

DRAFT

Coffee Shop - 5200 Menaul Blvd. Albuquerque, NM

Traffic Impact Study

Prepared for:

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February 24, 2021

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NM PE License #18214



HT#H18D073
Received 3/17/2021



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I. EXECUTIVE SUMMARY

Modulus Architects & Land Use Planning Inc. is designing a development on a former gas station parcel located on the southeast corner of San Mateo Blvd NE and Menaul Blvd NE in Albuquerque, New Mexico. The proposed development is a 1,895 sf coffee shop with drive thru. The site contains approximately 0.5 acres.

The purpose of this study is to evaluate the impact of the vehicular trips projected to be generated by the proposed coffee shop on the study area intersections and roadway system.

The study area encompasses the existing roadway system in the vicinity of the project site. Specifically, the following existing intersections were evaluated:

- San Mateo Blvd NE / Menaul Blvd NE
- San Mateo Blvd NE / Prospect Ave NE
- Menaul Blvd NE / Madeira Dr NE

The following table summarized the proposed Trip Generation for the site:

Coffee/Donut Shop w/Drive Thru 1,895 sf, ITE Land Use Code 937	Daily	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
Trip Generation	1,559	86	83	169	41	41	82
Pass-By Trips (50%)		43	43	86	21	21	42
Transit Adjust. (1.8%)		2	2	4	1	1	2
NET		41	38	79	19	19	38

Summary of Findings

The proposed 1,895 sf coffee shop development with drive-thru will not have a significant impact on the adjacent road system. LOS will not change at study area intersections due to the development. Delay increases will be minimal due to site traffic.

There is concern with traffic exiting both the west and north access points attempting to take the northbound left off San Mateo at Menaul (West Access) and the eastbound left off Menaul at Madeiro (North Access). While some gaps in traffic might appear to make these movements tempting, there are significant safety concerns with cutting across three lanes of traffic to make these left turns. It is recommended that signs be erected at both side access points for motorists turning right to exit to not turn left at the adjacent intersection, but rather go straight and make the nearest safe U-turn movement.

Review of crash statistics show a slightly higher than expected number of injury crashes. Head-on and sideswipe crashes are also higher than expected. In looking at recent aerial photos, the skip striping used to channelize motorist through the intersections is quite faded. In addition, the left turn signal heads are tough to see as they are mounted on separate poles closer to the ground and can get lost in the background. It is recommended that the intersection be re-striped and that reflective backplates be installed on the left turn signal heads. Consideration could also be given to adding an additional left turn signal head on each mast arm.

Recommendations and Mitigation Measures

Based on the analyses contained herein, no roadway or multi-modal improvements are recommended to the study area intersections, to accommodate forecast background growth and the proposed coffee shop development traffic. Sufficient capacity exists to handle the expected development traffic volumes.

Intersection	Recommendations	Responsible	Timing
San Mateo / Menaul	- Re-stripe the intersection to help channelize individual movements. - Install reflective backplates on the left turn signal heads. - Consider installing auxiliary left turn signal heads on the mast arms.	City of Albuquerque	When deemed needed
San Mateo / Prospect	- None		
Menaul / Madeiro	- None		
San Mateo / West Access	- Close the northern-most access to San Mateo. - Tighten the remaining west access and channelize/strip right-in, right-out movements. - Install a sign for right-turn existing motorists indicating "No Left Turn at Madeiro".	Developer	By Opening
Manaul / North Access	- Close the western-most access to Menaul - Tighten the remaining north access and channelize/strip right-in, right-out movements. - Install a sign for right-turn existing motorists indicating "No Left Turn at Madeiro".	Developer	By Opening

II. INTRODUCTION

A. Purpose of Study

Modulus Architects & Land Use Planning Inc. is designing a development on a former gas station parcel located on the southeast corner of San Mateo Blvd NE and Menaul Blvd NE in Albuquerque, New Mexico. The proposed development is a 1,895 sf coffee shop with drive thru. The site contains approximately 0.5 acres.

The purpose of this study is to evaluate the impact of the vehicular trips projected to be generated by the proposed coffee shop on the study area intersections and roadway system.

B. Study Procedures

Information Sources – Trip Generation, 10th Edition, by the Institute of Transportation Engineer (ITE) was used for trip generation estimates. Information from the MRCOG website was used to estimate an annual traffic growth rate. Additional data provided by MRCOG was used to estimate COVID adjustment factors. The MRCOG website and internet searches were used to identify population densities and other coffee shop locations in the region, respectively.

Scope – The study area encompasses the existing roadway system in the vicinity of the project site and was approved by the City Traffic Engineering during the scoping process. Specifically, the following existing intersections were evaluated:

- San Mateo Blvd NE / Menaul Blvd NE
- San Mateo Blvd NE / Prospect Ave NE
- Menaul Blvd NE / Madeira Dr NE

The study includes 2021 (existing and year of anticipated site build) plus 2031 analysis horizons. Figure 1 illustrates the location of the study area intersections.

Level of Service (LOS) – According to the “ABC Comprehensive Plan” - 2017 update, this area around San Mateo Blvd NE / Menaul Blvd NE does not have a special economic development designation. San Mateo Blvd NE is designated a Major Transit Corridor, while Menaul Blvd NE is designated as a Multi-Modal Corridor. Using Table 7.5.81 in the “Development Process Manual”, 2020, LOS D-E is considered acceptable in the study area.

III. EXISTING CONDITIONS

A. General Area Characteristics

Figure 1 illustrates the location of the development site.

Existing land uses around the site consist of a mix of retail/commercial and small office buildings. The site is zoned MX-M which can include a wide array of moderate-intensity retail, commercial, institutional and residential uses. The latest proposed site plan is included in Appendix D. It shows proposed access locations – one to San Mateo Blvd and one to Menaul Blvd.

B. Area Street Network

The existing transportation network in the vicinity of the proposed development is illustrated in Figure 1. All roads in the study area are under the jurisdiction of the City of Albuquerque. The study area roads include the following:

Study Area Roadways:

- **San Mateo Blvd NE** – San Mateo Blvd is a Principal Arterial. By the site, the roadway section consists of three travel lanes in each direction with a raised median and left turn lanes at intersections. There are attached sidewalks on both sides. The posted speed limit is 45 mph.
- **Menaul Blvd NE** – Menaul Blvd NE is a Principal Arterial. By the site, the roadway section consists of three travel lanes in each direction with a raised median and left turn lanes at intersections. There are detached sidewalks on both sides. The posted speed limit is 35 mph.
- **Prospect Ave NE** – Prospect Ave NE is a local roadway, consisting of one travel lane per direction with sidewalks on both sides. The speed limit is 30 mph.
- **Madeira Dr NE** – Madeira Dr NE is a local roadway, consisting of one travel lane per direction with sidewalks on both sides. The speed limit is 30 mph.

Study Area Intersections:

- **San Mateo Blvd NE / Menaul Blvd NE** – The San Mateo Blvd / Menaul Blvd intersection is a signalized four-legged intersection, with protected-only left turn signal phases on all approaches. The north leg of the intersection has two left turn lanes, two through lanes and one shared through-right turn lane southbound, and three lanes northbound. The left turn lanes have approximately 180 feet of storage. The south leg has two left turn lane, three through lanes, and one right turn lane northbound, plus three lanes southbound. The left turn lanes have approximately 200 feet of storage, while the right turn lane has approximately 280 feet of storage. The east leg has two left turn lanes, two through lanes and one shared through-right turn lane westbound, and three lanes eastbound. The left turn lanes have approximately 190 feet of storage. The west leg has two left turn lanes, two through lanes and one shared through-right turn lane eastbound, and three lanes westbound. The left turn lanes have approximately 180 feet of storage.
- **San Mateo Blvd NE / Prospect Ave NE** – The San Mateo Blvd / Prospect Ave intersection is a signalized four-legged intersection, with protected-permitted left turns north and southbound, and permitted left turns east and westbound. The north and south legs each consist of two through lanes, one shared through-right turn lane, one left turn lane with approximately 125 feet of storage, and three departing lanes. The east and west legs each consist of one left turn lane with approximately 100 feet of storage, one shared through-right turn lane, and one departing lane.
- **Menaul Blvd NE / Madeiro Dr NE** – The Menaul Blvd / Madeiro Dr intersection is a four-legged intersection with “stop” sign control on the north and south legs. There is a raised median along Menaul Blvd that prohibits northbound and southbound left and through movements. Eastbound and westbound left turns from Menaul are allowed. The north

and south legs each consist of one lane per direction. East and west legs consist of two through lanes, one shared through-right lane, channelized left turn lanes, and three departing lanes.

C. Existing Traffic Volumes

Existing (2021) peak period intersection turning movement traffic volume counts were collected for this study at the following intersections on Tuesday, January 12, 2021:

- San Mateo Blvd NE / Menaul Blvd NE
- San Mateo Blvd NE / Prospect Ave NE
- Menaul Blvd NE / Madeiro Dr NE

A summary of the existing peak hour intersection turning movement traffic volume counts are illustrated in Figure 2. Detailed traffic count data is provided in Appendix "A".

Data has shown that, due to the effects of COVID-19, traffic volumes have been significantly lower than normal. To quantify these effects, peak AM and PM hour two-way count data from 2019 was obtained from the Mid Region Council of Governments (MRCOG) on Alameda Blvd NE west of Jefferson Street NE and compared to the new collected count data. From 7 to 8 am, volumes were down 27% from pre-COVID levels and volumes from 4 to 5 pm were 14.5% lower. To account for the reduction in volumes, AM peak hour volumes were multiplied by 1.37 to bring them to pre-COVID levels and PM peak hour volumes were multiplied by 1.17. These adjustment factors were approved by the City of Albuquerque Traffic Engineer. Figure 3 presents the 2021 COVID adjusted existing traffic volumes.

D. Existing Levels of Service

The capacity analyses in this study utilized the methodologies contained in the Highway Capacity Manual 6th edition (HCM) employing "Synchro 11" software and resulted in a qualitative measure of the operational characteristics of each intersection described by a letter designation ranging from "A" to "F" known as "Level of Service" (LOS). LOS "A" represents free-flow operating conditions, whereas LOS "F" represents excessive congestion and delay. Unsignalized intersection capacity analysis reports a LOS designation for each impeded intersection movement. Signalized intersection capacity analysis reports state the overall LOS designation for the intersection as well as for each lane group and approach.

Capacity analysis was conducted for both the AM and PM peak hours using the COVID Adjusted Existing Traffic Volumes, shown in Figure 3. The calculated LOS, by movement and for the overall intersections, are shown in Table 4 and on Figure 12. Review indicates that the southbound, eastbound and westbound left turn movements each experience LOS "E". This delay is caused by some congestion, but mostly by the long traffic signal cycle lengths. When cycle lengths are longer (which is typical on arterial roads), vehicles waiting to make mainline left turns and on the side streets must wait longer at red lights. With cycle lengths of 110 seconds for the AM peak hour and 120 seconds for the PM peak hour, on average, vehicles on these protected-only left turn movements must wait more than one minute at the red light, which translates to LOS "E". The only mitigations for this are to either increase the amount of green time for the left turn movements or reduce the cycle length. Both solutions will degrade the traffic signal progression and are not recommended.

E. Existing Transit Service

ABQ Ride Bus Routes 140 and 141 travel north-south along San Mateo Blvd. Bus Route 8 travels east-west along Menaul Blvd. There are bus stops with shelters in the study area, but no bus pull-outs.

F. Bicycle and Pedestrian Considerations

Pedestrians – Attached sidewalks are present along both sides of each of the study area roads. Pedestrian crosswalks, ADA ramps, signal heads and push buttons exist for all approaches of the intersections of San Mateo Blvd with Menaul Blvd and Prospect Ave. There are no existing or proposed pedestrian trails in or near the study area.

Bicycles – There are no bicycle facilities on any of the study area roads. There are also no existing or proposed bicycle trails in or near the study area.

G. Safety Evaluation/Crash Data

Crash data, provided by the City of Albuquerque, was reviewed to see if there were any obvious patterns or crash causes that could be mitigated through traffic engineering improvements.

Table 1 presents a summary of the data from 2015 – 2019 at or adjacent to the intersection of San Mateo Blvd and Menaul Blvd. Overall, 247 crashes occurred during this period. Weather and lighting did not appear to be significant factors. There were 62 hit and run crashes and 7 involving trucks, plus 9 involving alcohol or drugs. There were 6 crashes involving a pedestrian and 7 involving a bicyclist. Crash data is presented in Appendix C.

Review of the crash statistics show a slightly higher than expected number of injury crashes. Head-on and sideswipe crashes are also higher than expected. In looking at recent aerial photos, the skip striping used to channelize motorist through the intersections are quite faded. In addition, the left turn signal heads are tough to see as they are mounted on separate poles closer to the ground and can get lost in the background. It is recommended that the intersection be re-striped and that reflective backplates be installed on the left turn signal heads. Consideration could also be given to adding an additional left turn signal head on each mast arm.

**TABLE 1
SUMMARY OF CRASH DATA**

Intersection of San Mateo with:	Fatal	Injury	PDO	Type							Cause										Weather			Lighting					Alcohol or Drugs	Ped	Bicyclist	Motorcycle	Truck	Hit/ Run
				Fixed Object	Right Angle	Sideswipe	Headon	Turning	Rear End	Other / Missing Data	Alcohol/ Drugs	Avoid No Contact	Driver Inattention	Excessive Speed	Follow Too Closely	Ignore Traffic Control	Failed to Yield ROW	Improper Lane Change	Improper Turn	Other / Missing Data	Clear	Rain	Snow	Daylight	Dusk / Dawn	Dark - Lighted	Dark - Not Lighted	Not Noted						
Menaul	0	69	178	8	36	43	37	18	27	62	8	7	65	18	29	33	20	13	9	41	231	11	5	187	8	39	2	11	9	6	7	8	7	62

There is concern with traffic exiting both the west and north access points attempting to take the northbound left off San Mateo at Menaul (West Access) and the eastbound left off Menaul at Madeiro (North Access). While some gaps in traffic might appear to make these movements tempting, there are significant safety concerns with cutting across three lanes of traffic to make these left turns. It is recommended that signs be erected at both side access points for motorists turning right to exit to not turn left at the adjacent intersection, but rather go straight and make the nearest safe U-turn movement.

IV. PROPOSED SITE TRAFFIC CHARACTERISTICS

A. Site Development Characteristics

The proposed development will consist of a 1,895 sf coffee shop with drive-thru. 14 parking spaces are proposed, with space for 15 vehicles to queue in the drive-thru lane. There is only one development phase and the coffee shop is anticipated to be in operation in 2021. The site will have one access point to San Mateo Blvd and one to Menaul Blvd.

B. Trip Generation

Trip generation projections for the proposed coffee shop development were forecast utilizing the publication Trip Generation, 10th Edition, by ITE. Estimates of total daily traffic volumes and AM and PM peak hour traffic volumes were calculated. A trip generation reduction for transit use was applied, determined from MRCOG mode split data. As indicated in ITE Trip Generation, 50% pass-by trips were assumed. Trip generation projections are provided in Table 2.

**TABLE 2
SITE TRIP GENERATION**

Coffee/Donut Shop w/Drive Thru 1,895 sf, ITE Land Use Code 937	Daily	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
Trip Generation	1,559	86	83	169	41	41	82
Pass-By Trips (50%)		43	43	86	21	21	42
Transit Adjust. (1.8%)		2	2	4	1	1	2
NET		41	38	79	19	19	38

C. Trip Distribution

The distribution of the projected vehicle trips generated by the coffee shop development was established based on an examination of population locations within a 1.5-mile radius of the site. Figure 5 illustrates the population census tracts and approach routes for the site. Locations of other coffee shops are shown in Figure 6. The blue star is the project site. The census tract map and population statistics were obtained from the MRCOG website. There are several other coffee shops in the area, mostly located to the east, west and south. There is an unserved population area mainly to the north of the site. Due to this, we anticipate most of the site traffic to arrive from the north along San Mateo Blvd NE. Table 3 presents the gravity model used to determine the trip distribution. Figure 7 illustrates the new trip distribution patterns for the development.

TABLE 3
TRIP DISTRIBUTION GRAVITY MODEL

Route / Census Tract / %	2010 Population	Intervening Opportunities	Population Used	Distance to Site (mi)	P / D	% of Trips Attracted
<u>Prospect EB</u>						
2.08 / .1	274	40%	110	0.5	219.20	1.1%
					219.20	1.0%
<u>Menaul EB</u>						
2.08 / .7	1915	30%	575	0.6	957.50	4.8%
2.05 / .3	969	30%	291	1.1	264.27	1.3%
34 / .1	453	30%	136	1.3	104.54	0.5%
3 / .3	1786	30%	536	1.3	412.15	2.1%
4.01 / .3	1314	30%	394	0.9	438.00	2.2%
					2176.47	11.0%
<u>Menaul WB</u>						
2.07 / .8	2706	40%	1,082	0.6	1804.00	9.1%
2.06 / .2	598	40%	239	1.1	217.45	1.1%
1.19 / .2	184	40%	74	1.4	52.57	0.3%
1.22 / .4	1635	40%	654	1.3	503.08	2.5%
1.24 / .4	1457	40%	583	1.2	485.67	2.5%
6.01 / .1	1154	40%	462	1.3	355.08	1.8%
					3417.85	17.0%
<u>San Mateo SB</u>						
2.04 / .7	2300	85%	1,955	1.3	1503.85	7.6%
2.03 / .7	1367	85%	1,162	1.3	893.81	4.5%
2.05 / .7	2260	85%	1,921	0.8	2401.25	12.1%
2.06 / .8	2393	85%	2,034	0.8	2542.56	12.9%
2.07 / .1	338	85%	287	0.3	957.67	4.8%
2.08 / .2	547	85%	465	0.3	1549.83	7.8%
					9848.97	50.0%
<u>San Mateo NB</u>						
2.07 / .1	338	50%	169	0.3	563.33	2.8%
4.01 / .7	3065	50%	1,533	0.8	1915.63	9.7%
4.02 / .9	3074	50%	1,537	1.3	1182.31	6.0%
6.01 / .3	1154	50%	577	1.3	443.85	2.2%
					4105.11	21.0%
Total					19767.59	100.0%

D. Trip Assignment

Figure 8 illustrates the proposed new site trips, while Figure 9 presents the pass-by trips.

V. FUTURE TRAFFIC CONDITIONS AND ANALYSIS YEARS

A. Project Implementation Year

The project development is forecast to open and be operating in 2021.

B. Growth in Through Traffic

Background traffic volume forecasts for the 2031 analysis horizon were developed by applying a 1% annual growth rate, as approved by the City of Albuquerque Traffic Engineer.

C. Other Planned Development

No other planned developments were specified by the City Traffic Engineer for inclusion in this study. Figure 4 illustrates the projected no build traffic volumes for the 2031 analysis horizon.

D. Consideration of Planned Roadway Improvements

No planned roadway improvements were specified by the City Traffic Engineer for the study area.

E. Build Future Traffic

The site generated new and pass-by trips were added to the no build volumes to form the build future traffic volumes. Figure 10 shows the 2021 Build future traffic volumes, while Figure 11 presents the 2031 Build future traffic volumes.

VI. TRAFFIC ANALYSIS

All traffic scenarios (AM and PM peaks, existing, no-build and build volumes) were analyzed to assess the traffic effects of the proposed coffee shop.

A. Intersection and Roadway Analysis

In order to establish a base condition from which to evaluate the impact of the traffic generated by the proposed development on the study area intersections, peak hour capacity analyses were performed for the 2021 COVID adjusted existing and 2031 analysis horizon no build traffic conditions. Existing signal timing data was provided by the City Traffic Engineer and used in all analysis scenarios.

Existing traffic operational conditions for the 2021 COVID adjusted existing and 2031 no build scenarios are illustrated in Figures 12 and 13, respectively, plus summarized in Table 4. Analysis indicates that all existing LOS will be maintained with the traffic growth to 2031.

