%	0%	82%	18%	
	APP/DEPART	12	/	11	52	/	10	21	/	8	11	/	67	0
PM	BEGIN PEAK HR	8:00 AM												
	VOLUMES	6	1	0	1	1	29	3	2	4	0	3	2	52
	APPROACH %	86%	14%	0%	3%	3%	94%	33%	22%	44%	0%	60%	40%	
	PEAK HR FACTOR	0.438			0.646			0.750			0.625			0.650
	APP/DEPART	7	/	6	31	/	5	9	/	3	5	/	38	0
	4:00 PM	1	0	0	0	0	6	1	0	2	0	1	0	11
	4:15 PM	0	0	0	2	0	1	2	1	0	0	0	0	6
	4:30 PM	0	0	0	0	0	4	1	1	1	0	0	0	7
	4:45 PM	0	0	0	0	0	1	0	5	0	0	0	0	6
	5:00 PM	0	0	0	0	0	2	0	3	0	0	0	0	5
	5:15 PM	1	0	0	0	0	4	0	1	1	0	0	0	7
	5:30 PM	0	0	0	0	0	1	1	1	0	0	0	0	3
	5:45 PM	0	0	0	0	3	0	0	0	0	0	1	0	4
	VOLUMES	2	0	0	2	3	19	5	12	4	0	2	0	49
	APPROACH %	100%	0%	0%	8%	13%	79%	24%	57%	19%	0%	100%	0%	
	APP/DEPART	2	/	5	24	/	7	21	/	14	2	/	23	0
	BEGIN PEAK HR	5:00 PM												
	VOLUMES	1	0	0	0	3	7	1	5	1	0	1	0	19
	APPROACH %	100%	0%	0%	0%	30%	70%	14%	71%	14%	0%	100%	0%	
	PEAK HR FACTOR	0.250			0.625			0.583			0.250			0.679
	APP/DEPART	1	/	1	10	/	4	7	/	5	1	/	9	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

RTOR			
NRR	SRR	ERR	WRR
0	0	0	0
0	0	0	0
0	0	0	0
0	0	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	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	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	0
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	Veile		
	NORTH SIDE		
4th	WEST SIDE	EAST SIDE	4th
	SOUTH SIDE		
	Veile		

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

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

DATE: Thursday, May 19, 2022
JOB #: SC3432CITY: Beaumont
LOCATION: CLASS2 Potrero north of 4th

AM TIME	NORTHBOUND													TOTAL	PM Time	NORTHBOUND													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	6	0	0	0	2	0	0	1	0	0	0	0	9	12:00	0	13	9	0	3	2	0	0	0	0	0	0	0	27
0:15	0	11	1	0	0	1	0	0	1	0	0	0	0	14	12:15	0	8	9	0	2	2	1	0	5	0	0	0	0	27
0:30	0	12	0	0	0	2	0	0	2	0	0	0	0	16	12:30	0	14	4	0	2	1	0	0	5	0	0	0	0	26
0:45	0	5	0	0	0	1	0	0	1	0	0	0	0	7	12:45	0	13	2	0	2	4	0	0	2	0	0	0	0	23
1:00	0	8	0	0	0	0	0	0	2	0	0	0	0	10	13:00	0	22	10	1	1	0	0	0	4	0	0	0	0	38
1:15	0	9	0	0	0	3	0	0	2	0	0	0	0	14	13:15	0	17	6	0	4	0	0	0	5	0	0	0	0	32
1:30	0	8	1	0	1	0	0	0	1	0	0	0	0	11	13:30	0	19	9	0	0	0	0	0	3	0	0	0	0	31
1:45	0	3	2	0	0	2	0	0	2	0	0	0	0	9	13:45	0	15	12	0	2	4	0	0	3	0	0	0	0	36
2:00	0	25	0	0	0	2	0	0	0	0	0	0	0	27	14:00	0	22	9	0	1	2	0	0	3	0	0	0	0	37
2:15	1	14	0	0	0	2	0	0	0	0	0	0	0	17	14:15	0	14	11	0	2	2	0	0	2	0	0	0	0	31
2:30	0	42	0	0	0	2	0	0	2	0	0	0	0	46	14:30	1	18	14	0	1	0	0	0	1	0	0	0	0	35
2:45	0	11	3	0	0	0	0	0	1	0	0	0	0	15	14:45	1	27	7	0	1	1	0	0	4	0	0	0	0	41
3:00	0	9	0	0	0	0	0	0	1	0	0	0	0	10	15:00	0	18	6	0	2	1	0	0	2	0	0	0	0	29
3:15	0	11	0	0	0	1	0	0	0	0	0	0	0	12	15:15	0	19	4	0	2	1	0	0	1	0	0	0	0	27
3:30	0	6	1	0	0	1	0	0	1	0	0	0	0	9	15:30	0	31	9	0	3	1	0	0	2	0	0	0	0	46
3:45	0	1	1	0	2	0	0	0	0	0	0	0	0	4	15:45	0	29	5	0	1	0	0	0	2	0	0	0	0	37
4:00	0	1	0	0	0	0	0	0	2	0	0	0	0	3	16:00	1	35	4	0	1	1	0	0	2	0	0	0	0	44
4:15	0	2	0	0	0	1	0	0	1	0	0	0	0	4	16:15	0	30	8	0	0	0	0	0	1	0	0	0	0	39
4:30	0	0	0	0	0	2	0	0	0	0	0	0	0	2	16:30	0	24	4	0	0	0	0	0	2	0	0	0	0	30
4:45	0	1	1	0	1	1	0	0	2	0	0	0	0	6	16:45	0	27	6	0	1	0	0	0	2	0	0	0	0	36
5:00	0	5	2	0	1	0	0	0	0	0	0	0	0	8	17:00	0	49	15	0	1	0	0	0	2	0	0	0	0	67
5:15	0	1	3	0	1	0	0	0	2	0	0	0	0	7	17:15	0	39	5	0	1	2	0	0	0	0	0	0	0	47
5:30	0	2	6	0	1	0	0	0	0	0	0	0	0	9	17:30	2	100	10	0	1	2	0	0	5	0	0	0	0	120
5:45	0	6	5	0	0	1	0	0	0	0	0	0	0	12	17:45	0	43	5	0	0	0	0	0	2	0	0	0	0	50
6:00	0	5	8	0	3	0	0	0	0	0	0	0	0	16	18:00	0	30	5	0	2	1	0	0	0	0	0	0	0	38
6:15	0	6	8	0	2	3	0	0	0	0	0	0	0	19	18:15	0	19	2	0	1	0	0	0	2	0	0	0	0	24
6:30	0	13	6	0	0	2	1	0	0	0	0	0	0	22	18:30	0	18	1	0	0	1	0	1	1	0	0	0	0	22
6:45	1	16	8	0	2	1	0	0	1	0	0	0	0	29	18:45	0	16	1	0	0	1	0	0	0	0	0	0	0	18
7:00	0	10	10	0	1	3	0	0	0	0	0	0	0	24	19:00	0	13	2	0	0	1	0	0	1	0	0	0	0	17
7:15	0	9	7	1	4	2	1	0	0	0	0	0	0	24	19:15	0	17	2	0	0	0	0	0	2	0	0	0	0	21
7:30	0	8	3	0	1	1	0	0	4	0	0	0	0	17	19:30	0	12	1	0	0	2	0	0	2	0	0	0	0	17
7:45	0	6	5	0	2	3	2	0	2	0	0	0	0	20	19:45	0	10	1	0	0	1	0	0	1	0	0	0	0	13
8:00	0	6	3	0	1	1	1	0	0	0	0	0	0	12	20:00	0	8	1	0	1	0	0	0	0	0	0	0	0	10
8:15	0	9	3	0	0	0	1	0	0	0	0	0	0	13	20:15	0	12	1	0	0	0	0	0	5	0	0	0	0	18
8:30	0	9	4	0	1	1	0	0	1	0	0	0	0	16	20:30	0	5	2	0	0	0	0	0	1	0	0	0	0	8
8:45	0	16	5	0	3	1	2	0	1	0	0	0	0	28	20:45	0	13	2	0	0	2	0	0	1	0	0	0	0	18
9:00	0	10	3	0	0	6	2	0	0	0	0	0	0	21	21:00	0	5	0	0	0	0	0	0	0	0	0	0	0	5
9:15	0	8	3	0	2	6	0	0	2	0	0	0	0	21	21:15	0	8	3	0	0	0	0	0	3	0	0	0	0	14
9:30	0	5	2	0	0	3	1	0	4	0	0	0	0	15	21:30	0	6	0	0	0	0	0	0	0	0	0	0	0	6
9:45	0	6	3	0	3	1	5	0	1	0	0	0	0	19	21:45	0	7	1	0	0	1	0	1	3	0	0	0	0	13
10:00	0	11	2	0	3	4	2	0	4	0	0	0	0	26	22:00	0	6	1	0	0	1	0	0	2	0	0	0	0	10
10:15	0	8	5	0	1	5	0	0	2	0	0	0	0	21	22:15	0	2	0	0	0	1	0	0	2	0	0	0	0	5
10:30	0	16	8	0	1	1	1	1	1	0	0	0	0	29	22:30	0	9	0	0	0	1	0	0	3	0	0	0	0	13
10:45	0	4	2	0	0	1	0	0	4	0	0	0	0	11	22:45	0	9	0	0	0	4	0	0	1	0	0	0	0	14
11:00	0	13	5	0	0	2	0	0	3	0	0	0	0	23	23:00	0	6	0	0	0	1	0	0	1	0	0	0	0	8
11:15	1	13	1	0	0	2	0	0	2	0	0	0	0	19	23:15	0	3	0	0	0	1	0	0	4	0	0	0	0	8
11:30	0	12	9	0	2	4	0	0	2	0	0	0	0	29	23:30	1	8	1	0	0	1	0	0	0	0	0	0	0	11
11:45	1	11	5	0	0	2	0	0	3	0	0	0	0	22	23:45	0	8	1	0	0	1	0	0	3	0	0	0	0	13
TOTAL	4	429	144	1	39	79	19	1	61	0	0	0	0	777	TOTAL	6	896	211	1	38	47	1	2	98	0	0	0	0	1,300
AM PEAK HOUR														2:00 AM	PM PEAK HOUR														5:00 PM
AM PEAK VOLUME														105	PM PEAK VOLUME														284

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

TOTAL: AM+PM	10	1,325	355	2	77	126	20	3	159	0	0	0	0	2,077
% OF TOTAL	0.5%	63.8%	17.1%	0.1%	3.7%	6.1%	1.0%	0.1%	7.7%	0.0%	0.0%	0.0%	0.0%	100.0%
Class	1	2	3	4	5	6	7	8	9	10	11	12	13	
TOTAL: ALL	21	2,458	646	2	133	172	25	5	200	0	0	0	0	3,662
% OF TOTAL	1.0%	118.3%	31.1%	0.1%	6.4%	8.3%	1.2%	0.2%	9.6%	0.0%	0.0%	0.0%	0.0%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

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

DATE: Thursday, May 19, 2022
JOB #: SC3432

CITY: Beaumont
LOCATION: CLASS2 Potrero north of 4th

AM TIME	SOUTHBOUND													TOTAL	PM Time	SOUTHBOUND													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1	12:00	0	8	9	0	1	2	0	0	2	0	0	0	0	22
0:15	0	4	1	0	0	0	0	0	0	0	0	0	0	5	12:15	0	9	4	0	3	0	0	0	1	0	0	0	0	17
0:30	0	2	0	0	0	0	0	0	0	1	0	0	0	3	12:30	1	12	6	0	1	1	0	0	0	0	0	0	0	21
0:45	0	5	1	0	0	0	0	0	0	0	0	0	0	6	12:45	0	16	5	0	1	0	0	1	0	0	0	0	0	23
1:00	0	0	1	0	0	0	2	0	1	0	0	0	0	4	13:00	0	10	2	0	1	1	0	0	1	0	0	0	0	15
1:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13:15	0	12	3	0	1	3	0	0	0	0	0	0	0	19
1:30	0	0	0	0	0	0	3	0	1	0	0	0	0	4	13:30	0	17	4	0	0	2	0	0	2	0	0	0	0	25
1:45	0	2	0	0	0	0	0	0	2	0	0	0	0	4	13:45	0	4	4	0	0	0	0	0	0	0	0	0	0	8
2:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1	14:00	0	8	4	0	2	0	0	0	0	0	0	0	0	14
2:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14:15	0	9	7	0	4	0	0	0	2	0	0	0	0	22
2:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14:30	0	11	6	0	3	0	0	0	0	0	0	0	0	20
2:45	0	1	0	0	0	0	0	0	0	0	0	0	0	1	14:45	2	16	6	0	3	0	0	0	0	0	0	0	0	27
3:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2	15:00	0	20	7	0	2	0	0	0	0	0	0	0	0	29
3:15	0	1	0	0	0	0	0	0	0	1	0	0	0	2	15:15	0	22	6	0	0	0	0	0	1	0	0	0	0	29
3:30	0	0	0	0	1	0	0	0	0	0	0	0	0	1	15:30	0	15	10	0	0	1	0	0	1	0	0	0	0	27
3:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15:45	0	25	6	0	1	0	0	0	1	0	0	0	0	33
4:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1	16:00	0	18	4	0	2	1	0	0	0	0	0	0	0	25
4:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2	16:15	0	17	4	0	0	0	0	0	0	0	0	0	0	21
4:30	0	2	2	0	0	0	0	0	0	0	0	0	0	4	16:30	1	21	1	0	1	0	0	0	0	0	0	0	0	24
4:45	0	4	0	0	0	0	0	0	0	0	0	0	0	4	16:45	0	35	5	0	0	0	0	0	1	0	0	0	0	41
5:00	0	7	3	0	0	0	0	0	0	0	0	0	0	10	17:00	0	53	12	0	0	0	0	0	0	0	0	0	0	65
5:15	0	5	5	0	0	1	0	0	0	0	0	0	0	11	17:15	0	46	5	0	0	1	0	0	0	0	0	0	0	52
5:30	0	12	15	0	0	0	0	0	0	0	0	0	0	27	17:30	0	64	8	0	0	1	0	0	0	0	0	0	0	73
5:45	0	13	10	0	2	0	0	0	0	0	0	0	0	25	17:45	0	48	8	0	0	0	0	0	1	0	0	0	0	57
6:00	0	9	6	0	2	0	0	0	1	0	0	0	0	18	18:00	1	13	1	0	2	1	0	0	0	0	0	0	0	18
6:15	0	5	0	0	3	0	0	0	0	0	0	0	0	8	18:15	0	12	2	0	1	1	0	0	1	0	0	0	0	17
6:30	0	7	4	0	0	0	0	0	2	0	0	0	0	13	18:30	0	9	2	0	0	0	0	0	0	0	0	0	0	11
6:45	1	17	7	0	4	0	0	0	0	0	0	0	0	29	18:45	0	12	1	0	1	0	0	0	0	0	0	0	0	14
7:00	0	15	6	0	0	0	0	0	0	0	0	0	0	21	19:00	0	8	1	0	0	0	0	0	1	0	0	0	0	10
7:15	1	16	1	0	0	0	0	0	2	0	0	0	0	20	19:15	0	5	3	0	0	0	0	0	0	0	0	0	0	8
7:30	0	10	3	0	0	2	0	0	0	0	0	0	0	15	19:30	0	8	1	0	1	0	0	0	0	0	0	0	0	10
7:45	0	27	5	0	1	1	0	0	0	0	0	0	0	34	19:45	0	8	2	0	0	0	0	0	0	0	0	0	0	10
8:00	0	29	4	0	1	1	0	0	1	0	0	0	0	36	20:00	0	3	3	0	0	0	0	1	1	0	0	0	0	8
8:15	1	54	6	0	2	1	0	0	1	0	0	0	0	65	20:15	0	3	0	0	0	1	0	0	0	0	0	0	0	4
8:30	0	72	10	0	0	2	0	0	0	0	0	0	0	84	20:30	0	4	0	0	0	0	0	0	0	0	0	0	0	4
8:45	1	61	6	0	0	0	0	0	0	0	0	0	0	68	20:45	0	4	0	0	0	2	0	0	1	0	0	0	0	7
9:00	1	12	5	0	0	1	0	0	1	0	0	0	0	20	21:00	0	7	0	0	0	0	0	0	0	0	0	0	0	7
9:15	0	5	3	0	1	2	0	0	0	0	0	0	0	11	21:15	0	5	1	0	0	0	0	0	0	0	0	0	0	6
9:30	0	11	2	0	0	5	0	0	0	0	0	0	0	18	21:30	0	5	0	0	0	0	0	0	0	0	0	0	0	5
9:45	0	4	1	0	3	0	0	0	1	0	0	0	0	9	21:45	0	5	2	0	0	0	0	2	0	0	0	0	0	9
10:00	0	14	7	0	1	1	0	0	1	0	0	0	0	24	22:00	0	3	1	0	0	0	0	0	0	0	0	0	0	4
10:15	0	9	2	0	0	2	0	0	0	0	0	0	0	13	22:15	0	5	0	0	0	0	0	0	0	0	0	0	0	5
10:30	0	6	4	0	0	2	0	0	1	0	0	0	0	13	22:30	0	3	0	0	0	1	0	0	2	0	0	0	0	6
10:45	0	5	2	0	1	2	0	0	1	0	0	0	0	11	22:45	0	4	1	0	0	0	0	0	0	0	0	0	0	5
11:00	0	6	2	0	1	1	0	0	0	0	0	0	0	10	23:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
11:15	0	8	3	0	1	1	0	0	1	0	0	0	0	14	23:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30	0	10	2	0	1	1	0	0	1	0	0	0	0	15	23:30	0	2	0	0	0	0	0	0	0	0	0	0	0	2
11:45	1	8	4	0	0	1	0	0	0	0	0	0	0	14	23:45	0	3	0	0	0	0	0	0	0	0	0	0	0	3
TOTAL	6	484	134	0	25	27	5	0	20	0	0	0	0	701	TOTAL	5	649	157	0	31	19	0	2	21	0	0	0	0	884
AM PEAK HOUR														8:00 AM	PM PEAK HOUR														5:00 PM
AM PEAK VOLUME														253	PM PEAK VOLUME														247

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

TOTAL: AM+PM	11	1,133	291	0	56	46	5	2	41	0	0	0	0	1,585
% OF TOTAL	0.7%	71.5%	18.4%	0.0%	3.5%	2.9%	0.3%	0.1%	2.6%	0.0%	0.0%	0.0%	0.0%	100.0%

Class	1	2	3	4	5	6	7	8	9	10	11	12	13
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24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

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

DATE: Thursday, May 19, 2022
JOB #: SC3432CITY: Beaumont
LOCATION: CLASS1 4th west of Distribution

AM TIME	EASTBOUND													TOTAL	PM Time	EASTBOUND													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	4	1	0	0	0	0	0	0	0	0	0	0	5	12:00	0	7	8	0	3	0	0	0	2	0	0	0	0	20
0:15	1	9	0	0	0	1	0	0	1	0	0	0	0	12	12:15	0	10	4	0	2	0	0	0	1	0	0	0	0	17
0:30	0	6	0	0	0	0	0	0	1	0	0	0	0	7	12:30	1	13	7	0	3	2	0	0	0	0	0	0	0	26
0:45	0	5	1	0	0	0	0	0	1	0	0	0	0	7	12:45	0	9	3	0	1	1	0	1	1	0	0	0	0	16
1:00	0	7	0	0	0	0	0	0	0	0	0	0	0	7	13:00	0	15	1	0	1	0	0	0	2	0	0	0	0	19
1:15	0	4	0	0	1	0	0	0	0	0	0	0	0	5	13:15	0	13	5	0	1	1	0	0	0	0	0	0	0	20
1:30	0	0	0	0	0	0	0	0	1	0	0	0	0	1	13:30	0	22	3	0	2	1	0	0	2	0	0	0	0	30
1:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13:45	0	7	5	0	2	2	0	0	1	0	0	0	0	17
2:00	0	13	1	0	0	3	0	0	0	0	0	0	0	17	14:00	0	8	7	0	0	0	0	0	0	0	0	0	0	15
2:15	0	7	0	0	0	4	0	0	0	0	0	0	0	11	14:15	0	12	6	0	4	0	0	0	0	0	0	0	0	22
2:30	0	74	4	0	0	1	0	0	0	0	0	0	0	79	14:30	0	14	8	0	4	0	0	0	2	0	0	0	0	28
2:45	0	21	3	0	0	5	0	0	0	0	0	0	0	29	14:45	3	23	11	0	1	0	0	0	0	0	0	0	0	38
3:00	0	7	1	0	1	1	0	0	0	0	0	0	0	10	15:00	0	27	9	0	2	1	0	1	0	0	0	0	0	40
3:15	0	6	2	0	0	4	0	0	0	0	0	0	0	12	15:15	0	23	6	0	0	1	0	0	1	0	0	0	0	31
3:30	0	5	0	0	0	0	0	0	1	0	0	0	0	6	15:30	0	24	11	0	0	0	0	0	1	0	0	0	0	36
3:45	0	1	0	0	0	2	0	0	0	0	0	0	0	3	15:45	0	17	8	0	2	0	0	0	2	0	0	0	0	29
4:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1	16:00	0	20	2	0	1	0	0	0	0	0	0	0	0	23
4:15	0	3	0	0	0	5	0	0	0	0	0	0	0	8	16:15	0	8	3	0	0	0	0	0	1	0	0	0	0	12
4:30	0	2	0	0	0	0	0	0	0	0	0	0	0	2	16:30	0	17	2	0	1	0	0	0	1	0	0	0	0	21
4:45	0	4	0	0	0	4	0	0	0	0	0	0	0	8	16:45	0	12	4	0	1	0	0	0	1	0	0	0	0	18
5:00	0	3	1	0	0	1	0	0	0	0	0	0	0	5	17:00	0	40	6	0	0	0	0	0	1	0	0	0	0	47
5:15	0	1	3	0	0	1	0	0	0	0	0	0	0	5	17:15	0	21	3	0	3	0	0	0	0	0	0	0	0	27
5:30	0	5	2	0	0	2	0	0	0	0	0	0	0	9	17:30	0	90	12	0	0	0	0	0	1	0	0	0	0	103
5:45	0	2	1	0	0	3	0	0	0	0	0	0	0	6	17:45	0	50	6	0	0	0	0	0	0	0	0	0	0	56
6:00	0	4	2	0	1	5	1	0	0	0	0	0	0	13	18:00	0	17	3	0	1	0	0	0	0	0	0	0	0	21
6:15	0	3	0	0	0	0	0	0	1	0	0	0	0	4	18:15	0	20	0	0	1	0	0	1	1	0	0	0	0	23
6:30	0	5	2	0	1	2	0	0	0	0	0	0	0	10	18:30	0	11	2	0	0	1	0	0	0	0	0	0	0	14
6:45	0	10	2	0	0	2	0	0	0	0	0	0	0	14	18:45	0	17	3	0	0	0	0	0	0	0	0	0	0	20
7:00	0	7	4	0	2	2	0	0	0	0	0	0	0	15	19:00	0	8	2	0	0	1	0	0	0	0	0	0	0	11
7:15	0	8	2	0	0	2	0	0	0	0	0	0	0	12	19:15	0	12	1	0	1	0	0	0	0	0	0	0	0	14
7:30	0	7	2	0	1	4	0	0	0	0	0	0	0	14	19:30	0	7	2	0	1	0	0	0	1	0	0	0	0	11
7:45	0	6	3	0	1	3	0	0	3	0	0	0	0	16	19:45	0	10	2	0	1	1	0	0	0	0	0	0	0	14
8:00	0	7	2	0	0	4	0	0	0	0	0	0	0	13	20:00	0	3	2	0	0	1	0	1	0	0	0	0	0	7
8:15	0	9	0	0	0	3	0	0	1	0	0	0	0	13	20:15	0	4	0	0	0	0	0	0	0	0	0	0	0	4
8:30	1	9	3	0	1	4	0	0	0	0	0	0	0	18	20:30	0	4	1	0	1	0	0	0	0	0	0	0	0	6
8:45	1	7	3	0	0	2	0	0	1	0	0	0	0	14	20:45	0	4	0	0	0	1	0	0	1	0	0	0	0	6
9:00	0	8	6	0	0	3	0	0	2	0	0	0	0	19	21:00	0	7	1	0	0	0	0	0	0	0	0	0	0	8
9:15	0	4	1	0	0	3	0	0	0	0	0	0	0	8	21:15	0	4	1	0	0	0	0	0	2	0	0	0	0	7
9:30	0	7	2	0	0	3	0	0	1	0	0	0	0	13	21:30	0	3	0	0	0	0	0	0	2	0	0	0	0	5
9:45	0	11	3	0	0	5	0	0	0	0	0	0	0	19	21:45	0	3	0	0	1	0	0	0	0	0	0	0	0	4
10:00	0	13	8	0	2	2	0	0	2	0	0	0	0	27	22:00	0	2	1	0	2	0	0	0	1	0	0	0	0	6
10:15	0	13	8	0	0	2	0	0	1	0	0	0	0	24	22:15	0	2	0	0	0	1	0	0	0	0	0	0	0	3
10:30	0	12	2	0	0	2	0	0	2	0	0	0	0	18	22:30	0	2	0	0	0	0	0	0	0	0	0	0	0	2
10:45	0	8	7	0	0	3	0	0	2	0	0	0	0	20	22:45	0	4	2	0	0	0	0	0	0	0	0	0	0	6
11:00	0	7	3	0	2	2	0	0	1	0	0	0	0	15	23:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
11:15	0	8	6	0	1	3	0	0	0	0	0	0	0	18	23:15	0	1	0	0	0	0	0	0	0	0	0	0	0	1
11:30	0	11	2	0	0	0	0	0	0	0	0	0	0	13	23:30	0	2	0	0	0	0	0	0	1	0	0	0	0	3
11:45	0	6	3	0	2	1	0	0	1	0	0	0	0	13	23:45	0	3	1	0	0	0	0	0	0	0	0	0	0	4
TOTAL	3	380	96	0	16	99	1	0	23	0	0	0	0	618	TOTAL	4	655	164	0	43	15	0	4	29	0	0	0	0	914
AM PEAK HOUR														2:00 AM	PM PEAK HOUR														5:00 PM
AM PEAK VOLUME														136	PM PEAK VOLUME														233

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

TOTAL: AM+PM	7	1,035	260	0	59	114	1	4	52	0	0	0	0	1,532
% OF TOTAL	0.5%	67.6%	17.0%	0.0%	3.9%	7.4%	0.1%	0.3%	3.4%	0.0%	0.0%	0.0%	0.0%	100.0%
Class	1	2	3	4	5	6	7	8	9	10	11	12	13	
TOTAL: ALL	12	2,178	576	6	145	300	1	6	242	0	0	0	0	3,466
% OF TOTAL	0.8%	142.2%	37.6%	0.4%	9.5%	19.6%	0.1%	0.4%	15.8%	0.0%	0.0%	0.0%	0.0%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

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

DATE: Thursday, May 19, 2022
JOB #: SC3432

CITY: Beaumont
LOCATION: CLASS1 4th west of Distribution

AM TIME	WESTBOUND													TOTAL	PM Time	WESTBOUND													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	7	1	0	0	4	0	0	3	0	0	0	0	15	12:00	0	12	5	0	2	0	0	0	1	0	0	0	0	20
0:15	1	6	0	0	1	0	0	0	1	0	0	0	0	9	12:15	0	9	5	0	0	7	0	0	4	0	0	0	0	25
0:30	0	6	0	0	0	0	0	0	3	0	0	0	0	9	12:30	0	9	2	0	3	2	0	0	1	0	0	0	0	17
0:45	0	3	0	0	0	1	0	0	1	0	0	0	0	5	12:45	0	12	4	1	5	2	0	0	2	0	0	0	0	26
1:00	0	2	1	0	0	1	0	0	1	0	0	0	0	5	13:00	0	14	7	1	1	4	0	0	1	0	0	0	0	28
1:15	0	5	1	0	0	2	0	0	0	0	0	0	0	8	13:15	0	14	2	0	3	0	0	0	1	0	0	0	0	20
1:30	0	3	1	0	0	4	0	0	0	0	0	0	0	8	13:30	0	17	9	0	2	0	0	0	1	0	0	0	0	29
1:45	0	2	0	0	0	0	0	0	4	0	0	0	0	6	13:45	0	10	6	0	1	4	0	0	5	0	0	0	0	26
2:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4	14:00	0	18	7	0	0	2	0	0	1	0	0	0	0	28
2:15	0	1	0	0	0	2	0	0	2	0	0	0	0	5	14:15	0	10	6	0	0	0	0	0	2	0	0	0	0	18
2:30	0	1	1	0	1	2	0	0	1	0	0	0	0	6	14:30	1	14	10	0	0	0	0	0	1	0	0	0	0	26
2:45	0	1	2	0	0	4	0	0	2	0	0	0	0	9	14:45	1	11	2	0	2	2	0	0	2	0	0	0	0	20
3:00	0	0	0	0	0	2	0	0	1	0	0	0	0	3	15:00	0	14	5	0	3	0	0	0	3	0	0	0	0	25
3:15	0	1	0	0	0	3	0	0	0	0	0	0	0	4	15:15	0	19	3	0	0	2	0	0	2	0	0	0	0	26
3:30	0	2	0	0	0	5	0	0	2	0	0	0	0	9	15:30	0	26	4	0	1	0	0	0	0	0	0	0	0	31
3:45	0	1	0	0	1	0	0	0	2	0	0	0	0	4	15:45	0	23	2	0	2	1	0	0	0	0	0	0	0	28
4:00	0	1	0	0	1	1	0	0	1	0	0	0	0	4	16:00	0	25	2	0	2	3	0	0	2	0	0	0	0	34
4:15	0	1	0	0	0	1	0	0	2	0	0	0	0	4	16:15	0	18	6	0	0	0	0	0	0	0	0	0	0	24
4:30	0	0	1	0	0	2	0	0	1	0	0	0	0	4	16:30	0	19	3	0	1	0	0	0	1	0	0	0	0	24
4:45	0	1	0	0	0	3	0	0	2	0	0	0	0	6	16:45	0	28	4	0	1	3	0	0	1	0	0	0	0	37
5:00	0	7	1	0	1	1	0	0	3	0	0	0	0	13	17:00	0	35	8	0	1	0	0	0	4	0	0	0	0	48
5:15	0	3	2	0	0	5	0	0	0	0	0	0	0	10	17:15	0	60	5	0	2	1	0	0	1	0	0	0	0	69
5:30	0	14	2	0	2	0	0	0	0	0	0	0	0	18	17:30	0	77	9	0	2	0	0	0	3	0	0	0	0	91
5:45	0	21	7	0	3	0	0	0	2	0	0	0	0	33	17:45	0	35	10	0	0	1	0	0	1	0	0	0	0	47
6:00	0	15	13	0	4	3	0	0	1	0	0	0	0	36	18:00	0	19	2	1	2	2	0	0	1	0	0	0	0	27
6:15	0	8	12	0	3	5	0	0	1	0	0	0	0	29	18:15	0	16	1	0	0	1	0	0	0	0	0	0	0	18
6:30	0	15	9	0	1	4	0	0	2	0	0	0	0	31	18:30	0	17	1	0	0	1	0	0	0	0	0	0	0	19
6:45	0	22	9	0	1	1	0	0	3	0	0	0	0	36	18:45	0	12	3	0	0	0	0	0	0	0	0	0	0	15
7:00	0	7	12	1	3	6	0	0	3	0	0	0	0	32	19:00	0	15	0	0	0	2	0	0	2	0	0	0	0	19
7:15	0	11	10	1	4	3	0	0	0	0	0	0	0	29	19:15	0	9	1	0	0	2	0	0	3	0	0	0	0	15
7:30	0	12	3	0	1	0	0	0	2	0	0	0	0	18	19:30	1	11	3	0	1	1	0	0	5	0	0	0	0	22
7:45	0	9	4	0	3	4	0	0	1	0	0	0	0	21	19:45	0	10	1	0	0	1	0	0	0	0	0	0	0	12
8:00	0	10	0	1	1	3	0	0	3	0	0	0	0	18	20:00	0	12	1	0	0	0	0	0	3	0	0	0	0	16
8:15	0	25	7	0	1	2	0	0	2	0	0	0	0	37	20:15	0	9	2	0	0	1	0	0	2	0	0	0	0	14
8:30	0	39	5	0	1	5	0	0	5	0	0	0	0	55	20:30	0	5	1	0	0	1	0	0	1	0	0	0	0	8
8:45	0	44	11	0	0	4	0	0	8	0	0	0	0	67	20:45	0	11	1	0	0	3	0	0	3	0	0	0	0	18
9:00	0	12	4	0	0	5	0	0	4	0	0	0	0	25	21:00	0	2	1	0	0	2	0	0	0	0	0	0	0	5
9:15	0	6	1	0	2	3	0	0	4	0	0	0	0	16	21:15	0	11	2	0	0	1	0	0	2	0	0	0	0	16
9:30	0	5	4	0	0	1	0	0	8	0	0	0	0	18	21:30	0	7	0	0	0	2	0	0	1	0	0	0	0	10
9:45	0	7	5	0	2	6	0	1	6	0	0	0	0	27	21:45	0	7	1	0	0	2	0	1	3	0	0	0	0	14
10:00	0	7	4	0	0	2	0	0	5	0	0	0	0	18	22:00	0	5	1	0	0	0	0	0	0	0	0	0	0	6
10:15	0	3	2	0	3	3	0	0	3	0	0	0	0	14	22:15	0	1	0	0	1	3	0	0	0	0	0	0	0	5
10:30	0	10	5	0	2	5	0	0	3	0	0	0	0	25	22:30	0	8	2	0	0	0	0	0	3	0	0	0	0	13
10:45	0	5	1	0	0	1	0	0	3	0	0	0	0	10	22:45	0	3	0	0	0	1	0	0	2	0	0	0	0	6
11:00	0	11	4	0	2	1	0	0	4	0	0	0	0	22	23:00	0	2	1	0	0	0	0	0	2	0	0	0	0	5
11:15	0	12	3	0	2	4	0	0	1	0	0	0	0	22	23:15	0	2	0	0	0	2	0	0	2	0	0	0	0	6
11:30	1	11	8	0	1	5	0	0	3	0	0	0	0	29	23:30	0	7	1	0	0	3	0	0	0	0	0	0	0	11
11:45	0	7	6	0	1	2	0	0	3	0	0	0	0	19	23:45	0	7	2	0	0	0	0	0	3	0	0	0	0	12
TOTAL	2	406	162	3	48	121	0	1	112	0	0	0	0	855	TOTAL	3	737	154	3	38	65	0	1	78	0	0	0	0	1,079
AM PEAK HOUR														8:15 AM	PM PEAK HOUR														5:00 PM
AM PEAK VOLUME														184	PM PEAK VOLUME														255

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

TOTAL: AM+PM	5	1,143	316	6	86	186	0	2	190	0	0	0	0	1,934
% OF TOTAL	0.3%	59.1%	16.3%	0.3%	4.4%	9.6%	0.0%	0.1%	9.8%	0.0%	0.0%	0.0%	0.0%	100.0%

Class	1	2	3	4	5	6	7	8	9	10	11	12	13
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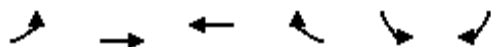
APPENDIX 3.2: EXISTING (2022) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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Timings
1: 4th St. & Potrero Bl.

Orchard Logistics (JN 14410)

08/09/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	11	24	34	81	250	12
Future Volume (vph)	11	24	34	81	250	12
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	27.4	42.4	42.4	27.2	27.2
Total Split (s)	9.6	52.8	43.2	43.2	27.2	27.2
Total Split (%)	12.0%	66.0%	54.0%	54.0%	34.0%	34.0%
Yellow Time (s)	3.6	4.4	4.4	4.4	4.2	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	5.4	5.2	5.2
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	Min	Min
Act Effect Green (s)	5.6	15.3	14.2	14.2	19.1	19.1
Actuated g/C Ratio	0.14	0.38	0.35	0.35	0.47	0.47
v/c Ratio	0.05	0.02	0.06	0.16	0.18	0.02
Control Delay	21.9	5.9	8.2	2.9	13.0	9.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.9	5.9	8.2	2.9	13.0	9.8
LOS	C	A	A	A	B	A
Approach Delay		10.8	4.5		12.9	
Approach LOS		B	A		B	

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 40.7

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.18

Intersection Signal Delay: 10.4

Intersection LOS: B

Intersection Capacity Utilization 25.5%

ICU Level of Service A

Analysis Period (min) 15

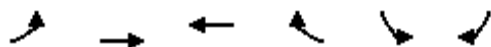
Splits and Phases: 1: 4th St. & Potrero Bl.



HCM 6th Signalized Intersection Summary
1: 4th St. & Potrero Bl.

Orchard Logistics (JN 14410)

08/09/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	11	24	34	81	250	12
Future Volume (veh/h)	11	24	34	81	250	12
Initial Q (Qb), veh	0	0	0	0	0	0
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	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	13	29	41	97	301	14
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	31	1352	414	351	1066	489
Arrive On Green	0.02	0.37	0.22	0.22	0.30	0.30
Sat Flow, veh/h	1810	3705	1900	1610	3510	1610
Grp Volume(v), veh/h	13	29	41	97	301	14
Grp Sat Flow(s),veh/h/ln	1810	1805	1900	1610	1755	1610
Q Serve(g_s), s	0.2	0.2	0.6	1.7	2.2	0.2
Cycle Q Clear(g_c), s	0.2	0.2	0.6	1.7	2.2	0.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	31	1352	414	351	1066	489
V/C Ratio(X)	0.42	0.02	0.10	0.28	0.28	0.03
Avail Cap(c_a), veh/h	275	5196	2181	1848	2345	1076
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	1.00
Uniform Delay (d), s/veh	16.0	6.5	10.3	10.7	8.7	8.1
Incr Delay (d2), s/veh	3.4	0.0	0.1	0.4	0.1	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	0.1	0.0	0.2	0.4	0.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	19.4	6.5	10.4	11.1	8.9	8.1
LnGrp LOS	B	A	B	B	A	A
Approach Vol, veh/h		42	138		315	
Approach Delay, s/veh		10.5	10.9		8.8	
Approach LOS		B	B		A	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		17.7		15.2	5.2	12.6
Change Period (Y+Rc), s		5.4		5.2	4.6	5.4
Max Green Setting (Gmax), s		47.4		22.0	5.0	37.8
Max Q Clear Time (g_c+I1), s		2.2		4.2	2.2	3.7
Green Ext Time (p_c), s		0.1		1.0	0.0	0.5
Intersection Summary						
HCM 6th Ctrl Delay			9.6			
HCM 6th LOS			A			

Intersection

Intersection Delay, s/veh25.3

Intersection LOS D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	63	0	1	0	538	4	0	0	0	1
Future Vol, veh/h	0	0	63	0	1	0	538	4	0	0	0	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	68	0	1	0	578	4	0	0	0	1
Number of Lanes	1	1	0	0	1	0	1	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	2
Conflicting Approach Left SB		NB	EB	WB
Conflicting Lanes Left	1	2	2	1
Conflicting Approach RightNB		SB	WB	EB
Conflicting Lanes Right	2	1	1	2
HCM Control Delay	8.7	9.2	27.3	7.8
HCM LOS	A	A	D	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	0%
Vol Thru, %	0%	100%	100%	0%	100%	0%
Vol Right, %	0%	0%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	538	4	0	63	1	1
LT Vol	538	0	0	0	0	0
Through Vol	0	4	0	0	1	0
RT Vol	0	0	0	63	0	1
Lane Flow Rate	578	4	0	68	1	1
Geometry Grp	7	7	7	7	6	6
Degree of Util (X)	0.823	0.006	0	0.102	0.002	0.001
Departure Headway (Hd)	5.121	4.621	6.107	5.399	6.212	4.791
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	700	765	0	668	578	747
Service Time	2.906	2.405	3.807	3.099	4.227	2.819
HCM Lane V/C Ratio	0.826	0.005	0	0.102	0.002	0.001
HCM Control Delay	27.4	7.4	8.8	8.7	9.2	7.8
HCM Lane LOS	D	A	N	A	A	A
HCM 95th-tile Q	8.8	0	0	0.3	0	0

Timings
3: 4th St. & Distribution Wy.

Orchard Logistics (JN 14410)

08/09/2022



Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	3	75	233	57	19
Future Volume (vph)	3	75	233	57	19
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	5	2	6	4	
Permitted Phases					4
Detector Phase	5	2	6	4	4
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.4	27.4	14.6	14.6
Total Split (s)	10.0	44.0	34.0	16.0	16.0
Total Split (%)	16.7%	73.3%	56.7%	26.7%	26.7%
Yellow Time (s)	3.6	4.4	4.4	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	4.6
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	None	None
Act Effect Green (s)	6.3	19.0	20.1	12.7	12.7
Actuated g/C Ratio	0.24	0.72	0.76	0.48	0.48
v/c Ratio	0.01	0.03	0.35	0.08	0.03
Control Delay	16.7	3.9	2.5	11.0	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	16.7	3.9	2.5	11.0	7.6
LOS	B	A	A	B	A
Approach Delay		4.3	2.5	10.1	
Approach LOS		A	A	B	

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 26.3

Natural Cycle: 55

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.35

Intersection Signal Delay: 3.3

Intersection LOS: A

Intersection Capacity Utilization 41.0%

ICU Level of Service A

Analysis Period (min) 15

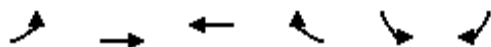
Splits and Phases: 3: 4th St. & Distribution Wy.



HCM 6th Signalized Intersection Summary
3: 4th St. & Distribution Wy.

Orchard Logistics (JN 14410)

08/09/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	3	75	233	537	57	19
Future Volume (veh/h)	3	75	233	537	57	19
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	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	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	3	87	271	567	66	12
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	7	2148	852	754	265	236
Arrive On Green	0.00	0.59	0.47	0.47	0.15	0.15
Sat Flow, veh/h	1810	3705	1900	1598	1810	1610
Grp Volume(v), veh/h	3	87	271	567	66	12
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1598	1810	1610
Q Serve(g_s), s	0.1	0.4	3.6	11.2	1.2	0.2
Cycle Q Clear(g_c), s	0.1	0.4	3.6	11.2	1.2	0.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	7	2148	852	754	265	236
V/C Ratio(X)	0.40	0.04	0.32	0.75	0.25	0.05
Avail Cap(c_a), veh/h	253	3601	1334	1181	533	474
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	1.00
Uniform Delay (d), s/veh	19.2	3.3	6.3	8.4	14.6	14.2
Incr Delay (d2), s/veh	12.6	0.0	0.2	1.5	0.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.8	2.4	0.5	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	31.8	3.3	6.6	9.9	15.1	14.3
LnGrp LOS	C	A	A	A	B	B
Approach Vol, veh/h		90	838		78	
Approach Delay, s/veh		4.2	8.8		15.0	
Approach LOS		A	A		B	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		28.4		10.3	4.8	23.7
Change Period (Y+Rc), s		5.4		4.6	4.6	5.4
Max Green Setting (Gmax), s		38.6		11.4	5.4	28.6
Max Q Clear Time (g_c+I1), s		2.4		3.2	2.1	13.2
Green Ext Time (p_c), s		0.5		0.1	0.0	4.9
Intersection Summary						
HCM 6th Ctrl Delay			8.9			
HCM 6th LOS			A			

Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕			↕	
Traffic Vol, veh/h	0	0	3	0	0	0	5	5	2	0	11	0
Future Vol, veh/h	0	0	3	0	0	0	5	5	2	0	11	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	5	0	0	0	8	8	3	0	17	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	43	44	17	46	43	10	17	0	0	11	0	0
Stage 1	17	17	-	26	26	-	-	-	-	-	-	-
Stage 2	26	27	-	20	17	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
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	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	965	852	1068	961	853	1077	1613	-	-	1621	-	-
Stage 1	1008	885	-	997	878	-	-	-	-	-	-	-
Stage 2	997	877	-	1004	885	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	961	848	1068	953	849	1077	1613	-	-	1621	-	-
Mov Cap-2 Maneuver	961	848	-	953	849	-	-	-	-	-	-	-
Stage 1	1003	885	-	992	874	-	-	-	-	-	-	-
Stage 2	992	873	-	1000	885	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.4	0	3	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1613	-	-	1068	-	1621	-
HCM Lane V/C Ratio	0.005	-	-	0.004	-	-	-
HCM Control Delay (s)	7.2	-	-	8.4	0	0	-
HCM Lane LOS	A	-	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-	0	-

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	140	766	42	20	7
Future Vol, veh/h	4	140	766	42	20	7
Conflicting Peds, #/hr	0	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	100	0
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	4	151	824	45	22	8
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	870	0	-	0	932	436
Stage 1	-	-	-	-	848	-
Stage 2	-	-	-	-	84	-
Critical Hdwy	4.1	-	-	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	783	-	-	-	269	574
Stage 1	-	-	-	-	385	-
Stage 2	-	-	-	-	936	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	782	-	-	-	267	573
Mov Cap-2 Maneuver	-	-	-	-	334	-
Stage 1	-	-	-	-	383	-
Stage 2	-	-	-	-	935	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.3	0		15.2		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	782	-	-	-	334	573
HCM Lane V/C Ratio	0.006	-	-	-	0.064	0.013
HCM Control Delay (s)	9.6	-	-	-	16.5	11.4
HCM Lane LOS	A	-	-	-	C	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2	0

Timings
6: Veile Av. & 4th St.

Orchard Logistics (JN 14410)

08/09/2022

											
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	46	50	81	5	224	421	29	2	8	26	193
Future Volume (vph)	46	50	81	5	224	421	29	2	8	26	193
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6	3	8		7	4	
Permitted Phases			2					8			4
Detector Phase	5	2	2	1	6	3	8	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	26.6	26.6	9.6	26.6	9.6	27.6	27.6	9.6	14.6	14.6
Total Split (s)	9.6	26.8	26.8	9.6	26.8	29.0	34.0	34.0	9.6	14.6	14.6
Total Split (%)	12.0%	33.5%	33.5%	12.0%	33.5%	36.3%	42.5%	42.5%	12.0%	18.3%	18.3%
Yellow Time (s)	3.6	4.4	4.4	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	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	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None
Act Effect Green (s)	5.2	17.8	17.8	5.2	15.0	20.5	23.9	23.9	5.2	10.5	10.5
Actuated g/C Ratio	0.08	0.27	0.27	0.08	0.23	0.31	0.37	0.37	0.08	0.16	0.16
v/c Ratio	0.35	0.11	0.15	0.04	0.61	0.83	0.05	0.00	0.06	0.10	0.48
Control Delay	41.0	19.8	0.5	34.8	30.4	36.9	12.9	0.0	35.1	30.2	8.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.0	19.8	0.5	34.8	30.4	36.9	12.9	0.0	35.1	30.2	8.9
LOS	D	B	A	C	C	D	B	A	D	C	A
Approach Delay		16.5			30.5		35.2			12.3	
Approach LOS		B			C		D			B	

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 65.4

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 26.4

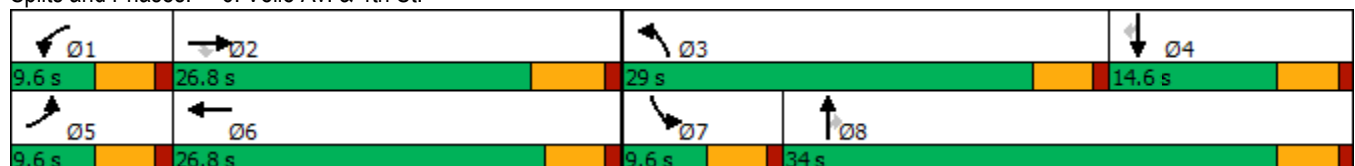
Intersection LOS: C

Intersection Capacity Utilization 60.0%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 6: Veile Av. & 4th St.



HCM 6th Signalized Intersection Summary

6: Veile Av. & 4th St.

