

Appendix B

Traffic Impact Study

600 Tank Farm Road

Multimodal Transportation Impact Study

Prepared For: City of San Luis Obispo

Central Coast Transportation Consulting

895 Napa Avenue, Suite A-6

Morro Bay, CA 93442

(805) 316-0101

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0.0 Executive Summary

This study evaluates the potential transportation impacts of the proposed development project at 600 Tank Farm Road in the City of San Luis Obispo. The project is within the Airport Area Specific Plan (AASP) area and includes 12,500 square feet of retail (Alternative A) or office (Alternative B) space and 280 multifamily residential dwelling units. The following table summarizes the impacts and deficiencies of the project, with a more detailed discussion following below.

Summary of Impacts and Deficiencies			
CEQA-VMT			
#	Mode	Impacts	Mitigations
-	-	(None)	(None)
Local Transportation Operations			
#	Mode	Deficiencies	Recommended Improvements
1	Auto Int. LOS	Tank Farm Road/Santa Fe Road West (#3): With side street stop control, the southbound approach operates unacceptably during the PM peak hour under Near Term Plus Project conditions.	Install a roundabout [see Section 6.1.1].
2	Auto Int. LOS	Broad Street/Tank Farm Road (#7): The intersection operates unacceptably during both peak hours under Cumulative conditions both with and without the project.	Contribute a fair share towards planned future improvements through TIF participation [7.1.1].
3	Ped Int. LOS	Pedestrian intersection LOS deficiencies were reported for Tank Farm Road at Santa Fe Road (#3-4) and MindBody (#5).	Install pedestrian signal and crosswalk to cross Tank Farm Road at the existing Tank Farm Road/MindBody (#5) signalized intersection (if not yet completed by 650 or 660 Tank Farm Road developments) [5.2.4, 5.3.2]. Complete Recommended Improvement #1.
4	Ped Segment LOS	Pedestrian segment LOS deficiencies were reported for Tank Farm Road from project east to Broad Street and Tank Farm Road from new Santa Fe Road west 4,700' to new collector street.	Provide continuous pedestrian connection between project and Broad Street (if frontage improvements not yet completed by 650 and 660 Tank Farm Road developments). Construct Class I Path west of Santa Fe Road (if feasible). [5.2.4, 5.4.2, 6.2.2, 7.2.2]
5	Bike LTS	The segment of Santa Fe Road north of Tank Farm Road would operate at deficient Bicycle LTS 4 if no controlled crossing is provided at the intersection of Tank Farm Road/Santa Fe Road West (#3).	Install a roundabout (consistent with Recommended Improvement #1) [5.4.3, 6.2.3].
6	Ped/Bike Access	Multimodal site connectivity is deficient.	Provide sidewalks and bikeways connecting the site to the larger transportation network [5.2.3, 5.2.4].
7	Auto/Ped/Bike Access	Frontage improvements require adequate geometric transitions.	Construct geometric transitions per Caltrans and/or AASHTO standards [5.2.4].
8	Emergency Vehicle Access	A partial cul-de-sac terminus is proposed of the new Santa Fe Road extension north of Tank Farm Road. The current design does not provide adequate turnaround area per SLO City Fire requirements.	Either 1) provide a full cul-de-sac consistent with City design standards, or 2) construct a single lane roundabout [5.2.1, 5.2.4].
9	Transit Proximity	The project would be constructing high density residential in a City expansion area beyond 1/8 mile from the nearest transit stop.	Provide funds for installation of future transit stop by others within the vicinity of the project [5.2.4, 5.2.5].

0.1 CEQA TRANSPORTATION ANALYSIS

The project would reduce regional overall vehicle miles traveled (VMT) and residential VMT. The proposed project would not conflict with applicable transportation plans, would not substantially increase hazards associated with transportation, and would produce VMT levels below the City's threshold.

0.2 LOCAL TRANSPORTATION ANALYSIS

0.2.1 Intersection Operations

Under Existing, Near Term, or Cumulative conditions, impacts were identified at the following intersections:

- Tank Farm Road/Santa Fe Road West (#3): With side street stop control, the southbound approach operates unacceptably during the PM peak hour under Near Term Plus Project conditions. The intersection would not meet the peak hour signal warrant. A multilane roundabout is planned for this intersection in the future and was assumed under Cumulative conditions. Construction of a 3-leg roundabout under Near Term conditions with two westbound lanes and single lanes on the other approaches would result in acceptable operations until Santa Fe Road east is realigned to form the south leg. A second eastbound approach lane would be required under Cumulative conditions. Stop control with two westbound lanes would result in unacceptable bicycle operations. Stop control would not address pedestrian connectivity deficiencies and is not recommended as an interim measure.
- Broad Street/Tank Farm Road (#7): The intersection operates unacceptably during both peak hours under Cumulative conditions both with and without the project. The volume to capacity ratio would be increased by 0.01 during the AM peak hour and 0.02 during the PM peak hour. The intersection could be improved to at least Cumulative No Project conditions by adding a dedicated northbound right turn lane. The City's Circulation Element EIR recommends several long-term improvements at this intersection, which are included in the Citywide TIF program, and include establishing time-of-day signal timing, adding a second southbound left turn lane, adding a dedicated northbound right turn lane, adding a dedicated westbound right turn lane, augmenting bicycle facilities, and improving Broad Street transit headways. The project would be contributing a fair share towards these future improvements through TIF participation.

Pedestrian intersection LOS deficiencies were reported at multiple intersections with and without the project. The deficiencies were contextually significant only at the locations and scenarios representing missing pedestrian connectivity to the site. The planned pedestrian improvements at Tank Farm Road/MindBody (#5), which include adding pedestrian signals and a crosswalk crossing Tank Farm Road, would need to be implemented prior to occupancy of the project. Installation of a roundabout at the Tank Farm Road/Sante Fe Road West (#3) intersection would remedy pedestrian intersection LOS deficiencies at that intersection. The remaining deficiencies were not contextually significant due to the availability of signalized pedestrian crossings at nearby signalized intersections.

No bicycle intersection LOS deficiencies were reported using the HCM methodology.

0.2.2 Roadway Pedestrian LOS

Multiple roadway segments operate with unacceptable pedestrian LOS. The deficiencies were contextually significant only at the locations and scenarios representing missing pedestrian connectivity

to the site along Tank Farm Road. The pedestrian facilities along the north side of Tank Farm Road connecting the site to Broad Street, as planned with the approved development projects at 650 and 660 Tank Farm Road, would need to be implemented prior to occupancy of the project. A temporary pedestrian pathway connecting the project site to Broad Street may be approved by the City as an interim measure if the adjacent development projects have not yet constructed their required frontage improvements. Implementation of the Class I path along the north side of Tank Farm west of Santa Fe Road, as identified in the City's Bicycle Transportation Plan/Active Transportation Plan, would address the pedestrian LOS deficiency west of the site.

0.2.3 Bicycle Level of Traffic Stress (LTS)

All study segments on Tank Farm Road and Broad Street operate at unacceptable LTS 4 with and without the project. LTS is governed by the worst direction of travel. However, the project would not cause any additional dimensions of the LTS criteria to become unacceptable.

The segment of Santa Fe Road north of Tank Farm Road to be constructed with the project would also operate at deficient LTS 4 if no controlled crossing is provided at the intersection of Tank Farm Road/Santa Fe Road West (#3). With installation of a roundabout at this intersection, the segment would operate with acceptable LTS. While not identified as a contextually significant bicycle segment impact, installation of the planned Class I path along the north side of Tank Farm Road west of the site would address the existing bicycle LTS deficiency on Tank Farm Road to the west.

0.3 CIRCULATION RECOMMENDATIONS

The following modifications are recommended to the site plan provided as **Figure 2**.

- Provide Class I bikeway between the bicycle facilities proposed on the Santa Fe Road extension, the bridge connection to 650 Tank Farm Road, and the Class I path located on the eastern property line along Acacia Creek. This would require a public pedestrian and bicycle access easement for segments of the path that route through the project site.
- Provide connections between sidewalks adjacent to on-site buildings and the Class I path located on the eastern property line along Acacia Creek.
- If frontage improvements have not yet been constructed by the approved 650 Tank Farm Road development to the east, the project should provide 250-foot minimum taper from project site to the east for additional westbound through lane on Tank Farm Road consistent with Highway Design Manual (HDM) Figure 405.9. Note that the widening and taper will require extending the existing culvert over Acacia Creek including metal beam guardrail replacement and other potential drainage improvements. The widening would need to be completed prior to or in conjunction with the frontage widening and intersection improvements at Tank Farm Road/Santa Fe Road West (#3) required by the project. The 650 Tank Farm Road development is required to construct the culvert and roadway widening as part of their frontage improvements, which will include a sidewalk, parkway, and elevated Class IV bike lane.
- Provide 300-foot westbound through lane and required taper from the Santa Fe Road extension site to the west for westbound through lane drop on Tank Farm Road consistent with HDM Figure 405.9. Note final taper design will depend on speed limit of corridor or roundabout design speed. The recommendations are shown in Section 5.2.4 of this report.
- Provide bicycle and pedestrian transitions through right-in right-out driveway on Tank Farm Road and Santa Fe Road extension.

- Instead of constructing a partial cul-de-sac terminus of the new Santa Fe Road extension north of Tank Farm Road, either 1) provide a full cul-de-sac consistent with City design standards, or 2) construct a single lane roundabout. The roundabout would likely result in lower ‘throwaway’ costs when the extension to Prado Road is constructed. If a cul-de-sac is constructed, right-of-way should be preserved for a future roundabout.
- Complete the planned Class I path on the north side of Tank Farm Road from the site west approximately 4,700 feet to Innovation Way if feasible. The improvements may not ultimately be feasible due to multiple considerations including right-of-way acquisition, the design has not been finalized, the County would have jurisdiction over the facility, and financing has not been confirmed.
- If frontage improvements have not yet been constructed east of the site, the project should provide a crosswalk with pedestrian signals on the east leg of the intersection of Tank Farm Road/MindBody (#5) and provide pedestrian connectivity to the site along Tank Farm Road to the satisfaction of the City.
- Provide funds for installation of future transit stop by others within the vicinity of the project, with final location to be determined by the City Transit Manager and updates to the City’s Short Range Transit Plan.
- Frontage improvements should be designed consistent with City Engineering Standards and to conform to the similar frontage improvements constructed by the developments east of the site.

0.4 ROADWAY NETWORK ALTERNATIVES ANALYSIS

A two-lane configuration on Tank Farm Road west of Santa Fe Road would operate acceptably if the Prado Road extension to Broad Street is constructed with two or four lanes. If the Prado Road extension is not constructed, Tank Farm Road would need to provide four lanes. A two-lane configuration on Santa Fe Road north of Tank Farm Road would operate within its functional capacity under Near Term and Cumulative scenarios but right-of-way should be reserved for two southbound approach lanes at Tank Farm Road.

The planned ultimate configuration for the multilane roundabout at the intersection of Tank Farm Road/Santa Fe Road West (#3) would have two approach lanes on Tank Farm Road and one approach lane on Santa Fe Road. Although Tank Farm Road between Old Windmill Road and Santa Fe Road operates acceptably under Cumulative Plus Project conditions as a two-lane section, two lanes for eastbound and westbound are needed through the roundabout intersection for acceptable operations. We recommend construction of an interim configuration with two westbound approach lanes and single lane southbound and eastbound approaches with right-of-way reserved to accommodate dual lane southbound and eastbound approaches.

The Tank Farm Road/Santa Fe Road intersection would also operate acceptably as a signal under Cumulative Plus Project conditions with the following minimum lane configurations: two through lanes with a left turn pocket for the eastbound and westbound approaches (with protected-permissive phasing), a shared through/left lane with a right turn pocket for the northbound approach (with split phasing), and a shared left/through/right lane with a left turn pocket for the southbound approach (with split phasing).

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1.0 Introduction

This study evaluates the potential transportation impacts of the proposed development project at 600 Tank Farm Road in the City of San Luis Obispo. The project is within the Airport Area Specific Plan (AASP) area and includes 12,500 square feet of commercial space and 280 multifamily residential dwelling units. Two alternatives are under consideration for the commercial component: (A) 100% Retail Commercial, or (B) 50% General Office and 50% Medical Office.

The first phase of the project would construct 124 residential units. The second phase would construct the commercial space and the remainder of the residential units. For the purposes of this study, only the full project is considered.

The project location and study intersections are shown on **Figure 1**. The project site plan is shown on **Figure 2**.

The following intersections were analyzed during the weekday AM and PM peak hours:

1. Tank Farm Road/South Higuera Street
2. Tank Farm Road/Long Street
3. Tank Farm Road/Santa Fe Road West (Future Alignment)
4. Tank Farm Road/Santa Fe Road East (Existing Alignment)
5. Tank Farm Road/Mindbody
6. Broad Street/Industrial Way
7. Broad Street/Tank Farm Road
8. Broad Street/Aerovista Place
9. Broad Street/Aero Drive
10. Broad Street/Farmhouse Lane
11. Edna Road (SR 227)/Buckley Road

The Auto Level of Service (LOS) and queuing are reported for each intersection. Additionally, the Bicycle and Pedestrian LOS are reported for all intersections except #8, #9, and #11, as specified by the City.

The following roadway segments were analyzed for Auto and Pedestrian LOS during the weekday AM and PM peak hours as well as for Bicycle Level of Traffic Stress (LTS):

1. Tank Farm Road: South Higuera Street to Old Windmill Lane
2. Tank Farm Road: Old Windmill Lane to Santa Fe Road
3. Tank Farm Road: Santa Fe Road to Broad Street
4. Tank Farm Road: Broad Street to Righetti Ranch Road
5. Broad Street: Farmhouse Lane to Tank Farm Road
6. Broad Street: Tank Farm Road to Orcutt Road
7. Santa Fe Road: north of Tank Farm Road

The study locations were evaluated under these scenarios:

- **Existing Conditions** reflects 2018-2019 traffic counts and the existing transportation network.
- **Existing Plus Project** adds Project-generated traffic to Existing Conditions volumes.

- **Near Term Conditions** represents a five-year development horizon, including planned and approved projects and roadway improvements in the study area anticipated to be completed within this timeframe.
- **Near Term Plus Project** adds Project-generated traffic to Near Term Conditions volumes.
- **Cumulative Conditions** represents future traffic conditions reflective of the buildout of land uses and the City's circulation network in the area, not including the proposed Project.
- **Cumulative Plus Project** represents future traffic conditions reflective of the buildout of land uses in the area, including the proposed Project.

Each scenario is described in more detail in the appropriate chapter.

Figure 1: Project and Study Locations



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Legend:

- Project Site
- Future Road
- Study Intersection

600 Tank Farm

Figure 2: Project Site Plan



Source: RRM Design Group



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600 Tank Farm

2.0 CEQA Transportation Analysis

This section presents analysis relevant to the California Environmental Quality Act (CEQA).

2.1 EXISTING CIRCULATION NETWORK

The existing roadways adjacent to the proposed project are described below. Bicycle facilities in the study area consist of Class I, II, and III bikeways. A Class I bikeway (bike path) provides a completely separated right-of-way for the exclusive use of bicycles and pedestrians with crossflow by motorists minimized. A Class II bikeway (bike lane) provides a striped lane for one-way bicycle travel on the side of the street adjacent to vehicle traffic. A Class III bikeway (bike route) consists of a roadway that is shared between bicycle and vehicle traffic.

- *Tank Farm Road* is a parkway arterial with two to four travel lanes, Class II bike lanes, no on-street parking, and intermittent sidewalks. East of Righetti Ranch Road, Tank Farm intersects with and then becomes Orcutt Road. The City's 2013 Bicycle Transportation Plan includes Class I paths on both the north and south sides of Tank Farm Road from Horizon Lane to Santa Fe Road, under County jurisdiction, and continuing north to the Damon-Garcia Sports Fields.
- *South Higuera Street* is an arterial with four travel lanes, Class II bike lanes, and sidewalks. There is no on-street parking.
- *Long Street* is a local roadway with two travel lanes and no existing bikeways that connects Tank Farm Road with Hind Lane and with Cross Street. Long Street has on-street parking and sidewalks.
- *Santa Fe Road* is a local roadway with two travel lanes, no existing bikeways, no on-street parking, and no sidewalks. Santa Fe Road is proposed to be realigned as a commercial collector with Class II bikeways and extended from Tank Farm Road north to Prado Road. There is a proposed Class I bikeway south of Tank Farm Road, under County jurisdiction.
- *Broad Street* is a highway/regional route with two to four travel lanes, Class II bike lanes, sidewalks, and no on-street parking. Heading south Broad Street becomes Edna Road (SR 227).
- *Mindbody* is a local roadway that provides access to the Mindbody commercial parking lot. There is a planned roadway connection forming a new north leg of the Tank Farm Road/Mindbody intersection, which will provide north-south connectivity between Tank Farm Road and Industrial Way.
- *Industrial Way* is a commercial collector with two travel lanes, Class III bikeways, sidewalks, and on-street parking. There are proposed Class II bikeways east of Broad Street.
- *Aerovista Place* is a local roadway that provides secondary access to the San Luis Obispo County Airport. Aerovista Place has two travel lanes, no existing bikeways, sidewalks, and on-street parking.
- *Aero Drive* is a local roadway that provides primary access to the San Luis Obispo County Airport. Aero Drive has two travel lanes, a two-way left turn lane, Class II bike lanes, and no on-street parking.
- *Farmhouse Lane* is a local roadway that provides access to commercial spaces. Farmhouse Lane has two travel lanes, no existing bikeways, sidewalks, and on-street parking.

- *Buckley Road* is an arterial with two travel lanes, no existing bikeways, no sidewalks, and no on-street parking. Buckley Road has proposed Class I and II bikeways and is a County road.

The existing crosswalks at the study intersections are described below.

- Tank Farm Road/South Higuera Street (#1): Marked crosswalks with pedestrian signals on all legs.
- Tank Farm Road/Long Street (#2): No marked crosswalks, side-street stop controlled.
- Tank Farm Road/Santa Fe Road (#3-4): No marked crosswalks, side-street stop controlled.
- Tank Farm Road/Mindbody (#5): No marked crosswalks or pedestrian signals.
- Broad Street/Industrial Way (#6): Marked crosswalks with pedestrian signals on all legs.
- Broad Street/Tank Farm Road (#7): Marked crosswalks with pedestrian signals on all legs.
- Broad Street/Aerovista Place (#8): No marked crosswalks, side-street stop controlled.
- Broad Street/Aero Drive (#9): Marked crosswalks on all but the south and east legs with pedestrian signals on all but the south leg.
- Broad Street/Farmhouse Lane (#10): No marked crosswalks, side-street stop controlled.
- Edna Road (SR 227)/Buckley Road (#11): Marked crosswalks with pedestrian signals on all but the north leg.

2.1.1 Transit

SLO Transit operates transit service in the City of San Luis Obispo. *SLO Transit Route 1A* is a weekday and weekend bus service that travels from the Downtown Transit Center to the San Luis Obispo Regional Airport via Broad Street, Marsh Street, Johnson Avenue, Laurel Lane, Orcutt Road, and Tank Farm Road in a clockwise direction with 60-minute headways. The closest stops to the project site are approximately one-half mile away on Broad Street near Tank Farm Road and near Industrial Way.

SLO Transit Route 1B is a weekday bus service similar to Route 1A but traveling in a counterclockwise direction. The closest stops to the project site are also located approximately one-half mile away on Broad Street near Tank Farm Road and near Industrial Way. Connections to San Luis Obispo Regional Transit Authority (SLORTA) routes and other SLO Transit routes are available at the Downtown Transit Center.

2.2 VEHICLE MILES TRAVELED (VMT)

The City’s Travel Demand Model (TDM) was used to estimate VMT with and without the project as described in the City’s 2020 Transportation Impact Study Guidelines (TISG). The TISG describes thresholds and approaches to evaluate a variety of project types. **Table 1** summarizes the City’s impact thresholds, which were derived from the TDM to be 15 percent below baseline regional VMT.

Table 1: Vehicle Miles Traveled Thresholds

VMT Thresholds of Significance	
Project Type	Threshold
Residential	14.25 home-based VMT per capita ¹
Office/Industrial	12.45 home-based work VMT per employee ¹
Retail/Hotel/School/Redevelopment	Net increase in regional (County) VMT ¹
Mixed-Use	Use dominant use or individual thresholds above as appropriate
Transportation Projects	Measurable and substantial increase in VMT

1. Threshold calculated as 15 percent below baseline regional (County) VMT.
Source: SLO City TIS Guidelines, 2020

Table 2 shows the project’s trip generation estimate. Detailed trip generation is only shown here for Alternative B, the worst-case option in terms of VMT and traffic generation. A complete trip generation discussion can be found in the Existing Plus Project section of this report.

Table 2: Trip Generation Estimate (Alternative B)

Weekday Trip Generation: Alternative B									
Land Use	Size		Daily Total	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Multifamily Housing ¹	280	DU	1,524	24	70	94	73	46	119
General Office ²	6,250	SF	72	6	1	7	1	7	8
Medical Office ³	6,250	SF	153	15	4	19	6	17	23
Gross Vehicle Trips			1,749	45	75	120	80	70	150
Residential Vehicular Baseline ⁴	Mode Share			96.2%	97.8%		97.3%	96.2%	
	Occupancy			1.13	1.09		1.15	1.21	
Office Vehicular Baseline ⁴	Mode Share			99.0%	100.0%		100.0%	99.0%	
	Occupancy			1.06	1.06		1.11	1.07	
Residential Person Trips			1,719	28	78	106	86	58	144
Commercial Person Trips			234	22	5	27	8	26	34
Total Person Trips			1,953	50	83	133	94	84	178
Internal Capture ⁵						2%			3%
Internal Person Trips			30	1	1	2	3	3	6
External Person Trips			1,923	49	82	131	91	81	172
Site Mode Split for External Person Trips ⁶	Vehicle	82.8%	1,592	41	68	109	75	67	142
	Bicycle	10.3%	198	5	8	13	9	8	17
	Pedestrian	5.8%	112	3	5	8	5	5	10
	Transit	1.2%	23	1	1	2	1	1	2
Site Vehicle Occupancy ⁷			1.61						
External Vehicle Trips			990	26	42	68	47	42	89
Net New Vehicle Trips			990	26	42	68	47	42	89

DU = Dwelling Unit; SF = Square Feet; ITE = Institute of Transportation Engineers.
 1. ITE Land Use Code #221, Multifamily Housing (Mid-Rise). Fitted curve equations used.
 2. ITE Land Use Code #710, General Office Building. Fitted curve equations (Daily and PM) and average rate (AM) used.
 3. ITE Land Use Code #720, Medical-Dental Office Building. Fitted curve equations used.
 4. Baseline data obtained from Trip Generation Handbook, Appendix B.
 5. AM and PM percentages from TripGen 10 software; Daily internal trips assumed five times PM internal trips.
 6. Mode split based on City's Travel Demand Model with site calibration based on existing counts.
 7. Vehicle occupancy based on City's Travel Demand Model.
 Source: ITE Trip Generation Manual, 10th Ed. and Trip Generation Handbook, 3rd Ed., 2017; GHD, 2020; CCTC, 2020.

Under Alternative B, the residential component generates 87 percent of the daily gross vehicular trips and is therefore the dominant use, so the impact determination focuses on residential VMT. The residential component is also the dominant use under Alternative A, generating 76 percent of the daily gross vehicular trips. The with project scenarios include the proposed frontage improvements to the roadway network.

Table 3 presents the regional VMT with and without the project alternatives.

Table 3: Regional VMT

Regional VMT Summary		
Scenario ¹	Vehicle Miles Traveled (VMT) ²	
	Total Regional	Residential
Baseline	8,488,043	4,267,998
Baseline+Alternative A	8,482,616	4,261,383
<i>Change from Baseline</i>	<i>-5,427</i>	<i>-6,615</i>
Baseline+Alternative B	8,481,574	4,260,917
<i>Change from Baseline</i>	<i>-6,469</i>	<i>-7,081</i>
Baseline+Residential Only	8,481,009	4,260,367
<i>Change from Baseline</i>	<i>-7,034</i>	<i>-7,631</i>
1. Project A includes residential plus retail; Project B includes residential plus office; Residential only does not include retail or office.		
2. Total regional VMT is total daily miles driven within SLO County and residential VMT tracks all home-based trips.		

All three project alternatives reduce regional overall VMT and residential VMT. The residential only alternative shows the largest reduction in both VMT categories.

2.2.1 Residential VMT

The project is in an area identified in the City’s TISG screening maps¹ as having residential VMT per capita below 85 percent of the regional average, the City’s impact threshold for residential projects. The project produces 7.7 residential VMT per capita, well below the City’s impact threshold of 14.25. The residential component of the project would have a less than significant impact on VMT.

This result is intuitive given the City’s current jobs:housing imbalance which results in longer commute trips for many non-resident employees working in the City. Adding housing within the City shortens trips, reducing VMT. The project would be well connected to the City’s bicycle and pedestrian network which also serves to reduce VMT.

2.2.2 Induced Demand

Induced demand occurs when new roadway capacity induces additional vehicular travel. Guidance from the State Office of Planning and Research (OPR) notes that “if a project would likely lead to a measurable and substantial increase in vehicle travel, the lead agency should conduct an analysis assessing the amount of vehicle travel the project will induce.” The City’s TISG note that no standardized thresholds have been defined for induced travel impacts and recommends a case-by-case evaluation. Potential roadway widenings and their effect on VMT are discussed below.

Tank Farm Road

The project proposes to widen the westbound direction of Tank Farm Road along the project frontage to include a center turn lane and two westbound auto lanes, sidewalks, and a separated Class I or IV bike lane. The widening would transition to tie back to the adjoining segment. The VMT results in **Table 3** reflect this proposed frontage widening and show a net decrease in regional VMT with the

¹ City of San Luis Obispo, Multimodal Transportation Impact Study Guidelines (June 2020) <https://www.slocity.org/home/showdocument?id=26883>

project. This widening is short and would substantially improve conditions for cyclists and pedestrians and would have an insubstantial effect on VMT.

The City's Circulation Element plans the widening of Tank Farm Road to four lanes between Santa Fe Road and Old Windmill Lane. The project does not propose this widening, but if the Prado Road Extension is not completed the widening would be needed. The City's TDM was applied to test the impact of this widening under year 2040 conditions. Model runs were conducted that included the proposed project with and without the widening. Widening this segment increases total regional VMT by 1,130 miles, an increase of 0.01 percent, an insubstantial amount. If included as part of the project, regional VMT would still be reduced from the no project condition due to the improved jobs:housing balance within the City resulting from the proposed project land uses. This widening would also include improved conditions for pedestrians and cyclists in the City.

Santa Fe Road

The Circulation Element plans a new commercial collector segment of Santa Fe Road to connect the future Prado Road extension to Tank Farm Road. The project proposes to construct the first segment north of Tank Farm Road to provide project access. The Airport Area Specific Plan (AASP) identifies Santa Fe Road north of Tank Farm Road with an interim two-lane configuration and an ultimate four-lane configuration plus center median/turn lane. However, year 2040 forecasts show these segments carry daily volumes well below the practical capacity of a two-lane roadway, indicating the four-lane section is unnecessary. The project proposes a two-lane section with modifications to enhance the bikeway by upgrading from Class II to IV, which is substantially consistent with the AASP.

OPR guidance notes that the addition of roadway capacity on local or collector streets is not likely to lead to a substantial or measurable increase in vehicle travel provided the project also substantially improves conditions for pedestrians and cyclists. The Santa Fe Road extension would provide bicycle and pedestrian facilities where none currently exist. This widening, should it be constructed, would not substantially increase VMT.

2.3 EMERGENCY ACCESS

The project proposes three driveways: two with full access on Santa Fe Road and one with right-in-right-out only access on Tank Farm Road. An additional access point from Santa Fe Road is proposed with bollards and would serve emergency vehicles. The neighboring 650 Tank Farm Road project is expected to install a new bridge with bollards between the sites which would serve as an emergency access route and allow pedestrian and bicycle travel. Emergency access is adequate as proposed.

2.4 COLLISIONS

The City's 2016 and 2017 Traffic Safety and Operations Reports, the two most recent versions, were reviewed to determine if any study locations have been identified as having higher-than-average collision rates. The intersection of Broad Street/Industrial Way is ranked as the fourth highest collision rate for arterial/collector intersections in the 2016 Report and the fifth highest in the 2017 Report. A rear end collision pattern was identified in both Reports. Recommendations from the 2017 Report include installing an additional signal head and a warning beacon, both for the southbound approach. The project is expected to add 45 vehicle trips to this intersection during the PM peak hour, an increase of 1.4%. This increase would not substantially increase hazards or exacerbate the current pattern of collisions.

The following study locations were also ranked, either in one or both Reports: Tank Farm Road/South Higuera Street, Broad Street/Tank Farm Road, and the segment of Broad Street from Tank Farm Road to Fuller Road. However, each of these locations was ranked below the top five in its respective category and no further discussion was provided.

2.5 CEQA TRANSPORTATION CONCLUSIONS

The proposed project would not conflict with applicable transportation plans and would not substantially increase hazards associated with transportation. The project would produce VMT levels below the City's threshold and would therefore be consistent with CEQA Guidelines section 15064.3, subdivision (b).

3.0 Local Transportation Analysis

The remaining sections of this report present additional project analysis relevant to local transportation policy. This section describes the applicable standards and methodologies.

The local analysis approach for facilities operated by the City of San Luis Obispo was developed based on the 2014 Circulation Element thresholds and 2020 Transportation Impact Study Guidelines (TISG). The Circulation Element establishes priorities for each mode as presented in **Table 4**. The Circulation Element specifies that level of service (LOS) D or better operations shall be maintained for bicycle, transit, and vehicle modes in the study area. The minimum LOS standard for pedestrians is LOS C. Construction, expansion, or alteration for one mode should not degrade the service level of a higher priority mode.

Table 4: Modal Priorities

City of San Luis Obispo Modal Priorities for LOS			
Priority	Residential Corridors and Neighborhoods	Commercial Corridors and Areas	Regional Arterial and Highway Corridors
1	Pedestrians	Vehicles	Vehicles
2	Bicycles	Bicycles	Transit
3	Vehicles	Transit	Bicycles
4	Transit	Pedestrians	Pedestrians

Source: Table 3, City of San Luis Obispo TIS Guidelines

3.1 INTERSECTION ANALYSIS METHODOLOGY

The multimodal LOS thresholds for intersections based on the 6th Edition Highway Capacity Manual (HCM) are presented in **Table 5**.

Table 5: Intersection Level of Service Thresholds

Intersection Level of Service Thresholds							
Signalized Intersections ¹		Two-Way & All-Way Stop Sign Controlled ²		Pedestrian & Bicycle Modes, Signalized ³		Pedestrian Mode, TWSC ⁴	
Control Delay (sec/vehicle)	LOS	Control Delay (sec/vehicle)	LOS	LOS Score	LOS	Control Delay (sec/ped)	LOS
≤ 10	A	≤ 10	A	≤ 1.5	A	≤ 5	A
> 10 - 20	B	> 10 - 15	B	>1.5 - 2.5	B	>5 - 10	B
> 20 - 35	C	> 15 - 25	C	>2.5 - 3.5	C	>10 - 20	C
> 35 - 55	D	> 25 - 35	D	>3.5 - 4.5	D	>20 - 30	D
> 55 - 80	E	> 35 - 50	E	> 4.5 - 5.5	E	>30 - 45	E
> 80	F	> 50 or v/c > 1	F	> 5.5	F	>45	F

1. Source: Exhibit 19-8 of the Highway Capacity Manual 6th Edition.
 2. Source: Exhibit 20-2 and Exhibit 21-8 of the Highway Capacity Manual 6th Edition.
 3. Source: Exhibit 19-9 of the Highway Capacity Manual 6th Edition.
 4. Source: Exhibit 20-3 of the Highway Capacity Manual 6th Edition.

The study intersections were analyzed with the Synchro 10 software package applying the HCM 6th Edition methods.

3.2 ROADWAY SEGMENT ANALYSIS METHODOLOGY

3.2.1 Auto and Pedestrian LOS

The LOS score thresholds for roadway segments are shown in **Table 6**.

Table 6: Roadway Segment Level of Service Thresholds

Roadway Segment Level of Service Thresholds			
Auto Mode ¹		Pedestrian & Transit Modes ²	
% of Base FFS	LOS	LOS Score	LOS
> 80%	A	≤ 2.00	A
> 67% - 80%	B	> 2.00 - 2.75	B
> 50% - 67%	C	> 2.75 - 3.50	C
> 40% - 50%	D	> 3.50 - 4.25	D
> 30% - 40%	E	> 4.25 - 5.00	E
≤ 20% or v/c > 1	F	> 5.00	F

1. LOS based on travel speed as a percentage of base free-flow speed (FFS), unless volume exceeds capacity per Highway Capacity Manual 6th Edition Chapter 16.
2. Source: Exhibits 16-4 and 16-5 of the Highway Capacity Manual 6th Edition, assuming 60 ft²/p for pedestrian mode.

The study roadway segments were analyzed using the Highway Capacity Software (HCS 7) package, applying the HCM 6th Edition methods.

3.2.2 Bicycle Level of Traffic Stress (LTS)

The bicycle segment analysis was conducted using the Bicycle Level of Traffic Stress (LTS) criteria (Mineta Transportation Institute, 2012) in lieu of the LOS methodology in the HCM. For each segment, these criteria aggregate following the “weakest link” principle where the dimension with the worst level of stress governs. Per the TISG, the following LTS-to-LOS equivalencies were assumed for identifying operational deficiencies:

- LOS A = LTS 1
- LOS B/C = LTS 2
- LOS D = LTS 3
- LOS E/F = LTS 4

3.2.3 Transit Operations

Per the TISG, a transit LOS analysis should be conducted for study segments that have current or planned transit service. Additionally, the project’s proximity to transit should be evaluated. If approved by the Transportation Manager, a streamlined transit analysis evaluating transit load factors may be performed in lieu of detailed segment HCM LOS calculations.

3.3 DEFICIENCY THRESHOLDS

3.3.1 City of San Luis Obispo

Deficiencies on City transportation facilities are identified under the following circumstances:

- **Unsignalized Intersections:** Project traffic causes minimum LOS standards to be exceeded or further degrades already exceeded LOS standards; and the volume-demand-to-capacity ratio (V/C), which compares roadway demand (vehicle volumes) with roadway supply (roadway capacity), is increased by 0.01 or more; and the project adds at least 10 trips to the critical approach/movement; and signal warrants are met; or the project buildout causes or exacerbates 95th percentile turning movement queues exceeding available turn pocket capacity.
- **Signalized Intersections:** Project traffic causes minimum LOS standards to be exceeded or further degrades already exceeded LOS standards, and the V/C ratio is increased by 0.01 or

more; or the project buildout causes or exacerbates 95th percentile turning movement queues exceeding available turn pocket capacity by at least one vehicle length or in a manner likely to result in contextually significant safety issues.

- **Roadway Segments:**
 - For bicycles, project traffic causes minimum LOS/LTS standards to be exceeded or further degrades already exceeded LOS/LTS standards.
 - For pedestrians, project traffic causes minimum LOS standards to be exceeded or further degrades already exceeded LOS standards.
 - For autos, project traffic causes minimum LOS standards to be exceeded or further degrades already exceeded LOS standards and the V/C ratio increases by at least 0.01 with the project.
 - For transit, project traffic causes minimum LOS standards to be exceeded or further degrades already exceeded LOS standards; or project proposes businesses or dwellings that are beyond 1/4 mile in existing developed areas and/or beyond 1/8 mile of employment-intensive uses or medium to high density residential uses in City expansion areas; or project-generated transit ridership would cause load factors to exceed 0.83 or add ridership to routes where existing load factors already exceed 0.83.

The TISG allows discretion for non-auto modes based on whether the project contribution is contextually significant.

3.3.2 Caltrans

Caltrans has eliminated LOS consistent with SB 743 and now relies on VMT and safety to evaluate transportation impacts. Caltrans recently issued a series of policy documents related to transportation impacts and CEQA determinations. Caltrans published a VMT-Focused TIS Guide in May 2020 which replaced the prior guide reliant on LOS. The TIS Guide notes that lead agencies have the discretion to choose VMT thresholds and methods, and generally conforms to OPR guidance.

4.0 Existing Conditions

This section summarizes the current operating conditions in the study area.

4.1 EXISTING OPERATIONS

Traffic counts were collected in 2018 by the City of San Luis Obispo as a part of their biannual traffic count data collection program, with the exceptions of Tank Farm Road/Long Street, Tank Farm Road/Santa Fe Road, Tank Farm Road/Mindbody, Broad Street/Farmhouse Lane, and Edna Road (SR 227)/Buckley Road, which were collected independently in 2019.

Figure 3 shows the Existing weekday peak hour traffic volumes with lane configurations. Traffic count sheets are provided in **Appendix A**.

4.1.1 Intersection Operations

Table 7 shows the LOS for the study intersections, with detailed calculation sheets included in **Appendix B**.

Table 7: Existing Intersection Auto LOS

Existing Intersection Auto Levels of Service				
Intersection	Peak Hour	V/C ¹	Delay ²	LOS
1. Tank Farm Road/South Higuera Street	AM		24.8	C
	PM		27.2	C
2. Tank Farm Road/Long Street	AM		2.0 (23.2)	- (C)
	PM	0.49	4.5 (47.8)	- (E)
3. Tank Farm Road/Santa Fe Road West	AM		<i>Future Intersection</i>	
	PM			
4. Tank Farm Road/Santa Fe Road East	AM		1.7 (34.3)	- (D)
	PM	1.57	13.7 (142.1)	- (F)
5. Tank Farm Road/MindBody	AM		8.2	A
	PM		13.8	B
6. Broad Street/Industrial Way	AM		16.1	B
	PM		32.7	C
7. Broad Street/Tank Farm Road	AM		33.0	C
	PM		42.6	D
8. Broad Street/Aero Vista Lane	AM		0.7 (19.5)	- (C)
	PM		2.0 (25.7)	- (D)
9. Broad Street/Aero Drive	AM		10.3	B
	PM		12.9	B
10. Broad Street/Farmhouse Lane	AM		0.5 (18.7)	- (C)
	PM		0.6 (15.1)	- (C)
11. Edna Road (SR 227)/Buckley Road	AM		23.1	C
	PM		27.1	C

1. Volume to capacity ratio reported for worst movement, for unacceptable LOS only.
2. HCM 6th average control delay in seconds per vehicle. For side-street-stop controlled intersections the worst approach's delay is reported in parentheses next to the overall intersection delay.
Unacceptable operations shown in bold text.

The following intersections operate below the LOS threshold:

- Tank Farm Road/Long Street (#2): The southbound approach operates at LOS E during the PM peak hour due to long delays experienced by left-turning traffic.

- Tank Farm Road/Santa Fe Road East (#4): The side street approaches operate at LOS F during the PM peak hour.

Table 8 summarizes key vehicular queuing, with detailed calculation sheets included in **Appendix B**.

Table 8: Existing Intersection Queues

Existing Intersection Queues				
Intersection	Movement	Storage Length (ft)	Peak Hour	95 th Percentile Queue (ft) ¹
1. Tank Farm Road/South Higuera Street	SBL	100	AM	#362
			PM	#383
2. Tank Farm Road/Long Street	WBL	160	AM	15
			PM	13
3. Tank Farm Road/Santa Fe Road West	EBL	100	AM	<i>Future</i>
			PM	<i>Intersection</i>
6. Broad Street/Industrial Way	NBL	150	AM	#143
			PM	#226
7. Broad Street/Tank Farm Road	EBL	265	AM	122
			PM	#338
	NBL	275	AM	#169
			PM	#258
10. Broad Street/Farmhouse Lane	SBL	145	AM	5
			PM	3

1. Queue length that would not be exceeded 95 percent of the time.
indicates 95th percentile volume exceeds capacity, queue may be longer.
Bold indicates queue length longer than storage length.
Detailed queues provided in Appendix B.

The following instances of queue spillback are noted:

- Tank Farm Road/South Higuera Street (#1): The southbound left turn queue exceeds the storage length during both peak hours. The additional storage is available in the two-way left turn lane, though with an upstream driveway blocked during the PM peak hour.
- Broad Street/Industrial Way (#6): The northbound left turn queue exceeds the storage length during the PM peak hour. The additional storage is available in the two-way left turn lane.
- Broad Street/Tank Farm Road (#7): The eastbound left turn queue exceeds the storage length during the PM peak hour.

Table 9 presents the intersection pedestrian LOS, with detailed calculation sheets included in **Appendix B**.

Table 9: Existing Intersection Pedestrian LOS

Existing Intersection Pedestrian Levels of Service					
Intersection	Approach	AM Peak Hour		PM Peak Hour	
		Score/Delay ¹	LOS	Score/Delay ¹	LOS
1. Tank Farm Road/South Higuera Street	EB	1.98	B	2.01	B
	WB	2.95	C	3.03	C
	NB	3.17	C	3.31	C
	SB	2.68	C	2.88	C
2. Tank Farm Road/Long Street	EB	>200	F	>200	F
	WB	>200	F	>200	F
3. Tank Farm Road/Santa Fe Road West	EB	<i>Future Intersection</i>			
	WB				
4. Tank Farm Road/Santa Fe Road East	EB	19.0	C	34.5	E
	WB	>200	F	>200	F
5. Tank Farm Road/MindBody	EB	N/A			
	WB				
	NB				
	SB				
6. Broad Street/Industrial Way	EB	2.01	B	2.09	B
	WB	2.14	B	2.33	B
	NB	3.11	C	3.23	C
	SB	3.02	C	3.20	C
7. Broad Street/Tank Farm Road	EB	2.92	C	3.07	C
	WB	2.63	C	2.72	C
	NB	3.05	C	3.13	C
	SB	3.14	C	3.38	C
10. Broad Street/Farmhouse Lane	NB	>200	F	>200	F
	SB	>200	F	>200	F

1. HCM 6th pedestrian score (signalized intersections) or delay in seconds (two-way stop controlled intersections).

All intersections with two-way stop control (#2, 4, and 10) operate with unacceptable intersection pedestrian LOS on one or both approaches during both peak hours. At the signalized intersection of Tank Farm Road/MindBody (#5), the methodology is not applicable due to the lack of pedestrian accommodations (no pedestrian signal, lack of curb ramps, no marked crosswalks), though intuitively the pedestrian service quality is poor. No other intersection pedestrian deficiencies are reported.

Table 10 presents the intersection bicycle LOS, with detailed calculation sheets included in **Appendix B**. The intersection bicycle LOS methodology does not support unsignalized intersection analysis.

Table 10: Existing Intersection Bicycle LOS

Existing Intersection Bicycle Levels of Service					
Intersection	Approach	AM Peak Hour		PM Peak Hour	
		Score ¹	LOS	Score ¹	LOS
1. Tank Farm Road/South Higuera Street	EB	3.13	C	3.10	C
	WB	2.46	B	3.10	C
	NB	2.60	C	2.43	B
	SB	1.95	B	2.33	B
5. Tank Farm Road/MindBody	EB	1.74	B	2.01	B
	WB	2.77	C	3.21	C
	NB	2.52	C	2.80	C
	SB	-	-	-	-
6. Broad Street/Industrial Way	EB	2.70	C	2.91	C
	WB	2.99	C	3.42	C
	NB	2.04	B	2.24	B
	SB	2.07	B	2.22	B
7. Broad Street/Tank Farm Road	EB	2.23	B	2.66	C
	WB	3.04	C	2.86	C
	NB	2.42	B	2.66	C
	SB	2.50	C	2.89	C

1. HCM 6th bicycle score.

No intersection bicycle LOS deficiencies are reported.

4.1.2 Roadway Operations

Table 11 presents the existing roadway segment auto and pedestrian LOS, with detailed calculation sheets included in Appendix C.

Table 11: Existing Roadway Segment LOS

Existing Roadway Segment Levels of Service									
Segment	Direction	Auto ¹				Pedestrian ²			
		AM Peak		PM Peak		AM Peak		PM Peak	
		%	LOS	%	LOS	Score	LOS	Score	LOS
1. Tank Farm Road - S. Higuera Street to Old Windmill Lane	EB	91.8	A	91.9	A	3.14	C	3.05	C
	WB	55.9	C	58.0	C	3.25	C	3.69	D
2. Tank Farm Road - Old Windmill Lane to Santa Fe Road	EB	95.2	A	92.6	A	-	F	-	F
	WB	96.0	A	88.8	A	-	F	-	F
3. Tank Farm Road - Santa Fe Road to Broad Street	EB	45.6	D	41.2	D	3.38	C	3.52	D
	WB	82.4	A	77.2	B	-	F	-	F
4. Tank Farm Road - Broad Street to Righetti Ranch Road	EB	95.0	A	92.9	A	2.67	B	3.10	C
	WB	69.5	B	64.7	C	3.26	C	3.15	C
5. Broad Street - Farmhouse Lane to Tank Farm Road	NB	68.8	B	69.2	B	-	F	-	F
	SB	93.7	A	91.6	A	3.59	D	3.51	D
6. Broad Street - Tank Farm Road to Orcutt Road	NB	89.6	A	86.3	A	3.30	C	3.39	C
	SB	72.4	B	71.0	B	-	F	-	F
7. Santa Fe Road - North of Tank Farm Road	NB	<i>Future Segment</i>							
	SB								

1. HCM 6th LOS based on auto travel speed as a percentage of base free-flow speed, unless volume exceeds capacity.
2. HCM 6th LOS based on pedestrian score, unless pedestrian space is constrained.

The following deficiencies are reported:

- **Auto:** No roadway segment auto LOS deficiencies are reported.
- **Pedestrian:** Multiple roadway segments operate with unacceptable pedestrian LOS due to missing sidewalks or high adjacent vehicle volumes.

Bicycle Level of Traffic Stress (LTS) was analyzed for the study segments, all of which have existing Class II bike lanes. **Table 12** shows the LTS analysis results.

Table 12: Bicycle Level of Traffic Stress

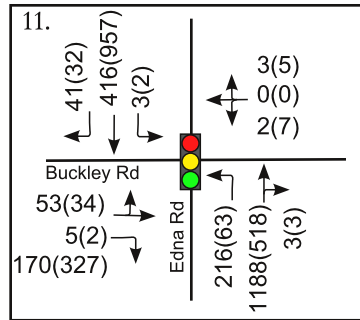
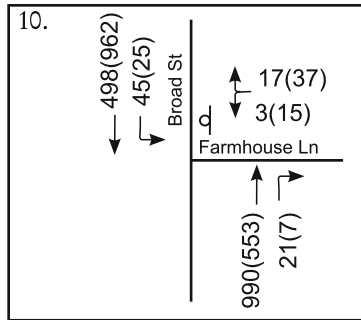
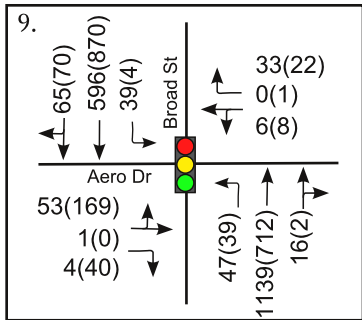
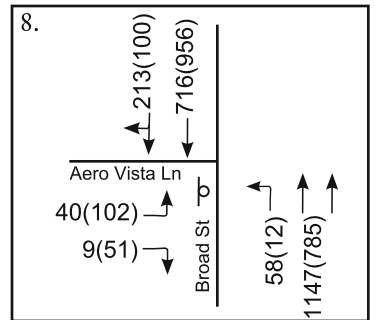
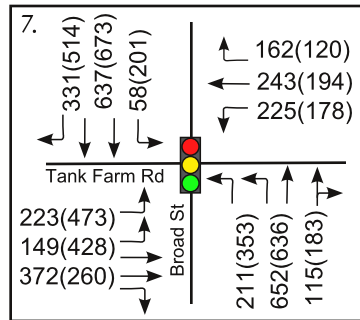
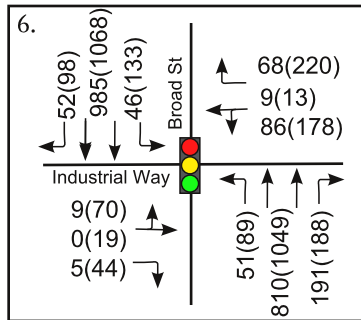
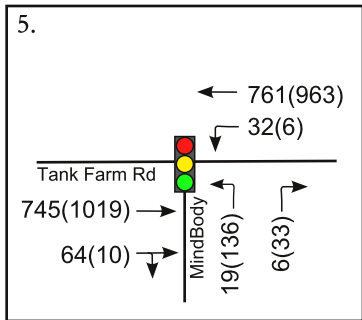
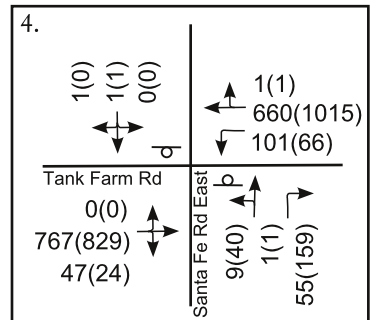
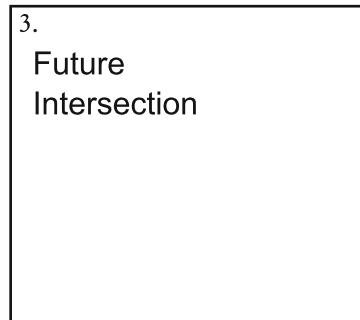
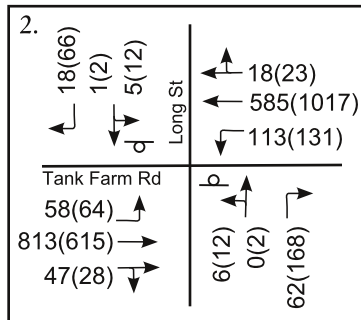
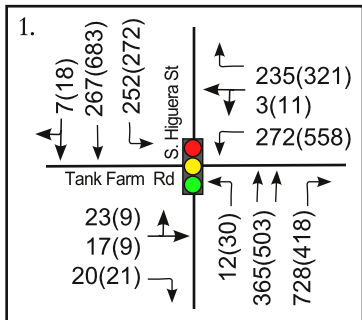
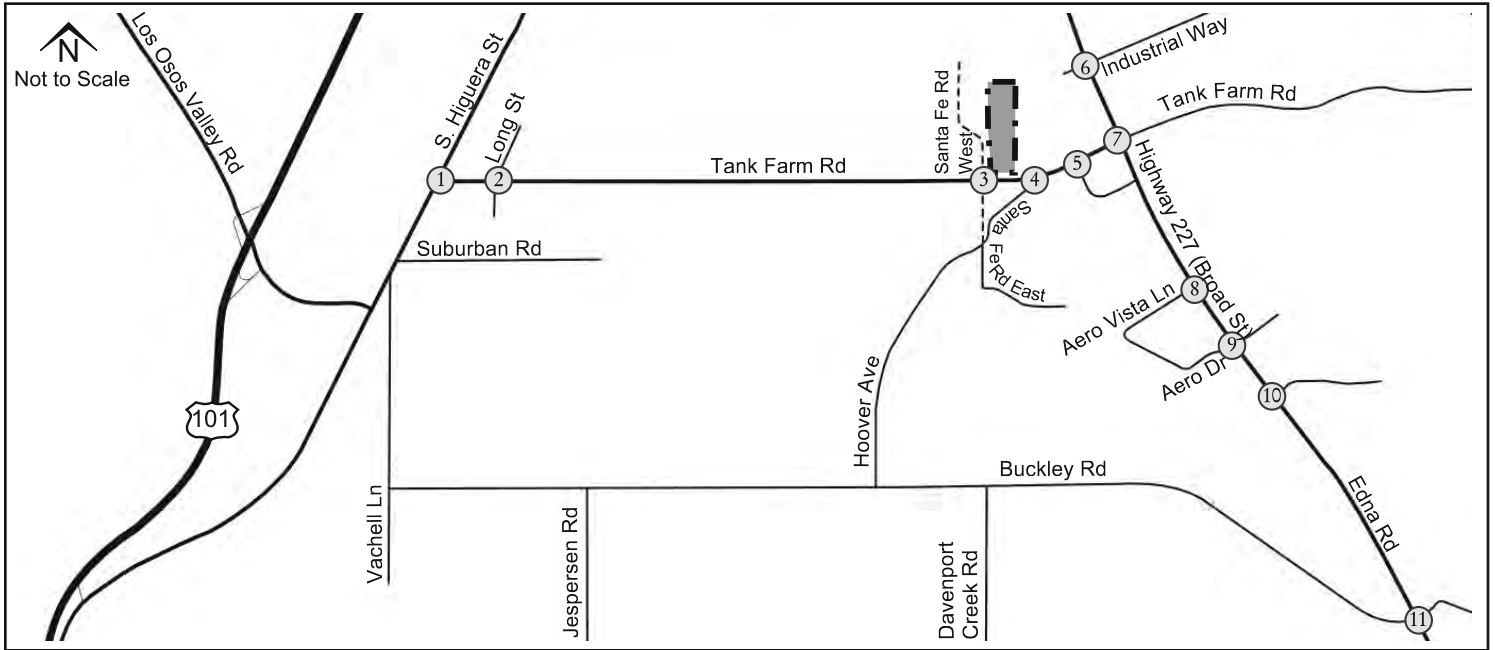
Bicycle Level of Traffic Stress (LTS)						
Segment	Criteria for Bike Lanes Not Alongside a Parking Lane ¹			Approach Criteria ⁵	Crossing Criteria ⁶	Overall LTS
	TL ²	LW ³	SL ⁴			
1. Tank Farm: Higuera to Old Windmill	3	2	4	4	N/A	4
2. Tank Farm: Old Windmill to Santa Fe	1	2	4	2	N/A	4
3. Tank Farm: Santa Fe to Broad	3	2	4	4	N/A	4
4. Tank Farm: Broad to Righetti Ranch	3	2	4	4	N/A	4
5. Broad: Farmhouse to Tank Farm	3	2	4	N/A	N/A	4
6. Broad: Tank Farm to Orcutt	3	2	4	4	N/A	4
7. Santa Fe: north of Tank Farm ⁷	<i>(See Existing Plus Project Section)</i>					
N/A = Not Applicable						
1. Bike lane blockage was assumed to be rare.						
2. TL = LTS based on number of through lanes per direction.						
3. LW = LTS based on bike lane width, including any marked buffer.						
4. SL = LTS based on speed limit.						
5. LTS based on configuration of any right turn lanes.						
6. LTS based on the speed and width of any uncontrolled cross streets.						
7. Future segment.						
Unacceptable operations shown in bold text.						

All study segments on Tank Farm Road and Broad Street operate at unacceptable LTS 4, equivalent to LOS E/F. This is due to the posted speed limit of 40 MPH or more on these segments with no physical separation between bicycles and motor vehicle traffic. Additionally, many of these segments include long right turn lanes with high turning speeds.

For Class II Bike Lanes, the LTS is sensitive to bike lane width, number of auto lanes, and auto speeds, but not specifically auto volumes. This analysis assumes that prevailing auto speeds and bike lane widths remain generally consistent with current conditions, unless otherwise noted in later sections of this report. Therefore, the addition of project traffic and/or buildout of the City’s General Plan is not expected to change the overall LTS value on the existing segments and the analysis applies to all scenarios with and without the project.

The future segment of Santa Fe Road north of Tank Farm Road would be constructed with the project along with other improvements. This segment is discussed in detail in the Existing Plus Project section of this report.

Figure 3: Existing Volumes and Lane Configurations



Legend:

- Project Site
- Traffic Signal
- Stop Sign
- Study Intersection
- xx(yy) - AM(PM) Peak Hour Traffic Volumes
- - Future Road

5.0 Existing Plus Project Conditions

This section evaluates the effects of the proposed project on the surrounding transportation network. Existing Plus Project Conditions reflect existing traffic levels plus the estimated traffic generated by the proposed project.

5.1 PROJECT TRAFFIC

The amount of project traffic affecting the study locations is estimated in three steps: trip generation, trip distribution, and trip assignment. Trip generation refers to the total number of trips generated by the site. Trip distribution identifies the general origins and destination of these trips, and trip assignment specifies the routes taken to reach these origins and destinations.

5.1.1 Trip Generation

The trip generation estimates for the project alternatives were developed using data from the Institute of Transportation Engineers (ITE) adjusted for site conditions. The total commercial square footage of either alternative is 15,000 square feet (SF). However, 2,500 SF of that space would be support services for the residential use and was excluded from the trip generation, resulting in 12,500 SF of leasable building area.

Table 13 shows the estimated trip generation for Alternative A.

Table 13: Trip Generation for Alternative A

Weekday Trip Generation: Alternative A									
Land Use	Size		Daily Total	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Multifamily Housing ¹	280	DU	1,524	24	70	94	73	46	119
Retail ²	12,500	SF	472	7	5	12	23	25	48
Gross Vehicle Trips			1,996	31	75	106	96	71	167
Residential Vehicular Baseline ³	Mode Share			96.2%	97.8%		97.3%	96.2%	
	Occupancy			1.13	1.09		1.15	1.21	
Retail Vehicular Baseline ³	Mode Share			100.0%	100.0%		100.0%	100.0%	
	Occupancy			1.17	1.16		1.21	1.18	
Residential Person Trips			1,719	28	78	106	86	58	144
Commercial Person Trips			551	8	6	14	28	30	58
Total Person Trips			2,270	36	84	120	114	88	202
Internal Capture ⁴						2%			11%
Internal Person Trips			110	1	1	2	11	11	22
External Person Trips			2,160	35	83	118	103	77	180
Site Mode Split for External Person Trips ⁵	Vehicle	82.8%	1,788	29	69	98	85	64	149
	Bicycle	10.3%	222	4	9	13	11	8	19
	Pedestrian	5.8%	125	2	5	7	6	4	10
	Transit	1.2%	26	0	1	1	1	1	2
Site Vehicle Occupancy ⁶	1.61								
External Vehicle Trips			1,112	18	43	61	53	40	93
Retail Pass-by Trips ⁷	PM	34%	50	0	0	0	5	5	10
Net New Vehicle Trips			1,062	18	43	61	48	35	83

DU = Dwelling Unit; SF = Square Feet; ITE = Institute of Transportation Engineers.
 1. ITE Land Use Code #221, Multifamily Housing (Mid-Rise). Fitted curve equations used.
 2. ITE Land Use Code #820, Shopping Center. Average rates used.
 3. Baseline data obtained from Trip Generation Handbook, Appendix B.
 4. AM and PM percentages from TripGen 10 software; Daily internal trips assumed five times PM internal trips.
 5. Mode split based on City's Travel Demand Model with site calibration based on existing counts.
 6. Vehicle occupancy based on City's Travel Demand Model.
 7. Pass-by reduction applied to retail trips only. Daily pass-by trips assumed five times PM pass-by trips.
 Source: ITE Trip Generation Manual, 10th Ed. and Trip Generation Handbook, 3rd Ed., 2017; GHD, 2020; CCTC, 2020.

Alternative A is expected to generate 1,062 net new vehicle trips per weekday, including 61 trips during the AM peak hour and 83 trips during the PM peak hour.

Table 14 shows the estimated trip generation for Alternative B.

Table 14: Trip Generation for Alternative B

Weekday Trip Generation: Alternative B									
Land Use	Size		Daily Total	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Multifamily Housing ¹	280	DU	1,524	24	70	94	73	46	119
General Office ²	6,250	SF	72	6	1	7	1	7	8
Medical Office ³	6,250	SF	153	15	4	19	6	17	23
Gross Vehicle Trips			1,749	45	75	120	80	70	150
Residential Vehicular Baseline ⁴	Mode Share			96.2%	97.8%		97.3%	96.2%	
	Occupancy			1.13	1.09		1.15	1.21	
Office Vehicular Baseline ⁴	Mode Share			99.0%	100.0%		100.0%	99.0%	
	Occupancy			1.06	1.06		1.11	1.07	
	Residential Person Trips		1,719	28	78	106	86	58	144
	Commercial Person Trips		234	22	5	27	8	26	34
Total Person Trips			1,953	50	83	133	94	84	178
	Internal Capture ⁵					2%			3%
	Internal Person Trips		30	1	1	2	3	3	6
External Person Trips			1,923	49	82	131	91	81	172
Site Mode Split for External Person Trips ⁶	Vehicle	82.8%	1,592	41	68	109	75	67	142
	Bicycle	10.3%	198	5	8	13	9	8	17
	Pedestrian	5.8%	112	3	5	8	5	5	10
	Transit	1.2%	23	1	1	2	1	1	2
Site Vehicle Occupancy ⁷	1.61								
External Vehicle Trips			990	26	42	68	47	42	89
Net New Vehicle Trips			990	26	42	68	47	42	89

DU = Dwelling Unit; SF = Square Feet; ITE = Institute of Transportation Engineers.
 1. ITE Land Use Code #221, Multifamily Housing (Mid-Rise). Fitted curve equations used.
 2. ITE Land Use Code #710, General Office Building. Fitted curve equations (Daily and PM) and average rate (AM) used.
 3. ITE Land Use Code #720, Medical-Dental Office Building. Fitted curve equations used.
 4. Baseline data obtained from Trip Generation Handbook, Appendix B.
 5. AM and PM percentages from TripGen 10 software; Daily internal trips assumed five times PM internal trips.
 6. Mode split based on City's Travel Demand Model with site calibration based on existing counts.
 7. Vehicle occupancy based on City's Travel Demand Model.
 Source: ITE Trip Generation Manual, 10th Ed. and Trip Generation Handbook, 3rd Ed., 2017; GHD, 2020; CCTC, 2020.

Alternative B is expected to generate 990 net new vehicle trips per weekday, including 68 trips during the AM peak hour and 89 trips during the PM peak hour.

The detailed operations analysis that follows is only conducted for Alternative B, the worst-case option in terms of VMT and peak hour traffic generation.

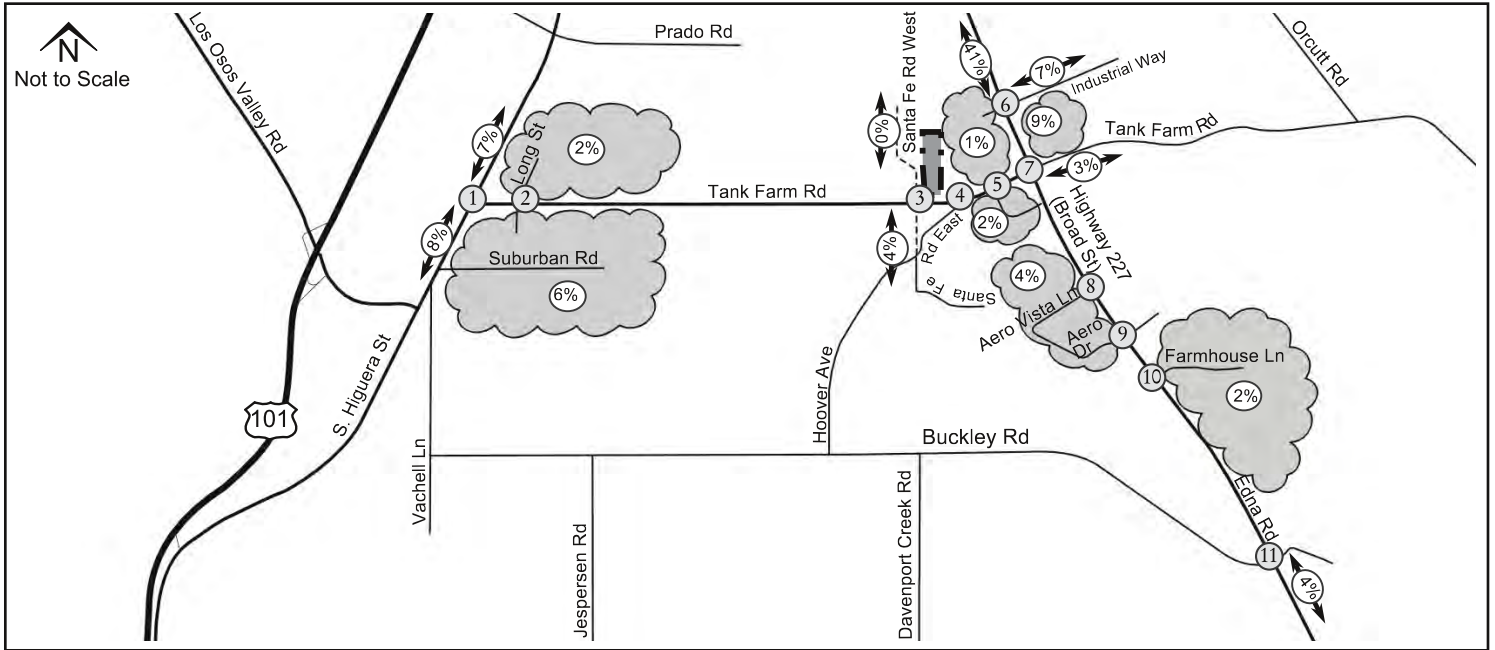
5.1.2 Trip Distribution and Assignment

Trip distribution and assignment for the project trips were estimated using a select zone procedure in the City's Travel Demand Model, refined based on the site plan and local knowledge. **Figure 4** shows the Existing and Near Term trip distribution percentages and project traffic assignment. **Figure 5** shows the Existing Plus Project volumes.

5.1.3 Planned Improvements

The project would construct an interim section of the Santa Fe Road extension north of Tank Farm Road and widen the westbound direction of Tank Farm Road along the project frontage. These improvements are discussed in detail in Section 5.2 Site Access and On-Site Circulation of this report.

Figure 4: Existing/Near Term Project Trip Distribution and Assignment



1.

0(0) ← 0(0) ↓ 2(3) ↘	S. Higuera St ↑ 3(3) ← 0(0) ↓ 3(3)
Tank Farm Rd 0(0) ↑ 0(0) → 0(0) ↓	↑ 0(0) ↓ 0(0) ↘ 2(4)

2.

0(0) ← 0(0) ↓ 0(0) ↘	Long St ↑ 0(0) ← 6(6) ↓ 2(2)
Tank Farm Rd 0(0) ↑ 4(7) → 0(0) ↓	↑ 0(0) ↓ 0(0) ↘ 1(2)

3.

10(10) ← 32(32) ↓	Santa Fe Rd West ↑ 20(36) ← 0(0)
Tank Farm Rd 6(11) ↑ 0(0) →	

4.

0(0) ← 0(0) ↓ 0(0) ↘	↑ 0(0) ← 19(34) ↓ 0(0)
Tank Farm Rd 0(0) ↑ 31(31) → 2(2) ↓	↑ 1(2) ↓ 0(0) ↘ 0(0)

5.

18(33) ← 0(0) ↓	
Tank Farm Rd 30(30) → 1(1) ↓	MindBody ↑ 1(1) ↓ 0(0)

6.

0(0) ← 11(19) ↓ 0(0) ↘	Broad St ↑ 0(0) ← 0(0) ↓ 3(5)
Industrial Way 0(0) ↑ 0(0) → 0(0) ↓	↑ 0(0) ↓ 17(17) ↘ 4(4)

7.

14(26) ← 0(0) ↓ 0(0) ↘	Broad St ↑ 0(0) ← 2(3) ↓ 0(0)
Tank Farm Rd 23(23) ↑ 3(3) → 4(4) ↓	↑ 3(5) ↓ 0(0) ↘ 0(0)

8.

1(1) ← 3(3) ↓	Broad St ↑ 0(0) ↓ 2(3)
Aero Vista Ln 1(1) ↑ 0(0) ↓	

9.

0(0) ← 3(3) ↓ 0(0) ↘	Broad St ↑ 0(0) ← 0(0) ↓ 0(0)
Aero Dr 0(0) ↑ 0(0) → 0(0) ↓	↑ 0(0) ↓ 2(3) ↘ 0(0)

10.

2(2) ← 0(0) ↓	Broad St ↑ 0(0) ↓ 0(0)
	Farmhouse Ln ↑ 1(2) ↓ 0(0)

11.

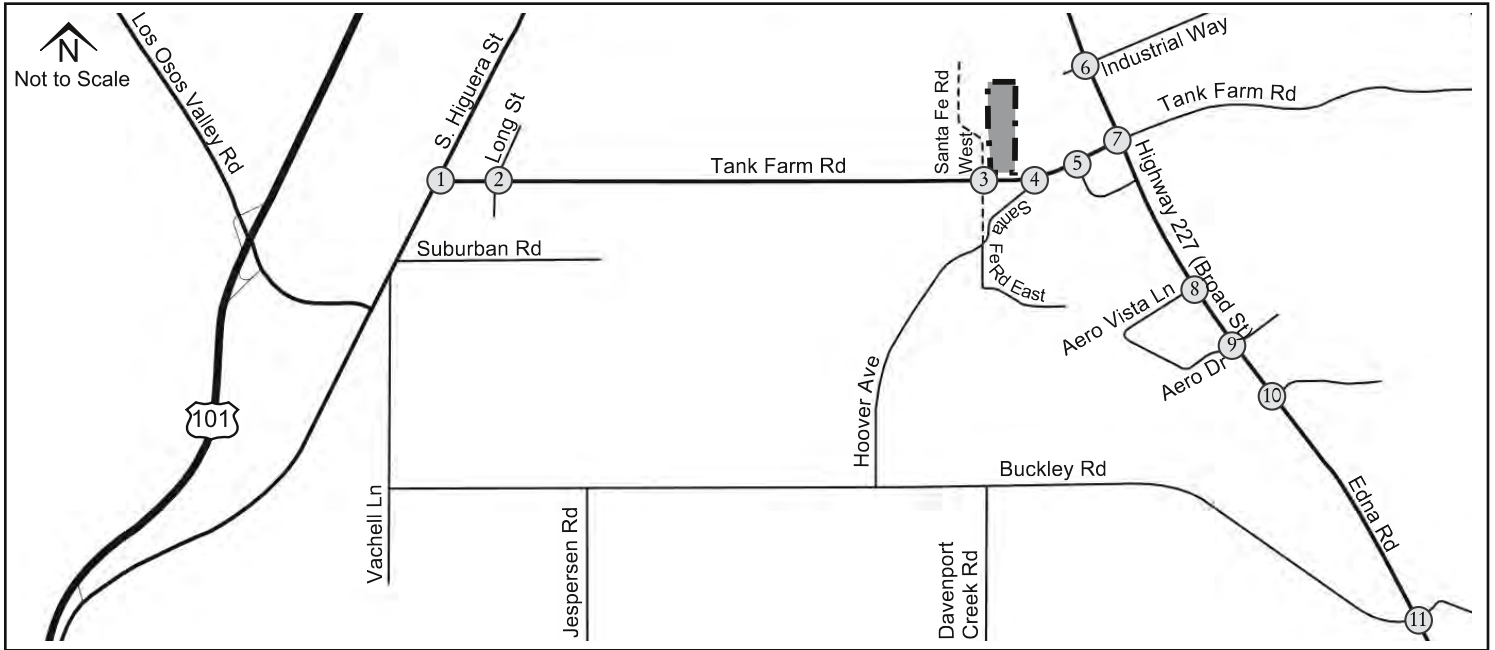
0(0) ← 2(2) ↓ 0(0) ↘	Edna Rd ↑ 0(0) ← 0(0) ↓ 0(0)
Buckley Rd 0(0) ↑ 0(0) → 0(0) ↓	↑ 0(0) ↓ 1(2) ↘ 0(0)



Legend:

- Project Site
- Future Road
- Study Intersection
- xx(yy) - AM(PM) Peak Hour Traffic Volumes
- Existing and Near Term % Project Trip Distribution

Figure 5: Existing Plus Project Volumes



1.

↑ 7(18) ↓ 267(683) ↘ 254(275) S. Higuera St	↑ 238(324) ↓ 3(11) ↘ 275(561)
Tank Farm Rd	
↑ 23(9) ↓ 17(9) ↘ 20(21)	↓ 12(30) ↑ 365(503) ↘ 730(422)

2.

↑ 18(66) ↓ 1(2) ↘ 5(12) Long St	↑ 18(23) ↓ 591(1023) ↘ 115(133)
Tank Farm Rd	
↑ 58(64) ↓ 817(622) ↘ 47(28)	↓ 6(12) ↑ 0(2) ↘ 63(170)

3.

↑ 10(10) ↓ 32(32) Santa Fe Rd West	↑ 20(36) ↓ 670(1055)
Tank Farm Rd	
↑ 6(11) ↓ 814(853)	

4.

↑ 1(0) ↓ 1(1) ↘ 0(0)	↑ 1(1) ↓ 679(1049) ↘ 101(66)
Tank Farm Rd	
↑ 0(0) ↓ 798(860) ↘ 49(26)	↓ 10(42) ↑ 1(1) ↘ 55(159)

5.

	↑ 779(996) ↓ 32(6)
Tank Farm Rd	
↑ 775(1049) ↓ 65(11)	↓ 20(137) ↑ 6(33)

6.

↑ 52(98) ↓ 996(1087) ↘ 46(133) Broad St	↑ 68(220) ↓ 9(13) ↘ 89(183)
Industrial Way	
↑ 9(70) ↓ 0(19) ↘ 5(44)	↓ 51(89) ↑ 827(1066) ↘ 195(192)

7.

↑ 345(540) ↓ 637(673) ↘ 58(201) Broad St	↑ 162(120) ↓ 245(197) ↘ 225(178)
Tank Farm Rd	
↑ 246(496) ↓ 152(431) ↘ 376(264)	↓ 214(358) ↑ 652(636) ↘ 115(183)

8.

↑ 214(101) ↓ 719(959) Broad St	
Aero Vista Ln	
↑ 41(103) ↓ 9(51)	↓ 58(12) ↑ 1149(788)

9.

↑ 65(70) ↓ 599(873) ↘ 39(4) Broad St	↑ 33(22) ↓ 0(1) ↘ 6(8)
Aero Dr	
↑ 53(169) ↓ 1(0) ↘ 4(40)	↓ 47(39) ↑ 1141(715) ↘ 16(2)

10.

↑ 500(964) ↓ 45(25) Broad St	↑ 17(37) ↓ 3(15)
Farmhouse Ln	
↑ 991(555) ↓ 21(7)	

11.

↑ 41(32) ↓ 418(959) ↘ 3(2) Edna Rd	↑ 3(5) ↓ 0(0) ↘ 2(7)
Buckley Rd	
↑ 53(34) ↓ 5(2) ↘ 170(327)	↓ 216(63) ↑ 1189(520) ↘ 3(3)

Legend:

- xx(yy) - AM(PM) Peak Hour Traffic Volumes
- - Future Road Traffic Volumes
- [Project Site Icon] - Project Site
- (X) - Study Intersection



5.2 SITE ACCESS AND ON-SITE CIRCULATION

This section discusses issues related to site access and on-site circulation. On-site circulation deficiencies would occur if project designs fail to meet appropriate standards, fail to provide adequate truck access, or would result in hazardous conditions. The site plan is shown on **Figure 2**.

5.2.1 Santa Fe Road

The project would construct an interim section of the Santa Fe Road extension north of Tank Farm Road. This interim section would include one auto lane per direction, a northbound vertically separated Class IV bikeway, a southbound Class II bikeway (to be upgraded to a Class IV bikeway with future development to the west), and a sidewalk on the east side fronting the project site. The roadway would terminate with a temporary half cul-de-sac. In the future, neighboring developments would convert this terminus to a roundabout and provide a connection to the Prado Road extension. The project proposes two full access driveways on the Santa Fe Road extension.

The partial construction of a cul-de-sac as shown on the site plan would not provide adequate space for vehicle turnaround.

5.2.2 Tank Farm Road

Under existing conditions, Tank Farm Road east of the project site has one westbound auto lane, two eastbound auto lanes, and Class II bike lanes. The south side has intermittent sidewalks, and the north side has no sidewalks. A second westbound auto lane, a landscaped parkway, a physically separated bike lane, and a sidewalk are planned as part of the frontage improvements for the adjacent development projects at 650 and 660 Tank Farm Road. West of the project site there is currently one auto lane per direction, Class II bike lanes, and no sidewalks. An additional auto lane per direction, a center median/left-turn lane, and a Class I bike path on each side are proposed as long-term improvements.

The project proposes to widen the westbound direction of Tank Farm Road along its frontage to include a center turn lane and two westbound auto lanes, sidewalks, and a separated Class IV bike lane. This is consistent with the frontage improvements to be constructed by the approved developments to the east. The project proposes to construct a roundabout or interim signal on Tank Farm Road at the realigned Santa Fe Road intersection as well as an on-site Class I bike path to the Damon-Garcia Sports Fields. The project proposes a right-in-right-out driveway on Tank Farm Road.

5.2.3 Pedestrian and Bicycle Access

Under existing conditions, there are no sidewalks to the east or west of the project site along Tank Farm Road. Pedestrian access would be via the north-south Class I path to be constructed along the project's eastern boundary parallel to Acacia Creek, connecting to the Damon-Garcia Sports Fields pathway network. However, this connection is limited as the complex and its pathways are closed to the public after dark. Bicycle access would be via bikeways on Tank Farm Road and the Santa Fe Road extension, in addition to this limited connection to the north. Unless a roundabout or traffic signal is constructed at Tank Farm Road/Santa Fe Road West (#3), there would be no controlled bicycle or pedestrian crossings of Tank Farm Road within the vicinity until planned signal upgrades at Tank Farm Road/MindBody (#5) are constructed. When a development that generates pedestrian demand, such as a new residential subdivision, is constructed in a location with no dedicated pedestrian facilities or controlled intersection crossings, it increases the propensity for pedestrians to walk along the roadway

shoulder or cross at inappropriate locations, which is an undesirable condition—particularly along a high-speed arterial roadway such as Tank Farm Road.

5.2.4 Site Access Recommendations

The following modifications are recommended to the site plan provided as **Figure 2**.

- Provide Class I bikeway between the bicycle facilities proposed on the Santa Fe Road extension, the bridge connection to 650 Tank Farm Road, and the Class I path located on the eastern property line. This would require a public pedestrian and bicycle access easement for segments of the path that route through the project site.
- Provide connections between sidewalks adjacent to buildings and the Class I path located on the eastern property line.
- If frontage improvements have not yet been constructed by the approved 650 Tank Farm Road development to the east, the project should provide 250-foot minimum taper from project site to the east for additional westbound through lane on Tank Farm Road consistent with Highway Design Manual (HDM) Figure 405.9. Note that the widening and taper will require extending the existing culvert over Acacia Creek including metal beam guardrail replacement and other potential drainage improvements. The widening would need to be completed prior to or in conjunction with the frontage widening and intersection improvements at Tank Farm Road/Santa Fe Road West (#3) required by the project. The 650 Tank Farm Road development is required to construct the culvert and roadway widening as part of their frontage improvements, which will include a sidewalk, parkway, and elevated Class IV bike lane.
- Provide 300-foot westbound through lane and required taper from the Santa Fe Road extension site to the west for westbound through lane drop on Tank Farm Road consistent with HDM Figure 405.9. Note final taper design will depend on speed limit of corridor or roundabout design speed. The recommendations are shown below:



- Provide bicycle and pedestrian transitions through right-in right-out driveway on Tank Farm Road and Santa Fe Road extension.
- Instead of constructing a partial cul-de-sac terminus of the new Santa Fe Road extension north of Tank Farm Road, either 1) provide a full cul-de-sac consistent with City design standards, or 2) construct a single lane roundabout. The roundabout would likely result in lower ‘throwaway’ costs when the extension to Prado Road is constructed. If a cul-de-sac is constructed, right-of-way should be preserved for a future roundabout.

- Complete the planned Class I path on the north side of Tank Farm Road from the site west approximately 4,700 feet to Innovation Way if feasible. The improvements may not ultimately be feasible due to multiple considerations including right-of-way acquisition, the design has not been finalized, the County would have jurisdiction over the facility, and financing has not been confirmed.
- If frontage improvements have not yet been constructed east of the site, the project should provide a crosswalk with pedestrian signals on the east leg of the intersection of Tank Farm Road/MindBody (#5) and provide pedestrian connectivity to the site along Tank Farm Road to the satisfaction of the City.
- Provide funds for installation of future transit stop by others within the vicinity of the project, with final location to be determined by the City Transit Manager and updates to the City's Short Range Transit Plan.
- Frontage improvements should be designed consistent with City Engineering Standards and to conform to the similar frontage improvements constructed by the developments east of the site.

5.2.5 Transit Analysis

The project is subject to a streamlined analysis of existing transit load factors and evaluation of whether project-generated transit ridership would cause load factors to exceed 0.83 or add ridership to routes where existing load factors already exceed 0.83. Per January and February 2020 ridership data provided by the City, the average load factors for the nearest transit routes are 0.36 on Route 1A and 0.31 on Route 1B. The weekday trip generation estimates indicate that the project would generate 26 daily person trips via transit at most. The AM and PM peak hours would each experience an increase of two trips at most. The load factor thresholds would not be exceeded by the additional transit ridership related to the project. However, there would still be a deficiency related to the project's proximity to transit, as previously described.

As a pedestrian, the closest transit stops would be those on Broad Street near Industrial Way via the limited Damon-Garcia Sports Fields connection. After neighboring projects to the east are developed, additional pedestrian and bicycle access would be available via a bridge connection with 650 Tank Farm Road. Since sidewalks along the north side of Tank Farm Road will also be constructed with these neighboring projects, a second pedestrian access route would be available via Tank Farm Road and the transit stops on Broad Street near Tank Farm Road would also serve the project. The 660 Tank Farm Road project is required to construct a new southbound stop on Broad Street just north of Tank Farm Road, which would become the closest stop to the project at about 0.38 miles away. But even with these planned improvements, the project would be constructing high density residential in a City expansion area beyond 1/8 mile from the nearest transit stop, which would result in a policy deficiency.

5.3 EXISTING PLUS PROJECT INTERSECTION OPERATIONS

5.3.1 Intersection Auto LOS and Queuing

Figure 5 shows the Existing Plus Project peak hour traffic volumes. **Table 15** presents the LOS for the study intersections under Existing and Existing Plus Project conditions, with detailed calculation sheets included in **Appendix B**. For the intersection of Tank Farm Road/Santa Fe Road West (#3) to be constructed with the project, side-street stop control was assumed.

Table 15: Existing and Existing Plus Project Intersection Auto LOS

Existing and Existing Plus Project Intersection Auto Levels of Service									
Intersection	Peak Hour	Existing			Existing + Project				
		V/C ¹	Delay ²	LOS	V/C ¹	ΔV/C	Delay ²	LOS	
1. Tank Farm Road/South Higuera Street	AM		24.8	C			24.9	C	
	PM		27.2	C			27.3	C	
2. Tank Farm Road/Long Street	AM		2.0 (23.2)	- (C)			2.0 (23.7)	- (C)	
	PM	0.49	4.5 (47.8)	- (E)	0.50	0.01	4.5 (49.6)	- (E)	
3. Tank Farm Road/Santa Fe Road West	AM		<i>Future Intersection</i>					0.6 (20.0)	- (C)
	PM							0.7 (29.8)	- (D)
4. Tank Farm Road/Santa Fe Road East	AM	0.17	1.7 (34.3)	- (D)	0.21	0.04	1.8 (36.6)	- (E)	
	PM	1.57	13.7 (142.1)	- (F)	1.91	0.34	17.5 (186.9)	- (F)	
5. Tank Farm Road/MindBody	AM		8.2	A			8.3	A	
	PM		13.8	B			14.8	B	
6. Broad Street/Industrial Way	AM		16.1	B			16.3	B	
	PM		32.7	C			33.4	C	
7. Broad Street/Tank Farm Road	AM		33.0	C			33.4	C	
	PM		42.6	D			43.6	D	
8. Broad Street/Aero Vista Lane	AM		0.7 (19.5)	- (C)			0.7 (19.7)	- (C)	
	PM		2.0 (25.7)	- (D)			2.1 (26.0)	- (D)	
9. Broad Street/Aero Drive	AM		10.3	B			10.3	B	
	PM		12.9	B			12.9	B	
10. Broad Street/Farmhouse Lane	AM		0.5 (18.7)	- (C)			0.5 (18.7)	- (C)	
	PM		0.6 (15.1)	- (C)			0.6 (15.1)	- (C)	
11. Edna Road (SR 227)/Buckley Road	AM		23.1	C			23.2	C	
	PM		27.1	C			27.2	C	

1. Volume to capacity ratio reported for worst movement, for unacceptable LOS only.
2. HCM 6th average control delay in seconds per vehicle. For side-street-stop controlled intersections the worst approach's delay is reported in parentheses next to the overall intersection delay.
Unacceptable operations shown in bold text.

The following intersections operate below the LOS threshold:

- Tank Farm Road/Long Street (#2): The southbound approach operates unacceptably both with and without the project during the PM peak hour. A traffic signal was recently installed at this location following initiation of this TIS, which resolves the operational issues at this intersection.
- Tank Farm Road/Santa Fe Road East (#4): The side street approaches would operate unacceptably during both peak hours with the project. The volume to capacity ratio would be increased by 0.04 during the AM peak hour and 0.34 during the PM peak hour. However, during each peak hour the project would add fewer than 10 trips to the critical movement and the impact is less than significant. Although no improvements are required, it should be noted that a two-way left turn lane is planned on Tank Farm Road immediately west of this intersection, conforming with the project's frontage improvements, and would reduce delay for the northbound approach. Additionally, the southern leg of Santa Fe Road will be realigned in the future across from the project site entrance. The project would provide a fair-share contribution towards future realignment through participation in the Citywide TIF program.

Table 16 presents the key queues for the study intersections, with detailed calculation sheets included in **Appendix B**.

Table 16: Existing and Existing Plus Project Intersection Queues

Existing and Existing Plus Project Intersection Queues					
Intersection	Movement	Storage Length (ft)	Peak Hour	Existing 95 th Percentile Queue (ft) ¹	Existing+ Project Queue (ft) ¹
1. Tank Farm Road/South Higuera Street	SBL	100	AM	#362	#366
			PM	#383	#391
2. Tank Farm Road/Long Street	WBL	160	AM	15	15
			PM	13	13
3. Tank Farm Road/Santa Fe Road West	EBL	100	AM	<i>Future</i>	0
			PM	<i>Intersection</i>	3
6. Broad Street/Industrial Way	NBL	150	AM	#143	#143
			PM	#226	#226
7. Broad Street/Tank Farm Road	EBL	265	AM	122	133
			PM	#338	#360
	NBL	275	AM	#169	#172
			PM	#258	#263
10. Broad Street/Farmhouse Lane	SBL	145	AM	5	5
			PM	3	3
1. Queue length that would not be exceeded 95 percent of the time. # indicates 95th percentile volume exceeds capacity, queue may be longer. Bold indicates queue length longer than storage length. Detailed queues provided in Appendix B.					

The addition of project traffic increases key queues by less than one vehicle length. No improvements are recommended.

5.3.2 Intersection Pedestrian LOS

Table 17 presents the Existing and Existing Plus Project intersection pedestrian LOS, with detailed calculation sheets included in Appendix B.

Table 17: Existing and Existing Plus Project Intersection Pedestrian LOS

Existing and Existing Plus Project Intersection Pedestrian Levels of Service									
Intersection	Approach	Existing				Existing Plus Project			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Score/ Delay ¹	LOS	Score/ Delay ¹	LOS	Score/ Delay ¹	LOS	Score/ Delay ¹	LOS
1. Tank Farm Road/South Higuera Street	EB	1.98	B	2.01	B	1.98	B	2.01	B
	WB	2.95	C	3.03	C	2.96	C	3.04	C
	NB	3.17	C	3.31	C	3.17	C	3.31	C
	SB	2.68	C	2.88	C	2.68	C	2.88	C
2. Tank Farm Road/Long Street	EB	>200	F	>200	F	>200	F	>200	F
	WB	>200	F	>200	F	>200	F	>200	F
3. Tank Farm Road/Santa Fe Road West	EB	<i>Future Intersection</i>				>200	F	>200	F
	WB					>200	F	>200	F
4. Tank Farm Road/Santa Fe Road East	EB	19.0	C	34.5	E	19.2	C	36.0	E
	WB	>200	F	>200	F	>200	F	>200	F
5. Tank Farm Road/MindBody	EB	N/A				N/A			
	WB								
	NB								
6. Broad Street/Industrial Way	EB	2.01	B	2.09	B	2.01	B	2.09	B
	WB	2.14	B	2.33	B	2.15	B	2.33	B
	NB	3.11	C	3.23	C	3.12	C	3.24	C
	SB	3.02	C	3.20	C	3.03	C	3.21	C
7. Broad Street/Tank Farm Road	EB	2.92	C	3.07	C	2.93	C	3.09	C
	WB	2.63	C	2.72	C	2.63	C	2.72	C
	NB	3.05	C	3.13	C	3.05	C	3.13	C
	SB	3.14	C	3.38	C	3.15	C	3.39	C
10. Broad Street/Farmhouse Lane	NB	>200	F	>200	F	>200	F	>200	F
	SB	>200	F	>200	F	>200	F	>200	F

1. HCM 6th pedestrian score (signalized intersections) or delay in seconds (two-way stop controlled intersections).

All intersections with two-way stop control (#2, 3, 4, and 10) would operate with unacceptable intersection pedestrian LOS on one or both approaches during both peak hours under Existing Plus Project conditions. At Tank Farm Road/Long Street (#2), a recently completed traffic signal installation provides acceptable pedestrian operations. At Broad Street/Farmhouse Lane (#10), the deficiency is not contextually significant due to a lack of destinations and the nearby availability of a traffic signal—further, the project adds few auto trips and little-to-no pedestrian trips to this intersection. At the signalized intersection of Tank Farm Road/MindBody (#5), the methodology is not applicable due to the lack of pedestrian accommodations, though intuitively the pedestrian service quality is poor due to lack of curb ramps, pedestrian signals, or marked crosswalks.

The deficiency is contextually significant for Tank Farm Road at the Santa Fe Road intersections (#3 and 4) and at the MindBody intersection (#5) since the project would be adding pedestrian trips in this area without connectivity to the site.

5.3.3 Intersection Bicycle LOS

Table 18 presents the Existing and Existing Plus Project intersection bicycle LOS, with detailed calculation sheets included in Appendix B. The intersection bicycle LOS methodology does not support unsignalized intersection analysis.

Table 18: Existing and Existing Plus Project Intersection Bicycle LOS

Existing and Existing Plus Project Intersection Bicycle Levels of Service									
Intersection	Approach	Existing				Existing Plus Project			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Score ¹	LOS	Score ¹	LOS	Score ¹	LOS	Score ¹	LOS
1. Tank Farm Road/South Higuera Street	EB	3.13	C	3.10	C	3.13	C	3.10	C
	WB	2.46	B	3.10	C	2.47	B	3.11	C
	NB	2.60	C	2.43	B	2.60	C	2.44	B
	SB	1.95	B	2.33	B	1.96	B	2.33	B
5. Tank Farm Road/MindBody	EB	1.74	B	2.01	B	1.77	B	2.03	B
	WB	2.77	C	3.21	C	2.80	C	3.27	C
	NB	2.52	C	2.80	C	2.52	C	2.80	C
	SB	-	-	-	-	-	-	-	-
6. Broad Street/Industrial Way	EB	2.70	C	2.91	C	2.70	C	2.91	C
	WB	2.99	C	3.42	C	3.00	C	3.43	C
	NB	2.04	B	2.24	B	2.06	B	2.26	B
	SB	2.07	B	2.22	B	2.08	B	2.23	B
7. Broad Street/Tank Farm Road	EB	2.23	B	2.66	C	2.26	B	2.69	C
	WB	3.04	C	2.86	C	3.04	C	2.87	C
	NB	2.42	B	2.66	C	2.43	B	2.66	C
	SB	2.50	C	2.89	C	2.51	C	2.91	C

1. HCM 6th bicycle score.

No intersection bicycle LOS deficiencies are reported under Existing Plus Project conditions.

5.4 EXISTING PLUS PROJECT ROADWAY SEGMENT OPERATIONS

5.4.1 Roadway Auto LOS

Table 19 presents the Existing and Existing Plus Project roadway segment auto LOS, with detailed calculation sheets included in Appendix C.

Table 19: Existing and Existing Plus Project Roadway Segment Auto LOS

Existing and Existing Plus Project Roadway Segment Auto Levels of Service									
Segment	Direction	Existing				Existing Plus Project			
		AM Peak		PM Peak		AM Peak		PM Peak	
		%	LOS ¹	%	LOS ¹	%	LOS ¹	%	LOS ¹
1. Tank Farm Road - S. Higuera Street to Old Windmill Lane	EB	91.8	A	91.9	A	91.8	A	91.9	A
	WB	55.9	C	58.0	C	56.3	C	58.1	C
2. Tank Farm Road - Old Windmill Lane to Santa Fe Road	EB	95.2	A	92.6	A	95.2	A	92.5	A
	WB	96.0	A	88.8	A	95.8	A	88.3	A
3. Tank Farm Road - Santa Fe Road to Broad Street	EB	45.6	D	41.2	D	45.1	D	41.3	D
	WB	82.4	A	77.2	B	82.2	A	77.5	B
4. Tank Farm Road - Broad Street to Righetti Ranch Road	EB	95.0	A	92.9	A	95.2	A	92.9	A
	WB	69.5	B	64.7	C	68.8	B	64.2	C
5. Broad Street - Farmhouse Lane to Tank Farm Road	NB	68.8	B	69.2	B	68.8	B	68.9	B
	SB	93.7	A	91.6	A	93.7	A	91.6	A
6. Broad Street - Tank Farm Road to Orcutt Road	NB	89.6	A	86.3	A	89.6	A	86.9	A
	SB	72.4	B	71.0	B	72.5	B	70.9	B
7. Santa Fe Road - North of Tank Farm Road	NB	<i>Future Segment</i>				66.0	C	65.9	C
	SB					65.5	C	65.5	C

1. HCM 6th LOS based on auto travel speed as a percentage of base free-flow speed, unless volume exceeds capacity.

No roadway segment auto LOS deficiencies are reported.

5.4.2 Roadway Pedestrian LOS

Table 20 presents the Existing and Existing Plus Project roadway segment pedestrian LOS, with detailed calculation sheets included in Appendix C.

Table 20: Existing and Existing Plus Project Roadway Segment Pedestrian LOS

Existing and Existing Plus Project Roadway Segment Pedestrian Levels of Service									
Segment	Direction	Existing				Existing Plus Project			
		AM Peak		PM Peak		AM Peak		PM Peak	
		Score	LOS ¹	Score	LOS ¹	Score	LOS ¹	Score	LOS ¹
1. Tank Farm Road - S. Higuera Street to Old Windmill Lane	EB	3.14	C	3.05	C	3.14	C	3.06	C
	WB	3.25	C	3.69	D	3.27	C	3.70	D
2. Tank Farm Road - Old Windmill Lane to Santa Fe Road	EB	-	F	-	F	-	F	-	F
	WB	-	F	-	F	-	F	-	F
3. Tank Farm Road - Santa Fe Road to Broad Street	EB	3.38	C	3.52	D	3.38	C	3.52	D
	WB	-	F	-	F	-	F	-	F
4. Tank Farm Road - Broad Street to Righetti Ranch Road	EB	2.67	B	3.10	C	2.65	B	3.09	C
	WB	3.26	C	3.15	C	3.26	C	3.15	C
5. Broad Street - Farmhouse Lane to Tank Farm Road	NB	-	F	-	F	-	F	-	F
	SB	3.59	D	3.51	D	3.59	D	3.50	D
6. Broad Street - Tank Farm Road to Orcutt Road	NB	3.30	C	3.39	C	3.34	C	3.38	C
	SB	-	F	-	F	-	F	-	F
7. Santa Fe Road - North of Tank Farm Road	NB	<i>Future Segment</i>				2.15	B	2.13	B
	SB					-	F	-	F

1. HCM 6th LOS based on pedestrian score, unless pedestrian space is constrained.

Multiple roadway segments operate with unacceptable pedestrian LOS due to missing sidewalks or high adjacent vehicle volumes. For segments with sidewalks, the addition of project traffic increases the unacceptable LOS scores by 0.01 or less and is not contextually significant. For segments without sidewalks, the addition of the project is contextually significant only on Tank Farm Road where the project generates pedestrian demand and there is no pedestrian connectivity to the site. For the segment of Santa Fe Road north of Tank Farm Road, the project would construct sidewalk along the east side of the street, but not the west side. The western sidewalk would be constructed when the adjacent property develops.

5.4.3 Roadway Bicycle LTS

All study segments on Tank Farm Road and Broad Street operate at unacceptable LTS 4, equivalent to LOS E/F, both with and without the project despite the frontage improvements. For each of these segments, the project would not cause any additional dimensions of the LTS criteria to become unacceptable. The City’s Bike Plan/Active Transportation Plan recommends a future network of Class I Bike Paths north of Tank Farm Road and west of Broad Street.

The segment of Santa Fe Road north of Tank Farm Road to be constructed with the project would operate at LTS 4. Despite the presence of dedicated bike facilities, this segment operates with unacceptable LTS because of the uncontrolled crossing at the Tank Farm Road intersection combined with the crossing distance and conflicting vehicle speeds. This assumes the Tank Farm Road approaches remain uncontrolled with a center turn lane and an additional westbound lane carrying through the intersection. The segment would operate with acceptable LTS if the intersection is

converted to signal or roundabout control. However, it should be noted that the intersection would not meet the peak hour signal warrant. Therefore roundabout control is recommended, consistent with the Circulation Element and AASP.

5.5 PROJECT PHASING

The project is proposed to be constructed in two phases. However, the project deficiencies are not sensitive to a phased development approach and the timing of the recommended improvements would not change.

6.0 Near Term Conditions

Near Term conditions reflect a five-year development horizon including approved and pending projects in the study area and elsewhere in the City. Near Term traffic volume forecasts were developed using the City's Travel Demand Model (TDM) by adding approved and pending projects to the base year TDM and adding the traffic growth at the study intersections to the Existing conditions volumes. The Near Term projects include:

- 650 Tank Farm and 660 Tank Farm (Northwest Corner Broad Street Mixed-Use Project)
- Chevron Tank Farm Remediation and Redevelopment Project (Phase 1 only)
- San Luis Ranch (full buildout)
- Avila Ranch (full buildout)
- Margarita Area tracts:
 - 2428 (286 single family units and 36 multi-family units)
 - 2342 (23 multi-family units)
 - 2353 (56 single family units)
 - Prado Business Park (160,000 square foot business park)
- Orcutt Area:
 - South Morros (53 single family units)
 - Vinifera (40 multi-family units)
 - Imel Ranch (18 single family units)
 - Righetti Ranch (272 single family units and 32 multi-family units)
 - Jones Ranch (14 single family units, 52 multi-family units, and 15,000 square foot commercial)
 - Pratt Ranch Phase 1 (35 multi-family units and 3,400 square foot commercial)
 - Tiburon Place (68 multi-family units affordable housing project)
 - West Creek (67 single family units and 105 multi-family units)
- Others:
 - Orcutt Road Apartments (15 apartments at 1030 Orcutt, replacing car wash)
 - The Connect (78 multi-family units and 6,800 square foot commercial at 950 Orcutt, replacing former use)
 - Orcutt Mixed Use (15 multi-family units and 1,700 square foot commercial at 830 Orcutt, replacing 1 single family unit)
 - Twin Creeks (94 multi-family units and 3,500 square foot commercial on Orcutt south of McMillan)
 - Broad Street Collection (32 multi-family units and 6-room hotel at 3249 Broad, replacing auto sales business)
 - HASLO Victoria Mixed Use (32 multi-family units and 12,000 square foot commercial at Victoria/Humbert)
 - Victoria Crossing (33 multi-family units and 3,150 square foot commercial at 774 Caudill)
 - The Yard (43 multi-family units on Victoria)
 - Broad Street Place (40 multi-family units and 1,250 square foot commercial on Broad next to Plumbers/Steamfitters Union offices)

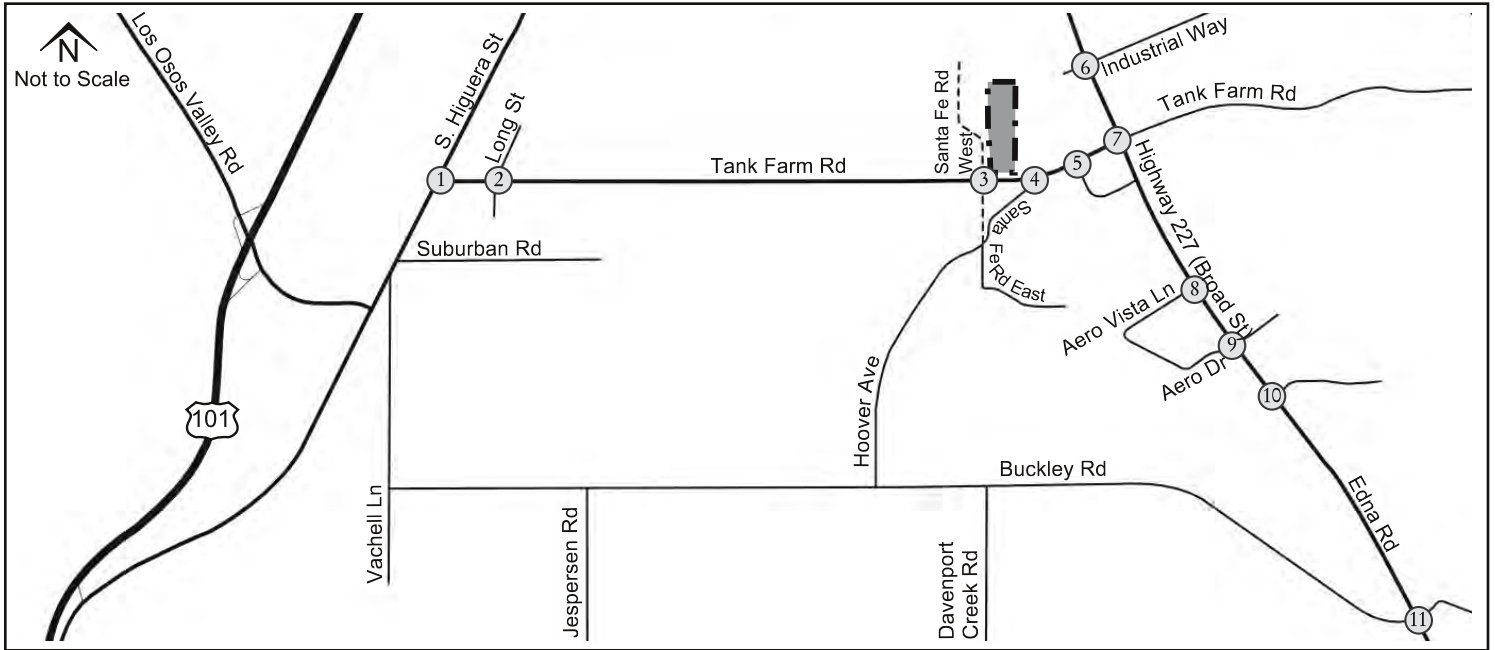
This scenario includes the following key roadway network changes:

- Addition of a second southbound left turn lane at Tank Farm Road/South Higuera Street (#1) with signal timing optimization
- Signalization at Tank Farm Road/Long Street (#2)
- Construction of the north leg of Tank Farm Road/MindBody (#5), which provides north-south connectivity between Tank Farm Road and Industrial Way, parallel to Broad Street. Intersection improvements include addition of a signalized pedestrian crossing of Tank Farm Road.
- Construction of a second westbound lane on Tank Farm Road east of Santa Fe Road East

No other roadway network changes were assumed under Near Term conditions. The baseline Near Term Plus Project analysis assumes side-street stop control for the new intersection of Tank Farm Road/Santa Fe Road West (#3).

Figures 6 and 7 show the Near Term and Near Term Plus Project Volumes, respectively. Under Near Term Conditions the existing PHF was used for the analysis.

Figure 6: Near Term Volumes



1.

↙ 10(20) ↘ 342(757) ↖ 255(276) ↗ S. Higuera St	↖ 263(358) ↘ 5(15) ↗ 304(665)
Tank Farm Rd 25(10) ↗ 20(10) ↘ 20(25) ↙	↖ 15(30) ↘ 552(576) ↗ 780(468)

2.

↙ 20(70) ↘ 5(5) ↖ 19(77)	↖ Long St ↘ 68(85) ↗ 115(135)
Tank Farm Rd 60(65) ↗ 869(790) ↘ 50(30) ↙	↖ 10(15) ↘ 0(5) ↗ 65(170)

3. Future Intersection

4.

↖ 736(1106) ↘ 103(69)	
Tank Farm Rd 844(946) ↗ 50(25) ↘	↖ Santa Fe Rd East ↘ 10(40) ↗ 56(165)

5.

↙ 3(13) ↘ 1(5) ↖ 4(16)	↖ 2(2) ↘ 862(1042) ↗ 35(10)
Tank Farm Rd 12(11) ↗ 814(1141) ↘ 99(18) ↙	↖ MindBody ↘ 26(177) ↗ 4(3) 10(35) ↗

6.

↙ 119(171) ↘ 985(1103) ↖ 68(153)	↖ Broad St ↘ 85(247) ↗ 19(21) 90(180)
Industrial Way 117(191) ↗ 1(36) ↘ 35(65) ↙	↖ 67(109) ↘ 810(1050) ↗ 195(190)

7.

↙ 352(548) ↘ 639(708) ↖ 59(215)	↖ Broad St ↘ 182(126) ↗ 273(210) 238(190)
Tank Farm Rd 250(503) ↗ 162(472) ↘ 395(282) ↙	↖ 215(362) ↘ 655(640) ↗ 115(188)

8.

↙ 227(106) ↘ 733(1008)	
Aero Vista Ln 42(114) ↗ 10(55) ↘	↖ Broad St ↘ 60(15) ↗ 1150(785)

9.

↙ 70(72) ↘ 600(908) ↖ 50(7)	↖ Broad St ↘ 35(26) ↗ 0(5) 10(9)
Aero Dr 54(171) ↗ 5(0) ↘ 5(40) ↙	↖ 50(40) ↘ 1140(715) ↗ 18(3)

10.

↙ 499(999) ↘ 45(25)	↖ Broad St ↘ 19(40) ↗ 5(15)
↖ Farmhouse Ln ↘ 990(555) ↗ 25(10)	

11.

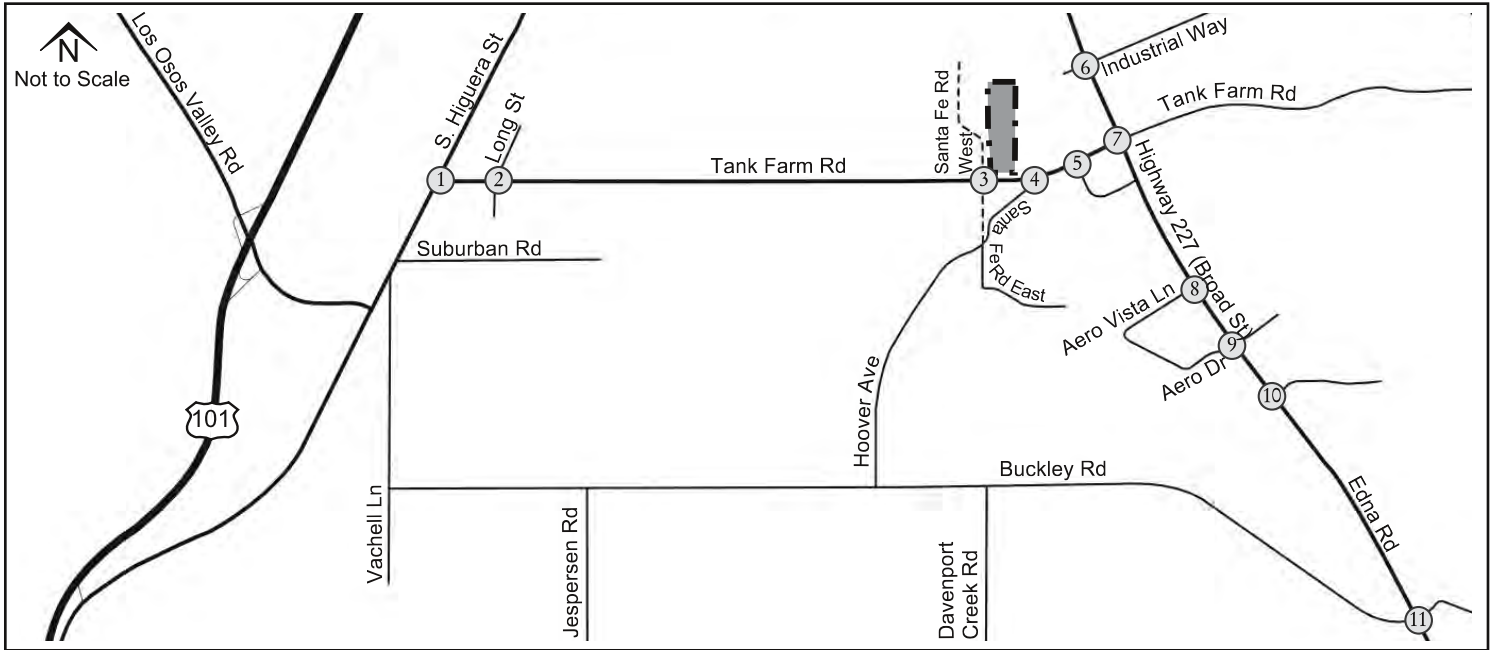
↙ 46(42) ↘ 420(986) ↖ 5(5)	↖ Edna Rd ↘ 5(5) ↗ 0(0) 5(10)
Buckley Rd 55(41) ↗ 5(5) ↘ 182(342) ↙	↖ 238(68) ↘ 1190(520) ↗ 5(5)



Legend:

- xx(yy) - AM(PM) Peak Hour Traffic Volumes
- - Future Road Traffic Volumes
- [Grey Box] - Project Site
- (X) - Study Intersection

Figure 7: Near Term Plus Project Volumes



1.

↑ 10(20) ↓ 342(757) ↘ 257(279) S. Higuera St	↑ 266(361) ↓ 5(15) ↘ 307(668)
Tank Farm Rd ↑ 25(10) ↓ 20(10) ↘ 20(25)	↓ 15(30) ↑ 552(576) ↘ 782(472)

2.

↓ 20(70) ↓ 5(5) ↘ 19(77) Long St	↑ 68(85) ↓ 675(1271) ↘ 117(137)
Tank Farm Rd ↓ 60(65) ↑ 873(797) ↘ 50(30)	↓ 10(15) ↑ 0(5) ↘ 66(172)

3.

↓ 10(10) ↓ 32(32) ↘ Santa Fe Rd West	↑ 20(36) ↓ 745(1142)
Tank Farm Rd ↓ 6(11) ↑ 894(971)	

4.

	↓ 755(1140) ↘ 103(69)
Tank Farm Rd ↓ 875(977) ↘ 52(27)	↓ 11(42) ↑ 56(165)

5.

↓ 3(13) ↓ 1(5) ↘ 4(16)	↑ 2(2) ↓ 880(1075) ↘ 35(10)
Tank Farm Rd ↓ 12(11) ↑ 844(1171) ↘ 100(19)	↓ 27(178) ↑ 4(3) ↘ 10(35)

6.

↓ 119(171) ↓ 996(1122) ↘ 68(153) Broad St	↑ 85(247) ↓ 19(21) ↘ 93(185)
Industrial Way ↓ 117(191) ↑ 1(36) ↘ 35(65)	↓ 67(109) ↑ 827(1067) ↘ 199(194)

7.

↓ 366(574) ↓ 639(708) ↘ 59(215) Broad St	↑ 182(126) ↓ 275(213) ↘ 238(190)
Tank Farm Rd ↓ 273(526) ↑ 165(475) ↘ 399(286)	↓ 218(367) ↑ 655(640) ↘ 115(188)

8.

↓ 228(107) ↓ 736(1011) Broad St	
Aero Vista Ln ↓ 43(115) ↘ 10(55)	↓ 60(15) ↑ 1152(788)

9.

↓ 70(72) ↓ 603(911) ↘ 50(7) Broad St	↑ 35(26) ↓ 0(5) ↘ 10(9)
Aero Dr ↓ 54(171) ↑ 5(0) ↘ 5(40)	↓ 50(40) ↑ 1142(718) ↘ 18(3)

10.

↓ 501(1001) ↓ 45(25) Broad St	↑ 19(40) ↓ 5(15)
	Farmhouse Ln ↓ 991(557) ↘ 25(10)

11.

↓ 46(42) ↓ 422(988) ↘ 5(5) Edna Rd	↑ 5(5) ↓ 0(0) ↘ 5(10)
Buckley Rd ↓ 55(41) ↑ 5(5) ↘ 182(342)	↓ 238(68) ↑ 1191(522) ↘ 5(5)



Legend:

- xx(yy) - AM(PM) Peak Hour Traffic Volumes
- - Future Road Traffic Volumes
- [Project Site Icon] - Project Site
- (X) - Study Intersection

6.1 NEAR TERM INTERSECTION OPERATIONS

6.1.1 Intersection Auto LOS and Queuing

Table 21 presents the LOS for the study intersections under Near Term and Near Term Plus Project conditions, with detailed calculation sheets included in Appendix B.

Table 21: Near Term and Near Term Plus Project Intersection Auto LOS

Near Term and Near Term Plus Project Intersection Auto Levels of Service									
Intersection	Peak Hour	Near Term			Near Term + Project				
		v/C ¹	Delay ²	LOS	v/C ¹	Δv/C	Delay ²	LOS	
1. Tank Farm Road/South Higuera Street	AM		21.5	C			21.6	C	
	PM		24.8	C			24.8	C	
2. Tank Farm Road/Long Street	AM		8.8	A			8.9	A	
	PM		13.1	B			13.2	B	
3. Tank Farm Road/Santa Fe Road West	AM		<i>Future Intersection</i>					0.6 (22.3)	- (C)
	PM				0.28		0.7 (35.2)	- (E)	
4. Tank Farm Road/Santa Fe Road East	AM		1.6 (26.4)	- (D)			1.3 (18.9)	- (C)	
	PM	1.48	12.5 (138.8)	- (F)	0.71	-0.77	4.0 (42.9)	- (E)	
5. Tank Farm Road/MindBody	AM		13.4	B			13.5	B	
	PM		20.1	C			20.5	C	
6. Broad Street/Industrial Way	AM		25.7	C			25.9	C	
	PM	1.31	55.1	E	1.31	0.00	57.0	E	
7. Broad Street/Tank Farm Road	AM		35.6	D			36.2	D	
	PM		48.7	D			52.2	D	
8. Broad Street/Aero Vista Lane	AM		0.7 (20.1)	- (C)			0.8 (20.3)	- (C)	
	PM		2.6 (30.7)	- (D)			2.6 (31.2)	- (D)	
9. Broad Street/Aero Drive	AM		11.1	B			11.1	B	
	PM		13.2	B			13.2	B	
10. Broad Street/Farmhouse Lane	AM		0.6 (19.0)	- (C)			0.6 (19.0)	- (C)	
	PM		0.6 (15.2)	- (C)			0.6 (15.2)	- (C)	
11. Edna Road (SR 227)/Buckley Road	AM		25.9	C			26.0	C	
	PM		30.6	C			30.7	C	

1. Volume to capacity ratio reported for worst movement, for unacceptable LOS only.
 2. HCM 6th average control delay in seconds per vehicle. For side-street-stop controlled intersections the worst approach's delay is reported in parentheses next to the overall intersection delay.
Unacceptable operations shown in bold text.

The following intersections operate below the LOS threshold:

- Tank Farm Road/Santa Fe Road West (#3): With a baseline assumption of side-street stop control, the southbound approach operates unacceptably during the PM peak hour. With the estimated 42 AM and 42 PM southbound outbound vehicles, the intersection would not meet the peak hour signal warrant. When the prevailing speed on the major street exceeds 40 miles per hour, the minimum side street entering volume is 75 vehicles per hour to meet the warrant. A multilane roundabout is planned for this intersection in the future and was assumed under Cumulative conditions. Construction of a 3-leg roundabout under Near Term conditions with two westbound lanes and single lanes on the other approaches would result in acceptable operations. As an interim measure, constructing a southbound right turn pocket with storage for one or more vehicles would result in acceptable operations and a southbound queue length of one vehicle or less. However, as described in a subsequent section, stop control with two westbound lanes would result in unacceptable bicycle LTS. The peak hour signal warrant would not be met at this intersection for this analysis scenario.

- Tank Farm Road/Santa Fe Road East (#4): The northbound approach would operate unacceptably during the PM peak hour both with and without the project. However, the project results in less delay and a lower volume to capacity ratio. This is because the project would construct a two-way left turn lane on Tank Farm Road west of this intersection, reducing delay for the northbound approach. The southern leg of Santa Fe Road will be realigned in the future across from the project site entrance. No additional improvements are recommended. In addition, the project adds fewer than 10 peak hour trips to the critical movement, which is within the thresholds established in the City's TIS Guidelines.
- Broad Street/Industrial Way (#6): The intersection operates unacceptably during the PM peak hour both with and without the project. However, the volume to capacity ratio would be increased by less than 0.01 and the impact is less than significant. Although no improvements are required, it should be noted that the intersection would operate acceptably under Near Term conditions if the east-west signal phasing were modified from split phase to protected-permissive left turn phasing. This would require a signal modification and restriping of the east-west approaches.

Table 22 presents the key queues for the study intersections, with detailed calculation sheets included in Appendix B.