To evaluate the traffic impacts of the proposed coffee shop development on the study area roadway system, peak hour intersection capacity analyses for build traffic conditions were performed for the 2021 and 2031 analysis horizons at each of the study area intersections listed below:

- San Mateo Blvd NE / Menaul Blvd NE
- San Mateo Blvd NE / Prospect Ave NE
- Menaul Blvd NE / Madeiro Dr NE
- Menaul Blvd NE / North Access
- San Mateo Blvd NE / West Access

A narrative summary of the analyses and comparison to no-build traffic conditions for the 2021 and 2031 analysis horizons are provided below. The results of the build traffic operational analysis are summarized graphically for the 2021 analysis horizon in Figure 14, and on Figure 15 for the 2031 Build scenario. A summary of the results of the intersection capacity analysis is provided in Table 4 and detailed “Synchro 11” software intersection capacity analysis reports are provided in Appendix “B”. Delay is also shown for movements that are forecast to operate at LOS “E” or worse. For link analysis, a saturation flow rate of 1,900 vehicles per lane was assumed.

Study Area Intersections – Summary of Results:

- **San Mateo Blvd NE / Menaul Blvd NE** – Under 2021 existing conditions, analysis indicates that the eastbound, westbound and southbound left turn movements experience delay at LOS “E” during the AM and PM peak hours, due to some congestion and the long signal cycle lengths. LOS for all movements will remain unchanged in 2021 and 2031 with the addition of background growth and site traffic.
- **San Mateo Blvd NE / Prospect Ave NE** – Under 2021 existing conditions, analysis indicates all movements operate at acceptable LOS. Acceptable operations will continue with the background growth to 2031 and with the addition of site traffic. LOS for all movements will remain unchanged.
- **Menaul Blvd NE / Madeiro Dr NE** – Under 2021 existing conditions, analysis indicates that the northbound / southbound approaches and eastbound / westbound left turn movements operate at acceptable LOS. With the background growth to 2031 and the additional of site traffic, LOS for all movements will remain unchanged.
- **Menaul Blvd NE / North Access** – With the small amount of entering and exiting traffic at the site access, and due to the lack of room to construct any additional lanes, no auxiliary lanes are needed. The northbound right turn movement will operate at acceptable LOS with “stop” sign control.
- **San Mateo Blvd NE / West Access** – With the small amount of entering and exiting traffic at the site access, and due to the lack of room to construct any additional lanes, no auxiliary lanes are needed. The westbound right turn movement will operate at acceptable LOS with “stop” sign control.

TABLE 4
SUMMARY OF RESULTS – INTERSECTION/LINK CAPACITY ANALYSIS

INTERSECTION	INTERSECTION CONTROL	2021 EXISTING TRAFFIC		2021 BUILD TRAFFIC		2031 NO BUILD TRAFFIC		2031 BUILD TRAFFIC	
		AM PEAK LOS	PM PEAK LOS	AM PEAK LOS	PM PEAK LOS	AM PEAK LOS	PM PEAK LOS	AM PEAK LOS	PM PEAK LOS
1. San Mateo & Menaul	Signal								
a. NB L		D	D	D	D	D	E (55)	D	E (57)
b. NB T		B	C	B	C	B	C	B	C
c. NB R		B	D	B	D	B	D	B	D
d. SB L		D	E (61)	D	E (62)	E (55)	E (63)	E (58)	E (64)
e. SB TR		C	D	C	D	C	E (55)	C	E (56)
f. EB L		D	E (57)	D	E (57)	D	E (56)	D	E (56)
g. EB TR		C	D	C	D	C	D	C	D
h. WB L		D	E (67)	D	E (67)	D	E (69)	D	E (72)
i. WB TR		C	C	C	C	C	D	C	D
j. INTERSECTION		C	D	C	D	C	D	C	D
2. Menaul & Madeiro	2-Way Stop								
a. EB L		B	C	B	C	B	D	B	D
b. NB R		B	C	B	C	B	C	B	C
c. WB L		B	C	B	C	B	D	B	D
d. SB R		B	C	B	C	B	C	B	C
3. San Mateo & Prospect	2-Way Stop								
a. NB L		A	A	A	A	A	A	A	A
b. NB TR		A	A	A	A	A	B	A	B
c. SB L		A	A	A	A	A	A	A	A
d. SB TR		A	A	A	A	A	B	A	B
e. EB L		D	D	D	D	D	D	D	D
f. EB TR		A	D	D	D	D	D	D	D
g. WB L		D	D	D	D	D	D	D	D
h. WB TR		D	D	D	D	D	D	D	D
i. INTERSECTION		A	B	A	B	A	B	A	B
4. San Mateo & West Access	1-Way Stop								
a. WB R		-	-	B	C	-	-	B	C
5. Menaul & North Access	1-Way Stop								
a. NB R		-	-	B	C	-	-	B	C

TABLE 4 (continued)
SUMMARY OF RESULTS – INTERSECTION/LINK CAPACITY ANALYSIS (continued)

LINK	DIRECTION	2021 EXISTING TRAFFIC		2021 BUILD TRAFFIC		2031 NO BUILD TRAFFIC		2031 BUILD TRAFFIC	
		AM PEAK V/C	PM PEAK V/C	AM PEAK V/C	PM PEAK V/C	AM PEAK V/C	PM PEAK V/C	AM PEAK V/C	PM PEAK V/C
San Mateo, S of Menaul	NB	0.20	0.28	0.19	0.29	0.22	0.32	0.23	0.32
	SB	0.16	0.26	0.16	0.26	0.18	0.29	0.18	0.29
San Mateo, N of Menaul	NB	0.16	0.26	0.17	0.26	0.17	0.29	0.18	0.29
	SB	0.17	0.24	0.18	0.24	0.19	0.26	0.20	0.27
Menaul, W of San Mateo	EB	0.08	0.22	0.08	0.23	0.09	0.25	0.09	0.25
	WB	0.14	0.21	0.15	0.21	0.16	0.23	0.16	0.23
Menaul, E of San Mateo	EB	0.13	0.26	0.14	0.26	0.15	0.28	0.15	0.28
	WB	0.14	0.24	0.14	0.24	0.16	0.26	0.16	0.26
Prospect, W of San Mateo	EB	0.05	0.08	0.05	0.08	0.05	0.09	0.05	0.09
	WB	0.09	0.08	0.09	0.08	0.10	0.08	0.10	0.08

B. Queuing Analysis

Queue lengths at the study area intersections were calculated for the 2021 COVID adjusted existing, 2021 and 2031 no build and build traffic scenarios utilizing the “Synchro 11” 95th percentile reported queues. The queue length calculations are based on a 25-foot vehicle length. Table 5 provides a summary of this analysis for each of the study area intersections.

**TABLE 5
SUMMARY OF QUEUING ANALYSIS**

INTERSECTION	EXISTING STORAGE (FT/LN)	INTERSECTION CONTROL	2021 EXISTING TRAFFIC		2021 BUILD TRAFFIC		2031 NO BUILD TRAFFIC		2031 BUILD TRAFFIC	
			SYNCHRO 11 QUEUE LENGTH (FT/LN) 95TH%		SYNCHRO 11 QUEUE LENGTH (FT/LN) 95TH%		SYNCHRO 11 QUEUE LENGTH (FT/LN) 95TH%		SYNCHRO 11 QUEUE LENGTH (FT/LN) 95TH%	
			AM PEAK	PM PEAK	AM PEAK	PM PEAK	AM PEAK	PM PEAK	AM PEAK	PM PEAK
1. San Mateo & Menaul		Signal								
a. NB L	250'		75'	100'	100'	125'	75'	125'	100'	125'
b. NB T			225'	375'	225'	375'	250'	400'	250'	425'
c. NB R			75'	225'	25'	225'	25'	275'	25'	250'
d. SB L	250'		100'	150'	100'	150'	100'	150'	125'	150'
e. SB TR			250'	400'	250'	400'	275'	450'	275'	450'
f. EB L	225'		50'	125'	50'	125'	75'	125'	75'	125'
g. EB TR			125'	350'	125'	350'	125'	400'	125'	400'
h. WB L	250'		100'	200'	100'	200'	100'	225'	100'	250'
i. WB TR			175'	350'	175'	325'	200'	375'	200'	375'
2. Menaul & Madeiro		2-Way Stop								
a. EB L	75'		25'	25'	25'	25'	25'	25'	25'	25'
b. NB R			25'	25'	25'	25'	25'	25'	25'	25'
c. WB L	75'		25'	25'	25'	25'	25'	25'	25'	25'
d. SB R			25'	25'	25'	25'	25'	25'	25'	25'
4. San Mateo & Prospect		Signal								
a. NB L	100'		50'	25'	50'	25'	50'	50'	50'	50'
b. NB TR			150'	300'	150'	300'	175'	350'	175'	350'
c. SB L	125'		25'	25'	25'	25'	25'	25'	25'	25'
d. SB TR			125'	250'	125'	250'	150'	300'	150'	300'
e. EB L	100'		75'	75'	75'	75'	75'	75'	75'	75'
f. EB TR			50'	75'	50'	75'	50'	75'	50'	75'
g. WB L	125'		100'	150'	100'	150'	100'	150'	100'	150'
h. WB TR			25'	50'	25'	50'	50'	50'	50'	50'
5. President & West Access		2-Way Stop								
a. WB R			-	-	25'	25'	-	-	25'	25'
6. Washington & East Access		2-Way Stop								
a. NB R			-	-	25'	25'	-	-	25'	25'

All existing turning storage bay lengths appear long enough to handle forecast maximum queue lengths in 2021 and 2031, both with and without the development. Some through movements at the San Mateo / Menaul intersection have queues greater than 400 feet.

Since this analysis does not include progression from adjacent signals, it is possible that the queues are not as long as indicated in this table. If they are too long, solutions include increasing the split for the phases, modifying coordination patterns, or lengthening the left turn bays.

C. Alternative Intersection and Roadway Designs

The following road, intersection and traffic control improvements are proposed to fix existing storage and LOS issues, plus to mitigate the traffic effects of the proposed development:

- San Mateo / Menaul – Re-stripe the intersection to help channelize individual movements. Install reflective backplates on the left turn signal heads. Consider installing auxiliary left turn signal heads on the mast arms.
- San Mateo / West Access – Close the northern-most access to San Mateo. Tighten the remaining west access and channelize/strip right-in, right-out movements. Install a sign for right-turn existing motorists indicating “No Left Turn at Menaul”
- Menaul / North Access – Close the western-most access to Menaul. Tighten the remaining north access and channelize/strip right-in, right-out movement. Install a sign for right-turn existing motorists indicating “No Left Turn at Madeiro”

D. Signalization Warrant Analysis

As per instructions from the City Traffic Engineer, no traffic signal warrant analysis was conducted due to their being numerous traffic signals in this area already.

VII. SITE ACCESS REQUIREMENTS

A. Site Access and Circulation Plan

The proposed site plan is included in Appendix “D”.

B. Roadway Improvements

No roadway improvements are needed as mitigation measures.

C. Transportation System Management Actions

The recommendation to re-stripe the intersection of San Mateo and Menaul is considered a Transportation System Management action, as is the addition of secondary traffic signal heads and installing reflective backplates.

D. Drive-Thru Queuing Assessment

Several studies have been performed on queuing at drive-thru windows, including those at coffee shops. “Drive-Through Queue Generation”, published in February 2012 by Mike Spack, PE, PTOE, et.al., collected queue data at six coffee shops over a twelve to fourteen-day period. The average maximum queue was 11 vehicles, with an 85th-percentile queue of 14 vehicles. The proposed site plan provides enough space to queue 15 vehicles. Should additional queuing occur, it would spill back onto the parking lot and not block arterial through traffic.

VII. SUMMARY OF FINDINGS

The proposed 1,895 sf coffee shop development with drive-thru will not have a significant impact on the adjacent road system. LOS will not change at study area intersections with the addition of traffic from the development. Delay will increase slightly on some intersection movements due to site traffic.

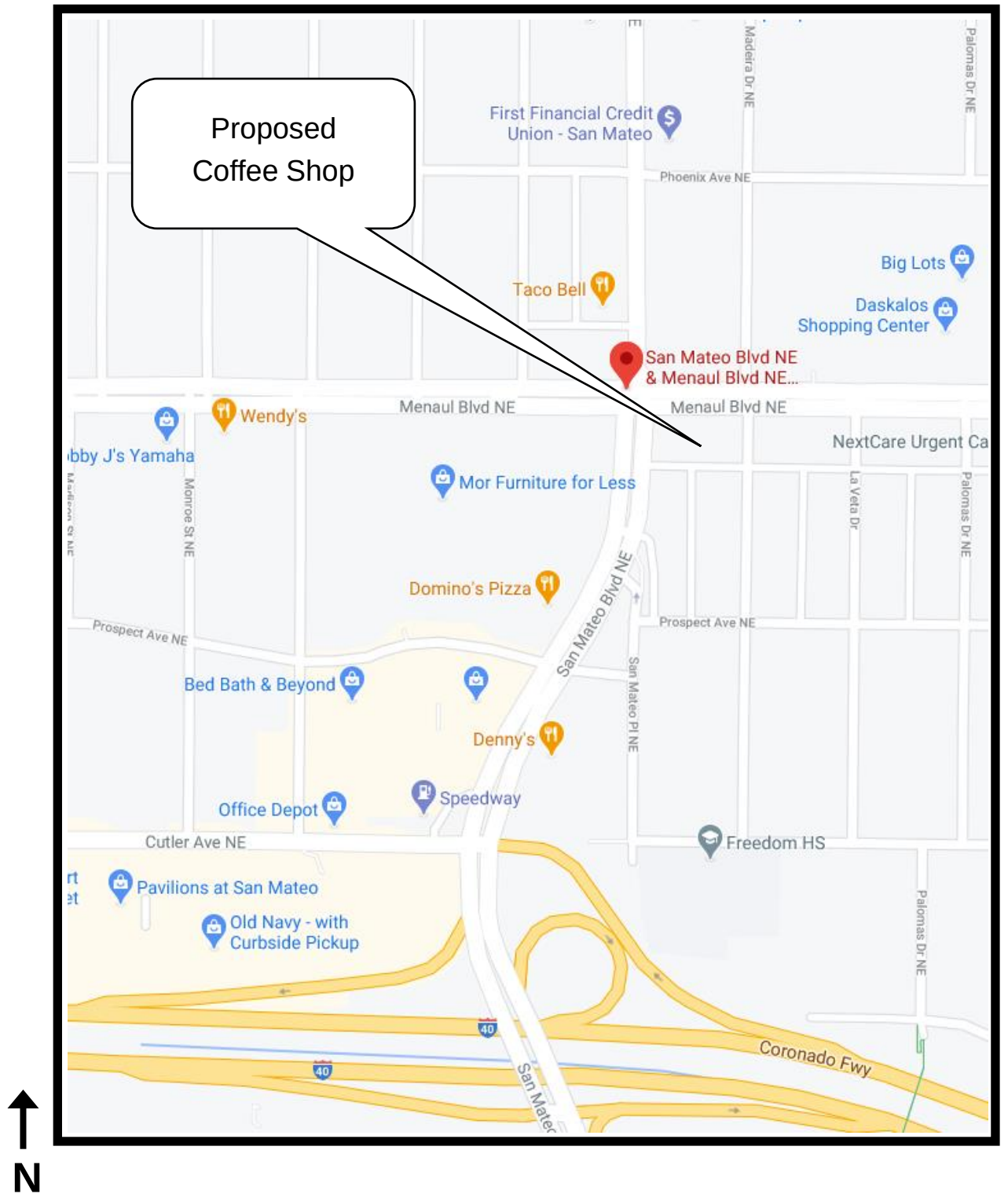
There is concern with traffic exiting both the west and north access points attempting to take the northbound left off San Mateo at Menaul (West Access) and the eastbound left off Menaul at Madeiro (North Access). While some gaps in traffic might appear to make these movements tempting, there are significant safety concerns with cutting across three lanes of traffic to make these left turns. It is recommended that signs be erected at both side access points for motorists turning right to exit to not turn left at the adjacent intersection, but rather go straight and make the nearest safe u-turn movement.

VII. RECOMMENDATIONS AND MITIGATION MEASURES

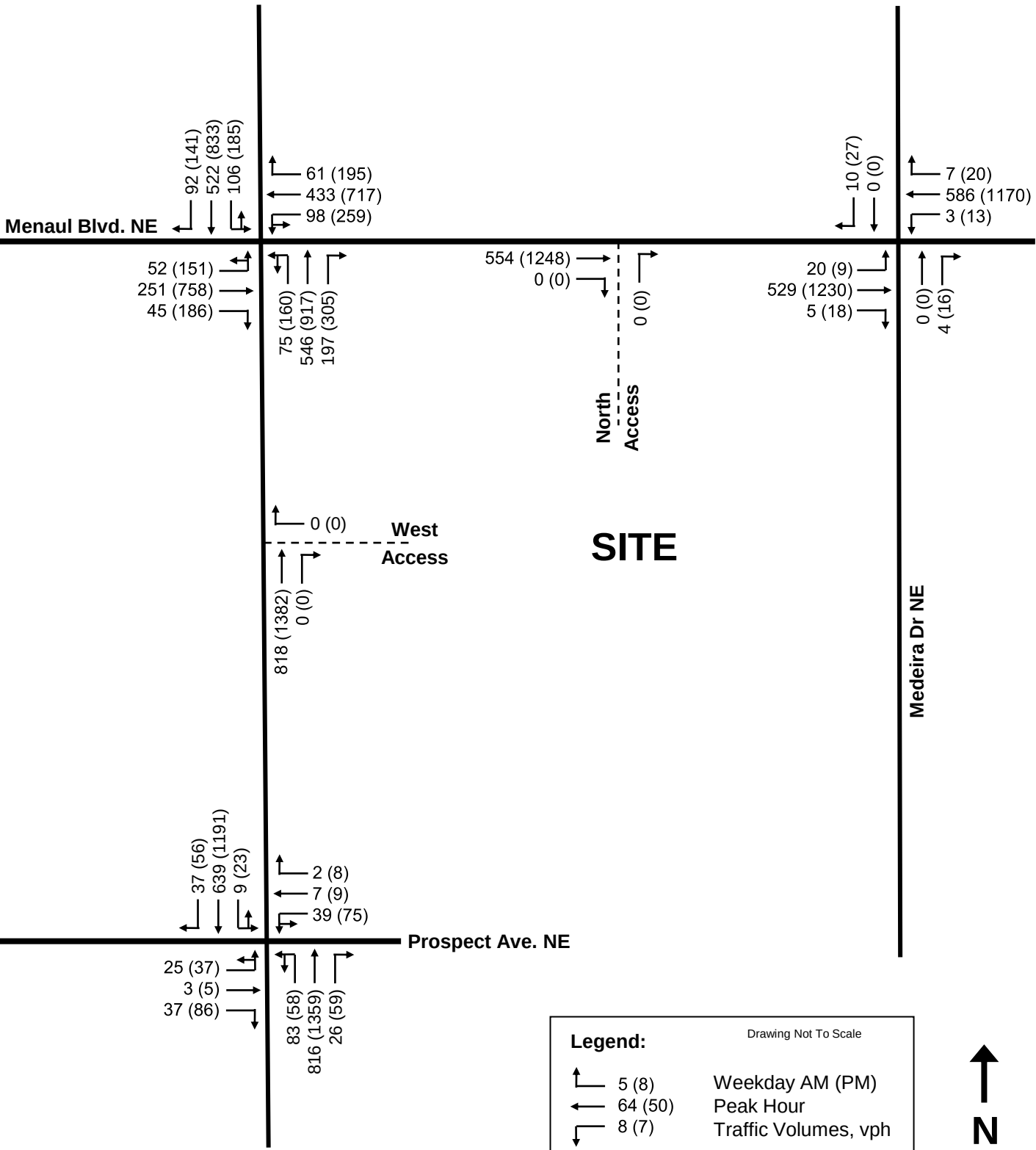
Based on the analyses contained herein the following recommendations for improvements to the study area intersections due to forecast background growth and the proposed coffee shop development, are presented in Table 6.