Orchard Logistics (JN 14410)

08/09/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	50	81	5	224	14	421	29	2	8	26	193
Future Volume (veh/h)	46	50	81	5	224	14	421	29	2	8	26	193
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	51	56	58	6	249	14	468	32	2	9	29	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	92	464	393	14	358	20	538	668	566	21	126	
Arrive On Green	0.05	0.24	0.24	0.01	0.20	0.20	0.30	0.35	0.35	0.01	0.07	0.00
Sat Flow, veh/h	1810	1900	1610	1810	1781	100	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	51	56	58	6	0	263	468	32	2	9	29	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	0	1881	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	1.4	1.1	1.4	0.2	0.0	6.5	12.2	0.6	0.0	0.2	0.7	0.0
Cycle Q Clear(g_c), s	1.4	1.1	1.4	0.2	0.0	6.5	12.2	0.6	0.0	0.2	0.7	0.0
Prop In Lane	1.00		1.00	1.00		0.05	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	92	464	393	14	0	379	538	668	566	21	126	
V/C Ratio(X)	0.56	0.12	0.15	0.41	0.00	0.69	0.87	0.05	0.00	0.42	0.23	
Avail Cap(c_a), veh/h	181	814	690	181	0	836	884	1119	948	181	380	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	23.2	14.7	14.8	24.7	0.0	18.5	16.6	10.7	10.5	24.5	22.1	0.0
Incr Delay (d2), s/veh	1.9	0.1	0.2	6.9	0.0	2.3	2.9	0.0	0.0	4.9	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.4	0.5	0.1	0.0	2.8	4.9	0.2	0.0	0.1	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.1	14.8	15.0	31.5	0.0	20.8	19.5	10.7	10.5	29.4	23.0	0.0
LnGrp LOS	C	B	B	C	A	C	B	B	B	C	C	
Approach Vol, veh/h		165			269			502			38	
Approach Delay, s/veh		18.0			21.1			18.9			24.5	
Approach LOS		B			C			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.0	17.6	19.4	7.9	7.1	15.5	5.2	22.2				
Change Period (Y+Rc), s	4.6	5.4	4.6	4.6	4.6	* 5.4	4.6	4.6				
Max Green Setting (Gmax), s	5.0	21.4	24.4	10.0	5.0	* 22	5.0	29.4				
Max Q Clear Time (g_c+I1), s	2.2	3.4	14.2	2.7	3.4	8.5	2.2	2.6				
Green Ext Time (p_c), s	0.0	0.3	0.6	0.0	0.0	1.3	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay 19.6

HCM 6th LOS B

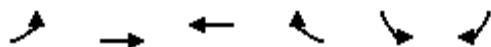
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Timings
1: 4th St. & Potrero Bl.

Orchard Logistics (JN 14410)
08/09/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↱↱	↰	↱	↰↱	↱
Traffic Volume (vph)	6	8	6	304	247	4
Future Volume (vph)	6	8	6	304	247	4
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	27.4	42.4	42.4	27.2	27.2
Total Split (s)	9.6	52.8	43.2	43.2	27.2	27.2
Total Split (%)	12.0%	66.0%	54.0%	54.0%	34.0%	34.0%
Yellow Time (s)	3.6	4.4	4.4	4.4	4.2	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	5.4	5.2	5.2
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	Min	Min
Act Effect Green (s)	5.6	15.2	14.2	14.2	11.9	11.9
Actuated g/C Ratio	0.14	0.39	0.36	0.36	0.30	0.30
v/c Ratio	0.03	0.01	0.01	0.51	0.34	0.01
Control Delay	22.3	5.9	8.2	3.4	14.2	11.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.3	5.9	8.2	3.4	14.2	11.2
LOS	C	A	A	A	B	B
Approach Delay		12.9	3.5		14.2	
Approach LOS		B	A		B	

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 39.1

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.51

Intersection Signal Delay: 8.4

Intersection LOS: A

Intersection Capacity Utilization 31.3%

ICU Level of Service A

Analysis Period (min) 15

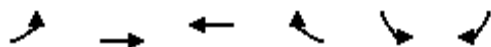
Splits and Phases: 1: 4th St. & Potrero Bl.



HCM 6th Signalized Intersection Summary
1: 4th St. & Potrero Bl.

Orchard Logistics (JN 14410)

08/09/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	6	8	6	304	247	4
Future Volume (veh/h)	6	8	6	304	247	4
Initial Q (Qb), veh	0	0	0	0	0	0
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	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	9	12	9	438	358	5
Peak Hour Factor	0.69	0.69	0.69	0.69	0.69	0.69
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	22	1691	642	544	906	416
Arrive On Green	0.01	0.47	0.34	0.34	0.26	0.26
Sat Flow, veh/h	1810	3705	1900	1610	3510	1610
Grp Volume(v), veh/h	9	12	9	438	358	5
Grp Sat Flow(s),veh/h/ln	1810	1805	1900	1610	1755	1610
Q Serve(g_s), s	0.2	0.1	0.1	9.6	3.3	0.1
Cycle Q Clear(g_c), s	0.2	0.1	0.1	9.6	3.3	0.1
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	22	1691	642	544	906	416
V/C Ratio(X)	0.42	0.01	0.01	0.81	0.40	0.01
Avail Cap(c_a), veh/h	234	4417	1854	1571	1993	914
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	1.00
Uniform Delay (d), s/veh	19.0	5.5	8.5	11.7	11.9	10.7
Incr Delay (d2), s/veh	4.7	0.0	0.0	2.9	0.3	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	0.1	0.0	0.0	2.7	1.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	23.7	5.5	8.5	14.5	12.2	10.7
LnGrp LOS	C	A	A	B	B	B
Approach Vol, veh/h		21	447		363	
Approach Delay, s/veh		13.3	14.4		12.1	
Approach LOS		B	B		B	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		23.5		15.2	5.1	18.5
Change Period (Y+Rc), s		5.4		5.2	4.6	5.4
Max Green Setting (Gmax), s		47.4		22.0	5.0	37.8
Max Q Clear Time (g_c+I1), s		2.1		5.3	2.2	11.6
Green Ext Time (p_c), s		0.0		1.1	0.0	1.6
Intersection Summary						
HCM 6th Ctrl Delay			13.4			
HCM 6th LOS			B			

Intersection

Intersection Delay, s/veh53.8

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	338	1	1	0	453	6	1	0	4	0
Future Vol, veh/h	0	0	338	1	1	0	453	6	1	0	4	0
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	445	1	1	0	596	8	1	0	5	0
Number of Lanes	1	1	0	0	1	0	1	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	2
Conflicting Approach Left SB		NB	EB	WB
Conflicting Lanes Left	1	2	2	1
Conflicting Approach RightNB		SB	WB	EB
Conflicting Lanes Right	2	1	1	2
HCM Control Delay	21.2	10.7	78.4	10.2
HCM LOS	C	B	F	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	100%	0%	0%	0%	50%	0%
Vol Thru, %	0%	86%	100%	0%	50%	100%
Vol Right, %	0%	14%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	453	7	0	338	2	4
LT Vol	453	0	0	0	1	0
Through Vol	0	6	0	0	1	4
RT Vol	0	1	0	338	0	0
Lane Flow Rate	596	9	0	445	3	5
Geometry Grp	7	7	7	7	6	6
Degree of Util (X)	1.06	0.015	0	0.701	0.005	0.01
Departure Headway (Hd)	6.405	5.798	6.587	5.878	7.617	7.118
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	572	621	0	618	473	506
Service Time	4.105	3.498	4.287	3.578	5.617	5.118
HCM Lane V/C Ratio	1.042	0.014	0	0.72	0.006	0.01
HCM Control Delay	79.5	8.6	9.3	21.2	10.7	10.2
HCM Lane LOS	F	A	N	C	B	B
HCM 95th-tile Q	17.2	0	0	5.6	0	0

Timings
3: 4th St. & Distribution Wy.

Orchard Logistics (JN 14410)

08/09/2022



Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations	↰	↗↗	↰↗	↰	↰
Traffic Volume (vph)	7	229	47	467	38
Future Volume (vph)	7	229	47	467	38
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	5	2	6	4	
Permitted Phases					4
Detector Phase	5	2	6	4	4
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.4	27.4	14.6	14.6
Total Split (s)	9.6	37.0	27.4	33.0	33.0
Total Split (%)	13.7%	52.9%	39.1%	47.1%	47.1%
Yellow Time (s)	3.6	4.4	4.4	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	4.6
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	None	None
Act Effect Green (s)	5.3	13.5	12.3	22.0	22.0
Actuated g/C Ratio	0.11	0.29	0.27	0.48	0.48
v/c Ratio	0.05	0.30	0.54	0.75	0.07
Control Delay	25.1	13.6	4.4	19.2	3.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	25.1	13.6	4.4	19.2	3.8
LOS	C	B	A	B	A
Approach Delay		13.9	4.4	18.0	
Approach LOS		B	A	B	

Intersection Summary

Cycle Length: 70

Actuated Cycle Length: 46.1

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.75

Intersection Signal Delay: 11.8

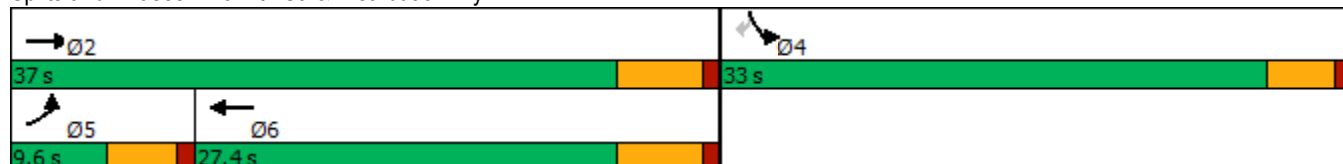
Intersection LOS: B

Intersection Capacity Utilization 50.2%

ICU Level of Service A

Analysis Period (min) 15

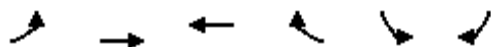
Splits and Phases: 3: 4th St. & Distribution Wy.



HCM 6th Signalized Intersection Summary
3: 4th St. & Distribution Wy.

Orchard Logistics (JN 14410)

08/09/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	7	229	47	446	467	38
Future Volume (veh/h)	7	229	47	446	467	38
Initial Q (Qb), veh	0	0	0	0	0	0
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	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	318	65	425	649	9
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	23	1490	567	505	725	645
Arrive On Green	0.01	0.41	0.31	0.31	0.40	0.40
Sat Flow, veh/h	1810	3705	1900	1608	1810	1610
Grp Volume(v), veh/h	10	318	65	425	649	9
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1608	1810	1610
Q Serve(g_s), s	0.3	3.0	1.4	13.2	18.0	0.2
Cycle Q Clear(g_c), s	0.3	3.0	1.4	13.2	18.0	0.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	23	1490	567	505	725	645
V/C Ratio(X)	0.43	0.21	0.11	0.84	0.89	0.01
Avail Cap(c_a), veh/h	169	2126	740	659	958	852
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	1.00
Uniform Delay (d), s/veh	26.3	10.1	13.1	17.2	15.0	9.7
Incr Delay (d2), s/veh	4.6	0.1	0.1	7.6	8.8	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	0.1	0.9	0.4	4.8	7.0	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	30.8	10.2	13.2	24.7	23.8	9.7
LnGrp LOS	C	B	B	C	C	A
Approach Vol, veh/h		328	490		658	
Approach Delay, s/veh		10.8	23.2		23.6	
Approach LOS		B	C		C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		27.5		26.1	5.3	22.3
Change Period (Y+Rc), s		5.4		4.6	4.6	5.4
Max Green Setting (Gmax), s		31.6		28.4	5.0	22.0
Max Q Clear Time (g_c+I1), s		5.0		20.0	2.3	15.2
Green Ext Time (p_c), s		1.8		1.5	0.0	1.6
Intersection Summary						
HCM 6th Ctrl Delay			20.6			
HCM 6th LOS			C			

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕			↕	
Traffic Vol, veh/h	0	0	1	0	0	0	1	15	0	0	5	0
Future Vol, veh/h	0	0	1	0	0	0	1	15	0	0	5	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	55	55	55	55	55	55	55	55	55	55	55	55
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	2	0	0	0	2	27	0	0	9	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	40	40	9	41	40	27	9	0	0	27	0	0
Stage 1	9	9	-	31	31	-	-	-	-	-	-	-
Stage 2	31	31	-	10	9	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
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	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	969	856	1079	968	856	1054	1624	-	-	1600	-	-
Stage 1	1017	892	-	991	873	-	-	-	-	-	-	-
Stage 2	991	873	-	1016	892	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	968	855	1079	965	855	1054	1624	-	-	1600	-	-
Mov Cap-2 Maneuver	968	855	-	965	855	-	-	-	-	-	-	-
Stage 1	1016	892	-	990	872	-	-	-	-	-	-	-
Stage 2	990	872	-	1014	892	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.3	0	0.5	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1624	-	-	1079	-	1600	-
HCM Lane V/C Ratio	0.001	-	-	0.002	-	-	-
HCM Control Delay (s)	7.2	-	-	8.3	0	0	-
HCM Lane LOS	A	-	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-	0	-

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	695	674	10	26	23
Future Vol, veh/h	4	695	674	10	26	23
Conflicting Peds, #/hr	0	0	0	4	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	100	0
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	6	979	949	14	37	32
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	967	0	-	0	1462	486
Stage 1	-	-	-	-	960	-
Stage 2	-	-	-	-	502	-
Critical Hdwy	4.1	-	-	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	720	-	-	-	122	533
Stage 1	-	-	-	-	337	-
Stage 2	-	-	-	-	579	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	717	-	-	-	120	531
Mov Cap-2 Maneuver	-	-	-	-	242	-
Stage 1	-	-	-	-	333	-
Stage 2	-	-	-	-	577	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.1	0		17.7		
HCM LOS	C					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	717	-	-	-	242	531
HCM Lane V/C Ratio	0.008	-	-	-	0.151	0.061
HCM Control Delay (s)	10.1	-	-	-	22.5	12.2
HCM Lane LOS	B	-	-	-	C	B
HCM 95th %tile Q(veh)	0	-	-	-	0.5	0.2

Timings
6: Veile Av. & 4th St.

Orchard Logistics (JN 14410)

08/09/2022

											
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	151	237	372	1	179	392	14	1	11	56	122
Future Volume (vph)	151	237	372	1	179	392	14	1	11	56	122
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6	3	8		7	4	
Permitted Phases			2					8			4
Detector Phase	5	2	2	1	6	3	8	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	26.6	26.6	9.6	26.6	9.6	27.6	27.6	9.6	14.6	14.6
Total Split (s)	16.0	33.8	33.8	9.6	27.4	32.0	37.0	37.0	9.6	14.6	14.6
Total Split (%)	17.8%	37.6%	37.6%	10.7%	30.4%	35.6%	41.1%	41.1%	10.7%	16.2%	16.2%
Yellow Time (s)	3.6	4.4	4.4	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	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	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None
Act Effect Green (s)	11.1	29.0	29.0	5.0	15.9	26.1	20.3	20.3	5.0	10.1	10.1
Actuated g/C Ratio	0.14	0.35	0.35	0.06	0.19	0.32	0.25	0.25	0.06	0.12	0.12
v/c Ratio	0.82	0.46	0.55	0.01	0.67	0.90	0.04	0.00	0.13	0.32	0.38
Control Delay	62.8	23.9	4.8	40.0	39.9	47.9	19.4	0.0	41.9	39.2	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.8	23.9	4.8	40.0	39.9	47.9	19.4	0.0	41.9	39.2	3.2
LOS	E	C	A	D	D	D	B	A	D	D	A
Approach Delay		22.3			39.9		46.9			16.1	
Approach LOS		C			D		D			B	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 81.7

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.90

Intersection Signal Delay: 30.2

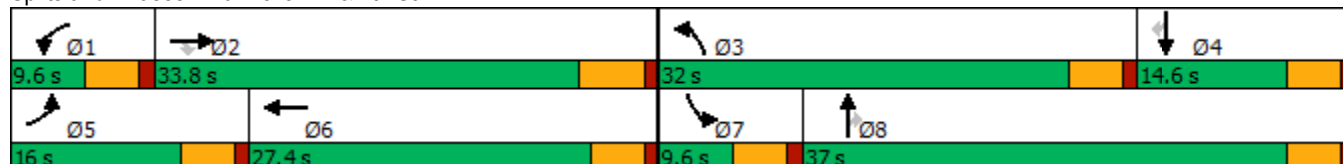
Intersection LOS: C

Intersection Capacity Utilization 58.2%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 6: Veile Av. & 4th St.



HCM 6th Signalized Intersection Summary

6: Veile Av. & 4th St.

Orchard Logistics (JN 14410)

08/09/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	151	237	372	1	179	9	392	14	1	11	56	122
Future Volume (veh/h)	151	237	372	1	179	9	392	14	1	11	56	122
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	199	312	315	1	236	8	516	18	1	14	74	0
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	242	569	482	3	305	10	564	768	651	31	209	
Arrive On Green	0.13	0.30	0.30	0.00	0.17	0.17	0.31	0.40	0.40	0.02	0.11	0.00
Sat Flow, veh/h	1810	1900	1610	1810	1827	62	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	199	312	315	1	0	244	516	18	1	14	74	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	0	1889	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	7.4	9.5	11.8	0.0	0.0	8.5	19.0	0.4	0.0	0.5	2.5	0.0
Cycle Q Clear(g_c), s	7.4	9.5	11.8	0.0	0.0	8.5	19.0	0.4	0.0	0.5	2.5	0.0
Prop In Lane	1.00		1.00	1.00		0.03	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	242	569	482	3	0	315	564	768	651	31	209	
V/C Ratio(X)	0.82	0.55	0.65	0.38	0.00	0.77	0.91	0.02	0.00	0.45	0.35	
Avail Cap(c_a), veh/h	299	781	662	131	0	623	718	891	755	131	275	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	29.1	20.3	21.1	34.5	0.0	27.5	22.9	12.4	12.3	33.6	28.5	0.0
Incr Delay (d2), s/veh	11.6	0.8	1.5	30.7	0.0	4.1	12.5	0.0	0.0	3.8	1.0	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	3.8	3.9	4.4	0.0	0.0	4.1	9.6	0.2	0.0	0.3	1.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.7	21.1	22.6	65.1	0.0	31.6	35.4	12.4	12.3	37.5	29.5	0.0
LnGrp LOS	D	C	C	E	A	C	D	B	B	D	C	
Approach Vol, veh/h		826			245			535			88	
Approach Delay, s/veh		26.4			31.7			34.6			30.8	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.7	26.1	26.1	12.2	13.8	16.9	5.8	32.5				
Change Period (Y+Rc), s	4.6	5.4	4.6	4.6	4.6	* 5.4	4.6	4.6				
Max Green Setting (Gmax), s	5.0	28.4	27.4	10.0	11.4	* 23	5.0	32.4				
Max Q Clear Time (g_c+I1), s	2.0	13.8	21.0	4.5	9.4	10.5	2.5	2.4				
Green Ext Time (p_c), s	0.0	2.5	0.6	0.1	0.1	1.1	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	30.0
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

APPENDIX 3.3: EXISTING (2022) CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-3. Warrant 3, Peak Hour

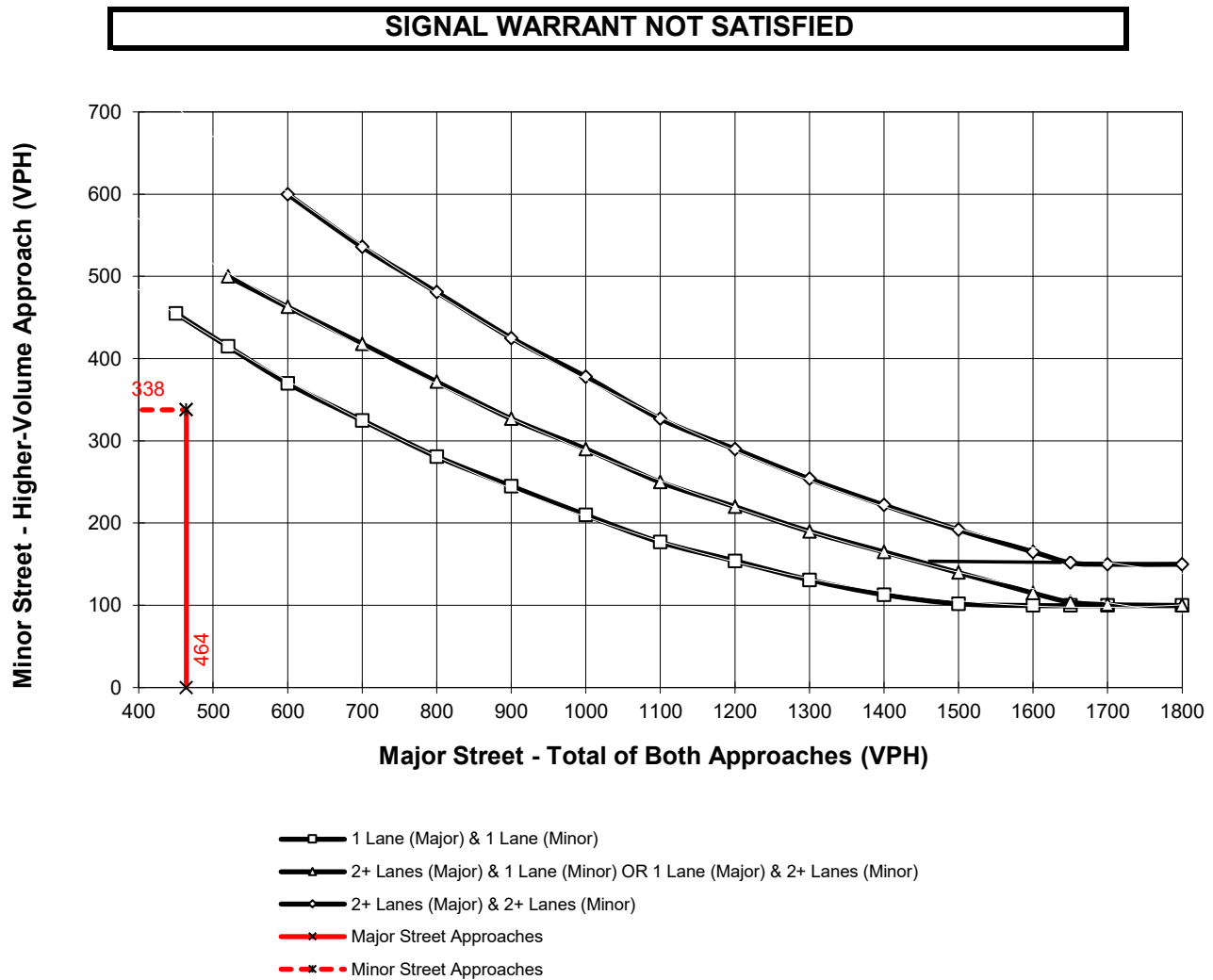
Traffic Conditions = Existing (2022) Conditions - Weekday PM Peak Hour

Major Street Name = Prosperity Wy.

Total of Both Approaches (VPH) = 464
Number of Approach Lanes on Major Street = 1

Minor Street Name = Distribution Wy.

High Volume Approach (VPH) = 338
Number of Approach Lanes On Minor Street = 1



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes
and 100 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Existing (2022) Conditions - Weekday AM Peak Hour**

Major Street Name = **Nicholas Rd.**

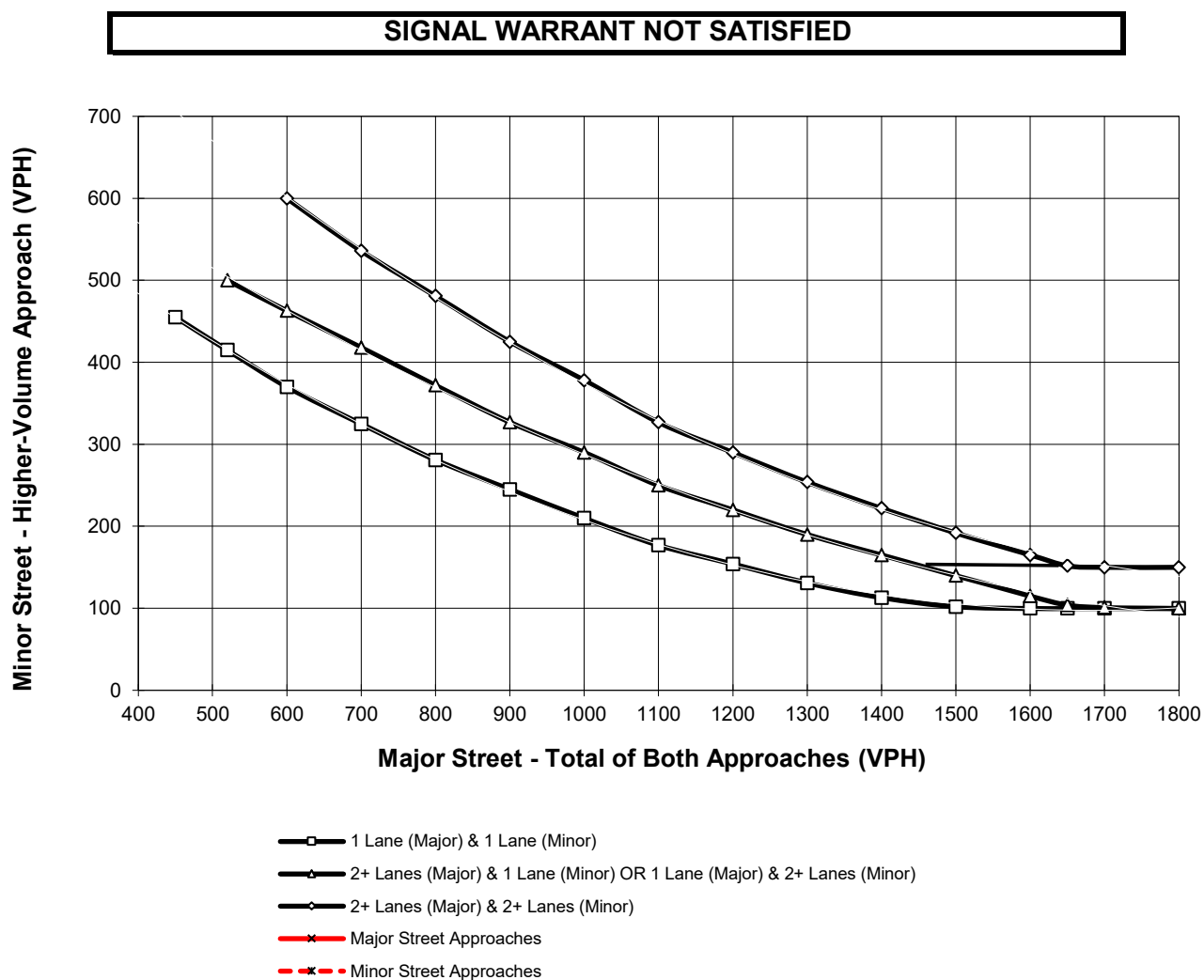
Total of Both Approaches (VPH) = **23**

Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Driveway 2**

High Volume Approach (VPH) = **3**

Number of Approach Lanes On Minor Street = **1**



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes
and 100 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-3. Warrant 3, Peak Hour

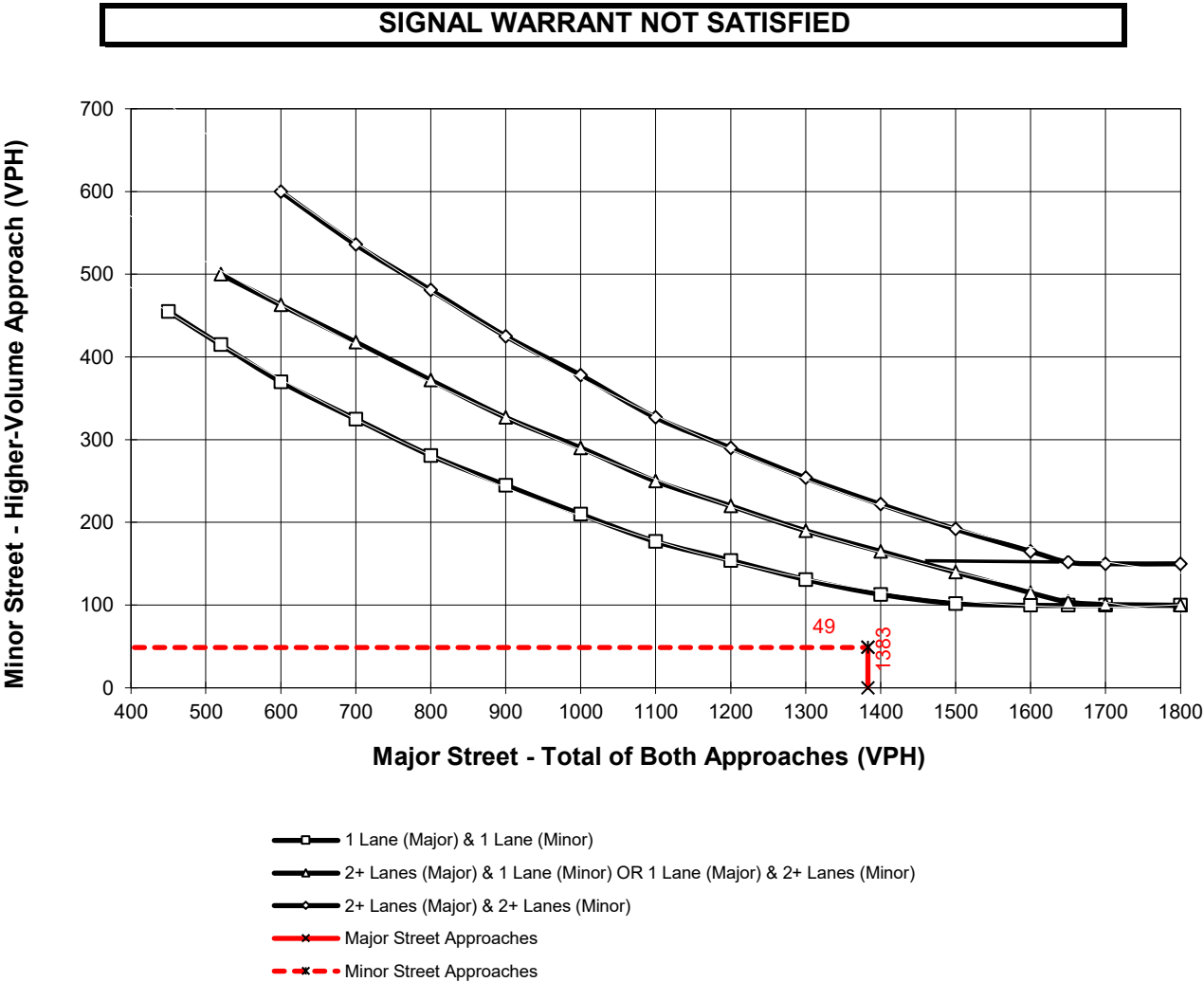
Traffic Conditions = Existing (2022) Conditions - Weekday PM Peak Hour

Major Street Name = 4th St.

Total of Both Approaches (VPH) = 1383
Number of Approach Lanes on Major Street = 2

Minor Street Name = Nicholas Rd.

High Volume Approach (VPH) = 49
Number of Approach Lanes On Minor Street = 1

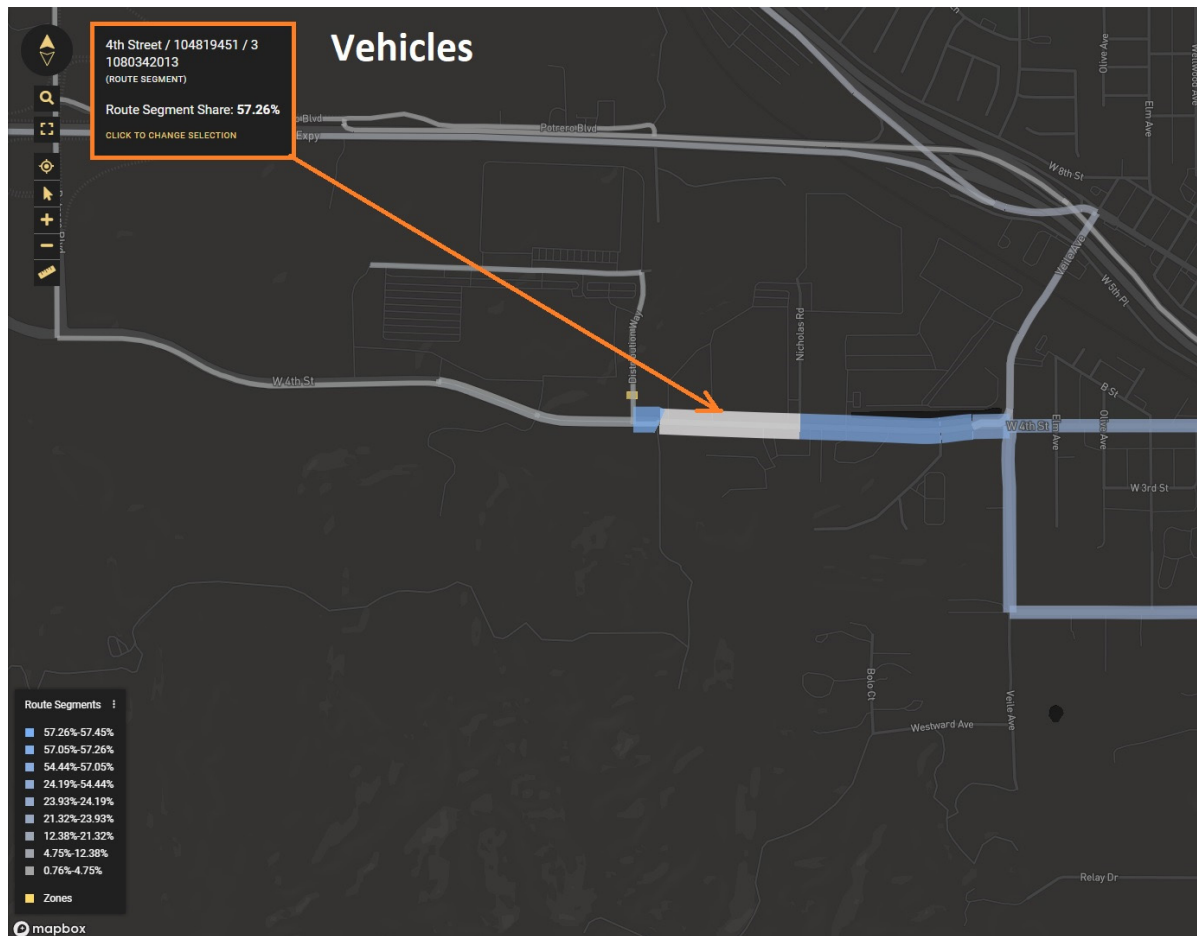


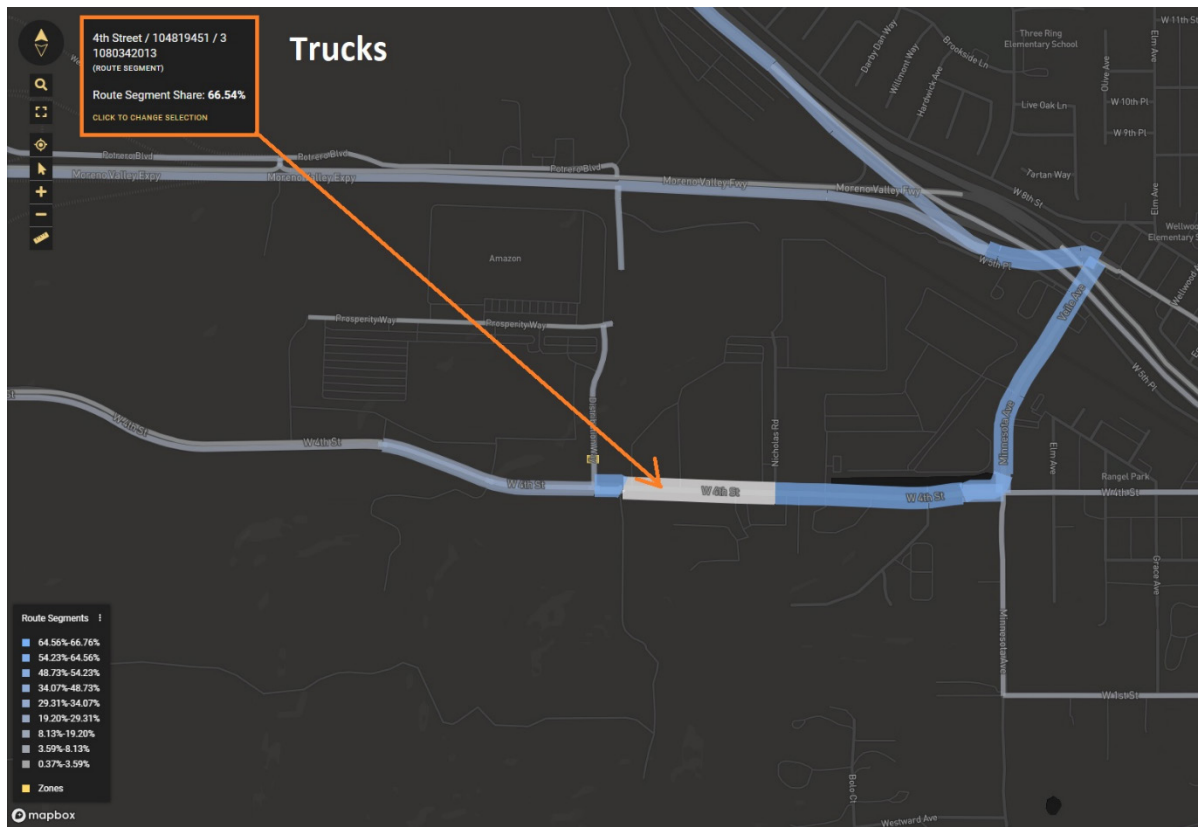
*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

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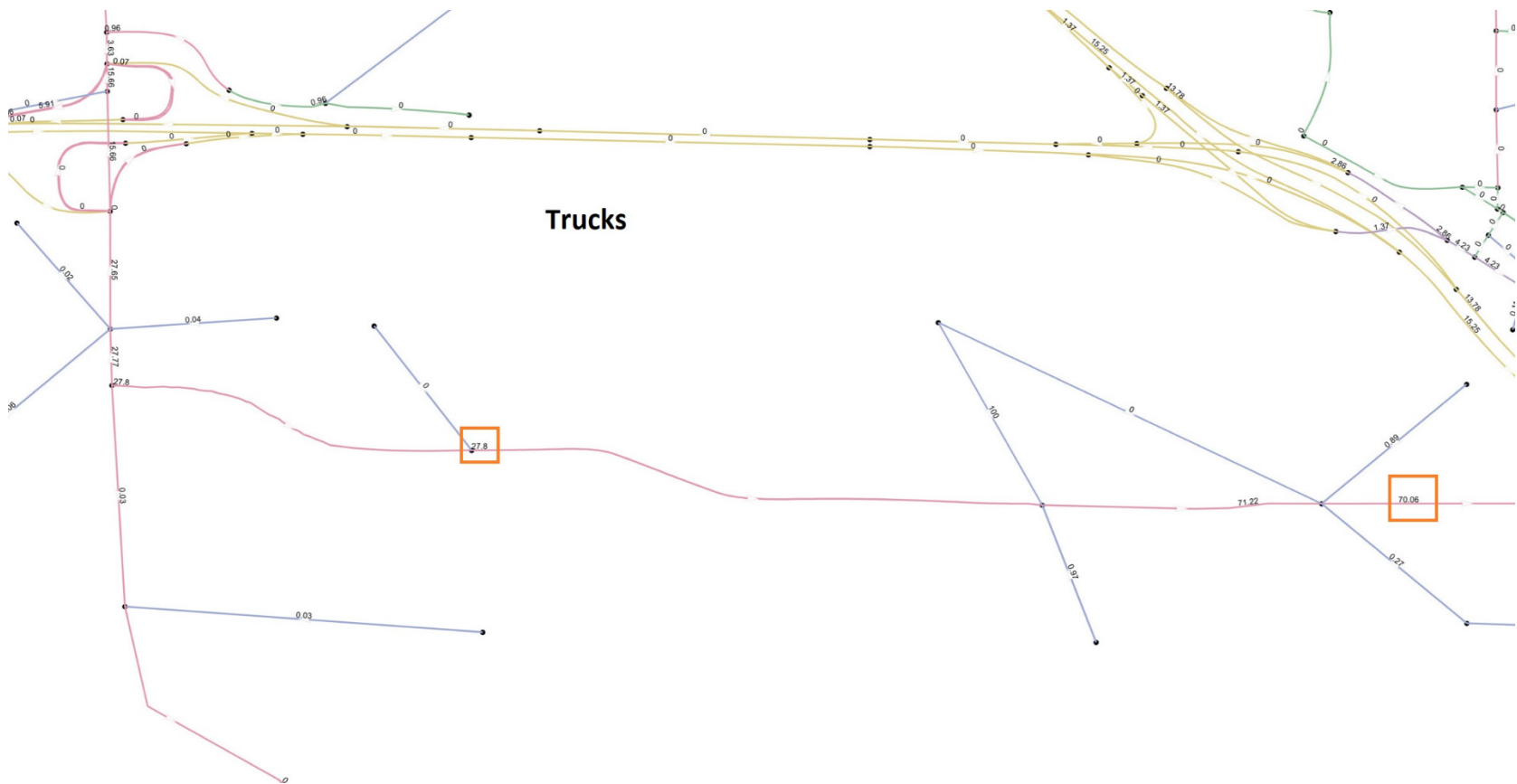
APPENDIX 4.1: STREET LIGHT AND RIVCOM SELECT ZONE RUN DISTRIBUTIONS

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APPENDIX 4.2: POST-PROCESSING WORKSHEETS

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Project: Orchard Logistics Center
Scenario: Horizon Year (2045)

Job #: 14410
Analyst: CS
Date: 8/10/22

LOCATION: Potrero Bl. & 4th St.
FORECAST YEAR: 2045

INDIVIDUAL TURN VOLUME GROWTH REVIEW									
APPROACH	TURNING MOVEMENT	AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
		EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	0	-1	-100%	1	1	0	0%
	Through	2	9	7	350%	2	20	18	900%
	Right	1	1	0	0%	1	0	-1	-100%
	NB Total	4	10	6	150%	4	21	17	425%
SOUTH BOUND	Left	1	35	34	3400%	1	16	15	1500%
	Through	2	27	25	1250%	2	19	17	850%
	Right	1	6	5	500%	1	23	22	2200%
	SB Total	4	68	64	1600%	4	58	54	1350%
EAST BOUND	Left	1	25	24	2400%	1	17	16	1600%
	Through	2	14	12	600%	2	3	1	50%
	Right	1	1	0	0%	1	0	-1	-100%
	EB Total	4	40	36	900%	4	20	16	400%
WEST BOUND	Left	1	2	1	100%	1	1	0	0%
	Through	2	4	2	100%	2	6	4	200%
	Right	1	35	34	3400%	1	24	23	2300%
	WB Total	4	41	37	925%	4	31	27	675%
TOTAL ENTERING VOLUME		16	159	143	894%	16	130	114	713%

FORECAST PEAK HOUR TO ADT COMPARISON						
		VOLUMES		PERCENT OF ADT		ADT
		AM	PM	AM	PM	
North Leg	Inbound	68	58	10%	9%	1,308
North Leg	Outbound	69	61			
North Leg	TOTAL	137	119			
South Leg	Inbound	10	21	8%	9%	471
South Leg	Outbound	30	20			
South Leg	TOTAL	40	41			
East Leg	Inbound	41	31	25%	14%	368
East Leg	Outbound	50	19			
East Leg	TOTAL	91	50			
West Leg	Inbound	40	20	10%	10%	514
West Leg	Outbound	10	30			
West Leg	TOTAL	50	50			
OVERALL TOTAL		318	260	12%	10%	2,661

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Project: Orchard Logistics Center
Scenario: Horizon Year (2045)

Job #: 14410
Analyst: CS
Date: 8/10/22

LOCATION: Veile Av. & 4th St.
FORECAST YEAR: 2045

INDIVIDUAL TURN VOLUME GROWTH REVIEW									
APPROACH	TURNING MOVEMENT	AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
		EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	404	406	2	0%	385	436	51	13%
	Through	27	24	-3	-11%	14	25	11	79%
	Right	2	1	-1	-50%	1	2	1	100%
	NB Total	433	431	-2	0%	400	463	63	16%
SOUTH BOUND	Left	5	4	-1	-20%	11	15	4	36%
	Through	24	20	-4	-17%	49	61	12	24%
	Right	133	136	3	2%	106	93	-13	-12%
	SB Total	162	160	-2	-1%	166	169	3	2%
EAST BOUND	Left	37	48	11	30%	149	166	17	11%
	Through	41	45	4	10%	224	238	14	6%
	Right	71	86	15	21%	369	365	-4	-1%
	EB Total	149	179	30	20%	742	769	27	4%
WEST BOUND	Left	5	4	-1	-20%	1	1	0	0%
	Through	215	228	13	6%	176	173	-3	-2%
	Right	9	8	-1	-11%	8	13	5	63%
	WB Total	229	240	11	5%	185	187	2	1%
TOTAL ENTERING VOLUME		973	1,010	37	4%	1,493	1,588	95	6%

FORECAST PEAK HOUR TO ADT COMPARISON						
		VOLUMES		PERCENT OF ADT		ADT
		AM	PM	AM	PM	
North Leg	Inbound	160	169	7%	11%	3,338
North Leg	Outbound	80	204			
North Leg	TOTAL	240	373			
South Leg	Inbound	431	463	2%	3%	29,778
South Leg	Outbound	110	427			
South Leg	TOTAL	541	890			
East Leg	Inbound	240	187	7%	11%	4,172
East Leg	Outbound	50	255			
East Leg	TOTAL	290	442			
West Leg	Inbound	179	769	5%	7%	21,000
West Leg	Outbound	770	702			
West Leg	TOTAL	949	1,471			
OVERALL TOTAL		2,020	3,176	3%	5%	58,289

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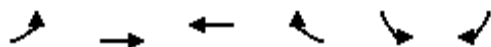
APPENDIX 5.1: EAP (2025) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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Timings
1: 4th St. & Potrero Bl.

Orchard Logistics (JN 14410)

08/09/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	12	25	36	96	289	12
Future Volume (vph)	12	25	36	96	289	12
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	27.4	42.4	42.4	27.2	27.2
Total Split (s)	9.6	52.8	43.2	43.2	27.2	27.2
Total Split (%)	12.0%	66.0%	54.0%	54.0%	34.0%	34.0%
Yellow Time (s)	3.6	4.4	4.4	4.4	4.2	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	5.4	5.2	5.2
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	Min	Min
Act Effect Green (s)	5.6	15.2	14.2	14.2	18.4	18.4
Actuated g/C Ratio	0.14	0.38	0.36	0.36	0.46	0.46
v/c Ratio	0.06	0.02	0.06	0.18	0.22	0.02
Control Delay	22.2	6.0	8.4	2.9	13.0	9.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.2	6.0	8.4	2.9	13.0	9.7
LOS	C	A	A	A	B	A
Approach Delay		11.2	4.4		12.9	
Approach LOS		B	A		B	

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 40

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.22

Intersection Signal Delay: 10.4

Intersection LOS: B

Intersection Capacity Utilization 25.5%

ICU Level of Service A

Analysis Period (min) 15

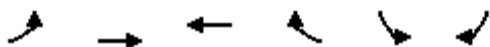
Splits and Phases: 1: 4th St. & Potrero Bl.



HCM 6th Signalized Intersection Summary
1: 4th St. & Potrero Bl.