Table 22: Near Term and Near Term Plus Project Intersection Queues

Near Term and Near Term Plus Project Intersection Queues					
Intersection	Movement	Storage Length (ft)	Peak Hour	Near Term 95 th Percentile Queue (ft) ¹	Near Term+ Project Queue (ft) ¹
1. Tank Farm Road/South Higuera Street	SBL	165	AM	#167	#169
			PM	#177	#180
2. Tank Farm Road/Long Street	WBL	160	AM	59	59
			PM	33	34
3. Tank Farm Road/Santa Fe Road West	EBL	100	AM	<i>Future</i>	0
			PM	<i>Intersection</i>	3
5. Tank Farm Road/MindBody	EBL	100	AM	21	21
			PM	27	27
6. Broad Street/Industrial Way	NBL	150	AM	#187	#187
			PM	#273	#273
7. Broad Street/Tank Farm Road	EBL	265	AM	135	146
			PM	#367	#389
	NBL	275	AM	#172	#175
			PM	#268	#272
10. Broad Street/Farmhouse Lane	SBL	145	AM	5	5
			PM	3	3

1. Queue length that would not be exceeded 95 percent of the time.
indicates 95th percentile volume exceeds capacity, queue may be longer.
Bold indicates queue length longer than storage length.
Detailed queues provided in Appendix B.

The addition of project traffic increases key queues by less than one vehicle length. No improvements are recommended.

6.1.2 Intersection Pedestrian LOS

Table 23 presents the Near Term and Near Term Plus Project intersection pedestrian LOS, with detailed calculation sheets included in Appendix B.

Table 23: Near Term and Near Term Plus Project Intersection Pedestrian LOS

Near Term and Near Term Plus Project Intersection Pedestrian Levels of Service									
Intersection	Approach	Near Term				Near Term Plus Project			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Score/ Delay ¹	LOS	Score/ Delay ¹	LOS	Score/ Delay ¹	LOS	Score/ Delay ¹	LOS
1. Tank Farm Road/South Higuera Street	EB	1.99	B	2.01	B	1.99	B	2.01	B
	WB	3.00	C	3.11	C	3.00	C	3.12	C
	NB	3.26	C	3.39	C	3.26	C	3.39	C
	SB	2.86	C	2.99	C	2.86	C	2.99	C
2. Tank Farm Road/Long Street	EB	2.82	C	3.00	C	2.82	C	3.00	C
	WB	2.87	C	3.17	C	2.87	C	3.18	C
	NB	2.02	B	2.06	B	2.02	B	2.06	B
	SB	1.99	B	2.04	B	1.99	B	2.04	B
3. Tank Farm Road/Santa Fe Road West	EB	<i>Future Intersection</i>				>200	F	>200	F
	WB					>200	F	>200	F
4. Tank Farm Road/Santa Fe Road East	EB	18.1	C	31.7	E	>200	F	>200	F
	WB	>200	F	>200	F	>200	F	>200	F
5. Tank Farm Road/MindBody	EB	2.76	C	3.04	C	2.82	C	3.05	C
	WB	2.77	C	2.98	C	2.78	C	3.00	C
	NB	2.01	B	2.07	B	2.01	B	2.07	B
	SB	1.95	B	1.97	B	1.95	B	1.97	B
6. Broad Street/Industrial Way	EB	2.09	B	2.18	B	2.09	B	2.18	B
	WB	2.16	B	2.36	B	2.17	B	2.36	B
	NB	3.12	C	3.25	C	3.13	C	3.26	C
	SB	3.08	C	3.28	C	3.09	C	3.28	C
7. Broad Street/Tank Farm Road	EB	3.03	C	3.17	C	3.04	C	3.18	C
	WB	2.65	C	2.75	C	2.65	C	2.75	C
	NB	3.06	C	3.15	C	3.06	C	3.16	C
	SB	3.15	C	3.40	C	3.16	C	3.42	C
10. Broad Street/Farmhouse Lane	NB	>200	F	>200	F	>200	F	>200	F
	SB	>200	F	>200	F	>200	F	>200	F

1. HCM 6th pedestrian score (signalized intersections) or delay in seconds (two-way stop controlled intersections).

All intersections with two-way stop control (#3, 4, and 10) would operate with unacceptable intersection pedestrian LOS. However, for each of these intersections the deficiency is not contextually significant due to a lack of destinations and the nearby availability of traffic signals.

6.1.3 Intersection Bicycle LOS

Table 24 presents the Near Term and Near Term Plus Project intersection bicycle LOS, with detailed calculation sheets included in Appendix B. The intersection bicycle LOS methodology does not support unsignalized intersection analysis.

Table 24: Near Term and Near Term Plus Project Intersection Bicycle LOS

Near Term and Near Term Plus Project Intersection Bicycle Levels of Service									
Intersection	Approach	Near Term				Near Term Plus Project			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Score ¹	LOS	Score ¹	LOS	Score ¹	LOS	Score ¹	LOS
1. Tank Farm Road/South Higuera Street	EB	3.31	C	3.28	C	3.31	C	3.28	C
	WB	2.76	C	3.54	D	2.77	C	3.55	D
	NB	2.82	C	2.54	C	2.82	C	2.54	C
	SB	2.01	B	2.39	B	2.02	B	2.39	B
2. Tank Farm Road/Long Street	EB	1.88	B	1.80	B	1.88	B	1.81	B
	WB	1.78	B	2.33	B	1.79	B	2.33	B
	NB	2.61	C	2.81	C	2.61	C	2.81	C
	SB	2.52	C	2.70	C	2.52	C	2.70	C
5. Tank Farm Road/MindBody	EB	1.85	B	2.14	B	1.87	B	2.17	B
	WB	1.84	B	2.04	B	1.84	B	2.06	B
	NB	1.66	B	2.00	B	1.66	B	2.00	B
	SB	2.48	B	2.53	C	2.67	C	2.72	C
6. Broad Street/Industrial Way	EB	2.96	C	3.20	C	2.96	C	3.20	C
	WB	3.05	C	3.49	C	3.05	C	3.50	D
	NB	2.05	B	2.26	B	2.07	B	2.28	B
	SB	2.15	B	2.33	B	2.16	B	2.35	B
7. Broad Street/Tank Farm Road	EB	2.29	B	2.75	C	2.31	B	2.77	C
	WB	3.14	C	2.91	C	3.14	C	2.92	C
	NB	2.43	B	2.67	C	2.43	B	2.68	C
	SB	2.70	C	3.15	C	2.71	C	3.17	C

1. HCM 6th bicycle score.

No intersection bicycle LOS deficiencies are reported.

6.2 NEAR TERM ROADWAY OPERATIONS

6.2.1 Roadway Auto LOS

Table 25 presents the Near Term and Near Term Plus Project roadway segment auto LOS, with detailed calculation sheets included in Appendix C.

Table 25: Near Term and Near Term Plus Project Roadway Segment Auto LOS

Near Term and Near Term Plus Project Roadway Segment Auto Levels of Service									
Segment	Direction	Near Term				Near Term Plus Project			
		AM Peak		PM Peak		AM Peak		PM Peak	
		%	LOS ¹	%	LOS ¹	%	LOS ¹	%	LOS ¹
1. Tank Farm Road - S. Higuera Street to Old Windmill Lane	EB	91.7	A	91.9	A	91.7	A	91.9	A
	WB	55.9	C	58.1	C	56.1	C	58.1	C
2. Tank Farm Road - Old Windmill Lane to Santa Fe Road	EB	95.0	A	90.9	A	95.0	A	90.8	A
	WB	95.4	A	87.5	A	95.3	A	87.3	A
3. Tank Farm Road - Santa Fe Road to Broad Street	EB	44.4	D	40.7	D	44.0	D	40.7	D
	WB	81.9	A	76.8	B	86.1	A	84.4	A
4. Tank Farm Road - Broad Street to Righetti Ranch Road	EB	94.6	A	92.9	A	94.4	A	92.9	A
	WB	67.8	B	63.8	C	67.1	B	63.8	C
5. Broad Street - Farmhouse Lane to Tank Farm Road	NB	68.8	B	67.6	B	68.8	B	67.6	B
	SB	93.6	A	92.2	A	93.6	A	92.2	A
6. Broad Street - Tank Farm Road to Orcutt Road	NB	84.3	A	83.0	A	84.4	A	83.0	A
	SB	68.1	B	69.9	B	67.9	B	69.9	B
7. Santa Fe Road - North of Tank Farm Road	NB	<i>Future Segment</i>				65.9	C	65.9	C
	SB					65.5	C	65.5	C

1. HCM 6th LOS based on auto travel speed as a percentage of base free-flow speed, unless volume exceeds capacity.

No roadway segment auto LOS deficiencies are reported.

6.2.2 Roadway Pedestrian LOS

Table 26 presents the Near Term and Near Term Plus Project roadway segment pedestrian LOS, with detailed calculation sheets included in Appendix C.

Table 26: Near Term and Near Term Plus Project Roadway Segment Pedestrian LOS

Near Term and Near Term Plus Project Roadway Segment Pedestrian Levels of Service									
Segment	Direction	Near Term				Near Term Plus Project			
		AM Peak		PM Peak		AM Peak		PM Peak	
		Score	LOS ¹	Score	LOS ¹	Score	LOS ¹	Score	LOS ¹
1. Tank Farm Road - S. Higuera Street to Old Windmill Lane	EB	3.14	C	3.09	C	3.14	C	3.10	C
	WB	3.28	C	3.71	D	3.30	C	3.72	D
2. Tank Farm Road - Old Windmill Lane to Santa Fe Road	EB	-	F	-	F	-	F	-	F
	WB	-	F	-	F	-	F	-	F
3. Tank Farm Road - Santa Fe Road to Broad Street	EB	3.40	C	3.65	D	3.40	C	3.66	D
	WB	3.42	C	3.94	D	2.74	B	3.05	C
4. Tank Farm Road - Broad Street to Righetti Ranch Road	EB	2.65	B	3.16	C	2.64	B	3.15	C
	WB	3.32	C	3.19	C	3.33	C	3.19	C
5. Broad Street - Farmhouse Lane to Tank Farm Road	NB	-	F	-	F	-	F	-	F
	SB	3.60	D	3.52	D	3.60	D	3.52	D
6. Broad Street - Tank Farm Road to Orcutt Road	NB	3.36	C	3.34	C	3.39	C	3.34	C
	SB	-	F	-	F	-	F	-	F
7. Santa Fe Road - North of Tank Farm Road	NB	<i>Future Segment</i>				2.11	B	2.12	B
	SB					-	F	-	F

1. HCM 6th LOS based on pedestrian score, unless pedestrian space is constrained.

Multiple roadway segments operate with unacceptable pedestrian LOS due to missing sidewalks or high adjacent vehicle volumes. For segments with sidewalks, the addition of project traffic increases the unacceptable LOS scores by 0.01 or less and is not contextually significant. For segments without

sidewalks, the addition of the project is contextually significant only on Tank Farm Road where the project adds pedestrian demand where there is no pedestrian connectivity west of the site. For the segment of Santa Fe Road north of Tank Farm Road, the project would construct sidewalk along the east side of the street, but not the west side. The western sidewalk would be constructed when the adjacent property develops.

6.2.3 Roadway Bicycle LTS

All study segments on Tank Farm Road and Broad Street operate at unacceptable LTS 4, equivalent to LOS E/F, both with and without the project despite the frontage improvements. For each of these segments, the project would not cause any additional dimensions of the LTS criteria to become unacceptable. The City's Bike Plan recommends a network of Class I Bike Paths north of Tank Farm Road and west of Broad Street.

The segment of Santa Fe Road north of Tank Farm Road to be constructed with the project would operate at LTS 4. Despite the presence of dedicated bike facilities, this segment operates with unacceptable LTS because of the uncontrolled crossing at the Tank Farm Road intersection combined with the crossing distance and conflicting vehicle speeds. This assumes the Tank Farm Road approaches remain uncontrolled with a center turn lane and an additional westbound lane carrying through the intersection. The segment would operate with acceptable LTS if the additional westbound lane is not constructed or if the intersection is converted to signal or roundabout control. However, the intersection would not meet the peak hour signal warrant. Therefore roundabout control is recommended, consistent with the Circulation Element and AASP.

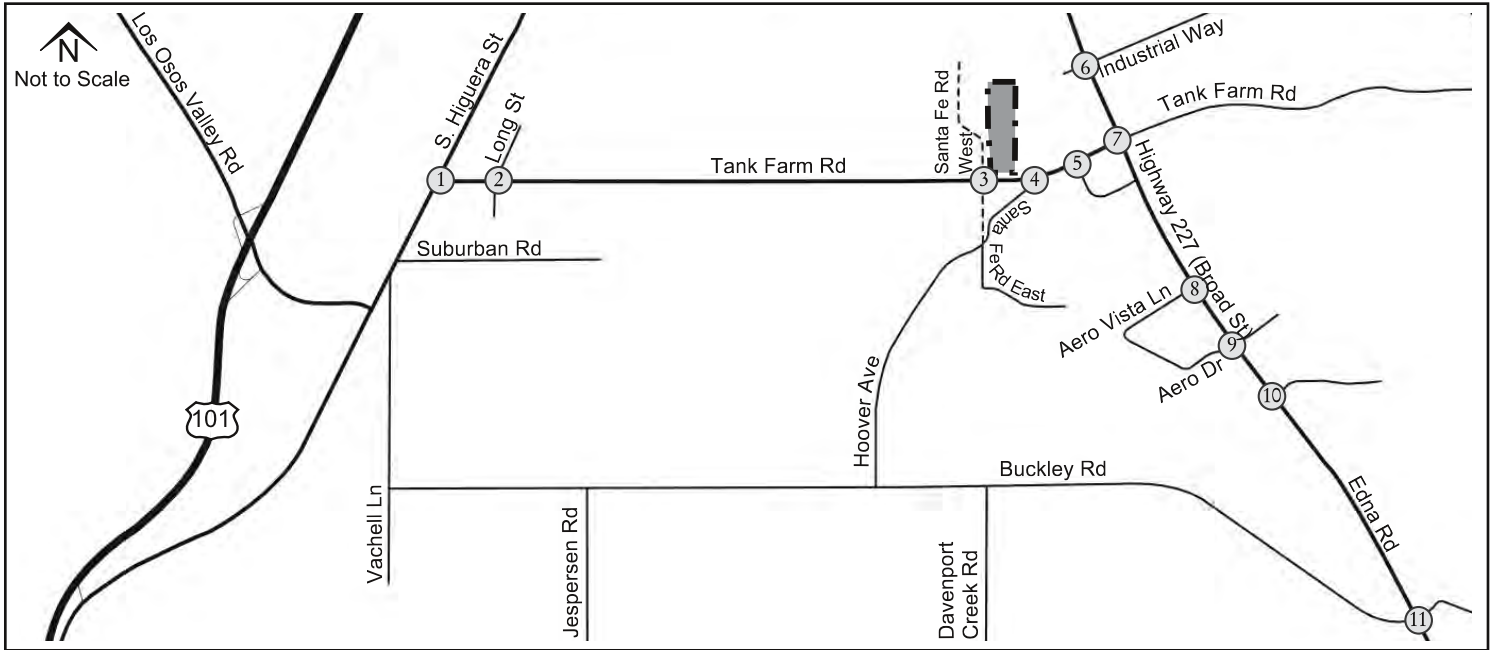
7.0 Cumulative Conditions

Cumulative conditions (2040) represent build-out of the land uses in the region. Cumulative traffic volume forecasts were developed using the City's TDM, which includes planned network and land use changes expected upon buildout of the City's General Plan. In addition to the Near Term improvements, the following key network changes will shift travel patterns in the study area:

- Prado Road would extend as a four-lane regional route arterial from S Higuera Street to Broad Street with a new intersection between Capitolio Way and Industrial Way.
- A full interchange would be constructed at Prado Road and US 101 along with replacement of the Prado Road Creek Bridge.
- Bullock Lane would be extended as a residential collector connecting Orcutt Road with Tank Farm Road.
- Victoria Avenue would be extended from Woodbridge Street to High Street.
- Orcutt Road would be widened as a four-lane arterial from the railroad tracks to Johnson Avenue.
- Tank Farm Road would be widened to four lanes west of 250 Tank Farm Road.
- Buckley Road would be extended from Vachell Lane to Higuera Street.
- A multilane roundabout would be constructed at Tank Farm Road/Santa Fe Road West (#3). Santa Fe Road south of Tank Farm Road would be realigned to the west with a new bridge spanning Acacia Creek. Santa Fe Road would be extended north of Tank Farm Road to the Prado Road extension as a commercial collector.
- A multilane roundabout would be constructed at Edna Road (SR 227)/Buckley Road (#11).

Figures 8 and 10 show the Cumulative and Cumulative Plus Project traffic volumes, respectively. **Figure 9** shows the Cumulative Project Trip Distribution and Assignment. Under Cumulative Conditions a PHF of 0.92 was used for the analysis. However, if the existing PHF exceeded this value the higher PHF was used.

Figure 8: Cumulative Volumes



1.

10(20) 480(760) 510(280)	S. Higuera St 265(495) 5(15) 305(774)
Tank Farm Rd 25(10) 20(10) 20(25)	15(30) 555(580) 940(470)

2.

20(70) 5(5) 38(88)	Long St 71(109) 670(1500) 115(135)
Tank Farm Rd 60(65) 1285(790) 50(30)	10(15) 0(5) 65(170)

3.

8(26) 79(25) 251(361)	Santa Fe Rd West 400(267) 700(1145) 140(68)
Tank Farm Rd 25(9) 720(975) 14(7)	4(14) 129(83) 45(170)

4.

Intersection Closed

5.

5(15) 5(5) 5(20)	5(5) 1250(1236) 35(10)
Tank Farm Rd 15(15) 891(1468) 110(23)	MindBody 30(194) 5(5) 10(35)

6.

131(180) 1133(1105) 70(180)	Broad St 100(250) 20(25) 90(180)
Industrial Way 120(195) 5(40) 38(65)	70(110) 810(1186) 195(190)

7.

526(550) 749(710) 60(215)	Broad St 185(130) 367(220) 251(190)
Tank Farm Rd 250(644) 165(533) 512(415)	361(542) 655(665) 115(208)

8.

243(110) 968(1074)	Broad St 45(119) 10(55)
Aero Vista Ln 60(15) 1204(986)	

9.

135(94) 600(917) 232(57)	Broad St 75(165) 0(5) 10(28)
Aero Dr 62(226) 5(0) 5(40)	50(40) 1142(729) 24(13)

10.

500(1037) 45(25)	Broad St 20(40) 15(86)
Farmhouse Ln 999(564) 118(32)	

11.

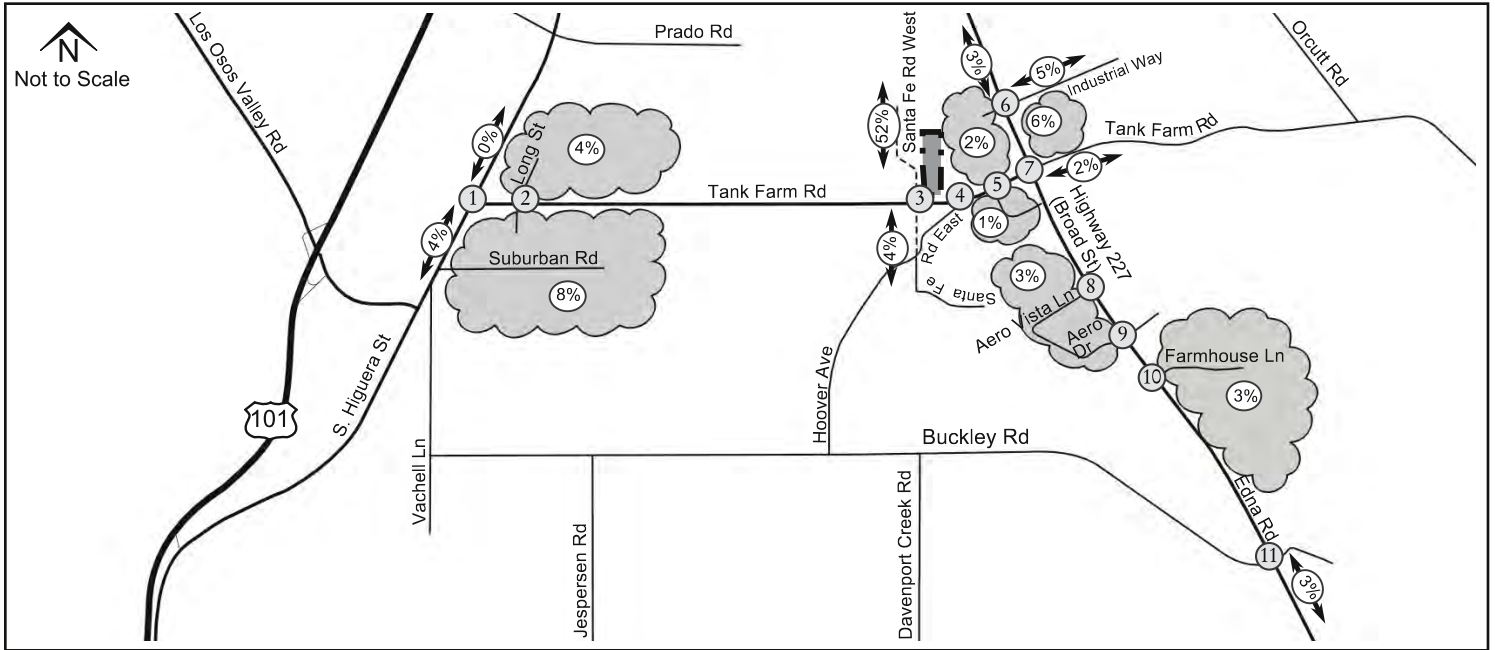
50(45) 449(1161) 5(5)	Edna Rd 5(5) 0(0) 5(10)
Buckley Rd 55(45) 5(5) 225(343)	366(84) 1382(586) 5(5)



Legend:

- xx(yy) - AM(PM) Peak Hour Traffic Volumes
- - Future Road Traffic Volumes
- [Grey Box] - Project Site
- (X) - Study Intersection

Figure 9: Cumulative Project Trip Distribution and Assignment



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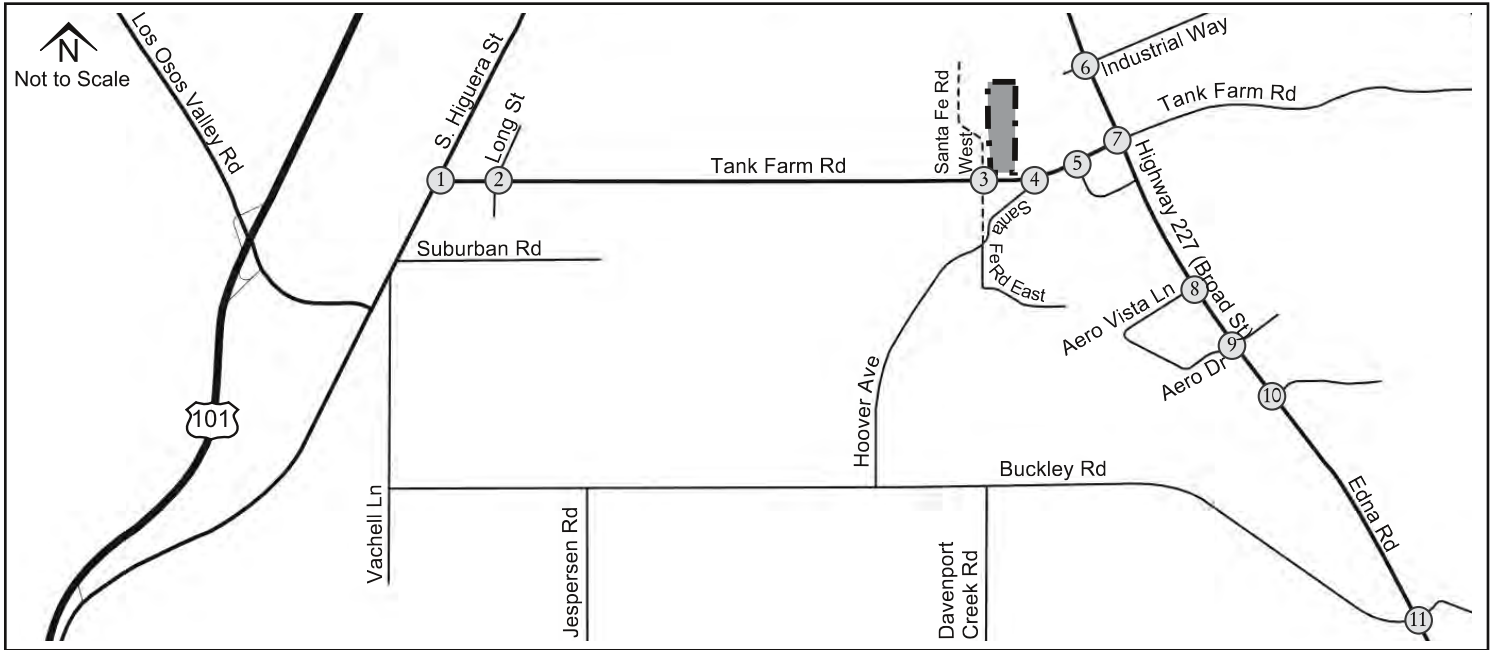
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Legend:

- Project Site
- Future Road
- Study Intersection
- xx(yy) - AM(PM) Peak Hour Traffic Volumes
- Cumulative % Project Trip Distribution

Figure 10: Cumulative Plus Project Volumes



1.

10(20) 480(760) 510(280)	S. Higuera St 265(495) 5(15) 307(776)
Tank Farm Rd 25(10) 20(10) 20(25)	15(30) 555(580) 941(472)

2.

20(70) 5(5) 39(89)	Long St 72(110) 672(1502) 117(137)
Tank Farm Rd 60(65) 1286(792) 50(30)	10(15) 0(5) 66(172)

3.

15(33) 80(26) 263(373)	Santa Fe Rd West 408(281) 700(1145) 140(68)
Tank Farm Rd 29(17) 720(975) 14(7)	4(14) 130(84) 45(170)

4.

Intersection Closed

5.

6(16) 5(5) 5(20)	5(5) 1257(1248) 35(10)
Tank Farm Rd 16(16) 902(1479) 110(23)	MindBody 30(194) 5(5) 10(35)

6.

131(180) 1134(1106) 70(180)	Broad St 100(250) 20(25) 92(183)
Industrial Way 120(195) 5(40) 38(65)	70(110) 811(1187) 198(193)

7.

529(556) 749(710) 60(215)	Broad St 185(130) 368(222) 251(190)
Tank Farm Rd 255(649) 167(535) 516(419)	363(546) 655(665) 115(208)

8.

243(110) 971(1077)	Broad St
Aero Vista Ln 45(119) 10(55)	60(15) 1206(989)

9.

135(94) 603(920) 232(57)	Broad St 75(165) 0(5) 10(28)
Aero Dr 62(226) 5(0) 5(40)	50(40) 1144(732) 24(13)

10.

502(1039) 46(26)	Broad St 21(41) 15(86)
Farmhouse Ln 1000(566) 118(32)	

11.

50(45) 450(1162) 5(5)	Edna Rd 5(5) 0(0) 5(10)
Buckley Rd 55(45) 5(5) 225(343)	366(84) 1383(587) 5(5)



Legend:

- xx(yy) - AM(PM) Peak Hour
- - Future Road Traffic Volumes
- Project Site
- Study Intersection

7.1 CUMULATIVE INTERSECTION OPERATIONS

7.1.1 Intersection Auto LOS and Queuing

Table 27 presents the LOS for the study intersections under Cumulative and Cumulative Plus Project conditions, with detailed calculation sheets included in Appendix B.

Table 27: Cumulative and Cumulative Plus Project Intersection Auto LOS

Cumulative and Cumulative Plus Project Intersection Auto Levels of Service								
Intersection	Peak Hour	Cumulative			Cumulative + Project			
		v/C ¹	Delay ²	LOS	v/C ¹	Δv/C	Delay ²	LOS
1. Tank Farm Road/South Higuera Street	AM		30.2	C			30.3	C
	PM		25.3	C			25.3	C
2. Tank Farm Road/Long Street	AM		8.8	A			8.9	A
	PM		14.0	B			14.2	B
3. Tank Farm Road/Santa Fe Road West	AM		11.0	B			11.4	B
	PM		23.0	C			25.7	D
4. Tank Farm Road/Santa Fe Road East	AM	<i>Intersection Closed</i>						
	PM							
5. Tank Farm Road/MindBody	AM		14.1	B			14.2	B
	PM		23.5	C			23.7	C
6. Broad Street/Industrial Way	AM		26.2	C			26.3	C
	PM	1.37	71.4	E	1.37	0.00	72.1	E
7. Broad Street/Tank Farm Road	AM	1.01	58.0	E	1.02	0.01	58.5	E
	PM	1.38	101.5	F	1.40	0.02	103.8	F
8. Broad Street/Aero Vista Lane	AM		0.9 (26.7)	- (D)			0.9 (26.8)	- (D)
	PM	0.622	2.8 (37.0)	- (E)	0.625	0.003	2.8 (37.4)	- (E)
9. Broad Street/Aero Drive	AM		18.5	B			18.5	B
	PM		17.1	B			17.2	B
10. Broad Street/Farmhouse Lane	AM		0.7 (19.8)	- (C)			0.7 (19.9)	- (C)
	PM		1.9 (25.6)	- (D)			1.9 (25.8)	- (D)
11. Edna Road (SR 227)/Buckley Road	AM		11.1	B			11.1	B
	PM		10.5	B			10.5	B

1. Volume to capacity ratio reported for worst movement, for unacceptable LOS only.
2. HCM 6th average control delay in seconds per vehicle. For side-street-stop controlled intersections the worst approach's delay is reported in parentheses next to the overall intersection delay.
Unacceptable operations shown in bold text.

The following intersections operate below the LOS threshold:

- Broad Street/Industrial Way (#6): The intersection operates unacceptably during the PM peak hour both with and without the project. However, the volume to capacity ratio would be increased by less than 0.01 and the impact is less than significant. Although no improvements are required, it should be noted that the intersection would operate acceptably under Cumulative conditions if the east-west signal phasing were modified from split phase to protected-permissive left turn phasing. This would require a signal modification and restriping of the east-west approaches.
- Broad Street/Tank Farm Road (#7): The intersection operates unacceptably during both peak hours both with and without the project. The volume to capacity ratio would be increased by 0.01 during the AM peak hour and 0.02 during the PM peak hour. The intersection could be improved to at least Cumulative No Project conditions by adding a dedicated northbound right turn lane. The City's Circulation Element EIR recommends future improvements at this intersection, which are included in the Citywide TIF program, including establishing time-of-

day timing plans, adding a second southbound left turn lane, adding a dedicated northbound right turn lane, adding a dedicated westbound right turn lane, augmenting bicycle facilities, and improving Broad Street transit headways. The project would be contributing a fair share towards these future improvements through TIF participation.

- Broad Street/Aero Vista Lane (#8): The intersection operates unacceptably during the PM peak hour both with and without the project. However, the volume to capacity ratio would be increased by less than 0.01 and the impact is less than significant. Although no improvements are required, it should be noted that an additional signalized intersection on the corridor is undesirable. The signalized intersection of Broad Street/Aero Drive provides an alternative route for drivers in this area.

Table 28 presents the key queues for the study intersections, with detailed calculation sheets included in **Appendix B**.

Table 28: Cumulative and Cumulative Plus Project Intersection Queues

Cumulative and Cumulative Plus Project Intersection Queues					
Intersection	Movement	Storage Length (ft)	Peak Hour	Cumulative 95 th Percentile Queue (ft) ¹	Cumulative+ Project Queue (ft) ¹
1. Tank Farm Road/South Higuera Street	SBL	165	AM	#345	#345
			PM	#196	#196
2. Tank Farm Road/Long Street	WBL	160	AM	54	55
			PM	37	37
5. Tank Farm Road/MindBody	EBL	100	AM	26	27
			PM	33	34
6. Broad Street/Industrial Way	NBL	150	AM	#190	#190
			PM	#263	#263
7. Broad Street/Tank Farm Road	EBL	265	AM	139	142
			PM	#493	#498
	NBL	275	AM	#258	#260
			PM	#431	#435
10. Broad Street/Farmhouse Lane	SBL	145	AM	8	8
			PM	3	3

1. Queue length that would not be exceeded 95 percent of the time.
indicates 95th percentile volume exceeds capacity, queue may be longer.
Bold indicates queue length longer than storage length.
Detailed queues provided in Appendix B.

The addition of project traffic increases key queues by less than one vehicle length. No improvements are recommended.

7.1.2 Intersection Pedestrian LOS

Table 29 presents the Cumulative and Cumulative Plus Project intersection pedestrian LOS, with detailed calculation sheets included in **Appendix B**.

Table 29: Cumulative and Cumulative Plus Project Intersection Pedestrian LOS

Cumulative and Cumulative Plus Project Intersection Pedestrian Levels of Service									
Intersection	Approach	Cumulative				Cumulative Plus Project			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Score/ Delay ¹	LOS	Score/ Delay ¹	LOS	Score/ Delay ¹	LOS	Score/ Delay ¹	LOS
1. Tank Farm Road/South Higuera Street	EB	1.99	B	2.01	B	1.99	B	2.01	B
	WB	3.16	C	3.21	C	3.16	C	3.21	C
	NB	3.34	C	3.42	C	3.34	C	3.42	C
	SB	2.96	C	3.03	C	2.96	C	3.03	C
2. Tank Farm Road/Long Street	EB	2.96	C	3.08	C	2.96	C	3.08	C
	WB	3.02	C	3.26	C	3.02	C	3.27	C
	NB	2.03	B	2.07	B	2.03	B	2.07	B
	SB	2.01	B	2.06	B	2.01	B	2.06	B
5. Tank Farm Road/MindBody	EB	2.94	C	3.16	C	2.94	C	3.16	C
	WB	2.90	C	3.10	C	2.91	C	3.11	C
	NB	2.02	B	2.08	B	2.02	B	2.08	B
	SB	1.96	B	1.98	B	1.96	B	1.98	B
6. Broad Street/Industrial Way	EB	2.10	B	2.18	B	2.10	B	2.18	B
	WB	2.17	B	2.37	B	2.17	B	2.37	B
	NB	3.14	C	3.29	C	3.15	C	3.29	C
	SB	3.11	C	3.32	C	3.11	C	3.32	C
7. Broad Street/Tank Farm Road	EB	3.14	C	3.27	C	3.14	C	3.27	C
	WB	2.68	C	2.77	C	2.68	C	2.77	C
	NB	3.16	C	3.24	C	3.17	C	3.24	C
	SB	3.22	C	3.43	C	3.22	C	3.43	C
10. Broad Street/Farmhouse Lane	NB	>200	F	>200	F	>200	F	>200	F
	SB	>200	F	>200	F	>200	F	>200	F

1. HCM 6th pedestrian score (signalized intersections) or delay in seconds (two-way stop controlled intersections).

Broad Street/Farmhouse Lane (#10) would operate with unacceptable intersection pedestrian LOS due to two-way stop control. However, the deficiency is not contextually significant due to a lack of destinations and the nearby availability of a traffic signal.

7.1.3 Intersection Bicycle LOS

Table 30 presents the Cumulative and Cumulative Plus Project intersection bicycle LOS, with detailed calculation sheets included in Appendix B. The intersection bicycle LOS methodology does not support unsignalized intersection analysis.

Table 30: Cumulative and Cumulative Plus Project Intersection Bicycle LOS

Cumulative and Cumulative Plus Project Intersection Bicycle Levels of Service									
Intersection	Approach	Cumulative				Cumulative Plus Project			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Score ¹	LOS	Score ¹	LOS	Score ¹	LOS	Score ¹	LOS
1. Tank Farm Road/South Higuera Street	EB	3.31	C	3.28	C	3.31	C	3.28	C
	WB	2.75	C	3.97	D	2.76	C	3.98	D
	NB	2.95	C	2.54	C	2.95	C	2.55	C
	SB	2.36	B	2.39	B	2.36	B	2.39	B
2. Tank Farm Road/Long Street	EB	2.24	B	1.80	B	2.24	B	1.80	B
	WB	1.79	B	2.55	C	1.79	B	2.55	C
	NB	2.61	C	2.81	C	2.61	C	2.81	C
	SB	2.55	C	2.72	C	2.55	C	2.73	C
5. Tank Farm Road/MindBody	EB	1.92	B	2.39	B	1.93	B	2.40	B
	WB	2.16	B	2.16	B	2.17	B	2.17	B
	NB	1.67	B	2.01	B	1.67	B	2.01	B
	SB	2.68	C	2.72	C	2.68	C	2.72	C
6. Broad Street/Industrial Way	EB	2.97	C	3.21	C	2.97	C	3.21	C
	WB	3.07	C	3.50	D	3.07	C	3.50	D
	NB	2.02	B	2.38	B	2.03	B	2.38	B
	SB	2.26	B	2.36	B	2.26	B	2.37	B
7. Broad Street/Tank Farm Road	EB	2.39	B	3.02	C	2.40	B	3.03	C
	WB	3.33	C	2.92	C	3.33	C	2.92	C
	NB	2.55	C	2.85	C	2.56	C	2.86	C
	SB	2.94	C	3.12	C	2.95	C	3.13	C

1. HCM 6th bicycle score.

No intersection bicycle LOS deficiencies are reported.

7.2 CUMULATIVE ROADWAY OPERATIONS

7.2.1 Roadway Auto LOS

Table 31 presents the Cumulative and Cumulative Plus Project roadway segment auto LOS, with detailed calculation sheets included in Appendix C.

Table 31: Cumulative and Cumulative Plus Project Roadway Segment Auto LOS

Cumulative and Cumulative Plus Project Roadway Segment Auto Levels of Service									
Segment	Direction	Cumulative				Cumulative Plus Project			
		AM Peak		PM Peak		AM Peak		PM Peak	
		%	LOS ¹	%	LOS ¹	%	LOS ¹	%	LOS ¹
1. Tank Farm Road - S. Higuera Street to Old Windmill Lane	EB	91.7	A	91.9	A	91.7	A	91.9	A
	WB	55.4	C	57.3	C	55.4	C	57.3	C
2. Tank Farm Road - Old Windmill Lane to Santa Fe Road	EB	85.8	A	85.2	A	85.9	A	85.2	A
	WB	95.9	A	88.4	A	95.9	A	88.5	A
3. Tank Farm Road - Santa Fe Road to Broad Street	EB	51.1	C	51.8	C	51.1	C	51.8	C
	WB	67.1	B	83.6	A	67.1	B	83.7	A
4. Tank Farm Road - Broad Street to Righetti Ranch Road	EB	93.9	A	92.9	A	94.3	A	92.9	A
	WB	64.0	C	63.8	C	64.0	C	63.7	C
5. Broad Street - Farmhouse Lane to Tank Farm Road	NB	69.9	B	67.4	B	69.9	B	67.4	B
	SB	94.3	A	91.4	A	94.3	A	91.8	A
6. Broad Street - Tank Farm Road to Orcutt Road	NB	84.7	A	83.5	A	84.7	A	83.5	A
	SB	65.7	C	68.6	B	65.7	C	68.4	B
7. Santa Fe Road - North of Tank Farm Road	NB	93.5	A	94.5	A	93.4	A	94.4	A
	SB	78.8	B	74.7	B	78.6	B	73.9	B

1. HCM 6th LOS based on auto travel speed as a percentage of base free-flow speed, unless volume exceeds capacity.

No roadway segment auto LOS deficiencies are reported. This analysis shows that Santa Fe Road north of Tank Farm Road would operate acceptably with the proposed two-lane section and a four-lane section is not needed. This conclusion is supported by the daily volumes forecast by the City TDM, which show under 12,000 daily vehicles on this segment, well below the practical capacity of a two-lane roadway. Tank Farm Road from Old Windmill Road to Santa Fe Road also operates acceptably under Cumulative Plus Project conditions as a two-lane section if the Prado Road Extension is assumed to be constructed.

7.2.2 Roadway Pedestrian LOS

Table 32 presents the Cumulative and Cumulative Plus Project roadway segment pedestrian LOS, with detailed calculation sheets included in Appendix C.

Table 32: Cumulative and Cumulative Plus Project Roadway Segment Pedestrian LOS

Cumulative and Cumulative Plus Project Roadway Segment Pedestrian Levels of Service									
Segment	Direction	Cumulative				Cumulative Plus Project			
		AM Peak		PM Peak		AM Peak		PM Peak	
		Score	LOS ¹	Score	LOS ¹	Score	LOS ¹	Score	LOS ¹
1. Tank Farm Road - S. Higuera Street to Old Windmill Lane	EB	3.14	C	3.09	C	3.14	C	3.10	C
	WB	3.24	C	3.58	D	3.24	C	3.57	D
2. Tank Farm Road - Old Windmill Lane to Santa Fe Road	EB	-	F	-	F	-	F	-	F
	WB	-	F	-	F	-	F	-	F
3. Tank Farm Road - Santa Fe Road to Broad Street	EB	3.46	C	3.61	D	3.45	C	3.61	D
	WB	3.13	C	3.13	C	3.13	C	3.13	C
4. Tank Farm Road - Broad Street to Righetti Ranch Road	EB	2.62	B	3.18	C	2.62	B	3.18	C
	WB	3.43	C	3.19	C	3.43	C	3.19	C
5. Broad Street - Farmhouse Lane to Tank Farm Road	NB	-	F	-	F	-	F	-	F
	SB	3.61	D	3.52	D	3.61	D	3.52	D
6. Broad Street - Tank Farm Road to Orcutt Road	NB	3.30	C	3.29	C	3.31	C	3.29	C
	SB	-	F	-	F	-	F	-	F
7. Santa Fe Road - North of Tank Farm Road	NB	2.88	C	2.62	B	2.90	C	2.64	B
	SB	3.05	C	3.20	C	3.09	C	3.25	C

1. HCM 6th LOS based on pedestrian score, unless pedestrian space is constrained.

Multiple roadway segments operate with unacceptable pedestrian LOS due to missing sidewalks or high adjacent vehicle volumes. For segments with sidewalks, the addition of project traffic increases the unacceptable LOS scores by less than 0.01 and is not contextually significant. For segments without sidewalks, the addition of the project is contextually significant only on Tank Farm Road where there is no pedestrian connectivity west of the site.

7.2.3 Roadway Bicycle LTS

All study segments on Tank Farm Road and Broad Street operate at unacceptable LTS 4, equivalent to LOS E/F, both with and without the project despite the frontage improvements. For each of these segments, the project would not cause any additional dimensions of the LTS criteria to become unacceptable. The City’s Bike Plan recommends a network of Class I Bike Paths north of Tank Farm Road and west of Broad Street.

The segment of Santa Fe Road north of Tank Farm Road operates at acceptable LTS 1, equivalent to LOS A, both with and without the project.

7.3 ROADWAY NETWORK ALTERNATIVES ANALYSIS

This section evaluates potential future roadway alternatives including the number of lanes on Tank Farm Road and Prado Road and the traffic control and lane configuration alternatives for the Tank Farm Road/Santa Fe Road intersection.

7.3.1 Prado Road and Tank Farm Road

Prado Road is planned to extend from its current terminus to Broad Street as a four-lane arterial in the City’s Circulation Element. Construction of the extension is heavily dependent on development of adjacent land uses. A sensitivity analysis was conducted to consider the effects on Tank Farm Road if Prado Road were constructed as a two-lane facility or is not constructed at all. The City’s TDM was applied using Cumulative land uses and a modified network reflecting the Prado Road extension with

two lanes or no lanes. **Table 33** summarizes the estimated daily volumes on Prado Road, Tank Farm Road, and Santa Fe Road.

Table 33: ADT Forecasts

ADT Forecasts			
Configuration	Prado Road (west of Santa Fe)	Tank Farm Road (west of Santa Fe)	Santa Fe Road (north of Tank Farm)
2-lane TFR/0-lane Prado	0	24,732	5,024
2-lane TFR/2-lane Prado	18,902	18,966	8,842
2-lane TFR/4-lane Prado	20,995	18,214	11,523
4-lane TFR/0-lane Prado	0	26,478	4,951
Forecasts derived from City's Travel Demand Model.			

The model shows that, as expected, lower capacity on the Prado Road extension increases volumes on Tank Farm Road. Consistent with the Circulation Element, generalized daily volume LOS thresholds for Tank Farm Road show that a two-lane divided arterial has a functional capacity (maximum for LOS E) of 23,415 vehicles and a four-lane divided arterial has a capacity of 58,300 vehicles.

This analysis indicates that a two-lane configuration on Tank Farm Road west of Santa Fe Road would operate within its functional capacity if the Prado Road extension to Broad Street is constructed as a two- or four-lane section. Vehicle LOS was acceptable assuming a two-lane section on Tank Farm Road between Old Windmill Road and Santa Fe Road under Cumulative Plus Project conditions as shown in **Table 31** using the HCM 6th methodology.

A two-lane configuration on Santa Fe Road north of Tank Farm Road would operate within its functional capacity under all scenarios. However, if a two-lane Tank Farm Road/four-lane Prado Road configuration is constructed, Santa Fe Road would exceed the 10,000 ADT maximum for commercial collectors established by the Circulation Element unless it is reclassified as an arterial.

7.3.2 Santa Fe Road/Tank Farm Road Intersection

This section evaluates traffic control and lane configurations for the Santa Fe Road/Tank Farm Road intersection.

The planned alignment of Santa Fe Road and Prado Road make the proposed route faster for drivers traveling between US 101 at Prado Road and Broad Street than Tank Farm Road. Accordingly, the TDM shifts a substantial portion of traffic to this route, resulting in major turning movement shifts at the Santa Fe Road/Tank Farm Road intersection.

The planned ultimate configuration for the multilane roundabout at the intersection of Tank Farm Road/Santa Fe Road West (#3) would have two-lane approaches on Tank Farm Road and one-lane approaches on Santa Fe Road. While the configuration would operate with acceptable LOS, the southbound queue length would be 375 feet during the PM peak hour under Cumulative Plus Project conditions. This queue length could be shortened substantially by constructing a two-lane southbound approach consisting of a left turn lane and a shared left/through/right lane. The queue length reduction would not be substantial with a left turn lane and a shared through/right lane. Although Tank Farm Road between Old Windmill Road and Santa Fe Road operates acceptably under Cumulative Plus Project conditions as a two-lane section, two lanes for eastbound and westbound are needed through the roundabout for acceptable Cumulative operations so recommend dedicating right-of-way for dual lanes on all approaches except northbound. An interim configuration with dual westbound approach lanes and single southbound and eastbound approach lanes would operate acceptably through the near term.

The recommended lane configurations with roundabout control can be summarized as follows:

- Interim Configuration:
 - Eastbound approach: 1 lane
 - Westbound approach: 2 lanes
 - Northbound approach: None
 - Southbound approach: 1 lane
- Ultimate Configuration:
 - Eastbound approach: 2 lanes
 - Westbound approach: 2 lanes
 - Northbound approach: 1 lane
 - Southbound approach: 2 lanes

Tank Farm Road would taper to a single lane per direction west of the roundabout under either configuration. Interim roundabout designs should not preclude the ultimate configuration and should minimize any “throwaway” improvements.

If the intersection is signalized under Cumulative Plus Project conditions, the minimum lane configuration would be two through lanes with a left turn pocket for the eastbound and westbound approaches (with protected-permissive phasing), a shared through/left lane with a right turn pocket for the northbound approach (with split phasing), and a shared left/through/right lane with a left turn pocket for the southbound approach (with split phasing). With signalized operations and the minimum lane configurations, the westbound queue would extend to the existing Hidden Hills Mobilodge driveway. With an additional southbound left turn lane and protected-permissive phasing on all approaches the queuing would be reduced and would not extend to the driveway.

8.0 References

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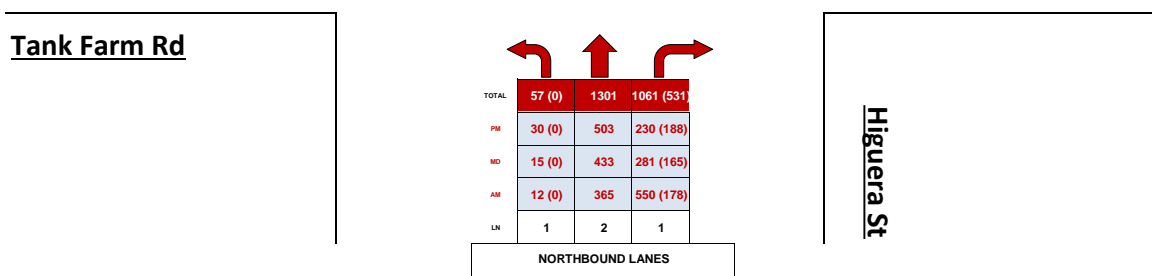
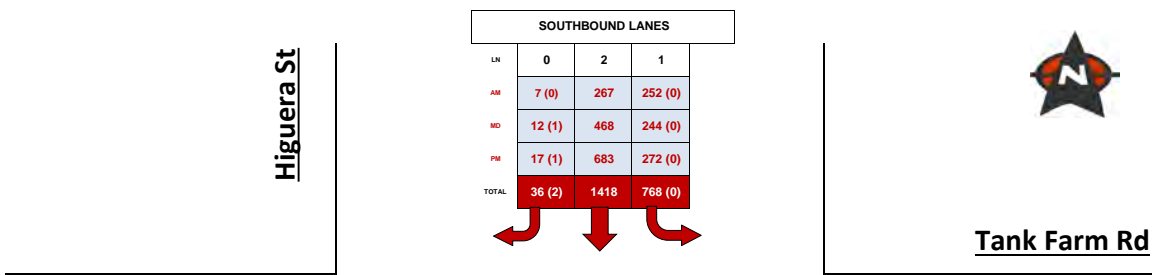
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Appendix A: Traffic Counts

PEAK HOUR ITM SUMMARY

#057B Higuera St & Tank Farm Rd

LOCATION#:	057B	QTD PROJ#:	2018229	AM PEAK:	745 AM
NORTH / SOUTH:	Higuera St	DATE:	Tuesday, October 30, 2018	MD PEAK:	1200 PM
EAST / WEST:	Tank Farm Rd	VICINITY:	SLO	PM PEAK:	415 PM



VEHICLE TURNING MOVEMENT COUNT

#057B Higuera St & Tank Farm Rd - AM PEAK

LOCATION#:	057B	QTD PROJ#:	2018229
NORTH / SOUTH:	Higuera St	DATE:	Tuesday, October 30, 2018
EAST / WEST:	Tank Farm Rd	VICINITY:	SLO

DIRECTION:	NL	NT	NR	NRTOR	SL	ST	SR	SRTOR	EL	ET	ER	ERTOR	WL	WT	WR	WRTOR	TOTALS
LANES:	1	2	1	0	1	2	0	0	0.5	0.5	1	0	1.5	0.5	1	0	
7:00 AM	2	36	98	3	32	26	0	0	5	1	1	0	41	1	12	17	275
7:15 AM	2	56	84	22	42	41	1	0	7	1	3	2	50	0	16	27	354
7:30 AM	2	65	89	16	41	53	1	0	9	3	7	3	53	1	28	27	398
7:45 AM	3	72	138	63	65	64	3	0	5	4	7	0	78	0	22	33	557
8:00 AM	1	91	144	31	62	67	0	0	6	5	4	0	76	1	25	43	556
8:15 AM	4	109	142	57	65	62	3	0	8	6	6	2	73	1	28	42	608
8:30 AM	4	93	126	27	60	74	1	0	4	2	1	0	45	1	19	23	480
8:45 AM	7	118	64	27	41	77	4	0	10	1	6	1	62	1	29	31	479

VOLUME STATS:	NL	NT	NR	NRTOR	SL	ST	SR	SRTOR	EL	ET	ER	ERTOR	WL	WT	WR	WRTOR	TOTALS
TOTAL:	25	640	885	246	408	464	13	0	54	23	35	8	478	6	179	243	
P.H.V: ¹	12	365	550	178	252	267	7	0	23	17	18	2	272	3	94	141	2201
P.H.F: ²		0.885				0.974				0.682				0.879			0.905

(1) Peak Hour Volume (Peak Hour Begins At 7:45 AM)

(2) Peak Hour Factor (directional aggregate)



QUALITY TRAFFIC DATA, LLC

VEHICLE TURNING MOVEMENT COUNT

#057B Higuera St & Tank Farm Rd - MD PEAK

LOCATION#:	057B	QTD PROJ#:	2018229
NORTH / SOUTH:	Higuera St	DATE:	Tuesday, October 30, 2018
EAST / WEST:	Tank Farm Rd	VICINITY:	SLO

DIRECTION:	NL	NT	NR	NRTOR	SL	ST	SR	SRTOR	EL	ET	ER	ERTOR	WL	WT	WR	WRTOR	TOTALS
LANES:	1	2	1	0	1	2	0	0	0.5	0.5	1	0	1.5	0.5	1	0	
11:00 AM	6	87	55	32	62	120	4	0	4	4	3	1	96	3	22	31	530
11:15 AM	3	74	39	75	50	95	4	0	8	2	4	3	106	1	19	31	514
11:30 AM	2	118	76	42	65	96	3	0	7	1	3	3	86	2	38	39	581
11:45 AM	3	85	64	43	62	101	2	0	2	7	2	3	107	0	27	43	551
12:00 PM	8	125	66	42	55	126	3	0	5	1	0	1	118	0	22	46	618
12:15 PM	3	106	60	45	65	127	2	0	2	2	1	3	110	3	20	35	584
12:30 PM	3	90	60	49	68	121	2	0	3	3	0	2	123	2	44	29	599
12:45 PM	1	112	95	29	56	94	5	1	4	1	0	2	105	2	25	32	564

VOLUME STATS:	NL	NT	NR	NRTOR	SL	ST	SR	SRTOR	EL	ET	ER	ERTOR	WL	WT	WR	WRTOR	TOTALS	
TOTAL:	29	797	515	357	483	880	25	1	35	21	13	18	851	13	217	286		4541
P.H.V: ¹	15	433	281	165	244	468	12	1	14	7	1	8	456	7	111	142		2365
P.H.F: ²		0.927				0.934				0.938				0.904			0.957	

- (1) Peak Hour Volume (Peak Hour Begins At 1200 PM)
 (2) Peak Hour Factor (directional aggregate)



QUALITY TRAFFIC DATA, LLC

VEHICLE TURNING MOVEMENT COUNT

#057B Higuera St & Tank Farm Rd - PM PEAK

LOCATION#:	057B	QTD PROJ#:	2018229
NORTH / SOUTH:	Higuera St	DATE:	Tuesday, October 30, 2018
EAST / WEST:	Tank Farm Rd	VICINITY:	SLO

DIRECTION:	NL	NT	NR	NRTOR	SL	ST	SR	SRTOR	EL	ET	ER	ERTOR	WL	WT	WR	WRTOR	TOTALS
LANES:	1	2	1	0	1	2	0	0	0.5	0.5	1	0	1.5	0.5	1	0	
4:00 PM	6	107	45	47	55	162	8	1	7	3	4	4	111	6	23	41	630
4:15 PM	9	125	68	43	60	147	5	1	1	2	0	5	125	5	19	46	661
4:30 PM	7	131	59	58	67	185	5	0	3	2	4	4	121	3	44	46	739
4:45 PM	8	132	43	44	56	147	5	0	2	2	0	4	163	3	31	50	690
5:00 PM	6	115	60	43	89	204	2	0	3	3	0	4	149	0	37	48	763
5:15 PM	7	157	72	53	66	152	3	1	4	3	2	5	66	0	19	42	652
5:30 PM	7	155	76	20	55	122	6	0	4	4	0	4	61	2	34	48	598
5:45 PM	8	103	65	39	56	93	0	0	7	1	3	3	108	3	29	41	559

VOLUME STATS:	NL	NT	NR	NRTOR	SL	ST	SR	SRTOR	EL	ET	ER	ERTOR	WL	WT	WR	WRTOR	
TOTAL:	58	1025	488	347	504	1212	34	3	31	20	13	33	904	22	236	362	5292
P.H.V: ¹	30	503	230	188	272	683	17	1	9	9	4	17	558	11	131	190	2853
P.H.F: ²	_____	0.932	_____		_____	0.825	_____		_____	0.750	_____		_____	0.901	_____		0.935

(1) Peak Hour Volume (Peak Hour Begins At 4:15 PM)
(2) Peak Hour Factor (directional aggregate)

PEDESTRIAN TURNING MOVEMENT COUNT

#057B Higuera St & Tank Farm Rd - AM PEAK

LOCATION#:	057B	QTD PROJ#:	2018229
NORTH / SOUTH:	Higuera St	DATE:	Tuesday, October 30, 2018
EAST / WEST:	Tank Farm Rd	VICINITY:	SLO

DIRECTION:	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
7:00 AM	1	0	0	1	1	0	0	0	0	0	0	0	3
7:15 AM	0	0	0	0	1	4	0	0	0	0	0	0	5
7:30 AM	0	0	0	0	0	1	0	0	0	4	0	2	7
7:45 AM	0	0	0	0	4	0	1	0	0	0	0	1	6
8:00 AM	0	0	0	0	1	0	0	1	1	0	0	0	3
8:15 AM	0	0	0	0	0	1	0	1	0	0	1	0	3
8:30 AM	0	1	0	0	0	0	0	0	2	0	1	0	4
8:45 AM	0	1	0	0	0	0	0	0	0	0	2	0	3
VOLUME STATS:	1	2	3	4	5	6	7	8	9	10	11	12	
TOTAL:	1	2	0	1	7	6	1	2	3	4	4	3	34



QUALITY TRAFFIC DATA, LLC

PEDESTRIAN TURNING MOVEMENT COUNT

#057B Higuera St & Tank Farm Rd - MD PEAK

LOCATION#:	057B	QTD PROJ#:	2018229
NORTH / SOUTH:	Higuera St	DATE:	Tuesday, October 30, 2018
EAST / WEST:	Tank Farm Rd	VICINITY:	SLO

DIRECTION:	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
11:00 AM	0	0	1	0	5	2	0	0	1	0	2	1	12
11:15 AM	0	0	0	0	1	0	0	1	1	0	1	1	5
11:30 AM	0	1	1	0	4	1	0	1	0	0	0	0	8
11:45 AM	0	0	2	0	2	4	0	0	1	0	0	2	11
12:00 PM	0	0	1	0	2	1	5	3	2	0	2	1	17
12:15 PM	0	0	1	0	0	1	0	2	0	0	2	0	6
12:30 PM	0	1	2	0	1	2	0	0	1	0	0	1	8
12:45 PM	0	0	0	0	0	5	2	0	1	0	0	1	9
VOLUME STATS:	1	2	3	4	5	6	7	8	9	10	11	12	
TOTAL:	0	2	8	0	15	16	7	7	7	0	7	7	76



QUALITY TRAFFIC DATA, LLC

PEDESTRIAN TURNING MOVEMENT COUNT

#057B Higuera St & Tank Farm Rd - PM PEAK

LOCATION#:	057B	QTD PROJ#:	2018229
NORTH / SOUTH:	Higuera St	DATE:	Tuesday, October 30, 2018
EAST / WEST:	Tank Farm Rd	VICINITY:	SLO

DIRECTION:	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
4:00 PM	0	1	2	0	0	1	0	1	3	0	0	3	11
4:15 PM	0	0	0	0	0	1	0	3	3	4	5	2	18
4:30 PM	2	0	0	0	1	1	0	2	0	0	1	0	7
4:45 PM	0	0	0	0	0	0	0	0	4	0	0	3	7
5:00 PM	2	0	1	0	0	1	0	6	2	0	2	3	17
5:15 PM	0	0	0	0	0	3	0	3	3	0	4	0	13
5:30 PM	2	0	0	0	4	1	0	0	3	1	1	0	12
5:45 PM	0	2	0	0	0	1	0	5	2	0	4	1	15
VOLUME STATS:	1	2	3	4	5	6	7	8	9	10	11	12	
TOTAL:	6	3	3	0	5	9	0	20	20	5	17	12	100



QUALITY TRAFFIC DATA, LLC

BICYCLE TURNING MOVEMENT COUNT

#057B Higuera St & Tank Farm Rd - AM PEAK

LOCATION#:	057B	QTD PROJ#:	2018229
NORTH / SOUTH:	Higuera St	DATE:	Tuesday, October 30, 2018
EAST / WEST:	Tank Farm Rd	VICINITY:	SLO

DIRECTION:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTALS
LANES:	1	2	1	1	2	0	0.5	0.5	1	1.5	0.5	1	
7:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
7:15 AM	0	2	0	0	0	0	2	0	0	0	0	0	4
7:30 AM	0	1	1	0	0	0	0	0	0	1	0	0	3
7:45 AM	0	2	3	0	0	0	0	0	1	1	0	0	7
8:00 AM	0	1	0	0	0	0	1	1	0	0	0	1	4
8:15 AM	0	3	2	1	2	0	0	0	0	0	0	1	9
8:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
8:45 AM	0	0	3	0	1	0	0	0	1	0	0	0	5

VOLUME STATS:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTALS
TOTAL:	0	9	9	1	5	0	3	1	2	2	0	2	34
P.H.V: ₁	0	7	6	1	2	0	1	1	1	2	0	2	23
P.H.F: ₂		0.650			0.250			0.375			1.000		0.639

(1) Peak Hour Volume (Peak Hour Begins At 730 AM)

(2) Peak Hour Factor (directional aggregate)



QUALITY TRAFFIC DATA, LLC

BICYCLE TURNING MOVEMENT COUNT

#057B Higuera St & Tank Farm Rd - MD PEAK

LOCATION#:	057B	QTD PROJ#:	2018229
NORTH / SOUTH:	Higuera St	DATE:	Tuesday, October 30, 2018
EAST / WEST:	Tank Farm Rd	VICINITY:	SLO

DIRECTION:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTALS
LANES:	1	2	1	1	2	0	0.5	0.5	1	1.5	0.5	1	
11:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
11:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	2
11:30 AM	0	3	0	0	2	0	0	0	0	0	0	0	5
11:45 AM	0	1	0	0	2	0	0	1	0	0	0	0	4
12:00 PM	0	2	1	0	1	0	0	0	0	0	0	0	4
12:15 PM	0	1	1	0	1	0	1	0	0	1	0	0	5
12:30 PM	0	1	0	0	5	0	0	0	0	0	0	0	6
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	

VOLUME STATS:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTALS
TOTAL:	0	10	2	0	12	0	1	1	0	1	0	0	27
P.H.V: ₁	0	5	2	0	9	0	1	1	0	1	0	0	19
P.H.F: ₂		0.583			0.450			0.500			0.250		0.792

(1) Peak Hour Volume (Peak Hour Begins At 1145 AM)

(2) Peak Hour Factor (directional aggregate)



QUALITY TRAFFIC DATA, LLC

BICYCLE TURNING MOVEMENT COUNT

#057B Higuera St & Tank Farm Rd - PM PEAK

LOCATION#:	057B	QTD PROJ#:	2018229
NORTH / SOUTH:	Higuera St	DATE:	Tuesday, October 30, 2018
EAST / WEST:	Tank Farm Rd	VICINITY:	SLO

DIRECTION:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTALS
LANES:	1	2	1	1	2	0	0.5	0.5	1	1.5	0.5	1	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	
4:15 PM	0	3	0	0	1	0	0	0	0	0	0	0	4
4:30 PM	0	1	0	0	2	0	0	0	0	0	0	1	4
4:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
5:15 PM	0	2	1	0	3	0	0	0	0	0	0	0	6
5:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
5:45 PM	1	1	0	0	3	0	0	0	1	0	0	1	7

VOLUME STATS:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTALS
TOTAL:	1	8	1	0	11	0	0	0	1	0	0	2	24
P.H.V: ₁	1	3	1	0	8	0	0	0	1	0	0	1	15
P.H.F: ₂		0.417	1		0.667	1		0.250	1		0.250		0.536

(1) Peak Hour Volume (Peak Hour Begins At 5:00 PM)

(2) Peak Hour Factor (directional aggregate)



QUALITY TRAFFIC DATA, LLC

National Data & Surveying Services

Intersection Turning Movement Count

Location: Long St & Tank Farm Rd
City: San Luis Obispo
Control: 2-Way Stop(NB/SB)

Project ID: 19-02080-002
Date: 10/9/2019

Total

NS/EW Streets:	Long St				Long St				Tank Farm Rd				Tank Farm Rd				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	0	0.5	0.5	0	0	1	0	0	1	2	0	0	1	2	0	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
7:00 AM	0	1	13	0	3	1	2	0	3	112	4	0	10	64	2	5	220
7:15 AM	1	0	9	0	0	0	3	0	3	127	4	0	16	81	0	5	249
7:30 AM	2	0	13	0	3	0	2	0	8	150	4	0	12	109	4	1	308
7:45 AM	1	0	10	0	3	0	4	0	13	216	14	0	29	154	3	3	450
8:00 AM	2	0	15	0	1	1	5	0	18	200	13	0	23	144	6	9	437
8:15 AM	1	0	15	0	0	0	5	0	17	211	10	0	24	155	6	3	447
8:30 AM	2	0	22	0	1	0	4	0	10	186	10	0	19	132	3	3	392
8:45 AM	3	0	10	0	2	0	3	0	16	191	15	1	28	112	1	4	386
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	12	1	107	0	13	2	28	0	88	1393	74	1	161	951	25	33	2889
	10.00%	0.83%	89.17%	0.00%	30.23%	4.65%	65.12%	0.00%	5.66%	89.52%	4.76%	0.06%	13.76%	81.28%	2.14%	2.82%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	6	0	62	0	5	1	18	0	58	813	47	0	95	585	18	18	1726
PEAK HR FACTOR :	0.750	0.000	0.705	0.000	0.417	0.250	0.900	0.000	0.806	0.941	0.839	0.000	0.819	0.944	0.750	0.500	0.959
	0.708				0.857				0.944				0.947				
PM	0	0.5	0.5	0	0	1	0	0	1	2	0	0	1	2	0	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	2	1	55	0	3	0	6	0	26	153	5	0	32	229	5	1	518
4:15 PM	3	0	34	0	4	0	6	0	17	157	5	0	18	230	4	5	483
4:30 PM	6	0	44	0	2	0	14	0	12	162	9	2	24	247	7	5	534
4:45 PM	1	0	44	1	4	2	15	0	9	140	7	0	28	232	6	6	495
5:00 PM	3	2	48	0	2	0	8	0	19	154	6	0	26	274	7	11	560
5:15 PM	1	0	32	0	4	0	29	0	22	159	6	0	23	264	3	8	551
5:30 PM	2	3	52	0	1	0	18	0	12	124	7	0	26	209	6	5	465
5:45 PM	2	0	23	0	0	0	9	0	21	120	8	1	22	191	8	4	409
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	20	6	332	1	20	2	105	0	138	1169	53	3	199	1876	46	45	4015
	5.57%	1.67%	92.48%	0.28%	15.75%	1.57%	82.68%	0.00%	10.12%	85.77%	3.89%	0.22%	9.19%	86.61%	2.12%	2.08%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	11	2	168	1	12	2	66	0	62	615	28	2	101	1017	23	30	2140
PEAK HR FACTOR :	0.458	0.250	0.875	0.250	0.750	0.250	0.569	0.000	0.705	0.949	0.778	0.250	0.902	0.928	0.821	0.682	0.955
	0.858				0.606				0.945				0.921				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Long St & Tank Farm Rd
City: San Luis Obispo
Control: 2-Way Stop(NB/SB)

Project ID: 19-02080-002
Date: 10/9/2019

Bikes

NS/EW Streets:	Long St				Long St				Tank Farm Rd				Tank Farm Rd					
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
	0	0.5	0.5	0	0	1	0	0	1	2	0	0	1	2	0	0		
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU		
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
	8:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
	8:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	3	
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL	
APPROACH %'s :	0	0	0	0	0	0	0	0	0.00%	66.67%	33.33%	0.00%	28.57%	71.43%	0.00%	0.00%	10	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL	
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	1	1	0	1	2	0	0	5	
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.250	0.500	0.000	0.000	0.625	
									0.500				0.750					
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
	0	0.5	0.5	0	0	1	0	0	1	2	0	0	1	2	0	0		
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU		
	4:00 PM	0	0	0	0	0	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	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	2
	4:45 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	2
	5:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2
	5:15 PM	0	0	0	0	0	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	0	0	1	0	0	2
5:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	3	
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL	
APPROACH %'s :	1	1	0	0	0	0	0	0	0.00%	100.00%	0.00%	0.00%	0.00%	83.33%	16.67%	0.00%	12	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL	
PEAK HR VOL :	1	0	0	0	0	0	0	0	0	2	0	0	0	3	0	0	6	
PEAK HR FACTOR :	0.25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.750	0.000	0.000	0.750	
									0.500				0.750					

National Data & Surveying Services

Intersection Turning Movement Count

Location: Long St & Tank Farm Rd
City: San Luis Obispo

Project ID: 19-02080-002
Date: 10/9/2019

Pedestrians (Crosswalks)

NS/EW Streets:	Long St		Long St		Tank Farm Rd		Tank Farm Rd		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
7:00 AM	0	0	0	1	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	2	0	0	0	0	2
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	1	0	0	0	0	0	1	0	2
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	1	0	0	0	0	0	0	0	1
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	2	0	0	3	0	0	1	0	6
	100.00%	0.00%	0.00%	100.00%			100.00%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM								TOTAL
PEAK HR VOL :	1	0	0	0	0	0	1	0	2
PEAK HR FACTOR :	0.250						0.250		0.250
	0.250						0.250		

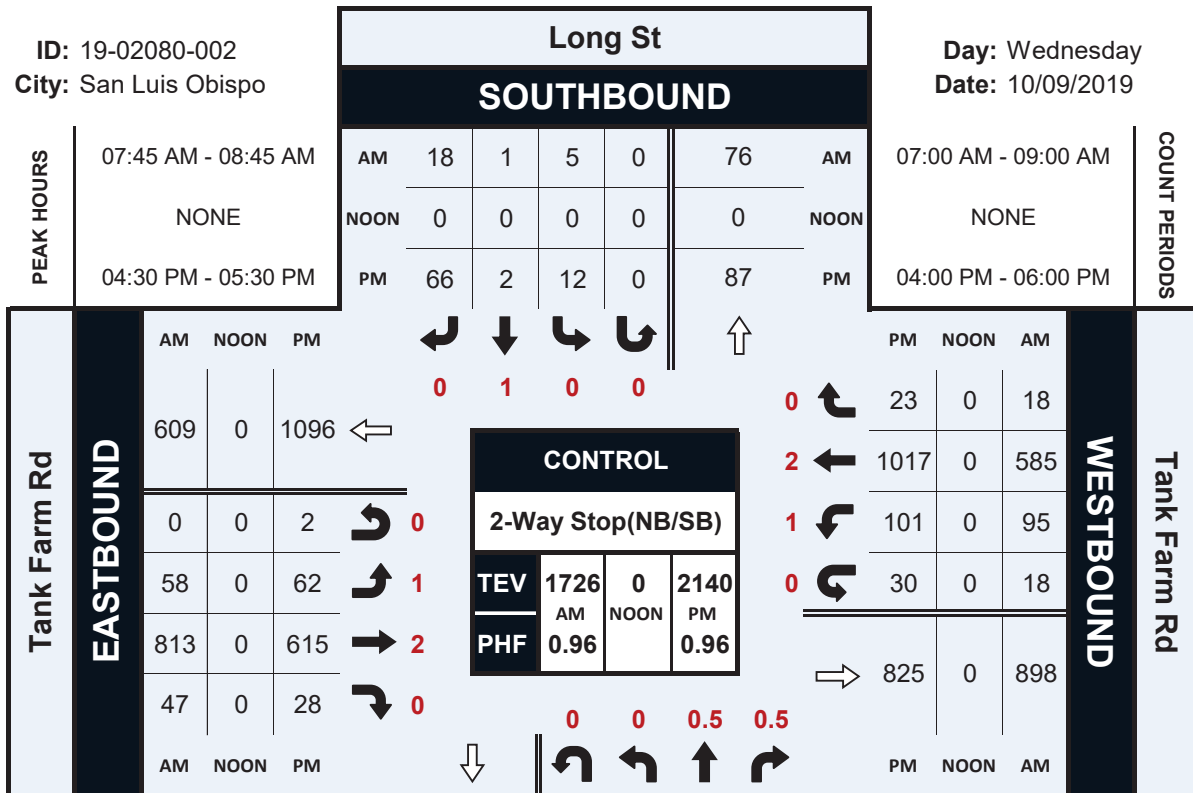
PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
4:00 PM	2	1	0	0	0	0	1	0	4
4:15 PM	2	1	0	0	0	0	0	0	3
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	1	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	1	0	0	0	2	0	3
5:45 PM	1	0	0	0	0	0	0	0	1
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	5	3	1	0	0	0	3	0	12
	62.50%	37.50%	100.00%	0.00%			100.00%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM								TOTAL
PEAK HR VOL :	0	1	0	0	0	0	0	0	1
PEAK HR FACTOR :		0.250							0.250
	0.250								

Long St & Tank Farm Rd

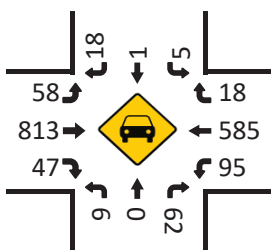
Peak Hour Turning Movement Count

ID: 19-02080-002
City: San Luis Obispo

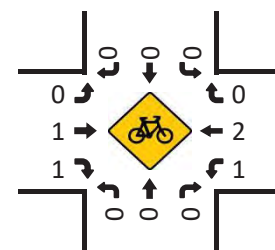
Day: Wednesday
Date: 10/09/2019



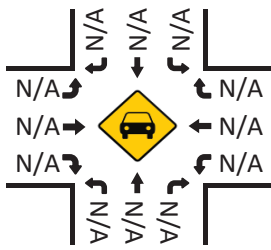
Total Vehicles (AM)



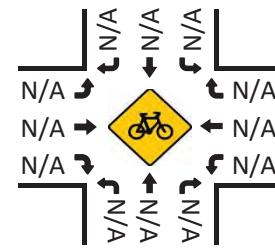
Bikes (AM)



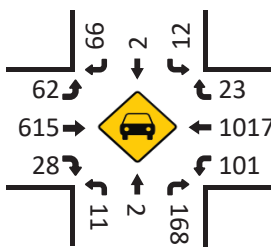
Total Vehicles (Noon)



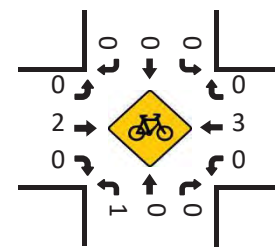
Bikes (NOON)



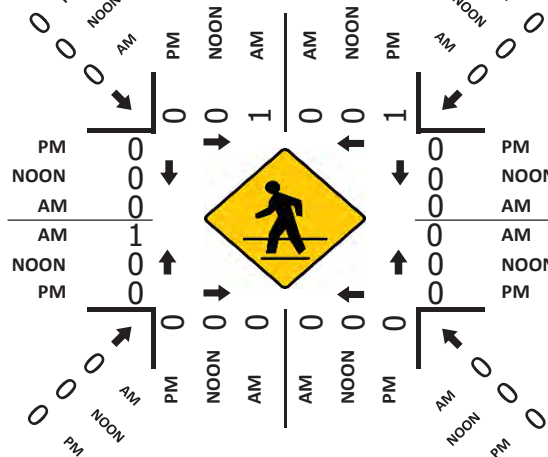
Total Vehicles (PM)



Bikes (PM)



Pedestrians (Crosswalks)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Santa Fe Rd & Tank Farm Rd
 City: San Luis Obispo
 Control: 1-Way Stop(NB)

Project ID: 19-02080-001
 Date: 10/9/2019

Total

NS/EW Streets:	Santa Fe Rd				Santa Fe Rd				Tank Farm Rd				Tank Farm Rd				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	0	0.5	0.5	0	0	1	0	0	0	1	0	0	1	1	0	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
7:00 AM	2	0	3	0	0	0	0	0	0	102	8	0	23	80	0	0	218
7:15 AM	1	1	16	0	0	2	0	0	0	105	11	0	22	92	0	0	250
7:30 AM	0	0	20	0	0	0	0	0	0	128	7	0	27	133	1	0	316
7:45 AM	2	0	18	0	0	0	0	0	0	187	14	0	31	179	0	0	431
8:00 AM	0	1	9	0	0	1	1	0	0	203	12	0	29	169	1	0	426
8:15 AM	5	0	13	0	0	0	0	0	0	188	10	0	20	175	0	0	411
8:30 AM	2	0	15	0	0	0	0	0	0	189	11	0	21	137	0	0	375
8:45 AM	6	0	15	0	0	0	0	0	0	185	3	0	22	123	0	1	355
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	18	2	109	0	0	3	1	0	0	1287	76	0	195	1088	2	1	2782
	13.95%	1.55%	84.50%	0.00%	0.00%	75.00%	25.00%	0.00%	0.00%	94.42%	5.58%	0.00%	15.16%	84.60%	0.16%	0.08%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	9	1	55	0	0	1	1	0	0	767	47	0	101	660	1	0	1643
PEAK HR FACTOR :	0.450	0.250	0.764	0.000	0.000	0.250	0.250	0.000	0.000	0.945	0.839	0.000	0.815	0.922	0.250	0.000	0.953
	0.813				0.250				0.947				0.907				
PM	0	0.5	0.5	0	0	1	0	0	0	1	0	0	1	1	0	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	10	0	28	0	0	0	0	0	0	199	7	0	12	237	0	0	493
4:15 PM	11	0	30	0	0	0	0	0	0	169	4	0	16	215	0	0	445
4:30 PM	12	0	38	0	0	0	0	0	0	216	6	0	16	239	0	0	527
4:45 PM	10	0	31	0	0	0	0	0	0	178	3	0	17	236	1	1	477
5:00 PM	9	0	54	0	0	0	0	0	0	236	6	0	13	275	0	0	593
5:15 PM	9	1	36	0	0	1	0	0	0	199	9	0	19	265	0	0	539
5:30 PM	12	0	20	0	0	0	0	0	0	176	5	0	17	210	0	0	440
5:45 PM	17	0	23	0	0	0	1	0	0	138	5	0	12	189	0	0	385
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	90	1	260	0	0	1	1	0	0	1511	45	0	122	1866	1	1	3899
	25.64%	0.28%	74.07%	0.00%	0.00%	50.00%	50.00%	0.00%	0.00%	97.11%	2.89%	0.00%	6.13%	93.77%	0.05%	0.05%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	40	1	159	0	0	1	0	0	0	829	24	0	65	1015	1	1	2136
PEAK HR FACTOR :	0.833	0.250	0.736	0.000	0.000	0.250	0.000	0.000	0.000	0.878	0.667	0.000	0.855	0.923	0.250	0.250	0.901
	0.794				0.250				0.881				0.939				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Santa Fe Rd & Tank Farm Rd
City: San Luis Obispo
Control: 1-Way Stop(NB)

Project ID: 19-02080-001
Date: 10/9/2019

Bikes

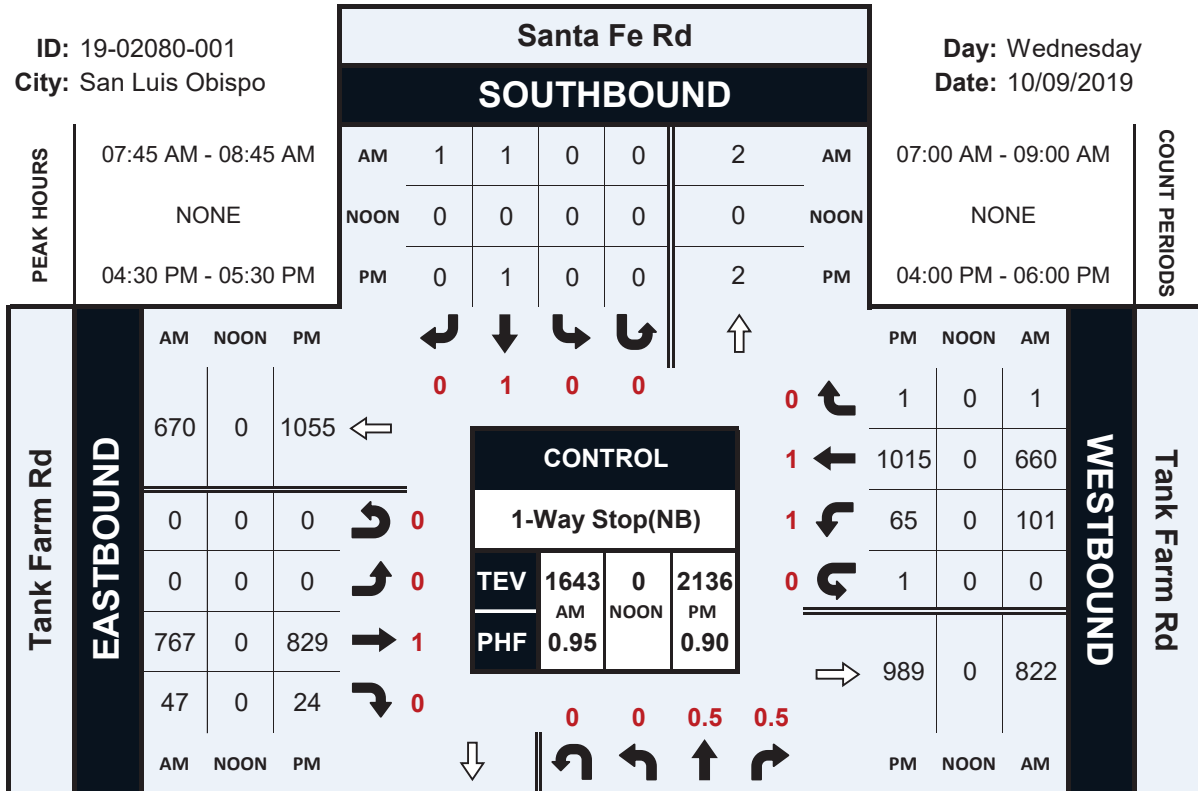
NS/EW Streets:	Santa Fe Rd				Santa Fe Rd				Tank Farm Rd				Tank Farm Rd					
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
	0	0.5	0.5	0	0	1	0	0	0	1	0	0	1	1	0	0		
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU		
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
	7:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
	8:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	3
	8:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	3
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL	
APPROACH %'s :	0	0	0	0	0	0	0	0	0	3	0	0	1	9	0	0	13	
	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	10.00%	90.00%	0.00%	0.00%		
PEAK HR :	07:45 AM - 08:45 AM																TOTAL	
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	2	0	0	1	7	0	0	10	
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.250	0.875	0.000	0.000	0.833	
	0.250								0.500				1.000					
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
	0	0.5	0.5	0	0	1	0	0	0	1	0	0	1	1	0	0		
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU		
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2
	4:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
	4:45 PM	0	0	2	0	0	0	0	0	0	2	0	0	0	1	0	0	5
	5:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
	5:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL	
APPROACH %'s :	0	0	2	0	0	0	0	0	0	6	1	0	0	3	0	0	12	
	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	85.71%	14.29%	0.00%	0.00%	100.00%	0.00%	0.00%		
PEAK HR :	04:30 PM - 05:30 PM																TOTAL	
PEAK HR VOL :	0	0	2	0	0	0	0	0	0	5	0	0	0	3	0	0	10	
PEAK HR FACTOR :	0.00	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.625	0.000	0.000	0.000	0.750	0.000	0.000	0.500	
	0.250								0.625				0.750					

Santa Fe Rd & Tank Farm Rd

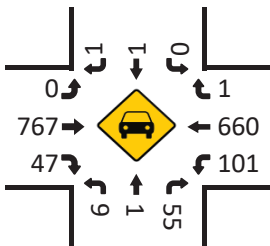
Peak Hour Turning Movement Count

ID: 19-02080-001
City: San Luis Obispo

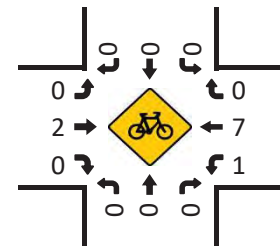
Day: Wednesday
Date: 10/09/2019



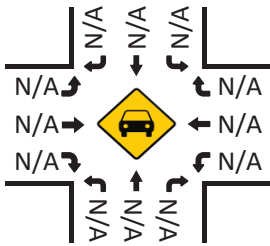
Total Vehicles (AM)



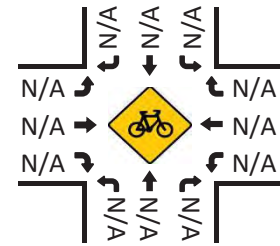
Bikes (AM)



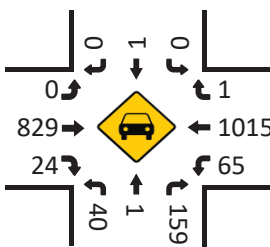
Total Vehicles (Noon)



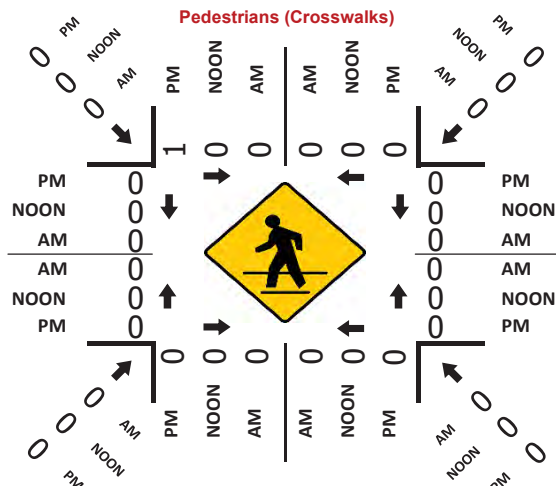
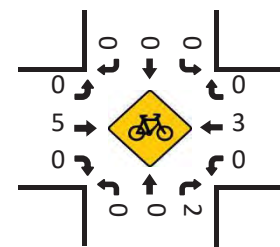
Bikes (NOON)



Total Vehicles (PM)



Bikes (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Mindbody Dwy & Tank Farm Rd
 City: San Luis Obispo
 Control: Signalized

Project ID: 19-02080-003
 Date: 10/9/2019

Total

NS/EW Streets:	Mindbody Dwy				Mindbody Dwy				Tank Farm Rd				Tank Farm Rd				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	1	0	1	0	0	0	0	0	0	2	0	0	1	1	0	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
7:00 AM	2	0	0	0	0	0	0	0	0	108	2	0	5	105	0	0	222
7:15 AM	2	0	0	0	0	0	0	0	0	119	12	0	3	114	0	0	250
7:30 AM	1	0	3	0	0	0	0	0	0	144	6	0	7	164	0	0	325
7:45 AM	4	0	2	0	0	0	0	0	0	183	17	0	12	211	0	0	429
8:00 AM	4	0	2	0	0	0	0	0	0	199	14	0	4	201	0	0	424
8:15 AM	3	0	1	0	0	0	0	0	0	186	11	0	6	186	0	0	393
8:30 AM	8	0	1	0	0	0	0	0	0	177	22	0	10	163	0	0	381
8:45 AM	4	0	1	0	0	0	0	0	0	198	11	0	9	141	0	0	364
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	28	0	10	0	0	0	0	0	0	1314	95	0	56	1285	0	0	2788
	73.68%	0.00%	26.32%	0.00%					0.00%	93.26%	6.74%	0.00%	4.18%	95.82%	0.00%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	19	0	6	0	0	0	0	0	0	745	64	0	32	761	0	0	1627
PEAK HR FACTOR :	0.594	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.936	0.727	0.000	0.667	0.902	0.000	0.000	0.948
	0.694								0.950				0.889				
PM	1	0	1	0	0	0	0	0	0	2	0	0	1	1	0	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	24	0	17	0	0	0	0	0	0	231	1	0	3	245	0	0	521
4:15 PM	35	0	8	0	0	0	0	0	0	194	4	0	1	198	0	0	440
4:30 PM	41	0	4	0	0	0	0	0	0	251	2	0	3	212	0	0	513
4:45 PM	24	0	9	0	0	0	0	0	0	229	1	0	0	226	0	0	489
5:00 PM	47	0	10	0	0	0	0	0	0	298	3	0	1	259	0	0	618
5:15 PM	24	0	10	0	0	0	0	0	0	241	4	0	2	266	0	0	547
5:30 PM	23	0	6	0	0	0	0	0	0	201	2	0	1	235	0	0	468
5:45 PM	16	0	8	0	0	0	0	0	0	150	7	0	0	172	0	0	353
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	234	0	72	0	0	0	0	0	0	1795	24	0	11	1813	0	0	3949
	76.47%	0.00%	23.53%	0.00%					0.00%	98.68%	1.32%	0.00%	0.60%	99.40%	0.00%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	136	0	33	0	0	0	0	0	0	1019	10	0	6	963	0	0	2167
PEAK HR FACTOR :	0.723	0.000	0.825	0.000	0.000	0.000	0.000	0.000	0.000	0.855	0.625	0.000	0.500	0.905	0.000	0.000	0.877
	0.741								0.855				0.904				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Mindbody Dwy & Tank Farm Rd
City: San Luis Obispo
Control: Signalized

Project ID: 19-02080-003
Date: 10/9/2019

RTOR

NS/EW Streets:	Mindbody Dwy				Mindbody Dwy				Tank Farm Rd				Tank Farm Rd					
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
		1	0	1	0	0	0	0	0	2	0	0	1	1	0	0		
		NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR		WU
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
	8:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0		0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
8:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0		
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL	
APPROACH %'s :	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL	
PEAK HR VOL :	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
PEAK HR FACTOR :	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	
	0.250																	
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
		1	0	1	0	0	0	0	0	2	0	0	1	1	0	0		0
		NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR		WU
	4:00 PM	0	0	6	0	0	0	0	0	0	0	1	0	0	0	0		0
	4:15 PM	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0		0
	4:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0		0
	4:45 PM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0		0
	5:00 PM	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0		0
	5:15 PM	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0		0
	5:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0		0
5:45 PM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0		
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL	
APPROACH %'s :	0	0	27	0	0	0	0	0	0	0	1	0	0	0	0	0	28	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL	
PEAK HR VOL :	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	13	
PEAK HR FACTOR :	0.00	0.000	0.650	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.650	
	0.650																	

National Data & Surveying Services

Intersection Turning Movement Count

Location: Mindbody Dwy & Tank Farm Rd
City: San Luis Obispo
Control: Signalized

Project ID: 19-02080-003
Date: 10/9/2019

Bikes

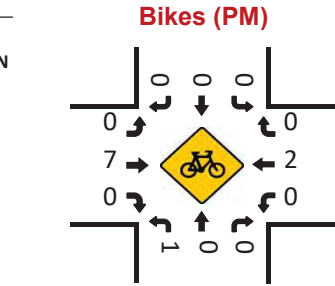
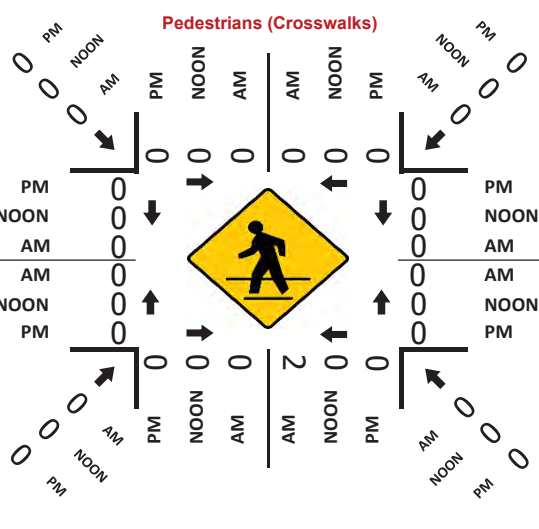
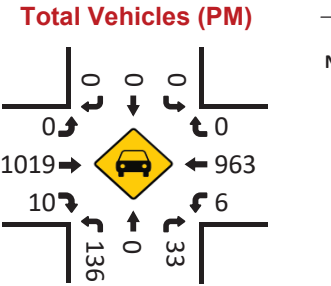
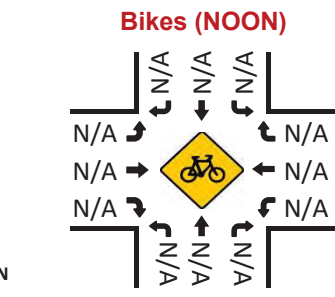
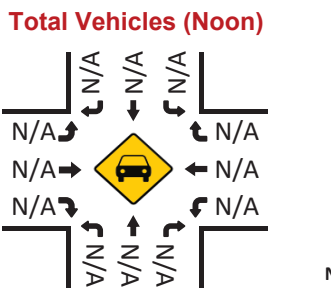
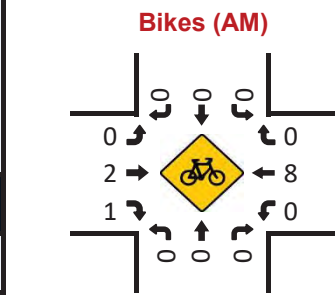
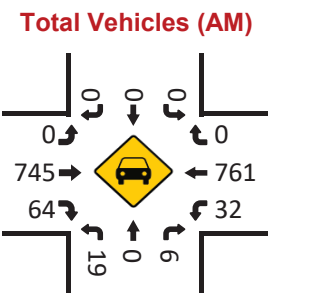
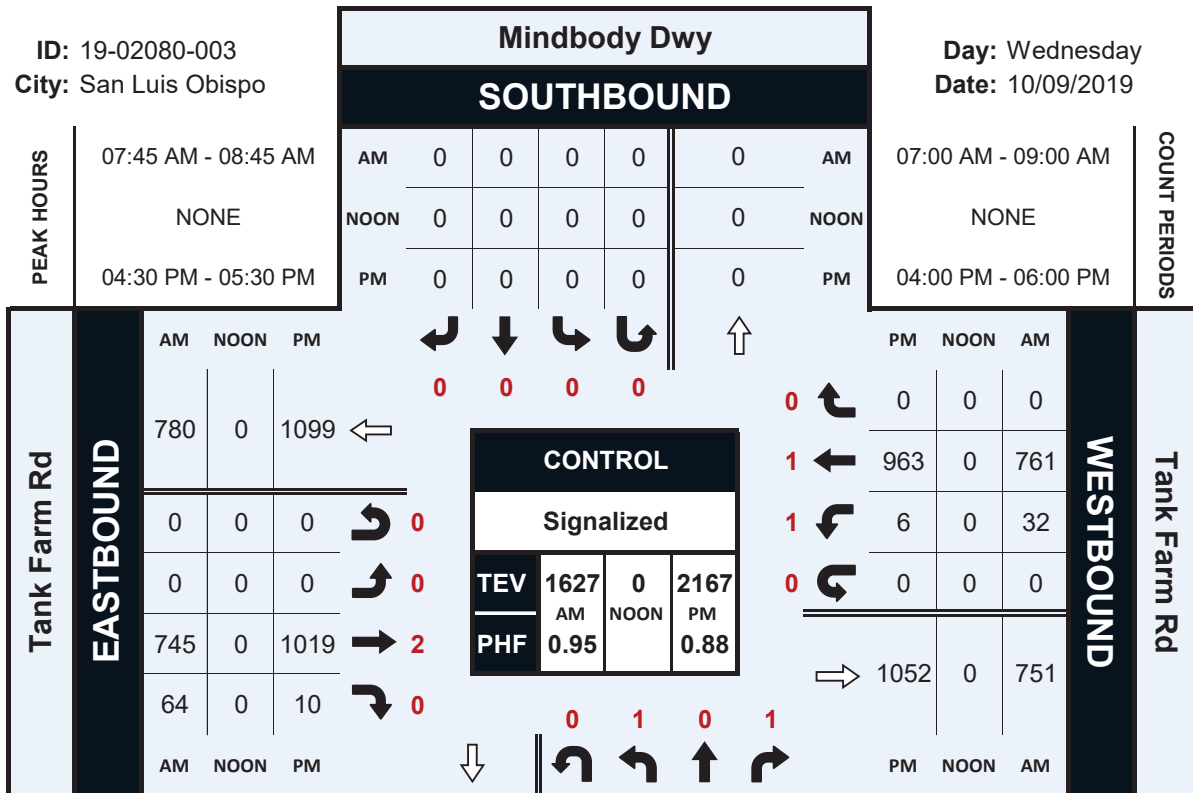
NS/EW Streets:	Mindbody Dwy				Mindbody Dwy				Tank Farm Rd				Tank Farm Rd					
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
	1	0	1	0	0	0	0	0	0	2	0	0	1	1	0	0		
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU		
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0		0
	7:15 AM	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0		
	7:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0		
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0		
	8:00 AM	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0		
	8:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	2	0	0		
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0		
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU		
APPROACH %'s :	0	0	0	0	0	0	0	0	0.00%	80.00%	20.00%	0.00%	0.00%	100.00%	0.00%	0.00%		
PEAK HR :	07:45 AM - 08:45 AM																TOTAL	
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	2	1	0	0	8	0	0		
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.500	0.000	0.000		
									0.375				0.500				0.688	
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
	1	0	1	0	0	0	0	0	0	2	0	0	1	1	0	0		
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU		
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	4:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0		
	4:30 PM	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0		
	4:45 PM	0	0	0	0	0	0	0	0	4	0	0	0	1	0	0		
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	5:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0		
	5:30 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU		
APPROACH %'s :	100.00%	0.00%	0.00%	0.00%	0	0	0	0	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%		
PEAK HR :	04:30 PM - 05:30 PM																TOTAL	
PEAK HR VOL :	1	0	0	0	0	0	0	0	0	7	0	0	0	2	0	0		
PEAK HR FACTOR :	0.25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.438	0.000	0.000	0.000	0.500	0.000	0.000		
									0.438				0.500				0.500	

Mindbody Dwy & Tank Farm Rd

Peak Hour Turning Movement Count

ID: 19-02080-003
City: San Luis Obispo

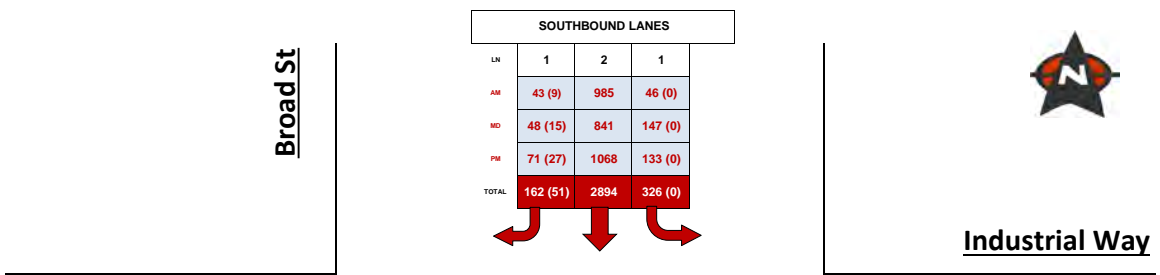
Day: Wednesday
Date: 10/09/2019



PEAK HOUR ITM SUMMARY

#013B Broad St & Industrial Way

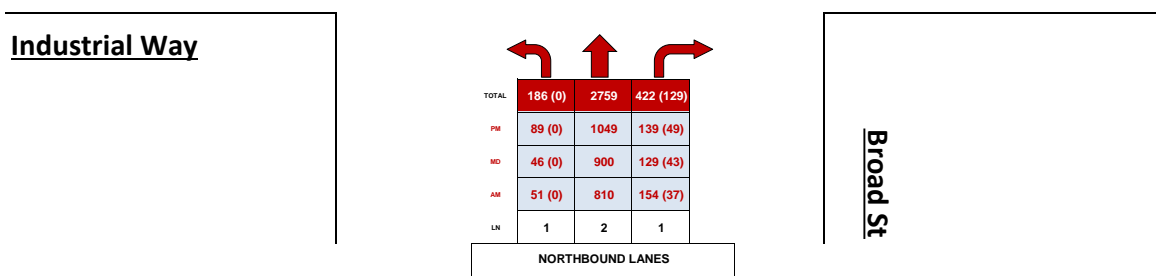
LOCATION#:	013B	QTD PROJ#:	2018229	AM PEAK:	745 AM
NORTH / SOUTH:	Broad St	DATE:	Wednesday, October 24, 2018	MD PEAK:	1145 AM
EAST / WEST:	Industrial Way	VICINITY:	SLO	PM PEAK:	445 PM



EASTBOUND LANES	LN	AM	MD	PM	TOTAL
	0.5	9 (0)	53 (0)	70 (0)	132 (0)
	0.5	0	16	19	35
	1	5 (0)	39 (8)	37 (7)	81 (15)

SIGNALIZED

TOTAL	PM	MD	AM	LN	WESTBOUND LANES
324 (186)	143 (77)	139 (83)	42 (26)	1	
35	13	13	9	0.5	
425 (0)	161 (0)	161 (0)	86 (0)	0.5	



AM COUNT	7:15 AM	TO	9:15 AM
MD COUNT	11:30 AM	TO	1:30 PM
PM COUNT	4:15 PM	TO	6:15 PM

VEHICLE TURNING MOVEMENT COUNT

#013B Broad St & Industrial Way - AM PEAK

LOCATION#:	013B	QTD PROJ#:	2018229
NORTH / SOUTH:	Broad St	DATE:	Wednesday, October 24, 2018
EAST / WEST:	Industrial Way	VICINITY:	SLO

DIRECTION:	NL	NT	NR	NRTOR	SL	ST	SR	SRTOR	EL	ET	ER	ERTOR	WL	WT	WR	WRTOR	TOTALS
LANES:	1	2	1	0	1	2	1	0	0.5	0.5	1	0	0.5	0.5	1	0	
7:15 AM	4	182	31	8	5	144	4	1	4	0	0	0	12	0	10	6	411
7:30 AM	10	215	16	3	7	180	4	2	2	0	2	0	22	0	8	5	476
7:45 AM	12	226	35	6	12	312	9	2	1	0	1	0	21	4	8	4	653
8:00 AM	12	219	37	10	10	224	12	2	2	0	1	0	30	1	16	11	587
8:15 AM	13	183	39	7	11	243	10	2	4	0	3	0	15	3	6	5	544
8:30 AM	14	182	43	14	13	206	12	3	2	0	0	0	20	1	12	6	528
8:45 AM	14	213	40	20	15	211	10	5	4	1	5	0	20	1	22	15	596
9:00 AM	7	163	36	11	19	181	6	4	6	2	5	1	30	2	21	11	505

VOLUME STATS:	NL	NT	NR	NRTOR	SL	ST	SR	SRTOR	EL	ET	ER	ERTOR	WL	WT	WR	WRTOR	TOTALS	
TOTAL:	86	1583	277	79	92	1701	67	21	25	3	17	1	170	12	103	63		4300
P.H.V: ¹	51	810	154	37	46	985	43	9	9	0	5	0	86	9	42	26		2312
P.H.F: ²	└───	0.943	└───	└───	└───	0.808	└───	└───	└───	0.500	└───	└───	└───	0.703	└───	└───	0.885	

(1) Peak Hour Volume (Peak Hour Begins At 7:45 AM)
(2) Peak Hour Factor (directional aggregate)

VEHICLE TURNING MOVEMENT COUNT

#013B Broad St & Industrial Way - MD PEAK

LOCATION#:	013B	QTD PROJ#:	2018229
NORTH / SOUTH:	Broad St	DATE:	Wednesday, October 24, 2018
EAST / WEST:	Industrial Way	VICINITY:	SLO

DIRECTION:	NL	NT	NR	NRTOR	SL	ST	SR	SRTOR	EL	ET	ER	ERTOR	WL	WT	WR	WRTOR	TOTALS
LANES:	1	2	1	0	1	2	1	0	0.5	0.5	1	0	0.5	0.5	1	0	
11:30 AM	8	226	37	9	38	208	8	3	3	3	7	2	28	2	27	19	628
11:45 AM	10	228	35	12	39	202	10	4	9	4	11	1	36	2	44	26	673
12:00 PM	9	229	30	11	29	200	9	2	16	8	8	0	39	5	29	16	640
12:15 PM	12	242	34	9	46	222	16	3	15	0	14	7	43	5	30	18	716
12:30 PM	15	201	30	11	33	217	13	6	13	4	6	0	43	1	36	23	652
12:45 PM	14	170	28	13	31	240	8	3	8	3	8	2	43	1	32	19	623
1:00 PM	7	214	35	11	34	231	10	3	11	3	9	2	38	4	41	25	678
1:15 PM	10	193	27	12	28	207	10	4	11	2	9	4	45	2	34	23	621

VOLUME STATS:	NL	NT	NR	NRTOR	SL	ST	SR	SRTOR	EL	ET	ER	ERTOR	WL	WT	WR	WRTOR	
TOTAL:	85	1703	256	88	278	1727	84	28	86	27	72	18	315	22	273	169	5231
P.H.V: ¹	46	900	129	43	147	841	48	15	53	16	39	8	161	13	139	83	2681
P.H.F: ²	_____	0.941	_____		_____	0.916	_____		_____	0.806	_____		_____	0.917	_____		0.936

(1) Peak Hour Volume (Peak Hour Begins At 1145 AM)
 (2) Peak Hour Factor (directional aggregate)

VEHICLE TURNING MOVEMENT COUNT

#013B Broad St & Industrial Way - PM PEAK

LOCATION#:	013B	QTD PROJ#:	2018229
NORTH / SOUTH:	Broad St	DATE:	Wednesday, October 24, 2018
EAST / WEST:	Industrial Way	VICINITY:	SLO

DIRECTION:	NL	NT	NR	NRTOR	SL	ST	SR	SRTOR	EL	ET	ER	ERTOR	WL	WT	WR	WRTOR	TOTALS
LANES:	1	2	1	0	1	2	1	0	0.5	0.5	1	0	0.5	0.5	1	0	
4:15 PM	12	199	35	15	23	270	13	3	8	5	9	2	51	3	32	22	702
4:30 PM	17	209	32	16	23	236	8	2	18	0	12	2	45	1	19	8	648
4:45 PM	21	262	42	13	27	263	22	8	17	4	13	5	41	1	38	19	796
5:00 PM	25	279	32	13	32	285	16	4	19	10	13	2	54	4	42	23	853
5:15 PM	23	257	42	14	42	294	18	8	22	2	8	0	41	3	33	22	829
5:30 PM	20	251	23	9	32	226	15	7	12	3	3	0	42	5	30	13	691
5:45 PM	18	203	20	13	25	228	15	8	13	3	9	1	36	4	30	22	648
6:00 PM	9	183	19	7	18	193	6	3	11	2	8	3	22	2	16	9	511

VOLUME STATS:	NL	NT	NR	NRTOR	SL	ST	SR	SRTOR	EL	ET	ER	ERTOR	WL	WT	WR	WRTOR	
TOTAL:	145	1843	245	100	222	1995	113	43	120	29	75	15	332	23	240	138	5678
P.H.V: ¹	89	1049	139	49	133	1068	71	27	70	19	37	7	178	13	143	77	3169
P.H.F: ²	_____	0.950	_____		_____	0.897	_____		_____	0.756	_____		_____	0.835	_____		0.929

(1) Peak Hour Volume (Peak Hour Begins At 445 PM)
(2) Peak Hour Factor (directional aggregate)

PEDESTRIAN TURNING MOVEMENT COUNT

#013B Broad St & Industrial Way - AM PEAK

LOCATION#:	013B	QTD PROJ#:	2018229
NORTH / SOUTH:	Broad St	DATE:	Wednesday, October 24, 2018
EAST / WEST:	Industrial Way	VICINITY:	SLO

DIRECTION:	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
7:15 AM	0	0	0	1	0	1	0	0	0	1	0	0	3
7:30 AM	0	0	0	0	2	1	0	1	0	0	0	0	4
7:45 AM	0	0	0	1	0	2	0	0	1	0	0	1	5
8:00 AM	0	0	0	0	0	1	0	0	1	0	0	1	3
8:15 AM	0	0	0	1	1	0	1	0	0	0	0	1	4
8:30 AM	0	0	1	0	2	1	1	0	0	0	0	0	5
8:45 AM	0	0	0	1	1	2	0	0	2	0	0	1	7
9:00 AM	0	0	0	2	1	0	0	0	0	0	0	0	3
VOLUME STATS:	1	2	3	4	5	6	7	8	9	10	11	12	
TOTAL:	0	0	1	6	7	8	2	1	4	1	0	4	34



QUALITY TRAFFIC DATA, LLC

PEDESTRIAN TURNING MOVEMENT COUNT

#013B Broad St & Industrial Way - MD PEAK

LOCATION#:	013B	QTD PROJ#:	2018229
NORTH / SOUTH:	Broad St	DATE:	Wednesday, October 24, 2018
EAST / WEST:	Industrial Way	VICINITY:	SLO

DIRECTION:	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
11:30 AM	0	0	0	1	0	1	0	0	2	0	0	0	4
11:45 AM	0	0	0	0	2	1	1	0	0	0	0	0	4
12:00 PM	0	0	1	1	0	0	0	2	0	0	0	0	4
12:15 PM	0	0	0	1	0	2	0	0	0	0	0	1	4
12:30 PM	0	0	0	0	2	0	1	2	2	0	1	0	8
12:45 PM	0	0	0	0	3	1	0	0	0	0	0	0	4
1:00 PM	0	0	0	1	1	1	1	0	0	0	0	0	4
1:15 PM	0	0	0	0	0	2	0	2	0	0	0	0	4
VOLUME STATS:	1	2	3	4	5	6	7	8	9	10	11	12	
TOTAL:	0	0	1	4	8	8	3	6	4	0	1	1	36



QUALITY TRAFFIC DATA, LLC

PEDESTRIAN TURNING MOVEMENT COUNT

#013B Broad St & Industrial Way - PM PEAK

LOCATION#:	013B	QTD PROJ#:	2018229
NORTH / SOUTH:	Broad St	DATE:	Wednesday, October 24, 2018
EAST / WEST:	Industrial Way	VICINITY:	SLO

DIRECTION:	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
4:15 PM	0	0	0	2	1	2	0	0	0	0	0	1	6
4:30 PM	0	0	0	0	0	2	0	0	0	0	0	1	3
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	1	2	0	0	1	0	0	0	4
5:15 PM	0	0	0	0	1	3	0	0	0	0	0	0	4
5:30 PM	0	0	1	1	2	0	0	0	0	0	0	1	5
5:45 PM	0	2	2	0	1	3	0	0	0	0	1	0	9
6:00 PM	0	0	0	0	1	1	0	0	0	0	1	0	3
VOLUME STATS:	1	2	3	4	5	6	7	8	9	10	11	12	
TOTAL:	0	2	3	3	7	13	0	0	1	0	2	3	34



QUALITY TRAFFIC DATA, LLC

BICYCLE TURNING MOVEMENT COUNT

#013B Broad St & Industrial Way - AM PEAK

LOCATION#:	013B	QTD PROJ#:	2018229
NORTH / SOUTH:	Broad St	DATE:	Wednesday, October 24, 2018
EAST / WEST:	Industrial Way	VICINITY:	SLO

DIRECTION:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTALS
LANES:	1	2	1	1	2	1	0.5	0.5	1	0.5	0.5	1	
7:15 AM	0	0	0	0	2	0	0	0	0	0	0	0	2
7:30 AM	0	0	0	0	4	0	0	0	0	0	0	0	4
7:45 AM	0	0	0	0	3	0	0	0	0	0	0	0	3
8:00 AM	0	1	0	0	2	0	0	0	0	0	0	2	5
8:15 AM	0	0	0	0	3	0	0	0	0	0	0	0	3
8:30 AM	0	0	1	0	2	0	0	0	0	0	0	0	3
8:45 AM	0	1	1	1	1	0	0	0	0	0	0	0	4
9:00 AM	0	4	0	0	1	0	0	0	0	0	0	1	6

VOLUME STATS:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTALS
TOTAL:	0	6	2	1	18	0	0	0	0	0	0	3	30
P.H.V: ₁	0	5	2	1	7	0	0	0	0	0	0	1	16
P.H.F: ₂		0.438			0.667			0.000			0.250		0.667

(1) Peak Hour Volume (Peak Hour Begins At 815 AM)

(2) Peak Hour Factor (directional aggregate)



QUALITY TRAFFIC DATA, LLC

BICYCLE TURNING MOVEMENT COUNT

#013B Broad St & Industrial Way - MD PEAK

LOCATION#:	013B	QTD PROJ#:	2018229
NORTH / SOUTH:	Broad St	DATE:	Wednesday, October 24, 2018
EAST / WEST:	Industrial Way	VICINITY:	SLO

DIRECTION:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTALS
LANES:	1	2	1	1	2	1	0.5	0.5	1	0.5	0.5	1	
11:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	1
11:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
12:00 PM	0	1	0	0	0	0	0	1	0	1	0	2	5
12:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	1
12:30 PM	0	0	0	0	1	0	0	0	4	0	0	3	8
12:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
1:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
1:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	1

VOLUME STATS:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTALS
TOTAL:	0	3	0	0	3	0	0	1	4	3	0	5	19
P.H.V: ₁	0	1	0	0	2	0	0	1	4	2	0	5	15
P.H.F: ₂		0.250			0.500			0.313			0.583		0.469

(1) Peak Hour Volume (Peak Hour Begins At 1200 PM)

(2) Peak Hour Factor (directional aggregate)



QUALITY TRAFFIC DATA, LLC

BICYCLE TURNING MOVEMENT COUNT

#013B Broad St & Industrial Way - PM PEAK

LOCATION#:	013B	QTD PROJ#:	2018229
NORTH / SOUTH:	Broad St	DATE:	Wednesday, October 24, 2018
EAST / WEST:	Industrial Way	VICINITY:	SLO

DIRECTION:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTALS
LANES:	1	2	1	1	2	1	0.5	0.5	1	0.5	0.5	1	
4:15 PM	0	2	0	0	1	0	0	0	0	0	0	0	3
4:30 PM	0	0	2	0	1	0	0	0	1	0	0	0	4
4:45 PM	0	0	2	0	0	0	0	0	0	0	0	0	2
5:00 PM	0	1	0	0	0	0	2	1	0	0	0	0	4
5:15 PM	0	4	0	0	0	0	0	0	0	0	0	0	4
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	1
5:45 PM	0	3	0	0	0	0	0	0	0	0	0	0	3
6:00 PM	0	6	0	0	1	0	0	0	0	0	0	0	7

VOLUME STATS:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTALS
TOTAL:	0	16	4	0	3	0	2	1	1	0	0	1	28
P.H.V: ₁	0	13	0	0	1	0	0	0	0	0	0	1	15
P.H.F: ₂		0.542			0.250			0.000			0.250		0.536

(1) Peak Hour Volume (Peak Hour Begins At 5:15 PM)

(2) Peak Hour Factor (directional aggregate)

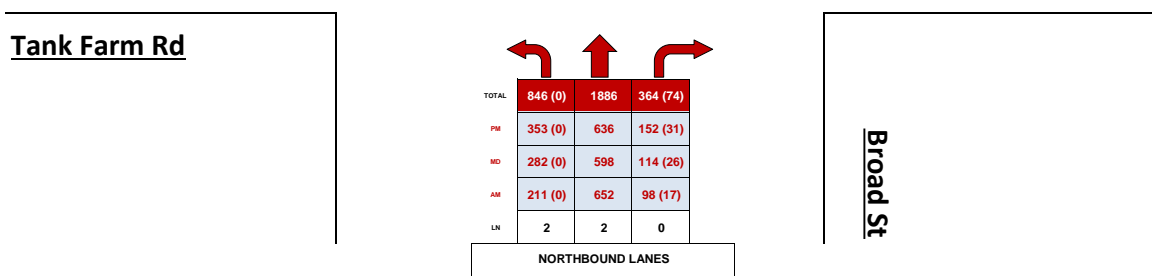
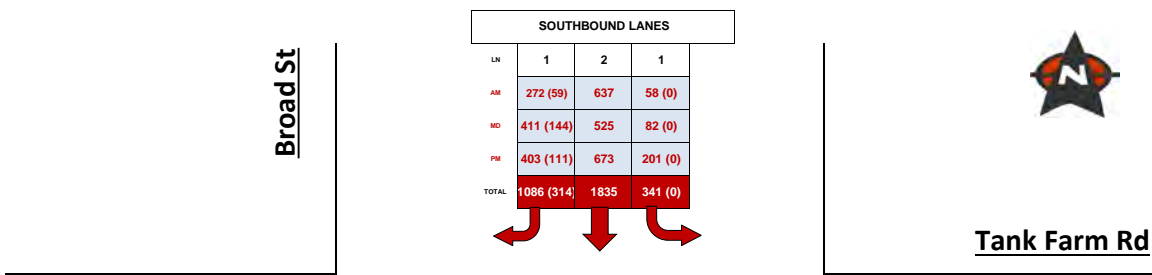


QUALITY TRAFFIC DATA, LLC

PEAK HOUR ITM SUMMARY

#014B Broad St & Tank Farm Rd

LOCATION#:	014B	QTD PROJ#:	2018229	AM PEAK:	745 AM
NORTH / SOUTH:	Broad St	DATE:	Tuesday, October 23, 2018	MD PEAK:	1145 AM
EAST / WEST:	Tank Farm Rd	VICINITY:	SLO	PM PEAK:	430 PM