TABLE 6
SUMMARY OF RECOMMENDATIONS

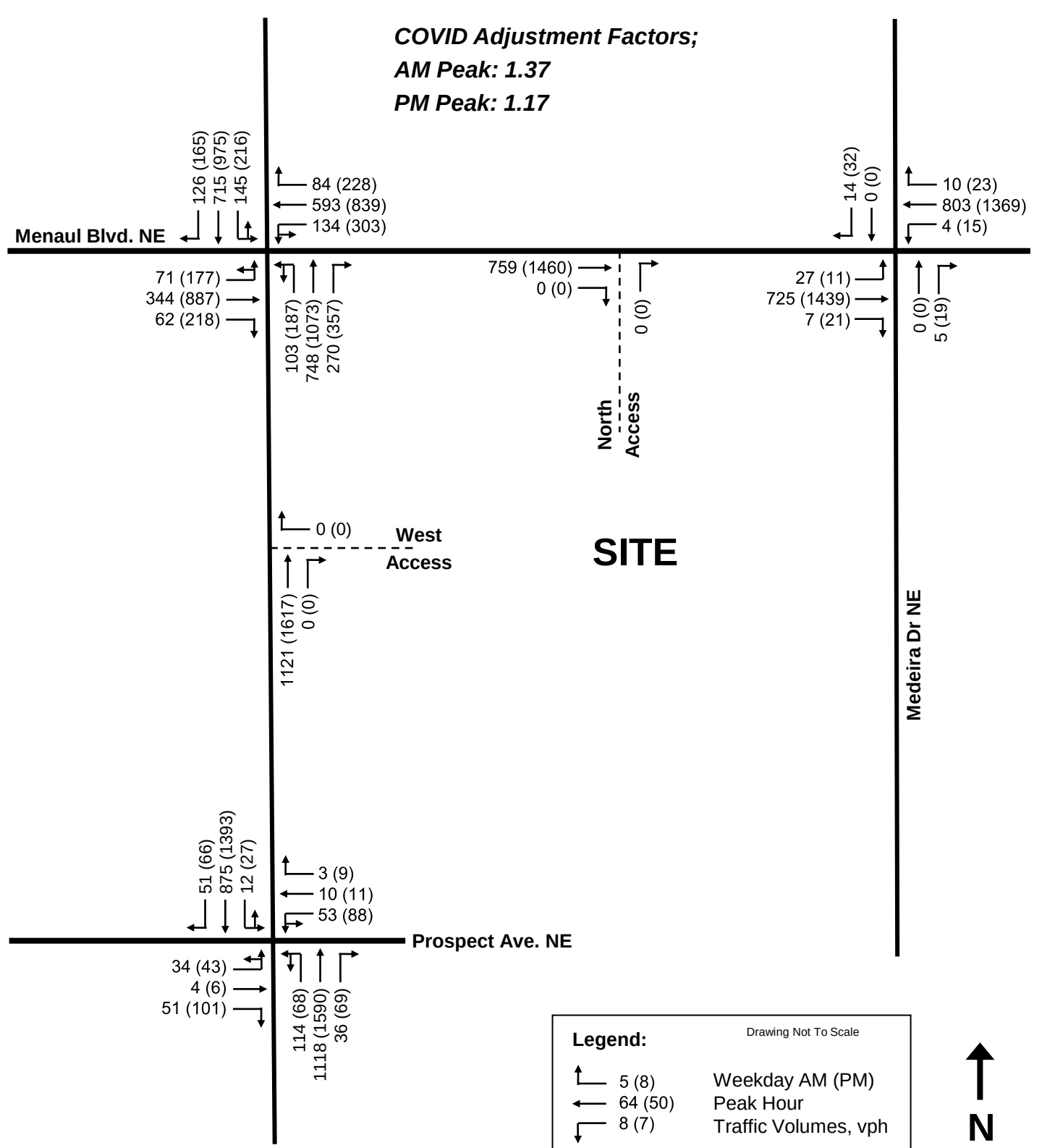
Intersection	Recommendations	Responsible	Timing
San Mateo / Menaul	- Re-stripe the intersection to help channelize individual movements - Install reflective backplates on the left turn signal heads - Consider installing auxiliary left turn signal heads on the mast arms.	City of Albuquerque	When deemed needed
San Mateo / Prospect	None		
Menaul / Madeiro	None		
San Mateo / West Access	- Close the northern-most access to San Mateo - Tighten the remaining west access and channelize/strip right-in, right-out movements - Install a sign for right-turn existing motorists indicating "No Left Turn at Menaul"	Developer	By Opening
Manaul / North Access	- Close the western-most access to Menaul - Tighten the remaining north access and channelize/strip right-in, right-out movements - Install a sign for right-turn existing motorists indicating "No Left Turn at Madeiro"	Developer	By Opening



Coffee Shop, San Mateo & Menaul, Albuquerque NM

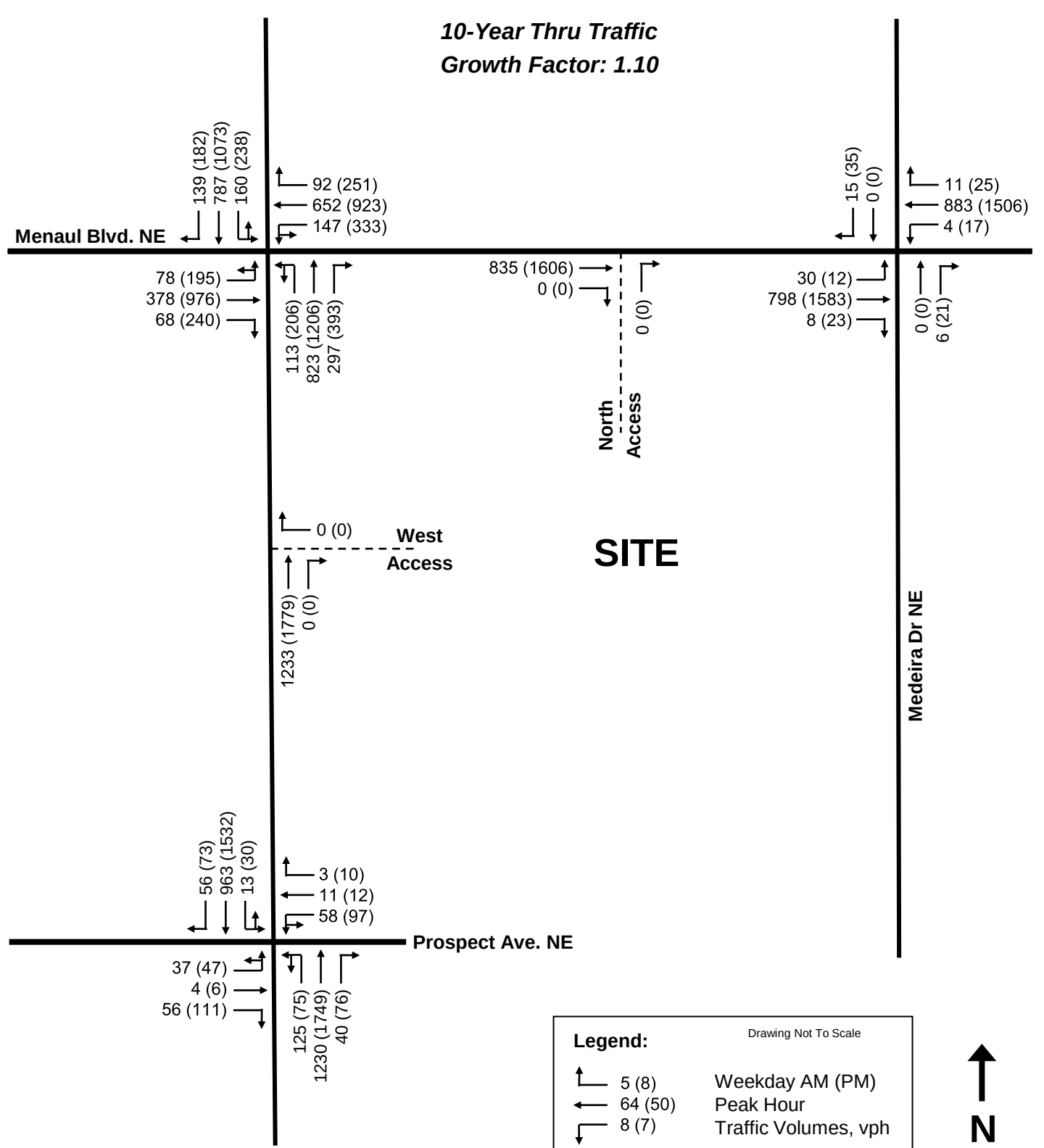


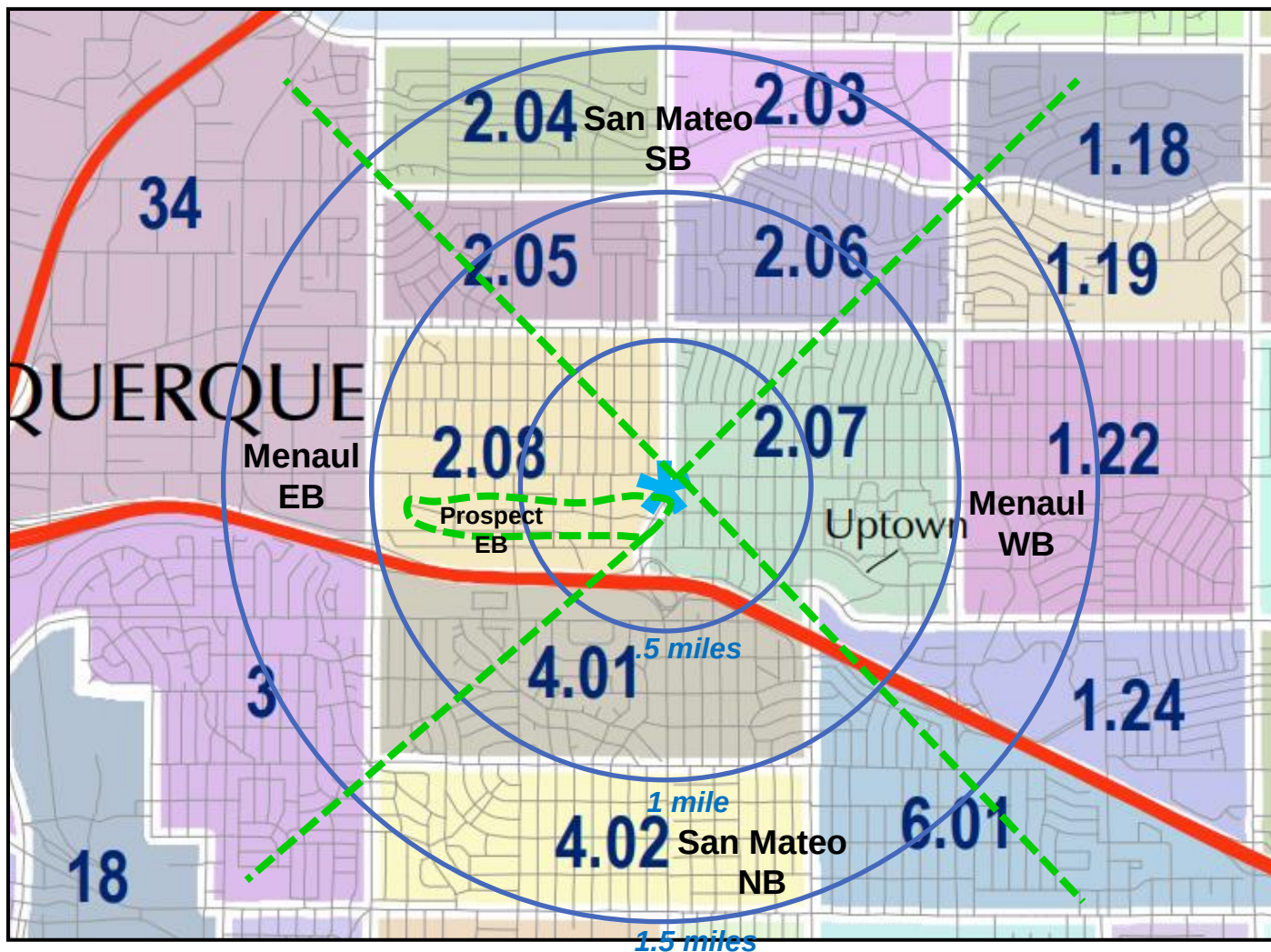
COVID Adjustment Factors;
AM Peak: 1.37
PM Peak: 1.17



Coffee Shop, San Mateo & Menaul, Albuquerque NM

**10-Year Thru Traffic
Growth Factor: 1.10**





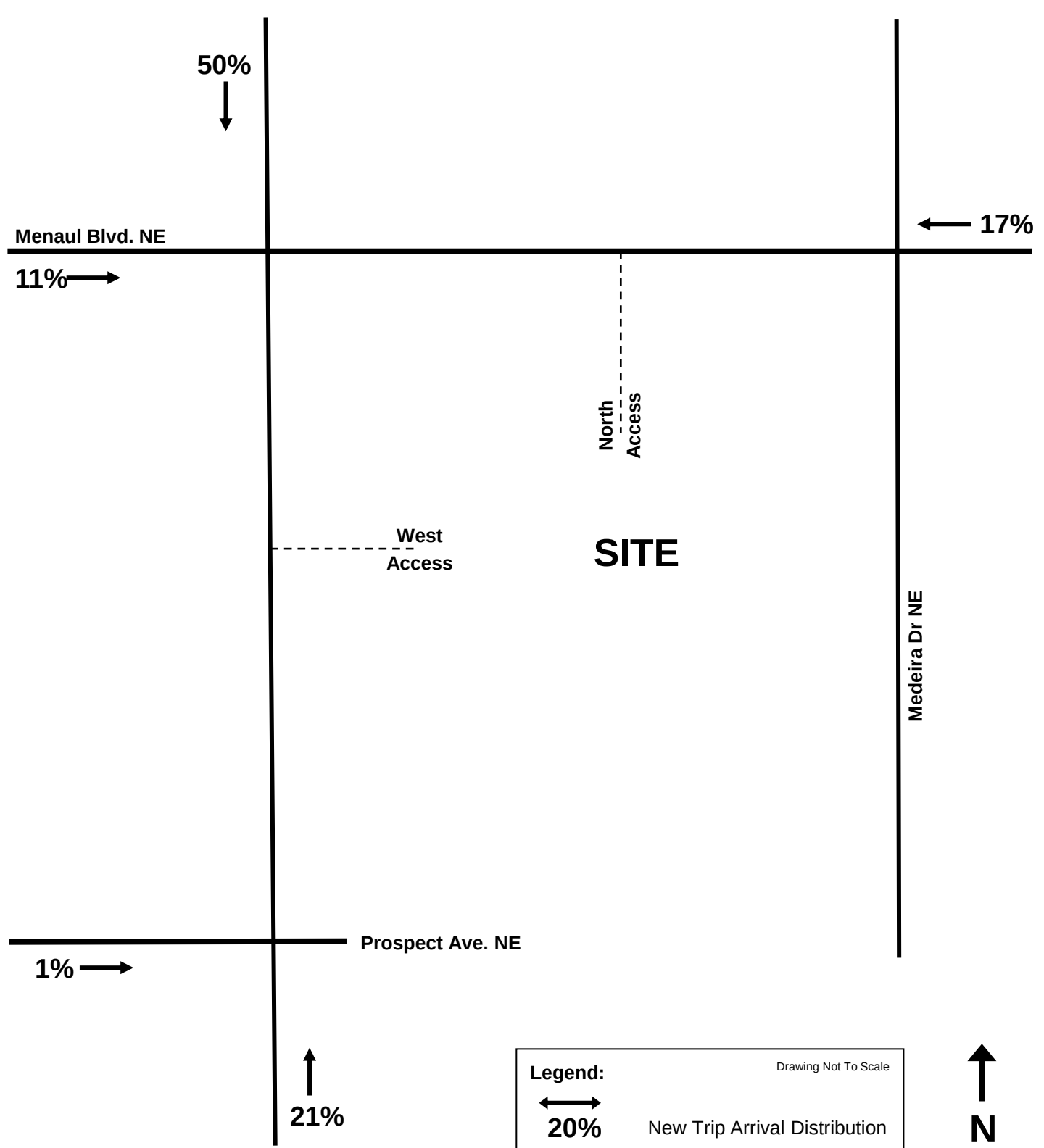
Coffee Shop, San Mateo & Menaul, Albuquerque NM



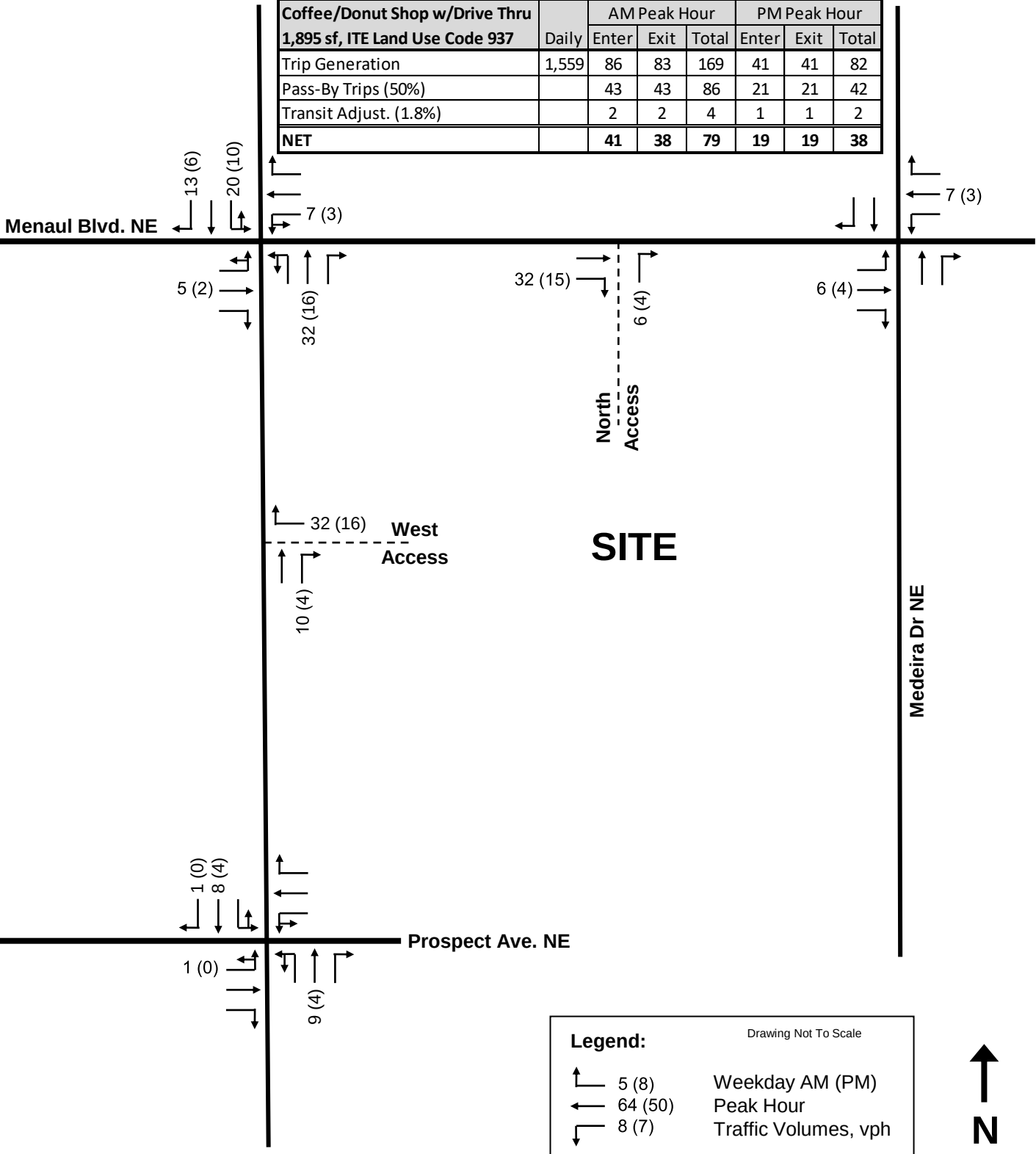
Coffee Shop, San Mateo & Menaul, Albuquerque NM