Orchard Logistics (JN 14410)

08/09/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	12	25	36	96	289	12
Future Volume (veh/h)	12	25	36	96	289	12
Initial Q (Qb), veh	0	0	0	0	0	0
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	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	14	30	43	115	348	14
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	33	1391	437	370	1047	480
Arrive On Green	0.02	0.39	0.23	0.23	0.30	0.30
Sat Flow, veh/h	1810	3705	1900	1610	3510	1610
Grp Volume(v), veh/h	14	30	43	115	348	14
Grp Sat Flow(s),veh/h/ln	1810	1805	1900	1610	1755	1610
Q Serve(g_s), s	0.3	0.2	0.6	2.0	2.6	0.2
Cycle Q Clear(g_c), s	0.3	0.2	0.6	2.0	2.6	0.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	33	1391	437	370	1047	480
V/C Ratio(X)	0.42	0.02	0.10	0.31	0.33	0.03
Avail Cap(c_a), veh/h	270	5106	2143	1816	2304	1057
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	1.00
Uniform Delay (d), s/veh	16.3	6.4	10.2	10.7	9.2	8.3
Incr Delay (d2), s/veh	3.2	0.0	0.1	0.5	0.2	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	0.1	0.0	0.2	0.5	0.7	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	19.5	6.4	10.3	11.2	9.3	8.3
LnGrp LOS	B	A	B	B	A	A
Approach Vol, veh/h		44	158		362	
Approach Delay, s/veh		10.6	10.9		9.3	
Approach LOS		B	B		A	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		18.3		15.2	5.2	13.1
Change Period (Y+Rc), s		5.4		5.2	4.6	5.4
Max Green Setting (Gmax), s		47.4		22.0	5.0	37.8
Max Q Clear Time (g_c+I1), s		2.2		4.6	2.3	4.0
Green Ext Time (p_c), s		0.1		1.1	0.0	0.6
Intersection Summary						
HCM 6th Ctrl Delay			9.9			
HCM 6th LOS			A			

Intersection

Intersection Delay, s/veh31.6

Intersection LOS D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	67	14	1	0	570	4	37	0	0	1
Future Vol, veh/h	0	0	67	14	1	0	570	4	37	0	0	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	72	15	1	0	613	4	40	0	0	1
Number of Lanes	1	1	0	0	1	0	1	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	2
Conflicting Approach Left SB		NB	EB	WB
Conflicting Lanes Left	1	2	2	1
Conflicting Approach RightNB		SB	WB	EB
Conflicting Lanes Right	2	1	1	2
HCM Control Delay	9	9.8	34.6	8
HCM LOS	A	A	D	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	100%	0%	0%	0%	93%	0%
Vol Thru, %	0%	10%	100%	0%	7%	0%
Vol Right, %	0%	90%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	570	41	0	67	15	1
LT Vol	570	0	0	0	14	0
Through Vol	0	4	0	0	1	0
RT Vol	0	37	0	67	0	1
Lane Flow Rate	613	44	0	72	16	1
Geometry Grp	7	7	7	7	6	6
Degree of Util (X)	0.898	0.051	0	0.112	0.029	0.001
Departure Headway (Hd)	5.277	4.143	6.28	5.572	6.529	4.918
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	693	870	0	642	547	723
Service Time	2.977	1.843	4.026	3.317	4.586	2.976
HCM Lane V/C Ratio	0.885	0.051	0	0.112	0.029	0.001
HCM Control Delay	36.6	7.1	9	9	9.8	8
HCM Lane LOS	E	A	N	A	A	A
HCM 95th-tile Q	11.4	0.2	0	0.4	0.1	0

Timings
3: 4th St. & Distribution Wy.

Orchard Logistics (JN 14410)

08/09/2022



Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations	←	↑↑	↑↑	←	←
Traffic Volume (vph)	23	83	248	65	29
Future Volume (vph)	23	83	248	65	29
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	5	2	6	4	
Permitted Phases					4
Detector Phase	5	2	6	4	4
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.4	27.4	14.6	14.6
Total Split (s)	10.0	44.0	34.0	16.0	16.0
Total Split (%)	16.7%	73.3%	56.7%	26.7%	26.7%
Yellow Time (s)	3.6	4.4	4.4	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	4.6
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	None	None
Act Effect Green (s)	6.4	20.3	19.4	12.5	12.5
Actuated g/C Ratio	0.21	0.68	0.65	0.42	0.42
v/c Ratio	0.07	0.04	0.42	0.10	0.05
Control Delay	17.6	4.9	3.1	12.8	7.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	17.6	4.9	3.1	12.8	7.1
LOS	B	A	A	B	A
Approach Delay		7.7	3.1	11.0	
Approach LOS		A	A	B	

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 30

Natural Cycle: 55

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.42

Intersection Signal Delay: 4.3

Intersection LOS: A

Intersection Capacity Utilization 43.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 3: 4th St. & Distribution Wy.

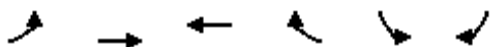


HCM 6th Signalized Intersection Summary

3: 4th St. & Distribution Wy.

Orchard Logistics (JN 14410)

08/09/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	23	83	248	586	65	29
Future Volume (veh/h)	23	83	248	586	65	29
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	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	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	27	97	288	624	76	24
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	58	2227	870	770	288	256
Arrive On Green	0.03	0.62	0.48	0.48	0.16	0.16
Sat Flow, veh/h	1810	3705	1900	1598	1810	1610
Grp Volume(v), veh/h	27	97	288	624	76	24
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1598	1810	1610
Q Serve(g_s), s	0.7	0.5	4.4	14.8	1.6	0.6
Cycle Q Clear(g_c), s	0.7	0.5	4.4	14.8	1.6	0.6
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	58	2227	870	770	288	256
V/C Ratio(X)	0.47	0.04	0.33	0.81	0.26	0.09
Avail Cap(c_a), veh/h	219	3121	1156	1024	462	411
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	1.00
Uniform Delay (d), s/veh	21.2	3.4	7.1	9.8	16.5	16.0
Incr Delay (d2), s/veh	2.2	0.0	0.2	3.7	0.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.1	1.1	3.9	0.7	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	23.4	3.4	7.4	13.5	17.0	16.2
LnGrp LOS	C	A	A	B	B	B
Approach Vol, veh/h		124	912		100	
Approach Delay, s/veh		7.7	11.6		16.8	
Approach LOS		A	B		B	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		32.9		11.7	6.0	26.9
Change Period (Y+Rc), s		5.4		4.6	4.6	5.4
Max Green Setting (Gmax), s		38.6		11.4	5.4	28.6
Max Q Clear Time (g_c+I1), s		2.5		3.6	2.7	16.8
Green Ext Time (p_c), s		0.5		0.1	0.0	4.7
Intersection Summary						
HCM 6th Ctrl Delay			11.6			
HCM 6th LOS			B			

Intersection												
Int Delay, s/veh	5.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕			↕	
Traffic Vol, veh/h	0	0	18	0	0	0	31	5	2	0	11	0
Future Vol, veh/h	0	0	18	0	0	0	31	5	2	0	11	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	28	0	0	0	48	8	3	0	17	0
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	123	124	17	137	123	10	17	0	0	11	0	0
Stage 1	17	17	-	106	106	-	-	-	-	-	-	-
Stage 2	106	107	-	31	17	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
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	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	856	770	1068	838	771	1077	1613	-	-	1621	-	-
Stage 1	1008	885	-	905	811	-	-	-	-	-	-	-
Stage 2	905	811	-	991	885	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	836	747	1068	798	748	1077	1613	-	-	1621	-	-
Mov Cap-2 Maneuver	836	747	-	798	748	-	-	-	-	-	-	-
Stage 1	978	885	-	878	787	-	-	-	-	-	-	-
Stage 2	878	787	-	965	885	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	8.5		0		6		0					
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1613	-	-	1068	-	1621	-	-				
HCM Lane V/C Ratio	0.03	-	-	0.026	-	-	-	-				
HCM Control Delay (s)	7.3	-	-	8.5	0	0	-	-				
HCM Lane LOS	A	-	-	A	A	A	-	-				
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-	0	-	-				

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	8	154	830	67	35	8
Future Vol, veh/h	8	154	830	67	35	8
Conflicting Peds, #/hr	0	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	100	0
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	9	166	892	72	38	9

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	965	0	-	0	1030
Stage 1	-	-	-	-	929
Stage 2	-	-	-	-	101
Critical Hdwy	4.1	-	-	-	6.8
Critical Hdwy Stg 1	-	-	-	-	5.8
Critical Hdwy Stg 2	-	-	-	-	5.8
Follow-up Hdwy	2.2	-	-	-	3.5
Pot Cap-1 Maneuver	722	-	-	-	233
Stage 1	-	-	-	-	350
Stage 2	-	-	-	-	918
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	721	-	-	-	230
Mov Cap-2 Maneuver	-	-	-	-	300
Stage 1	-	-	-	-	345
Stage 2	-	-	-	-	917

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	17.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	721	-	-	-	300	534
HCM Lane V/C Ratio	0.012	-	-	-	0.125	0.016
HCM Control Delay (s)	10.1	-	-	-	18.7	11.9
HCM Lane LOS	B	-	-	-	C	B
HCM 95th %tile Q(veh)	0	-	-	-	0.4	0

Timings
6: Veile Av. & 4th St.

Orchard Logistics (JN 14410)

08/09/2022

											
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	48	72	85	5	237	446	31	2	8	28	244
Future Volume (vph)	48	72	85	5	237	446	31	2	8	28	244
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6	3	8		7	4	
Permitted Phases			2					8			4
Detector Phase	5	2	2	1	6	3	8	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	26.6	26.6	9.6	26.6	9.6	27.6	27.6	9.6	14.6	14.6
Total Split (s)	9.6	26.8	26.8	9.6	26.8	29.0	34.0	34.0	9.6	14.6	14.6
Total Split (%)	12.0%	33.5%	33.5%	12.0%	33.5%	36.3%	42.5%	42.5%	12.0%	18.3%	18.3%
Yellow Time (s)	3.6	4.4	4.4	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	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	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None
Act Effect Green (s)	5.2	18.3	18.3	5.2	15.4	21.5	24.0	24.0	5.2	10.4	10.4
Actuated g/C Ratio	0.08	0.27	0.27	0.08	0.23	0.32	0.36	0.36	0.08	0.16	0.16
v/c Ratio	0.38	0.15	0.16	0.04	0.64	0.85	0.05	0.00	0.06	0.10	0.56
Control Delay	42.6	20.2	0.6	35.2	31.4	39.2	13.2	0.0	35.5	30.6	9.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.6	20.2	0.6	35.2	31.4	39.2	13.2	0.0	35.5	30.6	9.8
LOS	D	C	A	D	C	D	B	A	D	C	A
Approach Delay		17.3			31.4		37.4			12.6	
Approach LOS		B			C		D			B	

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 66.7

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.85

Intersection Signal Delay: 27.1

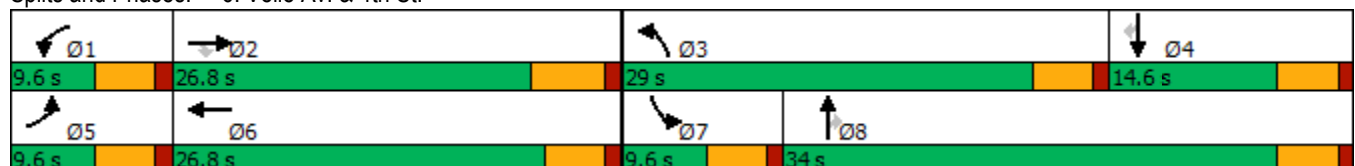
Intersection LOS: C

Intersection Capacity Utilization 65.2%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 6: Veile Av. & 4th St.



HCM 6th Signalized Intersection Summary

6: Veile Av. & 4th St.

Orchard Logistics (JN 14410)

08/09/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	72	85	5	237	14	446	31	2	8	28	244
Future Volume (veh/h)	48	72	85	5	237	14	446	31	2	8	28	244
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	53	80	62	6	263	14	496	34	2	9	31	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	93	469	397	14	363	19	561	699	592	21	132	
Arrive On Green	0.05	0.25	0.25	0.01	0.20	0.20	0.31	0.37	0.37	0.01	0.07	0.00
Sat Flow, veh/h	1810	1900	1610	1810	1787	95	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	53	80	62	6	0	277	496	34	2	9	31	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	0	1882	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	1.5	1.7	1.6	0.2	0.0	7.2	13.7	0.6	0.0	0.3	0.8	0.0
Cycle Q Clear(g_c), s	1.5	1.7	1.6	0.2	0.0	7.2	13.7	0.6	0.0	0.3	0.8	0.0
Prop In Lane	1.00		1.00	1.00		0.05	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	93	469	397	14	0	383	561	699	592	21	132	
V/C Ratio(X)	0.57	0.17	0.16	0.42	0.00	0.72	0.88	0.05	0.00	0.42	0.24	
Avail Cap(c_a), veh/h	172	775	657	172	0	796	841	1064	902	172	362	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	24.3	15.5	15.5	25.9	0.0	19.5	17.2	10.7	10.5	25.8	23.1	0.0
Incr Delay (d2), s/veh	2.1	0.2	0.2	6.9	0.0	2.6	5.4	0.0	0.0	4.9	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.7	0.6	0.1	0.0	3.2	5.9	0.2	0.0	0.1	0.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.4	15.7	15.7	32.8	0.0	22.1	22.6	10.7	10.5	30.7	24.0	0.0
LnGrp LOS	C	B	B	C	A	C	C	B	B	C	C	
Approach Vol, veh/h		195			283			532			40	
Approach Delay, s/veh		18.6			22.4			21.8			25.5	
Approach LOS		B			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.0	18.3	20.9	8.2	7.3	16.1	5.2	23.9				
Change Period (Y+Rc), s	4.6	5.4	4.6	4.6	4.6	* 5.4	4.6	4.6				
Max Green Setting (Gmax), s	5.0	21.4	24.4	10.0	5.0	* 22	5.0	29.4				
Max Q Clear Time (g_c+I1), s	2.2	3.7	15.7	2.8	3.5	9.2	2.3	2.6				
Green Ext Time (p_c), s	0.0	0.5	0.6	0.0	0.0	1.3	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	21.5
HCM 6th LOS	C

Notes

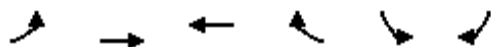
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Timings
1: 4th St. & Potrero Bl.

Orchard Logistics (JN 14410)

08/09/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	6	8	6	353	276	4
Future Volume (vph)	6	8	6	353	276	4
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	27.4	42.4	42.4	27.2	27.2
Total Split (s)	9.6	52.8	43.2	43.2	27.2	27.2
Total Split (%)	12.0%	66.0%	54.0%	54.0%	34.0%	34.0%
Yellow Time (s)	3.6	4.4	4.4	4.4	4.2	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	5.4	5.2	5.2
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	Min	Min
Act Effect Green (s)	5.7	15.2	14.2	14.2	12.1	12.1
Actuated g/C Ratio	0.15	0.39	0.36	0.36	0.31	0.31
v/c Ratio	0.03	0.01	0.01	0.56	0.37	0.01
Control Delay	22.7	6.1	8.3	3.8	14.3	11.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.7	6.1	8.3	3.8	14.3	11.0
LOS	C	A	A	A	B	B
Approach Delay		13.2	3.9		14.3	
Approach LOS		B	A		B	

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 39.3

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.56

Intersection Signal Delay: 8.5

Intersection LOS: A

Intersection Capacity Utilization 34.4%

ICU Level of Service A

Analysis Period (min) 15

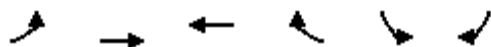
Splits and Phases: 1: 4th St. & Potrero Bl.



HCM 6th Signalized Intersection Summary
1: 4th St. & Potrero Bl.

Orchard Logistics (JN 14410)

08/09/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	6	8	6	353	276	4
Future Volume (veh/h)	6	8	6	353	276	4
Initial Q (Qb), veh	0	0	0	0	0	0
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	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	9	12	9	509	400	5
Peak Hour Factor	0.69	0.69	0.69	0.69	0.69	0.69
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	21	1815	722	612	847	389
Arrive On Green	0.01	0.50	0.38	0.38	0.24	0.24
Sat Flow, veh/h	1810	3705	1900	1610	3510	1610
Grp Volume(v), veh/h	9	12	9	509	400	5
Grp Sat Flow(s),veh/h/ln	1810	1805	1900	1610	1755	1610
Q Serve(g_s), s	0.2	0.1	0.1	11.9	4.0	0.1
Cycle Q Clear(g_c), s	0.2	0.1	0.1	11.9	4.0	0.1
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	21	1815	722	612	847	389
V/C Ratio(X)	0.42	0.01	0.01	0.83	0.47	0.01
Avail Cap(c_a), veh/h	218	4131	1734	1469	1864	855
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	1.00
Uniform Delay (d), s/veh	20.3	5.1	8.0	11.7	13.5	12.0
Incr Delay (d2), s/veh	4.8	0.0	0.0	3.0	0.4	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	0.1	0.0	0.0	3.3	1.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	25.1	5.1	8.0	14.7	13.9	12.0
LnGrp LOS	C	A	A	B	B	B
Approach Vol, veh/h		21	518		405	
Approach Delay, s/veh		13.7	14.6		13.8	
Approach LOS		B	B		B	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		26.2		15.2	5.1	21.1
Change Period (Y+Rc), s		5.4		5.2	4.6	5.4
Max Green Setting (Gmax), s		47.4		22.0	5.0	37.8
Max Q Clear Time (g_c+I1), s		2.1		6.0	2.2	13.9
Green Ext Time (p_c), s		0.0		1.3	0.0	1.9
Intersection Summary						
HCM 6th Ctrl Delay			14.2			
HCM 6th LOS			B			

Intersection

Intersection Delay, s/veh75.6

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	359	46	1	0	481	6	21	0	4	0
Future Vol, veh/h	0	0	359	46	1	0	481	6	21	0	4	0
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	472	61	1	0	633	8	28	0	5	0
Number of Lanes	1	1	0	0	1	0	1	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	2
Conflicting Approach Left SB		NB	EB	WB
Conflicting Lanes Left	1	2	2	1
Conflicting Approach RightNB		SB	WB	EB
Conflicting Lanes Right	2	1	1	2
HCM Control Delay	26.8	12.3	116.5	10.9
HCM LOS	D	B	F	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	100%	0%	0%	0%	98%	0%
Vol Thru, %	0%	22%	100%	0%	2%	100%
Vol Right, %	0%	78%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	481	27	0	359	47	4
LT Vol	481	0	0	0	46	0
Through Vol	0	6	0	0	1	4
RT Vol	0	21	0	359	0	0
Lane Flow Rate	633	36	0	472	62	5
Geometry Grp	7	7	7	7	6	6
Degree of Util (X)	1.181	0.056	0	0.768	0.129	0.011
Departure Headway (Hd)	6.715	5.655	7.019	6.307	8.066	7.768
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	544	637	0	576	447	464
Service Time	4.42	3.359	4.719	4.007	6.066	5.768
HCM Lane V/C Ratio	1.164	0.057	0	0.819	0.139	0.011
HCM Control Delay	122.5	8.7	9.7	26.8	12.3	10.9
HCM Lane LOS	F	A	N	D	B	B
HCM 95th-tile Q	22.6	0.2	0	7	0.4	0

Timings
3: 4th St. & Distribution Wy.

Orchard Logistics (JN 14410)

08/09/2022



Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations	←	↑↑	↑↑	←	←
Traffic Volume (vph)	18	246	266	515	65
Future Volume (vph)	18	246	266	515	65
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	5	2	6	4	
Permitted Phases					4
Detector Phase	5	2	6	4	4
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.4	27.4	14.6	14.6
Total Split (s)	9.6	37.0	27.4	33.0	33.0
Total Split (%)	13.7%	52.9%	39.1%	47.1%	47.1%
Yellow Time (s)	3.6	4.4	4.4	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	4.6
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	None	None
Act Effect Green (s)	5.2	18.9	15.8	27.7	27.7
Actuated g/C Ratio	0.09	0.33	0.28	0.49	0.49
v/c Ratio	0.15	0.29	0.75	0.82	0.11
Control Delay	31.3	13.9	10.6	26.3	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	31.3	13.9	10.6	26.3	3.9
LOS	C	B	B	C	A
Approach Delay		15.1	10.6	23.8	
Approach LOS		B	B	C	

Intersection Summary

Cycle Length: 70

Actuated Cycle Length: 57

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 16.2

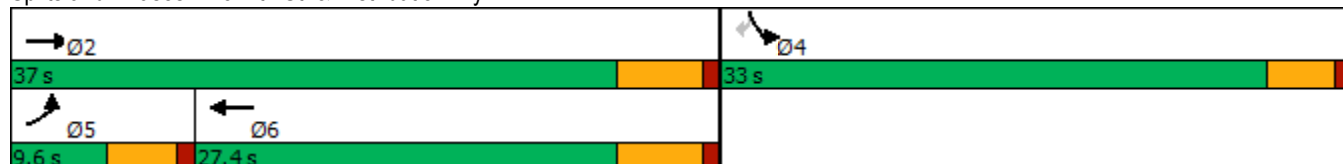
Intersection LOS: B

Intersection Capacity Utilization 59.8%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 3: 4th St. & Distribution Wy.

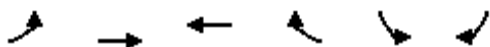


HCM 6th Signalized Intersection Summary

3: 4th St. & Distribution Wy.

Orchard Logistics (JN 14410)

08/09/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	18	246	266	482	515	65
Future Volume (veh/h)	18	246	266	482	515	65
Initial Q (Qb), veh	0	0	0	0	0	0
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	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	25	342	369	475	715	46
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	51	1538	590	525	759	675
Arrive On Green	0.03	0.43	0.33	0.33	0.42	0.42
Sat Flow, veh/h	1810	3705	1900	1608	1810	1610
Grp Volume(v), veh/h	25	342	369	475	715	46
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1608	1810	1610
Q Serve(g_s), s	0.9	3.9	11.2	18.3	24.5	1.1
Cycle Q Clear(g_c), s	0.9	3.9	11.2	18.3	24.5	1.1
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	51	1538	590	525	759	675
V/C Ratio(X)	0.49	0.22	0.63	0.90	0.94	0.07
Avail Cap(c_a), veh/h	140	1763	614	547	794	707
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	1.00
Uniform Delay (d), s/veh	31.0	11.8	18.4	20.8	18.0	11.2
Incr Delay (d2), s/veh	2.8	0.1	1.9	18.1	18.8	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	0.4	1.3	4.2	8.2	11.8	1.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	33.7	11.8	20.3	38.9	36.9	11.3
LnGrp LOS	C	B	C	D	D	B
Approach Vol, veh/h		367	844		761	
Approach Delay, s/veh		13.3	30.8		35.3	
Approach LOS		B	C		D	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		33.0		31.7	6.4	26.5
Change Period (Y+Rc), s		5.4		4.6	4.6	5.4
Max Green Setting (Gmax), s		31.6		28.4	5.0	22.0
Max Q Clear Time (g_c+I1), s		5.9		26.5	2.9	20.3
Green Ext Time (p_c), s		1.9		0.6	0.0	0.9
Intersection Summary						
HCM 6th Ctrl Delay			29.3			
HCM 6th LOS			C			

Intersection												
Int Delay, s/veh	5.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↵	↵			↕	
Traffic Vol, veh/h	0	0	34	0	0	0	19	15	0	0	5	0
Future Vol, veh/h	0	0	34	0	0	0	19	15	0	0	5	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	55	55	55	55	55	55	55	55	55	55	55	55
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	62	0	0	0	35	27	0	0	9	0
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	106	106	9	137	106	27	9	0	0	27	0	0
Stage 1	9	9	-	97	97	-	-	-	-	-	-	-
Stage 2	97	97	-	40	9	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
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	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	878	788	1079	838	788	1054	1624	-	-	1600	-	-
Stage 1	1017	892	-	914	819	-	-	-	-	-	-	-
Stage 2	914	819	-	980	892	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	864	771	1079	777	771	1054	1624	-	-	1600	-	-
Mov Cap-2 Maneuver	864	771	-	777	771	-	-	-	-	-	-	-
Stage 1	995	892	-	894	801	-	-	-	-	-	-	-
Stage 2	894	801	-	924	892	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	8.5		0		4.1		0					
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1624	-	-	1079	-	1600	-	-				
HCM Lane V/C Ratio	0.021	-	-	0.057	-	-	-	-				
HCM Control Delay (s)	7.3	-	-	8.5	0	0	-	-				
HCM Lane LOS	A	-	-	A	A	A	-	-				
HCM 95th %tile Q(veh)	0.1	-	-	0.2	-	0	-	-				

Intersection						
Int Delay, s/veh	1.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	7	757	724	25	57	28
Future Vol, veh/h	7	757	724	25	57	28
Conflicting Peds, #/hr	0	0	0	4	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	100	0
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	10	1066	1020	35	80	39
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	1059	0	-	0	1595	532
Stage 1	-	-	-	-	1042	-
Stage 2	-	-	-	-	553	-
Critical Hdwy	4.1	-	-	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	665	-	-	-	100	497
Stage 1	-	-	-	-	305	-
Stage 2	-	-	-	-	546	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	662	-	-	-	98	495
Mov Cap-2 Maneuver	-	-	-	-	216	-
Stage 1	-	-	-	-	299	-
Stage 2	-	-	-	-	544	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.1	0		25.2		
HCM LOS				D		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	662	-	-	-	216	495
HCM Lane V/C Ratio	0.015	-	-	-	0.372	0.08
HCM Control Delay (s)	10.5	-	-	-	31.2	12.9
HCM Lane LOS	B	-	-	-	D	B
HCM 95th %tile Q(veh)	0	-	-	-	1.6	0.3

Timings
6: Veile Av. & 4th St.

Orchard Logistics (JN 14410)

08/09/2022

											
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	160	301	395	1	190	415	15	1	12	59	153
Future Volume (vph)	160	301	395	1	190	415	15	1	12	59	153
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6	3	8		7	4	
Permitted Phases			2					8			4
Detector Phase	5	2	2	1	6	3	8	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	26.6	26.6	9.6	26.6	9.6	27.6	27.6	9.6	14.6	14.6
Total Split (s)	16.0	33.8	33.8	9.6	27.4	32.0	37.0	37.0	9.6	14.6	14.6
Total Split (%)	17.8%	37.6%	37.6%	10.7%	30.4%	35.6%	41.1%	41.1%	10.7%	16.2%	16.2%
Yellow Time (s)	3.6	4.4	4.4	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	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	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None
Act Effect Green (s)	11.4	29.9	29.9	5.0	16.5	27.5	20.4	20.4	5.0	10.0	10.0
Actuated g/C Ratio	0.14	0.36	0.36	0.06	0.20	0.33	0.24	0.24	0.06	0.12	0.12
v/c Ratio	0.86	0.58	0.57	0.01	0.70	0.92	0.04	0.00	0.15	0.34	0.49
Control Delay	69.6	26.7	4.9	40.0	41.5	52.2	19.7	0.0	42.7	40.1	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	69.6	26.7	4.9	40.0	41.5	52.2	19.7	0.0	42.7	40.1	6.4
LOS	E	C	A	D	D	D	B	A	D	D	A
Approach Delay		24.7			41.5		51.0			17.3	
Approach LOS		C			D		D			B	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 83.8

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.92

Intersection Signal Delay: 32.3

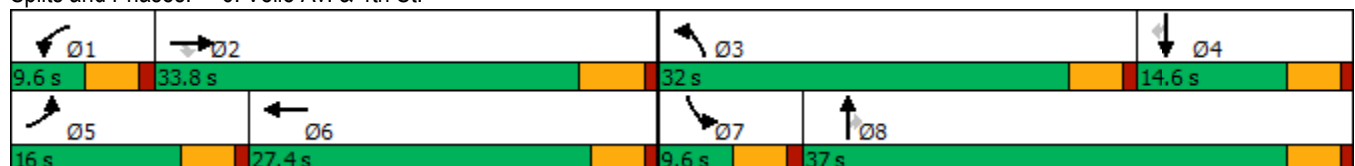
Intersection LOS: C

Intersection Capacity Utilization 61.8%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 6: Veile Av. & 4th St.



HCM 6th Signalized Intersection Summary

6: Veile Av. & 4th St.

Orchard Logistics (JN 14410)

08/09/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	301	395	1	190	9	415	15	1	12	59	153
Future Volume (veh/h)	160	301	395	1	190	9	415	15	1	12	59	153
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	211	396	346	1	250	8	546	20	1	16	78	0
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	252	588	498	2	314	10	587	785	665	34	204	
Arrive On Green	0.14	0.31	0.31	0.00	0.17	0.17	0.32	0.41	0.41	0.02	0.11	0.00
Sat Flow, veh/h	1810	1900	1610	1810	1831	59	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	211	396	346	1	0	258	546	20	1	16	78	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	0	1889	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	8.5	13.6	14.1	0.0	0.0	9.8	21.8	0.5	0.0	0.7	2.9	0.0
Cycle Q Clear(g_c), s	8.5	13.6	14.1	0.0	0.0	9.8	21.8	0.5	0.0	0.7	2.9	0.0
Prop In Lane	1.00		1.00	1.00		0.03	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	252	588	498	2	0	324	587	785	665	34	204	
V/C Ratio(X)	0.84	0.67	0.69	0.40	0.00	0.80	0.93	0.03	0.00	0.47	0.38	
Avail Cap(c_a), veh/h	276	723	613	121	0	577	664	825	699	121	255	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	31.3	22.5	22.7	37.2	0.0	29.6	24.4	13.0	12.9	36.2	31.0	0.0
Incr Delay (d2), s/veh	17.0	1.8	2.6	34.6	0.0	4.4	17.6	0.0	0.0	3.6	1.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	5.8	5.5	0.0	0.0	4.7	11.7	0.2	0.0	0.3	1.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.3	24.3	25.2	71.8	0.0	34.1	41.9	13.0	12.9	39.9	32.2	0.0
LnGrp LOS	D	C	C	E	A	C	D	B	B	D	C	
Approach Vol, veh/h		953			259			567			94	
Approach Delay, s/veh		29.9			34.2			40.9			33.5	
Approach LOS		C			C			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.7	28.5	28.8	12.6	15.0	18.2	6.0	35.4				
Change Period (Y+Rc), s	4.6	5.4	4.6	4.6	4.6	* 5.4	4.6	4.6				
Max Green Setting (Gmax), s	5.0	28.4	27.4	10.0	11.4	* 23	5.0	32.4				
Max Q Clear Time (g_c+I1), s	2.0	16.1	23.8	4.9	10.5	11.8	2.7	2.5				
Green Ext Time (p_c), s	0.0	2.9	0.4	0.1	0.0	1.1	0.0	0.1				
Intersection Summary												
HCM 6th Ctrl Delay			34.0									
HCM 6th LOS			C									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.												

APPENDIX 5.2: EAP (2025) CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-3. Warrant 3, Peak Hour

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

Major Street Name = **Prosperity Wy.**

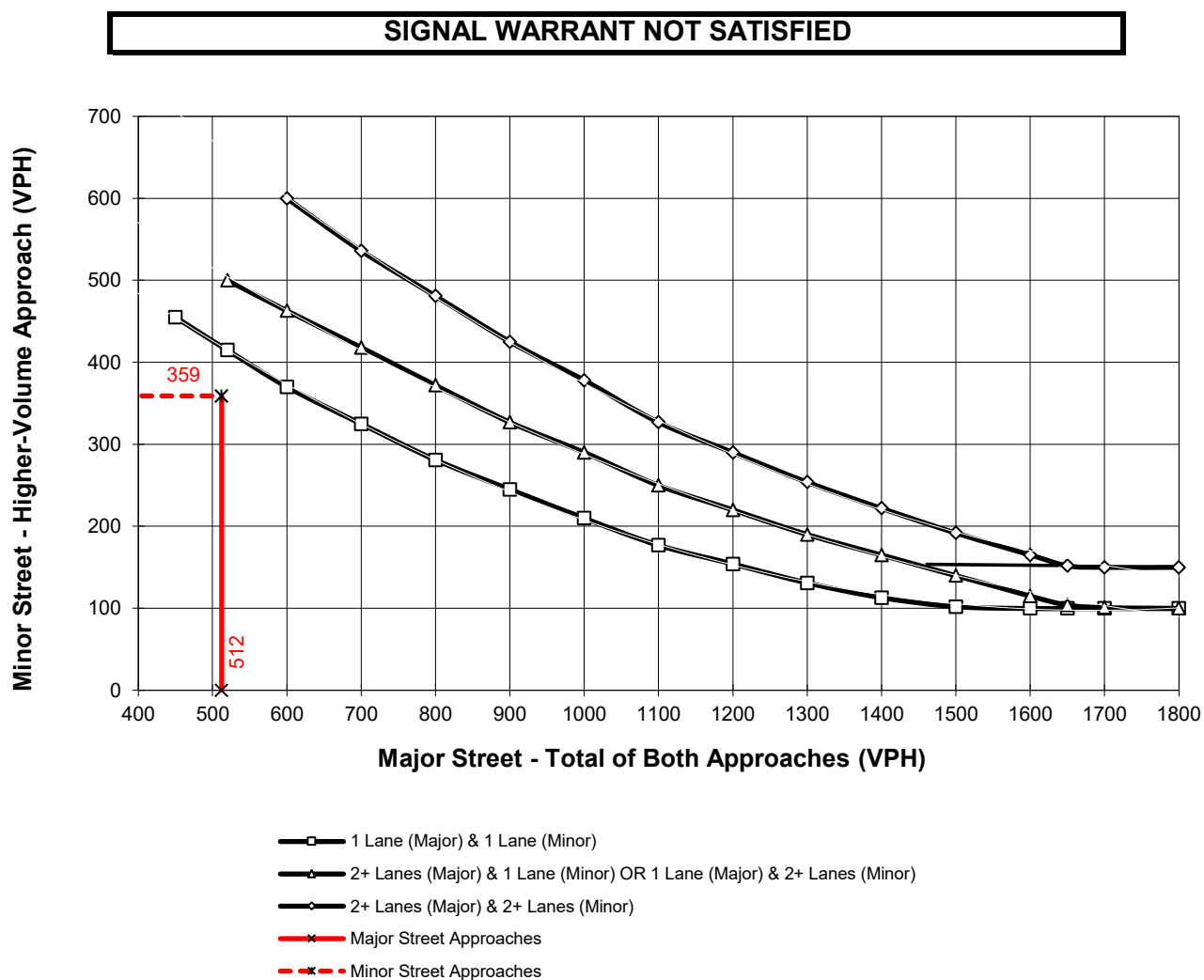
Total of Both Approaches (VPH) = **512**

Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Distribution Wy.**

High Volume Approach (VPH) = **359**

Number of Approach Lanes On Minor Street = **1**



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes
and 100 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	CALC	TRAFFIC CONDITIONS	EAP 2025
Jurisdiction: <u>City of Beaumont</u>				CHK <u>CS</u>		DATE <u>08/09/22</u>
Major Street: <u>Prosperity Wy.</u>					Critical Approach Speed (Major)	<u>30</u> mph
Minor Street: <u>Distribution Wy.</u>					Critical Approach Speed (Minor)	<u>25</u> mph
Major Street Approach Lanes = <u>1</u> lane				Minor Street Approach Lanes: <u>1</u> lane		
Major Street Future ADT = <u>3,668</u> vpd				Minor Street Future ADT = <u>3,600</u> 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						URBAN (U)

(Based on Estimated Average Daily Traffic - See Note)

URBAN XX		RURAL		Minimum Requirements	
CONDITION A - Minimum Vehicular Volume		EADT			
<u>Satisfied</u>	<u>Not Satisfied</u> XX	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 3,668	1 3,600	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)	
<u>Satisfied</u>	<u>Not Satisfied</u> XX	Urban	Rural	Urban	Rural
Major Street	Minor Street				
1 3,668	1 3,600	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		2 CONDITIONS		2 CONDITIONS	
<u>Satisfied</u>	<u>Not Satisfied</u> XX	80%		80%	
No one condition satisfied, but following conditions fulfilled 80% of more					
	A				
	46%				
	B				
	31%				

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.

Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EAP (2025) Conditions - Weekday AM Peak Hour**

Major Street Name = **Nicholas Rd.**

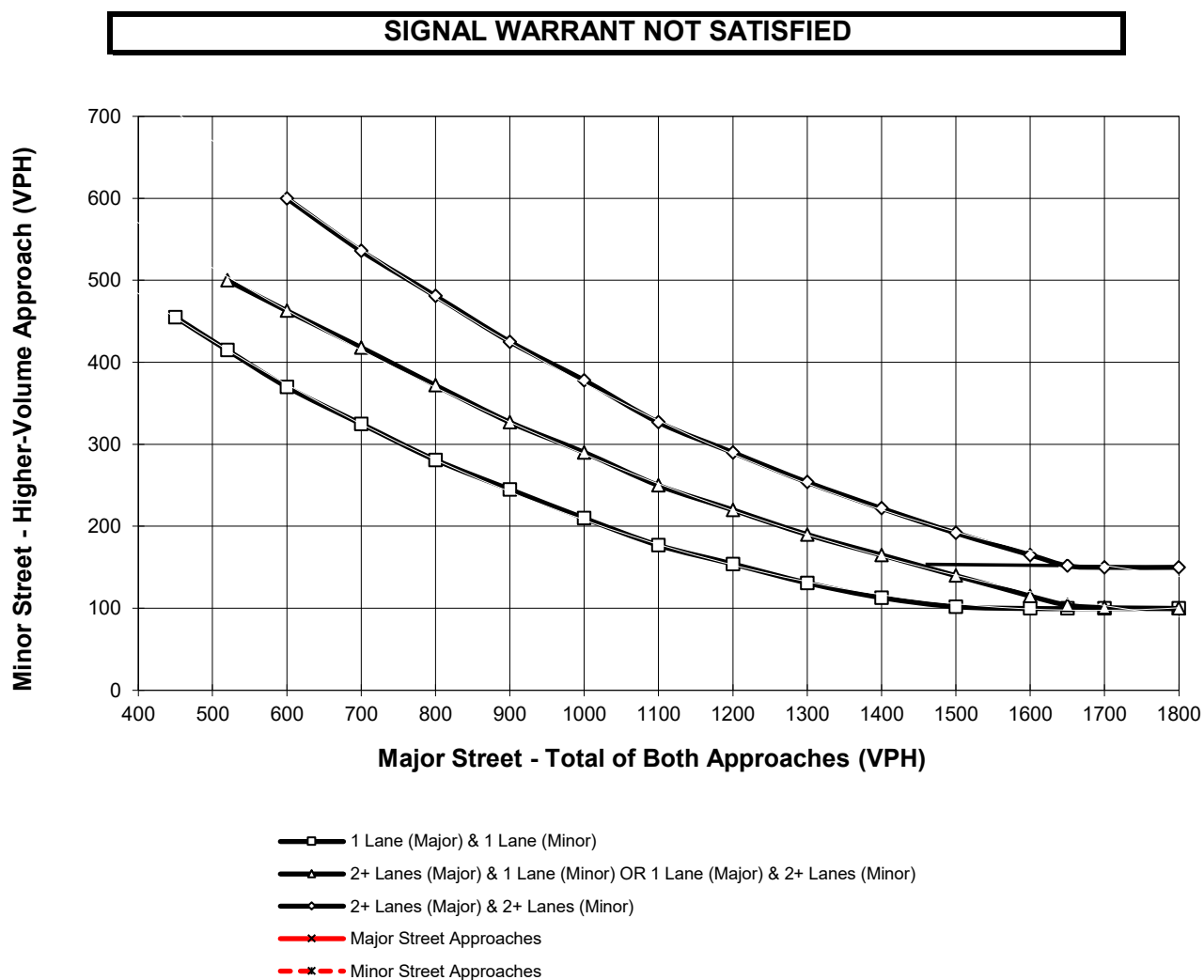
Total of Both Approaches (VPH) = **49**

Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Driveway 2**

High Volume Approach (VPH) = **18**

Number of Approach Lanes On Minor Street = **1**



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes
and 100 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-3. Warrant 3, Peak Hour

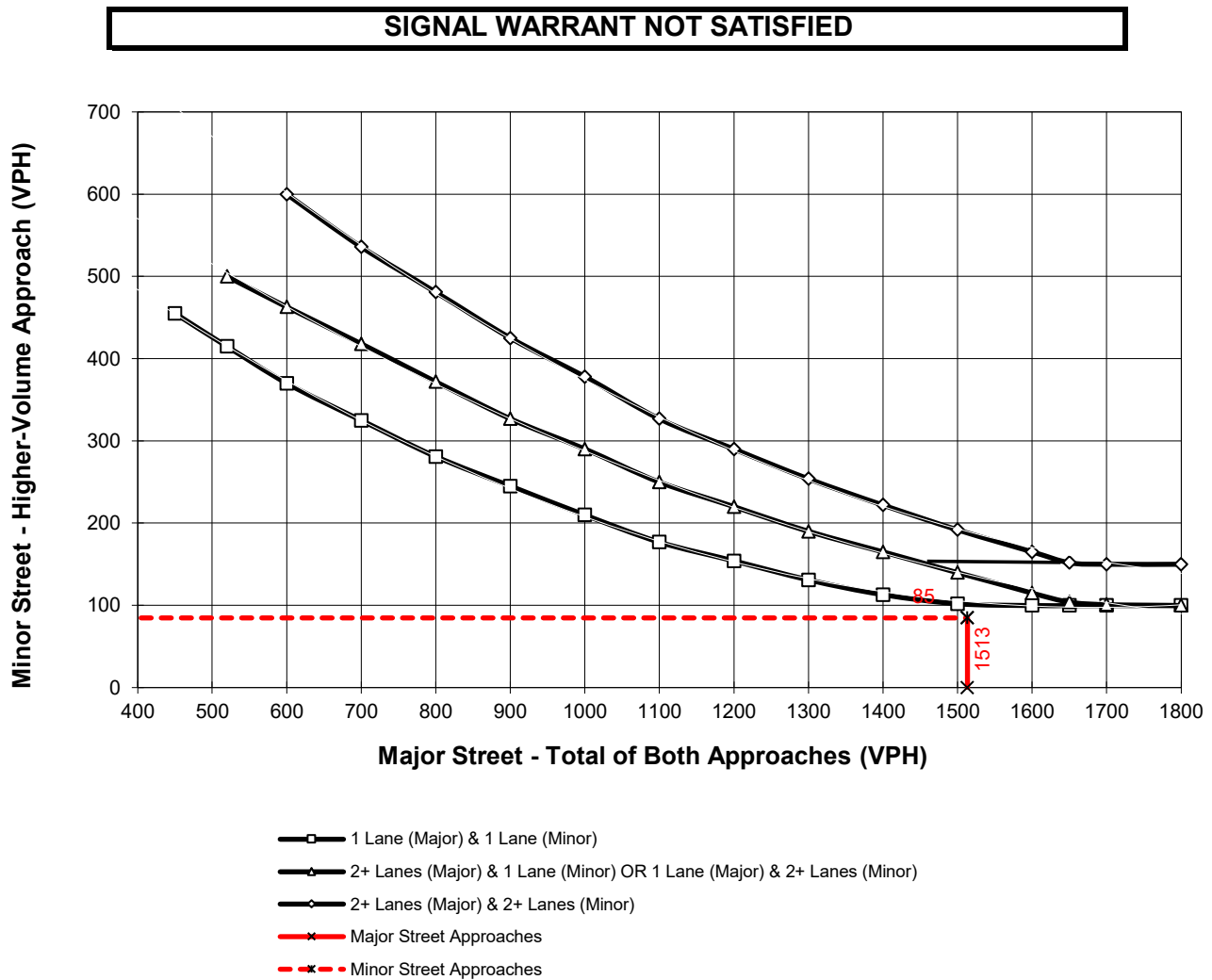
Traffic Conditions = **EAP (2025) Conditions - Weekday PM Peak Hour**

Major Street Name = **4th St.**

Total of Both Approaches (VPH) = **1513**
Number of Approach Lanes on Major Street = **2**

Minor Street Name = **Nicholas Rd.**

High Volume Approach (VPH) = **85**
Number of Approach Lanes On Minor Street = **1**



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes
and 100 vph applies as the lower threshold for a minor-street approach with one lane

APPENDIX 5.3: EAP (2025) CONDITIONS INTERSECTION ANALYSIS WORKSHEETS WITH IMPROVEMENTS

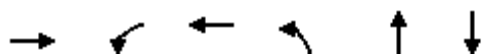
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Timings

Orchard Logistics (JN 14410)

2: Distribution Wy./Driveway & Prosperity Wy./Driveway 1

08/10/2022



Lane Group	EBT	WBL	WBT	NBL	NBT	SBT
Lane Configurations	↔		↔	↔	↔	↔
Traffic Volume (vph)	0	14	1	570	4	0
Future Volume (vph)	0	14	1	570	4	0
Turn Type	NA	Perm	NA	Perm	NA	NA
Protected Phases	4		8		2	6
Permitted Phases		8		2		
Detector Phase	4	8	8	2	2	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	32.0	27.0	27.0	27.0	27.0	32.0
Total Split (s)	32.0	32.0	32.0	38.0	38.0	38.0
Total Split (%)	45.7%	45.7%	45.7%	54.3%	54.3%	54.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0		5.0	5.0	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	None	None	None	None
Act Effect Green (s)	15.2		15.2	28.7	28.7	15.9
Actuated g/C Ratio	0.36		0.36	0.68	0.68	0.37
v/c Ratio	0.06		0.03	0.63	0.04	0.00
Control Delay	0.1		15.6	14.0	3.5	0.0
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	0.1		15.6	14.0	3.5	0.0
LOS	A		B	B	A	A
Approach Delay	0.1		15.6		13.3	
Approach LOS	A		B		B	

Intersection Summary

Cycle Length: 70

Actuated Cycle Length: 42.5

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.63

Intersection Signal Delay: 12.1

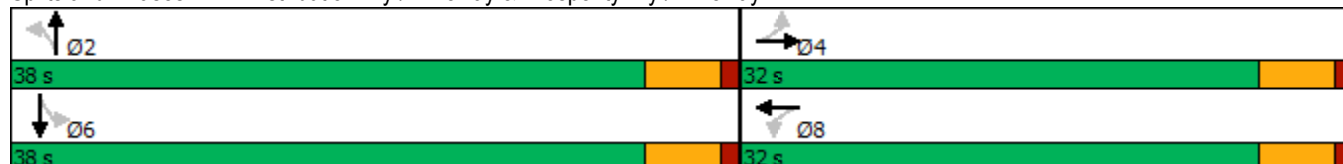
Intersection LOS: B

Intersection Capacity Utilization 54.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 2: Distribution Wy./Driveway & Prosperity Wy./Driveway 1



HCM 6th Signalized Intersection Summary
2: Distribution Wy./Driveway & Prosperity Wy./Driveway 1

Orchard Logistics (JN 14410)

08/10/2022

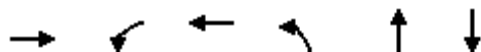
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	67	14	1	0	570	4	37	0	0	1
Future Volume (veh/h)	0	0	67	14	1	0	570	4	37	0	0	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	0	72	15	1	0	613	4	40	0	0	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	246	0	244	382	18	0	975	75	754	0	0	817
Arrive On Green	0.00	0.00	0.15	0.15	0.15	0.00	0.51	0.51	0.51	0.00	0.00	0.51
Sat Flow, veh/h	1439	0	1610	950	120	0	1439	148	1484	0	0	1610
Grp Volume(v), veh/h	0	0	72	16	0	0	613	0	44	0	0	1
Grp Sat Flow(s),veh/h/ln	1439	0	1610	1070	0	0	1439	0	1633	0	0	1610
Q Serve(g_s), s	0.0	0.0	1.2	0.1	0.0	0.0	10.7	0.0	0.4	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	1.2	1.3	0.0	0.0	10.7	0.0	0.4	0.0	0.0	0.0
Prop In Lane	1.00		1.00	0.94		0.00	1.00		0.91	0.00		1.00
Lane Grp Cap(c), veh/h	246	0	244	400	0	0	975	0	829	0	0	817
V/C Ratio(X)	0.00	0.00	0.30	0.04	0.00	0.00	0.63	0.00	0.05	0.00	0.00	0.00
Avail Cap(c_a), veh/h	1353	0	1483	1457	0	0	1864	0	1838	0	0	1812
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	11.1	11.0	0.0	0.0	6.2	0.0	3.7	0.0	0.0	3.6
Incr Delay (d2), s/veh	0.0	0.0	0.7	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.3	0.1	0.0	0.0	1.4	0.0	0.1	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	11.7	11.0	0.0	0.0	6.9	0.0	3.7	0.0	0.0	3.6
LnGrp LOS	A	A	B	B	A	A	A	A	A	A	A	A
Approach Vol, veh/h	72			16			657			1		
Approach Delay, s/veh	11.7			11.0			6.7			3.6		
Approach LOS	B			B			A			A		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	19.9			9.4			19.9			9.4		
Change Period (Y+Rc), s	5.0			5.0			5.0			5.0		
Max Green Setting (Gmax), s	33.0			27.0			33.0			27.0		
Max Q Clear Time (g_c+I1), s	12.7			3.2			2.0			3.3		
Green Ext Time (p_c), s	2.2			0.3			0.0			0.0		
Intersection Summary												
HCM 6th Ctrl Delay	7.2											
HCM 6th LOS	A											

Timings

Orchard Logistics (JN 14410)

2: Distribution Wy./Driveway & Prosperity Wy./Driveway 1

08/10/2022



Lane Group	EBT	WBL	WBT	NBL	NBT	SBT
Lane Configurations	↔		↔	↔	↔	↔
Traffic Volume (vph)	0	46	1	481	6	4
Future Volume (vph)	0	46	1	481	6	4
Turn Type	NA	Perm	NA	Perm	NA	NA
Protected Phases	4		8		2	6
Permitted Phases		8		2		
Detector Phase	4	8	8	2	2	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	32.0	27.0	27.0	27.0	27.0	32.0
Total Split (s)	32.0	32.0	32.0	38.0	38.0	38.0
Total Split (%)	45.7%	45.7%	45.7%	54.3%	54.3%	54.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0		5.0	5.0	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	None	None	None	None
Act Effect Green (s)	13.0		13.0	29.6	29.6	13.8
Actuated g/C Ratio	0.25		0.25	0.56	0.56	0.26
v/c Ratio	0.39		0.44	0.79	0.04	0.01
Control Delay	1.0		28.0	20.7	4.1	13.2
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	1.0		28.0	20.7	4.1	13.2
LOS	A		C	C	A	B
Approach Delay	1.0		28.0		19.8	13.3
Approach LOS	A		C		B	B

Intersection Summary

Cycle Length: 70

Actuated Cycle Length: 52.9

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.79

Intersection Signal Delay: 12.8

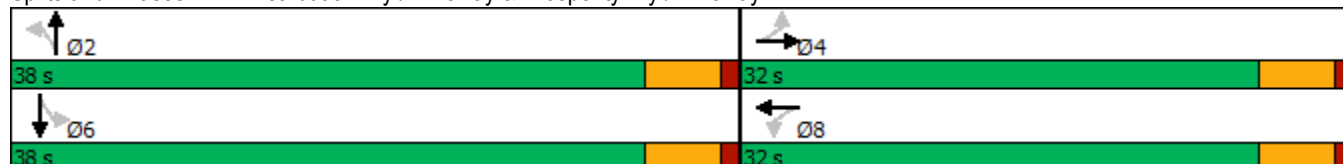
Intersection LOS: B

Intersection Capacity Utilization 76.4%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 2: Distribution Wy./Driveway & Prosperity Wy./Driveway 1



HCM 6th Signalized Intersection Summary
2: Distribution Wy./Driveway & Prosperity Wy./Driveway 1

Orchard Logistics (JN 14410)

08/10/2022

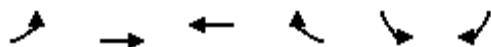
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	359	46	1	0	481	6	21	0	4	0
Future Volume (veh/h)	0	0	359	46	1	0	481	6	21	0	4	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	0	472	61	1	0	633	8	28	0	5	0
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	127	0	558	196	2	0	809	177	619	0	908	0
Arrive On Green	0.00	0.00	0.35	0.35	0.35	0.00	0.48	0.48	0.48	0.00	0.48	0.00
Sat Flow, veh/h	1439	0	1610	202	6	0	1434	370	1296	0	1900	0
Grp Volume(v), veh/h	0	0	472	62	0	0	633	0	36	0	5	0
Grp Sat Flow(s),veh/h/ln	1439	0	1610	208	0	0	1434	0	1667	0	1900	0
Q Serve(g_s), s	0.0	0.0	15.4	3.6	0.0	0.0	23.5	0.0	0.7	0.0	0.1	0.0
Cycle Q Clear(g_c), s	0.0	0.0	15.4	19.0	0.0	0.0	23.6	0.0	0.7	0.0	0.1	0.0
Prop In Lane	1.00		1.00	0.98		0.00	1.00		0.78	0.00		0.00
Lane Grp Cap(c), veh/h	127	0	558	198	0	0	809	0	796	0	908	0
V/C Ratio(X)	0.00	0.00	0.85	0.31	0.00	0.00	0.78	0.00	0.05	0.00	0.01	0.00
Avail Cap(c_a), veh/h	312	0	765	319	0	0	957	0	968	0	1103	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	17.2	25.7	0.0	0.0	14.0	0.0	7.9	0.0	7.8	0.0
Incr Delay (d2), s/veh	0.0	0.0	6.5	0.9	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	6.0	0.8	0.0	0.0	6.9	0.0	0.2	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	23.7	26.6	0.0	0.0	17.6	0.0	7.9	0.0	7.8	0.0
LnGrp LOS	A	A	C	C	A	A	B	A	A	A	A	A
Approach Vol, veh/h	472		62			669			5			
Approach Delay, s/veh	23.7		26.6			17.0			7.8			
Approach LOS	C		C			B			A			
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	32.1		24.7		32.1		24.7					
Change Period (Y+Rc), s	5.0		5.0		5.0		5.0					
Max Green Setting (Gmax), s	33.0		27.0		33.0		27.0					
Max Q Clear Time (g_c+I1), s	25.6		17.4		2.1		21.0					
Green Ext Time (p_c), s	1.5		2.3		0.0		0.1					
Intersection Summary												
HCM 6th Ctrl Delay			20.1									
HCM 6th LOS			C									

APPENDIX 6.1: OPENING YEAR (2025) WITHOUT PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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Timings
1: 4th St. & Potrero Bl.