AM COUNT	7:30 AM	TO	9:30 AM
MD COUNT	11:00 AM	TO	1:00 PM
PM COUNT	4:15 PM	TO	6:15 PM

VEHICLE TURNING MOVEMENT COUNT

#014B Broad St & Tank Farm Rd - AM PEAK

LOCATION#:	014B	QTD PROJ#:	2018229
NORTH / SOUTH:	Broad St	DATE:	Tuesday, October 23, 2018
EAST / WEST:	Tank Farm Rd	VICINITY:	SLO

DIRECTION:	NL	NT	NR	NRTOR	SL	ST	SR	SRTOR	EL	ET	ER	ERTOR	WL	WT	WR	WRTOR	TOTALS
LANES:	2	2	0	0	1	2	1	0	2	2	1	0	1	1	1	0	
7:30 AM	43	159	32	8	17	121	70	28	53	38	43	16	34	35	38	4	739
7:45 AM	43	169	20	2	14	208	77	20	41	31	59	12	49	66	35	13	859
8:00 AM	56	153	19	5	14	132	58	18	66	41	95	8	78	67	35	15	860
8:15 AM	51	166	38	7	18	163	66	10	55	40	72	30	61	64	28	9	878
8:30 AM	61	164	21	3	12	134	71	11	61	37	70	26	37	46	23	4	781
8:45 AM	65	156	30	2	20	132	70	18	75	46	69	18	45	38	25	7	816
9:00 AM	35	128	12	4	13	118	73	18	67	37	67	17	29	56	19	9	702
9:15 AM	61	127	17	6	12	134	71	24	65	34	33	17	32	39	15	6	693

VOLUME STATS:	NL	NT	NR	NRTOR	SL	ST	SR	SRTOR	EL	ET	ER	ERTOR	WL	WT	WR	WRTOR	
TOTAL:	415	1222	189	37	120	1142	556	147	483	304	508	144	365	411	218	67	6328
P.H.V: ¹	211	652	98	17	58	637	272	59	223	149	296	76	225	243	121	41	3378
P.H.F: ²	└───┘	0.933	└───┘	└───┘	└───┘	0.804	└───┘	└───┘	└───┘	0.886	└───┘	└───┘	└───┘	0.808	└───┘	└───┘	0.962

(1) Peak Hour Volume (Peak Hour Begins At 745 AM)
 (2) Peak Hour Factor (directional aggregate)

VEHICLE TURNING MOVEMENT COUNT

#014B Broad St & Tank Farm Rd - MD PEAK

LOCATION#:	014B	QTD PROJ#:	2018229
NORTH / SOUTH:	Broad St	DATE:	Tuesday, October 23, 2018
EAST / WEST:	Tank Farm Rd	VICINITY:	SLO

DIRECTION:	NL	NT	NR	NRTOR	SL	ST	SR	SRTOR	EL	ET	ER	ERTOR	WL	WT	WR	WRTOR	TOTALS
LANES:	2	2	0	0	1	2	1	0	2	2	1	0	1	1	1	0	
11:00 AM	53	149	22	4	17	92	72	22	100	63	47	17	35	47	19	4	763
11:15 AM	84	146	20	2	22	110	65	23	80	58	37	19	24	42	20	7	759
11:30 AM	56	148	31	3	30	114	76	21	78	68	39	17	46	58	32	9	826
11:45 AM	87	171	28	7	22	129	95	27	93	87	49	18	37	54	33	18	955
12:00 PM	68	168	38	5	19	124	106	33	126	92	58	27	52	66	19	7	1008
12:15 PM	72	140	22	6	28	140	104	41	127	87	49	18	51	63	27	4	979
12:30 PM	55	119	26	8	13	132	106	43	93	67	52	6	36	67	35	12	870
12:45 PM	54	105	22	2	23	146	111	35	79	51	60	24	52	66	33	8	871

VOLUME STATS:	NL	NT	NR	NRTOR	SL	ST	SR	SRTOR	EL	ET	ER	ERTOR	WL	WT	WR	WRTOR	TOTALS	
TOTAL:	529	1146	209	37	174	987	735	245	776	573	391	146	333	463	218	69		7031
P.H.V: ¹	282	598	114	26	82	525	411	144	439	333	208	69	176	250	114	41		3812
P.H.F: ²	└───┘	0.870	└───┘	└───┘	└───┘	0.928	└───┘	└───┘	└───┘	0.866	└───┘	└───┘	└───┘	0.968	└───┘	└───┘	0.945	

(1) Peak Hour Volume (Peak Hour Begins At 1145 AM)
(2) Peak Hour Factor (directional aggregate)

VEHICLE TURNING MOVEMENT COUNT

#014B Broad St & Tank Farm Rd - PM PEAK

LOCATION#:	014B	QTD PROJ#:	2018229
NORTH / SOUTH:	Broad St	DATE:	Tuesday, October 23, 2018
EAST / WEST:	Tank Farm Rd	VICINITY:	SLO

DIRECTION:	NL	NT	NR	NRTOR	SL	ST	SR	SRTOR	EL	ET	ER	ERTOR	WL	WT	WR	WRTOR	TOTALS
LANES:	2	2	0	0	1	2	1	0	2	2	1	0	1	1	1	0	
4:15 PM	80	131	36	6	33	207	103	22	101	70	40	7	51	45	24	8	964
4:30 PM	85	128	23	5	30	163	93	34	112	108	59	7	42	66	24	6	985
4:45 PM	74	162	38	10	45	150	97	19	114	98	47	12	53	28	22	4	973
5:00 PM	113	186	48	9	71	203	80	28	118	124	49	17	37	51	34	7	1175
5:15 PM	81	160	43	7	55	157	133	30	129	98	56	13	46	49	19	4	1080
5:30 PM	101	169	50	5	40	161	95	19	98	72	35	14	20	44	28	7	958
5:45 PM	63	107	35	8	26	143	99	32	94	78	48	15	25	44	26	6	849
6:00 PM	44	84	24	4	21	120	71	22	84	64	35	9	40	50	24	9	705

VOLUME STATS:	NL	NT	NR	NRTOR	SL	ST	SR	SRTOR	EL	ET	ER	ERTOR	WL	WT	WR	WRTOR	TOTALS	
TOTAL:	641	1127	297	54	321	1304	771	206	850	712	369	94	314	377	201	51		7689
P.H.V: ¹	353	636	152	31	201	673	403	111	473	428	211	49	178	194	99	21		4213
P.H.F: ²	┌	0.823	┌	┌	┌	0.908	┌	┌	┌	0.942	┌	┌	┌	0.891	┌	┌	0.896	

- (1) Peak Hour Volume (Peak Hour Begins At 4:30 PM)
- (2) Peak Hour Factor (directional aggregate)

PEDESTRIAN TURNING MOVEMENT COUNT

#014B Broad St & Tank Farm Rd - AM PEAK

LOCATION#:	014B	QTD PROJ#:	2018229
NORTH / SOUTH:	Broad St	DATE:	Tuesday, October 23, 2018
EAST / WEST:	Tank Farm Rd	VICINITY:	SLO

DIRECTION:	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
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	2	0	0	0	0	2
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	3	0	6	0	0	0	0	9
8:45 AM	0	0	0	0	0	0	0	2	1	0	0	0	3
9:00 AM	0	0	3	0	0	0	0	0	0	0	0	0	3
9:15 AM	0	0	1	0	0	0	0	1	0	0	0	0	2
VOLUME STATS:	1	2	3	4	5	6	7	8	9	10	11	12	
TOTAL:	0	0	4	0	0	3	0	11	1	0	0	0	19



QUALITY TRAFFIC DATA, LLC

PEDESTRIAN TURNING MOVEMENT COUNT

#014B Broad St & Tank Farm Rd - MD PEAK

LOCATION#:	014B	QTD PROJ#:	2018229
NORTH / SOUTH:	Broad St	DATE:	Tuesday, October 23, 2018
EAST / WEST:	Tank Farm Rd	VICINITY:	SLO

DIRECTION:	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
11:00 AM	0	1	0	0	0	1	0	0	2	0	0	0	4
11:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	1
11:30 AM	0	1	0	0	0	0	0	3	8	0	0	0	12
11:45 AM	0	0	0	0	0	5	0	5	10	0	0	0	20
12:00 PM	0	0	0	0	0	0	0	3	7	0	0	0	10
12:15 PM	0	0	0	0	3	0	2	7	10	0	0	0	22
12:30 PM	0	6	4	0	2	0	0	4	3	0	0	0	19
12:45 PM	0	0	2	0	2	0	0	11	5	0	0	0	20
VOLUME STATS:	1	2	3	4	5	6	7	8	9	10	11	12	
TOTAL:	0	8	7	0	7	6	2	33	45	0	0	0	108



QUALITY TRAFFIC DATA, LLC

PEDESTRIAN TURNING MOVEMENT COUNT

#014B Broad St & Tank Farm Rd - PM PEAK

LOCATION#:	014B	QTD PROJ#:	2018229
NORTH / SOUTH:	Broad St	DATE:	Tuesday, October 23, 2018
EAST / WEST:	Tank Farm Rd	VICINITY:	SLO

DIRECTION:	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
4:15 PM	0	0	0	0	2	1	0	0	4	0	0	0	7
4:30 PM	0	0	0	0	1	0	1	1	1	0	0	0	4
4:45 PM	0	0	0	0	1	0	0	1	1	0	0	0	3
5:00 PM	0	0	0	0	0	0	0	0	2	0	0	0	2
5:15 PM	0	0	0	0	0	0	0	0	2	0	0	0	2
5:30 PM	0	1	0	0	0	0	0	0	1	0	0	0	2
5:45 PM	0	0	0	2	0	0	0	0	1	0	0	0	3
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUME STATS:	1	2	3	4	5	6	7	8	9	10	11	12	
TOTAL:	0	1	0	2	4	1	1	2	12	0	0	0	23



QUALITY TRAFFIC DATA, LLC

BICYCLE TURNING MOVEMENT COUNT

#014B Broad St & Tank Farm Rd - AM PEAK

LOCATION#:	014B	QTD PROJ#:	2018229
NORTH / SOUTH:	Broad St	DATE:	Tuesday, October 23, 2018
EAST / WEST:	Tank Farm Rd	VICINITY:	SLO

DIRECTION:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTALS
LANES:	2	2	0	1	2	1	2	2	1	1	1	1	
7:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	2	1	1	0	0	0	0	0	4
8:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	2	0	0	0	0	0	0	0	2
8:30 AM	0	0	0	0	3	0	0	0	0	0	0	0	3
8:45 AM	0	0	0	0	0	0	1	0	0	0	0	0	1
9:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	1
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	

VOLUME STATS:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTALS
TOTAL:	0	0	0	0	9	1	2	0	0	1	0	0	13
P.H.V: ₁	0	0	0	0	8	1	1	0	0	0	0	0	10
P.H.F: ₂	0.000			0.750			0.250			0.000			0.625

(1) Peak Hour Volume (Peak Hour Begins At 745 AM)

(2) Peak Hour Factor (directional aggregate)



QUALITY TRAFFIC DATA, LLC

BICYCLE TURNING MOVEMENT COUNT

#014B Broad St & Tank Farm Rd - MD PEAK

LOCATION#:	014B	QTD PROJ#:	2018229
NORTH / SOUTH:	Broad St	DATE:	Tuesday, October 23, 2018
EAST / WEST:	Tank Farm Rd	VICINITY:	SLO

DIRECTION:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTALS
LANES:	2	2	0	1	2	1	2	2	1	1	1	1	
11:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
11:15 AM	0	0	0	0	4	0	0	1	0	0	0	0	5
11:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
11:45 AM	0	0	2	0	0	0	0	4	0	0	0	0	6
12:00 PM	0	0	2	0	1	0	0	1	0	0	0	0	4
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	
12:30 PM	0	0	0	0	0	2	0	0	0	0	0	0	2
12:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1

VOLUME STATS:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTALS
TOTAL:	0	0	4	0	6	2	0	8	0	0	0	0	20
P.H.V: ₁	0	0	4	0	5	0	0	7	0	0	0	0	16
P.H.F: ₂		0.500			0.313			0.438			0.000		0.667

(1) Peak Hour Volume (Peak Hour Begins At 1115 AM)

(2) Peak Hour Factor (directional aggregate)



QUALITY TRAFFIC DATA, LLC

BICYCLE TURNING MOVEMENT COUNT

#014B Broad St & Tank Farm Rd - PM PEAK

LOCATION#:	014B	QTD PROJ#:	2018229
NORTH / SOUTH:	Broad St	DATE:	Tuesday, October 23, 2018
EAST / WEST:	Tank Farm Rd	VICINITY:	SLO

DIRECTION:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTALS
LANES:	2	2	0	1	2	1	2	2	1	1	1	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	1	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	1	0	0	0	0	0	1	0	0	0	0	2
5:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	
5:45 PM	0	2	0	0	0	0	2	0	0	0	0	0	4
6:00 PM	0	2	0	0	0	0	2	1	0	0	0	0	5

VOLUME STATS:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTALS
TOTAL:	0	5	0	0	0	0	5	3	0	0	0	0	13
P.H.V: ¹	0	4	0	0	0	0	4	2	0	0	0	0	10
P.H.F: ²		0.500			0.000			0.500			0.000		0.500

(1) Peak Hour Volume (Peak Hour Begins At 5:15 PM)

(2) Peak Hour Factor (directional aggregate)

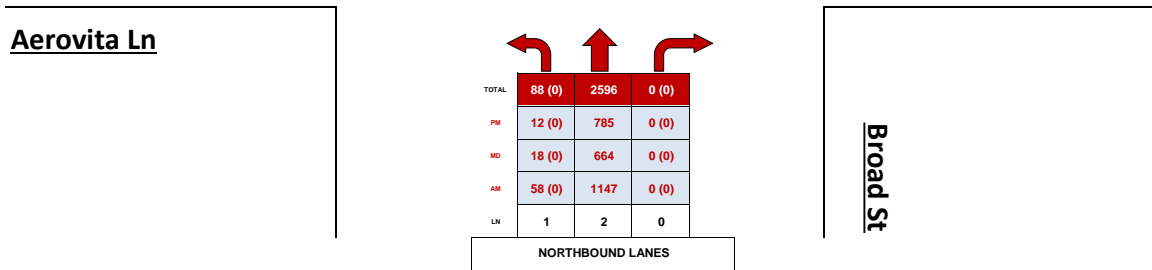
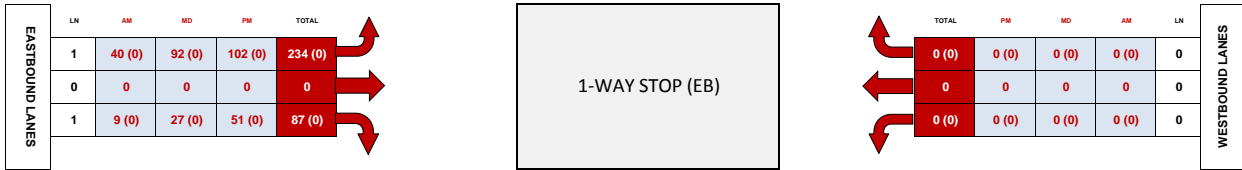
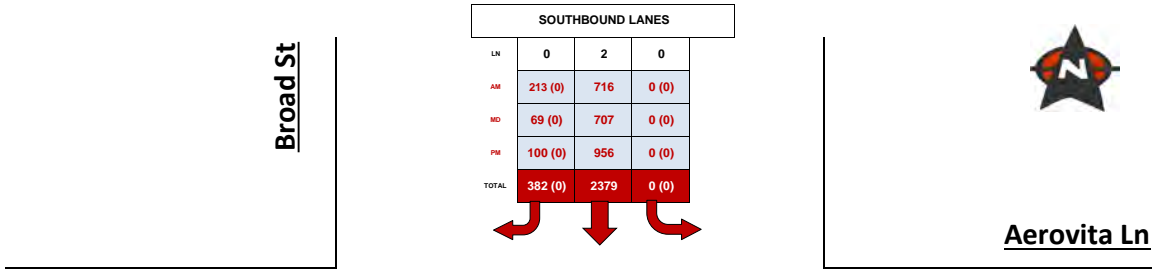


QUALITY TRAFFIC DATA, LLC

PEAK HOUR ITM SUMMARY

#015B Broad St & Aerovita Ln

LOCATION#:	015B	QTD PROJ#:	2018229	AM PEAK:	745 AM
NORTH / SOUTH:	Broad St	DATE:	Wednesday, November 14, 2018	MD PEAK:	515 PM
EAST / WEST:	Aerovita Ln	VICINITY:	SLO	PM PEAK:	415 PM



AM COUNT	7:30 AM	TO	9:30 AM
MD COUNT	-	TO	-
PM COUNT	4:15 PM	TO	6:15 PM

VEHICLE TURNING MOVEMENT COUNT

#015B Broad St & Aerovita Ln - AM PEAK

LOCATION#:	015B	QTD PROJ#:	2018229
NORTH / SOUTH:	Broad St	DATE:	Wednesday, November 14, 2018
EAST / WEST:	Aerovita Ln	VICINITY:	SLO

DIRECTION:	NL	NT	NR	NRTOR	SL	ST	SR	SRTOR	EL	ET	ER	ERTOR	WL	WT	WR	WRTOR	TOTALS
LANES:	1	2	0	0	0	2	0	0	1	0	1	0	0	0	0	0	
7:30 AM	12	286	0	0	0	142	25	0	6	0	0	0	0	0	0	0	471
7:45 AM	21	306	0	0	0	141	75	0	5	0	1	0	0	0	0	0	549
8:00 AM	10	300	0	0	0	216	38	0	6	0	2	0	0	0	0	0	572
8:15 AM	18	287	0	0	0	200	57	0	18	0	2	0	0	0	0	0	582
8:30 AM	9	254	0	0	0	159	43	0	11	0	4	0	0	0	0	0	480
8:45 AM	13	233	0	0	0	146	37	0	8	0	4	0	0	0	0	0	441
9:00 AM	12	198	0	0	0	146	27	0	15	0	5	0	0	0	0	0	403
9:15 AM	11	150	0	0	0	136	18	0	12	0	1	0	0	0	0	0	328

VOLUME STATS:	NL	NT	NR	NRTOR	SL	ST	SR	SRTOR	EL	ET	ER	ERTOR	WL	WT	WR	WRTOR	TOTALS	
TOTAL:	106	2014	0	0	0	1286	320	0	81	0	19	0	0	0	0	0		3826
P.H.V: ¹	58	1147	0	0	0	716	213	0	40	0	9	0	0	0	0	0		2183
P.H.F: ²	└───┘	0.921	└───┘	└───┘	└───┘	0.904	└───┘	└───┘	└───┘	└───┘	0.613	└───┘	└───┘	└───┘	0.000	└───┘	0.938	

(1) Peak Hour Volume (Peak Hour Begins At 7:45 AM)
(2) Peak Hour Factor (directional aggregate)



QUALITY TRAFFIC DATA, LLC

VEHICLE TURNING MOVEMENT COUNT

#015B Broad St & Aerovita Ln - PM PEAK

LOCATION#:	015B	QTD PROJ#:	2018229
NORTH / SOUTH:	Broad St	DATE:	Wednesday, November 14, 2018
EAST / WEST:	Aerovita Ln	VICINITY:	SLO

DIRECTION:	NL	NT	NR	NRTOR	SL	ST	SR	SRTOR	EL	ET	ER	ERTOR	WL	WT	WR	WRTOR	TOTALS
LANES:	1	2	0	0	0	2	0	0	1	0	1	0	0	0	0	0	
4:15 PM	3	181	0	0	0	243	48	0	30	0	12	0	0	0	0	0	517
4:30 PM	2	198	0	0	0	259	15	0	24	0	11	0	0	0	0	0	509
4:45 PM	4	168	0	0	0	215	19	0	18	0	7	0	0	0	0	0	431
5:00 PM	3	238	0	0	0	239	18	0	30	0	21	0	0	0	0	0	549
5:15 PM	11	223	0	0	0	211	33	0	26	0	5	0	0	0	0	0	509
5:30 PM	4	186	0	0	0	185	10	0	28	0	10	0	0	0	0	0	423
5:45 PM	3	158	0	0	0	153	20	0	18	0	4	0	0	0	0	0	356
6:00 PM	0	97	0	0	0	158	6	0	20	0	8	0	0	0	0	0	289

VOLUME STATS:	NL	NT	NR	NRTOR	SL	ST	SR	SRTOR	EL	ET	ER	ERTOR	WL	WT	WR	WRTOR	TOTALS	
TOTAL:	30	1449	0	0	0	1663	169	0	194	0	78	0	0	0	0	0		3583
P.H.V: ¹	12	785	0	0	0	956	100	0	102	0	51	0	0	0	0	0		2006
P.H.F: ²	└───┐	0.827	└───┐	└───┐	└───┐	0.907	└───┐	└───┐	└───┐	0.750	└───┐	└───┐	└───┐	0.000	└───┐	└───┐	0.913	

(1) Peak Hour Volume (Peak Hour Begins At 4:15 PM)

(2) Peak Hour Factor (directional aggregate)



QUALITY TRAFFIC DATA, LLC

PEDESTRIAN TURNING MOVEMENT COUNT

#015B Broad St & Aerovita Ln - AM PEAK

LOCATION#:	015B	QTD PROJ#:	2018229
NORTH / SOUTH:	Broad St	DATE:	Wednesday, November 14, 2018
EAST / WEST:	Aerovita Ln	VICINITY:	SLO

DIRECTION:	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
7:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	1	0	1	0	0	0	0	0	0	0	0	0	2
9:00 AM	0	0	2	0	0	0	0	0	0	0	0	0	2
9:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	1
VOLUME STATS:	1	2	3	4	5	6	7	8	9	10	11	12	
TOTAL:	1	0	4	0	0	0	0	0	0	0	1	1	7



QUALITY TRAFFIC DATA, LLC

PEDESTRIAN TURNING MOVEMENT COUNT

#015B Broad St & Aerovita Ln - PM PEAK

LOCATION#:	015B	QTD PROJ#:	2018229
NORTH / SOUTH:	Broad St	DATE:	Wednesday, November 14, 2018
EAST / WEST:	Aerovita Ln	VICINITY:	SLO

DIRECTION:	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
4:15 PM	1	0	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	1	0	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	1	0	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	1	0	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	3	0	0	0	0	0	0	0	0	0	0	0	3
5:45 PM	1	0	0	0	0	0	0	0	0	0	0	0	1
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUME STATS:	1	2	3	4	5	6	7	8	9	10	11	12	
TOTAL:	9	0	0	0	0	0	0	0	0	0	0	0	9



QUALITY TRAFFIC DATA, LLC

BICYCLE TURNING MOVEMENT COUNT

#015B Broad St & Aerovita Ln - AM PEAK

LOCATION#:	015B	QTD PROJ#:	2018229
NORTH / SOUTH:	Broad St	DATE:	Wednesday, November 14, 2018
EAST / WEST:	Aerovita Ln	VICINITY:	SLO

DIRECTION:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTALS
LANES:	1	2	0	0	2	0	1	0	1	0	0	0	
7:30 AM	0	0	0	0	1	2	0	0	0	0	0	0	3
7:45 AM	0	0	0	0	2	0	0	0	0	0	0	0	2
8:00 AM	0	4	0	0	0	3	0	0	0	0	0	0	7
8:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	2
8:30 AM	0	1	0	0	3	0	0	0	0	0	0	0	4
8:45 AM	0	1	0	0	3	0	1	0	0	0	0	0	5
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	
9:15 AM	0	8	0	0	1	0	0	0	0	0	0	0	9

VOLUME STATS:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTALS
TOTAL:	0	15	0	0	11	5	1	0	0	0	0	0	32
P.H.V: ₁	0	10	0	0	7	0	1	0	0	0	0	0	18
P.H.F: ₂		0.313			0.583			0.250			0.000		0.500

(1) Peak Hour Volume (Peak Hour Begins At 8:30 AM)

(2) Peak Hour Factor (directional aggregate)



QUALITY TRAFFIC DATA, LLC

BICYCLE TURNING MOVEMENT COUNT

#015B Broad St & Aerovita Ln - PM PEAK

LOCATION#:	015B	QTD PROJ#:	2018229
NORTH / SOUTH:	Broad St	DATE:	Wednesday, November 14, 2018
EAST / WEST:	Aerovita Ln	VICINITY:	SLO

DIRECTION:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTALS
LANES:	1	2	0	0	2	0	1	0	1	0	0	0	
4:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	1	0	1	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	
5:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	1
5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	1	0	0	0	1	1	0	0	0	0	0	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	
6:00 PM	0	1	0	0	0	0	1	0	0	0	0	0	2

VOLUME STATS:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTALS
TOTAL:	0	4	0	0	1	2	3	0	0	0	0	0	10
P.H.V: ₁	0	3	0	0	0	1	2	0	0	0	0	0	6
P.H.F: ₂		0.750			0.250		0.500			0.000			0.500

(1) Peak Hour Volume (Peak Hour Begins At 5:15 PM)

(2) Peak Hour Factor (directional aggregate)

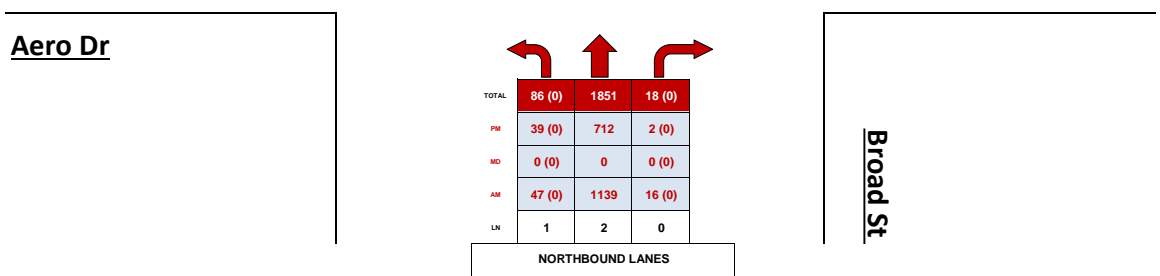
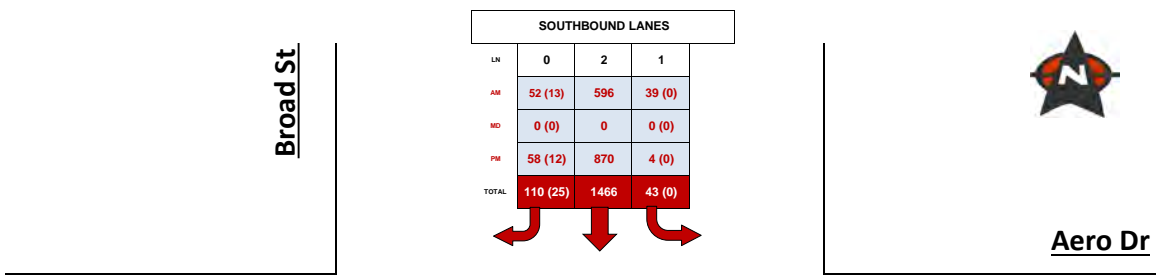


QUALITY TRAFFIC DATA, LLC

PEAK HOUR ITM SUMMARY

#016B Broad St & Aero Dr

LOCATION#:	016B	QTD PROJ#:	2018229	AM PEAK:	745 AM
NORTH / SOUTH:	Broad St	DATE:	Tuesday, October 23, 2018	MD PEAK:	
EAST / WEST:	Aero Dr	VICINITY:	SLO	PM PEAK:	445 PM



AM COUNT	7:15 AM	TO	9:15 AM
MD COUNT	-	TO	-
PM COUNT	4:15 PM	TO	6:15 PM

VEHICLE TURNING MOVEMENT COUNT

#016B Broad St & Aero Dr - AM PEAK

LOCATION#:	016B	QTD PROJ#:	2018229
NORTH / SOUTH:	Broad St	DATE:	Tuesday, October 23, 2018
EAST / WEST:	Aero Dr	VICINITY:	SLO

DIRECTION:	NL	NT	NR	NRTOR	SL	ST	SR	SRTOR	EL	ET	ER	ERTOR	WL	WT	WR	WRTOR	TOTALS
LANES:	1	2	0	0	1	2	0	0	0.5	0.5	1	0	0	1	0	0	
7:15 AM	5	203	1	0	8	92	6	0	12	0	0	0	1	0	3	0	331
7:30 AM	7	271	2	0	3	117	9	0	22	0	0	0	0	0	7	0	438
7:45 AM	15	276	2	0	13	137	11	5	14	0	1	0	3	0	4	0	481
8:00 AM	13	294	6	0	9	187	6	4	11	0	0	0	0	0	11	0	541
8:15 AM	9	293	5	0	12	132	21	3	15	0	2	0	2	0	15	0	509
8:30 AM	10	276	3	0	5	140	14	1	13	1	1	0	1	0	3	0	468
8:45 AM	7	209	5	0	4	125	13	2	14	0	5	0	1	0	10	0	395
9:00 AM	6	196	2	0	8	134	9	2	11	0	1	0	3	0	6	0	378

VOLUME STATS:	NL	NT	NR	NRTOR	SL	ST	SR	SRTOR	EL	ET	ER	ERTOR	WL	WT	WR	WRTOR	TOTALS	
TOTAL:	72	2018	26	0	62	1064	89	17	112	1	10	0	11	0	59	0		3541
P.H.V: ¹	47	1139	16	0	39	596	52	13	53	1	4	0	6	0	33	0		1999
P.H.F: ²	_____	0.960	_____		_____	0.850	_____		_____	0.853	_____		_____	0.574	_____		0.924	

(1) Peak Hour Volume (Peak Hour Begins At 745 AM)

(2) Peak Hour Factor (directional aggregate)



QUALITY TRAFFIC DATA, LLC

VEHICLE TURNING MOVEMENT COUNT

#016B Broad St & Aero Dr - PM PEAK

LOCATION#:	016B	QTD PROJ#:	2018229
NORTH / SOUTH:	Broad St	DATE:	Tuesday, October 23, 2018
EAST / WEST:	Aero Dr	VICINITY:	SLO

DIRECTION:	NL	NT	NR	NRTOR	SL	ST	SR	SRTOR	EL	ET	ER	ERTOR	WL	WT	WR	WRTOR	TOTALS
LANES:	1	2	0	0	1	2	0	0	0.5	0.5	1	0	0	1	0	0	
4:15 PM	7	150	0	0	3	211	19	0	16	0	2	2	0	0	8	0	418
4:30 PM	4	147	1	0	5	238	14	0	21	0	4	1	5	0	6	0	446
4:45 PM	8	171	1	0	2	245	14	0	21	0	6	0	2	0	9	0	479
5:00 PM	13	203	0	0	0	194	7	5	52	0	5	6	5	0	5	1	496
5:15 PM	10	156	1	0	1	238	25	2	41	0	6	2	0	1	4	0	487
5:30 PM	8	182	0	0	1	193	12	5	55	0	8	7	1	0	3	0	475
5:45 PM	9	123	0	0	1	179	19	5	32	0	2	4	2	0	1	0	377
6:00 PM	9	107	0	0	0	145	9	1	15	0	3	1	0	0	0	0	290

VOLUME STATS:	NL	NT	NR	NRTOR	SL	ST	SR	SRTOR	EL	ET	ER	ERTOR	WL	WT	WR	WRTOR	TOTALS	
TOTAL:	68	1239	3	0	13	1643	119	18	253	0	36	23	15	1	36	1		3468
P.H.V: ¹	39	712	2	0	4	870	58	12	169	0	25	15	8	1	21	1		1937
P.H.F: ²		0.872				0.887				0.746				0.705			0.976	

(1) Peak Hour Volume (Peak Hour Begins At 445 PM)

(2) Peak Hour Factor (directional aggregate)



QUALITY TRAFFIC DATA, LLC

PEDESTRIAN TURNING MOVEMENT COUNT

#016B Broad St & Aero Dr - AM PEAK

LOCATION#:	016B	QTD PROJ#:	2018229
NORTH / SOUTH:	Broad St	DATE:	Tuesday, October 23, 2018
EAST / WEST:	Aero Dr	VICINITY:	SLO

DIRECTION:	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
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	1	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	1	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	
VOLUME STATS:	1	2	3	4	5	6	7	8	9	10	11	12	
TOTAL:	0	0	0	0	2	0	0	0	0	0	0	0	2



QUALITY TRAFFIC DATA, LLC

PEDESTRIAN TURNING MOVEMENT COUNT

#016B Broad St & Aero Dr - PM PEAK

LOCATION#:	016B	QTD PROJ#:	2018229
NORTH / SOUTH:	Broad St	DATE:	Tuesday, October 23, 2018
EAST / WEST:	Aero Dr	VICINITY:	SLO

DIRECTION:	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
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	1	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	1	0	0	0	0	1	0	0	2
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUME STATS:	1	2	3	4	5	6	7	8	9	10	11	12	
TOTAL:	0	1	0	0	1	1	0	0	0	1	0	0	4



QUALITY TRAFFIC DATA, LLC

BICYCLE TURNING MOVEMENT COUNT

#016B Broad St & Aero Dr - AM PEAK

LOCATION#:	016B	QTD PROJ#:	2018229
NORTH / SOUTH:	Broad St	DATE:	Tuesday, October 23, 2018
EAST / WEST:	Aero Dr	VICINITY:	SLO

DIRECTION:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTALS
LANES:	1	2	0	1	2	0	0.5	0.5	1	0	1	0	
7:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	2
7:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	5	0	0	1	0	0	0	0	0	0	0	6
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0

VOLUME STATS:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTALS
TOTAL:	0	7	0	0	5	0	0	0	0	0	0	0	12
P.H.V: ₁	0	6	0	0	2	0	0	0	0	0	0	0	8
P.H.F: ₂		0.300			0.500			0.000			0.000		0.333

(1) Peak Hour Volume (Peak Hour Begins At 800 AM)

(2) Peak Hour Factor (directional aggregate)



QUALITY TRAFFIC DATA, LLC

BICYCLE TURNING MOVEMENT COUNT

#016B Broad St & Aero Dr - PM PEAK

LOCATION#:	016B	QTD PROJ#:	2018229
NORTH / SOUTH:	Broad St	DATE:	Tuesday, October 23, 2018
EAST / WEST:	Aero Dr	VICINITY:	SLO

DIRECTION:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTALS
LANES:	1	2	0	1	2	0	0.5	0.5	1	0	1	0	
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	3
4:45 PM	0	2	0	0	1	0	0	0	0	0	0	0	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
6:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1

VOLUME STATS:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTALS
TOTAL:	0	6	0	0	2	0	0	0	0	0	0	0	8
P.H.V: ¹	0	4	0	0	1	0	0	0	0	0	0	0	5
P.H.F: ²		0.500			0.250			0.000			0.000		0.417

(1) Peak Hour Volume (Peak Hour Begins At 4:45 PM)

(2) Peak Hour Factor (directional aggregate)



QUALITY TRAFFIC DATA, LLC



Metro Traffic Data Inc.
 310 N. Irwin Street - Suite 20
 Hanford, CA 93230
 800-975-6938 Phone/Fax
 www.metrotrafficdata.com

Turning Movement Report

Prepared For:
Central Coast Transportation Consulting
 895 Napa Avenue, Suite A-6
 Morro Bay, CA 93442

LOCATION SR227 (Edna Rd) @ Farmhouse Ln

LATITUDE 35.2389

COUNTY San Luis Obispo

LONGITUDE -120.6361

COLLECTION DATE Tuesday, June 25, 2019

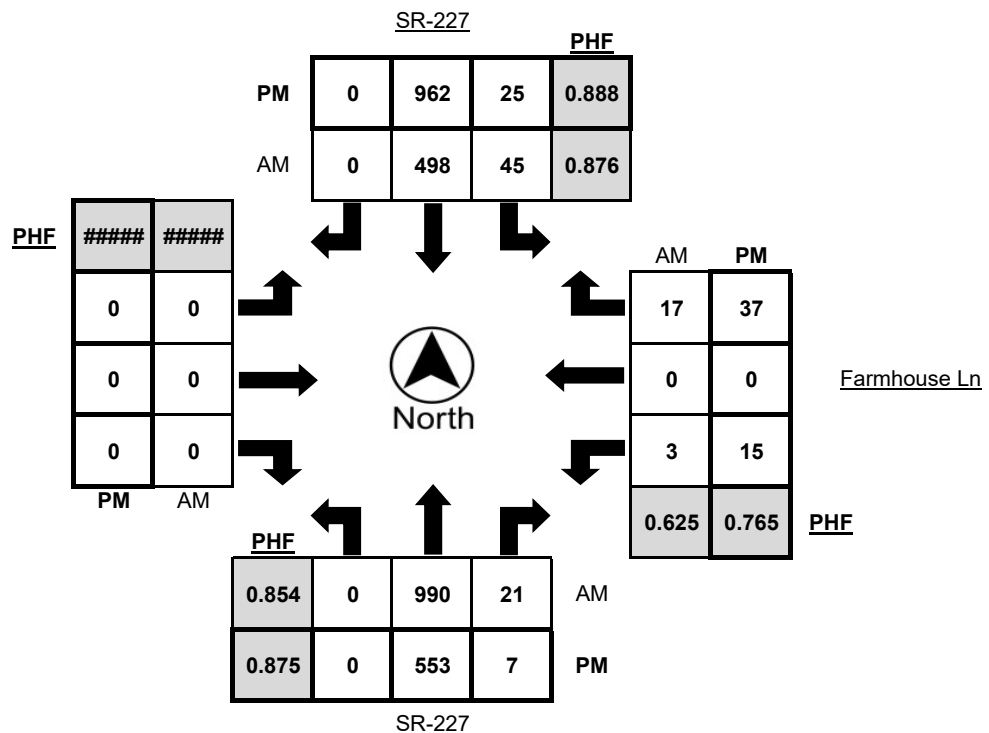
WEATHER Clear

Time	Northbound				Southbound				Eastbound				Westbound			
	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks
7:00 AM - 7:15 AM	0	181	1	3	3	92	0	9	0	0	0	0	0	0	3	0
7:15 AM - 7:30 AM	0	197	1	9	5	98	0	14	0	0	0	0	0	0	6	1
7:30 AM - 7:45 AM	0	269	6	8	4	105	0	16	0	0	0	0	1	0	2	0
7:45 AM - 8:00 AM	0	271	4	7	5	96	0	10	0	0	0	0	0	0	3	1
8:00 AM - 8:15 AM	0	291	5	11	8	102	0	10	0	0	0	0	0	0	4	1
8:15 AM - 8:30 AM	0	232	5	7	11	113	0	6	0	0	0	0	0	0	1	0
8:30 AM - 8:45 AM	0	232	6	10	18	137	0	14	0	0	0	0	2	0	5	0
8:45 AM - 9:00 AM	0	235	5	16	8	146	0	9	0	0	0	0	1	0	7	1
TOTAL	0	1908	33	71	62	889	0	88	0	0	0	0	4	0	31	4

Time	Northbound				Southbound				Eastbound				Westbound			
	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks
4:00 PM - 4:15 PM	0	140	1	3	6	228	0	8	0	0	0	0	5	0	7	0
4:15 PM - 4:30 PM	0	133	2	3	5	228	0	5	0	0	0	0	1	0	11	0
4:30 PM - 4:45 PM	0	121	3	3	6	272	0	4	0	0	0	0	4	0	7	1
4:45 PM - 5:00 PM	0	159	1	4	8	234	0	2	0	0	0	0	5	0	12	0
5:00 PM - 5:15 PM	0	137	1	3	3	226	0	2	0	0	0	0	8	0	12	0
5:15 PM - 5:30 PM	0	140	1	3	5	211	0	3	0	0	0	0	1	0	6	0
5:30 PM - 5:45 PM	0	123	0	4	9	227	0	2	0	0	0	0	1	0	7	0
5:45 PM - 6:00 PM	0	128	2	1	3	177	0	1	0	0	0	0	0	0	9	0
TOTAL	0	1081	11	24	45	1803	0	27	0	0	0	0	25	0	71	1

PEAK HOUR	Northbound				Southbound				Eastbound				Westbound			
	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks
8:00 AM - 9:00 AM	0	990	21	44	45	498	0	39	0	0	0	0	3	0	17	2
4:00 PM - 5:00 PM	0	553	7	13	25	962	0	19	0	0	0	0	15	0	37	1

	PHF	Trucks
AM	0.960	5.4%
PM	0.954	2.1%





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Turning Movement Report

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 Morro Bay, CA 93442

LOCATION SR227 (Edna Rd) @ Farmhouse Ln

LATITUDE 35.2389

COUNTY San Luis Obispo

LONGITUDE -120.6361

COLLECTION DATE Tuesday, June 25, 2019

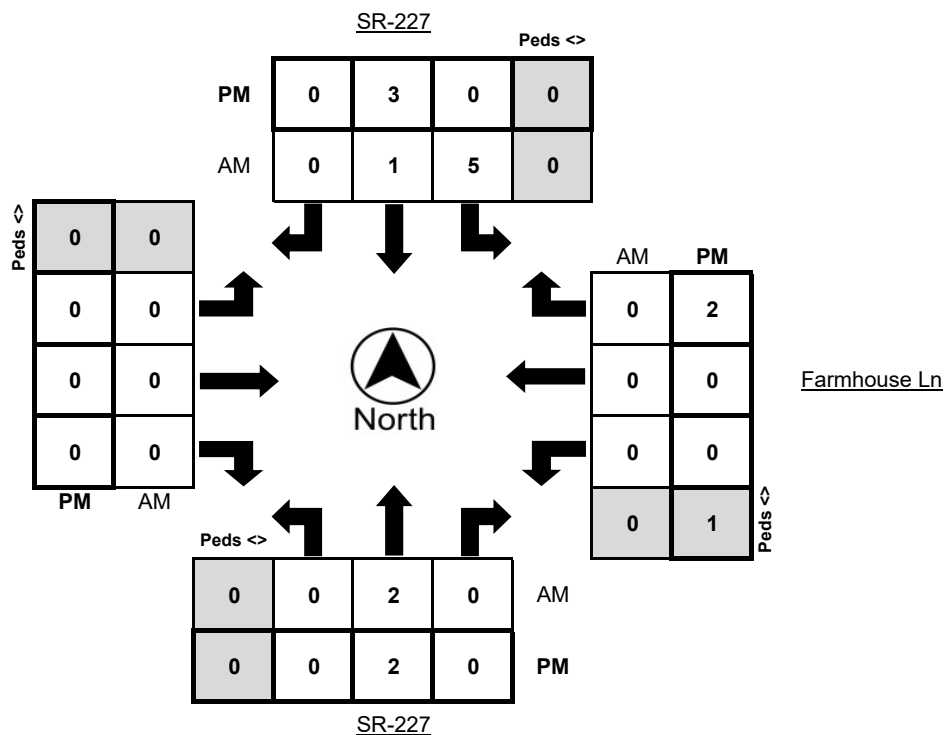
WEATHER Clear

Time	Northbound Bikes			N.Leg Peds	Southbound Bikes			S.Leg Peds	Eastbound Bikes			E.Leg Peds	Westbound Bikes			W.Leg Peds
	Left	Thru	Right		Left	Thru	Right		Left	Thru	Right		Left	Thru	Right	
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM - 7:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM - 7:45 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
7:45 AM - 8:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM - 8:15 AM	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0
8:15 AM - 8:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
8:30 AM - 8:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
8:45 AM - 9:00 AM	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	5	0	0	5	2	0	0	0	0	0	0	0	0	0	0

Time	Northbound Bikes			N.Leg Peds	Southbound Bikes			S.Leg Peds	Eastbound Bikes			E.Leg Peds	Westbound Bikes			W.Leg Peds
	Left	Thru	Right		Left	Thru	Right		Left	Thru	Right		Left	Thru	Right	
4:00 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 4:30 PM	0	1	0	0	0	1	0	0	0	0	0	1	0	0	0	0
4:30 PM - 4:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	0
4:45 PM - 5:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
5:00 PM - 5:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
5:15 PM - 5:30 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	1	0
5:30 PM - 5:45 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	4	0	0	0	2	0	0	0	0	0	0	0	0	2	0
TOTAL	0	6	0	0	0	11	0	0	0	0	0	1	0	0	5	0

PEAK HOUR	Northbound Bikes			N.Leg Peds	Southbound Bikes			S.Leg Peds	Eastbound Bikes			E.Leg Peds	Westbound Bikes			W.Leg Peds
	Left	Thru	Right		Left	Thru	Right		Left	Thru	Right		Left	Thru	Right	
8:00 AM - 9:00 AM	0	2	0	0	5	1	0	0	0	0	0	0	0	0	0	0
4:00 PM - 5:00 PM	0	2	0	0	0	3	0	0	0	0	0	1	0	0	2	0

	Bikes	Peds
AM Peak Total	8	0
PM Peak Total	7	1





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 800-975-6938 Phone/Fax
 www.metrotrafficdata.com

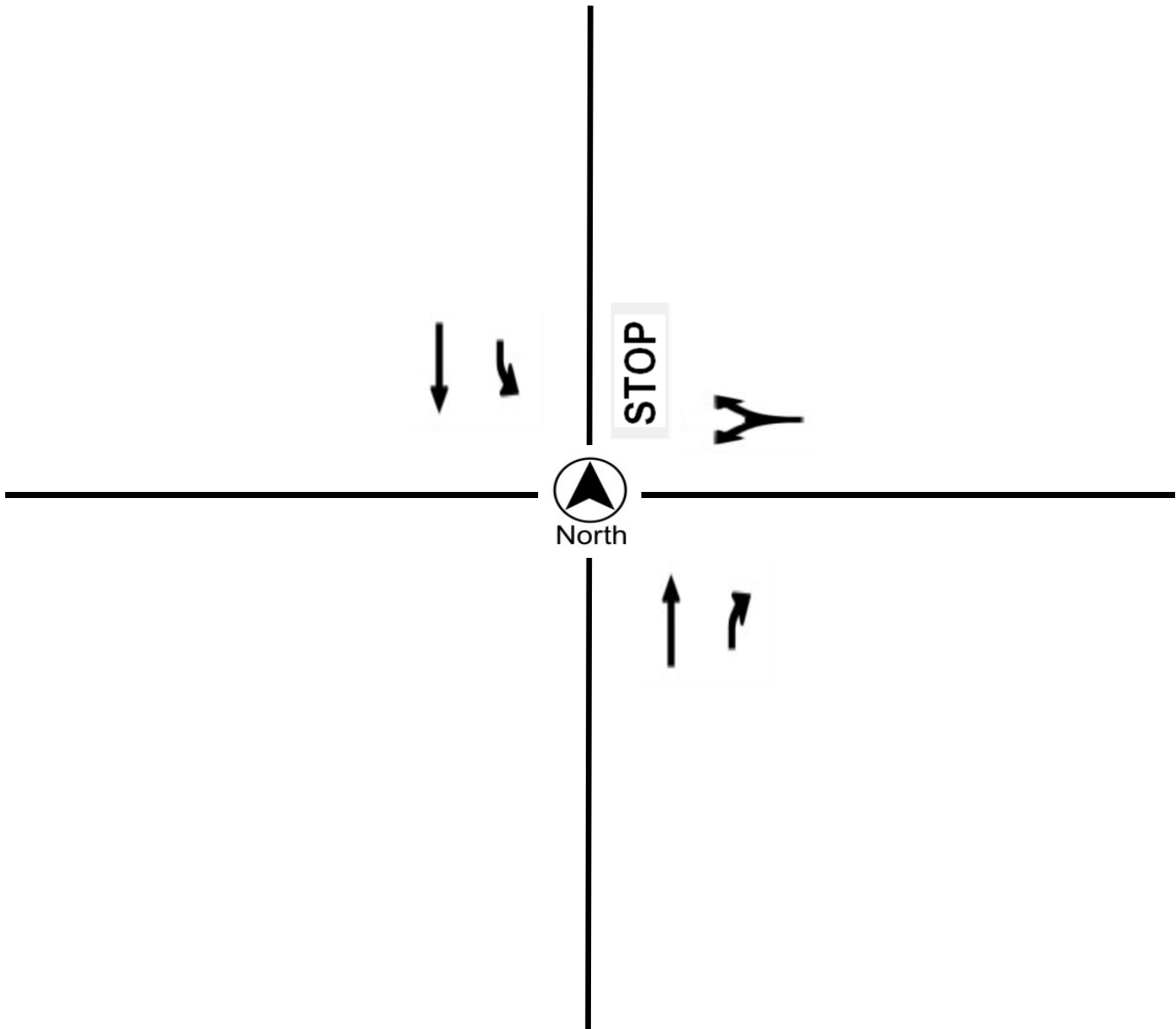
Turning Movement Report

Prepared For:
Central Coast Transportation Consulting
 895 Napa Avenue, Suite A-6
 Morro Bay, CA 93442

LOCATION SR227 (Edna Rd) @ Farmhouse Ln
COUNTY San Luis Obispo
COLLECTION DATE Tuesday, June 25, 2019
CYCLE TIME N/A

N/S STREET SR-227 / SR-227
E/W STREET Farmhouse Ln /
WEATHER Clear
CONTROL TYPE One-Way stop

COMMENTS



National Data & Surveying Services

Intersection Turning Movement Count

Location: Edna Rd/SR 227 & Buckley Rd
City: San Luis Obispo
Control: Signalized

Project ID: 19-02080-004
Date: 10/9/2019

Total

NS/EW Streets:	Edna Rd/SR 227				Edna Rd/SR 227				Buckley Rd				Buckley Rd				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	1	1	0	0	1	1	1	0	0.5	0.5	1	0	0	1	0	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
7:00 AM	27	186	0	0	1	79	7	0	5	2	14	0	0	0	0	0	321
7:15 AM	33	207	4	0	0	74	6	0	5	1	18	0	0	0	1	0	349
7:30 AM	60	267	0	0	0	85	15	0	2	1	25	0	0	0	0	0	455
7:45 AM	46	316	0	0	0	79	5	0	12	0	40	0	0	0	1	0	499
8:00 AM	64	289	2	0	1	137	8	0	9	2	45	0	0	0	1	0	558
8:15 AM	48	293	0	0	1	125	18	0	16	0	57	0	2	0	0	0	560
8:30 AM	58	290	1	0	1	75	10	0	16	3	28	0	0	0	1	0	483
8:45 AM	46	267	3	0	7	76	12	0	15	2	24	0	0	1	0	0	453
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	382	2115	10	0	11	730	81	0	80	11	251	0	2	1	4	0	3678
	15.24%	84.36%	0.40%	0.00%	1.34%	88.81%	9.85%	0.00%	23.39%	3.22%	73.39%	0.00%	28.57%	14.29%	57.14%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	216	1188	3	0	3	416	41	0	53	5	170	0	2	0	3	0	2100
PEAK HR FACTOR :	0.844	0.940	0.375	0.000	0.750	0.759	0.569	0.000	0.828	0.417	0.746	0.000	0.250	0.000	0.750	0.000	0.938
			0.972				0.788				0.781				0.625		
PM	1	1	0	0	1	1	1	0	0.5	0.5	1	0	0	1	0	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	20	151	1	0	2	235	11	0	12	2	73	0	2	0	1	0	510
4:15 PM	11	133	0	0	0	249	11	0	7	0	74	0	0	0	2	0	487
4:30 PM	20	107	1	0	0	246	3	0	6	0	85	0	2	0	1	0	471
4:45 PM	12	127	1	0	0	227	7	0	9	0	95	0	3	0	1	0	482
5:00 PM	22	104	0	0	0	229	5	0	11	2	113	0	6	2	5	0	499
5:15 PM	13	104	1	0	0	229	6	0	9	1	85	0	2	0	3	0	453
5:30 PM	9	113	1	0	2	256	11	0	13	0	81	0	1	0	2	0	489
5:45 PM	17	97	0	0	0	191	4	0	6	0	67	0	2	1	4	0	389
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	124	936	5	0	4	1862	58	0	73	5	673	0	18	3	19	0	3780
	11.64%	87.89%	0.47%	0.00%	0.21%	96.78%	3.01%	0.00%	9.72%	0.67%	89.61%	0.00%	45.00%	7.50%	47.50%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	63	518	3	0	2	957	32	0	34	2	327	0	7	0	5	0	1950
PEAK HR FACTOR :	0.788	0.858	0.750	0.000	0.250	0.961	0.727	0.000	0.708	0.250	0.861	0.000	0.583	0.000	0.625	0.000	0.956
			0.849				0.953				0.873				0.750		

National Data & Surveying Services

Intersection Turning Movement Count

Location: Edna Rd/SR 227 & Buckley Rd
City: San Luis Obispo
Control: Signalized

Project ID: 19-02080-004
Date: 10/9/2019

RTOR

NS/EW Streets:	Edna Rd/SR 227				Edna Rd/SR 227				Buckley Rd				Buckley Rd					
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND					
	1	1	0	0	1	1	1	0	0.5	0.5	1	0	0	1	0	0	TOTAL	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU		
	7:00 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
	7:15 AM	0	0	0	0	0	0	0	0	0	0	8	0	0	0	1	0	9
	7:30 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3
	7:45 AM	0	0	0	0	0	0	0	0	0	0	10	0	0	0	1	0	11
	8:00 AM	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0	11
	8:15 AM	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	12
	8:30 AM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	5
8:45 AM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	6	
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL	
APPROACH %'s :	0	0	0	0	0	0	0	0	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	59	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL	
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	38	0	0	0	1	0	39	
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.792	0.000	0.000	0.000	0.250	0.000	0.813	
									0.792				0.250					
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND					
	1	1	0	0	1	1	1	0	0.5	0.5	1	0	0	1	0	0	TOTAL	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU		
	4:00 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	1	0	6
	4:15 PM	0	0	0	0	0	0	0	0	0	0	10	0	0	0	1	0	11
	4:30 PM	0	0	0	0	0	0	0	0	0	0	8	0	0	0	1	0	9
	4:45 PM	0	0	0	0	0	0	0	0	0	0	15	0	0	0	1	0	16
	5:00 PM	0	0	0	0	0	0	0	0	0	0	18	0	0	0	2	0	20
	5:15 PM	0	0	0	0	0	0	0	0	0	0	9	0	0	0	1	0	10
	5:30 PM	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0	0	15
5:45 PM	0	0	0	0	0	0	0	0	0	0	11	0	0	0	2	0	13	
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL	
APPROACH %'s :	0	0	0	0	0	0	0	0	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	100	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL	
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	38	0	0	0	4	0	42	
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.633	0.000	0.000	0.000	1.000	0.000	0.656	
									0.633				1.000					

National Data & Surveying Services

Intersection Turning Movement Count

Location: Edna Rd/SR 227 & Buckley Rd
City: San Luis Obispo
Control: Signalized

Project ID: 19-02080-004
Date: 10/9/2019

Bikes

NS/EW Streets:	Edna Rd/SR 227				Edna Rd/SR 227				Buckley Rd				Buckley Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	1 NT	0 NR	0 NU	1 SL	1 ST	1 SR	0 SU	0.5 EL	0.5 ET	1 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
7:30 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
7:45 AM	0	1	0	0	0	10	0	0	0	0	0	0	0	0	0	0	11
8:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
8:45 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	11	0	0	0	12	0	0	0	0	0	0	0	0	0	0	23
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	4	0	0	0	12	0	0	0	0	0	0	0	0	0	0	16
PEAK HR FACTOR :	0.000	0.333	0.000	0.000	0.000	0.300	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.364
PEAK HR FACTOR :	0.333				0.300												
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	1 NT	0 NR	0 NU	1 SL	1 ST	1 SR	0 SU	0.5 EL	0.5 ET	1 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3
5:00 PM	0	0	0	0	0	3	0	0	1	0	0	0	0	0	0	0	4
5:15 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
5:30 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	1	0	0	0	9	0	0	1	0	0	0	0	0	0	0	11
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3
PEAK HR FACTOR :	0.00	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
PEAK HR FACTOR :	0.250				0.250												

Appendix B: Intersection Calculation Sheets

Existing

600 Tank Farm Road
1: Higuera & Tank Farm

Existing AM
Queues


























Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	44	22	149	153	258	13	401	800	277	301
v/c Ratio	0.24	0.08	0.32	0.32	0.40	0.13	0.57	0.73	0.73	0.20
Control Delay	40.4	0.6	31.5	31.3	6.5	49.8	36.5	6.8	47.5	16.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.4	0.6	31.5	31.3	6.5	49.8	36.5	6.8	47.5	16.9
Queue Length 50th (ft)	23	0	67	69	0	7	104	30	139	46
Queue Length 95th (ft)	57	0	169	172	67	30	190	107	#362	116
Internal Link Dist (ft)	109			1057			1054			1668
Turn Bay Length (ft)					250	140		100	100	
Base Capacity (vph)	537	561	464	482	643	97	1023	1097	413	1672
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.04	0.32	0.32	0.40	0.13	0.39	0.73	0.67	0.18

Intersection Summary

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

600 Tank Farm Road
1: Higuera & Tank Farm

Existing AM
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	17	20	272	3	235	12	365	728	252	267	7
Future Volume (veh/h)	23	17	20	272	3	235	12	365	728	252	267	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		1.00	1.00		0.98	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	25	19	20	301	0	0	13	401	604	277	293	8
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	56	43	82	1012	0	0	28	1026	897	321	1600	44
Arrive On Green	0.05	0.05	0.05	0.28	0.00	0.00	0.02	0.29	0.29	0.18	0.45	0.45
Sat Flow, veh/h	1033	785	1517	3563	0	1585	1781	3554	1548	1781	3531	96
Grp Volume(v), veh/h	44	0	20	301	0	0	13	401	604	277	147	154
Grp Sat Flow(s),veh/h/ln	1819	0	1517	1781	0	1585	1781	1777	1548	1781	1777	1850
Q Serve(g_s), s	2.1	0.0	1.1	5.8	0.0	0.0	0.6	8.0	24.1	13.3	4.3	4.4
Cycle Q Clear(g_c), s	2.1	0.0	1.1	5.8	0.0	0.0	0.6	8.0	24.1	13.3	4.3	4.4
Prop In Lane	0.57		1.00	1.00		1.00	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	99	0	82	1012	0	0	28	1026	897	321	805	838
V/C Ratio(X)	0.45	0.00	0.24	0.30	0.00	0.00	0.47	0.39	0.67	0.86	0.18	0.18
Avail Cap(c_a), veh/h	558	0	465	1016	0	0	101	1026	897	415	826	860
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	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.3	0.0	39.9	24.6	0.0	0.0	43.0	25.1	13.2	35.0	14.4	14.4
Incr Delay (d2), s/veh	1.2	0.0	0.6	0.1	0.0	0.0	4.6	0.5	2.6	14.6	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.4	2.3	0.0	0.0	0.3	3.2	13.2	6.7	1.6	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.5	0.0	40.4	24.7	0.0	0.0	47.6	25.6	15.8	49.7	14.6	14.6
LnGrp LOS	D	A	D	C	A		D	C	B	D	B	B
Approach Vol, veh/h		64			301	A		1018			578	
Approach Delay, s/veh		41.2			24.7			20.1			31.4	
Approach LOS		D			C			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.3	29.9		9.3	4.9	44.4		29.5				
Change Period (Y+Rc), s	3.5	4.5		4.5	3.5	4.5		4.5				
Max Green Setting (Gmax), s	20.5	25.4		27.0	5.0	40.9		25.1				
Max Q Clear Time (g_c+I1), s	15.3	26.1		4.1	2.6	6.4		7.8				
Green Ext Time (p_c), s	0.6	0.0		0.2	0.0	3.4		0.7				

Intersection Summary

HCM 6th Ctrl Delay	24.8
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	50.7	58.5	67.8	54.5
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	6	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	2	141	178	0
85th percentile speed (mph)	25	45	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	49.8	49.8	49.8	49.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	1.98	2.95	3.17	2.68
Pedestrian Crosswalk LOS	B	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	66	560	1214	578
Effct. Green for Bike (s)	9.4	25.9	18.0	39.7
Cross Street Width (ft)	67.8	54.5	58.5	50.7
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	10.0	11.0	11.0	11.0
Bicycle Lane Width (ft)	0.0	5.0	5.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	163	450	313	690
Bicycle Delay (s/bike)	48.5	34.5	40.9	24.7
Bicycle Compliance	Poor	Poor	Poor	Fair
Bicycle LOS Score	3.13	2.46	2.60	1.95
Bicycle LOS	C	B	C	B

Intersection

Int Delay, s/veh 2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑↘		↙	↑↘			↖	↗		↖	↗
Traffic Vol, veh/h	58	813	47	113	585	18	6	0	62	5	1	18
Future Vol, veh/h	58	813	47	113	585	18	6	0	62	5	1	18
Conflicting Peds, #/hr	1	0	0	0	0	1	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	225	-	-	160	-	-	-	-	25	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	60	847	49	118	609	19	6	0	65	5	1	19

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	629	0	0	896
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.14	-	-	4.14
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22
Pot Cap-1 Maneuver	949	-	-	753
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	948	-	-	753
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	1.7	17.2	23.2
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	63	558	948	-	-	753	-	-	70	679
HCM Lane V/C Ratio	0.099	0.116	0.064	-	-	0.156	-	-	0.089	0.028
HCM Control Delay (s)	68.3	12.3	9.1	-	-	10.7	-	-	61.4	10.5
HCM Lane LOS	F	B	A	-	-	B	-	-	F	B
HCM 95th %tile Q(veh)	0.3	0.4	0.2	-	-	0.6	-	-	0.3	0.1

Approach

Approach Direction	EB
Median Present?	No
Approach Delay(s)	12478.9
Level of Service	F

Crosswalk

Length (ft)	66
Lanes Crossed	4
Veh Vol Crossed	1398
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	21.86
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.88
Delay for adq Gap	12481.44
Avg Ped Delay (s)	12478.87

Approach

Approach Direction	WB
Median Present?	No
Approach Delay(s)	17416.2
Level of Service	F

Crosswalk

Length (ft)	69
Lanes Crossed	4
Veh Vol Crossed	1398
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	22.71
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.89
Delay for adq Gap	17418.74
Avg Ped Delay (s)	17416.17

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	814	0	0	670	0	0	0	0	0	0	0
Future Vol, veh/h	0	814	0	0	670	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	885	0	0	728	0	0	0	0	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	728	0	0	885	0	0	1613	1613	885	1613	1613	728
Stage 1	-	-	-	-	-	-	885	885	-	728	728	-
Stage 2	-	-	-	-	-	-	728	728	-	885	885	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	876	-	-	765	-	-	84	104	344	84	104	423
Stage 1	-	-	-	-	-	-	340	363	-	415	429	-
Stage 2	-	-	-	-	-	-	415	429	-	340	363	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	876	-	-	765	-	-	84	104	344	84	104	423
Mov Cap-2 Maneuver	-	-	-	-	-	-	84	104	-	84	104	-
Stage 1	-	-	-	-	-	-	340	363	-	415	429	-
Stage 2	-	-	-	-	-	-	415	429	-	340	363	-

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

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	876	-	-	765	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	0	-	-	0	-	-	0
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	-

Approach

Approach Direction	EB
Median Present?	No
Approach Delay(s)	347.5
Level of Service	F

Crosswalk

Length (ft)	32
Lanes Crossed	2
Veh Vol Crossed	1484
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	12.14
Prob of Delayed X-ing	0.99
Prob of Blocked Lane	0.92
Delay for adq Gap	349.81
Avg Ped Delay (s)	347.47

Approach

Approach Direction	WB
Median Present?	No
Approach Delay(s)	392.4
Level of Service	F

Crosswalk

Length (ft)	33
Lanes Crossed	2
Veh Vol Crossed	1484
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	12.43
Prob of Delayed X-ing	0.99
Prob of Blocked Lane	0.92
Delay for adq Gap	394.79
Avg Ped Delay (s)	392.44

Intersection

Int Delay, s/veh 1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕	↕		↕	
Traffic Vol, veh/h	0	767	47	101	660	1	9	1	55	0	1	1
Future Vol, veh/h	0	767	47	101	660	1	9	1	55	0	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	110	-	-	-	-	25	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	807	49	106	695	1	9	1	58	0	1	1

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	696	0	0	856
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.12	-	-	4.12
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.218	-	-	2.218
Pot Cap-1 Maneuver	900	-	-	784
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	900	-	-	784
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.4	25.7	34.3
HCM LOS			D	D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	61	369	900	-	-	784	-	-	125
HCM Lane V/C Ratio	0.173	0.157	-	-	-	0.136	-	-	0.017
HCM Control Delay (s)	75.9	16.6	0	-	-	10.3	-	-	34.3
HCM Lane LOS	F	C	A	-	-	B	-	-	D
HCM 95th %tile Q(veh)	0.6	0.6	0	-	-	0.5	-	-	0.1

Approach

Approach Direction	EB
Median Present?	Yes
Approach Delay(s)	19.0
Level of Service	C

Crosswalk

Length (ft)	12	19
Lanes Crossed	1	1
Veh Vol Crossed	767	660
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	6.43	8.43
Prob of Delayed X-ing	0.75	0.79
Prob of Blocked Lane	0.75	0.79
Delay for adq Gap	9.84	14.86
Avg Ped Delay (s)	7.34	11.69

Approach

Approach Direction	WB
Median Present?	No
Approach Delay(s)	11622.9
Level of Service	F

Crosswalk

Length (ft)	64
Lanes Crossed	2
Veh Vol Crossed	1427
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	21.29
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.99
Delay for adq Gap	11625.44
Avg Ped Delay (s)	11622.92



Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	851	34	801	20	6
v/c Ratio	0.31	0.21	0.50	0.09	0.03
Control Delay	4.9	22.1	4.5	19.2	13.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	4.9	22.1	4.5	19.2	13.3
Queue Length 50th (ft)	0	6	0	3	0
Queue Length 95th (ft)	110	29	185	20	8
Internal Link Dist (ft)	357		533	330	
Turn Bay Length (ft)		210			120
Base Capacity (vph)	2690	163	1550	217	199
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.32	0.21	0.52	0.09	0.03
Intersection Summary					

600 Tank Farm Road
5: MindBody & Tank Farm

Existing AM
HCM 6th Signalized Intersection Summary



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↵	↑	↵	↵
Traffic Volume (veh/h)	745	64	32	761	19	6
Future Volume (veh/h)	745	64	32	761	19	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.98	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	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	784	67	34	801	20	5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1605	137	43	1209	44	39
Arrive On Green	0.49	0.49	0.02	0.65	0.02	0.02
Sat Flow, veh/h	3399	282	1781	1870	1781	1585
Grp Volume(v), veh/h	421	430	34	801	20	5
Grp Sat Flow(s),veh/h/ln	1777	1811	1781	1870	1781	1585
Q Serve(g_s), s	5.8	5.8	0.7	9.7	0.4	0.1
Cycle Q Clear(g_c), s	5.8	5.8	0.7	9.7	0.4	0.1
Prop In Lane		0.16	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	863	880	43	1209	44	39
V/C Ratio(X)	0.49	0.49	0.80	0.66	0.46	0.13
Avail Cap(c_a), veh/h	1023	1043	146	1487	195	174
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	6.3	6.3	17.7	4.0	17.6	17.4
Incr Delay (d2), s/veh	2.0	1.9	11.7	2.9	2.8	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	1.5	0.4	1.3	0.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.3	8.3	29.4	6.9	20.3	18.0
LnGrp LOS	A	A	C	A	C	B
Approach Vol, veh/h	851			835	25	
Approach Delay, s/veh	8.3			7.8	19.8	
Approach LOS	A			A	B	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	5.9	24.7			30.6	5.9
Change Period (Y+Rc), s	5.0	7.0			7.0	5.0
Max Green Setting (Gmax), s	3.0	21.0			29.0	4.0
Max Q Clear Time (g_c+I1), s	2.7	7.8			11.7	2.4
Green Ext Time (p_c), s	0.0	9.1			11.9	0.0
Intersection Summary						
HCM 6th Ctrl Delay			8.2			
HCM 6th LOS			A			

Approach	EB	WB	NB
Crosswalk Length (ft)	59.2	60.1	36.2
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	3
Number of Right-Turn Islands	0	0	0
Type of Control	None	None	None
Corresponding Signal Phase	8	8	4
Effective Walk Time (s)	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	1
85th percentile speed (mph)	40	40	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-
Pedestrian Delay (s/p)	22.5	22.5	22.5
Pedestrian Compliance Code	Fair	Fair	Fair
Pedestrian Crosswalk Score	2.65	2.64	1.97
Pedestrian Crosswalk LOS	C	C	B

Approach	EB	WB	NB
Bicycle Flow Rate (bike/h)	0	0	0
Total Flow Rate (veh/h)	851	835	26
Effct. Green for Bike (s)	27.5	29.9	4.3
Cross Street Width (ft)	36.2	59.2	60.1
Through Lanes Number	2	1	1
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	5.0	5.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0
Curb Is Present?	No	No	No
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	1222	1329	191
Bicycle Delay (s/bike)	3.4	2.5	18.4
Bicycle Compliance	Good	Good	Fair
Bicycle LOS Score	1.74	2.77	2.52
Bicycle LOS	B	C	C

























Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	10	6	107	76	57	910	215	52	1107	58
v/c Ratio	0.04	0.02	0.37	0.22	0.67	0.52	0.26	0.61	0.64	0.07
Control Delay	33.6	0.0	37.1	3.7	80.6	21.7	6.2	74.6	23.4	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.6	0.0	37.1	3.7	80.6	21.7	6.2	74.6	23.4	1.1
Queue Length 50th (ft)	4	0	41	0	24	114	4	22	150	0
Queue Length 95th (ft)	21	0	124	14	#143	#490	74	#129	#674	5
Internal Link Dist (ft)	288		473			1028			1931	
Turn Bay Length (ft)		100		180	150			150		430
Base Capacity (vph)	752	728	692	675	85	1741	838	85	1741	800
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.01	0.15	0.11	0.67	0.52	0.26	0.61	0.64	0.07

Intersection Summary

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

600 Tank Farm Road
6: Broad & Industrial

Existing AM
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	0	5	86	9	68	51	810	191	46	985	52
Future Volume (veh/h)	9	0	5	86	9	68	51	810	191	46	985	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	10	0	6	97	10	47	57	910	173	52	1107	48
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	64	0	57	170	18	166	72	1788	773	66	1776	770
Arrive On Green	0.04	0.00	0.04	0.10	0.10	0.10	0.04	0.50	0.50	0.04	0.50	0.50
Sat Flow, veh/h	1781	0	1576	1622	167	1581	1781	3554	1537	1781	3554	1540
Grp Volume(v), veh/h	10	0	6	107	0	47	57	910	173	52	1107	48
Grp Sat Flow(s),veh/h/ln	1781	0	1576	1789	0	1581	1781	1777	1537	1781	1777	1540
Q Serve(g_s), s	0.4	0.0	0.2	3.8	0.0	1.8	2.1	11.5	4.3	2.0	15.3	1.1
Cycle Q Clear(g_c), s	0.4	0.0	0.2	3.8	0.0	1.8	2.1	11.5	4.3	2.0	15.3	1.1
Prop In Lane	1.00		1.00	0.91		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	64	0	57	188	0	166	72	1788	773	66	1776	770
V/C Ratio(X)	0.16	0.00	0.11	0.57	0.00	0.28	0.79	0.51	0.22	0.79	0.62	0.06
Avail Cap(c_a), veh/h	925	0	818	849	0	750	106	1977	855	106	1977	857
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.5	0.0	31.4	28.7	0.0	27.8	32.1	11.2	9.4	32.2	12.3	8.7
Incr Delay (d2), s/veh	5.1	0.0	3.7	5.0	0.0	1.7	27.2	1.0	0.7	25.1	1.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.1	1.8	0.0	0.8	1.4	3.8	1.3	1.2	5.1	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.5	0.0	35.1	33.7	0.0	29.6	59.2	12.2	10.1	57.3	13.9	8.9
LnGrp LOS	D	A	D	C	A	C	E	B	B	E	B	A
Approach Vol, veh/h		16			154			1140			1207	
Approach Delay, s/veh		36.0			32.4			14.2			15.6	
Approach LOS		D			C			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.5	40.4		7.4	7.7	40.2		12.1				
Change Period (Y+Rc), s	5.0	6.5		5.0	5.0	6.5		5.0				
Max Green Setting (Gmax), s	4.0	37.5		35.0	4.0	37.5		32.0				
Max Q Clear Time (g_c+I1), s	4.0	13.5		2.4	4.1	17.3		5.8				
Green Ext Time (p_c), s	0.0	15.7		0.1	0.0	16.4		1.4				
Intersection Summary												
HCM 6th Ctrl Delay			16.1									
HCM 6th LOS			B									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	36.0	36.1	61.3	62.1
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	6	6
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	26	37	9
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	57.2	57.2	57.2	57.2
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.01	2.14	3.11	3.02
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	16	183	1182	1217
Effct. Green for Bike (s)	13.6	14.1	42.8	42.8
Cross Street Width (ft)	73.1	73.9	37.5	37.7
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	5.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	209	217	658	658
Bicycle Delay (s/bike)	52.1	51.7	29.2	29.2
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	2.70	2.99	2.04	2.07
Bicycle LOS	C	C	B	B































Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	232	155	388	234	253	169	220	799	60	664	345
v/c Ratio	0.58	0.20	0.84	0.82	0.52	0.32	0.83	0.74	0.59	0.73	0.43
Control Delay	44.6	27.9	35.3	62.8	32.3	7.0	68.5	33.0	69.8	35.5	3.6
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	44.6	27.9	35.3	62.8	32.3	7.0	68.5	33.0	69.8	35.5	3.6
Queue Length 50th (ft)	61	35	120	123	117	4	60	202	32	168	0
Queue Length 95th (ft)	122	66	246	#341	215	52	#169	338	#120	282	50
Internal Link Dist (ft)		533			770			1992		1028	
Turn Bay Length (ft)	265		85	150			275		250		300
Base Capacity (vph)	537	1480	742	285	788	761	266	1359	101	1311	859
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.10	0.52	0.82	0.32	0.22	0.83	0.59	0.59	0.51	0.40

Intersection Summary

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

600 Tank Farm Road
7: Broad & Tank Farm

Existing AM
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 					 	 			 	
Traffic Volume (veh/h)	223	149	372	225	243	162	211	652	115	58	637	331
Future Volume (veh/h)	223	149	372	225	243	162	211	652	115	58	637	331
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	232	155	309	234	253	126	220	679	102	60	664	284
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	319	852	376	271	561	475	270	856	128	77	857	516
Arrive On Green	0.09	0.24	0.24	0.15	0.30	0.30	0.08	0.28	0.28	0.04	0.24	0.24
Sat Flow, veh/h	3456	3554	1569	1781	1870	1585	3456	3097	465	1781	3554	1534
Grp Volume(v), veh/h	232	155	309	234	253	126	220	389	392	60	664	284
Grp Sat Flow(s),veh/h/ln	1728	1777	1569	1781	1870	1585	1728	1777	1785	1781	1777	1534
Q Serve(g_s), s	5.4	2.9	15.5	10.7	9.1	5.0	5.2	16.9	16.9	2.8	14.5	12.6
Cycle Q Clear(g_c), s	5.4	2.9	15.5	10.7	9.1	5.0	5.2	16.9	16.9	2.8	14.5	12.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.26	1.00		1.00
Lane Grp Cap(c), veh/h	319	852	376	271	561	475	270	491	493	77	857	516
V/C Ratio(X)	0.73	0.18	0.82	0.86	0.45	0.27	0.81	0.79	0.79	0.78	0.77	0.55
Avail Cap(c_a), veh/h	544	1496	660	289	796	675	270	699	702	103	1325	718
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.7	25.1	29.9	34.4	23.6	22.2	37.7	27.9	27.9	39.4	29.4	22.7
Incr Delay (d2), s/veh	1.2	0.0	1.7	20.5	0.2	0.1	16.2	2.5	2.6	16.9	0.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	1.2	5.6	5.9	3.8	1.8	2.7	6.9	6.9	1.5	5.8	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.9	25.2	31.6	54.9	23.8	22.3	53.9	30.4	30.5	56.3	30.0	23.0
LnGrp LOS	D	C	C	D	C	C	D	C	C	E	C	C
Approach Vol, veh/h		696			613			1001			1008	
Approach Delay, s/veh		32.3			35.3			35.6			29.6	
Approach LOS		C			D			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.1	29.5	18.2	26.5	12.0	26.6	13.2	31.4				
Change Period (Y+Rc), s	5.5	6.5	5.5	6.5	5.5	6.5	5.5	6.5				
Max Green Setting (Gmax), s	4.8	32.7	13.5	35.0	6.5	31.0	13.1	35.4				
Max Q Clear Time (g_c+I1), s	4.8	18.9	12.7	17.5	7.2	16.5	7.4	11.1				
Green Ext Time (p_c), s	0.0	2.6	0.0	1.0	0.0	3.2	0.3	0.9				
Intersection Summary												
HCM 6th Ctrl Delay			33.0									
HCM 6th LOS			C									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	73.8	71.3	72.3	84.2
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	6	5	6	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	76	41	17	59
85th percentile speed (mph)	40	40	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	47.3	47.3	47.3	47.3
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.92	2.63	3.05	3.14
Pedestrian Crosswalk LOS	C	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	775	656	1019	1069
Effct. Green for Bike (s)	18.9	22.6	26.6	22.1
Cross Street Width (ft)	72.3	96.1	71.6	73.8
Through Lanes Number	2	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	5.0	5.0	5.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	344	411	484	402
Bicycle Delay (s/bike)	37.7	34.7	31.6	35.1
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	2.23	3.04	2.42	2.50
Bicycle LOS	B	C	B	B

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	40	9	58	1147	716	213
Future Vol, veh/h	40	9	58	1147	716	213
Conflicting Peds, #/hr	0	0	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	75	200	-	-	-
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	10	62	1220	762	227

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1611	496	990	0	-	0
Stage 1	877	-	-	-	-	-
Stage 2	734	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	95	519	694	-	-	-
Stage 1	367	-	-	-	-	-
Stage 2	436	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	86	519	693	-	-	-
Mov Cap-2 Maneuver	264	-	-	-	-	-
Stage 1	334	-	-	-	-	-
Stage 2	436	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	19.5	0.5	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	693	-	264	519	-	-
HCM Lane V/C Ratio	0.089	-	0.161	0.018	-	-
HCM Control Delay (s)	10.7	-	21.2	12.1	-	-
HCM Lane LOS	B	-	C	B	-	-
HCM 95th %tile Q(veh)	0.3	-	0.6	0.1	-	-

Approach

Approach Direction	NB
Median Present?	No
Approach Delay(s)	931054.7
Level of Service	F

Crosswalk

Length (ft)	78
Lanes Crossed	4
Veh Vol Crossed	1863
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	25.29
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.96
Delay for adq Gap	931056.63
Avg Ped Delay (s)	931054.69

Approach

Approach Direction	SB
Median Present?	No
Approach Delay(s)	1251426.5
Level of Service	F

Crosswalk

Length (ft)	80
Lanes Crossed	4
Veh Vol Crossed	1863
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	25.86
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.96
Delay for adq Gap	1251428.50
Avg Ped Delay (s)	1251426.50

























Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	59	4	7	36	51	1255	42	719
v/c Ratio	0.33	0.01	0.04	0.13	0.32	0.49	0.30	0.29
Control Delay	36.7	0.0	31.0	0.9	41.2	9.0	42.3	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.7	0.0	31.0	0.9	41.2	9.0	42.3	7.3
Queue Length 50th (ft)	28	0	3	0	25	194	21	91
Queue Length 95th (ft)	64	0	15	0	61	288	54	139
Internal Link Dist (ft)	310		100			324		936
Turn Bay Length (ft)		75		75	200		200	
Base Capacity (vph)	517	663	513	663	163	2561	140	2503
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.01	0.01	0.05	0.31	0.49	0.30	0.29

Intersection Summary

600 Tank Farm Road
9: Broad & Aero

Existing AM
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	1	4	6	0	33	47	1139	16	39	596	65
Future Volume (veh/h)	53	1	4	6	0	33	47	1139	16	39	596	65
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		0.98	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	58	1	4	7	0	36	51	1238	17	42	648	57
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	201	2	104	217	0	104	66	2338	32	58	2135	188
Arrive On Green	0.07	0.07	0.07	0.07	0.00	0.07	0.04	0.65	0.65	0.03	0.65	0.65
Sat Flow, veh/h	1419	24	1585	1636	0	1585	1781	3588	49	1781	3298	290
Grp Volume(v), veh/h	59	0	4	7	0	36	51	613	642	42	349	356
Grp Sat Flow(s),veh/h/ln	1444	0	1585	1636	0	1585	1781	1777	1860	1781	1777	1811
Q Serve(g_s), s	2.4	0.0	0.2	0.0	0.0	1.4	1.9	12.1	12.1	1.5	5.7	5.7
Cycle Q Clear(g_c), s	2.6	0.0	0.2	0.2	0.0	1.4	1.9	12.1	12.1	1.5	5.7	5.7
Prop In Lane	0.98		1.00	1.00		1.00	1.00		0.03	1.00		0.16
Lane Grp Cap(c), veh/h	203	0	104	217	0	104	66	1158	1212	58	1150	1172
V/C Ratio(X)	0.29	0.00	0.04	0.03	0.00	0.35	0.78	0.53	0.53	0.72	0.30	0.30
Avail Cap(c_a), veh/h	736	0	697	747	0	697	189	1307	1368	162	1280	1305
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.0	0.0	28.9	28.9	0.0	29.5	31.5	6.1	6.1	31.6	5.1	5.1
Incr Delay (d2), s/veh	1.5	0.0	0.3	0.1	0.0	3.7	23.8	1.7	1.7	21.4	0.7	0.7
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	1.0	0.0	0.1	0.1	0.0	0.6	1.2	3.2	3.3	1.0	1.5	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.4	0.0	29.1	29.0	0.0	33.1	55.3	7.8	7.8	53.0	5.8	5.8
LnGrp LOS	C	A	C	C	A	C	E	A	A	D	A	A
Approach Vol, veh/h		63			43			1306			747	
Approach Delay, s/veh		31.3			32.4			9.7			8.4	
Approach LOS		C			C			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.1	49.5		9.3	7.4	49.2		9.3				
Change Period (Y+Rc), s	5.0	6.5		5.0	5.0	6.5		5.0				
Max Green Setting (Gmax), s	6.0	48.5		29.0	7.0	47.5		29.0				
Max Q Clear Time (g_c+I1), s	3.5	14.1		4.6	3.9	7.7		3.4				
Green Ext Time (p_c), s	0.0	28.9		0.5	0.0	17.5		0.2				

Intersection Summary

HCM 6th Ctrl Delay	10.3
HCM 6th LOS	B

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	34.0	34.2	57.2	59.2
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	5	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	50.0	50.0	50.0	50.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.01	1.99	2.89	2.93
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	63	43	1306	761
Effct. Green for Bike (s)	10.4	10.0	56.1	55.6
Cross Street Width (ft)	58.1	60.4	34.2	34.1
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	11.0	11.0	11.0	11.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	208	200	1122	1112
Bicycle Delay (s/bike)	40.1	40.5	9.6	9.9
Bicycle Compliance	Poor	Poor	Good	Good
Bicycle LOS Score	2.77	2.77	3.37	2.92
Bicycle LOS	C	C	C	C

Intersection

Int Delay, s/veh 0.5

Movement WBL WBR NBT NBR SBL SBT

Lane Configurations	↘↗		↑	↗↘	↘↗	↑
Traffic Vol, veh/h	3	17	990	21	45	498
Future Vol, veh/h	3	17	990	21	45	498
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	230	145	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	18	1031	22	47	519

Major/Minor Minor1 Major1 Major2

Conflicting Flow All	1644	1031	0	0	1053	0
Stage 1	1031	-	-	-	-	-
Stage 2	613	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	110	283	-	-	661	-
Stage 1	344	-	-	-	-	-
Stage 2	541	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	102	283	-	-	661	-
Mov Cap-2 Maneuver	284	-	-	-	-	-
Stage 1	344	-	-	-	-	-
Stage 2	503	-	-	-	-	-

Approach WB NB SB

HCM Control Delay, s	18.7	0	0.9
HCM LOS	C		

Minor Lane/Major Mvmt NBT NBRWBLn1 SBL SBT

Capacity (veh/h)	-	-	283	661	-
HCM Lane V/C Ratio	-	-	0.074	0.071	-
HCM Control Delay (s)	-	-	18.7	10.9	-
HCM Lane LOS	-	-	C	B	-
HCM 95th %tile Q(veh)	-	-	0.2	0.2	-

Approach

Approach Direction	NB
Median Present?	No
Approach Delay(s)	6206.7
Level of Service	F

Crosswalk

Length (ft)	56
Lanes Crossed	2
Veh Vol Crossed	1488
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.00
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.98
Delay for adq Gap	6209.14
Avg Ped Delay (s)	6206.73

Approach

Approach Direction	SB
Median Present?	No
Approach Delay(s)	1491.7
Level of Service	F

Crosswalk

Length (ft)	44
Lanes Crossed	2
Veh Vol Crossed	1488
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	15.57
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.96
Delay for adq Gap	1494.14
Avg Ped Delay (s)	1491.75



Lane Group	EBT	EBR	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	61	181	5	230	1267	3	443	44
v/c Ratio	0.40	0.32	0.03	0.71	0.82	0.03	0.39	0.05
Control Delay	61.1	6.3	0.2	56.8	14.4	61.7	14.0	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.1	6.3	0.2	56.8	14.4	61.7	14.0	0.1
Queue Length 50th (ft)	37	0	0	136	361	2	143	0
Queue Length 95th (ft)	104	54	0	293	#1438	14	327	0
Internal Link Dist (ft)	574		239		678		1346	
Turn Bay Length (ft)		135		355		400		400
Base Capacity (vph)	363	760	188	558	1692	90	1398	1176
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.24	0.03	0.41	0.75	0.03	0.32	0.04

Intersection Summary

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

600 Tank Farm Road
11: Edna (SR 227) & Buckley

Existing AM
HCM 6th Signalized Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↔		↔		↔	↔		↔	↔	↔
Traffic Volume (veh/h)	53	5	170	2	0	3	216	1188	3	3	416	41
Future Volume (veh/h)	53	5	170	2	0	3	216	1188	3	3	416	41
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		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	56	5	141	2	0	2	230	1264	3	3	443	44
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	161	14	392	4	0	4	265	1298	3	7	1035	853
Arrive On Green	0.10	0.10	0.10	0.01	0.00	0.01	0.15	0.70	0.70	0.00	0.55	0.55
Sat Flow, veh/h	1642	147	1585	839	0	839	1781	1865	4	1781	1870	1541
Grp Volume(v), veh/h	61	0	141	4	0	0	230	0	1267	3	443	44
Grp Sat Flow(s),veh/h/ln	1788	0	1585	1677	0	0	1781	0	1869	1781	1870	1541
Q Serve(g_s), s	3.0	0.0	6.9	0.2	0.0	0.0	11.8	0.0	59.6	0.2	12.9	1.2
Cycle Q Clear(g_c), s	3.0	0.0	6.9	0.2	0.0	0.0	11.8	0.0	59.6	0.2	12.9	1.2
Prop In Lane	0.92		1.00	0.50		0.50	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	176	0	392	9	0	0	265	0	1301	7	1035	853
V/C Ratio(X)	0.35	0.00	0.36	0.45	0.00	0.00	0.87	0.00	0.97	0.42	0.43	0.05
Avail Cap(c_a), veh/h	384	0	576	90	0	0	591	0	2040	96	1526	1257
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	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.2	0.0	29.0	46.2	0.0	0.0	38.8	0.0	13.4	46.3	12.2	9.6
Incr Delay (d2), s/veh	0.4	0.0	0.2	24.4	0.0	0.0	3.4	0.0	8.9	13.9	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	2.5	0.2	0.0	0.0	5.0	0.0	18.4	0.1	4.4	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.7	0.0	29.2	70.7	0.0	0.0	42.1	0.0	22.2	60.2	12.3	9.6
LnGrp LOS	D	A	C	E	A	A	D	A	C	E	B	A
Approach Vol, veh/h		202			4			1497			490	
Approach Delay, s/veh		32.4			70.7			25.3			12.3	
Approach LOS		C			E			C			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	17.4	58.0		4.5	4.1	71.3		13.4				
Change Period (Y+Rc), s	3.5	6.4		4.0	3.7	6.4		4.2				
Max Green Setting (Gmax), s	30.9	76.0		5.0	5.0	101.7		20.0				
Max Q Clear Time (g_c+I1), s	13.8	14.9		2.2	2.2	61.6		8.9				
Green Ext Time (p_c), s	0.1	0.7		0.0	0.0	3.3		0.4				
Intersection Summary												
HCM 6th Ctrl Delay			23.1									
HCM 6th LOS			C									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	36.5	24.6	36.4	48.7
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	2	3	4
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	2	6	8	4
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	50	30	55	55
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	75.0	75.0	75.0	75.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.25	1.75	3.24	2.97
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	242	5	1497	490
Effct. Green for Bike (s)	8.9	5.4	87.2	63.5
Cross Street Width (ft)	36.4	48.7	24.6	36.5
Through Lanes Number	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	119	72	1163	847
Bicycle Delay (s/bike)	66.4	69.7	13.1	24.9
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	2.52	2.31	4.41	2.93
Bicycle LOS	C	B	D	C



Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	20	22	303	303	341	32	535	445	289	746
v/c Ratio	0.09	0.07	0.68	0.66	0.50	0.30	0.69	0.44	0.77	0.51
Control Delay	36.4	0.5	43.9	42.4	6.9	56.2	40.3	2.5	53.5	24.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.4	0.5	43.9	42.4	6.9	56.2	40.3	2.5	53.5	24.9
Queue Length 50th (ft)	11	0	163	162	0	18	144	1	156	167
Queue Length 95th (ft)	32	0	#394	#383	78	57	257	31	#383	312
Internal Link Dist (ft)	109			1057			1054			1668
Turn Bay Length (ft)					250	140		100	100	
Base Capacity (vph)	512	531	447	465	689	123	956	1018	392	1508
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.04	0.68	0.65	0.49	0.26	0.56	0.44	0.74	0.49

Intersection Summary

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

600 Tank Farm Road
1: Higuera & Tank Farm

Existing PM
HCM 6th Signalized Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗	↖	↖	↗	↖	↕	↗	↖	↕	↗
Traffic Volume (veh/h)	9	9	21	558	11	321	30	503	418	272	683	18
Future Volume (veh/h)	9	9	21	558	11	321	30	503	418	272	683	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.93	1.00		1.00	1.00		0.98	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	10	10	4	603	0	0	32	535	245	289	727	18
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	77	77	123	1043	0		55	841	832	334	1391	34
Arrive On Green	0.08	0.08	0.08	0.29	0.00	0.00	0.03	0.24	0.24	0.19	0.39	0.39
Sat Flow, veh/h	912	912	1472	3563	0	1585	1781	3554	1554	1781	3539	88
Grp Volume(v), veh/h	20	0	4	603	0	0	32	535	245	289	365	380
Grp Sat Flow(s),veh/h/ln	1825	0	1472	1781	0	1585	1781	1777	1554	1781	1777	1849
Q Serve(g_s), s	0.9	0.0	0.2	12.3	0.0	0.0	1.5	11.6	7.5	13.4	13.4	13.4
Cycle Q Clear(g_c), s	0.9	0.0	0.2	12.3	0.0	0.0	1.5	11.6	7.5	13.4	13.4	13.4
Prop In Lane	0.50		1.00	1.00		1.00	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	153	0	123	1043	0		55	841	832	334	698	727
V/C Ratio(X)	0.13	0.00	0.03	0.58	0.00		0.58	0.64	0.29	0.87	0.52	0.52
Avail Cap(c_a), veh/h	577	0	465	1064	0		140	1040	919	428	807	840
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	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.2	0.0	35.9	25.7	0.0	0.0	40.8	29.3	11.2	33.6	19.8	19.8
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.5	0.0	0.0	3.5	1.8	0.4	14.6	1.3	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.1	4.9	0.0	0.0	0.7	4.8	4.3	6.8	5.2	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.4	0.0	36.0	26.2	0.0	0.0	44.3	31.0	11.6	48.2	21.1	21.0
LnGrp LOS	D	A	D	C	A		D	C	B	D	C	C
Approach Vol, veh/h		24			603	A		812			1034	
Approach Delay, s/veh		36.3			26.2			25.7			28.6	
Approach LOS		D			C			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.5	24.7		11.7	6.2	38.1		29.5				
Change Period (Y+Rc), s	3.5	4.5		4.5	3.5	4.5		4.5				
Max Green Setting (Gmax), s	20.5	25.0		27.0	6.7	38.8		25.5				
Max Q Clear Time (g_c+I1), s	15.4	13.6		2.9	3.5	15.4		14.3				
Green Ext Time (p_c), s	0.6	5.6		0.0	0.0	8.4		1.3				

Intersection Summary

HCM 6th Ctrl Delay	27.2
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	50.7	58.5	67.8	54.5
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	6	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	17	190	188	1
85th percentile speed (mph)	25	45	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	49.8	49.8	49.8	49.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.01	3.03	3.31	2.88
Pedestrian Crosswalk LOS	B	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	42	947	1012	1035
Effct. Green for Bike (s)	12.3	26.4	21.2	40.0
Cross Street Width (ft)	67.8	54.5	58.5	50.7
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	10.0	11.0	11.0	11.0
Bicycle Lane Width (ft)	0.0	5.0	5.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	214	459	369	696
Bicycle Delay (s/bike)	45.9	34.1	38.3	24.5
Bicycle Compliance	Poor	Poor	Poor	Fair
Bicycle LOS Score	3.10	3.10	2.43	2.33
Bicycle LOS	C	C	B	B

Intersection												
Int Delay, s/veh	4.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕			↕	↗		↕	↗
Traffic Vol, veh/h	64	615	28	131	1017	23	12	2	168	12	2	66
Future Vol, veh/h	64	615	28	131	1017	23	12	2	168	12	2	66
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	225	-	-	160	-	-	-	-	25	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	67	641	29	136	1059	24	13	2	175	13	2	69

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1084	0	0	670	0	0	1593	2146	335	1800	2148	543
Stage 1	-	-	-	-	-	-	790	790	-	1344	1344	-
Stage 2	-	-	-	-	-	-	803	1356	-	456	804	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	639	-	-	916	-	-	72	48	661	50	48	484
Stage 1	-	-	-	-	-	-	350	400	-	160	219	-
Stage 2	-	-	-	-	-	-	343	216	-	554	394	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	638	-	-	916	-	-	48	37	661	29	37	484
Mov Cap-2 Maneuver	-	-	-	-	-	-	48	37	-	29	37	-
Stage 1	-	-	-	-	-	-	313	358	-	143	186	-
Stage 2	-	-	-	-	-	-	248	184	-	362	353	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1			1.1			20.4			47.8		
HCM LOS							C			E		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	46	661	638	-	-	916	-	-	30	484
HCM Lane V/C Ratio	0.317	0.265	0.104	-	-	0.149	-	-	0.486	0.142
HCM Control Delay (s)	116.1	12.4	11.3	-	-	9.6	-	-	208.4	13.7
HCM Lane LOS	F	B	B	-	-	A	-	-	F	B
HCM 95th %tile Q(veh)	1.1	1.1	0.3	-	-	0.5	-	-	1.6	0.5

Approach

Approach Direction	EB
Median Present?	No
Approach Delay(s)	44318.5
Level of Service	F

Crosswalk

Length (ft)	66
Lanes Crossed	4
Veh Vol Crossed	1632
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	21.86
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.92
Delay for adq Gap	44320.68
Avg Ped Delay (s)	44318.48

Approach

Approach Direction	WB
Median Present?	No
Approach Delay(s)	65374.6
Level of Service	F

Crosswalk

Length (ft)	69
Lanes Crossed	4
Veh Vol Crossed	1632
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	22.71
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.92
Delay for adq Gap	65376.83
Avg Ped Delay (s)	65374.62

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	853	0	0	1055	0	0	0	0	0	0	0
Future Vol, veh/h	0	853	0	0	1055	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	927	0	0	1147	0	0	0	0	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1147	0	0	927	0	0	2074	2074	927	2074	2074	1147
Stage 1	-	-	-	-	-	-	927	927	-	1147	1147	-
Stage 2	-	-	-	-	-	-	1147	1147	-	927	927	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	609	-	-	737	-	-	40	54	325	40	54	242
Stage 1	-	-	-	-	-	-	322	347	-	242	274	-
Stage 2	-	-	-	-	-	-	242	274	-	322	347	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	609	-	-	737	-	-	40	54	325	40	54	242
Mov Cap-2 Maneuver	-	-	-	-	-	-	40	54	-	40	54	-
Stage 1	-	-	-	-	-	-	322	347	-	242	274	-
Stage 2	-	-	-	-	-	-	242	274	-	322	347	-

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

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	609	-	-	737	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	0	-	-	0	-	-	0
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	-

Approach

Approach Direction	EB
Median Present?	No
Approach Delay(s)	1162.8
Level of Service	F

Crosswalk

Length (ft)	32
Lanes Crossed	2
Veh Vol Crossed	1908
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	12.14
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.96
Delay for adq Gap	1164.68
Avg Ped Delay (s)	1162.82

Approach

Approach Direction	WB
Median Present?	No
Approach Delay(s)	1354.9
Level of Service	F

Crosswalk

Length (ft)	33
Lanes Crossed	2
Veh Vol Crossed	1908
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	12.43
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.96
Delay for adq Gap	1356.81
Avg Ped Delay (s)	1354.94

Intersection

Int Delay, s/veh 13.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕	↕		↕	
Traffic Vol, veh/h	0	829	24	66	1015	1	40	1	159	0	1	0
Future Vol, veh/h	0	829	24	66	1015	1	40	1	159	0	1	0
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	110	-	-	-	-	25	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	921	27	73	1128	1	44	1	177	0	1	0

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	1130	0	0	948
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.12	-	-	4.12
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.218	-	-	2.218
Pot Cap-1 Maneuver	618	-	-	724
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	617	-	-	724
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.6	142.1	100
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	29	322	617	-	-	724	-	-	39
HCM Lane V/C Ratio	1.571	0.549	-	-	-	0.101	-	-	0.028
HCM Control Delay (s)	\$ 580.5	29	0	-	-	10.5	-	-	100
HCM Lane LOS	F	D	A	-	-	B	-	-	F
HCM 95th %tile Q(veh)	5.3	3.1	0	-	-	0.3	-	-	0.1

Notes

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

Approach

Approach Direction	EB
Median Present?	Yes
Approach Delay(s)	34.5
Level of Service	E

Crosswalk

Length (ft)	12	19
Lanes Crossed	1	1
Veh Vol Crossed	829	1015
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	6.43	8.43
Prob of Delayed X-ing	0.77	0.91
Prob of Blocked Lane	0.77	0.91
Delay for adq Gap	10.76	28.89
Avg Ped Delay (s)	8.31	26.21

Approach

Approach Direction	WB
Median Present?	No
Approach Delay(s)	106063.6
Level of Service	F

Crosswalk

Length (ft)	64
Lanes Crossed	2
Veh Vol Crossed	1844
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	21.29
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	1.00
Delay for adq Gap	106065.51
Avg Ped Delay (s)	106063.55



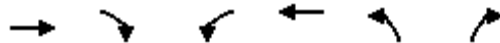
Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	1169	7	1094	155	38
v/c Ratio	0.51	0.08	0.87	0.75	0.17
Control Delay	6.8	29.0	17.3	51.1	11.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	6.8	29.0	17.4	51.1	11.5
Queue Length 50th (ft)	83	2	240	55	0
Queue Length 95th (ft)	180	13	#542	#135	22
Internal Link Dist (ft)	357		533	330	
Turn Bay Length (ft)		210			120
Base Capacity (vph)	2299	91	1313	212	224
Starvation Cap Reductn	0	0	4	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.51	0.08	0.84	0.73	0.17

Intersection Summary

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

600 Tank Farm Road
5: MindBody & Tank Farm

Existing PM
HCM 6th Signalized Intersection Summary



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↵	↑	↵	↵
Traffic Volume (veh/h)	1019	10	6	963	136	33
Future Volume (veh/h)	1019	10	6	963	136	33
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.98	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	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1158	11	7	1094	155	23
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2128	20	10	1275	200	178
Arrive On Green	0.59	0.59	0.01	0.68	0.11	0.11
Sat Flow, veh/h	3699	34	1781	1870	1781	1585
Grp Volume(v), veh/h	571	598	7	1094	155	23
Grp Sat Flow(s),veh/h/ln	1777	1863	1781	1870	1781	1585
Q Serve(g_s), s	11.3	11.3	0.2	26.1	4.9	0.8
Cycle Q Clear(g_c), s	11.3	11.3	0.2	26.1	4.9	0.8
Prop In Lane		0.02	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1048	1099	10	1275	200	178
V/C Ratio(X)	0.54	0.54	0.71	0.86	0.77	0.13
Avail Cap(c_a), veh/h	1048	1099	92	1318	214	191
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	7.2	7.2	28.9	7.1	25.1	23.3
Incr Delay (d2), s/veh	2.0	1.9	29.6	7.6	13.4	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	3.3	3.5	0.2	7.5	2.7	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.2	9.1	58.5	14.7	38.5	23.4
LnGrp LOS	A	A	E	B	D	C
Approach Vol, veh/h	1169			1101	178	
Approach Delay, s/veh	9.2			15.0	36.6	
Approach LOS	A			B	D	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	5.3	41.3			46.7	11.5
Change Period (Y+Rc), s	5.0	7.0			7.0	5.0
Max Green Setting (Gmax), s	3.0	33.0			41.0	7.0
Max Q Clear Time (g_c+I1), s	2.2	13.3			28.1	6.9
Green Ext Time (p_c), s	0.0	15.9			11.5	0.0
Intersection Summary						
HCM 6th Ctrl Delay			13.8			
HCM 6th LOS			B			

Approach	EB	WB	NB
Crosswalk Length (ft)	59.2	60.1	36.2
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	3
Number of Right-Turn Islands	0	0	0
Type of Control	None	None	None
Corresponding Signal Phase	8	8	4
Effective Walk Time (s)	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	13
85th percentile speed (mph)	40	40	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-
Pedestrian Delay (s/p)	30.0	30.0	30.0
Pedestrian Compliance Code	Fair	Fair	Fair
Pedestrian Crosswalk Score	2.98	2.87	2.02
Pedestrian Crosswalk LOS	C	C	B

Approach	EB	WB	NB
Bicycle Flow Rate (bike/h)	0	0	0
Total Flow Rate (veh/h)	1169	1101	193
Effct. Green for Bike (s)	38.0	39.5	6.8
Cross Street Width (ft)	36.2	59.2	60.1
Through Lanes Number	2	1	1
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	5.0	5.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0
Curb Is Present?	No	No	No
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	1267	1317	227
Bicycle Delay (s/bike)	4.0	3.5	23.6
Bicycle Compliance	Good	Good	Fair
Bicycle LOS Score	2.01	3.21	2.80
Bicycle LOS	B	C	C

























Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	95	47	205	237	96	1128	202	143	1148	105
v/c Ratio	0.31	0.13	0.57	0.47	1.02	0.90	0.33	0.95	0.84	0.16
Control Delay	39.9	0.7	43.8	8.1	150.5	43.2	12.4	111.9	37.0	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.9	0.7	43.8	8.1	150.5	43.2	12.4	111.9	37.0	6.8
Queue Length 50th (ft)	53	0	115	0	~64	340	25	88	331	0
Queue Length 95th (ft)	109	0	227	65	#226	#756	113	#293	#737	45
Internal Link Dist (ft)	288		473			1028			1931	
Turn Bay Length (ft)		100		180	150			150		430
Base Capacity (vph)	666	652	605	687	94	1260	616	150	1373	663
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.07	0.34	0.34	1.02	0.90	0.33	0.95	0.84	0.16

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

600 Tank Farm Road
6: Broad & Industrial

Existing PM
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	19	44	178	13	220	89	1049	188	133	1068	98
Future Volume (veh/h)	70	19	44	178	13	220	89	1049	188	133	1068	98
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		0.96	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	75	20	39	191	14	154	96	1128	149	143	1148	76
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	139	37	155	287	21	272	104	1364	582	167	1489	650
Arrive On Green	0.10	0.10	0.10	0.17	0.17	0.17	0.06	0.38	0.38	0.09	0.42	0.42
Sat Flow, veh/h	1421	379	1580	1665	122	1582	1781	3554	1515	1781	3554	1550
Grp Volume(v), veh/h	95	0	39	205	0	154	96	1128	149	143	1148	76
Grp Sat Flow(s),veh/h/ln	1799	0	1580	1787	0	1582	1781	1777	1515	1781	1777	1550
Q Serve(g_s), s	4.3	0.0	1.9	9.1	0.0	7.6	4.6	24.4	5.7	6.7	23.6	2.6
Cycle Q Clear(g_c), s	4.3	0.0	1.9	9.1	0.0	7.6	4.6	24.4	5.7	6.7	23.6	2.6
Prop In Lane	0.79		1.00	0.93		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	176	0	155	308	0	272	104	1364	582	167	1489	650
V/C Ratio(X)	0.54	0.00	0.25	0.67	0.00	0.57	0.92	0.83	0.26	0.86	0.77	0.12
Avail Cap(c_a), veh/h	739	0	649	671	0	594	104	1397	596	167	1522	664
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.6	0.0	35.6	33.0	0.0	32.4	39.9	23.7	17.9	38.1	21.3	15.1
Incr Delay (d2), s/veh	11.3	0.0	3.9	4.6	0.0	3.4	63.3	5.9	1.1	33.6	3.9	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	0.9	4.3	0.0	3.1	3.7	10.2	2.0	4.3	9.5	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.0	0.0	39.4	37.6	0.0	35.8	103.2	29.6	19.0	71.6	25.2	15.5
LnGrp LOS	D	A	D	D	A	D	F	C	B	E	C	B
Approach Vol, veh/h		134			359			1373			1367	
Approach Delay, s/veh		45.5			36.8			33.6			29.5	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.0	39.2		13.3	10.0	42.2		19.7				
Change Period (Y+Rc), s	5.0	6.5		5.0	5.0	6.5		5.0				
Max Green Setting (Gmax), s	8.0	33.5		35.0	5.0	36.5		32.0				
Max Q Clear Time (g_c+I1), s	8.7	26.4		6.3	6.6	25.6		11.1				
Green Ext Time (p_c), s	0.0	6.3		2.1	0.0	9.5		3.3				
Intersection Summary												
HCM 6th Ctrl Delay				32.7								
HCM 6th LOS				C								

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	36.0	36.1	61.3	62.1
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	6	6
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	7	77	49	27
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	57.2	57.2	57.2	57.2
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.09	2.33	3.23	3.20
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	142	442	1426	1396
Effct. Green for Bike (s)	16.9	19.7	34.8	38.0
Cross Street Width (ft)	73.1	73.9	37.5	37.7
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	5.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	260	303	535	585
Bicycle Delay (s/bike)	49.2	46.8	34.9	32.6
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	2.91	3.42	2.24	2.22
Bicycle LOS	C	C	B	B

600 Tank Farm Road
7: Broad & Tank Farm

Existing PM
Queues































Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	526	476	289	198	216	133	392	910	223	748	571
v/c Ratio	0.91	0.68	0.60	0.83	0.70	0.36	0.85	0.88	0.91	0.70	0.59
Control Delay	65.3	43.8	16.0	74.0	53.7	8.9	63.3	45.6	85.2	37.7	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	65.3	43.8	16.0	74.0	53.7	8.9	63.3	45.6	85.2	37.7	12.0
Queue Length 50th (ft)	178	158	43	129	139	0	132	288	148	226	119
Queue Length 95th (ft)	#338	210	123	#300	215	48	#258	#499	#346	357	295
Internal Link Dist (ft)		533			770			1992		1028	
Turn Bay Length (ft)	265		85	150			275		250		300
Base Capacity (vph)	578	1191	664	243	570	577	463	1061	245	1093	968
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.91	0.40	0.44	0.81	0.38	0.23	0.85	0.86	0.91	0.68	0.59

Intersection Summary

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

600 Tank Farm Road
7: Broad & Tank Farm

Existing PM
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 					 	 			 	
Traffic Volume (veh/h)	473	428	260	178	194	120	353	636	183	201	673	514
Future Volume (veh/h)	473	428	260	178	194	120	353	636	183	201	673	514
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	526	476	235	198	216	110	392	707	169	223	748	448
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	592	717	311	231	299	253	460	796	190	255	1034	733
Arrive On Green	0.17	0.20	0.20	0.13	0.16	0.16	0.13	0.28	0.28	0.14	0.29	0.29
Sat Flow, veh/h	3456	3554	1544	1781	1870	1585	3456	2834	677	1781	3554	1585
Grp Volume(v), veh/h	526	476	235	198	216	110	392	443	433	223	748	448
Grp Sat Flow(s),veh/h/ln	1728	1777	1544	1781	1870	1585	1728	1777	1734	1781	1777	1585
Q Serve(g_s), s	14.6	12.1	14.0	10.7	10.7	6.1	10.9	23.4	23.4	12.0	18.5	20.8
Cycle Q Clear(g_c), s	14.6	12.1	14.0	10.7	10.7	6.1	10.9	23.4	23.4	12.0	18.5	20.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.39	1.00		1.00
Lane Grp Cap(c), veh/h	592	717	311	231	299	253	460	499	487	255	1034	733
V/C Ratio(X)	0.89	0.66	0.75	0.86	0.72	0.43	0.85	0.89	0.89	0.88	0.72	0.61
Avail Cap(c_a), veh/h	621	1277	555	262	611	518	498	579	565	264	1172	794
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.7	36.0	36.8	41.8	39.1	37.1	41.5	33.7	33.7	41.1	31.2	19.7
Incr Delay (d2), s/veh	13.7	0.4	1.4	19.9	1.2	0.4	11.8	12.9	13.3	24.7	1.5	0.8
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	7.1	5.1	5.2	5.8	4.9	2.3	5.2	11.2	11.0	6.8	7.7	7.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.4	36.4	38.2	61.7	40.3	37.6	53.3	46.7	47.0	65.8	32.7	20.5
LnGrp LOS	D	D	D	E	D	D	D	D	D	E	C	C
Approach Vol, veh/h		1237			524			1268			1419	
Approach Delay, s/veh		44.0			47.8			48.8			34.1	
Approach LOS		D			D			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	19.5	34.0	18.2	26.3	18.5	35.0	22.3	22.2				
Change Period (Y+Rc), s	5.5	6.5	5.5	6.5	5.5	6.5	5.5	6.5				
Max Green Setting (Gmax), s	14.5	31.9	14.4	35.2	14.1	32.3	17.6	32.0				
Max Q Clear Time (g_c+I1), s	14.0	25.4	12.7	16.0	12.9	22.8	16.6	12.7				
Green Ext Time (p_c), s	0.0	2.0	0.1	1.9	0.2	3.3	0.2	0.7				
Intersection Summary												
HCM 6th Ctrl Delay			42.6									
HCM 6th LOS			D									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	73.8	71.3	72.3	84.2
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	6	5	6	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	49	21	31	111
85th percentile speed (mph)	40	40	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	52.3	52.3	52.3	52.3
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.07	2.72	3.13	3.38
Pedestrian Crosswalk LOS	C	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	1291	547	1302	1542
Effct. Green for Bike (s)	20.9	17.4	31.3	31.8
Cross Street Width (ft)	72.3	96.1	71.6	73.8
Through Lanes Number	2	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	5.0	5.0	5.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	348	290	522	530
Bicycle Delay (s/bike)	40.9	43.9	32.8	32.4
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	2.66	2.86	2.66	2.89
Bicycle LOS	C	C	C	C

Intersection

Int Delay, s/veh 2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↙	↗	↙	↑↑	↑↑	
Traffic Vol, veh/h	102	51	12	785	956	100
Future Vol, veh/h	102	51	12	785	956	100
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	75	200	-	-	-
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	112	56	13	863	1051	110

Major/Minor

	Minor2	Major1	Major2			
Conflicting Flow All	1564	581	1161	0	-	0
Stage 1	1106	-	-	-	-	-
Stage 2	458	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	~ 102	457	597	-	-	-
Stage 1	278	-	-	-	-	-
Stage 2	604	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 100	457	597	-	-	-
Mov Cap-2 Maneuver	245	-	-	-	-	-
Stage 1	272	-	-	-	-	-
Stage 2	604	-	-	-	-	-

Approach

	EB	NB	SB
HCM Control Delay, s	25.7	0.2	0
HCM LOS	D		

Minor Lane/Major Mvmt

	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	597	-	245	457	-	-
HCM Lane V/C Ratio	0.022	-	0.458	0.123	-	-
HCM Control Delay (s)	11.2	-	31.5	14	-	-
HCM Lane LOS	B	-	D	B	-	-
HCM 95th %tile Q(veh)	0.1	-	2.2	0.4	-	-

Notes

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

Approach

Approach Direction	NB
Median Present?	No
Approach Delay(s)	422887.8
Level of Service	F

Crosswalk

Length (ft)	78
Lanes Crossed	4
Veh Vol Crossed	1741
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	25.29
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.95
Delay for adq Gap	422889.88
Avg Ped Delay (s)	422887.81

Approach

Approach Direction	SB
Median Present?	No
Approach Delay(s)	557504.5
Level of Service	F

Crosswalk

Length (ft)	80
Lanes Crossed	4
Veh Vol Crossed	1741
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	25.86
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.96
Delay for adq Gap	557506.56
Avg Ped Delay (s)	557504.50

























Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	172	41	9	22	40	729	4	959
v/c Ratio	0.54	0.09	0.03	0.05	0.26	0.37	0.04	0.56
Control Delay	29.7	0.4	20.2	0.2	38.6	10.6	37.2	15.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.7	0.4	20.2	0.2	38.6	10.6	37.2	15.8
Queue Length 50th (ft)	68	0	3	0	17	71	2	155
Queue Length 95th (ft)	123	0	13	0	52	198	12	291
Internal Link Dist (ft)	310		100			324		936
Turn Bay Length (ft)		75		75	200		200	
Base Capacity (vph)	577	716	615	707	151	1997	100	1733
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.06	0.01	0.03	0.26	0.37	0.04	0.55

Intersection Summary

600 Tank Farm Road
9: Broad & Aero

Existing PM
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	169	0	40	8	1	22	39	712	2	4	870	70
Future Volume (veh/h)	169	0	40	8	1	22	39	712	2	4	870	70
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		0.98	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	172	0	26	8	1	21	40	727	2	4	888	59
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	379	0	277	375	40	277	59	1904	5	8	1671	111
Arrive On Green	0.18	0.00	0.18	0.18	0.18	0.18	0.03	0.52	0.52	0.00	0.49	0.49
Sat Flow, veh/h	1422	0	1582	1444	228	1582	1781	3635	10	1781	3377	224
Grp Volume(v), veh/h	172	0	26	9	0	21	40	355	374	4	467	480
Grp Sat Flow(s),veh/h/ln	1422	0	1582	1672	0	1582	1781	1777	1868	1781	1777	1824
Q Serve(g_s), s	6.1	0.0	0.8	0.0	0.0	0.6	1.2	6.6	6.6	0.1	10.0	10.0
Cycle Q Clear(g_c), s	6.3	0.0	0.8	0.2	0.0	0.6	1.2	6.6	6.6	0.1	10.0	10.0
Prop In Lane	1.00		1.00	0.89		1.00	1.00		0.01	1.00		0.12
Lane Grp Cap(c), veh/h	379	0	277	415	0	277	59	931	979	8	879	903
V/C Ratio(X)	0.45	0.00	0.09	0.02	0.00	0.08	0.68	0.38	0.38	0.52	0.53	0.53
Avail Cap(c_a), veh/h	868	0	825	919	0	825	192	1134	1192	128	1070	1098
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.5	0.0	19.2	19.0	0.0	19.2	26.6	7.9	7.9	27.6	9.6	9.6
Incr Delay (d2), s/veh	1.6	0.0	0.3	0.0	0.0	0.2	17.6	1.2	1.1	61.2	2.3	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.0	0.3	0.1	0.0	0.2	0.8	2.0	2.1	0.2	3.2	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.1	0.0	19.5	19.0	0.0	19.4	44.2	9.1	9.0	88.8	11.9	11.9
LnGrp LOS	C	A	B	B	A	B	D	A	A	F	B	B
Approach Vol, veh/h		198			30			769			951	
Approach Delay, s/veh		22.6			19.3			10.9			12.2	
Approach LOS		C			B			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.2	35.6		14.8	6.8	34.0		14.8				
Change Period (Y+Rc), s	5.0	6.5		5.0	5.0	6.5		5.0				
Max Green Setting (Gmax), s	4.0	35.5		29.0	6.0	33.5		29.0				
Max Q Clear Time (g_c+I1), s	2.1	8.6		8.3	3.2	12.0		2.6				
Green Ext Time (p_c), s	0.0	15.2		1.8	0.0	15.5		0.1				
Intersection Summary												
HCM 6th Ctrl Delay			12.9									
HCM 6th LOS			B									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	34.0	34.2	57.2	59.2
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	5	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	42.5	42.5	42.5	42.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.05	1.96	2.81	2.86
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	213	31	769	963
Effct. Green for Bike (s)	16.5	16.5	39.7	35.2
Cross Street Width (ft)	58.1	60.4	34.2	34.1
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	11.0	11.0	11.0	11.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	388	388	934	828
Bicycle Delay (s/bike)	27.6	27.6	12.1	14.6
Bicycle Compliance	Fair	Fair	Fair	Fair
Bicycle LOS Score	3.01	2.75	2.93	3.09
Bicycle LOS	C	C	C	C