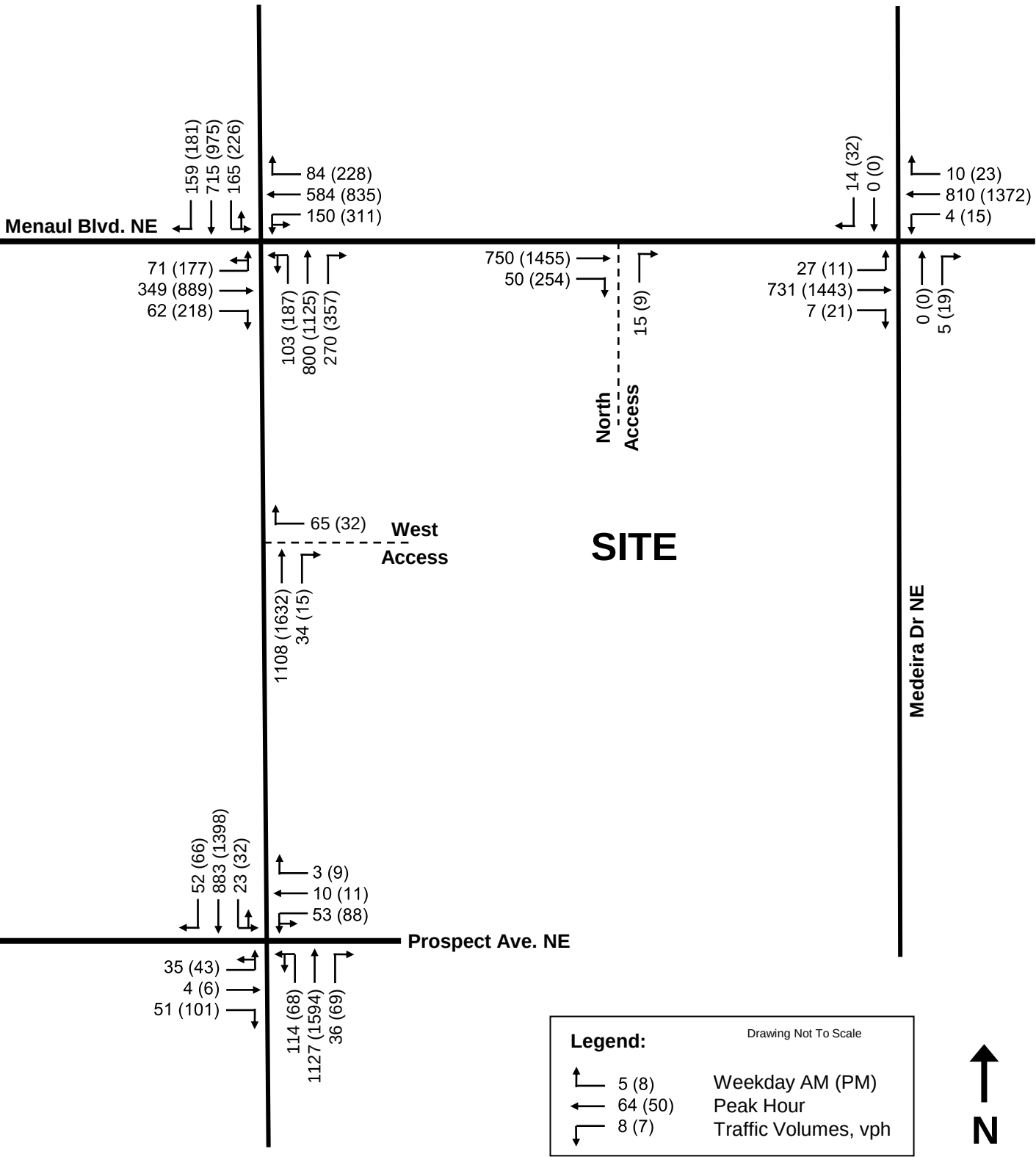
Other Area Coffee Shops

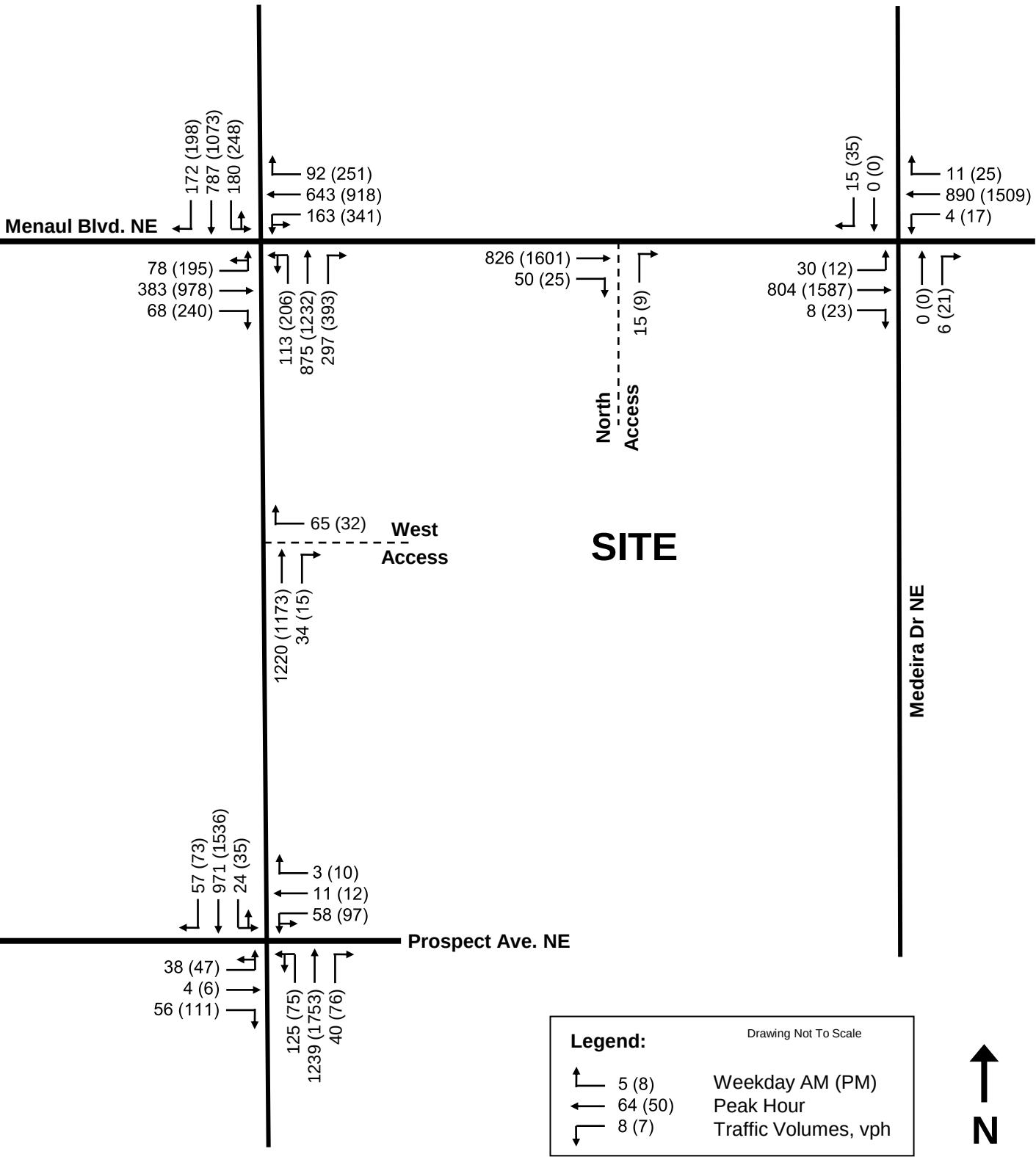
Figure 6

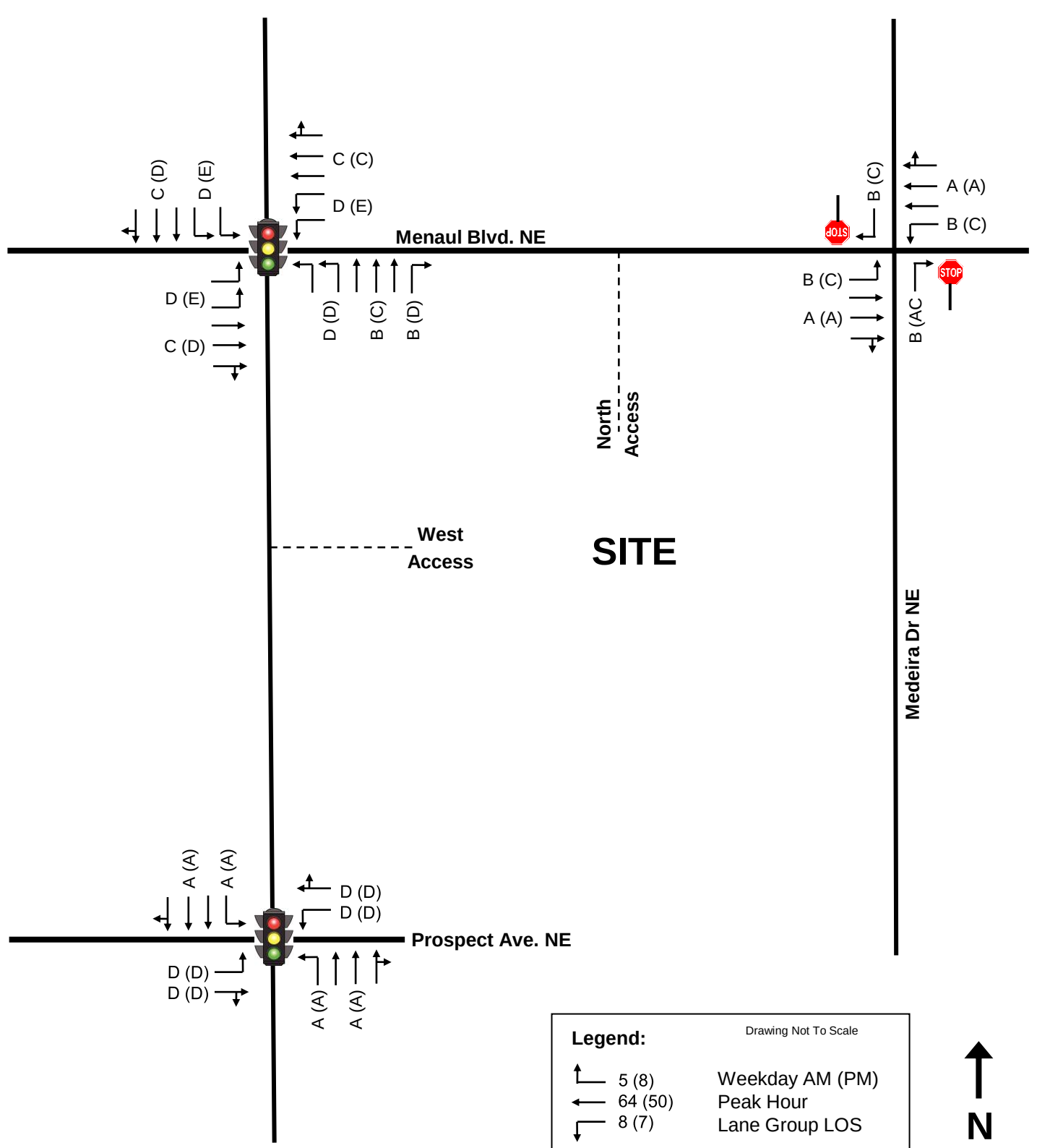


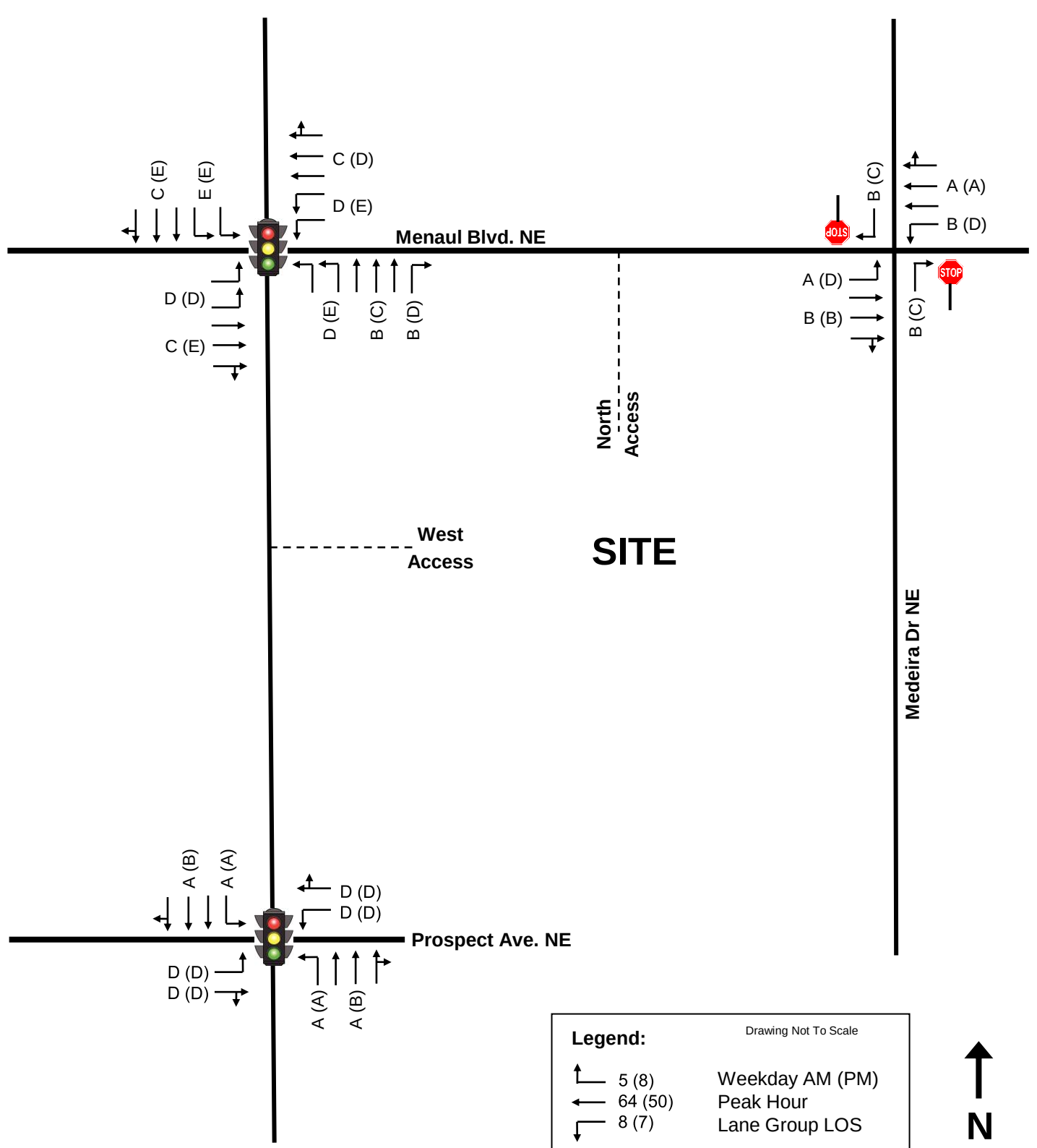
Coffee/Donut Shop w/Drive Thru 1,895 sf, ITE Land Use Code 937	Daily	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
Trip Generation	1,559	86	83	169	41	41	82
Pass-By Trips (50%)		43	43	86	21	21	42
Transit Adjust. (1.8%)		2	2	4	1	1	2
NET		41	38	79	19	19	38