Orchard Logistics (JN 14410)
09/18/2023



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	138	32	100	85	333	615
Future Volume (vph)	138	32	100	85	333	615
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	27.4	42.4	42.4	27.2	27.2
Total Split (s)	9.6	52.8	43.2	43.2	27.2	27.2
Total Split (%)	12.0%	66.0%	54.0%	54.0%	34.0%	34.0%
Yellow Time (s)	3.6	4.4	4.4	4.4	4.2	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	5.4	5.2	5.2
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	Min	Min
Act Effect Green (s)	5.4	15.3	14.1	14.1	16.7	16.7
Actuated g/C Ratio	0.11	0.32	0.29	0.29	0.34	0.34
v/c Ratio	0.83	0.03	0.22	0.19	0.33	0.72
Control Delay	62.1	10.2	14.0	4.2	16.0	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.1	10.2	14.0	4.2	16.0	6.7
LOS	E	B	B	A	B	A
Approach Delay		52.2	9.5		9.9	
Approach LOS		D	A		A	

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 48.5

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 15.4

Intersection LOS: B

Intersection Capacity Utilization 55.2%

ICU Level of Service B

Analysis Period (min) 15

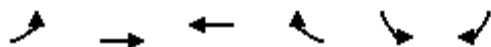
Splits and Phases: 1: 4th St. & Potrero Bl.



HCM 6th Signalized Intersection Summary
1: 4th St. & Potrero Bl.

Orchard Logistics (JN 14410)

09/18/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	138	32	100	85	333	615
Future Volume (veh/h)	138	32	100	85	333	615
Initial Q (Qb), veh	0	0	0	0	0	0
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	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	166	39	120	101	401	741
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	175	1337	352	298	1491	684
Arrive On Green	0.10	0.37	0.19	0.19	0.42	0.42
Sat Flow, veh/h	1810	3705	1900	1610	3510	1610
Grp Volume(v), veh/h	166	39	120	101	401	741
Grp Sat Flow(s),veh/h/ln	1810	1805	1900	1610	1755	1610
Q Serve(g_s), s	4.7	0.4	2.8	2.8	3.8	22.0
Cycle Q Clear(g_c), s	4.7	0.4	2.8	2.8	3.8	22.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	175	1337	352	298	1491	684
V/C Ratio(X)	0.95	0.03	0.34	0.34	0.27	1.08
Avail Cap(c_a), veh/h	175	3304	1387	1175	1491	684
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	1.00
Uniform Delay (d), s/veh	23.3	10.4	18.4	18.3	9.7	14.9
Incr Delay (d2), s/veh	53.0	0.0	0.6	0.7	0.1	59.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	0.1	1.1	1.0	1.2	26.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	76.3	10.4	18.9	19.0	9.8	74.0
LnGrp LOS	E	B	B	B	A	F
Approach Vol, veh/h		205	221		1142	
Approach Delay, s/veh		63.7	19.0		51.5	
Approach LOS		E	B		D	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		24.6		27.2	9.6	15.0
Change Period (Y+Rc), s		5.4		5.2	4.6	5.4
Max Green Setting (Gmax), s		47.4		22.0	5.0	37.8
Max Q Clear Time (g_c+I1), s		2.4		24.0	6.7	4.8
Green Ext Time (p_c), s		0.2		0.0	0.0	0.9
Intersection Summary						
HCM 6th Ctrl Delay			48.5			
HCM 6th LOS			D			

Intersection

Intersection Delay, s/veh29.8

Intersection LOS D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	65	0	1	0	568	2	0	0	0	1
Future Vol, veh/h	0	0	65	0	1	0	568	2	0	0	0	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	70	0	1	0	611	2	0	0	0	1
Number of Lanes	1	1	0	0	1	0	1	1	0	0	1	0

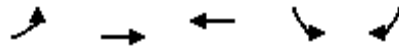
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	2
Conflicting Approach Left SB		NB	EB	WB
Conflicting Lanes Left	1	2	2	1
Conflicting Approach RightNB		SB	WB	EB
Conflicting Lanes Right	2	1	1	2
HCM Control Delay	8.8	9.3	32.3	7.9
HCM LOS	A	A	D	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	0%
Vol Thru, %	0%	100%	100%	0%	100%	0%
Vol Right, %	0%	0%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	568	2	0	65	1	1
LT Vol	568	0	0	0	0	0
Through Vol	0	2	0	0	1	0
RT Vol	0	0	0	65	0	1
Lane Flow Rate	611	2	0	70	1	1
Geometry Grp	7	7	7	7	6	6
Degree of Util (X)	0.869	0.003	0	0.106	0.002	0.001
Departure Headway (Hd)	5.125	4.625	6.193	5.485	6.307	4.839
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	702	764	0	658	569	740
Service Time	2.914	2.413	3.893	3.185	4.322	2.868
HCM Lane V/C Ratio	0.87	0.003	0	0.106	0.002	0.001
HCM Control Delay	32.4	7.4	8.9	8.8	9.3	7.9
HCM Lane LOS	D	A	N	A	A	A
HCM 95th-tile Q	10.4	0	0	0.4	0	0

Timings
3: 4th St. & Distribution Wy.

Orchard Logistics (JN 14410)

09/18/2023



Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	3	154	293	60	18
Future Volume (vph)	3	154	293	60	18
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	5	2	6	4	
Permitted Phases					4
Detector Phase	5	2	6	4	4
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.4	27.4	14.6	14.6
Total Split (s)	10.0	44.0	34.0	16.0	16.0
Total Split (%)	16.7%	73.3%	56.7%	26.7%	26.7%
Yellow Time (s)	3.6	4.4	4.4	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	4.6
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	None	None
Act Effect Green (s)	6.4	21.8	20.8	12.7	12.7
Actuated g/C Ratio	0.24	0.81	0.77	0.47	0.47
v/c Ratio	0.01	0.06	0.38	0.08	0.03
Control Delay	17.3	3.3	2.7	11.4	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	17.3	3.3	2.7	11.4	8.0
LOS	B	A	A	B	A
Approach Delay		3.5	2.7	10.7	
Approach LOS		A	A	B	

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 27

Natural Cycle: 55

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.38

Intersection Signal Delay: 3.4

Intersection LOS: A

Intersection Capacity Utilization 43.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 3: 4th St. & Distribution Wy.

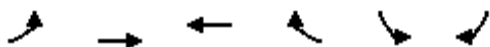


HCM 6th Signalized Intersection Summary

3: 4th St. & Distribution Wy.

Orchard Logistics (JN 14410)

09/18/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	3	154	293	564	60	18
Future Volume (veh/h)	3	154	293	564	60	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	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	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	3	179	341	599	70	11
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	7	2187	882	781	267	238
Arrive On Green	0.00	0.61	0.49	0.49	0.15	0.15
Sat Flow, veh/h	1810	3705	1900	1599	1810	1610
Grp Volume(v), veh/h	3	179	341	599	70	11
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1599	1810	1610
Q Serve(g_s), s	0.1	0.8	4.8	12.4	1.4	0.2
Cycle Q Clear(g_c), s	0.1	0.8	4.8	12.4	1.4	0.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	7	2187	882	781	267	238
V/C Ratio(X)	0.40	0.08	0.39	0.77	0.26	0.05
Avail Cap(c_a), veh/h	241	3435	1273	1127	509	452
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	1.00
Uniform Delay (d), s/veh	20.2	3.3	6.5	8.5	15.3	14.8
Incr Delay (d2), s/veh	12.6	0.0	0.3	2.0	0.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	1.1	2.8	0.5	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	32.8	3.3	6.8	10.5	15.8	14.9
LnGrp LOS	C	A	A	B	B	B
Approach Vol, veh/h		182	940		81	
Approach Delay, s/veh		3.8	9.1		15.7	
Approach LOS		A	A		B	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		30.0		10.6	4.8	25.2
Change Period (Y+Rc), s		5.4		4.6	4.6	5.4
Max Green Setting (Gmax), s		38.6		11.4	5.4	28.6
Max Q Clear Time (g_c+I1), s		2.8		3.4	2.1	14.4
Green Ext Time (p_c), s		1.1		0.1	0.0	5.3
Intersection Summary						
HCM 6th Ctrl Delay			8.8			
HCM 6th LOS			A			

Intersection												
Int Delay, s/veh	2.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↵	↵			↕	
Traffic Vol, veh/h	0	0	1	0	0	0	3	2	2	0	5	0
Future Vol, veh/h	0	0	1	0	0	0	3	2	2	0	5	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	2	0	0	0	5	3	3	0	8	0
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	23	24	8	24	23	5	8	0	0	6	0	0
Stage 1	8	8	-	15	15	-	-	-	-	-	-	-
Stage 2	15	16	-	9	8	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
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	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	994	873	1080	993	874	1084	1625	-	-	1628	-	-
Stage 1	1019	893	-	1010	887	-	-	-	-	-	-	-
Stage 2	1010	886	-	1017	893	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	992	870	1080	989	871	1084	1625	-	-	1628	-	-
Mov Cap-2 Maneuver	992	870	-	989	871	-	-	-	-	-	-	-
Stage 1	1016	893	-	1007	884	-	-	-	-	-	-	-
Stage 2	1007	883	-	1016	893	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	8.3		0			3.1			0			
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1625	-	-	1080	-	1628	-	-				
HCM Lane V/C Ratio	0.003	-	-	0.001	-	-	-	-				
HCM Control Delay (s)	7.2	-	-	8.3	0	0	-	-				
HCM Lane LOS	A	-	-	A	A	A	-	-				
HCM 95th %tile Q(veh)	0	-	-	0	-	0	-	-				

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	220	858	37	14	5
Future Vol, veh/h	4	220	858	37	14	5
Conflicting Peds, #/hr	0	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	100	0
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	4	237	923	40	15	5

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	964	0	-	0	1071
Stage 1	-	-	-	-	944
Stage 2	-	-	-	-	127
Critical Hdwy	4.1	-	-	-	6.8
Critical Hdwy Stg 1	-	-	-	-	5.8
Critical Hdwy Stg 2	-	-	-	-	5.8
Follow-up Hdwy	2.2	-	-	-	3.5
Pot Cap-1 Maneuver	722	-	-	-	219
Stage 1	-	-	-	-	343
Stage 2	-	-	-	-	891
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	721	-	-	-	217
Mov Cap-2 Maneuver	-	-	-	-	294
Stage 1	-	-	-	-	341
Stage 2	-	-	-	-	890

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	16.3
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	721	-	-	-	294	534
HCM Lane V/C Ratio	0.006	-	-	-	0.051	0.01
HCM Control Delay (s)	10	-	-	-	17.9	11.8
HCM Lane LOS	B	-	-	-	C	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2	0

Timings
6: Veile Av. & 4th St.

Orchard Logistics (JN 14410)

09/18/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations												
Traffic Volume (vph)	73	87	94	5	332	436	29	2	5	25	180	
Future Volume (vph)	73	87	94	5	332	436	29	2	5	25	180	
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	
Protected Phases	5	2		1	6	3	8		7	4		
Permitted Phases			2					8			4	
Detector Phase	5	2	2	1	6	3	8	8	7	4	4	
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	
Minimum Split (s)	9.6	26.6	26.6	9.6	26.6	9.6	27.6	27.6	9.6	14.6	14.6	
Total Split (s)	9.6	26.8	26.8	9.6	26.8	29.0	34.0	34.0	9.6	14.6	14.6	
Total Split (%)	12.0%	33.5%	33.5%	12.0%	33.5%	36.3%	42.5%	42.5%	12.0%	18.3%	18.3%	
Yellow Time (s)	3.6	4.4	4.4	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	
All-Red Time (s)	1.0	1.0	1.0	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	0.0	0.0	0.0	
Total Lost Time (s)	4.6	5.4	5.4	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	None	None	None	None	
Act Effect Green (s)	5.2	23.0	23.0	5.2	18.6	22.0	24.4	24.4	5.2	10.3	10.3	
Actuated g/C Ratio	0.07	0.32	0.32	0.07	0.26	0.30	0.34	0.34	0.07	0.14	0.14	
v/c Ratio	0.63	0.16	0.16	0.05	0.78	0.88	0.05	0.00	0.05	0.10	0.48	
Control Delay	60.6	19.6	0.5	36.2	38.3	45.1	14.6	0.0	36.2	32.0	8.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	60.6	19.6	0.5	36.2	38.3	45.1	14.6	0.0	36.2	32.0	8.2	
LOS	E	B	A	D	D	D	B	A	D	C	A	
Approach Delay		24.3			38.3		43.0			11.8		
Approach LOS		C			D		D			B		

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 72.3

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 32.9

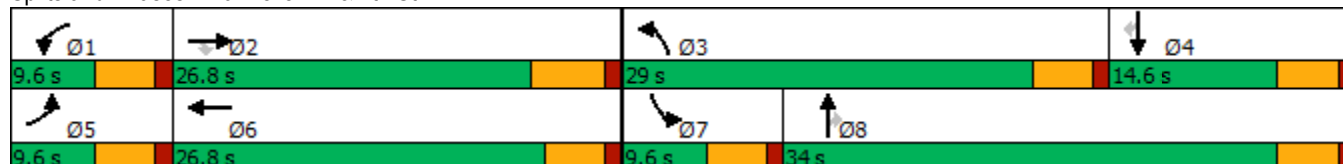
Intersection LOS: C

Intersection Capacity Utilization 64.9%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 6: Veile Av. & 4th St.



HCM 6th Signalized Intersection Summary
6: Veile Av. & 4th St.

Orchard Logistics (JN 14410)

09/18/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	87	94	5	332	10	436	29	2	5	25	180
Future Volume (veh/h)	73	87	94	5	332	10	436	29	2	5	25	180
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	81	97	72	6	369	9	484	32	2	6	28	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	113	580	492	14	463	11	541	672	569	14	118	
Arrive On Green	0.06	0.31	0.31	0.01	0.25	0.25	0.30	0.35	0.35	0.01	0.06	0.00
Sat Flow, veh/h	1810	1900	1610	1810	1846	45	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	81	97	72	6	0	378	484	32	2	6	28	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	0	1891	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	2.6	2.2	1.9	0.2	0.0	11.0	15.1	0.7	0.0	0.2	0.8	0.0
Cycle Q Clear(g_c), s	2.6	2.2	1.9	0.2	0.0	11.0	15.1	0.7	0.0	0.2	0.8	0.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	113	580	492	14	0	475	541	672	569	14	118	
V/C Ratio(X)	0.72	0.17	0.15	0.42	0.00	0.80	0.89	0.05	0.00	0.42	0.24	
Avail Cap(c_a), veh/h	153	689	584	153	0	711	748	946	802	153	322	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	27.2	15.0	14.9	29.1	0.0	20.7	19.8	12.5	12.3	29.1	26.3	0.0
Incr Delay (d2), s/veh	5.2	0.1	0.1	7.0	0.0	3.8	8.4	0.0	0.0	7.0	1.0	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	1.2	0.8	0.7	0.1	0.0	5.0	7.1	0.3	0.0	0.1	0.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.4	15.1	15.0	36.2	0.0	24.5	28.2	12.6	12.4	36.2	27.4	0.0
LnGrp LOS	C	B	B	D	A	C	C	B	B	D	C	
Approach Vol, veh/h		250			384			518			34	
Approach Delay, s/veh		20.7			24.7			27.2			28.9	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.1	23.4	22.3	8.3	8.3	20.2	5.1	25.5				
Change Period (Y+Rc), s	4.6	5.4	4.6	4.6	4.6	* 5.4	4.6	4.6				
Max Green Setting (Gmax), s	5.0	21.4	24.4	10.0	5.0	* 22	5.0	29.4				
Max Q Clear Time (g_c+I1), s	2.2	4.2	17.1	2.8	4.6	13.0	2.2	2.7				
Green Ext Time (p_c), s	0.0	0.6	0.6	0.0	0.0	1.6	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	25.0
HCM 6th LOS	C

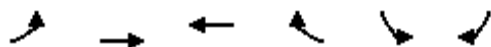
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Timings
1: 4th St. & Potrero Bl.

Orchard Logistics (JN 14410)
09/18/2023



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	740	120	60	361	337	217
Future Volume (vph)	740	120	60	361	337	217
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	27.4	42.4	42.4	27.2	27.2
Total Split (s)	9.6	52.8	43.2	43.2	27.2	27.2
Total Split (%)	12.0%	66.0%	54.0%	54.0%	34.0%	34.0%
Yellow Time (s)	3.6	4.4	4.4	4.4	4.2	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	5.4	5.2	5.2
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	Min	Min
Act Effect Green (s)	5.3	22.1	14.2	14.2	13.2	13.2
Actuated g/C Ratio	0.11	0.45	0.29	0.29	0.27	0.27
v/c Ratio	5.44	0.11	0.16	0.62	0.52	0.48
Control Delay	2024.5	6.8	13.2	5.1	18.5	5.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2024.5	6.8	13.2	5.1	18.5	5.5
LOS	F	A	B	A	B	A
Approach Delay		1742.7	6.3		13.4	
Approach LOS		F	A		B	

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 49

Natural Cycle: 120

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 5.44

Intersection Signal Delay: 822.4

Intersection LOS: F

Intersection Capacity Utilization 71.7%

ICU Level of Service C

Analysis Period (min) 15

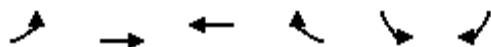
Splits and Phases: 1: 4th St. & Potrero Bl.



HCM 6th Signalized Intersection Summary
1: 4th St. & Potrero Bl.

Orchard Logistics (JN 14410)

09/18/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	740	120	60	361	337	217
Future Volume (veh/h)	740	120	60	361	337	217
Initial Q (Qb), veh	0	0	0	0	0	0
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	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1072	174	87	433	488	313
Peak Hour Factor	0.69	0.69	0.69	0.69	0.69	0.69
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	183	1881	622	527	931	427
Arrive On Green	0.10	0.52	0.33	0.33	0.27	0.27
Sat Flow, veh/h	1810	3705	1900	1610	3510	1610
Grp Volume(v), veh/h	1072	174	87	433	488	313
Grp Sat Flow(s),veh/h/ln	1810	1805	1900	1610	1755	1610
Q Serve(g_s), s	5.0	1.2	1.6	12.3	5.9	8.8
Cycle Q Clear(g_c), s	5.0	1.2	1.6	12.3	5.9	8.8
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	183	1881	622	527	931	427
V/C Ratio(X)	5.87	0.09	0.14	0.82	0.52	0.73
Avail Cap(c_a), veh/h	183	3452	1449	1228	1558	715
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	1.00
Uniform Delay (d), s/veh	22.3	6.0	11.8	15.3	15.5	16.6
Incr Delay (d2), s/veh	2205.1	0.0	0.1	3.3	0.5	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	113.6	0.3	0.6	4.0	2.0	7.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	2227.4	6.0	11.9	18.6	16.0	19.1
LnGrp LOS	F	A	B	B	B	B
Approach Vol, veh/h		1246	520		801	
Approach Delay, s/veh		1917.2	17.5		17.2	
Approach LOS		F	B		B	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		31.2		18.3	9.6	21.6
Change Period (Y+Rc), s		5.4		5.2	4.6	5.4
Max Green Setting (Gmax), s		47.4		22.0	5.0	37.8
Max Q Clear Time (g_c+I1), s		3.2		10.8	7.0	14.3
Green Ext Time (p_c), s		1.1		2.4	0.0	2.0
Intersection Summary						
HCM 6th Ctrl Delay			939.5			
HCM 6th LOS			F			

Intersection

Intersection Delay, s/veh70.9

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	359	1	1	0	481	4	1	0	3	0
Future Vol, veh/h	0	0	359	1	1	0	481	4	1	0	3	0
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	472	1	1	0	633	5	1	0	4	0
Number of Lanes	1	1	0	0	1	0	1	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	2
Conflicting Approach Left SB		NB	EB	WB
Conflicting Lanes Left	1	2	2	1
Conflicting Approach RightNB		SB	WB	EB
Conflicting Lanes Right	2	1	1	2
HCM Control Delay	24.4	10.9	105.8	10.4
HCM LOS	C	B	F	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	100%	0%	0%	0%	50%	0%
Vol Thru, %	0%	80%	100%	0%	50%	100%
Vol Right, %	0%	20%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	481	5	0	359	2	3
LT Vol	481	0	0	0	1	0
Through Vol	0	4	0	0	1	3
RT Vol	0	1	0	359	0	0
Lane Flow Rate	633	7	0	472	3	4
Geometry Grp	7	7	7	7	6	6
Degree of Util (X)	1.141	0.011	0	0.747	0.005	0.008
Departure Headway (Hd)	6.493	5.845	6.738	6.028	7.858	7.326
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	563	616	0	605	458	491
Service Time	4.194	3.546	4.438	3.728	5.858	5.326
HCM Lane V/C Ratio	1.124	0.011	0	0.78	0.007	0.008
HCM Control Delay	106.8	8.6	9.4	24.4	10.9	10.4
HCM Lane LOS	F	A	N	C	B	B
HCM 95th-tile Q	21	0	0	6.6	0	0

Timings
3: 4th St. & Distribution Wy.

Orchard Logistics (JN 14410)

09/18/2023

					
Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	6	429	341	493	38
Future Volume (vph)	6	429	341	493	38
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	5	2	6	4	
Permitted Phases					4
Detector Phase	5	2	6	4	4
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.4	27.4	14.6	14.6
Total Split (s)	9.6	37.0	27.4	33.0	33.0
Total Split (%)	13.7%	52.9%	39.1%	47.1%	47.1%
Yellow Time (s)	3.6	4.4	4.4	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	4.6
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	None	None
Act Effect Green (s)	5.1	20.6	19.0	26.3	26.3
Actuated g/C Ratio	0.09	0.36	0.33	0.46	0.46
v/c Ratio	0.05	0.46	0.79	0.83	0.07
Control Delay	29.0	15.2	14.4	26.1	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	29.0	15.2	14.4	26.1	4.2
LOS	C	B	B	C	A
Approach Delay		15.4	14.4	24.5	
Approach LOS		B	B	C	

Intersection Summary

Cycle Length: 70

Actuated Cycle Length: 57.2

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 17.7

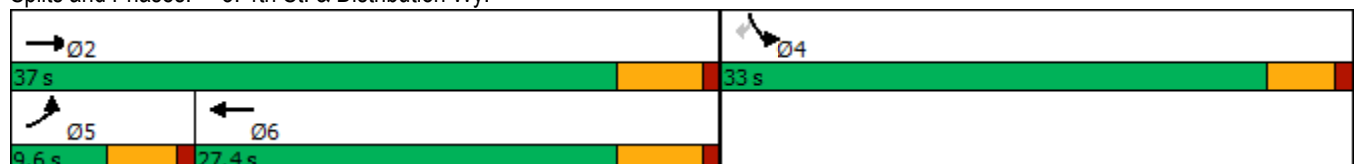
Intersection LOS: B

Intersection Capacity Utilization 60.3%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 3: 4th St. & Distribution Wy.

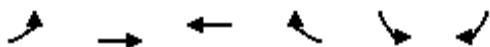


HCM 6th Signalized Intersection Summary

3: 4th St. & Distribution Wy.

Orchard Logistics (JN 14410)

09/18/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	6	429	341	471	493	38
Future Volume (veh/h)	6	429	341	471	493	38
Initial Q (Qb), veh	0	0	0	0	0	0
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	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	8	596	474	460	685	9
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	19	1521	603	537	745	663
Arrive On Green	0.01	0.42	0.33	0.33	0.41	0.41
Sat Flow, veh/h	1810	3705	1900	1608	1810	1610
Grp Volume(v), veh/h	8	596	474	460	685	9
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1608	1810	1610
Q Serve(g_s), s	0.3	6.8	14.2	16.0	21.5	0.2
Cycle Q Clear(g_c), s	0.3	6.8	14.2	16.0	21.5	0.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	19	1521	603	537	745	663
V/C Ratio(X)	0.42	0.39	0.79	0.86	0.92	0.01
Avail Cap(c_a), veh/h	151	1906	663	591	859	764
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	1.00
Uniform Delay (d), s/veh	29.4	12.0	18.0	18.6	16.7	10.4
Incr Delay (d2), s/veh	5.6	0.2	5.7	11.1	13.7	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	0.1	2.1	5.6	6.4	9.5	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	35.0	12.2	23.7	29.7	30.4	10.4
LnGrp LOS	C	B	C	C	C	B
Approach Vol, veh/h		604	934		694	
Approach Delay, s/veh		12.5	26.7		30.1	
Approach LOS		B	C		C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		30.6		29.2	5.2	25.4
Change Period (Y+Rc), s		5.4		4.6	4.6	5.4
Max Green Setting (Gmax), s		31.6		28.4	5.0	22.0
Max Q Clear Time (g_c+I1), s		8.8		23.5	2.3	18.0
Green Ext Time (p_c), s		3.5		1.2	0.0	2.0
Intersection Summary						
HCM 6th Ctrl Delay			23.9			
HCM 6th LOS			C			

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕			↕	
Traffic Vol, veh/h	0	0	1	0	0	0	1	7	0	0	2	0
Future Vol, veh/h	0	0	1	0	0	0	1	7	0	0	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	55	55	55	55	55	55	55	55	55	55	55	55
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	2	0	0	0	2	13	0	0	4	0

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	21	21	4	22	21	13	4	0	0	13	0	0
Stage 1	4	4	-	17	17	-	-	-	-	-	-	-
Stage 2	17	17	-	5	4	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
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	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	997	877	1085	995	877	1073	1631	-	-	1619	-	-
Stage 1	1024	897	-	1008	885	-	-	-	-	-	-	-
Stage 2	1008	885	-	1022	897	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	996	876	1085	992	876	1073	1631	-	-	1619	-	-
Mov Cap-2 Maneuver	996	876	-	992	876	-	-	-	-	-	-	-
Stage 1	1023	897	-	1007	884	-	-	-	-	-	-	-
Stage 2	1007	884	-	1020	897	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	8.3		0		0.9		0	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1631	-	-	1085	-	1619	-
HCM Lane V/C Ratio	0.001	-	-	0.002	-	-	-
HCM Control Delay (s)	7.2	-	-	8.3	0	0	-
HCM Lane LOS	A	-	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-	0	-

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	919	795	8	23	23
Future Vol, veh/h	4	919	795	8	23	23
Conflicting Peds, #/hr	0	0	0	4	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	100	0
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	6	1294	1120	11	32	32

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1135	0	-	0	1789
Stage 1	-	-	-	-	1130
Stage 2	-	-	-	-	659
Critical Hdwy	4.1	-	-	-	6.8
Critical Hdwy Stg 1	-	-	-	-	5.8
Critical Hdwy Stg 2	-	-	-	-	5.8
Follow-up Hdwy	2.2	-	-	-	3.5
Pot Cap-1 Maneuver	623	-	-	-	74
Stage 1	-	-	-	-	274
Stage 2	-	-	-	-	482
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	621	-	-	-	73
Mov Cap-2 Maneuver	-	-	-	-	188
Stage 1	-	-	-	-	270
Stage 2	-	-	-	-	480

Approach	EB	WB	SB
HCM Control Delay, s	0	0	20.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	621	-	-	-	188	468
HCM Lane V/C Ratio	0.009	-	-	-	0.172	0.069
HCM Control Delay (s)	10.8	-	-	-	28.1	13.3
HCM Lane LOS	B	-	-	-	D	B
HCM 95th %tile Q(veh)	0	-	-	-	0.6	0.2

Timings
6: Veile Av. & 4th St.

Orchard Logistics (JN 14410)

09/18/2023

											
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	206	369	405	1	248	431	15	1	12	52	150
Future Volume (vph)	206	369	405	1	248	431	15	1	12	52	150
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6	3	8		7	4	
Permitted Phases			2					8			4
Detector Phase	5	2	2	1	6	3	8	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	26.6	26.6	9.6	26.6	9.6	27.6	27.6	9.6	14.6	14.6
Total Split (s)	16.0	33.8	33.8	9.6	27.4	32.0	37.0	37.0	9.6	14.6	14.6
Total Split (%)	17.8%	37.6%	37.6%	10.7%	30.4%	35.6%	41.1%	41.1%	10.7%	16.2%	16.2%
Yellow Time (s)	3.6	4.4	4.4	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	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	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None
Act Effect Green (s)	11.4	32.6	32.6	5.0	19.2	27.4	26.8	26.8	5.0	10.0	10.0
Actuated g/C Ratio	0.13	0.38	0.38	0.06	0.22	0.32	0.31	0.31	0.06	0.12	0.12
v/c Ratio	1.14	0.68	0.57	0.01	0.80	0.99	0.03	0.00	0.15	0.31	0.48
Control Delay	138.6	29.4	4.7	40.0	46.7	67.7	16.7	0.0	43.8	40.6	6.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	138.6	29.4	4.7	40.0	46.7	67.7	16.7	0.0	43.8	40.6	6.3
LOS	F	C	A	D	D	E	B	A	D	D	A
Approach Delay		42.1			46.6		65.9			16.7	
Approach LOS		D			D		E			B	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 86.5

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.14

Intersection Signal Delay: 45.5

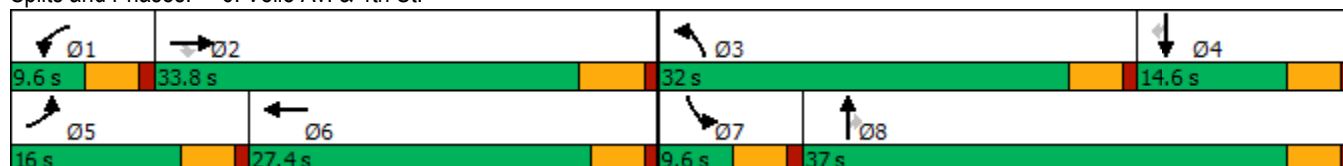
Intersection LOS: D

Intersection Capacity Utilization 67.0%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 6: Veile Av. & 4th St.



HCM 6th Signalized Intersection Summary

6: Veile Av. & 4th St.

Orchard Logistics (JN 14410)

09/18/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	206	369	405	1	248	8	431	15	1	12	52	150
Future Volume (veh/h)	206	369	405	1	248	8	431	15	1	12	52	150
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	271	486	359	1	326	7	567	20	1	16	68	0
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	248	651	551	2	383	8	597	772	655	34	181	
Arrive On Green	0.14	0.34	0.34	0.00	0.21	0.21	0.33	0.41	0.41	0.02	0.10	0.00
Sat Flow, veh/h	1810	1900	1610	1810	1853	40	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	271	486	359	1	0	333	567	20	1	16	68	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	0	1893	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	11.4	18.8	15.7	0.0	0.0	14.1	25.4	0.5	0.0	0.7	2.8	0.0
Cycle Q Clear(g_c), s	11.4	18.8	15.7	0.0	0.0	14.1	25.4	0.5	0.0	0.7	2.8	0.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	248	651	551	2	0	391	597	772	655	34	181	
V/C Ratio(X)	1.09	0.75	0.65	0.40	0.00	0.85	0.95	0.03	0.00	0.48	0.38	
Avail Cap(c_a), veh/h	248	651	551	109	0	519	597	772	655	109	229	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	35.8	24.1	23.1	41.5	0.0	31.7	27.2	14.8	14.6	40.4	35.3	0.0
Incr Delay (d2), s/veh	83.7	4.7	2.7	34.7	0.0	10.0	24.8	0.0	0.0	3.8	1.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.5	8.6	6.2	0.0	0.0	7.4	14.7	0.2	0.0	0.4	1.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	119.5	28.9	25.8	76.1	0.0	41.8	52.0	14.8	14.6	44.2	36.5	0.0
LnGrp LOS	F	C	C	E	A	D	D	B	B	D	D	
Approach Vol, veh/h		1116			334			588			84	
Approach Delay, s/veh		49.9			41.9			50.6			38.0	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.7	33.9	32.0	12.5	16.0	22.6	6.1	38.4				
Change Period (Y+Rc), s	4.6	5.4	4.6	4.6	4.6	* 5.4	4.6	4.6				
Max Green Setting (Gmax), s	5.0	28.4	27.4	10.0	11.4	* 23	5.0	32.4				
Max Q Clear Time (g_c+I1), s	2.0	20.8	27.4	4.8	13.4	16.1	2.7	2.5				
Green Ext Time (p_c), s	0.0	2.6	0.0	0.1	0.0	1.1	0.0	0.1				
Intersection Summary												
HCM 6th Ctrl Delay			48.4									
HCM 6th LOS			D									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.												

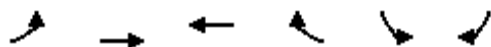
APPENDIX 6.2: OPENING YEAR (2025) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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Timings
1: 4th St. & Potrero Bl.

Orchard Logistics (JN 14410)

09/18/2023



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	138	32	100	92	354	615
Future Volume (vph)	138	32	100	92	354	615
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	27.4	42.4	42.4	27.2	27.2
Total Split (s)	9.6	53.0	43.4	43.4	27.0	27.0
Total Split (%)	12.0%	66.3%	54.3%	54.3%	33.8%	33.8%
Yellow Time (s)	3.6	4.4	4.4	4.4	4.2	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	5.4	5.2	5.2
Lead/Lag	Lead		Lag		Lag	
Lead-Lag Optimize?	Yes		Yes		Yes	
Recall Mode	None	None	None	None	Min	Min
Act Effect Green (s)	5.4	15.3	14.1	14.1	16.6	16.6
Actuated g/C Ratio	0.11	0.32	0.29	0.29	0.34	0.34
v/c Ratio	0.83	0.03	0.22	0.20	0.36	0.72
Control Delay	61.8	10.3	14.1	4.1	16.1	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.8	10.3	14.1	4.1	16.1	6.7
LOS	E	B	B	A	B	A
Approach Delay		52.0	9.3		10.1	
Approach LOS		D	A		B	

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 48.4

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 15.4

Intersection LOS: B

Intersection Capacity Utilization 55.2%

ICU Level of Service B

Analysis Period (min) 15

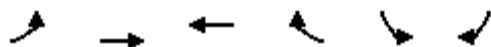
Splits and Phases: 1: 4th St. & Potrero Bl.



HCM 6th Signalized Intersection Summary
1: 4th St. & Potrero Bl.

Orchard Logistics (JN 14410)

09/18/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	138	32	100	92	354	615
Future Volume (veh/h)	138	32	100	92	354	615
Initial Q (Qb), veh	0	0	0	0	0	0
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	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	166	39	120	110	427	741
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	175	1345	354	300	1482	680
Arrive On Green	0.10	0.37	0.19	0.19	0.42	0.42
Sat Flow, veh/h	1810	3705	1900	1610	3510	1610
Grp Volume(v), veh/h	166	39	120	110	427	741
Grp Sat Flow(s),veh/h/ln	1810	1805	1900	1610	1755	1610
Q Serve(g_s), s	4.7	0.4	2.8	3.1	4.1	21.8
Cycle Q Clear(g_c), s	4.7	0.4	2.8	3.1	4.1	21.8
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	175	1345	354	300	1482	680
V/C Ratio(X)	0.95	0.03	0.34	0.37	0.29	1.09
Avail Cap(c_a), veh/h	175	3328	1398	1185	1482	680
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	1.00
Uniform Delay (d), s/veh	23.2	10.3	18.2	18.3	9.8	14.9
Incr Delay (d2), s/veh	52.1	0.0	0.6	0.7	0.1	61.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	0.1	1.1	1.0	1.3	11.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	75.3	10.3	18.8	19.1	9.9	76.5
LnGrp LOS	E	B	B	B	A	F
Approach Vol, veh/h		205	230		1168	
Approach Delay, s/veh		62.9	18.9		52.1	
Approach LOS		E	B		D	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		24.6		27.0	9.6	15.0
Change Period (Y+Rc), s		5.4		5.2	4.6	5.4
Max Green Setting (Gmax), s		47.6		21.8	5.0	38.0
Max Q Clear Time (g_c+I1), s		2.4		23.8	6.7	5.1
Green Ext Time (p_c), s		0.2		0.0	0.0	1.0
Intersection Summary						
HCM 6th Ctrl Delay			48.8			
HCM 6th LOS			D			

Intersection

Intersection Delay, s/veh31.1

Intersection LOS D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	65	11	1	0	568	2	33	0	0	1
Future Vol, veh/h	0	0	65	11	1	0	568	2	33	0	0	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	70	12	1	0	611	2	35	0	0	1
Number of Lanes	1	1	0	0	1	0	1	1	0	0	1	0

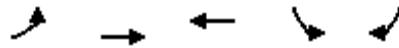
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	2
Conflicting Approach Left SB		NB	EB	WB
Conflicting Lanes Left	1	2	2	1
Conflicting Approach RightNB		SB	WB	EB
Conflicting Lanes Right	2	1	1	2
HCM Control Delay	9	9.7	33.9	8
HCM LOS	A	A	D	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	100%	0%	0%	0%	92%	0%
Vol Thru, %	0%	6%	100%	0%	8%	0%
Vol Right, %	0%	94%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	568	35	0	65	12	1
LT Vol	568	0	0	0	11	0
Through Vol	0	2	0	0	1	0
RT Vol	0	33	0	65	0	1
Lane Flow Rate	611	38	0	70	13	1
Geometry Grp	7	7	7	7	6	6
Degree of Util (X)	0.892	0.043	0	0.108	0.023	0.001
Departure Headway (Hd)	5.258	4.095	6.26	5.552	6.512	4.895
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	696	880	0	645	549	728
Service Time	2.958	1.795	4	3.291	4.565	2.946
HCM Lane V/C Ratio	0.878	0.043	0	0.109	0.024	0.001
HCM Control Delay	35.6	7	9	9	9.7	8
HCM Lane LOS	E	A	N	A	A	A
HCM 95th-tile Q	11.2	0.1	0	0.4	0.1	0

Timings
3: 4th St. & Distribution Wy.

Orchard Logistics (JN 14410)

09/18/2023



Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	21	157	294	64	24
Future Volume (vph)	21	157	294	64	24
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	5	2	6	4	
Permitted Phases					4
Detector Phase	5	2	6	4	4
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.4	27.4	14.6	14.6
Total Split (s)	10.0	44.0	34.0	16.0	16.0
Total Split (%)	16.7%	73.3%	56.7%	26.7%	26.7%
Yellow Time (s)	3.6	4.4	4.4	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	4.6
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	None	None
Act Effect Green (s)	6.5	22.3	21.2	12.8	12.8
Actuated g/C Ratio	0.24	0.81	0.77	0.47	0.47
v/c Ratio	0.06	0.06	0.39	0.09	0.04
Control Delay	16.7	3.2	2.7	11.8	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	16.7	3.2	2.7	11.8	7.6
LOS	B	A	A	B	A
Approach Delay		4.8	2.7	10.6	
Approach LOS		A	A	B	

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 27.4

Natural Cycle: 55

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.39

Intersection Signal Delay: 3.6

Intersection LOS: A

Intersection Capacity Utilization 44.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 3: 4th St. & Distribution Wy.

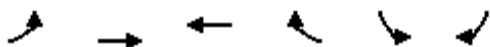


HCM 6th Signalized Intersection Summary

3: 4th St. & Distribution Wy.

Orchard Logistics (JN 14410)

09/18/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	21	157	294	579	64	24
Future Volume (veh/h)	21	157	294	579	64	24
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	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	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	24	183	342	616	74	18
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	52	2232	874	774	278	247
Arrive On Green	0.03	0.62	0.48	0.48	0.15	0.15
Sat Flow, veh/h	1810	3705	1900	1599	1810	1610
Grp Volume(v), veh/h	24	183	342	616	74	18
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1599	1810	1610
Q Serve(g_s), s	0.6	0.9	5.3	14.2	1.6	0.4
Cycle Q Clear(g_c), s	0.6	0.9	5.3	14.2	1.6	0.4
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	52	2232	874	774	278	247
V/C Ratio(X)	0.46	0.08	0.39	0.80	0.27	0.07
Avail Cap(c_a), veh/h	223	3178	1177	1043	470	419
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	1.00
Uniform Delay (d), s/veh	21.0	3.4	7.2	9.5	16.4	15.9
Incr Delay (d2), s/veh	2.3	0.0	0.3	3.1	0.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.1	1.3	3.6	0.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	23.3	3.4	7.5	12.6	16.9	16.0
LnGrp LOS	C	A	A	B	B	B
Approach Vol, veh/h		207	958		92	
Approach Delay, s/veh		5.7	10.8		16.7	
Approach LOS		A	B		B	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		32.5		11.3	5.9	26.6
Change Period (Y+Rc), s		5.4		4.6	4.6	5.4
Max Green Setting (Gmax), s		38.6		11.4	5.4	28.6
Max Q Clear Time (g_c+I1), s		2.9		3.6	2.6	16.2
Green Ext Time (p_c), s		1.1		0.1	0.0	5.0
Intersection Summary						
HCM 6th Ctrl Delay			10.4			
HCM 6th LOS			B			

Intersection												
Int Delay, s/veh	5.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕			↕	
Traffic Vol, veh/h	0	0	9	0	0	0	24	2	2	0	5	0
Future Vol, veh/h	0	0	9	0	0	0	24	2	2	0	5	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	14	0	0	0	37	3	3	0	8	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	87	88	8	94	87	5	8	0	0	6	0	0
Stage 1	8	8	-	79	79	-	-	-	-	-	-	-
Stage 2	79	80	-	15	8	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
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	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	904	806	1080	894	807	1084	1625	-	-	1628	-	-
Stage 1	1019	893	-	935	833	-	-	-	-	-	-	-
Stage 2	935	832	-	1010	893	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	889	787	1080	867	788	1084	1625	-	-	1628	-	-
Mov Cap-2 Maneuver	889	787	-	867	788	-	-	-	-	-	-	-
Stage 1	996	893	-	913	814	-	-	-	-	-	-	-
Stage 2	914	813	-	997	893	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.4	0	6.2	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1625	-	-	1080	-	1628	-
HCM Lane V/C Ratio	0.023	-	-	0.013	-	-	-
HCM Control Delay (s)	7.3	-	-	8.4	0	0	-
HCM Lane LOS	A	-	-	A	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-	0	-

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	7	224	873	54	22	6
Future Vol, veh/h	7	224	873	54	22	6
Conflicting Peds, #/hr	0	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	100	0
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	8	241	939	58	24	6

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	998	0	-	0	1106
Stage 1	-	-	-	-	969
Stage 2	-	-	-	-	137
Critical Hdwy	4.1	-	-	-	6.8
Critical Hdwy Stg 1	-	-	-	-	5.8
Critical Hdwy Stg 2	-	-	-	-	5.8
Follow-up Hdwy	2.2	-	-	-	3.5
Pot Cap-1 Maneuver	701	-	-	-	208
Stage 1	-	-	-	-	333
Stage 2	-	-	-	-	881
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	700	-	-	-	205
Mov Cap-2 Maneuver	-	-	-	-	283
Stage 1	-	-	-	-	329
Stage 2	-	-	-	-	880

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	17.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	700	-	-	-	283	522
HCM Lane V/C Ratio	0.011	-	-	-	0.084	0.012
HCM Control Delay (s)	10.2	-	-	-	18.9	12
HCM Lane LOS	B	-	-	-	C	B
HCM 95th %tile Q(veh)	0	-	-	-	0.3	0

Timings
6: Veile Av. & 4th St.