Intersection						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↘↗		↑	↗↘	↘↗	↑
Traffic Vol, veh/h	15	37	553	7	25	962
Future Vol, veh/h	15	37	553	7	25	962
Conflicting Peds, #/hr	0	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	230	145	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	39	582	7	26	1013

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1648	583	0	0	590
Stage 1	583	-	-	-	-
Stage 2	1065	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	109	512	-	-	985
Stage 1	558	-	-	-	-
Stage 2	331	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	106	512	-	-	984
Mov Cap-2 Maneuver	278	-	-	-	-
Stage 1	557	-	-	-	-
Stage 2	322	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.1	0	0.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	412	984
HCM Lane V/C Ratio	-	-	0.133	0.027
HCM Control Delay (s)	-	-	15.1	8.8
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	0.5	0.1

Approach

Approach Direction	NB
Median Present?	No
Approach Delay(s)	7032.6
Level of Service	F

Crosswalk

Length (ft)	56
Lanes Crossed	2
Veh Vol Crossed	1515
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.00
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.98
Delay for adq Gap	7035.00
Avg Ped Delay (s)	7032.63

Approach

Approach Direction	SB
Median Present?	No
Approach Delay(s)	1648.6
Level of Service	F

Crosswalk

Length (ft)	44
Lanes Crossed	2
Veh Vol Crossed	1515
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	15.57
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.96
Delay for adq Gap	1650.93
Avg Ped Delay (s)	1648.57



Lane Group	EBT	EBR	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	37	341	12	66	543	2	997	33
v/c Ratio	0.19	0.73	0.05	0.26	0.35	0.01	0.90	0.03
Control Delay	49.0	28.8	0.3	46.2	5.0	53.5	26.7	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.0	28.8	0.3	46.2	5.0	53.5	26.7	0.1
Queue Length 50th (ft)	16	66	0	28	59	1	344	0
Queue Length 95th (ft)	65	#259	0	100	236	10	794	0
Internal Link Dist (ft)	574		239		678		1346	
Turn Bay Length (ft)		135		355		400		400
Base Capacity (vph)	572	526	247	322	1664	142	1627	1366
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.65	0.05	0.20	0.33	0.01	0.61	0.02

Intersection Summary

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

600 Tank Farm Road
11: Edna (SR 227) & Buckley

Existing PM
HCM 6th Signalized Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗		↔		↖	↗		↖	↗	↖
Traffic Volume (veh/h)	34	2	327	7	0	5	63	518	3	2	957	32
Future Volume (veh/h)	34	2	327	7	0	5	63	518	3	2	957	32
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		0.98	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	35	2	301	7	0	1	66	540	3	2	997	33
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	334	19	395	15	0	2	92	1114	6	5	1034	857
Arrive On Green	0.20	0.20	0.20	0.01	0.00	0.01	0.05	0.60	0.60	0.00	0.55	0.55
Sat Flow, veh/h	1689	97	1585	1535	0	219	1781	1858	10	1781	1870	1551
Grp Volume(v), veh/h	37	0	301	8	0	0	66	0	543	2	997	33
Grp Sat Flow(s),veh/h/ln	1786	0	1585	1754	0	0	1781	0	1868	1781	1870	1551
Q Serve(g_s), s	1.6	0.0	17.0	0.4	0.0	0.0	3.5	0.0	15.8	0.1	49.2	0.9
Cycle Q Clear(g_c), s	1.6	0.0	17.0	0.4	0.0	0.0	3.5	0.0	15.8	0.1	49.2	0.9
Prop In Lane	0.95		1.00	0.87		0.12	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	353	0	395	18	0	0	92	0	1120	5	1034	857
V/C Ratio(X)	0.10	0.00	0.76	0.46	0.00	0.00	0.72	0.00	0.48	0.42	0.96	0.04
Avail Cap(c_a), veh/h	371	0	411	91	0	0	209	0	1681	92	1564	1297
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	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.7	0.0	33.5	47.4	0.0	0.0	45.0	0.0	10.9	48.0	20.6	9.8
Incr Delay (d2), s/veh	0.0	0.0	6.9	13.1	0.0	0.0	3.9	0.0	0.1	19.7	9.7	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	0.7	0.0	6.8	0.3	0.0	0.0	1.6	0.0	5.2	0.1	19.8	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.7	0.0	40.4	60.5	0.0	0.0	48.9	0.0	11.0	67.7	30.4	9.9
LnGrp LOS	C	A	D	E	A	A	D	A	B	E	C	A
Approach Vol, veh/h		338			8			609			1032	
Approach Delay, s/veh		39.5			60.5			15.1			29.8	
Approach LOS		D			E			B			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.5	59.7		5.0	4.0	64.2		23.3				
Change Period (Y+Rc), s	3.5	6.4		4.0	3.7	6.4		4.2				
Max Green Setting (Gmax), s	11.3	80.6		5.0	5.0	86.7		20.0				
Max Q Clear Time (g_c+I1), s	5.5	51.2		2.4	2.1	17.8		19.0				
Green Ext Time (p_c), s	0.0	2.1		0.0	0.0	0.9		0.1				
Intersection Summary												
HCM 6th Ctrl Delay			27.1									
HCM 6th LOS			C									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	36.5	24.6	36.4	48.7
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	2	3	4
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	2	6	8	4
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	50	30	55	55
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	67.5	67.5	67.5	67.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.22	1.75	3.13	2.88
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	378	12	609	1032
Effct. Green for Bike (s)	8.4	6.3	65.9	46.5
Cross Street Width (ft)	36.4	48.7	24.6	36.5
Through Lanes Number	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	124	93	976	689
Bicycle Delay (s/bike)	59.4	61.3	17.7	29.0
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	2.74	2.32	2.94	3.82
Bicycle LOS	C	B	C	D

Existing Plus Project


























Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	44	22	151	154	262	13	401	802	279	301
v/c Ratio	0.24	0.08	0.33	0.32	0.41	0.14	0.57	0.73	0.73	0.19
Control Delay	40.4	0.6	31.6	31.4	6.5	49.8	36.6	6.9	47.5	16.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.4	0.6	31.6	31.4	6.5	49.8	36.6	6.9	47.5	16.9
Queue Length 50th (ft)	23	0	68	69	0	7	104	31	141	46
Queue Length 95th (ft)	57	0	171	173	68	30	190	109	#366	116
Internal Link Dist (ft)	109			1057			1054			1668
Turn Bay Length (ft)					250	140		100	100	
Base Capacity (vph)	536	560	462	480	645	96	1021	1095	412	1668
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.04	0.33	0.32	0.41	0.14	0.39	0.73	0.68	0.18

Intersection Summary

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

600 Tank Farm Road
1: Higuera & Tank Farm

Existing Plus Alternative B AM
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	17	20	275	3	238	12	365	730	254	267	7
Future Volume (veh/h)	23	17	20	275	3	238	12	365	730	254	267	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		1.00	1.00		0.98	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	25	19	20	304	0	0	13	401	606	279	293	8
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	56	43	82	1011	0	0	28	1024	896	322	1602	44
Arrive On Green	0.05	0.05	0.05	0.28	0.00	0.00	0.02	0.29	0.29	0.18	0.45	0.45
Sat Flow, veh/h	1033	785	1517	3563	0	1585	1781	3554	1548	1781	3531	96
Grp Volume(v), veh/h	44	0	20	304	0	0	13	401	606	279	147	154
Grp Sat Flow(s),veh/h/ln	1819	0	1517	1781	0	1585	1781	1777	1548	1781	1777	1850
Q Serve(g_s), s	2.1	0.0	1.1	5.9	0.0	0.0	0.6	8.0	24.3	13.4	4.3	4.4
Cycle Q Clear(g_c), s	2.1	0.0	1.1	5.9	0.0	0.0	0.6	8.0	24.3	13.4	4.3	4.4
Prop In Lane	0.57		1.00	1.00		1.00	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	99	0	82	1011	0	0	28	1024	896	322	806	839
V/C Ratio(X)	0.45	0.00	0.24	0.30	0.00	0.00	0.47	0.39	0.68	0.87	0.18	0.18
Avail Cap(c_a), veh/h	557	0	465	1015	0	0	101	1024	896	414	825	859
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	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.4	0.0	39.9	24.7	0.0	0.0	43.0	25.2	13.3	35.0	14.3	14.3
Incr Delay (d2), s/veh	1.2	0.0	0.6	0.1	0.0	0.0	4.6	0.5	2.7	14.9	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.4	2.3	0.0	0.0	0.3	3.2	13.3	6.8	1.6	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.6	0.0	40.5	24.8	0.0	0.0	47.6	25.7	16.0	49.9	14.6	14.6
LnGrp LOS	D	A	D	C	A	A	D	C	B	D	B	B
Approach Vol, veh/h		64			304	A		1020				580
Approach Delay, s/veh		41.2			24.8			20.2				31.6
Approach LOS		D			C			C				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.5	29.9		9.3	4.9	44.5		29.5				
Change Period (Y+Rc), s	3.5	4.5		4.5	3.5	4.5		4.5				
Max Green Setting (Gmax), s	20.5	25.4		27.0	5.0	40.9		25.1				
Max Q Clear Time (g_c+I1), s	15.4	26.3		4.1	2.6	6.4		7.9				
Green Ext Time (p_c), s	0.6	0.0		0.2	0.0	3.4		0.7				

Intersection Summary

HCM 6th Ctrl Delay	24.9
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	50.7	58.5	67.8	54.5
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	6	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	2	141	178	0
85th percentile speed (mph)	25	45	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	49.8	49.8	49.8	49.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	1.98	2.96	3.17	2.68
Pedestrian Crosswalk LOS	B	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	66	567	1216	580
Effct. Green for Bike (s)	9.4	25.9	18.0	39.9
Cross Street Width (ft)	67.8	54.5	58.5	50.7
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	10.0	11.0	11.0	11.0
Bicycle Lane Width (ft)	0.0	5.0	5.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	163	450	313	694
Bicycle Delay (s/bike)	48.5	34.5	40.9	24.5
Bicycle Compliance	Poor	Poor	Poor	Fair
Bicycle LOS Score	3.13	2.47	2.60	1.96
Bicycle LOS	C	B	C	B

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	58	817	47	115	591	18	6	0	63	5	1	18
Future Vol, veh/h	58	817	47	115	591	18	6	0	63	5	1	18
Conflicting Peds, #/hr	1	0	0	0	0	1	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	225	-	-	160	-	-	-	-	25	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	60	851	49	120	616	19	6	0	66	5	1	19

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	636	0	0	900	0	0	1546	1872	450	1413	1887	320
Stage 1	-	-	-	-	-	-	996	996	-	867	867	-
Stage 2	-	-	-	-	-	-	550	876	-	546	1020	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	943	-	-	751	-	-	78	71	556	98	70	676
Stage 1	-	-	-	-	-	-	262	320	-	314	368	-
Stage 2	-	-	-	-	-	-	487	365	-	490	312	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	942	-	-	751	-	-	62	56	556	72	55	675
Mov Cap-2 Maneuver	-	-	-	-	-	-	62	56	-	72	55	-
Stage 1	-	-	-	-	-	-	245	300	-	294	309	-
Stage 2	-	-	-	-	-	-	396	306	-	405	292	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.6			1.7			17.3			23.7		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	62	556	942	-	-	751	-	-	68	675
HCM Lane V/C Ratio	0.101	0.118	0.064	-	-	0.16	-	-	0.092	0.028
HCM Control Delay (s)	69.5	12.3	9.1	-	-	10.7	-	-	63.2	10.5
HCM Lane LOS	F	B	A	-	-	B	-	-	F	B
HCM 95th %tile Q(veh)	0.3	0.4	0.2	-	-	0.6	-	-	0.3	0.1

Approach

Approach Direction	EB
Median Present?	No
Approach Delay(s)	13167.2
Level of Service	F

Crosswalk

Length (ft)	66
Lanes Crossed	4
Veh Vol Crossed	1408
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	21.86
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.88
Delay for adq Gap	13169.73
Avg Ped Delay (s)	13167.18

Approach

Approach Direction	WB
Median Present?	No
Approach Delay(s)	18420.2
Level of Service	F

Crosswalk

Length (ft)	69
Lanes Crossed	4
Veh Vol Crossed	1408
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	22.71
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.89
Delay for adq Gap	18422.73
Avg Ped Delay (s)	18420.17

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷			↶↷			↶↷			↶↷	
Traffic Vol, veh/h	6	814	0	0	670	20	0	0	0	32	0	10
Future Vol, veh/h	6	814	0	0	670	20	0	0	0	32	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	2	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	885	0	0	728	22	0	0	0	35	0	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	750	0	0	885	0	0	1263	1649	885	1638	1638	375
Stage 1	-	-	-	-	-	-	899	899	-	739	739	-
Stage 2	-	-	-	-	-	-	364	750	-	899	899	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.33	6.53	6.23	7.33	6.53	6.93
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.53	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.53	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.219	-	-	2.219	-	-	3.519	4.019	3.319	3.519	4.019	3.319
Pot Cap-1 Maneuver	857	-	-	763	-	-	136	98	343	73	100	623
Stage 1	-	-	-	-	-	-	333	357	-	376	423	-
Stage 2	-	-	-	-	-	-	628	418	-	333	357	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	857	-	-	763	-	-	133	97	343	73	99	623
Mov Cap-2 Maneuver	-	-	-	-	-	-	133	97	-	244	274	-
Stage 1	-	-	-	-	-	-	330	354	-	373	423	-
Stage 2	-	-	-	-	-	-	617	418	-	330	354	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	0	20
HCM LOS			A	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	857	-	-	763	-	-	285
HCM Lane V/C Ratio	-	0.008	-	-	-	-	-	0.16
HCM Control Delay (s)		0	9.2	-	0	-	-	20
HCM Lane LOS		A	A	-	A	-	-	C
HCM 95th %tile Q(veh)		-	0	-	0	-	-	0.6

Approach

Approach Direction	EB
Median Present?	No
Approach Delay(s)	6093.1
Level of Service	F

Crosswalk

Length (ft)	56
Lanes Crossed	3
Veh Vol Crossed	1484
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.00
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.93
Delay for adq Gap	6095.47
Avg Ped Delay (s)	6093.05

Approach

Approach Direction	WB
Median Present?	No
Approach Delay(s)	5414.0
Level of Service	F

Crosswalk

Length (ft)	55
Lanes Crossed	3
Veh Vol Crossed	1484
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	18.71
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.92
Delay for adq Gap	5416.40
Avg Ped Delay (s)	5413.98

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕	↕		↕	
Traffic Vol, veh/h	0	798	49	101	679	1	10	1	55	0	1	1
Future Vol, veh/h	0	798	49	101	679	1	10	1	55	0	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	110	-	-	-	-	25	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	840	52	106	715	1	11	1	58	0	1	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	716	0	0	892	0	0	1795	1794	866	1824	1820	716
Stage 1	-	-	-	-	-	-	866	866	-	928	928	-
Stage 2	-	-	-	-	-	-	929	928	-	896	892	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	885	-	-	760	-	-	62	80	353	59	78	430
Stage 1	-	-	-	-	-	-	348	370	-	321	347	-
Stage 2	-	-	-	-	-	-	321	347	-	335	360	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	885	-	-	760	-	-	55	69	353	44	67	430
Mov Cap-2 Maneuver	-	-	-	-	-	-	55	69	-	44	67	-
Stage 1	-	-	-	-	-	-	348	370	-	321	299	-
Stage 2	-	-	-	-	-	-	275	299	-	279	360	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.4			28.6			36.6		
HCM LOS							D			E		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	56	353	885	-	-	760	-	-	116
HCM Lane V/C Ratio	0.207	0.164	-	-	-	0.14	-	-	0.018
HCM Control Delay (s)	85.3	17.2	0	-	-	10.5	-	-	36.6
HCM Lane LOS	F	C	A	-	-	B	-	-	E
HCM 95th %tile Q(veh)	0.7	0.6	0	-	-	0.5	-	-	0.1

Approach		
Approach Direction	EB	
Median Present?	Yes	
Approach Delay(s)	19.2	
Level of Service	C	
Crosswalk		
Length (ft)	11	19
Lanes Crossed	1	1
Veh Vol Crossed	798	679
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	6.14	8.43
Prob of Delayed X-ing	0.74	0.80
Prob of Blocked Lane	0.74	0.80
Delay for adq Gap	9.35	15.40
Avg Ped Delay (s)	6.95	12.26

Approach		
Approach Direction	WB	
Median Present?	No	
Approach Delay(s)	15099.3	
Level of Service	F	
Crosswalk		
Length (ft)	64	
Lanes Crossed	2	
Veh Vol Crossed	1477	
Ped Vol Crossed	0	
Yield Rate(%)	0	
Ped Platooning	No	
Critical Headway (s)	21.29	
Prob of Delayed X-ing	1.00	
Prob of Blocked Lane	0.99	
Delay for adq Gap	15101.78	
Avg Ped Delay (s)	15099.35	



Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	884	34	820	21	6
v/c Ratio	0.32	0.21	0.51	0.10	0.03
Control Delay	5.0	22.3	4.6	19.4	13.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	5.0	22.3	4.6	19.4	13.3
Queue Length 50th (ft)	0	6	0	4	0
Queue Length 95th (ft)	115	29	195	20	8
Internal Link Dist (ft)	357		533	330	
Turn Bay Length (ft)		210			120
Base Capacity (vph)	2688	161	1537	214	197
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.33	0.21	0.53	0.10	0.03
Intersection Summary					

600 Tank Farm Road
5: MindBody & Tank Farm

Existing Plus Alternative B AM
HCM 6th Signalized Intersection Summary



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↵	↑	↵	↵
Traffic Volume (veh/h)	775	65	32	779	20	6
Future Volume (veh/h)	775	65	32	779	20	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.98	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	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	816	68	34	820	21	5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1627	136	43	1216	45	40
Arrive On Green	0.49	0.49	0.02	0.65	0.03	0.03
Sat Flow, veh/h	3407	276	1781	1870	1781	1585
Grp Volume(v), veh/h	438	446	34	820	21	5
Grp Sat Flow(s),veh/h/ln	1777	1813	1781	1870	1781	1585
Q Serve(g_s), s	6.1	6.2	0.7	10.1	0.4	0.1
Cycle Q Clear(g_c), s	6.1	6.2	0.7	10.1	0.4	0.1
Prop In Lane		0.15	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	872	890	43	1216	45	40
V/C Ratio(X)	0.50	0.50	0.80	0.67	0.46	0.12
Avail Cap(c_a), veh/h	1009	1030	145	1467	193	171
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	6.4	6.4	18.0	4.0	17.8	17.6
Incr Delay (d2), s/veh	2.1	2.0	11.9	3.0	2.7	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	1.6	0.4	1.4	0.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.4	8.4	29.8	7.0	20.5	18.1
LnGrp LOS	A	A	C	A	C	B
Approach Vol, veh/h	884			854	26	
Approach Delay, s/veh	8.4			7.9	20.1	
Approach LOS	A			A	C	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	5.9	25.1			31.0	5.9
Change Period (Y+Rc), s	5.0	7.0			7.0	5.0
Max Green Setting (Gmax), s	3.0	21.0			29.0	4.0
Max Q Clear Time (g_c+I1), s	2.7	8.2			12.1	2.4
Green Ext Time (p_c), s	0.0	9.2			11.9	0.0
Intersection Summary						
HCM 6th Ctrl Delay			8.3			
HCM 6th LOS			A			

Approach	EB	WB	NB
Crosswalk Length (ft)	59.2	60.1	36.2
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	3
Number of Right-Turn Islands	0	0	0
Type of Control	None	None	None
Corresponding Signal Phase	8	8	4
Effective Walk Time (s)	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	1
85th percentile speed (mph)	40	40	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-
Pedestrian Delay (s/p)	22.5	22.5	22.5
Pedestrian Compliance Code	Fair	Fair	Fair
Pedestrian Crosswalk Score	2.67	2.66	1.97
Pedestrian Crosswalk LOS	C	C	B

Approach	EB	WB	NB
Bicycle Flow Rate (bike/h)	0	0	0
Total Flow Rate (veh/h)	884	854	27
Effct. Green for Bike (s)	27.7	30.2	4.3
Cross Street Width (ft)	36.2	59.2	60.1
Through Lanes Number	2	1	1
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	5.0	5.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0
Curb Is Present?	No	No	No
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	1231	1342	191
Bicycle Delay (s/bike)	3.3	2.4	18.4
Bicycle Compliance	Good	Good	Fair
Bicycle LOS Score	1.77	2.80	2.52
Bicycle LOS	B	C	C

























Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	10	6	110	76	57	929	219	52	1119	58
v/c Ratio	0.04	0.02	0.38	0.22	0.67	0.53	0.26	0.61	0.64	0.07
Control Delay	33.7	0.0	37.2	3.7	80.7	21.9	6.4	74.6	23.6	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.7	0.0	37.2	3.7	80.7	21.9	6.4	74.6	23.6	1.1
Queue Length 50th (ft)	4	0	42	0	24	117	5	22	153	0
Queue Length 95th (ft)	21	0	127	14	#143	#508	78	#129	#685	5
Internal Link Dist (ft)	288		473			1028			1931	
Turn Bay Length (ft)		100		180	150			150		430
Base Capacity (vph)	751	727	691	675	85	1738	837	85	1738	799
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.01	0.16	0.11	0.67	0.53	0.26	0.61	0.64	0.07

Intersection Summary

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

600 Tank Farm Road
6: Broad & Industrial

Existing Plus Alternative B AM
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	0	5	89	9	68	51	827	195	46	996	52
Future Volume (veh/h)	9	0	5	89	9	68	51	827	195	46	996	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	10	0	6	100	10	47	57	929	177	52	1119	48
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	64	0	57	174	17	169	72	1788	773	66	1775	770
Arrive On Green	0.04	0.00	0.04	0.11	0.11	0.11	0.04	0.50	0.50	0.04	0.50	0.50
Sat Flow, veh/h	1781	0	1576	1626	163	1581	1781	3554	1537	1781	3554	1540
Grp Volume(v), veh/h	10	0	6	110	0	47	57	929	177	52	1119	48
Grp Sat Flow(s),veh/h/ln	1781	0	1576	1789	0	1581	1781	1777	1537	1781	1777	1540
Q Serve(g_s), s	0.4	0.0	0.2	4.0	0.0	1.9	2.2	11.9	4.4	2.0	15.6	1.1
Cycle Q Clear(g_c), s	0.4	0.0	0.2	4.0	0.0	1.9	2.2	11.9	4.4	2.0	15.6	1.1
Prop In Lane	1.00		1.00	0.91		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	64	0	57	191	0	169	72	1788	773	66	1775	770
V/C Ratio(X)	0.16	0.00	0.11	0.57	0.00	0.28	0.79	0.52	0.23	0.79	0.63	0.06
Avail Cap(c_a), veh/h	919	0	813	844	0	746	105	1964	850	105	1964	852
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.7	0.0	31.6	28.8	0.0	27.9	32.3	11.3	9.5	32.4	12.4	8.8
Incr Delay (d2), s/veh	5.1	0.0	3.7	5.0	0.0	1.6	27.4	1.1	0.7	25.4	1.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.2	1.9	0.0	0.8	1.4	3.9	1.3	1.2	5.2	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.8	0.0	35.3	33.8	0.0	29.5	59.7	12.4	10.2	57.8	14.1	8.9
LnGrp LOS	D	A	D	C	A	C	E	B	B	E	B	A
Approach Vol, veh/h		16			157			1163			1219	
Approach Delay, s/veh		36.2			32.5			14.4			15.8	
Approach LOS		D			C			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.5	40.6		7.5	7.7	40.4		12.3				
Change Period (Y+Rc), s	5.0	6.5		5.0	5.0	6.5		5.0				
Max Green Setting (Gmax), s	4.0	37.5		35.0	4.0	37.5		32.0				
Max Q Clear Time (g_c+I1), s	4.0	13.9		2.4	4.2	17.6		6.0				
Green Ext Time (p_c), s	0.0	15.8		0.1	0.0	16.3		1.4				
Intersection Summary												
HCM 6th Ctrl Delay				16.3								
HCM 6th LOS				B								

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	36.0	36.1	61.3	62.1
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	6	6
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	26	37	9
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	57.2	57.2	57.2	57.2
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.01	2.15	3.12	3.03
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	16	186	1205	1229
Effct. Green for Bike (s)	13.6	14.3	42.8	42.8
Cross Street Width (ft)	73.1	73.9	37.5	37.7
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	5.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	209	220	658	658
Bicycle Delay (s/bike)	52.1	51.5	29.2	29.2
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	2.70	3.00	2.06	2.08
Bicycle LOS	C	C	B	B































Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	256	158	392	234	255	169	223	799	60	664	359
v/c Ratio	0.61	0.20	0.84	0.82	0.53	0.32	0.84	0.74	0.59	0.73	0.44
Control Delay	44.9	27.9	35.8	63.3	33.0	7.6	70.3	33.2	70.1	35.6	4.0
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	44.9	27.9	35.8	63.3	33.0	7.6	70.3	33.2	70.1	35.6	4.0
Queue Length 50th (ft)	67	36	123	123	119	6	62	203	32	169	4
Queue Length 95th (ft)	133	67	250	#341	216	55	#172	338	#120	282	56
Internal Link Dist (ft)		533			770			1992		1028	
Turn Bay Length (ft)	265		85	150			275		250		300
Base Capacity (vph)	535	1476	740	284	785	757	265	1355	101	1307	858
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.11	0.53	0.82	0.32	0.22	0.84	0.59	0.59	0.51	0.42

Intersection Summary

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

600 Tank Farm Road
7: Broad & Tank Farm

Existing Plus Alternative B AM
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 					 	 			 	
Traffic Volume (veh/h)	246	152	376	225	245	162	214	652	115	58	637	345
Future Volume (veh/h)	246	152	376	225	245	162	214	652	115	58	637	345
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	256	158	313	234	255	126	223	679	102	60	664	298
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	343	860	380	271	551	467	269	855	128	77	857	527
Arrive On Green	0.10	0.24	0.24	0.15	0.29	0.29	0.08	0.28	0.28	0.04	0.24	0.24
Sat Flow, veh/h	3456	3554	1569	1781	1870	1585	3456	3097	465	1781	3554	1534
Grp Volume(v), veh/h	256	158	313	234	255	126	223	389	392	60	664	298
Grp Sat Flow(s),veh/h/ln	1728	1777	1569	1781	1870	1585	1728	1777	1785	1781	1777	1534
Q Serve(g_s), s	6.0	2.9	15.8	10.7	9.3	5.1	5.3	17.0	17.0	2.8	14.6	13.3
Cycle Q Clear(g_c), s	6.0	2.9	15.8	10.7	9.3	5.1	5.3	17.0	17.0	2.8	14.6	13.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.26	1.00		1.00
Lane Grp Cap(c), veh/h	343	860	380	271	551	467	269	490	493	77	857	527
V/C Ratio(X)	0.75	0.18	0.82	0.86	0.46	0.27	0.83	0.79	0.80	0.78	0.77	0.56
Avail Cap(c_a), veh/h	541	1487	657	288	792	671	269	695	698	102	1317	726
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.6	25.1	30.0	34.6	24.1	22.6	38.0	28.1	28.1	39.6	29.6	22.6
Incr Delay (d2), s/veh	1.2	0.0	1.7	20.8	0.2	0.1	18.2	2.6	2.7	17.2	0.6	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	1.2	5.8	6.0	3.9	1.8	2.8	7.0	7.0	1.5	5.8	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.9	25.2	31.7	55.4	24.3	22.7	56.2	30.7	30.7	56.8	30.2	22.9
LnGrp LOS	D	C	C	E	C	C	E	C	C	E	C	C
Approach Vol, veh/h		727			615			1004			1022	
Approach Delay, s/veh		32.5			35.8			36.4			29.7	
Approach LOS		C			D			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.1	29.6	18.2	26.7	12.0	26.7	13.8	31.1				
Change Period (Y+Rc), s	5.5	6.5	5.5	6.5	5.5	6.5	5.5	6.5				
Max Green Setting (Gmax), s	4.8	32.7	13.5	35.0	6.5	31.0	13.1	35.4				
Max Q Clear Time (g_c+I1), s	4.8	19.0	12.7	17.8	7.3	16.6	8.0	11.3				
Green Ext Time (p_c), s	0.0	2.5	0.0	1.0	0.0	3.2	0.3	0.9				
Intersection Summary												
HCM 6th Ctrl Delay			33.4									
HCM 6th LOS			C									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	73.8	71.3	72.3	84.2
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	6	5	6	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	76	41	17	59
85th percentile speed (mph)	40	40	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	47.3	47.3	47.3	47.3
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.93	2.63	3.05	3.15
Pedestrian Crosswalk LOS	C	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	806	658	1022	1083
Effct. Green for Bike (s)	19.1	22.3	26.6	22.1
Cross Street Width (ft)	72.3	96.1	71.6	73.8
Through Lanes Number	2	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	5.0	5.0	5.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	347	405	484	402
Bicycle Delay (s/bike)	37.6	35.0	31.6	35.1
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	2.26	3.04	2.43	2.51
Bicycle LOS	B	C	B	C

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	41	9	58	1149	719	214
Future Vol, veh/h	41	9	58	1149	719	214
Conflicting Peds, #/hr	0	0	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	75	200	-	-	-
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	44	10	62	1222	765	228

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1615	498	994	0	-	0
Stage 1	880	-	-	-	-	-
Stage 2	735	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	95	518	692	-	-	-
Stage 1	366	-	-	-	-	-
Stage 2	435	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	86	518	691	-	-	-
Mov Cap-2 Maneuver	263	-	-	-	-	-
Stage 1	333	-	-	-	-	-
Stage 2	435	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	19.7	0.5	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	691	-	263	518	-	-
HCM Lane V/C Ratio	0.089	-	0.166	0.018	-	-
HCM Control Delay (s)	10.7	-	21.4	12.1	-	-
HCM Lane LOS	B	-	C	B	-	-
HCM 95th %tile Q(veh)	0.3	-	0.6	0.1	-	-

Approach

Approach Direction	NB
Median Present?	No
Approach Delay(s)	961753.9
Level of Service	F

Crosswalk

Length (ft)	78
Lanes Crossed	4
Veh Vol Crossed	1868
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	25.29
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.96
Delay for adq Gap	961755.88
Avg Ped Delay (s)	961753.94

Approach

Approach Direction	SB
Median Present?	No
Approach Delay(s)	1293715.1
Level of Service	F

Crosswalk

Length (ft)	80
Lanes Crossed	4
Veh Vol Crossed	1868
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	25.86
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.97
Delay for adq Gap	1293717.00
Avg Ped Delay (s)	1293715.13

























Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	59	4	7	36	51	1257	42	722
v/c Ratio	0.33	0.01	0.04	0.13	0.32	0.49	0.30	0.29
Control Delay	36.7	0.0	31.0	0.9	41.2	9.0	42.3	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.7	0.0	31.0	0.9	41.2	9.0	42.3	7.3
Queue Length 50th (ft)	28	0	3	0	25	195	21	91
Queue Length 95th (ft)	64	0	15	0	61	288	54	140
Internal Link Dist (ft)	310		100			324		936
Turn Bay Length (ft)		75		75	200		200	
Base Capacity (vph)	517	663	513	663	163	2561	140	2503
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.01	0.01	0.05	0.31	0.49	0.30	0.29

Intersection Summary

600 Tank Farm Road
9: Broad & Aero

Existing Plus Alternative B AM
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	1	4	6	0	33	47	1141	16	39	599	65
Future Volume (veh/h)	53	1	4	6	0	33	47	1141	16	39	599	65
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		0.98	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	58	1	4	7	0	36	51	1240	17	42	651	57
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	201	2	104	216	0	104	66	2338	32	58	2136	187
Arrive On Green	0.07	0.07	0.07	0.07	0.00	0.07	0.04	0.65	0.65	0.03	0.65	0.65
Sat Flow, veh/h	1419	24	1585	1636	0	1585	1781	3588	49	1781	3299	289
Grp Volume(v), veh/h	59	0	4	7	0	36	51	614	643	42	350	358
Grp Sat Flow(s),veh/h/ln	1444	0	1585	1636	0	1585	1781	1777	1860	1781	1777	1811
Q Serve(g_s), s	2.4	0.0	0.2	0.0	0.0	1.4	1.9	12.1	12.1	1.5	5.7	5.7
Cycle Q Clear(g_c), s	2.6	0.0	0.2	0.2	0.0	1.4	1.9	12.1	12.1	1.5	5.7	5.7
Prop In Lane	0.98		1.00	1.00		1.00	1.00		0.03	1.00		0.16
Lane Grp Cap(c), veh/h	203	0	104	216	0	104	66	1158	1212	58	1150	1173
V/C Ratio(X)	0.29	0.00	0.04	0.03	0.00	0.35	0.78	0.53	0.53	0.72	0.30	0.31
Avail Cap(c_a), veh/h	735	0	697	746	0	697	189	1306	1367	162	1279	1304
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.0	0.0	28.9	28.9	0.0	29.5	31.5	6.1	6.1	31.6	5.1	5.1
Incr Delay (d2), s/veh	1.5	0.0	0.3	0.1	0.0	3.7	23.9	1.7	1.7	21.4	0.7	0.7
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	1.0	0.0	0.1	0.1	0.0	0.6	1.2	3.2	3.3	1.0	1.5	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.4	0.0	29.2	29.0	0.0	33.1	55.4	7.9	7.8	53.0	5.8	5.8
LnGrp LOS	C	A	C	C	A	C	E	A	A	D	A	A
Approach Vol, veh/h		63			43			1308			750	
Approach Delay, s/veh		31.3			32.5			9.7			8.4	
Approach LOS		C			C			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.1	49.5		9.3	7.4	49.2		9.3				
Change Period (Y+Rc), s	5.0	6.5		5.0	5.0	6.5		5.0				
Max Green Setting (Gmax), s	6.0	48.5		29.0	7.0	47.5		29.0				
Max Q Clear Time (g_c+I1), s	3.5	14.1		4.6	3.9	7.7		3.4				
Green Ext Time (p_c), s	0.0	28.9		0.5	0.0	17.6		0.2				
Intersection Summary												
HCM 6th Ctrl Delay				10.3								
HCM 6th LOS				B								

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	34.0	34.2	57.2	59.2
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	5	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	50.0	50.0	50.0	50.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.01	1.99	2.89	2.93
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	63	43	1308	764
Effct. Green for Bike (s)	10.4	10.0	56.1	55.6
Cross Street Width (ft)	58.1	60.4	34.2	34.1
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	11.0	11.0	11.0	11.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	208	200	1122	1112
Bicycle Delay (s/bike)	40.1	40.5	9.6	9.9
Bicycle Compliance	Poor	Poor	Good	Good
Bicycle LOS Score	2.77	2.77	3.38	2.93
Bicycle LOS	C	C	C	C

Intersection						
Int Delay, s/veh	0.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↘↗		↑	↗↘	↘↗	↑
Traffic Vol, veh/h	3	17	991	21	45	500
Future Vol, veh/h	3	17	991	21	45	500
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	230	145	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	18	1032	22	47	521

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1647	1032	0	0	1054
Stage 1	1032	-	-	-	-
Stage 2	615	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	109	283	-	-	661
Stage 1	344	-	-	-	-
Stage 2	539	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	101	283	-	-	661
Mov Cap-2 Maneuver	283	-	-	-	-
Stage 1	344	-	-	-	-
Stage 2	501	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	18.7	0	0.9
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	283	661
HCM Lane V/C Ratio	-	-	0.074	0.071
HCM Control Delay (s)	-	-	18.7	10.9
HCM Lane LOS	-	-	C	B
HCM 95th %tile Q(veh)	-	-	0.2	0.2

Approach

Approach Direction	NB
Median Present?	No
Approach Delay(s)	6293.4
Level of Service	F

Crosswalk

Length (ft)	56
Lanes Crossed	2
Veh Vol Crossed	1491
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.00
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.98
Delay for adq Gap	6295.80
Avg Ped Delay (s)	6293.40

Approach

Approach Direction	SB
Median Present?	No
Approach Delay(s)	1508.4
Level of Service	F

Crosswalk

Length (ft)	44
Lanes Crossed	2
Veh Vol Crossed	1491
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	15.57
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.96
Delay for adq Gap	1510.78
Avg Ped Delay (s)	1508.39























Lane Group	EBT	EBR	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	61	181	5	230	1268	3	445	44
v/c Ratio	0.40	0.32	0.03	0.71	0.82	0.03	0.39	0.05
Control Delay	61.3	6.3	0.2	57.2	14.4	61.7	14.0	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.3	6.3	0.2	57.2	14.4	61.7	14.0	0.1
Queue Length 50th (ft)	37	0	0	137	362	2	144	0
Queue Length 95th (ft)	104	54	0	293	#1440	14	329	0
Internal Link Dist (ft)	574		239		678		1346	
Turn Bay Length (ft)		135		355		400		400
Base Capacity (vph)	361	757	187	555	1692	89	1395	1175
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.24	0.03	0.41	0.75	0.03	0.32	0.04

Intersection Summary

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

600 Tank Farm Road
11: Edna (SR 227) & Buckley

Existing Plus Alternative B AM
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	5	170	2	0	3	216	1189	3	3	418	41
Future Volume (veh/h)	53	5	170	2	0	3	216	1189	3	3	418	41
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		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	56	5	141	2	0	2	230	1265	3	3	445	44
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	161	14	391	4	0	4	265	1299	3	7	1036	853
Arrive On Green	0.10	0.10	0.10	0.01	0.00	0.01	0.15	0.70	0.70	0.00	0.55	0.55
Sat Flow, veh/h	1642	147	1585	839	0	839	1781	1865	4	1781	1870	1541
Grp Volume(v), veh/h	61	0	141	4	0	0	230	0	1268	3	445	44
Grp Sat Flow(s),veh/h/ln	1788	0	1585	1677	0	0	1781	0	1869	1781	1870	1541
Q Serve(g_s), s	3.0	0.0	6.9	0.2	0.0	0.0	11.8	0.0	59.7	0.2	13.0	1.2
Cycle Q Clear(g_c), s	3.0	0.0	6.9	0.2	0.0	0.0	11.8	0.0	59.7	0.2	13.0	1.2
Prop In Lane	0.92		1.00	0.50		0.50	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	176	0	391	9	0	0	265	0	1302	7	1036	853
V/C Ratio(X)	0.35	0.00	0.36	0.45	0.00	0.00	0.87	0.00	0.97	0.42	0.43	0.05
Avail Cap(c_a), veh/h	383	0	575	90	0	0	589	0	2036	95	1522	1254
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	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.3	0.0	29.1	46.3	0.0	0.0	38.9	0.0	13.4	46.4	12.2	9.6
Incr Delay (d2), s/veh	0.4	0.0	0.2	24.4	0.0	0.0	3.4	0.0	8.9	13.9	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	2.5	0.2	0.0	0.0	5.0	0.0	18.5	0.1	4.4	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.8	0.0	29.3	70.8	0.0	0.0	42.2	0.0	22.3	60.3	12.3	9.6
LnGrp LOS	D	A	C	E	A	A	D	A	C	E	B	A
Approach Vol, veh/h		202			4			1498			492	
Approach Delay, s/veh		32.4			70.8			25.4			12.3	
Approach LOS		C			E			C			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	17.4	58.1		4.5	4.1	71.4		13.4				
Change Period (Y+Rc), s	3.5	6.4		4.0	3.7	6.4		4.2				
Max Green Setting (Gmax), s	30.9	76.0		5.0	5.0	101.7		20.0				
Max Q Clear Time (g_c+I1), s	13.8	15.0		2.2	2.2	61.7		8.9				
Green Ext Time (p_c), s	0.1	0.7		0.0	0.0	3.3		0.4				
Intersection Summary												
HCM 6th Ctrl Delay			23.2									
HCM 6th LOS			C									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	36.5	24.6	36.4	48.7
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	2	3	4
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	2	6	8	4
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	50	30	55	55
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	75.0	75.0	75.0	75.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.25	1.75	3.24	2.97
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	242	5	1498	492
Effct. Green for Bike (s)	8.9	5.3	87.5	63.8
Cross Street Width (ft)	36.4	48.7	24.6	36.5
Through Lanes Number	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	119	71	1167	851
Bicycle Delay (s/bike)	66.4	69.8	13.0	24.8
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	2.52	2.31	4.41	2.93
Bicycle LOS	C	B	D	C


























Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	20	22	304	305	345	32	535	449	293	746
v/c Ratio	0.09	0.07	0.69	0.66	0.50	0.30	0.69	0.44	0.77	0.51
Control Delay	36.5	0.5	44.2	42.7	6.9	56.2	40.4	2.5	53.5	24.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.5	0.5	44.2	42.7	6.9	56.2	40.4	2.5	53.5	24.9
Queue Length 50th (ft)	11	0	164	163	0	18	144	1	159	167
Queue Length 95th (ft)	32	0	#395	#386	78	57	257	31	#391	312
Internal Link Dist (ft)	109			1057			1054			1668
Turn Bay Length (ft)					250	140		100	100	
Base Capacity (vph)	510	529	445	463	690	123	953	1018	391	1502
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.04	0.68	0.66	0.50	0.26	0.56	0.44	0.75	0.50

Intersection Summary

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

600 Tank Farm Road
1: Higuera & Tank Farm

Existing Plus Alternative B PM
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	9	21	561	11	324	30	503	422	275	683	18
Future Volume (veh/h)	9	9	21	561	11	324	30	503	422	275	683	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.93	1.00		1.00	1.00		0.98	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	10	10	4	606	0	0	32	535	249	293	727	18
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	77	77	123	1039	0	0	55	840	830	338	1397	35
Arrive On Green	0.08	0.08	0.08	0.29	0.00	0.00	0.03	0.24	0.24	0.19	0.39	0.39
Sat Flow, veh/h	912	912	1472	3563	0	1585	1781	3554	1554	1781	3539	88
Grp Volume(v), veh/h	20	0	4	606	0	0	32	535	249	293	365	380
Grp Sat Flow(s),veh/h/ln	1825	0	1472	1781	0	1585	1781	1777	1554	1781	1777	1849
Q Serve(g_s), s	0.9	0.0	0.2	12.4	0.0	0.0	1.5	11.6	7.7	13.7	13.4	13.4
Cycle Q Clear(g_c), s	0.9	0.0	0.2	12.4	0.0	0.0	1.5	11.6	7.7	13.7	13.4	13.4
Prop In Lane	0.50		1.00	1.00		1.00	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	153	0	123	1039	0	0	55	840	830	338	702	730
V/C Ratio(X)	0.13	0.00	0.03	0.58	0.00	0.00	0.58	0.64	0.30	0.87	0.52	0.52
Avail Cap(c_a), veh/h	575	0	464	1060	0	0	139	1037	916	426	805	838
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	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.4	0.0	36.1	25.9	0.0	0.0	41.0	29.4	11.4	33.7	19.7	19.7
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.5	0.0	0.0	3.5	1.8	0.4	15.1	1.3	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.1	4.9	0.0	0.0	0.7	4.8	4.4	6.9	5.2	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.5	0.0	36.1	26.4	0.0	0.0	44.5	31.2	11.8	48.8	21.0	21.0
LnGrp LOS	D	A	D	C	A		D	C	B	D	C	C
Approach Vol, veh/h		24			606	A		816			1038	
Approach Delay, s/veh		36.4			26.4			25.8			28.8	
Approach LOS		D			C			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.7	24.8		11.7	6.2	38.3		29.5				
Change Period (Y+Rc), s	3.5	4.5		4.5	3.5	4.5		4.5				
Max Green Setting (Gmax), s	20.5	25.0		27.0	6.7	38.8		25.5				
Max Q Clear Time (g_c+I1), s	15.7	13.6		2.9	3.5	15.4		14.4				
Green Ext Time (p_c), s	0.6	5.6		0.0	0.0	8.4		1.3				

Intersection Summary

HCM 6th Ctrl Delay	27.3
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	50.7	58.5	67.8	54.5
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	6	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	17	190	188	1
85th percentile speed (mph)	25	45	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	49.8	49.8	49.8	49.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.01	3.04	3.31	2.88
Pedestrian Crosswalk LOS	B	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	42	954	1016	1039
Effct. Green for Bike (s)	12.3	26.3	21.2	40.2
Cross Street Width (ft)	67.8	54.5	58.5	50.7
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	10.0	11.0	11.0	11.0
Bicycle Lane Width (ft)	0.0	5.0	5.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	214	457	369	699
Bicycle Delay (s/bike)	45.9	34.2	38.3	24.3
Bicycle Compliance	Poor	Poor	Poor	Fair
Bicycle LOS Score	3.10	3.11	2.44	2.33
Bicycle LOS	C	C	B	B

Intersection												
Int Delay, s/veh	4.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖↗			↖	↖		↖	↖
Traffic Vol, veh/h	64	622	28	133	1023	23	12	2	170	12	2	66
Future Vol, veh/h	64	622	28	133	1023	23	12	2	170	12	2	66
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	225	-	-	160	-	-	-	-	25	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	67	648	29	139	1066	24	13	2	177	13	2	69

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	1091	0	0	677
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.14	-	-	4.14
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22
Pot Cap-1 Maneuver	635	-	-	911
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	634	-	-	911
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1	1.1	20.6	49.6
HCM LOS			C	E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	45	657	634	-	-	911	-	-	29	482
HCM Lane V/C Ratio	0.324	0.27	0.105	-	-	0.152	-	-	0.503	0.143
HCM Control Delay (s)	119.5	12.5	11.3	-	-	9.7	-	-	218.8	13.7
HCM Lane LOS	F	B	B	-	-	A	-	-	F	B
HCM 95th %tile Q(veh)	1.1	1.1	0.4	-	-	0.5	-	-	1.6	0.5

Approach

Approach Direction	EB
Median Present?	No
Approach Delay(s)	47581.0
Level of Service	F

Crosswalk

Length (ft)	66
Lanes Crossed	4
Veh Vol Crossed	1645
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	21.86
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.92
Delay for adq Gap	47583.17
Avg Ped Delay (s)	47580.98

Approach

Approach Direction	WB
Median Present?	No
Approach Delay(s)	70404.0
Level of Service	F

Crosswalk

Length (ft)	69
Lanes Crossed	4
Veh Vol Crossed	1645
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	22.71
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.93
Delay for adq Gap	70406.20
Avg Ped Delay (s)	70404.01

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	11	853	0	0	1055	36	0	0	0	32	0	10
Future Vol, veh/h	11	853	0	0	1055	36	0	0	0	32	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	2	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	927	0	0	1147	39	0	0	0	35	0	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1186	0	0	927	0	0	1525	2137	927	2118	2118	593
Stage 1	-	-	-	-	-	-	951	951	-	1167	1167	-
Stage 2	-	-	-	-	-	-	574	1186	-	951	951	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.33	6.53	6.23	7.33	6.53	6.93
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.53	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.53	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.219	-	-	2.219	-	-	3.519	4.019	3.319	3.519	4.019	3.319
Pot Cap-1 Maneuver	587	-	-	735	-	-	88	49	324	~ 32	50	450
Stage 1	-	-	-	-	-	-	311	337	-	207	267	-
Stage 2	-	-	-	-	-	-	472	261	-	311	337	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	587	-	-	735	-	-	85	48	324	~ 31	49	450
Mov Cap-2 Maneuver	-	-	-	-	-	-	85	48	-	161	201	-
Stage 1	-	-	-	-	-	-	305	330	-	203	267	-
Stage 2	-	-	-	-	-	-	461	261	-	305	330	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	0	29.8
HCM LOS			A	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	587	-	-	735	-	-	190
HCM Lane V/C Ratio	-	0.02	-	-	-	-	-	0.24
HCM Control Delay (s)	0	11.3	-	-	0	-	-	29.8
HCM Lane LOS	A	B	-	-	A	-	-	D
HCM 95th %tile Q(veh)	-	0.1	-	-	0	-	-	0.9

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

Approach

Approach Direction	EB
Median Present?	No
Approach Delay(s)	44551.9
Level of Service	F

Crosswalk

Length (ft)	56
Lanes Crossed	3
Veh Vol Crossed	1908
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.00
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.97
Delay for adq Gap	44553.75
Avg Ped Delay (s)	44551.87

Approach

Approach Direction	WB
Median Present?	No
Approach Delay(s)	38288.7
Level of Service	F

Crosswalk

Length (ft)	55
Lanes Crossed	3
Veh Vol Crossed	1908
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	18.71
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.96
Delay for adq Gap	38290.62
Avg Ped Delay (s)	38288.73

Intersection

Int Delay, s/veh 17.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕	↕		↕	
Traffic Vol, veh/h	0	860	26	66	1049	1	42	1	159	0	1	0
Future Vol, veh/h	0	860	26	66	1049	1	42	1	159	0	1	0
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	110	-	-	-	-	25	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	956	29	73	1166	1	47	1	177	0	1	0

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	1168	0	0	985
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.12	-	-	4.12
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.218	-	-	2.218
Pot Cap-1 Maneuver	598	-	-	701
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	597	-	-	701
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.6	186.9	111.2
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	25	307	597	-	-	701	-	-	35
HCM Lane V/C Ratio	1.911	0.575	-	-	-	0.105	-	-	0.032
HCM Control Delay (s)	\$ 761.3	31.5	0	-	-	10.7	-	-	111.2
HCM Lane LOS	F	D	A	-	-	B	-	-	F
HCM 95th %tile Q(veh)	5.9	3.4	0	-	-	0.3	-	-	0.1

Notes

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

Approach		
Approach Direction	EB	
Median Present?	Yes	
Approach Delay(s)	36.0	
Level of Service	E	
Crosswalk		
Length (ft)	11	19
Lanes Crossed	1	1
Veh Vol Crossed	860	1049
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	6.14	8.43
Prob of Delayed X-ing	0.77	0.91
Prob of Blocked Lane	0.77	0.91
Delay for adq Gap	10.18	30.79
Avg Ped Delay (s)	7.83	28.15

Approach		
Approach Direction	WB	
Median Present?	No	
Approach Delay(s)	150473.5	
Level of Service	F	
Crosswalk		
Length (ft)	64	
Lanes Crossed	2	
Veh Vol Crossed	1909	
Ped Vol Crossed	0	
Yield Rate(%)	0	
Ped Platooning	No	
Critical Headway (s)	21.29	
Prob of Delayed X-ing	1.00	
Prob of Blocked Lane	1.00	
Delay for adq Gap	150475.41	
Avg Ped Delay (s)	150473.52	



Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	1205	7	1132	156	38
v/c Ratio	0.52	0.08	0.89	0.76	0.18
Control Delay	6.9	29.2	19.5	52.6	11.5
Queue Delay	0.0	0.0	0.1	0.0	0.0
Total Delay	6.9	29.2	19.5	52.6	11.5
Queue Length 50th (ft)	86	2	262	56	0
Queue Length 95th (ft)	188	13	#574	#135	22
Internal Link Dist (ft)	357		533	330	
Turn Bay Length (ft)		210			120
Base Capacity (vph)	2312	89	1293	209	221
Starvation Cap Reductn	0	0	4	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.52	0.08	0.88	0.75	0.17

Intersection Summary

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

600 Tank Farm Road
5: MindBody & Tank Farm

Existing Plus Alternative B PM
HCM 6th Signalized Intersection Summary



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↵	↑	↵	↵
Traffic Volume (veh/h)	1049	11	6	996	137	33
Future Volume (veh/h)	1049	11	6	996	137	33
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.98	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	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1192	12	7	1132	156	23
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2135	21	10	1278	201	179
Arrive On Green	0.59	0.59	0.01	0.68	0.11	0.11
Sat Flow, veh/h	3697	36	1781	1870	1781	1585
Grp Volume(v), veh/h	588	616	7	1132	156	23
Grp Sat Flow(s),veh/h/ln	1777	1863	1781	1870	1781	1585
Q Serve(g_s), s	11.8	11.8	0.2	28.6	5.0	0.8
Cycle Q Clear(g_c), s	11.8	11.8	0.2	28.6	5.0	0.8
Prop In Lane		0.02	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1053	1104	10	1278	201	179
V/C Ratio(X)	0.56	0.56	0.71	0.89	0.78	0.13
Avail Cap(c_a), veh/h	1053	1104	91	1304	212	189
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	7.3	7.3	29.2	7.5	25.4	23.5
Incr Delay (d2), s/veh	2.1	2.0	29.7	9.3	14.0	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	3.5	3.7	0.2	8.6	2.8	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.4	9.3	58.9	16.7	39.4	23.6
LnGrp LOS	A	A	E	B	D	C
Approach Vol, veh/h	1204			1139	179	
Approach Delay, s/veh	9.4			17.0	37.4	
Approach LOS	A			B	D	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	5.3	41.8			47.2	11.6
Change Period (Y+Rc), s	5.0	7.0			7.0	5.0
Max Green Setting (Gmax), s	3.0	33.0			41.0	7.0
Max Q Clear Time (g_c+I1), s	2.2	13.8			30.6	7.0
Green Ext Time (p_c), s	0.0	15.8			9.6	0.0
Intersection Summary						
HCM 6th Ctrl Delay			14.8			
HCM 6th LOS			B			

Approach	EB	WB	NB
Crosswalk Length (ft)	59.2	60.1	36.2
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	3
Number of Right-Turn Islands	0	0	0
Type of Control	None	None	None
Corresponding Signal Phase	8	8	4
Effective Walk Time (s)	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	13
85th percentile speed (mph)	40	40	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-
Pedestrian Delay (s/p)	30.0	30.0	30.0
Pedestrian Compliance Code	Fair	Fair	Fair
Pedestrian Crosswalk Score	3.01	2.89	2.02
Pedestrian Crosswalk LOS	C	C	B

Approach	EB	WB	NB
Bicycle Flow Rate (bike/h)	0	0	0
Total Flow Rate (veh/h)	1204	1139	194
Effct. Green for Bike (s)	38.7	40.3	6.8
Cross Street Width (ft)	36.2	59.2	60.1
Through Lanes Number	2	1	1
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	5.0	5.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0
Curb Is Present?	No	No	No
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	1290	1343	227
Bicycle Delay (s/bike)	3.8	3.2	23.6
Bicycle Compliance	Good	Good	Fair
Bicycle LOS Score	2.03	3.27	2.80
Bicycle LOS	B	C	C

























Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	95	47	211	237	96	1146	206	143	1169	105
v/c Ratio	0.31	0.13	0.58	0.47	1.03	0.91	0.33	0.95	0.85	0.16
Control Delay	40.0	0.7	44.0	8.1	152.5	45.0	12.7	112.3	38.1	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.0	0.7	44.0	8.1	152.5	45.0	12.7	112.3	38.1	6.8
Queue Length 50th (ft)	53	0	118	0	~64	351	27	89	343	0
Queue Length 95th (ft)	109	0	234	65	#226	#773	116	#293	#757	45
Internal Link Dist (ft)	288		473			1028			1931	
Turn Bay Length (ft)		100		180	150			150		430
Base Capacity (vph)	664	650	603	686	93	1256	615	150	1369	661
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.07	0.35	0.35	1.03	0.91	0.33	0.95	0.85	0.16

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

600 Tank Farm Road
6: Broad & Industrial

Existing Plus Alternative B PM
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	19	44	183	13	220	89	1066	192	133	1087	98
Future Volume (veh/h)	70	19	44	183	13	220	89	1066	192	133	1087	98
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		0.96	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	75	20	39	197	14	154	96	1146	153	143	1169	76
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	139	37	154	293	21	278	104	1361	581	166	1486	648
Arrive On Green	0.10	0.10	0.10	0.18	0.18	0.18	0.06	0.38	0.38	0.09	0.42	0.42
Sat Flow, veh/h	1421	379	1580	1668	119	1582	1781	3554	1515	1781	3554	1550
Grp Volume(v), veh/h	95	0	39	211	0	154	96	1146	153	143	1169	76
Grp Sat Flow(s),veh/h/ln	1799	0	1580	1787	0	1582	1781	1777	1515	1781	1777	1550
Q Serve(g_s), s	4.3	0.0	2.0	9.5	0.0	7.6	4.6	25.2	5.9	6.8	24.5	2.6
Cycle Q Clear(g_c), s	4.3	0.0	2.0	9.5	0.0	7.6	4.6	25.2	5.9	6.8	24.5	2.6
Prop In Lane	0.79		1.00	0.93		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	176	0	154	313	0	278	104	1361	581	166	1486	648
V/C Ratio(X)	0.54	0.00	0.25	0.67	0.00	0.55	0.92	0.84	0.26	0.86	0.79	0.12
Avail Cap(c_a), veh/h	734	0	645	666	0	590	104	1388	592	166	1512	659
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.9	0.0	35.8	33.1	0.0	32.3	40.2	24.1	18.2	38.4	21.7	15.3
Incr Delay (d2), s/veh	11.4	0.0	3.9	4.6	0.0	3.2	65.2	6.5	1.1	34.8	4.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	0.9	4.4	0.0	3.1	3.8	10.7	2.1	4.4	9.9	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.3	0.0	39.7	37.7	0.0	35.5	105.5	30.6	19.3	73.2	25.9	15.6
LnGrp LOS	D	A	D	D	A	D	F	C	B	E	C	B
Approach Vol, veh/h		134			365			1395			1388	
Approach Delay, s/veh		45.8			36.8			34.5			30.2	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.0	39.4		13.4	10.0	42.4		20.1				
Change Period (Y+Rc), s	5.0	6.5		5.0	5.0	6.5		5.0				
Max Green Setting (Gmax), s	8.0	33.5		35.0	5.0	36.5		32.0				
Max Q Clear Time (g_c+I1), s	8.8	27.2		6.3	6.6	26.5		11.5				
Green Ext Time (p_c), s	0.0	5.7		2.1	0.0	8.9		3.4				
Intersection Summary												
HCM 6th Ctrl Delay				33.4								
HCM 6th LOS				C								

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	36.0	36.1	61.3	62.1
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	6	6
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	7	77	49	27
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	57.2	57.2	57.2	57.2
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.09	2.33	3.24	3.21
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	142	448	1448	1417
Effct. Green for Bike (s)	17.0	20.0	34.8	38.0
Cross Street Width (ft)	73.1	73.9	37.5	37.7
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	5.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	262	308	535	585
Bicycle Delay (s/bike)	49.1	46.5	34.9	32.6
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	2.91	3.43	2.26	2.23
Bicycle LOS	C	C	B	B































Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	551	479	293	198	219	133	398	910	223	748	600
v/c Ratio	0.95	0.68	0.61	0.83	0.71	0.36	0.86	0.88	0.91	0.70	0.62
Control Delay	72.9	43.8	16.1	74.2	53.9	8.9	64.8	45.8	85.4	37.8	13.2
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	72.9	43.8	16.1	74.2	53.9	8.9	64.8	45.8	85.4	37.8	13.2
Queue Length 50th (ft)	189	159	44	129	141	0	135	288	148	227	138
Queue Length 95th (ft)	#360	211	124	#300	218	48	#263	#499	#346	357	334
Internal Link Dist (ft)		533			770			1992		1028	
Turn Bay Length (ft)	265		85	150			275		250		300
Base Capacity (vph)	577	1190	665	243	569	576	462	1059	245	1092	965
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.95	0.40	0.44	0.81	0.38	0.23	0.86	0.86	0.91	0.68	0.62

Intersection Summary

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

600 Tank Farm Road
7: Broad & Tank Farm

Existing Plus Alternative B PM
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 					 	 			 	
Traffic Volume (veh/h)	496	431	264	178	197	120	358	636	183	201	673	540
Future Volume (veh/h)	496	431	264	178	197	120	358	636	183	201	673	540
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	551	479	239	198	219	110	398	707	169	223	748	477
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	610	732	318	230	296	251	464	793	190	254	1025	737
Arrive On Green	0.18	0.21	0.21	0.13	0.16	0.16	0.13	0.28	0.28	0.14	0.29	0.29
Sat Flow, veh/h	3456	3554	1545	1781	1870	1585	3456	2834	677	1781	3554	1585
Grp Volume(v), veh/h	551	479	239	198	219	110	398	443	433	223	748	477
Grp Sat Flow(s),veh/h/ln	1728	1777	1545	1781	1870	1585	1728	1777	1734	1781	1777	1585
Q Serve(g_s), s	15.5	12.3	14.4	10.8	11.1	6.2	11.2	23.7	23.7	12.2	18.8	22.8
Cycle Q Clear(g_c), s	15.5	12.3	14.4	10.8	11.1	6.2	11.2	23.7	23.7	12.2	18.8	22.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.39	1.00		1.00
Lane Grp Cap(c), veh/h	610	732	318	230	296	251	464	497	486	254	1025	737
V/C Ratio(X)	0.90	0.65	0.75	0.86	0.74	0.44	0.86	0.89	0.89	0.88	0.73	0.65
Avail Cap(c_a), veh/h	614	1263	549	259	604	512	492	572	558	261	1158	797
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.0	36.1	37.0	42.3	39.7	37.7	42.0	34.2	34.2	41.6	31.8	20.3
Incr Delay (d2), s/veh	16.2	0.4	1.4	20.6	1.4	0.4	12.7	13.5	13.9	25.4	1.6	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.7	5.2	5.4	5.9	5.0	2.4	5.4	11.5	11.3	6.9	7.8	8.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.1	36.5	38.3	62.9	41.1	38.2	54.7	47.8	48.1	67.0	33.4	21.4
LnGrp LOS	E	D	D	E	D	D	D	D	D	E	C	C
Approach Vol, veh/h		1269			527			1274			1448	
Approach Delay, s/veh		45.4			48.7			50.1			34.6	
Approach LOS		D			D			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	19.6	34.2	18.3	26.9	18.8	35.1	23.0	22.2				
Change Period (Y+Rc), s	5.5	6.5	5.5	6.5	5.5	6.5	5.5	6.5				
Max Green Setting (Gmax), s	14.5	31.9	14.4	35.2	14.1	32.3	17.6	32.0				
Max Q Clear Time (g_c+I1), s	14.2	25.7	12.8	16.4	13.2	24.8	17.5	13.1				
Green Ext Time (p_c), s	0.0	2.0	0.1	1.9	0.1	2.9	0.0	0.7				
Intersection Summary												
HCM 6th Ctrl Delay			43.6									
HCM 6th LOS			D									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	73.8	71.3	72.3	84.2
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	6	5	6	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	49	21	31	111
85th percentile speed (mph)	40	40	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	52.3	52.3	52.3	52.3
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.09	2.72	3.13	3.39
Pedestrian Crosswalk LOS	C	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	1323	550	1308	1571
Effct. Green for Bike (s)	21.1	17.5	31.3	31.7
Cross Street Width (ft)	72.3	96.1	71.6	73.8
Through Lanes Number	2	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	5.0	5.0	5.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	352	292	522	528
Bicycle Delay (s/bike)	40.8	43.8	32.8	32.5
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	2.69	2.87	2.66	2.91
Bicycle LOS	C	C	C	C

Intersection						
Int Delay, s/veh	2.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	103	51	12	788	959	101
Future Vol, veh/h	103	51	12	788	959	101
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	75	200	-	-	-
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	113	56	13	866	1054	111

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1569	583	1165	0	-	0
Stage 1	1110	-	-	-	-	-
Stage 2	459	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	~ 101	456	595	-	-	-
Stage 1	277	-	-	-	-	-
Stage 2	603	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 99	456	595	-	-	-
Mov Cap-2 Maneuver	244	-	-	-	-	-
Stage 1	271	-	-	-	-	-
Stage 2	603	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	26	0.2	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	595	-	244	456	-	-
HCM Lane V/C Ratio	0.022	-	0.464	0.123	-	-
HCM Control Delay (s)	11.2	-	31.9	14	-	-
HCM Lane LOS	B	-	D	B	-	-
HCM 95th %tile Q(veh)	0.1	-	2.3	0.4	-	-

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

Approach

Approach Direction	NB
Median Present?	No
Approach Delay(s)	439576.5
Level of Service	F

Crosswalk

Length (ft)	78
Lanes Crossed	4
Veh Vol Crossed	1747
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	25.29
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.95
Delay for adq Gap	439578.59
Avg Ped Delay (s)	439576.53

Approach

Approach Direction	SB
Median Present?	No
Approach Delay(s)	580057.8
Level of Service	F

Crosswalk























Length (ft)	80
Lanes Crossed	4
Veh Vol Crossed	1747
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	25.86
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.96
Delay for adq Gap	580059.81
Avg Ped Delay (s)	580057.75



Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	172	41	9	22	40	732	4	962
v/c Ratio	0.54	0.09	0.03	0.05	0.27	0.37	0.04	0.56
Control Delay	29.7	0.4	20.2	0.2	38.7	10.6	37.2	15.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.7	0.4	20.2	0.2	38.7	10.6	37.2	15.8
Queue Length 50th (ft)	68	0	3	0	17	72	2	156
Queue Length 95th (ft)	123	0	13	0	52	200	12	292
Internal Link Dist (ft)	310		100			324		936
Turn Bay Length (ft)		75		75	200		200	
Base Capacity (vph)	577	715	614	706	150	1996	100	1733
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.06	0.01	0.03	0.27	0.37	0.04	0.56
Intersection Summary								

600 Tank Farm Road
9: Broad & Aero

Existing Plus Alternative B PM
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	169	0	40	8	1	22	39	715	2	4	873	70
Future Volume (veh/h)	169	0	40	8	1	22	39	715	2	4	873	70
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		0.98	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	172	0	26	8	1	21	40	730	2	4	891	59
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	379	0	277	375	40	277	59	1906	5	8	1673	111
Arrive On Green	0.18	0.00	0.18	0.18	0.18	0.18	0.03	0.52	0.52	0.00	0.50	0.50
Sat Flow, veh/h	1422	0	1582	1444	228	1582	1781	3635	10	1781	3378	224
Grp Volume(v), veh/h	172	0	26	9	0	21	40	357	375	4	469	481
Grp Sat Flow(s),veh/h/ln	1422	0	1582	1673	0	1582	1781	1777	1868	1781	1777	1825
Q Serve(g_s), s	6.1	0.0	0.8	0.0	0.0	0.6	1.2	6.7	6.7	0.1	10.1	10.1
Cycle Q Clear(g_c), s	6.3	0.0	0.8	0.2	0.0	0.6	1.2	6.7	6.7	0.1	10.1	10.1
Prop In Lane	1.00		1.00	0.89		1.00	1.00		0.01	1.00		0.12
Lane Grp Cap(c), veh/h	379	0	277	415	0	277	59	931	979	8	880	904
V/C Ratio(X)	0.45	0.00	0.09	0.02	0.00	0.08	0.68	0.38	0.38	0.52	0.53	0.53
Avail Cap(c_a), veh/h	867	0	824	918	0	824	192	1132	1191	128	1069	1097
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.5	0.0	19.3	19.0	0.0	19.2	26.6	7.9	7.9	27.7	9.6	9.6
Incr Delay (d2), s/veh	1.6	0.0	0.3	0.0	0.0	0.2	17.6	1.2	1.1	61.2	2.3	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.0	0.3	0.1	0.0	0.2	0.8	2.0	2.1	0.2	3.3	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.1	0.0	19.5	19.1	0.0	19.4	44.2	9.1	9.0	88.9	11.9	11.9
LnGrp LOS	C	A	B	B	A	B	D	A	A	F	B	B
Approach Vol, veh/h		198			30			772			954	
Approach Delay, s/veh		22.6			19.3			10.9			12.2	
Approach LOS		C			B			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.2	35.7		14.8	6.8	34.1		14.8				
Change Period (Y+Rc), s	5.0	6.5		5.0	5.0	6.5		5.0				
Max Green Setting (Gmax), s	4.0	35.5		29.0	6.0	33.5		29.0				
Max Q Clear Time (g_c+I1), s	2.1	8.7		8.3	3.2	12.1		2.6				
Green Ext Time (p_c), s	0.0	15.3		1.8	0.0	15.5		0.1				
Intersection Summary												
HCM 6th Ctrl Delay			12.9									
HCM 6th LOS			B									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	34.0	34.2	57.2	59.2
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	5	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	42.5	42.5	42.5	42.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.05	1.96	2.81	2.86
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	213	31	772	966
Effct. Green for Bike (s)	16.5	16.5	39.7	35.2
Cross Street Width (ft)	58.1	60.4	34.2	34.1
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	11.0	11.0	11.0	11.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	388	388	934	828
Bicycle Delay (s/bike)	27.6	27.6	12.1	14.6
Bicycle Compliance	Fair	Fair	Fair	Fair
Bicycle LOS Score	3.01	2.75	2.93	3.09
Bicycle LOS	C	C	C	C

Intersection						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↘↗		↑	↗↘	↘↗	↑
Traffic Vol, veh/h	15	37	555	7	25	964
Future Vol, veh/h	15	37	555	7	25	964
Conflicting Peds, #/hr	0	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	230	145	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	39	584	7	26	1015

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1652	585	0	0	592
Stage 1	585	-	-	-	-
Stage 2	1067	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	108	511	-	-	984
Stage 1	557	-	-	-	-
Stage 2	331	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	105	511	-	-	983
Mov Cap-2 Maneuver	278	-	-	-	-
Stage 1	556	-	-	-	-
Stage 2	322	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.1	0	0.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	412	983
HCM Lane V/C Ratio	-	-	0.133	0.027
HCM Control Delay (s)	-	-	15.1	8.8
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	0.5	0.1

Approach

Approach Direction	NB
Median Present?	No
Approach Delay(s)	7164.2
Level of Service	F

Crosswalk

Length (ft)	56
Lanes Crossed	2
Veh Vol Crossed	1519
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.00
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.98
Delay for adq Gap	7166.53
Avg Ped Delay (s)	7164.17

Approach

Approach Direction	SB
Median Present?	No
Approach Delay(s)	1673.2
Level of Service	F

Crosswalk

Length (ft)	44
Lanes Crossed	2
Veh Vol Crossed	1519
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	15.57
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.96
Delay for adq Gap	1675.55
Avg Ped Delay (s)	1673.20



Lane Group	EBT	EBR	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	37	341	12	66	545	2	999	33
v/c Ratio	0.19	0.73	0.05	0.26	0.35	0.01	0.90	0.03
Control Delay	49.1	28.8	0.3	46.3	5.0	53.5	26.8	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.1	28.8	0.3	46.3	5.0	53.5	26.8	0.1
Queue Length 50th (ft)	16	67	0	28	59	1	347	0
Queue Length 95th (ft)	65	#259	0	100	237	10	798	0
Internal Link Dist (ft)	574		239		678		1346	
Turn Bay Length (ft)		135		355		400		400
Base Capacity (vph)	571	524	247	321	1663	141	1626	1366
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.65	0.05	0.21	0.33	0.01	0.61	0.02

Intersection Summary

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

600 Tank Farm Road
11: Edna (SR 227) & Buckley

Existing Plus Alternative B PM
HCM 6th Signalized Intersection Summary

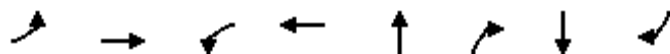


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗		↔		↖	↗		↖	↗	↖
Traffic Volume (veh/h)	34	2	327	7	0	5	63	520	3	2	959	32
Future Volume (veh/h)	34	2	327	7	0	5	63	520	3	2	959	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	35	2	301	7	0	1	66	542	3	2	999	33
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	334	19	395	15	0	2	92	1116	6	5	1036	859
Arrive On Green	0.20	0.20	0.20	0.01	0.00	0.01	0.05	0.60	0.60	0.00	0.55	0.55
Sat Flow, veh/h	1689	97	1585	1535	0	219	1781	1858	10	1781	1870	1551
Grp Volume(v), veh/h	37	0	301	8	0	0	66	0	545	2	999	33
Grp Sat Flow(s),veh/h/ln	1786	0	1585	1754	0	0	1781	0	1868	1781	1870	1551
Q Serve(g_s), s	1.6	0.0	17.0	0.4	0.0	0.0	3.5	0.0	15.9	0.1	49.5	0.9
Cycle Q Clear(g_c), s	1.6	0.0	17.0	0.4	0.0	0.0	3.5	0.0	15.9	0.1	49.5	0.9
Prop In Lane	0.95		1.00	0.87		0.12	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	353	0	395	18	0	0	92	0	1122	5	1036	859
V/C Ratio(X)	0.10	0.00	0.76	0.46	0.00	0.00	0.72	0.00	0.49	0.42	0.96	0.04
Avail Cap(c_a), veh/h	369	0	409	91	0	0	208	0	1674	92	1558	1292
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	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.8	0.0	33.7	47.6	0.0	0.0	45.2	0.0	10.9	48.2	20.7	9.8
Incr Delay (d2), s/veh	0.0	0.0	7.0	13.1	0.0	0.0	3.9	0.0	0.1	19.7	9.9	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	0.7	0.0	6.9	0.3	0.0	0.0	1.6	0.0	5.2	0.1	20.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.8	0.0	40.7	60.7	0.0	0.0	49.1	0.0	11.0	67.9	30.6	9.9
LnGrp LOS	C	A	D	E	A	A	D	A	B	E	C	A
Approach Vol, veh/h		338			8			611			1034	
Approach Delay, s/veh		39.7			60.7			15.1			30.0	
Approach LOS		D			E			B			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.5	60.0		5.0	4.0	64.5		23.3				
Change Period (Y+Rc), s	3.5	6.4		4.0	3.7	6.4		4.2				
Max Green Setting (Gmax), s	11.3	80.6		5.0	5.0	86.7		20.0				
Max Q Clear Time (g_c+I1), s	5.5	51.5		2.4	2.1	17.9		19.0				
Green Ext Time (p_c), s	0.0	2.1		0.0	0.0	0.9		0.1				
Intersection Summary												
HCM 6th Ctrl Delay			27.2									
HCM 6th LOS			C									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	36.5	24.6	36.4	48.7
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	2	3	4
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	2	6	8	4
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	50	30	55	55
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	67.5	67.5	67.5	67.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.22	1.75	3.13	2.88
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	378	12	611	1034
Effct. Green for Bike (s)	8.4	6.3	66.1	46.6
Cross Street Width (ft)	36.4	48.7	24.6	36.5
Through Lanes Number	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	124	93	979	690
Bicycle Delay (s/bike)	59.4	61.3	17.6	28.9
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	2.74	2.32	2.94	3.82
Bicycle LOS	C	B	C	D

Mitigated Existing Plus Project



Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	60	900	120	635	6	66	6	19
v/c Ratio	0.11	0.47	0.26	0.28	0.02	0.16	0.02	0.05
Control Delay	6.8	12.7	7.7	10.1	15.3	2.1	15.3	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.8	12.7	7.7	10.1	15.3	2.1	15.3	0.2
Queue Length 50th (ft)	4	85	8	53	1	0	1	0
Queue Length 95th (ft)	33	261	59	170	9	10	9	0
Internal Link Dist (ft)		1057		508	155		449	
Turn Bay Length (ft)	225		160			25		25
Base Capacity (vph)	559	2179	465	2398	1034	1195	1064	1180
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.41	0.26	0.26	0.01	0.06	0.01	0.02

Intersection Summary

600 Tank Farm Road
2: Long & Tank Farm

Existing Plus Alternative B AM (MITIGATED)
HCM 6th Signalized Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↖	↗		↖	↗
Traffic Volume (veh/h)	58	817	47	115	591	18	6	0	63	5	1	18
Future Volume (veh/h)	58	817	47	115	591	18	6	0	63	5	1	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	60	851	49	120	616	19	6	0	66	5	1	19
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	546	1375	79	478	1519	47	314	0	123	271	36	123
Arrive On Green	0.05	0.40	0.40	0.08	0.43	0.43	0.08	0.00	0.08	0.08	0.08	0.08
Sat Flow, veh/h	1781	3410	196	1781	3516	108	1334	0	1581	1007	455	1581
Grp Volume(v), veh/h	60	443	457	120	311	324	6	0	66	6	0	19
Grp Sat Flow(s),veh/h/ln	1781	1777	1830	1781	1777	1848	1334	0	1581	1462	0	1581
Q Serve(g_s), s	0.7	6.8	6.8	1.3	4.1	4.2	0.1	0.0	1.4	0.0	0.0	0.4
Cycle Q Clear(g_c), s	0.7	6.8	6.8	1.3	4.1	4.2	0.2	0.0	1.4	0.1	0.0	0.4
Prop In Lane	1.00		0.11	1.00		0.06	1.00		1.00	0.83		1.00
Lane Grp Cap(c), veh/h	546	717	738	478	767	798	314	0	123	306	0	123
V/C Ratio(X)	0.11	0.62	0.62	0.25	0.41	0.41	0.02	0.00	0.53	0.02	0.00	0.15
Avail Cap(c_a), veh/h	663	1298	1336	585	1339	1392	1416	0	1380	1417	0	1380
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	5.5	8.2	8.2	5.8	6.7	6.7	14.8	0.0	15.2	14.7	0.0	14.8
Incr Delay (d2), s/veh	0.1	0.9	0.9	0.3	0.3	0.3	0.0	0.0	3.6	0.0	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.4	1.5	0.2	0.8	0.8	0.0	0.0	0.5	0.0	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	5.5	9.0	9.0	6.0	7.1	7.1	14.8	0.0	18.8	14.7	0.0	15.4
LnGrp LOS	A	A	A	A	A	A	B	A	B	B	A	B
Approach Vol, veh/h		960			755			72				25
Approach Delay, s/veh		8.8			6.9			18.5				15.2
Approach LOS		A			A			B				B
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		7.4	7.3	19.7		7.4	6.3	20.6				
Change Period (Y+Rc), s		* 4.7	4.6	5.8		* 4.7	4.6	5.8				
Max Green Setting (Gmax), s		* 30	4.8	25.1		* 30	4.0	25.9				
Max Q Clear Time (g_c+I1), s		3.4	3.3	8.8		2.4	2.7	6.2				
Green Ext Time (p_c), s		0.3	0.0	4.9		0.1	0.0	3.5				

Intersection Summary

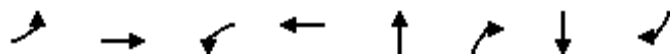
HCM 6th Ctrl Delay	8.5
HCM 6th LOS	A

Notes

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

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	57.8	60.4	36.1	36.7
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	5	5	3	3
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	45	45	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	37.5	37.5	37.5	37.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.77	2.79	2.02	1.98
Pedestrian Crosswalk LOS	C	C	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	960	755	72	25
Effct. Green for Bike (s)	24.3	28.9	9.2	9.2
Cross Street Width (ft)	36.1	36.7	60.4	57.8
Through Lanes Number	2	2	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	648	771	245	245
Bicycle Delay (s/bike)	17.1	14.2	28.9	28.9
Bicycle Compliance	Fair	Fair	Fair	Fair
Bicycle LOS Score	2.90	2.74	2.60	2.49
Bicycle LOS	C	C	C	B



Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	67	677	139	1090	15	177	15	69
v/c Ratio	0.16	0.42	0.25	0.60	0.08	0.48	0.08	0.25
Control Delay	3.9	10.5	4.2	11.6	23.9	9.7	23.9	9.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.9	10.5	4.2	11.6	23.9	9.7	23.9	9.8
Queue Length 50th (ft)	5	66	10	126	4	0	4	0
Queue Length 95th (ft)	16	122	29	222	21	48	21	31
Internal Link Dist (ft)		1057		508	155		449	
Turn Bay Length (ft)	225		160			25		25
Base Capacity (vph)	482	3347	727	3430	981	1150	981	1117
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.20	0.19	0.32	0.02	0.15	0.02	0.06

Intersection Summary

600 Tank Farm Road
2: Long & Tank Farm

Existing Plus Alternative B PM (MITIGATED)
HCM 6th Signalized Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	622	28	133	1023	23	12	2	170	12	2	66
Future Volume (veh/h)	64	622	28	133	1023	23	12	2	170	12	2	66
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	67	648	29	139	1066	24	12	2	177	12	2	69
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	363	1499	67	522	1628	37	330	44	257	314	42	257
Arrive On Green	0.05	0.43	0.43	0.08	0.46	0.46	0.16	0.16	0.16	0.16	0.16	0.16
Sat Flow, veh/h	1781	3460	155	1781	3551	80	1135	273	1585	1040	257	1585
Grp Volume(v), veh/h	67	332	345	139	533	557	14	0	177	14	0	69
Grp Sat Flow(s),veh/h/ln	1781	1777	1838	1781	1777	1854	1408	0	1585	1297	0	1585
Q Serve(g_s), s	0.9	6.0	6.0	1.9	10.7	10.7	0.0	0.0	4.8	0.0	0.0	1.7
Cycle Q Clear(g_c), s	0.9	6.0	6.0	1.9	10.7	10.7	0.3	0.0	4.8	0.3	0.0	1.7
Prop In Lane	1.00		0.08	1.00		0.04	0.86		1.00	0.86		1.00
Lane Grp Cap(c), veh/h	363	770	796	522	814	850	374	0	257	356	0	257
V/C Ratio(X)	0.18	0.43	0.43	0.27	0.65	0.66	0.04	0.00	0.69	0.04	0.00	0.27
Avail Cap(c_a), veh/h	600	2100	2173	869	2255	2353	1156	0	1151	1072	0	1151
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	7.5	9.1	9.1	6.5	9.6	9.6	16.2	0.0	18.1	16.2	0.0	16.8
Incr Delay (d2), s/veh	0.2	0.4	0.4	0.3	0.9	0.9	0.0	0.0	3.3	0.0	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	1.6	1.6	0.4	2.7	2.8	0.1	0.0	1.6	0.1	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.7	9.4	9.4	6.8	10.5	10.5	16.3	0.0	21.4	16.3	0.0	17.4
LnGrp LOS	A	A	A	A	B	B	B	A	C	B	A	B
Approach Vol, veh/h		744			1229			191				83
Approach Delay, s/veh		9.3			10.1			21.0				17.2
Approach LOS		A			B			C				B
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		12.1	8.1	25.7		12.1	6.9	26.8				
Change Period (Y+Rc), s		* 4.7	4.6	5.8		* 4.7	4.6	5.8				
Max Green Setting (Gmax), s		* 33	12.4	54.2		* 33	8.4	58.2				
Max Q Clear Time (g_c+I1), s		6.8	3.9	8.0		3.7	2.9	12.7				
Green Ext Time (p_c), s		0.8	0.3	4.3		0.3	0.1	8.3				

Intersection Summary

HCM 6th Ctrl Delay	11.0
HCM 6th LOS	B

Notes

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

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	57.8	60.4	36.1	36.7
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	5	5	3	3
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	45	45	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	57.5	57.5	57.5	57.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.87	2.92	2.08	2.02
Pedestrian Crosswalk LOS	C	C	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	744	1229	191	83
Effct. Green for Bike (s)	23.3	26.0	7.0	7.0
Cross Street Width (ft)	36.1	36.7	60.4	57.8
Through Lanes Number	2	2	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	405	452	122	122
Bicycle Delay (s/bike)	36.6	34.4	50.7	50.7
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	2.73	3.14	2.80	2.58
Bicycle LOS	C	C	C	C

Near Term


























Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	49	22	170	169	289	16	607	857	280	387
v/c Ratio	0.27	0.08	0.35	0.33	0.42	0.16	0.67	0.72	0.59	0.26
Control Delay	41.6	0.6	29.8	29.5	5.8	50.7	35.1	5.7	44.2	19.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.6	0.6	29.8	29.5	5.8	50.7	35.1	5.7	44.2	19.5
Queue Length 50th (ft)	26	0	76	75	0	8	152	22	72	62
Queue Length 95th (ft)	65	0	180	176	65	36	300	115	#167	169
Internal Link Dist (ft)	109			1057			1054			1668
Turn Bay Length (ft)					250	140		100	100	
Base Capacity (vph)	540	560	641	666	809	109	1134	1276	530	1553
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.04	0.27	0.25	0.36	0.15	0.54	0.67	0.53	0.25

Intersection Summary

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

600 Tank Farm Road
1: Higuera & Tank Farm

Near Term AM
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	20	20	304	5	263	15	552	780	255	342	10
Future Volume (veh/h)	25	20	20	304	5	263	15	552	780	255	342	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		1.00	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	27	22	20	338	0	0	16	607	661	280	376	11
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	58	47	88	1067	0	0	33	1170	985	379	1481	43
Arrive On Green	0.06	0.06	0.06	0.30	0.00	0.00	0.02	0.33	0.33	0.11	0.42	0.42
Sat Flow, veh/h	1003	817	1520	3563	0	1585	1781	3554	1550	3456	3523	103
Grp Volume(v), veh/h	49	0	20	338	0	0	16	607	661	280	189	198
Grp Sat Flow(s),veh/h/ln	1820	0	1520	1781	0	1585	1781	1777	1550	1728	1777	1849
Q Serve(g_s), s	2.2	0.0	1.0	6.1	0.0	0.0	0.7	11.5	23.0	6.6	5.8	5.8
Cycle Q Clear(g_c), s	2.2	0.0	1.0	6.1	0.0	0.0	0.7	11.5	23.0	6.6	5.8	5.8
Prop In Lane	0.55		1.00	1.00		1.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	105	0	88	1067	0	0	33	1170	985	379	747	777
V/C Ratio(X)	0.47	0.00	0.23	0.32	0.00	0.00	0.48	0.52	0.67	0.74	0.25	0.25
Avail Cap(c_a), veh/h	589	0	492	1472	0	0	119	1192	995	559	764	795
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	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.1	0.0	37.5	22.6	0.0	0.0	40.6	22.6	10.0	36.0	15.7	15.7
Incr Delay (d2), s/veh	1.2	0.0	0.5	0.1	0.0	0.0	4.0	0.8	2.3	3.4	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.4	2.4	0.0	0.0	0.3	4.5	13.6	2.8	2.2	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.3	0.0	38.0	22.7	0.0	0.0	44.6	23.4	12.4	39.5	16.1	16.1
LnGrp LOS	D	A	D	C	A	A	D	C	B	D	B	B
Approach Vol, veh/h		69			338	A		1284			667	
Approach Delay, s/veh		38.9			22.7			18.0			25.9	
Approach LOS		D			C			B			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.6	32.0		9.3	5.0	39.6		29.5				
Change Period (Y+Rc), s	3.5	4.5		4.5	3.5	4.5		4.5				
Max Green Setting (Gmax), s	13.5	28.0		27.0	5.6	35.9		34.5				
Max Q Clear Time (g_c+I1), s	8.6	25.0		4.2	2.7	7.8		8.1				
Green Ext Time (p_c), s	0.6	2.5		0.2	0.0	4.3		0.8				

Intersection Summary

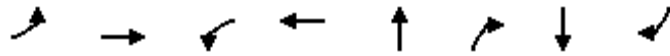
HCM 6th Ctrl Delay	21.5
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	50.7	58.5	67.8	54.5
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	6	6
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	2	141	178	0
85th percentile speed (mph)	25	45	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	52.3	52.3	52.3	52.3
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	1.99	3.00	3.26	2.86
Pedestrian Crosswalk LOS	B	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	71	628	1480	667
Effct. Green for Bike (s)	9.5	27.5	23.3	38.2
Cross Street Width (ft)	78.9	66.6	58.5	49.8
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	10.0	11.0	11.0	11.0
Bicycle Lane Width (ft)	0.0	5.0	5.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	158	458	388	637
Bicycle Delay (s/bike)	50.9	35.7	39.0	27.9
Bicycle Compliance	Poor	Poor	Poor	Fair
Bicycle LOS Score	3.31	2.76	2.82	2.01
Bicycle LOS	C	C	C	B



Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	63	957	120	768	10	68	25	21
v/c Ratio	0.12	0.50	0.27	0.34	0.04	0.17	0.09	0.05
Control Delay	6.9	13.2	7.9	10.4	16.1	2.2	16.9	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.9	13.2	7.9	10.4	16.1	2.2	16.9	0.2
Queue Length 50th (ft)	4	95	9	67	2	0	6	0
Queue Length 95th (ft)	35	#283	59	210	11	11	21	0
Internal Link Dist (ft)		1057		508	155		449	
Turn Bay Length (ft)	225		160			25		25
Base Capacity (vph)	514	2126	442	2310	996	1173	1025	1159
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.45	0.27	0.33	0.01	0.06	0.02	0.02

Intersection Summary

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

600 Tank Farm Road
2: Long & Tank Farm

Near Term AM
HCM 6th Signalized Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↖	↗		↖	↗
Traffic Volume (veh/h)	60	869	50	115	669	68	10	0	65	19	5	20
Future Volume (veh/h)	60	869	50	115	669	68	10	0	65	19	5	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	62	905	52	120	697	71	10	0	68	20	5	21
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	494	1414	81	458	1433	146	327	0	137	272	41	137
Arrive On Green	0.05	0.41	0.41	0.08	0.44	0.44	0.09	0.00	0.09	0.09	0.09	0.09
Sat Flow, veh/h	1781	3411	196	1781	3248	331	1462	0	1581	1052	478	1581
Grp Volume(v), veh/h	62	471	486	120	381	387	10	0	68	25	0	21
Grp Sat Flow(s),veh/h/ln	1781	1777	1830	1781	1777	1802	1462	0	1581	1530	0	1581
Q Serve(g_s), s	0.7	7.6	7.6	1.3	5.5	5.5	0.0	0.0	1.5	0.1	0.0	0.4
Cycle Q Clear(g_c), s	0.7	7.6	7.6	1.3	5.5	5.5	0.2	0.0	1.5	0.5	0.0	0.4
Prop In Lane	1.00		0.11	1.00		0.18	1.00		1.00	0.80		1.00
Lane Grp Cap(c), veh/h	494	737	759	458	784	795	327	0	137	313	0	137
V/C Ratio(X)	0.13	0.64	0.64	0.26	0.49	0.49	0.03	0.00	0.50	0.08	0.00	0.15
Avail Cap(c_a), veh/h	601	1243	1280	558	1283	1301	1382	0	1322	1426	0	1322
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	5.6	8.4	8.4	6.0	7.1	7.1	15.0	0.0	15.6	15.2	0.0	15.2
Incr Delay (d2), s/veh	0.1	0.9	0.9	0.3	0.5	0.5	0.0	0.0	2.8	0.1	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.7	1.7	0.2	1.1	1.1	0.1	0.0	0.5	0.2	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	5.7	9.3	9.3	6.3	7.6	7.6	15.1	0.0	18.4	15.3	0.0	15.7
LnGrp LOS	A	A	A	A	A	A	B	A	B	B	A	B
Approach Vol, veh/h		1019			888			78				46
Approach Delay, s/veh		9.1			7.4			18.0				15.5
Approach LOS		A			A			B				B
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.4	20.7		7.8	6.4	21.6		7.8				
Change Period (Y+Rc), s	4.6	5.8		* 4.7	4.6	5.8		* 4.7				
Max Green Setting (Gmax), s	4.8	25.1		* 30	4.0	25.9		* 30				
Max Q Clear Time (g_c+I1), s	3.3	9.6		2.5	2.7	7.5		3.5				
Green Ext Time (p_c), s	0.0	5.2		0.2	0.0	4.3		0.3				

Intersection Summary

HCM 6th Ctrl Delay	8.8
HCM 6th LOS	A

Notes

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

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	57.8	60.4	36.1	36.7
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	5	5	3	3
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6
Effective Walk Time (s)	9.0	9.0	9.0	9.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	10	19	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	45	45	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	29.0	29.0	29.0	29.0
Pedestrian Compliance Code	Fair	Fair	Fair	Fair
Pedestrian Crosswalk Score	2.82	2.87	2.02	1.99
Pedestrian Crosswalk LOS	C	C	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	1019	888	78	46
Effct. Green for Bike (s)	25.4	30.2	9.5	9.6
Cross Street Width (ft)	36.1	36.7	60.4	57.8
Through Lanes Number	2	2	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	5.0	5.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	677	805	253	256
Bicycle Delay (s/bike)	16.4	13.4	28.6	28.5
Bicycle Compliance	Fair	Fair	Fair	Fair
Bicycle LOS Score	1.88	1.78	2.61	2.52
Bicycle LOS	B	B	C	C

Approach

Approach Direction	EB
Median Present?	No
Approach Delay(s)	26566.3
Level of Service	F

Crosswalk

Length (ft)	66
Lanes Crossed	4
Veh Vol Crossed	1538
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	21.86
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.90
Delay for adq Gap	26568.62
Avg Ped Delay (s)	26566.28

Approach

Approach Direction	WB
Median Present?	No
Approach Delay(s)	38324.5
Level of Service	F

Crosswalk

Length (ft)	69
Lanes Crossed	4
Veh Vol Crossed	1538
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	22.71
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.91
Delay for adq Gap	38326.84
Avg Ped Delay (s)	38324.50

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	894	0	0	745	0	0	0	0	0	0	0
Future Vol, veh/h	0	894	0	0	745	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	972	0	0	810	0	0	0	0	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	810	0	0	972	0	0	1782	1782	972	1782	1782	810
Stage 1	-	-	-	-	-	-	972	972	-	810	810	-
Stage 2	-	-	-	-	-	-	810	810	-	972	972	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	816	-	-	709	-	-	64	82	306	64	82	380
Stage 1	-	-	-	-	-	-	304	331	-	374	393	-
Stage 2	-	-	-	-	-	-	374	393	-	304	331	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	816	-	-	709	-	-	64	82	306	64	82	380
Mov Cap-2 Maneuver	-	-	-	-	-	-	64	82	-	64	82	-
Stage 1	-	-	-	-	-	-	304	331	-	374	393	-
Stage 2	-	-	-	-	-	-	374	393	-	304	331	-

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

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	816	-	-	709	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	0	-	-	0	-	-	0
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	-

Approach

Approach Direction	EB
Median Present?	No
Approach Delay(s)	538.6
Level of Service	F

Crosswalk

Length (ft)	32
Lanes Crossed	2
Veh Vol Crossed	1639
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	12.14
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.94
Delay for adq Gap	540.73
Avg Ped Delay (s)	538.58

Approach

Approach Direction	WB
Median Present?	No
Approach Delay(s)	615.1
Level of Service	F

Crosswalk

Length (ft)	33
Lanes Crossed	2
Veh Vol Crossed	1639
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	12.43
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.94
Delay for adq Gap	617.26
Avg Ped Delay (s)	615.11

Intersection						
Int Delay, s/veh	1.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	844	50	103	736	10	56
Future Vol, veh/h	844	50	103	736	10	56
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	110	-	0	25
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	888	53	108	775	11	59

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	941	0	1906 915
Stage 1	-	-	-	-	915 -
Stage 2	-	-	-	-	991 -
Critical Hdwy	-	-	4.12	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	2.218	-	3.518 3.318
Pot Cap-1 Maneuver	-	-	729	-	75 331
Stage 1	-	-	-	-	390 -
Stage 2	-	-	-	-	359 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	729	-	64 331
Mov Cap-2 Maneuver	-	-	-	-	64 -
Stage 1	-	-	-	-	390 -
Stage 2	-	-	-	-	306 -

Approach	EB	WB	NB
HCM Control Delay, s	0	1.3	26.4
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	64	331	-	-	729	-
HCM Lane V/C Ratio	0.164	0.178	-	-	0.149	-
HCM Control Delay (s)	72	18.2	-	-	10.8	-
HCM Lane LOS	F	C	-	-	B	-
HCM 95th %tile Q(veh)	0.5	0.6	-	-	0.5	-

Approach

Approach Direction	EB
Median Present?	Yes
Approach Delay(s)	18.1
Level of Service	C

Crosswalk

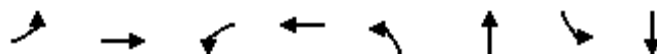
Length (ft)	11	16
Lanes Crossed	1	1
Veh Vol Crossed	844	736
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	6.14	7.57
Prob of Delayed X-ing	0.76	0.79
Prob of Blocked Lane	0.76	0.79
Delay for adq Gap	9.96	13.38
Avg Ped Delay (s)	7.60	10.53

Approach

Approach Direction	WB
Median Present?	No
Approach Delay(s)	9510.6
Level of Service	F

Crosswalk

Length (ft)	56
Lanes Crossed	2
Veh Vol Crossed	1580
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.00
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.98
Delay for adq Gap	9512.88
Avg Ped Delay (s)	9510.61



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	13	961	37	909	27	15	4	4
v/c Ratio	0.12	0.34	0.25	0.29	0.15	0.08	0.04	0.02
Control Delay	28.1	5.8	29.0	4.4	25.6	16.2	26.5	18.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.1	5.8	29.0	4.4	25.6	16.2	26.5	18.8
Queue Length 50th (ft)	4	0	11	0	7	1	1	0
Queue Length 95th (ft)	21	212	41	193	33	17	10	8
Internal Link Dist (ft)		357		533		330		264
Turn Bay Length (ft)	100		210					
Base Capacity (vph)	109	2823	146	3142	183	931	109	856
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.34	0.25	0.29	0.15	0.02	0.04	0.00

Intersection Summary

600 Tank Farm Road
5: MindBody & Tank Farm

Near Term AM
HCM 6th Signalized Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Volume (veh/h)	12	814	99	35	862	2	26	4	10	4	1	3
Future Volume (veh/h)	12	814	99	35	862	2	26	4	10	4	1	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	13	857	104	37	907	2	27	4	10	4	1	3
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	18	1505	183	43	1774	4	33	18	44	6	9	27
Arrive On Green	0.01	0.47	0.47	0.02	0.49	0.49	0.02	0.04	0.04	0.00	0.02	0.02
Sat Flow, veh/h	1781	3181	386	1781	3637	8	1781	474	1184	1781	412	1236
Grp Volume(v), veh/h	13	479	482	37	443	466	27	0	14	4	0	4
Grp Sat Flow(s),veh/h/ln	1781	1777	1790	1781	1777	1869	1781	0	1657	1781	0	1648
Q Serve(g_s), s	0.4	9.7	9.7	1.0	8.5	8.5	0.8	0.0	0.4	0.1	0.0	0.1
Cycle Q Clear(g_c), s	0.4	9.7	9.7	1.0	8.5	8.5	0.8	0.0	0.4	0.1	0.0	0.1
Prop In Lane	1.00		0.22	1.00		0.00	1.00		0.71	1.00		0.75
Lane Grp Cap(c), veh/h	18	841	847	43	866	911	33	0	62	6	0	36
V/C Ratio(X)	0.74	0.57	0.57	0.85	0.51	0.51	0.81	0.00	0.23	0.69	0.00	0.11
Avail Cap(c_a), veh/h	107	999	1007	143	1035	1089	179	0	899	107	0	828
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.6	9.5	9.5	24.2	8.7	8.7	24.3	0.0	23.3	24.8	0.0	23.9
Incr Delay (d2), s/veh	44.6	2.8	2.8	15.5	2.2	2.0	34.8	0.0	0.7	91.3	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	3.2	3.3	0.6	2.7	2.9	0.6	0.0	0.2	0.2	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.2	12.2	12.2	39.7	10.9	10.8	59.1	0.0	24.0	116.1	0.0	25.2
LnGrp LOS	E	B	B	D	B	B	E	A	C	F	A	C
Approach Vol, veh/h		974			946			41				8
Approach Delay, s/veh		13.0			11.9			47.1				70.7
Approach LOS		B			B			D				E
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.2	30.6	5.9	7.1	5.5	31.3	5.2	7.9				
Change Period (Y+Rc), s	5.0	7.0	5.0	6.0	5.0	7.0	5.0	6.0				
Max Green Setting (Gmax), s	4.0	28.0	5.0	25.0	3.0	29.0	3.0	27.0				
Max Q Clear Time (g_c+I1), s	3.0	11.7	2.8	2.1	2.4	10.5	2.1	2.4				
Green Ext Time (p_c), s	0.0	11.9	0.0	0.0	0.0	12.5	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay				13.4								
HCM 6th LOS				B								

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	59.2	60.1	36.2	37.2
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	5	3	3
Number of Right-Turn Islands	0	0	0	0
Type of Control	None Actuated		None Actuated	
Corresponding Signal Phase	8	8	4	6
Effective Walk Time (s)	0.0	9.0	0.0	9.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	1	0
85th percentile speed (mph)	40	40	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	42.5	34.0	42.5	34.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.76	2.77	2.01	1.95
Pedestrian Crosswalk LOS	C	C	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	974	946	42	8
Effct. Green for Bike (s)	40.3	44.0	5.3	5.8
Cross Street Width (ft)	36.2	37.2	72.2	59.3
Through Lanes Number	2	2	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	5.0	5.0	5.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	948	1035	125	136
Bicycle Delay (s/bike)	11.8	9.9	37.4	36.9
Bicycle Compliance	Fair	Good	Poor	Poor
Bicycle LOS Score	1.85	1.84	1.66	2.48
Bicycle LOS	B	B	B	B

























Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	132	39	122	96	75	910	219	76	1107	134
v/c Ratio	0.40	0.10	0.43	0.28	1.03	0.66	0.31	1.04	0.80	0.20
Control Delay	39.5	0.5	42.8	7.2	161.8	29.9	6.9	165.1	33.9	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.5	0.5	42.8	7.2	161.8	29.9	6.9	165.1	33.9	5.9
Queue Length 50th (ft)	70	0	66	0	45	217	8	45	285	0
Queue Length 95th (ft)	144	0	139	32	#187	#490	75	#187	#674	47
Internal Link Dist (ft)	288		473			1028			1931	
Turn Bay Length (ft)		100		180	150			150		430
Base Capacity (vph)	648	642	597	597	73	1385	708	73	1385	677
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.06	0.20	0.16	1.03	0.66	0.31	1.04	0.80	0.20

Intersection Summary

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

600 Tank Farm Road
6: Broad & Industrial

Near Term AM
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	117	1	35	90	19	85	67	810	195	68	985	119
Future Volume (veh/h)	117	1	35	90	19	85	67	810	195	68	985	119
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		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	131	1	39	101	21	67	75	910	177	76	1107	124
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	235	2	210	168	35	178	89	1551	669	89	1551	671
Arrive On Green	0.13	0.13	0.13	0.11	0.11	0.11	0.05	0.44	0.44	0.05	0.44	0.44
Sat Flow, veh/h	1768	14	1578	1487	309	1581	1781	3554	1534	1781	3554	1539
Grp Volume(v), veh/h	132	0	39	122	0	67	75	910	177	76	1107	124
Grp Sat Flow(s),veh/h/ln	1782	0	1578	1796	0	1581	1781	1777	1534	1781	1777	1539
Q Serve(g_s), s	5.6	0.0	1.8	5.2	0.0	3.1	3.3	15.6	5.9	3.4	20.5	4.0
Cycle Q Clear(g_c), s	5.6	0.0	1.8	5.2	0.0	3.1	3.3	15.6	5.9	3.4	20.5	4.0
Prop In Lane	0.99		1.00	0.83		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	237	0	210	202	0	178	89	1551	669	89	1551	671
V/C Ratio(X)	0.56	0.00	0.19	0.60	0.00	0.38	0.84	0.59	0.26	0.86	0.71	0.18
Avail Cap(c_a), veh/h	778	0	689	717	0	631	89	1662	717	89	1662	719
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.6	0.0	30.9	33.9	0.0	33.0	37.8	17.1	14.4	37.8	18.5	13.9
Incr Delay (d2), s/veh	9.1	0.0	1.9	5.3	0.0	2.4	50.2	1.6	1.0	52.9	2.8	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	0.8	2.5	0.0	1.3	2.6	5.9	2.0	2.7	7.9	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.7	0.0	32.9	39.1	0.0	35.4	88.0	18.8	15.4	90.7	21.3	14.5
LnGrp LOS	D	A	C	D	A	D	F	B	B	F	C	B
Approach Vol, veh/h		171			189			1162			1307	
Approach Delay, s/veh		39.7			37.8			22.7			24.7	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.0	41.5		15.7	9.0	41.5		14.0				
Change Period (Y+Rc), s	5.0	6.5		5.0	5.0	6.5		5.0				
Max Green Setting (Gmax), s	4.0	37.5		35.0	4.0	37.5		32.0				
Max Q Clear Time (g_c+I1), s	5.4	17.6		7.6	5.3	22.5		7.2				
Green Ext Time (p_c), s	0.0	13.7		2.8	0.0	12.5		1.7				
Intersection Summary												
HCM 6th Ctrl Delay			25.7									
HCM 6th LOS			C									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	36.0	36.1	61.3	62.1
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	6	6
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	26	37	9
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	57.2	57.2	57.2	57.2
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.09	2.16	3.12	3.08
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	171	218	1204	1317
Effct. Green for Bike (s)	18.1	15.5	38.4	38.4
Cross Street Width (ft)	73.1	73.9	37.5	37.7
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	5.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	278	238	591	591
Bicycle Delay (s/bike)	48.2	50.4	32.3	32.3
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	2.96	3.05	2.05	2.15
Bicycle LOS	C	C	B	B































Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	260	169	411	248	284	190	224	802	61	666	367
v/c Ratio	0.62	0.21	0.86	0.89	0.57	0.36	0.86	0.75	0.62	0.74	0.46
Control Delay	46.2	27.8	38.2	73.4	34.0	9.4	74.3	33.8	73.3	36.2	5.5
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	46.2	27.8	38.2	73.4	34.0	9.4	74.3	33.8	73.3	36.2	5.5
Queue Length 50th (ft)	71	40	139	137	137	15	64	211	34	175	18
Queue Length 95th (ft)	135	71	274	#364	242	70	#172	340	#121	283	81
Internal Link Dist (ft)		533			770			1992		1028	
Turn Bay Length (ft)	265		85	150			275		250		300
Base Capacity (vph)	525	1446	727	279	770	744	260	1330	99	1281	836
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.12	0.57	0.89	0.37	0.26	0.86	0.60	0.62	0.52	0.44

Intersection Summary

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

600 Tank Farm Road
7: Broad & Tank Farm

Near Term AM
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 					 	 			 	
Traffic Volume (veh/h)	250	162	395	238	273	182	215	655	115	59	639	352
Future Volume (veh/h)	250	162	395	238	273	182	215	655	115	59	639	352
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	260	169	332	248	284	147	224	682	102	61	666	306
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	344	894	395	278	576	488	260	840	125	78	852	530
Arrive On Green	0.10	0.25	0.25	0.16	0.31	0.31	0.08	0.27	0.27	0.04	0.24	0.24
Sat Flow, veh/h	3456	3554	1570	1781	1870	1585	3456	3099	463	1781	3554	1554
Grp Volume(v), veh/h	260	169	332	248	284	147	224	391	393	61	666	306
Grp Sat Flow(s),veh/h/ln	1728	1777	1570	1781	1870	1585	1728	1777	1785	1781	1777	1554
Q Serve(g_s), s	6.3	3.2	17.4	11.8	10.7	6.1	5.5	17.8	17.8	2.9	15.2	14.0
Cycle Q Clear(g_c), s	6.3	3.2	17.4	11.8	10.7	6.1	5.5	17.8	17.8	2.9	15.2	14.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.26	1.00		1.00
Lane Grp Cap(c), veh/h	344	894	395	278	576	488	260	481	484	78	852	530
V/C Ratio(X)	0.76	0.19	0.84	0.89	0.49	0.30	0.86	0.81	0.81	0.78	0.78	0.58
Avail Cap(c_a), veh/h	524	1438	635	278	766	649	260	672	675	99	1274	715
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.9	25.4	30.7	35.8	24.4	22.8	39.5	29.5	29.5	40.9	30.8	23.5
Incr Delay (d2), s/veh	1.3	0.0	2.8	27.3	0.2	0.1	23.5	3.6	3.6	20.1	0.9	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	1.3	6.5	7.0	4.5	2.2	3.1	7.5	7.5	1.7	6.1	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.2	25.5	33.5	63.1	24.6	22.9	63.0	33.0	33.1	61.1	31.7	23.9
LnGrp LOS	D	C	C	E	C	C	E	C	C	E	C	C
Approach Vol, veh/h		761			679			1008			1033	
Approach Delay, s/veh		33.7			38.3			39.7			31.1	
Approach LOS		C			D			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.3	29.9	19.0	28.2	12.0	27.2	14.1	33.1				
Change Period (Y+Rc), s	5.5	6.5	5.5	6.5	5.5	6.5	5.5	6.5				
Max Green Setting (Gmax), s	4.8	32.7	13.5	35.0	6.5	31.0	13.1	35.4				
Max Q Clear Time (g_c+I1), s	4.9	19.8	13.8	19.4	7.5	17.2	8.3	12.7				
Green Ext Time (p_c), s	0.0	2.5	0.0	1.0	0.0	3.2	0.3	1.0				
Intersection Summary												
HCM 6th Ctrl Delay			35.6									
HCM 6th LOS			D									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	73.8	71.3	72.3	84.2
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	7	5	6	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	76	41	17	59
85th percentile speed (mph)	40	40	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	47.3	47.3	47.3	47.3
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.03	2.65	3.06	3.15
Pedestrian Crosswalk LOS	C	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	840	722	1026	1094
Effct. Green for Bike (s)	20.4	23.5	27.0	22.6
Cross Street Width (ft)	72.3	95.5	71.6	85.6
Through Lanes Number	2	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	5.0	5.0	5.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	371	427	491	411
Bicycle Delay (s/bike)	36.5	34.0	31.3	34.7
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	2.29	3.14	2.43	2.70
Bicycle LOS	B	C	B	C

Intersection

Int Delay, s/veh 0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	42	10	60	1150	733	227
Future Vol, veh/h	42	10	60	1150	733	227
Conflicting Peds, #/hr	0	0	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	75	200	-	-	-
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	45	11	64	1223	780	241

Major/Minor

	Minor2	Major1	Major2			
Conflicting Flow All	1642	512	1022	0	-	0
Stage 1	902	-	-	-	-	-
Stage 2	740	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	91	507	675	-	-	-
Stage 1	356	-	-	-	-	-
Stage 2	433	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	82	507	674	-	-	-
Mov Cap-2 Maneuver	256	-	-	-	-	-
Stage 1	322	-	-	-	-	-
Stage 2	433	-	-	-	-	-

Approach

	EB	NB	SB
HCM Control Delay, s	20.1	0.5	0
HCM LOS	C		

Minor Lane/Major Mvmt

	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	674	-	256	507	-	-
HCM Lane V/C Ratio	0.095	-	0.175	0.021	-	-
HCM Control Delay (s)	10.9	-	22	12.3	-	-
HCM Lane LOS	B	-	C	B	-	-
HCM 95th %tile Q(veh)	0.3	-	0.6	0.1	-	-

Approach

Approach Direction	NB
Median Present?	No
Approach Delay(s)	1060102.1
Level of Service	F

Crosswalk

Length (ft)	78
Lanes Crossed	4
Veh Vol Crossed	1883
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	25.29
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.96
Delay for adq Gap	1060104.00
Avg Ped Delay (s)	1060102.13

Approach

Approach Direction	SB
Median Present?	No
Approach Delay(s)	1429407.1
Level of Service	F

Crosswalk

Length (ft)	80
Lanes Crossed	4
Veh Vol Crossed	1883
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	25.86
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.97
Delay for adq Gap	1429409.00
Avg Ped Delay (s)	1429407.13

























Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	64	5	11	38	54	1259	54	728
v/c Ratio	0.35	0.02	0.06	0.13	0.35	0.55	0.40	0.31
Control Delay	37.8	0.2	31.3	0.9	43.0	11.2	46.5	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.8	0.2	31.3	0.9	43.0	11.2	46.5	8.0
Queue Length 50th (ft)	30	0	5	0	27	198	27	93
Queue Length 95th (ft)	67	0	19	0	64	293	65	143
Internal Link Dist (ft)	310		100			324		936
Turn Bay Length (ft)		75		75	200		200	
Base Capacity (vph)	506	643	492	643	158	2285	135	2322
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.01	0.02	0.06	0.34	0.55	0.40	0.31

Intersection Summary

600 Tank Farm Road
9: Broad & Aero

Near Term AM
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	54	5	5	10	0	35	50	1140	18	50	600	70
Future Volume (veh/h)	54	5	5	10	0	35	50	1140	18	50	600	70
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		0.98	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	59	5	5	11	0	38	54	1239	20	54	652	62
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	199	8	111	222	0	111	68	2307	37	68	2110	200
Arrive On Green	0.07	0.07	0.07	0.07	0.00	0.07	0.04	0.64	0.64	0.04	0.64	0.64
Sat Flow, veh/h	1358	115	1585	1631	0	1585	1781	3577	58	1781	3273	311
Grp Volume(v), veh/h	64	0	5	11	0	38	54	615	644	54	354	360
Grp Sat Flow(s),veh/h/ln	1473	0	1585	1631	0	1585	1781	1777	1858	1781	1777	1806
Q Serve(g_s), s	2.4	0.0	0.2	0.0	0.0	1.5	2.0	12.6	12.6	2.0	5.9	5.9
Cycle Q Clear(g_c), s	2.8	0.0	0.2	0.4	0.0	1.5	2.0	12.6	12.6	2.0	5.9	5.9
Prop In Lane	0.92		1.00	1.00		1.00	1.00		0.03	1.00		0.17
Lane Grp Cap(c), veh/h	207	0	111	222	0	111	68	1146	1198	68	1146	1165
V/C Ratio(X)	0.31	0.00	0.04	0.05	0.00	0.34	0.79	0.54	0.54	0.79	0.31	0.31
Avail Cap(c_a), veh/h	732	0	687	735	0	687	186	1288	1347	160	1261	1282
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.2	0.0	29.0	29.1	0.0	29.6	31.9	6.5	6.5	31.9	5.3	5.3
Incr Delay (d2), s/veh	1.6	0.0	0.3	0.2	0.0	3.3	24.4	1.8	1.7	24.7	0.7	0.7
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	1.1	0.0	0.1	0.2	0.0	0.7	1.3	3.4	3.6	1.3	1.6	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.7	0.0	29.3	29.3	0.0	33.0	56.3	8.3	8.2	56.6	6.0	6.0
LnGrp LOS	C	A	C	C	A	C	E	A	A	E	A	A
Approach Vol, veh/h		69			49			1313			768	
Approach Delay, s/veh		31.6			32.1			10.2			9.5	
Approach LOS		C			C			B			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.6	49.7		9.7	7.6	49.6		9.7				
Change Period (Y+Rc), s	5.0	6.5		5.0	5.0	6.5		5.0				
Max Green Setting (Gmax), s	6.0	48.5		29.0	7.0	47.5		29.0				
Max Q Clear Time (g_c+I1), s	4.0	14.6		4.8	4.0	7.9		3.5				
Green Ext Time (p_c), s	0.0	28.6		0.5	0.0	17.7		0.3				
Intersection Summary												
HCM 6th Ctrl Delay				11.1								
HCM 6th LOS				B								

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	34.0	34.2	57.2	59.2
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	5	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	50.0	50.0	50.0	50.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.02	2.00	2.89	2.93
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	69	49	1313	782
Effct. Green for Bike (s)	10.7	10.7	51.9	53.5
Cross Street Width (ft)	58.1	60.4	34.2	34.1
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	11.0	11.0	11.0	11.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	214	214	1038	1070
Bicycle Delay (s/bike)	39.9	39.9	11.6	10.8
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	2.78	2.78	3.38	2.94
Bicycle LOS	C	C	C	C

Intersection

Int Delay, s/veh	0.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↘↗		↑	↗↘	↘↗	↑
Traffic Vol, veh/h	5	19	990	25	45	499
Future Vol, veh/h	5	19	990	25	45	499
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	230	145	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	20	1031	26	47	520

Major/Minor

	Minor1	Major1	Major2			
Conflicting Flow All	1645	1031	0	0	1057	0
Stage 1	1031	-	-	-	-	-
Stage 2	614	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	109	283	-	-	659	-
Stage 1	344	-	-	-	-	-
Stage 2	540	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	101	283	-	-	659	-
Mov Cap-2 Maneuver	284	-	-	-	-	-
Stage 1	344	-	-	-	-	-
Stage 2	502	-	-	-	-	-

Approach

	WB	NB	SB
HCM Control Delay, s	19	0	0.9
HCM LOS	C		

Minor Lane/Major Mvmt

	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	283	659
HCM Lane V/C Ratio	-	-	0.088	0.071
HCM Control Delay (s)	-	-	19	10.9
HCM Lane LOS	-	-	C	B
HCM 95th %tile Q(veh)	-	-	0.3	0.2

Approach

Approach Direction	NB
Median Present?	No
Approach Delay(s)	6235.5
Level of Service	F

Crosswalk

Length (ft)	56
Lanes Crossed	2
Veh Vol Crossed	1489
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.00
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.98
Delay for adq Gap	6237.89
Avg Ped Delay (s)	6235.48

Approach

Approach Direction	SB
Median Present?	No
Approach Delay(s)	1497.3
Level of Service	F

Crosswalk

Length (ft)	44
Lanes Crossed	2
Veh Vol Crossed	1489
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	15.57
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.96
Delay for adq Gap	1499.67
Avg Ped Delay (s)	1497.28



Lane Group	EBT	EBR	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	64	194	10	253	1271	5	447	49
v/c Ratio	0.42	0.32	0.05	0.74	0.82	0.06	0.40	0.05
Control Delay	62.2	5.9	0.6	57.1	14.7	62.4	15.1	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.2	5.9	0.6	57.1	14.7	62.4	15.1	0.4
Queue Length 50th (ft)	40	0	0	155	371	3	151	0
Queue Length 95th (ft)	108	55	0	318	#1453	20	341	3
Internal Link Dist (ft)	574		239		678		1346	
Turn Bay Length (ft)		135		355		400		400
Base Capacity (vph)	351	753	186	539	1688	87	1372	1156
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.26	0.05	0.47	0.75	0.06	0.33	0.04