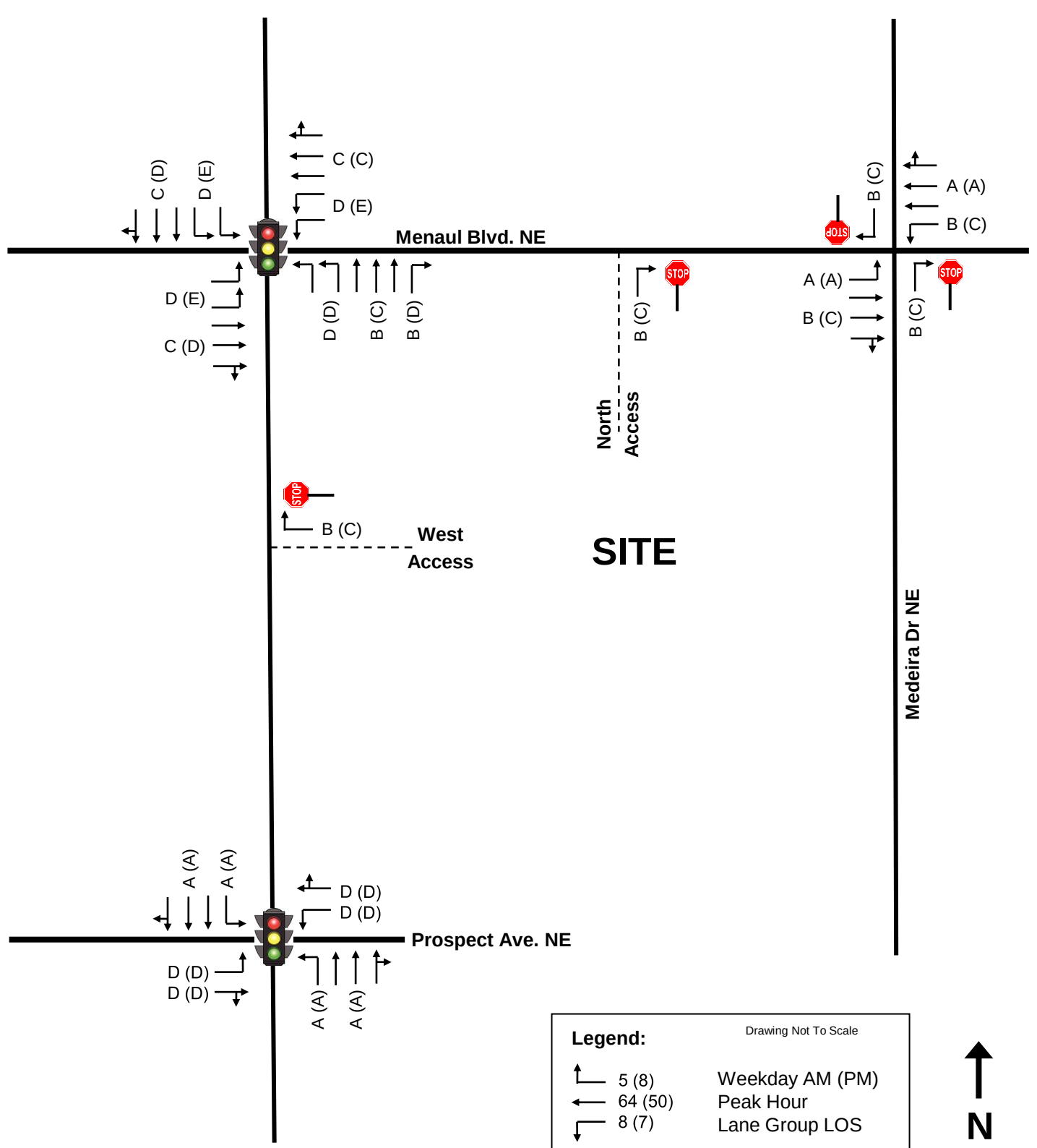


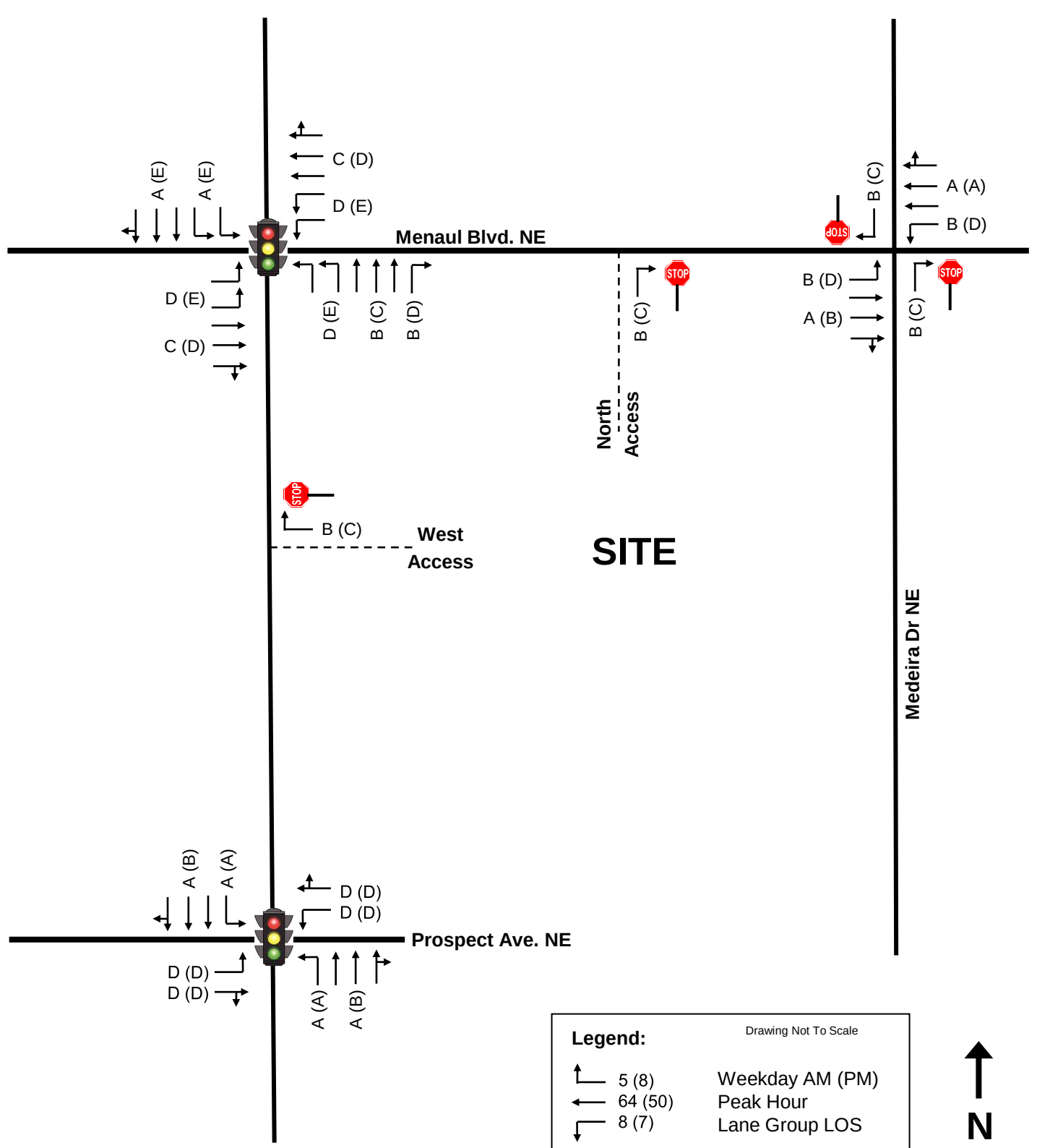






Coffee Shop, San Mateo & Menaul, Albuquerque NM





Coffee Shop, San Mateo & Menaul, Albuquerque NM

Appendix A

TRAFFIC COUNT DATA



ALL TRAFFIC DATA SERVICES

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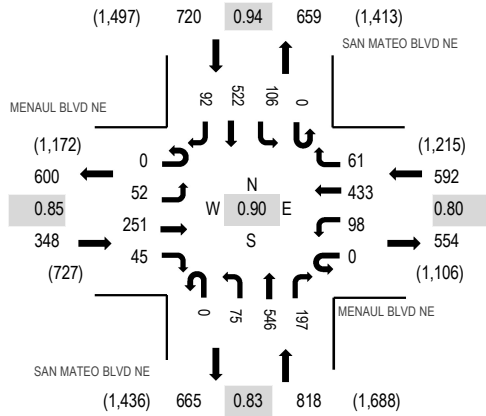
Location: 1 SAN MATEO BLVD NE & MENAUL BLVD NE AM

Date: Tuesday, January 12, 2021

Peak Hour: 07:45 AM - 08:45 AM

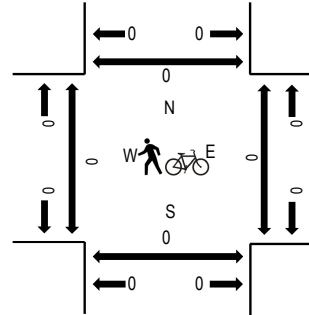
Peak 15-Minutes: 07:45 AM - 08:00 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

Interval Start Time	MENAUL BLVD NE Eastbound				MENAUL BLVD NE Westbound				SAN MATEO BLVD NE Northbound				SAN MATEO BLVD NE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
6:30 AM	0	3	20	5	0	12	56	7	0	2	72	8	0	8	72	13	278	1,435	0	0	0	0
6:45 AM	0	4	38	7	0	13	61	13	0	5	102	16	0	16	79	9	363	1,716	0	0	0	0
7:00 AM	0	2	39	13	0	14	64	12	0	7	73	16	0	6	83	15	344	2,038	0	0	0	0
7:15 AM	0	4	53	8	0	20	78	14	0	7	112	24	0	17	104	9	450	2,258	0	0	0	0
7:30 AM	0	11	62	10	0	18	94	18	0	9	115	47	0	22	139	14	559	2,400	1	0	0	0
7:45 AM	0	15	55	11	0	29	139	18	0	22	159	45	0	31	134	27	685	2,478	0	0	0	0
8:00 AM	0	8	53	11	0	28	114	13	0	16	119	42	0	25	113	22	564	2,448	0	0	0	0
8:15 AM	0	13	64	10	0	19	88	13	0	19	132	52	0	24	135	23	592		0	0	0	0
8:30 AM	0	16	79	13	0	22	92	17	0	18	136	58	0	26	140	20	637		0	0	0	0
8:45 AM	0	14	72	14	0	33	81	15	0	26	163	66	0	22	127	22	655		0	0	0	0
Count Total	0	90	535	102	0	208	867	140	0	131	1,183	374	0	197	1,126	174	5,127		1	0	0	0
Peak Hour	0	52	251	45	0	98	433	61	0	75	546	197	0	106	522	92	2,478		0	0	0	0



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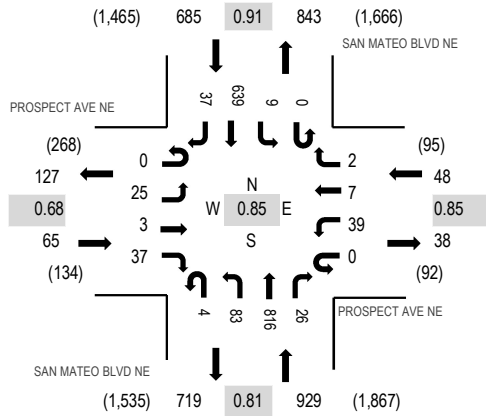
Location: 2 SAN MATEO BLVD NE & PROSPECT AVE NE AM

Date: Tuesday, January 12, 2021

Peak Hour: 08:00 AM - 09:00 AM

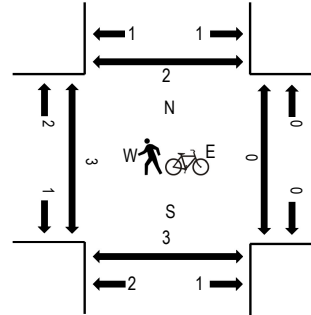
Peak 15-Minutes: 08:45 AM - 09:00 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

Interval Start Time	PROSPECT AVE NE Eastbound				PROSPECT AVE NE Westbound				SAN MATEO BLVD NE Northbound				SAN MATEO BLVD NE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
6:30 AM	0	2	1	4	0	7	1	0	0	10	85	3	0	1	90	2	206	999	0	0	0	0
6:45 AM	0	4	0	5	0	4	0	0	2	17	111	5	0	0	92	7	247	1,161	0	0	0	0
7:00 AM	0	1	0	7	0	4	3	1	0	12	87	3	0	6	86	7	217	1,381	0	0	0	0
7:15 AM	0	3	0	9	0	7	0	0	1	14	136	8	0	2	143	6	329	1,549	0	0	0	0
7:30 AM	0	3	0	5	0	5	0	0	0	15	170	5	0	2	150	13	368	1,611	2	0	0	0
7:45 AM	0	5	3	17	0	11	4	0	2	25	215	12	0	3	165	5	467	1,684	0	0	0	0
8:00 AM	0	3	0	9	0	12	2	1	2	12	183	5	0	1	147	8	385	1,727	1	0	2	0
8:15 AM	0	6	1	7	0	8	2	0	1	21	181	7	0	2	144	11	391		0	0	1	0
8:30 AM	0	6	2	9	0	11	0	0	1	22	201	6	0	5	168	10	441		1	0	0	1
8:45 AM	0	10	0	12	0	8	3	1	0	28	251	8	0	1	180	8	510		1	0	0	1
Count Total	0	43	7	84	0	77	15	3	9	176	1,620	62	0	23	1,365	77	3,561		5	0	3	2
Peak Hour	0	25	3	37	0	39	7	2	4	83	816	26	0	9	639	37	1,727		3	0	3	2



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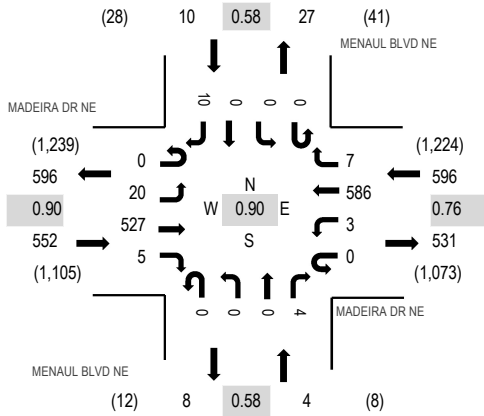
Location: 3 MENAUL BLVD NE & MADEIRA DR NE AM

Date: Tuesday, January 12, 2021

Peak Hour: 07:45 AM - 08:45 AM

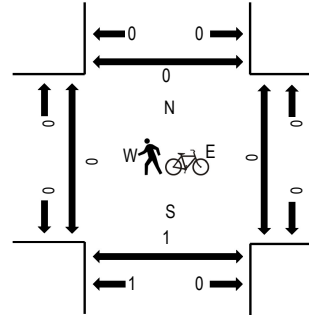
Peak 15-Minutes: 07:45 AM - 08:00 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

Interval Start Time	MADEIRA DR NE Eastbound				MADEIRA DR NE Westbound				MAENAL BLVD NE Northbound				MAENAL BLVD NE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
6:30 AM	0	0	37	1	0	0	77	0	0	0	0	0	0	0	0	0	115	633	0	0	0	0
6:45 AM	0	1	69	0	0	0	87	0	0	0	0	0	0	0	0	0	157	781	0	0	0	0
7:00 AM	0	3	58	0	0	0	91	0	0	0	0	0	0	0	0	5	157	946	0	0	0	0
7:15 AM	1	3	86	0	0	0	110	1	0	0	0	1	0	0	0	2	204	1,062	0	0	2	0
7:30 AM	1	0	127	1	0	0	127	2	0	0	0	0	0	0	0	5	263	1,123	1	1	0	0
7:45 AM	0	3	121	1	0	1	191	3	0	0	0	0	0	0	0	2	322	1,162	0	0	0	0
8:00 AM	0	9	112	1	0	1	145	1	0	0	0	2	0	0	0	2	273	1,147	0	0	0	0
8:15 AM	0	4	137	0	0	0	119	1	0	0	0	1	0	0	0	3	265		0	0	1	0
8:30 AM	0	4	157	3	0	1	131	2	0	0	0	1	0	0	0	3	302		0	0	0	0
8:45 AM	2	1	162	0	0	2	128	3	0	1	0	2	0	0	0	6	307		0	0	0	0
Count Total	4	28	1,066	7	0	5	1,206	13	0	1	0	7	0	0	0	28	2,365		1	1	3	0
Peak Hour	0	20	527	5	0	3	586	7	0	0	0	4	0	0	0	10	1,162		0	0	1	0



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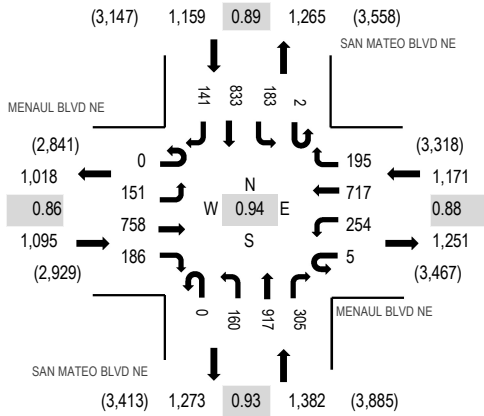
Location: 1 SAN MATEO BLVD NE & MENAUL BLVD NE PM

Date: Tuesday, January 12, 2021

Peak Hour: 04:30 PM - 05:30 PM

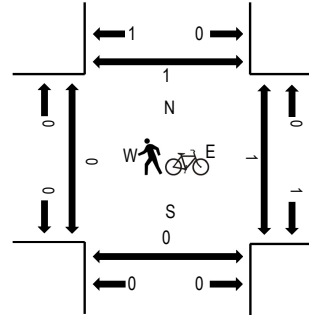
Peak 15-Minutes: 05:00 PM - 05:15 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

Interval Start Time	MENAUL BLVD NE Eastbound				MENAUL BLVD NE Westbound				SAN MATEO BLVD NE Northbound				SAN MATEO BLVD NE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
3:30 PM	1	31	190	48	1	67	214	56	0	44	203	93	0	54	161	32	1,195	4,731	0	0	1	2
3:45 PM	1	38	162	38	0	69	173	43	0	33	252	101	0	54	184	41	1,189	4,683	0	1	0	0
4:00 PM	0	43	200	52	1	59	205	54	0	40	228	67	0	52	162	26	1,189	4,648	1	1	0	0
4:15 PM	2	51	172	24	0	63	137	51	0	52	237	85	0	56	203	25	1,158	4,733	0	1	0	2
4:30 PM	0	37	184	54	2	54	202	52	0	40	195	67	0	47	185	28	1,147	4,807	0	1	0	0
4:45 PM	0	34	167	47	1	62	161	33	0	42	225	93	1	42	207	39	1,154	4,727	0	0	0	0
5:00 PM	0	40	230	47	2	62	178	51	0	37	233	69	0	57	227	41	1,274	4,586	0	0	0	0
5:15 PM	0	40	177	38	0	76	176	59	0	41	264	76	1	37	214	33	1,232	4,236	0	0	0	1
5:30 PM	0	32	159	42	0	69	175	37	0	32	205	60	3	50	177	26	1,067	3,741	0	0	0	1
5:45 PM	0	27	146	33	1	66	129	45	0	44	191	66	1	44	185	35	1,013		1	0	1	1
6:00 PM	0	33	124	36	0	53	154	53	0	21	172	60	0	42	144	32	924		1	0	0	1
6:15 PM	0	29	98	22	0	45	92	35	0	30	142	45	1	33	138	27	737		1	0	0	0
Count Total	4	435	2,009	481	8	745	1,996	569	0	456	2,547	882	7	568	2,187	385	13,279		4	4	2	8
Peak Hour	0	151	758	186	5	254	717	195	0	160	917	305	2	183	833	141	4,807		0	1	0	1



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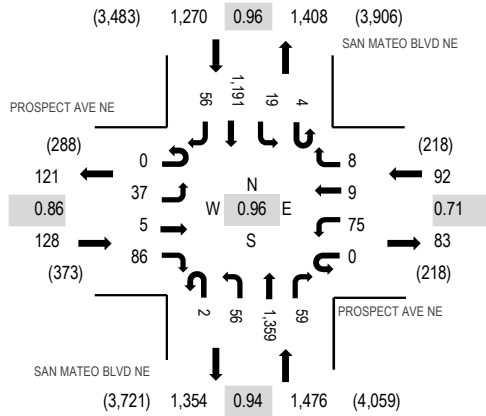
Location: 2 SAN MATEO BLVD NE & PROSPECT AVE NE PM

Date: Tuesday, January 12, 2021

Peak Hour: 04:30 PM - 05:30 PM

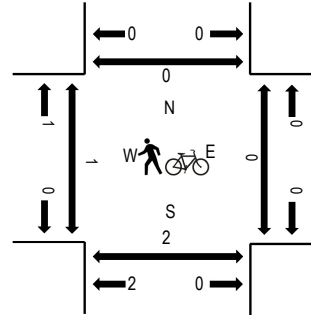
Peak 15-Minutes: 05:00 PM - 05:15 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

Interval Start Time	PROSPECT AVE NE Eastbound				PROSPECT AVE NE Westbound				SAN MATEO BLVD NE Northbound				SAN MATEO BLVD NE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
3:30 PM	0	12	2	26	0	20	2	0	3	10	329	7	0	10	283	5	709	2,840	1	0	0	0
3:45 PM	0	8	2	18	0	8	2	1	1	10	373	10	0	2	278	10	723	2,828	0	0	3	0
4:00 PM	0	11	1	18	0	15	2	1	2	18	344	4	1	6	266	15	704	2,838	3	0	2	0
4:15 PM	0	8	0	24	0	15	3	5	2	14	339	7	1	4	274	8	704	2,909	1	0	0	0
4:30 PM	0	9	1	9	0	12	2	0	1	11	333	18	1	3	287	10	697	2,966	0	0	0	0
4:45 PM	0	8	3	19	0	15	4	3	1	13	335	10	0	6	305	11	733	2,947	0	0	0	0
5:00 PM	0	12	0	30	0	26	3	5	0	18	347	18	0	4	289	23	775	2,836	0	0	0	0
5:15 PM	0	8	1	28	0	22	0	0	0	14	344	13	3	6	310	12	761	2,615	1	0	2	0
5:30 PM	0	13	1	22	0	15	3	0	2	11	296	15	1	7	284	8	678	2,327	1	0	0	2
5:45 PM	0	7	1	21	0	8	1	0	1	7	275	13	1	9	268	10	622		1	0	1	0
6:00 PM	0	14	2	18	0	9	1	1	0	6	245	13	3	6	229	7	554		0	0	2	0
6:15 PM	0	3	1	12	0	12	0	2	2	11	202	11	2	1	211	3	473		2	0	1	0
Count Total	0	113	15	245	0	177	23	18	15	143	3,762	139	13	64	3,284	122	8,133		10	0	11	2
Peak Hour	0	37	5	86	0	75	9	8	2	56	1,359	59	4	19	1,191	56	2,966		1	0	2	0



ALL TRAFFIC DATA SERVICES

(303) 216-2439

www.alltrafficdata.net

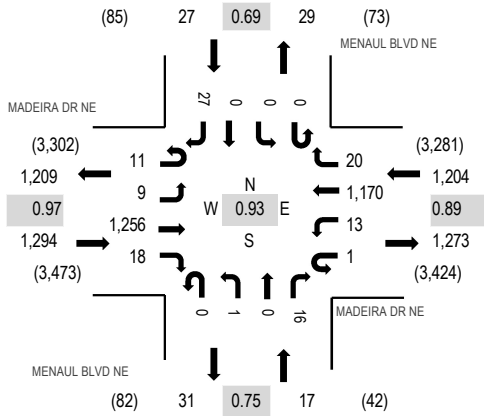
Location: 3 MENAUL BLVD NE & MADEIRA DR NE PM

Date: Tuesday, January 12, 2021

Peak Hour: 03:30 PM - 04:30 PM

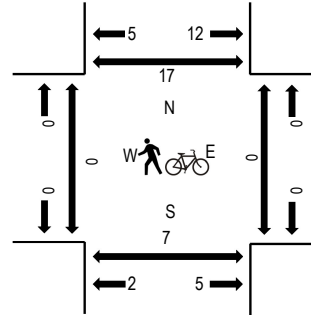
Peak 15-Minutes: 03:30 PM - 03:45 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