Orchard Logistics (JN 14410)

09/18/2023

											
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	73	99	94	5	332	436	29	2	5	25	213
Future Volume (vph)	73	99	94	5	332	436	29	2	5	25	213
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6	3	8		7	4	
Permitted Phases			2					8			4
Detector Phase	5	2	2	1	6	3	8	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	26.6	26.6	9.6	26.6	9.6	27.6	27.6	9.6	14.6	14.6
Total Split (s)	9.6	26.8	26.8	9.6	26.8	29.0	34.0	34.0	9.6	14.6	14.6
Total Split (%)	12.0%	33.5%	33.5%	12.0%	33.5%	36.3%	42.5%	42.5%	12.0%	18.3%	18.3%
Yellow Time (s)	3.6	4.4	4.4	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	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	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None
Act Effect Green (s)	5.2	23.0	23.0	5.2	18.6	22.0	24.4	24.4	5.2	10.3	10.3
Actuated g/C Ratio	0.07	0.32	0.32	0.07	0.26	0.30	0.34	0.34	0.07	0.14	0.14
v/c Ratio	0.63	0.18	0.16	0.05	0.78	0.88	0.05	0.00	0.05	0.10	0.55
Control Delay	60.6	19.8	0.5	36.2	38.3	45.1	14.6	0.0	36.2	32.0	10.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.6	19.8	0.5	36.2	38.3	45.1	14.6	0.0	36.2	32.0	10.3
LOS	E	B	A	D	D	D	B	A	D	C	B
Approach Delay		24.2			38.3		43.0			13.1	
Approach LOS		C			D		D			B	

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 72.3

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 32.5

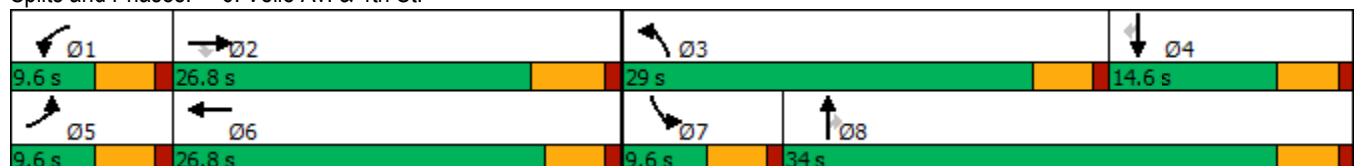
Intersection LOS: C

Intersection Capacity Utilization 66.9%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 6: Veile Av. & 4th St.



HCM 6th Signalized Intersection Summary

6: Veile Av. & 4th St.

Orchard Logistics (JN 14410)

09/18/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	99	94	5	332	10	436	29	2	5	25	213
Future Volume (veh/h)	73	99	94	5	332	10	436	29	2	5	25	213
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	81	110	50	6	369	9	484	32	2	6	28	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	113	580	492	14	463	11	541	672	569	14	118	
Arrive On Green	0.06	0.31	0.31	0.01	0.25	0.25	0.30	0.35	0.35	0.01	0.06	0.00
Sat Flow, veh/h	1810	1900	1610	1810	1846	45	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	81	110	50	6	0	378	484	32	2	6	28	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	0	1891	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	2.6	2.5	1.3	0.2	0.0	11.0	15.1	0.7	0.0	0.2	0.8	0.0
Cycle Q Clear(g_c), s	2.6	2.5	1.3	0.2	0.0	11.0	15.1	0.7	0.0	0.2	0.8	0.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	113	580	492	14	0	475	541	672	569	14	118	
V/C Ratio(X)	0.72	0.19	0.10	0.42	0.00	0.80	0.89	0.05	0.00	0.42	0.24	
Avail Cap(c_a), veh/h	153	689	584	153	0	711	748	946	802	153	322	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	27.2	15.1	14.7	29.1	0.0	20.7	19.8	12.5	12.3	29.1	26.3	0.0
Incr Delay (d2), s/veh	5.2	0.2	0.1	7.0	0.0	3.8	8.4	0.0	0.0	7.0	1.0	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	1.2	1.0	0.5	0.1	0.0	5.0	7.1	0.3	0.0	0.1	0.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.4	15.3	14.8	36.2	0.0	24.5	28.2	12.6	12.4	36.2	27.4	0.0
LnGrp LOS	C	B	B	D	A	C	C	B	B	D	C	
Approach Vol, veh/h		241			384			518			34	
Approach Delay, s/veh		20.9			24.7			27.2			28.9	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.1	23.4	22.3	8.3	8.3	20.2	5.1	25.5				
Change Period (Y+Rc), s	4.6	5.4	4.6	4.6	4.6	* 5.4	4.6	4.6				
Max Green Setting (Gmax), s	5.0	21.4	24.4	10.0	5.0	* 22	5.0	29.4				
Max Q Clear Time (g_c+I1), s	2.2	4.5	17.1	2.8	4.6	13.0	2.2	2.7				
Green Ext Time (p_c), s	0.0	0.6	0.6	0.0	0.0	1.6	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	25.1
HCM 6th LOS	C

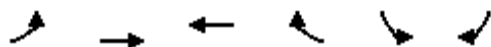
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Timings
1: 4th St. & Potrero Bl.

Orchard Logistics (JN 14410)
09/18/2023



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	740	120	60	387	348	217
Future Volume (vph)	740	120	60	387	348	217
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	27.4	42.4	42.4	27.2	27.2
Total Split (s)	9.6	52.8	43.2	43.2	27.2	27.2
Total Split (%)	12.0%	66.0%	54.0%	54.0%	34.0%	34.0%
Yellow Time (s)	3.6	4.4	4.4	4.4	4.2	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	5.4	5.2	5.2
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	Min	Min
Act Effect Green (s)	5.3	22.2	14.3	14.3	13.3	13.3
Actuated g/C Ratio	0.11	0.45	0.29	0.29	0.27	0.27
v/c Ratio	5.47	0.11	0.16	0.65	0.53	0.48
Control Delay	2037.1	6.9	13.3	5.4	18.7	5.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2037.1	6.9	13.3	5.4	18.7	5.5
LOS	F	A	B	A	B	A
Approach Delay		1753.5	6.4		13.6	
Approach LOS		F	A		B	

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 49.2

Natural Cycle: 120

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 5.47

Intersection Signal Delay: 811.3

Intersection LOS: F

Intersection Capacity Utilization 73.3%

ICU Level of Service D

Analysis Period (min) 15

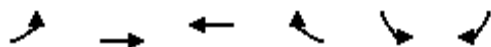
Splits and Phases: 1: 4th St. & Potrero Bl.



HCM 6th Signalized Intersection Summary
1: 4th St. & Potrero Bl.

Orchard Logistics (JN 14410)

09/18/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	740	120	60	387	348	217
Future Volume (veh/h)	740	120	60	387	348	217
Initial Q (Qb), veh	0	0	0	0	0	0
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	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1072	174	87	471	504	313
Peak Hour Factor	0.69	0.69	0.69	0.69	0.69	0.69
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	174	1926	662	561	921	422
Arrive On Green	0.10	0.53	0.35	0.35	0.26	0.26
Sat Flow, veh/h	1810	3705	1900	1610	3510	1610
Grp Volume(v), veh/h	1072	174	87	471	504	313
Grp Sat Flow(s),veh/h/ln	1810	1805	1900	1610	1755	1610
Q Serve(g_s), s	5.0	1.2	1.6	14.0	6.4	9.2
Cycle Q Clear(g_c), s	5.0	1.2	1.6	14.0	6.4	9.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	174	1926	662	561	921	422
V/C Ratio(X)	6.15	0.09	0.13	0.84	0.55	0.74
Avail Cap(c_a), veh/h	174	3297	1384	1173	1488	683
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	1.00
Uniform Delay (d), s/veh	23.4	5.9	11.5	15.6	16.5	17.5
Incr Delay (d2), s/veh	2329.2	0.0	0.1	3.5	0.5	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	114.7	0.3	0.6	4.6	2.3	8.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	2352.6	6.0	11.6	19.0	17.0	20.1
LnGrp LOS	F	A	B	B	B	C
Approach Vol, veh/h		1246	558		817	
Approach Delay, s/veh		2024.9	17.9		18.2	
Approach LOS		F	B		B	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		33.1		18.8	9.6	23.5
Change Period (Y+Rc), s		5.4		5.2	4.6	5.4
Max Green Setting (Gmax), s		47.4		22.0	5.0	37.8
Max Q Clear Time (g_c+I1), s		3.2		11.2	7.0	16.0
Green Ext Time (p_c), s		1.1		2.4	0.0	2.1
Intersection Summary						
HCM 6th Ctrl Delay			972.1			
HCM 6th LOS			F			

Intersection

Intersection Delay, s/veh75.5

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	359	43	1	0	481	4	18	0	3	0
Future Vol, veh/h	0	0	359	43	1	0	481	4	18	0	3	0
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	472	57	1	0	633	5	24	0	4	0
Number of Lanes	1	1	0	0	1	0	1	1	0	0	1	0

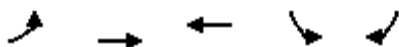
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	2
Conflicting Approach Left SB		NB	EB	WB
Conflicting Lanes Left	1	2	2	1
Conflicting Approach RightNB		SB	WB	EB
Conflicting Lanes Right	2	1	1	2
HCM Control Delay	26.6	12.2	116.4	10.8
HCM LOS	D	B	F	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	100%	0%	0%	0%	98%	0%
Vol Thru, %	0%	18%	100%	0%	2%	100%
Vol Right, %	0%	82%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	481	22	0	359	44	3
LT Vol	481	0	0	0	43	0
Through Vol	0	4	0	0	1	3
RT Vol	0	18	0	359	0	0
Lane Flow Rate	633	29	0	472	58	4
Geometry Grp	7	7	7	7	6	6
Degree of Util (X)	1.178	0.045	0	0.766	0.121	0.008
Departure Headway (Hd)	6.698	5.609	6.993	6.281	8.053	7.739
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	544	642	0	581	448	465
Service Time	4.4	3.311	4.693	3.981	6.053	5.739
HCM Lane V/C Ratio	1.164	0.045	0	0.812	0.129	0.009
HCM Control Delay	121.3	8.6	9.7	26.6	12.2	10.8
HCM Lane LOS	F	A	N	D	B	B
HCM 95th-tile Q	22.5	0.1	0	6.9	0.4	0

Timings
3: 4th St. & Distribution Wy.

Orchard Logistics (JN 14410)

09/18/2023



Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations	←	↑↑	↑↑	←	←
Traffic Volume (vph)	15	431	345	512	61
Future Volume (vph)	15	431	345	512	61
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	5	2	6	4	
Permitted Phases					4
Detector Phase	5	2	6	4	4
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.4	27.4	14.6	14.6
Total Split (s)	9.6	37.0	27.4	33.0	33.0
Total Split (%)	13.7%	52.9%	39.1%	47.1%	47.1%
Yellow Time (s)	3.6	4.4	4.4	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	4.6
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	None	None
Act Effect Green (s)	5.1	20.9	19.3	27.6	27.6
Actuated g/C Ratio	0.09	0.36	0.33	0.47	0.47
v/c Ratio	0.13	0.47	0.80	0.84	0.11
Control Delay	30.3	15.6	15.2	27.1	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	30.3	15.6	15.2	27.1	3.7
LOS	C	B	B	C	A
Approach Delay		16.1	15.2	24.6	
Approach LOS		B	B	C	

Intersection Summary

Cycle Length: 70

Actuated Cycle Length: 58.7

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.84

Intersection Signal Delay: 18.3

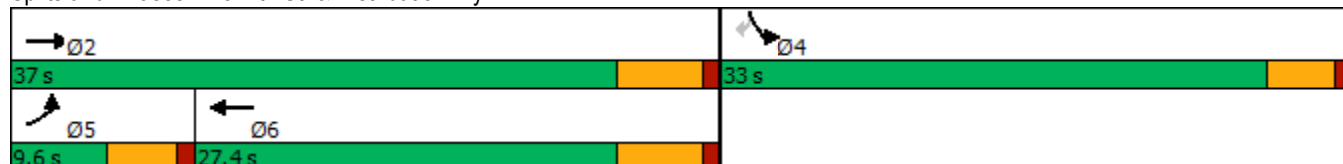
Intersection LOS: B

Intersection Capacity Utilization 61.7%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 3: 4th St. & Distribution Wy.

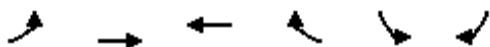


HCM 6th Signalized Intersection Summary

3: 4th St. & Distribution Wy.

Orchard Logistics (JN 14410)

09/18/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	15	431	345	479	512	61
Future Volume (veh/h)	15	431	345	479	512	61
Initial Q (Qb), veh	0	0	0	0	0	0
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	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	599	479	471	711	41
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	44	1533	593	528	758	674
Arrive On Green	0.02	0.42	0.33	0.33	0.42	0.42
Sat Flow, veh/h	1810	3705	1900	1608	1810	1610
Grp Volume(v), veh/h	21	599	479	471	711	41
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1608	1810	1610
Q Serve(g_s), s	0.7	7.3	15.5	17.8	24.1	1.0
Cycle Q Clear(g_c), s	0.7	7.3	15.5	17.8	24.1	1.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	44	1533	593	528	758	674
V/C Ratio(X)	0.48	0.39	0.81	0.89	0.94	0.06
Avail Cap(c_a), veh/h	141	1784	621	553	804	715
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	1.00
Uniform Delay (d), s/veh	30.8	12.7	19.6	20.4	17.8	11.1
Incr Delay (d2), s/veh	2.9	0.2	7.5	16.2	17.9	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	0.3	2.3	6.5	7.8	11.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	33.7	12.8	27.2	36.6	35.7	11.1
LnGrp LOS	C	B	C	D	D	B
Approach Vol, veh/h		620	950		752	
Approach Delay, s/veh		13.6	31.8		34.4	
Approach LOS		B	C		C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		32.6		31.4	6.2	26.4
Change Period (Y+Rc), s		5.4		4.6	4.6	5.4
Max Green Setting (Gmax), s		31.6		28.4	5.0	22.0
Max Q Clear Time (g_c+I1), s		9.3		26.1	2.7	19.8
Green Ext Time (p_c), s		3.5		0.7	0.0	1.2
Intersection Summary						
HCM 6th Ctrl Delay			27.8			
HCM 6th LOS			C			

Intersection												
Int Delay, s/veh	6.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕			↕	
Traffic Vol, veh/h	0	0	27	0	0	0	13	7	0	0	2	0
Future Vol, veh/h	0	0	27	0	0	0	13	7	0	0	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	55	55	55	55	55	55	55	55	55	55	55	55
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	49	0	0	0	24	13	0	0	4	0

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	65	65	4	90	65	13	4	0	0	13	0	0
Stage 1	4	4	-	61	61	-	-	-	-	-	-	-
Stage 2	61	61	-	29	4	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
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	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	934	830	1085	900	830	1073	1631	-	-	1619	-	-
Stage 1	1024	897	-	955	848	-	-	-	-	-	-	-
Stage 2	955	848	-	993	897	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	924	818	1085	850	818	1073	1631	-	-	1619	-	-
Mov Cap-2 Maneuver	924	818	-	850	818	-	-	-	-	-	-	-
Stage 1	1009	897	-	941	835	-	-	-	-	-	-	-
Stage 2	941	835	-	948	897	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	8.5		0		4.7		0	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1631	-	-	1085	-	1619	-
HCM Lane V/C Ratio	0.014	-	-	0.045	-	-	-
HCM Control Delay (s)	7.2	-	-	8.5	0	0	-
HCM Lane LOS	A	-	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	-	0	-

Intersection

Int Delay, s/veh 1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	938	803	18	46	27
Future Vol, veh/h	6	938	803	18	46	27
Conflicting Peds, #/hr	0	0	0	4	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	100	0
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	8	1321	1131	25	65	38

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1160	0	0 1825 582
Stage 1	-	-	- 1148 -
Stage 2	-	-	- 677 -
Critical Hdwy	4.1	-	- 6.8 6.9
Critical Hdwy Stg 1	-	-	- 5.8 -
Critical Hdwy Stg 2	-	-	- 5.8 -
Follow-up Hdwy	2.2	-	- 3.5 3.3
Pot Cap-1 Maneuver	610	-	- 70 461
Stage 1	-	-	- 269 -
Stage 2	-	-	- 472 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	608	-	- 69 459
Mov Cap-2 Maneuver	-	-	- 183 -
Stage 1	-	-	- 264 -
Stage 2	-	-	- 470 -

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	27.1
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	608	-	-	-	183	459
HCM Lane V/C Ratio	0.014	-	-	-	0.354	0.083
HCM Control Delay (s)	11	-	-	-	35.1	13.6
HCM Lane LOS	B	-	-	-	E	B
HCM 95th %tile Q(veh)	0	-	-	-	1.5	0.3

Timings
6: Veile Av. & 4th St.

Orchard Logistics (JN 14410)

09/18/2023

											
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	206	411	405	1	248	431	15	1	12	52	168
Future Volume (vph)	206	411	405	1	248	431	15	1	12	52	168
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6	3	8		7	4	
Permitted Phases			2					8			4
Detector Phase	5	2	2	1	6	3	8	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	26.6	26.6	9.6	26.6	9.6	27.6	27.6	9.6	14.6	14.6
Total Split (s)	16.0	33.8	33.8	9.6	27.4	32.0	37.0	37.0	9.6	14.6	14.6
Total Split (%)	17.8%	37.6%	37.6%	10.7%	30.4%	35.6%	41.1%	41.1%	10.7%	16.2%	16.2%
Yellow Time (s)	3.6	4.4	4.4	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	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	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None
Act Effect Green (s)	11.4	32.6	32.6	5.0	19.2	27.4	26.8	26.8	5.0	10.0	10.0
Actuated g/C Ratio	0.13	0.38	0.38	0.06	0.22	0.32	0.31	0.31	0.06	0.12	0.12
v/c Ratio	1.14	0.76	0.57	0.01	0.80	0.99	0.03	0.00	0.15	0.31	0.54
Control Delay	138.6	32.7	4.7	40.0	46.7	67.7	16.7	0.0	43.8	40.6	8.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	138.6	32.7	4.7	40.0	46.7	67.7	16.7	0.0	43.8	40.6	8.8
LOS	F	C	A	D	D	E	B	A	D	D	A
Approach Delay		43.0			46.6		65.9			17.7	
Approach LOS		D			D		E			B	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 86.5

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.14

Intersection Signal Delay: 45.7

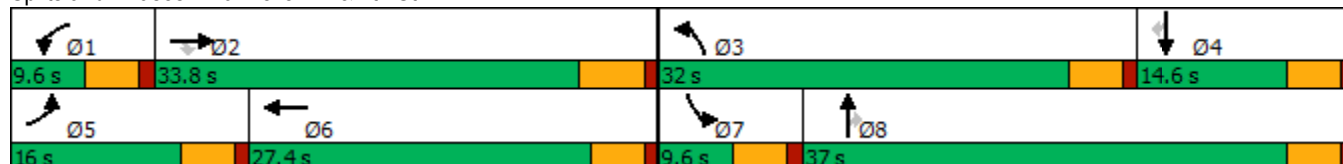
Intersection LOS: D

Intersection Capacity Utilization 68.5%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 6: Veile Av. & 4th St.



HCM 6th Signalized Intersection Summary 6: Veile Av. & 4th St.

Orchard Logistics (JN 14410)

09/18/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	206	411	405	1	248	8	431	15	1	12	52	168
Future Volume (veh/h)	206	411	405	1	248	8	431	15	1	12	52	168
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	271	541	359	1	326	7	567	20	1	16	68	0
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	248	651	551	2	383	8	597	772	655	34	181	
Arrive On Green	0.14	0.34	0.34	0.00	0.21	0.21	0.33	0.41	0.41	0.02	0.10	0.00
Sat Flow, veh/h	1810	1900	1610	1810	1853	40	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	271	541	359	1	0	333	567	20	1	16	68	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	0	1893	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	11.4	21.7	15.7	0.0	0.0	14.1	25.4	0.5	0.0	0.7	2.8	0.0
Cycle Q Clear(g_c), s	11.4	21.7	15.7	0.0	0.0	14.1	25.4	0.5	0.0	0.7	2.8	0.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	248	651	551	2	0	391	597	772	655	34	181	
V/C Ratio(X)	1.09	0.83	0.65	0.40	0.00	0.85	0.95	0.03	0.00	0.48	0.38	
Avail Cap(c_a), veh/h	248	651	551	109	0	519	597	772	655	109	229	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	35.8	25.1	23.1	41.5	0.0	31.7	27.2	14.8	14.6	40.4	35.3	0.0
Incr Delay (d2), s/veh	83.7	9.0	2.7	34.7	0.0	10.0	24.8	0.0	0.0	3.8	1.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.5	10.6	6.2	0.0	0.0	7.4	14.7	0.2	0.0	0.4	1.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	119.5	34.1	25.8	76.1	0.0	41.8	52.0	14.8	14.6	44.2	36.5	0.0
LnGrp LOS	F	C	C	E	A	D	D	B	B	D	D	
Approach Vol, veh/h	1171				334				588			
Approach Delay, s/veh	51.3				41.9				50.6			
Approach LOS	D				D				D			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.7	33.9	32.0	12.5	16.0	22.6	6.1	38.4				
Change Period (Y+Rc), s	4.6	5.4	4.6	4.6	4.6	* 5.4	4.6	4.6				
Max Green Setting (Gmax), s	5.0	28.4	27.4	10.0	11.4	* 23	5.0	32.4				
Max Q Clear Time (g_c+I1), s	2.0	23.7	27.4	4.8	13.4	16.1	2.7	2.5				
Green Ext Time (p_c), s	0.0	2.0	0.0	0.1	0.0	1.1	0.0	0.1				
Intersection Summary												
HCM 6th Ctrl Delay	49.2											
HCM 6th LOS	D											
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.												

APPENDIX 6.3: OPENING YEAR (2025) WITHOUT PROJECT CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **2025 Without Project Conditions - Weekday PM Peak Hour**

Major Street Name = **Prosperity Wy.**

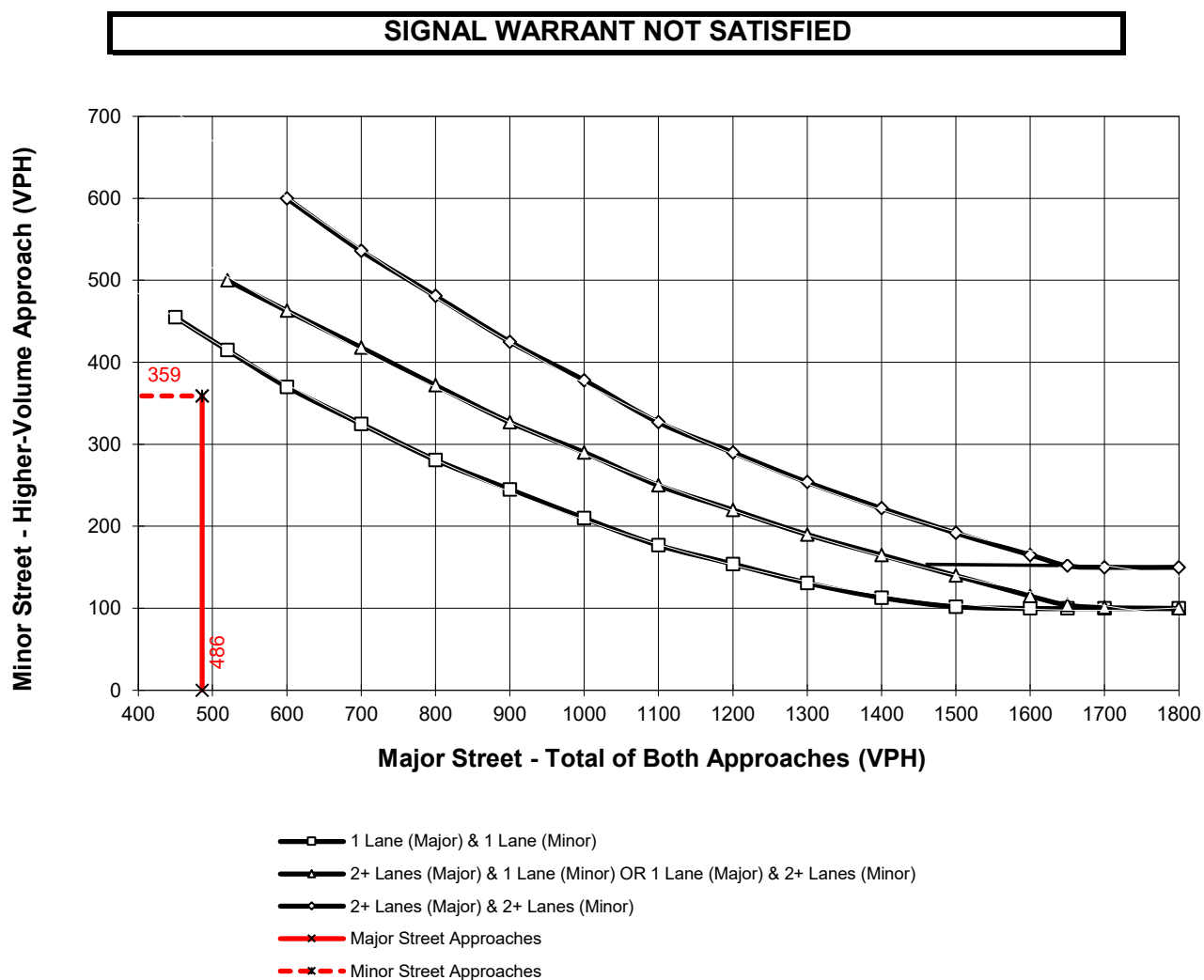
Total of Both Approaches (VPH) = **486**

Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Distribution Wy.**

High Volume Approach (VPH) = **359**

Number of Approach Lanes On Minor Street = **1**



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **2025 Without Project Conditions - Weekday AM Peak Hour**

Major Street Name = **Nicholas Rd.**

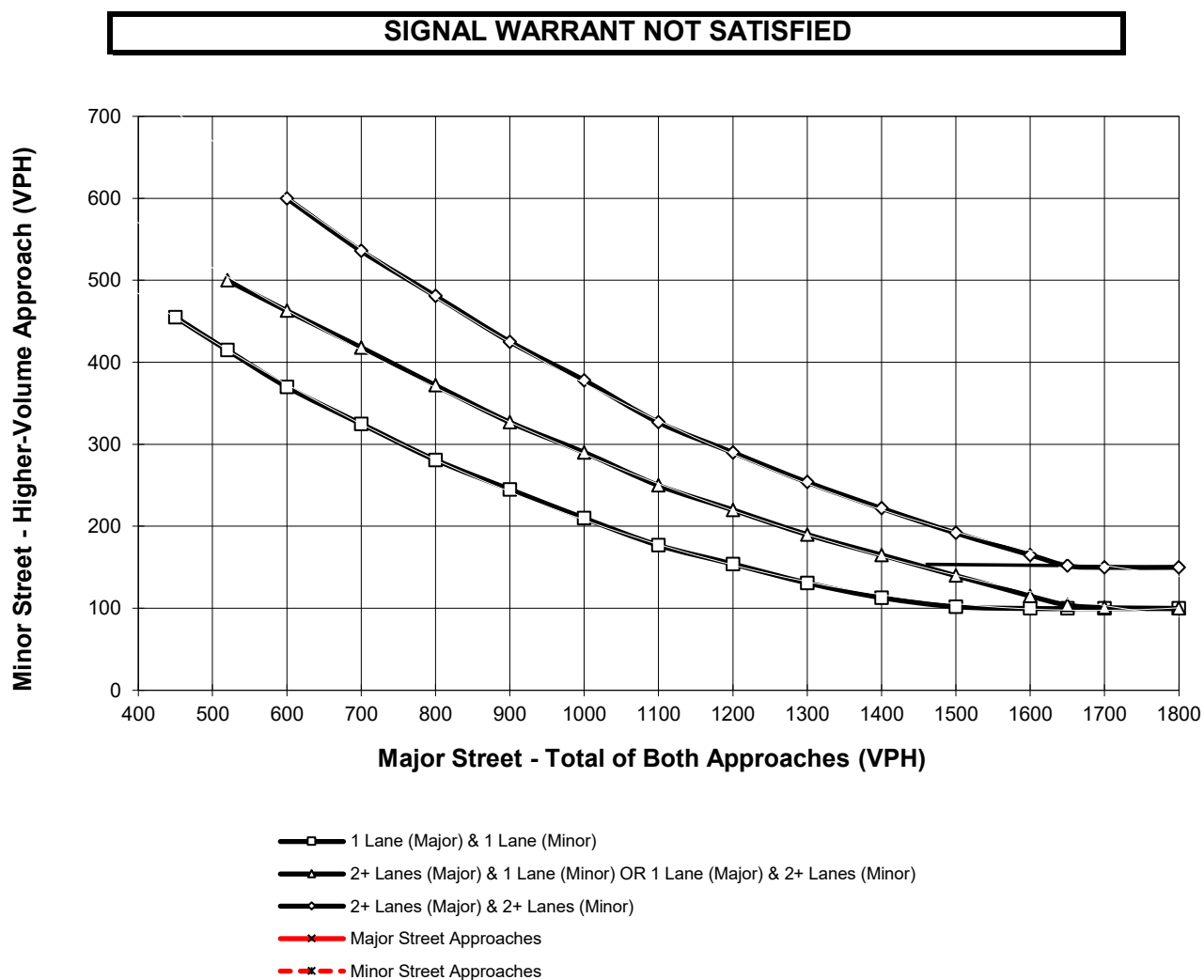
Total of Both Approaches (VPH) = **13**

Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Driveway 2**

High Volume Approach (VPH) = **1**

Number of Approach Lanes On Minor Street = **1**



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes
and 100 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-3. Warrant 3, Peak Hour

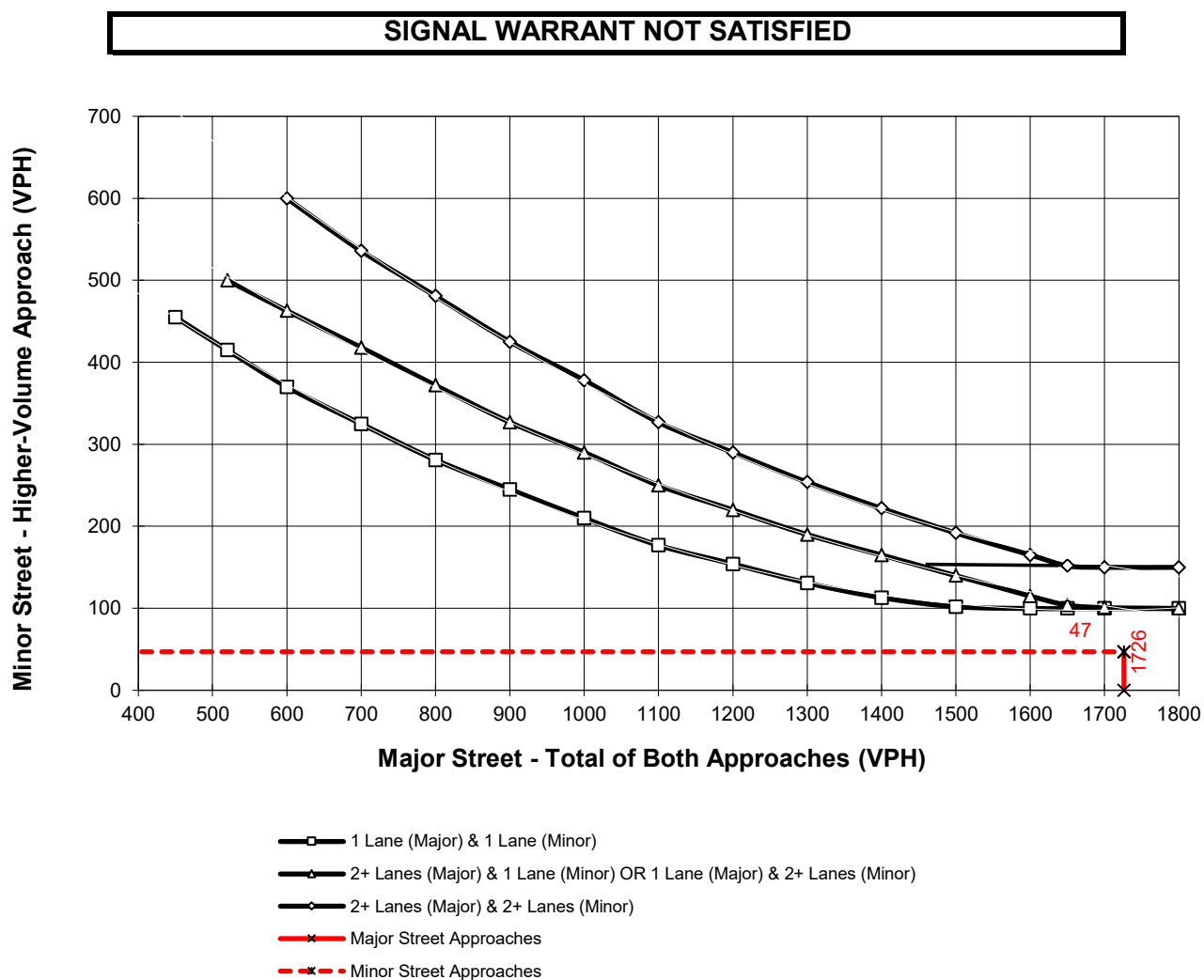
Traffic Conditions = **2025 Without Project Conditions - Weekday PM Peak Hour**

Major Street Name = **4th St.**

Total of Both Approaches (VPH) = **1726**
Number of Approach Lanes on Major Street = **2**

Minor Street Name = **Nicholas Rd.**

High Volume Approach (VPH) = **47**
Number of Approach Lanes On Minor Street = **1**



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes
and 100 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	CALC	TRAFFIC CONDITIONS	2025 NP
Jurisdiction: <u>City of Beaumont</u>				CHK	<u>CS</u>	DATE <u>08/09/22</u>
Major Street: <u>Prosperity Wy.</u>						DATE <u>08/09/22</u>
Minor Street: <u>Distribution Wy.</u>					Critical Approach Speed (Major)	<u>30</u> mph
					Critical Approach Speed (Minor)	<u>25</u> mph
Major Street Approach Lanes = <u>1</u> lane				Minor Street Approach Lanes: <u>1</u> lane		
Major Street Future ADT = <u>3,892</u> vpd				Minor Street Future ADT = <u>3,820</u> 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						URBAN (U)

(Based on Estimated Average Daily Traffic - See Note)

URBAN XX		RURAL		Minimum Requirements EADT			
CONDITION A - Minimum Vehicular Volume				Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
<u>Satisfied</u>		<u>Not Satisfied</u>					
		XX					
Number of lanes for moving traffic on each approach				<u>Urban</u>	<u>Rural</u>	<u>Urban</u>	<u>Rural</u>
<u>Major Street</u>		<u>Minor Street</u>					
<u>1</u>	3,892	<u>1</u>	3,820	8,000	5,600	2,400 *	1,680
<u>2 +</u>		<u>1</u>		9,600	6,720	2,400	1,680
<u>2 +</u>		<u>2 +</u>		9,600	6,720	3,200	2,240
<u>1</u>		<u>2 +</u>		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)	
<u>Satisfied</u>		<u>Not Satisfied</u>					
		XX					
Number of lanes for moving traffic on each approach				<u>Urban</u>	<u>Rural</u>	<u>Urban</u>	<u>Rural</u>
<u>Major Street</u>		<u>Minor Street</u>					
<u>1</u>	3,892	<u>1</u>	3,820	12,000	8,400	1,200 *	850
<u>2 +</u>		<u>1</u>		14,400	10,080	1,200	850
<u>2 +</u>		<u>2 +</u>		14,400	10,080	1,600	1,120
<u>1</u>		<u>2 +</u>		12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				2 CONDITIONS 80%		2 CONDITIONS 80%	
<u>Satisfied</u>		<u>Not Satisfied</u>					
		XX					
No one condition satisfied, but following conditions fulfilled 80% of more							
		<u>A</u>	<u>B</u>				
		49%	32%				

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 6.4: OPENING YEAR (2025) WITH PROJECT CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-3. Warrant 3, Peak Hour

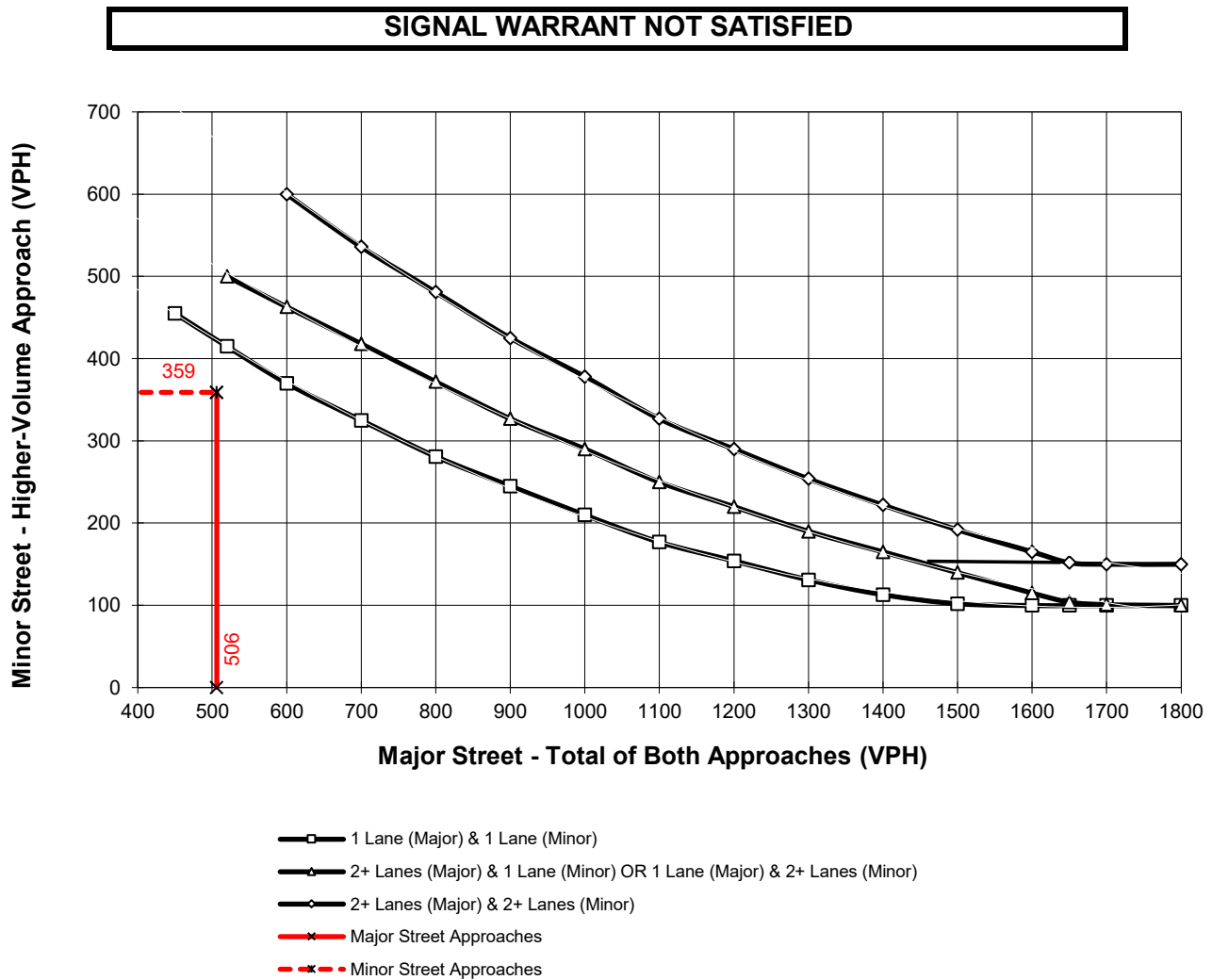
Traffic Conditions = **2025 With Project Conditions - Weekday PM Peak Hour**

Major Street Name = **Distribution Wy.**

Total of Both Approaches (VPH) = **506**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Prosperity Wy.**

High Volume Approach (VPH) = **359**
Number of Approach Lanes On Minor Street = **1**



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes
and 100 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **2025 With Project Conditions - Weekday AM Peak Hour**

Major Street Name = **Nicholas Rd.**

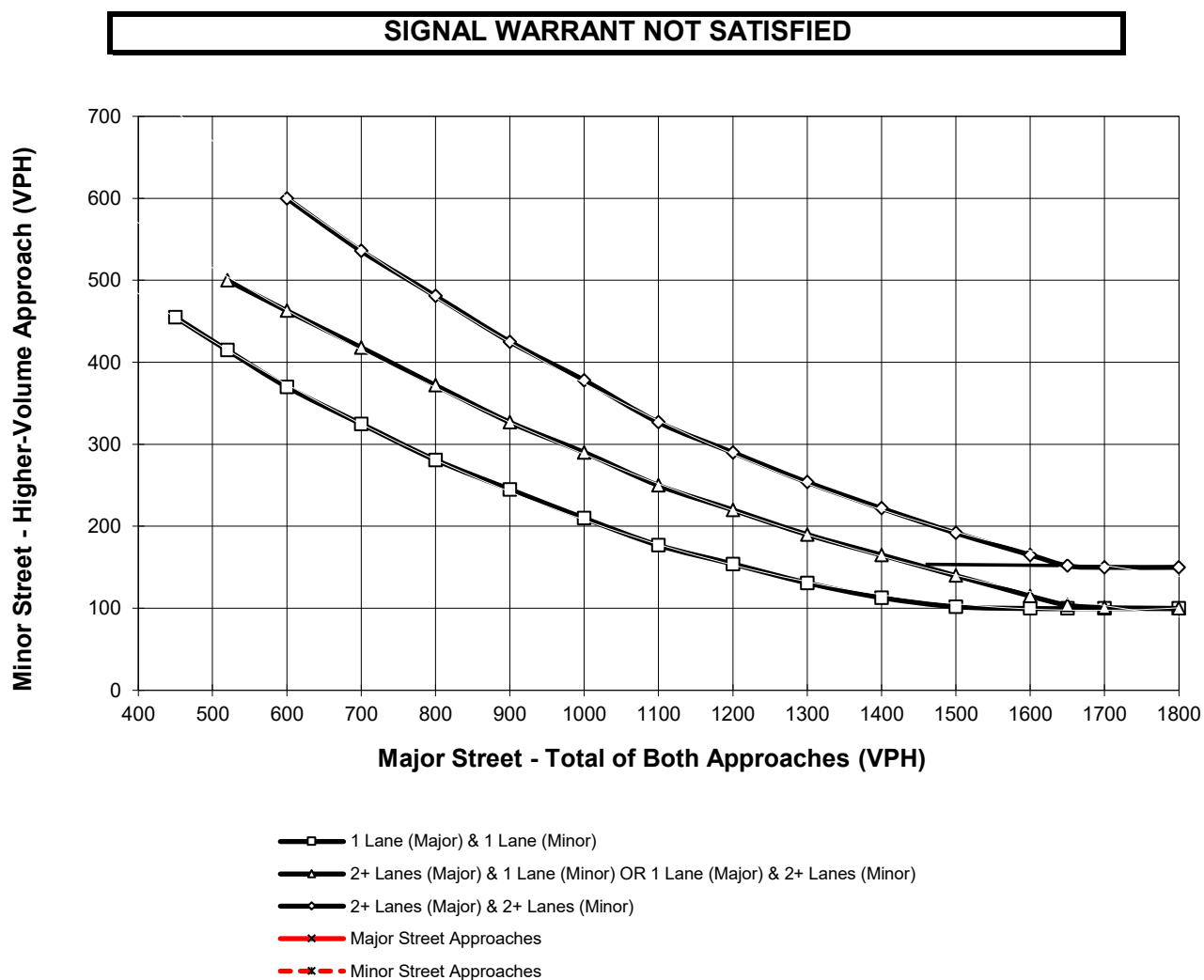
Total of Both Approaches (VPH) = **34**

Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Driveway 2**

High Volume Approach (VPH) = **9**

Number of Approach Lanes On Minor Street = **1**



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes
and 100 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **2025 With Project Conditions - Weekday PM Peak Hour**

Major Street Name = **4th St.**

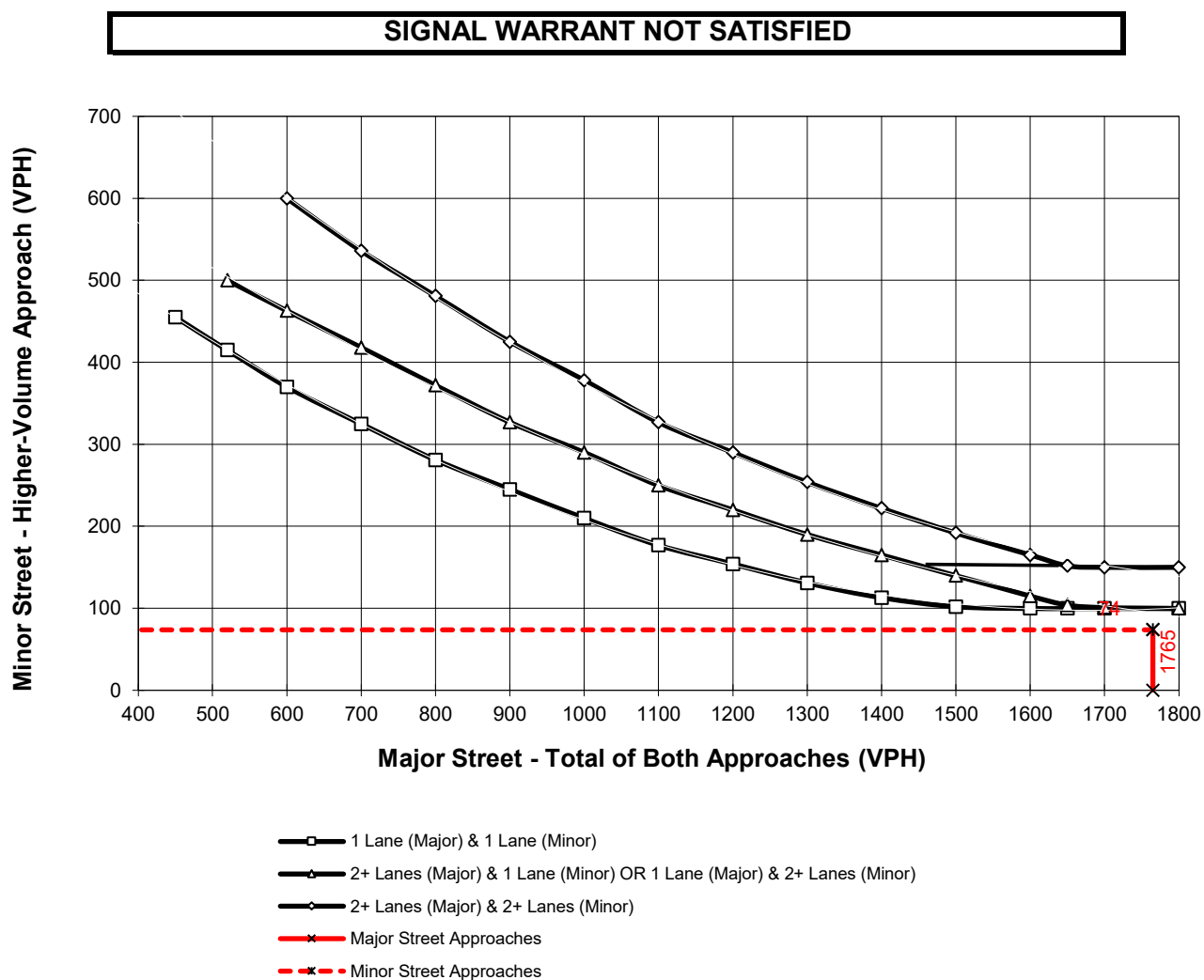
Total of Both Approaches (VPH) = **1765**

Number of Approach Lanes on Major Street = **2**

Minor Street Name = **Nicholas Rd.**

High Volume Approach (VPH) = **74**

Number of Approach Lanes On Minor Street = **1**



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

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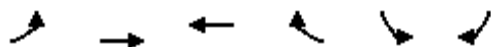
APPENDIX 6.5: OPENING YEAR (2025) WITH PROJECT CONDITIONS INTERSECTION ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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Timings
1: 4th St. & Potrero Bl.