Intersection Summary

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

600 Tank Farm Road
11: Edna (SR 227) & Buckley

Near Term AM
HCM 6th Signalized Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗		↔		↖	↗		↖	↗	↗
Traffic Volume (veh/h)	55	5	182	5	0	5	238	1190	5	5	420	46
Future Volume (veh/h)	55	5	182	5	0	5	238	1190	5	5	420	46
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		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	59	5	154	5	0	4	253	1266	5	5	447	49
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	169	14	417	10	0	8	286	1298	5	12	1020	840
Arrive On Green	0.10	0.10	0.10	0.01	0.00	0.01	0.16	0.70	0.70	0.01	0.55	0.55
Sat Flow, veh/h	1648	140	1585	938	0	750	1781	1861	7	1781	1870	1540
Grp Volume(v), veh/h	64	0	154	9	0	0	253	0	1271	5	447	49
Grp Sat Flow(s),veh/h/ln	1788	0	1585	1688	0	0	1781	0	1869	1781	1870	1540
Q Serve(g_s), s	3.3	0.0	7.9	0.5	0.0	0.0	13.9	0.0	64.5	0.3	14.3	1.5
Cycle Q Clear(g_c), s	3.3	0.0	7.9	0.5	0.0	0.0	13.9	0.0	64.5	0.3	14.3	1.5
Prop In Lane	0.92		1.00	0.56		0.44	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	184	0	417	19	0	0	286	0	1303	12	1020	840
V/C Ratio(X)	0.35	0.00	0.37	0.48	0.00	0.00	0.89	0.00	0.98	0.43	0.44	0.06
Avail Cap(c_a), veh/h	357	0	571	84	0	0	549	0	1897	89	1419	1169
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	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.8	0.0	30.1	49.3	0.0	0.0	41.2	0.0	14.4	49.6	13.6	10.7
Incr Delay (d2), s/veh	0.4	0.0	0.2	13.6	0.0	0.0	3.7	0.0	10.9	9.2	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	2.9	0.3	0.0	0.0	6.0	0.0	21.6	0.1	5.1	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.2	0.0	30.3	62.8	0.0	0.0	44.8	0.0	25.3	58.8	13.7	10.7
LnGrp LOS	D	A	C	E	A	A	D	A	C	E	B	B
Approach Vol, veh/h		218			9			1524			501	
Approach Delay, s/veh		33.8			62.8			28.5			13.9	
Approach LOS		C			E			C			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.6	61.0		5.1	4.3	76.2		14.5				
Change Period (Y+Rc), s	3.5	6.4		4.0	3.7	6.4		4.2				
Max Green Setting (Gmax), s	30.9	76.0		5.0	5.0	101.7		20.0				
Max Q Clear Time (g_c+I1), s	15.9	16.3		2.5	2.3	66.5		9.9				
Green Ext Time (p_c), s	0.2	0.7		0.0	0.0	3.3		0.4				

Intersection Summary

HCM 6th Ctrl Delay	25.9
HCM 6th LOS	C

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	36.5	24.6	36.4	48.7
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	2	3	4
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	2	6	8	4
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	50	30	55	55
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	75.0	75.0	75.0	75.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.27	1.76	3.26	2.98
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	258	10	1524	501
Effct. Green for Bike (s)	9.1	5.3	89.2	64.0
Cross Street Width (ft)	36.4	48.7	24.6	36.5
Through Lanes Number	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	121	71	1189	853
Bicycle Delay (s/bike)	66.2	69.8	12.3	24.7
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	2.54	2.32	4.45	2.94
Bicycle LOS	C	B	D	C



Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	22	27	361	362	381	32	613	498	294	826
v/c Ratio	0.10	0.09	0.70	0.68	0.50	0.34	0.69	0.44	0.63	0.61
Control Delay	38.6	0.6	40.4	39.0	5.8	61.9	38.7	2.2	49.1	29.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.6	0.6	40.4	39.0	5.8	61.9	38.7	2.2	49.1	29.8
Queue Length 50th (ft)	13	0	194	193	0	19	166	2	85	207
Queue Length 95th (ft)	36	0	#430	#416	74	#64	303	34	#177	387
Internal Link Dist (ft)	109			1057			1054			1668
Turn Bay Length (ft)					250	140		100	100	
Base Capacity (vph)	520	533	615	640	844	96	1081	1193	516	1431
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.05	0.59	0.57	0.45	0.33	0.57	0.42	0.57	0.58

Intersection Summary

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

600 Tank Farm Road
1: Higuera & Tank Farm

Near Term PM
HCM 6th Signalized Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗	↖	↖	↗	↖	↑↑	↗	↖↗	↖↗	
Traffic Volume (veh/h)	10	10	25	665	15	358	30	576	468	276	757	20
Future Volume (veh/h)	10	10	25	665	15	358	30	576	468	276	757	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.93	1.00		1.00	1.00		0.98	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	11	11	9	718	0	0	32	613	298	294	805	20
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	80	80	130	1109	0	0	57	973	919	398	1264	31
Arrive On Green	0.09	0.09	0.09	0.31	0.00	0.00	0.03	0.27	0.27	0.12	0.36	0.36
Sat Flow, veh/h	912	912	1477	3563	0	1585	1781	3554	1555	3456	3538	88
Grp Volume(v), veh/h	22	0	9	718	0	0	32	613	298	294	404	421
Grp Sat Flow(s),veh/h/ln	1825	0	1477	1781	0	1585	1781	1777	1555	1728	1777	1849
Q Serve(g_s), s	0.9	0.0	0.4	14.0	0.0	0.0	1.4	12.2	7.9	6.6	15.2	15.2
Cycle Q Clear(g_c), s	0.9	0.0	0.4	14.0	0.0	0.0	1.4	12.2	7.9	6.6	15.2	15.2
Prop In Lane	0.50		1.00	1.00		1.00	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	161	0	130	1109	0	0	57	973	919	398	635	660
V/C Ratio(X)	0.14	0.00	0.07	0.65	0.00	0.00	0.57	0.63	0.32	0.74	0.64	0.64
Avail Cap(c_a), veh/h	613	0	496	1530	0	0	113	1230	1032	589	805	838
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	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.8	0.0	33.6	23.9	0.0	0.0	38.4	25.6	8.6	34.4	21.5	21.5
Incr Delay (d2), s/veh	0.1	0.0	0.1	0.2	0.0	0.0	3.3	1.4	0.4	3.2	2.3	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.2	5.3	0.0	0.0	0.6	4.9	4.8	2.8	6.0	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.9	0.0	33.7	24.1	0.0	0.0	41.6	27.1	9.0	37.6	23.8	23.7
LnGrp LOS	C	A	C	C	A		D	C	A	D	C	C
Approach Vol, veh/h		31			718	A		943			1119	
Approach Delay, s/veh		33.9			24.1			21.8			27.4	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.8	26.5		11.6	6.1	33.2		29.5				
Change Period (Y+Rc), s	3.5	4.5		4.5	3.5	4.5		4.5				
Max Green Setting (Gmax), s	13.7	27.8		27.0	5.1	36.4		34.5				
Max Q Clear Time (g_c+I1), s	8.6	14.2		2.9	3.4	17.2		16.0				
Green Ext Time (p_c), s	0.7	7.3		0.1	0.0	8.5		1.9				

Intersection Summary

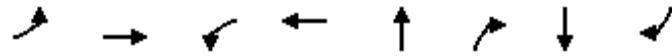
HCM 6th Ctrl Delay	24.8
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	50.7	58.5	67.8	54.5
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	6	6
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	17	190	188	1
85th percentile speed (mph)	25	45	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	52.3	52.3	52.3	52.3
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.01	3.11	3.39	2.99
Pedestrian Crosswalk LOS	B	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	49	1104	1143	1120
Effct. Green for Bike (s)	12.2	30.9	24.6	37.2
Cross Street Width (ft)	78.9	66.6	58.5	49.8
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	10.0	11.0	11.0	11.0
Bicycle Lane Width (ft)	0.0	5.0	5.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	203	515	410	620
Bicycle Delay (s/bike)	48.4	33.1	37.9	28.6
Bicycle Compliance	Poor	Poor	Poor	Fair
Bicycle LOS Score	3.28	3.54	2.54	2.39
Bicycle LOS	C	D	C	B



Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	68	854	141	1407	21	177	85	73
v/c Ratio	0.27	0.47	0.30	0.69	0.10	0.45	0.41	0.22
Control Delay	6.9	11.3	5.4	12.5	22.1	8.3	28.5	5.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.9	11.3	5.4	12.5	22.1	8.3	28.5	5.1
Queue Length 50th (ft)	6	98	13	187	7	0	28	0
Queue Length 95th (ft)	18	160	33	302	23	44	64	19
Internal Link Dist (ft)		1057		508	155		449	
Turn Bay Length (ft)	225		160			25		25
Base Capacity (vph)	251	1933	466	2034	739	905	697	868
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.44	0.30	0.69	0.03	0.20	0.12	0.08

Intersection Summary

600 Tank Farm Road
2: Long & Tank Farm

Near Term PM
HCM 6th Signalized Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↗↘		↗	↗↘			↖	↖		↖	↖
Traffic Volume (veh/h)	65	790	30	135	1265	85	15	5	170	77	5	70
Future Volume (veh/h)	65	790	30	135	1265	85	15	5	170	77	5	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	68	823	31	141	1318	89	16	5	177	80	5	73
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	293	1666	63	467	1681	113	301	78	253	350	18	253
Arrive On Green	0.05	0.48	0.48	0.07	0.50	0.50	0.16	0.16	0.16	0.16	0.16	0.16
Sat Flow, veh/h	1781	3489	131	1781	3373	227	1111	489	1585	1342	112	1585
Grp Volume(v), veh/h	68	419	435	141	693	714	21	0	177	85	0	73
Grp Sat Flow(s),veh/h/ln	1781	1777	1843	1781	1777	1823	1599	0	1585	1454	0	1585
Q Serve(g_s), s	1.0	8.3	8.3	2.0	16.5	16.6	0.0	0.0	5.4	2.1	0.0	2.1
Cycle Q Clear(g_c), s	1.0	8.3	8.3	2.0	16.5	16.6	0.5	0.0	5.4	2.6	0.0	2.1
Prop In Lane	1.00		0.07	1.00		0.12	0.76		1.00	0.94		1.00
Lane Grp Cap(c), veh/h	293	849	880	467	885	908	379	0	253	368	0	253
V/C Ratio(X)	0.23	0.49	0.49	0.30	0.78	0.79	0.06	0.00	0.70	0.23	0.00	0.29
Avail Cap(c_a), veh/h	349	988	1025	562	1064	1092	1013	0	924	974	0	924
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	8.9	9.2	9.2	6.6	10.6	10.6	18.4	0.0	20.4	19.2	0.0	19.0
Incr Delay (d2), s/veh	0.4	0.4	0.4	0.4	3.2	3.2	0.1	0.0	3.5	0.3	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	2.2	2.3	0.5	4.9	5.1	0.2	0.0	2.1	0.9	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.3	9.6	9.6	7.0	13.8	13.9	18.4	0.0	23.9	19.5	0.0	19.7
LnGrp LOS	A	A	A	A	B	B	B	A	C	B	A	B
Approach Vol, veh/h		922			1548			198				158
Approach Delay, s/veh		9.6			13.2			23.3				19.6
Approach LOS		A			B			C				B
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.1	30.4		12.9	7.1	31.4		12.9				
Change Period (Y+Rc), s	4.6	5.8		* 4.7	4.6	5.8		* 4.7				
Max Green Setting (Gmax), s	6.3	28.6		* 30	4.1	30.8		* 30				
Max Q Clear Time (g_c+I1), s	4.0	10.3		4.6	3.0	18.6		7.4				
Green Ext Time (p_c), s	0.1	4.8		0.8	0.0	7.0		0.8				

Intersection Summary

HCM 6th Ctrl Delay	13.1
HCM 6th LOS	B

Notes

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

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	57.8	60.4	36.1	36.7
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	5	5	3	3
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6
Effective Walk Time (s)	9.0	9.0	9.0	9.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	15	77	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	45	45	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	31.5	31.5	31.5	31.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.00	3.17	2.06	2.04
Pedestrian Crosswalk LOS	C	C	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	922	1548	198	158
Effct. Green for Bike (s)	30.0	33.9	8.9	8.9
Cross Street Width (ft)	36.1	36.7	60.4	57.8
Through Lanes Number	2	2	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	5.0	5.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	750	848	222	222
Bicycle Delay (s/bike)	15.6	13.3	31.6	31.6
Bicycle Compliance	Fair	Fair	Poor	Poor
Bicycle LOS Score	1.80	2.33	2.81	2.70
Bicycle LOS	B	B	C	C

Approach

Approach Direction	EB
Median Present?	No
Approach Delay(s)	459269.4
Level of Service	F

Crosswalk

Length (ft)	66
Lanes Crossed	4
Veh Vol Crossed	2055
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	21.86
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.96
Delay for adq Gap	459271.16
Avg Ped Delay (s)	459269.41

Approach

Approach Direction	WB
Median Present?	No
Approach Delay(s)	749151.5
Level of Service	F

Crosswalk

Length (ft)	69
Lanes Crossed	4
Veh Vol Crossed	2055
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	22.71
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.96
Delay for adq Gap	749153.25
Avg Ped Delay (s)	749151.50

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	971	0	0	1142	0	0	0	0	0	0	0
Future Vol, veh/h	0	971	0	0	1142	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1055	0	0	1241	0	0	0	0	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1241	0	0	1055	0	0	2296	2296	1055	2296	2296	1241
Stage 1	-	-	-	-	-	-	1055	1055	-	1241	1241	-
Stage 2	-	-	-	-	-	-	1241	1241	-	1055	1055	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	561	-	-	660	-	-	27	39	274	27	39	213
Stage 1	-	-	-	-	-	-	273	302	-	214	247	-
Stage 2	-	-	-	-	-	-	214	247	-	273	302	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	561	-	-	660	-	-	27	39	274	27	39	213
Mov Cap-2 Maneuver	-	-	-	-	-	-	27	39	-	27	39	-
Stage 1	-	-	-	-	-	-	273	302	-	214	247	-
Stage 2	-	-	-	-	-	-	214	247	-	273	302	-

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

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	561	-	-	660	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	0	-	-	0	-	-	0
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	-

Approach

Approach Direction	EB
Median Present?	No
Approach Delay(s)	2107.9
Level of Service	F

Crosswalk

Length (ft)	32
Lanes Crossed	2
Veh Vol Crossed	2113
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	12.14
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.97
Delay for adq Gap	2109.62
Avg Ped Delay (s)	2107.93

Approach

Approach Direction	WB
Median Present?	No
Approach Delay(s)	2495.0
Level of Service	F

Crosswalk

Length (ft)	33
Lanes Crossed	2
Veh Vol Crossed	2113
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	12.43
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.97
Delay for adq Gap	2496.73
Avg Ped Delay (s)	2495.04

Intersection						
Int Delay, s/veh	12.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔		↔	↑	↔	↔
Traffic Vol, veh/h	946	25	69	1106	40	165
Future Vol, veh/h	946	25	69	1106	40	165
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	110	-	0	25
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1051	28	77	1229	44	183

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	1079	0	2448	1065
Stage 1	-	-	-	-	1065	-
Stage 2	-	-	-	-	1383	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	646	-	~ 34	270
Stage 1	-	-	-	-	331	-
Stage 2	-	-	-	-	233	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	646	-	~ 30	270
Mov Cap-2 Maneuver	-	-	-	-	~ 30	-
Stage 1	-	-	-	-	331	-
Stage 2	-	-	-	-	205	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	138.8
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	30	270	-	-	646	-
HCM Lane V/C Ratio	1.481	0.679	-	-	0.119	-
HCM Control Delay (s)	\$ 536.2	42.5	-	-	11.3	-
HCM Lane LOS	F	E	-	-	B	-
HCM 95th %tile Q(veh)	5.1	4.5	-	-	0.4	-

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

Approach

Approach Direction	EB
Median Present?	Yes
Approach Delay(s)	31.7
Level of Service	E

Crosswalk

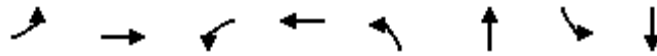
Length (ft)	11	16
Lanes Crossed	1	1
Veh Vol Crossed	946	1106
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	6.14	7.57
Prob of Delayed X-ing	0.80	0.90
Prob of Blocked Lane	0.80	0.90
Delay for adq Gap	11.45	24.93
Avg Ped Delay (s)	9.17	22.50

Approach

Approach Direction	WB
Median Present?	No
Approach Delay(s)	88599.8
Level of Service	F

Crosswalk

Length (ft)	56
Lanes Crossed	2
Veh Vol Crossed	2052
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.00
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	1.00
Delay for adq Gap	88601.52
Avg Ped Delay (s)	88599.77



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	13	1317	11	1186	201	43	18	21
v/c Ratio	0.20	0.62	0.17	0.56	0.65	0.14	0.16	0.15
Control Delay	49.3	14.3	48.1	13.2	42.9	12.2	43.6	25.5
Queue Delay	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Total Delay	49.3	14.3	48.1	13.2	42.9	12.2	43.6	25.5
Queue Length 50th (ft)	6	152	5	130	82	1	8	3
Queue Length 95th (ft)	27	415	24	355	186	29	33	26
Internal Link Dist (ft)		357		533		330		250
Turn Bay Length (ft)	100		210					
Base Capacity (vph)	66	2125	66	2129	378	785	111	553
Starvation Cap Reductn	0	0	0	95	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.62	0.17	0.58	0.53	0.05	0.16	0.04

Intersection Summary

600 Tank Farm Road
5: MindBody & Tank Farm

Near Term PM
HCM 6th Signalized Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Volume (veh/h)	11	1141	18	10	1042	2	177	3	35	16	5	13
Future Volume (veh/h)	11	1141	18	10	1042	2	177	3	35	16	5	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	12	1297	20	11	1184	2	201	3	25	18	6	15
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	16	1897	29	14	1926	3	245	28	236	22	18	46
Arrive On Green	0.01	0.53	0.53	0.01	0.53	0.53	0.14	0.16	0.16	0.01	0.04	0.04
Sat Flow, veh/h	1781	3580	55	1781	3640	6	1781	173	1439	1781	474	1184
Grp Volume(v), veh/h	12	643	674	11	578	608	201	0	28	18	0	21
Grp Sat Flow(s),veh/h/ln	1781	1777	1859	1781	1777	1869	1781	0	1611	1781	0	1657
Q Serve(g_s), s	0.5	21.5	21.5	0.5	18.3	18.3	8.8	0.0	1.2	0.8	0.0	1.0
Cycle Q Clear(g_c), s	0.5	21.5	21.5	0.5	18.3	18.3	8.8	0.0	1.2	0.8	0.0	1.0
Prop In Lane	1.00		0.03	1.00		0.00	1.00		0.89	1.00		0.71
Lane Grp Cap(c), veh/h	16	941	985	14	940	989	245	0	264	22	0	64
V/C Ratio(X)	0.77	0.68	0.68	0.76	0.61	0.61	0.82	0.00	0.11	0.82	0.00	0.33
Avail Cap(c_a), veh/h	66	1016	1063	66	1016	1069	376	0	761	111	0	536
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	39.8	13.9	13.9	39.8	13.2	13.2	33.7	0.0	28.6	39.6	0.0	37.7
Incr Delay (d2), s/veh	54.2	4.0	3.9	25.5	3.0	2.9	8.2	0.0	0.1	49.6	0.0	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	8.3	8.6	0.3	6.9	7.2	4.3	0.0	0.5	0.7	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	94.0	18.0	17.8	65.4	16.2	16.1	41.9	0.0	28.7	89.2	0.0	40.6
LnGrp LOS	F	B	B	E	B	B	D	A	C	F	A	D
Approach Vol, veh/h		1329			1197			229				39
Approach Delay, s/veh		18.6			16.6			40.3				63.0
Approach LOS		B			B			D				E
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.7	49.6	16.1	9.1	5.7	49.6	6.0	19.2				
Change Period (Y+Rc), s	5.0	7.0	5.0	6.0	5.0	7.0	5.0	6.0				
Max Green Setting (Gmax), s	3.0	46.0	17.0	26.0	3.0	46.0	5.0	38.0				
Max Q Clear Time (g_c+I1), s	2.5	23.5	10.8	3.0	2.5	20.3	2.8	3.2				
Green Ext Time (p_c), s	0.0	19.1	0.4	0.1	0.0	20.0	0.0	0.1				
Intersection Summary												
HCM 6th Ctrl Delay				20.1								
HCM 6th LOS				C								

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	59.2	60.1	36.2	37.1
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	5	3	3
Number of Right-Turn Islands	0	0	0	0
Type of Control	None Actuated		None Actuated	
Corresponding Signal Phase	8	8	4	6
Effective Walk Time (s)	0.0	9.0	0.0	9.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	13	0
85th percentile speed (mph)	40	40	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	57.5	48.9	57.5	48.9
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.04	2.98	2.07	1.97
Pedestrian Crosswalk LOS	C	C	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	1329	1197	244	39
Effct. Green for Bike (s)	48.6	48.6	14.1	6.2
Cross Street Width (ft)	36.2	37.1	72.3	59.5
Through Lanes Number	2	2	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	5.0	5.0	5.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	845	845	245	108
Bicycle Delay (s/bike)	19.2	19.2	44.3	51.5
Bicycle Compliance	Fair	Fair	Poor	Poor
Bicycle LOS Score	2.14	2.04	2.00	2.53
Bicycle LOS	B	B	B	C

























Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	244	70	217	266	117	1129	204	165	1186	184
v/c Ratio	0.61	0.16	0.62	0.51	1.44	1.03	0.37	1.27	1.00	0.29
Control Delay	46.2	2.1	49.1	8.3	293.7	75.0	13.9	211.6	63.4	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.2	2.1	49.1	8.3	293.7	75.0	13.9	211.6	63.4	6.1
Queue Length 50th (ft)	155	0	140	0	~112	~451	32	~146	~436	0
Queue Length 95th (ft)	260	9	241	69	#273	#757	114	#339	#773	56
Internal Link Dist (ft)	288		473			1028			1931	
Turn Bay Length (ft)		100		180	150			150		430
Base Capacity (vph)	576	580	525	648	81	1092	553	130	1190	641
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.12	0.41	0.41	1.44	1.03	0.37	1.27	1.00	0.29

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

600 Tank Farm Road
6: Broad & Industrial

Near Term PM
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	191	36	65	180	21	247	109	1050	190	153	1103	171
Future Volume (veh/h)	191	36	65	180	21	247	109	1050	190	153	1103	171
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		0.95	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	205	39	62	194	23	183	117	1129	151	165	1186	155
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	295	56	310	275	33	272	89	1194	507	143	1301	567
Arrive On Green	0.20	0.20	0.20	0.17	0.17	0.17	0.05	0.34	0.34	0.08	0.37	0.37
Sat Flow, veh/h	1508	287	1583	1601	190	1582	1781	3554	1510	1781	3554	1550
Grp Volume(v), veh/h	244	0	62	217	0	183	117	1129	151	165	1186	155
Grp Sat Flow(s),veh/h/ln	1795	0	1583	1790	0	1582	1781	1777	1510	1781	1777	1550
Q Serve(g_s), s	12.6	0.0	3.3	11.4	0.0	10.8	5.0	30.8	7.3	8.0	31.6	7.0
Cycle Q Clear(g_c), s	12.6	0.0	3.3	11.4	0.0	10.8	5.0	30.8	7.3	8.0	31.6	7.0
Prop In Lane	0.84		1.00	0.89		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	352	0	310	308	0	272	89	1194	507	143	1301	567
V/C Ratio(X)	0.69	0.00	0.20	0.70	0.00	0.67	1.31	0.95	0.30	1.15	0.91	0.27
Avail Cap(c_a), veh/h	631	0	556	575	0	508	89	1195	508	143	1302	568
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.3	0.0	33.5	38.8	0.0	38.6	47.3	32.2	24.4	45.8	30.0	22.2
Incr Delay (d2), s/veh	10.8	0.0	1.4	5.4	0.0	5.3	198.5	15.9	1.5	122.4	11.2	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	0.0	1.4	5.4	0.0	4.5	7.1	14.9	2.7	8.3	14.5	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.0	0.0	35.0	44.2	0.0	43.9	245.8	48.1	25.9	168.2	41.2	23.4
LnGrp LOS	D	A	C	D	A	D	F	D	C	F	D	C
Approach Vol, veh/h		306			400			1397			1506	
Approach Delay, s/veh		45.4			44.1			62.3			53.3	
Approach LOS		D			D			E			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.0	40.0		24.5	10.0	43.0		22.1				
Change Period (Y+Rc), s	5.0	6.5		5.0	5.0	6.5		5.0				
Max Green Setting (Gmax), s	8.0	33.5		35.0	5.0	36.5		32.0				
Max Q Clear Time (g_c+I1), s	10.0	32.8		14.6	7.0	33.6		13.4				
Green Ext Time (p_c), s	0.0	0.7		4.7	0.0	2.7		3.6				
Intersection Summary												
HCM 6th Ctrl Delay			55.1									
HCM 6th LOS			E									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	36.0	36.1	61.3	62.1
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	6	6
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	7	77	49	27
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	57.2	57.2	57.2	57.2
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.18	2.36	3.25	3.28
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	314	483	1450	1535
Effct. Green for Bike (s)	24.5	21.7	34.0	37.0
Cross Street Width (ft)	73.1	73.9	37.5	37.7
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	5.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	377	334	523	569
Bicycle Delay (s/bike)	42.8	45.1	35.4	33.3
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	3.20	3.49	2.26	2.33
Bicycle LOS	C	C	B	B































Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	559	524	313	211	233	140	402	920	239	787	609
v/c Ratio	0.98	0.73	0.65	0.88	0.73	0.36	0.88	0.88	0.99	0.73	0.64
Control Delay	79.0	45.9	19.2	81.1	55.0	8.7	67.8	46.6	102.9	39.1	14.5
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	79.0	45.9	19.2	81.1	55.0	8.7	67.8	46.6	102.9	39.1	14.5
Queue Length 50th (ft)	194	177	59	141	152	0	138	297	162	246	157
Queue Length 95th (ft)	#367	232	149	#324	232	49	#268	#508	#375	379	361
Internal Link Dist (ft)		533			770			1992		1028	
Turn Bay Length (ft)	265		85	150			275		250		300
Base Capacity (vph)	569	1174	655	240	562	575	456	1046	242	1078	955
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.98	0.45	0.48	0.88	0.41	0.24	0.88	0.88	0.99	0.73	0.64

Intersection Summary

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

600 Tank Farm Road
7: Broad & Tank Farm

Near Term PM
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 					 	 			 	
Traffic Volume (veh/h)	503	472	282	190	210	126	362	640	188	215	708	548
Future Volume (veh/h)	503	472	282	190	210	126	362	640	188	215	708	548
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	559	524	259	211	233	117	402	711	175	239	787	486
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	588	759	330	241	334	283	462	786	193	250	1014	722
Arrive On Green	0.17	0.21	0.21	0.14	0.18	0.18	0.13	0.28	0.28	0.14	0.29	0.29
Sat Flow, veh/h	3456	3554	1545	1781	1870	1585	3456	2815	693	1781	3554	1585
Grp Volume(v), veh/h	559	524	259	211	233	117	402	449	437	239	787	486
Grp Sat Flow(s),veh/h/ln	1728	1777	1545	1781	1870	1585	1728	1777	1731	1781	1777	1585
Q Serve(g_s), s	16.6	14.1	16.4	12.0	12.1	6.8	11.8	25.2	25.2	13.8	21.0	24.9
Cycle Q Clear(g_c), s	16.6	14.1	16.4	12.0	12.1	6.8	11.8	25.2	25.2	13.8	21.0	24.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.40	1.00		1.00
Lane Grp Cap(c), veh/h	588	759	330	241	334	283	462	496	483	250	1014	722
V/C Ratio(X)	0.95	0.69	0.79	0.88	0.70	0.41	0.87	0.90	0.91	0.96	0.78	0.67
Avail Cap(c_a), veh/h	588	1209	526	248	578	490	471	548	534	250	1109	764
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.5	37.5	38.5	43.9	39.9	37.7	43.9	36.0	36.0	44.2	33.9	22.1
Incr Delay (d2), s/veh	25.2	0.4	1.6	26.0	1.0	0.4	15.1	16.6	17.0	44.8	2.8	1.7
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	8.9	6.0	6.1	6.9	5.5	2.6	5.8	12.6	12.3	8.9	9.0	9.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.7	38.0	40.0	69.8	40.8	38.0	59.0	52.5	53.0	89.0	36.7	23.8
LnGrp LOS	E	D	D	E	D	D	E	D	D	F	D	C
Approach Vol, veh/h		1342			561			1288			1512	
Approach Delay, s/veh		50.8			51.2			54.7			40.8	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	20.0	35.4	19.5	28.6	19.3	36.0	23.1	25.0				
Change Period (Y+Rc), s	5.5	6.5	5.5	6.5	5.5	6.5	5.5	6.5				
Max Green Setting (Gmax), s	14.5	31.9	14.4	35.2	14.1	32.3	17.6	32.0				
Max Q Clear Time (g_c+I1), s	15.8	27.2	14.0	18.4	13.8	26.9	18.6	14.1				
Green Ext Time (p_c), s	0.0	1.6	0.0	2.1	0.0	2.5	0.0	0.7				
Intersection Summary												
HCM 6th Ctrl Delay			48.7									
HCM 6th LOS			D									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	73.8	71.3	72.3	84.2
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	7	5	6	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	49	21	31	111
85th percentile speed (mph)	40	40	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	52.3	52.3	52.3	52.3
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.17	2.75	3.15	3.40
Pedestrian Crosswalk LOS	C	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	1396	584	1322	1635
Effct. Green for Bike (s)	21.5	18.3	31.9	32.3
Cross Street Width (ft)	72.3	95.5	71.6	85.6
Through Lanes Number	2	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	5.0	5.0	5.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	358	305	532	538
Bicycle Delay (s/bike)	40.4	43.1	32.3	32.0
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	2.75	2.91	2.67	3.15
Bicycle LOS	C	C	C	C

Intersection

Int Delay, s/veh 2.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	114	55	15	785	1008	106
Future Vol, veh/h	114	55	15	785	1008	106
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	75	200	-	-	-
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	125	60	16	863	1108	116

Major/Minor

	Minor2	Major1	Major2			
Conflicting Flow All	1630	612	1224	0	-	0
Stage 1	1166	-	-	-	-	-
Stage 2	464	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	~ 92	436	565	-	-	-
Stage 1	259	-	-	-	-	-
Stage 2	599	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 89	436	565	-	-	-
Mov Cap-2 Maneuver	228	-	-	-	-	-
Stage 1	252	-	-	-	-	-
Stage 2	599	-	-	-	-	-

Approach

	EB	NB	SB
HCM Control Delay, s	30.7	0.2	0
HCM LOS	D		

Minor Lane/Major Mvmt

	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	565	-	228	436	-	-
HCM Lane V/C Ratio	0.029	-	0.549	0.139	-	-
HCM Control Delay (s)	11.6	-	38.5	14.6	-	-
HCM Lane LOS	B	-	E	B	-	-
HCM 95th %tile Q(veh)	0.1	-	3	0.5	-	-

Notes

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

Approach

Approach Direction	NB
Median Present?	No
Approach Delay(s)	591660.6
Level of Service	F

Crosswalk

Length (ft)	78
Lanes Crossed	4
Veh Vol Crossed	1793
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	25.29
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.96
Delay for adq Gap	591662.56
Avg Ped Delay (s)	591660.56

Approach

Approach Direction	SB
Median Present?	No
Approach Delay(s)	786464.0
Level of Service	F

Crosswalk

Length (ft)	80
Lanes Crossed	4
Veh Vol Crossed	1793
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	25.86
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.96
Delay for adq Gap	786466.00
Avg Ped Delay (s)	786464.00

























Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	174	41	14	27	41	733	7	1000
v/c Ratio	0.55	0.09	0.04	0.06	0.28	0.37	0.07	0.58
Control Delay	30.1	0.4	20.5	0.3	39.0	10.6	37.9	16.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.1	0.4	20.5	0.3	39.0	10.6	37.9	16.2
Queue Length 50th (ft)	69	0	5	0	18	72	3	165
Queue Length 95th (ft)	125	0	18	0	53	200	17	308
Internal Link Dist (ft)	310		100			324		936
Turn Bay Length (ft)		75		75	200		200	
Base Capacity (vph)	566	707	633	699	148	1986	99	1726
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.06	0.02	0.04	0.28	0.37	0.07	0.58

Intersection Summary

600 Tank Farm Road
9: Broad & Aero

Near Term PM
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	171	0	40	9	5	26	40	715	3	7	908	72
Future Volume (veh/h)	171	0	40	9	5	26	40	715	3	7	908	72
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		0.98	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	174	0	26	9	5	26	41	730	3	7	927	61
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	378	0	280	277	132	280	60	1906	8	13	1686	111
Arrive On Green	0.18	0.00	0.18	0.18	0.18	0.18	0.03	0.53	0.53	0.01	0.50	0.50
Sat Flow, veh/h	1422	0	1582	977	749	1582	1781	3629	15	1781	3379	222
Grp Volume(v), veh/h	174	0	26	14	0	26	41	357	376	7	487	501
Grp Sat Flow(s),veh/h/ln	1422	0	1582	1725	0	1582	1781	1777	1867	1781	1777	1825
Q Serve(g_s), s	6.1	0.0	0.8	0.0	0.0	0.8	1.3	6.8	6.8	0.2	10.7	10.7
Cycle Q Clear(g_c), s	6.5	0.0	0.8	0.4	0.0	0.8	1.3	6.8	6.8	0.2	10.7	10.7
Prop In Lane	1.00		1.00	0.64		1.00	1.00		0.01	1.00		0.12
Lane Grp Cap(c), veh/h	378	0	280	409	0	280	60	933	981	13	887	910
V/C Ratio(X)	0.46	0.00	0.09	0.03	0.00	0.09	0.69	0.38	0.38	0.53	0.55	0.55
Avail Cap(c_a), veh/h	849	0	809	928	0	809	188	1112	1168	126	1049	1077
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.9	0.0	19.6	19.4	0.0	19.6	27.1	8.0	8.0	28.1	9.8	9.8
Incr Delay (d2), s/veh	1.6	0.0	0.3	0.1	0.0	0.3	18.0	1.2	1.1	40.5	2.4	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	0.3	0.1	0.0	0.3	0.8	2.1	2.1	0.2	3.5	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.5	0.0	19.8	19.4	0.0	19.8	45.1	9.2	9.1	68.6	12.3	12.2
LnGrp LOS	C	A	B	B	A	B	D	A	A	E	B	B
Approach Vol, veh/h		200			40			774			995	
Approach Delay, s/veh		23.0			19.7			11.1			12.6	
Approach LOS		C			B			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.4	36.3		15.0	6.9	34.8		15.0				
Change Period (Y+Rc), s	5.0	6.5		5.0	5.0	6.5		5.0				
Max Green Setting (Gmax), s	4.0	35.5		29.0	6.0	33.5		29.0				
Max Q Clear Time (g_c+I1), s	2.2	8.8		8.5	3.3	12.7		2.8				
Green Ext Time (p_c), s	0.0	15.3		1.8	0.0	15.6		0.2				
Intersection Summary												
HCM 6th Ctrl Delay			13.2									
HCM 6th LOS			B									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	34.0	34.2	57.2	59.2
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	5	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	42.5	42.5	42.5	42.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.06	1.96	2.82	2.87
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	215	41	774	1007
Effct. Green for Bike (s)	16.7	16.7	40.3	35.8
Cross Street Width (ft)	58.1	60.4	34.2	34.1
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	11.0	11.0	11.0	11.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	393	393	948	842
Bicycle Delay (s/bike)	27.4	27.4	11.8	14.2
Bicycle Compliance	Fair	Fair	Fair	Fair
Bicycle LOS Score	3.02	2.77	2.94	3.13
Bicycle LOS	C	C	C	C

Intersection

Int Delay, s/veh 0.6

Movement WBL WBR NBT NBR SBL SBT

Lane Configurations	↘↘		↑	↗	↘	↑
Traffic Vol, veh/h	15	40	555	10	25	999
Future Vol, veh/h	15	40	555	10	25	999
Conflicting Peds, #/hr	0	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	230	145	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	42	584	11	26	1052

Major/Minor Minor1 Major1 Major2

Conflicting Flow All	1689	585	0	0	596	0
Stage 1	585	-	-	-	-	-
Stage 2	1104	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	103	511	-	-	980	-
Stage 1	557	-	-	-	-	-
Stage 2	317	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	100	511	-	-	979	-
Mov Cap-2 Maneuver	268	-	-	-	-	-
Stage 1	556	-	-	-	-	-
Stage 2	308	-	-	-	-	-

Approach WB NB SB

HCM Control Delay, s	15.2	0	0.2
HCM LOS	C		

Minor Lane/Major Mvmt NBT NBRWBLn1 SBL SBT

Capacity (veh/h)	-	-	410	979	-
HCM Lane V/C Ratio	-	-	0.141	0.027	-
HCM Control Delay (s)	-	-	15.2	8.8	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0.5	0.1	-

Approach

Approach Direction	NB
Median Present?	No
Approach Delay(s)	8427.4
Level of Service	F

Crosswalk

Length (ft)	56
Lanes Crossed	2
Veh Vol Crossed	1554
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.00
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.98
Delay for adq Gap	8429.70
Avg Ped Delay (s)	8427.39

Approach

Approach Direction	SB
Median Present?	No
Approach Delay(s)	1905.4
Level of Service	F

Crosswalk

Length (ft)	44
Lanes Crossed	2
Veh Vol Crossed	1554
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	15.57
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.97
Delay for adq Gap	1907.65
Avg Ped Delay (s)	1905.36



Lane Group	EBT	EBR	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	48	356	15	71	547	5	1027	44
v/c Ratio	0.28	0.76	0.07	0.34	0.37	0.04	0.90	0.04
Control Delay	52.3	33.3	0.6	51.1	5.6	55.4	27.4	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.3	33.3	0.6	51.1	5.6	55.4	27.4	0.1
Queue Length 50th (ft)	24	93	0	34	64	3	425	0
Queue Length 95th (ft)	79	#311	0	107	246	19	877	0
Internal Link Dist (ft)	574		239		678		1346	
Turn Bay Length (ft)		135		355		400		400
Base Capacity (vph)	483	518	228	270	1657	119	1591	1338
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.69	0.07	0.26	0.33	0.04	0.65	0.03

Intersection Summary

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

600 Tank Farm Road
11: Edna (SR 227) & Buckley

Near Term PM
HCM 6th Signalized Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗		↔		↖	↗		↖	↗	↖
Traffic Volume (veh/h)	41	5	342	10	0	5	68	520	5	5	986	42
Future Volume (veh/h)	41	5	342	10	0	5	68	520	5	5	986	42
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		0.98	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	43	5	316	10	0	1	71	542	5	5	1027	44
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	310	36	388	21	0	2	91	1128	10	12	1061	880
Arrive On Green	0.19	0.19	0.19	0.01	0.00	0.01	0.05	0.61	0.61	0.01	0.57	0.57
Sat Flow, veh/h	1604	186	1585	1601	0	160	1781	1850	17	1781	1870	1551
Grp Volume(v), veh/h	48	0	316	11	0	0	71	0	547	5	1027	44
Grp Sat Flow(s),veh/h/ln	1790	0	1585	1761	0	0	1781	0	1867	1781	1870	1551
Q Serve(g_s), s	2.3	0.0	19.4	0.6	0.0	0.0	4.1	0.0	16.7	0.3	54.5	1.3
Cycle Q Clear(g_c), s	2.3	0.0	19.4	0.6	0.0	0.0	4.1	0.0	16.7	0.3	54.5	1.3
Prop In Lane	0.90		1.00	0.91		0.09	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	346	0	388	23	0	0	91	0	1139	12	1061	880
V/C Ratio(X)	0.14	0.00	0.81	0.48	0.00	0.00	0.78	0.00	0.48	0.43	0.97	0.05
Avail Cap(c_a), veh/h	346	0	388	85	0	0	195	0	1565	86	1458	1209
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	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.6	0.0	36.8	50.7	0.0	0.0	48.5	0.0	11.1	51.2	21.5	10.0
Incr Delay (d2), s/veh	0.1	0.0	11.8	10.9	0.0	0.0	5.3	0.0	0.1	9.2	12.5	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	1.0	0.0	8.3	0.4	0.0	0.0	1.9	0.0	5.6	0.2	22.9	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.6	0.0	48.7	61.6	0.0	0.0	53.7	0.0	11.2	60.4	34.0	10.0
LnGrp LOS	C	A	D	E	A	A	D	A	B	E	C	A
Approach Vol, veh/h		364			11			618			1076	
Approach Delay, s/veh		46.8			61.6			16.1			33.1	
Approach LOS		D			E			B			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.8	65.1		5.4	4.4	69.5		24.2				
Change Period (Y+Rc), s	3.5	6.4		4.0	3.7	6.4		4.2				
Max Green Setting (Gmax), s	11.3	80.6		5.0	5.0	86.7		20.0				
Max Q Clear Time (g_c+I1), s	6.1	56.5		2.6	2.3	18.7		21.4				
Green Ext Time (p_c), s	0.0	2.2		0.0	0.0	0.9		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			30.6									
HCM 6th LOS			C									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	36.5	24.6	36.4	48.7
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	2	3	4
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	2	6	8	4
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	50	30	55	55
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	67.5	67.5	67.5	67.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.25	1.76	3.16	2.90
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	404	15	618	1076
Effct. Green for Bike (s)	8.5	5.9	69.9	53.7
Cross Street Width (ft)	36.4	48.7	24.6	36.5
Through Lanes Number	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	126	87	1036	796
Bicycle Delay (s/bike)	59.3	61.7	15.7	24.5
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	2.78	2.33	2.96	3.89
Bicycle LOS	C	B	C	D

Near Term Plus Project


























Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	49	22	172	170	292	16	607	859	282	387
v/c Ratio	0.27	0.08	0.35	0.33	0.42	0.16	0.67	0.72	0.59	0.26
Control Delay	41.6	0.6	29.9	29.5	5.8	50.7	35.1	5.8	44.3	19.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.6	0.6	29.9	29.5	5.8	50.7	35.1	5.8	44.3	19.5
Queue Length 50th (ft)	26	0	77	75	0	8	152	22	73	62
Queue Length 95th (ft)	65	0	182	177	65	36	300	117	#169	169
Internal Link Dist (ft)	109			1057			1054			1668
Turn Bay Length (ft)					250	140		100	100	
Base Capacity (vph)	540	560	640	666	810	109	1133	1276	530	1554
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.04	0.27	0.26	0.36	0.15	0.54	0.67	0.53	0.25

Intersection Summary

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

600 Tank Farm Road
1: Higuera & Tank Farm

Near Term Plus Alternative B AM
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	20	20	307	5	266	15	552	782	257	342	10
Future Volume (veh/h)	25	20	20	307	5	266	15	552	782	257	342	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		1.00	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	27	22	20	341	0	0	16	607	663	282	376	11
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	58	47	88	1066	0		33	1171	985	380	1483	43
Arrive On Green	0.06	0.06	0.06	0.30	0.00	0.00	0.02	0.33	0.33	0.11	0.42	0.42
Sat Flow, veh/h	1003	817	1520	3563	0	1585	1781	3554	1550	3456	3523	103
Grp Volume(v), veh/h	49	0	20	341	0	0	16	607	663	282	189	198
Grp Sat Flow(s),veh/h/ln	1820	0	1520	1781	0	1585	1781	1777	1550	1728	1777	1849
Q Serve(g_s), s	2.2	0.0	1.0	6.2	0.0	0.0	0.7	11.5	23.2	6.6	5.8	5.8
Cycle Q Clear(g_c), s	2.2	0.0	1.0	6.2	0.0	0.0	0.7	11.5	23.2	6.6	5.8	5.8
Prop In Lane	0.55		1.00	1.00		1.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	105	0	88	1066	0		33	1171	985	380	748	778
V/C Ratio(X)	0.47	0.00	0.23	0.32	0.00		0.48	0.52	0.67	0.74	0.25	0.25
Avail Cap(c_a), veh/h	588	0	491	1471	0		119	1191	994	558	763	794
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	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.1	0.0	37.6	22.7	0.0	0.0	40.6	22.7	10.1	36.0	15.7	15.7
Incr Delay (d2), s/veh	1.2	0.0	0.5	0.1	0.0	0.0	4.0	0.8	2.4	3.5	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.4	2.4	0.0	0.0	0.3	4.5	13.7	2.8	2.2	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.3	0.0	38.1	22.8	0.0	0.0	44.6	23.4	12.4	39.6	16.1	16.1
LnGrp LOS	D	A	D	C	A		D	C	B	D	B	B
Approach Vol, veh/h		69			341	A		1286			669	
Approach Delay, s/veh		38.9			22.8			18.0			26.0	
Approach LOS		D			C			B			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.7	32.0		9.3	5.1	39.7		29.5				
Change Period (Y+Rc), s	3.5	4.5		4.5	3.5	4.5		4.5				
Max Green Setting (Gmax), s	13.5	28.0		27.0	5.6	35.9		34.5				
Max Q Clear Time (g_c+I1), s	8.6	25.2		4.2	2.7	7.8		8.2				
Green Ext Time (p_c), s	0.6	2.3		0.2	0.0	4.3		0.8				

Intersection Summary

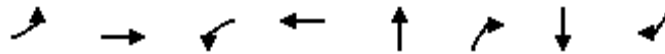
HCM 6th Ctrl Delay	21.6
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	50.7	58.5	67.8	54.5
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	6	6
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	2	141	178	0
85th percentile speed (mph)	25	45	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	52.3	52.3	52.3	52.3
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	1.99	3.00	3.26	2.86
Pedestrian Crosswalk LOS	B	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	71	634	1482	669
Effct. Green for Bike (s)	9.5	27.5	23.3	38.3
Cross Street Width (ft)	78.9	66.6	58.5	49.8
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	10.0	11.0	11.0	11.0
Bicycle Lane Width (ft)	0.0	5.0	5.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	158	458	388	638
Bicycle Delay (s/bike)	50.9	35.7	39.0	27.8
Bicycle Compliance	Poor	Poor	Poor	Fair
Bicycle LOS Score	3.31	2.77	2.82	2.02
Bicycle LOS	C	C	C	B



Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	63	961	122	774	10	69	25	21
v/c Ratio	0.12	0.50	0.28	0.34	0.04	0.17	0.09	0.05
Control Delay	6.9	13.2	8.0	10.4	16.2	2.3	16.9	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.9	13.2	8.0	10.4	16.2	2.3	16.9	0.2
Queue Length 50th (ft)	4	96	9	68	2	0	6	0
Queue Length 95th (ft)	35	#286	59	211	11	11	21	0
Internal Link Dist (ft)		1057		508	155		449	
Turn Bay Length (ft)	225		160			25		25
Base Capacity (vph)	512	2126	441	2181	997	1174	1026	1160
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.45	0.28	0.35	0.01	0.06	0.02	0.02

Intersection Summary

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

600 Tank Farm Road
2: Long & Tank Farm

Near Term Plus Alternative B AM
HCM 6th Signalized Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↖	↗		↖	↗
Traffic Volume (veh/h)	60	873	50	117	675	68	10	0	66	19	5	20
Future Volume (veh/h)	60	873	50	117	675	68	10	0	66	19	5	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	62	909	52	122	703	71	10	0	69	20	5	21
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	492	1417	81	458	1438	145	327	0	137	271	42	137
Arrive On Green	0.05	0.42	0.42	0.08	0.44	0.44	0.09	0.00	0.09	0.09	0.09	0.09
Sat Flow, veh/h	1781	3412	195	1781	3251	328	1462	0	1581	1048	483	1581
Grp Volume(v), veh/h	62	473	488	122	384	390	10	0	69	25	0	21
Grp Sat Flow(s),veh/h/ln	1781	1777	1830	1781	1777	1802	1462	0	1581	1531	0	1581
Q Serve(g_s), s	0.7	7.6	7.6	1.3	5.5	5.5	0.0	0.0	1.5	0.1	0.0	0.4
Cycle Q Clear(g_c), s	0.7	7.6	7.6	1.3	5.5	5.5	0.2	0.0	1.5	0.5	0.0	0.4
Prop In Lane	1.00		0.11	1.00		0.18	1.00		1.00	0.80		1.00
Lane Grp Cap(c), veh/h	492	738	760	458	786	797	327	0	137	313	0	137
V/C Ratio(X)	0.13	0.64	0.64	0.27	0.49	0.49	0.03	0.00	0.50	0.08	0.00	0.15
Avail Cap(c_a), veh/h	599	1239	1276	556	1278	1297	1377	0	1317	1422	0	1317
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	5.6	8.4	8.4	6.0	7.1	7.1	15.1	0.0	15.7	15.2	0.0	15.2
Incr Delay (d2), s/veh	0.1	0.9	0.9	0.3	0.5	0.5	0.0	0.0	2.8	0.1	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.7	1.7	0.2	1.1	1.1	0.1	0.0	0.6	0.2	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	5.7	9.3	9.3	6.3	7.6	7.6	15.1	0.0	18.5	15.3	0.0	15.7
LnGrp LOS	A	A	A	A	A	A	B	A	B	B	A	B
Approach Vol, veh/h		1023			896			79				46
Approach Delay, s/veh		9.1			7.4			18.1				15.5
Approach LOS		A			A			B				B
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.4	20.8		7.8	6.4	21.7		7.8				
Change Period (Y+Rc), s	4.6	5.8		* 4.7	4.6	5.8		* 4.7				
Max Green Setting (Gmax), s	4.8	25.1		* 30	4.0	25.9		* 30				
Max Q Clear Time (g_c+I1), s	3.3	9.6		2.5	2.7	7.5		3.5				
Green Ext Time (p_c), s	0.0	5.2		0.2	0.0	4.3		0.3				

Intersection Summary

HCM 6th Ctrl Delay	8.9
HCM 6th LOS	A

Notes

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

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	57.8	60.4	36.1	36.7
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	5	5	3	3
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6
Effective Walk Time (s)	9.0	9.0	9.0	9.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	10	19	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	45	45	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	29.0	29.0	29.0	29.0
Pedestrian Compliance Code	Fair	Fair	Fair	Fair
Pedestrian Crosswalk Score	2.82	2.87	2.02	1.99
Pedestrian Crosswalk LOS	C	C	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	1023	896	79	46
Effct. Green for Bike (s)	25.4	30.3	9.5	9.6
Cross Street Width (ft)	36.1	36.7	60.4	57.8
Through Lanes Number	2	2	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	5.0	5.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	677	808	253	256
Bicycle Delay (s/bike)	16.4	13.3	28.6	28.5
Bicycle Compliance	Fair	Fair	Fair	Fair
Bicycle LOS Score	1.88	1.79	2.61	2.52
Bicycle LOS	B	B	C	C

Approach

Approach Direction	EB
Median Present?	No
Approach Delay(s)	28048.2
Level of Service	F

Crosswalk

Length (ft)	66
Lanes Crossed	4
Veh Vol Crossed	1548
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	21.86
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.90
Delay for adq Gap	28050.54
Avg Ped Delay (s)	28048.21

Approach

Approach Direction	WB
Median Present?	No
Approach Delay(s)	40558.3
Level of Service	F

Crosswalk

Length (ft)	69
Lanes Crossed	4
Veh Vol Crossed	1548
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	22.71
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.91
Delay for adq Gap	40560.60
Avg Ped Delay (s)	40558.28

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷			↶↷			↶↷			↶↷	
Traffic Vol, veh/h	6	894	0	0	745	20	0	0	0	32	0	10
Future Vol, veh/h	6	894	0	0	745	20	0	0	0	32	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	2	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	972	0	0	810	22	0	0	0	35	0	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	832	0	0	972	0	0	1391	1818	972	1807	1807	416
Stage 1	-	-	-	-	-	-	986	986	-	821	821	-
Stage 2	-	-	-	-	-	-	405	832	-	986	986	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.33	6.53	6.23	7.33	6.53	6.93
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.53	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.53	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.219	-	-	2.219	-	-	3.519	4.019	3.319	3.519	4.019	3.319
Pot Cap-1 Maneuver	798	-	-	707	-	-	110	77	305	55	79	586
Stage 1	-	-	-	-	-	-	297	325	-	336	388	-
Stage 2	-	-	-	-	-	-	594	383	-	297	325	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	798	-	-	707	-	-	107	76	305	55	78	586
Mov Cap-2 Maneuver	-	-	-	-	-	-	107	76	-	215	246	-
Stage 1	-	-	-	-	-	-	294	322	-	333	388	-
Stage 2	-	-	-	-	-	-	583	383	-	294	322	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	0	22.3
HCM LOS			A	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	798	-	-	707	-	-	253
HCM Lane V/C Ratio	-	0.008	-	-	-	-	-	0.18
HCM Control Delay (s)	0	9.5	-	-	0	-	-	22.3
HCM Lane LOS	A	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0.6

Approach

Approach Direction	EB
Median Present?	No
Approach Delay(s)	12524.4
Level of Service	F

Crosswalk

Length (ft)	56
Lanes Crossed	3
Veh Vol Crossed	1639
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.00
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.94
Delay for adq Gap	12526.60
Avg Ped Delay (s)	12524.41

Approach

Approach Direction	WB
Median Present?	No
Approach Delay(s)	12524.4
Level of Service	F

Crosswalk

Length (ft)	56
Lanes Crossed	3
Veh Vol Crossed	1639
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.00
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.94
Delay for adq Gap	12526.60
Avg Ped Delay (s)	12524.41

Intersection						
Int Delay, s/veh	1.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	875	52	103	755	11	56
Future Vol, veh/h	875	52	103	755	11	56
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	110	-	0	25
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	921	55	108	795	12	59

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	976	0	1563 949
Stage 1	-	-	-	-	949 -
Stage 2	-	-	-	-	614 -
Critical Hdwy	-	-	4.13	-	6.63 6.23
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.83 -
Follow-up Hdwy	-	-	2.219	-	3.519 3.319
Pot Cap-1 Maneuver	-	-	705	-	112 315
Stage 1	-	-	-	-	375 -
Stage 2	-	-	-	-	503 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	705	-	95 315
Mov Cap-2 Maneuver	-	-	-	-	282 -
Stage 1	-	-	-	-	375 -
Stage 2	-	-	-	-	426 -

Approach	EB	WB	NB
HCM Control Delay, s	0	1.3	18.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	282	315	-	-	705	-
HCM Lane V/C Ratio	0.041	0.187	-	-	0.154	-
HCM Control Delay (s)	18.3	19	-	-	11	-
HCM Lane LOS	C	C	-	-	B	-
HCM 95th %tile Q(veh)	0.1	0.7	-	-	0.5	-

Approach

Approach Direction	EB
Median Present?	No
Approach Delay(s)	12008.5
Level of Service	F

Crosswalk

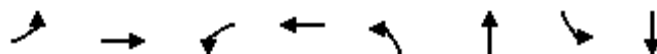
Length (ft)	56
Lanes Crossed	3
Veh Vol Crossed	1630
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.00
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.94
Delay for adq Gap	12010.67
Avg Ped Delay (s)	12008.46

Approach

Approach Direction	WB
Median Present?	No
Approach Delay(s)	56787.9
Level of Service	F

Crosswalk

Length (ft)	68
Lanes Crossed	3
Veh Vol Crossed	1630
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	22.43
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.97
Delay for adq Gap	56790.14
Avg Ped Delay (s)	56787.93



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	13	993	37	928	28	15	4	4
v/c Ratio	0.12	0.35	0.26	0.30	0.15	0.08	0.04	0.02
Control Delay	28.1	5.9	29.1	4.5	25.7	16.2	26.8	18.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.1	5.9	29.1	4.5	25.7	16.2	26.8	18.8
Queue Length 50th (ft)	4	0	11	0	8	1	1	0
Queue Length 95th (ft)	21	222	41	198	33	17	10	8
Internal Link Dist (ft)		357		533		330		264
Turn Bay Length (ft)	100		210					
Base Capacity (vph)	109	2823	145	3142	181	924	109	849
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.35	0.26	0.30	0.15	0.02	0.04	0.00
Intersection Summary								

600 Tank Farm Road
5: MindBody & Tank Farm

Near Term Plus Alternative B AM
HCM 6th Signalized Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	844	100	35	880	2	27	4	10	4	1	3
Future Volume (veh/h)	12	844	100	35	880	2	27	4	10	4	1	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	13	888	105	37	926	2	28	4	10	4	1	3
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	18	1523	180	44	1789	4	34	18	45	6	9	27
Arrive On Green	0.01	0.48	0.48	0.02	0.49	0.49	0.02	0.04	0.04	0.00	0.02	0.02
Sat Flow, veh/h	1781	3191	377	1781	3638	8	1781	474	1184	1781	412	1236
Grp Volume(v), veh/h	13	494	499	37	452	476	28	0	14	4	0	4
Grp Sat Flow(s),veh/h/ln	1781	1777	1792	1781	1777	1869	1781	0	1657	1781	0	1648
Q Serve(g_s), s	0.4	10.1	10.1	1.0	8.7	8.7	0.8	0.0	0.4	0.1	0.0	0.1
Cycle Q Clear(g_c), s	0.4	10.1	10.1	1.0	8.7	8.7	0.8	0.0	0.4	0.1	0.0	0.1
Prop In Lane	1.00		0.21	1.00		0.00	1.00		0.71	1.00		0.75
Lane Grp Cap(c), veh/h	18	848	855	44	874	919	34	0	62	6	0	36
V/C Ratio(X)	0.74	0.58	0.58	0.85	0.52	0.52	0.81	0.00	0.22	0.69	0.00	0.11
Avail Cap(c_a), veh/h	106	989	997	142	1024	1077	177	0	890	106	0	819
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.8	9.5	9.5	24.4	8.7	8.7	24.6	0.0	23.5	25.0	0.0	24.1
Incr Delay (d2), s/veh	44.8	2.9	2.9	15.4	2.2	2.1	34.9	0.0	0.7	91.4	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	3.4	3.4	0.6	2.8	2.9	0.6	0.0	0.2	0.2	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.6	12.4	12.4	39.8	10.9	10.8	59.5	0.0	24.2	116.4	0.0	25.5
LnGrp LOS	E	B	B	D	B	B	E	A	C	F	A	C
Approach Vol, veh/h		1006			965			42				8
Approach Delay, s/veh		13.2			12.0			47.7				71.0
Approach LOS		B			B			D				E
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.2	31.0	6.0	7.1	5.5	31.7	5.2	7.9				
Change Period (Y+Rc), s	5.0	7.0	5.0	6.0	5.0	7.0	5.0	6.0				
Max Green Setting (Gmax), s	4.0	28.0	5.0	25.0	3.0	29.0	3.0	27.0				
Max Q Clear Time (g_c+I1), s	3.0	12.1	2.8	2.1	2.4	10.7	2.1	2.4				
Green Ext Time (p_c), s	0.0	11.9	0.0	0.0	0.0	12.6	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay				13.5								
HCM 6th LOS				B								

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	59.2	60.1	36.2	37.2
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	5	5	3	3
Number of Right-Turn Islands	0	0	0	0
Type of Control	None Actuated		None Actuated	
Corresponding Signal Phase	8	8	4	6
Effective Walk Time (s)	0.0	9.0	0.0	9.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	1	0
85th percentile speed (mph)	40	40	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	42.5	34.0	42.5	34.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.82	2.78	2.01	1.95
Pedestrian Crosswalk LOS	C	C	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	1006	965	43	8
Effct. Green for Bike (s)	40.5	44.3	5.3	5.8
Cross Street Width (ft)	36.2	36.1	72.2	71.4
Through Lanes Number	2	2	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	5.0	5.0	5.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	953	1042	125	136
Bicycle Delay (s/bike)	11.6	9.7	37.4	36.9
Bicycle Compliance	Fair	Good	Poor	Poor
Bicycle LOS Score	1.87	1.84	1.66	2.67
Bicycle LOS	B	B	B	C

























Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	132	39	125	96	75	929	224	76	1119	134
v/c Ratio	0.40	0.10	0.44	0.28	1.03	0.67	0.32	1.04	0.81	0.20
Control Delay	39.6	0.5	42.9	7.1	162.7	30.2	7.2	166.0	34.4	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.6	0.5	42.9	7.1	162.7	30.2	7.2	166.0	34.4	5.9
Queue Length 50th (ft)	70	0	68	0	45	224	10	45	291	0
Queue Length 95th (ft)	144	0	142	32	#187	#508	80	#187	#685	47
Internal Link Dist (ft)	288		473			1028			1931	
Turn Bay Length (ft)		100		180	150			150		430
Base Capacity (vph)	647	641	596	596	73	1383	708	73	1383	676
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.06	0.21	0.16	1.03	0.67	0.32	1.04	0.81	0.20

Intersection Summary

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

600 Tank Farm Road
6: Broad & Industrial

Near Term Plus Alternative B AM
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	117	1	35	93	19	85	67	827	199	68	996	119
Future Volume (veh/h)	117	1	35	93	19	85	67	827	199	68	996	119
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		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	131	1	39	104	21	67	75	929	182	76	1119	124
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	235	2	209	171	35	181	88	1551	669	88	1551	671
Arrive On Green	0.13	0.13	0.13	0.11	0.11	0.11	0.05	0.44	0.44	0.05	0.44	0.44
Sat Flow, veh/h	1768	14	1578	1494	302	1581	1781	3554	1534	1781	3554	1539
Grp Volume(v), veh/h	132	0	39	125	0	67	75	929	182	76	1119	124
Grp Sat Flow(s),veh/h/ln	1782	0	1578	1796	0	1581	1781	1777	1534	1781	1777	1539
Q Serve(g_s), s	5.6	0.0	1.8	5.3	0.0	3.2	3.4	16.1	6.1	3.4	20.9	4.0
Cycle Q Clear(g_c), s	5.6	0.0	1.8	5.3	0.0	3.2	3.4	16.1	6.1	3.4	20.9	4.0
Prop In Lane	0.99		1.00	0.83		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	237	0	209	206	0	181	88	1551	669	88	1551	671
V/C Ratio(X)	0.56	0.00	0.19	0.61	0.00	0.37	0.85	0.60	0.27	0.86	0.72	0.18
Avail Cap(c_a), veh/h	774	0	685	713	0	628	88	1653	714	88	1653	716
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.7	0.0	31.1	34.0	0.0	33.0	38.0	17.3	14.5	38.0	18.7	13.9
Incr Delay (d2), s/veh	9.2	0.0	2.0	5.3	0.0	2.3	51.4	1.7	1.0	54.1	2.9	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.0	0.8	2.6	0.0	1.3	2.6	6.1	2.1	2.7	8.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.9	0.0	33.0	39.3	0.0	35.3	89.4	19.1	15.5	92.2	21.6	14.5
LnGrp LOS	D	A	C	D	A	D	F	B	B	F	C	B
Approach Vol, veh/h		171			192			1186			1319	
Approach Delay, s/veh		39.9			37.9			23.0			25.0	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.0	41.7		15.7	9.0	41.7		14.2				
Change Period (Y+Rc), s	5.0	6.5		5.0	5.0	6.5		5.0				
Max Green Setting (Gmax), s	4.0	37.5		35.0	4.0	37.5		32.0				
Max Q Clear Time (g_c+I1), s	5.4	18.1		7.6	5.4	22.9		7.3				
Green Ext Time (p_c), s	0.0	13.6		2.8	0.0	12.3		1.8				
Intersection Summary												
HCM 6th Ctrl Delay			25.9									
HCM 6th LOS			C									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	36.0	36.1	61.3	62.1
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	6	6
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	26	37	9
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	57.2	57.2	57.2	57.2
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.09	2.17	3.13	3.09
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	171	221	1228	1329
Effct. Green for Bike (s)	18.1	15.6	38.4	38.4
Cross Street Width (ft)	73.1	73.9	37.5	37.7
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	5.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	278	240	591	591
Bicycle Delay (s/bike)	48.2	50.3	32.3	32.3
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	2.96	3.05	2.07	2.16
Bicycle LOS	C	C	B	B































Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	284	172	416	248	286	190	227	802	61	666	381
v/c Ratio	0.66	0.21	0.86	0.90	0.58	0.36	0.88	0.75	0.62	0.74	0.48
Control Delay	47.3	27.8	38.8	74.3	34.4	9.8	76.8	34.0	73.7	36.4	6.1
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	47.3	27.8	38.8	74.3	34.4	9.8	76.8	34.0	73.7	36.4	6.1
Queue Length 50th (ft)	77	40	143	138	140	17	65	212	34	176	23
Queue Length 95th (ft)	146	72	279	#364	244	73	#175	340	#121	283	94
Internal Link Dist (ft)		533			770			1992		1028	
Turn Bay Length (ft)	265		85	150			275		250		300
Base Capacity (vph)	522	1440	724	277	766	739	259	1324	98	1275	833
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.12	0.57	0.90	0.37	0.26	0.88	0.61	0.62	0.52	0.46

Intersection Summary

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

600 Tank Farm Road
7: Broad & Tank Farm

Near Term Plus Alternative B AM
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 					 	 			 	
Traffic Volume (veh/h)	273	165	399	238	275	182	218	655	115	59	639	366
Future Volume (veh/h)	273	165	399	238	275	182	218	655	115	59	639	366
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	284	172	337	248	286	147	227	682	102	61	666	320
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	367	903	399	277	567	481	258	838	125	78	852	541
Arrive On Green	0.11	0.25	0.25	0.16	0.30	0.30	0.07	0.27	0.27	0.04	0.24	0.24
Sat Flow, veh/h	3456	3554	1570	1781	1870	1585	3456	3099	463	1781	3554	1554
Grp Volume(v), veh/h	284	172	337	248	286	147	227	391	393	61	666	320
Grp Sat Flow(s),veh/h/ln	1728	1777	1570	1781	1870	1585	1728	1777	1785	1781	1777	1554
Q Serve(g_s), s	7.0	3.3	17.7	11.9	10.9	6.2	5.7	17.9	17.9	2.9	15.2	14.7
Cycle Q Clear(g_c), s	7.0	3.3	17.7	11.9	10.9	6.2	5.7	17.9	17.9	2.9	15.2	14.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.26	1.00		1.00
Lane Grp Cap(c), veh/h	367	903	399	277	567	481	258	481	483	78	852	541
V/C Ratio(X)	0.77	0.19	0.84	0.90	0.50	0.31	0.88	0.81	0.81	0.78	0.78	0.59
Avail Cap(c_a), veh/h	521	1431	632	277	762	646	258	668	672	98	1267	723
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.8	25.4	30.8	36.0	24.9	23.3	39.8	29.6	29.7	41.1	30.9	23.4
Incr Delay (d2), s/veh	2.7	0.0	3.3	28.3	0.3	0.1	26.4	3.7	3.7	20.5	1.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	1.3	6.7	7.1	4.6	2.2	3.2	7.5	7.6	1.7	6.2	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.5	25.4	34.1	64.4	25.2	23.4	66.2	33.3	33.4	61.6	31.9	23.8
LnGrp LOS	D	C	C	E	C	C	E	C	C	E	C	C
Approach Vol, veh/h		793			681			1011			1047	
Approach Delay, s/veh		34.5			39.1			40.7			31.1	
Approach LOS		C			D			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.3	30.0	19.0	28.6	12.0	27.3	14.7	32.9				
Change Period (Y+Rc), s	5.5	6.5	5.5	6.5	5.5	6.5	5.5	6.5				
Max Green Setting (Gmax), s	4.8	32.7	13.5	35.0	6.5	31.0	13.1	35.4				
Max Q Clear Time (g_c+I1), s	4.9	19.9	13.9	19.7	7.7	17.2	9.0	12.9				
Green Ext Time (p_c), s	0.0	2.5	0.0	1.0	0.0	3.2	0.3	1.0				
Intersection Summary												
HCM 6th Ctrl Delay			36.2									
HCM 6th LOS			D									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	73.8	71.3	72.3	84.2
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	7	5	6	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	76	41	17	59
85th percentile speed (mph)	40	40	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	47.3	47.3	47.3	47.3
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.04	2.65	3.06	3.16
Pedestrian Crosswalk LOS	C	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	872	724	1029	1108
Effct. Green for Bike (s)	20.7	23.5	27.1	22.6
Cross Street Width (ft)	72.3	95.5	71.6	85.6
Through Lanes Number	2	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	5.0	5.0	5.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	376	427	493	411
Bicycle Delay (s/bike)	36.2	34.0	31.2	34.7
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	2.31	3.14	2.43	2.71
Bicycle LOS	B	C	B	C

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	43	10	60	1152	736	228
Future Vol, veh/h	43	10	60	1152	736	228
Conflicting Peds, #/hr	0	0	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	75	200	-	-	-
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	46	11	64	1226	783	243

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1647	514	1027	0	-	0
Stage 1	906	-	-	-	-	-
Stage 2	741	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	90	505	672	-	-	-
Stage 1	355	-	-	-	-	-
Stage 2	432	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	81	505	671	-	-	-
Mov Cap-2 Maneuver	255	-	-	-	-	-
Stage 1	321	-	-	-	-	-
Stage 2	432	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.3	0.5	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	671	-	255	505	-	-
HCM Lane V/C Ratio	0.095	-	0.179	0.021	-	-
HCM Control Delay (s)	10.9	-	22.2	12.3	-	-
HCM Lane LOS	B	-	C	B	-	-
HCM 95th %tile Q(veh)	0.3	-	0.6	0.1	-	-

Approach

Approach Direction	NB
Median Present?	No
Approach Delay(s)	1095086.5
Level of Service	F

Crosswalk

Length (ft)	78
Lanes Crossed	4
Veh Vol Crossed	1888
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	25.29
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.96
Delay for adq Gap	1095088.38
Avg Ped Delay (s)	1095086.50

Approach

Approach Direction	SB
Median Present?	No
Approach Delay(s)	1477752.0
Level of Service	F

Crosswalk

Length (ft)	80
Lanes Crossed	4
Veh Vol Crossed	1888
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	25.86
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.97
Delay for adq Gap	1477754.00
Avg Ped Delay (s)	1477752.00

























Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	64	5	11	38	54	1261	54	731
v/c Ratio	0.35	0.02	0.06	0.13	0.35	0.55	0.40	0.31
Control Delay	37.8	0.2	31.3	0.9	43.0	11.2	46.5	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.8	0.2	31.3	0.9	43.0	11.2	46.5	8.0
Queue Length 50th (ft)	30	0	5	0	27	198	27	93
Queue Length 95th (ft)	67	0	19	0	64	294	65	144
Internal Link Dist (ft)	310		100			324		936
Turn Bay Length (ft)		75		75	200		200	
Base Capacity (vph)	506	643	492	643	158	2285	135	2322
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.01	0.02	0.06	0.34	0.55	0.40	0.31

Intersection Summary

600 Tank Farm Road
9: Broad & Aero

Near Term Plus Alternative B AM
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	54	5	5	10	0	35	50	1142	18	50	603	70
Future Volume (veh/h)	54	5	5	10	0	35	50	1142	18	50	603	70
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		0.98	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	59	5	5	11	0	38	54	1241	20	54	655	62
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	199	8	111	222	0	111	68	2308	37	68	2112	200
Arrive On Green	0.07	0.07	0.07	0.07	0.00	0.07	0.04	0.65	0.65	0.04	0.64	0.64
Sat Flow, veh/h	1358	115	1585	1631	0	1585	1781	3577	58	1781	3274	310
Grp Volume(v), veh/h	64	0	5	11	0	38	54	616	645	54	355	362
Grp Sat Flow(s),veh/h/ln	1473	0	1585	1631	0	1585	1781	1777	1858	1781	1777	1807
Q Serve(g_s), s	2.4	0.0	0.2	0.0	0.0	1.5	2.0	12.6	12.6	2.0	5.9	6.0
Cycle Q Clear(g_c), s	2.8	0.0	0.2	0.4	0.0	1.5	2.0	12.6	12.6	2.0	5.9	6.0
Prop In Lane	0.92		1.00	1.00		1.00	1.00		0.03	1.00		0.17
Lane Grp Cap(c), veh/h	207	0	111	222	0	111	68	1146	1199	68	1146	1165
V/C Ratio(X)	0.31	0.00	0.04	0.05	0.00	0.34	0.79	0.54	0.54	0.79	0.31	0.31
Avail Cap(c_a), veh/h	731	0	687	734	0	687	186	1287	1346	160	1261	1282
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.2	0.0	29.0	29.1	0.0	29.6	31.9	6.5	6.5	31.9	5.3	5.3
Incr Delay (d2), s/veh	1.6	0.0	0.3	0.2	0.0	3.3	24.4	1.8	1.7	24.7	0.7	0.7
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	1.1	0.0	0.1	0.2	0.0	0.7	1.3	3.4	3.6	1.3	1.6	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.8	0.0	29.3	29.3	0.0	33.0	56.3	8.3	8.2	56.6	6.0	6.0
LnGrp LOS	C	A	C	C	A	C	E	A	A	E	A	A
Approach Vol, veh/h		69			49			1315			771	
Approach Delay, s/veh		31.6			32.2			10.2			9.5	
Approach LOS		C			C			B			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.6	49.7		9.7	7.6	49.7		9.7				
Change Period (Y+Rc), s	5.0	6.5		5.0	5.0	6.5		5.0				
Max Green Setting (Gmax), s	6.0	48.5		29.0	7.0	47.5		29.0				
Max Q Clear Time (g_c+I1), s	4.0	14.6		4.8	4.0	8.0		3.5				
Green Ext Time (p_c), s	0.0	28.6		0.5	0.0	17.8		0.3				
Intersection Summary												
HCM 6th Ctrl Delay				11.1								
HCM 6th LOS				B								

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	34.0	34.2	57.2	59.2
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	5	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	50.0	50.0	50.0	50.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.02	2.00	2.89	2.94
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	69	49	1315	785
Effct. Green for Bike (s)	10.7	10.7	51.9	53.5
Cross Street Width (ft)	58.1	60.4	34.2	34.1
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	11.0	11.0	11.0	11.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	214	214	1038	1070
Bicycle Delay (s/bike)	39.9	39.9	11.6	10.8
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	2.78	2.78	3.38	2.94
Bicycle LOS	C	C	C	C

Intersection						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↘↗		↑	↗↘	↘↗	↑
Traffic Vol, veh/h	5	19	991	25	45	501
Future Vol, veh/h	5	19	991	25	45	501
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	230	145	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	20	1032	26	47	522

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1648	1032	0	0	1058	0
Stage 1	1032	-	-	-	-	-
Stage 2	616	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	109	283	-	-	658	-
Stage 1	344	-	-	-	-	-
Stage 2	539	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	101	283	-	-	658	-
Mov Cap-2 Maneuver	283	-	-	-	-	-
Stage 1	344	-	-	-	-	-
Stage 2	501	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19	0	0.9
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	283	658
HCM Lane V/C Ratio	-	-	0.088	0.071
HCM Control Delay (s)	-	-	19	10.9
HCM Lane LOS	-	-	C	B
HCM 95th %tile Q(veh)	-	-	0.3	0.2

Approach

Approach Direction	NB
Median Present?	No
Approach Delay(s)	6322.6
Level of Service	F

Crosswalk

Length (ft)	56
Lanes Crossed	2
Veh Vol Crossed	1492
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.00
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.98
Delay for adq Gap	6324.97
Avg Ped Delay (s)	6322.56

Approach

Approach Direction	SB
Median Present?	No
Approach Delay(s)	1514.0
Level of Service	F

Crosswalk

Length (ft)	44
Lanes Crossed	2
Veh Vol Crossed	1492
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	15.57
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.96
Delay for adq Gap	1516.37
Avg Ped Delay (s)	1513.98



Lane Group	EBT	EBR	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	64	194	10	253	1272	5	449	49
v/c Ratio	0.42	0.32	0.05	0.74	0.82	0.06	0.40	0.05
Control Delay	62.3	5.9	0.6	57.4	14.7	62.4	15.1	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.3	5.9	0.6	57.4	14.7	62.4	15.1	0.4
Queue Length 50th (ft)	40	0	0	155	372	3	152	0
Queue Length 95th (ft)	108	55	0	318	#1453	20	344	3
Internal Link Dist (ft)	574		239		678		1346	
Turn Bay Length (ft)		135		355		400		400
Base Capacity (vph)	349	751	185	537	1687	86	1370	1154
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.26	0.05	0.47	0.75	0.06	0.33	0.04

Intersection Summary

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

600 Tank Farm Road
11: Edna (SR 227) & Buckley

Near Term Plus Alternative B AM
HCM 6th Signalized Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗		↔		↖	↗		↖	↗	↗
Traffic Volume (veh/h)	55	5	182	5	0	5	238	1191	5	5	422	46
Future Volume (veh/h)	55	5	182	5	0	5	238	1191	5	5	422	46
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		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	59	5	154	5	0	4	253	1267	5	5	449	49
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	169	14	417	10	0	8	286	1299	5	12	1021	841
Arrive On Green	0.10	0.10	0.10	0.01	0.00	0.01	0.16	0.70	0.70	0.01	0.55	0.55
Sat Flow, veh/h	1648	140	1585	938	0	750	1781	1861	7	1781	1870	1540
Grp Volume(v), veh/h	64	0	154	9	0	0	253	0	1272	5	449	49
Grp Sat Flow(s),veh/h/ln	1788	0	1585	1688	0	0	1781	0	1869	1781	1870	1540
Q Serve(g_s), s	3.3	0.0	8.0	0.5	0.0	0.0	14.0	0.0	64.7	0.3	14.4	1.5
Cycle Q Clear(g_c), s	3.3	0.0	8.0	0.5	0.0	0.0	14.0	0.0	64.7	0.3	14.4	1.5
Prop In Lane	0.92		1.00	0.56		0.44	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	184	0	417	19	0	0	286	0	1304	12	1021	841
V/C Ratio(X)	0.35	0.00	0.37	0.48	0.00	0.00	0.89	0.00	0.98	0.43	0.44	0.06
Avail Cap(c_a), veh/h	356	0	570	84	0	0	548	0	1893	89	1416	1166
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	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.9	0.0	30.2	49.4	0.0	0.0	41.3	0.0	14.4	49.7	13.6	10.7
Incr Delay (d2), s/veh	0.4	0.0	0.2	13.6	0.0	0.0	3.7	0.0	11.0	9.2	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	2.9	0.3	0.0	0.0	6.0	0.0	21.6	0.1	5.1	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.4	0.0	30.4	63.0	0.0	0.0	44.9	0.0	25.4	58.9	13.7	10.7
LnGrp LOS	D	A	C	E	A	A	D	A	C	E	B	B
Approach Vol, veh/h		218			9			1525			503	
Approach Delay, s/veh		33.9			63.0			28.6			13.9	
Approach LOS		C			E			C			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.6	61.2		5.1	4.4	76.4		14.5				
Change Period (Y+Rc), s	3.5	6.4		4.0	3.7	6.4		4.2				
Max Green Setting (Gmax), s	30.9	76.0		5.0	5.0	101.7		20.0				
Max Q Clear Time (g_c+I1), s	16.0	16.4		2.5	2.3	66.7		10.0				
Green Ext Time (p_c), s	0.1	0.7		0.0	0.0	3.3		0.4				

Intersection Summary

HCM 6th Ctrl Delay	26.0
HCM 6th LOS	C

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	36.5	24.6	36.4	48.7
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	2	3	4
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	2	6	8	4
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	50	30	55	55
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	75.0	75.0	75.0	75.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.27	1.76	3.27	2.98
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	258	10	1525	503
Effct. Green for Bike (s)	9.1	5.3	89.5	64.4
Cross Street Width (ft)	36.4	48.7	24.6	36.5
Through Lanes Number	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	121	71	1193	859
Bicycle Delay (s/bike)	66.2	69.8	12.2	24.4
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	2.54	2.32	4.45	2.95
Bicycle LOS	C	B	D	C


























Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	22	27	363	364	384	32	613	502	297	826
v/c Ratio	0.10	0.09	0.70	0.68	0.50	0.34	0.69	0.45	0.63	0.61
Control Delay	38.7	0.6	40.6	39.1	5.8	62.0	38.7	2.2	49.3	29.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.7	0.6	40.6	39.1	5.8	62.0	38.7	2.2	49.3	29.9
Queue Length 50th (ft)	13	0	196	194	0	19	166	2	86	208
Queue Length 95th (ft)	36	0	#434	#420	75	#64	303	34	#180	387
Internal Link Dist (ft)	109			1057			1054			1668
Turn Bay Length (ft)					250	140		100	100	
Base Capacity (vph)	519	532	614	638	844	95	1078	1194	515	1429
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.05	0.59	0.57	0.45	0.34	0.57	0.42	0.58	0.58

Intersection Summary

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

600 Tank Farm Road
1: Higuera & Tank Farm

Near Term Plus Alternative B PM
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	10	25	668	15	361	30	576	472	279	757	20
Future Volume (veh/h)	10	10	25	668	15	361	30	576	472	279	757	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.93	1.00		1.00	1.00		0.98	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	11	11	9	722	0	0	32	613	302	297	805	20
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	80	80	130	1107	0	0	57	973	918	401	1266	31
Arrive On Green	0.09	0.09	0.09	0.31	0.00	0.00	0.03	0.27	0.27	0.12	0.36	0.36
Sat Flow, veh/h	912	912	1477	3563	0	1585	1781	3554	1555	3456	3538	88
Grp Volume(v), veh/h	22	0	9	722	0	0	32	613	302	297	404	421
Grp Sat Flow(s),veh/h/ln	1825	0	1477	1781	0	1585	1781	1777	1555	1728	1777	1849
Q Serve(g_s), s	0.9	0.0	0.4	14.1	0.0	0.0	1.4	12.2	8.1	6.7	15.2	15.2
Cycle Q Clear(g_c), s	0.9	0.0	0.4	14.1	0.0	0.0	1.4	12.2	8.1	6.7	15.2	15.2
Prop In Lane	0.50		1.00	1.00		1.00	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	161	0	130	1107	0	0	57	973	918	401	636	662
V/C Ratio(X)	0.14	0.00	0.07	0.65	0.00	0.00	0.57	0.63	0.33	0.74	0.64	0.64
Avail Cap(c_a), veh/h	612	0	496	1527	0	0	113	1228	1030	588	804	836
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	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.9	0.0	33.7	24.0	0.0	0.0	38.4	25.6	8.6	34.4	21.5	21.5
Incr Delay (d2), s/veh	0.1	0.0	0.1	0.2	0.0	0.0	3.3	1.4	0.4	3.3	2.3	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.2	5.4	0.0	0.0	0.6	4.9	4.9	2.8	6.0	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.0	0.0	33.7	24.2	0.0	0.0	41.7	27.1	9.1	37.7	23.7	23.7
LnGrp LOS	C	A	C	C	A		D	C	A	D	C	C
Approach Vol, veh/h		31			722	A		947			1122	
Approach Delay, s/veh		33.9			24.2			21.8			27.4	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.8	26.5		11.6	6.1	33.3		29.5				
Change Period (Y+Rc), s	3.5	4.5		4.5	3.5	4.5		4.5				
Max Green Setting (Gmax), s	13.7	27.8		27.0	5.1	36.4		34.5				
Max Q Clear Time (g_c+I1), s	8.7	14.2		2.9	3.4	17.2		16.1				
Green Ext Time (p_c), s	0.7	7.3		0.1	0.0	8.5		1.9				

Intersection Summary

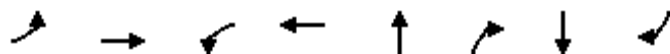
HCM 6th Ctrl Delay	24.8
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	50.7	58.5	67.8	54.5
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	6	6
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	17	190	188	1
85th percentile speed (mph)	25	45	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	52.3	52.3	52.3	52.3
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.01	3.12	3.39	2.99
Pedestrian Crosswalk LOS	B	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	49	1111	1147	1123
Effct. Green for Bike (s)	12.2	30.9	24.6	37.2
Cross Street Width (ft)	78.9	66.6	58.5	49.8
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	10.0	11.0	11.0	11.0
Bicycle Lane Width (ft)	0.0	5.0	5.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	203	515	410	620
Bicycle Delay (s/bike)	48.4	33.1	37.9	28.6
Bicycle Compliance	Poor	Poor	Poor	Fair
Bicycle LOS Score	3.28	3.55	2.54	2.39
Bicycle LOS	C	D	C	B



Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	68	861	143	1413	21	179	85	73
v/c Ratio	0.27	0.48	0.31	0.70	0.10	0.46	0.41	0.22
Control Delay	7.0	11.3	5.4	12.6	22.1	8.3	28.5	5.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.0	11.3	5.4	12.6	22.1	8.3	28.5	5.1
Queue Length 50th (ft)	6	100	13	188	7	0	28	0
Queue Length 95th (ft)	18	162	34	304	23	44	64	19
Internal Link Dist (ft)		1057		508	155		449	
Turn Bay Length (ft)	225		160			25		25
Base Capacity (vph)	250	1932	464	2033	740	907	698	869
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.45	0.31	0.70	0.03	0.20	0.12	0.08

Intersection Summary

600 Tank Farm Road
2: Long & Tank Farm

Near Term Plus Alternative B PM
HCM 6th Signalized Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↖	↗		↖	↗
Traffic Volume (veh/h)	65	797	30	137	1271	85	15	5	172	77	5	70
Future Volume (veh/h)	65	797	30	137	1271	85	15	5	172	77	5	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	68	830	31	143	1324	89	16	5	179	80	5	73
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	291	1665	62	465	1682	113	302	78	255	351	18	255
Arrive On Green	0.05	0.48	0.48	0.07	0.50	0.50	0.16	0.16	0.16	0.16	0.16	0.16
Sat Flow, veh/h	1781	3490	130	1781	3374	226	1111	487	1585	1342	112	1585
Grp Volume(v), veh/h	68	423	438	143	696	717	21	0	179	85	0	73
Grp Sat Flow(s),veh/h/ln	1781	1777	1843	1781	1777	1823	1599	0	1585	1454	0	1585
Q Serve(g_s), s	1.0	8.4	8.4	2.0	16.7	16.8	0.0	0.0	5.5	2.1	0.0	2.1
Cycle Q Clear(g_c), s	1.0	8.4	8.4	2.0	16.7	16.8	0.5	0.0	5.5	2.6	0.0	2.1
Prop In Lane	1.00		0.07	1.00		0.12	0.76		1.00	0.94		1.00
Lane Grp Cap(c), veh/h	291	848	880	465	886	909	380	0	255	369	0	255
V/C Ratio(X)	0.23	0.50	0.50	0.31	0.79	0.79	0.06	0.00	0.70	0.23	0.00	0.29
Avail Cap(c_a), veh/h	347	983	1020	558	1059	1086	1009	0	920	970	0	920
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	9.0	9.3	9.3	6.7	10.7	10.7	18.4	0.0	20.5	19.2	0.0	19.1
Incr Delay (d2), s/veh	0.4	0.5	0.4	0.4	3.3	3.3	0.1	0.0	3.5	0.3	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	2.3	2.4	0.5	5.0	5.2	0.2	0.0	2.1	0.9	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.4	9.7	9.7	7.0	14.0	14.1	18.5	0.0	24.0	19.6	0.0	19.7
LnGrp LOS	A	A	A	A	B	B	B	A	C	B	A	B
Approach Vol, veh/h		929			1556			200				158
Approach Delay, s/veh		9.7			13.4			23.4				19.6
Approach LOS		A			B			C				B
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.2	30.5		13.0	7.1	31.6		13.0				
Change Period (Y+Rc), s	4.6	5.8		* 4.7	4.6	5.8		* 4.7				
Max Green Setting (Gmax), s	6.3	28.6		* 30	4.1	30.8		* 30				
Max Q Clear Time (g_c+I1), s	4.0	10.4		4.6	3.0	18.8		7.5				
Green Ext Time (p_c), s	0.1	4.9		0.8	0.0	7.0		0.9				

Intersection Summary

HCM 6th Ctrl Delay	13.2
HCM 6th LOS	B

Notes

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

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	57.8	60.4	36.1	36.7
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	5	5	3	3
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6
Effective Walk Time (s)	9.0	9.0	9.0	9.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	15	77	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	45	45	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	31.5	31.5	31.5	31.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.00	3.18	2.06	2.04
Pedestrian Crosswalk LOS	C	C	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	929	1556	200	158
Effct. Green for Bike (s)	29.9	33.8	8.9	8.9
Cross Street Width (ft)	36.1	36.7	60.4	57.8
Through Lanes Number	2	2	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	5.0	5.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	748	845	222	222
Bicycle Delay (s/bike)	15.7	13.3	31.6	31.6
Bicycle Compliance	Fair	Fair	Poor	Poor
Bicycle LOS Score	1.81	2.33	2.81	2.70
Bicycle LOS	B	B	C	C

Approach

Approach Direction	EB
Median Present?	No
Approach Delay(s)	493866.1
Level of Service	F

Crosswalk

Length (ft)	66
Lanes Crossed	4
Veh Vol Crossed	2068
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	21.86
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.96
Delay for adq Gap	493867.81
Avg Ped Delay (s)	493866.06

Approach

Approach Direction	WB
Median Present?	No
Approach Delay(s)	808080.8
Level of Service	F

Crosswalk

Length (ft)	69
Lanes Crossed	4
Veh Vol Crossed	2068
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	22.71
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.96
Delay for adq Gap	808082.50
Avg Ped Delay (s)	808080.75

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	11	971	0	0	1142	36	0	0	0	32	0	10
Future Vol, veh/h	11	971	0	0	1142	36	0	0	0	32	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	2	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	1055	0	0	1241	39	0	0	0	35	0	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1280	0	0	1055	0	0	1700	2359	1055	2340	2340	640
Stage 1	-	-	-	-	-	-	1079	1079	-	1261	1261	-
Stage 2	-	-	-	-	-	-	621	1280	-	1079	1079	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.33	6.53	6.23	7.33	6.53	6.93
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.53	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.53	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.219	-	-	2.219	-	-	3.519	4.019	3.319	3.519	4.019	3.319
Pot Cap-1 Maneuver	540	-	-	658	-	-	66	35	273	~ 22	36	419
Stage 1	-	-	-	-	-	-	264	294	-	181	241	-
Stage 2	-	-	-	-	-	-	442	236	-	264	294	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	540	-	-	658	-	-	63	34	273	~ 22	35	419
Mov Cap-2 Maneuver	-	-	-	-	-	-	63	34	-	138	176	-
Stage 1	-	-	-	-	-	-	258	288	-	177	241	-
Stage 2	-	-	-	-	-	-	431	236	-	258	288	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	0	35.2
HCM LOS			A	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	540	-	-	658	-	-	164
HCM Lane V/C Ratio	-	0.022	-	-	-	-	-	0.278
HCM Control Delay (s)	0	11.8	-	-	0	-	-	35.2
HCM Lane LOS	A	B	-	-	A	-	-	E
HCM 95th %tile Q(veh)	-	0.1	-	-	0	-	-	1.1

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

Approach

Approach Direction	EB
Median Present?	No
Approach Delay(s)	118728.6
Level of Service	F

Crosswalk

Length (ft)	56
Lanes Crossed	3
Veh Vol Crossed	2113
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.00
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.98
Delay for adq Gap	118730.34
Avg Ped Delay (s)	118728.64

Approach

Approach Direction	WB
Median Present?	No
Approach Delay(s)	118728.6
Level of Service	F

Crosswalk

Length (ft)	56
Lanes Crossed	3
Veh Vol Crossed	2113
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.00
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.98
Delay for adq Gap	118730.34
Avg Ped Delay (s)	118728.64

Intersection						
Int Delay, s/veh	4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	977	27	69	1140	42	165
Future Vol, veh/h	977	27	69	1140	42	165
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	110	-	0	25
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1086	30	77	1267	47	183

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	1116	0	1889 1101
Stage 1	-	-	-	-	1101 -
Stage 2	-	-	-	-	788 -
Critical Hdwy	-	-	4.13	-	6.63 6.23
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.83 -
Follow-up Hdwy	-	-	2.219	-	3.519 3.319
Pot Cap-1 Maneuver	-	-	624	-	69 257
Stage 1	-	-	-	-	317 -
Stage 2	-	-	-	-	409 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	624	-	61 257
Mov Cap-2 Maneuver	-	-	-	-	232 -
Stage 1	-	-	-	-	317 -
Stage 2	-	-	-	-	359 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	42.9
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	232	257	-	-	624	-
HCM Lane V/C Ratio	0.201	0.713	-	-	0.123	-
HCM Control Delay (s)	24.4	47.6	-	-	11.6	-
HCM Lane LOS	C	E	-	-	B	-
HCM 95th %tile Q(veh)	0.7	4.9	-	-	0.4	-

Approach

Approach Direction	EB
Median Present?	No
Approach Delay(s)	121033.0
Level of Service	F

Crosswalk

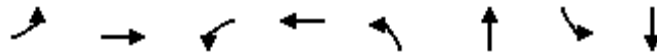
Length (ft)	56
Lanes Crossed	3
Veh Vol Crossed	2117
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.00
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.98
Delay for adq Gap	121034.70
Avg Ped Delay (s)	121032.99

Approach

Approach Direction	WB
Median Present?	No
Approach Delay(s)	909048.3
Level of Service	F

Crosswalk

Length (ft)	68
Lanes Crossed	3
Veh Vol Crossed	2117
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	22.43
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.99
Delay for adq Gap	909049.94
Avg Ped Delay (s)	909048.25



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	13	1353	11	1224	202	43	18	21
v/c Ratio	0.20	0.63	0.17	0.57	0.66	0.14	0.16	0.15
Control Delay	49.4	14.5	48.2	13.4	43.4	12.2	43.7	25.6
Queue Delay	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Total Delay	49.4	14.5	48.2	13.5	43.4	12.2	43.7	25.6
Queue Length 50th (ft)	6	159	5	136	82	1	8	3
Queue Length 95th (ft)	27	433	24	372	188	29	33	26
Internal Link Dist (ft)		357		533		330		250
Turn Bay Length (ft)	100		210					
Base Capacity (vph)	65	2133	65	2137	374	779	110	548
Starvation Cap Reductn	0	0	0	93	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.63	0.17	0.60	0.54	0.06	0.16	0.04
Intersection Summary								

600 Tank Farm Road
5: MindBody & Tank Farm

Near Term Plus Alternative B PM
HCM 6th Signalized Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Volume (veh/h)	11	1171	19	10	1075	2	178	3	35	16	5	13
Future Volume (veh/h)	11	1171	19	10	1075	2	178	3	35	16	5	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	12	1331	22	11	1222	2	202	3	25	18	6	15
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	16	1902	31	14	1934	3	246	28	236	22	18	45
Arrive On Green	0.01	0.53	0.53	0.01	0.53	0.53	0.14	0.16	0.16	0.01	0.04	0.04
Sat Flow, veh/h	1781	3576	59	1781	3640	6	1781	173	1439	1781	474	1184
Grp Volume(v), veh/h	12	661	692	11	596	628	202	0	28	18	0	21
Grp Sat Flow(s),veh/h/ln	1781	1777	1858	1781	1777	1869	1781	0	1611	1781	0	1657
Q Serve(g_s), s	0.5	22.5	22.5	0.5	19.2	19.2	8.9	0.0	1.2	0.8	0.0	1.0
Cycle Q Clear(g_c), s	0.5	22.5	22.5	0.5	19.2	19.2	8.9	0.0	1.2	0.8	0.0	1.0
Prop In Lane	1.00		0.03	1.00		0.00	1.00		0.89	1.00		0.71
Lane Grp Cap(c), veh/h	16	945	988	14	944	993	246	0	264	22	0	64
V/C Ratio(X)	0.77	0.70	0.70	0.76	0.63	0.63	0.82	0.00	0.11	0.82	0.00	0.33
Avail Cap(c_a), veh/h	66	1008	1054	66	1008	1060	373	0	755	110	0	531
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	40.1	14.1	14.2	40.1	13.4	13.4	34.0	0.0	28.8	40.0	0.0	38.0
Incr Delay (d2), s/veh	54.4	4.3	4.1	25.6	3.2	3.1	8.6	0.0	0.1	49.8	0.0	3.0
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	0.5	8.7	9.1	0.3	7.3	7.7	4.4	0.0	0.5	0.7	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	94.5	18.4	18.3	65.8	16.6	16.5	42.6	0.0	28.9	89.8	0.0	41.0
LnGrp LOS	F	B	B	E	B	B	D	A	C	F	A	D
Approach Vol, veh/h		1365			1235			230				39
Approach Delay, s/veh		19.0			17.0			40.9				63.5
Approach LOS		B			B			D				E
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.7	50.1	16.2	9.1	5.7	50.1	6.0	19.3				
Change Period (Y+Rc), s	5.0	7.0	5.0	6.0	5.0	7.0	5.0	6.0				
Max Green Setting (Gmax), s	3.0	46.0	17.0	26.0	3.0	46.0	5.0	38.0				
Max Q Clear Time (g_c+I1), s	2.5	24.5	10.9	3.0	2.5	21.2	2.8	3.2				
Green Ext Time (p_c), s	0.0	18.6	0.4	0.1	0.0	19.8	0.0	0.1				
Intersection Summary												
HCM 6th Ctrl Delay			20.5									
HCM 6th LOS			C									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	59.2	60.1	36.2	37.1
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	5	5	3	3
Number of Right-Turn Islands	0	0	0	0
Type of Control	None Actuated		None Actuated	
Corresponding Signal Phase	8	8	4	6
Effective Walk Time (s)	0.0	9.0	0.0	9.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	13	0
85th percentile speed (mph)	40	40	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	57.5	48.9	57.5	48.9
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.05	3.00	2.07	1.97
Pedestrian Crosswalk LOS	C	C	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	1365	1235	245	39
Effct. Green for Bike (s)	49.2	49.2	14.2	6.2
Cross Street Width (ft)	36.2	36.3	72.3	71.5
Through Lanes Number	2	2	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	5.0	5.0	5.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	856	856	247	108
Bicycle Delay (s/bike)	18.8	18.8	44.2	51.5
Bicycle Compliance	Fair	Fair	Poor	Poor
Bicycle LOS Score	2.17	2.06	2.00	2.72
Bicycle LOS	B	B	B	C

























Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	244	70	222	266	117	1147	209	165	1206	184
v/c Ratio	0.62	0.16	0.63	0.51	1.44	1.05	0.38	1.27	1.02	0.29
Control Delay	46.4	2.1	49.4	8.2	296.6	80.7	14.4	211.7	68.0	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.4	2.1	49.4	8.2	296.6	80.7	14.4	211.7	68.0	6.1
Queue Length 50th (ft)	155	0	144	0	-112	-467	34	-147	-475	0
Queue Length 95th (ft)	260	9	245	69	#273	#774	118	#339	#791	56
Internal Link Dist (ft)	288		473			1028			1931	
Turn Bay Length (ft)		100		180	150			150		430
Base Capacity (vph)	575	579	524	647	81	1089	553	130	1187	640
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.12	0.42	0.41	1.44	1.05	0.38	1.27	1.02	0.29

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

600 Tank Farm Road
6: Broad & Industrial

Near Term Plus Alternative B PM
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	191	36	65	185	21	247	109	1067	194	153	1122	171
Future Volume (veh/h)	191	36	65	185	21	247	109	1067	194	153	1122	171
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		0.95	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	205	39	62	199	23	183	117	1147	156	165	1206	155
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	295	56	310	280	32	276	89	1190	506	142	1297	565
Arrive On Green	0.20	0.20	0.20	0.17	0.17	0.17	0.05	0.33	0.33	0.08	0.36	0.36
Sat Flow, veh/h	1508	287	1583	1605	185	1582	1781	3554	1510	1781	3554	1550
Grp Volume(v), veh/h	244	0	62	222	0	183	117	1147	156	165	1206	155
Grp Sat Flow(s),veh/h/ln	1795	0	1583	1790	0	1582	1781	1777	1510	1781	1777	1550
Q Serve(g_s), s	12.7	0.0	3.3	11.7	0.0	10.8	5.0	31.7	7.7	8.0	32.6	7.1
Cycle Q Clear(g_c), s	12.7	0.0	3.3	11.7	0.0	10.8	5.0	31.7	7.7	8.0	32.6	7.1
Prop In Lane	0.84		1.00	0.90		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	351	0	310	313	0	276	89	1190	506	142	1297	565
V/C Ratio(X)	0.70	0.00	0.20	0.71	0.00	0.66	1.31	0.96	0.31	1.16	0.93	0.27
Avail Cap(c_a), veh/h	628	0	554	573	0	506	89	1190	506	142	1297	565
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.5	0.0	33.7	38.9	0.0	38.5	47.5	32.7	24.7	46.0	30.5	22.4
Incr Delay (d2), s/veh	10.8	0.0	1.5	5.4	0.0	5.0	200.9	18.7	1.6	124.3	13.1	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	0.0	1.4	5.6	0.0	4.5	7.1	15.7	2.8	8.3	15.2	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.3	0.0	35.1	44.3	0.0	43.5	248.4	51.4	26.3	170.3	43.6	23.6
LnGrp LOS	D	A	D	D	A	D	F	D	C	F	D	C
Approach Vol, veh/h		306			405			1420			1526	
Approach Delay, s/veh		45.6			44.0			64.9			55.3	
Approach LOS		D			D			E			E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.0	40.0		24.6	10.0	43.0		22.5				
Change Period (Y+Rc), s	5.0	6.5		5.0	5.0	6.5		5.0				
Max Green Setting (Gmax), s	8.0	33.5		35.0	5.0	36.5		32.0				
Max Q Clear Time (g_c+I1), s	10.0	33.7		14.7	7.0	34.6		13.7				
Green Ext Time (p_c), s	0.0	0.0		4.7	0.0	1.7		3.6				
Intersection Summary												
HCM 6th Ctrl Delay			57.0									
HCM 6th LOS			E									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	36.0	36.1	61.3	62.1
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	6	6
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	7	77	49	27
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	57.2	57.2	57.2	57.2
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.18	2.36	3.26	3.28
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	314	488	1473	1555
Effct. Green for Bike (s)	24.5	21.9	34.0	37.0
Cross Street Width (ft)	73.1	73.9	37.5	37.7
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	5.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	377	337	523	569
Bicycle Delay (s/bike)	42.8	44.9	35.4	33.3
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	3.20	3.50	2.28	2.35
Bicycle LOS	C	C	B	B































Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	584	528	318	211	237	140	408	920	239	787	638
v/c Ratio	1.03	0.74	0.66	0.88	0.74	0.36	0.90	0.89	0.99	0.74	0.67
Control Delay	89.7	46.0	19.4	81.5	55.3	8.6	69.8	46.7	103.6	39.3	15.9
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	89.7	46.0	19.4	81.5	55.3	8.6	69.8	46.7	103.6	39.3	15.9
Queue Length 50th (ft)	~209	178	61	141	155	0	140	298	162	247	180
Queue Length 95th (ft)	#389	234	152	#324	235	49	#272	#508	#375	379	402
Internal Link Dist (ft)		533			770			1992		1028	
Turn Bay Length (ft)	265		85	150			275		250		300
Base Capacity (vph)	568	1172	656	239	561	574	455	1044	241	1076	952
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.03	0.45	0.48	0.88	0.42	0.24	0.90	0.88	0.99	0.73	0.67

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

600 Tank Farm Road
7: Broad & Tank Farm

Near Term Plus Alternative B PM
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 					 	 			 	
Traffic Volume (veh/h)	526	475	286	190	213	126	367	640	188	215	708	574
Future Volume (veh/h)	526	475	286	190	213	126	367	640	188	215	708	574
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	584	528	264	211	237	117	408	711	175	239	787	515
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	571	763	332	240	345	292	458	813	200	243	1039	726
Arrive On Green	0.17	0.21	0.21	0.13	0.18	0.18	0.13	0.29	0.29	0.14	0.29	0.29
Sat Flow, veh/h	3456	3554	1545	1781	1870	1585	3456	2816	693	1781	3554	1585
Grp Volume(v), veh/h	584	528	264	211	237	117	408	449	437	239	787	515
Grp Sat Flow(s),veh/h/ln	1728	1777	1545	1781	1870	1585	1728	1777	1731	1781	1777	1585
Q Serve(g_s), s	17.6	14.6	17.2	12.4	12.6	6.9	12.4	25.6	25.6	14.3	21.4	27.8
Cycle Q Clear(g_c), s	17.6	14.6	17.2	12.4	12.6	6.9	12.4	25.6	25.6	14.3	21.4	27.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.40	1.00		1.00
Lane Grp Cap(c), veh/h	571	763	332	240	345	292	458	513	500	243	1039	726
V/C Ratio(X)	1.02	0.69	0.80	0.88	0.69	0.40	0.89	0.87	0.87	0.99	0.76	0.71
Avail Cap(c_a), veh/h	571	1175	511	241	562	476	458	532	519	243	1078	743
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.4	38.5	39.6	45.2	40.6	38.2	45.4	36.0	36.0	45.9	34.2	23.2
Incr Delay (d2), s/veh	43.4	0.4	2.3	27.8	0.9	0.3	18.7	13.9	14.3	53.3	2.7	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.7	6.2	6.5	7.2	5.7	2.6	6.3	12.5	12.2	9.7	9.2	10.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	87.8	39.0	41.8	73.0	41.5	38.6	64.1	49.9	50.3	99.2	36.9	25.8
LnGrp LOS	F	D	D	E	D	D	E	D	D	F	D	C
Approach Vol, veh/h		1376			565			1294			1541	
Approach Delay, s/veh		60.3			52.6			54.5			42.8	
Approach LOS		E			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	20.0	37.2	19.9	29.4	19.6	37.6	23.1	26.1				
Change Period (Y+Rc), s	5.5	6.5	5.5	6.5	5.5	6.5	5.5	6.5				
Max Green Setting (Gmax), s	14.5	31.9	14.4	35.2	14.1	32.3	17.6	32.0				
Max Q Clear Time (g_c+I1), s	16.3	27.6	14.4	19.2	14.4	29.8	19.6	14.6				
Green Ext Time (p_c), s	0.0	1.5	0.0	2.1	0.0	1.4	0.0	0.7				
Intersection Summary												
HCM 6th Ctrl Delay			52.2									
HCM 6th LOS			D									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	73.8	71.3	72.3	84.2
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	7	5	6	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	49	21	31	111
85th percentile speed (mph)	40	40	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	52.3	52.3	52.3	52.3
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.18	2.75	3.16	3.42
Pedestrian Crosswalk LOS	C	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	1430	588	1328	1664
Effct. Green for Bike (s)	21.7	18.5	31.9	32.3
Cross Street Width (ft)	72.3	95.5	71.6	85.6
Through Lanes Number	2	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	5.0	5.0	5.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	362	308	532	538
Bicycle Delay (s/bike)	40.3	42.9	32.3	32.0
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	2.77	2.92	2.68	3.17
Bicycle LOS	C	C	C	C

Intersection

Int Delay, s/veh 2.6

Movement EBL EBR NBL NBT SBT SBR

Lane Configurations						
Traffic Vol, veh/h	115	55	15	788	1011	107
Future Vol, veh/h	115	55	15	788	1011	107
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	75	200	-	-	-
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	126	60	16	866	1111	118

Major/Minor Minor2 Major1 Major2

Conflicting Flow All	1635	615	1229	0	-	0
Stage 1	1170	-	-	-	-	-
Stage 2	465	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	~ 92	434	563	-	-	-
Stage 1	257	-	-	-	-	-
Stage 2	599	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 89	434	563	-	-	-
Mov Cap-2 Maneuver	227	-	-	-	-	-
Stage 1	250	-	-	-	-	-
Stage 2	599	-	-	-	-	-

Approach EB NB SB

HCM Control Delay, s 31.2 0.2 0
HCM LOS D

Minor Lane/Major Mvmt NBL NBT EBLn1 EBLn2 SBT SBR

Capacity (veh/h)	563	-	227	434	-	-
HCM Lane V/C Ratio	0.029	-	0.557	0.139	-	-
HCM Control Delay (s)	11.6	-	39.1	14.6	-	-
HCM Lane LOS	B	-	E	B	-	-
HCM 95th %tile Q(veh)	0.1	-	3	0.5	-	-

Notes

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

Approach

Approach Direction	NB
Median Present?	No
Approach Delay(s)	615070.6
Level of Service	F

Crosswalk

Length (ft)	78
Lanes Crossed	4
Veh Vol Crossed	1799
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	25.29
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.96
Delay for adq Gap	615072.56
Avg Ped Delay (s)	615070.56

Approach

Approach Direction	SB
Median Present?	No
Approach Delay(s)	818359.9
Level of Service	F

Crosswalk

Length (ft)	80
Lanes Crossed	4
Veh Vol Crossed	1799
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	25.86
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.96
Delay for adq Gap	818361.88
Avg Ped Delay (s)	818359.88

























Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	174	41	14	27	41	736	7	1003
v/c Ratio	0.55	0.09	0.04	0.06	0.28	0.38	0.07	0.58
Control Delay	30.1	0.4	20.5	0.3	39.0	10.6	37.9	16.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.1	0.4	20.5	0.3	39.0	10.6	37.9	16.2
Queue Length 50th (ft)	69	0	5	0	18	73	3	166
Queue Length 95th (ft)	125	0	18	0	53	200	17	310
Internal Link Dist (ft)	310		100			324		936
Turn Bay Length (ft)		75		75	200		200	
Base Capacity (vph)	566	707	633	699	148	1986	99	1726
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.06	0.02	0.04	0.28	0.37	0.07	0.58

Intersection Summary

600 Tank Farm Road
9: Broad & Aero

Near Term Plus Alternative B PM
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	171	0	40	9	5	26	40	718	3	7	911	72
Future Volume (veh/h)	171	0	40	9	5	26	40	718	3	7	911	72
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		0.98	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	174	0	26	9	5	26	41	733	3	7	930	61
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	378	0	279	277	132	279	60	1907	8	13	1688	111
Arrive On Green	0.18	0.00	0.18	0.18	0.18	0.18	0.03	0.53	0.53	0.01	0.50	0.50
Sat Flow, veh/h	1422	0	1582	977	749	1582	1781	3629	15	1781	3380	222
Grp Volume(v), veh/h	174	0	26	14	0	26	41	359	377	7	489	502
Grp Sat Flow(s),veh/h/ln	1422	0	1582	1725	0	1582	1781	1777	1867	1781	1777	1825
Q Serve(g_s), s	6.1	0.0	0.8	0.0	0.0	0.8	1.3	6.8	6.8	0.2	10.8	10.8
Cycle Q Clear(g_c), s	6.5	0.0	0.8	0.4	0.0	0.8	1.3	6.8	6.8	0.2	10.8	10.8
Prop In Lane	1.00		1.00	0.64		1.00	1.00		0.01	1.00		0.12
Lane Grp Cap(c), veh/h	378	0	279	409	0	279	60	934	981	13	887	911
V/C Ratio(X)	0.46	0.00	0.09	0.03	0.00	0.09	0.69	0.38	0.38	0.53	0.55	0.55
Avail Cap(c_a), veh/h	848	0	808	927	0	808	188	1111	1167	125	1048	1076
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.9	0.0	19.6	19.4	0.0	19.6	27.2	8.0	8.0	28.1	9.8	9.8
Incr Delay (d2), s/veh	1.6	0.0	0.3	0.1	0.0	0.3	18.0	1.2	1.1	40.5	2.5	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	0.3	0.1	0.0	0.3	0.8	2.1	2.2	0.2	3.5	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.5	0.0	19.8	19.5	0.0	19.8	45.1	9.2	9.2	68.6	12.3	12.2
LnGrp LOS	C	A	B	B	A	B	D	A	A	E	B	B
Approach Vol, veh/h		200			40			777			998	
Approach Delay, s/veh		23.0			19.7			11.1			12.6	
Approach LOS		C			B			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.4	36.3		15.0	6.9	34.9		15.0				
Change Period (Y+Rc), s	5.0	6.5		5.0	5.0	6.5		5.0				
Max Green Setting (Gmax), s	4.0	35.5		29.0	6.0	33.5		29.0				
Max Q Clear Time (g_c+I1), s	2.2	8.8		8.5	3.3	12.8		2.8				
Green Ext Time (p_c), s	0.0	15.3		1.8	0.0	15.6		0.2				
Intersection Summary												
HCM 6th Ctrl Delay			13.2									
HCM 6th LOS			B									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	34.0	34.2	57.2	59.2
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	5	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	42.5	42.5	42.5	42.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.06	1.96	2.82	2.88
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	215	41	777	1010
Effct. Green for Bike (s)	16.7	16.7	40.3	35.8
Cross Street Width (ft)	58.1	60.4	34.2	34.1
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	11.0	11.0	11.0	11.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	393	393	948	842
Bicycle Delay (s/bike)	27.4	27.4	11.8	14.2
Bicycle Compliance	Fair	Fair	Fair	Fair
Bicycle LOS Score	3.02	2.77	2.94	3.13
Bicycle LOS	C	C	C	C

Intersection						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↘↗		↑	↗↘	↘↗	↑
Traffic Vol, veh/h	15	40	557	10	25	1001
Future Vol, veh/h	15	40	557	10	25	1001
Conflicting Peds, #/hr	0	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	230	145	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	42	586	11	26	1054

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1693	587	0	0	598
Stage 1	587	-	-	-	-
Stage 2	1106	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	102	510	-	-	979
Stage 1	556	-	-	-	-
Stage 2	317	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	99	510	-	-	978
Mov Cap-2 Maneuver	267	-	-	-	-
Stage 1	555	-	-	-	-
Stage 2	308	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.2	0	0.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	409	978
HCM Lane V/C Ratio	-	-	0.142	0.027
HCM Control Delay (s)	-	-	15.2	8.8
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	0.5	0.1

Approach

Approach Direction	NB
Median Present?	No
Approach Delay(s)	8585.5
Level of Service	F

Crosswalk

Length (ft)	56
Lanes Crossed	2
Veh Vol Crossed	1558
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.00
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.98
Delay for adq Gap	8587.81
Avg Ped Delay (s)	8585.50

Approach

Approach Direction	SB
Median Present?	No
Approach Delay(s)	1933.9
Level of Service	F

Crosswalk

Length (ft)	44
Lanes Crossed	2
Veh Vol Crossed	1558
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	15.57
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.97
Delay for adq Gap	1936.19
Avg Ped Delay (s)	1933.90



Lane Group	EBT	EBR	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	48	356	15	71	549	5	1029	44
v/c Ratio	0.28	0.76	0.07	0.34	0.37	0.04	0.90	0.04
Control Delay	52.4	33.5	0.6	51.2	5.7	55.6	27.4	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.4	33.5	0.6	51.2	5.7	55.6	27.4	0.1
Queue Length 50th (ft)	24	94	0	34	65	3	428	0
Queue Length 95th (ft)	79	#311	0	107	247	19	881	0
Internal Link Dist (ft)	574		239		678		1346	
Turn Bay Length (ft)		135		355		400		400
Base Capacity (vph)	481	517	228	269	1657	119	1588	1336
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.69	0.07	0.26	0.33	0.04	0.65	0.03

Intersection Summary

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

600 Tank Farm Road
11: Edna (SR 227) & Buckley

Near Term Plus Alternative B PM
HCM 6th Signalized Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗		↔		↖	↗		↖	↗	↗
Traffic Volume (veh/h)	41	5	342	10	0	5	68	522	5	5	988	42
Future Volume (veh/h)	41	5	342	10	0	5	68	522	5	5	988	42
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		0.98	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	43	5	316	10	0	1	71	544	5	5	1029	44
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	309	36	387	21	0	2	91	1130	10	12	1063	882
Arrive On Green	0.19	0.19	0.19	0.01	0.00	0.01	0.05	0.61	0.61	0.01	0.57	0.57
Sat Flow, veh/h	1604	186	1585	1601	0	160	1781	1850	17	1781	1870	1551
Grp Volume(v), veh/h	48	0	316	11	0	0	71	0	549	5	1029	44
Grp Sat Flow(s),veh/h/ln	1790	0	1585	1761	0	0	1781	0	1867	1781	1870	1551
Q Serve(g_s), s	2.3	0.0	19.5	0.6	0.0	0.0	4.1	0.0	16.8	0.3	54.8	1.3
Cycle Q Clear(g_c), s	2.3	0.0	19.5	0.6	0.0	0.0	4.1	0.0	16.8	0.3	54.8	1.3
Prop In Lane	0.90		1.00	0.91		0.09	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	345	0	387	23	0	0	91	0	1141	12	1063	882
V/C Ratio(X)	0.14	0.00	0.82	0.48	0.00	0.00	0.78	0.00	0.48	0.43	0.97	0.05
Avail Cap(c_a), veh/h	345	0	387	85	0	0	194	0	1561	86	1454	1206
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	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.7	0.0	37.0	50.8	0.0	0.0	48.6	0.0	11.1	51.3	21.5	9.9
Incr Delay (d2), s/veh	0.1	0.0	12.0	10.9	0.0	0.0	5.3	0.0	0.1	9.2	12.6	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	1.0	0.0	8.4	0.4	0.0	0.0	1.9	0.0	5.6	0.2	23.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.8	0.0	49.0	61.7	0.0	0.0	53.9	0.0	11.2	60.6	34.1	10.0
LnGrp LOS	C	A	D	E	A	A	D	A	B	E	C	A
Approach Vol, veh/h		364			11			620			1078	
Approach Delay, s/veh		47.1			61.7			16.1			33.3	
Approach LOS		D			E			B			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.8	65.3		5.4	4.4	69.8		24.2				
Change Period (Y+Rc), s	3.5	6.4		4.0	3.7	6.4		4.2				
Max Green Setting (Gmax), s	11.3	80.6		5.0	5.0	86.7		20.0				
Max Q Clear Time (g_c+I1), s	6.1	56.8		2.6	2.3	18.8		21.5				
Green Ext Time (p_c), s	0.0	2.2		0.0	0.0	0.9		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			30.7									
HCM 6th LOS			C									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	36.5	24.6	36.4	48.7
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	2	3	4
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	2	6	8	4
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	50	30	55	55
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	67.5	67.5	67.5	67.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.25	1.76	3.17	2.90
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	404	15	620	1078
Effct. Green for Bike (s)	8.5	5.9	70.1	53.9
Cross Street Width (ft)	36.4	48.7	24.6	36.5
Through Lanes Number	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	126	87	1039	799
Bicycle Delay (s/bike)	59.3	61.7	15.6	24.4
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	2.78	2.33	2.96	3.90
Bicycle LOS	C	B	C	D