Interval Start Time	MADEIRA DR NE Eastbound				MADEIRA DR NE Westbound				MAENAL BLVD NE Northbound				MAENAL BLVD NE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
3:30 PM	3	1	323	8	0	1	329	8	0	0	0	4	0	0	0	7	684	2,542	0	0	0	1
3:45 PM	2	3	317	4	0	4	277	6	0	0	0	2	0	0	0	10	625	2,466	0	0	0	15
4:00 PM	2	1	311	5	1	4	301	5	0	1	0	3	0	0	0	7	641	2,422	0	0	6	0
4:15 PM	4	4	305	1	0	4	263	1	0	0	0	7	0	0	0	3	592	2,437	0	0	1	1
4:30 PM	1	1	302	1	0	7	277	4	0	0	0	3	0	0	0	12	608	2,450	0	0	3	0
4:45 PM	3	0	293	8	0	2	258	4	0	0	0	5	0	0	0	8	581	2,391	0	0	4	0
5:00 PM	0	4	337	6	2	2	288	2	0	0	0	6	0	0	0	9	656	2,326	0	0	0	0
5:15 PM	1	3	282	4	0	6	295	6	0	0	0	4	0	0	0	4	605	2,131	0	0	2	0
5:30 PM	2	3	265	3	3	4	259	4	0	0	0	0	0	0	0	6	549	1,889	0	0	0	0
5:45 PM	6	2	246	0	0	1	245	1	0	0	0	2	0	0	0	13	516		0	0	1	0
6:00 PM	1	4	223	0	0	2	222	2	0	0	0	2	0	0	0	5	461		0	0	1	0
6:15 PM	0	3	173	2	0	3	177	1	0	0	0	3	0	0	0	1	363		0	0	0	3
Count Total	25	29	3,377	42	6	40	3,191	44	0	1	0	41	0	0	0	85	6,881		0	0	18	20
Peak Hour	11	9	1,256	18	1	13	1,170	20	0	1	0	16	0	0	0	27	2,542		0	0	7	17

Appendix B

INTERSECTION CAPACITY/QUEUE ANALYSIS WORKSHEETS

Lanes, Volumes, Timings

2: Madeira & Menaul

02/18/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	725	7	4	803	10	0	0	5	0	0	14
Future Volume (vph)	27	725	7	4	803	10	0	0	5	0	0	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	75		0	0		0	0		0
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.998				0.865			0.865
Flt Protected	0.950			0.950								
Satd. Flow (prot)	1770	5075	0	1770	5075	0	0	0	1611	0	0	1611
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	1770	5075	0	1770	5075	0	0	0	1611	0	0	1611
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		73			458			200			194	
Travel Time (s)		1.7			10.4			4.5			4.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	29	788	8	4	873	11	0	0	5	0	0	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	29	796	0	4	884	0	0	0	5	0	0	15
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		18			18			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	25.7%						ICU Level of Service A					
Analysis Period (min)	15											

Lanes, Volumes, Timings

1: North Access & Menaul

02/18/2021

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↱			↑↑↑		↱
Traffic Volume (vph)	750	50	0	0	0	15
Future Volume (vph)	750	50	0	0	0	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	50		0	50
Storage Lanes		0	0		0	0
Taper Length (ft)			0		25	
Lane Util. Factor	0.91	0.91	1.00	0.91	1.00	1.00
Frt	0.991					0.865
Flt Protected						
Satd. Flow (prot)	5040	0	0	5085	0	1611
Flt Permitted						
Satd. Flow (perm)	5040	0	0	5085	0	1611
Link Speed (mph)	30			30	30	
Link Distance (ft)	256			73	119	
Travel Time (s)	5.8			1.7	2.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	815	54	0	0	0	16
Shared Lane Traffic (%)						
Lane Group Flow (vph)	869	0	0	0	0	16
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	24			24	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	25.6%			ICU Level of Service A		
Analysis Period (min)	15					

Lanes, Volumes, Timings

2: Madeira & Menaul

02/18/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	798	8	4	883	11	0	0	6	0	0	15
Future Volume (vph)	30	798	8	4	883	11	0	0	6	0	0	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	75		0	0		0	0		0
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.998				0.865			0.865
Flt Protected	0.950			0.950								
Satd. Flow (prot)	1770	5075	0	1770	5075	0	0	0	1611	0	0	1611
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	1770	5075	0	1770	5075	0	0	0	1611	0	0	1611
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		73			458			200			194	
Travel Time (s)		1.7			10.4			4.5			4.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	867	9	4	960	12	0	0	7	0	0	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	33	876	0	4	972	0	0	0	7	0	0	16
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		18			18			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	27.3%						ICU Level of Service A					
Analysis Period (min)	15											

Lanes, Volumes, Timings
1: North Access & Menaul

02/18/2021

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↱			↑↑↑		↱
Traffic Volume (vph)	826	50	0	0	0	15
Future Volume (vph)	826	50	0	0	0	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	50		0	50
Storage Lanes		0	0		0	0
Taper Length (ft)			0		25	
Lane Util. Factor	0.91	0.91	1.00	0.91	1.00	1.00
Frt	0.991					0.865
Flt Protected						
Satd. Flow (prot)	5040	0	0	5085	0	1611
Flt Permitted						
Satd. Flow (perm)	5040	0	0	5085	0	1611
Link Speed (mph)	30			30	30	
Link Distance (ft)	256			73	119	
Travel Time (s)	5.8			1.7	2.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	898	54	0	0	0	16
Shared Lane Traffic (%)						
Lane Group Flow (vph)	952	0	0	0	0	16
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	24			24	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	27.1%			ICU Level of Service A		
Analysis Period (min)	15					

Lanes, Volumes, Timings
2: Madeira & Menaul

Coffee Shop - San Mateo & Menaul

02/18/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	1439	21	15	1369	23	0	0	19	0	0	32
Future Volume (vph)	11	1439	21	15	1369	23	0	0	19	0	0	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	75		0	0		0	0		0
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.998				0.865			0.865
Flt Protected	0.950			0.950								
Satd. Flow (prot)	1770	5075	0	1770	5075	0	0	0	1611	0	0	1611
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	1770	5075	0	1770	5075	0	0	0	1611	0	0	1611
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		73			458			200			194	
Travel Time (s)		1.7			10.4			4.5			4.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	12	1564	23	16	1488	25	0	0	21	0	0	35
Shared Lane Traffic (%)												
Lane Group Flow (vph)	12	1587	0	16	1513	0	0	0	21	0	0	35
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		18			18			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	38.3%											
Analysis Period (min)	15											
	ICU Level of Service A											

Lanes, Volumes, Timings
1: North Access & Menaul

Coffee Shop - San Mateo & Menaul

02/18/2021

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↓			↑↑↑		↑
Traffic Volume (vph)	1455	23	0	0	0	9
Future Volume (vph)	1455	23	0	0	0	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	50		0	50
Storage Lanes		0	0		0	0
Taper Length (ft)			0		25	
Lane Util. Factor	0.91	0.91	1.00	0.91	1.00	1.00
Frt	0.998					0.865
Flt Protected						
Satd. Flow (prot)	5075	0	0	5085	0	1611
Flt Permitted						
Satd. Flow (perm)	5075	0	0	5085	0	1611
Link Speed (mph)	30			30	30	
Link Distance (ft)	256			73	119	
Travel Time (s)	5.8			1.7	2.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1582	25	0	0	0	10
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1607	0	0	0	0	10
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	24			24	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	38.6%			ICU Level of Service A		
Analysis Period (min)	15					

Lanes, Volumes, Timings
2: Madeira & Menaul

Coffee Shop - San Mateo & Menaul

02/18/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	1583	23	17	1506	25	0	0	21	0	0	35
Future Volume (vph)	12	1583	23	17	1506	25	0	0	21	0	0	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	75		0	0		0	0		0
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.998				0.865			0.865
Flt Protected	0.950			0.950								
Satd. Flow (prot)	1770	5075	0	1770	5075	0	0	0	1611	0	0	1611
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	1770	5075	0	1770	5075	0	0	0	1611	0	0	1611
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		73			458			200			194	
Travel Time (s)		1.7			10.4			4.5			4.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	1721	25	18	1637	27	0	0	23	0	0	38
Shared Lane Traffic (%)												
Lane Group Flow (vph)	13	1746	0	18	1664	0	0	0	23	0	0	38
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		18			18			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	41.1%											
Analysis Period (min)	15											
	ICU Level of Service A											

Lanes, Volumes, Timings
1: North Access & Menaul

Coffee Shop - San Mateo & Menaul

02/18/2021

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↱			↑↑↑		↱
Traffic Volume (vph)	1601	25	0	0	0	9
Future Volume (vph)	1601	25	0	0	0	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	50		0	50
Storage Lanes		0	0		0	0
Taper Length (ft)			0		25	
Lane Util. Factor	0.91	0.91	1.00	0.91	1.00	1.00
Frt	0.998					0.865
Flt Protected						
Satd. Flow (prot)	5075	0	0	5085	0	1611
Flt Permitted						
Satd. Flow (perm)	5075	0	0	5085	0	1611
Link Speed (mph)	30			30	30	
Link Distance (ft)	256			73	119	
Travel Time (s)	5.8			1.7	2.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1740	27	0	0	0	10
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1767	0	0	0	0	10
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	24			24	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	41.5%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑↑		↗
Traffic Vol, veh/h	1601	25	0	0	0	9
Future Vol, veh/h	1601	25	0	0	0	9
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	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1740	27	0	0	0	10
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	884
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	-	-	0	-	0	248
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	248
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		20.1	
HCM LOS					C	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	248	-	-	-		
HCM Lane V/C Ratio	0.039	-	-	-		
HCM Control Delay (s)	20.1	-	-	-		
HCM Lane LOS	C	-	-	-		
HCM 95th %tile Q(veh)	0.1	-	-	-		

Lanes, Volumes, Timings
2: Madeira & Menaul

Coffee Shop - San Mateo & Menaul

02/18/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	1587	23	17	1509	25	0	0	21	0	0	35
Future Volume (vph)	12	1587	23	17	1509	25	0	0	21	0	0	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	75		0	0		0	0		0
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.998				0.865			0.865
Flt Protected	0.950			0.950								
Satd. Flow (prot)	1770	5075	0	1770	5075	0	0	0	1611	0	0	1611
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	1770	5075	0	1770	5075	0	0	0	1611	0	0	1611
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		73			458			200			194	
Travel Time (s)		1.7			10.4			4.5			4.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	1725	25	18	1640	27	0	0	23	0	0	38
Shared Lane Traffic (%)												
Lane Group Flow (vph)	13	1750	0	18	1667	0	0	0	23	0	0	38
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		18			18			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	41.2%											
Analysis Period (min)	15											
	ICU Level of Service A											

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	12	1587	23	17	1509	25	0	0	21	0	0	35
Future Vol, veh/h	12	1587	23	17	1509	25	0	0	21	0	0	35
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	75	-	-	75	-	-	-	-	0	-	-	0
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	13	1725	25	18	1640	27	0	0	23	0	0	38

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1667	0	0	1750	0	0	-	-	875	-	-	834
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	5.34	-	-	5.34	-	-	-	-	7.14	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.12	-	-	3.12	-	-	-	-	3.92	-	-	3.92
Pot Cap-1 Maneuver	184	-	-	167	-	-	0	0	251	0	0	267
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	184	-	-	167	-	-	-	-	251	-	-	267
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.3			20.8			20.7		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	251	184	-	-	167	-	-	267
HCM Lane V/C Ratio	0.091	0.071	-	-	0.111	-	-	0.142
HCM Control Delay (s)	20.8	26.1	-	-	29.2	-	-	20.7
HCM Lane LOS	C	D	-	-	D	-	-	C
HCM 95th %tile Q(veh)	0.3	0.2	-	-	0.4	-	-	0.5

Lanes, Volumes, Timings
7: San Mateo & Menaul

Coffee Shop - San Mateo & Menaul

02/18/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	195	978	240	341	918	251	222	1190	393	248	1073	182
Future Volume (vph)	195	978	240	341	918	251	222	1190	393	248	1073	182
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	250		0	0		0	250		0
Storage Lanes	2		0	2		0	2		1	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.91	0.91	0.97	0.91	0.91	0.97	0.91	1.00	0.97	0.91	0.91
Frt		0.970			0.968				0.850		0.978	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	4933	0	3433	4923	0	3433	5085	1583	3433	4973	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	4933	0	3433	4923	0	3433	5085	1583	3433	4973	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		51		60					257		28	
Link Speed (mph)		35		35				40			40	
Link Distance (ft)		365		256				173			411	
Travel Time (s)		7.1		5.0				2.9			7.0	
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
Adj. Flow (vph)	212	1063	261	371	998	273	241	1293	427	270	1166	198
Shared Lane Traffic (%)												
Lane Group Flow (vph)	212	1324	0	371	1271	0	241	1293	427	270	1364	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24		24				24			24	
Link Offset(ft)		0		0				0			0	
Crosswalk Width(ft)		16		16				16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94		94				94			94	
Detector 2 Size(ft)		6		6				6			6	
Detector 2 Type		Cl+Ex		Cl+Ex				Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0		0.0				0.0			0.0	
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases									8			

Lanes, Volumes, Timings
7: San Mateo & Menaul

Coffee Shop - San Mateo & Menaul

02/18/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2		1	6		3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	3.0	16.0		3.0	16.0		3.0	16.0	16.0	3.0	16.0	
Minimum Split (s)	6.5	21.5		6.5	21.5		6.5	21.2	21.2	6.5	21.2	
Total Split (s)	19.0	44.0		18.0	43.0		17.0	41.0	41.0	17.0	41.0	
Total Split (%)	15.8%	36.7%		15.0%	35.8%		14.2%	34.2%	34.2%	14.2%	34.2%	
Maximum Green (s)	15.5	38.5		14.5	37.5		13.5	35.8	35.8	13.5	35.8	
Yellow Time (s)	3.0	4.5		3.0	4.5		3.0	4.2	4.2	3.0	4.2	
All-Red Time (s)	0.5	1.0		0.5	1.0		0.5	1.0	1.0	0.5	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	3.5	5.5		3.5	5.5		3.5	5.2	5.2	3.5	5.2	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	4.0		1.5	4.0		1.5	4.0	4.0	1.5	4.0	
Recall Mode	None	C-Max		None	C-Max		None	Max	Max	None	Max	
Act Effect Green (s)	11.3	38.7		14.3	41.7		11.7	37.0	37.0	12.3	37.6	
Actuated g/C Ratio	0.09	0.32		0.12	0.35		0.10	0.31	0.31	0.10	0.31	
v/c Ratio	0.66	0.81		0.91	0.73		0.72	0.82	0.64	0.77	0.86	
Control Delay	62.1	40.7		79.5	35.7		63.9	39.5	14.4	67.5	45.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	62.1	40.7		79.5	35.7		63.9	39.5	14.4	67.5	45.2	
LOS	E	D		E	D		E	D	B	E	D	
Approach Delay		43.7			45.6			37.0			48.9	
Approach LOS		D			D			D			D	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 3 (3%), Referenced to phase 2:EBT and 6:WBT, Start of Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.91

Intersection Signal Delay: 43.5

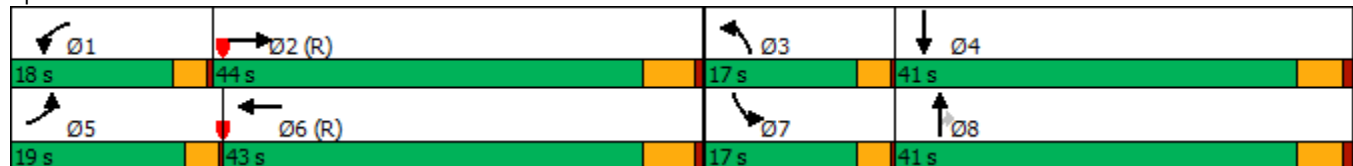
Intersection LOS: D

Intersection Capacity Utilization 80.7%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 7: San Mateo & Menaul



HCM 6th Signalized Intersection Summary

7: San Mateo & Menaul

Coffee Shop - San Mateo & Menaul

02/18/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	  		 	  		  	 	
Traffic Volume (veh/h)	195	978	240	341	918	251	222	1190	393	248	1073	182
Future Volume (veh/h)	195	978	240	341	918	251	222	1190	393	248	1073	182
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	212	1063	261	371	998	273	241	1293	427	270	1166	198
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	270	1387	340	418	1524	416	293	1523	473	325	1352	230
Arrive On Green	0.08	0.34	0.34	0.12	0.38	0.38	0.17	0.60	0.60	0.09	0.31	0.31
Sat Flow, veh/h	3456	4090	1004	3456	3989	1089	3456	5106	1585	3456	4394	746
Grp Volume(v), veh/h	212	885	439	371	851	420	241	1293	427	270	903	461
Grp Sat Flow(s),veh/h/ln	1728	1702	1690	1728	1702	1674	1728	1702	1585	1728	1702	1736
Q Serve(g_s), s	7.2	27.8	27.9	12.7	24.7	24.8	8.1	24.8	28.3	9.2	30.0	30.0
Cycle Q Clear(g_c), s	7.2	27.8	27.9	12.7	24.7	24.8	8.1	24.8	28.3	9.2	30.0	30.0
Prop In Lane	1.00		0.59	1.00		0.65	1.00		1.00	1.00		0.43
Lane Grp Cap(c), veh/h	270	1155	573	418	1300	640	293	1523	473	325	1047	534
V/C Ratio(X)	0.79	0.77	0.77	0.89	0.65	0.66	0.82	0.85	0.90	0.83	0.86	0.86
Avail Cap(c_a), veh/h	446	1155	573	418	1300	640	389	1523	473	389	1047	534
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	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	54.3	35.4	35.4	52.0	30.6	30.6	49.0	22.0	22.7	53.4	39.1	39.1
Incr Delay (d2), s/veh	1.9	4.9	9.5	19.6	2.6	5.2	7.8	6.1	23.2	10.4	9.4	16.7
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	3.2	12.1	12.7	6.6	10.4	10.7	3.5	6.8	9.3	4.4	13.5	14.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.3	40.3	44.9	71.6	33.1	35.8	56.7	28.1	45.8	63.8	48.5	55.8
LnGrp LOS	E	D	D	E	C	D	E	C	D	E	D	E
Approach Vol, veh/h		1536			1642			1961			1634	
Approach Delay, s/veh		43.8			42.5			35.5			53.1	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.0	46.2	13.7	42.1	12.9	51.3	14.8	41.0				
Change Period (Y+Rc), s	3.5	5.5	3.5	5.2	3.5	5.5	3.5	5.2				
Max Green Setting (Gmax), s	14.5	38.5	13.5	35.8	15.5	37.5	13.5	35.8				
Max Q Clear Time (g_c+I1), s	14.7	29.9	10.1	32.0	9.2	26.8	11.2	30.3				
Green Ext Time (p_c), s	0.0	6.2	0.1	3.0	0.1	7.2	0.1	4.6				
Intersection Summary												
HCM 6th Ctrl Delay			43.3									
HCM 6th LOS			D									

Lanes, Volumes, Timings
9: San Mateo & West Access

Coffee Shop - San Mateo & Menaul

02/18/2021

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	32	1173	15	0	0
Future Volume (vph)	0	32	1173	15	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.86	0.86	1.00	0.91
Frt		0.865	0.998			
Flt Protected						
Satd. Flow (prot)	0	1611	6395	0	0	5085
Flt Permitted						
Satd. Flow (perm)	0	1611	6395	0	0	5085
Link Speed (mph)	30		30			30
Link Distance (ft)	124		660			173
Travel Time (s)	2.8		15.0			3.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	35	1275	16	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	35	1291	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		12			2
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	27.2%			ICU Level of Service A		
Analysis Period (min)	15					

Lanes, Volumes, Timings
12: San Mateo & Prospect

Coffee Shop - San Mateo & Menaul

02/18/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								  			  	
Traffic Volume (vph)	47	6	111	97	12	10	75	1753	76	35	1536	73
Future Volume (vph)	47	6	111	97	12	10	75	1753	76	35	1536	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	125		0	100		0	125		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.91	0.91
Frt		0.858			0.931			0.994			0.993	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1598	0	1770	1734	0	1770	5055	0	1770	5050	0
Flt Permitted	0.742			0.561			0.103			0.079		
Satd. Flow (perm)	1382	1598	0	1045	1734	0	192	5055	0	147	5050	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		121			11			8			8	
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		294			258			253			660	
Travel Time (s)		6.7			5.9			4.3			11.3	
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
Adj. Flow (vph)	51	7	121	105	13	11	82	1905	83	38	1670	79
Shared Lane Traffic (%)												
Lane Group Flow (vph)	51	128	0	105	24	0	82	1988	0	38	1749	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		