Orchard Logistics (JN 14410)

09/18/2023



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖↗	↑↑	↑	↖	↖↗	↖
Traffic Volume (vph)	138	32	100	92	354	615
Future Volume (vph)	138	32	100	92	354	615
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	27.4	42.4	42.4	27.2	27.2
Total Split (s)	16.0	61.0	45.0	45.0	59.0	59.0
Total Split (%)	13.3%	50.8%	37.5%	37.5%	49.2%	49.2%
Yellow Time (s)	3.6	4.4	4.4	4.4	4.2	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	5.4	5.2	5.2
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	Min	Min
Act Effect Green (s)	7.5	15.9	14.1	14.1	15.4	15.4
Actuated g/C Ratio	0.14	0.30	0.26	0.26	0.29	0.29
v/c Ratio	0.34	0.04	0.24	0.22	0.42	0.75
Control Delay	26.6	12.0	17.5	5.2	18.0	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.6	12.0	17.5	5.2	18.0	7.6
LOS	C	B	B	A	B	A
Approach Delay		23.8	11.6		11.4	
Approach LOS		C	B		B	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 53.7

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.75

Intersection Signal Delay: 13.0

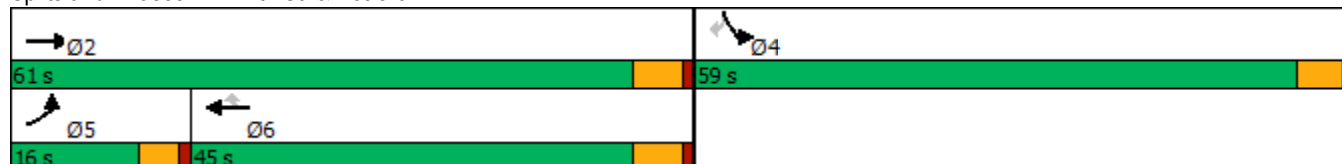
Intersection LOS: B

Intersection Capacity Utilization 55.2%

ICU Level of Service B

Analysis Period (min) 15

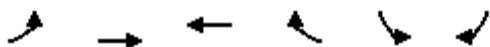
Splits and Phases: 1: 4th St. & Potrero Bl.



HCM 6th Signalized Intersection Summary
1: 4th St. & Potrero Bl.

Orchard Logistics (JN 14410)

09/18/2023

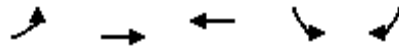


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰↱	↱↱	↰	↰↱	↰↱	↰↱
Traffic Volume (veh/h)	138	32	100	92	354	615
Future Volume (veh/h)	138	32	100	92	354	615
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	166	39	120	110	427	741
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	266	1112	300	254	1831	840
Arrive On Green	0.08	0.31	0.16	0.16	0.52	0.52
Sat Flow, veh/h	3510	3705	1900	1610	3510	1610
Grp Volume(v), veh/h	166	39	120	110	427	741
Grp Sat Flow(s),veh/h/ln	1755	1805	1900	1610	1755	1610
Q Serve(g_s), s	2.8	0.5	3.5	3.8	4.1	25.3
Cycle Q Clear(g_c), s	2.8	0.5	3.5	3.8	4.1	25.3
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	266	1112	300	254	1831	840
V/C Ratio(X)	0.62	0.04	0.40	0.43	0.23	0.88
Avail Cap(c_a), veh/h	644	3231	1211	1027	3041	1395
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	1.00
Uniform Delay (d), s/veh	27.8	15.0	23.5	23.6	8.1	13.2
Incr Delay (d2), s/veh	0.9	0.0	0.9	1.2	0.1	4.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.2	1.5	1.4	1.3	0.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	28.7	15.1	24.4	24.8	8.2	17.2
LnGrp LOS	C	B	C	C	A	B
Approach Vol, veh/h		205	230		1168	
Approach Delay, s/veh		26.1	24.6		13.9	
Approach LOS		C	C		B	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		24.5		37.6	9.3	15.2
Change Period (Y+Rc), s		5.4		5.2	4.6	5.4
Max Green Setting (Gmax), s		55.6		53.8	11.4	39.6
Max Q Clear Time (g_c+I1), s		2.5		27.3	4.8	5.8
Green Ext Time (p_c), s		0.2		5.0	0.1	1.0
Intersection Summary						
HCM 6th Ctrl Delay			17.0			
HCM 6th LOS			B			

Timings
5: 4th St. & Nicholas Rd.

Orchard Logistics (JN 14410)

09/18/2023



Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	7	224	873	22	6
Future Volume (vph)	7	224	873	22	6
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	5	2	6	4	
Permitted Phases					4
Detector Phase	5	2	6	4	4
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.4	27.4	36.6	36.6
Total Split (s)	9.8	73.4	63.6	36.6	36.6
Total Split (%)	8.9%	66.7%	57.8%	33.3%	33.3%
Yellow Time (s)	3.6	4.4	4.4	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	4.6
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	None	None
Act Effect Green (s)	7.6	26.7	28.9	17.0	17.0
Actuated g/C Ratio	0.21	0.72	0.78	0.46	0.46
v/c Ratio	0.02	0.09	0.36	0.03	0.01
Control Delay	27.3	5.3	7.9	13.9	10.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	27.3	5.3	7.9	13.9	10.3
LOS	C	A	A	B	B
Approach Delay		6.0	7.9	13.2	
Approach LOS		A	A	B	

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 36.9
Natural Cycle: 75
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.36
Intersection Signal Delay: 7.7
Intersection Capacity Utilization 42.5%
Analysis Period (min) 15
Intersection LOS: A
ICU Level of Service A

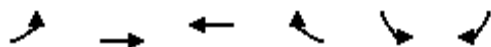
Splits and Phases: 5: 4th St. & Nicholas Rd.



HCM 6th Signalized Intersection Summary
5: 4th St. & Nicholas Rd.

Orchard Logistics (JN 14410)

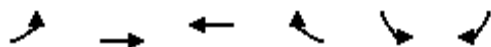
09/18/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	7	224	873	54	22	6
Future Volume (veh/h)	7	224	873	54	22	6
Initial Q (Qb), veh	0	0	0	0	0	0
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	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	8	241	939	58	24	6
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	19	2261	1647	102	132	117
Arrive On Green	0.01	0.63	0.48	0.48	0.07	0.07
Sat Flow, veh/h	1810	3705	3548	213	1810	1610
Grp Volume(v), veh/h	8	241	491	506	24	6
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1861	1810	1610
Q Serve(g_s), s	0.1	0.9	6.5	6.5	0.4	0.1
Cycle Q Clear(g_c), s	0.1	0.9	6.5	6.5	0.4	0.1
Prop In Lane	1.00			0.11	1.00	1.00
Lane Grp Cap(c), veh/h	19	2261	861	888	132	117
V/C Ratio(X)	0.41	0.11	0.57	0.57	0.18	0.05
Avail Cap(c_a), veh/h	283	7389	3162	3261	1743	1551
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	1.00
Uniform Delay (d), s/veh	16.3	2.5	6.2	6.2	14.5	14.3
Incr Delay (d2), s/veh	5.1	0.0	0.6	0.6	0.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	1.1	1.2	0.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	21.5	2.5	6.8	6.8	15.1	14.5
LnGrp LOS	C	A	A	A	B	B
Approach Vol, veh/h		249	997		30	
Approach Delay, s/veh		3.1	6.8		15.0	
Approach LOS		A	A		B	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		26.2		7.0	5.0	21.2
Change Period (Y+Rc), s		5.4		4.6	4.6	5.4
Max Green Setting (Gmax), s		68.0		32.0	5.2	58.2
Max Q Clear Time (g_c+I1), s		2.9		2.4	2.1	8.5
Green Ext Time (p_c), s		1.6		0.1	0.0	7.3
Intersection Summary						
HCM 6th Ctrl Delay			6.3			
HCM 6th LOS			A			

Timings
1: 4th St. & Potrero Bl.

Orchard Logistics (JN 14410)
09/18/2023

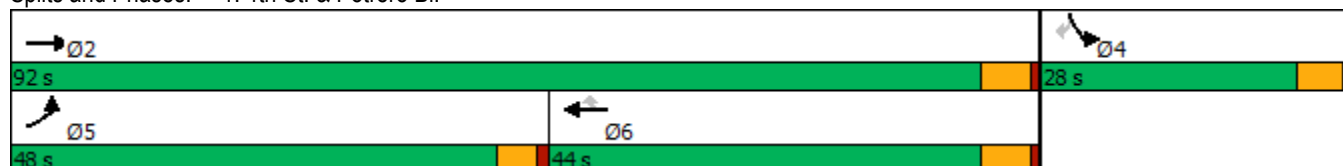


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↔↔	↑↑	↑	↔	↔↔	↔
Traffic Volume (vph)	740	120	60	387	348	217
Future Volume (vph)	740	120	60	387	348	217
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases				6		4
Detector Phase	5	2	6	6	4	4
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	27.4	42.4	42.4	27.2	27.2
Total Split (s)	48.0	92.0	44.0	44.0	28.0	28.0
Total Split (%)	40.0%	76.7%	36.7%	36.7%	23.3%	23.3%
Yellow Time (s)	3.6	4.4	4.4	4.4	4.2	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	5.4	5.2	5.2
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	Min	Min
Act Effect Green (s)	31.6	50.0	20.7	20.7	18.6	18.6
Actuated g/C Ratio	0.36	0.57	0.24	0.24	0.21	0.21
v/c Ratio	0.85	0.08	0.19	0.83	0.68	0.54
Control Delay	34.4	6.0	29.5	21.7	39.7	8.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.4	6.0	29.5	21.7	39.7	8.4
LOS	C	A	C	C	D	A
Approach Delay		30.4	22.8		27.7	
Approach LOS		C	C		C	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 87.3
 Natural Cycle: 100
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.85
 Intersection Signal Delay: 27.8
 Intersection LOS: C
 Intersection Capacity Utilization 53.4%
 ICU Level of Service A
 Analysis Period (min) 15

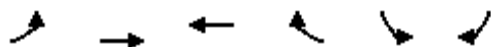
Splits and Phases: 1: 4th St. & Potrero Bl.



HCM 6th Signalized Intersection Summary
1: 4th St. & Potrero Bl.

Orchard Logistics (JN 14410)

09/18/2023

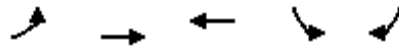


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	←←	→→	←	→	←←	→
Traffic Volume (veh/h)	740	120	60	387	348	217
Future Volume (veh/h)	740	120	60	387	348	217
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1072	174	87	471	504	313
Peak Hour Factor	0.69	0.69	0.69	0.69	0.69	0.69
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1161	2486	597	506	742	341
Arrive On Green	0.33	0.69	0.31	0.31	0.21	0.21
Sat Flow, veh/h	3510	3705	1900	1610	3510	1610
Grp Volume(v), veh/h	1072	174	87	471	504	313
Grp Sat Flow(s),veh/h/ln	1755	1805	1900	1610	1755	1610
Q Serve(g_s), s	31.2	1.7	3.5	30.1	14.0	20.2
Cycle Q Clear(g_c), s	31.2	1.7	3.5	30.1	14.0	20.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	1161	2486	597	506	742	341
V/C Ratio(X)	0.92	0.07	0.15	0.93	0.68	0.92
Avail Cap(c_a), veh/h	1437	2948	692	586	755	346
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	1.00
Uniform Delay (d), s/veh	34.2	5.4	26.1	35.2	38.5	40.9
Incr Delay (d2), s/veh	8.0	0.0	0.1	20.1	2.4	28.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.9	0.5	1.6	14.0	6.2	2.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	42.2	5.4	26.2	55.3	40.9	69.5
LnGrp LOS	D	A	C	E	D	E
Approach Vol, veh/h		1246	558		817	
Approach Delay, s/veh		37.1	50.8		51.9	
Approach LOS		D	D		D	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		78.4		27.6	39.7	38.7
Change Period (Y+Rc), s		5.4		5.2	4.6	5.4
Max Green Setting (Gmax), s		86.6		22.8	43.4	38.6
Max Q Clear Time (g_c+I1), s		3.7		22.2	33.2	32.1
Green Ext Time (p_c), s		1.1		0.2	1.9	1.3
Intersection Summary						
HCM 6th Ctrl Delay			44.6			
HCM 6th LOS			D			

Timings
5: 4th St. & Nicholas Rd.

Orchard Logistics (JN 14410)

09/18/2023



Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	6	938	803	46	27
Future Volume (vph)	6	938	803	46	27
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	5	2	6	4	
Permitted Phases					4
Detector Phase	5	2	6	4	4
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.4	27.4	36.6	36.6
Total Split (s)	9.6	83.4	73.8	36.6	36.6
Total Split (%)	8.0%	69.5%	61.5%	30.5%	30.5%
Yellow Time (s)	3.6	4.4	4.4	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	4.6
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	None	None
Act Effect Green (s)	6.6	32.5	31.5	15.4	15.4
Actuated g/C Ratio	0.13	0.65	0.63	0.31	0.31
v/c Ratio	0.03	0.57	0.51	0.12	0.07
Control Delay	32.5	9.3	10.5	18.9	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	32.5	9.3	10.5	18.9	8.0
LOS	C	A	B	B	A
Approach Delay		9.5	10.5	14.9	
Approach LOS		A	B	B	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 50.3

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.57

Intersection Signal Delay: 10.2

Intersection LOS: B

Intersection Capacity Utilization 42.6%

ICU Level of Service A

Analysis Period (min) 15

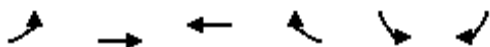
Splits and Phases: 5: 4th St. & Nicholas Rd.



HCM 6th Signalized Intersection Summary
5: 4th St. & Nicholas Rd.

Orchard Logistics (JN 14410)

09/18/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	6	938	803	18	46	27
Future Volume (veh/h)	6	938	803	18	46	27
Initial Q (Qb), veh	0	0	0	0	0	0
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	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	8	1321	1131	25	65	38
Peak Hour Factor	0.71	0.71	0.71	0.71	0.71	0.71
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	19	2192	1773	39	296	263
Arrive On Green	0.01	0.61	0.49	0.49	0.16	0.16
Sat Flow, veh/h	1810	3705	3705	80	1810	1610
Grp Volume(v), veh/h	8	1321	565	591	65	38
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1885	1810	1610
Q Serve(g_s), s	0.2	9.9	10.1	10.1	1.4	0.9
Cycle Q Clear(g_c), s	0.2	9.9	10.1	10.1	1.4	0.9
Prop In Lane	1.00			0.04	1.00	1.00
Lane Grp Cap(c), veh/h	19	2192	886	926	296	263
V/C Ratio(X)	0.42	0.60	0.64	0.64	0.22	0.14
Avail Cap(c_a), veh/h	208	6458	2832	2957	1328	1182
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	1.00
Uniform Delay (d), s/veh	21.4	5.3	8.2	8.2	15.8	15.6
Incr Delay (d2), s/veh	5.3	0.3	0.8	0.7	0.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.6	2.5	2.6	0.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	26.7	5.6	9.0	9.0	16.2	15.9
LnGrp LOS	C	A	A	A	B	B
Approach Vol, veh/h		1329	1156		103	
Approach Delay, s/veh		5.7	9.0		16.1	
Approach LOS		A	A		B	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		31.9		11.7	5.1	26.8
Change Period (Y+Rc), s		5.4		4.6	4.6	5.4
Max Green Setting (Gmax), s		78.0		32.0	5.0	68.4
Max Q Clear Time (g_c+I1), s		11.9		3.4	2.2	12.1
Green Ext Time (p_c), s		13.5		0.3	0.0	9.3
Intersection Summary						
HCM 6th Ctrl Delay			7.6			
HCM 6th LOS			A			

APPENDIX 7.1: HORIZON YEAR (2045) WITHOUT PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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Timings
1: Potrero Bl. & 4th St.

Orchard Logistics (JN 14410)

08/10/2022

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBL	SBT	SBR	Ø3
Lane Configurations											
Traffic Volume (vph)	319	66	177	204	473	572	27	1075	1133	1357	
Future Volume (vph)	319	66	177	204	473	572	27	1075	1133	1357	
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	Prot	NA	Perm	
Protected Phases	5	2	1	6		8		7	4		3
Permitted Phases					6		8			4	
Detector Phase	5	2	1	6	6	8	8	7	4	4	
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	9.6	15.4	9.6	42.4	42.4	27.2	27.2	9.6	15.2	15.2	9.6
Total Split (s)	19.0	31.0	32.0	44.0	44.0	31.0	31.0	26.0	45.0	45.0	12.0
Total Split (%)	15.8%	25.8%	26.7%	36.7%	36.7%	25.8%	25.8%	21.7%	37.5%	37.5%	10%
Yellow Time (s)	3.6	4.4	3.6	4.4	4.4	4.2	4.2	3.6	4.2	4.2	3.6
All-Red Time (s)	1.0	1.0	1.0	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	0.0	0.0	
Total Lost Time (s)	4.6	5.4	4.6	5.4	5.4	5.2	5.2	4.6	5.2	5.2	
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lag	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None
Act Effect Green (s)	14.6	21.6	22.4	25.6	25.6	23.8	23.8	21.7	50.2	50.2	
Actuated g/C Ratio	0.14	0.20	0.21	0.24	0.24	0.22	0.22	0.21	0.47	0.47	
v/c Ratio	1.54	0.11	0.56	0.53	0.89	0.85	0.06	1.80	1.52	1.54	
Control Delay	296.5	34.5	47.6	38.7	32.5	51.5	0.3	394.5	263.5	267.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	296.5	34.5	47.6	38.7	32.5	51.5	0.3	394.5	263.5	267.8	
LOS	F	C	D	D	C	D	A	F	F	F	
Approach Delay		250.9		37.1		49.2			304.6		
Approach LOS		F		D		D			F		

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 105.8

Natural Cycle: 120

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.80

Intersection Signal Delay: 230.2

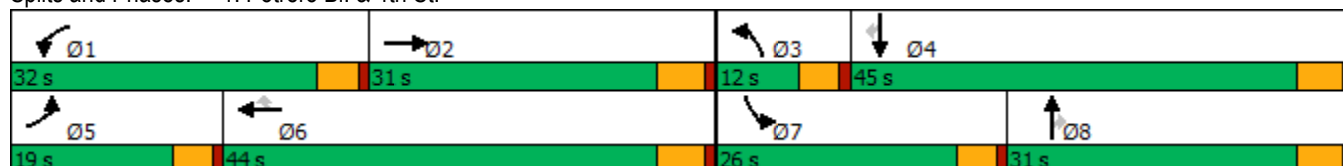
Intersection LOS: F

Intersection Capacity Utilization 108.7%

ICU Level of Service G

Analysis Period (min) 15

Splits and Phases: 1: Potrero Bl. & 4th St.



HCM 6th Signalized Intersection Summary
1: Potrero Bl. & 4th St.

Orchard Logistics (JN 14410)

08/10/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	319	66	1	177	204	473	0	572	27	1075	1133	1357
Future Volume (veh/h)	319	66	1	177	204	473	0	572	27	1075	1133	1357
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	384	80	1	213	246	569	0	689	33	1295	1365	1635
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	219	1135	14	242	615	522	2	756	337	630	813	674
Arrive On Green	0.12	0.31	0.31	0.13	0.32	0.32	0.00	0.21	0.21	0.18	0.43	0.43
Sat Flow, veh/h	1810	3651	46	1810	1900	1610	1810	3610	1610	3510	1900	1577
Grp Volume(v), veh/h	384	39	42	213	246	569	0	689	33	1295	1365	1635
Grp Sat Flow(s),veh/h/ln	1810	1805	1892	1810	1900	1610	1810	1805	1610	1755	1900	1577
Q Serve(g_s), s	14.4	1.8	1.8	13.8	12.0	38.6	0.0	22.2	2.0	21.4	51.0	51.0
Cycle Q Clear(g_c), s	14.4	1.8	1.8	13.8	12.0	38.6	0.0	22.2	2.0	21.4	51.0	51.0
Prop In Lane	1.00		0.02	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	219	561	588	242	615	522	2	756	337	630	813	674
V/C Ratio(X)	1.76	0.07	0.07	0.88	0.40	1.09	0.00	0.91	0.10	2.05	1.68	2.42
Avail Cap(c_a), veh/h	219	561	588	416	615	522	112	782	349	630	813	674
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.4	28.9	28.9	50.6	31.3	40.3	0.0	46.0	38.0	48.9	34.1	34.1
Incr Delay (d2), s/veh	358.4	0.1	0.1	5.0	0.4	66.4	0.0	14.6	0.1	479.8	311.3	645.8
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	28.2	0.8	0.8	6.4	5.5	24.5	0.0	11.3	0.8	51.3	92.7	139.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	410.7	29.0	29.0	55.7	31.7	106.7	0.0	60.6	38.1	528.7	345.4	679.9
LnGrp LOS	F	C	C	E	C	F	A	E	D	F	F	F
Approach Vol, veh/h	465		1028				722				4295	
Approach Delay, s/veh	344.2		78.2				59.6				528.0	
Approach LOS	F		E				E				F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	20.6	42.4	0.0	56.2	19.0	44.0	26.0	30.2				
Change Period (Y+Rc), s	4.6	5.4	4.6	5.2	4.6	5.4	4.6	5.2				
Max Green Setting (Gmax), s	27.4	25.6	7.4	39.8	14.4	38.6	21.4	25.8				
Max Q Clear Time (g_c+I1), s	15.8	3.8	0.0	53.0	16.4	40.6	23.4	24.2				
Green Ext Time (p_c), s	0.2	0.3	0.0	0.0	0.0	0.0	0.0	0.7				
Intersection Summary												
HCM 6th Ctrl Delay	391.9											
HCM 6th LOS	F											

Intersection

Intersection Delay, s/veh 39

Intersection LOS E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	70	0	1	0	599	4	0	0	0	1
Future Vol, veh/h	0	0	70	0	1	0	599	4	0	0	0	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	75	0	1	0	644	4	0	0	0	1
Number of Lanes	1	1	0	0	1	0	1	1	0	0	1	0

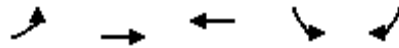
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	2
Conflicting Approach Left SB		NB	EB	WB
Conflicting Lanes Left	1	2	2	1
Conflicting Approach Right NB		SB	WB	EB
Conflicting Lanes Right	2	1	1	2
HCM Control Delay	9.1	9.5	42.6	8
HCM LOS	A	A	E	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	0%
Vol Thru, %	0%	100%	100%	0%	100%	0%
Vol Right, %	0%	0%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	599	4	0	70	1	1
LT Vol	599	0	0	0	0	0
Through Vol	0	4	0	0	1	0
RT Vol	0	0	0	70	0	1
Lane Flow Rate	644	4	0	75	1	1
Geometry Grp	7	7	7	7	6	6
Degree of Util (X)	0.937	0.006	0	0.117	0.002	0.001
Departure Headway (Hd)	5.236	4.735	6.293	5.584	6.418	4.904
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	696	760	0	642	556	727
Service Time	2.936	2.435	4.027	3.319	4.472	2.953
HCM Lane V/C Ratio	0.925	0.005	0	0.117	0.002	0.001
HCM Control Delay	42.8	7.5	9	9.1	9.5	8
HCM Lane LOS	E	A	N	A	A	A
HCM 95th-tile Q	13.1	0	0	0.4	0	0

Timings
3: 4th St. & Distribution Wy.

Orchard Logistics (JN 14410)

08/10/2022



Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	3	293	728	64	21
Future Volume (vph)	3	293	728	64	21
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	5	2	6	4	
Permitted Phases					4
Detector Phase	5	2	6	4	4
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.4	27.4	14.6	14.6
Total Split (s)	10.0	44.0	34.0	16.0	16.0
Total Split (%)	16.7%	73.3%	56.7%	26.7%	26.7%
Yellow Time (s)	3.6	4.4	4.4	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	4.6
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	None	None
Act Effect Green (s)	6.1	22.0	29.0	12.2	12.2
Actuated g/C Ratio	0.15	0.56	0.73	0.31	0.31
v/c Ratio	0.01	0.17	0.60	0.13	0.05
Control Delay	22.7	4.4	6.5	18.0	9.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	22.7	4.4	6.5	18.0	9.6
LOS	C	A	A	B	A
Approach Delay		4.5	6.5	15.9	
Approach LOS		A	A	B	

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 39.6

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.60

Intersection Signal Delay: 6.7

Intersection LOS: A

Intersection Capacity Utilization 56.3%

ICU Level of Service B

Analysis Period (min) 15

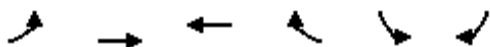
Splits and Phases: 3: 4th St. & Distribution Wy.



HCM 6th Signalized Intersection Summary
3: 4th St. & Distribution Wy.

Orchard Logistics (JN 14410)

08/10/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	3	293	728	598	64	21
Future Volume (veh/h)	3	293	728	598	64	21
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	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	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	3	341	847	638	74	14
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	7	2319	1075	781	263	234
Arrive On Green	0.00	0.64	0.54	0.54	0.15	0.15
Sat Flow, veh/h	1810	3705	2084	1445	1810	1610
Grp Volume(v), veh/h	3	341	766	719	74	14
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1629	1810	1610
Q Serve(g_s), s	0.1	1.8	15.9	17.1	1.7	0.4
Cycle Q Clear(g_c), s	0.1	1.8	15.9	17.1	1.7	0.4
Prop In Lane	1.00			0.89	1.00	1.00
Lane Grp Cap(c), veh/h	7	2319	976	880	263	234
V/C Ratio(X)	0.41	0.15	0.78	0.82	0.28	0.06
Avail Cap(c_a), veh/h	208	2961	1097	990	438	390
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	1.00
Uniform Delay (d), s/veh	23.4	3.3	8.6	8.9	17.9	17.3
Incr Delay (d2), s/veh	12.7	0.0	3.4	4.9	0.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.3	4.5	4.7	0.7	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	36.1	3.4	12.1	13.8	18.5	17.4
LnGrp LOS	D	A	B	B	B	B
Approach Vol, veh/h		344	1485		88	
Approach Delay, s/veh		3.6	12.9		18.3	
Approach LOS		A	B		B	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		35.6		11.4	4.8	30.8
Change Period (Y+Rc), s		5.4		4.6	4.6	5.4
Max Green Setting (Gmax), s		38.6		11.4	5.4	28.6
Max Q Clear Time (g_c+I1), s		3.8		3.7	2.1	19.1
Green Ext Time (p_c), s		2.2		0.1	0.0	6.3
Intersection Summary						
HCM 6th Ctrl Delay			11.5			
HCM 6th LOS			B			

Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↱	↰			↕	
Traffic Vol, veh/h	0	0	3	0	0	0	6	6	2	0	12	0
Future Vol, veh/h	0	0	3	0	0	0	6	6	2	0	12	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	5	0	0	0	9	9	3	0	18	0
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	47	48	18	50	47	11	18	0	0	12	0	0
Stage 1	18	18	-	29	29	-	-	-	-	-	-	-
Stage 2	29	30	-	21	18	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
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	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	959	847	1066	955	849	1076	1612	-	-	1620	-	-
Stage 1	1006	884	-	993	875	-	-	-	-	-	-	-
Stage 2	993	874	-	1003	884	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	955	842	1066	946	844	1076	1612	-	-	1620	-	-
Mov Cap-2 Maneuver	955	842	-	946	844	-	-	-	-	-	-	-
Stage 1	1000	884	-	987	870	-	-	-	-	-	-	-
Stage 2	987	869	-	999	884	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	8.4		0			3.1			0			
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1612	-	-	1066	-	1620	-	-				
HCM Lane V/C Ratio	0.006	-	-	0.004	-	-	-	-				
HCM Control Delay (s)	7.2	-	-	8.4	0	0	-	-				
HCM Lane LOS	A	-	-	A	A	A	-	-				
HCM 95th %tile Q(veh)	0	-	-	0	-	0	-	-				

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	333	1281	58	26	6
Future Vol, veh/h	5	333	1281	58	26	6
Conflicting Peds, #/hr	0	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	100	0
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	5	358	1377	62	28	6
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	1440	0	-	0	1598	721
Stage 1	-	-	-	-	1409	-
Stage 2	-	-	-	-	189	-
Critical Hdwy	4.1	-	-	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	477	-	-	-	99	374
Stage 1	-	-	-	-	195	-
Stage 2	-	-	-	-	830	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	477	-	-	-	98	374
Mov Cap-2 Maneuver	-	-	-	-	166	-
Stage 1	-	-	-	-	193	-
Stage 2	-	-	-	-	829	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.2	0		28		
HCM LOS				D		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	477	-	-	-	166	374
HCM Lane V/C Ratio	0.011	-	-	-	0.168	0.017
HCM Control Delay (s)	12.6	-	-	-	31	14.8
HCM Lane LOS	B	-	-	-	D	B
HCM 95th %tile Q(veh)	0	-	-	-	0.6	0.1

Timings
6: Veile Av. & 4th St.

Orchard Logistics (JN 14410)

08/10/2022

											
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	59	207	97	6	1199	502	35	2	10	31	261
Future Volume (vph)	59	207	97	6	1199	502	35	2	10	31	261
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6	3	8		7	4	
Permitted Phases			2					8			4
Detector Phase	5	2	2	1	6	3	8	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	26.6	26.6	9.6	26.6	9.6	27.6	27.6	9.6	14.6	14.6
Total Split (s)	9.6	26.8	26.8	9.6	26.8	29.0	34.0	34.0	9.6	14.6	14.6
Total Split (%)	12.0%	33.5%	33.5%	12.0%	33.5%	36.3%	42.5%	42.5%	12.0%	18.3%	18.3%
Yellow Time (s)	3.6	4.4	4.4	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	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	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None
Act Effect Green (s)	5.0	27.1	27.1	5.0	22.3	24.5	19.5	19.5	5.0	10.0	10.0
Actuated g/C Ratio	0.06	0.35	0.35	0.06	0.29	0.31	0.25	0.25	0.06	0.13	0.13
v/c Ratio	0.57	0.35	0.15	0.06	2.50	0.99	0.08	0.00	0.10	0.14	0.72
Control Delay	57.7	21.6	0.5	36.7	698.5	64.9	19.2	0.0	37.4	32.8	21.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.7	21.6	0.5	36.7	698.5	64.9	19.2	0.0	37.4	32.8	21.6
LOS	E	C	A	D	F	E	B	A	D	C	C
Approach Delay		21.8			695.1		61.7			23.3	
Approach LOS		C			F		E			C	

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 78.1

Natural Cycle: 120

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 2.50

Intersection Signal Delay: 369.9

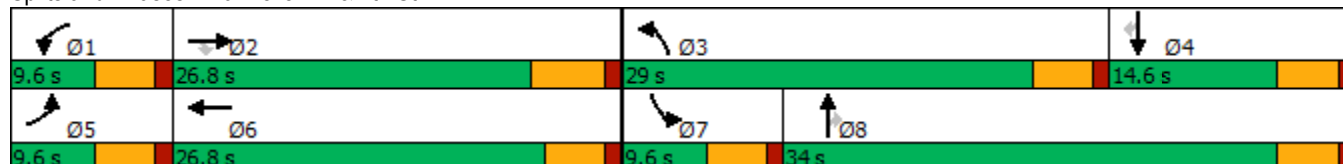
Intersection LOS: F

Intersection Capacity Utilization 119.6%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 6: Veile Av. & 4th St.



HCM 6th Signalized Intersection Summary

6: Veile Av. & 4th St.

Orchard Logistics (JN 14410)

08/10/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	207	97	6	1199	16	502	35	2	10	31	261
Future Volume (veh/h)	59	207	97	6	1199	16	502	35	2	10	31	261
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	66	230	76	7	1332	16	558	39	2	11	34	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	90	643	545	16	558	7	592	724	614	25	129	
Arrive On Green	0.05	0.34	0.34	0.01	0.30	0.30	0.33	0.38	0.38	0.01	0.07	0.00
Sat Flow, veh/h	1810	1900	1610	1810	1873	23	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	66	230	76	7	0	1348	558	39	2	11	34	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	0	1896	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	2.7	6.8	2.4	0.3	0.0	22.2	22.4	1.0	0.1	0.4	1.3	0.0
Cycle Q Clear(g_c), s	2.7	6.8	2.4	0.3	0.0	22.2	22.4	1.0	0.1	0.4	1.3	0.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	90	643	545	16	0	564	592	724	614	25	129	
V/C Ratio(X)	0.73	0.36	0.14	0.43	0.00	2.39	0.94	0.05	0.00	0.44	0.26	
Avail Cap(c_a), veh/h	121	643	545	121	0	564	592	749	635	121	255	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	34.9	18.5	17.1	36.7	0.0	26.2	24.4	14.6	14.3	36.5	33.0	0.0
Incr Delay (d2), s/veh	8.1	0.3	0.1	6.4	0.0	630.1	23.5	0.0	0.0	4.6	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	2.8	0.9	0.2	0.0	108.3	13.0	0.4	0.0	0.2	0.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.0	18.9	17.2	43.2	0.0	656.2	47.9	14.6	14.3	41.1	34.1	0.0
LnGrp LOS	D	B	B	D	A	F	D	B	B	D	C	
Approach Vol, veh/h	372			1355			599			45		
Approach Delay, s/veh	22.8			653.1			45.6			35.8		
Approach LOS	C			F			D			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.3	30.7	29.0	9.7	8.3	27.6	5.6	33.0				
Change Period (Y+Rc), s	4.6	5.4	4.6	4.6	4.6	* 5.4	4.6	4.6				
Max Green Setting (Gmax), s	5.0	21.4	24.4	10.0	5.0	* 22	5.0	29.4				
Max Q Clear Time (g_c+I1), s	2.3	8.8	24.4	3.3	4.7	24.2	2.4	3.0				
Green Ext Time (p_c), s	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.2				

Intersection Summary

HCM 6th Ctrl Delay 389.0

HCM 6th LOS F

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Timings
1: Potrero Bl. & 4th St.

Orchard Logistics (JN 14410)

08/10/2022

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	1454	195	74	68	850	1	1142	219	643	553	460
Future Volume (vph)	1454	195	74	68	850	1	1142	219	643	553	460
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2	1	6		3	8		7	4	
Permitted Phases					6			8			4
Detector Phase	5	2	1	6	6	3	8	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	15.4	9.6	42.4	42.4	9.6	27.2	27.2	9.6	15.2	15.2
Total Split (s)	26.0	56.9	19.1	50.0	50.0	9.6	31.0	31.0	13.0	34.4	34.4
Total Split (%)	21.7%	47.4%	15.9%	41.7%	41.7%	8.0%	25.8%	25.8%	10.8%	28.7%	28.7%
Yellow Time (s)	3.6	4.4	3.6	4.4	4.4	3.6	4.2	4.2	3.6	4.2	4.2
All-Red Time (s)	1.0	1.0	1.0	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	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	4.6	5.4	5.4	4.6	5.2	5.2	4.6	5.2	5.2
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None
Act Effect Green (s)	21.4	54.9	11.1	44.6	44.6	5.0	25.8	25.8	8.4	36.9	36.9
Actuated g/C Ratio	0.18	0.46	0.09	0.37	0.37	0.04	0.22	0.22	0.07	0.31	0.31
v/c Ratio	6.56	0.17	0.64	0.14	1.78	0.01	2.13	0.65	3.80	1.37	0.91
Control Delay	2519.2	20.1	69.5	25.7	382.3	56.0	539.3	24.8	1287.2	212.1	35.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2519.2	20.1	69.5	25.7	382.3	56.0	539.3	24.8	1287.2	212.1	35.5
LOS	F	C	E	C	F	E	F	C	F	F	D
Approach Delay	2223.3		334.5		456.4		580.5				
Approach LOS	F		F		F		F		F		

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Natural Cycle: 120

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 6.56

Intersection Signal Delay: 986.3

Intersection LOS: F

Intersection Capacity Utilization 177.4%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 1: Potrero Bl. & 4th St.



HCM 6th Signalized Intersection Summary

Orchard Logistics (JN 14410)

1: Potrero Bl. & 4th St.

08/10/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1454	195	0	74	68	850	1	1142	219	643	553	460
Future Volume (veh/h)	1454	195	0	74	68	850	1	1142	219	643	553	460
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	2107	283	0	107	99	1229	1	1655	317	932	801	666
Peak Hour Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	323	1721	0	132	706	598	2	776	346	246	539	447
Arrive On Green	0.18	0.48	0.00	0.07	0.37	0.37	0.00	0.22	0.22	0.07	0.28	0.28
Sat Flow, veh/h	1810	3705	0	1810	1900	1610	1810	3610	1610	3510	1900	1576
Grp Volume(v), veh/h	2107	283	0	107	99	1229	1	1655	317	932	801	666
Grp Sat Flow(s),veh/h/ln	1810	1805	0	1810	1900	1610	1810	1805	1610	1755	1900	1576
Q Serve(g_s), s	21.4	5.3	0.0	7.0	4.1	44.6	0.1	25.8	23.1	8.4	34.0	34.0
Cycle Q Clear(g_c), s	21.4	5.3	0.0	7.0	4.1	44.6	0.1	25.8	23.1	8.4	34.0	34.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	323	1721	0	132	706	598	2	776	346	246	539	447
V/C Ratio(X)	6.53	0.16	0.00	0.81	0.14	2.05	0.40	2.13	0.92	3.79	1.49	1.49
Avail Cap(c_a), veh/h	323	1721	0	219	706	598	75	776	346	246	539	447
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.3	17.8	0.0	54.8	25.0	37.7	59.9	47.1	46.0	55.8	43.0	43.0
Incr Delay (d2), s/veh	2494.8	0.0	0.0	4.4	0.1	479.9	35.1	513.9	28.1	1266.6	228.6	232.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	233.1	2.2	0.0	3.3	1.9	96.8	0.1	66.8	11.8	46.9	49.9	41.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	2544.1	17.9	0.0	59.1	25.1	517.6	95.0	561.0	74.2	1322.4	271.6	275.1
LnGrp LOS	F	B	A	E	C	F	F	F	E	F	F	F
Approach Vol, veh/h	2390			1435			1973			2399		
Approach Delay, s/veh	2244.9			449.5			482.5			680.8		
Approach LOS	F			F			F			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.4	62.6	4.8	39.2	26.0	50.0	13.0	31.0				
Change Period (Y+Rc), s	4.6	5.4	4.6	5.2	4.6	5.4	4.6	5.2				
Max Green Setting (Gmax), s	14.5	51.5	5.0	29.2	21.4	44.6	8.4	25.8				
Max Q Clear Time (g_c+I1), s	9.0	7.3	2.1	36.0	23.4	46.6	10.4	27.8				
Green Ext Time (p_c), s	0.1	1.8	0.0	0.0	0.0	0.0	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay	1048.6											
HCM 6th LOS	F											

Intersection

Intersection Delay, s/veh87.3

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	377	1	1	0	505	7	1	0	4	0
Future Vol, veh/h	0	0	377	1	1	0	505	7	1	0	4	0
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	496	1	1	0	664	9	1	0	5	0
Number of Lanes	1	1	0	0	1	0	1	1	0	0	1	0

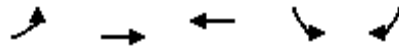
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	2
Conflicting Approach Left SB		NB	EB	WB
Conflicting Lanes Left	1	2	2	1
Conflicting Approach RightNB		SB	WB	EB
Conflicting Lanes Right	2	1	1	2
HCM Control Delay	27.8	11.1	131.9	10.6
HCM LOS	D	B	F	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	100%	0%	0%	0%	50%	0%
Vol Thru, %	0%	88%	100%	0%	50%	100%
Vol Right, %	0%	12%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	505	8	0	377	2	4
LT Vol	505	0	0	0	1	0
Through Vol	0	7	0	0	1	4
RT Vol	0	1	0	377	0	0
Lane Flow Rate	664	11	0	496	3	5
Geometry Grp	7	7	7	7	6	6
Degree of Util (X)	1.213	0.017	0	0.786	0.005	0.01
Departure Headway (Hd)	6.573	5.978	6.882	6.171	8.079	7.507
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	558	602	0	590	446	480
Service Time	4.273	3.678	4.582	3.871	6.079	5.507
HCM Lane V/C Ratio	1.19	0.018	0	0.841	0.007	0.01
HCM Control Delay	133.9	8.8	9.6	27.8	11.1	10.6
HCM Lane LOS	F	A	N	D	B	B
HCM 95th-tile Q	24.7	0.1	0	7.5	0	0

Timings
3: 4th St. & Distribution Wy.

Orchard Logistics (JN 14410)

08/10/2022



Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations	↰	↱↱	↱↱	↰	↰
Traffic Volume (vph)	7	101	97	520	42
Future Volume (vph)	7	101	97	520	42
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	5	2	6	4	
Permitted Phases					4
Detector Phase	5	2	6	4	4
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.4	27.4	14.6	14.6
Total Split (s)	9.6	37.0	27.4	33.0	33.0
Total Split (%)	13.7%	52.9%	39.1%	47.1%	47.1%
Yellow Time (s)	3.6	4.4	4.4	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	4.6
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	None	None
Act Effect Green (s)	5.1	13.9	12.5	27.8	27.8
Actuated g/C Ratio	0.10	0.27	0.24	0.53	0.53
v/c Ratio	0.06	0.15	0.65	0.75	0.07
Control Delay	26.6	14.2	6.1	18.9	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	26.6	14.2	6.1	18.9	3.7
LOS	C	B	A	B	A
Approach Delay		15.0	6.1	17.7	
Approach LOS		B	A	B	

Intersection Summary

Cycle Length: 70

Actuated Cycle Length: 52

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.75

Intersection Signal Delay: 12.1

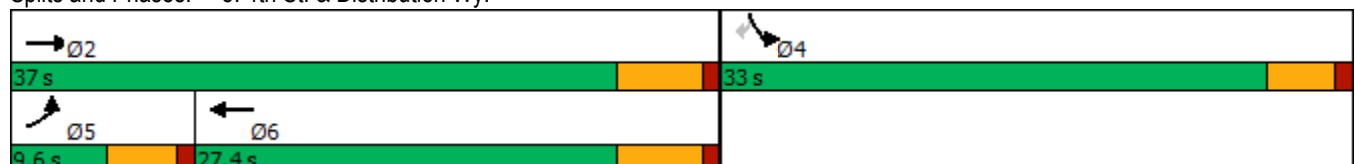
Intersection LOS: B

Intersection Capacity Utilization 56.0%

ICU Level of Service B

Analysis Period (min) 15

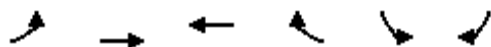
Splits and Phases: 3: 4th St. & Distribution Wy.



HCM 6th Signalized Intersection Summary 3: 4th St. & Distribution Wy.

Orchard Logistics (JN 14410)

08/10/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	7	101	97	497	520	42
Future Volume (veh/h)	7	101	97	497	520	42
Initial Q (Qb), veh	0	0	0	0	0	0
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	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	140	135	496	722	14
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	23	1515	604	538	767	682
Arrive On Green	0.01	0.42	0.33	0.33	0.42	0.42
Sat Flow, veh/h	1810	3705	1900	1608	1810	1610
Grp Volume(v), veh/h	10	140	135	496	722	14
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1608	1810	1610
Q Serve(g_s), s	0.4	1.5	3.4	18.9	24.4	0.3
Cycle Q Clear(g_c), s	0.4	1.5	3.4	18.9	24.4	0.3
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	23	1515	604	538	767	682
V/C Ratio(X)	0.43	0.09	0.22	0.92	0.94	0.02
Avail Cap(c_a), veh/h	142	1787	622	554	805	716
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	1.00
Uniform Delay (d), s/veh	31.3	11.2	15.3	20.4	17.6	10.7
Incr Delay (d2), s/veh	4.7	0.0	0.2	20.6	18.6	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	0.2	0.5	1.2	8.8	11.7	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	36.0	11.2	15.4	41.1	36.3	10.7
LnGrp LOS	D	B	B	D	D	B
Approach Vol, veh/h		150	631		736	
Approach Delay, s/veh		12.9	35.6		35.8	
Approach LOS		B	D		D	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		32.2		31.6	5.4	26.8
Change Period (Y+Rc), s		5.4		4.6	4.6	5.4
Max Green Setting (Gmax), s		31.6		28.4	5.0	22.0
Max Q Clear Time (g_c+I1), s		3.5		26.4	2.4	20.9
Green Ext Time (p_c), s		0.7		0.6	0.0	0.4
Intersection Summary						
HCM 6th Ctrl Delay			33.4			
HCM 6th LOS			C			

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↵	↵			↕	
Traffic Vol, veh/h	0	0	1	0	0	0	1	16	0	0	5	0
Future Vol, veh/h	0	0	1	0	0	0	1	16	0	0	5	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	55	55	55	55	55	55	55	55	55	55	55	55
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	2	0	0	0	2	29	0	0	9	0
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	42	42	9	43	42	29	9	0	0	29	0	0
Stage 1	9	9	-	33	33	-	-	-	-	-	-	-
Stage 2	33	33	-	10	9	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
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	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	966	854	1079	965	854	1052	1624	-	-	1597	-	-
Stage 1	1017	892	-	988	872	-	-	-	-	-	-	-
Stage 2	988	872	-	1016	892	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	965	853	1079	962	853	1052	1624	-	-	1597	-	-
Mov Cap-2 Maneuver	965	853	-	962	853	-	-	-	-	-	-	-
Stage 1	1016	892	-	987	871	-	-	-	-	-	-	-
Stage 2	987	871	-	1014	892	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	8.3		0			0.4			0			
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1624	-	-	1079	-	1597	-	-				
HCM Lane V/C Ratio	0.001	-	-	0.002	-	-	-	-				
HCM Control Delay (s)	7.2	-	-	8.3	0	0	-	-				
HCM Lane LOS	A	-	-	A	A	A	-	-				
HCM 95th %tile Q(veh)	0	-	-	0	-	0	-	-				

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	616	566	15	40	28
Future Vol, veh/h	5	616	566	15	40	28
Conflicting Peds, #/hr	0	0	0	4	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	100	0
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	7	868	797	21	56	39

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	822	0	0	1260	413
Stage 1	-	-	-	812	-
Stage 2	-	-	-	448	-
Critical Hdwy	4.1	-	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	5.8	-
Follow-up Hdwy	2.2	-	-	3.5	3.3
Pot Cap-1 Maneuver	816	-	-	165	594
Stage 1	-	-	-	402	-
Stage 2	-	-	-	616	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	813	-	-	162	592
Mov Cap-2 Maneuver	-	-	-	289	-
Stage 1	-	-	-	397	-
Stage 2	-	-	-	614	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	16.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	813	-	-	-	289	592
HCM Lane V/C Ratio	0.009	-	-	-	0.195	0.067
HCM Control Delay (s)	9.5	-	-	-	20.4	11.5
HCM Lane LOS	A	-	-	-	C	B
HCM 95th %tile Q(veh)	0	-	-	-	0.7	0.2

Timings
6: Veile Av. & 4th St.