Mitigated Near Term Plus Project

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷			↶↷			↶↷			↶	↷
Traffic Vol, veh/h	6	894	0	0	745	20	0	0	0	32	0	10
Future Vol, veh/h	6	894	0	0	745	20	0	0	0	32	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	-	-	-	-	-	-	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	2	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	972	0	0	810	22	0	0	0	35	0	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	832	0	0	972	0	0	1391	1818	972	1807	1807	416
Stage 1	-	-	-	-	-	-	986	986	-	821	821	-
Stage 2	-	-	-	-	-	-	405	832	-	986	986	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.33	6.53	6.23	7.33	6.53	6.93
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.53	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.53	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.219	-	-	2.219	-	-	3.519	4.019	3.319	3.519	4.019	3.319
Pot Cap-1 Maneuver	798	-	-	707	-	-	110	77	305	55	79	586
Stage 1	-	-	-	-	-	-	297	325	-	336	388	-
Stage 2	-	-	-	-	-	-	594	383	-	297	325	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	798	-	-	707	-	-	107	76	305	55	78	586
Mov Cap-2 Maneuver	-	-	-	-	-	-	107	76	-	215	246	-
Stage 1	-	-	-	-	-	-	294	322	-	333	388	-
Stage 2	-	-	-	-	-	-	583	383	-	294	322	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	0	21.7
HCM LOS			A	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	-	798	-	-	707	-	-	215	586
HCM Lane V/C Ratio	-	0.008	-	-	-	-	-	0.162	0.019
HCM Control Delay (s)	0	9.5	-	-	0	-	-	24.9	11.3
HCM Lane LOS	A	A	-	-	A	-	-	C	B
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0.6	0.1

Approach

Approach Direction	EB
Median Present?	No
Approach Delay(s)	16251.6
Level of Service	F

Crosswalk

Length (ft)	58
Lanes Crossed	3
Veh Vol Crossed	1639
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.57
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.95
Delay for adq Gap	16253.78
Avg Ped Delay (s)	16251.58

Approach

Approach Direction	WB
Median Present?	No
Approach Delay(s)	12524.4
Level of Service	F

Crosswalk

Length (ft)	56
Lanes Crossed	3
Veh Vol Crossed	1639
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.00
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.94
Delay for adq Gap	12526.60
Avg Ped Delay (s)	12524.41

























Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	131	40	104	117	75	929	224	76	1119	134
v/c Ratio	0.40	0.12	0.28	0.33	0.60	0.58	0.28	0.61	0.70	0.18
Control Delay	24.2	9.4	20.6	11.0	60.8	21.2	4.3	61.4	23.9	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.2	9.4	20.6	11.0	60.8	21.2	4.3	61.4	23.9	4.9
Queue Length 50th (ft)	46	0	36	9	35	170	0	35	221	0
Queue Length 95th (ft)	81	22	66	45	#130	362	50	#133	#514	40
Internal Link Dist (ft)		288		473		1028			1931	
Turn Bay Length (ft)					150			150		430
Base Capacity (vph)	330	795	365	847	124	1601	808	124	1601	763
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.05	0.28	0.14	0.60	0.58	0.28	0.61	0.70	0.18

Intersection Summary

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

600 Tank Farm Road
6: Broad & Industrial

Near Term Plus Alternative B AM (MITIGATED)
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	117	1	35	93	19	85	67	827	199	68	996	119
Future Volume (veh/h)	117	1	35	93	19	85	67	827	199	68	996	119
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	131	1	39	104	21	67	75	929	182	76	1119	124
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	360	4	171	400	44	139	96	1519	656	97	1522	659
Arrive On Green	0.10	0.11	0.11	0.10	0.11	0.11	0.05	0.43	0.43	0.05	0.43	0.43
Sat Flow, veh/h	1781	40	1543	1781	392	1250	1781	3554	1534	1781	3554	1538
Grp Volume(v), veh/h	131	0	40	104	0	88	75	929	182	76	1119	124
Grp Sat Flow(s),veh/h/ln	1781	0	1583	1781	0	1641	1781	1777	1534	1781	1777	1538
Q Serve(g_s), s	4.4	0.0	1.6	3.4	0.0	3.5	2.9	14.2	5.4	2.9	18.4	3.5
Cycle Q Clear(g_c), s	4.4	0.0	1.6	3.4	0.0	3.5	2.9	14.2	5.4	2.9	18.4	3.5
Prop In Lane	1.00		0.98	1.00		0.76	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	360	0	176	400	0	183	96	1519	656	97	1522	659
V/C Ratio(X)	0.36	0.00	0.23	0.26	0.00	0.48	0.78	0.61	0.28	0.78	0.74	0.19
Avail Cap(c_a), veh/h	361	0	791	401	0	821	127	1599	690	127	1599	692
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.6	0.0	28.4	23.2	0.0	29.2	32.7	15.5	13.0	32.7	16.7	12.5
Incr Delay (d2), s/veh	2.8	0.0	3.0	0.6	0.0	3.6	23.4	1.8	1.1	23.6	3.2	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	0.7	1.4	0.0	1.5	1.8	5.1	1.9	1.8	6.8	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.5	0.0	31.4	23.8	0.0	32.8	56.1	17.4	14.1	56.3	19.9	13.1
LnGrp LOS	C	A	C	C	A	C	E	B	B	E	B	B
Approach Vol, veh/h		171			192			1186			1319	
Approach Delay, s/veh		27.6			27.9			19.3			21.4	
Approach LOS		C			C			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.8	36.4	12.0	12.8	8.8	36.5	12.0	12.8				
Change Period (Y+Rc), s	5.0	6.5	5.0	5.0	5.0	6.5	5.0	5.0				
Max Green Setting (Gmax), s	5.0	31.5	7.0	35.0	5.0	31.5	7.0	35.0				
Max Q Clear Time (g_c+I1), s	4.9	16.2	5.4	3.6	4.9	20.4	6.4	5.5				
Green Ext Time (p_c), s	0.0	11.3	0.1	0.5	0.0	9.6	0.1	0.8				
Intersection Summary												
HCM 6th Ctrl Delay				21.3								
HCM 6th LOS				C								

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	36.0	36.1	61.3	62.1
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	6	6
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	26	37	9
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	42.3	42.3	42.3	42.3
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.08	2.15	3.12	3.08
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	171	221	1228	1329
Effct. Green for Bike (s)	13.9	12.8	33.7	33.7
Cross Street Width (ft)	72.3	72.2	37.6	37.3
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	5.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	278	256	674	674
Bicycle Delay (s/bike)	37.1	38.0	22.0	22.0
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	2.95	3.03	2.08	2.15
Bicycle LOS	C	C	B	B

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	11	971	0	0	1142	36	0	0	0	32	0	10
Future Vol, veh/h	11	971	0	0	1142	36	0	0	0	32	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	-	-	-	-	-	-	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	2	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	1055	0	0	1241	39	0	0	0	35	0	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1280	0	0	1055	0	0	1700	2359	1055	2340	2340	640
Stage 1	-	-	-	-	-	-	1079	1079	-	1261	1261	-
Stage 2	-	-	-	-	-	-	621	1280	-	1079	1079	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.33	6.53	6.23	7.33	6.53	6.93
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.53	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.53	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.219	-	-	2.219	-	-	3.519	4.019	3.319	3.519	4.019	3.319
Pot Cap-1 Maneuver	540	-	-	658	-	-	66	35	273	~ 22	36	419
Stage 1	-	-	-	-	-	-	264	294	-	181	241	-
Stage 2	-	-	-	-	-	-	442	236	-	264	294	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	540	-	-	658	-	-	63	34	273	~ 22	35	419
Mov Cap-2 Maneuver	-	-	-	-	-	-	63	34	-	138	176	-
Stage 1	-	-	-	-	-	-	258	288	-	177	241	-
Stage 2	-	-	-	-	-	-	431	236	-	258	288	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	0	33.5
HCM LOS			A	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	-	540	-	-	658	-	-	138	419
HCM Lane V/C Ratio	-	0.022	-	-	-	-	-	0.252	0.026
HCM Control Delay (s)	0	11.8	-	-	0	-	-	39.7	13.8
HCM Lane LOS		A	B	-	A	-	-	E	B
HCM 95th %tile Q(veh)	-	0.1	-	-	0	-	-	0.9	0.1

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

Approach

Approach Direction	EB
Median Present?	No
Approach Delay(s)	166049.1
Level of Service	F

Crosswalk

Length (ft)	58
Lanes Crossed	3
Veh Vol Crossed	2113
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.57
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.98
Delay for adq Gap	166050.81
Avg Ped Delay (s)	166049.11

Approach

Approach Direction	WB
Median Present?	No
Approach Delay(s)	118728.6
Level of Service	F

Crosswalk

Length (ft)	56
Lanes Crossed	3
Veh Vol Crossed	2113
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.00
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.98
Delay for adq Gap	118730.34
Avg Ped Delay (s)	118728.64



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	205	109	199	289	117	1147	209	165	1206	184
v/c Ratio	0.81	0.30	0.54	0.70	0.87	0.82	0.30	0.86	0.79	0.24
Control Delay	50.3	15.0	31.5	21.9	94.9	32.2	6.1	80.2	29.2	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.3	15.0	31.5	21.9	94.9	32.2	6.1	80.2	29.2	4.2
Queue Length 50th (ft)	92	19	89	53	67	292	8	93	295	0
Queue Length 95th (ft)	#149	60	143	132	#207	#567	64	#260	#577	46
Internal Link Dist (ft)		288		473		1028			1931	
Turn Bay Length (ft)					150			150		430
Base Capacity (vph)	253	680	366	691	135	1406	704	192	1522	769
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.81	0.16	0.54	0.42	0.87	0.82	0.30	0.86	0.79	0.24























Intersection Summary

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

600 Tank Farm Road
6: Broad & Industrial

Near Term Plus Alternative B PM (MITIGATED)

HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	191	36	65	185	21	247	109	1067	194	153	1122	171
Future Volume (veh/h)	191	36	65	185	21	247	109	1067	194	153	1122	171
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		0.96	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	205	39	62	199	23	183	117	1147	156	165	1206	155
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	310	125	198	396	31	244	136	1380	589	194	1497	653
Arrive On Green	0.10	0.19	0.19	0.08	0.17	0.17	0.08	0.39	0.39	0.11	0.42	0.42
Sat Flow, veh/h	1781	650	1033	1781	180	1430	1781	3554	1516	1781	3554	1550
Grp Volume(v), veh/h	205	0	101	199	0	206	117	1147	156	165	1206	155
Grp Sat Flow(s),veh/h/ln	1781	0	1683	1781	0	1610	1781	1777	1516	1781	1777	1550
Q Serve(g_s), s	8.7	0.0	4.7	7.0	0.0	11.2	6.0	26.8	6.4	8.3	27.3	5.9
Cycle Q Clear(g_c), s	8.7	0.0	4.7	7.0	0.0	11.2	6.0	26.8	6.4	8.3	27.3	5.9
Prop In Lane	1.00		0.61	1.00		0.89	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	310	0	323	396	0	274	136	1380	589	194	1497	653
V/C Ratio(X)	0.66	0.00	0.31	0.50	0.00	0.75	0.86	0.83	0.26	0.85	0.81	0.24
Avail Cap(c_a), veh/h	310	0	642	396	0	579	136	1413	603	194	1529	667
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.6	0.0	31.9	29.9	0.0	36.2	41.9	25.3	19.1	40.2	23.3	17.1
Incr Delay (d2), s/veh	10.6	0.0	2.5	1.9	0.0	7.5	40.4	5.9	1.1	29.1	4.7	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	0.0	2.1	4.0	0.0	4.9	4.0	11.3	0.2	5.1	11.2	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.2	0.0	34.4	31.8	0.0	43.7	82.3	31.3	20.2	69.3	28.0	17.9
LnGrp LOS	D	A	C	C	A	D	F	C	C	E	C	B
Approach Vol, veh/h		306			405			1420			1526	
Approach Delay, s/veh		37.6			37.8			34.3			31.5	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.0	42.2	12.0	22.6	12.0	45.2	14.0	20.6				
Change Period (Y+Rc), s	5.0	6.5	5.0	5.0	5.0	6.5	5.0	5.0				
Max Green Setting (Gmax), s	10.0	36.5	7.0	35.0	7.0	39.5	9.0	33.0				
Max Q Clear Time (g_c+I1), s	10.3	28.8	9.0	6.7	8.0	29.3	10.7	13.2				
Green Ext Time (p_c), s	0.0	6.9	0.0	1.6	0.0	9.1	0.0	2.0				
Intersection Summary												
HCM 6th Ctrl Delay				33.8								
HCM 6th LOS				C								

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	36.0	36.1	61.3	62.1
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	6	6
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	7	77	49	27
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	47.3	47.3	47.3	47.3
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.17	2.35	3.25	3.28
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	314	488	1473	1555
Effct. Green for Bike (s)	17.0	15.0	36.8	39.9
Cross Street Width (ft)	72.3	72.2	37.6	37.3
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	5.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	309	273	669	725
Bicycle Delay (s/bike)	39.3	41.0	24.4	22.3
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	3.18	3.47	2.28	2.34
Bicycle LOS	C	C	B	B

Cumulative


























Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	49	22	169	168	288	16	603	1022	554	533
v/c Ratio	0.29	0.09	0.35	0.33	0.42	0.18	0.74	0.91	0.83	0.35
Control Delay	46.1	0.7	32.4	32.1	6.0	55.1	42.5	20.0	52.5	21.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.1	0.7	32.4	32.1	6.0	55.1	42.5	20.0	52.5	21.8
Queue Length 50th (ft)	30	0	88	87	0	10	183	124	177	104
Queue Length 95th (ft)	65	0	187	186	69	36	#308	#723	#345	223
Internal Link Dist (ft)	109			1057			1054			1668
Turn Bay Length (ft)					250	140		100	100	
Base Capacity (vph)	464	497	486	505	682	94	896	1118	664	1507
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.04	0.35	0.33	0.42	0.17	0.67	0.91	0.83	0.35

Intersection Summary

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

600 Tank Farm Road
1: Higuera & Tank Farm

Cumulative AM
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	20	20	305	5	265	15	555	940	510	480	10
Future Volume (veh/h)	25	20	20	305	5	265	15	555	940	510	480	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		1.00	1.00		0.98	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	27	22	20	336	0	0	16	603	829	554	522	11
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	58	47	87	990	0	0	33	1018	884	654	1628	34
Arrive On Green	0.06	0.06	0.06	0.28	0.00	0.00	0.02	0.29	0.29	0.19	0.46	0.46
Sat Flow, veh/h	1003	817	1520	3563	0	1585	1781	3554	1548	3456	3557	75
Grp Volume(v), veh/h	49	0	20	336	0	0	16	603	829	554	261	272
Grp Sat Flow(s),veh/h/ln	1820	0	1520	1781	0	1585	1781	1777	1548	1728	1777	1855
Q Serve(g_s), s	2.3	0.0	1.1	6.8	0.0	0.0	0.8	13.1	25.8	13.9	8.4	8.4
Cycle Q Clear(g_c), s	2.3	0.0	1.1	6.8	0.0	0.0	0.8	13.1	25.8	13.9	8.4	8.4
Prop In Lane	0.55		1.00	1.00		1.00	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	104	0	87	990	0	0	33	1018	884	654	813	849
V/C Ratio(X)	0.47	0.00	0.23	0.34	0.00	0.00	0.49	0.59	0.94	0.85	0.32	0.32
Avail Cap(c_a), veh/h	546	0	456	1207	0	0	111	1018	884	756	813	849
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	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.1	0.0	40.5	25.9	0.0	0.0	43.8	27.6	14.2	35.2	15.5	15.5
Incr Delay (d2), s/veh	1.2	0.0	0.5	0.1	0.0	0.0	4.2	1.4	17.6	8.2	0.5	0.5
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	1.1	0.0	0.4	2.7	0.0	0.0	0.4	5.4	22.1	6.2	3.2	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.3	0.0	41.0	26.0	0.0	0.0	48.0	29.0	31.8	43.4	16.0	16.0
LnGrp LOS	D	A	D	C	A	A	D	C	C	D	B	B
Approach Vol, veh/h		69			336	A		1448			1087	
Approach Delay, s/veh		41.9			26.0			30.8			30.0	
Approach LOS		D			C			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.5	30.3		9.7	5.1	45.7		29.5				
Change Period (Y+Rc), s	3.5	4.5		4.5	3.5	4.5		4.5				
Max Green Setting (Gmax), s	19.7	25.8		27.0	5.6	39.9		30.5				
Max Q Clear Time (g_c+I1), s	15.9	27.8		4.3	2.8	10.4		8.8				
Green Ext Time (p_c), s	1.1	0.0		0.2	0.0	6.3		0.8				

Intersection Summary

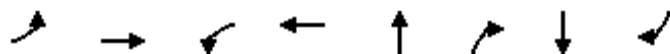
HCM 6th Ctrl Delay	30.2
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	50.7	58.5	67.8	54.5
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	6	6
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	2	141	178	0
85th percentile speed (mph)	25	45	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	52.3	52.3	52.3	52.3
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	1.99	3.16	3.34	2.96
Pedestrian Crosswalk LOS	B	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	71	625	1641	1087
Effct. Green for Bike (s)	10.0	31.0	23.9	44.2
Cross Street Width (ft)	78.9	66.6	58.5	49.8
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	10.0	11.0	11.0	11.0
Bicycle Lane Width (ft)	0.0	5.0	5.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	167	517	398	737
Bicycle Delay (s/bike)	50.4	33.0	38.5	23.9
Bicycle Compliance	Poor	Poor	Poor	Fair
Bicycle LOS Score	3.31	2.75	2.95	2.36
Bicycle LOS	C	C	C	B



Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	63	1391	120	772	10	68	45	21
v/c Ratio	0.12	0.64	0.37	0.35	0.05	0.21	0.20	0.07
Control Delay	5.6	15.1	8.1	9.6	26.3	6.8	28.7	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.6	15.1	8.1	9.6	26.3	6.8	28.7	0.4
Queue Length 50th (ft)	5	196	10	76	4	0	16	0
Queue Length 95th (ft)	32	492	54	204	17	24	48	0
Internal Link Dist (ft)		1057		508	155		449	
Turn Bay Length (ft)	225		160			25		25
Base Capacity (vph)	526	2591	358	2680	673	827	687	817
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.54	0.34	0.29	0.01	0.08	0.07	0.03

Intersection Summary

600 Tank Farm Road
2: Long & Tank Farm

Cumulative AM
HCM 6th Signalized Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↖	↗		↖	↗
Traffic Volume (veh/h)	60	1285	50	115	670	71	10	0	65	38	5	20
Future Volume (veh/h)	60	1285	50	115	670	71	10	0	65	38	5	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	62	1339	52	120	698	74	10	0	68	40	5	21
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	540	1913	74	364	1837	195	271	0	130	237	22	130
Arrive On Green	0.05	0.55	0.55	0.07	0.57	0.57	0.08	0.00	0.08	0.08	0.08	0.08
Sat Flow, veh/h	1781	3484	135	1781	3234	343	1531	0	1579	1214	264	1579
Grp Volume(v), veh/h	62	682	709	120	383	389	10	0	68	45	0	21
Grp Sat Flow(s),veh/h/ln	1781	1777	1843	1781	1777	1800	1531	0	1579	1478	0	1579
Q Serve(g_s), s	0.7	14.0	14.0	1.4	5.9	5.9	0.0	0.0	2.1	1.1	0.0	0.6
Cycle Q Clear(g_c), s	0.7	14.0	14.0	1.4	5.9	5.9	0.3	0.0	2.1	1.4	0.0	0.6
Prop In Lane	1.00		0.07	1.00		0.19	1.00		1.00	0.89		1.00
Lane Grp Cap(c), veh/h	540	976	1012	364	1009	1022	271	0	130	259	0	130
V/C Ratio(X)	0.11	0.70	0.70	0.33	0.38	0.38	0.04	0.00	0.52	0.17	0.00	0.16
Avail Cap(c_a), veh/h	636	1677	1739	527	1777	1799	1005	0	955	1016	0	955
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	4.5	8.2	8.2	6.8	5.9	5.9	21.1	0.0	21.9	21.6	0.0	21.2
Incr Delay (d2), s/veh	0.1	0.9	0.9	0.5	0.2	0.2	0.1	0.0	3.2	0.3	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	3.2	3.3	0.3	1.2	1.3	0.1	0.0	0.8	0.5	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	4.6	9.1	9.1	7.4	6.2	6.2	21.1	0.0	25.1	21.9	0.0	21.8
LnGrp LOS	A	A	A	A	A	A	C	A	C	C	A	C
Approach Vol, veh/h		1453			892			78				66
Approach Delay, s/veh		8.9			6.3			24.6				21.9
Approach LOS		A			A			C				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.8	33.1		8.8	6.9	34.1		8.8				
Change Period (Y+Rc), s	4.6	5.8		* 4.7	4.6	5.8		* 4.7				
Max Green Setting (Gmax), s	7.8	47.0		* 30	5.0	49.8		* 30				
Max Q Clear Time (g_c+I1), s	3.4	16.0		3.4	2.7	7.9		4.1				
Green Ext Time (p_c), s	0.1	11.3		0.3	0.0	5.1		0.3				

Intersection Summary

HCM 6th Ctrl Delay	8.8
HCM 6th LOS	A

Notes

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

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	57.8	60.4	36.1	36.7
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	5	5	3	3
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6
Effective Walk Time (s)	9.0	9.0	9.0	9.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	10	19	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	45	45	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	41.4	41.4	41.4	41.4
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.96	3.02	2.03	2.01
Pedestrian Crosswalk LOS	C	C	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	1453	892	78	66
Effct. Green for Bike (s)	40.8	42.3	10.6	10.6
Cross Street Width (ft)	36.1	36.7	60.4	57.8
Through Lanes Number	2	2	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	5.0	5.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	816	846	212	212
Bicycle Delay (s/bike)	17.5	16.6	40.0	40.0
Bicycle Compliance	Fair	Fair	Poor	Poor
Bicycle LOS Score	2.24	1.79	2.61	2.55
Bicycle LOS	B	B	C	C

Approach

Approach Direction	EB
Median Present?	No
Approach Delay(s)	263049.1
Level of Service	F

Crosswalk

Length (ft)	66
Lanes Crossed	4
Veh Vol Crossed	1955
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	21.86
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.95
Delay for adq Gap	263050.91
Avg Ped Delay (s)	263049.06

Approach

Approach Direction	WB
Median Present?	No
Approach Delay(s)	418990.4
Level of Service	F

Crosswalk

Length (ft)	69
Lanes Crossed	4
Veh Vol Crossed	1955
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	22.71
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.95
Delay for adq Gap	418992.28
Avg Ped Delay (s)	418990.44

Intersection						
Intersection Delay, s/veh11.0						
Intersection LOS B						
Approach	EB		WB		NB	SB
Entry Lanes	2		2		1	1
Conflicting Circle Lanes	1		1		2	2
Adj Approach Flow, veh/h	825		1348		193	368
Demand Flow Rate, veh/h	842		1375		197	375
Vehicles Circulating, veh/h	521		175		1105	935
Vehicles Exiting, veh/h	789		1127		258	615
Ped Vol Crossing Leg, #/h	0		0		0	0
Ped Cap Adj	1.000		1.000		1.000	1.000
Approach Delay, s/veh	10.3		9.9		12.0	16.4
Approach LOS	B		A		B	C
Lane	Left	Right	Left	Right	Left	Left
Designated Moves	LT	TR	LT	TR	LTR	LTR
Assumed Moves	LT	TR	LT	TR	LTR	LTR
RT Channelized						
Lane Util	0.470	0.530	0.470	0.530	1.000	1.000
Follow-Up Headway, s	2.535	2.535	2.535	2.535	2.535	2.535
Critical Headway, s	4.544	4.544	4.544	4.544	4.328	4.328
Entry Flow, veh/h	396	446	646	729	197	375
Cap Entry Lane, veh/h	884	884	1211	1211	555	641
Entry HV Adj Factor	0.980	0.981	0.981	0.980	0.981	0.982
Flow Entry, veh/h	388	437	633	714	193	368
Cap Entry, veh/h	866	867	1188	1187	544	630
V/C Ratio	0.448	0.505	0.533	0.602	0.355	0.585
Control Delay, s/veh	9.7	10.8	9.1	10.5	12.0	16.4
LOS	A	B	A	B	B	C
95th %tile Queue, veh	2	3	3	4	2	4

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↑
Traffic Vol, veh/h	1016	0	0	1230	0	0
Future Vol, veh/h	1016	0	0	1230	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1069	0	0	1295	0	0

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	-	-	535
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	3.32
Pot Cap-1 Maneuver	-	0	-	0	490
Stage 1	-	0	-	0	-
Stage 2	-	0	-	0	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	490
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	0	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	-	-	-	-

Approach

Approach Direction	EB
Median Present?	Yes
Approach Delay(s)	121.9
Level of Service	F

Crosswalk

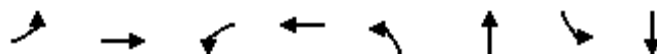
Length (ft)	11	28
Lanes Crossed	2	2
Veh Vol Crossed	1016	1230
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	6.14	11.00
Prob of Delayed X-ing	0.82	0.98
Prob of Blocked Lane	0.58	0.85
Delay for adq Gap	12.60	114.23
Avg Ped Delay (s)	10.37	111.57

Approach

Approach Direction	WB
Median Present?	Yes
Approach Delay(s)	81.4
Level of Service	F

Crosswalk

Length (ft)	12	28
Lanes Crossed	2	2
Veh Vol Crossed	1230	1016
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	6.43	11.00
Prob of Delayed X-ing	0.89	0.96
Prob of Blocked Lane	0.67	0.79
Delay for adq Gap	19.09	67.49
Avg Ped Delay (s)	16.97	64.46

























Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	16	1054	37	1321	32	16	5	10
v/c Ratio	0.18	0.38	0.31	0.45	0.21	0.10	0.06	0.06
Control Delay	34.7	6.8	36.1	6.2	31.1	19.4	31.6	22.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.7	6.8	36.1	6.2	31.1	19.4	31.6	22.5
Queue Length 50th (ft)	5	0	12	0	10	2	2	2
Queue Length 95th (ft)	26	241	44	327	39	19	12	16
Internal Link Dist (ft)		357		533		330		264
Turn Bay Length (ft)	100		210					
Base Capacity (vph)	89	2786	119	2950	156	768	89	730
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.38	0.31	0.45	0.21	0.02	0.06	0.01

Intersection Summary

600 Tank Farm Road
5: MindBody & Tank Farm

Cumulative AM
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 							
Traffic Volume (veh/h)	15	891	110	35	1250	5	30	5	10	5	5	5
Future Volume (veh/h)	15	891	110	35	1250	5	30	5	10	5	5	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	16	938	116	37	1316	5	32	5	10	5	5	5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	21	1693	209	44	1984	8	38	24	48	7	23	23
Arrive On Green	0.01	0.53	0.53	0.02	0.55	0.55	0.02	0.04	0.04	0.00	0.03	0.03
Sat Flow, veh/h	1781	3173	392	1781	3631	14	1781	557	1113	1781	858	858
Grp Volume(v), veh/h	16	525	529	37	644	677	32	0	15	5	0	10
Grp Sat Flow(s),veh/h/ln	1781	1777	1789	1781	1777	1867	1781	0	1670	1781	0	1716
Q Serve(g_s), s	0.5	11.4	11.4	1.2	15.0	15.0	1.0	0.0	0.5	0.2	0.0	0.3
Cycle Q Clear(g_c), s	0.5	11.4	11.4	1.2	15.0	15.0	1.0	0.0	0.5	0.2	0.0	0.3
Prop In Lane	1.00		0.22	1.00		0.01	1.00		0.67	1.00		0.50
Lane Grp Cap(c), veh/h	21	948	954	44	971	1021	38	0	73	7	0	45
V/C Ratio(X)	0.76	0.55	0.55	0.84	0.66	0.66	0.85	0.00	0.21	0.70	0.00	0.22
Avail Cap(c_a), veh/h	92	1005	1012	122	1035	1088	153	0	773	92	0	735
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.8	9.0	9.0	28.3	9.4	9.4	28.5	0.0	26.9	29.0	0.0	27.8
Incr Delay (d2), s/veh	43.0	2.3	2.3	14.1	3.6	3.4	37.3	0.0	0.5	80.2	0.0	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	3.8	3.8	0.6	5.0	5.2	0.8	0.0	0.2	0.2	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.7	11.3	11.3	42.4	13.0	12.8	65.8	0.0	27.4	109.2	0.0	30.2
LnGrp LOS	E	B	B	D	B	B	E	A	C	F	A	C
Approach Vol, veh/h		1070			1358			47				15
Approach Delay, s/veh		12.2			13.7			53.6				56.6
Approach LOS		B			B			D				E
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.4	38.1	6.2	7.5	5.7	38.9	5.2	8.5				
Change Period (Y+Rc), s	5.0	7.0	5.0	6.0	5.0	7.0	5.0	6.0				
Max Green Setting (Gmax), s	4.0	33.0	5.0	25.0	3.0	34.0	3.0	27.0				
Max Q Clear Time (g_c+I1), s	3.2	13.4	3.0	2.3	2.5	17.0	2.2	2.5				
Green Ext Time (p_c), s	0.0	14.7	0.0	0.0	0.0	14.8	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay				14.1								
HCM 6th LOS				B								

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	59.2	60.1	36.2	37.2
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	5	5	3	3
Number of Right-Turn Islands	0	0	0	0
Type of Control	None Actuated		None Actuated	
Corresponding Signal Phase	8	8	4	6
Effective Walk Time (s)	0.0	9.0	0.0	9.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	1	0
85th percentile speed (mph)	40	40	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	45.0	36.5	45.0	36.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.94	2.90	2.02	1.96
Pedestrian Crosswalk LOS	C	C	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	1070	1358	48	15
Effct. Green for Bike (s)	48.0	49.9	5.4	5.9
Cross Street Width (ft)	36.2	36.1	72.2	71.3
Through Lanes Number	2	2	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	5.0	5.0	5.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	1067	1109	120	131
Bicycle Delay (s/bike)	9.8	8.9	39.8	39.3
Bicycle Compliance	Good	Good	Poor	Poor
Bicycle LOS Score	1.92	2.16	1.67	2.68
Bicycle LOS	B	B	B	C

























Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	135	41	120	109	76	880	212	76	1232	142
v/c Ratio	0.41	0.11	0.43	0.32	1.04	0.67	0.31	0.69	0.89	0.21
Control Delay	39.5	0.6	42.7	9.3	165.1	31.5	7.1	79.2	38.9	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.5	0.6	42.7	9.3	165.1	31.5	7.1	79.2	38.9	5.8
Queue Length 50th (ft)	71	0	65	0	45	215	7	44	335	0
Queue Length 95th (ft)	149	0	139	44	#190	#497	76	#167	#803	50
Internal Link Dist (ft)	288		473			1028			1931	
Turn Bay Length (ft)		100		180	150			150		430
Base Capacity (vph)	649	642	598	597	73	1311	679	110	1385	682
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.06	0.20	0.18	1.04	0.67	0.31	0.69	0.89	0.21

Intersection Summary

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

600 Tank Farm Road
6: Broad & Industrial

Cumulative AM
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	120	5	38	90	20	100	70	810	195	70	1133	131
Future Volume (veh/h)	120	5	38	90	20	100	70	810	195	70	1133	131
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		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	130	5	41	98	22	81	76	880	172	76	1232	132
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	231	9	212	165	37	178	87	1551	670	98	1573	681
Arrive On Green	0.13	0.13	0.13	0.11	0.11	0.11	0.05	0.44	0.44	0.05	0.44	0.44
Sat Flow, veh/h	1718	66	1578	1468	329	1581	1781	3554	1534	1781	3554	1539
Grp Volume(v), veh/h	135	0	41	120	0	81	76	880	172	76	1232	132
Grp Sat Flow(s),veh/h/ln	1784	0	1578	1797	0	1581	1781	1777	1534	1781	1777	1539
Q Serve(g_s), s	5.8	0.0	1.9	5.2	0.0	3.9	3.5	15.2	5.8	3.5	24.3	4.3
Cycle Q Clear(g_c), s	5.8	0.0	1.9	5.2	0.0	3.9	3.5	15.2	5.8	3.5	24.3	4.3
Prop In Lane	0.96		1.00	0.82		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	240	0	212	202	0	178	87	1551	670	98	1573	681
V/C Ratio(X)	0.56	0.00	0.19	0.59	0.00	0.46	0.88	0.57	0.26	0.78	0.78	0.19
Avail Cap(c_a), veh/h	761	0	673	700	0	616	87	1551	670	130	1623	703
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.3	0.0	31.6	34.7	0.0	34.1	38.8	17.3	14.7	38.3	19.5	13.9
Incr Delay (d2), s/veh	9.2	0.0	2.0	5.1	0.0	3.4	58.9	1.5	0.9	22.3	4.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	0.8	2.5	0.0	1.6	2.9	5.8	2.0	2.0	9.5	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.5	0.0	33.6	39.8	0.0	37.5	97.7	18.8	15.6	60.6	23.5	14.6
LnGrp LOS	D	A	C	D	A	D	F	B	B	E	C	B
Approach Vol, veh/h		176			201			1128			1440	
Approach Delay, s/veh		40.4			38.9			23.7			24.6	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.5	42.3		16.0	9.0	42.8		14.2				
Change Period (Y+Rc), s	5.0	6.5		5.0	5.0	6.5		5.0				
Max Green Setting (Gmax), s	6.0	35.5		35.0	4.0	37.5		32.0				
Max Q Clear Time (g_c+I1), s	5.5	17.2		7.8	5.5	26.3		7.2				
Green Ext Time (p_c), s	0.0	12.5		2.8	0.0	10.1		1.8				
Intersection Summary												
HCM 6th Ctrl Delay			26.2									
HCM 6th LOS			C									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	36.0	36.1	61.3	62.1
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	6	6
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	26	37	9
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	57.2	57.2	57.2	57.2
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.10	2.17	3.14	3.11
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	176	229	1168	1450
Effct. Green for Bike (s)	18.2	15.3	36.3	38.4
Cross Street Width (ft)	73.1	73.9	37.5	37.7
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	5.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	280	235	558	591
Bicycle Delay (s/bike)	48.1	50.6	33.8	32.3
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	2.97	3.07	2.02	2.26
Bicycle LOS	C	C	B	B































Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	260	172	533	261	382	193	376	802	63	780	548
v/c Ratio	0.64	0.18	0.95	0.95	0.66	0.31	0.96	0.71	0.61	0.90	0.81
Control Delay	56.0	32.2	55.2	93.2	41.8	6.0	88.0	38.8	79.3	56.0	29.8
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	56.0	32.2	55.2	93.2	41.8	6.0	88.0	38.8	79.3	56.0	29.8
Queue Length 50th (ft)	101	52	277	~208	250	0	~159	289	49	304	256
Queue Length 95th (ft)	139	81	#495	#382	382	55	#258	365	#112	#405	366
Internal Link Dist (ft)		533			770			1992		1028	
Turn Bay Length (ft)	265		85	150			275		250		300
Base Capacity (vph)	565	1097	610	274	593	635	392	1144	111	959	746
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.46	0.16	0.87	0.95	0.64	0.30	0.96	0.70	0.57	0.81	0.73

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

600 Tank Farm Road
7: Broad & Tank Farm

Cumulative AM
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 					 	 			 	
Traffic Volume (veh/h)	250	165	512	251	367	185	361	655	115	60	749	526
Future Volume (veh/h)	250	165	512	251	367	185	361	655	115	60	749	526
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	260	172	454	261	382	150	376	682	102	62	780	487
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	324	1036	459	260	643	545	371	985	147	80	906	545
Arrive On Green	0.09	0.29	0.29	0.15	0.34	0.34	0.11	0.32	0.32	0.04	0.25	0.25
Sat Flow, veh/h	3456	3554	1572	1781	1870	1585	3456	3099	463	1781	3554	1555
Grp Volume(v), veh/h	260	172	454	261	382	150	376	391	393	62	780	487
Grp Sat Flow(s),veh/h/ln	1728	1777	1572	1781	1870	1585	1728	1777	1785	1781	1777	1555
Q Serve(g_s), s	8.8	4.3	34.5	17.5	20.2	8.2	12.9	23.1	23.1	4.1	25.1	30.6
Cycle Q Clear(g_c), s	8.8	4.3	34.5	17.5	20.2	8.2	12.9	23.1	23.1	4.1	25.1	30.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.26	1.00		1.00
Lane Grp Cap(c), veh/h	324	1036	459	260	643	545	371	565	567	80	906	545
V/C Ratio(X)	0.80	0.17	0.99	1.00	0.59	0.28	1.01	0.69	0.69	0.78	0.86	0.89
Avail Cap(c_a), veh/h	536	1036	459	260	643	545	371	565	567	105	906	545
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.3	31.6	42.3	51.3	32.5	28.5	53.5	35.8	35.8	56.7	42.7	37.0
Incr Delay (d2), s/veh	1.8	0.0	39.3	57.0	1.0	0.1	49.8	3.0	3.1	16.6	8.1	16.5
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	3.9	1.8	17.9	11.8	9.1	3.1	8.0	10.1	10.1	2.2	11.6	15.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.1	31.7	81.6	108.3	33.5	28.6	103.3	38.8	38.9	73.3	50.8	53.6
LnGrp LOS	E	C	F	F	C	C	F	D	D	E	D	D
Approach Vol, veh/h		886			793			1160			1329	
Approach Delay, s/veh		64.1			57.2			59.8			52.8	
Approach LOS		E			E			E			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.9	44.6	23.0	41.5	18.4	37.1	16.8	47.7				
Change Period (Y+Rc), s	5.5	6.5	5.5	6.5	5.5	6.5	5.5	6.5				
Max Green Setting (Gmax), s	7.1	36.4	17.5	35.0	12.9	30.6	18.6	33.9				
Max Q Clear Time (g_c+I1), s	6.1	25.1	19.5	36.5	14.9	32.6	10.8	22.2				
Green Ext Time (p_c), s	0.0	2.4	0.0	0.0	0.0	0.0	0.4	1.1				
Intersection Summary												
HCM 6th Ctrl Delay			58.0									
HCM 6th LOS			E									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	73.8	71.3	72.3	84.2
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	7	5	6	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	76	41	17	59
85th percentile speed (mph)	40	40	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	52.3	52.3	52.3	52.3
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.14	2.68	3.16	3.22
Pedestrian Crosswalk LOS	C	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	965	836	1178	1390
Effct. Green for Bike (s)	31.0	35.2	36.8	28.0
Cross Street Width (ft)	72.3	95.5	71.6	85.6
Through Lanes Number	2	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	5.0	5.0	5.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	517	587	613	467
Bicycle Delay (s/bike)	33.0	30.0	28.8	35.3
Bicycle Compliance	Poor	Fair	Fair	Poor
Bicycle LOS Score	2.39	3.33	2.55	2.94
Bicycle LOS	B	C	C	C

Intersection

Int Delay, s/veh 0.9

Movement EBL EBR NBL NBT SBT SBR

Lane Configurations						
Traffic Vol, veh/h	45	10	60	1204	968	243
Future Vol, veh/h	45	10	60	1204	968	243
Conflicting Peds, #/hr	0	0	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	75	200	-	-	-
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	48	11	64	1281	1030	259

Major/Minor Minor2 Major1 Major2

Conflicting Flow All	1930	646	1290	0	-	0
Stage 1	1161	-	-	-	-	-
Stage 2	769	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	58	414	533	-	-	-
Stage 1	260	-	-	-	-	-
Stage 2	418	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	51	414	532	-	-	-
Mov Cap-2 Maneuver	194	-	-	-	-	-
Stage 1	229	-	-	-	-	-
Stage 2	418	-	-	-	-	-

Approach EB NB SB

HCM Control Delay, s 26.7 0.6 0
HCM LOS D

Minor Lane/Major Mvmt NBL NBT EBLn1 EBLn2 SBT SBR

Capacity (veh/h)	532	-	194	414	-	-
HCM Lane V/C Ratio	0.12	-	0.247	0.026	-	-
HCM Control Delay (s)	12.7	-	29.5	13.9	-	-
HCM Lane LOS	B	-	D	B	-	-
HCM 95th %tile Q(veh)	0.4	-	0.9	0.1	-	-

Approach

Approach Direction	NB
Median Present?	No
Approach Delay(s)	6997034.5
Level of Service	F

Crosswalk

Length (ft)	78
Lanes Crossed	4
Veh Vol Crossed	2172
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	25.29
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.98
Delay for adq Gap	6997036.00
Avg Ped Delay (s)	6997034.50

Approach

Approach Direction	SB
Median Present?	No
Approach Delay(s)	9877400.0
Level of Service	F

Crosswalk

Length (ft)	80
Lanes Crossed	4
Veh Vol Crossed	2172
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	25.86
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.98
Delay for adq Gap	9877402.00
Avg Ped Delay (s)	9877400.00

























Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	72	5	11	82	54	1267	252	799
v/c Ratio	0.43	0.02	0.07	0.28	0.37	0.69	0.73	0.34
Control Delay	50.2	0.2	40.5	4.9	53.2	21.3	52.0	8.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.2	0.2	40.5	4.9	53.2	21.3	52.0	8.7
Queue Length 50th (ft)	45	0	7	0	34	330	155	116
Queue Length 95th (ft)	90	0	23	17	78	455	#274	174
Internal Link Dist (ft)	310		100			324		936
Turn Bay Length (ft)		75		75	200		200	
Base Capacity (vph)	402	552	389	552	161	1881	395	2290
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.01	0.03	0.15	0.34	0.67	0.64	0.35

Intersection Summary

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

600 Tank Farm Road
9: Broad & Aero

Cumulative AM
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	5	5	10	0	75	50	1142	24	232	600	135
Future Volume (veh/h)	62	5	5	10	0	75	50	1142	24	232	600	135
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		0.97	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	67	5	5	11	0	82	54	1241	26	252	652	133
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	189	8	126	213	0	126	70	1991	42	302	2021	412
Arrive On Green	0.08	0.08	0.08	0.08	0.00	0.08	0.04	0.56	0.56	0.17	0.69	0.69
Sat Flow, veh/h	1365	102	1585	1631	0	1585	1781	3557	74	1781	2928	596
Grp Volume(v), veh/h	72	0	5	11	0	82	54	620	647	252	395	390
Grp Sat Flow(s),veh/h/ln	1467	0	1585	1631	0	1585	1781	1777	1855	1781	1777	1748
Q Serve(g_s), s	3.6	0.0	0.3	0.0	0.0	4.3	2.6	20.3	20.3	11.8	7.6	7.7
Cycle Q Clear(g_c), s	4.0	0.0	0.3	0.5	0.0	4.3	2.6	20.3	20.3	11.8	7.6	7.7
Prop In Lane	0.93		1.00	1.00		1.00	1.00		0.04	1.00		0.34
Lane Grp Cap(c), veh/h	197	0	126	213	0	126	70	995	1038	302	1226	1206
V/C Ratio(X)	0.37	0.00	0.04	0.05	0.00	0.65	0.78	0.62	0.62	0.84	0.32	0.32
Avail Cap(c_a), veh/h	568	0	534	576	0	534	186	1083	1131	455	1351	1329
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.3	0.0	36.6	36.7	0.0	38.5	41.0	12.8	12.8	34.6	5.3	5.3
Incr Delay (d2), s/veh	2.1	0.0	0.2	0.2	0.0	10.2	22.5	2.9	2.8	10.2	0.7	0.7
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	1.6	0.0	0.1	0.2	0.0	2.0	1.5	7.4	7.8	5.6	2.2	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.4	0.0	36.9	36.9	0.0	48.7	63.5	15.7	15.6	44.8	6.0	6.0
LnGrp LOS	D	A	D	D	A	D	E	B	B	D	A	A
Approach Vol, veh/h		77			93			1321			1037	
Approach Delay, s/veh		40.2			47.3			17.6			15.4	
Approach LOS		D			D			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.6	54.7		11.8	8.4	65.9		11.8				
Change Period (Y+Rc), s	5.0	6.5		5.0	5.0	6.5		5.0				
Max Green Setting (Gmax), s	22.0	52.5		29.0	9.0	65.5		29.0				
Max Q Clear Time (g_c+I1), s	13.8	22.3		6.0	4.6	9.7		6.3				
Green Ext Time (p_c), s	0.8	25.9		0.6	0.1	23.5		0.6				
Intersection Summary												
HCM 6th Ctrl Delay			18.5									
HCM 6th LOS			B									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	34.0	34.2	57.2	59.2
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	5	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	60.0	60.0	60.0	60.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.05	2.08	2.90	3.04
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	77	93	1321	1051
Effct. Green for Bike (s)	12.3	12.2	52.2	68.2
Cross Street Width (ft)	58.1	60.4	34.2	34.1
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	11.0	11.0	11.0	11.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	205	203	870	1137
Bicycle Delay (s/bike)	48.3	48.4	19.2	11.2
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	2.79	2.85	3.39	3.16
Bicycle LOS	C	C	C	C

Intersection						
Int Delay, s/veh	0.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↘↗		↑	↗↘	↘↗	↑
Traffic Vol, veh/h	15	20	999	118	45	500
Future Vol, veh/h	15	20	999	118	45	500
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	230	145	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	21	1041	123	47	521

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1656	1041	0	0	1164
Stage 1	1041	-	-	-	-
Stage 2	615	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	108	279	-	-	600
Stage 1	340	-	-	-	-
Stage 2	539	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	100	279	-	-	600
Mov Cap-2 Maneuver	280	-	-	-	-
Stage 1	340	-	-	-	-
Stage 2	497	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19.8	0	1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	279	600
HCM Lane V/C Ratio	-	-	0.131	0.078
HCM Control Delay (s)	-	-	19.8	11.5
HCM Lane LOS	-	-	C	B
HCM 95th %tile Q(veh)	-	-	0.4	0.3

Approach

Approach Direction	NB
Median Present?	No
Approach Delay(s)	6530.6
Level of Service	F

Crosswalk

Length (ft)	56
Lanes Crossed	2
Veh Vol Crossed	1499
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.00
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.98
Delay for adq Gap	6532.99
Avg Ped Delay (s)	6530.59

Approach

Approach Direction	SB
Median Present?	No
Approach Delay(s)	1553.7
Level of Service	F

Crosswalk

Length (ft)	44
Lanes Crossed	2
Veh Vol Crossed	1499
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	15.57
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.96
Delay for adq Gap	1556.09
Avg Ped Delay (s)	1553.72

Intersection								
Intersection Delay, s/veh	11.1							
Intersection LOS	B							
Approach	EB		WB		NB		SB	
Entry Lanes	2		1		2		2	
Conflicting Circle Lanes	2		2		1		1	
Adj Approach Flow, veh/h	303		10		1864		536	
Demand Flow Rate, veh/h	309		10		1901		547	
Vehicles Circulating, veh/h	498		1956		70		402	
Vehicles Exiting, veh/h	451		15		737		1564	
Ped Vol Crossing Leg, #/h	0		0		0		0	
Ped Cap Adj	1.000		1.000		1.000		1.000	
Approach Delay, s/veh	6.3		14.1		13.1		6.6	
Approach LOS	A		B		B		A	
Lane	Left	Right	Left	Left	Right	Left	Right	
Designated Moves	LT	R	LTR	LT	TR	LT	TR	
Assumed Moves	LT	R	LTR	LT	TR	LT	TR	
RT Channelized								
Lane Util	0.210	0.790	1.000	0.470	0.530	0.470	0.530	
Follow-Up Headway, s	2.667	2.535	2.535	2.535	2.535	2.535	2.535	
Critical Headway, s	4.645	4.328	4.328	4.544	4.544	4.544	4.544	
Entry Flow, veh/h	65	244	10	893	1008	257	290	
Cap Entry Lane, veh/h	854	930	269	1332	1332	985	985	
Entry HV Adj Factor	0.983	0.980	1.000	0.981	0.980	0.981	0.980	
Flow Entry, veh/h	64	239	10	876	988	252	284	
Cap Entry, veh/h	839	911	269	1307	1306	966	966	
V/C Ratio	0.076	0.262	0.037	0.670	0.756	0.261	0.294	
Control Delay, s/veh	5.0	6.7	14.1	11.5	14.5	6.3	6.7	
LOS	A	A	B	B	B	A	A	
95th %tile Queue, veh	0	1	0	6	8	1	1	


























Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	22	27	420	419	527	32	617	500	298	830
v/c Ratio	0.10	0.09	0.78	0.75	0.60	0.36	0.72	0.44	0.70	0.66
Control Delay	39.5	0.6	44.2	41.9	5.9	64.4	42.1	2.1	55.1	33.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.5	0.6	44.2	41.9	5.9	64.4	42.1	2.1	55.1	33.5
Queue Length 50th (ft)	13	0	235	231	0	20	180	1	93	233
Queue Length 95th (ft)	36	0	#520	#500	88	#64	308	32	#196	#403
Internal Link Dist (ft)	109			1057			1054			1668
Turn Bay Length (ft)					250	140		100	100	
Base Capacity (vph)	488	507	610	634	929	90	984	1180	442	1288
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.05	0.69	0.66	0.57	0.36	0.63	0.42	0.67	0.64

Intersection Summary

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

600 Tank Farm Road
1: Higuera & Tank Farm

Cumulative PM
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	10	25	774	15	495	30	580	470	280	760	20
Future Volume (veh/h)	10	10	25	774	15	495	30	580	470	280	760	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.93	1.00		1.00	1.00		0.98	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	11	11	9	834	0	0	32	617	300	298	809	20
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	81	81	130	1112	0	0	57	968	919	397	1258	31
Arrive On Green	0.09	0.09	0.09	0.31	0.00	0.00	0.03	0.27	0.27	0.11	0.36	0.36
Sat Flow, veh/h	912	912	1477	3563	0	1585	1781	3554	1555	3456	3539	87
Grp Volume(v), veh/h	22	0	9	834	0	0	32	617	300	298	406	423
Grp Sat Flow(s),veh/h/ln	1825	0	1477	1781	0	1585	1781	1777	1555	1728	1777	1849
Q Serve(g_s), s	0.9	0.0	0.4	16.8	0.0	0.0	1.4	12.2	8.0	6.7	15.3	15.3
Cycle Q Clear(g_c), s	0.9	0.0	0.4	16.8	0.0	0.0	1.4	12.2	8.0	6.7	15.3	15.3
Prop In Lane	0.50		1.00	1.00		1.00	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	161	0	130	1112	0	0	57	968	919	397	632	657
V/C Ratio(X)	0.14	0.00	0.07	0.75	0.00	0.00	0.57	0.64	0.33	0.75	0.64	0.64
Avail Cap(c_a), veh/h	615	0	498	1623	0	0	113	1198	1019	539	763	794
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	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.7	0.0	33.5	24.7	0.0	0.0	38.2	25.7	8.6	34.3	21.6	21.6
Incr Delay (d2), s/veh	0.1	0.0	0.1	0.5	0.0	0.0	3.3	1.6	0.4	4.4	2.5	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.2	6.5	0.0	0.0	0.6	4.9	4.8	2.9	6.1	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.8	0.0	33.6	25.3	0.0	0.0	41.5	27.2	9.0	38.8	24.1	24.0
LnGrp LOS	C	A	C	C	A		D	C	A	D	C	C
Approach Vol, veh/h		31			834	A		949			1127	
Approach Delay, s/veh		33.8			25.3			21.9			27.9	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.7	26.3		11.6	6.0	33.0		29.5				
Change Period (Y+Rc), s	3.5	4.5		4.5	3.5	4.5		4.5				
Max Green Setting (Gmax), s	12.5	27.0		27.0	5.1	34.4		36.5				
Max Q Clear Time (g_c+I1), s	8.7	14.2		2.9	3.4	17.3		18.8				
Green Ext Time (p_c), s	0.5	7.0		0.1	0.0	8.0		2.2				

Intersection Summary

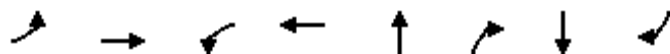
HCM 6th Ctrl Delay	25.3
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	50.7	58.5	67.8	54.5
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	6	6
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	17	190	188	1
85th percentile speed (mph)	25	45	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	52.3	52.3	52.3	52.3
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.01	3.21	3.42	3.03
Pedestrian Crosswalk LOS	B	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	49	1366	1149	1128
Effct. Green for Bike (s)	12.5	33.8	24.6	36.4
Cross Street Width (ft)	78.9	66.6	58.5	49.8
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	10.0	11.0	11.0	11.0
Bicycle Lane Width (ft)	0.0	5.0	5.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	208	563	410	607
Bicycle Delay (s/bike)	48.2	31.0	37.9	29.1
Bicycle Compliance	Poor	Poor	Poor	Fair
Bicycle LOS Score	3.28	3.97	2.54	2.39
Bicycle LOS	C	D	C	B



Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	68	854	141	1677	21	177	97	73
v/c Ratio	0.33	0.45	0.30	0.78	0.10	0.46	0.50	0.21
Control Delay	8.9	11.4	5.1	14.8	28.7	9.4	38.9	1.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.9	11.4	5.1	14.8	28.7	9.4	38.9	1.9
Queue Length 50th (ft)	7	110	15	279	9	0	43	0
Queue Length 95th (ft)	20	184	37	440	28	51	88	5
Internal Link Dist (ft)		1057		508	155		449	
Turn Bay Length (ft)	225		160			25		25
Base Capacity (vph)	208	2078	525	2266	614	777	574	754
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.41	0.27	0.74	0.03	0.23	0.17	0.10

Intersection Summary

600 Tank Farm Road
2: Long & Tank Farm

Cumulative PM
HCM 6th Signalized Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↖	↗		↖	↗
Traffic Volume (veh/h)	65	790	30	135	1500	109	15	5	170	88	5	70
Future Volume (veh/h)	65	790	30	135	1500	109	15	5	170	88	5	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	68	823	31	141	1562	114	16	5	177	92	5	73
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	247	1956	74	492	1939	140	268	71	237	310	14	237
Arrive On Green	0.04	0.56	0.56	0.06	0.58	0.58	0.15	0.15	0.15	0.15	0.15	0.15
Sat Flow, veh/h	1781	3489	131	1781	3354	243	1146	477	1585	1359	94	1585
Grp Volume(v), veh/h	68	419	435	141	822	854	21	0	177	97	0	73
Grp Sat Flow(s),veh/h/ln	1781	1777	1843	1781	1777	1820	1623	0	1585	1453	0	1585
Q Serve(g_s), s	1.0	8.9	8.9	2.1	23.9	24.6	0.0	0.0	7.0	3.3	0.0	2.7
Cycle Q Clear(g_c), s	1.0	8.9	8.9	2.1	23.9	24.6	0.6	0.0	7.0	3.9	0.0	2.7
Prop In Lane	1.00		0.07	1.00		0.13	0.76		1.00	0.95		1.00
Lane Grp Cap(c), veh/h	247	996	1033	492	1027	1052	339	0	237	324	0	237
V/C Ratio(X)	0.28	0.42	0.42	0.29	0.80	0.81	0.06	0.00	0.75	0.30	0.00	0.31
Avail Cap(c_a), veh/h	283	1084	1124	643	1229	1259	799	0	724	763	0	724
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	10.8	8.3	8.3	5.9	10.9	11.1	24.1	0.0	26.8	25.4	0.0	25.0
Incr Delay (d2), s/veh	0.6	0.3	0.3	0.3	3.3	3.5	0.1	0.0	4.6	0.5	0.0	0.7
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	0.3	2.5	2.6	0.6	7.3	7.7	0.3	0.0	2.8	1.4	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.4	8.6	8.6	6.2	14.2	14.6	24.2	0.0	31.5	25.9	0.0	25.7
LnGrp LOS	B	A	A	A	B	B	C	A	C	C	A	C
Approach Vol, veh/h		922			1817			198				170
Approach Delay, s/veh		8.8			13.7			30.7				25.8
Approach LOS		A			B			C				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.6	42.8		14.6	7.4	43.9		14.6				
Change Period (Y+Rc), s	4.6	5.8		* 4.7	4.6	5.8		* 4.7				
Max Green Setting (Gmax), s	9.6	40.2		* 30	4.2	45.6		* 30				
Max Q Clear Time (g_c+I1), s	4.1	10.9		5.9	3.0	26.6		9.0				
Green Ext Time (p_c), s	0.2	5.5		0.8	0.0	11.5		0.8				

Intersection Summary

HCM 6th Ctrl Delay	14.0
HCM 6th LOS	B

Notes

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

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	57.8	60.4	36.1	36.7
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	5	5	3	3
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6
Effective Walk Time (s)	9.0	9.0	9.0	9.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	15	77	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	45	45	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	38.9	38.9	38.9	38.9
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.08	3.26	2.07	2.06
Pedestrian Crosswalk LOS	C	C	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	922	1817	198	170
Effct. Green for Bike (s)	38.7	44.2	10.5	10.5
Cross Street Width (ft)	36.1	36.7	60.4	57.8
Through Lanes Number	2	2	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	5.0	5.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	815	931	221	221
Bicycle Delay (s/bike)	16.7	13.6	37.6	37.6
Bicycle Compliance	Fair	Fair	Poor	Poor
Bicycle LOS Score	1.80	2.55	2.81	2.72
Bicycle LOS	B	C	C	C

Approach

Approach Direction	EB
Median Present?	No
Approach Delay(s)	1716744.8
Level of Service	F

Crosswalk

Length (ft)	66
Lanes Crossed	4
Veh Vol Crossed	2290
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	21.86
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.97
Delay for adq Gap	1716746.25
Avg Ped Delay (s)	1716744.75

Approach

Approach Direction	WB
Median Present?	No
Approach Delay(s)	2961431.8
Level of Service	F

Crosswalk

Length (ft)	69
Lanes Crossed	4
Veh Vol Crossed	2290
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	22.71
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.97
Delay for adq Gap	2961433.25
Avg Ped Delay (s)	2961431.75

Intersection						
Intersection Delay, s/veh 23.0						
Intersection LOS C						
Approach	EB		WB		NB	SB
Entry Lanes	2		2		1	1
Conflicting Circle Lanes	1		1		2	2
Adj Approach Flow, veh/h	1078		1609		290	447
Demand Flow Rate, veh/h	1099		1641		296	457
Vehicles Circulating, veh/h	503		117		1491	1360
Vehicles Exiting, veh/h	1314		1670		111	398
Ped Vol Crossing Leg, #/h	0		0		0	0
Ped Cap Adj	1.000		1.000		1.000	1.000
Approach Delay, s/veh	13.5		11.2		34.9	80.1
Approach LOS	B		B		D	F
Lane	Left	Right	Left	Right	Left	Left
Designated Moves	LT	TR	LT	TR	LTR	LTR
Assumed Moves	LT	TR	LT	TR	LTR	LTR
RT Channelized						
Lane Util	0.470	0.530	0.470	0.530	1.000	1.000
Follow-Up Headway, s	2.535	2.535	2.535	2.535	2.535	2.535
Critical Headway, s	4.544	4.544	4.544	4.544	4.328	4.328
Entry Flow, veh/h	517	582	771	870	296	457
Cap Entry Lane, veh/h	898	898	1277	1277	400	447
Entry HV Adj Factor	0.980	0.982	0.981	0.980	0.980	0.979
Flow Entry, veh/h	507	571	756	853	290	447
Cap Entry, veh/h	880	882	1252	1251	392	438
V/C Ratio	0.575	0.648	0.604	0.681	0.740	1.023
Control Delay, s/veh	12.4	14.5	10.2	12.2	34.9	80.1
LOS	B	B	B	B	D	F
95th %tile Queue, veh	4	5	4	6	6	14

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↑
Traffic Vol, veh/h	1506	0	0	1445	0	0
Future Vol, veh/h	1506	0	0	1445	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1637	0	0	1571	0	0

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	-	-	-	819
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	-	0	319
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	319
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	0	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	-	-	-	-

Approach

Approach Direction	EB
Median Present?	Yes
Approach Delay(s)	215.2
Level of Service	F

Crosswalk

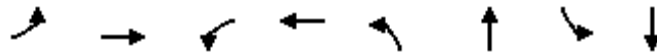
Length (ft)	11	28
Lanes Crossed	2	2
Veh Vol Crossed	1506	1445
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	6.14	11.00
Prob of Delayed X-ing	0.92	0.99
Prob of Blocked Lane	0.72	0.89
Delay for adq Gap	24.57	194.91
Avg Ped Delay (s)	22.69	192.56

Approach

Approach Direction	WB
Median Present?	Yes
Approach Delay(s)	248.8
Level of Service	F

Crosswalk

Length (ft)	12	28
Lanes Crossed	2	2
Veh Vol Crossed	1445	1506
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	6.43	11.00
Prob of Delayed X-ing	0.92	0.99
Prob of Blocked Lane	0.72	0.90
Delay for adq Gap	25.94	227.10
Avg Ped Delay (s)	23.97	224.82



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	16	1621	11	1348	211	43	22	21
v/c Ratio	0.27	0.71	0.19	0.61	0.76	0.15	0.22	0.17
Control Delay	57.6	14.9	53.6	13.7	57.5	15.3	49.7	26.7
Queue Delay	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
Total Delay	57.6	14.9	53.6	13.9	57.5	15.3	49.7	26.7
Queue Length 50th (ft)	8	219	5	159	100	2	11	2
Queue Length 95th (ft)	33	568	26	414	#266	33	40	27
Internal Link Dist (ft)		357		533		330		250
Turn Bay Length (ft)	100		210					
Base Capacity (vph)	59	2268	59	2213	276	654	98	490
Starvation Cap Reductn	0	0	0	274	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.71	0.19	0.70	0.76	0.07	0.22	0.04

Intersection Summary

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

600 Tank Farm Road
5: MindBody & Tank Farm

Cumulative PM
HCM 6th Signalized Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Volume (veh/h)	15	1468	23	10	1236	5	194	5	35	20	5	15
Future Volume (veh/h)	15	1468	23	10	1236	5	194	5	35	20	5	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	16	1596	25	11	1343	5	211	5	24	22	5	16
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	19	2039	32	14	2058	8	246	45	215	26	14	46
Arrive On Green	0.01	0.57	0.57	0.01	0.57	0.57	0.14	0.16	0.16	0.01	0.04	0.04
Sat Flow, veh/h	1781	3579	56	1781	3631	14	1781	281	1347	1781	392	1253
Grp Volume(v), veh/h	16	791	830	11	657	691	211	0	29	22	0	21
Grp Sat Flow(s),veh/h/ln	1781	1777	1859	1781	1777	1868	1781	0	1628	1781	0	1645
Q Serve(g_s), s	0.8	32.0	32.2	0.6	23.6	23.6	10.7	0.0	1.4	1.1	0.0	1.2
Cycle Q Clear(g_c), s	0.8	32.0	32.2	0.6	23.6	23.6	10.7	0.0	1.4	1.1	0.0	1.2
Prop In Lane	1.00		0.03	1.00		0.01	1.00		0.83	1.00		0.76
Lane Grp Cap(c), veh/h	19	1012	1059	14	1007	1058	246	0	260	26	0	60
V/C Ratio(X)	0.82	0.78	0.78	0.77	0.65	0.65	0.86	0.00	0.11	0.84	0.00	0.35
Avail Cap(c_a), veh/h	58	1035	1082	58	1035	1088	269	0	614	96	0	461
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	45.8	15.5	15.5	45.9	13.8	13.8	39.1	0.0	33.3	45.6	0.0	43.6
Incr Delay (d2), s/veh	54.8	6.0	5.8	27.4	3.3	3.1	22.0	0.0	0.1	47.4	0.0	3.5
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	0.7	12.7	13.3	0.4	9.1	9.5	6.1	0.0	0.6	0.8	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	100.5	21.5	21.3	73.3	17.1	16.9	61.1	0.0	33.4	93.0	0.0	47.1
LnGrp LOS	F	C	C	E	B	B	E	A	C	F	A	D
Approach Vol, veh/h		1637			1359			240				43
Approach Delay, s/veh		22.2			17.5			57.7				70.6
Approach LOS		C			B			E				E
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.7	59.8	17.8	9.4	6.0	59.5	6.4	20.8				
Change Period (Y+Rc), s	5.0	7.0	5.0	6.0	5.0	7.0	5.0	6.0				
Max Green Setting (Gmax), s	3.0	54.0	14.0	26.0	3.0	54.0	5.0	35.0				
Max Q Clear Time (g_c+I1), s	2.6	34.2	12.7	3.2	2.8	25.6	3.1	3.4				
Green Ext Time (p_c), s	0.0	18.6	0.1	0.1	0.0	23.8	0.0	0.1				
Intersection Summary												
HCM 6th Ctrl Delay				23.5								
HCM 6th LOS				C								

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	59.2	60.1	36.2	37.1
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	5	5	3	3
Number of Right-Turn Islands	0	0	0	0
Type of Control	None Actuated		None Actuated	
Corresponding Signal Phase	8	8	4	6
Effective Walk Time (s)	0.0	9.0	0.0	9.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	13	0
85th percentile speed (mph)	40	40	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	60.0	51.3	60.0	51.3
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.16	3.10	2.08	1.98
Pedestrian Crosswalk LOS	C	C	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	1637	1359	254	43
Effct. Green for Bike (s)	58.1	56.7	14.2	6.2
Cross Street Width (ft)	36.2	36.2	72.3	71.3
Through Lanes Number	2	2	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	5.0	5.0	5.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	968	945	237	103
Bicycle Delay (s/bike)	16.0	16.7	46.6	54.0
Bicycle Compliance	Fair	Fair	Poor	Poor
Bicycle LOS Score	2.39	2.16	2.01	2.72
Bicycle LOS	B	B	B	C

























Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	253	70	221	269	118	1275	204	194	1188	194
v/c Ratio	0.63	0.16	0.63	0.51	1.22	1.18	0.38	1.50	1.03	0.31
Control Delay	46.8	2.1	49.5	8.3	208.1	124.6	16.3	299.1	73.6	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.8	2.1	49.5	8.3	208.1	124.6	16.3	299.1	73.6	6.2
Queue Length 50th (ft)	162	0	144	0	~103	~571	41	~191	~478	0
Queue Length 95th (ft)	271	9	244	70	#263	#893	127	#402	#786	59
Internal Link Dist (ft)	288		473			1028			1931	
Turn Bay Length (ft)		100		180	150			150		430
Base Capacity (vph)	572	577	522	647	97	1084	539	129	1150	632
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.12	0.42	0.42	1.22	1.18	0.38	1.50	1.03	0.31

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

600 Tank Farm Road
6: Broad & Industrial

Cumulative PM
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	195	40	65	180	25	250	110	1186	190	180	1105	180
Future Volume (veh/h)	195	40	65	180	25	250	110	1186	190	180	1105	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		1.00	1.00		0.95	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	210	43	62	194	27	186	118	1275	151	194	1188	165
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	299	61	317	273	38	275	106	1182	502	142	1253	546
Arrive On Green	0.20	0.20	0.20	0.17	0.17	0.17	0.06	0.33	0.33	0.08	0.35	0.35
Sat Flow, veh/h	1491	305	1583	1573	219	1582	1781	3554	1510	1781	3554	1549
Grp Volume(v), veh/h	253	0	62	221	0	186	118	1275	151	194	1188	165
Grp Sat Flow(s),veh/h/ln	1796	0	1583	1792	0	1582	1781	1777	1510	1781	1777	1549
Q Serve(g_s), s	13.2	0.0	3.3	11.7	0.0	11.1	6.0	33.5	7.5	8.0	32.7	7.8
Cycle Q Clear(g_c), s	13.2	0.0	3.3	11.7	0.0	11.1	6.0	33.5	7.5	8.0	32.7	7.8
Prop In Lane	0.83		1.00	0.88		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	360	0	317	312	0	275	106	1182	502	142	1253	546
V/C Ratio(X)	0.70	0.00	0.20	0.71	0.00	0.68	1.11	1.08	0.30	1.37	0.95	0.30
Avail Cap(c_a), veh/h	624	0	550	569	0	503	106	1182	502	142	1253	546
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.5	0.0	33.5	39.2	0.0	38.9	47.3	33.6	24.9	46.3	31.7	23.6
Incr Delay (d2), s/veh	10.9	0.0	1.4	5.5	0.0	5.3	120.6	50.1	1.5	205.1	15.7	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	0.0	1.4	5.6	0.0	4.7	6.1	21.6	2.7	11.5	15.7	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.4	0.0	34.9	44.7	0.0	44.3	168.0	83.7	26.4	251.5	47.4	25.0
LnGrp LOS	D	A	C	D	A	D	F	F	C	F	D	C
Approach Vol, veh/h		315			407			1544			1547	
Approach Delay, s/veh		45.7			44.5			84.5			70.6	
Approach LOS		D			D			F			E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.0	40.0		25.2	11.0	42.0		22.5				
Change Period (Y+Rc), s	5.0	6.5		5.0	5.0	6.5		5.0				
Max Green Setting (Gmax), s	8.0	33.5		35.0	6.0	35.5		32.0				
Max Q Clear Time (g_c+I1), s	10.0	35.5		15.2	8.0	34.7		13.7				
Green Ext Time (p_c), s	0.0	0.0		4.8	0.0	0.7		3.6				
Intersection Summary												
HCM 6th Ctrl Delay			71.4									
HCM 6th LOS			E									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	36.0	36.1	61.3	62.1
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	6	6
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	7	77	49	27
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	57.2	57.2	57.2	57.2
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.18	2.37	3.29	3.32
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	323	490	1597	1576
Effct. Green for Bike (s)	25.0	21.9	34.0	36.0
Cross Street Width (ft)	73.1	73.9	37.5	37.7
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	5.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	385	337	523	554
Bicycle Delay (s/bike)	42.4	44.9	35.4	34.0
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	3.21	3.50	2.38	2.36
Bicycle LOS	C	C	B	B

600 Tank Farm Road
7: Broad & Tank Farm

Cumulative PM
Queues































Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	700	579	451	207	239	141	589	949	234	772	598
v/c Ratio	1.23	0.74	0.83	0.86	0.68	0.34	1.25	0.89	1.21	0.79	0.65
Control Delay	155.5	44.7	30.9	79.0	49.9	8.1	166.3	46.3	175.6	42.8	15.2
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	155.5	44.7	30.9	79.0	49.9	8.1	166.3	46.3	175.6	42.8	15.2
Queue Length 50th (ft)	~308	199	136	141	156	0	~261	303	~198	248	157
Queue Length 95th (ft)	#493	258	264	#318	237	49	#431	#495	#403	372	346
Internal Link Dist (ft)		533			770			1992		1028	
Turn Bay Length (ft)	265		85	150			275		250		300
Base Capacity (vph)	571	1185	689	240	566	579	473	1154	193	1077	924
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.23	0.49	0.65	0.86	0.42	0.24	1.25	0.82	1.21	0.72	0.65

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

600 Tank Farm Road
7: Broad & Tank Farm

Cumulative PM
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 					 	 			 	
Traffic Volume (veh/h)	644	533	415	190	220	130	542	665	208	215	710	550
Future Volume (veh/h)	644	533	415	190	220	130	542	665	208	215	710	550
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	700	579	398	207	239	118	589	723	192	234	772	477
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	516	993	433	217	472	400	427	818	217	175	961	665
Arrive On Green	0.15	0.28	0.28	0.12	0.25	0.25	0.12	0.30	0.30	0.10	0.27	0.27
Sat Flow, veh/h	3456	3554	1550	1781	1870	1585	3456	2766	734	1781	3554	1585
Grp Volume(v), veh/h	700	579	398	207	239	118	589	464	451	234	772	477
Grp Sat Flow(s),veh/h/ln	1728	1777	1550	1781	1870	1585	1728	1777	1723	1781	1777	1585
Q Serve(g_s), s	17.5	16.4	29.2	13.5	12.8	7.1	14.5	29.2	29.2	11.5	23.8	29.3
Cycle Q Clear(g_c), s	17.5	16.4	29.2	13.5	12.8	7.1	14.5	29.2	29.2	11.5	23.8	29.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.43	1.00		1.00
Lane Grp Cap(c), veh/h	516	993	433	217	472	400	427	526	510	175	961	665
V/C Ratio(X)	1.36	0.58	0.92	0.95	0.51	0.30	1.38	0.88	0.88	1.34	0.80	0.72
Avail Cap(c_a), veh/h	516	1066	465	217	510	432	427	530	514	175	969	669
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.9	36.4	41.0	51.2	37.6	35.4	51.4	39.4	39.4	52.9	39.9	28.3
Incr Delay (d2), s/veh	173.3	0.4	21.6	47.4	0.3	0.2	184.6	15.5	15.9	186.3	4.6	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	19.8	7.0	13.4	8.8	5.8	0.0	17.0	14.4	14.1	14.0	10.6	11.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	223.2	36.8	62.6	98.6	37.9	35.6	236.0	54.8	55.2	239.2	44.5	31.4
LnGrp LOS	F	D	E	F	D	D	F	D	E	F	D	C
Approach Vol, veh/h		1677			564			1504			1483	
Approach Delay, s/veh		120.7			59.7			125.9			71.0	
Approach LOS		F			E			F			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.0	41.2	19.8	39.3	20.0	38.2	23.0	36.1				
Change Period (Y+Rc), s	5.5	6.5	5.5	6.5	5.5	6.5	5.5	6.5				
Max Green Setting (Gmax), s	11.5	35.0	14.3	35.2	14.5	32.0	17.5	32.0				
Max Q Clear Time (g_c+I1), s	13.5	31.2	15.5	31.2	16.5	31.3	19.5	14.8				
Green Ext Time (p_c), s	0.0	1.4	0.0	1.3	0.0	0.4	0.0	0.8				
Intersection Summary												
HCM 6th Ctrl Delay			101.5									
HCM 6th LOS			F									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	73.8	71.3	72.3	84.2
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	7	5	6	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	49	21	31	111
85th percentile speed (mph)	40	40	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	52.3	52.3	52.3	52.3
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.27	2.77	3.24	3.43
Pedestrian Crosswalk LOS	C	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	1730	587	1538	1604
Effct. Green for Bike (s)	23.4	20.2	32.4	29.4
Cross Street Width (ft)	72.3	95.5	71.6	85.6
Through Lanes Number	2	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	5.0	5.0	5.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	390	337	540	490
Bicycle Delay (s/bike)	38.9	41.5	32.0	34.2
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	3.02	2.92	2.85	3.12
Bicycle LOS	C	C	C	C

Intersection

Int Delay, s/veh 2.8

Movement EBL EBR NBL NBT SBT SBR

Lane Configurations						
Traffic Vol, veh/h	119	55	15	986	1074	110
Future Vol, veh/h	119	55	15	986	1074	110
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	75	200	-	-	-
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	129	60	16	1072	1167	120

Major/Minor Minor2 Major1 Major2

Conflicting Flow All	1795	644	1287	0	-	0
Stage 1	1227	-	-	-	-	-
Stage 2	568	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	~ 72	416	535	-	-	-
Stage 1	240	-	-	-	-	-
Stage 2	530	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 70	416	535	-	-	-
Mov Cap-2 Maneuver	208	-	-	-	-	-
Stage 1	233	-	-	-	-	-
Stage 2	530	-	-	-	-	-

Approach EB NB SB

HCM Control Delay, s	37	0.2	0
HCM LOS	E		

Minor Lane/Major Mvmt NBL NBT EBLn1 EBLn2 SBT SBR

Capacity (veh/h)	535	-	208	416	-	-
HCM Lane V/C Ratio	0.03	-	0.622	0.144	-	-
HCM Control Delay (s)	11.9	-	47.1	15.1	-	-
HCM Lane LOS	B	-	E	C	-	-
HCM 95th %tile Q(veh)	0.1	-	3.6	0.5	-	-

Notes

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

Approach

Approach Direction	NB
Median Present?	No
Approach Delay(s)	3359384.5
Level of Service	F

Crosswalk

Length (ft)	78
Lanes Crossed	4
Veh Vol Crossed	2060
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	25.29
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.97
Delay for adq Gap	3359386.25
Avg Ped Delay (s)	3359384.50

Approach

Approach Direction	SB
Median Present?	No
Approach Delay(s)	4658732.0
Level of Service	F

Crosswalk

Length (ft)	80
Lanes Crossed	4
Veh Vol Crossed	2060
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	25.86
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.98
Delay for adq Gap	4658733.50
Avg Ped Delay (s)	4658732.00

























Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	231	41	34	168	41	757	58	1032
v/c Ratio	0.66	0.08	0.10	0.32	0.29	0.46	0.35	0.62
Control Delay	35.3	0.3	22.9	5.8	43.3	15.8	43.5	17.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.3	0.3	22.9	5.8	43.3	15.8	43.5	17.6
Queue Length 50th (ft)	107	0	13	0	20	135	29	198
Queue Length 95th (ft)	182	0	35	43	56	220	71	317
Internal Link Dist (ft)	310		100			324		936
Turn Bay Length (ft)		75		75	200		200	
Base Capacity (vph)	536	682	524	712	143	1791	167	1820
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.06	0.06	0.24	0.29	0.42	0.35	0.57

Intersection Summary

600 Tank Farm Road
9: Broad & Aero

Cumulative PM
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	226	0	40	28	5	165	40	729	13	57	917	94
Future Volume (veh/h)	226	0	40	28	5	165	40	729	13	57	917	94
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		0.98	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	231	0	26	29	5	167	41	744	13	58	936	84
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	418	0	339	404	62	339	57	1755	31	74	1647	148
Arrive On Green	0.21	0.00	0.21	0.21	0.21	0.21	0.03	0.49	0.49	0.04	0.50	0.50
Sat Flow, veh/h	1435	0	1583	1407	289	1583	1781	3572	62	1781	3291	295
Grp Volume(v), veh/h	231	0	26	34	0	167	41	370	387	58	505	515
Grp Sat Flow(s),veh/h/ln	1435	0	1583	1696	0	1583	1781	1777	1857	1781	1777	1810
Q Serve(g_s), s	8.8	0.0	0.9	0.0	0.0	6.0	1.5	8.7	8.7	2.1	12.9	12.9
Cycle Q Clear(g_c), s	9.7	0.0	0.9	1.0	0.0	6.0	1.5	8.7	8.7	2.1	12.9	12.9
Prop In Lane	1.00		1.00	0.85		1.00	1.00		0.03	1.00		0.16
Lane Grp Cap(c), veh/h	418	0	339	466	0	339	57	873	912	74	889	906
V/C Ratio(X)	0.55	0.00	0.08	0.07	0.00	0.49	0.72	0.42	0.42	0.79	0.57	0.57
Avail Cap(c_a), veh/h	743	0	704	805	0	704	164	1022	1069	191	1050	1069
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.8	0.0	20.5	20.5	0.0	22.5	31.2	10.7	10.7	31.0	11.4	11.4
Incr Delay (d2), s/veh	2.1	0.0	0.2	0.1	0.0	2.1	20.9	1.5	1.4	22.6	2.6	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	0.3	0.4	0.0	2.3	0.9	3.0	3.1	1.3	4.5	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.0	0.0	20.6	20.6	0.0	24.6	52.2	12.2	12.1	53.6	14.0	13.9
LnGrp LOS	C	A	C	C	A	C	D	B	B	D	B	B
Approach Vol, veh/h		257			201			798			1078	
Approach Delay, s/veh		25.4			23.9			14.2			16.1	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.7	38.5		19.0	7.1	39.1		19.0				
Change Period (Y+Rc), s	5.0	6.5		5.0	5.0	6.5		5.0				
Max Green Setting (Gmax), s	7.0	37.5		29.0	6.0	38.5		29.0				
Max Q Clear Time (g_c+I1), s	4.1	10.7		11.7	3.5	14.9		8.0				
Green Ext Time (p_c), s	0.0	15.8		2.2	0.0	17.7		1.6				
Intersection Summary												
HCM 6th Ctrl Delay			17.1									
HCM 6th LOS			B									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	34.0	34.2	57.2	59.2
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	5	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	45.0	45.0	45.0	45.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.08	2.04	2.84	2.96
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	272	202	798	1090
Effct. Green for Bike (s)	20.0	20.0	36.4	37.0
Cross Street Width (ft)	58.1	60.4	34.2	34.1
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	11.0	11.0	11.0	11.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	444	444	809	822
Bicycle Delay (s/bike)	27.2	27.2	16.0	15.6
Bicycle Compliance	Fair	Fair	Fair	Fair
Bicycle LOS Score	3.11	3.03	2.96	3.19
Bicycle LOS	C	C	C	C

Intersection						
Int Delay, s/veh	1.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↑	↔	↔	↑
Traffic Vol, veh/h	86	40	564	32	25	1037
Future Vol, veh/h	86	40	564	32	25	1037
Conflicting Peds, #/hr	0	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	230	145	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	91	42	594	34	26	1092

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1739	595	0	0	629
Stage 1	595	-	-	-	-
Stage 2	1144	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	96	504	-	-	953
Stage 1	551	-	-	-	-
Stage 2	304	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	93	504	-	-	952
Mov Cap-2 Maneuver	258	-	-	-	-
Stage 1	550	-	-	-	-
Stage 2	296	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	25.6	0	0.2
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	305	952
HCM Lane V/C Ratio	-	-	0.435	0.028
HCM Control Delay (s)	-	-	25.6	8.9
HCM Lane LOS	-	-	D	A
HCM 95th %tile Q(veh)	-	-	2.1	0.1

Approach

Approach Direction	NB
Median Present?	No
Approach Delay(s)	10488.2
Level of Service	F

Crosswalk

Length (ft)	56
Lanes Crossed	2
Veh Vol Crossed	1601
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.00
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.99
Delay for adq Gap	10490.42
Avg Ped Delay (s)	10488.18

Approach

Approach Direction	SB
Median Present?	No
Approach Delay(s)	2269.8
Level of Service	F

Crosswalk

Length (ft)	44
Lanes Crossed	2
Veh Vol Crossed	1601
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	15.57
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.97
Delay for adq Gap	2272.03
Avg Ped Delay (s)	2269.80

Intersection								
Intersection Delay, s/veh	10.5							
Intersection LOS	B							
Approach	EB		WB		NB		SB	
Entry Lanes	2		1		2		2	
Conflicting Circle Lanes	2		2		1		1	
Adj Approach Flow, veh/h	409		15		703		1261	
Demand Flow Rate, veh/h	417		15		717		1286	
Vehicles Circulating, veh/h	1248		760		58		100	
Vehicles Exiting, veh/h	138		15		1607		675	
Ped Vol Crossing Leg, #/h	0		0		0		0	
Ped Cap Adj	1.000		1.000		1.000		1.000	
Approach Delay, s/veh	27.1		5.0		5.1		8.1	
Approach LOS	D		A		A		A	
Lane	Left	Right	Left	Left	Right	Left	Right	
Designated Moves	LT	R	LTR	LT	TR	LT	TR	
Assumed Moves	LT	R	LTR	LT	TR	LT	TR	
RT Channelized								
Lane Util	0.127	0.873	1.000	0.470	0.530	0.470	0.530	
Follow-Up Headway, s	2.667	2.535	2.535	2.535	2.535	2.535	2.535	
Critical Headway, s	4.645	4.328	4.328	4.544	4.544	4.544	4.544	
Entry Flow, veh/h	53	364	15	337	380	604	682	
Cap Entry Lane, veh/h	428	492	744	1347	1347	1297	1297	
Entry HV Adj Factor	0.979	0.981	1.000	0.980	0.980	0.981	0.980	
Flow Entry, veh/h	52	357	15	330	372	593	668	
Cap Entry, veh/h	419	482	744	1320	1320	1272	1270	
V/C Ratio	0.124	0.741	0.020	0.250	0.282	0.466	0.526	
Control Delay, s/veh	10.4	29.6	5.0	4.9	5.2	7.6	8.6	
LOS	B	D	A	A	A	A	A	
95th %tile Queue, veh	0	6	0	1	1	3	3	

Cumulative Plus Project


























Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	49	22	170	169	288	16	603	1023	554	533
v/c Ratio	0.29	0.09	0.35	0.33	0.42	0.18	0.74	0.92	0.83	0.35
Control Delay	46.1	0.7	32.5	32.1	6.0	55.1	42.5	20.1	52.5	21.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.1	0.7	32.5	32.1	6.0	55.1	42.5	20.1	52.5	21.8
Queue Length 50th (ft)	30	0	88	88	0	10	183	125	177	104
Queue Length 95th (ft)	65	0	188	186	69	36	#308	#730	#345	223
Internal Link Dist (ft)	109			1057			1054			1668
Turn Bay Length (ft)					250	140		100	100	
Base Capacity (vph)	464	497	486	505	682	94	896	1118	664	1507
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.04	0.35	0.33	0.42	0.17	0.67	0.92	0.83	0.35

Intersection Summary

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

600 Tank Farm Road
1: Higuera & Tank Farm

Cumulative Plus Alternative B AM
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	20	20	307	5	265	15	555	941	510	480	10
Future Volume (veh/h)	25	20	20	307	5	265	15	555	941	510	480	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		1.00	1.00		0.98	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	27	22	20	338	0	0	16	603	830	554	522	11
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	58	47	87	990	0	0	33	1018	884	654	1628	34
Arrive On Green	0.06	0.06	0.06	0.28	0.00	0.00	0.02	0.29	0.29	0.19	0.46	0.46
Sat Flow, veh/h	1003	817	1520	3563	0	1585	1781	3554	1548	3456	3557	75
Grp Volume(v), veh/h	49	0	20	338	0	0	16	603	830	554	261	272
Grp Sat Flow(s),veh/h/ln	1820	0	1520	1781	0	1585	1781	1777	1548	1728	1777	1855
Q Serve(g_s), s	2.3	0.0	1.1	6.8	0.0	0.0	0.8	13.1	25.8	13.9	8.4	8.4
Cycle Q Clear(g_c), s	2.3	0.0	1.1	6.8	0.0	0.0	0.8	13.1	25.8	13.9	8.4	8.4
Prop In Lane	0.55		1.00	1.00		1.00	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	104	0	87	990	0	0	33	1018	884	654	813	849
V/C Ratio(X)	0.47	0.00	0.23	0.34	0.00	0.00	0.49	0.59	0.94	0.85	0.32	0.32
Avail Cap(c_a), veh/h	546	0	456	1207	0	0	111	1018	884	756	813	849
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	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.1	0.0	40.5	25.9	0.0	0.0	43.8	27.6	14.2	35.2	15.5	15.5
Incr Delay (d2), s/veh	1.2	0.0	0.5	0.1	0.0	0.0	4.2	1.4	17.8	8.2	0.5	0.5
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	1.1	0.0	0.4	2.7	0.0	0.0	0.4	5.4	22.1	6.2	3.2	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.3	0.0	41.0	26.0	0.0	0.0	48.0	29.0	31.9	43.4	16.0	16.0
LnGrp LOS	D	A	D	C	A	A	D	C	C	D	B	B
Approach Vol, veh/h		69			338	A		1449			1087	
Approach Delay, s/veh		41.9			26.0			30.9			30.0	
Approach LOS		D			C			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.5	30.3		9.7	5.1	45.7		29.5				
Change Period (Y+Rc), s	3.5	4.5		4.5	3.5	4.5		4.5				
Max Green Setting (Gmax), s	19.7	25.8		27.0	5.6	39.9		30.5				
Max Q Clear Time (g_c+I1), s	15.9	27.8		4.3	2.8	10.4		8.8				
Green Ext Time (p_c), s	1.1	0.0		0.2	0.0	6.3		0.8				

Intersection Summary

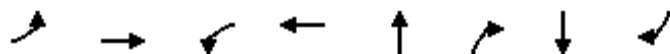
HCM 6th Ctrl Delay	30.3
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	50.7	58.5	67.8	54.5
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	6	6
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	2	141	178	0
85th percentile speed (mph)	25	45	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	52.3	52.3	52.3	52.3
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	1.99	3.16	3.34	2.96
Pedestrian Crosswalk LOS	B	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	71	627	1642	1087
Effct. Green for Bike (s)	10.0	31.0	23.9	44.2
Cross Street Width (ft)	78.9	66.6	58.5	49.8
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	10.0	11.0	11.0	11.0
Bicycle Lane Width (ft)	0.0	5.0	5.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	167	517	398	737
Bicycle Delay (s/bike)	50.4	33.0	38.5	23.9
Bicycle Compliance	Poor	Poor	Poor	Fair
Bicycle LOS Score	3.31	2.76	2.95	2.36
Bicycle LOS	C	C	C	B



Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	63	1392	122	775	10	69	46	21
v/c Ratio	0.12	0.64	0.38	0.35	0.05	0.22	0.21	0.07
Control Delay	5.6	15.1	8.2	9.7	26.3	7.0	28.8	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.6	15.1	8.2	9.7	26.3	7.0	28.8	0.4
Queue Length 50th (ft)	5	197	10	77	4	0	17	0
Queue Length 95th (ft)	32	493	55	205	17	25	49	0
Internal Link Dist (ft)		1057		508	155		449	
Turn Bay Length (ft)	225		160			25		25
Base Capacity (vph)	525	2589	357	2675	671	826	686	817
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.54	0.34	0.29	0.01	0.08	0.07	0.03

Intersection Summary

600 Tank Farm Road
2: Long & Tank Farm

Cumulative Plus Alternative B AM
HCM 6th Signalized Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↖	↗		↖	↗
Traffic Volume (veh/h)	60	1286	50	117	672	72	10	0	66	39	5	20
Future Volume (veh/h)	60	1286	50	117	672	72	10	0	66	39	5	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	62	1340	52	122	700	75	10	0	69	41	5	21
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	538	1912	74	364	1835	196	272	0	132	238	21	132
Arrive On Green	0.05	0.55	0.55	0.07	0.57	0.57	0.08	0.00	0.08	0.08	0.08	0.08
Sat Flow, veh/h	1781	3484	135	1781	3230	346	1533	0	1579	1220	257	1579
Grp Volume(v), veh/h	62	682	710	122	385	390	10	0	69	46	0	21
Grp Sat Flow(s),veh/h/ln	1781	1777	1843	1781	1777	1799	1533	0	1579	1477	0	1579
Q Serve(g_s), s	0.7	14.1	14.1	1.4	6.0	6.0	0.0	0.0	2.1	1.2	0.0	0.6
Cycle Q Clear(g_c), s	0.7	14.1	14.1	1.4	6.0	6.0	0.3	0.0	2.1	1.4	0.0	0.6
Prop In Lane	1.00		0.07	1.00		0.19	1.00		1.00	0.89		1.00
Lane Grp Cap(c), veh/h	538	975	1011	364	1009	1022	272	0	132	260	0	132
V/C Ratio(X)	0.12	0.70	0.70	0.34	0.38	0.38	0.04	0.00	0.52	0.18	0.00	0.16
Avail Cap(c_a), veh/h	634	1672	1734	526	1771	1793	1002	0	952	1013	0	952
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	4.5	8.3	8.3	6.9	5.9	6.0	21.1	0.0	21.9	21.6	0.0	21.3
Incr Delay (d2), s/veh	0.1	0.9	0.9	0.5	0.2	0.2	0.1	0.0	3.2	0.3	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	3.2	3.4	0.3	1.3	1.3	0.1	0.0	0.8	0.5	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	4.6	9.2	9.2	7.4	6.2	6.2	21.2	0.0	25.1	21.9	0.0	21.8
LnGrp LOS	A	A	A	A	A	A	C	A	C	C	A	C
Approach Vol, veh/h		1454			897			79				67
Approach Delay, s/veh		9.0			6.4			24.6				21.9
Approach LOS		A			A			C				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.9	33.2		8.9	6.9	34.2		8.9				
Change Period (Y+Rc), s	4.6	5.8		* 4.7	4.6	5.8		* 4.7				
Max Green Setting (Gmax), s	7.8	47.0		* 30	5.0	49.8		* 30				
Max Q Clear Time (g_c+I1), s	3.4	16.1		3.4	2.7	8.0		4.1				
Green Ext Time (p_c), s	0.1	11.3		0.3	0.0	5.2		0.3				

Intersection Summary

HCM 6th Ctrl Delay	8.9
HCM 6th LOS	A

Notes

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

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	57.8	60.4	36.1	36.7
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	5	5	3	3
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6
Effective Walk Time (s)	9.0	9.0	9.0	9.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	10	19	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	45	45	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	41.4	41.4	41.4	41.4
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.96	3.02	2.03	2.01
Pedestrian Crosswalk LOS	C	C	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	1454	897	79	67
Effct. Green for Bike (s)	40.9	42.4	10.6	10.6
Cross Street Width (ft)	36.1	36.7	60.4	57.8
Through Lanes Number	2	2	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	5.0	5.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	818	848	212	212
Bicycle Delay (s/bike)	17.5	16.6	40.0	40.0
Bicycle Compliance	Fair	Fair	Poor	Poor
Bicycle LOS Score	2.24	1.79	2.61	2.55
Bicycle LOS	B	B	C	C

Approach

Approach Direction	EB
Median Present?	No
Approach Delay(s)	267474.2
Level of Service	F

Crosswalk

Length (ft)	66
Lanes Crossed	4
Veh Vol Crossed	1958
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	21.86
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.95
Delay for adq Gap	267476.00
Avg Ped Delay (s)	267474.16

Approach

Approach Direction	WB
Median Present?	No
Approach Delay(s)	426343.0
Level of Service	F

Crosswalk

Length (ft)	69
Lanes Crossed	4
Veh Vol Crossed	1958
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	22.71
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.95
Delay for adq Gap	426344.88
Avg Ped Delay (s)	426343.03

Intersection						
Intersection Delay, s/veh 11.4						
Intersection LOS B						
Approach	EB		WB		NB	SB
Entry Lanes	2		2		1	1
Conflicting Circle Lanes	1		1		2	2
Adj Approach Flow, veh/h	830		1356		194	389
Demand Flow Rate, veh/h	847		1383		198	397
Vehicles Circulating, veh/h	536		181		1124	935
Vehicles Exiting, veh/h	796		1141		259	629
Ped Vol Crossing Leg, #/h	0		0		0	0
Ped Cap Adj	1.000		1.000		1.000	1.000
Approach Delay, s/veh	10.6		10.0		12.3	17.7
Approach LOS	B		B		B	C
Lane	Left	Right	Left	Right	Left	Left
Designated Moves	LT	TR	LT	TR	LTR	LTR
Assumed Moves	LT	TR	LT	TR	LTR	LTR
RT Channelized						
Lane Util	0.470	0.530	0.470	0.530	1.000	1.000
Follow-Up Headway, s	2.535	2.535	2.535	2.535	2.535	2.535
Critical Headway, s	4.544	4.544	4.544	4.544	4.328	4.328
Entry Flow, veh/h	398	449	650	733	198	397
Cap Entry Lane, veh/h	872	872	1204	1204	546	641
Entry HV Adj Factor	0.981	0.980	0.980	0.980	0.981	0.980
Flow Entry, veh/h	390	440	637	719	194	389
Cap Entry, veh/h	855	855	1181	1181	536	629
V/C Ratio	0.456	0.515	0.540	0.609	0.363	0.619
Control Delay, s/veh	10.0	11.2	9.3	10.7	12.3	17.7
LOS	A	B	A	B	B	C
95th %tile Queue, veh	2	3	3	4	2	4

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↑
Traffic Vol, veh/h	1028	0	0	1237	0	0
Future Vol, veh/h	1028	0	0	1237	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1082	0	0	1302	0	0

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	-	-	541
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	3.32
Pot Cap-1 Maneuver	-	0	-	0	485
Stage 1	-	0	-	0	-
Stage 2	-	0	-	0	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	485
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	0	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	-	-	-	-

Approach

Approach Direction	EB
Median Present?	Yes
Approach Delay(s)	124.2
Level of Service	F

Crosswalk

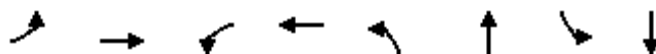
Length (ft)	11	28
Lanes Crossed	2	2
Veh Vol Crossed	1028	1237
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	6.14	11.00
Prob of Delayed X-ing	0.83	0.98
Prob of Blocked Lane	0.58	0.85
Delay for adq Gap	12.81	116.22
Avg Ped Delay (s)	10.59	113.57

Approach

Approach Direction	WB
Median Present?	Yes
Approach Delay(s)	83.7
Level of Service	F

Crosswalk

Length (ft)	12	28
Lanes Crossed	2	2
Veh Vol Crossed	1237	1028
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	6.43	11.00
Prob of Delayed X-ing	0.89	0.96
Prob of Blocked Lane	0.67	0.79
Delay for adq Gap	19.28	69.50
Avg Ped Delay (s)	17.16	66.50























Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	17	1065	37	1328	32	16	5	11
v/c Ratio	0.19	0.38	0.31	0.45	0.21	0.10	0.06	0.06
Control Delay	35.1	6.8	36.0	6.2	31.0	19.3	31.6	21.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.1	6.8	36.0	6.2	31.0	19.3	31.6	21.8
Queue Length 50th (ft)	5	0	12	0	10	2	2	2
Queue Length 95th (ft)	27	244	44	330	39	19	12	16
Internal Link Dist (ft)		357		533		330		264
Turn Bay Length (ft)	100		210					
Base Capacity (vph)	89	2788	119	2950	156	769	89	726
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.38	0.31	0.45	0.21	0.02	0.06	0.02

Intersection Summary

600 Tank Farm Road
5: MindBody & Tank Farm

Cumulative Plus Alternative B AM
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	902	110	35	1257	5	30	5	10	5	5	6
Future Volume (veh/h)	16	902	110	35	1257	5	30	5	10	5	5	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	17	949	116	37	1323	5	32	5	10	5	5	6
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	22	1697	207	44	1983	7	38	25	49	7	21	25
Arrive On Green	0.01	0.53	0.53	0.02	0.55	0.55	0.02	0.04	0.04	0.00	0.03	0.03
Sat Flow, veh/h	1781	3178	388	1781	3631	14	1781	557	1113	1781	774	929
Grp Volume(v), veh/h	17	530	535	37	647	681	32	0	15	5	0	11
Grp Sat Flow(s),veh/h/ln	1781	1777	1790	1781	1777	1867	1781	0	1670	1781	0	1703
Q Serve(g_s), s	0.6	11.6	11.6	1.2	15.2	15.2	1.0	0.0	0.5	0.2	0.0	0.4
Cycle Q Clear(g_c), s	0.6	11.6	11.6	1.2	15.2	15.2	1.0	0.0	0.5	0.2	0.0	0.4
Prop In Lane	1.00		0.22	1.00		0.01	1.00		0.67	1.00		0.55
Lane Grp Cap(c), veh/h	22	949	955	44	971	1020	38	0	74	7	0	46
V/C Ratio(X)	0.77	0.56	0.56	0.84	0.67	0.67	0.85	0.00	0.20	0.70	0.00	0.24
Avail Cap(c_a), veh/h	91	1002	1009	122	1032	1085	152	0	771	91	0	728
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.8	9.1	9.1	28.4	9.5	9.5	28.5	0.0	27.0	29.1	0.0	27.9
Incr Delay (d2), s/veh	42.1	2.4	2.4	14.1	3.6	3.5	37.3	0.0	0.5	80.2	0.0	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	3.8	3.8	0.6	5.1	5.3	0.8	0.0	0.2	0.2	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.0	11.4	11.4	42.5	13.1	12.9	65.8	0.0	27.5	109.3	0.0	30.5
LnGrp LOS	E	B	B	D	B	B	E	A	C	F	A	C
Approach Vol, veh/h		1082			1365			47				16
Approach Delay, s/veh		12.4			13.8			53.6				55.1
Approach LOS		B			B			D				E
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.5	38.2	6.2	7.6	5.7	39.0	5.2	8.6				
Change Period (Y+Rc), s	5.0	7.0	5.0	6.0	5.0	7.0	5.0	6.0				
Max Green Setting (Gmax), s	4.0	33.0	5.0	25.0	3.0	34.0	3.0	27.0				
Max Q Clear Time (g_c+I1), s	3.2	13.6	3.0	2.4	2.6	17.2	2.2	2.5				
Green Ext Time (p_c), s	0.0	14.7	0.0	0.0	0.0	14.7	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			14.2									
HCM 6th LOS			B									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	59.2	60.1	36.2	37.2
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	5	5	3	3
Number of Right-Turn Islands	0	0	0	0
Type of Control	None Actuated		None Actuated	
Corresponding Signal Phase	8	8	4	6
Effective Walk Time (s)	0.0	9.0	0.0	9.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	1	0
85th percentile speed (mph)	40	40	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	45.0	36.5	45.0	36.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.94	2.91	2.02	1.96
Pedestrian Crosswalk LOS	C	C	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	1082	1365	48	16
Effct. Green for Bike (s)	47.9	49.8	5.4	5.9
Cross Street Width (ft)	36.2	36.1	72.2	71.3
Through Lanes Number	2	2	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	5.0	5.0	5.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	1064	1107	120	131
Bicycle Delay (s/bike)	9.8	9.0	39.8	39.3
Bicycle Compliance	Good	Good	Poor	Poor
Bicycle LOS Score	1.93	2.17	1.67	2.68
Bicycle LOS	B	B	B	C

























Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	135	41	122	109	76	882	215	76	1233	142
v/c Ratio	0.41	0.11	0.43	0.32	1.04	0.67	0.32	0.69	0.89	0.21
Control Delay	39.6	0.6	42.8	9.3	166.0	31.6	7.2	79.4	39.1	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.6	0.6	42.8	9.3	166.0	31.6	7.2	79.4	39.1	5.8
Queue Length 50th (ft)	71	0	66	0	45	217	8	44	335	0
Queue Length 95th (ft)	149	0	141	44	#190	#499	78	#167	#804	50
Internal Link Dist (ft)	288		473			1028			1931	
Turn Bay Length (ft)		100		180	150			150		430
Base Capacity (vph)	648	641	597	596	73	1310	679	110	1383	681
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.06	0.20	0.18	1.04	0.67	0.32	0.69	0.89	0.21

Intersection Summary

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

600 Tank Farm Road
6: Broad & Industrial

Cumulative Plus Alternative B AM
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	120	5	38	92	20	100	70	811	198	70	1134	131
Future Volume (veh/h)	120	5	38	92	20	100	70	811	198	70	1134	131
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		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	130	5	41	100	22	81	76	882	175	76	1233	132
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	231	9	212	167	37	180	87	1549	669	98	1571	680
Arrive On Green	0.13	0.13	0.13	0.11	0.11	0.11	0.05	0.44	0.44	0.05	0.44	0.44
Sat Flow, veh/h	1718	66	1578	1473	324	1581	1781	3554	1534	1781	3554	1539
Grp Volume(v), veh/h	135	0	41	122	0	81	76	882	175	76	1233	132
Grp Sat Flow(s),veh/h/ln	1784	0	1578	1797	0	1581	1781	1777	1534	1781	1777	1539
Q Serve(g_s), s	5.8	0.0	1.9	5.3	0.0	3.9	3.5	15.3	6.0	3.5	24.4	4.3
Cycle Q Clear(g_c), s	5.8	0.0	1.9	5.3	0.0	3.9	3.5	15.3	6.0	3.5	24.4	4.3
Prop In Lane	0.96		1.00	0.82		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	240	0	212	204	0	180	87	1549	669	98	1571	680
V/C Ratio(X)	0.56	0.00	0.19	0.60	0.00	0.45	0.88	0.57	0.26	0.78	0.78	0.19
Avail Cap(c_a), veh/h	759	0	671	699	0	615	87	1549	669	130	1620	702
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.3	0.0	31.6	34.7	0.0	34.1	38.9	17.4	14.8	38.4	19.6	14.0
Incr Delay (d2), s/veh	9.2	0.0	2.0	5.1	0.0	3.3	59.4	1.5	1.0	22.4	4.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	0.8	2.6	0.0	1.6	2.9	5.8	2.0	2.0	9.5	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.6	0.0	33.7	39.8	0.0	37.3	98.3	18.9	15.7	60.8	23.6	14.6
LnGrp LOS	D	A	C	D	A	D	F	B	B	E	C	B
Approach Vol, veh/h		176			203			1133			1441	
Approach Delay, s/veh		40.5			38.8			23.8			24.8	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.5	42.3		16.0	9.0	42.9		14.3				
Change Period (Y+Rc), s	5.0	6.5		5.0	5.0	6.5		5.0				
Max Green Setting (Gmax), s	6.0	35.5		35.0	4.0	37.5		32.0				
Max Q Clear Time (g_c+I1), s	5.5	17.3		7.8	5.5	26.4		7.3				
Green Ext Time (p_c), s	0.0	12.5		2.8	0.0	10.0		1.9				
Intersection Summary												
HCM 6th Ctrl Delay			26.3									
HCM 6th LOS			C									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	36.0	36.1	61.3	62.1
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	6	6
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	26	37	9
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	57.2	57.2	57.2	57.2
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.10	2.17	3.15	3.11
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	176	231	1173	1451
Effct. Green for Bike (s)	18.2	15.5	36.4	38.4
Cross Street Width (ft)	73.1	73.9	37.5	37.7
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	5.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	280	238	560	591
Bicycle Delay (s/bike)	48.1	50.4	33.7	32.3
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	2.97	3.07	2.03	2.26
Bicycle LOS	C	C	B	B































Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	266	174	538	261	383	193	378	802	63	780	551
v/c Ratio	0.65	0.18	0.96	0.96	0.66	0.31	0.97	0.71	0.61	0.90	0.81
Control Delay	56.3	32.2	56.1	94.2	42.0	6.0	90.1	38.9	79.6	56.2	30.1
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	56.3	32.2	56.1	94.2	42.0	6.0	90.1	38.9	79.6	56.2	30.1
Queue Length 50th (ft)	103	52	283	~208	251	0	~160	289	49	304	259
Queue Length 95th (ft)	142	82	#504	#382	383	55	#260	365	#112	#405	370
Internal Link Dist (ft)		533			770			1992		1028	
Turn Bay Length (ft)	265		85	150			275		250		300
Base Capacity (vph)	563	1092	608	273	591	634	390	1141	110	955	745
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.16	0.88	0.96	0.65	0.30	0.97	0.70	0.57	0.82	0.74

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

600 Tank Farm Road
7: Broad & Tank Farm

Cumulative Plus Alternative B AM
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 					 	 			 	
Traffic Volume (veh/h)	255	167	516	251	368	185	363	655	115	60	749	529
Future Volume (veh/h)	255	167	516	251	368	185	363	655	115	60	749	529
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	266	174	459	261	383	150	378	682	102	62	780	490
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	330	1036	459	260	640	542	371	985	147	80	906	548
Arrive On Green	0.10	0.29	0.29	0.15	0.34	0.34	0.11	0.32	0.32	0.04	0.25	0.25
Sat Flow, veh/h	3456	3554	1572	1781	1870	1585	3456	3099	463	1781	3554	1555
Grp Volume(v), veh/h	266	174	459	261	383	150	378	391	393	62	780	490
Grp Sat Flow(s),veh/h/ln	1728	1777	1572	1781	1870	1585	1728	1777	1785	1781	1777	1555
Q Serve(g_s), s	9.1	4.4	35.0	17.5	20.3	8.3	12.9	23.1	23.1	4.1	25.1	30.6
Cycle Q Clear(g_c), s	9.1	4.4	35.0	17.5	20.3	8.3	12.9	23.1	23.1	4.1	25.1	30.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.26	1.00		1.00
Lane Grp Cap(c), veh/h	330	1036	459	260	640	542	371	565	567	80	906	548
V/C Ratio(X)	0.81	0.17	1.00	1.00	0.60	0.28	1.02	0.69	0.69	0.78	0.86	0.89
Avail Cap(c_a), veh/h	536	1036	459	260	640	542	371	565	567	105	906	548
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.2	31.7	42.5	51.3	32.7	28.7	53.5	35.8	35.8	56.7	42.7	36.9
Incr Delay (d2), s/veh	1.8	0.0	42.3	57.0	1.1	0.1	51.2	3.0	3.1	16.6	8.1	16.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	1.9	18.5	11.8	9.2	3.1	8.1	10.1	10.1	2.2	11.6	15.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.0	31.7	84.8	108.3	33.8	28.8	104.8	38.8	38.9	73.3	50.8	53.6
LnGrp LOS	D	C	F	F	C	C	F	D	D	E	D	D
Approach Vol, veh/h		899			794			1162			1332	
Approach Delay, s/veh		65.7			57.3			60.3			52.8	
Approach LOS		E			E			E			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.9	44.6	23.0	41.5	18.4	37.1	17.0	47.5				
Change Period (Y+Rc), s	5.5	6.5	5.5	6.5	5.5	6.5	5.5	6.5				
Max Green Setting (Gmax), s	7.1	36.4	17.5	35.0	12.9	30.6	18.6	33.9				
Max Q Clear Time (g_c+I1), s	6.1	25.1	19.5	37.0	14.9	32.6	11.1	22.3				
Green Ext Time (p_c), s	0.0	2.4	0.0	0.0	0.0	0.0	0.4	1.1				
Intersection Summary												
HCM 6th Ctrl Delay			58.5									
HCM 6th LOS			E									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	73.8	71.3	72.3	84.2
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	7	5	6	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	76	41	17	59
85th percentile speed (mph)	40	40	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	52.3	52.3	52.3	52.3
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.14	2.68	3.17	3.22
Pedestrian Crosswalk LOS	C	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	978	837	1180	1393
Effct. Green for Bike (s)	31.3	35.4	36.9	28.1
Cross Street Width (ft)	72.3	95.5	71.6	85.6
Through Lanes Number	2	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	5.0	5.0	5.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	522	590	615	468
Bicycle Delay (s/bike)	32.8	29.8	28.8	35.2
Bicycle Compliance	Poor	Fair	Fair	Poor
Bicycle LOS Score	2.40	3.33	2.56	2.95
Bicycle LOS	B	C	C	C

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	45	10	60	1206	971	243
Future Vol, veh/h	45	10	60	1206	971	243
Conflicting Peds, #/hr	0	0	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	75	200	-	-	-
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	48	11	64	1283	1033	259

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1934	647	1293	0	-	0
Stage 1	1164	-	-	-	-	-
Stage 2	770	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	58	414	532	-	-	-
Stage 1	259	-	-	-	-	-
Stage 2	417	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	51	414	531	-	-	-
Mov Cap-2 Maneuver	193	-	-	-	-	-
Stage 1	227	-	-	-	-	-
Stage 2	417	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	26.8	0.6	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	531	-	193	414	-	-
HCM Lane V/C Ratio	0.12	-	0.248	0.026	-	-
HCM Control Delay (s)	12.7	-	29.7	13.9	-	-
HCM Lane LOS	B	-	D	B	-	-
HCM 95th %tile Q(veh)	0.4	-	0.9	0.1	-	-

Approach

Approach Direction	NB
Median Present?	No
Approach Delay(s)	7230479.0
Level of Service	F

Crosswalk

Length (ft)	78
Lanes Crossed	4
Veh Vol Crossed	2177
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	25.29
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.98
Delay for adq Gap	7230480.50
Avg Ped Delay (s)	7230479.00

Approach

Approach Direction	SB
Median Present?	No
Approach Delay(s)	10215045.0
Level of Service	F

Crosswalk

Length (ft)	80
Lanes Crossed	4
Veh Vol Crossed	2177
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	25.86
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.98
Delay for adq Gap	10215047.00
Avg Ped Delay (s)	10215045.00

























Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	72	5	11	82	54	1269	252	802
v/c Ratio	0.43	0.02	0.07	0.28	0.37	0.69	0.73	0.34
Control Delay	50.2	0.2	40.5	4.9	53.2	21.3	52.0	8.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.2	0.2	40.5	4.9	53.2	21.3	52.0	8.7
Queue Length 50th (ft)	45	0	7	0	34	331	155	116
Queue Length 95th (ft)	90	0	23	17	78	456	#274	175
Internal Link Dist (ft)	310		100			324		936
Turn Bay Length (ft)		75		75	200		200	
Base Capacity (vph)	402	552	389	552	161	1881	395	2293
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.01	0.03	0.15	0.34	0.67	0.64	0.35

Intersection Summary

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

600 Tank Farm Road
9: Broad & Aero

Cumulative Plus Alternative B AM
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	5	5	10	0	75	50	1144	24	232	603	135
Future Volume (veh/h)	62	5	5	10	0	75	50	1144	24	232	603	135
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		0.97	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	67	5	5	11	0	82	54	1243	26	252	655	133
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	189	8	126	213	0	126	70	1992	42	302	2023	410
Arrive On Green	0.08	0.08	0.08	0.08	0.00	0.08	0.04	0.56	0.56	0.17	0.69	0.69
Sat Flow, veh/h	1365	102	1585	1631	0	1585	1781	3557	74	1781	2931	594
Grp Volume(v), veh/h	72	0	5	11	0	82	54	621	648	252	397	391
Grp Sat Flow(s),veh/h/ln	1467	0	1585	1631	0	1585	1781	1777	1855	1781	1777	1748
Q Serve(g_s), s	3.6	0.0	0.3	0.0	0.0	4.3	2.6	20.4	20.4	11.8	7.7	7.7
Cycle Q Clear(g_c), s	4.0	0.0	0.3	0.5	0.0	4.3	2.6	20.4	20.4	11.8	7.7	7.7
Prop In Lane	0.93		1.00	1.00		1.00	1.00		0.04	1.00		0.34
Lane Grp Cap(c), veh/h	197	0	126	213	0	126	70	995	1039	302	1226	1207
V/C Ratio(X)	0.37	0.00	0.04	0.05	0.00	0.65	0.78	0.62	0.62	0.84	0.32	0.32
Avail Cap(c_a), veh/h	568	0	533	576	0	533	186	1083	1130	455	1351	1329
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.3	0.0	36.6	36.8	0.0	38.5	41.0	12.8	12.8	34.6	5.3	5.3
Incr Delay (d2), s/veh	2.1	0.0	0.2	0.2	0.0	10.2	22.5	2.9	2.8	10.2	0.7	0.7
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	1.6	0.0	0.1	0.2	0.0	2.0	1.5	7.5	7.8	5.6	2.2	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.5	0.0	36.9	36.9	0.0	48.7	63.6	15.8	15.7	44.8	6.0	6.0
LnGrp LOS	D	A	D	D	A	D	E	B	B	D	A	A
Approach Vol, veh/h		77			93			1323			1040	
Approach Delay, s/veh		40.2			47.3			17.7			15.4	
Approach LOS		D			D			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.6	54.7		11.8	8.4	66.0		11.8				
Change Period (Y+Rc), s	5.0	6.5		5.0	5.0	6.5		5.0				
Max Green Setting (Gmax), s	22.0	52.5		29.0	9.0	65.5		29.0				
Max Q Clear Time (g_c+I1), s	13.8	22.4		6.0	4.6	9.7		6.3				
Green Ext Time (p_c), s	0.8	25.9		0.6	0.1	23.6		0.6				
Intersection Summary												
HCM 6th Ctrl Delay			18.5									
HCM 6th LOS			B									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	34.0	34.2	57.2	59.2
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	5	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	60.0	60.0	60.0	60.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.05	2.08	2.90	3.04
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	77	93	1323	1054
Effct. Green for Bike (s)	12.3	12.2	52.2	68.2
Cross Street Width (ft)	58.1	60.4	34.2	34.1
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	11.0	11.0	11.0	11.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	205	203	870	1137
Bicycle Delay (s/bike)	48.3	48.4	19.2	11.2
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	2.79	2.85	3.39	3.17
Bicycle LOS	C	C	C	C

Intersection						
Int Delay, s/veh	0.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↑	↗	↖	↑
Traffic Vol, veh/h	15	21	1000	118	46	502
Future Vol, veh/h	15	21	1000	118	46	502
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	230	145	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	22	1042	123	48	523

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1661	1042	0	0	1165
Stage 1	1042	-	-	-	-
Stage 2	619	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	107	279	-	-	600
Stage 1	340	-	-	-	-
Stage 2	537	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	98	279	-	-	600
Mov Cap-2 Maneuver	279	-	-	-	-
Stage 1	340	-	-	-	-
Stage 2	494	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19.9	0	1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	279	600
HCM Lane V/C Ratio	-	-	0.134	0.08
HCM Control Delay (s)	-	-	19.9	11.5
HCM Lane LOS	-	-	C	B
HCM 95th %tile Q(veh)	-	-	0.5	0.3