Lanes, Volumes, Timings
12: San Mateo & Prospect

Coffee Shop - San Mateo & Menaul

02/18/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		3.0	20.0		3.0	20.0	
Minimum Split (s)	13.5	13.5		13.5	13.5		6.5	25.0		6.5	25.5	
Total Split (s)	36.0	36.0		36.0	36.0		19.0	65.0		19.0	65.0	
Total Split (%)	30.0%	30.0%		30.0%	30.0%		15.8%	54.2%		15.8%	54.2%	
Maximum Green (s)	30.5	30.5		30.5	30.5		15.5	60.0		15.5	59.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	4.0		3.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		0.5	1.0		0.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.5	5.5		5.5	5.5		3.5	5.0		3.5	5.5	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		1.5	4.0		1.5	4.0	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Act Effect Green (s)	15.0	15.0		15.0	15.0		94.8	89.5		92.3	86.6	
Actuated g/C Ratio	0.12	0.12		0.12	0.12		0.79	0.75		0.77	0.72	
v/c Ratio	0.30	0.42		0.81	0.11		0.37	0.53		0.22	0.48	
Control Delay	50.0	13.2		90.2	29.6		7.8	8.1		6.3	8.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	50.0	13.2		90.2	29.6		7.8	8.1		6.3	8.7	
LOS	D	B		F	C		A	A		A	A	
Approach Delay		23.7			78.9			8.1			8.6	
Approach LOS		C			E			A			A	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 43 (36%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 11.2

Intersection LOS: B

Intersection Capacity Utilization 63.0%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 12: San Mateo & Prospect



HCM 6th Signalized Intersection Summary

12: San Mateo & Prospect

Coffee Shop - San Mateo & Menaul

02/18/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	6	111	97	12	10	75	1753	76	35	1536	73
Future Volume (veh/h)	47	6	111	97	12	10	75	1753	76	35	1536	73
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	51	7	121	105	13	11	82	1905	83	38	1670	79
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	282	15	259	186	161	136	254	3459	150	201	3389	160
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.03	0.69	0.69	0.02	0.68	0.68
Sat Flow, veh/h	1387	87	1511	1262	936	792	1781	5017	218	1781	4996	236
Grp Volume(v), veh/h	51	0	128	105	0	24	82	1291	697	38	1138	611
Grp Sat Flow(s),veh/h/ln	1387	0	1598	1262	0	1728	1781	1702	1831	1781	1702	1828
Q Serve(g_s), s	3.8	0.0	8.7	9.8	0.0	1.4	1.7	22.8	22.9	0.8	19.4	19.4
Cycle Q Clear(g_c), s	5.2	0.0	8.7	18.5	0.0	1.4	1.7	22.8	22.9	0.8	19.4	19.4
Prop In Lane	1.00		0.95	1.00		0.46	1.00		0.12	1.00		0.13
Lane Grp Cap(c), veh/h	282	0	274	186	0	297	254	2347	1262	201	2309	1240
V/C Ratio(X)	0.18	0.00	0.47	0.57	0.00	0.08	0.32	0.55	0.55	0.19	0.49	0.49
Avail Cap(c_a), veh/h	396	0	406	290	0	439	432	2347	1262	399	2309	1240
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	43.9	0.0	44.7	53.1	0.0	41.7	7.6	9.3	9.3	8.0	9.3	9.3
Incr Delay (d2), s/veh	0.1	0.0	0.5	1.0	0.0	0.0	0.3	0.9	1.7	0.2	0.8	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	1.3	0.0	3.5	3.2	0.0	0.6	0.6	7.6	8.5	0.3	6.5	7.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.1	0.0	45.2	54.1	0.0	41.8	7.9	10.3	11.1	8.2	10.1	10.7
LnGrp LOS	D	A	D	D	A	D	A	B	B	A	B	B
Approach Vol, veh/h	179			129			2070			1787		
Approach Delay, s/veh	44.9			51.8			10.4			10.3		
Approach LOS	D			D			B			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.7	88.2		26.1	7.0	86.9		26.1				
Change Period (Y+Rc), s	3.5	* 5.5		5.5	3.5	5.5		5.5				
Max Green Setting (Gmax), s	15.5	* 60		30.5	15.5	59.5		30.5				
Max Q Clear Time (g_c+I1), s	2.8	24.9		10.7	3.7	21.4		20.5				
Green Ext Time (p_c), s	0.0	25.3		0.5	0.0	23.2		0.2				
Intersection Summary												
HCM 6th Ctrl Delay	13.1											
HCM 6th LOS	B											
Notes												

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	12	1583	23	17	1506	25	0	0	21	0	0	35
Future Vol, veh/h	12	1583	23	17	1506	25	0	0	21	0	0	35
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	75	-	-	75	-	-	-	-	0	-	-	0
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	13	1721	25	18	1637	27	0	0	23	0	0	38
Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	1664	0	0	1746	0	0	-	-	873	-	-	832
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	5.34	-	-	5.34	-	-	-	-	7.14	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.12	-	-	3.12	-	-	-	-	3.92	-	-	3.92
Pot Cap-1 Maneuver	185	-	-	168	-	-	0	0	252	0	0	268
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	185	-	-	168	-	-	-	-	252	-	-	268
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	0.2		0.3		20.7		20.6					
HCM LOS					C		C					
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	252	185	-	-	168	-	-	268				
HCM Lane V/C Ratio	0.091	0.071	-	-	0.11	-	-	0.142				
HCM Control Delay (s)	20.7	25.9	-	-	29.1	-	-	20.6				
HCM Lane LOS	C	D	-	-	D	-	-	C				
HCM 95th %tile Q(veh)	0.3	0.2	-	-	0.4	-	-	0.5				

Lanes, Volumes, Timings
7: San Mateo & Menaul

Coffee Shop - San Mateo & Menaul

02/18/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	195	976	240	333	923	251	206	1180	393	238	1073	182
Future Volume (vph)	195	976	240	333	923	251	206	1180	393	238	1073	182
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	250		0	0		0	250		0
Storage Lanes	2		0	2		0	2		1	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.91	0.91	0.97	0.91	0.91	0.97	0.91	1.00	0.97	0.91	0.91
Frt		0.970			0.968				0.850		0.978	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	4933	0	3433	4923	0	3433	5085	1583	3433	4973	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	4933	0	3433	4923	0	3433	5085	1583	3433	4973	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		52			60				258		28	
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		365			256			173			411	
Travel Time (s)		7.1			5.0			2.9			7.0	
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
Adj. Flow (vph)	212	1061	261	362	1003	273	224	1283	427	259	1166	198
Shared Lane Traffic (%)												
Lane Group Flow (vph)	212	1322	0	362	1276	0	224	1283	427	259	1364	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases									8			

Lanes, Volumes, Timings
7: San Mateo & Menaul

Coffee Shop - San Mateo & Menaul

02/18/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2		1	6		3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	3.0	16.0		3.0	16.0		3.0	16.0	16.0	3.0	16.0	
Minimum Split (s)	6.5	21.5		6.5	21.5		6.5	21.2	21.2	6.5	21.2	
Total Split (s)	19.0	44.0		18.0	43.0		17.0	41.0	41.0	17.0	41.0	
Total Split (%)	15.8%	36.7%		15.0%	35.8%		14.2%	34.2%	34.2%	14.2%	34.2%	
Maximum Green (s)	15.5	38.5		14.5	37.5		13.5	35.8	35.8	13.5	35.8	
Yellow Time (s)	3.0	4.5		3.0	4.5		3.0	4.2	4.2	3.0	4.2	
All-Red Time (s)	0.5	1.0		0.5	1.0		0.5	1.0	1.0	0.5	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	3.5	5.5		3.5	5.5		3.5	5.2	5.2	3.5	5.2	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	4.0		1.5	4.0		1.5	4.0	4.0	1.5	4.0	
Recall Mode	None	C-Max		None	C-Max		None	Max	Max	None	Max	
Act Effect Green (s)	11.3	38.8		14.2	41.7		11.3	37.3	37.3	12.0	38.0	
Actuated g/C Ratio	0.09	0.32		0.12	0.35		0.09	0.31	0.31	0.10	0.32	
v/c Ratio	0.66	0.81		0.90	0.73		0.69	0.81	0.64	0.75	0.86	
Control Delay	62.1	40.5		77.3	35.8		61.6	35.9	13.9	66.5	44.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	62.1	40.5		77.3	35.8		61.6	35.9	13.9	66.5	44.4	
LOS	E	D		E	D		E	D	B	E	D	
Approach Delay		43.5			45.0			34.0			48.0	
Approach LOS		D			D			C			D	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 3 (3%), Referenced to phase 2:EBT and 6:WBT, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.90

Intersection Signal Delay: 42.2

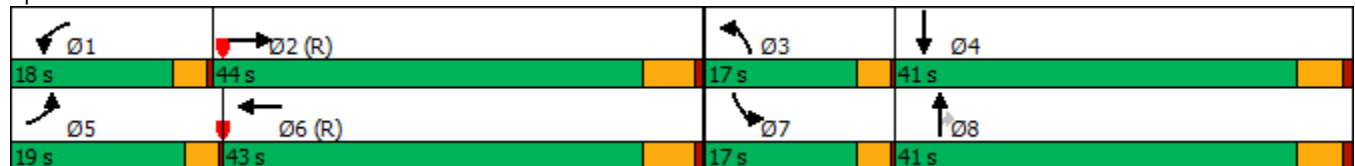
Intersection LOS: D

Intersection Capacity Utilization 80.0%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 7: San Mateo & Menaul



HCM 6th Signalized Intersection Summary

7: San Mateo & Menaul

Coffee Shop - San Mateo & Menaul

02/18/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	195	976	240	333	923	251	206	1180	393	238	1073	182
Future Volume (veh/h)	195	976	240	333	923	251	206	1180	393	238	1073	182
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	212	1061	261	362	1003	273	224	1283	427	259	1166	198
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	270	1404	345	414	1538	418	277	1523	473	315	1359	231
Arrive On Green	0.08	0.34	0.34	0.12	0.39	0.39	0.16	0.60	0.60	0.09	0.31	0.31
Sat Flow, veh/h	3456	4088	1005	3456	3994	1085	3456	5106	1585	3456	4394	746
Grp Volume(v), veh/h	212	883	439	362	855	421	224	1283	427	259	903	461
Grp Sat Flow(s),veh/h/ln	1728	1702	1689	1728	1702	1675	1728	1702	1585	1728	1702	1736
Q Serve(g_s), s	7.2	27.6	27.6	12.4	24.7	24.8	7.5	24.4	28.3	8.8	29.9	29.9
Cycle Q Clear(g_c), s	7.2	27.6	27.6	12.4	24.7	24.8	7.5	24.4	28.3	8.8	29.9	29.9
Prop In Lane	1.00		0.59	1.00		0.65	1.00		1.00	1.00		0.43
Lane Grp Cap(c), veh/h	270	1169	580	414	1311	645	277	1523	473	315	1053	537
V/C Ratio(X)	0.79	0.76	0.76	0.87	0.65	0.65	0.81	0.84	0.90	0.82	0.86	0.86
Avail Cap(c_a), veh/h	446	1169	580	418	1311	645	389	1523	473	389	1053	537
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	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	54.3	34.9	34.9	51.9	30.3	30.3	49.5	21.9	22.7	53.6	39.0	39.0
Incr Delay (d2), s/veh	1.9	4.6	8.9	17.5	2.5	5.1	5.7	5.8	23.2	9.2	9.0	16.2
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	3.2	11.9	12.6	6.3	10.4	10.7	3.2	6.6	9.3	4.2	13.4	14.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.3	39.5	43.9	69.4	32.8	35.4	55.2	27.7	45.8	62.8	48.0	55.1
LnGrp LOS	E	D	D	E	C	D	E	C	D	E	D	E
Approach Vol, veh/h	1534		1638				1934		1623			
Approach Delay, s/veh	43.1		41.6				34.9		52.4			
Approach LOS	D		D				C		D			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.9	46.7	13.1	42.3	12.9	51.7	14.4	41.0				
Change Period (Y+Rc), s	3.5	5.5	3.5	5.2	3.5	5.5	3.5	5.2				
Max Green Setting (Gmax), s	14.5	38.5	13.5	35.8	15.5	37.5	13.5	35.8				
Max Q Clear Time (g_c+I1), s	14.4	29.6	9.5	31.9	9.2	26.8	10.8	30.3				
Green Ext Time (p_c), s	0.0	6.4	0.1	3.1	0.1	7.3	0.1	4.6				
Intersection Summary												
HCM 6th Ctrl Delay			42.6									
HCM 6th LOS			D									

Lanes, Volumes, Timings
12: San Mateo & Prospect

Coffee Shop - San Mateo & Menaul

02/18/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	6	111	97	12	10	75	1749	76	30	1532	73
Future Volume (vph)	47	6	111	97	12	10	75	1749	76	30	1532	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	125		0	100		0	125		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.91	0.91
Frt		0.858			0.931			0.994			0.993	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1598	0	1770	1734	0	1770	5055	0	1770	5050	0
Flt Permitted	0.742			0.561			0.103			0.080		
Satd. Flow (perm)	1382	1598	0	1045	1734	0	192	5055	0	149	5050	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		121			11			8			8	
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		294			258			253			660	
Travel Time (s)		6.7			5.9			4.3			11.3	
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
Adj. Flow (vph)	51	7	121	105	13	11	82	1901	83	33	1665	79
Shared Lane Traffic (%)												
Lane Group Flow (vph)	51	128	0	105	24	0	82	1984	0	33	1744	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		

Lanes, Volumes, Timings
12: San Mateo & Prospect

Coffee Shop - San Mateo & Menaul

02/18/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		3.0	20.0		3.0	20.0	
Minimum Split (s)	13.5	13.5		13.5	13.5		6.5	25.5		6.5	25.5	
Total Split (s)	36.0	36.0		36.0	36.0		19.0	65.0		19.0	65.0	
Total Split (%)	30.0%	30.0%		30.0%	30.0%		15.8%	54.2%		15.8%	54.2%	
Maximum Green (s)	30.5	30.5		30.5	30.5		15.5	59.5		15.5	59.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	4.0		3.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		0.5	1.5		0.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.5	5.5		5.5	5.5		3.5	5.5		3.5	5.5	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		1.5	4.0		1.5	4.0	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Act Effect Green (s)	15.0	15.0		15.0	15.0		94.8	89.1		92.3	86.6	
Actuated g/C Ratio	0.12	0.12		0.12	0.12		0.79	0.74		0.77	0.72	
v/c Ratio	0.30	0.42		0.81	0.11		0.37	0.53		0.19	0.48	
Control Delay	50.0	13.2		90.2	29.6		7.8	8.3		5.9	8.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	50.0	13.2		90.2	29.6		7.8	8.3		5.9	8.7	
LOS	D	B		F	C		A	A		A	A	
Approach Delay		23.7			78.9			8.3			8.6	
Approach LOS		C			E			A			A	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 43 (36%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 55

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 11.3

Intersection LOS: B

Intersection Capacity Utilization 63.4%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 12: San Mateo & Prospect



HCM 6th Signalized Intersection Summary

12: San Mateo & Prospect

Coffee Shop - San Mateo & Menaul

02/18/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	6	111	97	12	10	75	1749	76	30	1532	73
Future Volume (veh/h)	47	6	111	97	12	10	75	1749	76	30	1532	73
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	51	7	121	105	13	11	82	1901	83	33	1665	79
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	282	15	259	186	161	136	255	3465	151	199	3388	161
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.03	0.69	0.69	0.02	0.68	0.68
Sat Flow, veh/h	1387	87	1511	1262	936	792	1781	5016	219	1781	4995	237
Grp Volume(v), veh/h	51	0	128	105	0	24	82	1289	695	33	1134	610
Grp Sat Flow(s),veh/h/ln	1387	0	1598	1262	0	1728	1781	1702	1831	1781	1702	1828
Q Serve(g_s), s	3.8	0.0	8.7	9.8	0.0	1.4	1.7	22.6	22.7	0.7	19.3	19.3
Cycle Q Clear(g_c), s	5.2	0.0	8.7	18.5	0.0	1.4	1.7	22.6	22.7	0.7	19.3	19.3
Prop In Lane	1.00		0.95	1.00		0.46	1.00		0.12	1.00		0.13
Lane Grp Cap(c), veh/h	282	0	274	186	0	297	255	2351	1265	199	2309	1240
V/C Ratio(X)	0.18	0.00	0.47	0.57	0.00	0.08	0.32	0.55	0.55	0.17	0.49	0.49
Avail Cap(c_a), veh/h	396	0	406	290	0	439	433	2351	1265	400	2309	1240
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	43.9	0.0	44.7	53.1	0.0	41.7	7.6	9.2	9.2	7.9	9.3	9.3
Incr Delay (d2), s/veh	0.1	0.0	0.5	1.0	0.0	0.0	0.3	0.9	1.7	0.1	0.8	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	1.3	0.0	3.5	3.2	0.0	0.6	0.6	7.5	8.4	0.2	6.5	7.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.1	0.0	45.2	54.1	0.0	41.8	7.9	10.2	11.0	8.0	10.1	10.7
LnGrp LOS	D	A	D	D	A	D	A	B	B	A	B	B
Approach Vol, veh/h	179			129			2066			1777		
Approach Delay, s/veh	44.9			51.8			10.3			10.2		
Approach LOS	D			D			B			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.5	88.4		26.1	7.0	86.9		26.1				
Change Period (Y+Rc), s	3.5	5.5		5.5	3.5	5.5		5.5				
Max Green Setting (Gmax), s	15.5	59.5		30.5	15.5	59.5		30.5				
Max Q Clear Time (g_c+I1), s	2.7	24.7		10.7	3.7	21.3		20.5				
Green Ext Time (p_c), s	0.0	25.1		0.5	0.0	23.1		0.2				
Intersection Summary												
HCM 6th Ctrl Delay	13.1											
HCM 6th LOS	B											

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑↑		↗
Traffic Vol, veh/h	1455	23	0	0	0	9
Future Vol, veh/h	1455	23	0	0	0	9
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	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1582	25	0	0	0	10
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	804
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	-	-	0	-	0	280
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	280
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		18.3	
HCM LOS					C	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	280	-	-	-		
HCM Lane V/C Ratio	0.035	-	-	-		
HCM Control Delay (s)	18.3	-	-	-		
HCM Lane LOS	C	-	-	-		
HCM 95th %tile Q(veh)	0.1	-	-	-		

Lanes, Volumes, Timings
2: Madeira & Menaul

Coffee Shop - San Mateo & Menaul

02/18/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	1443	21	15	1372	23	0	0	19	0	0	32
Future Volume (vph)	11	1443	21	15	1372	23	0	0	19	0	0	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	75		0	0		0	0		0
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.998				0.865			0.865
Flt Protected	0.950			0.950								
Satd. Flow (prot)	1770	5075	0	1770	5075	0	0	0	1611	0	0	1611
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	1770	5075	0	1770	5075	0	0	0	1611	0	0	1611
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		73			458			200			194	
Travel Time (s)		1.7			10.4			4.5			4.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	12	1568	23	16	1491	25	0	0	21	0	0	35
Shared Lane Traffic (%)												
Lane Group Flow (vph)	12	1591	0	16	1516	0	0	0	21	0	0	35
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		18			18			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	38.3%											
Analysis Period (min)	15											
	ICU Level of Service A											

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	11	1443	21	15	1372	23	0	0	19	0	0	32
Future Vol, veh/h	11	1443	21	15	1372	23	0	0	19	0	0	32
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	75	-	-	75	-	-	-	-	0	-	-	0
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	12	1568	23	16	1491	25	0	0	21	0	0	35
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1516	0	0	1591	0	0	-	-	796	-	-	758
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	5.34	-	-	5.34	-	-	-	-	7.14	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.12	-	-	3.12	-	-	-	-	3.92	-	-	3.92
Pot Cap-1 Maneuver	219	-	-	201	-	-	0	0	283	0	0	300
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	219	-	-	201	-	-	-	-	283	-	-	300
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.3			18.7			18.6		
HCM LOS							C			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	283	219	-	-	201	-	-	300				
HCM Lane V/C Ratio	0.073	0.055	-	-	0.081	-	-	0.116				
HCM Control Delay (s)	18.7	22.4	-	-	24.5	-	-	18.6				
HCM Lane LOS	C	C	-	-	C	-	-	C				
HCM 95th %tile Q(veh)	0.2	0.2	-	-	0.3	-	-	0.4				