Orchard Logistics (JN 14410)

08/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations												
Traffic Volume (vph)	182	533	242	1	499	264	25	2	15	70	179	
Future Volume (vph)	182	533	242	1	499	264	25	2	15	70	179	
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	
Protected Phases	5	2		1	6	3	8		7	4		
Permitted Phases			2					8			4	
Detector Phase	5	2	2	1	6	3	8	8	7	4	4	
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	
Minimum Split (s)	9.6	26.6	26.6	9.6	26.6	9.6	27.6	27.6	9.6	14.6	14.6	
Total Split (s)	16.0	33.8	33.8	9.6	27.4	32.0	37.0	37.0	9.6	14.6	14.6	
Total Split (%)	17.8%	37.6%	37.6%	10.7%	30.4%	35.6%	41.1%	41.1%	10.7%	16.2%	16.2%	
Yellow Time (s)	3.6	4.4	4.4	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	
All-Red Time (s)	1.0	1.0	1.0	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	0.0	0.0	0.0	
Total Lost Time (s)	4.6	5.4	5.4	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	None	None	None	None	
Act Effct Green (s)	11.4	36.4	36.4	5.0	22.9	19.7	17.7	17.7	5.0	10.0	10.0	
Actuated g/C Ratio	0.14	0.44	0.44	0.06	0.28	0.24	0.21	0.21	0.06	0.12	0.12	
v/c Ratio	0.96	0.84	0.36	0.01	1.29	0.81	0.08	0.01	0.18	0.40	0.57	
Control Delay	86.4	34.0	4.8	40.0	171.9	44.3	23.0	0.0	43.3	41.0	10.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	86.4	34.0	4.8	40.0	171.9	44.3	23.0	0.0	43.3	41.0	10.1	
LOS	F	C	A	D	F	D	C	A	D	D	B	
Approach Delay		36.6			171.7		42.1			20.2		
Approach LOS		D			F		D			C		

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 82.6

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.29

Intersection Signal Delay: 69.5

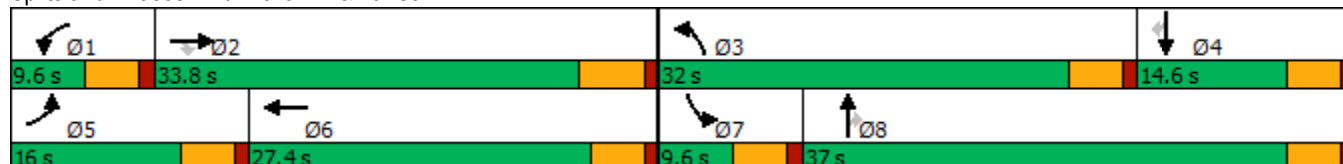
Intersection LOS: E

Intersection Capacity Utilization 70.0%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 6: Veile Av. & 4th St.



HCM 6th Signalized Intersection Summary
6: Veile Av. & 4th St.

Orchard Logistics (JN 14410)

08/10/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	182	533	242	1	499	14	264	25	2	15	70	179
Future Volume (veh/h)	182	533	242	1	499	14	264	25	2	15	70	179
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	239	701	144	1	657	14	347	33	3	20	92	0
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	260	818	693	2	533	11	392	577	489	41	208	
Arrive On Green	0.14	0.43	0.43	0.00	0.29	0.29	0.22	0.30	0.30	0.02	0.11	0.00
Sat Flow, veh/h	1810	1900	1610	1810	1853	39	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	239	701	144	1	0	671	347	33	3	20	92	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	0	1893	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	10.3	26.4	4.4	0.0	0.0	22.8	14.7	1.0	0.1	0.9	3.6	0.0
Cycle Q Clear(g_c), s	10.3	26.4	4.4	0.0	0.0	22.8	14.7	1.0	0.1	0.9	3.6	0.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	260	818	693	2	0	545	392	577	489	41	208	
V/C Ratio(X)	0.92	0.86	0.21	0.40	0.00	1.23	0.89	0.06	0.01	0.49	0.44	
Avail Cap(c_a), veh/h	260	818	693	114	0	545	626	777	658	114	240	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	33.5	20.4	14.1	39.5	0.0	28.2	30.1	19.6	19.3	38.3	33.0	0.0
Incr Delay (d2), s/veh	34.1	9.0	0.1	34.6	0.0	119.6	5.8	0.0	0.0	3.4	1.5	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	6.7	12.3	1.6	0.0	0.0	28.1	6.9	0.4	0.0	0.4	1.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.6	29.4	14.3	74.2	0.0	147.8	35.9	19.6	19.3	41.7	34.5	0.0
LnGrp LOS	E	C	B	E	A	F	D	B	B	D	C	
Approach Vol, veh/h	1084				672				383			
Approach Delay, s/veh	35.8				147.7				34.3			
Approach LOS	D				F				C			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.7	39.5	21.7	13.3	16.0	28.2	6.4	28.6				
Change Period (Y+Rc), s	4.6	5.4	4.6	4.6	4.6	* 5.4	4.6	4.6				
Max Green Setting (Gmax), s	5.0	28.4	27.4	10.0	11.4	* 23	5.0	32.4				
Max Q Clear Time (g_c+I1), s	2.0	28.4	16.7	5.6	12.3	24.8	2.9	3.0				
Green Ext Time (p_c), s	0.0	0.0	0.4	0.1	0.0	0.0	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay 69.0

HCM 6th LOS E

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

APPENDIX 7.2: HORIZON YEAR (2045) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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Timings
1: Potrero Bl. & 4th St.

Orchard Logistics (JN 14410)

08/10/2022

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBL	SBT	SBR	Ø3
Lane Configurations											
Traffic Volume (vph)	319	66	177	204	483	572	27	1099	1133	1357	
Future Volume (vph)	319	66	177	204	483	572	27	1099	1133	1357	
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	Prot	NA	Perm	
Protected Phases	5	2	1	6		8		7	4		3
Permitted Phases					6		8			4	
Detector Phase	5	2	1	6	6	8	8	7	4	4	
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	9.6	15.4	9.6	42.4	42.4	27.2	27.2	9.6	15.2	15.2	9.6
Total Split (s)	19.0	31.0	32.0	44.0	44.0	31.0	31.0	26.0	45.0	45.0	12.0
Total Split (%)	15.8%	25.8%	26.7%	36.7%	36.7%	25.8%	25.8%	21.7%	37.5%	37.5%	10%
Yellow Time (s)	3.6	4.4	3.6	4.4	4.4	4.2	4.2	3.6	4.2	4.2	3.6
All-Red Time (s)	1.0	1.0	1.0	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	0.0	0.0	
Total Lost Time (s)	4.6	5.4	4.6	5.4	5.4	5.2	5.2	4.6	5.2	5.2	
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lag	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None
Act Effect Green (s)	14.6	22.3	22.6	26.4	26.4	23.8	23.8	21.7	50.2	50.2	
Actuated g/C Ratio	0.14	0.21	0.21	0.25	0.25	0.22	0.22	0.20	0.47	0.47	
v/c Ratio	1.55	0.11	0.56	0.52	0.90	0.85	0.07	1.86	1.53	1.55	
Control Delay	302.1	34.3	48.0	38.2	33.8	52.4	0.3	418.7	268.4	269.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	302.1	34.3	48.0	38.2	33.8	52.4	0.3	418.7	268.4	269.9	
LOS	F	C	D	D	C	D	A	F	F	F	
Approach Delay		255.4		37.8		50.0			315.0		
Approach LOS		F		D		D			F		

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 106.7

Natural Cycle: 120

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.86

Intersection Signal Delay: 237.5

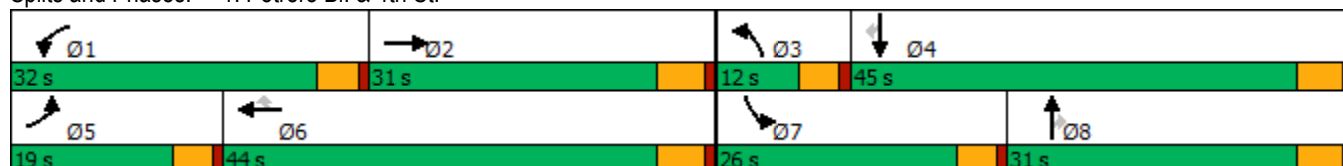
Intersection LOS: F

Intersection Capacity Utilization 108.7%

ICU Level of Service G

Analysis Period (min) 15

Splits and Phases: 1: Potrero Bl. & 4th St.



HCM 6th Signalized Intersection Summary
1: Potrero Bl. & 4th St.

Orchard Logistics (JN 14410)

08/10/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	319	66	1	177	204	483	0	572	27	1099	1133	1357
Future Volume (veh/h)	319	66	1	177	204	483	0	572	27	1099	1133	1357
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	384	80	1	213	246	581	0	689	33	1324	1365	1635
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	219	1135	14	242	615	522	2	756	337	630	813	674
Arrive On Green	0.12	0.31	0.31	0.13	0.32	0.32	0.00	0.21	0.21	0.18	0.43	0.43
Sat Flow, veh/h	1810	3651	46	1810	1900	1610	1810	3610	1610	3510	1900	1577
Grp Volume(v), veh/h	384	39	42	213	246	581	0	689	33	1324	1365	1635
Grp Sat Flow(s),veh/h/ln	1810	1805	1892	1810	1900	1610	1810	1805	1610	1755	1900	1577
Q Serve(g_s), s	14.4	1.8	1.8	13.8	12.0	38.6	0.0	22.2	2.0	21.4	51.0	51.0
Cycle Q Clear(g_c), s	14.4	1.8	1.8	13.8	12.0	38.6	0.0	22.2	2.0	21.4	51.0	51.0
Prop In Lane	1.00		0.02	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	219	561	588	242	615	522	2	756	337	630	813	674
V/C Ratio(X)	1.76	0.07	0.07	0.88	0.40	1.11	0.00	0.91	0.10	2.10	1.68	2.42
Avail Cap(c_a), veh/h	219	561	588	416	615	522	112	782	349	630	813	674
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.4	28.9	28.9	50.6	31.3	40.3	0.0	46.0	38.0	48.9	34.1	34.1
Incr Delay (d2), s/veh	358.4	0.1	0.1	5.0	0.4	74.5	0.0	14.6	0.1	500.4	311.3	645.8
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	28.2	0.8	0.8	6.4	5.5	25.7	0.0	11.3	0.8	53.1	92.7	139.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	410.7	29.0	29.0	55.7	31.7	114.8	0.0	60.6	38.1	549.3	345.4	679.9
LnGrp LOS	F	C	C	E	C	F	A	E	D	F	F	F
Approach Vol, veh/h		465			1040			722			4324	
Approach Delay, s/veh		344.2			83.0			59.6			534.3	
Approach LOS		F			F			E			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	20.6	42.4	0.0	56.2	19.0	44.0	26.0	30.2				
Change Period (Y+Rc), s	4.6	5.4	4.6	5.2	4.6	5.4	4.6	5.2				
Max Green Setting (Gmax), s	27.4	25.6	7.4	39.8	14.4	38.6	21.4	25.8				
Max Q Clear Time (g_c+I1), s	15.8	3.8	0.0	53.0	16.4	40.6	23.4	24.2				
Green Ext Time (p_c), s	0.2	0.3	0.0	0.0	0.0	0.0	0.0	0.7				
Intersection Summary												
HCM 6th Ctrl Delay			396.9									
HCM 6th LOS			F									

Intersection

Intersection Delay, s/veh38.7

Intersection LOS E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	70	14	1	0	599	4	37	0	0	1
Future Vol, veh/h	0	0	70	14	1	0	599	4	37	0	0	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	75	15	1	0	644	4	40	0	0	1
Number of Lanes	1	1	0	0	1	0	1	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	2
Conflicting Approach Left SB		NB	EB	WB
Conflicting Lanes Left	1	2	2	1
Conflicting Approach RightNB		SB	WB	EB
Conflicting Lanes Right	2	1	1	2
HCM Control Delay	9.2	9.9	42.6	8
HCM LOS	A	A	E	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	100%	0%	0%	0%	93%	0%
Vol Thru, %	0%	10%	100%	0%	7%	0%
Vol Right, %	0%	90%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	599	41	0	70	15	1
LT Vol	599	0	0	0	14	0
Through Vol	0	4	0	0	1	0
RT Vol	0	37	0	70	0	1
Lane Flow Rate	644	44	0	75	16	1
Geometry Grp	7	7	7	7	6	6
Degree of Util (X)	0.947	0.051	0	0.118	0.03	0.001
Departure Headway (Hd)	5.291	4.156	6.368	5.659	6.623	4.971
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	689	867	0	632	539	715
Service Time	2.991	1.856	4.12	3.411	4.687	3.034
HCM Lane V/C Ratio	0.935	0.051	0	0.119	0.03	0.001
HCM Control Delay	45	7.1	9.1	9.2	9.9	8
HCM Lane LOS	E	A	N	A	A	A
HCM 95th-tile Q	13.5	0.2	0	0.4	0.1	0

Timings
3: 4th St. & Distribution Wy.

Orchard Logistics (JN 14410)

08/10/2022



Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	23	297	729	69	30
Future Volume (vph)	23	297	729	69	30
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	5	2	6	4	
Permitted Phases					4
Detector Phase	5	2	6	4	4
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.4	27.4	14.6	14.6
Total Split (s)	10.0	44.0	34.0	16.0	16.0
Total Split (%)	16.7%	73.3%	56.7%	26.7%	26.7%
Yellow Time (s)	3.6	4.4	4.4	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	4.6
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	None	None
Act Effect Green (s)	6.2	29.4	30.7	12.1	12.1
Actuated g/C Ratio	0.14	0.68	0.71	0.28	0.28
v/c Ratio	0.11	0.14	0.63	0.16	0.07
Control Delay	25.0	3.5	7.9	20.0	9.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	25.0	3.5	7.9	20.0	9.1
LOS	C	A	A	B	A
Approach Delay		5.1	7.9	16.7	
Approach LOS		A	A	B	

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 43.1

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.63

Intersection Signal Delay: 7.9

Intersection LOS: A

Intersection Capacity Utilization 56.9%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 3: 4th St. & Distribution Wy.

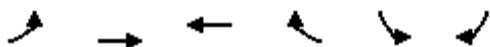


HCM 6th Signalized Intersection Summary

3: 4th St. & Distribution Wy.

Orchard Logistics (JN 14410)

08/10/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	23	297	729	615	69	30
Future Volume (veh/h)	23	297	729	615	69	30
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	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	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	27	345	848	658	80	25
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	56	2343	1035	771	276	246
Arrive On Green	0.03	0.65	0.53	0.53	0.15	0.15
Sat Flow, veh/h	1810	3705	2061	1464	1810	1610
Grp Volume(v), veh/h	27	345	776	730	80	25
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1625	1810	1610
Q Serve(g_s), s	0.7	1.9	18.0	19.5	2.0	0.7
Cycle Q Clear(g_c), s	0.7	1.9	18.0	19.5	2.0	0.7
Prop In Lane	1.00			0.90	1.00	1.00
Lane Grp Cap(c), veh/h	56	2343	950	856	276	246
V/C Ratio(X)	0.48	0.15	0.82	0.85	0.29	0.10
Avail Cap(c_a), veh/h	194	2763	1024	921	409	364
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	1.00
Uniform Delay (d), s/veh	24.0	3.4	9.9	10.3	18.9	18.4
Incr Delay (d2), s/veh	2.3	0.0	4.9	7.4	0.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.3	5.8	6.1	0.8	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	26.3	3.5	14.8	17.7	19.5	18.6
LnGrp LOS	C	A	B	B	B	B
Approach Vol, veh/h		372	1506		105	
Approach Delay, s/veh		5.1	16.2		19.3	
Approach LOS		A	B		B	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		38.1		12.3	6.2	32.0
Change Period (Y+Rc), s		5.4		4.6	4.6	5.4
Max Green Setting (Gmax), s		38.6		11.4	5.4	28.6
Max Q Clear Time (g_c+I1), s		3.9		4.0	2.7	21.5
Green Ext Time (p_c), s		2.2		0.1	0.0	5.1
Intersection Summary						
HCM 6th Ctrl Delay			14.3			
HCM 6th LOS			B			

Intersection												
Int Delay, s/veh	5.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕			↕	
Traffic Vol, veh/h	0	0	18	0	0	0	32	6	2	0	12	0
Future Vol, veh/h	0	0	18	0	0	0	32	6	2	0	12	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	28	0	0	0	49	9	3	0	18	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	127	128	18	141	127	11	18	0	0	12	0	0
Stage 1	18	18	-	109	109	-	-	-	-	-	-	-
Stage 2	109	110	-	32	18	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
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	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	851	766	1066	833	767	1076	1612	-	-	1620	-	-
Stage 1	1006	884	-	901	809	-	-	-	-	-	-	-
Stage 2	901	808	-	990	884	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	831	743	1066	792	744	1076	1612	-	-	1620	-	-
Mov Cap-2 Maneuver	831	743	-	792	744	-	-	-	-	-	-	-
Stage 1	976	884	-	874	785	-	-	-	-	-	-	-
Stage 2	874	784	-	964	884	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.5	0	5.8	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1612	-	-	1066	-	1620	-
HCM Lane V/C Ratio	0.031	-	-	0.026	-	-	-
HCM Control Delay (s)	7.3	-	-	8.5	0	0	-
HCM Lane LOS	A	-	-	A	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-	0	-

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	9	338	1298	80	40	9
Future Vol, veh/h	9	338	1298	80	40	9
Conflicting Peds, #/hr	0	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	100	0
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	10	363	1396	86	43	10
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	1483	0	-	0	1642	742
Stage 1	-	-	-	-	1440	-
Stage 2	-	-	-	-	202	-
Critical Hdwy	4.1	-	-	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	460	-	-	-	93	363
Stage 1	-	-	-	-	188	-
Stage 2	-	-	-	-	818	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	460	-	-	-	91	363
Mov Cap-2 Maneuver	-	-	-	-	158	-
Stage 1	-	-	-	-	184	-
Stage 2	-	-	-	-	817	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.3	0		32.3		
HCM LOS				D		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	460	-	-	-	158	363
HCM Lane V/C Ratio	0.021	-	-	-	0.272	0.027
HCM Control Delay (s)	13	-	-	-	36.1	15.2
HCM Lane LOS	B	-	-	-	E	C
HCM 95th %tile Q(veh)	0.1	-	-	-	1	0.1

Timings
6: Veile Av. & 4th St.

Orchard Logistics (JN 14410)

08/10/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations												
Traffic Volume (vph)	59	226	97	6	1199	502	35	2	10	31	300	
Future Volume (vph)	59	226	97	6	1199	502	35	2	10	31	300	
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	
Protected Phases	5	2		1	6	3	8		7	4		
Permitted Phases			2					8			4	
Detector Phase	5	2	2	1	6	3	8	8	7	4	4	
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	
Minimum Split (s)	9.6	26.6	26.6	9.6	26.6	9.6	27.6	27.6	9.6	14.6	14.6	
Total Split (s)	9.6	26.8	26.8	9.6	26.8	29.0	34.0	34.0	9.6	14.6	14.6	
Total Split (%)	12.0%	33.5%	33.5%	12.0%	33.5%	36.3%	42.5%	42.5%	12.0%	18.3%	18.3%	
Yellow Time (s)	3.6	4.4	4.4	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	
All-Red Time (s)	1.0	1.0	1.0	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	0.0	0.0	0.0	
Total Lost Time (s)	4.6	5.4	5.4	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	None	None	None	None	
Act Effect Green (s)	5.0	27.1	27.1	5.0	22.3	24.5	19.5	19.5	5.0	10.0	10.0	
Actuated g/C Ratio	0.06	0.35	0.35	0.06	0.29	0.31	0.25	0.25	0.06	0.13	0.13	
v/c Ratio	0.57	0.38	0.15	0.06	2.50	0.99	0.08	0.00	0.10	0.14	0.83	
Control Delay	57.7	22.1	0.5	36.7	698.5	64.9	19.2	0.0	37.4	32.8	32.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	57.7	22.1	0.5	36.7	698.5	64.9	19.2	0.0	37.4	32.8	32.1	
LOS	E	C	A	D	F	E	B	A	D	C	C	
Approach Delay		22.1			695.1		61.7			32.3		
Approach LOS		C			F		E			C		

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 78.1

Natural Cycle: 120

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 2.50

Intersection Signal Delay: 363.1

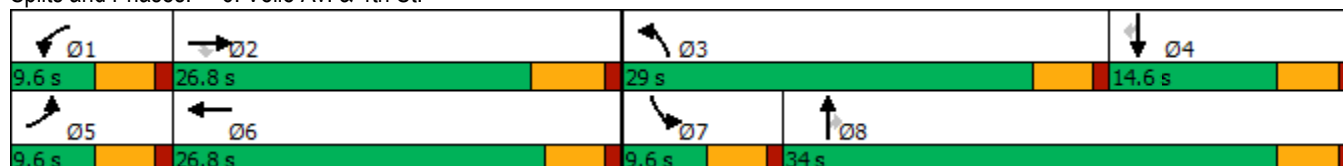
Intersection LOS: F

Intersection Capacity Utilization 122.0%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 6: Veile Av. & 4th St.



HCM 6th Signalized Intersection Summary
6: Veile Av. & 4th St.

Orchard Logistics (JN 14410)

08/10/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	226	97	6	1199	16	502	35	2	10	31	300
Future Volume (veh/h)	59	226	97	6	1199	16	502	35	2	10	31	300
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	66	251	39	7	1332	16	558	39	2	11	34	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	90	643	545	16	558	7	592	724	614	25	129	
Arrive On Green	0.05	0.34	0.34	0.01	0.30	0.30	0.33	0.38	0.38	0.01	0.07	0.00
Sat Flow, veh/h	1810	1900	1610	1810	1873	23	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	66	251	39	7	0	1348	558	39	2	11	34	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	0	1896	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	2.7	7.5	1.2	0.3	0.0	22.2	22.4	1.0	0.1	0.4	1.3	0.0
Cycle Q Clear(g_c), s	2.7	7.5	1.2	0.3	0.0	22.2	22.4	1.0	0.1	0.4	1.3	0.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	90	643	545	16	0	564	592	724	614	25	129	
V/C Ratio(X)	0.73	0.39	0.07	0.43	0.00	2.39	0.94	0.05	0.00	0.44	0.26	
Avail Cap(c_a), veh/h	121	643	545	121	0	564	592	749	635	121	255	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	34.9	18.8	16.7	36.7	0.0	26.2	24.4	14.6	14.3	36.5	33.0	0.0
Incr Delay (d2), s/veh	8.1	0.4	0.1	6.4	0.0	630.1	23.5	0.0	0.0	4.6	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	3.1	0.4	0.2	0.0	108.3	13.0	0.4	0.0	0.2	0.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.0	19.2	16.8	43.2	0.0	656.2	47.9	14.6	14.3	41.1	34.1	0.0
LnGrp LOS	D	B	B	D	A	F	D	B	B	D	C	
Approach Vol, veh/h		356			1355			599			45	
Approach Delay, s/veh		23.3			653.1			45.6			35.8	
Approach LOS		C			F			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.3	30.7	29.0	9.7	8.3	27.6	5.6	33.0				
Change Period (Y+Rc), s	4.6	5.4	4.6	4.6	4.6	* 5.4	4.6	4.6				
Max Green Setting (Gmax), s	5.0	21.4	24.4	10.0	5.0	* 22	5.0	29.4				
Max Q Clear Time (g_c+I1), s	2.3	9.5	24.4	3.3	4.7	24.2	2.4	3.0				
Green Ext Time (p_c), s	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.2				

Intersection Summary

HCM 6th Ctrl Delay 391.6

HCM 6th LOS F

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Timings
1: Potrero Bl. & 4th St.

Orchard Logistics (JN 14410)

08/10/2022

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	1454	195	74	68	880	1	1142	219	657	553	460
Future Volume (vph)	1454	195	74	68	880	1	1142	219	657	553	460
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2	1	6		3	8		7	4	
Permitted Phases					6			8			4
Detector Phase	5	2	1	6	6	3	8	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	15.4	9.6	42.4	42.4	9.6	27.2	27.2	9.6	15.2	15.2
Total Split (s)	26.0	56.9	19.1	50.0	50.0	9.6	31.0	31.0	13.0	34.4	34.4
Total Split (%)	21.7%	47.4%	15.9%	41.7%	41.7%	8.0%	25.8%	25.8%	10.8%	28.7%	28.7%
Yellow Time (s)	3.6	4.4	3.6	4.4	4.4	3.6	4.2	4.2	3.6	4.2	4.2
All-Red Time (s)	1.0	1.0	1.0	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	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	4.6	5.4	5.4	4.6	5.2	5.2	4.6	5.2	5.2
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None
Act Effect Green (s)	21.4	54.9	11.1	44.6	44.6	5.0	25.8	25.8	8.4	36.9	36.9
Actuated g/C Ratio	0.18	0.46	0.09	0.37	0.37	0.04	0.22	0.22	0.07	0.31	0.31
v/c Ratio	6.56	0.17	0.64	0.14	1.85	0.01	2.13	0.65	3.89	1.37	0.91
Control Delay	2519.2	20.1	69.5	25.7	409.6	56.0	539.3	24.8	1323.5	212.1	35.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2519.2	20.1	69.5	25.7	409.6	56.0	539.3	24.8	1323.5	212.1	35.5
LOS	F	C	E	C	F	E	F	C	F	F	D
Approach Delay	2223.3		359.3		456.4		600.7				
Approach LOS	F		F		F		F		F		

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Natural Cycle: 120

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 6.56

Intersection Signal Delay: 992.3

Intersection LOS: F

Intersection Capacity Utilization 179.3%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 1: Potrero Bl. & 4th St.



HCM 6th Signalized Intersection Summary
1: Potrero Bl. & 4th St.

Orchard Logistics (JN 14410)

08/10/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1454	195	0	74	68	880	1	1142	219	657	553	460
Future Volume (veh/h)	1454	195	0	74	68	880	1	1142	219	657	553	460
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	2107	283	0	107	99	1272	1	1655	317	952	801	666
Peak Hour Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	323	1721	0	132	706	598	2	776	346	246	539	447
Arrive On Green	0.18	0.48	0.00	0.07	0.37	0.37	0.00	0.22	0.22	0.07	0.28	0.28
Sat Flow, veh/h	1810	3705	0	1810	1900	1610	1810	3610	1610	3510	1900	1576
Grp Volume(v), veh/h	2107	283	0	107	99	1272	1	1655	317	952	801	666
Grp Sat Flow(s),veh/h/ln	1810	1805	0	1810	1900	1610	1810	1805	1610	1755	1900	1576
Q Serve(g_s), s	21.4	5.3	0.0	7.0	4.1	44.6	0.1	25.8	23.1	8.4	34.0	34.0
Cycle Q Clear(g_c), s	21.4	5.3	0.0	7.0	4.1	44.6	0.1	25.8	23.1	8.4	34.0	34.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	323	1721	0	132	706	598	2	776	346	246	539	447
V/C Ratio(X)	6.53	0.16	0.00	0.81	0.14	2.13	0.40	2.13	0.92	3.87	1.49	1.49
Avail Cap(c_a), veh/h	323	1721	0	219	706	598	75	776	346	246	539	447
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.3	17.8	0.0	54.8	25.0	37.7	59.9	47.1	46.0	55.8	43.0	43.0
Incr Delay (d2), s/veh	2494.8	0.0	0.0	4.4	0.1	512.1	35.1	513.9	28.1	1303.2	228.6	232.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	233.1	2.2	0.0	3.3	1.9	102.1	0.1	66.8	11.8	48.2	49.9	41.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	2544.1	17.9	0.0	59.1	25.1	549.8	95.0	561.0	74.2	1359.0	271.6	275.1
LnGrp LOS	F	B	A	E	C	F	F	F	E	F	F	F
Approach Vol, veh/h	2390			1478			1973			2419		
Approach Delay, s/veh	2244.9			479.1			482.5			700.5		
Approach LOS	F			F			F			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.4	62.6	4.8	39.2	26.0	50.0	13.0	31.0				
Change Period (Y+Rc), s	4.6	5.4	4.6	5.2	4.6	5.4	4.6	5.2				
Max Green Setting (Gmax), s	14.5	51.5	5.0	29.2	21.4	44.6	8.4	25.8				
Max Q Clear Time (g_c+I1), s	9.0	7.3	2.1	36.0	23.4	46.6	10.4	27.8				
Green Ext Time (p_c), s	0.1	1.8	0.0	0.0	0.0	0.0	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay	1055.7											
HCM 6th LOS	F											

Intersection

Intersection Delay, s/veh92.3

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	377	46	1	0	505	7	21	0	4	0
Future Vol, veh/h	0	0	377	46	1	0	505	7	21	0	4	0
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	496	61	1	0	664	9	28	0	5	0
Number of Lanes	1	1	0	0	1	0	1	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	2
Conflicting Approach Left SB		NB	EB	WB
Conflicting Lanes Left	1	2	2	1
Conflicting Approach RightNB		SB	WB	EB
Conflicting Lanes Right	2	1	1	2
HCM Control Delay	30.8	12.5	143.4	11.1
HCM LOS	D	B	F	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	100%	0%	0%	0%	98%	0%
Vol Thru, %	0%	25%	100%	0%	2%	100%
Vol Right, %	0%	75%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	505	28	0	377	47	4
LT Vol	505	0	0	0	46	0
Through Vol	0	7	0	0	1	4
RT Vol	0	21	0	377	0	0
Lane Flow Rate	664	37	0	496	62	5
Geometry Grp	7	7	7	7	6	6
Degree of Util (X)	1.254	0.059	0	0.807	0.13	0.011
Departure Headway (Hd)	6.792	5.751	7.165	6.452	8.279	7.963
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	538	626	0	566	436	452
Service Time	4.495	3.453	4.865	4.152	6.279	5.963
HCM Lane V/C Ratio	1.234	0.059	0	0.876	0.142	0.011
HCM Control Delay	150.9	8.8	9.9	30.8	12.5	11.1
HCM Lane LOS	F	A	N	D	B	B
HCM 95th-tile Q	26.3	0.2	0	7.9	0.4	0

Timings
3: 4th St. & Distribution Wy.

Orchard Logistics (JN 14410)

08/10/2022



Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations	←	↑↑	↑↑	←	←
Traffic Volume (vph)	18	104	101	540	67
Future Volume (vph)	18	104	101	540	67
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	5	2	6	4	
Permitted Phases					4
Detector Phase	5	2	6	4	4
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.4	27.4	14.6	14.6
Total Split (s)	9.6	37.0	27.4	33.0	33.0
Total Split (%)	13.7%	52.9%	39.1%	47.1%	47.1%
Yellow Time (s)	3.6	4.4	4.4	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	4.6
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	None	None
Act Effect Green (s)	5.1	16.1	12.9	29.1	29.1
Actuated g/C Ratio	0.09	0.29	0.23	0.52	0.52
v/c Ratio	0.15	0.14	0.67	0.79	0.10
Control Delay	29.7	13.5	6.6	22.9	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	29.7	13.5	6.6	22.9	3.6
LOS	C	B	A	C	A
Approach Delay		15.9	6.6	20.7	
Approach LOS		B	A	C	

Intersection Summary

Cycle Length: 70

Actuated Cycle Length: 55.5

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.79

Intersection Signal Delay: 13.9

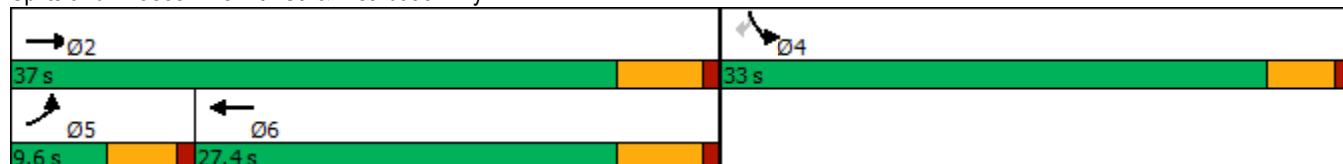
Intersection LOS: B

Intersection Capacity Utilization 57.5%

ICU Level of Service B

Analysis Period (min) 15

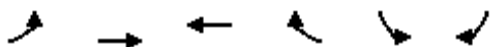
Splits and Phases: 3: 4th St. & Distribution Wy.



HCM 6th Signalized Intersection Summary 3: 4th St. & Distribution Wy.

Orchard Logistics (JN 14410)

08/10/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	18	104	101	506	540	67
Future Volume (veh/h)	18	104	101	506	540	67
Initial Q (Qb), veh	0	0	0	0	0	0
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	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	25	144	140	509	750	49
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	50	1537	594	529	769	684
Arrive On Green	0.03	0.43	0.33	0.33	0.42	0.42
Sat Flow, veh/h	1810	3705	1900	1608	1810	1610
Grp Volume(v), veh/h	25	144	140	509	750	49
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1608	1810	1610
Q Serve(g_s), s	0.9	1.6	3.8	20.8	27.2	1.2
Cycle Q Clear(g_c), s	0.9	1.6	3.8	20.8	27.2	1.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	50	1537	594	529	769	684
V/C Ratio(X)	0.50	0.09	0.24	0.96	0.98	0.07
Avail Cap(c_a), veh/h	135	1706	594	529	769	684
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	1.00
Uniform Delay (d), s/veh	32.0	11.5	16.3	22.0	18.9	11.4
Incr Delay (d2), s/veh	2.8	0.0	0.2	29.7	26.5	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	0.4	0.5	1.3	10.8	14.5	1.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	34.8	11.5	16.5	51.7	45.3	11.5
LnGrp LOS	C	B	B	D	D	B
Approach Vol, veh/h		169	649		799	
Approach Delay, s/veh		15.0	44.1		43.3	
Approach LOS		B	D		D	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		33.9		33.0	6.5	27.4
Change Period (Y+Rc), s		5.4		4.6	4.6	5.4
Max Green Setting (Gmax), s		31.6		28.4	5.0	22.0
Max Q Clear Time (g_c+I1), s		3.6		29.2	2.9	22.8
Green Ext Time (p_c), s		0.7		0.0	0.0	0.0
Intersection Summary						
HCM 6th Ctrl Delay			40.6			
HCM 6th LOS			D			

Intersection												
Int Delay, s/veh	5.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕			↕	
Traffic Vol, veh/h	0	0	34	0	0	0	19	16	0	0	5	0
Future Vol, veh/h	0	0	34	0	0	0	19	16	0	0	5	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	55	55	55	55	55	55	55	55	55	55	55	55
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	62	0	0	0	35	29	0	0	9	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	108	108	9	139	108	29	9	0	0	29	0	0
Stage 1	9	9	-	99	99	-	-	-	-	-	-	-
Stage 2	99	99	-	40	9	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
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	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	876	786	1079	836	786	1052	1624	-	-	1597	-	-
Stage 1	1017	892	-	912	817	-	-	-	-	-	-	-
Stage 2	912	817	-	980	892	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	862	769	1079	775	769	1052	1624	-	-	1597	-	-
Mov Cap-2 Maneuver	862	769	-	775	769	-	-	-	-	-	-	-
Stage 1	995	892	-	892	799	-	-	-	-	-	-	-
Stage 2	892	799	-	924	892	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.5	0	3.9	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1624	-	-	1079	-	1597	-
HCM Lane V/C Ratio	0.021	-	-	0.057	-	-	-
HCM Control Delay (s)	7.3	-	-	8.5	0	0	-
HCM Lane LOS	A	-	-	A	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	-	0	-

Intersection						
Int Delay, s/veh	1.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	8	636	575	30	69	32
Future Vol, veh/h	8	636	575	30	69	32
Conflicting Peds, #/hr	0	0	0	4	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	100	0
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	11	896	810	42	97	45

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	856	0	-	0	1305
Stage 1	-	-	-	-	835
Stage 2	-	-	-	-	470
Critical Hdwy	4.1	-	-	-	6.8
Critical Hdwy Stg 1	-	-	-	-	5.8
Critical Hdwy Stg 2	-	-	-	-	5.8
Follow-up Hdwy	2.2	-	-	-	3.5
Pot Cap-1 Maneuver	793	-	-	-	154
Stage 1	-	-	-	-	391
Stage 2	-	-	-	-	601
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	790	-	-	-	151
Mov Cap-2 Maneuver	-	-	-	-	278
Stage 1	-	-	-	-	384
Stage 2	-	-	-	-	599

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	20.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	790	-	-	-	278	577
HCM Lane V/C Ratio	0.014	-	-	-	0.35	0.078
HCM Control Delay (s)	9.6	-	-	-	24.8	11.8
HCM Lane LOS	A	-	-	-	C	B
HCM 95th %tile Q(veh)	0	-	-	-	1.5	0.3

Timings
6: Veile Av. & 4th St.

Orchard Logistics (JN 14410)

08/10/2022

											
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	182	582	242	1	499	264	25	2	15	70	203
Future Volume (vph)	182	582	242	1	499	264	25	2	15	70	203
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6	3	8		7	4	
Permitted Phases			2					8			4
Detector Phase	5	2	2	1	6	3	8	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	26.6	26.6	9.6	26.6	9.6	27.6	27.6	9.6	14.6	14.6
Total Split (s)	16.0	33.8	33.8	9.6	27.4	32.0	37.0	37.0	9.6	14.6	14.6
Total Split (%)	17.8%	37.6%	37.6%	10.7%	30.4%	35.6%	41.1%	41.1%	10.7%	16.2%	16.2%
Yellow Time (s)	3.6	4.4	4.4	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	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	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None
Act Effect Green (s)	11.4	36.4	36.4	5.0	22.9	19.7	17.7	17.7	5.0	10.0	10.0
Actuated g/C Ratio	0.14	0.44	0.44	0.06	0.28	0.24	0.21	0.21	0.06	0.12	0.12
v/c Ratio	0.96	0.92	0.37	0.01	1.29	0.81	0.08	0.01	0.18	0.40	0.62
Control Delay	86.4	41.6	5.7	40.0	171.9	44.3	23.0	0.0	43.3	41.0	12.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	86.4	41.6	5.7	40.0	171.9	44.3	23.0	0.0	43.3	41.0	12.0
LOS	F	D	A	D	F	D	C	A	D	D	B
Approach Delay		41.1			171.7		42.1			20.7	
Approach LOS		D			F		D			C	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 82.6

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.29

Intersection Signal Delay: 70.4

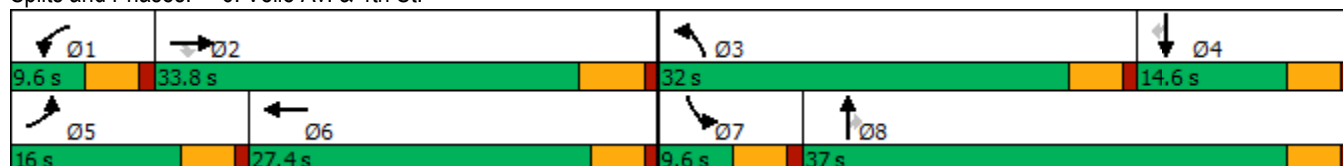
Intersection LOS: E

Intersection Capacity Utilization 70.0%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 6: Veile Av. & 4th St.



HCM 6th Signalized Intersection Summary
6: Veile Av. & 4th St.

Orchard Logistics (JN 14410)

08/10/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	182	582	242	1	499	14	264	25	2	15	70	203
Future Volume (veh/h)	182	582	242	1	499	14	264	25	2	15	70	203
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	239	766	144	1	657	14	347	33	3	20	92	0
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	260	818	693	2	533	11	392	577	489	41	208	
Arrive On Green	0.14	0.43	0.43	0.00	0.29	0.29	0.22	0.30	0.30	0.02	0.11	0.00
Sat Flow, veh/h	1810	1900	1610	1810	1853	39	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	239	766	144	1	0	671	347	33	3	20	92	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	0	1893	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	10.3	30.5	4.4	0.0	0.0	22.8	14.7	1.0	0.1	0.9	3.6	0.0
Cycle Q Clear(g_c), s	10.3	30.5	4.4	0.0	0.0	22.8	14.7	1.0	0.1	0.9	3.6	0.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	260	818	693	2	0	545	392	577	489	41	208	
V/C Ratio(X)	0.92	0.94	0.21	0.40	0.00	1.23	0.89	0.06	0.01	0.49	0.44	
Avail Cap(c_a), veh/h	260	818	693	114	0	545	626	777	658	114	240	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	33.5	21.5	14.1	39.5	0.0	28.2	30.1	19.6	19.3	38.3	33.0	0.0
Incr Delay (d2), s/veh	34.1	18.0	0.1	34.6	0.0	119.6	5.8	0.0	0.0	3.4	1.5	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	6.7	15.9	1.6	0.0	0.0	28.1	6.9	0.4	0.0	0.4	1.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.6	39.6	14.3	74.2	0.0	147.8	35.9	19.6	19.3	41.7	34.5	0.0
LnGrp LOS	E	D	B	E	A	F	D	B	B	D	C	
Approach Vol, veh/h		1149			672			383			112	
Approach Delay, s/veh		42.2			147.7			34.3			35.8	
Approach LOS		D			F			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.7	39.5	21.7	13.3	16.0	28.2	6.4	28.6				
Change Period (Y+Rc), s	4.6	5.4	4.6	4.6	4.6	* 5.4	4.6	4.6				
Max Green Setting (Gmax), s	5.0	28.4	27.4	10.0	11.4	* 23	5.0	32.4				
Max Q Clear Time (g_c+I1), s	2.0	32.5	16.7	5.6	12.3	24.8	2.9	3.0				
Green Ext Time (p_c), s	0.0	0.0	0.4	0.1	0.0	0.0	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay 71.2

HCM 6th LOS E

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

APPENDIX 7.3: HORIZON YEAR (2045) WITHOUT PROJECT CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-3. Warrant 3, Peak Hour

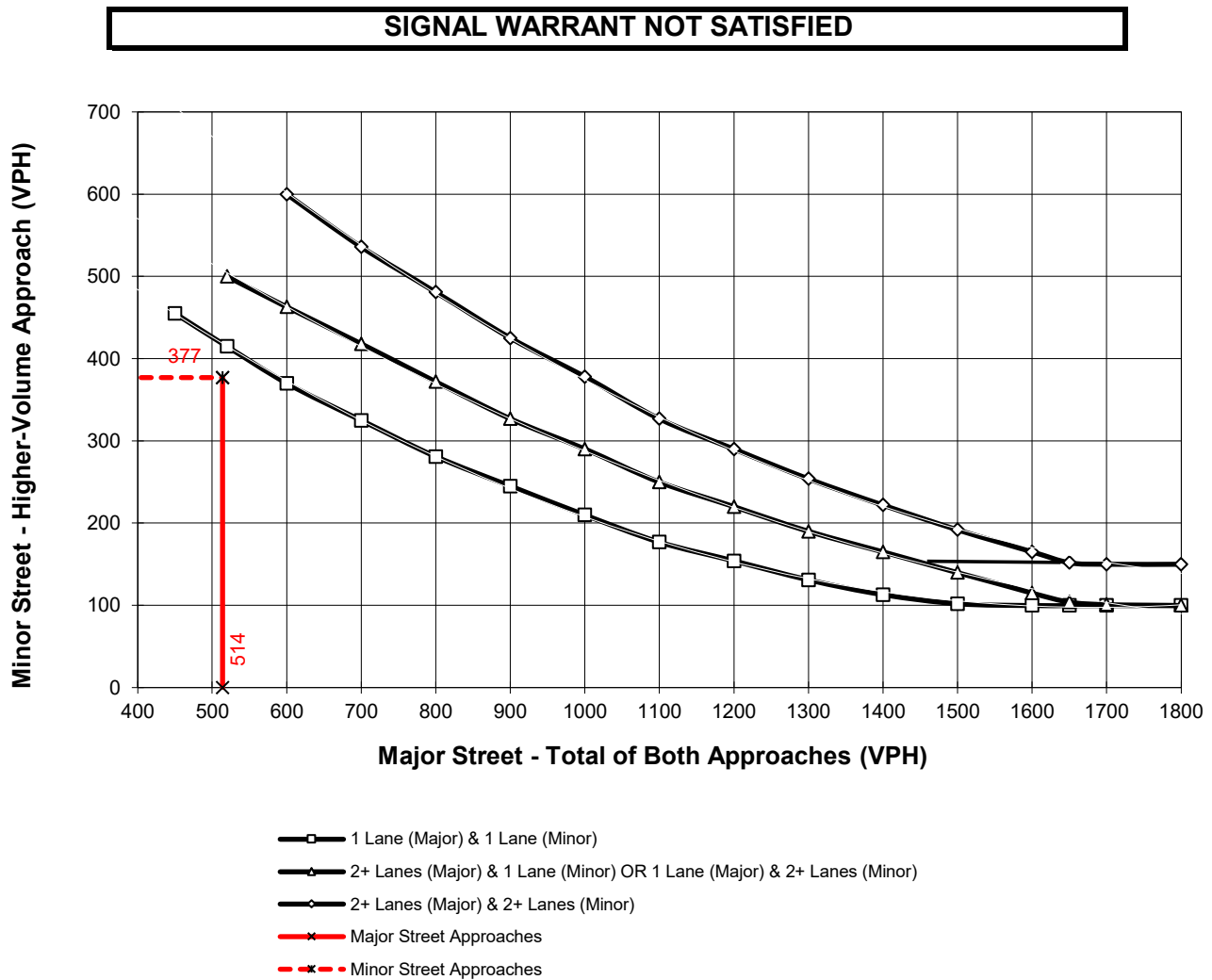
Traffic Conditions = **2045 Without Project Conditions - Weekday PM Peak Hour**

Major Street Name = **Distribution Wy.**

Total of Both Approaches (VPH) = **514**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Prosperity Wy.**

High Volume Approach (VPH) = **377**
Number of Approach Lanes On Minor Street = **1**



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes
and 100 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **2045 Without Project Conditions - Weekday AM Peak Hour**