Approach

Approach Direction	NB
Median Present?	No
Approach Delay(s)	6621.9
Level of Service	F

Crosswalk

Length (ft)	56
Lanes Crossed	2
Veh Vol Crossed	1502
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.00
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.98
Delay for adq Gap	6624.26
Avg Ped Delay (s)	6621.87

Approach

Approach Direction	SB
Median Present?	No
Approach Delay(s)	1571.1
Level of Service	F

Crosswalk

Length (ft)	44
Lanes Crossed	2
Veh Vol Crossed	1502
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	15.57
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.96
Delay for adq Gap	1573.44
Avg Ped Delay (s)	1571.07

Intersection								
Intersection Delay, s/veh	11.1							
Intersection LOS	B							
Approach	EB		WB		NB		SB	
Entry Lanes	2		1		2		2	
Conflicting Circle Lanes	2		2		1		1	
Adj Approach Flow, veh/h	303		10		1865		537	
Demand Flow Rate, veh/h	309		10		1902		548	
Vehicles Circulating, veh/h	499		1957		70		402	
Vehicles Exiting, veh/h	451		15		738		1565	
Ped Vol Crossing Leg, #/h	0		0		0		0	
Ped Cap Adj	1.000		1.000		1.000		1.000	
Approach Delay, s/veh	6.3		14.1		13.1		6.6	
Approach LOS	A		B		B		A	
Lane	Left	Right	Left	Left	Right	Left	Right	
Designated Moves	LT	R	LTR	LT	TR	LT	TR	
Assumed Moves	LT	R	LTR	LT	TR	LT	TR	
RT Channelized								
Lane Util	0.210	0.790	1.000	0.470	0.530	0.471	0.529	
Follow-Up Headway, s	2.667	2.535	2.535	2.535	2.535	2.535	2.535	
Critical Headway, s	4.645	4.328	4.328	4.544	4.544	4.544	4.544	
Entry Flow, veh/h	65	244	10	894	1008	258	290	
Cap Entry Lane, veh/h	853	929	269	1332	1332	985	985	
Entry HV Adj Factor	0.983	0.980	1.000	0.980	0.980	0.979	0.982	
Flow Entry, veh/h	64	239	10	876	988	253	285	
Cap Entry, veh/h	839	910	269	1306	1306	964	967	
V/C Ratio	0.076	0.263	0.037	0.671	0.756	0.262	0.294	
Control Delay, s/veh	5.0	6.7	14.1	11.5	14.5	6.4	6.7	
LOS	A	A	B	B	B	A	A	
95th %tile Queue, veh	0	1	0	6	8	1	1	


























Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	22	27	421	421	527	32	617	502	298	830
v/c Ratio	0.10	0.09	0.78	0.75	0.60	0.36	0.72	0.44	0.70	0.66
Control Delay	39.5	0.6	44.3	42.0	5.9	64.5	42.1	2.1	55.2	33.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.5	0.6	44.3	42.0	5.9	64.5	42.1	2.1	55.2	33.5
Queue Length 50th (ft)	13	0	236	233	0	20	180	1	93	233
Queue Length 95th (ft)	36	0	#520	#503	88	#64	308	33	#196	#403
Internal Link Dist (ft)	109			1057			1054			1668
Turn Bay Length (ft)					250	140		100	100	
Base Capacity (vph)	488	507	610	634	929	89	983	1180	441	1287
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.05	0.69	0.66	0.57	0.36	0.63	0.43	0.68	0.64

Intersection Summary

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

600 Tank Farm Road
1: Higuera & Tank Farm

Cumulative Plus Alternative B PM
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	10	25	776	15	495	30	580	472	280	760	20
Future Volume (veh/h)	10	10	25	776	15	495	30	580	472	280	760	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.93	1.00		1.00	1.00		0.98	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	11	11	9	837	0	0	32	617	302	298	809	20
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	81	81	130	1112	0	0	57	968	919	397	1258	31
Arrive On Green	0.09	0.09	0.09	0.31	0.00	0.00	0.03	0.27	0.27	0.11	0.36	0.36
Sat Flow, veh/h	912	912	1477	3563	0	1585	1781	3554	1555	3456	3539	87
Grp Volume(v), veh/h	22	0	9	837	0	0	32	617	302	298	406	423
Grp Sat Flow(s),veh/h/ln	1825	0	1477	1781	0	1585	1781	1777	1555	1728	1777	1849
Q Serve(g_s), s	0.9	0.0	0.4	16.9	0.0	0.0	1.4	12.2	8.0	6.7	15.3	15.3
Cycle Q Clear(g_c), s	0.9	0.0	0.4	16.9	0.0	0.0	1.4	12.2	8.0	6.7	15.3	15.3
Prop In Lane	0.50		1.00	1.00		1.00	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	161	0	130	1112	0	0	57	968	919	397	632	658
V/C Ratio(X)	0.14	0.00	0.07	0.75	0.00	0.00	0.57	0.64	0.33	0.75	0.64	0.64
Avail Cap(c_a), veh/h	615	0	498	1623	0	0	113	1197	1019	539	763	794
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	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.7	0.0	33.5	24.8	0.0	0.0	38.2	25.7	8.6	34.3	21.6	21.6
Incr Delay (d2), s/veh	0.1	0.0	0.1	0.5	0.0	0.0	3.3	1.5	0.4	4.4	2.5	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.2	6.5	0.0	0.0	0.6	4.9	4.8	2.9	6.1	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.9	0.0	33.6	25.3	0.0	0.0	41.5	27.2	9.0	38.8	24.1	24.0
LnGrp LOS	C	A	C	C	A		D	C	A	D	C	C
Approach Vol, veh/h		31			837	A		951			1127	
Approach Delay, s/veh		33.8			25.3			21.9			27.9	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.7	26.3		11.6	6.0	33.0		29.5				
Change Period (Y+Rc), s	3.5	4.5		4.5	3.5	4.5		4.5				
Max Green Setting (Gmax), s	12.5	27.0		27.0	5.1	34.4		36.5				
Max Q Clear Time (g_c+I1), s	8.7	14.2		2.9	3.4	17.3		18.9				
Green Ext Time (p_c), s	0.5	7.0		0.1	0.0	8.0		2.2				

Intersection Summary

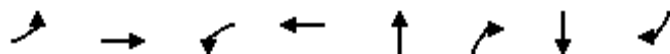
HCM 6th Ctrl Delay	25.3
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	50.7	58.5	67.8	54.5
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	6	6
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	17	190	188	1
85th percentile speed (mph)	25	45	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	52.3	52.3	52.3	52.3
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.01	3.21	3.42	3.03
Pedestrian Crosswalk LOS	B	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	49	1369	1151	1128
Effct. Green for Bike (s)	12.5	33.8	24.6	36.3
Cross Street Width (ft)	78.9	66.6	58.5	49.8
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	10.0	11.0	11.0	11.0
Bicycle Lane Width (ft)	0.0	5.0	5.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	208	563	410	605
Bicycle Delay (s/bike)	48.2	31.0	37.9	29.2
Bicycle Compliance	Poor	Poor	Poor	Fair
Bicycle LOS Score	3.28	3.98	2.55	2.39
Bicycle LOS	C	D	C	B



Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	68	856	143	1680	21	179	98	73
v/c Ratio	0.33	0.45	0.30	0.78	0.10	0.47	0.50	0.21
Control Delay	8.9	11.4	5.1	14.9	28.7	9.4	39.1	1.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.9	11.4	5.1	14.9	28.7	9.4	39.1	1.9
Queue Length 50th (ft)	7	110	15	280	9	0	43	0
Queue Length 95th (ft)	20	185	37	441	28	50	88	5
Internal Link Dist (ft)		1057		508	155		449	
Turn Bay Length (ft)	225		160			25		25
Base Capacity (vph)	208	2071	524	2259	613	776	572	752
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.41	0.27	0.74	0.03	0.23	0.17	0.10

Intersection Summary

600 Tank Farm Road
2: Long & Tank Farm

Cumulative Plus Alternative B PM
HCM 6th Signalized Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↗↘		↗	↗↘			↖	↖		↖	↖
Traffic Volume (veh/h)	65	792	30	137	1502	110	15	5	172	89	5	70
Future Volume (veh/h)	65	792	30	137	1502	110	15	5	172	89	5	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	68	825	31	143	1565	115	16	5	179	93	5	73
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	245	1953	73	491	1938	141	269	72	239	311	14	239
Arrive On Green	0.04	0.56	0.56	0.06	0.58	0.58	0.15	0.15	0.15	0.15	0.15	0.15
Sat Flow, veh/h	1781	3489	131	1781	3352	244	1148	476	1585	1360	93	1585
Grp Volume(v), veh/h	68	420	436	143	824	856	21	0	179	98	0	73
Grp Sat Flow(s),veh/h/ln	1781	1777	1843	1781	1777	1820	1623	0	1585	1453	0	1585
Q Serve(g_s), s	1.0	9.0	9.0	2.2	24.2	24.8	0.0	0.0	7.2	3.3	0.0	2.7
Cycle Q Clear(g_c), s	1.0	9.0	9.0	2.2	24.2	24.8	0.6	0.0	7.2	4.0	0.0	2.7
Prop In Lane	1.00		0.07	1.00		0.13	0.76		1.00	0.95		1.00
Lane Grp Cap(c), veh/h	245	995	1032	491	1027	1052	340	0	239	325	0	239
V/C Ratio(X)	0.28	0.42	0.42	0.29	0.80	0.81	0.06	0.00	0.75	0.30	0.00	0.31
Avail Cap(c_a), veh/h	282	1079	1119	640	1224	1253	796	0	721	759	0	721
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	10.9	8.4	8.4	6.0	11.0	11.1	24.2	0.0	26.9	25.5	0.0	25.0
Incr Delay (d2), s/veh	0.6	0.3	0.3	0.3	3.3	3.6	0.1	0.0	4.7	0.5	0.0	0.7
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	0.3	2.6	2.7	0.6	7.4	7.9	0.3	0.0	2.9	1.4	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.5	8.7	8.7	6.3	14.3	14.7	24.2	0.0	31.6	26.0	0.0	25.7
LnGrp LOS	B	A	A	A	B	B	C	A	C	C	A	C
Approach Vol, veh/h		924			1823			200				171
Approach Delay, s/veh		8.9			13.9			30.8				25.9
Approach LOS		A			B			C				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.7	42.9		14.7	7.5	44.1		14.7				
Change Period (Y+Rc), s	4.6	5.8		* 4.7	4.6	5.8		* 4.7				
Max Green Setting (Gmax), s	9.6	40.2		* 30	4.2	45.6		* 30				
Max Q Clear Time (g_c+I1), s	4.2	11.0		6.0	3.0	26.8		9.2				
Green Ext Time (p_c), s	0.2	5.5		0.8	0.0	11.5		0.8				

Intersection Summary

HCM 6th Ctrl Delay	14.2
HCM 6th LOS	B

Notes

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

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	57.8	60.4	36.1	36.7
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	5	5	3	3
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6
Effective Walk Time (s)	9.0	9.0	9.0	9.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	15	77	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	45	45	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	38.9	38.9	38.9	38.9
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.08	3.27	2.07	2.06
Pedestrian Crosswalk LOS	C	C	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	924	1823	200	171
Effct. Green for Bike (s)	38.9	44.3	10.5	10.5
Cross Street Width (ft)	36.1	36.7	60.4	57.8
Through Lanes Number	2	2	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	5.0	5.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	819	933	221	221
Bicycle Delay (s/bike)	16.6	13.5	37.6	37.6
Bicycle Compliance	Fair	Fair	Poor	Poor
Bicycle LOS Score	1.80	2.55	2.81	2.73
Bicycle LOS	B	C	C	C

Approach

Approach Direction	EB
Median Present?	No
Approach Delay(s)	1755880.4
Level of Service	F

Crosswalk

Length (ft)	66
Lanes Crossed	4
Veh Vol Crossed	2294
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	21.86
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.97
Delay for adq Gap	1755882.00
Avg Ped Delay (s)	1755880.38

Approach

Approach Direction	WB
Median Present?	No
Approach Delay(s)	3031828.5
Level of Service	F

Crosswalk

Length (ft)	69
Lanes Crossed	4
Veh Vol Crossed	2294
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	22.71
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.97
Delay for adq Gap	3031830.25
Avg Ped Delay (s)	3031828.50

Intersection						
Intersection Delay, s/veh25.7						
Intersection LOS D						
Approach	EB		WB		NB	SB
Entry Lanes	2		2		1	1
Conflicting Circle Lanes	1		1		2	2
Adj Approach Flow, veh/h	1086		1624		291	469
Demand Flow Rate, veh/h	1107		1656		297	479
Vehicles Circulating, veh/h	517		126		1512	1360
Vehicles Exiting, veh/h	1322		1683		112	422
Ped Vol Crossing Leg, #/h	0		0		0	0
Ped Cap Adj	1.000		1.000		1.000	1.000
Approach Delay, s/veh	14.0		11.6		37.0	94.4
Approach LOS	B		B		E	F
Lane	Left	Right	Left	Right	Left	Left
Designated Moves	LT	TR	LT	TR	LTR	LTR
Assumed Moves	LT	TR	LT	TR	LTR	LTR
RT Channelized						
Lane Util	0.470	0.530	0.470	0.530	1.000	1.000
Follow-Up Headway, s	2.535	2.535	2.535	2.535	2.535	2.535
Critical Headway, s	4.544	4.544	4.544	4.544	4.328	4.328
Entry Flow, veh/h	520	587	778	878	297	479
Cap Entry Lane, veh/h	887	887	1266	1266	393	447
Entry HV Adj Factor	0.981	0.980	0.981	0.980	0.980	0.980
Flow Entry, veh/h	510	575	763	861	291	469
Cap Entry, veh/h	871	870	1242	1241	385	438
V/C Ratio	0.586	0.662	0.614	0.693	0.756	1.072
Control Delay, s/veh	12.7	15.2	10.5	12.6	37.0	94.4
LOS	B	C	B	B	E	F
95th %tile Queue, veh	4	5	4	6	6	15

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↑
Traffic Vol, veh/h	1518	0	0	1458	0	0
Future Vol, veh/h	1518	0	0	1458	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1650	0	0	1585	0	0

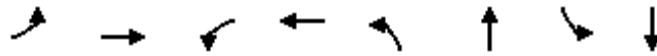
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	-	-	-	825
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	-	0	316
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	316
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	0	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	-	-	-	-

Approach		
Approach Direction	EB	
Median Present?	Yes	
Approach Delay(s)	222.1	
Level of Service	F	
Crosswalk		
Length (ft)	11	28
Lanes Crossed	2	2
Veh Vol Crossed	1518	1458
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	6.14	11.00
Prob of Delayed X-ing	0.92	0.99
Prob of Blocked Lane	0.73	0.89
Delay for adq Gap	24.98	201.35
Avg Ped Delay (s)	23.11	199.02

Approach		
Approach Direction	WB	
Median Present?	Yes	
Approach Delay(s)	256.2	
Level of Service	F	
Crosswalk		
Length (ft)	12	28
Lanes Crossed	2	2
Veh Vol Crossed	1458	1518
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	6.43	11.00
Prob of Delayed X-ing	0.93	0.99
Prob of Blocked Lane	0.73	0.90
Delay for adq Gap	26.42	234.04
Avg Ped Delay (s)	24.47	231.78
























Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	17	1633	11	1362	211	43	22	22
v/c Ratio	0.29	0.72	0.19	0.62	0.76	0.15	0.22	0.17
Control Delay	58.6	15.0	53.6	13.8	57.5	15.2	49.8	26.6
Queue Delay	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
Total Delay	58.6	15.0	53.6	14.1	57.5	15.2	49.8	26.6
Queue Length 50th (ft)	8	222	5	162	100	2	11	2
Queue Length 95th (ft)	34	576	26	422	#267	33	40	28
Internal Link Dist (ft)		357		533		330		250
Turn Bay Length (ft)	100		210					
Base Capacity (vph)	59	2267	59	2213	276	654	98	490
Starvation Cap Reductn	0	0	0	272	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.72	0.19	0.70	0.76	0.07	0.22	0.04

Intersection Summary

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

600 Tank Farm Road
5: MindBody & Tank Farm

Cumulative Plus Alternative B PM
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	1479	23	10	1248	5	194	5	35	20	5	16
Future Volume (veh/h)	16	1479	23	10	1248	5	194	5	35	20	5	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	17	1608	25	11	1357	5	211	5	24	22	5	17
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	20	2040	32	14	2057	8	246	45	215	26	14	46
Arrive On Green	0.01	0.57	0.57	0.01	0.57	0.57	0.14	0.16	0.16	0.01	0.04	0.04
Sat Flow, veh/h	1781	3580	56	1781	3631	13	1781	281	1347	1781	373	1269
Grp Volume(v), veh/h	17	797	836	11	664	698	211	0	29	22	0	22
Grp Sat Flow(s),veh/h/ln	1781	1777	1859	1781	1777	1868	1781	0	1628	1781	0	1642
Q Serve(g_s), s	0.9	32.5	32.6	0.6	24.0	24.0	10.8	0.0	1.4	1.1	0.0	1.2
Cycle Q Clear(g_c), s	0.9	32.5	32.6	0.6	24.0	24.0	10.8	0.0	1.4	1.1	0.0	1.2
Prop In Lane	1.00		0.03	1.00		0.01	1.00		0.83	1.00		0.77
Lane Grp Cap(c), veh/h	20	1013	1059	14	1006	1058	246	0	260	26	0	60
V/C Ratio(X)	0.83	0.79	0.79	0.77	0.66	0.66	0.86	0.00	0.11	0.84	0.00	0.37
Avail Cap(c_a), veh/h	58	1033	1081	58	1033	1086	269	0	614	96	0	460
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	45.8	15.6	15.6	46.0	13.9	13.9	39.1	0.0	33.4	45.6	0.0	43.7
Incr Delay (d2), s/veh	54.7	6.2	6.0	27.4	3.4	3.2	22.0	0.0	0.1	47.4	0.0	3.7
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	0.7	12.9	13.5	0.4	9.2	9.7	6.1	0.0	0.6	0.8	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	100.5	21.7	21.6	73.3	17.3	17.2	61.2	0.0	33.4	93.0	0.0	47.4
LnGrp LOS	F	C	C	E	B	B	E	A	C	F	A	D
Approach Vol, veh/h		1650			1373			240				44
Approach Delay, s/veh		22.5			17.7			57.8				70.2
Approach LOS		C			B			E				E
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.7	59.9	17.8	9.4	6.1	59.6	6.4	20.8				
Change Period (Y+Rc), s	5.0	7.0	5.0	6.0	5.0	7.0	5.0	6.0				
Max Green Setting (Gmax), s	3.0	54.0	14.0	26.0	3.0	54.0	5.0	35.0				
Max Q Clear Time (g_c+I1), s	2.6	34.6	12.8	3.2	2.9	26.0	3.1	3.4				
Green Ext Time (p_c), s	0.0	18.3	0.1	0.1	0.0	23.6	0.0	0.1				
Intersection Summary												
HCM 6th Ctrl Delay				23.7								
HCM 6th LOS				C								

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	59.2	60.1	36.2	37.1
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	5	5	3	3
Number of Right-Turn Islands	0	0	0	0
Type of Control	None Actuated		None Actuated	
Corresponding Signal Phase	8	8	4	6
Effective Walk Time (s)	0.0	9.0	0.0	9.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	13	0
85th percentile speed (mph)	40	40	30	30
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	60.0	51.3	60.0	51.3
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.16	3.11	2.08	1.98
Pedestrian Crosswalk LOS	C	C	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	1650	1373	254	44
Effct. Green for Bike (s)	58.2	56.7	14.3	6.2
Cross Street Width (ft)	36.2	36.2	72.3	71.3
Through Lanes Number	2	2	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	5.0	5.0	5.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	970	945	238	103
Bicycle Delay (s/bike)	15.9	16.7	46.6	54.0
Bicycle Compliance	Fair	Fair	Poor	Poor
Bicycle LOS Score	2.40	2.17	2.01	2.72
Bicycle LOS	B	B	B	C

























Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	253	70	224	269	118	1276	208	194	1189	194
v/c Ratio	0.63	0.16	0.63	0.51	1.22	1.18	0.39	1.50	1.04	0.31
Control Delay	46.9	2.1	49.7	8.3	208.2	125.6	16.5	299.1	74.3	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.9	2.1	49.7	8.3	208.2	125.6	16.5	299.1	74.3	6.2
Queue Length 50th (ft)	162	0	146	0	~103	~574	42	~192	~481	0
Queue Length 95th (ft)	271	9	248	70	#263	#894	130	#402	#787	59
Internal Link Dist (ft)	288		473			1028			1931	
Turn Bay Length (ft)		100		180	150			150		430
Base Capacity (vph)	572	576	522	647	97	1083	540	129	1148	632
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.12	0.43	0.42	1.22	1.18	0.39	1.50	1.04	0.31

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

600 Tank Farm Road
6: Broad & Industrial

Cumulative Plus Alternative B PM
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	195	40	65	183	25	250	110	1187	193	180	1106	180
Future Volume (veh/h)	195	40	65	183	25	250	110	1187	193	180	1106	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		1.00	1.00		0.95	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	210	43	62	197	27	186	118	1276	155	194	1189	165
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	299	61	317	276	38	278	106	1180	501	141	1250	545
Arrive On Green	0.20	0.20	0.20	0.18	0.18	0.18	0.06	0.33	0.33	0.08	0.35	0.35
Sat Flow, veh/h	1491	305	1583	1576	216	1582	1781	3554	1510	1781	3554	1549
Grp Volume(v), veh/h	253	0	62	224	0	186	118	1276	155	194	1189	165
Grp Sat Flow(s),veh/h/ln	1796	0	1583	1792	0	1582	1781	1777	1510	1781	1777	1549
Q Serve(g_s), s	13.2	0.0	3.3	11.9	0.0	11.1	6.0	33.5	7.7	8.0	32.9	7.8
Cycle Q Clear(g_c), s	13.2	0.0	3.3	11.9	0.0	11.1	6.0	33.5	7.7	8.0	32.9	7.8
Prop In Lane	0.83		1.00	0.88		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	360	0	317	314	0	278	106	1180	501	141	1250	545
V/C Ratio(X)	0.70	0.00	0.20	0.71	0.00	0.67	1.11	1.08	0.31	1.37	0.95	0.30
Avail Cap(c_a), veh/h	623	0	549	568	0	502	106	1180	501	141	1250	545
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.6	0.0	33.6	39.2	0.0	38.9	47.5	33.7	25.1	46.5	31.9	23.7
Incr Delay (d2), s/veh	11.0	0.0	1.4	5.5	0.0	5.1	121.6	51.3	1.6	206.5	16.2	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.9	0.0	1.4	5.7	0.0	4.7	6.1	21.8	2.8	11.5	15.9	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.5	0.0	35.0	44.7	0.0	44.0	169.0	85.0	26.7	252.9	48.0	25.2
LnGrp LOS	D	A	C	D	A	D	F	F	C	F	D	C
Approach Vol, veh/h		315			410			1549			1548	
Approach Delay, s/veh		45.9			44.4			85.6			71.3	
Approach LOS		D			D			F			E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.0	40.0		25.2	11.0	42.0		22.7				
Change Period (Y+Rc), s	5.0	6.5		5.0	5.0	6.5		5.0				
Max Green Setting (Gmax), s	8.0	33.5		35.0	6.0	35.5		32.0				
Max Q Clear Time (g_c+I1), s	10.0	35.5		15.2	8.0	34.9		13.9				
Green Ext Time (p_c), s	0.0	0.0		4.8	0.0	0.6		3.6				
Intersection Summary												
HCM 6th Ctrl Delay			72.1									
HCM 6th LOS			E									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	36.0	36.1	61.3	62.1
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	6	6
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	7	77	49	27
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	57.2	57.2	57.2	57.2
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.18	2.37	3.29	3.32
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	323	493	1602	1577
Effct. Green for Bike (s)	25.0	22.1	34.0	36.0
Cross Street Width (ft)	73.1	73.9	37.5	37.7
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	5.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	385	340	523	554
Bicycle Delay (s/bike)	42.4	44.8	35.4	34.0
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	3.21	3.50	2.38	2.37
Bicycle LOS	C	D	B	B































Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	705	582	455	207	241	141	593	949	234	772	604
v/c Ratio	1.24	0.74	0.84	0.86	0.68	0.34	1.26	0.89	1.21	0.79	0.66
Control Delay	159.7	44.6	31.5	79.2	49.9	8.1	170.8	46.5	176.1	43.0	15.6
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	159.7	44.6	31.5	79.2	49.9	8.1	170.8	46.5	176.1	43.0	15.6
Queue Length 50th (ft)	~312	200	139	141	158	0	~265	304	~198	248	162
Queue Length 95th (ft)	#498	260	269	#318	240	49	#435	#495	#403	372	356
Internal Link Dist (ft)		533			770			1992		1028	
Turn Bay Length (ft)	265		85	150			275		250		300
Base Capacity (vph)	570	1182	688	240	566	579	472	1152	193	1075	922
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.24	0.49	0.66	0.86	0.43	0.24	1.26	0.82	1.21	0.72	0.66

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

600 Tank Farm Road
7: Broad & Tank Farm

Cumulative Plus Alternative B PM
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 					 	 			 	
Traffic Volume (veh/h)	649	535	419	190	222	130	546	665	208	215	710	556
Future Volume (veh/h)	649	535	419	190	222	130	546	665	208	215	710	556
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	705	582	402	207	241	118	593	723	192	234	772	483
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	513	998	435	216	475	402	425	821	218	174	964	665
Arrive On Green	0.15	0.28	0.28	0.12	0.25	0.25	0.12	0.30	0.30	0.10	0.27	0.27
Sat Flow, veh/h	3456	3554	1550	1781	1870	1585	3456	2766	734	1781	3554	1585
Grp Volume(v), veh/h	705	582	402	207	241	118	593	464	451	234	772	483
Grp Sat Flow(s),veh/h/ln	1728	1777	1550	1781	1870	1585	1728	1777	1723	1781	1777	1585
Q Serve(g_s), s	17.5	16.6	29.7	13.6	13.0	7.1	14.5	29.3	29.4	11.5	23.8	30.0
Cycle Q Clear(g_c), s	17.5	16.6	29.7	13.6	13.0	7.1	14.5	29.3	29.4	11.5	23.8	30.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.43	1.00		1.00
Lane Grp Cap(c), veh/h	513	998	435	216	475	402	425	527	511	174	964	665
V/C Ratio(X)	1.37	0.58	0.92	0.96	0.51	0.29	1.40	0.88	0.88	1.35	0.80	0.73
Avail Cap(c_a), veh/h	513	1061	463	216	508	430	425	527	511	174	964	665
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.2	36.5	41.2	51.5	37.7	35.5	51.7	39.5	39.5	53.2	40.0	28.6
Incr Delay (d2), s/veh	180.6	0.4	22.7	49.0	0.3	0.1	191.9	15.3	15.7	189.3	4.5	3.5
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	20.3	7.1	13.7	8.9	5.9	2.7	17.4	14.5	14.1	14.1	10.6	11.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	230.8	36.9	63.9	100.5	38.0	35.6	243.6	54.8	55.2	242.5	44.5	32.0
LnGrp LOS	F	D	E	F	D	D	F	D	E	F	D	C
Approach Vol, veh/h		1689			566			1508			1489	
Approach Delay, s/veh		124.3			60.4			129.1			71.6	
Approach LOS		F			E			F			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.0	41.5	19.8	39.6	20.0	38.5	23.0	36.4				
Change Period (Y+Rc), s	5.5	6.5	5.5	6.5	5.5	6.5	5.5	6.5				
Max Green Setting (Gmax), s	11.5	35.0	14.3	35.2	14.5	32.0	17.5	32.0				
Max Q Clear Time (g_c+I1), s	13.5	31.4	15.6	31.7	16.5	32.0	19.5	15.0				
Green Ext Time (p_c), s	0.0	1.4	0.0	1.2	0.0	0.0	0.0	0.8				
Intersection Summary												
HCM 6th Ctrl Delay	103.8											
HCM 6th LOS	F											

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	73.8	71.3	72.3	84.2
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	7	5	6	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	49	21	31	111
85th percentile speed (mph)	40	40	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	52.3	52.3	52.3	52.3
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.27	2.77	3.24	3.43
Pedestrian Crosswalk LOS	C	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	1742	589	1542	1610
Effct. Green for Bike (s)	23.6	20.3	32.5	29.4
Cross Street Width (ft)	72.3	95.5	71.6	85.6
Through Lanes Number	2	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	5.0	5.0	5.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	393	338	542	490
Bicycle Delay (s/bike)	38.7	41.4	31.9	34.2
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	3.03	2.92	2.86	3.13
Bicycle LOS	C	C	C	C

Intersection						
Int Delay, s/veh	2.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	119	55	15	989	1077	110
Future Vol, veh/h	119	55	15	989	1077	110
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	75	200	-	-	-
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	129	60	16	1075	1171	120

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1801	646	1291	0	-	0
Stage 1	1231	-	-	-	-	-
Stage 2	570	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	~ 71	414	533	-	-	-
Stage 1	239	-	-	-	-	-
Stage 2	529	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 69	414	533	-	-	-
Mov Cap-2 Maneuver	207	-	-	-	-	-
Stage 1	232	-	-	-	-	-
Stage 2	529	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	37.4	0.2	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	533	-	207	414	-	-
HCM Lane V/C Ratio	0.031	-	0.625	0.144	-	-
HCM Control Delay (s)	12	-	47.6	15.2	-	-
HCM Lane LOS	B	-	E	C	-	-
HCM 95th %tile Q(veh)	0.1	-	3.6	0.5	-	-

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

Approach

Approach Direction	NB
Median Present?	No
Approach Delay(s)	3493809.0
Level of Service	F

Crosswalk

Length (ft)	78
Lanes Crossed	4
Veh Vol Crossed	2066
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	25.29
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.97
Delay for adq Gap	3493810.75
Avg Ped Delay (s)	3493809.00

Approach

Approach Direction	SB
Median Present?	No
Approach Delay(s)	4849767.5
Level of Service	F

Crosswalk

Length (ft)	80
Lanes Crossed	4
Veh Vol Crossed	2066
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	25.86
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.98
Delay for adq Gap	4849769.00
Avg Ped Delay (s)	4849767.50

























Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	231	41	34	168	41	760	58	1035
v/c Ratio	0.66	0.08	0.10	0.32	0.29	0.46	0.35	0.62
Control Delay	35.3	0.3	22.9	5.8	43.3	15.8	43.5	17.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.3	0.3	22.9	5.8	43.3	15.8	43.5	17.6
Queue Length 50th (ft)	107	0	13	0	20	135	29	199
Queue Length 95th (ft)	182	0	35	43	56	221	71	318
Internal Link Dist (ft)	310		100			324		936
Turn Bay Length (ft)		75		75	200		200	
Base Capacity (vph)	536	682	524	712	143	1791	167	1820
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.06	0.06	0.24	0.29	0.42	0.35	0.57

Intersection Summary

600 Tank Farm Road
9: Broad & Aero

Cumulative Plus Alternative B PM
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	226	0	40	28	5	165	40	732	13	57	920	94
Future Volume (veh/h)	226	0	40	28	5	165	40	732	13	57	920	94
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		0.98	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	231	0	26	29	5	167	41	747	13	58	939	84
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	418	0	339	404	62	339	57	1756	31	74	1649	147
Arrive On Green	0.21	0.00	0.21	0.21	0.21	0.21	0.03	0.49	0.49	0.04	0.50	0.50
Sat Flow, veh/h	1435	0	1583	1408	289	1583	1781	3572	62	1781	3292	295
Grp Volume(v), veh/h	231	0	26	34	0	167	41	372	388	58	507	516
Grp Sat Flow(s),veh/h/ln	1435	0	1583	1696	0	1583	1781	1777	1857	1781	1777	1810
Q Serve(g_s), s	8.8	0.0	0.9	0.0	0.0	6.0	1.5	8.8	8.8	2.1	13.0	13.0
Cycle Q Clear(g_c), s	9.7	0.0	0.9	1.0	0.0	6.0	1.5	8.8	8.8	2.1	13.0	13.0
Prop In Lane	1.00		1.00	0.85		1.00	1.00		0.03	1.00		0.16
Lane Grp Cap(c), veh/h	418	0	339	466	0	339	57	874	913	74	890	906
V/C Ratio(X)	0.55	0.00	0.08	0.07	0.00	0.49	0.72	0.43	0.43	0.79	0.57	0.57
Avail Cap(c_a), veh/h	742	0	704	804	0	704	164	1021	1068	191	1048	1068
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.9	0.0	20.5	20.5	0.0	22.5	31.3	10.7	10.7	31.0	11.4	11.4
Incr Delay (d2), s/veh	2.1	0.0	0.2	0.1	0.0	2.1	21.0	1.5	1.5	22.6	2.6	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	0.3	0.4	0.0	2.3	0.9	3.0	3.1	1.3	4.5	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.0	0.0	20.7	20.6	0.0	24.6	52.2	12.2	12.1	53.6	14.0	14.0
LnGrp LOS	C	A	C	C	A	C	D	B	B	D	B	B
Approach Vol, veh/h		257			201			801			1081	
Approach Delay, s/veh		25.5			23.9			14.2			16.1	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.7	38.6		19.0	7.1	39.2		19.0				
Change Period (Y+Rc), s	5.0	6.5		5.0	5.0	6.5		5.0				
Max Green Setting (Gmax), s	7.0	37.5		29.0	6.0	38.5		29.0				
Max Q Clear Time (g_c+I1), s	4.1	10.8		11.7	3.5	15.0		8.0				
Green Ext Time (p_c), s	0.0	15.8		2.2	0.0	17.7		1.6				
Intersection Summary												
HCM 6th Ctrl Delay			17.2									
HCM 6th LOS			B									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	34.0	34.2	57.2	59.2
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	5	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	45.0	45.0	45.0	45.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.08	2.04	2.84	2.96
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	272	202	801	1093
Effct. Green for Bike (s)	20.0	20.0	36.4	37.0
Cross Street Width (ft)	58.1	60.4	34.2	34.1
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	11.0	11.0	11.0	11.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	444	444	809	822
Bicycle Delay (s/bike)	27.2	27.2	16.0	15.6
Bicycle Compliance	Fair	Fair	Fair	Fair
Bicycle LOS Score	3.11	3.03	2.96	3.20
Bicycle LOS	C	C	C	C

Intersection						
Int Delay, s/veh	1.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↑	↔	↔	↑
Traffic Vol, veh/h	86	41	566	32	26	1039
Future Vol, veh/h	86	41	566	32	26	1039
Conflicting Peds, #/hr	0	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	230	145	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	91	43	596	34	27	1094

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1745	597	0	0	631
Stage 1	597	-	-	-	-
Stage 2	1148	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	95	503	-	-	951
Stage 1	550	-	-	-	-
Stage 2	302	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	92	503	-	-	950
Mov Cap-2 Maneuver	256	-	-	-	-
Stage 1	549	-	-	-	-
Stage 2	294	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	25.8	0	0.2
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	304	950
HCM Lane V/C Ratio	-	-	0.44	0.029
HCM Control Delay (s)	-	-	25.8	8.9
HCM Lane LOS	-	-	D	A
HCM 95th %tile Q(veh)	-	-	2.1	0.1

Approach

Approach Direction	NB
Median Present?	No
Approach Delay(s)	10685.6
Level of Service	F

Crosswalk

Length (ft)	56
Lanes Crossed	2
Veh Vol Crossed	1605
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.00
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.99
Delay for adq Gap	10687.89
Avg Ped Delay (s)	10685.65

Approach

Approach Direction	SB
Median Present?	No
Approach Delay(s)	2303.9
Level of Service	F

Crosswalk

Length (ft)	44
Lanes Crossed	2
Veh Vol Crossed	1605
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	15.57
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.97
Delay for adq Gap	2306.15
Avg Ped Delay (s)	2303.92

Intersection								
Intersection Delay, s/veh	10.5							
Intersection LOS	B							
Approach	EB		WB		NB		SB	
Entry Lanes	2		1		2		2	
Conflicting Circle Lanes	2		2		1		1	
Adj Approach Flow, veh/h	409		15		704		1262	
Demand Flow Rate, veh/h	417		15		718		1287	
Vehicles Circulating, veh/h	1249		761		58		100	
Vehicles Exiting, veh/h	138		15		1608		676	
Ped Vol Crossing Leg, #/h	0		0		0		0	
Ped Cap Adj	1.000		1.000		1.000		1.000	
Approach Delay, s/veh	27.2		5.0		5.1		8.1	
Approach LOS	D		A		A		A	
Lane	Left	Right	Left	Left	Right	Left	Right	
Designated Moves	LT	R	LTR	LT	TR	LT	TR	
Assumed Moves	LT	R	LTR	LT	TR	LT	TR	
RT Channelized								
Lane Util	0.127	0.873	1.000	0.469	0.531	0.470	0.530	
Follow-Up Headway, s	2.667	2.535	2.535	2.535	2.535	2.535	2.535	
Critical Headway, s	4.645	4.328	4.328	4.544	4.544	4.544	4.544	
Entry Flow, veh/h	53	364	15	337	381	605	682	
Cap Entry Lane, veh/h	428	491	744	1347	1347	1297	1297	
Entry HV Adj Factor	0.979	0.981	1.000	0.982	0.979	0.980	0.981	
Flow Entry, veh/h	52	357	15	331	373	593	669	
Cap Entry, veh/h	419	482	744	1322	1319	1271	1271	
V/C Ratio	0.124	0.741	0.020	0.250	0.283	0.467	0.526	
Control Delay, s/veh	10.4	29.7	5.0	4.9	5.2	7.6	8.6	
LOS	B	D	A	A	A	A	A	
95th %tile Queue, veh	0	6	0	1	1	3	3	

Mitigated Cumulative Plus Project

600 Tank Farm Road
6: Broad & Industrial

Cumulative Plus Alternative B AM (MITIGATED)

Queues



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	130	46	100	131	76	882	215	76	1233	142
v/c Ratio	0.37	0.13	0.25	0.37	0.84	0.60	0.29	0.48	0.83	0.20
Control Delay	23.4	10.3	20.1	10.8	100.9	23.2	4.6	48.3	28.6	4.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.4	10.3	20.1	10.8	100.9	23.2	4.6	48.3	28.6	4.6
Queue Length 50th (ft)	46	2	35	9	36	167	0	34	250	0
Queue Length 95th (ft)	82	26	65	49	#148	#363	53	#112	#594	42
Internal Link Dist (ft)		288		473		1028			1931	
Turn Bay Length (ft)					150			150		430
Base Capacity (vph)	356	740	399	786	91	1461	751	159	1480	721
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.06	0.25	0.17	0.84	0.60	0.29	0.48	0.83	0.20























Intersection Summary

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

600 Tank Farm Road
6: Broad & Industrial

Cumulative Plus Alternative B AM (MITIGATED)

HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	120	5	38	92	20	100	70	811	198	70	1134	131
Future Volume (veh/h)	120	5	38	92	20	100	70	811	198	70	1134	131
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	130	5	41	100	22	81	76	882	175	76	1233	132
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	338	19	159	387	39	143	97	1559	673	98	1561	676
Arrive On Green	0.10	0.11	0.11	0.10	0.11	0.11	0.05	0.44	0.44	0.06	0.44	0.44
Sat Flow, veh/h	1781	174	1430	1781	349	1286	1781	3554	1534	1781	3554	1539
Grp Volume(v), veh/h	130	0	46	100	0	103	76	882	175	76	1233	132
Grp Sat Flow(s),veh/h/ln	1781	0	1604	1781	0	1635	1781	1777	1534	1781	1777	1539
Q Serve(g_s), s	4.5	0.0	1.9	3.4	0.0	4.3	3.0	13.4	5.2	3.0	21.5	3.8
Cycle Q Clear(g_c), s	4.5	0.0	1.9	3.4	0.0	4.3	3.0	13.4	5.2	3.0	21.5	3.8
Prop In Lane	1.00		0.89	1.00		0.79	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	338	0	178	387	0	182	97	1559	673	98	1561	676
V/C Ratio(X)	0.38	0.00	0.26	0.26	0.00	0.57	0.78	0.57	0.26	0.77	0.79	0.20
Avail Cap(c_a), veh/h	339	0	779	388	0	794	99	1559	673	173	1602	694
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.6	0.0	29.3	24.0	0.0	30.4	33.7	15.1	12.8	33.6	17.4	12.4
Incr Delay (d2), s/veh	3.3	0.0	3.5	0.7	0.0	5.1	33.5	1.5	0.9	16.7	4.2	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.0	0.9	1.4	0.0	1.9	2.1	4.8	1.8	1.7	8.1	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.8	0.0	32.8	24.6	0.0	35.5	67.2	16.6	13.8	50.3	21.5	13.0
LnGrp LOS	C	A	C	C	A	D	E	B	B	D	C	B
Approach Vol, veh/h		176			203			1133			1441	
Approach Delay, s/veh		29.1			30.1			19.5			22.3	
Approach LOS		C			C			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.0	38.1	12.0	13.0	8.9	38.2	12.0	13.0				
Change Period (Y+Rc), s	5.0	6.5	5.0	5.0	5.0	6.5	5.0	5.0				
Max Green Setting (Gmax), s	7.0	29.5	7.0	35.0	4.0	32.5	7.0	35.0				
Max Q Clear Time (g_c+I1), s	5.0	15.4	5.4	3.9	5.0	23.5	6.5	6.3				
Green Ext Time (p_c), s	0.0	10.2	0.1	0.6	0.0	8.2	0.1	1.0				
Intersection Summary												
HCM 6th Ctrl Delay				22.2								
HCM 6th LOS				C								

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	36.0	36.1	61.3	62.1
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	6	6
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	26	37	9
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	42.3	42.3	42.3	42.3
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.08	2.16	3.13	3.10
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	176	231	1173	1451
Effct. Green for Bike (s)	16.0	12.9	32.6	33.0
Cross Street Width (ft)	72.3	72.2	37.6	37.3
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	5.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	320	258	652	660
Bicycle Delay (s/bike)	35.3	37.9	22.7	22.4
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	2.96	3.05	2.03	2.26
Bicycle LOS	C	C	B	B


































Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	266	174	538	261	383	193	378	682	120	63	780	551
v/c Ratio	0.65	0.18	0.95	0.96	0.67	0.31	0.92	0.59	0.20	0.61	0.91	0.82
Control Delay	56.3	32.3	54.4	93.8	42.4	6.0	80.0	36.2	5.1	79.6	57.6	30.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.3	32.3	54.4	93.8	42.4	6.0	80.0	36.2	5.1	79.6	57.6	30.9
Queue Length 50th (ft)	103	52	273	~208	251	0	153	239	0	49	307	262
Queue Length 95th (ft)	142	82	#491	#382	383	55	#253	305	37	#112	#412	376
Internal Link Dist (ft)		533			770			1992			1028	
Turn Bay Length (ft)	265		85	150			275			250		300
Base Capacity (vph)	564	1095	616	273	589	632	409	1164	601	110	938	740
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.16	0.87	0.96	0.65	0.31	0.92	0.59	0.20	0.57	0.83	0.74

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

600 Tank Farm Road
7: Broad & Tank Farm

Cumulative Plus Alternative B AM (MITIGATED)
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 			 	 		 	 	
Traffic Volume (veh/h)	255	167	516	251	368	185	363	655	115	60	749	529
Future Volume (veh/h)	255	167	516	251	368	185	363	655	115	60	749	529
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	266	174	459	261	383	150	378	682	102	62	780	490
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	330	1036	459	260	640	542	389	1129	502	80	888	540
Arrive On Green	0.10	0.29	0.29	0.15	0.34	0.34	0.11	0.32	0.32	0.04	0.25	0.25
Sat Flow, veh/h	3456	3554	1572	1781	1870	1585	3456	3554	1581	1781	3554	1555
Grp Volume(v), veh/h	266	174	459	261	383	150	378	682	102	62	780	490
Grp Sat Flow(s),veh/h/ln	1728	1777	1572	1781	1870	1585	1728	1777	1581	1781	1777	1555
Q Serve(g_s), s	9.1	4.4	35.0	17.5	20.3	8.3	13.1	19.4	5.6	4.1	25.3	30.0
Cycle Q Clear(g_c), s	9.1	4.4	35.0	17.5	20.3	8.3	13.1	19.4	5.6	4.1	25.3	30.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	330	1036	459	260	640	542	389	1129	502	80	888	540
V/C Ratio(X)	0.81	0.17	1.00	1.00	0.60	0.28	0.97	0.60	0.20	0.78	0.88	0.91
Avail Cap(c_a), veh/h	536	1036	459	260	640	542	389	1129	502	105	888	540
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.2	31.7	42.5	51.3	32.7	28.7	53.1	34.6	29.8	56.7	43.2	37.5
Incr Delay (d2), s/veh	1.8	0.0	42.3	57.0	1.1	0.1	38.1	0.7	0.1	16.6	9.6	18.7
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	3.9	1.9	18.5	11.8	9.2	3.1	7.6	8.2	2.1	2.2	11.9	16.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.0	31.7	84.8	108.3	33.8	28.8	91.1	35.2	29.9	73.3	52.9	56.2
LnGrp LOS	D	C	F	F	C	C	F	D	C	E	D	E
Approach Vol, veh/h		899			794			1162			1332	
Approach Delay, s/veh		65.7			57.3			52.9			55.0	
Approach LOS		E			E			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.9	44.6	23.0	41.5	19.0	36.5	17.0	47.5				
Change Period (Y+Rc), s	5.5	6.5	5.5	6.5	5.5	6.5	5.5	6.5				
Max Green Setting (Gmax), s	7.1	36.4	17.5	35.0	13.5	30.0	18.6	33.9				
Max Q Clear Time (g_c+I1), s	6.1	21.4	19.5	37.0	15.1	32.0	11.1	22.3				
Green Ext Time (p_c), s	0.0	2.2	0.0	0.0	0.0	0.0	0.4	1.1				
Intersection Summary												
HCM 6th Ctrl Delay			57.2									
HCM 6th LOS			E									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	73.8	71.3	72.3	84.2
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	7	5	7	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	76	41	17	59
85th percentile speed (mph)	40	40	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	52.3	52.3	52.3	52.3
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.14	2.68	3.21	3.22
Pedestrian Crosswalk LOS	C	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	978	837	1180	1393
Effct. Green for Bike (s)	30.9	34.9	37.1	27.7
Cross Street Width (ft)	84.2	95.5	71.3	85.6
Through Lanes Number	2	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	5.0	5.0	5.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	515	582	618	462
Bicycle Delay (s/bike)	33.1	30.2	28.6	35.5
Bicycle Compliance	Poor	Poor	Fair	Poor
Bicycle LOS Score	2.58	3.33	2.55	2.95
Bicycle LOS	C	C	C	C

600 Tank Farm Road
6: Broad & Industrial

Cumulative Plus Alternative B PM (MITIGATED)

Queues

























Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	210	113	197	296	118	1276	208	194	1189	194
v/c Ratio	0.86	0.32	0.65	0.73	0.69	0.85	0.29	0.87	0.74	0.24
Control Delay	62.7	18.0	41.5	23.9	68.8	35.1	7.5	81.0	28.4	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.7	18.0	41.5	23.9	68.8	35.1	7.5	81.0	28.4	3.9
Queue Length 50th (ft)	111	25	103	54	75	375	18	124	316	0
Queue Length 95th (ft)	#180	70	162	142	#194	#675	80	#308	538	46
Internal Link Dist (ft)		288		473		1028			1931	
Turn Bay Length (ft)					150			150		430
Base Capacity (vph)	243	615	305	636	171	1495	721	223	1600	805
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.86	0.18	0.65	0.47	0.69	0.85	0.29	0.87	0.74	0.24

Intersection Summary

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

600 Tank Farm Road
6: Broad & Industrial

Cumulative Plus Alternative B PM (MITIGATED)
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	195	40	65	183	25	250	110	1187	193	180	1106	180
Future Volume (veh/h)	195	40	65	183	25	250	110	1187	193	180	1106	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		1.00	1.00		0.96	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	210	43	62	197	27	186	118	1276	155	194	1189	165
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	286	136	196	371	34	237	146	1453	621	220	1601	699
Arrive On Green	0.10	0.20	0.20	0.07	0.17	0.17	0.08	0.41	0.41	0.12	0.45	0.45
Sat Flow, veh/h	1781	692	997	1781	205	1409	1781	3554	1518	1781	3554	1550
Grp Volume(v), veh/h	210	0	105	197	0	213	118	1276	155	194	1189	165
Grp Sat Flow(s),veh/h/ln	1781	0	1689	1781	0	1614	1781	1777	1518	1781	1777	1550
Q Serve(g_s), s	10.0	0.0	5.6	7.0	0.0	13.3	6.9	34.8	7.1	11.3	29.1	6.9
Cycle Q Clear(g_c), s	10.0	0.0	5.6	7.0	0.0	13.3	6.9	34.8	7.1	11.3	29.1	6.9
Prop In Lane	1.00		0.59	1.00		0.87	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	286	0	332	371	0	271	146	1453	621	220	1601	699
V/C Ratio(X)	0.73	0.00	0.32	0.53	0.00	0.79	0.81	0.88	0.25	0.88	0.74	0.24
Avail Cap(c_a), veh/h	286	0	562	371	0	491	169	1470	628	220	1601	699
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.8	0.0	36.2	35.6	0.0	41.9	47.5	28.7	20.5	45.3	23.9	17.8
Incr Delay (d2), s/veh	15.4	0.0	2.5	2.4	0.0	9.0	23.7	7.8	1.0	31.8	3.2	0.8
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	5.6	0.0	2.5	1.3	0.0	5.9	3.9	15.2	2.6	6.7	11.9	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.2	0.0	38.7	37.9	0.0	50.9	71.2	36.5	21.4	77.1	27.0	18.6
LnGrp LOS	D	A	D	D	A	D	E	D	C	E	C	B
Approach Vol, veh/h		315			410			1549			1548	
Approach Delay, s/veh		45.7			44.7			37.6			32.4	
Approach LOS		D			D			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.0	49.5	12.0	25.7	13.6	53.9	15.0	22.7				
Change Period (Y+Rc), s	5.0	6.5	5.0	5.0	5.0	6.5	5.0	5.0				
Max Green Setting (Gmax), s	13.0	43.5	7.0	35.0	10.0	46.5	10.0	32.0				
Max Q Clear Time (g_c+I1), s	13.3	36.8	9.0	7.6	8.9	31.1	12.0	15.3				
Green Ext Time (p_c), s	0.0	6.2	0.0	1.6	0.1	13.3	0.0	1.9				
Intersection Summary												
HCM 6th Ctrl Delay				36.9								
HCM 6th LOS				D								

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	36.0	36.1	61.3	62.1
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	6	6
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	7	77	49	27
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	52.3	52.3	52.3	52.3
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.18	2.37	3.28	3.32
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	323	493	1602	1577
Effct. Green for Bike (s)	18.1	15.0	43.8	46.9
Cross Street Width (ft)	72.3	72.2	37.6	37.3
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	5.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	302	250	730	782
Bicycle Delay (s/bike)	43.3	45.9	24.2	22.3
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	3.20	3.48	2.38	2.36
Bicycle LOS	C	C	B	B

600 Tank Farm Road
7: Broad & Tank Farm

Cumulative Plus Alternative B PM (MITIGATED)

Queues



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	705	582	455	207	241	141	593	723	226	234	772	604
v/c Ratio	1.21	0.74	0.83	0.84	0.67	0.34	1.15	0.70	0.37	1.19	0.86	0.67
Control Delay	148.3	43.7	30.5	75.4	49.0	8.1	128.5	37.5	5.9	165.7	48.3	16.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	148.3	43.7	30.5	75.4	49.0	8.1	128.5	37.5	5.9	165.7	48.3	16.4
Queue Length 50th (ft)	~296	192	132	136	152	0	~240	218	0	~189	252	166
Queue Length 95th (ft)	#498	260	267	#318	240	49	#423	332	58	#403	#380	363
Internal Link Dist (ft)		533			770			1992			1028	
Turn Bay Length (ft)	265		85	150			275			250		300
Base Capacity (vph)	583	1210	699	245	578	589	516	1203	677	197	1065	899
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.21	0.48	0.65	0.84	0.42	0.24	1.15	0.60	0.33	1.19	0.72	0.67

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.






























Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

600 Tank Farm Road
7: Broad & Tank Farm

Cumulative Plus Alternative B PM (MITIGATED)
HCM 6th Signalized Intersection Summary

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 					 	 			 	
Traffic Volume (veh/h)	649	535	419	190	222	130	546	665	208	215	710	556
Future Volume (veh/h)	649	535	419	190	222	130	546	665	208	215	710	556
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	705	582	402	207	241	118	593	723	192	234	772	483
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	513	998	435	216	475	402	454	1055	462	174	934	652
Arrive On Green	0.15	0.28	0.28	0.12	0.25	0.25	0.13	0.30	0.30	0.10	0.26	0.26
Sat Flow, veh/h	3456	3554	1550	1781	1870	1585	3456	3554	1558	1781	3554	1585
Grp Volume(v), veh/h	705	582	402	207	241	118	593	723	192	234	772	483
Grp Sat Flow(s),veh/h/ln	1728	1777	1550	1781	1870	1585	1728	1777	1558	1781	1777	1585
Q Serve(g_s), s	17.5	16.6	29.7	13.6	13.0	7.1	15.5	21.2	11.7	11.5	24.1	30.4
Cycle Q Clear(g_c), s	17.5	16.6	29.7	13.6	13.0	7.1	15.5	21.2	11.7	11.5	24.1	30.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	513	998	435	216	475	402	454	1055	462	174	934	652
V/C Ratio(X)	1.37	0.58	0.92	0.96	0.51	0.29	1.31	0.69	0.42	1.35	0.83	0.74
Avail Cap(c_a), veh/h	513	1061	463	216	508	430	454	1055	462	174	934	652
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.2	36.5	41.2	51.5	37.7	35.5	51.2	36.6	33.3	53.2	40.9	29.4
Incr Delay (d2), s/veh	180.7	0.4	22.7	49.0	0.3	0.1	152.7	1.6	0.2	189.4	5.8	4.0
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	20.3	7.1	13.7	8.9	5.9	2.7	16.1	9.1	4.3	14.1	10.9	11.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	230.9	36.9	63.9	100.5	38.0	35.6	204.0	38.2	33.5	242.6	46.7	33.4
LnGrp LOS	F	D	E	F	D	D	F	D	C	F	D	C
Approach Vol, veh/h		1689			566			1508			1489	
Approach Delay, s/veh		124.3			60.4			102.8			73.2	
Approach LOS		F			E			F			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.0	41.5	19.8	39.6	21.0	37.5	23.0	36.4				
Change Period (Y+Rc), s	5.5	6.5	5.5	6.5	5.5	6.5	5.5	6.5				
Max Green Setting (Gmax), s	11.5	35.0	14.3	35.2	15.5	31.0	17.5	32.0				
Max Q Clear Time (g_c+I1), s	13.5	23.2	15.6	31.7	17.5	32.4	19.5	15.0				
Green Ext Time (p_c), s	0.0	2.0	0.0	1.2	0.0	0.0	0.0	0.8				
Intersection Summary												
HCM 6th Ctrl Delay			96.7									
HCM 6th LOS			F									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	73.8	71.3	72.3	84.2
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	7	5	7	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	49	21	31	111
85th percentile speed (mph)	40	40	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	52.3	52.3	52.3	52.3
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.27	2.77	3.28	3.43
Pedestrian Crosswalk LOS	C	C	C	C

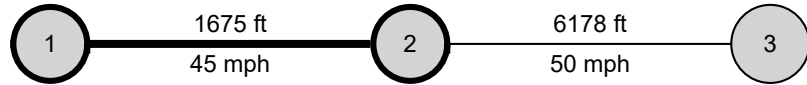
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	1742	589	1542	1610
Effct. Green for Bike (s)	23.3	20.0	30.5	26.5
Cross Street Width (ft)	84.2	95.5	71.3	85.6
Through Lanes Number	2	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	5.0	5.0	5.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	388	333	508	442
Bicycle Delay (s/bike)	39.0	41.7	33.4	36.4
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	3.21	2.92	2.85	3.13
Bicycle LOS	C	C	C	C

Appendix C: Roadway Segment Calculation Sheets

Existing

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	5
Analyst	CCTC	Analysis Date	Oct 7, 2020	Number of Segments	4
Jurisdiction				Number of Iterations	15
File Name	EX AM Tank Farm.xus	Analysis Year	Existing	System Cycle Length, s	120
Intersections	Tank Farm/S. Higuera	Tank Farm/Old Windmill			
Project Description	600 Tank Farm Road				



Basic Segment Information (Tank Farm Road: S. Higuera to Old Windmill)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
1	45	45	2	2	1675	1675	50	50	0	0	100	100	0.0	0.0

Segment Output Data		Eastbound			Westbound		
		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	46.28			46.28		
1	Running Time, s	26.84			26.70		
1	Running Speed, mph	42.56			42.77		
1	Through Delay, s/veh	0.05			17.45		
1	Travel Time, s	26.89			44.15		
1	Travel Speed, mph	42.47			25.87		
1	Stop Rate, stops/veh	0.00			0.45		
1	Spatial Stop Rate, stops/mi	0.00			1.43		
1	Through vol/cap Ratio	0.23			0.00		
1	Percent of Base FFS	91.77			55.90		
1	Level of Service	A			C		
1	Auto Traveler Perception Score	2.14			2.36		

Multimodal Results (Segment)

1	Pedestrian Segment LOS Score / LOS	3.14	C	3.25	C
1	Bicycle Segment LOS Score / LOS				
1	Transit Segment LOS Score / LOS				

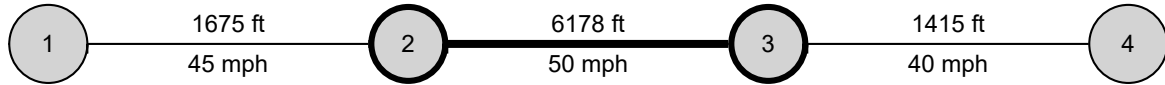
Facility Output Data		Eastbound		Westbound	
Facility Travel Time, s		216.07		229.43	
Facility Travel Speed, mph		39.07		36.79	
Facility Base Free Flow Speed, mph		46.71		46.77	
Facility Percent of Base FFS		83.64		78.67	
Facility Level of Service		A		B	
Facility Auto Traveler Perception Score		2.33		2.25	

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS				
Transit Facility LOS Score / LOS				

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	5
Analyst	CCTC	Analysis Date	Oct 7, 2020	Number of Segments	4
Jurisdiction				Number of Iterations	15
File Name	EX AM Tank Farm.xus	Analysis Year	Existing	System Cycle Length, s	120
Intersections	Tank Farm/Old Windmill	Tank Farm/Santa Fe			
Project Description	600 Tank Farm Road				



Basic Segment Information (Tank Farm Road: Old Windmill to Santa Fe)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
2	50	50	1	1	6178	6178	50	50	0	0	0	0	0.0	0.0

Segment Output Data		Eastbound			Westbound		
		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	49.10			49.10		
2	Running Time, s	87.66			87.32		
2	Running Speed, mph	48.05			48.24		
2	Through Delay, s/veh	2.47			2.06		
2	Travel Time, s	90.13			89.38		
2	Travel Speed, mph	46.74			47.13		
2	Stop Rate, stops/veh	0.02			0.03		
2	Spatial Stop Rate, stops/mi	0.02			0.02		
2	Through vol/cap Ratio	0.48			0.37		
2	Percent of Base FFS	95.19			95.98		
2	Level of Service	A			A		
2	Auto Traveler Perception Score	2.35			2.14		

Multimodal Results (Segment)

2	Pedestrian Segment LOS Score / LOS		F		F
2	Bicycle Segment LOS Score / LOS				
2	Transit Segment LOS Score / LOS				

Facility Output Data		Eastbound		Westbound	
Facility Travel Time, s		216.07		229.43	
Facility Travel Speed, mph		39.07		36.79	
Facility Base Free Flow Speed, mph		46.71		46.77	
Facility Percent of Base FFS		83.64		78.67	
Facility Level of Service		A		B	
Facility Auto Traveler Perception Score		2.33		2.25	

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS				
Transit Facility LOS Score / LOS				

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	5
Analyst	CCTC	Analysis Date	Oct 7, 2020	Number of Segments	4
Jurisdiction				Number of Iterations	15
File Name	EX AM Tank Farm.xus	Analysis Year	Existing	System Cycle Length, s	120
Intersections	Tank Farm/Santa Fe	Tank Farm/Broad		Analysis Period	1> 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Tank Farm Road: Santa Fe to Broad)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
3	40	40	2	1	1415	1415	50	50	0	0	100	0	0.0	0.0

Segment Output Data		Eastbound			Westbound		
		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement		2	12	1	6	
3	Bay/Lane Spillback Time, h						
3	Shared Lane Spillback Time, h						
3	Base Free-Flow Speed, mph		43.93		44.40		
3	Running Time, s		25.02		25.45		
3	Running Speed, mph		38.55		37.91		
3	Through Delay, s/veh		23.18		0.93		
3	Travel Time, s		48.21		26.38		
3	Travel Speed, mph		20.01		36.57		
3	Stop Rate, stops/veh		0.55		0.02		
3	Spatial Stop Rate, stops/mi		2.05		0.06		
3	Through vol/cap Ratio		0.11		0.43		
3	Percent of Base FFS		45.56		82.37		
3	Level of Service		D		A		
3	Auto Traveler Perception Score		2.45		2.15		

Multimodal Results (Segment)

3	Pedestrian Segment LOS Score / LOS	3.38	C	F
3	Bicycle Segment LOS Score / LOS			
3	Transit Segment LOS Score / LOS			

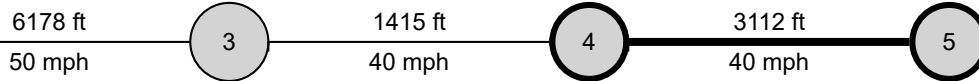
Facility Output Data		Eastbound		Westbound	
Facility Travel Time, s		216.07		229.43	
Facility Travel Speed, mph		39.07		36.79	
Facility Base Free Flow Speed, mph		46.71		46.77	
Facility Percent of Base FFS		83.64		78.67	
Facility Level of Service		A		B	
Facility Auto Traveler Perception Score		2.33		2.25	

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS			
Bicycle Facility LOS Score / LOS			
Transit Facility LOS Score / LOS			

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	5
Analyst	CCTC	Analysis Date	Oct 7, 2020	Number of Segments	4
Jurisdiction		Time Period	AM Peak	Number of Iterations	15
File Name	EX AM Tank Farm.xus	Analysis Year	Existing	System Cycle Length, s	120
Intersections	Tank Farm/Broad	Tank Farm/Righetti Ranch		Analysis Period	1> 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Tank Farm Road: Broad to Righetti Ranch)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
4	40	40	2	2	3112	3112	50	50	0	0	100	100	0.0	0.0

Segment Output Data		Eastbound			Westbound		
		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
4	Bay/Lane Spillback Time, h						
4	Shared Lane Spillback Time, h						
4	Base Free-Flow Speed, mph	43.93			43.93		
4	Running Time, s	50.05			50.45		
4	Running Speed, mph	42.40			42.06		
4	Through Delay, s/veh	0.80			19.08		
4	Travel Time, s	50.85			69.52		
4	Travel Speed, mph	41.73			30.52		
4	Stop Rate, stops/veh	0.01			0.49		
4	Spatial Stop Rate, stops/mi	0.01			0.83		
4	Through vol/cap Ratio	0.10			0.26		
4	Percent of Base FFS	94.99			69.47		
4	Level of Service	A			B		
4	Auto Traveler Perception Score	2.35			2.48		

Multimodal Results (Segment)

4	Pedestrian Segment LOS Score / LOS	2.67	B	3.26	C
4	Bicycle Segment LOS Score / LOS				
4	Transit Segment LOS Score / LOS				

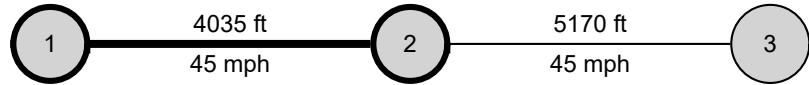
Facility Output Data		Eastbound		Westbound	
		Facility Travel Time, s	216.07	229.43	
Facility Travel Speed, mph	39.07	36.79			
Facility Base Free Flow Speed, mph	46.71	46.77			
Facility Percent of Base FFS	83.64	78.67			
Facility Level of Service	A	B			
Facility Auto Traveler Perception Score	2.33	2.25			

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS			
Bicycle Facility LOS Score / LOS			
Transit Facility LOS Score / LOS			

HCS7 Urban Street Segment Report

General Information				Streets Information		
Agency				Number of Intersections	3	
Analyst	CCTC	Analysis Date	Oct 12, 2020	Number of Segments	2	
Jurisdiction			Time Period	AM Peak	Number of Iterations	15
File Name	EX AM Broad.xus	Analysis Year	Existing	System Cycle Length, s	120	
Intersections	Broad/Farmhouse	Broad/Tank Farm		Analysis Period	1> 7:00	
Project Description	600 Tank Farm Road					



Basic Segment Information (Broad Street: Farmhouse to Tank Farm)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
1	45	45	2	2	4035	4035	50	50	0	0	0	100	0.0	0.0

Segment Output Data		Northbound			Southbound		
		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement		2	12	1	6	
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph		46.75		46.28		
1	Running Time, s		61.46		62.55		
1	Running Speed, mph		44.77		43.98		
1	Through Delay, s/veh		24.10		0.92		
1	Travel Time, s		85.55		63.47		
1	Travel Speed, mph		32.16		43.34		
1	Stop Rate, stops/veh		0.59		0.00		
1	Spatial Stop Rate, stops/mi		0.77		0.01		
1	Through vol/cap Ratio		0.48		0.37		
1	Percent of Base FFS		68.79		93.66		
1	Level of Service		B		A		
1	Auto Traveler Perception Score		2.25		2.14		

Multimodal Results (Segment)

1	Pedestrian Segment LOS Score / LOS		F	3.59	D
1	Bicycle Segment LOS Score / LOS				
1	Transit Segment LOS Score / LOS				

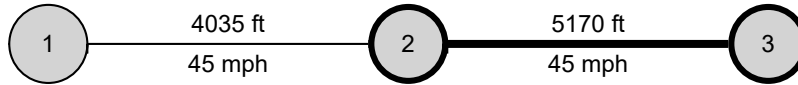
Facility Output Data		Northbound		Southbound	
Facility Travel Time, s		170.61		167.64	
Facility Travel Speed, mph		36.79		37.44	
Facility Base Free Flow Speed, mph		46.48		46.54	
Facility Percent of Base FFS		79.14		80.44	
Facility Level of Service		B		A	
Facility Auto Traveler Perception Score		2.21		2.19	

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS				
Transit Facility LOS Score / LOS				

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	3
Analyst	CCTC	Analysis Date	Oct 12, 2020	Number of Segments	2
Jurisdiction		Time Period	AM Peak	Number of Iterations	15
File Name	EX AM Broad.xus	Analysis Year	Existing	System Cycle Length, s	120
Intersections	Broad/Tank Farm	Broad/Orcutt		Analysis Period	1> 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Broad Street: Tank Farm to Orcutt)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
2	45	45	2	2	5170	5170	50	50	0	0	100	0	0.0	0.0

Segment Output Data		Northbound			Southbound		
		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	46.28			46.75		
2	Running Time, s	78.87			78.32		
2	Running Speed, mph	44.70			45.01		
2	Through Delay, s/veh	6.19			25.85		
2	Travel Time, s	85.06			104.17		
2	Travel Speed, mph	41.44			33.84		
2	Stop Rate, stops/veh	0.23			0.61		
2	Spatial Stop Rate, stops/mi	0.23			0.63		
2	Through vol/cap Ratio	0.32			0.48		
2	Percent of Base FFS	89.55			72.38		
2	Level of Service	A			B		
2	Auto Traveler Perception Score	2.17			2.23		

Multimodal Results (Segment)

2	Pedestrian Segment LOS Score / LOS	3.30	C	F
2	Bicycle Segment LOS Score / LOS			
2	Transit Segment LOS Score / LOS			

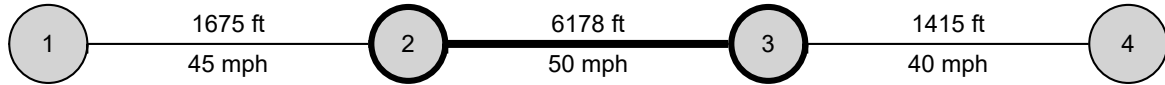
Facility Output Data		Northbound		Southbound	
Facility Travel Time, s		170.61		167.64	
Facility Travel Speed, mph		36.79		37.44	
Facility Base Free Flow Speed, mph		46.48		46.54	
Facility Percent of Base FFS		79.14		80.44	
Facility Level of Service		B		A	
Facility Auto Traveler Perception Score		2.21		2.19	

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS			
Bicycle Facility LOS Score / LOS			
Transit Facility LOS Score / LOS			

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	5
Analyst	CCTC	Analysis Date	Oct 7, 2020	Number of Segments	4
Jurisdiction				Number of Iterations	15
File Name	EX PM Tank Farm.xus	Analysis Year	Existing	System Cycle Length, s	120
Intersections	Tank Farm/Old Windmill	Tank Farm/Santa Fe			
Project Description	600 Tank Farm Road				



Basic Segment Information (Tank Farm Road: Old Windmill to Santa Fe)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
2	50	50	1	1	6178	6178	50	50	0	0	0	0	0.0	0.0

Segment Output Data		Eastbound			Westbound		
		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	49.10			49.10		
2	Running Time, s	87.64			89.46		
2	Running Speed, mph	48.06			47.09		
2	Through Delay, s/veh	4.97			7.13		
2	Travel Time, s	92.61			96.59		
2	Travel Speed, mph	45.48			43.61		
2	Stop Rate, stops/veh	0.15			0.23		
2	Spatial Stop Rate, stops/mi	0.13			0.20		
2	Through vol/cap Ratio	0.53			0.67		
2	Percent of Base FFS	92.63			88.82		
2	Level of Service	A			A		
2	Auto Traveler Perception Score	2.36			2.17		

Multimodal Results (Segment)

2	Pedestrian Segment LOS Score / LOS		F		F
2	Bicycle Segment LOS Score / LOS				
2	Transit Segment LOS Score / LOS				

Facility Output Data		Eastbound		Westbound	
Facility Travel Time, s		224.76		242.00	
Facility Travel Speed, mph		37.56		34.88	
Facility Base Free Flow Speed, mph		46.71		46.77	
Facility Percent of Base FFS		80.41		74.59	
Facility Level of Service		A		B	
Facility Auto Traveler Perception Score		2.34		2.27	

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS				
Transit Facility LOS Score / LOS				

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	5
Analyst	CCTC	Analysis Date	Oct 7, 2020	Number of Segments	4
Jurisdiction				Number of Iterations	15
File Name	EX PM Tank Farm.xus	Analysis Year	Existing	System Cycle Length, s	120
Intersections	Tank Farm/Santa Fe	Tank Farm/Broad		Analysis Period	1> 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Tank Farm Road: Santa Fe to Broad)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
3	40	40	2	1	1415	1415	50	50	0	0	100	0	0.0	0.0

Segment Output Data		Eastbound			Westbound		
		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement		2	12	1	6	
3	Bay/Lane Spillback Time, h						
3	Shared Lane Spillback Time, h						
3	Base Free-Flow Speed, mph		43.93		44.40		
3	Running Time, s		25.12		26.14		
3	Running Speed, mph		38.40		36.91		
3	Through Delay, s/veh		28.17		1.99		
3	Travel Time, s		53.29		28.13		
3	Travel Speed, mph		18.10		34.30		
3	Stop Rate, stops/veh		0.65		0.04		
3	Spatial Stop Rate, stops/mi		2.42		0.14		
3	Through vol/cap Ratio		0.25		0.72		
3	Percent of Base FFS		41.21		77.24		
3	Level of Service		D		B		
3	Auto Traveler Perception Score		2.52		2.16		

Multimodal Results (Segment)

3	Pedestrian Segment LOS Score / LOS	3.52	D	F
3	Bicycle Segment LOS Score / LOS			
3	Transit Segment LOS Score / LOS			

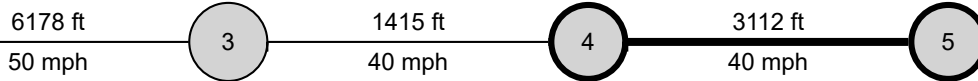
Facility Output Data		Eastbound	Westbound
Facility Travel Time, s		224.76	242.00
Facility Travel Speed, mph		37.56	34.88
Facility Base Free Flow Speed, mph		46.71	46.77
Facility Percent of Base FFS		80.41	74.59
Facility Level of Service		A	B
Facility Auto Traveler Perception Score		2.34	2.27

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS			
Bicycle Facility LOS Score / LOS			
Transit Facility LOS Score / LOS			

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	5
Analyst	CCTC	Analysis Date	Oct 7, 2020	Number of Segments	4
Jurisdiction				Number of Iterations	15
File Name	EX PM Tank Farm.xus	Analysis Year	Existing	System Cycle Length, s	120
Intersections	Tank Farm/Broad	Tank Farm/Righetti Ranch			
Project Description	600 Tank Farm Road				



Basic Segment Information (Tank Farm Road: Broad to Righetti Ranch)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
4	40	40	2	2	3112	3112	50	50	0	0	100	100	0.0	0.0

Segment Output Data		Eastbound			Westbound		
		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
4	Bay/Lane Spillback Time, h						
4	Shared Lane Spillback Time, h						
4	Base Free-Flow Speed, mph	43.93			43.93		
4	Running Time, s	50.56			50.30		
4	Running Speed, mph	41.96			42.18		
4	Through Delay, s/veh	1.44			24.41		
4	Travel Time, s	52.00			74.71		
4	Travel Speed, mph	40.80			28.40		
4	Stop Rate, stops/veh	0.01			0.56		
4	Spatial Stop Rate, stops/mi	0.01			0.96		
4	Through vol/cap Ratio	0.22			0.25		
4	Percent of Base FFS	92.88			64.65		
4	Level of Service	A			C		
4	Auto Traveler Perception Score	2.35			2.50		

Multimodal Results (Segment)

4	Pedestrian Segment LOS Score / LOS	3.10	C	3.15	C
4	Bicycle Segment LOS Score / LOS				
4	Transit Segment LOS Score / LOS				

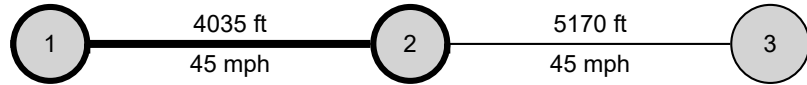
Facility Output Data		Eastbound	Westbound
Facility Travel Time, s		224.76	242.00
Facility Travel Speed, mph		37.56	34.88
Facility Base Free Flow Speed, mph		46.71	46.77
Facility Percent of Base FFS		80.41	74.59
Facility Level of Service		A	B
Facility Auto Traveler Perception Score		2.34	2.27

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS			
Bicycle Facility LOS Score / LOS			
Transit Facility LOS Score / LOS			

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	3
Analyst	CCTC	Analysis Date	Oct 12, 2020	Number of Segments	2
Jurisdiction		Time Period	PM Peak	Number of Iterations	15
File Name	EX PM Broad.xus	Analysis Year	Existing	System Cycle Length, s	120
Intersections	Broad/Farmhouse	Broad/Tank Farm		Analysis Period	1> 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Broad Street: Farmhouse to Tank Farm)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
1	45	45	2	2	4035	4035	50	50	0	0	0	100	0.0	0.0

Segment Output Data		Northbound			Southbound		
		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement		2	12	1	6	
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph		46.75		46.28		
1	Running Time, s		60.79		62.25		
1	Running Speed, mph		45.25		44.20		
1	Through Delay, s/veh		24.25		2.64		
1	Travel Time, s		85.05		64.89		
1	Travel Speed, mph		32.35		42.40		
1	Stop Rate, stops/veh		0.57		0.02		
1	Spatial Stop Rate, stops/mi		0.74		0.02		
1	Through vol/cap Ratio		0.29		0.35		
1	Percent of Base FFS		69.20		91.61		
1	Level of Service		B		A		
1	Auto Traveler Perception Score		2.25		2.14		

Multimodal Results (Segment)

1	Pedestrian Segment LOS Score / LOS		F	3.51	D
1	Bicycle Segment LOS Score / LOS				
1	Transit Segment LOS Score / LOS				

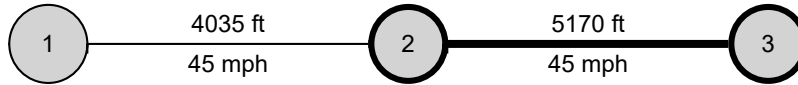
Facility Output Data		Northbound		Southbound	
		Facility Travel Time, s	173.27	171.10	
Facility Travel Speed, mph	36.22	36.68			
Facility Base Free Flow Speed, mph	46.48	46.54			
Facility Percent of Base FFS	77.92	78.81			
Facility Level of Service	B	B			
Facility Auto Traveler Perception Score	2.21	2.20			

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS			
Bicycle Facility LOS Score / LOS			
Transit Facility LOS Score / LOS			

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	3
Analyst	CCTC	Analysis Date	Oct 12, 2020	Number of Segments	2
Jurisdiction		Time Period	PM Peak	Number of Iterations	15
File Name	EX PM Broad.xus	Analysis Year	Existing	System Cycle Length, s	120
Intersections	Broad/Tank Farm	Broad/Orcutt		Analysis Period	1> 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Broad Street: Tank Farm to Orcutt)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
2	45	45	2	2	5170	5170	50	50	0	0	100	0	0.0	0.0

Segment Output Data		Northbound			Southbound		
		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	46.28			46.75		
2	Running Time, s	78.53			78.71		
2	Running Speed, mph	44.89			44.78		
2	Through Delay, s/veh	9.70			27.51		
2	Travel Time, s	88.23			106.22		
2	Travel Speed, mph	39.95			33.19		
2	Stop Rate, stops/veh	0.26			0.69		
2	Spatial Stop Rate, stops/mi	0.26			0.71		
2	Through vol/cap Ratio	0.38			0.40		
2	Percent of Base FFS	86.33			70.99		
2	Level of Service	A			B		
2	Auto Traveler Perception Score	2.18			2.25		

Multimodal Results (Segment)

2	Pedestrian Segment LOS Score / LOS	3.39	C	F
2	Bicycle Segment LOS Score / LOS			
2	Transit Segment LOS Score / LOS			

Facility Output Data		Northbound		Southbound	
		Facility Travel Time, s	173.27	171.10	
Facility Travel Speed, mph	36.22	36.68			
Facility Base Free Flow Speed, mph	46.48	46.54			
Facility Percent of Base FFS	77.92	78.81			
Facility Level of Service	B	B			
Facility Auto Traveler Perception Score	2.21	2.20			

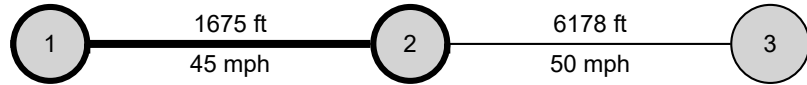
Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS			
Bicycle Facility LOS Score / LOS			
Transit Facility LOS Score / LOS			

Existing Plus Project

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	5
Analyst	CCTC	Analysis Date	Oct 7, 2020	Number of Segments	4
Jurisdiction				Number of Iterations	15
File Name	EX+AltB AM Tank Farm.xus	Analysis Year	Existing+AltB	System Cycle Length, s	120
Intersections	Tank Farm/S. Higuera	Tank Farm/Old Windmill		Analysis Period	1> 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Tank Farm Road: S. Higuera to Old Windmill)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
1	45	45	2	2	1675	1675	50	50	0	0	100	100	0.0	0.0

Segment Output Data		Eastbound			Westbound		
		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h	never			never		
1	Base Free-Flow Speed, mph	46.28			46.28		
1	Running Time, s	26.84			26.71		
1	Running Speed, mph	42.56			42.75		
1	Through Delay, s/veh	0.06			17.09		
1	Travel Time, s	26.89			43.80		
1	Travel Speed, mph	42.47			26.08		
1	Stop Rate, stops/veh	0.00			0.44		
1	Spatial Stop Rate, stops/mi	0.00			1.40		
1	Through vol/cap Ratio	0.24			0.00		
1	Percent of Base FFS	91.77			56.34		
1	Level of Service	A			C		
1	Auto Traveler Perception Score	2.14			2.35		

Multimodal Results (Segment)

1	Pedestrian Segment LOS Score / LOS	3.14	C	3.27	C
1	Bicycle Segment LOS Score / LOS				
1	Transit Segment LOS Score / LOS				

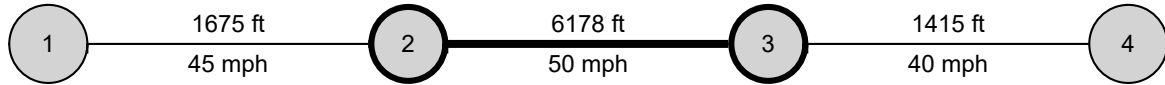
Facility Output Data		Eastbound	Westbound
Facility Travel Time, s		216.50	230.00
Facility Travel Speed, mph		38.99	36.70
Facility Base Free Flow Speed, mph		46.71	46.77
Facility Percent of Base FFS		83.48	78.48
Facility Level of Service		A	B
Facility Auto Traveler Perception Score		2.33	2.25

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS			
Bicycle Facility LOS Score / LOS			
Transit Facility LOS Score / LOS			

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	5
Analyst	CCTC	Analysis Date	Oct 7, 2020	Number of Segments	4
Jurisdiction				Number of Iterations	15
File Name	EX+AltB AM Tank Farm.xus	Analysis Year	Existing+AltB	System Cycle Length, s	120
Intersections	Tank Farm/Old Windmill	Tank Farm/Santa Fe			
Project Description	600 Tank Farm Road				



Basic Segment Information (Tank Farm Road: Old Windmill to Santa Fe)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
2	50	50	1	1	6178	6178	50	50	0	0	0	0	0.0	0.0

Segment Output Data		Eastbound			Westbound		
		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h		never			never	
2	Shared Lane Spillback Time, h				never		
2	Base Free-Flow Speed, mph	49.10			49.10		
2	Running Time, s	87.66			87.41		
2	Running Speed, mph	48.05			48.19		
2	Through Delay, s/veh	2.47			2.12		
2	Travel Time, s	90.14			89.53		
2	Travel Speed, mph	46.73			47.05		
2	Stop Rate, stops/veh	0.02			0.03		
2	Spatial Stop Rate, stops/mi	0.02			0.03		
2	Through vol/cap Ratio	0.48			0.38		
2	Percent of Base FFS	95.18			95.82		
2	Level of Service	A			A		
2	Auto Traveler Perception Score	2.35			2.14		

Multimodal Results (Segment)

2	Pedestrian Segment LOS Score / LOS		F		F
2	Bicycle Segment LOS Score / LOS				
2	Transit Segment LOS Score / LOS				

Facility Output Data		Eastbound		Westbound	
Facility Travel Time, s		216.50		230.00	
Facility Travel Speed, mph		38.99		36.70	
Facility Base Free Flow Speed, mph		46.71		46.77	
Facility Percent of Base FFS		83.48		78.48	
Facility Level of Service		A		B	
Facility Auto Traveler Perception Score		2.33		2.25	

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS				
Transit Facility LOS Score / LOS				

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	5
Analyst	CCTC	Analysis Date	Oct 7, 2020	Number of Segments	4
Jurisdiction				Number of Iterations	15
File Name	EX+AltB AM Tank Farm.xus	Analysis Year	Existing+AltB	System Cycle Length, s	120
Intersections	Tank Farm/Santa Fe	Tank Farm/Broad		Analysis Period	1> 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Tank Farm Road: Santa Fe to Broad)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
3	40	40	2	1	1415	1415	50	50	0	0	100	0	0.0	0.0

Segment Output Data		Eastbound			Westbound		
		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement		2	12	1	6	
3	Bay/Lane Spillback Time, h		never			never	
3	Shared Lane Spillback Time, h	never		never	never		
3	Base Free-Flow Speed, mph		43.93			44.40	
3	Running Time, s		25.02			25.48	
3	Running Speed, mph		38.55			37.86	
3	Through Delay, s/veh		23.69			0.94	
3	Travel Time, s		48.71			26.43	
3	Travel Speed, mph		19.81			36.51	
3	Stop Rate, stops/veh		0.56			0.02	
3	Spatial Stop Rate, stops/mi		2.08			0.06	
3	Through vol/cap Ratio		0.11			0.44	
3	Percent of Base FFS		45.08			82.23	
3	Level of Service		D			A	
3	Auto Traveler Perception Score		2.46			2.15	

Multimodal Results (Segment)

3	Pedestrian Segment LOS Score / LOS	3.38	C	F
3	Bicycle Segment LOS Score / LOS			
3	Transit Segment LOS Score / LOS			

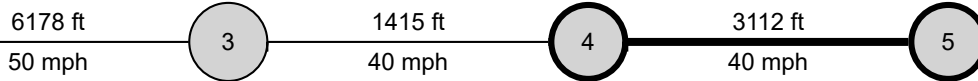
Facility Output Data		Eastbound	Westbound
Facility Travel Time, s		216.50	230.00
Facility Travel Speed, mph		38.99	36.70
Facility Base Free Flow Speed, mph		46.71	46.77
Facility Percent of Base FFS		83.48	78.48
Facility Level of Service		A	B
Facility Auto Traveler Perception Score		2.33	2.25

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS			
Bicycle Facility LOS Score / LOS			
Transit Facility LOS Score / LOS			

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	5
Analyst	CCTC	Analysis Date	Oct 7, 2020	Number of Segments	4
Jurisdiction				Number of Iterations	15
File Name	EX+AltB AM Tank Farm.xus	Analysis Year	Existing+AltB	System Cycle Length, s	120
Intersections	Tank Farm/Broad	Tank Farm/Righetti Ranch		Analysis Period	1> 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Tank Farm Road: Broad to Righetti Ranch)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
4	40	40	2	2	3112	3112	50	50	0	0	100	100	0.0	0.0

Segment Output Data		Eastbound			Westbound		
		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
4	Bay/Lane Spillback Time, h		never			never	
4	Shared Lane Spillback Time, h				never		
4	Base Free-Flow Speed, mph	43.93			43.93		
4	Running Time, s	50.04			50.45		
4	Running Speed, mph	42.40			42.06		
4	Through Delay, s/veh	0.72			19.80		
4	Travel Time, s	50.76			70.25		
4	Travel Speed, mph	41.80			30.21		
4	Stop Rate, stops/veh	0.01			0.50		
4	Spatial Stop Rate, stops/mi	0.01			0.85		
4	Through vol/cap Ratio	0.10			0.26		
4	Percent of Base FFS	95.16			68.76		
4	Level of Service	A			B		
4	Auto Traveler Perception Score	2.35			2.48		

Multimodal Results (Segment)

4	Pedestrian Segment LOS Score / LOS	2.65	B	3.26	C
4	Bicycle Segment LOS Score / LOS				
4	Transit Segment LOS Score / LOS				

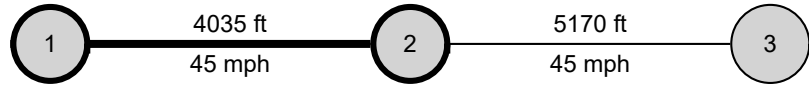
Facility Output Data		Eastbound		Westbound	
Facility Travel Time, s		216.50		230.00	
Facility Travel Speed, mph		38.99		36.70	
Facility Base Free Flow Speed, mph		46.71		46.77	
Facility Percent of Base FFS		83.48		78.48	
Facility Level of Service		A		B	
Facility Auto Traveler Perception Score		2.33		2.25	

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS				
Transit Facility LOS Score / LOS				

HCS7 Urban Street Segment Report

General Information				Streets Information		
Agency				Number of Intersections	3	
Analyst	CCTC	Analysis Date	Oct 12, 2020	Number of Segments	2	
Jurisdiction			Time Period	AM Peak	Number of Iterations	15
File Name	EX+AltB AM Broad.xus	Analysis Year	Existing+AltB	System Cycle Length, s	120	
Intersections	Broad/Farmhouse	Broad/Tank Farm		Analysis Period	1 > 7:00	
Project Description	600 Tank Farm Road					



Basic Segment Information (Broad Street: Farmhouse to Tank Farm)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
1	45	45	2	2	4035	4035	50	50	0	0	0	100	0.0	0.0

Segment Output Data		Northbound			Southbound		
		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h	never			never		
1	Base Free-Flow Speed, mph		46.75			46.28	
1	Running Time, s		61.46			62.55	
1	Running Speed, mph		44.76			43.98	
1	Through Delay, s/veh		24.07			0.91	
1	Travel Time, s		85.53			63.47	
1	Travel Speed, mph		32.16			43.35	
1	Stop Rate, stops/veh		0.59			0.00	
1	Spatial Stop Rate, stops/mi		0.77			0.01	
1	Through vol/cap Ratio		0.47			0.37	
1	Percent of Base FFS		68.80			93.67	
1	Level of Service		B			A	
1	Auto Traveler Perception Score		2.25			2.14	

Multimodal Results (Segment)

1	Pedestrian Segment LOS Score / LOS		F	3.59	D
1	Bicycle Segment LOS Score / LOS				
1	Transit Segment LOS Score / LOS				

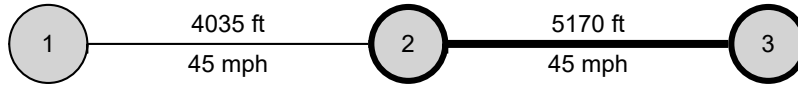
Facility Output Data		Northbound		Southbound	
Facility Travel Time, s		170.56		167.40	
Facility Travel Speed, mph		36.80		37.49	
Facility Base Free Flow Speed, mph		46.48		46.54	
Facility Percent of Base FFS		79.16		80.55	
Facility Level of Service		B		A	
Facility Auto Traveler Perception Score		2.21		2.19	

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS				
Transit Facility LOS Score / LOS				

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	3
Analyst	CCTC	Analysis Date	Oct 12, 2020	Number of Segments	2
Jurisdiction		Time Period	AM Peak	Number of Iterations	15
File Name	EX+AltB AM Broad.xus	Analysis Year	Existing+AltB	System Cycle Length, s	120
Intersections	Broad/Tank Farm	Broad/Orcutt		Analysis Period	1> 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Broad Street: Tank Farm to Orcutt)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
2	45	45	2	2	5170	5170	50	50	0	0	100	0	0.0	0.0

Segment Output Data		Northbound			Southbound		
		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h		never			never	
2	Shared Lane Spillback Time, h	never		never	never		never
2	Base Free-Flow Speed, mph	46.28			46.75		
2	Running Time, s	78.92			78.35		
2	Running Speed, mph	44.67			44.99		
2	Through Delay, s/veh	6.11			25.59		
2	Travel Time, s	85.03			103.94		
2	Travel Speed, mph	41.46			33.91		
2	Stop Rate, stops/veh	0.22			0.60		
2	Spatial Stop Rate, stops/mi	0.23			0.62		
2	Through vol/cap Ratio	0.33			0.48		
2	Percent of Base FFS	89.58			72.54		
2	Level of Service	A			B		
2	Auto Traveler Perception Score	2.17			2.23		

Multimodal Results (Segment)

2	Pedestrian Segment LOS Score / LOS	3.34	C	F
2	Bicycle Segment LOS Score / LOS			
2	Transit Segment LOS Score / LOS			

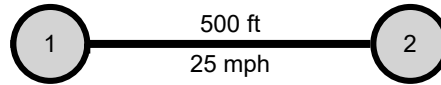
Facility Output Data		Northbound		Southbound	
		Facility Travel Time, s	170.56	167.40	
Facility Travel Speed, mph	36.80	37.49			
Facility Base Free Flow Speed, mph	46.48	46.54			
Facility Percent of Base FFS	79.16	80.55			
Facility Level of Service	B	A			
Facility Auto Traveler Perception Score	2.21	2.19			

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS			
Bicycle Facility LOS Score / LOS			
Transit Facility LOS Score / LOS			

HCS7 Urban Street Segment Report

General Information				Streets Information		
Agency				Number of Intersections	2	
Analyst	CCTC	Analysis Date	Oct 12, 2020	Number of Segments	1	
Jurisdiction			Time Period	AM Peak	Number of Iterations	15
File Name	EX+AltB AM Santa Fe.xus	Analysis Year	Existing+AltB	System Cycle Length, s	120	
Intersections	Santa Fe/Tank Farm	Santa Fe/north of Tank Farm		Analysis Period	1> 7:00	
Project Description	600 Tank Farm Road					



Basic Segment Information (Santa Fe Road: north of Tank Farm)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
1	25	25	1	1	500	500	50	50	0	0	100	0	0.0	0.0

Segment Output Data		Northbound			Southbound		
		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h	never			never		
1	Base Free-Flow Speed, mph	36.88			37.35		
1	Running Time, s	14.01			13.94		
1	Running Speed, mph	24.33			24.45		
1	Through Delay, s/veh	0.01			0.00		
1	Travel Time, s	14.02			13.94		
1	Travel Speed, mph	24.32			24.45		
1	Stop Rate, stops/veh	0.00			0.00		
1	Spatial Stop Rate, stops/mi	0.04			0.00		
1	Through vol/cap Ratio	0.02			0.00		
1	Percent of Base FFS	65.95			65.47		
1	Level of Service	C			C		
1	Auto Traveler Perception Score	2.35			2.34		

Multimodal Results (Segment)

1	Pedestrian Segment LOS Score / LOS	2.15	B	F
1	Bicycle Segment LOS Score / LOS			
1	Transit Segment LOS Score / LOS			

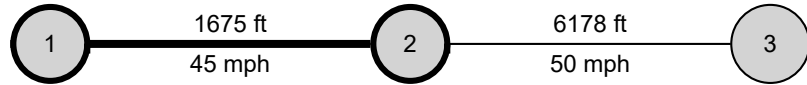
Facility Output Data		Northbound		Southbound	
Facility Travel Time, s		14.02		13.94	
Facility Travel Speed, mph		24.32		24.45	
Facility Base Free Flow Speed, mph		36.88		37.35	
Facility Percent of Base FFS		65.95		65.47	
Facility Level of Service		C		C	
Facility Auto Traveler Perception Score		2.35		2.34	

Multimodal Results (Facility)

1	Pedestrian Facility LOS Score / LOS	2.15	B	
1	Bicycle Facility LOS Score / LOS			
1	Transit Facility LOS Score / LOS			

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	5
Analyst	CCTC	Analysis Date	Oct 7, 2020	Number of Segments	4
Jurisdiction				Number of Iterations	15
File Name	EX+AltB PM Tank Farm.xus	Analysis Year	Existing+AltB	System Cycle Length, s	120
Intersections	Tank Farm/S. Higuera	Tank Farm/Old Windmill		Analysis Period	1> 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Tank Farm Road: S. Higuera to Old Windmill)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
1	45	45	2	2	1675	1675	50	50	0	0	100	100	0.0	0.0

Segment Output Data		Eastbound			Westbound		
		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h	never			never		
1	Base Free-Flow Speed, mph	46.28			46.28		
1	Running Time, s	26.76			27.02		
1	Running Speed, mph	42.68			42.27		
1	Through Delay, s/veh	0.09			15.46		
1	Travel Time, s	26.85			42.48		
1	Travel Speed, mph	42.54			26.88		
1	Stop Rate, stops/veh	0.00			0.42		
1	Spatial Stop Rate, stops/mi	0.01			1.32		
1	Through vol/cap Ratio	0.21			0.01		
1	Percent of Base FFS	91.92			58.09		
1	Level of Service	A			C		
1	Auto Traveler Perception Score	2.14			2.34		

Multimodal Results (Segment)

1	Pedestrian Segment LOS Score / LOS	3.06	C	3.70	D
1	Bicycle Segment LOS Score / LOS				
1	Transit Segment LOS Score / LOS				

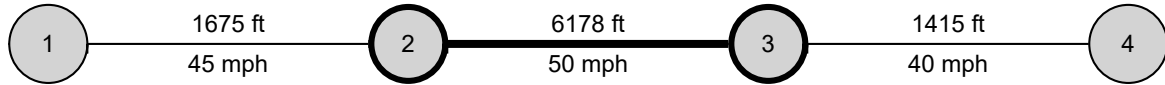
Facility Output Data		Eastbound	Westbound
Facility Travel Time, s		224.78	242.93
Facility Travel Speed, mph		37.55	34.75
Facility Base Free Flow Speed, mph		46.71	46.77
Facility Percent of Base FFS		80.40	74.30
Facility Level of Service		A	B
Facility Auto Traveler Perception Score		2.34	2.27

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS			
Bicycle Facility LOS Score / LOS			
Transit Facility LOS Score / LOS			

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	5
Analyst	CCTC	Analysis Date	Oct 7, 2020	Number of Segments	4
Jurisdiction				Number of Iterations	15
File Name	EX+AltB PM Tank Farm.xus	Analysis Year	Existing+AltB	System Cycle Length, s	120
Intersections	Tank Farm/Old Windmill	Tank Farm/Santa Fe			
Project Description	600 Tank Farm Road				



Basic Segment Information (Tank Farm Road: Old Windmill to Santa Fe)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
2	50	50	1	1	6178	6178	50	50	0	0	0	0	0.0	0.0

Segment Output Data		Eastbound			Westbound		
		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h		never			never	
2	Shared Lane Spillback Time, h				never		
2	Base Free-Flow Speed, mph	49.10			49.10		
2	Running Time, s	87.68			89.55		
2	Running Speed, mph	48.04			47.04		
2	Through Delay, s/veh	5.02			7.62		
2	Travel Time, s	92.70			97.16		
2	Travel Speed, mph	45.44			43.35		
2	Stop Rate, stops/veh	0.15			0.26		
2	Spatial Stop Rate, stops/mi	0.13			0.22		
2	Through vol/cap Ratio	0.53			0.68		
2	Percent of Base FFS	92.54			88.29		
2	Level of Service	A			A		
2	Auto Traveler Perception Score	2.36			2.17		

Multimodal Results (Segment)

2	Pedestrian Segment LOS Score / LOS		F		F
2	Bicycle Segment LOS Score / LOS				
2	Transit Segment LOS Score / LOS				

Facility Output Data		Eastbound	Westbound
Facility Travel Time, s		224.78	242.93
Facility Travel Speed, mph		37.55	34.75
Facility Base Free Flow Speed, mph		46.71	46.77
Facility Percent of Base FFS		80.40	74.30
Facility Level of Service		A	B
Facility Auto Traveler Perception Score		2.34	2.27

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS			
Bicycle Facility LOS Score / LOS			
Transit Facility LOS Score / LOS			

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	5
Analyst	CCTC	Analysis Date	Oct 7, 2020	Number of Segments	4
Jurisdiction				Number of Iterations	15
File Name	EX+AltB PM Tank Farm.xus	Analysis Year	Existing+AltB	System Cycle Length, s	120
Intersections	Tank Farm/Santa Fe	Tank Farm/Broad		Analysis Period	1> 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Tank Farm Road: Santa Fe to Broad)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
3	40	40	2	1	1415	1415	50	50	0	0	100	0	0.0	0.0

Segment Output Data		Eastbound			Westbound		
		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement		2	12	1	6	
3	Bay/Lane Spillback Time, h		never			never	
3	Shared Lane Spillback Time, h	never		never	never		
3	Base Free-Flow Speed, mph		43.93			44.40	
3	Running Time, s		25.13			26.16	
3	Running Speed, mph		38.40			36.88	
3	Through Delay, s/veh		28.11			1.88	
3	Travel Time, s		53.24			28.05	
3	Travel Speed, mph		18.12			34.40	
3	Stop Rate, stops/veh		0.65			0.04	
3	Spatial Stop Rate, stops/mi		2.42			0.13	
3	Through vol/cap Ratio		0.25			0.73	
3	Percent of Base FFS		41.25			77.48	
3	Level of Service		D			B	
3	Auto Traveler Perception Score		2.51			2.16	

Multimodal Results (Segment)

3	Pedestrian Segment LOS Score / LOS	3.52	D	F
3	Bicycle Segment LOS Score / LOS			
3	Transit Segment LOS Score / LOS			

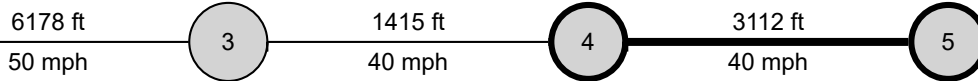
Facility Output Data		Eastbound		Westbound	
Facility Travel Time, s		224.78		242.93	
Facility Travel Speed, mph		37.55		34.75	
Facility Base Free Flow Speed, mph		46.71		46.77	
Facility Percent of Base FFS		80.40		74.30	
Facility Level of Service		A		B	
Facility Auto Traveler Perception Score		2.34		2.27	

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS			
Bicycle Facility LOS Score / LOS			
Transit Facility LOS Score / LOS			

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	5
Analyst	CCTC	Analysis Date	Oct 7, 2020	Number of Segments	4
Jurisdiction				Number of Iterations	15
File Name	EX+AltB PM Tank Farm.xus	Analysis Year	Existing+AltB	System Cycle Length, s	120
Intersections	Tank Farm/Broad	Tank Farm/Righetti Ranch		Analysis Period	1> 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Tank Farm Road: Broad to Righetti Ranch)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
4	40	40	2	2	3112	3112	50	50	0	0	100	100	0.0	0.0

Segment Output Data		Eastbound			Westbound		
		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
4	Bay/Lane Spillback Time, h		never			never	
4	Shared Lane Spillback Time, h				never		
4	Base Free-Flow Speed, mph	43.93			43.93		
4	Running Time, s	50.56			50.31		
4	Running Speed, mph	41.97			42.18		
4	Through Delay, s/veh	1.44			24.93		
4	Travel Time, s	51.99			75.24		
4	Travel Speed, mph	40.81			28.20		
4	Stop Rate, stops/veh	0.01			0.57		
4	Spatial Stop Rate, stops/mi	0.01			0.98		
4	Through vol/cap Ratio	0.22			0.26		
4	Percent of Base FFS	92.89			64.19		
4	Level of Service	A			C		
4	Auto Traveler Perception Score	2.35			2.50		

Multimodal Results (Segment)

4	Pedestrian Segment LOS Score / LOS	3.09	C	3.15	C
4	Bicycle Segment LOS Score / LOS				
4	Transit Segment LOS Score / LOS				

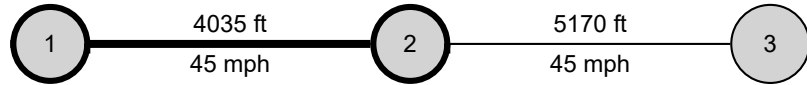
Facility Output Data		Eastbound		Westbound	
		Facility Travel Time, s	224.78	242.93	
Facility Travel Speed, mph	37.55	34.75			
Facility Base Free Flow Speed, mph	46.71	46.77			
Facility Percent of Base FFS	80.40	74.30			
Facility Level of Service	A	B			
Facility Auto Traveler Perception Score	2.34	2.27			

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS			
Bicycle Facility LOS Score / LOS			
Transit Facility LOS Score / LOS			

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	3
Analyst	CCTC	Analysis Date	Oct 12, 2020	Number of Segments	2
Jurisdiction				Number of Iterations	15
File Name	EX+AltB PM Broad.xus	Analysis Year	Existing+AltB	System Cycle Length, s	120
Intersections	Broad/Farmhouse	Broad/Tank Farm		Analysis Period	1> 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Broad Street: Farmhouse to Tank Farm)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
1	45	45	2	2	4035	4035	50	50	0	0	0	100	0.0	0.0

Segment Output Data		Northbound			Southbound		
		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h	never			never		
1	Base Free-Flow Speed, mph	46.75			46.28		
1	Running Time, s	60.80			62.25		
1	Running Speed, mph	45.25			44.19		
1	Through Delay, s/veh	24.66			2.64		
1	Travel Time, s	85.46			64.90		
1	Travel Speed, mph	32.19			42.39		
1	Stop Rate, stops/veh	0.58			0.02		
1	Spatial Stop Rate, stops/mi	0.76			0.02		
1	Through vol/cap Ratio	0.29			0.35		
1	Percent of Base FFS	68.86			91.60		
1	Level of Service	B			A		
1	Auto Traveler Perception Score	2.25			2.14		

Multimodal Results (Segment)

1	Pedestrian Segment LOS Score / LOS		F	3.50	D
1	Bicycle Segment LOS Score / LOS				
1	Transit Segment LOS Score / LOS				

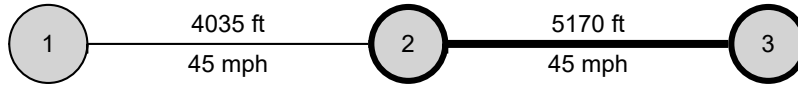
Facility Output Data		Northbound		Southbound	
Facility Travel Time, s		173.12		171.23	
Facility Travel Speed, mph		36.25		36.65	
Facility Base Free Flow Speed, mph		46.48		46.54	
Facility Percent of Base FFS		77.99		78.75	
Facility Level of Service		B		B	
Facility Auto Traveler Perception Score		2.21		2.20	

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS				
Transit Facility LOS Score / LOS				

HCS7 Urban Street Segment Report

General Information				Streets Information		
Agency				Number of Intersections	3	
Analyst	CCTC	Analysis Date	Oct 12, 2020	Number of Segments	2	
Jurisdiction			Time Period	PM Peak	Number of Iterations	15
File Name	EX+AltB PM Broad.xus	Analysis Year	Existing+AltB	System Cycle Length, s	120	
Intersections	Broad/Tank Farm	Broad/Orcutt		Analysis Period	1> 7:00	
Project Description	600 Tank Farm Road					



Basic Segment Information (Broad Street: Tank Farm to Orcutt)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
2	45	45	2	2	5170	5170	50	50	0	0	100	0	0.0	0.0

Segment Output Data		Northbound			Southbound		
		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h		never			never	
2	Shared Lane Spillback Time, h	never		never	never		never
2	Base Free-Flow Speed, mph	46.28			46.75		
2	Running Time, s	78.53			78.77		
2	Running Speed, mph	44.89			44.75		
2	Through Delay, s/veh	9.13			27.56		
2	Travel Time, s	87.66			106.33		
2	Travel Speed, mph	40.21			33.15		
2	Stop Rate, stops/veh	0.24			0.69		
2	Spatial Stop Rate, stops/mi	0.25			0.71		
2	Through vol/cap Ratio	0.38			0.40		
2	Percent of Base FFS	86.88			70.91		
2	Level of Service	A			B		
2	Auto Traveler Perception Score	2.18			2.24		

Multimodal Results (Segment)

2	Pedestrian Segment LOS Score / LOS	3.38	C	F
2	Bicycle Segment LOS Score / LOS			
2	Transit Segment LOS Score / LOS			

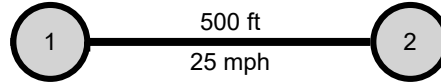
Facility Output Data		Northbound		Southbound	
Facility Travel Time, s		173.12		171.23	
Facility Travel Speed, mph		36.25		36.65	
Facility Base Free Flow Speed, mph		46.48		46.54	
Facility Percent of Base FFS		77.99		78.75	
Facility Level of Service		B		B	
Facility Auto Traveler Perception Score		2.21		2.20	

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS			
Bicycle Facility LOS Score / LOS			
Transit Facility LOS Score / LOS			

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	2
Analyst	CCTC	Analysis Date	Oct 12, 2020	Number of Segments	1
Jurisdiction				Number of Iterations	15
File Name	EX+AltB PM Santa Fe.xus	Analysis Year	Existing+AltB	System Cycle Length, s	120
Intersections	Santa Fe/Tank Farm	Santa Fe/north of Tank Farm		Analysis Period	1> 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Santa Fe Road: north of Tank Farm)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
1	25	25	1	1	500	500	50	50	0	0	100	0	0.0	0.0

Segment Output Data		Northbound			Southbound		
		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h	never			never		
1	Base Free-Flow Speed, mph	36.88			37.35		
1	Running Time, s	14.02			13.94		
1	Running Speed, mph	24.32			24.45		
1	Through Delay, s/veh	0.00			0.00		
1	Travel Time, s	14.02			13.94		
1	Travel Speed, mph	24.32			24.45		
1	Stop Rate, stops/veh	0.00			0.00		
1	Spatial Stop Rate, stops/mi	0.01			0.00		
1	Through vol/cap Ratio	0.02			0.00		
1	Percent of Base FFS	65.93			65.47		
1	Level of Service	C			C		
1	Auto Traveler Perception Score	2.35			2.34		

Multimodal Results (Segment)

1	Pedestrian Segment LOS Score / LOS	2.13	B	F
1	Bicycle Segment LOS Score / LOS			
1	Transit Segment LOS Score / LOS			

Facility Output Data		Northbound		Southbound	
		Facility Travel Time, s	14.02	13.94	
Facility Travel Speed, mph	24.32	24.45			
Facility Base Free Flow Speed, mph	36.88	37.35			
Facility Percent of Base FFS	65.93	65.47			
Facility Level of Service	C	C			
Facility Auto Traveler Perception Score	2.35	2.34			

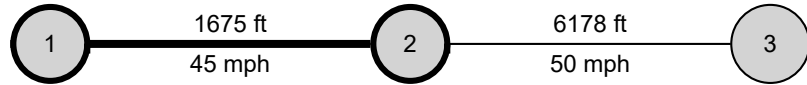
Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS	2.13	B
Bicycle Facility LOS Score / LOS		
Transit Facility LOS Score / LOS		

Near Term

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	5
Analyst	CCTC	Analysis Date	Oct 7, 2020	Number of Segments	4
Jurisdiction				Number of Iterations	15
File Name	NT AM Tank Farm.xus	Analysis Year	Near Term	System Cycle Length, s	120
Intersections	Tank Farm/S. Higuera	Tank Farm/Old Windmill		Analysis Period	1> 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Tank Farm Road: S. Higuera to Old Windmill)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
1	45	45	2	2	1675	1675	50	50	0	0	100	100	0.0	0.0

Segment Output Data		Eastbound			Westbound		
		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h	never			never		
1	Base Free-Flow Speed, mph	46.28			46.28		
1	Running Time, s	26.84			26.72		
1	Running Speed, mph	42.55			42.74		
1	Through Delay, s/veh	0.06			17.39		
1	Travel Time, s	26.90			44.11		
1	Travel Speed, mph	42.46			25.89		
1	Stop Rate, stops/veh	0.00			0.45		
1	Spatial Stop Rate, stops/mi	0.01			1.42		
1	Through vol/cap Ratio	0.24			0.01		
1	Percent of Base FFS	91.74			55.94		
1	Level of Service	A			C		
1	Auto Traveler Perception Score	2.14			2.35		

Multimodal Results (Segment)

1	Pedestrian Segment LOS Score / LOS	3.14	C	3.28	C
1	Bicycle Segment LOS Score / LOS				
1	Transit Segment LOS Score / LOS				

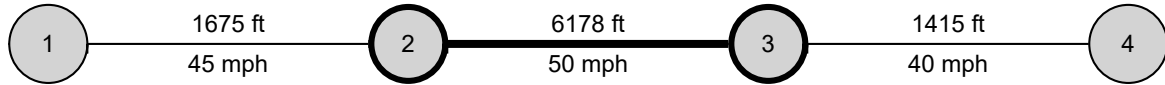
Facility Output Data		Eastbound	Westbound
Facility Travel Time, s		217.69	232.07
Facility Travel Speed, mph		38.77	36.37
Facility Base Free Flow Speed, mph		46.71	46.71
Facility Percent of Base FFS		83.02	77.88
Facility Level of Service		A	B
Facility Auto Traveler Perception Score		2.33	2.25

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS			
Bicycle Facility LOS Score / LOS			
Transit Facility LOS Score / LOS			

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	5
Analyst	CCTC	Analysis Date	Oct 7, 2020	Number of Segments	4
Jurisdiction				Number of Iterations	15
File Name	NT AM Tank Farm.xus	Analysis Year	Near Term	System Cycle Length, s	120
Intersections	Tank Farm/Old Windmill	Tank Farm/Santa Fe		Analysis Period	1 > 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Tank Farm Road: Old Windmill to Santa Fe)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
2	50	50	1	1	6178	6178	50	50	0	0	0	0	0.0	0.0

Segment Output Data		Eastbound			Westbound		
		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h		never			never	
2	Shared Lane Spillback Time, h				never		
2	Base Free-Flow Speed, mph	49.10			49.10		
2	Running Time, s	87.76			87.59		
2	Running Speed, mph	48.00			48.09		
2	Through Delay, s/veh	2.54			2.31		
2	Travel Time, s	90.30			89.91		
2	Travel Speed, mph	46.65			46.85		
2	Stop Rate, stops/veh	0.02			0.04		
2	Spatial Stop Rate, stops/mi	0.02			0.03		
2	Through vol/cap Ratio	0.50			0.42		
2	Percent of Base FFS	95.00			95.42		
2	Level of Service	A			A		
2	Auto Traveler Perception Score	2.35			2.15		

Multimodal Results (Segment)

2	Pedestrian Segment LOS Score / LOS		F		F
2	Bicycle Segment LOS Score / LOS				
2	Transit Segment LOS Score / LOS				

Facility Output Data		Eastbound		Westbound	
Facility Travel Time, s		217.69		232.07	
Facility Travel Speed, mph		38.77		36.37	
Facility Base Free Flow Speed, mph		46.71		46.71	
Facility Percent of Base FFS		83.02		77.88	
Facility Level of Service		A		B	
Facility Auto Traveler Perception Score		2.33		2.25	

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS				
Transit Facility LOS Score / LOS				

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	5
Analyst	CCTC	Analysis Date	Oct 7, 2020	Number of Segments	4
Jurisdiction				Number of Iterations	15
File Name	NT AM Tank Farm.xus	Analysis Year	Near Term	System Cycle Length, s	120
Intersections	Tank Farm/Santa Fe	Tank Farm/Broad		Analysis Period	1 > 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Tank Farm Road: Santa Fe to Broad)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
3	40	40	2	1	1415	1415	50	50	0	0	100	100	0.0	0.0

Segment Output Data		Eastbound			Westbound		
		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement		2	12	1	6	
3	Bay/Lane Spillback Time, h		never			never	
3	Shared Lane Spillback Time, h	never		never	never		
3	Base Free-Flow Speed, mph		43.93			43.93	
3	Running Time, s		25.04			25.78	
3	Running Speed, mph		38.53			37.42	
3	Through Delay, s/veh		24.39			1.04	
3	Travel Time, s		49.43			26.82	
3	Travel Speed, mph		19.52			35.97	
3	Stop Rate, stops/veh		0.56			0.02	
3	Spatial Stop Rate, stops/mi		2.10			0.07	
3	Through vol/cap Ratio		0.12			0.46	
3	Percent of Base FFS		44.43			81.88	
3	Level of Service		D			A	
3	Auto Traveler Perception Score		2.46			2.15	

Multimodal Results (Segment)

3	Pedestrian Segment LOS Score / LOS	3.40	C	3.42	C
3	Bicycle Segment LOS Score / LOS				
3	Transit Segment LOS Score / LOS				

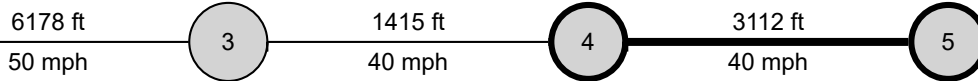
Facility Output Data		Eastbound		Westbound	
Facility Travel Time, s		217.69		232.07	
Facility Travel Speed, mph		38.77		36.37	
Facility Base Free Flow Speed, mph		46.71		46.71	
Facility Percent of Base FFS		83.02		77.88	
Facility Level of Service		A		B	
Facility Auto Traveler Perception Score		2.33		2.25	

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS				
Transit Facility LOS Score / LOS				

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	5
Analyst	CCTC	Analysis Date	Oct 7, 2020	Number of Segments	4
Jurisdiction				Number of Iterations	15
File Name	NT AM Tank Farm.xus	Analysis Year	Near Term	System Cycle Length, s	120
Intersections	Tank Farm/Broad	Tank Farm/Righetti Ranch		Analysis Period	1 > 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Tank Farm Road: Broad to Righetti Ranch)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
4	40	40	2	2	3112	3112	50	50	0	0	100	100	0.0	0.0

Segment Output Data		Eastbound			Westbound		
		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
4	Bay/Lane Spillback Time, h		never			never	
4	Shared Lane Spillback Time, h				never		
4	Base Free-Flow Speed, mph	43.93			43.93		
4	Running Time, s	50.05			50.53		
4	Running Speed, mph	42.39			41.99		
4	Through Delay, s/veh	1.01			20.70		
4	Travel Time, s	51.06			71.23		
4	Travel Speed, mph	41.56			29.79		
4	Stop Rate, stops/veh	0.01			0.52		
4	Spatial Stop Rate, stops/mi	0.01			0.88		
4	Through vol/cap Ratio	0.10			0.30		
4	Percent of Base FFS	94.60			67.81		
4	Level of Service	A			B		
4	Auto Traveler Perception Score	2.35			2.48		

Multimodal Results (Segment)

4	Pedestrian Segment LOS Score / LOS	2.65	B	3.32	C
4	Bicycle Segment LOS Score / LOS				
4	Transit Segment LOS Score / LOS				

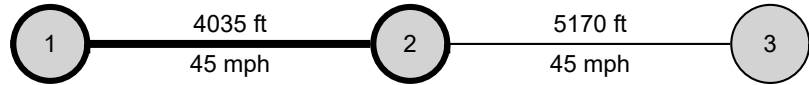
Facility Output Data		Eastbound	Westbound
Facility Travel Time, s		217.69	232.07
Facility Travel Speed, mph		38.77	36.37
Facility Base Free Flow Speed, mph		46.71	46.71
Facility Percent of Base FFS		83.02	77.88
Facility Level of Service		A	B
Facility Auto Traveler Perception Score		2.33	2.25

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS			
Bicycle Facility LOS Score / LOS			
Transit Facility LOS Score / LOS			

HCS7 Urban Street Segment Report

General Information				Streets Information		
Agency				Number of Intersections	3	
Analyst	CCTC	Analysis Date	Oct 12, 2020	Number of Segments	2	
Jurisdiction			Time Period	AM Peak	Number of Iterations	15
File Name	NT AM Broad.xus	Analysis Year	Near Term	System Cycle Length, s	120	
Intersections	Broad/Farmhouse	Broad/Tank Farm		Analysis Period	1 > 7:00	
Project Description	600 Tank Farm Road					



Basic Segment Information (Broad Street: Farmhouse to Tank Farm)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
1	45	45	2	2	4035	4035	50	50	0	0	0	100	0.0	0.0

Segment Output Data		Northbound			Southbound		
		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h	never			never		
1	Base Free-Flow Speed, mph		46.75			46.28	
1	Running Time, s		61.46			62.58	
1	Running Speed, mph		44.76			43.96	
1	Through Delay, s/veh		24.14			0.90	
1	Travel Time, s		85.60			63.48	
1	Travel Speed, mph		32.14			43.34	
1	Stop Rate, stops/veh		0.59			0.00	
1	Spatial Stop Rate, stops/mi		0.77			0.01	
1	Through vol/cap Ratio		0.48			0.38	
1	Percent of Base FFS		68.75			93.64	
1	Level of Service		B			A	
1	Auto Traveler Perception Score		2.26			2.14	

Multimodal Results (Segment)

1	Pedestrian Segment LOS Score / LOS		F	3.60	D
1	Bicycle Segment LOS Score / LOS				
1	Transit Segment LOS Score / LOS				

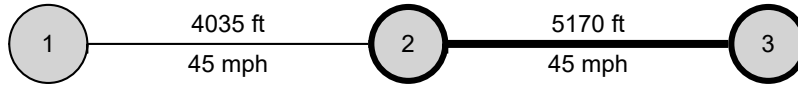
Facility Output Data		Northbound		Southbound	
Facility Travel Time, s		175.94		174.25	
Facility Travel Speed, mph		35.67		36.02	
Facility Base Free Flow Speed, mph		46.48		46.54	
Facility Percent of Base FFS		76.74		77.39	
Facility Level of Service		B		B	
Facility Auto Traveler Perception Score		2.22		2.20	

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS				
Transit Facility LOS Score / LOS				

HCS7 Urban Street Segment Report

General Information				Streets Information		
Agency				Number of Intersections	3	
Analyst	CCTC	Analysis Date	Oct 12, 2020	Number of Segments	2	
Jurisdiction			Time Period	AM Peak	Number of Iterations	15
File Name	NT AM Broad.xus	Analysis Year	Near Term	System Cycle Length, s	120	
Intersections	Broad/Tank Farm	Broad/Orcutt		Analysis Period	1> 7:00	
Project Description	600 Tank Farm Road					



Basic Segment Information (Broad Street: Tank Farm to Orcutt)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
2	45	45	2	2	5170	5170	50	50	0	0	100	0	0.0	0.0

Segment Output Data		Northbound			Southbound		
		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h		never			never	
2	Shared Lane Spillback Time, h	never		never	never		never
2	Base Free-Flow Speed, mph	46.28			46.75		
2	Running Time, s	78.97			78.40		
2	Running Speed, mph	44.64			44.96		
2	Through Delay, s/veh	11.37			32.36		
2	Travel Time, s	90.34			110.76		
2	Travel Speed, mph	39.02			31.82		
2	Stop Rate, stops/veh	0.37			0.76		
2	Spatial Stop Rate, stops/mi	0.37			0.77		
2	Through vol/cap Ratio	0.38			0.48		
2	Percent of Base FFS	84.31			68.07		
2	Level of Service	A			B		
2	Auto Traveler Perception Score	2.20			2.25		

Multimodal Results (Segment)

2	Pedestrian Segment LOS Score / LOS	3.36	C	F
2	Bicycle Segment LOS Score / LOS			
2	Transit Segment LOS Score / LOS			

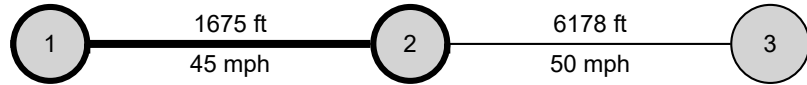
Facility Output Data		Northbound		Southbound	
Facility Travel Time, s		175.94		174.25	
Facility Travel Speed, mph		35.67		36.02	
Facility Base Free Flow Speed, mph		46.48		46.54	
Facility Percent of Base FFS		76.74		77.39	
Facility Level of Service		B		B	
Facility Auto Traveler Perception Score		2.22		2.20	

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS			
Bicycle Facility LOS Score / LOS			
Transit Facility LOS Score / LOS			

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	5
Analyst	CCTC	Analysis Date	Oct 7, 2020	Number of Segments	4
Jurisdiction				Number of Iterations	15
File Name	NT PM Tank Farm.xus	Analysis Year	Near Term	System Cycle Length, s	120
Intersections	Tank Farm/S. Higuera	Tank Farm/Old Windmill		Analysis Period	1 > 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Tank Farm Road: S. Higuera to Old Windmill)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
1	45	45	2	2	1675	1675	50	50	0	0	100	100	0.0	0.0

Segment Output Data		Eastbound			Westbound		
		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h	never			never		
1	Base Free-Flow Speed, mph	46.28			46.28		
1	Running Time, s	26.79			27.02		
1	Running Speed, mph	42.63			42.26		
1	Through Delay, s/veh	0.07			15.48		
1	Travel Time, s	26.86			42.50		
1	Travel Speed, mph	42.52			26.87		
1	Stop Rate, stops/veh	0.00			0.42		
1	Spatial Stop Rate, stops/mi	0.01			1.32		
1	Through vol/cap Ratio	0.23			0.02		
1	Percent of Base FFS	91.88			58.06		
1	Level of Service	A			C		
1	Auto Traveler Perception Score	2.14			2.34		

Multimodal Results (Segment)

1	Pedestrian Segment LOS Score / LOS	3.09	C	3.71	D
1	Bicycle Segment LOS Score / LOS				
1	Transit Segment LOS Score / LOS				

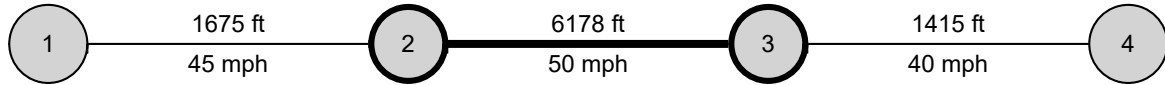
Facility Output Data		Eastbound	Westbound
Facility Travel Time, s		227.30	244.78
Facility Travel Speed, mph		37.14	34.48
Facility Base Free Flow Speed, mph		46.71	46.71
Facility Percent of Base FFS		79.51	73.83
Facility Level of Service		B	B
Facility Auto Traveler Perception Score		2.34	2.27

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS			
Bicycle Facility LOS Score / LOS			
Transit Facility LOS Score / LOS			

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	5
Analyst	CCTC	Analysis Date	Oct 7, 2020	Number of Segments	4
Jurisdiction				Number of Iterations	15
File Name	NT PM Tank Farm.xus	Analysis Year	Near Term	System Cycle Length, s	120
Intersections	Tank Farm/Old Windmill	Tank Farm/Santa Fe			
Project Description	600 Tank Farm Road				



Basic Segment Information (Tank Farm Road: Old Windmill to Santa Fe)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
2	50	50	1	1	6178	6178	50	50	0	0	0	0	0.0	0.0

Segment Output Data		Eastbound			Westbound		
		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h		never			never	
2	Shared Lane Spillback Time, h				never		
2	Base Free-Flow Speed, mph	49.10			49.10		
2	Running Time, s	88.31			89.67		
2	Running Speed, mph	47.70			46.98		
2	Through Delay, s/veh	6.12			8.33		
2	Travel Time, s	94.43			98.00		
2	Travel Speed, mph	44.61			42.98		
2	Stop Rate, stops/veh	0.17			0.28		
2	Spatial Stop Rate, stops/mi	0.15			0.24		
2	Through vol/cap Ratio	0.62			0.72		
2	Percent of Base FFS	90.85			87.54		
2	Level of Service	A			A		
2	Auto Traveler Perception Score	2.37			2.18		

Multimodal Results (Segment)

2	Pedestrian Segment LOS Score / LOS		F		F
2	Bicycle Segment LOS Score / LOS				
2	Transit Segment LOS Score / LOS				

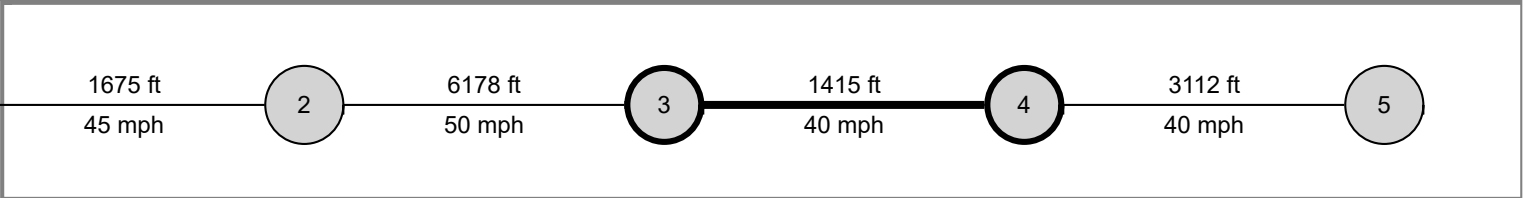
Facility Output Data		Eastbound		Westbound	
		Facility Travel Time, s	227.30	244.78	
Facility Travel Speed, mph	37.14	34.48			
Facility Base Free Flow Speed, mph	46.71	46.71			
Facility Percent of Base FFS	79.51	73.83			
Facility Level of Service	B	B			
Facility Auto Traveler Perception Score	2.34	2.27			

Multimodal Results (Facility)

Facility	Pedestrian Facility LOS Score / LOS			
Facility	Bicycle Facility LOS Score / LOS			
Facility	Transit Facility LOS Score / LOS			

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	5
Analyst	CCTC	Analysis Date	Oct 7, 2020	Number of Segments	4
Jurisdiction		Time Period	PM Peak	Number of Iterations	15
File Name	NT PM Tank Farm.xus	Analysis Year	Near Term	System Cycle Length, s	120
Intersections	Tank Farm/Santa Fe	Tank Farm/Broad		Analysis Period	1> 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Tank Farm Road: Santa Fe to Broad)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
3	40	40	2	1	1415	1415	50	50	0	0	100	100	0.0	0.0

Segment Output Data		Eastbound			Westbound		
		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement		2	12	1	6	
3	Bay/Lane Spillback Time, h		never			never	
3	Shared Lane Spillback Time, h	never		never	never		
3	Base Free-Flow Speed, mph		43.93			43.93	
3	Running Time, s		25.22			26.47	
3	Running Speed, mph		38.25			36.45	
3	Through Delay, s/veh		28.77			2.13	
3	Travel Time, s		54.00			28.60	
3	Travel Speed, mph		17.87			33.74	
3	Stop Rate, stops/veh		0.66			0.04	
3	Spatial Stop Rate, stops/mi		2.44			0.15	
3	Through vol/cap Ratio		0.30			0.75	
3	Percent of Base FFS		40.67			76.79	
3	Level of Service		D			B	
3	Auto Traveler Perception Score		2.52			2.16	

Multimodal Results (Segment)

3	Pedestrian Segment LOS Score / LOS	3.65	D	3.94	D
3	Bicycle Segment LOS Score / LOS				
3	Transit Segment LOS Score / LOS				

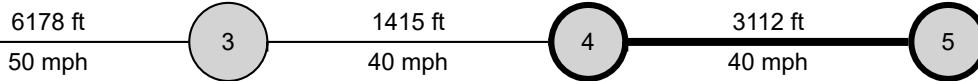
Facility Output Data		Eastbound		Westbound	
		Facility Travel Time, s	227.30		244.78
Facility Travel Speed, mph	37.14		34.48		
Facility Base Free Flow Speed, mph	46.71		46.71		
Facility Percent of Base FFS	79.51		73.83		
Facility Level of Service	B		B		
Facility Auto Traveler Perception Score	2.34		2.27		

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS				
Transit Facility LOS Score / LOS				

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	5
Analyst	CCTC	Analysis Date	Oct 7, 2020	Number of Segments	4
Jurisdiction		Time Period	PM Peak	Number of Iterations	15
File Name	NT PM Tank Farm.xus	Analysis Year	Near Term	System Cycle Length, s	120
Intersections	Tank Farm/Broad	Tank Farm/Righetti Ranch		Analysis Period	1 > 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Tank Farm Road: Broad to Righetti Ranch)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
4	40	40	2	2	3112	3112	50	50	0	0	100	100	0.0	0.0

Segment Output Data		Eastbound			Westbound		
		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
4	Bay/Lane Spillback Time, h		never			never	
4	Shared Lane Spillback Time, h				never		
4	Base Free-Flow Speed, mph	43.93			43.93		
4	Running Time, s	50.67			50.35		
4	Running Speed, mph	41.88			42.14		
4	Through Delay, s/veh	1.35			25.33		
4	Travel Time, s	52.01			75.68		
4	Travel Speed, mph	40.79			28.04		
4	Stop Rate, stops/veh	0.01			0.58		
4	Spatial Stop Rate, stops/mi	0.01			0.98		
4	Through vol/cap Ratio	0.24			0.27		
4	Percent of Base FFS	92.86			63.82		
4	Level of Service	A			C		
4	Auto Traveler Perception Score	2.35			2.50		

Multimodal Results (Segment)

4	Pedestrian Segment LOS Score / LOS	3.16	C	3.19	C
4	Bicycle Segment LOS Score / LOS				
4	Transit Segment LOS Score / LOS				

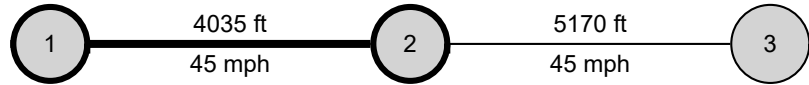
Facility Output Data		Eastbound		Westbound	
Facility Travel Time, s		227.30		244.78	
Facility Travel Speed, mph		37.14		34.48	
Facility Base Free Flow Speed, mph		46.71		46.71	
Facility Percent of Base FFS		79.51		73.83	
Facility Level of Service		B		B	
Facility Auto Traveler Perception Score		2.34		2.27	

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS					
Bicycle Facility LOS Score / LOS					
Transit Facility LOS Score / LOS					

HCS7 Urban Street Segment Report

General Information				Streets Information		
Agency				Number of Intersections	3	
Analyst	CCTC	Analysis Date	Oct 12, 2020	Number of Segments	2	
Jurisdiction			Time Period	PM Peak	Number of Iterations	15
File Name	NT PM Broad.xus	Analysis Year	Near Term	System Cycle Length, s	120	
Intersections	Broad/Farmhouse	Broad/Tank Farm		Analysis Period	1 > 7:00	
Project Description	600 Tank Farm Road					



Basic Segment Information (Broad Street: Farmhouse to Tank Farm)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
1	45	45	2	2	4035	4035	50	50	0	0	0	100	0.0	0.0

Segment Output Data		Northbound			Southbound		
		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h	never			never		
1	Base Free-Flow Speed, mph	46.75			46.28		
1	Running Time, s	60.80			62.35		
1	Running Speed, mph	45.25			44.12		
1	Through Delay, s/veh	26.23			2.09		
1	Travel Time, s	87.03			64.45		
1	Travel Speed, mph	31.61			42.69		
1	Stop Rate, stops/veh	0.60			0.01		
1	Spatial Stop Rate, stops/mi	0.78			0.02		
1	Through vol/cap Ratio	0.30			0.37		
1	Percent of Base FFS	67.61			92.24		
1	Level of Service	B			A		
1	Auto Traveler Perception Score	2.26			2.14		

Multimodal Results (Segment)

1	Pedestrian Segment LOS Score / LOS		F	3.52	D
1	Bicycle Segment LOS Score / LOS				
1	Transit Segment LOS Score / LOS				

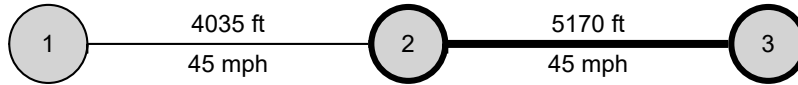
Facility Output Data		Northbound		Southbound	
Facility Travel Time, s		178.81		172.29	
Facility Travel Speed, mph		35.10		36.43	
Facility Base Free Flow Speed, mph		46.48		46.54	
Facility Percent of Base FFS		75.51		78.27	
Facility Level of Service		B		B	
Facility Auto Traveler Perception Score		2.22		2.20	

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS				
Transit Facility LOS Score / LOS				

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	3
Analyst	CCTC	Analysis Date	Oct 12, 2020	Number of Segments	2
Jurisdiction		Time Period	PM Peak	Number of Iterations	15
File Name	NT PM Broad.xus	Analysis Year	Near Term	System Cycle Length, s	120
Intersections	Broad/Tank Farm	Broad/Orcutt		Analysis Period	1> 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Broad Street: Tank Farm to Orcutt)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
2	45	45	2	2	5170	5170	50	50	0	0	100	0	0.0	0.0

Segment Output Data		Northbound			Southbound		
		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h		never			never	
2	Shared Lane Spillback Time, h	never		never	never		never
2	Base Free-Flow Speed, mph	46.28			46.75		
2	Running Time, s	78.54			78.85		
2	Running Speed, mph	44.88			44.70		
2	Through Delay, s/veh	13.24			28.99		
2	Travel Time, s	91.78			107.84		
2	Travel Speed, mph	38.41			32.69		
2	Stop Rate, stops/veh	0.30			0.71		
2	Spatial Stop Rate, stops/mi	0.30			0.72		
2	Through vol/cap Ratio	0.48			0.43		
2	Percent of Base FFS	82.99			69.92		
2	Level of Service	A			B		
2	Auto Traveler Perception Score	2.19			2.25		

Multimodal Results (Segment)

2	Pedestrian Segment LOS Score / LOS	3.34	C	F
2	Bicycle Segment LOS Score / LOS			
2	Transit Segment LOS Score / LOS			

Facility Output Data		Northbound		Southbound	
		Facility Travel Time, s	178.81	172.29	
Facility Travel Speed, mph	35.10	36.43			
Facility Base Free Flow Speed, mph	46.48	46.54			
Facility Percent of Base FFS	75.51	78.27			
Facility Level of Service	B	B			
Facility Auto Traveler Perception Score	2.22	2.20			

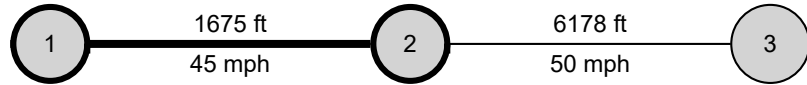
Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS			
Bicycle Facility LOS Score / LOS			
Transit Facility LOS Score / LOS			

Near Term Plus Project

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	5
Analyst	CCTC	Analysis Date	Oct 7, 2020	Number of Segments	4
Jurisdiction				Number of Iterations	15
File Name	NT+AltB AM Tank Farm.xus	Analysis Year	Near Term+AltB	System Cycle Length, s	120
Intersections	Tank Farm/S. Higuera	Tank Farm/Old Windmill		Analysis Period	1> 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Tank Farm Road: S. Higuera to Old Windmill)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
1	45	45	2	2	1675	1675	50	50	0	0	100	100	0.0	0.0

Segment Output Data		Eastbound			Westbound		
		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h	never			never		
1	Base Free-Flow Speed, mph	46.28			46.28		
1	Running Time, s	26.84			26.73		
1	Running Speed, mph	42.55			42.72		
1	Through Delay, s/veh	0.06			17.26		
1	Travel Time, s	26.90			43.99		
1	Travel Speed, mph	42.46			25.96		
1	Stop Rate, stops/veh	0.00			0.45		
1	Spatial Stop Rate, stops/mi	0.01			1.41		
1	Through vol/cap Ratio	0.24			0.01		
1	Percent of Base FFS	91.74			56.09		
1	Level of Service	A			C		
1	Auto Traveler Perception Score	2.14			2.35		

Multimodal Results (Segment)

1	Pedestrian Segment LOS Score / LOS	3.14	C	3.30	C
1	Bicycle Segment LOS Score / LOS				
1	Transit Segment LOS Score / LOS				

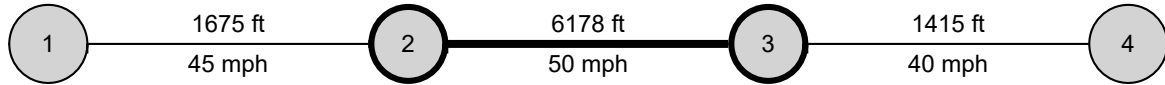
Facility Output Data		Eastbound	Westbound
Facility Travel Time, s		218.33	232.92
Facility Travel Speed, mph		38.66	36.24
Facility Base Free Flow Speed, mph		46.71	46.71
Facility Percent of Base FFS		82.78	77.59
Facility Level of Service		A	B
Facility Auto Traveler Perception Score		2.33	2.25

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS			
Bicycle Facility LOS Score / LOS			
Transit Facility LOS Score / LOS			

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	5
Analyst	CCTC	Analysis Date	Oct 7, 2020	Number of Segments	4
Jurisdiction				Number of Iterations	15
File Name	NT+AltB AM Tank Farm.xus	Analysis Year	Near Term+AltB	System Cycle Length, s	120
Intersections	Tank Farm/Old Windmill	Tank Farm/Santa Fe		Analysis Period	1> 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Tank Farm Road: Old Windmill to Santa Fe)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
2	50	50	1	1	6178	6178	50	50	0	0	0	0	0.0	0.0

Segment Output Data		Eastbound			Westbound		
		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h		never			never	
2	Shared Lane Spillback Time, h				never		
2	Base Free-Flow Speed, mph	49.10			49.10		
2	Running Time, s	87.77			87.69		
2	Running Speed, mph	47.99			48.03		
2	Through Delay, s/veh	2.55			2.37		
2	Travel Time, s	90.32			90.06		
2	Travel Speed, mph	46.64			46.77		
2	Stop Rate, stops/veh	0.02			0.04		
2	Spatial Stop Rate, stops/mi	0.02			0.03		
2	Through vol/cap Ratio	0.50			0.43		
2	Percent of Base FFS	94.99			95.26		
2	Level of Service	A			A		
2	Auto Traveler Perception Score	2.35			2.15		

Multimodal Results (Segment)

2	Pedestrian Segment LOS Score / LOS		F		F
2	Bicycle Segment LOS Score / LOS				
2	Transit Segment LOS Score / LOS				

Facility Output Data		Eastbound		Westbound	
Facility Travel Time, s		218.33		232.92	
Facility Travel Speed, mph		38.66		36.24	
Facility Base Free Flow Speed, mph		46.71		46.71	
Facility Percent of Base FFS		82.78		77.59	
Facility Level of Service		A		B	
Facility Auto Traveler Perception Score		2.33		2.25	

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS				
Transit Facility LOS Score / LOS				

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	5
Analyst	CCTC	Analysis Date	Oct 7, 2020	Number of Segments	4
Jurisdiction				Number of Iterations	15
File Name	NT+AltB AM Tank Farm.xus	Analysis Year	Near Term+AltB	System Cycle Length, s	120
Intersections	Tank Farm/Santa Fe	Tank Farm/Broad		Analysis Period	1> 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Tank Farm Road: Santa Fe to Broad)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
3	40	40	2	2	1415	1415	50	50	0	0	100	100	0.0	0.0

Segment Output Data		Eastbound			Westbound		
		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement		2	12	1	6	
3	Bay/Lane Spillback Time, h						
3	Shared Lane Spillback Time, h						
3	Base Free-Flow Speed, mph		43.93			43.93	
3	Running Time, s		25.04			25.09	
3	Running Speed, mph		38.53			38.46	
3	Through Delay, s/veh		24.89			0.42	
3	Travel Time, s		49.93			25.50	
3	Travel Speed, mph		19.32			37.83	
3	Stop Rate, stops/veh		0.57			0.01	
3	Spatial Stop Rate, stops/mi		2.13			0.04	
3	Through vol/cap Ratio		0.12			0.25	
3	Percent of Base FFS		43.98			86.11	
3	Level of Service		D			A	
3	Auto Traveler Perception Score		2.47			2.15	

Multimodal Results (Segment)

3	Pedestrian Segment LOS Score / LOS	3.40	C	2.74	B
3	Bicycle Segment LOS Score / LOS				
3	Transit Segment LOS Score / LOS				

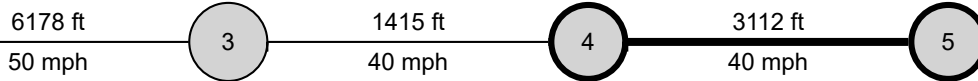
Facility Output Data		Eastbound		Westbound	
Facility Travel Time, s		218.33		231.62	
Facility Travel Speed, mph		38.66		36.44	
Facility Base Free Flow Speed, mph		46.71		46.71	
Facility Percent of Base FFS		82.78		78.03	
Facility Level of Service		A		B	
Facility Auto Traveler Perception Score		2.33		2.25	

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS				
Transit Facility LOS Score / LOS				

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	5
Analyst	CCTC	Analysis Date	Oct 7, 2020	Number of Segments	4
Jurisdiction		Time Period	AM Peak	Number of Iterations	15
File Name	NT+AltB AM Tank Farm.xus	Analysis Year	Near Term+AltB	System Cycle Length, s	120
Intersections	Tank Farm/Broad	Tank Farm/Righetti Ranch		Analysis Period	1> 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Tank Farm Road: Broad to Righetti Ranch)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
4	40	40	2	2	3112	3112	50	50	0	0	100	100	0.0	0.0

Segment Output Data		Eastbound			Westbound		
		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
4	Bay/Lane Spillback Time, h		never			never	
4	Shared Lane Spillback Time, h				never		
4	Base Free-Flow Speed, mph	43.93			43.93		
4	Running Time, s	50.05			50.54		
4	Running Speed, mph	42.39			41.99		
4	Through Delay, s/veh	1.14			21.44		
4	Travel Time, s	51.18			71.97		
4	Travel Speed, mph	41.45			29.48		
4	Stop Rate, stops/veh	0.01			0.53		
4	Spatial Stop Rate, stops/mi	0.01			0.89		
4	Through vol/cap Ratio	0.10			0.30		
4	Percent of Base FFS	94.36			67.11		
4	Level of Service	A			B		
4	Auto Traveler Perception Score	2.35			2.49		

Multimodal Results (Segment)

4	Pedestrian Segment LOS Score / LOS	2.64	B	3.33	C
4	Bicycle Segment LOS Score / LOS				
4	Transit Segment LOS Score / LOS				

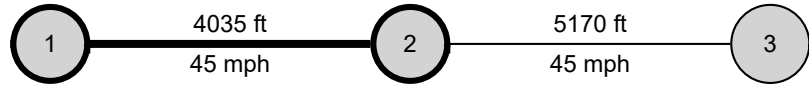
Facility Output Data		Eastbound		Westbound	
Facility Travel Time, s		218.33		232.92	
Facility Travel Speed, mph		38.66		36.24	
Facility Base Free Flow Speed, mph		46.71		46.71	
Facility Percent of Base FFS		82.78		77.59	
Facility Level of Service		A		B	
Facility Auto Traveler Perception Score		2.33		2.25	

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS				
Transit Facility LOS Score / LOS				

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	3
Analyst	CCTC	Analysis Date	Oct 12, 2020	Number of Segments	2
Jurisdiction		Time Period	AM Peak	Number of Iterations	15
File Name	NT+AltB AM Broad.xus	Analysis Year	Near Term+AltB	System Cycle Length, s	120
Intersections	Broad/Farmhouse	Broad/Tank Farm		Analysis Period	1> 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Broad Street: Farmhouse to Tank Farm)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
1	45	45	2	2	4035	4035	50	50	0	0	0	100	0.0	0.0

Segment Output Data		Northbound			Southbound		
		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h	never			never		
1	Base Free-Flow Speed, mph		46.75			46.28	
1	Running Time, s		61.46			62.58	
1	Running Speed, mph		44.76			43.96	
1	Through Delay, s/veh		24.12			0.90	
1	Travel Time, s		85.58			63.48	
1	Travel Speed, mph		32.15			43.34	
1	Stop Rate, stops/veh		0.59			0.00	
1	Spatial Stop Rate, stops/mi		0.77			0.01	
1	Through vol/cap Ratio		0.47			0.38	
1	Percent of Base FFS		68.77			93.64	
1	Level of Service		B			A	
1	Auto Traveler Perception Score		2.25			2.14	

Multimodal Results (Segment)

1	Pedestrian Segment LOS Score / LOS		F	3.60	D
1	Bicycle Segment LOS Score / LOS				
1	Transit Segment LOS Score / LOS				

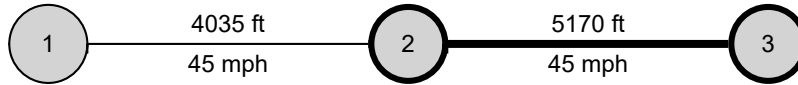
Facility Output Data		Northbound		Southbound	
Facility Travel Time, s		175.82		174.50	
Facility Travel Speed, mph		35.70		35.97	
Facility Base Free Flow Speed, mph		46.48		46.54	
Facility Percent of Base FFS		76.79		77.28	
Facility Level of Service		B		B	
Facility Auto Traveler Perception Score		2.22		2.20	

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS				
Transit Facility LOS Score / LOS				

HCS7 Urban Street Segment Report

General Information				Streets Information		
Agency				Number of Intersections	3	
Analyst	CCTC	Analysis Date	Oct 12, 2020	Number of Segments	2	
Jurisdiction			Time Period	AM Peak	Number of Iterations	15
File Name	NT+AltB AM Broad.xus	Analysis Year	Near Term+AltB	System Cycle Length, s	120	
Intersections	Broad/Tank Farm	Broad/Orcutt		Analysis Period	1> 7:00	
Project Description	600 Tank Farm Road					



Basic Segment Information (Broad Street: Tank Farm to Orcutt)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
2	45	45	2	2	5170	5170	50	50	0	0	100	0	0.0	0.0

Segment Output Data		Northbound			Southbound		
		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h		never			never	
2	Shared Lane Spillback Time, h	never		never	never		never
2	Base Free-Flow Speed, mph	46.28			46.75		
2	Running Time, s	79.02			78.43		
2	Running Speed, mph	44.61			44.94		
2	Through Delay, s/veh	11.22			32.58		
2	Travel Time, s	90.24			111.02		
2	Travel Speed, mph	39.06			31.75		
2	Stop Rate, stops/veh	0.36			0.76		
2	Spatial Stop Rate, stops/mi	0.37			0.78		
2	Through vol/cap Ratio	0.39			0.48		
2	Percent of Base FFS	84.40			67.92		
2	Level of Service	A			B		
2	Auto Traveler Perception Score	2.19			2.26		

Multimodal Results (Segment)

2	Pedestrian Segment LOS Score / LOS	3.39	C	F
2	Bicycle Segment LOS Score / LOS			
2	Transit Segment LOS Score / LOS			

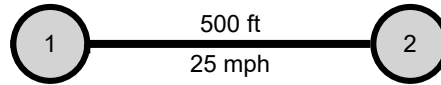
Facility Output Data		Northbound		Southbound	
Facility Travel Time, s		175.82		174.50	
Facility Travel Speed, mph		35.70		35.97	
Facility Base Free Flow Speed, mph		46.48		46.54	
Facility Percent of Base FFS		76.79		77.28	
Facility Level of Service		B		B	
Facility Auto Traveler Perception Score		2.22		2.20	

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS			
Bicycle Facility LOS Score / LOS			
Transit Facility LOS Score / LOS			

HCS7 Urban Street Segment Report

General Information				Streets Information		
Agency				Number of Intersections	2	
Analyst	CCTC	Analysis Date	Oct 12, 2020	Number of Segments	1	
Jurisdiction			Time Period	AM Peak	Number of Iterations	15
File Name	NT+AltB AM Santa Fe.xus	Analysis Year	Near Term+AltB	System Cycle Length, s	120	
Intersections	Santa Fe/Tank Farm	Santa Fe/north of Tank Farm		Analysis Period	1> 7:00	
Project Description	600 Tank Farm Road					



Basic Segment Information (Santa Fe Road: north of Tank Farm)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
1	25	25	1	1	500	500	50	50	0	0	100	0	0.0	0.0

Segment Output Data		Northbound			Southbound		
		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement		2	12	1	6	
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h	never			never		
1	Base Free-Flow Speed, mph		36.88			37.35	
1	Running Time, s		14.01			13.94	
1	Running Speed, mph		24.33			24.45	
1	Through Delay, s/veh		0.01			0.00	
1	Travel Time, s		14.02			13.94	
1	Travel Speed, mph		24.32			24.45	
1	Stop Rate, stops/veh		0.00			0.00	
1	Spatial Stop Rate, stops/mi		0.04			0.00	
1	Through vol/cap Ratio		0.02			0.00	
1	Percent of Base FFS		65.94			65.47	
1	Level of Service		C			C	
1	Auto Traveler Perception Score		2.35			2.34	

Multimodal Results (Segment)

1	Pedestrian Segment LOS Score / LOS	2.11	B		F
1	Bicycle Segment LOS Score / LOS				
1	Transit Segment LOS Score / LOS				

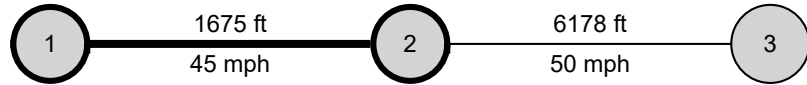
Facility Output Data		Northbound		Southbound	
Facility Travel Time, s		14.02		13.94	
Facility Travel Speed, mph		24.32		24.45	
Facility Base Free Flow Speed, mph		36.88		37.35	
Facility Percent of Base FFS		65.94		65.47	
Facility Level of Service		C		C	
Facility Auto Traveler Perception Score		2.35		2.34	

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS	2.11	B		
Bicycle Facility LOS Score / LOS				
Transit Facility LOS Score / LOS				

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	5
Analyst	CCTC	Analysis Date	Oct 7, 2020	Number of Segments	4
Jurisdiction				Number of Iterations	15
File Name	NT+AltB PM Tank Farm.xus	Analysis Year	Near Term+AltB	System Cycle Length, s	120
Intersections	Tank Farm/S. Higuera	Tank Farm/Old Windmill		Analysis Period	1> 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Tank Farm Road: S. Higuera to Old Windmill)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
1	45	45	2	2	1675	1675	50	50	0	0	100	100	0.0	0.0

Segment Output Data		Eastbound			Westbound		
		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h	never			never		
1	Base Free-Flow Speed, mph	46.28			46.28		
1	Running Time, s	26.79			27.03		
1	Running Speed, mph	42.63			42.25		
1	Through Delay, s/veh	0.07			15.45		
1	Travel Time, s	26.86			42.48		
1	Travel Speed, mph	42.52			26.88		
1	Stop Rate, stops/veh	0.00			0.42		
1	Spatial Stop Rate, stops/mi	0.01			1.31		
1	Through vol/cap Ratio	0.23			0.02		
1	Percent of Base FFS	91.87			58.09		
1	Level of Service	A			C		
1	Auto Traveler Perception Score	2.14			2.34		

Multimodal Results (Segment)

1	Pedestrian Segment LOS Score / LOS	3.10	C	3.72	D
1	Bicycle Segment LOS Score / LOS				
1	Transit Segment LOS Score / LOS				

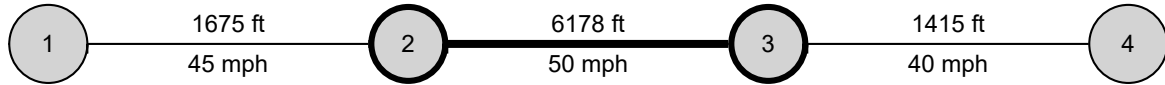
Facility Output Data		Eastbound		Westbound	
Facility Travel Time, s		227.35		244.87	
Facility Travel Speed, mph		37.13		34.47	
Facility Base Free Flow Speed, mph		46.71		46.71	
Facility Percent of Base FFS		79.49		73.81	
Facility Level of Service		B		B	
Facility Auto Traveler Perception Score		2.35		2.27	

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS				
Transit Facility LOS Score / LOS				

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	5
Analyst	CCTC	Analysis Date	Oct 7, 2020	Number of Segments	4
Jurisdiction				Number of Iterations	15
File Name	NT+AltB PM Tank Farm.xus	Analysis Year	Near Term+AltB	System Cycle Length, s	120
Intersections	Tank Farm/Old Windmill	Tank Farm/Santa Fe		Analysis Period	1> 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Tank Farm Road: Old Windmill to Santa Fe)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
2	50	50	1	1	6178	6178	50	50	0	0	0	0	0.0	0.0

Segment Output Data		Eastbound			Westbound		
		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h		never			never	
2	Shared Lane Spillback Time, h				never		
2	Base Free-Flow Speed, mph	49.10			49.10		
2	Running Time, s	88.34			89.73		
2	Running Speed, mph	47.68			46.94		
2	Through Delay, s/veh	6.20			8.50		
2	Travel Time, s	94.54			98.23		
2	Travel Speed, mph	44.56			42.88		
2	Stop Rate, stops/veh	0.17			0.28		
2	Spatial Stop Rate, stops/mi	0.15			0.24		
2	Through vol/cap Ratio	0.62			0.72		
2	Percent of Base FFS	90.75			87.33		
2	Level of Service	A			A		
2	Auto Traveler Perception Score	2.37			2.18		

Multimodal Results (Segment)

2	Pedestrian Segment LOS Score / LOS		F		F
2	Bicycle Segment LOS Score / LOS				
2	Transit Segment LOS Score / LOS				

Facility Output Data		Eastbound	Westbound
Facility Travel Time, s		227.35	244.87
Facility Travel Speed, mph		37.13	34.47
Facility Base Free Flow Speed, mph		46.71	46.71
Facility Percent of Base FFS		79.49	73.81
Facility Level of Service		B	B
Facility Auto Traveler Perception Score		2.35	2.27

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS			
Bicycle Facility LOS Score / LOS			
Transit Facility LOS Score / LOS			

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	5
Analyst	CCTC	Analysis Date	Oct 7, 2020	Number of Segments	4
Jurisdiction				Number of Iterations	15
File Name	NT+AltB PM Tank Farm.xus	Analysis Year	Near Term+AltB	System Cycle Length, s	120
Intersections	Tank Farm/Santa Fe	Tank Farm/Broad		Analysis Period	1> 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Tank Farm Road: Santa Fe to Broad)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
3	40	40	2	2	1415	1415	50	50	0	0	100	100	0.0	0.0

Segment Output Data		Eastbound			Westbound		
		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement		2	12	1	6	
3	Bay/Lane Spillback Time, h						
3	Shared Lane Spillback Time, h						
3	Base Free-Flow Speed, mph		43.93			43.93	
3	Running Time, s		25.23			25.31	
3	Running Speed, mph		38.24			38.11	
3	Through Delay, s/veh		28.71			0.72	
3	Travel Time, s		53.94			26.04	
3	Travel Speed, mph		17.88			37.05	
3	Stop Rate, stops/veh		0.65			0.03	
3	Spatial Stop Rate, stops/mi		2.44			0.10	
3	Through vol/cap Ratio		0.29			0.40	
3	Percent of Base FFS		40.71			84.35	
3	Level of Service		D			A	
3	Auto Traveler Perception Score		2.52			2.16	

Multimodal Results (Segment)

3	Pedestrian Segment LOS Score / LOS	3.66	D	3.05	C
3	Bicycle Segment LOS Score / LOS				
3	Transit Segment LOS Score / LOS				

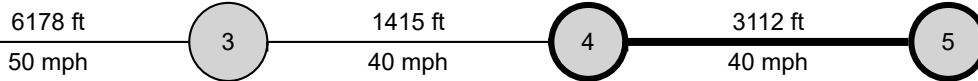
Facility Output Data		Eastbound		Westbound	
Facility Travel Time, s		227.35		243.27	
Facility Travel Speed, mph		37.13		34.70	
Facility Base Free Flow Speed, mph		46.71		46.71	
Facility Percent of Base FFS		79.49		74.29	
Facility Level of Service		B		B	
Facility Auto Traveler Perception Score		2.35		2.27	

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS				
Transit Facility LOS Score / LOS				

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	5
Analyst	CCTC	Analysis Date	Oct 7, 2020	Number of Segments	4
Jurisdiction		Time Period	PM Peak	Number of Iterations	15
File Name	NT+AltB PM Tank Farm.xus	Analysis Year	Near Term+AltB	System Cycle Length, s	120
Intersections	Tank Farm/Broad	Tank Farm/Righetti Ranch		Analysis Period	1> 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Tank Farm Road: Broad to Righetti Ranch)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
4	40	40	2	2	3112	3112	50	50	0	0	100	100	0.0	0.0

Segment Output Data		Eastbound			Westbound		
		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
4	Bay/Lane Spillback Time, h		never			never	
4	Shared Lane Spillback Time, h				never		
4	Base Free-Flow Speed, mph	43.93			43.93		
4	Running Time, s	50.66			50.36		
4	Running Speed, mph	41.88			42.14		
4	Through Delay, s/veh	1.34			25.36		
4	Travel Time, s	52.00			75.72		
4	Travel Speed, mph	40.80			28.02		
4	Stop Rate, stops/veh	0.01			0.58		
4	Spatial Stop Rate, stops/mi	0.01			0.98		
4	Through vol/cap Ratio	0.24			0.28		
4	Percent of Base FFS	92.88			63.79		
4	Level of Service	A			C		
4	Auto Traveler Perception Score	2.35			2.50		

Multimodal Results (Segment)

4	Pedestrian Segment LOS Score / LOS	3.15	C	3.19	C
4	Bicycle Segment LOS Score / LOS				
4	Transit Segment LOS Score / LOS				

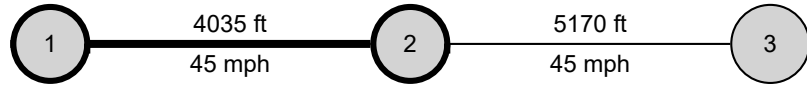
Facility Output Data		Eastbound		Westbound	
Facility Travel Time, s		227.35		244.87	
Facility Travel Speed, mph		37.13		34.47	
Facility Base Free Flow Speed, mph		46.71		46.71	
Facility Percent of Base FFS		79.49		73.81	
Facility Level of Service		B		B	
Facility Auto Traveler Perception Score		2.35		2.27	

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS					
Bicycle Facility LOS Score / LOS					
Transit Facility LOS Score / LOS					

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	3
Analyst	CCTC	Analysis Date	Oct 12, 2020	Number of Segments	2
Jurisdiction		Time Period	PM Peak	Number of Iterations	15
File Name	NT+AltB PM Broad.xus	Analysis Year	Near Term+AltB	System Cycle Length, s	120
Intersections	Broad/Farmhouse	Broad/Tank Farm		Analysis Period	1> 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Broad Street: Farmhouse to Tank Farm)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
1	45	45	2	2	4035	4035	50	50	0	0	0	100	0.0	0.0

Segment Output Data		Northbound			Southbound		
		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h	never			never		
1	Base Free-Flow Speed, mph		46.75			46.28	
1	Running Time, s		60.81			62.36	
1	Running Speed, mph		45.24			44.12	
1	Through Delay, s/veh		26.30			2.09	
1	Travel Time, s		87.11			64.45	
1	Travel Speed, mph		31.58			42.68	
1	Stop Rate, stops/veh		0.60			0.01	
1	Spatial Stop Rate, stops/mi		0.78			0.02	
1	Through vol/cap Ratio		0.30			0.37	
1	Percent of Base FFS		67.56			92.23	
1	Level of Service		B			A	
1	Auto Traveler Perception Score		2.26			2.14	

Multimodal Results (Segment)

1	Pedestrian Segment LOS Score / LOS		F	3.52	D
1	Bicycle Segment LOS Score / LOS				
1	Transit Segment LOS Score / LOS				

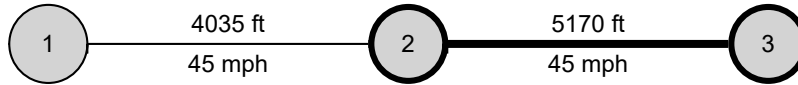
Facility Output Data		Northbound		Southbound	
Facility Travel Time, s		178.84		172.30	
Facility Travel Speed, mph		35.09		36.43	
Facility Base Free Flow Speed, mph		46.48		46.54	
Facility Percent of Base FFS		75.49		78.26	
Facility Level of Service		B		B	
Facility Auto Traveler Perception Score		2.22		2.20	

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS				
Transit Facility LOS Score / LOS				

HCS7 Urban Street Segment Report

General Information				Streets Information		
Agency				Number of Intersections	3	
Analyst	CCTC	Analysis Date	Oct 12, 2020	Number of Segments	2	
Jurisdiction			Time Period	PM Peak	Number of Iterations	15
File Name	NT+AltB PM Broad.xus	Analysis Year	Near Term+AltB	System Cycle Length, s	120	
Intersections	Broad/Tank Farm	Broad/Orcutt		Analysis Period	1> 7:00	
Project Description	600 Tank Farm Road					



Basic Segment Information (Broad Street: Tank Farm to Orcutt)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
2	45	45	2	2	5170	5170	50	50	0	0	100	0	0.0	0.0

Segment Output Data		Northbound			Southbound		
		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h		never			never	
2	Shared Lane Spillback Time, h	never		never	never		never
2	Base Free-Flow Speed, mph	46.28			46.75		
2	Running Time, s	78.54			78.91		
2	Running Speed, mph	44.88			44.67		
2	Through Delay, s/veh	13.19			28.93		
2	Travel Time, s	91.73			107.84		
2	Travel Speed, mph	38.43			32.69		
2	Stop Rate, stops/veh	0.30			0.70		
2	Spatial Stop Rate, stops/mi	0.30			0.72		
2	Through vol/cap Ratio	0.48			0.43		
2	Percent of Base FFS	83.03			69.92		
2	Level of Service	A			B		
2	Auto Traveler Perception Score	2.19			2.25		

Multimodal Results (Segment)

2	Pedestrian Segment LOS Score / LOS	3.34	C	F
2	Bicycle Segment LOS Score / LOS			
2	Transit Segment LOS Score / LOS			

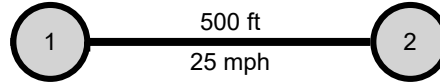
Facility Output Data		Northbound		Southbound	
Facility Travel Time, s		178.84		172.30	
Facility Travel Speed, mph		35.09		36.43	
Facility Base Free Flow Speed, mph		46.48		46.54	
Facility Percent of Base FFS		75.49		78.26	
Facility Level of Service		B		B	
Facility Auto Traveler Perception Score		2.22		2.20	

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS			
Bicycle Facility LOS Score / LOS			
Transit Facility LOS Score / LOS			

HCS7 Urban Street Segment Report

General Information				Streets Information		
Agency				Number of Intersections	2	
Analyst	CCTC	Analysis Date	Oct 12, 2020	Number of Segments	1	
Jurisdiction			Time Period	PM Peak	Number of Iterations	15
File Name	NT+AltB PM Santa Fe.xus	Analysis Year	Near Term+AltB	System Cycle Length, s	120	
Intersections	Santa Fe/Tank Farm	Santa Fe/north of Tank Farm		Analysis Period	1> 7:00	
Project Description	600 Tank Farm Road					



Basic Segment Information (Santa Fe Road: north of Tank Farm)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
1	25	25	1	1	500	500	50	50	0	0	100	0	0.0	0.0

Segment Output Data		Northbound			Southbound		
		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement		2	12	1	6	
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h	never			never		
1	Base Free-Flow Speed, mph		36.88			37.35	
1	Running Time, s		14.02			13.94	
1	Running Speed, mph		24.32			24.45	
1	Through Delay, s/veh		0.00			0.00	
1	Travel Time, s		14.02			13.94	
1	Travel Speed, mph		24.32			24.45	
1	Stop Rate, stops/veh		0.00			0.00	
1	Spatial Stop Rate, stops/mi		0.01			0.00	
1	Through vol/cap Ratio		0.02			0.00	
1	Percent of Base FFS		65.94			65.47	
1	Level of Service		C			C	
1	Auto Traveler Perception Score		2.35			2.34	

Multimodal Results (Segment)

1	Pedestrian Segment LOS Score / LOS	2.12	B		F
1	Bicycle Segment LOS Score / LOS				
1	Transit Segment LOS Score / LOS				

Facility Output Data		Northbound		Southbound	
Facility Travel Time, s		14.02		13.94	
Facility Travel Speed, mph		24.32		24.45	
Facility Base Free Flow Speed, mph		36.88		37.35	
Facility Percent of Base FFS		65.94		65.47	
Facility Level of Service		C		C	
Facility Auto Traveler Perception Score		2.35		2.34	

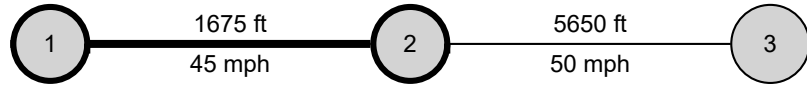
Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS	2.12	B		
Bicycle Facility LOS Score / LOS				
Transit Facility LOS Score / LOS				

Cumulative

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	5
Analyst	CCTC	Analysis Date	Oct 7, 2020	Number of Segments	4
Jurisdiction				Number of Iterations	15
File Name	CM AM Tank Farm.xus	Analysis Year	Cumulative	System Cycle Length, s	120
Intersections	Tank Farm/S. Higuera	Tank Farm/Old Windmill		Analysis Period	1> 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Tank Farm Road: S. Higuera to Old Windmill)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
1	45	45	2	2	1675	1675	50	50	0	0	100	100	0.0	0.0

Segment Output Data		Eastbound			Westbound		
		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	46.28			46.28		
1	Running Time, s	26.84			26.70		
1	Running Speed, mph	42.55			42.78		
1	Through Delay, s/veh	0.06			17.89		
1	Travel Time, s	26.90			44.58		
1	Travel Speed, mph	42.46			25.62		
1	Stop Rate, stops/veh	0.00			0.46		
1	Spatial Stop Rate, stops/mi	0.01			1.46		
1	Through vol/cap Ratio	0.24			0.01		
1	Percent of Base FFS	91.74			55.35		
1	Level of Service	A			C		
1	Auto Traveler Perception Score	2.14			2.36		

Multimodal Results (Segment)

1	Pedestrian Segment LOS Score / LOS	3.14	C	3.24	C
1	Bicycle Segment LOS Score / LOS				
1	Transit Segment LOS Score / LOS				

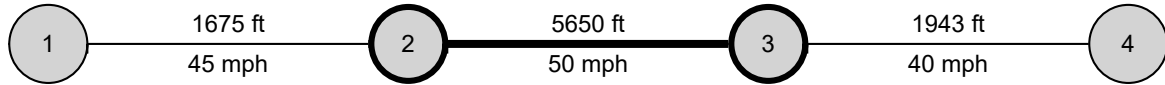
Facility Output Data		Eastbound		Westbound	
Facility Travel Time, s		228.81		246.85	
Facility Travel Speed, mph		36.89		34.19	
Facility Base Free Flow Speed, mph		46.48		46.48	
Facility Percent of Base FFS		79.36		73.56	
Facility Level of Service		B		B	
Facility Auto Traveler Perception Score		2.25		2.37	

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS				
Transit Facility LOS Score / LOS				

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	5
Analyst	CCTC	Analysis Date	Oct 7, 2020	Number of Segments	4
Jurisdiction				Number of Iterations	15
File Name	CM AM Tank Farm.xus	Analysis Year	Cumulative	System Cycle Length, s	120
Intersections	Tank Farm/Old Windmill	Tank Farm/Santa Fe		Analysis Period	1> 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Tank Farm Road: Old Windmill to Santa Fe)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
2	50	50	1	1	5650	5650	50	50	0	0	0	0	0.0	0.0

Segment Output Data		Eastbound			Westbound		
		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	49.10			49.10		
2	Running Time, s	80.52			79.95		
2	Running Speed, mph	47.84			48.18		
2	Through Delay, s/veh	10.90			1.89		
2	Travel Time, s	91.43			81.84		
2	Travel Speed, mph	42.14			47.07		
2	Stop Rate, stops/veh	0.34			0.03		
2	Spatial Stop Rate, stops/mi	0.32			0.03		
2	Through vol/cap Ratio	0.62			0.39		
2	Percent of Base FFS	85.82			95.87		
2	Level of Service	A			A		
2	Auto Traveler Perception Score	2.19			2.35		

Multimodal Results (Segment)

2	Pedestrian Segment LOS Score / LOS		F		F
2	Bicycle Segment LOS Score / LOS				
2	Transit Segment LOS Score / LOS				

Facility Output Data		Eastbound		Westbound	
Facility Travel Time, s		228.81		246.85	
Facility Travel Speed, mph		36.89		34.19	
Facility Base Free Flow Speed, mph		46.48		46.48	
Facility Percent of Base FFS		79.36		73.56	
Facility Level of Service		B		B	
Facility Auto Traveler Perception Score		2.25		2.37	

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS				
Transit Facility LOS Score / LOS				

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	5
Analyst	CCTC	Analysis Date	Oct 7, 2020	Number of Segments	4
Jurisdiction				Number of Iterations	15
File Name	CM AM Tank Farm.xus	Analysis Year	Cumulative	System Cycle Length, s	120
Intersections	Tank Farm/Santa Fe	Tank Farm/Broad		Analysis Period	1> 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Tank Farm Road: Santa Fe to Broad)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
3	40	40	2	2	1943	1943	50	50	0	0	100	100	0.0	0.0

Segment Output Data		Eastbound			Westbound		
		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
3	Bay/Lane Spillback Time, h						
3	Shared Lane Spillback Time, h						
3	Base Free-Flow Speed, mph	43.93			43.93		
3	Running Time, s	33.13			33.32		
3	Running Speed, mph	39.99			39.76		
3	Through Delay, s/veh	25.90			11.62		
3	Travel Time, s	59.03			44.94		
3	Travel Speed, mph	22.44			29.48		
3	Stop Rate, stops/veh	0.59			0.29		
3	Spatial Stop Rate, stops/mi	1.61			0.79		
3	Through vol/cap Ratio	0.14			0.74		
3	Percent of Base FFS	51.08			67.10		
3	Level of Service	C			B		
3	Auto Traveler Perception Score	2.38			2.26		

Multimodal Results (Segment)

3	Pedestrian Segment LOS Score / LOS	3.46	C	3.13	C
3	Bicycle Segment LOS Score / LOS				
3	Transit Segment LOS Score / LOS				

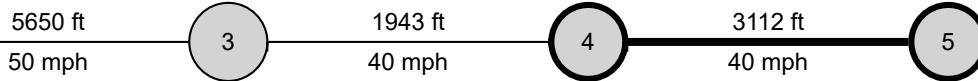
Facility Output Data		Eastbound		Westbound	
Facility Travel Time, s		228.81		246.85	
Facility Travel Speed, mph		36.89		34.19	
Facility Base Free Flow Speed, mph		46.48		46.48	
Facility Percent of Base FFS		79.36		73.56	
Facility Level of Service		B		B	
Facility Auto Traveler Perception Score		2.25		2.37	

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS			
Bicycle Facility LOS Score / LOS			
Transit Facility LOS Score / LOS			

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	5
Analyst	CCTC	Analysis Date	Oct 7, 2020	Number of Segments	4
Jurisdiction				Number of Iterations	15
File Name	CM AM Tank Farm.xus	Analysis Year	Cumulative	System Cycle Length, s	120
Intersections	Tank Farm/Broad	Tank Farm/Righetti Ranch		Analysis Period	1> 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Tank Farm Road: Broad to Righetti Ranch)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
4	40	40	2	2	3112	3112	50	50	0	0	100	100	0.0	0.0

Segment Output Data		Eastbound			Westbound		
		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
4	Bay/Lane Spillback Time, h						
4	Shared Lane Spillback Time, h						
4	Base Free-Flow Speed, mph	43.93			43.93		
4	Running Time, s	50.09			50.69		
4	Running Speed, mph	42.36			41.86		
4	Through Delay, s/veh	1.37			24.79		
4	Travel Time, s	51.45			75.48		
4	Travel Speed, mph	41.24			28.11		
4	Stop Rate, stops/veh	0.01			0.58		
4	Spatial Stop Rate, stops/mi	0.02			0.98		
4	Through vol/cap Ratio	0.11			0.39		
4	Percent of Base FFS	93.87			63.99		
4	Level of Service	A			C		
4	Auto Traveler Perception Score	2.35			2.50		

Multimodal Results (Segment)

4	Pedestrian Segment LOS Score / LOS	2.62	B	3.43	C
4	Bicycle Segment LOS Score / LOS				
4	Transit Segment LOS Score / LOS				

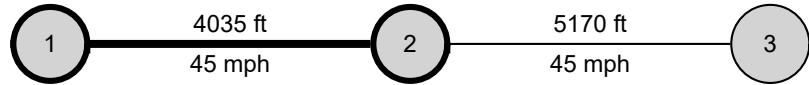
Facility Output Data		Eastbound		Westbound	
Facility Travel Time, s		228.81		246.85	
Facility Travel Speed, mph		36.89		34.19	
Facility Base Free Flow Speed, mph		46.48		46.48	
Facility Percent of Base FFS		79.36		73.56	
Facility Level of Service		B		B	
Facility Auto Traveler Perception Score		2.25		2.37	

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS				
Transit Facility LOS Score / LOS				

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	3
Analyst	CCTC	Analysis Date	Oct 12, 2020	Number of Segments	2
Jurisdiction				Number of Iterations	15
File Name	CM AM Broad.xus	Analysis Year	Cumulative	System Cycle Length, s	120
Intersections	Broad/Farmhouse	Broad/Tank Farm		Analysis Period	1> 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Broad Street: Farmhouse to Tank Farm)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
1	45	45	2	2	4035	4035	50	50	0	0	0	100	0.0	0.0

Segment Output Data		Northbound			Southbound		
		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h	never			never		
1	Base Free-Flow Speed, mph	46.75			46.28		
1	Running Time, s	61.48			62.60		
1	Running Speed, mph	44.75			43.95		
1	Through Delay, s/veh	22.73			0.45		
1	Travel Time, s	84.20			63.05		
1	Travel Speed, mph	32.67			43.63		
1	Stop Rate, stops/veh	0.57			0.00		
1	Spatial Stop Rate, stops/mi	0.74			0.00		
1	Through vol/cap Ratio	0.41			0.38		
1	Percent of Base FFS	69.89			94.28		
1	Level of Service	B			A		
1	Auto Traveler Perception Score	2.25			2.14		

Multimodal Results (Segment)

1	Pedestrian Segment LOS Score / LOS		F	3.61	D
1	Bicycle Segment LOS Score / LOS				
1	Transit Segment LOS Score / LOS				

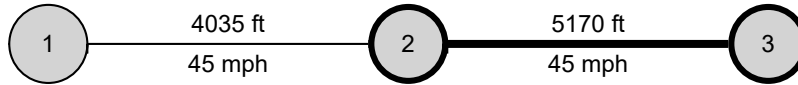
Facility Output Data		Northbound		Southbound	
Facility Travel Time, s		174.10		177.88	
Facility Travel Speed, mph		36.05		35.28	
Facility Base Free Flow Speed, mph		46.48		46.54	
Facility Percent of Base FFS		77.55		75.81	
Facility Level of Service		B		B	
Facility Auto Traveler Perception Score		2.22		2.21	

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS				
Transit Facility LOS Score / LOS				

HCS7 Urban Street Segment Report

General Information				Streets Information		
Agency				Number of Intersections	3	
Analyst	CCTC	Analysis Date	Oct 12, 2020	Number of Segments	2	
Jurisdiction			Time Period	AM Peak	Number of Iterations	15
File Name	CM AM Broad.xus	Analysis Year	Cumulative	System Cycle Length, s	120	
Intersections	Broad/Tank Farm	Broad/Orcutt		Analysis Period	1> 7:00	
Project Description	600 Tank Farm Road					



Basic Segment Information (Broad Street: Tank Farm to Orcutt)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
2	45	45	2	2	5170	5170	50	50	0	0	100	0	0.0	0.0

Segment Output Data		Northbound			Southbound		
		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	46.28			46.75		
2	Running Time, s	78.80			78.67		
2	Running Speed, mph	44.73			44.81		
2	Through Delay, s/veh	11.10			36.16		
2	Travel Time, s	89.90			114.83		
2	Travel Speed, mph	39.21			30.70		
2	Stop Rate, stops/veh	0.36			0.80		
2	Spatial Stop Rate, stops/mi	0.36			0.82		
2	Through vol/cap Ratio	0.35			0.53		
2	Percent of Base FFS	84.73			65.66		
2	Level of Service	A			C		
2	Auto Traveler Perception Score	2.19			2.26		

Multimodal Results (Segment)

2	Pedestrian Segment LOS Score / LOS	3.30	C	F
2	Bicycle Segment LOS Score / LOS			
2	Transit Segment LOS Score / LOS			

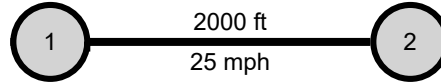
Facility Output Data		Northbound		Southbound	
Facility Travel Time, s		174.10		177.88	
Facility Travel Speed, mph		36.05		35.28	
Facility Base Free Flow Speed, mph		46.48		46.54	
Facility Percent of Base FFS		77.55		75.81	
Facility Level of Service		B		B	
Facility Auto Traveler Perception Score		2.22		2.21	

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS			
Bicycle Facility LOS Score / LOS			
Transit Facility LOS Score / LOS			

HCS7 Urban Street Segment Report

General Information				Streets Information		
Agency				Number of Intersections	2	
Analyst	CCTC	Analysis Date	Oct 12, 2020	Number of Segments	1	
Jurisdiction			Time Period	AM Peak	Number of Iterations	15
File Name	CM AM Santa Fe.xus	Analysis Year	Cumulative	System Cycle Length, s	120	
Intersections	Santa Fe/Tank Farm	Santa Fe/north of Tank Farm		Analysis Period	1 > 7:00	
Project Description	600 Tank Farm Road					



Basic Segment Information (Santa Fe Road: north of Tank Farm)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
1	25	25	1	1	2000	2000	50	50	0	0	100	100	0.0	0.0

Segment Output Data		Northbound			Southbound		
		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	36.88			36.88		
1	Running Time, s	39.39			39.41		
1	Running Speed, mph	34.62			34.60		
1	Through Delay, s/veh	0.16			7.53		
1	Travel Time, s	39.55			46.94		
1	Travel Speed, mph	34.48			29.05		
1	Stop Rate, stops/veh	0.00			0.30		
1	Spatial Stop Rate, stops/mi	0.00			0.79		
1	Through vol/cap Ratio	0.20			0.36		
1	Percent of Base FFS	93.49			78.77		
1	Level of Service	A			B		
1	Auto Traveler Perception Score	2.34			2.47		

Multimodal Results (Segment)

1	Pedestrian Segment LOS Score / LOS	2.88	C	3.05	C
1	Bicycle Segment LOS Score / LOS				
1	Transit Segment LOS Score / LOS				

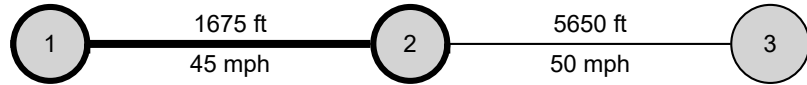
Facility Output Data		Northbound		Southbound	
Facility Travel Time, s		39.55		46.94	
Facility Travel Speed, mph		34.48		29.05	
Facility Base Free Flow Speed, mph		36.88		36.88	
Facility Percent of Base FFS		93.49		78.77	
Facility Level of Service		A		B	
Facility Auto Traveler Perception Score		2.34		2.47	

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS	2.88	C	3.05	C
Bicycle Facility LOS Score / LOS				
Transit Facility LOS Score / LOS				

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	5
Analyst	CCTC	Analysis Date	Oct 7, 2020	Number of Segments	4
Jurisdiction				Number of Iterations	15
File Name	CM PM Tank Farm.xus	Analysis Year	Cumulative	System Cycle Length, s	120
Intersections	Tank Farm/S. Higuera	Tank Farm/Old Windmill		Analysis Period	1> 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Tank Farm Road: S. Higuera to Old Windmill)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
1	45	45	2	2	1675	1675	50	50	0	0	100	100	0.0	0.0

Segment Output Data		Eastbound			Westbound		
		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	46.28			46.28		
1	Running Time, s	26.79			26.92		
1	Running Speed, mph	42.63			42.42		
1	Through Delay, s/veh	0.07			16.17		
1	Travel Time, s	26.86			43.09		
1	Travel Speed, mph	42.52			26.50		
1	Stop Rate, stops/veh	0.00			0.44		
1	Spatial Stop Rate, stops/mi	0.01			1.38		
1	Through vol/cap Ratio	0.23			0.01		
1	Percent of Base FFS	91.87			57.27		
1	Level of Service	A			C		
1	Auto Traveler Perception Score	2.14			2.35		

Multimodal Results (Segment)

1	Pedestrian Segment LOS Score / LOS	3.09	C	3.58	D
1	Bicycle Segment LOS Score / LOS				
1	Transit Segment LOS Score / LOS				

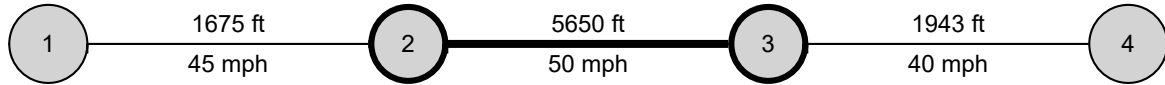
Facility Output Data		Eastbound		Westbound	
Facility Travel Time, s		229.17		243.70	
Facility Travel Speed, mph		36.83		34.64	
Facility Base Free Flow Speed, mph		46.48		46.48	
Facility Percent of Base FFS		79.24		74.51	
Facility Level of Service		B		B	
Facility Auto Traveler Perception Score		2.25		2.37	

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS				
Transit Facility LOS Score / LOS				

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	5
Analyst	CCTC	Analysis Date	Oct 7, 2020	Number of Segments	4
Jurisdiction				Number of Iterations	15
File Name	CM PM Tank Farm.xus	Analysis Year	Cumulative	System Cycle Length, s	120
Intersections	Tank Farm/Old Windmill	Tank Farm/Santa Fe			
Project Description	600 Tank Farm Road				



Basic Segment Information (Tank Farm Road: Old Windmill to Santa Fe)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
2	50	50	1	1	5650	5650	50	50	0	0	0	0	0.0	0.0

Segment Output Data		Eastbound			Westbound		
		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	49.10			49.10		
2	Running Time, s	80.87			81.15		
2	Running Speed, mph	47.64			47.47		
2	Through Delay, s/veh	11.23			7.64		
2	Travel Time, s	92.10			88.80		
2	Travel Speed, mph	41.83			43.38		
2	Stop Rate, stops/veh	0.32			0.28		
2	Spatial Stop Rate, stops/mi	0.30			0.26		
2	Through vol/cap Ratio	0.69			0.62		
2	Percent of Base FFS	85.19			88.36		
2	Level of Service	A			A		
2	Auto Traveler Perception Score	2.18			2.39		

Multimodal Results (Segment)

2	Pedestrian Segment LOS Score / LOS		F		F
2	Bicycle Segment LOS Score / LOS				
2	Transit Segment LOS Score / LOS				

Facility Output Data		Eastbound		Westbound	
Facility Travel Time, s		229.17		243.70	
Facility Travel Speed, mph		36.83		34.64	
Facility Base Free Flow Speed, mph		46.48		46.48	
Facility Percent of Base FFS		79.24		74.51	
Facility Level of Service		B		B	
Facility Auto Traveler Perception Score		2.25		2.37	

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS				
Transit Facility LOS Score / LOS				

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	5
Analyst	CCTC	Analysis Date	Oct 7, 2020	Number of Segments	4
Jurisdiction				Number of Iterations	15
File Name	CM PM Tank Farm.xus	Analysis Year	Cumulative	System Cycle Length, s	120
Intersections	Tank Farm/Santa Fe	Tank Farm/Broad		Analysis Period	1> 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Tank Farm Road: Santa Fe to Broad)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
3	40	40	2	2	1943	1943	50	50	0	0	100	100	0.0	0.0

Segment Output Data		Eastbound			Westbound		
		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
3	Bay/Lane Spillback Time, h						
3	Shared Lane Spillback Time, h						
3	Base Free-Flow Speed, mph	43.93			43.93		
3	Running Time, s	33.32			33.30		
3	Running Speed, mph	39.75			39.79		
3	Through Delay, s/veh	24.88			2.76		
3	Travel Time, s	58.21			36.05		
3	Travel Speed, mph	22.76			36.74		
3	Stop Rate, stops/veh	0.56			0.06		
3	Spatial Stop Rate, stops/mi	1.53			0.17		
3	Through vol/cap Ratio	0.31			0.58		
3	Percent of Base FFS	51.81			83.64		
3	Level of Service	C			A		
3	Auto Traveler Perception Score	2.37			2.16		

Multimodal Results (Segment)

3	Pedestrian Segment LOS Score / LOS	3.61	D	3.13	C
3	Bicycle Segment LOS Score / LOS				
3	Transit Segment LOS Score / LOS				

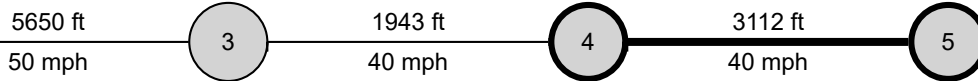
Facility Output Data		Eastbound		Westbound	
Facility Travel Time, s		229.17		243.70	
Facility Travel Speed, mph		36.83		34.64	
Facility Base Free Flow Speed, mph		46.48		46.48	
Facility Percent of Base FFS		79.24		74.51	
Facility Level of Service		B		B	
Facility Auto Traveler Perception Score		2.25		2.37	

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS				
Transit Facility LOS Score / LOS				

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	5
Analyst	CCTC	Analysis Date	Oct 7, 2020	Number of Segments	4
Jurisdiction				Number of Iterations	15
File Name	CM PM Tank Farm.xus	Analysis Year	Cumulative	System Cycle Length, s	120
Intersections	Tank Farm/Broad	Tank Farm/Righetti Ranch		Analysis Period	1> 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Tank Farm Road: Broad to Righetti Ranch)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
4	40	40	2	2	3112	3112	50	50	0	0	100	100	0.0	0.0

Segment Output Data		Eastbound			Westbound		
		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
4	Bay/Lane Spillback Time, h						
4	Shared Lane Spillback Time, h						
4	Base Free-Flow Speed, mph	43.93			43.93		
4	Running Time, s	50.71			50.36		
4	Running Speed, mph	41.85			42.14		
4	Through Delay, s/veh	1.30			25.41		
4	Travel Time, s	52.00			75.76		
4	Travel Speed, mph	40.80			28.01		
4	Stop Rate, stops/veh	0.01			0.58		
4	Spatial Stop Rate, stops/mi	0.01			0.99		
4	Through vol/cap Ratio	0.25			0.28		
4	Percent of Base FFS	92.88			63.75		
4	Level of Service	A			C		
4	Auto Traveler Perception Score	2.35			2.50		

Multimodal Results (Segment)

4	Pedestrian Segment LOS Score / LOS	3.18	C	3.19	C
4	Bicycle Segment LOS Score / LOS				
4	Transit Segment LOS Score / LOS				

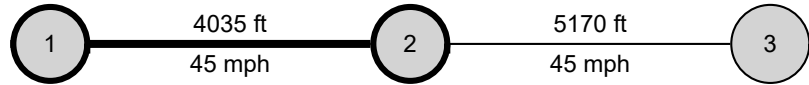
Facility Output Data		Eastbound		Westbound	
		Facility Travel Time, s	229.17	243.70	
Facility Travel Speed, mph	36.83	34.64			
Facility Base Free Flow Speed, mph	46.48	46.48			
Facility Percent of Base FFS	79.24	74.51			
Facility Level of Service	B	B			
Facility Auto Traveler Perception Score	2.25	2.37			

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS			
Bicycle Facility LOS Score / LOS			
Transit Facility LOS Score / LOS			

HCS7 Urban Street Segment Report

General Information				Streets Information		
Agency				Number of Intersections	3	
Analyst	CCTC	Analysis Date	Oct 12, 2020	Number of Segments	2	
Jurisdiction			Time Period	PM Peak	Number of Iterations	15
File Name	CM PM Broad.xus	Analysis Year	Cumulative	System Cycle Length, s	120	
Intersections	Broad/Farmhouse	Broad/Tank Farm		Analysis Period	1> 7:00	
Project Description	600 Tank Farm Road					



Basic Segment Information (Broad Street: Farmhouse to Tank Farm)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
1	45	45	2	2	4035	4035	50	50	0	0	0	100	0.0	0.0

Segment Output Data		Northbound			Southbound		
		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h	never			never		
1	Base Free-Flow Speed, mph	46.75			46.28		
1	Running Time, s	60.82			62.42		
1	Running Speed, mph	45.24			44.07		
1	Through Delay, s/veh	26.47			2.62		
1	Travel Time, s	87.28			65.04		
1	Travel Speed, mph	31.52			42.30		
1	Stop Rate, stops/veh	0.60			0.07		
1	Spatial Stop Rate, stops/mi	0.79			0.09		
1	Through vol/cap Ratio	0.28			0.39		
1	Percent of Base FFS	67.42			91.40		
1	Level of Service	B			A		
1	Auto Traveler Perception Score	2.26			2.15		

Multimodal Results (Segment)

1	Pedestrian Segment LOS Score / LOS		F	3.52	D
1	Bicycle Segment LOS Score / LOS				
1	Transit Segment LOS Score / LOS				

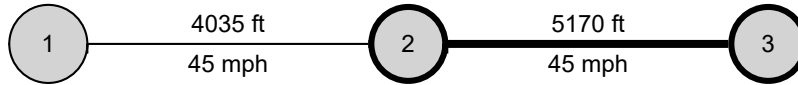
Facility Output Data		Northbound		Southbound	
Facility Travel Time, s		178.47		175.02	
Facility Travel Speed, mph		35.17		35.86	
Facility Base Free Flow Speed, mph		46.48		46.54	
Facility Percent of Base FFS		75.65		77.05	
Facility Level of Service		B		B	
Facility Auto Traveler Perception Score		2.21		2.21	

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS				
Transit Facility LOS Score / LOS				

HCS7 Urban Street Segment Report

General Information				Streets Information		
Agency				Number of Intersections	3	
Analyst	CCTC	Analysis Date	Oct 12, 2020	Number of Segments	2	
Jurisdiction			Time Period	PM Peak	Number of Iterations	15
File Name	CM PM Broad.xus	Analysis Year	Cumulative	System Cycle Length, s	120	
Intersections	Broad/Tank Farm	Broad/Orcutt		Analysis Period	1> 7:00	
Project Description	600 Tank Farm Road					



Basic Segment Information (Broad Street: Tank Farm to Orcutt)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
2	45	45	2	2	5170	5170	50	50	0	0	100	0	0.0	0.0

Segment Output Data		Northbound			Southbound		
		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h		never			never	
2	Shared Lane Spillback Time, h	never		never	never		never
2	Base Free-Flow Speed, mph	46.28			46.75		
2	Running Time, s	78.47			78.86		
2	Running Speed, mph	44.92			44.70		
2	Through Delay, s/veh	12.72			31.12		
2	Travel Time, s	91.19			109.98		
2	Travel Speed, mph	38.66			32.05		
2	Stop Rate, stops/veh	0.28			0.73		
2	Spatial Stop Rate, stops/mi	0.28			0.75		
2	Through vol/cap Ratio	0.50			0.45		
2	Percent of Base FFS	83.53			68.56		
2	Level of Service	A			B		
2	Auto Traveler Perception Score	2.18			2.25		

Multimodal Results (Segment)

2	Pedestrian Segment LOS Score / LOS	3.29	C	F
2	Bicycle Segment LOS Score / LOS			
2	Transit Segment LOS Score / LOS			

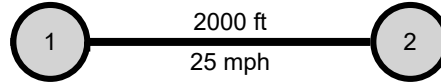
Facility Output Data		Northbound	Southbound
Facility Travel Time, s		178.47	175.02
Facility Travel Speed, mph		35.17	35.86
Facility Base Free Flow Speed, mph		46.48	46.54
Facility Percent of Base FFS		75.65	77.05
Facility Level of Service		B	B
Facility Auto Traveler Perception Score		2.21	2.21

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS			
Bicycle Facility LOS Score / LOS			
Transit Facility LOS Score / LOS			

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	2
Analyst	CCTC	Analysis Date	Oct 12, 2020	Number of Segments	1
Jurisdiction		Time Period	PM Peak	Number of Iterations	15
File Name	CM PM Santa Fe.xus	Analysis Year	Cumulative	System Cycle Length, s	120
Intersections	Santa Fe/Tank Farm	Santa Fe/north of Tank Farm		Analysis Period	1> 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Santa Fe Road: north of Tank Farm)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
1	25	25	1	1	2000	2000	50	50	0	0	100	100	0.0	0.0

Segment Output Data		Northbound			Southbound		
		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph		36.88			36.88	
1	Running Time, s		39.01			39.63	
1	Running Speed, mph		34.95			34.41	
1	Through Delay, s/veh		0.11			9.90	
1	Travel Time, s		39.13			49.52	
1	Travel Speed, mph		34.85			27.54	
1	Stop Rate, stops/veh		0.00			0.37	
1	Spatial Stop Rate, stops/mi		0.00			0.97	
1	Through vol/cap Ratio		0.12			0.50	
1	Percent of Base FFS		94.50			74.66	
1	Level of Service		A			B	
1	Auto Traveler Perception Score		2.34			2.50	

Multimodal Results (Segment)

1	Pedestrian Segment LOS Score / LOS	2.62	B	3.20	C
1	Bicycle Segment LOS Score / LOS				
1	Transit Segment LOS Score / LOS				

Facility Output Data		Northbound		Southbound	
Facility Travel Time, s		39.13		49.52	
Facility Travel Speed, mph		34.85		27.54	
Facility Base Free Flow Speed, mph		36.88		36.88	
Facility Percent of Base FFS		94.50		74.66	
Facility Level of Service		A		B	
Facility Auto Traveler Perception Score		2.34		2.50	

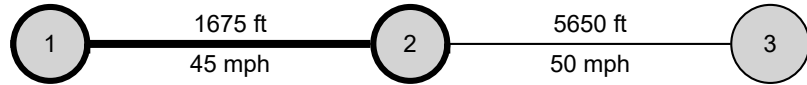
Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS	2.62	C	3.20	C
Bicycle Facility LOS Score / LOS				
Transit Facility LOS Score / LOS				

Cumulative Plus Project

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	5
Analyst	CCTC	Analysis Date	Oct 7, 2020	Number of Segments	4
Jurisdiction				Number of Iterations	15
File Name	CM+AltB AM Tank Farm.xus	Analysis Year	Cumulative+AltB	System Cycle Length, s	120
Intersections	Tank Farm/S. Higuera	Tank Farm/Old Windmill		Analysis Period	1> 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Tank Farm Road: S. Higuera to Old Windmill)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
1	45	45	2	2	1675	1675	50	50	0	0	100	100	0.0	0.0

Segment Output Data		Eastbound			Westbound		
		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h	never			never		
1	Base Free-Flow Speed, mph	46.28			46.28		
1	Running Time, s	26.84			26.70		
1	Running Speed, mph	42.55			42.78		
1	Through Delay, s/veh	0.06			17.87		
1	Travel Time, s	26.90			44.57		
1	Travel Speed, mph	42.46			25.62		
1	Stop Rate, stops/veh	0.00			0.46		
1	Spatial Stop Rate, stops/mi	0.01			1.45		
1	Through vol/cap Ratio	0.24			0.01		
1	Percent of Base FFS	91.74			55.37		
1	Level of Service	A			C		
1	Auto Traveler Perception Score	2.14			2.36		

Multimodal Results (Segment)

1	Pedestrian Segment LOS Score / LOS	3.14	C	3.24	C
1	Bicycle Segment LOS Score / LOS				
1	Transit Segment LOS Score / LOS				

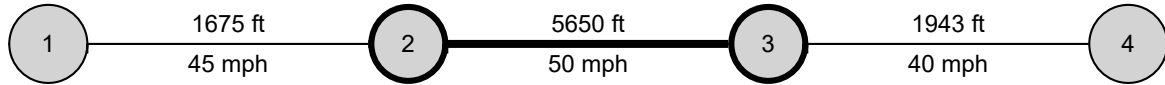
Facility Output Data		Eastbound	Westbound
Facility Travel Time, s		228.52	246.85
Facility Travel Speed, mph		36.94	34.19
Facility Base Free Flow Speed, mph		46.48	46.48
Facility Percent of Base FFS		79.46	73.56
Facility Level of Service		B	B
Facility Auto Traveler Perception Score		2.25	2.37

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS			
Bicycle Facility LOS Score / LOS			
Transit Facility LOS Score / LOS			

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	5
Analyst	CCTC	Analysis Date	Oct 7, 2020	Number of Segments	4
Jurisdiction				Number of Iterations	15
File Name	CM+AltB AM Tank Farm.xus	Analysis Year	Cumulative+AltB	System Cycle Length, s	120
Intersections	Tank Farm/Old Windmill	Tank Farm/Santa Fe		Analysis Period	1> 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Tank Farm Road: Old Windmill to Santa Fe)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
2	50	50	1	1	5650	5650	50	50	0	0	0	0	0.0	0.0

Segment Output Data		Eastbound			Westbound		
		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h		never			never	
2	Shared Lane Spillback Time, h	never			never		
2	Base Free-Flow Speed, mph	49.10			49.10		
2	Running Time, s	80.53			79.96		
2	Running Speed, mph	47.84			48.18		
2	Through Delay, s/veh	10.86			1.89		
2	Travel Time, s	91.39			81.85		
2	Travel Speed, mph	42.15			47.07		
2	Stop Rate, stops/veh	0.34			0.03		
2	Spatial Stop Rate, stops/mi	0.31			0.03		
2	Through vol/cap Ratio	0.62			0.39		
2	Percent of Base FFS	85.85			95.86		
2	Level of Service	A			A		
2	Auto Traveler Perception Score	2.19			2.35		

Multimodal Results (Segment)

2	Pedestrian Segment LOS Score / LOS		F		F
2	Bicycle Segment LOS Score / LOS				
2	Transit Segment LOS Score / LOS				

Facility Output Data		Eastbound	Westbound
Facility Travel Time, s		228.52	246.85
Facility Travel Speed, mph		36.94	34.19
Facility Base Free Flow Speed, mph		46.48	46.48
Facility Percent of Base FFS		79.46	73.56
Facility Level of Service		B	B
Facility Auto Traveler Perception Score		2.25	2.37

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS			
Bicycle Facility LOS Score / LOS			
Transit Facility LOS Score / LOS			

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	5
Analyst	CCTC	Analysis Date	Oct 7, 2020	Number of Segments	4
Jurisdiction				Number of Iterations	15
File Name	CM+AltB AM Tank Farm.xus	Analysis Year	Cumulative+AltB	System Cycle Length, s	120
Intersections	Tank Farm/Santa Fe	Tank Farm/Broad		Analysis Period	1> 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Tank Farm Road: Santa Fe to Broad)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
3	40	40	2	2	1943	1943	50	50	0	0	100	100	0.0	0.0

Segment Output Data		Eastbound			Westbound		
		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
3	Bay/Lane Spillback Time, h		never		never	never	
3	Shared Lane Spillback Time, h	never		never	never		
3	Base Free-Flow Speed, mph	43.93			43.93		
3	Running Time, s	33.13			33.32		
3	Running Speed, mph	39.99			39.75		
3	Through Delay, s/veh	25.86			11.60		
3	Travel Time, s	58.98			44.93		
3	Travel Speed, mph	22.46			29.49		
3	Stop Rate, stops/veh	0.59			0.29		
3	Spatial Stop Rate, stops/mi	1.61			0.79		
3	Through vol/cap Ratio	0.14			0.74		
3	Percent of Base FFS	51.13			67.13		
3	Level of Service	C			B		
3	Auto Traveler Perception Score	2.38			2.26		

Multimodal Results (Segment)

3	Pedestrian Segment LOS Score / LOS	3.45	C	3.13	C
3	Bicycle Segment LOS Score / LOS				
3	Transit Segment LOS Score / LOS				

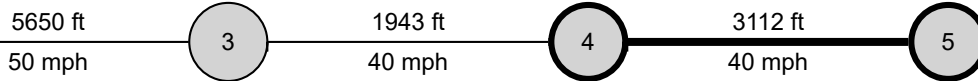
Facility Output Data		Eastbound		Westbound	
		Facility Travel Time, s	228.52	246.85	
Facility Travel Speed, mph	36.94	34.19			
Facility Base Free Flow Speed, mph	46.48	46.48			
Facility Percent of Base FFS	79.46	73.56			
Facility Level of Service	B	B			
Facility Auto Traveler Perception Score	2.25	2.37			

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS		
Bicycle Facility LOS Score / LOS		
Transit Facility LOS Score / LOS		

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	5
Analyst	CCTC	Analysis Date	Oct 7, 2020	Number of Segments	4
Jurisdiction				Number of Iterations	15
File Name	CM+AltB AM Tank Farm.xus	Analysis Year	Cumulative+AltB	System Cycle Length, s	120
Intersections	Tank Farm/Broad	Tank Farm/Righetti Ranch		Analysis Period	1> 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Tank Farm Road: Broad to Righetti Ranch)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
4	40	40	2	2	3112	3112	50	50	0	0	100	100	0.0	0.0

Segment Output Data		Eastbound			Westbound		
		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
4	Bay/Lane Spillback Time, h		never			never	
4	Shared Lane Spillback Time, h				never		
4	Base Free-Flow Speed, mph	43.93			43.93		
4	Running Time, s	50.09			50.69		
4	Running Speed, mph	42.36			41.86		
4	Through Delay, s/veh	1.16			24.82		
4	Travel Time, s	51.25			75.51		
4	Travel Speed, mph	41.41			28.10		
4	Stop Rate, stops/veh	0.01			0.58		
4	Spatial Stop Rate, stops/mi	0.02			0.98		
4	Through vol/cap Ratio	0.11			0.39		
4	Percent of Base FFS	94.25			63.96		
4	Level of Service	A			C		
4	Auto Traveler Perception Score	2.35			2.50		

Multimodal Results (Segment)

4	Pedestrian Segment LOS Score / LOS	2.62	B	3.43	C
4	Bicycle Segment LOS Score / LOS				
4	Transit Segment LOS Score / LOS				

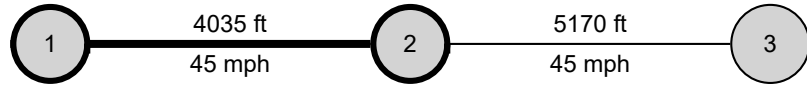
Facility Output Data		Eastbound		Westbound	
Facility Travel Time, s		228.52		246.85	
Facility Travel Speed, mph		36.94		34.19	
Facility Base Free Flow Speed, mph		46.48		46.48	
Facility Percent of Base FFS		79.46		73.56	
Facility Level of Service		B		B	
Facility Auto Traveler Perception Score		2.25		2.37	

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS				
Transit Facility LOS Score / LOS				

HCS7 Urban Street Segment Report

General Information				Streets Information		
Agency				Number of Intersections	3	
Analyst	CCTC	Analysis Date	Oct 12, 2020	Number of Segments	2	
Jurisdiction			Time Period	AM Peak	Number of Iterations	15
File Name	CM+AltB AM Broad.xus	Analysis Year	Cumulative+AltB	System Cycle Length, s	120	
Intersections	Broad/Farmhouse	Broad/Tank Farm		Analysis Period	1> 7:00	
Project Description	600 Tank Farm Road					



Basic Segment Information (Broad Street: Farmhouse to Tank Farm)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
1	45	45	2	2	4035	4035	50	50	0	0	0	100	0.0	0.0

Segment Output Data		Northbound			Southbound		
		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h	never			never		
1	Base Free-Flow Speed, mph	46.75			46.28		
1	Running Time, s	61.48			62.60		
1	Running Speed, mph	44.75			43.95		
1	Through Delay, s/veh	22.73			0.45		
1	Travel Time, s	84.21			63.05		
1	Travel Speed, mph	32.67			43.64		
1	Stop Rate, stops/veh	0.57			0.00		
1	Spatial Stop Rate, stops/mi	0.74			0.00		
1	Through vol/cap Ratio	0.41			0.38		
1	Percent of Base FFS	69.88			94.29		
1	Level of Service	B			A		
1	Auto Traveler Perception Score	2.25			2.14		

Multimodal Results (Segment)

1	Pedestrian Segment LOS Score / LOS		F	3.61	D
1	Bicycle Segment LOS Score / LOS				
1	Transit Segment LOS Score / LOS				

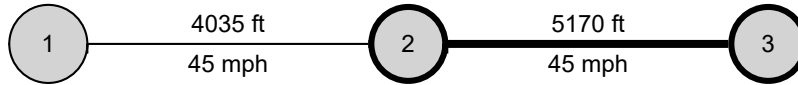
Facility Output Data		Northbound		Southbound	
Facility Travel Time, s		174.11		177.89	
Facility Travel Speed, mph		36.05		35.28	
Facility Base Free Flow Speed, mph		46.48		46.54	
Facility Percent of Base FFS		77.54		75.80	
Facility Level of Service		B		B	
Facility Auto Traveler Perception Score		2.22		2.21	

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS				
Transit Facility LOS Score / LOS				

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	3
Analyst	CCTC	Analysis Date	Oct 12, 2020	Number of Segments	2
Jurisdiction		Time Period	AM Peak	Number of Iterations	15
File Name	CM+AltB AM Broad.xus	Analysis Year	Cumulative+AltB	System Cycle Length, s	120
Intersections	Broad/Tank Farm	Broad/Orcutt		Analysis Period	1> 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Broad Street: Tank Farm to Orcutt)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
2	45	45	2	2	5170	5170	50	50	0	0	100	0	0.0	0.0

Segment Output Data		Northbound			Southbound		
		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	46.28			46.75		
2	Running Time, s	78.81			78.68		
2	Running Speed, mph	44.73			44.80		
2	Through Delay, s/veh	11.10			36.16		
2	Travel Time, s	89.90			114.85		
2	Travel Speed, mph	39.21			30.69		
2	Stop Rate, stops/veh	0.36			0.80		
2	Spatial Stop Rate, stops/mi	0.36			0.82		
2	Through vol/cap Ratio	0.35			0.53		
2	Percent of Base FFS	84.72			65.65		
2	Level of Service	A			C		
2	Auto Traveler Perception Score	2.19			2.26		

Multimodal Results (Segment)

2	Pedestrian Segment LOS Score / LOS	3.31	C	F
2	Bicycle Segment LOS Score / LOS			
2	Transit Segment LOS Score / LOS			

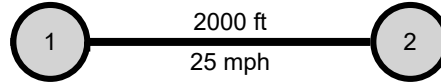
Facility Output Data		Northbound		Southbound	
Facility Travel Time, s		174.11		177.89	
Facility Travel Speed, mph		36.05		35.28	
Facility Base Free Flow Speed, mph		46.48		46.54	
Facility Percent of Base FFS		77.54		75.80	
Facility Level of Service		B		B	
Facility Auto Traveler Perception Score		2.22		2.21	

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS			
Bicycle Facility LOS Score / LOS			
Transit Facility LOS Score / LOS			

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	2
Analyst	CCTC	Analysis Date	Oct 12, 2020	Number of Segments	1
Jurisdiction				Number of Iterations	15
File Name	CM+AltB AM Santa Fe.xus	Analysis Year	Cumulative+AltB	System Cycle Length, s	120
Intersections	Santa Fe/Tank Farm	Santa Fe/north of Tank Farm		Analysis Period	1> 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Santa Fe Road: north of Tank Farm)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
1	25	25	1	1	2000	2000	50	50	0	0	100	100	0.0	0.0

Segment Output Data		Northbound			Southbound		
		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement		2	12	1	6	
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h	never			never		
1	Base Free-Flow Speed, mph		36.88		36.88		
1	Running Time, s		39.41		39.47		
1	Running Speed, mph		34.60		34.55		
1	Through Delay, s/veh		0.16		7.59		
1	Travel Time, s		39.57		47.05		
1	Travel Speed, mph		34.46		28.98		
1	Stop Rate, stops/veh		0.00		0.30		
1	Spatial Stop Rate, stops/mi		0.00		0.78		
1	Through vol/cap Ratio		0.21		0.39		
1	Percent of Base FFS		93.44		78.58		
1	Level of Service		A		B		
1	Auto Traveler Perception Score		2.34		2.47		

Multimodal Results (Segment)

1	Pedestrian Segment LOS Score / LOS	2.90	C	3.09	C
1	Bicycle Segment LOS Score / LOS				
1	Transit Segment LOS Score / LOS				

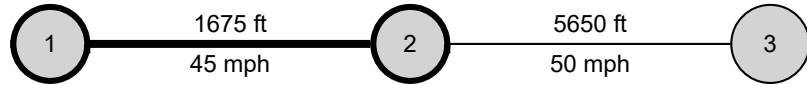
Facility Output Data		Northbound		Southbound	
Facility Travel Time, s		39.57		47.05	
Facility Travel Speed, mph		34.46		28.98	
Facility Base Free Flow Speed, mph		36.88		36.88	
Facility Percent of Base FFS		93.44		78.58	
Facility Level of Service		A		B	
Facility Auto Traveler Perception Score		2.34		2.47	

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS		2.90	C	3.09	C
Bicycle Facility LOS Score / LOS					
Transit Facility LOS Score / LOS					

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	5
Analyst	CCTC	Analysis Date	Oct 7, 2020	Number of Segments	4
Jurisdiction				Number of Iterations	15
File Name	CM+AltB PM Tank Farm.xus	Analysis Year	Cumulative+AltB	System Cycle Length, s	120
Intersections	Tank Farm/S. Higuera	Tank Farm/Old Windmill		Analysis Period	1> 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Tank Farm Road: S. Higuera to Old Windmill)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
1	45	45	2	2	1675	1675	50	50	0	0	100	100	0.0	0.0

Segment Output Data		Eastbound			Westbound		
		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h	never			never		
1	Base Free-Flow Speed, mph	46.28			46.28		
1	Running Time, s	26.79			26.92		
1	Running Speed, mph	42.63			42.42		
1	Through Delay, s/veh	0.07			16.18		
1	Travel Time, s	26.86			43.10		
1	Travel Speed, mph	42.52			26.49		
1	Stop Rate, stops/veh	0.00			0.44		
1	Spatial Stop Rate, stops/mi	0.01			1.38		
1	Through vol/cap Ratio	0.23			0.01		
1	Percent of Base FFS	91.87			57.25		
1	Level of Service	A			C		
1	Auto Traveler Perception Score	2.14			2.35		

Multimodal Results (Segment)

1	Pedestrian Segment LOS Score / LOS	3.10	C	3.57	D
1	Bicycle Segment LOS Score / LOS				
1	Transit Segment LOS Score / LOS				

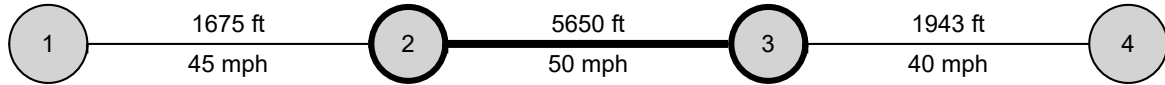
Facility Output Data		Eastbound	Westbound
Facility Travel Time, s		229.10	243.62
Facility Travel Speed, mph		36.84	34.65
Facility Base Free Flow Speed, mph		46.48	46.48
Facility Percent of Base FFS		79.26	74.54
Facility Level of Service		B	B
Facility Auto Traveler Perception Score		2.25	2.37

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS			
Bicycle Facility LOS Score / LOS			
Transit Facility LOS Score / LOS			

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	5
Analyst	CCTC	Analysis Date	Oct 7, 2020	Number of Segments	4
Jurisdiction				Number of Iterations	15
File Name	CM+AltB PM Tank Farm.xus	Analysis Year	Cumulative+AltB	System Cycle Length, s	120
Intersections	Tank Farm/Old Windmill	Tank Farm/Santa Fe		Analysis Period	1> 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Tank Farm Road: Old Windmill to Santa Fe)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
2	50	50	1	1	5650	5650	50	50	0	0	0	0	0.0	0.0

Segment Output Data		Eastbound			Westbound		
		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h		never			never	
2	Shared Lane Spillback Time, h	never			never		
2	Base Free-Flow Speed, mph	49.10			49.10		
2	Running Time, s	80.90			81.13		
2	Running Speed, mph	47.62			47.49		
2	Through Delay, s/veh	11.17			7.55		
2	Travel Time, s	92.07			88.68		
2	Travel Speed, mph	41.84			43.44		
2	Stop Rate, stops/veh	0.32			0.28		
2	Spatial Stop Rate, stops/mi	0.30			0.26		
2	Through vol/cap Ratio	0.69			0.62		
2	Percent of Base FFS	85.22			88.48		
2	Level of Service	A			A		
2	Auto Traveler Perception Score	2.18			2.38		

Multimodal Results (Segment)

2	Pedestrian Segment LOS Score / LOS		F		F
2	Bicycle Segment LOS Score / LOS				
2	Transit Segment LOS Score / LOS				

Facility Output Data		Eastbound	Westbound
Facility Travel Time, s		229.10	243.62
Facility Travel Speed, mph		36.84	34.65
Facility Base Free Flow Speed, mph		46.48	46.48
Facility Percent of Base FFS		79.26	74.54
Facility Level of Service		B	B
Facility Auto Traveler Perception Score		2.25	2.37

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS			
Bicycle Facility LOS Score / LOS			
Transit Facility LOS Score / LOS			

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	5
Analyst	CCTC	Analysis Date	Oct 7, 2020	Number of Segments	4
Jurisdiction		Time Period	PM Peak	Number of Iterations	15
File Name	CM+AltB PM Tank Farm.xus	Analysis Year	Cumulative+AltB	System Cycle Length, s	120
Intersections	Tank Farm/Santa Fe	Tank Farm/Broad		Analysis Period	1> 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Tank Farm Road: Santa Fe to Broad)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
3	40	40	2	2	1943	1943	50	50	0	0	100	100	0.0	0.0

Segment Output Data		Eastbound			Westbound		
		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
3	Bay/Lane Spillback Time, h		never			never	
3	Shared Lane Spillback Time, h	never		never	never		
3	Base Free-Flow Speed, mph	43.93			43.93		
3	Running Time, s	33.32			33.30		
3	Running Speed, mph	39.76			39.78		
3	Through Delay, s/veh	24.85			2.75		
3	Travel Time, s	58.17			36.05		
3	Travel Speed, mph	22.77			36.75		
3	Stop Rate, stops/veh	0.56			0.06		
3	Spatial Stop Rate, stops/mi	1.53			0.16		
3	Through vol/cap Ratio	0.31			0.58		
3	Percent of Base FFS	51.84			83.65		
3	Level of Service	C			A		
3	Auto Traveler Perception Score	2.37			2.16		

Multimodal Results (Segment)

3	Pedestrian Segment LOS Score / LOS	3.61	D	3.13	C
3	Bicycle Segment LOS Score / LOS				
3	Transit Segment LOS Score / LOS				

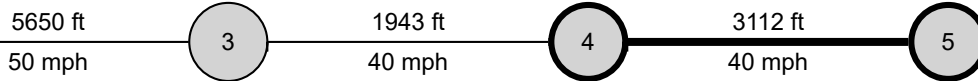
Facility Output Data		Eastbound		Westbound	
		Facility Travel Time, s	229.10	243.62	
Facility Travel Speed, mph	36.84	34.65			
Facility Base Free Flow Speed, mph	46.48	46.48			
Facility Percent of Base FFS	79.26	74.54			
Facility Level of Service	B	B			
Facility Auto Traveler Perception Score	2.25	2.37			

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS			
Bicycle Facility LOS Score / LOS			
Transit Facility LOS Score / LOS			

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	5
Analyst	CCTC	Analysis Date	Oct 7, 2020	Number of Segments	4
Jurisdiction				Number of Iterations	15
File Name	CM+AltB PM Tank Farm.xus	Analysis Year	Cumulative+AltB	System Cycle Length, s	120
Intersections	Tank Farm/Broad	Tank Farm/Righetti Ranch		Analysis Period	1> 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Tank Farm Road: Broad to Righetti Ranch)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
4	40	40	2	2	3112	3112	50	50	0	0	100	100	0.0	0.0

Segment Output Data		Eastbound			Westbound		
		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
4	Bay/Lane Spillback Time, h		never			never	
4	Shared Lane Spillback Time, h				never		
4	Base Free-Flow Speed, mph	43.93			43.93		
4	Running Time, s	50.70			50.36		
4	Running Speed, mph	41.85			42.13		
4	Through Delay, s/veh	1.30			25.43		
4	Travel Time, s	52.00			75.79		
4	Travel Speed, mph	40.81			28.00		
4	Stop Rate, stops/veh	0.01			0.58		
4	Spatial Stop Rate, stops/mi	0.01			0.99		
4	Through vol/cap Ratio	0.25			0.28		
4	Percent of Base FFS	92.89			63.73		
4	Level of Service	A			C		
4	Auto Traveler Perception Score	2.35			2.50		

Multimodal Results (Segment)

4	Pedestrian Segment LOS Score / LOS	3.18	C	3.19	C
4	Bicycle Segment LOS Score / LOS				
4	Transit Segment LOS Score / LOS				

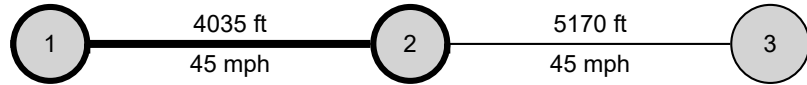
Facility Output Data		Eastbound		Westbound	
		Facility Travel Time, s	229.10	243.62	
Facility Travel Speed, mph	36.84	34.65			
Facility Base Free Flow Speed, mph	46.48	46.48			
Facility Percent of Base FFS	79.26	74.54			
Facility Level of Service	B	B			
Facility Auto Traveler Perception Score	2.25	2.37			

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS			
Bicycle Facility LOS Score / LOS			
Transit Facility LOS Score / LOS			

HCS7 Urban Street Segment Report

General Information				Streets Information		
Agency				Number of Intersections	3	
Analyst	CCTC	Analysis Date	Oct 12, 2020	Number of Segments	2	
Jurisdiction			Time Period	PM Peak	Number of Iterations	15
File Name	CM+AltB PM Broad.xus	Analysis Year	Cumulative+AltB	System Cycle Length, s	120	
Intersections	Broad/Farmhouse	Broad/Tank Farm		Analysis Period	1> 7:00	
Project Description	600 Tank Farm Road					



Basic Segment Information (Broad Street: Farmhouse to Tank Farm)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
1	45	45	2	2	4035	4035	50	50	0	0	0	100	0.0	0.0

Segment Output Data		Northbound			Southbound		
		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement		2	12	1	6	
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h	never			never		
1	Base Free-Flow Speed, mph		46.75			46.28	
1	Running Time, s		60.82			62.42	
1	Running Speed, mph		45.23			44.07	
1	Through Delay, s/veh		26.47			2.36	
1	Travel Time, s		87.29			64.78	
1	Travel Speed, mph		31.52			42.47	
1	Stop Rate, stops/veh		0.60			0.06	
1	Spatial Stop Rate, stops/mi		0.79			0.08	
1	Through vol/cap Ratio		0.28			0.39	
1	Percent of Base FFS		67.42			91.76	
1	Level of Service		B			A	
1	Auto Traveler Perception Score		2.26			2.15	

Multimodal Results (Segment)

1	Pedestrian Segment LOS Score / LOS		F	3.52	D
1	Bicycle Segment LOS Score / LOS				
1	Transit Segment LOS Score / LOS				

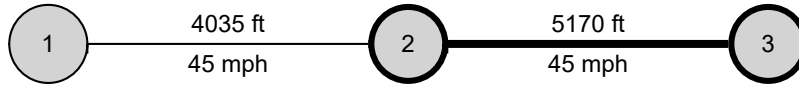
Facility Output Data		Northbound		Southbound	
Facility Travel Time, s		178.47		175.09	
Facility Travel Speed, mph		35.17		35.85	
Facility Base Free Flow Speed, mph		46.48		46.54	
Facility Percent of Base FFS		75.65		77.02	
Facility Level of Service		B		B	
Facility Auto Traveler Perception Score		2.21		2.21	

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS				
Transit Facility LOS Score / LOS				

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	3
Analyst	CCTC	Analysis Date	Oct 12, 2020	Number of Segments	2
Jurisdiction		Time Period	PM Peak	Number of Iterations	15
File Name	CM+AltB PM Broad.xus	Analysis Year	Cumulative+AltB	System Cycle Length, s	120
Intersections	Broad/Tank Farm	Broad/Orcutt		Analysis Period	1> 7:00
Project Description	600 Tank Farm Road				



Basic Segment Information (Broad Street: Tank Farm to Orcutt)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
2	45	45	2	2	5170	5170	50	50	0	0	100	0	0.0	0.0

Segment Output Data		Northbound			Southbound		
		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h		never			never	
2	Shared Lane Spillback Time, h	never		never	never		never
2	Base Free-Flow Speed, mph	46.28			46.75		
2	Running Time, s	78.47			78.87		
2	Running Speed, mph	44.92			44.70		
2	Through Delay, s/veh	12.71			31.44		
2	Travel Time, s	91.18			110.31		
2	Travel Speed, mph	38.66			31.96		
2	Stop Rate, stops/veh	0.28			0.74		
2	Spatial Stop Rate, stops/mi	0.28			0.76		
2	Through vol/cap Ratio	0.50			0.45		
2	Percent of Base FFS	83.53			68.36		
2	Level of Service	A			B		
2	Auto Traveler Perception Score	2.18			2.25		

Multimodal Results (Segment)

2	Pedestrian Segment LOS Score / LOS	3.29	C	F
2	Bicycle Segment LOS Score / LOS			
2	Transit Segment LOS Score / LOS			

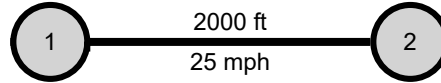
Facility Output Data		Northbound		Southbound	
		Facility Travel Time, s	178.47	175.09	
Facility Travel Speed, mph	35.17	35.85			
Facility Base Free Flow Speed, mph	46.48	46.54			
Facility Percent of Base FFS	75.65	77.02			
Facility Level of Service	B	B			
Facility Auto Traveler Perception Score	2.21	2.21			

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS			
Bicycle Facility LOS Score / LOS			
Transit Facility LOS Score / LOS			

HCS7 Urban Street Segment Report

General Information				Streets Information		
Agency				Number of Intersections	2	
Analyst	CCTC	Analysis Date	Oct 12, 2020	Number of Segments	1	
Jurisdiction			Time Period	PM Peak	Number of Iterations	15
File Name	CM+AltB PM Santa Fe.xus	Analysis Year	Cumulative+AltB	System Cycle Length, s	120	
Intersections	Santa Fe/Tank Farm	Santa Fe/north of Tank Farm		Analysis Period	1> 7:00	
Project Description	600 Tank Farm Road					



Basic Segment Information (Santa Fe Road: north of Tank Farm)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
1	25	25	1	1	2000	2000	50	50	0	0	100	100	0.0	0.0

Segment Output Data		Northbound			Southbound		
		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement		2	12	1	6	
1	Bay/Lane Spillback Time, h		never		never	never	
1	Shared Lane Spillback Time, h	never			never		
1	Base Free-Flow Speed, mph		36.88		36.88		
1	Running Time, s		39.04		39.69		
1	Running Speed, mph		34.93		34.36		
1	Through Delay, s/veh		0.11		10.36		
1	Travel Time, s		39.16		50.04		
1	Travel Speed, mph		34.83		27.25		
1	Stop Rate, stops/veh		0.00		0.38		
1	Spatial Stop Rate, stops/mi		0.00		1.00		
1	Through vol/cap Ratio		0.12		0.53		
1	Percent of Base FFS		94.43		73.89		
1	Level of Service		A		B		
1	Auto Traveler Perception Score		2.34		2.50		

Multimodal Results (Segment)

1	Pedestrian Segment LOS Score / LOS	2.64	B	3.25	C
1	Bicycle Segment LOS Score / LOS				
1	Transit Segment LOS Score / LOS				

Facility Output Data		Northbound		Southbound	
Facility Travel Time, s		39.16		50.04	
Facility Travel Speed, mph		34.83		27.25	
Facility Base Free Flow Speed, mph		36.88		36.88	
Facility Percent of Base FFS		94.43		73.89	
Facility Level of Service		A		B	
Facility Auto Traveler Perception Score		2.34		2.50	

Multimodal Results (Facility)

Pedestrian Facility LOS Score / LOS	2.64	C	3.25	C
Bicycle Facility LOS Score / LOS				
Transit Facility LOS Score / LOS				

Appendix D: Warrant Analysis Sheets



Traffic Signal Warrant Analysis

Warrants 1 - 3 (Volume Warrants)

Project Name	600 TF
Project/File #	2020_187
Scenario	Existing Plus Project (AM & PM)

Intersection Information			
Major Street (E/W Road)	Tank Farm Rd	Minor Street (N/S Road)	Santa Fe (N leg)
Analyzed with	1 approach lane	Analyzed with	1 Approach Lane
Total Approach Volume	3465 vehicles	Total Approach Volume	84 vehicles
Total Ped/Bike Volume	0 crossings	Total Ped/Bike Volume	0 crossings
Right turn reduction of	0 percent applied	Right turn reduction of	0 percent applied

No high speed or isolated community reduction applied to the Volume Warrant thresholds.

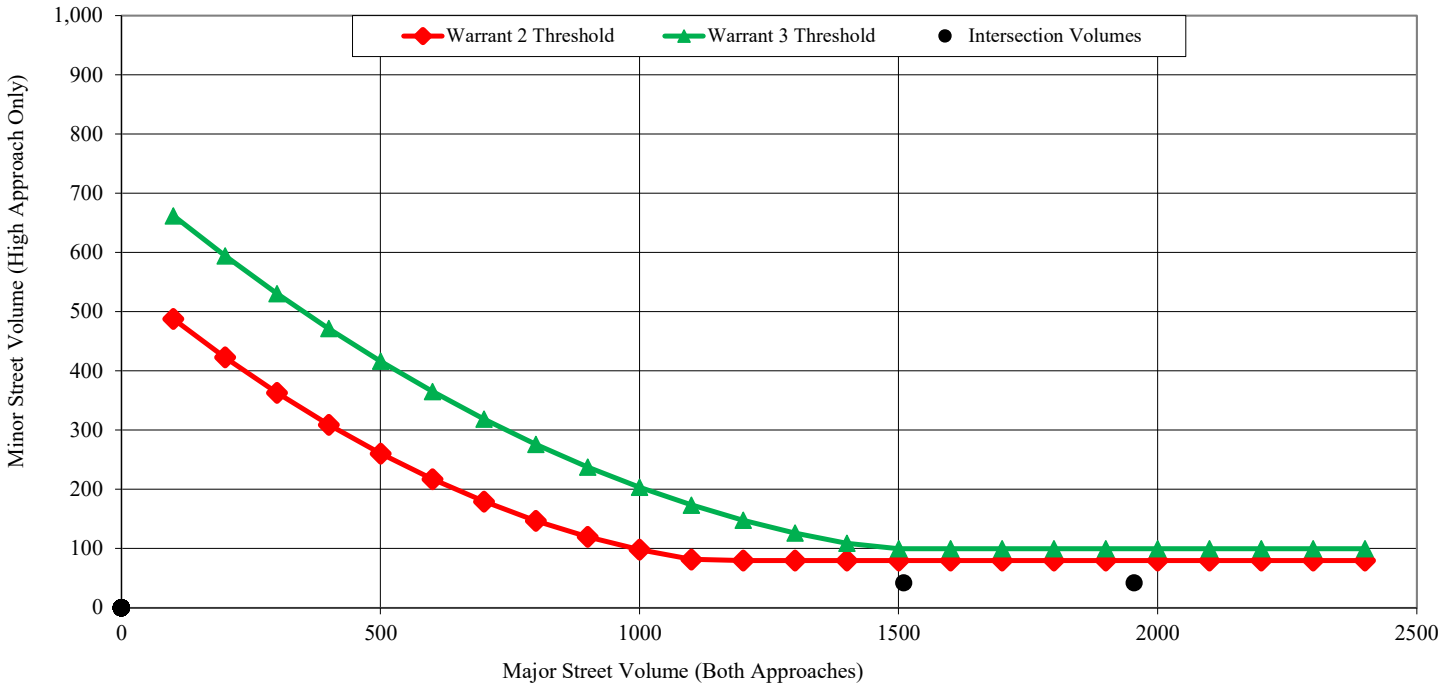
Warrant 1, Eight Hour Vehicular Volume			
	Condition A	Condition B	Condition A+B*
Condition Satisfied?	Not Satisfied	Not Satisfied	Not Satisfied
Required values reached for	0 hours	0 hours	0 (Cond. A) & 0 (Cond. B)
Criteria - Major Street (veh/hr)	500	750	400 (Cond. A) & 600 (Cond. B)
Criteria - Minor Street (veh/hr)	150	75	120 (Cond. A) & 60 (Cond. B)

* Should be applied only after an adequate trial of other alternatives that could cause less delay and inconvenience to traffic has failed to solve the traffic problems.

Warrant 2, Four Hour Vehicular Volume	
Condition Satisfied?	Not Satisfied
Required values reached for	0 hours
Criteria	See Figure Below

Warrant 3, Peak Hour Vehicular Volume		
	Condition A	Condition B
Condition Satisfied?	Not Satisfied	Not Satisfied
Required values reached for	1997 total, 42 minor, 0.3 delay	0 hours
Criteria - Total Approach Volume (veh in one hour)	650	See Figure Below
Criteria - Minor Street High Side Volume (veh in one hour)	100	
Criteria - Minor Street High Side Delay (veh-hrs)	4	

Figure 4C-1 (Warrant 2) & Figure 4C-3 (Warrant 3)





Traffic Signal Warrant Analysis

Warrants 1 - 3 (Volume Warrants)

Project Name	600 TF
Project/File #	2020_187
Scenario	Near Term Plus Project (AM & PM)

Intersection Information			
Major Street (E/W Road)	Tank Farm Rd	Minor Street (N/S Road)	Santa Fe (N leg)
Analyzed with	1 approach lane	Analyzed with	1 Approach Lane
Total Approach Volume	3825 vehicles	Total Approach Volume	84 vehicles
Total Ped/Bike Volume	0 crossings	Total Ped/Bike Volume	0 crossings
Right turn reduction of	0 percent applied	Right turn reduction of	0 percent applied

No high speed or isolated community reduction applied to the Volume Warrant thresholds.

Warrant 1, Eight Hour Vehicular Volume			
	Condition A	Condition B	Condition A+B*
Condition Satisfied?	Not Satisfied	Not Satisfied	Not Satisfied
Required values reached for	0 hours	0 hours	0 (Cond. A) & 0 (Cond. B)
Criteria - Major Street (veh/hr)	500	750	400 (Cond. A) & 600 (Cond. B)
Criteria - Minor Street (veh/hr)	150	75	120 (Cond. A) & 60 (Cond. B)

* Should be applied only after an adequate trial of other alternatives that could cause less delay and inconvenience to traffic has failed to solve the traffic problems.

Warrant 2, Four Hour Vehicular Volume	
Condition Satisfied?	Not Satisfied
Required values reached for	0 hours
Criteria	See Figure Below

Warrant 3, Peak Hour Vehicular Volume		
	Condition A	Condition B
Condition Satisfied?	Not Satisfied	Not Satisfied
Required values reached for	2202 total, 42 minor, 0.4 delay	0 hours
Criteria - Total Approach Volume (veh in one hour)	650	See Figure Below
Criteria - Minor Street High Side Volume (veh in one hour)	100	
Criteria - Minor Street High Side Delay (veh-hrs)	4	

Figure 4C-1 (Warrant 2) & Figure 4C-3 (Warrant 3)