Major Street Name = **Nicholas Rd.**

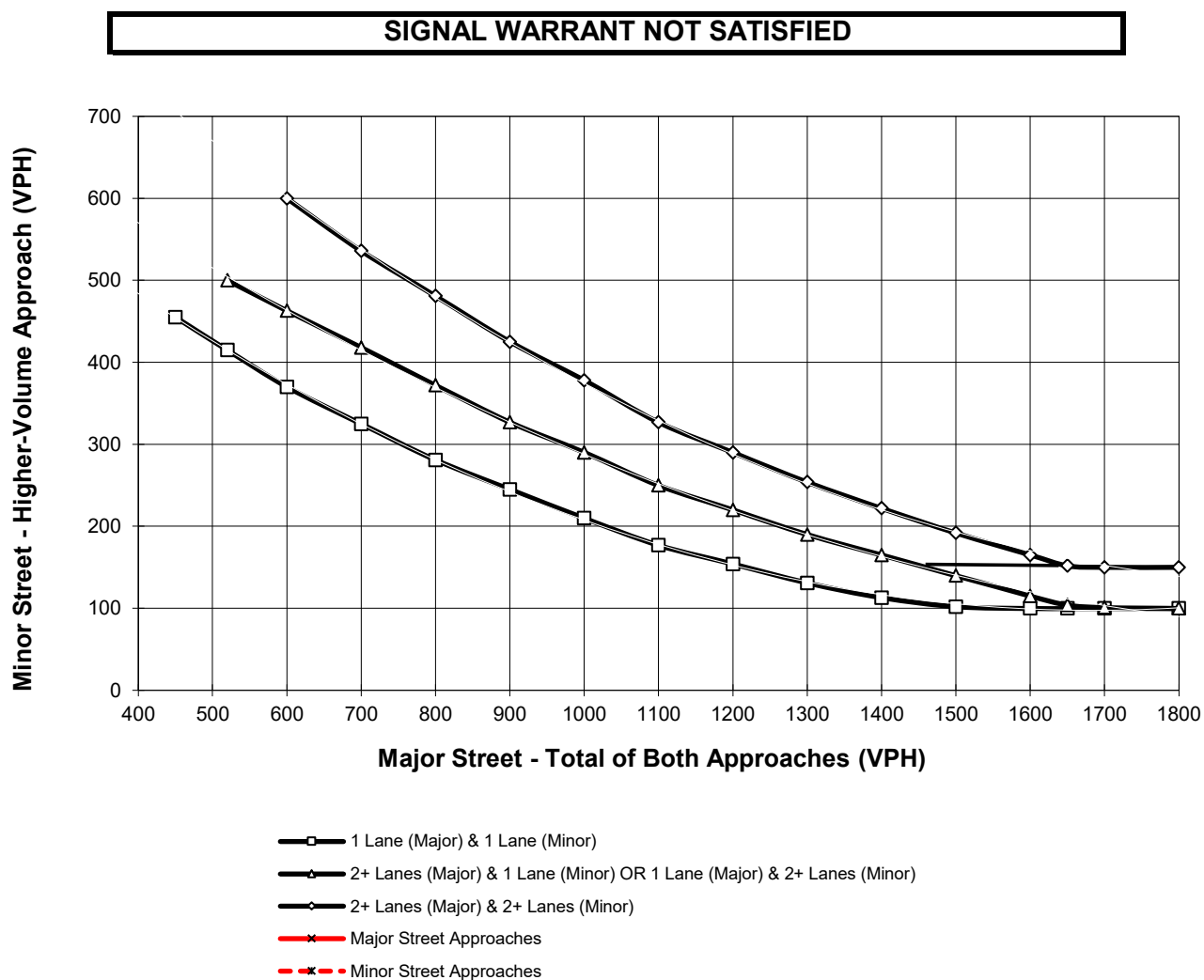
Total of Both Approaches (VPH) = **26**

Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Driveway 2**

High Volume Approach (VPH) = **3**

Number of Approach Lanes On Minor Street = **1**



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes
and 100 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **2045 Without Project Conditions - Weekday PM Peak Hour**

Major Street Name = **4th St.**

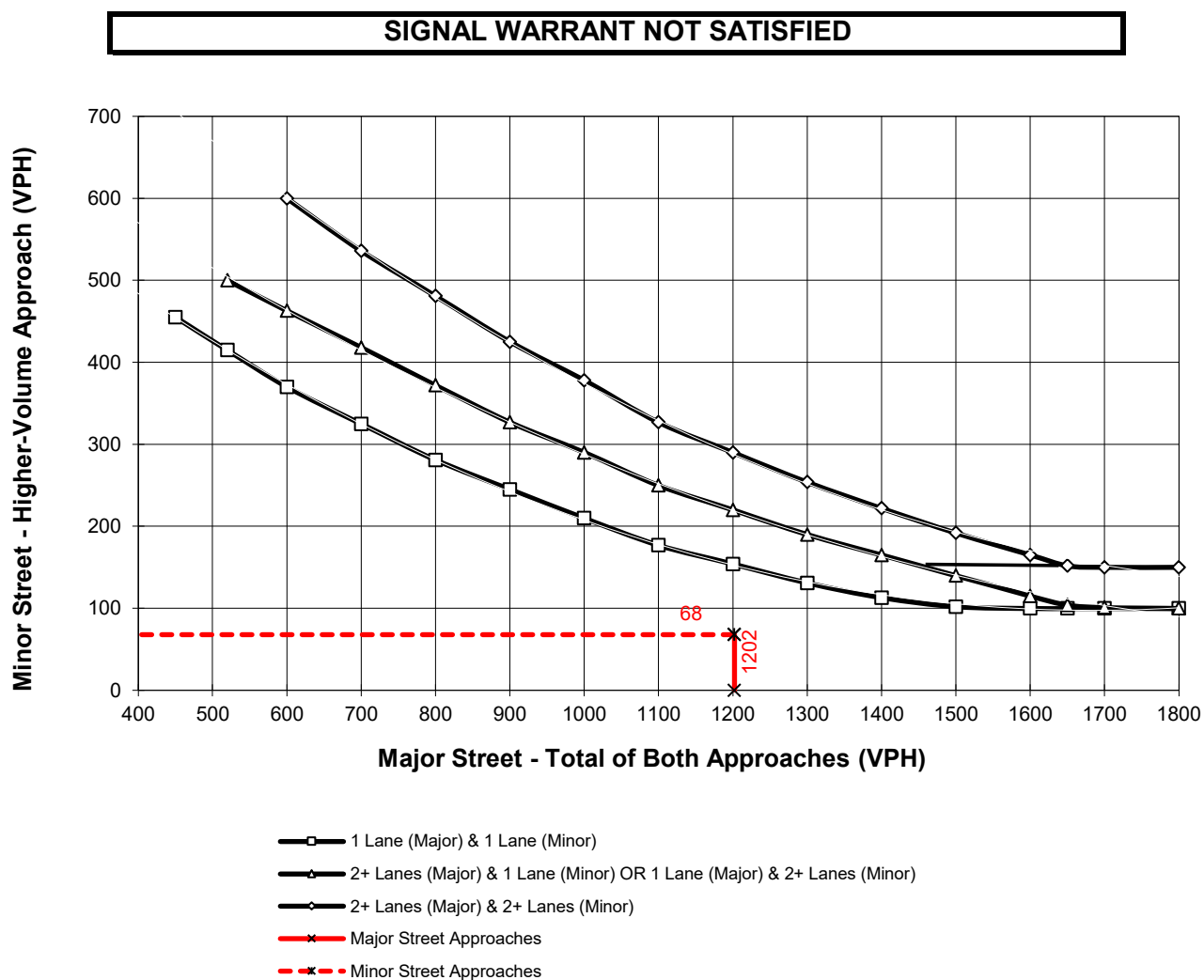
Total of Both Approaches (VPH) = **1202**

Number of Approach Lanes on Major Street = **2**

Minor Street Name = **Nicholas Rd.**

High Volume Approach (VPH) = **68**

Number of Approach Lanes On Minor Street = **1**



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes
and 100 vph applies as the lower threshold for a minor-street approach with one lane

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APPENDIX 7.4: HORIZON YEAR (2045) WITH PROJECT CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-3. Warrant 3, Peak Hour

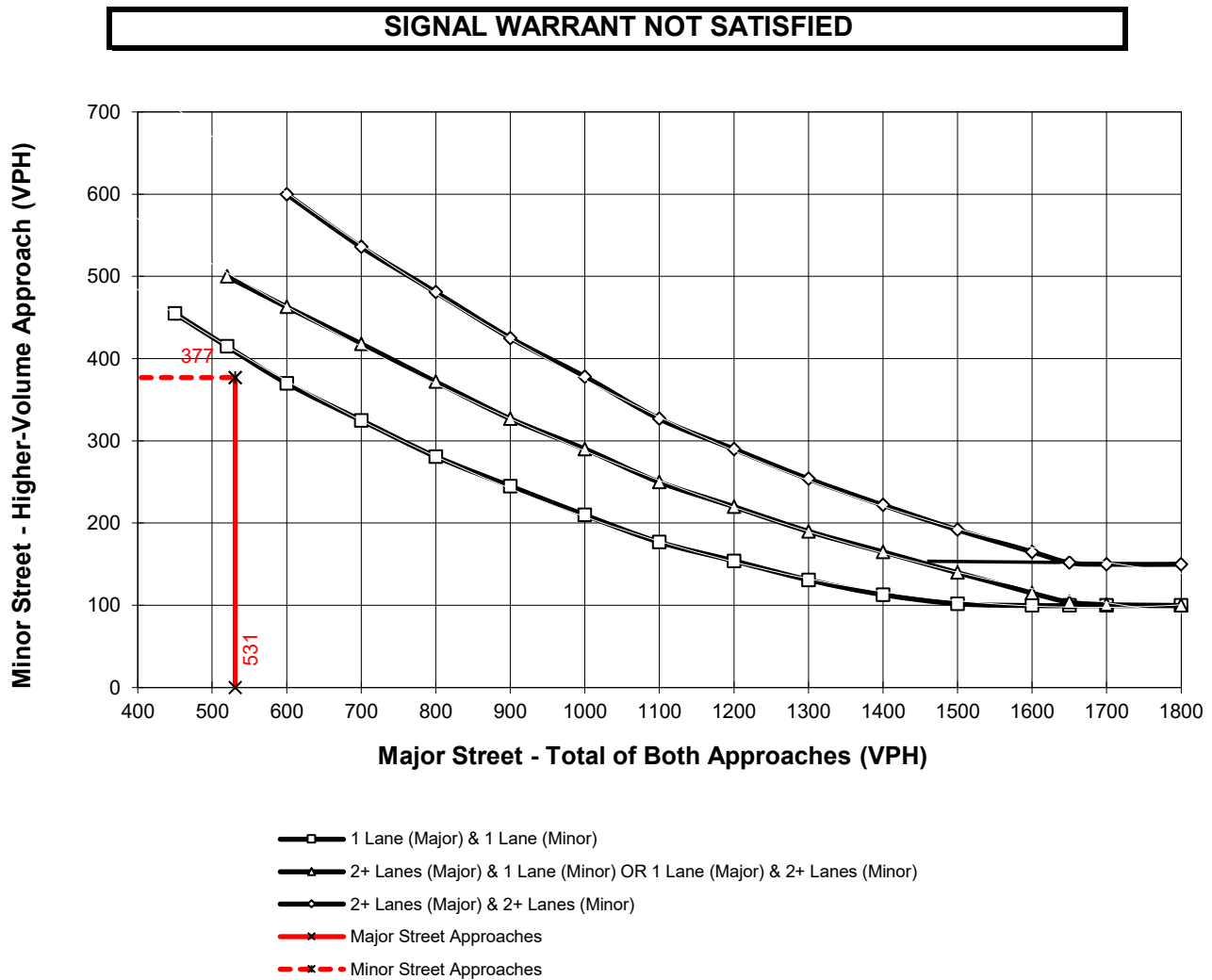
Traffic Conditions = **2045 With Project Conditions - Weekday PM Peak Hour**

Major Street Name = **Distribution Wy.**

Total of Both Approaches (VPH) = **531**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Prosperity Wy.**

High Volume Approach (VPH) = **377**
Number of Approach Lanes On Minor Street = **1**



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes
and 100 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **2045 With Project Conditions - Weekday AM Peak Hour**

Major Street Name = **Nicholas Rd.**

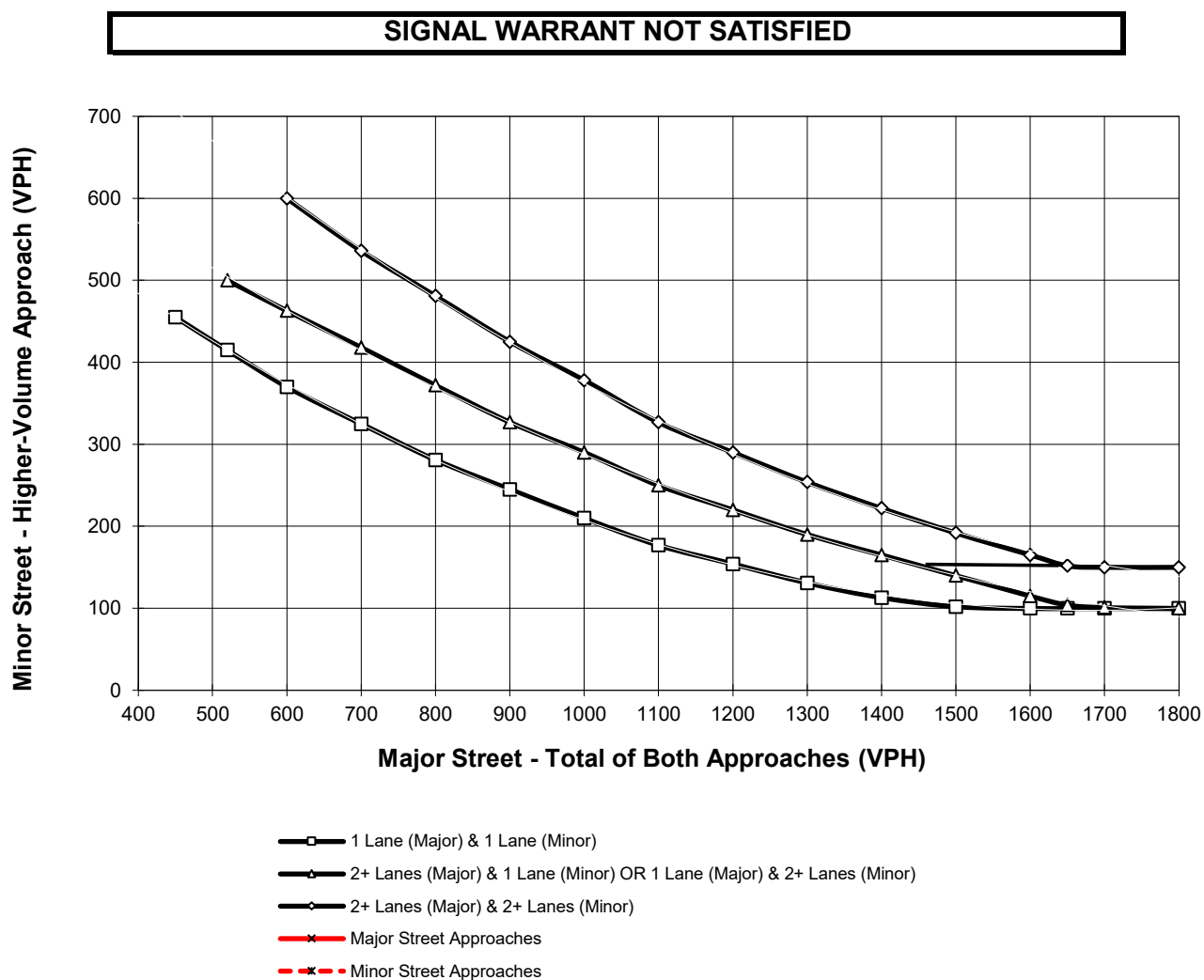
Total of Both Approaches (VPH) = **52**

Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Driveway 2**

High Volume Approach (VPH) = **18**

Number of Approach Lanes On Minor Street = **1**



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes
and 100 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **2045 With Project Conditions - Weekday PM Peak Hour**

Major Street Name = **4th St.**

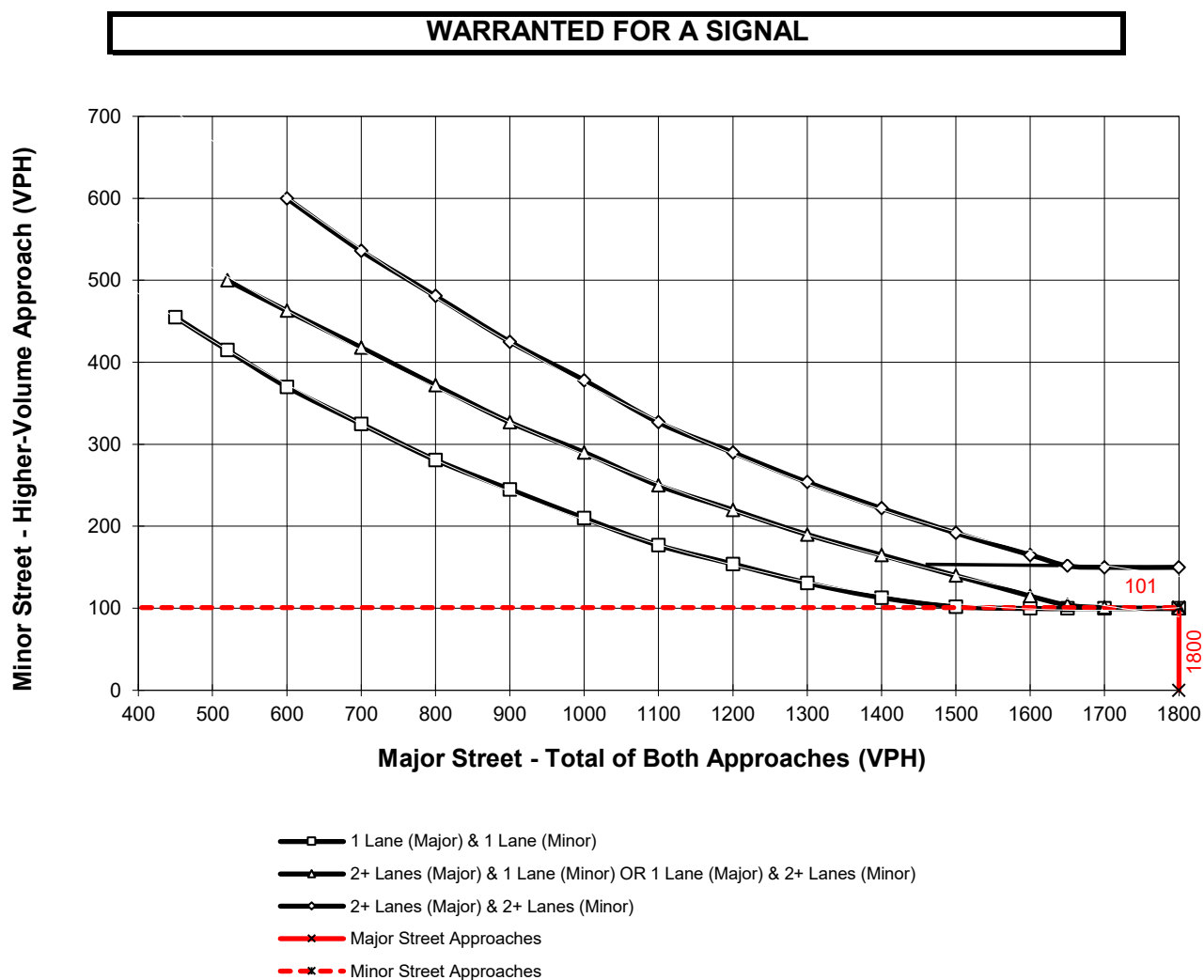
Total of Both Approaches (VPH) = **8+636+575+30**

Number of Approach Lanes on Major Street = **2**

Minor Street Name = **Nicholas Rd.**

High Volume Approach (VPH) = **101**

Number of Approach Lanes On Minor Street = **1**



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes
and 100 vph applies as the lower threshold for a minor-street approach with one lane

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APPENDIX 7.5: HORIZON YEAR (2045) WITH PROJECT CONDITIONS INTERSECTION ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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Timings
1: Potrero Bl. & 4th St.

Orchard Logistics (JN 14410)

08/10/2022

												
Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBL	SBT	SBR	Ø3	
Lane Configurations												
Traffic Volume (vph)	319	66	177	204	483	572	27	1099	1133	1357		
Future Volume (vph)	319	66	177	204	483	572	27	1099	1133	1357		
Turn Type	Prot	NA	Prot	NA	Free	NA	Perm	Prot	NA	Free		
Protected Phases	5	2	1	6		8		7	4		3	
Permitted Phases					Free		8			Free		
Detector Phase	5	2	1	6		8	8	7	4			
Switch Phase												
Minimum Initial (s)	5.0	10.0	5.0	10.0		10.0	10.0	5.0	10.0		5.0	
Minimum Split (s)	9.6	15.4	9.6	15.4		15.2	15.2	9.6	15.2		9.6	
Total Split (s)	18.0	23.4	27.0	32.4		29.6	29.6	40.0	60.0		9.6	
Total Split (%)	15.0%	19.5%	22.5%	27.0%		24.7%	24.7%	33.3%	50.0%		8%	
Yellow Time (s)	3.6	4.4	3.6	4.4		4.2	4.2	3.6	4.2		3.6	
All-Red Time (s)	1.0	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)	4.6	5.4	4.6	5.4		5.2	5.2	4.6	5.2			
Lead/Lag	Lead	Lag	Lead	Lag		Lag	Lag	Lead	Lag		Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes		Yes	
Recall Mode	None	None	None	None		None	None	None	None		None	
Act Effct Green (s)	10.1	12.7	17.6	16.1	87.5	16.7	16.7	24.1	45.5	87.5		
Actuated g/C Ratio	0.12	0.15	0.20	0.18	1.00	0.19	0.19	0.28	0.52	1.00		
v/c Ratio	0.52	0.13	0.49	0.62	0.27	0.56	0.06	0.74	0.61	0.77		
Control Delay	41.2	37.1	40.1	42.3	0.3	35.1	0.2	32.6	16.4	2.7		
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Total Delay	41.2	37.1	40.1	42.3	0.3	35.1	0.2	32.6	16.4	2.7		
LOS	D	D	D	D	A	D	A	C	B	A		
Approach Delay		40.5		18.4		33.5			16.2			
Approach LOS		D		B		C			B			

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 87.5

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.77

Intersection Signal Delay: 20.2

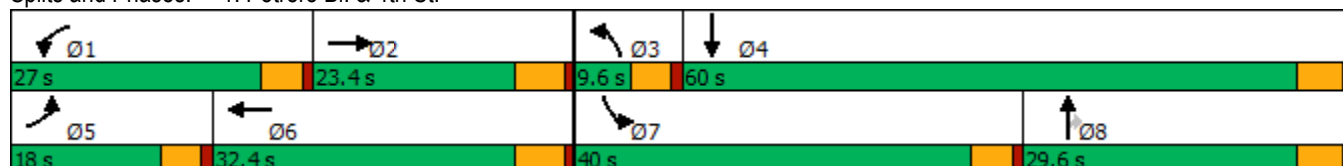
Intersection LOS: C

Intersection Capacity Utilization 70.1%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 1: Potrero Bl. & 4th St.



HCM 6th Signalized Intersection Summary
1: Potrero Bl. & 4th St.

Orchard Logistics (JN 14410)

08/10/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	319	66	1	177	204	483	0	572	27	1099	1133	1357
Future Volume (veh/h)	319	66	1	177	204	483	0	572	27	1099	1133	1357
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1976	1976	1976	1976	1976	1976	1976	1976	1976	1976	1976	1976
Adj Flow Rate, veh/h	384	80	1	213	246	0	0	689	33	1324	1365	0
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	559	471	6	260	317		3	1117	315	1612	2118	
Arrive On Green	0.10	0.12	0.12	0.14	0.16	0.00	0.00	0.19	0.19	0.29	0.54	0.00
Sat Flow, veh/h	5646	3895	49	1882	1976	1675	1882	5928	1675	5646	3952	1675
Grp Volume(v), veh/h	384	41	40	213	246	0	0	689	33	1324	1365	0
Grp Sat Flow(s),veh/h/ln	1882	1976	1967	1882	1976	1675	1882	1976	1675	1882	1976	1675
Q Serve(g_s), s	4.9	1.4	1.4	8.2	8.9	0.0	0.0	7.9	1.2	16.2	18.2	0.0
Cycle Q Clear(g_c), s	4.9	1.4	1.4	8.2	8.9	0.0	0.0	7.9	1.2	16.2	18.2	0.0
Prop In Lane	1.00		0.02	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	559	239	238	260	317		3	1117	315	1612	2118	
V/C Ratio(X)	0.69	0.17	0.17	0.82	0.78		0.00	0.62	0.10	0.82	0.64	
Avail Cap(c_a), veh/h	1020	480	477	568	719		127	1950	551	2694	2920	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	32.3	29.3	29.3	31.1	29.9	0.0	0.0	27.6	24.9	24.7	12.2	0.0
Incr Delay (d2), s/veh	0.6	0.3	0.3	2.4	4.1	0.0	0.0	0.6	0.1	0.4	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.6	0.6	3.6	4.3	0.0	0.0	3.6	0.5	6.8	6.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.9	29.6	29.6	33.5	34.0	0.0	0.0	28.2	25.1	25.1	12.5	0.0
LnGrp LOS	C	C	C	C	C		A	C	C	C	B	
Approach Vol, veh/h		465			459			722			2689	
Approach Delay, s/veh		32.3			33.8			28.1			18.7	
Approach LOS		C			C			C			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.8	14.4	0.0	44.9	11.9	17.3	25.8	19.2				
Change Period (Y+Rc), s	4.6	5.4	4.6	5.2	4.6	5.4	4.6	5.2				
Max Green Setting (Gmax), s	22.4	18.0	5.0	54.8	13.4	27.0	35.4	24.4				
Max Q Clear Time (g_c+I1), s	10.2	3.4	0.0	20.2	6.9	10.9	18.2	9.9				
Green Ext Time (p_c), s	0.2	0.2	0.0	13.1	0.5	1.1	2.9	4.1				

Intersection Summary

HCM 6th Ctrl Delay	23.3
HCM 6th LOS	C

Notes

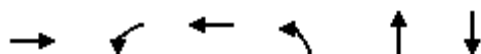
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Timings

Orchard Logistics (JN 14410)

2: Distribution Wy./Driveway & Prosperity Wy./Driveway 1

08/10/2022



Lane Group	EBT	WBL	WBT	NBL	NBT	SBT
Lane Configurations	↔		↔	↔	↔	↔
Traffic Volume (vph)	0	14	1	599	4	0
Future Volume (vph)	0	14	1	599	4	0
Turn Type	NA	Perm	NA	Perm	NA	NA
Protected Phases	4		8		2	6
Permitted Phases		8		2		
Detector Phase	4	8	8	2	2	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	32.0	27.0	27.0	27.0	27.0	32.0
Total Split (s)	32.0	32.0	32.0	43.0	43.0	43.0
Total Split (%)	42.7%	42.7%	42.7%	57.3%	57.3%	57.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0		5.0	5.0	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	None	None	None	None
Act Effect Green (s)	15.5		15.5	30.0	30.0	16.8
Actuated g/C Ratio	0.35		0.35	0.69	0.69	0.38
v/c Ratio	0.06		0.03	0.65	0.04	0.00
Control Delay	0.1		17.0	13.9	3.2	0.0
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	0.1		17.0	13.9	3.2	0.0
LOS	A		B	B	A	A
Approach Delay	0.1		17.0		13.2	
Approach LOS	A		B		B	

Intersection Summary

Cycle Length: 75

Actuated Cycle Length: 43.7

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.65

Intersection Signal Delay: 12.0

Intersection LOS: B

Intersection Capacity Utilization 56.5%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 2: Distribution Wy./Driveway & Prosperity Wy./Driveway 1



HCM 6th Signalized Intersection Summary

2: Distribution Wy./Driveway & Prosperity Wy./Driveway 1

Orchard Logistics (JN 14410)

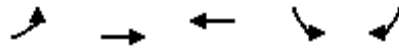
08/10/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	70	14	1	0	599	4	37	0	0	1
Future Volume (veh/h)	0	0	70	14	1	0	599	4	37	0	0	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	0	75	15	1	0	644	4	40	0	0	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	233	0	247	370	18	0	984	78	775	0	0	841
Arrive On Green	0.00	0.00	0.15	0.15	0.15	0.00	0.52	0.52	0.52	0.00	0.00	0.52
Sat Flow, veh/h	1439	0	1610	939	116	0	1439	148	1484	0	0	1610
Grp Volume(v), veh/h	0	0	75	16	0	0	644	0	44	0	0	1
Grp Sat Flow(s),veh/h/ln	1439	0	1610	1055	0	0	1439	0	1633	0	0	1610
Q Serve(g_s), s	0.0	0.0	1.3	0.1	0.0	0.0	12.0	0.0	0.4	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	1.3	1.4	0.0	0.0	12.0	0.0	0.4	0.0	0.0	0.0
Prop In Lane	1.00		1.00	0.94		0.00	1.00		0.91	0.00		1.00
Lane Grp Cap(c), veh/h	233	0	247	388	0	0	984	0	853	0	0	841
V/C Ratio(X)	0.00	0.00	0.30	0.04	0.00	0.00	0.65	0.00	0.05	0.00	0.00	0.00
Avail Cap(c_a), veh/h	1271	0	1409	1377	0	0	2004	0	2011	0	0	1983
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	11.6	11.6	0.0	0.0	6.4	0.0	3.6	0.0	0.0	3.5
Incr Delay (d2), s/veh	0.0	0.0	0.7	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.3	0.1	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	12.3	11.6	0.0	0.0	7.1	0.0	3.6	0.0	0.0	3.5
LnGrp LOS	A	A	B	B	A	A	A	A	A	A	A	A
Approach Vol, veh/h	75			16			688			1		
Approach Delay, s/veh	12.3			11.6			6.9			3.5		
Approach LOS	B			B			A			A		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	21.1			9.7			21.1			9.7		
Change Period (Y+Rc), s	5.0			5.0			5.0			5.0		
Max Green Setting (Gmax), s	38.0			27.0			38.0			27.0		
Max Q Clear Time (g_c+I1), s	14.0			3.3			2.0			3.4		
Green Ext Time (p_c), s	2.2			0.3			0.0			0.0		
Intersection Summary												
HCM 6th Ctrl Delay	7.5											
HCM 6th LOS	A											

Timings
5: 4th St. & Nicholas Rd.

Orchard Logistics (JN 14410)

08/10/2022



Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	9	338	1298	40	9
Future Volume (vph)	9	338	1298	40	9
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	5	2	6	4	
Permitted Phases					4
Detector Phase	5	2	6	4	4
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.4	27.4	36.6	36.6
Total Split (s)	9.7	53.4	43.7	36.6	36.6
Total Split (%)	10.8%	59.3%	48.6%	40.7%	40.7%
Yellow Time (s)	3.6	4.4	4.4	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	4.6
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	None	None
Act Effect Green (s)	6.2	26.1	38.1	14.8	14.8
Actuated g/C Ratio	0.12	0.51	0.74	0.29	0.29
v/c Ratio	0.05	0.20	0.56	0.08	0.02
Control Delay	32.9	7.0	11.3	19.3	10.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	32.9	7.0	11.3	19.3	10.9
LOS	C	A	B	B	B
Approach Delay		7.7	11.3	17.7	
Approach LOS		A	B	B	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 51.4

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.56

Intersection Signal Delay: 10.7

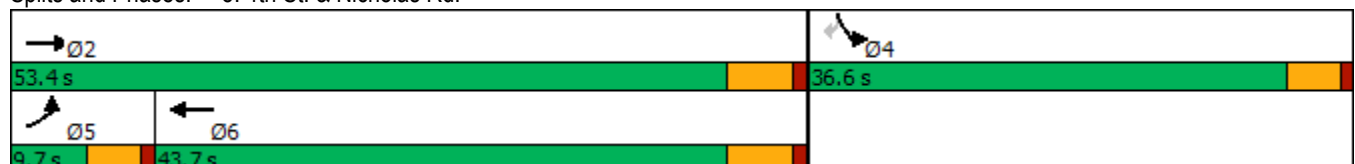
Intersection LOS: B

Intersection Capacity Utilization 55.1%

ICU Level of Service B

Analysis Period (min) 15

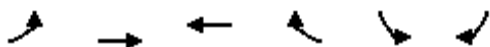
Splits and Phases: 5: 4th St. & Nicholas Rd.



HCM 6th Signalized Intersection Summary
5: 4th St. & Nicholas Rd.

Orchard Logistics (JN 14410)

08/10/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↗↗	↰↗		↰	↗
Traffic Volume (veh/h)	9	338	1298	80	40	9
Future Volume (veh/h)	9	338	1298	80	40	9
Initial Q (Qb), veh	0	0	0	0	0	0
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	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	363	1396	86	43	10
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	24	2454	1963	121	193	171
Arrive On Green	0.01	0.68	0.57	0.57	0.11	0.11
Sat Flow, veh/h	1810	3705	3549	212	1810	1610
Grp Volume(v), veh/h	10	363	728	754	43	10
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1862	1810	1610
Q Serve(g_s), s	0.3	1.7	13.6	13.8	1.0	0.3
Cycle Q Clear(g_c), s	0.3	1.7	13.6	13.8	1.0	0.3
Prop In Lane	1.00			0.11	1.00	1.00
Lane Grp Cap(c), veh/h	24	2454	1026	1058	193	171
V/C Ratio(X)	0.42	0.15	0.71	0.71	0.22	0.06
Avail Cap(c_a), veh/h	197	3706	1479	1525	1238	1102
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	1.00
Uniform Delay (d), s/veh	22.9	2.7	7.3	7.3	19.1	18.8
Incr Delay (d2), s/veh	4.4	0.0	0.9	0.9	0.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.2	3.0	3.1	0.4	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	27.3	2.7	8.2	8.2	19.7	18.9
LnGrp LOS	C	A	A	A	B	B
Approach Vol, veh/h		373	1482		53	
Approach Delay, s/veh		3.4	8.2		19.6	
Approach LOS		A	A		B	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		37.2		9.6	5.2	32.0
Change Period (Y+Rc), s		5.4		4.6	4.6	5.4
Max Green Setting (Gmax), s		48.0		32.0	5.1	38.3
Max Q Clear Time (g_c+I1), s		3.7		3.0	2.3	15.8
Green Ext Time (p_c), s		2.4		0.1	0.0	10.8
Intersection Summary						
HCM 6th Ctrl Delay			7.6			
HCM 6th LOS			A			

Timings
1: Potrero Bl. & 4th St.

Orchard Logistics (JN 14410)

08/10/2022

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	  	 				  					
Traffic Volume (vph)	1454	195	74	68	880	1	1142	219	657	553	460
Future Volume (vph)	1454	195	74	68	880	1	1142	219	657	553	460
Turn Type	Prot	NA	Prot	NA	Free	Prot	NA	Perm	Prot	NA	Free
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases					Free			2			Free
Detector Phase	7	4	3	8		5	2	2	1	6	
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	5.0		5.0	10.0	10.0	5.0	10.0	
Minimum Split (s)	9.6	15.4	9.6	15.4		9.6	15.0	15.0	9.6	15.0	
Total Split (s)	49.0	44.6	17.4	15.4		9.6	39.0	39.0	24.0	53.4	
Total Split (%)	38.5%	35.0%	13.7%	12.1%		7.5%	30.6%	30.6%	18.8%	41.9%	
Yellow Time (s)	3.6	4.4	3.6	4.4		3.6	4.0	4.0	3.6	4.0	
All-Red Time (s)	1.0	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	0.0	
Total Lost Time (s)	4.6	5.4	4.6	5.4		4.6	5.0	5.0	4.6	5.0	
Lead/Lag	Lead	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None		None	None	None	None	None	
Act Effect Green (s)	43.4	42.5	10.2	9.3	125.8	5.0	34.0	34.0	19.4	56.2	125.8
Actuated g/C Ratio	0.34	0.34	0.08	0.07	1.00	0.04	0.27	0.27	0.15	0.45	1.00
v/c Ratio	0.94	0.19	0.61	0.63	0.59	0.01	0.95	0.40	0.96	0.42	0.31
Control Delay	50.1	30.3	71.0	74.5	1.2	59.0	57.5	7.5	72.5	25.3	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.1	30.3	71.0	74.5	1.2	59.0	57.5	7.5	72.5	25.3	0.4
LOS	D	C	E	E	A	E	E	A	E	C	A
Approach Delay		47.7		11.1			49.5			37.0	
Approach LOS		D		B			D			D	

Intersection Summary

Cycle Length: 127.4

Actuated Cycle Length: 125.8

Natural Cycle: 110

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.96

Intersection Signal Delay: 38.4

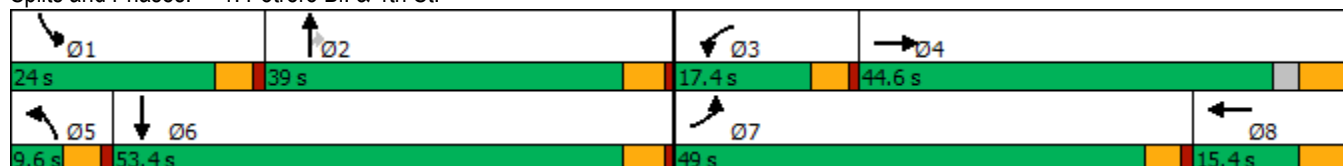
Intersection LOS: D

Intersection Capacity Utilization 82.7%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 1: Potrero Bl. & 4th St.



HCM 6th Signalized Intersection Summary
1: Potrero Bl. & 4th St.

Orchard Logistics (JN 14410)

08/10/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1454	195	0	74	68	880	1	1142	219	657	553	460
Future Volume (veh/h)	1454	195	0	74	68	880	1	1142	219	657	553	460
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1976	1976	1976	1976	1976	1976	1976	1976	1976	1976	1976	1976
Adj Flow Rate, veh/h	2107	283	0	107	99	0	1	1655	317	952	801	0
Peak Hour Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	2001	1374	0	131	125		3	1609	454	874	1679	
Arrive On Green	0.71	0.70	0.00	0.14	0.13	0.00	0.00	0.54	0.54	0.31	0.85	0.00
Sat Flow, veh/h	5646	3952	0	1882	1976	1675	1882	5928	1675	5646	3952	1675
Grp Volume(v), veh/h	2107	283	0	107	99	0	1	1655	317	952	801	0
Grp Sat Flow(s),veh/h/ln	1882	1976	0	1882	1976	1675	1882	1976	1675	1882	1976	1675
Q Serve(g_s), s	44.4	3.2	0.0	6.9	6.1	0.0	0.1	34.0	17.5	19.4	6.4	0.0
Cycle Q Clear(g_c), s	44.4	3.2	0.0	6.9	6.1	0.0	0.1	34.0	17.5	19.4	6.4	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	2001	1374	0	131	125		3	1609	454	874	1679	
V/C Ratio(X)	1.05	0.21	0.00	0.82	0.80		0.39	1.03	0.70	1.09	0.48	
Avail Cap(c_a), veh/h	2001	1374	0	192	158		75	1609	454	874	1679	
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(l)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	18.2	12.9	0.0	53.1	54.0	0.0	62.4	28.6	24.9	43.2	5.9	0.0
Incr Delay (d2), s/veh	35.8	0.1	0.0	10.0	19.3	0.0	32.1	30.2	4.6	57.6	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.4	1.4	0.0	3.4	3.5	0.0	0.1	15.3	5.7	12.5	2.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.1	13.0	0.0	63.1	73.3	0.0	94.5	58.8	29.5	100.8	6.1	0.0
LnGrp LOS	F	B	A	E	E		F	F	C	F	A	
Approach Vol, veh/h		2390			206			1973			1753	
Approach Delay, s/veh		49.2			68.0			54.1			57.6	
Approach LOS		D			E			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	24.0	39.0	13.3	49.0	4.8	58.2	49.0	13.3				
Change Period (Y+Rc), s	4.6	5.0	4.6	5.4	4.6	5.0	4.6	5.4				
Max Green Setting (Gmax), s	19.4	34.0	12.8	39.2	5.0	48.4	44.4	10.0				
Max Q Clear Time (g_c+I1), s	21.4	36.0	8.9	5.2	2.1	8.4	46.4	8.1				
Green Ext Time (p_c), s	0.0	0.0	0.0	1.8	0.0	6.4	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	53.7
HCM 6th LOS	D

Notes

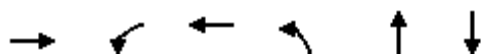
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Timings

Orchard Logistics (JN 14410)

2: Distribution Wy./Driveway & Prosperity Wy./Driveway 1

08/10/2022



Lane Group	EBT	WBL	WBT	NBL	NBT	SBT
Lane Configurations	↔		↔	↔	↔	↔
Traffic Volume (vph)	0	46	1	505	7	4
Future Volume (vph)	0	46	1	505	7	4
Turn Type	NA	Perm	NA	Perm	NA	NA
Protected Phases	4		8		2	6
Permitted Phases		8		2		
Detector Phase	4	8	8	2	2	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	32.0	27.0	27.0	27.0	27.0	32.0
Total Split (s)	32.0	32.0	32.0	43.0	43.0	43.0
Total Split (%)	42.7%	42.7%	42.7%	57.3%	57.3%	57.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0		5.0	5.0	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	None	None	None	None
Act Effect Green (s)	13.3		13.3	31.2	31.2	14.6
Actuated g/C Ratio	0.24		0.24	0.57	0.57	0.27
v/c Ratio	0.41		0.46	0.82	0.04	0.01
Control Delay	1.0		31.0	21.6	4.0	14.0
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	1.0		31.0	21.6	4.0	14.0
LOS	A		C	C	A	B
Approach Delay	1.0		31.0		20.7	14.0
Approach LOS	A		C		C	B

Intersection Summary

Cycle Length: 75

Actuated Cycle Length: 55

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 13.5

Intersection LOS: B

Intersection Capacity Utilization 78.8%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 2: Distribution Wy./Driveway & Prosperity Wy./Driveway 1



HCM 6th Signalized Intersection Summary
2: Distribution Wy./Driveway & Prosperity Wy./Driveway 1

Orchard Logistics (JN 14410)

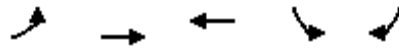
08/10/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	377	46	1	0	505	7	21	0	4	0
Future Volume (veh/h)	0	0	377	46	1	0	505	7	21	0	4	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	0	496	61	1	0	664	9	28	0	5	0
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	113	0	560	165	2	0	821	201	626	0	940	0
Arrive On Green	0.00	0.00	0.35	0.35	0.35	0.00	0.49	0.49	0.49	0.00	0.49	0.00
Sat Flow, veh/h	1439	0	1610	150	5	0	1434	407	1265	0	1900	0
Grp Volume(v), veh/h	0	0	496	62	0	0	664	0	37	0	5	0
Grp Sat Flow(s),veh/h/ln	1439	0	1610	155	0	0	1434	0	1672	0	1900	0
Q Serve(g_s), s	0.0	0.0	18.5	3.7	0.0	0.0	27.8	0.0	0.7	0.0	0.1	0.0
Cycle Q Clear(g_c), s	0.0	0.0	18.5	22.1	0.0	0.0	27.9	0.0	0.7	0.0	0.1	0.0
Prop In Lane	1.00		1.00	0.98		0.00	1.00		0.76	0.00		0.00
Lane Grp Cap(c), veh/h	113	0	560	166	0	0	821	0	828	0	940	0
V/C Ratio(X)	0.00	0.00	0.89	0.37	0.00	0.00	0.81	0.00	0.04	0.00	0.01	0.00
Avail Cap(c_a), veh/h	224	0	684	238	0	0	968	0	1000	0	1136	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	19.5	29.9	0.0	0.0	15.2	0.0	8.3	0.0	8.1	0.0
Incr Delay (d2), s/veh	0.0	0.0	11.6	1.4	0.0	0.0	4.5	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	7.7	0.9	0.0	0.0	7.9	0.0	0.2	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	31.1	31.3	0.0	0.0	19.7	0.0	8.3	0.0	8.1	0.0
LnGrp LOS	A	A	C	C	A	A	B	A	A	A	A	A
Approach Vol, veh/h	496		62			701			5			
Approach Delay, s/veh	31.1		31.3			19.1			8.1			
Approach LOS	C		C			B			A			
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	36.5		27.1		36.5		27.1					
Change Period (Y+Rc), s	5.0		5.0		5.0		5.0					
Max Green Setting (Gmax), s	38.0		27.0		38.0		27.0					
Max Q Clear Time (g_c+I1), s	29.9		20.5		2.1		24.1					
Green Ext Time (p_c), s	1.6		1.7		0.0		0.1					
Intersection Summary												
HCM 6th Ctrl Delay	24.3											
HCM 6th LOS	C											

Timings
5: 4th St. & Nicholas Rd.

Orchard Logistics (JN 14410)

08/10/2022



Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations	←	↑↑	↑↑	←	←
Traffic Volume (vph)	8	636	575	69	32
Future Volume (vph)	8	636	575	69	32
Turn Type	Prot	NA	NA	Prot	Perm
Protected Phases	5	2	6	4	
Permitted Phases					4
Detector Phase	5	2	6	4	4
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.4	27.4	36.6	36.6
Total Split (s)	9.6	38.4	28.8	36.6	36.6
Total Split (%)	12.8%	51.2%	38.4%	48.8%	48.8%
Yellow Time (s)	3.6	4.4	4.4	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	4.6
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	None	None
Act Effect Green (s)	6.4	21.7	20.7	15.1	15.1
Actuated g/C Ratio	0.16	0.55	0.53	0.38	0.38
v/c Ratio	0.04	0.45	0.45	0.14	0.07
Control Delay	24.0	9.9	12.1	11.9	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	24.0	9.9	12.1	11.9	4.8
LOS	C	A	B	B	A
Approach Delay		10.1	12.1	9.7	
Approach LOS		B	B	A	

Intersection Summary

Cycle Length: 75

Actuated Cycle Length: 39.4

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.45

Intersection Signal Delay: 11.0

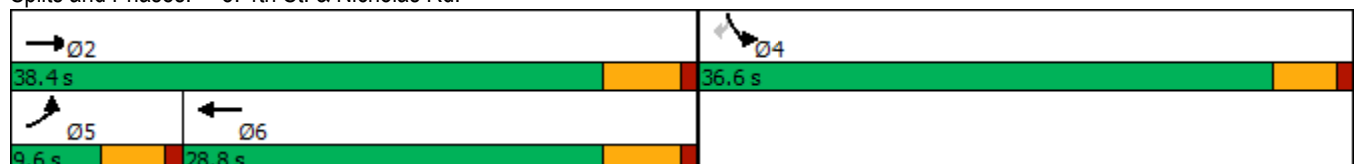
Intersection LOS: B

Intersection Capacity Utilization 34.2%

ICU Level of Service A

Analysis Period (min) 15

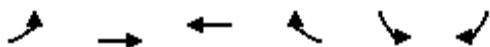
Splits and Phases: 5: 4th St. & Nicholas Rd.



HCM 6th Signalized Intersection Summary
5: 4th St. & Nicholas Rd.

Orchard Logistics (JN 14410)

08/10/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	8	636	575	30	69	32
Future Volume (veh/h)	8	636	575	30	69	32
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	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	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	896	810	42	97	45
Peak Hour Factor	0.71	0.71	0.71	0.71	0.71	0.71
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	26	1852	1296	67	380	338
Arrive On Green	0.01	0.51	0.37	0.37	0.21	0.21
Sat Flow, veh/h	1810	3705	3585	181	1810	1610
Grp Volume(v), veh/h	11	896	419	433	97	45
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1866	1810	1610
Q Serve(g_s), s	0.2	5.8	6.9	6.9	1.6	0.8
Cycle Q Clear(g_c), s	0.2	5.8	6.9	6.9	1.6	0.8
Prop In Lane	1.00			0.10	1.00	1.00
Lane Grp Cap(c), veh/h	26	1852	670	693	380	338
V/C Ratio(X)	0.42	0.48	0.62	0.63	0.26	0.13
Avail Cap(c_a), veh/h	250	3296	1169	1208	1602	1426
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	1.00
Uniform Delay (d), s/veh	17.7	5.7	9.3	9.3	11.9	11.6
Incr Delay (d2), s/veh	3.9	0.2	1.0	0.9	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.2	2.0	2.1	0.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	21.6	5.9	10.3	10.2	12.3	11.8
LnGrp LOS	C	A	B	B	B	B
Approach Vol, veh/h		907	852		142	
Approach Delay, s/veh		6.1	10.2		12.1	
Approach LOS		A	B		B	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		23.9		12.2	5.1	18.8
Change Period (Y+Rc), s		5.4		4.6	4.6	5.4
Max Green Setting (Gmax), s		33.0		32.0	5.0	23.4
Max Q Clear Time (g_c+I1), s		7.8		3.6	2.2	8.9
Green Ext Time (p_c), s		6.4		0.4	0.0	4.4
Intersection Summary						
HCM 6th Ctrl Delay			8.4			
HCM 6th LOS			A			