Lanes, Volumes, Timings
7: San Mateo & Menaul

Coffee Shop - San Mateo & Menaul

02/18/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	177	889	218	311	835	228	203	1083	357	226	975	165
Future Volume (vph)	177	889	218	311	835	228	203	1083	357	226	975	165
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	250		0	0		0	250		0
Storage Lanes	2		0	2		0	2		1	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.91	0.91	0.97	0.91	0.91	0.97	0.91	1.00	0.97	0.91	0.91
Frt		0.970			0.968				0.850		0.978	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	4933	0	3433	4923	0	3433	5085	1583	3433	4973	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	4933	0	3433	4923	0	3433	5085	1583	3433	4973	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		51		60					264		28	
Link Speed (mph)		35		35				40			40	
Link Distance (ft)		365		256				173			411	
Travel Time (s)		7.1		5.0				2.9			7.0	
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
Adj. Flow (vph)	192	966	237	338	908	248	221	1177	388	246	1060	179
Shared Lane Traffic (%)												
Lane Group Flow (vph)	192	1203	0	338	1156	0	221	1177	388	246	1239	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24		24				24			24	
Link Offset(ft)		0		0				0			0	
Crosswalk Width(ft)		16		16				16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases									8			

Lanes, Volumes, Timings
7: San Mateo & Menaul

Coffee Shop - San Mateo & Menaul

02/18/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2		1	6		3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	3.0	16.0		3.0	16.0		3.0	16.0	16.0	3.0	16.0	
Minimum Split (s)	6.5	21.5		6.5	21.5		6.5	21.2	21.2	6.5	21.2	
Total Split (s)	19.0	44.0		18.0	43.0		17.0	41.0	41.0	17.0	41.0	
Total Split (%)	15.8%	36.7%		15.0%	35.8%		14.2%	34.2%	34.2%	14.2%	34.2%	
Maximum Green (s)	15.5	38.5		14.5	37.5		13.5	35.8	35.8	13.5	35.8	
Yellow Time (s)	3.0	4.5		3.0	4.5		3.0	4.2	4.2	3.0	4.2	
All-Red Time (s)	0.5	1.0		0.5	1.0		0.5	1.0	1.0	0.5	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	3.5	5.5		3.5	5.5		3.5	5.2	5.2	3.5	5.2	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	4.0		1.5	4.0		1.5	4.0	4.0	1.5	4.0	
Recall Mode	None	C-Max		None	C-Max		None	Max	Max	None	Max	
Act Effect Green (s)	10.6	39.1		13.9	42.4		11.3	37.5	37.5	11.8	38.0	
Actuated g/C Ratio	0.09	0.33		0.12	0.35		0.09	0.31	0.31	0.10	0.32	
v/c Ratio	0.64	0.73		0.85	0.65		0.69	0.74	0.57	0.73	0.78	
Control Delay	62.2	37.5		72.3	33.2		59.4	34.5	12.3	65.4	40.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	62.2	37.5		72.3	33.2		59.4	34.5	12.3	65.4	40.6	
LOS	E	D		E	C		E	C	B	E	D	
Approach Delay		40.9			42.0			32.7			44.7	
Approach LOS		D			D			C			D	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 3 (3%), Referenced to phase 2:EBT and 6:WBT, Start of Green

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.85

Intersection Signal Delay: 39.7

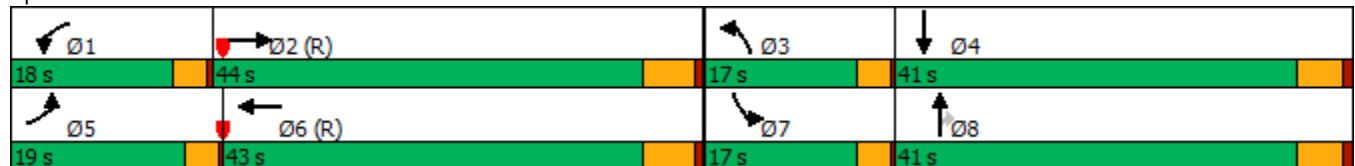
Intersection LOS: D

Intersection Capacity Utilization 74.8%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 7: San Mateo & Menaul



HCM 6th Signalized Intersection Summary

7: San Mateo & Menaul

Coffee Shop - San Mateo & Menaul

02/18/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	177	889	218	311	835	228	203	1083	357	226	975	165
Future Volume (veh/h)	177	889	218	311	835	228	203	1083	357	226	975	165
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	192	966	237	338	908	248	221	1177	388	246	1060	179
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	249	1447	354	391	1575	429	274	1523	473	302	1348	227
Arrive On Green	0.07	0.35	0.35	0.11	0.39	0.39	0.16	0.60	0.60	0.09	0.31	0.31
Sat Flow, veh/h	3456	4093	1002	3456	3993	1086	3456	5106	1585	3456	4399	742
Grp Volume(v), veh/h	192	803	400	338	774	382	221	1177	388	246	820	419
Grp Sat Flow(s),veh/h/ln	1728	1702	1690	1728	1702	1675	1728	1702	1585	1728	1702	1737
Q Serve(g_s), s	6.5	24.0	24.0	11.5	21.4	21.5	7.4	20.7	23.2	8.4	26.4	26.5
Cycle Q Clear(g_c), s	6.5	24.0	24.0	11.5	21.4	21.5	7.4	20.7	23.2	8.4	26.4	26.5
Prop In Lane	1.00		0.59	1.00		0.65	1.00		1.00	1.00		0.43
Lane Grp Cap(c), veh/h	249	1203	597	391	1343	661	274	1523	473	302	1043	532
V/C Ratio(X)	0.77	0.67	0.67	0.86	0.58	0.58	0.81	0.77	0.82	0.81	0.79	0.79
Avail Cap(c_a), veh/h	446	1203	597	418	1343	661	389	1523	473	389	1043	532
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	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	54.7	32.8	32.9	52.3	28.5	28.5	49.6	21.2	21.7	53.8	38.0	38.0
Incr Delay (d2), s/veh	1.9	2.9	5.9	15.1	1.8	3.7	5.4	3.9	14.7	7.8	6.0	11.2
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	2.9	10.2	10.6	5.8	8.9	9.1	3.1	5.8	7.2	3.9	11.6	12.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.6	35.8	38.7	67.4	30.3	32.2	55.0	25.0	36.4	61.6	44.0	49.2
LnGrp LOS	E	D	D	E	C	C	D	C	D	E	D	D
Approach Vol, veh/h		1395			1494			1786			1485	
Approach Delay, s/veh		39.5			39.2			31.2			48.4	
Approach LOS		D			D			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.1	47.9	13.0	42.0	12.2	52.8	14.0	41.0				
Change Period (Y+Rc), s	3.5	5.5	3.5	5.2	3.5	5.5	3.5	5.2				
Max Green Setting (Gmax), s	14.5	38.5	13.5	35.8	15.5	37.5	13.5	35.8				
Max Q Clear Time (g_c+I1), s	13.5	26.0	9.4	28.5	8.5	23.5	10.4	25.2				
Green Ext Time (p_c), s	0.1	7.8	0.1	5.1	0.1	8.2	0.1	7.7				
Intersection Summary												
HCM 6th Ctrl Delay			39.1									
HCM 6th LOS			D									

Lanes, Volumes, Timings
9: San Mateo & West Access

Coffee Shop - San Mateo & Menaul

02/18/2021

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	32	1632	15	0	0
Future Volume (vph)	0	32	1632	15	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.86	0.86	1.00	0.91
Frt		0.865	0.999			
Flt Protected						
Satd. Flow (prot)	0	1611	6401	0	0	5085
Flt Permitted						
Satd. Flow (perm)	0	1611	6401	0	0	5085
Link Speed (mph)	30		30			30
Link Distance (ft)	124		660			173
Travel Time (s)	2.8		15.0			3.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	35	1774	16	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	35	1790	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		12			2
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	33.9%		ICU Level of Service A			
Analysis Period (min)	15					

Lanes, Volumes, Timings
12: San Mateo & Prospect

Coffee Shop - San Mateo & Menaul

02/18/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	43	6	101	88	11	9	68	1594	69	32	1398	66
Future Volume (vph)	43	6	101	88	11	9	68	1594	69	32	1398	66
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	125		0	100		0	125		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.91	0.91
Frt		0.859			0.932			0.994			0.993	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1600	0	1770	1736	0	1770	5055	0	1770	5050	0
Flt Permitted	0.743			0.590			0.128			0.101		
Satd. Flow (perm)	1384	1600	0	1099	1736	0	238	5055	0	188	5050	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		110			10			8			8	
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		294			258			253			660	
Travel Time (s)		6.7			5.9			4.3			11.3	
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
Adj. Flow (vph)	47	7	110	96	12	10	74	1733	75	35	1520	72
Shared Lane Traffic (%)												
Lane Group Flow (vph)	47	117	0	96	22	0	74	1808	0	35	1592	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		

Lanes, Volumes, Timings
12: San Mateo & Prospect

Coffee Shop - San Mateo & Menaul

02/18/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		3.0	20.0		3.0	20.0	
Minimum Split (s)	13.5	13.5		13.5	13.5		6.5	25.5		6.5	25.5	
Total Split (s)	36.0	36.0		36.0	36.0		19.0	65.0		19.0	65.0	
Total Split (%)	30.0%	30.0%		30.0%	30.0%		15.8%	54.2%		15.8%	54.2%	
Maximum Green (s)	30.5	30.5		30.5	30.5		15.5	59.5		15.5	59.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	4.0		3.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		0.5	1.5		0.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.5	5.5		5.5	5.5		3.5	5.5		3.5	5.5	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		1.5	4.0		1.5	4.0	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Act Effect Green (s)	13.9	13.9		13.9	13.9		95.5	90.1		93.8	88.0	
Actuated g/C Ratio	0.12	0.12		0.12	0.12		0.80	0.75		0.78	0.73	
v/c Ratio	0.29	0.41		0.76	0.10		0.29	0.48		0.17	0.43	
Control Delay	51.3	14.2		84.3	30.9		5.8	7.2		4.8	7.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	51.3	14.2		84.3	30.9		5.8	7.2		4.8	7.4	
LOS	D	B		F	C		A	A		A	A	
Approach Delay		24.8			74.3			7.1			7.4	
Approach LOS		C			E			A			A	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 43 (36%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 10.1

Intersection LOS: B

Intersection Capacity Utilization 59.7%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 12: San Mateo & Prospect



HCM 6th Signalized Intersection Summary 12: San Mateo & Prospect

Coffee Shop - San Mateo & Menaul

02/18/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								  			  	
Traffic Volume (veh/h)	43	6	101	88	11	9	68	1594	69	32	1398	66
Future Volume (veh/h)	43	6	101	88	11	9	68	1594	69	32	1398	66
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	47	7	110	96	12	10	74	1733	75	35	1520	72
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	265	15	238	177	149	124	287	3531	153	233	3468	164
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.03	0.70	0.70	0.02	0.69	0.69
Sat Flow, veh/h	1390	96	1504	1275	943	786	1781	5018	217	1781	4995	237
Grp Volume(v), veh/h	47	0	117	96	0	22	74	1175	633	35	1036	556
Grp Sat Flow(s),veh/h/ln	1390	0	1600	1275	0	1729	1781	1702	1831	1781	1702	1828
Q Serve(g_s), s	3.6	0.0	8.0	8.9	0.0	1.3	1.5	18.7	18.8	0.7	16.0	16.0
Cycle Q Clear(g_c), s	4.9	0.0	8.0	16.8	0.0	1.3	1.5	18.7	18.8	0.7	16.0	16.0
Prop In Lane	1.00		0.94	1.00		0.45	1.00		0.12	1.00		0.13
Lane Grp Cap(c), veh/h	265	0	253	177	0	274	287	2395	1289	233	2364	1269
V/C Ratio(X)	0.18	0.00	0.46	0.54	0.00	0.08	0.26	0.49	0.49	0.15	0.44	0.44
Avail Cap(c_a), veh/h	398	0	407	299	0	439	470	2395	1289	432	2364	1269
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	45.1	0.0	45.9	53.5	0.0	43.1	6.3	8.0	8.0	6.6	8.1	8.1
Incr Delay (d2), s/veh	0.1	0.0	0.5	1.0	0.0	0.0	0.2	0.7	1.3	0.1	0.6	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	3.2	2.9	0.0	0.6	0.5	6.1	6.8	0.2	5.3	5.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.3	0.0	46.4	54.5	0.0	43.1	6.4	8.8	9.4	6.7	8.6	9.2
LnGrp LOS	D	A	D	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h	164			118			1882			1627		
Approach Delay, s/veh	46.0			52.4			8.9			8.8		
Approach LOS	D			D			A			A		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.6	89.9		24.5	6.7	88.8		24.5				
Change Period (Y+Rc), s	3.5	5.5		5.5	3.5	5.5		5.5				
Max Green Setting (Gmax), s	15.5	59.5		30.5	15.5	59.5		30.5				
Max Q Clear Time (g_c+I1), s	2.7	20.8		10.0	3.5	18.0		18.8				
Green Ext Time (p_c), s	0.0	24.3		0.5	0.0	21.5		0.1				
Intersection Summary												
HCM 6th Ctrl Delay	11.8											
HCM 6th LOS	B											

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	11	1439	21	15	1369	23	0	0	19	0	0	32
Future Vol, veh/h	11	1439	21	15	1369	23	0	0	19	0	0	32
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	75	-	-	75	-	-	-	-	0	-	-	0
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	12	1564	23	16	1488	25	0	0	21	0	0	35
Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	1513	0	0	1587	0	0	-	-	794	-	-	757
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	5.34	-	-	5.34	-	-	-	-	7.14	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.12	-	-	3.12	-	-	-	-	3.92	-	-	3.92
Pot Cap-1 Maneuver	220	-	-	202	-	-	0	0	284	0	0	300
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	220	-	-	202	-	-	-	-	284	-	-	300
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	0.2		0.3		18.7		18.6					
HCM LOS					C		C					
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	284	220	-	-	202	-	-	300				
HCM Lane V/C Ratio	0.073	0.054	-	-	0.081	-	-	0.116				
HCM Control Delay (s)	18.7	22.3	-	-	24.4	-	-	18.6				
HCM Lane LOS	C	C	-	-	C	-	-	C				
HCM 95th %tile Q(veh)	0.2	0.2	-	-	0.3	-	-	0.4				

Lanes, Volumes, Timings
7: San Mateo & Menaul

Coffee Shop - San Mateo & Menaul

02/18/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	177	887	218	303	839	228	187	1073	357	216	975	165
Future Volume (vph)	177	887	218	303	839	228	187	1073	357	216	975	165
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	250		0	0		0	250		0
Storage Lanes	2		0	2		0	2		1	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.91	0.91	0.97	0.91	0.91	0.97	0.91	1.00	0.97	0.91	0.91
Frt		0.970			0.968				0.850		0.978	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	4933	0	3433	4923	0	3433	5085	1583	3433	4973	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	4933	0	3433	4923	0	3433	5085	1583	3433	4973	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		52			59				266		28	
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		365			256			173			411	
Travel Time (s)		7.1			5.0			2.9			7.0	
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
Adj. Flow (vph)	192	964	237	329	912	248	203	1166	388	235	1060	179
Shared Lane Traffic (%)												
Lane Group Flow (vph)	192	1201	0	329	1160	0	203	1166	388	235	1239	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases									8			

Lanes, Volumes, Timings
7: San Mateo & Menaul

Coffee Shop - San Mateo & Menaul

02/18/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2		1	6		3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	3.0	16.0		3.0	16.0		3.0	16.0	16.0	3.0	16.0	
Minimum Split (s)	6.5	21.5		6.5	21.5		6.5	21.2	21.2	6.5	21.2	
Total Split (s)	19.0	44.0		18.0	43.0		17.0	41.0	41.0	17.0	41.0	
Total Split (%)	15.8%	36.7%		15.0%	35.8%		14.2%	34.2%	34.2%	14.2%	34.2%	
Maximum Green (s)	15.5	38.5		14.5	37.5		13.5	35.8	35.8	13.5	35.8	
Yellow Time (s)	3.0	4.5		3.0	4.5		3.0	4.2	4.2	3.0	4.2	
All-Red Time (s)	0.5	1.0		0.5	1.0		0.5	1.0	1.0	0.5	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	3.5	5.5		3.5	5.5		3.5	5.2	5.2	3.5	5.2	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	4.0		1.5	4.0		1.5	4.0	4.0	1.5	4.0	
Recall Mode	None	C-Max		None	C-Max		None	Max	Max	None	Max	
Act Effect Green (s)	10.6	39.3		13.7	42.4		10.8	37.7	37.7	11.6	38.5	
Actuated g/C Ratio	0.09	0.33		0.11	0.35		0.09	0.31	0.31	0.10	0.32	
v/c Ratio	0.64	0.73		0.84	0.65		0.66	0.73	0.57	0.71	0.77	
Control Delay	62.2	37.3		71.0	33.3		58.5	34.0	12.3	64.4	40.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	62.2	37.3		71.0	33.3		58.5	34.0	12.3	64.4	40.0	
LOS	E	D		E	C		E	C	B	E	D	
Approach Delay		40.7			41.6			32.0			43.9	
Approach LOS		D			D			C			D	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 3 (3%), Referenced to phase 2:EBT and 6:WBT, Start of Green

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.84

Intersection Signal Delay: 39.2

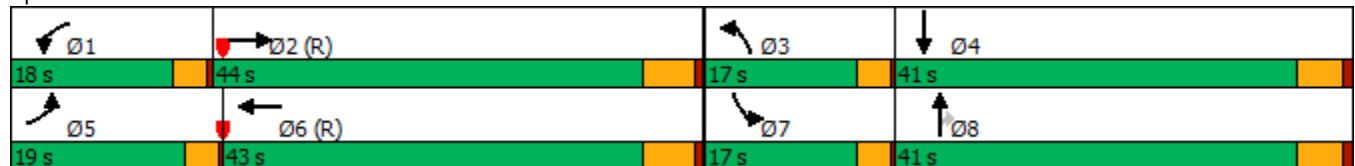
Intersection LOS: D

Intersection Capacity Utilization 74.1%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 7: San Mateo & Menaul



HCM 6th Signalized Intersection Summary

7: San Mateo & Menaul

Coffee Shop - San Mateo & Menaul

02/18/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	177	887	218	303	839	228	187	1073	357	216	975	165
Future Volume (veh/h)	177	887	218	303	839	228	187	1073	357	216	975	165
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	192	964	237	329	912	248	203	1166	388	235	1060	179
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	249	1469	360	383	1589	431	256	1523	473	291	1357	229
Arrive On Green	0.07	0.36	0.36	0.11	0.40	0.40	0.15	0.60	0.60	0.08	0.31	0.31
Sat Flow, veh/h	3456	4091	1003	3456	3997	1083	3456	5106	1585	3456	4399	742
Grp Volume(v), veh/h	192	802	399	329	776	384	203	1166	388	235	820	419
Grp Sat Flow(s),veh/h/ln	1728	1702	1690	1728	1702	1675	1728	1702	1585	1728	1702	1737
Q Serve(g_s), s	6.5	23.7	23.8	11.2	21.4	21.5	6.8	20.3	23.2	8.0	26.3	26.4
Cycle Q Clear(g_c), s	6.5	23.7	23.8	11.2	21.4	21.5	6.8	20.3	23.2	8.0	26.3	26.4
Prop In Lane	1.00		0.59	1.00		0.65	1.00		1.00	1.00		0.43
Lane Grp Cap(c), veh/h	249	1222	607	383	1354	666	256	1523	473	291	1050	536
V/C Ratio(X)	0.77	0.66	0.66	0.86	0.57	0.58	0.79	0.77	0.82	0.81	0.78	0.78
Avail Cap(c_a), veh/h	446	1222	607	418	1354	666	389	1523	473	389	1050	536
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	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	54.7	32.2	32.3	52.4	28.2	28.2	50.2	21.1	21.7	54.0	37.8	37.8
Incr Delay (d2), s/veh	1.9	2.8	5.5	14.3	1.8	3.6	3.1	3.7	14.7	6.5	5.8	10.9
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	2.9	10.0	10.5	5.6	8.9	9.1	2.8	5.7	7.2	3.7	11.5	12.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.6	35.0	37.8	66.7	30.0	31.8	53.4	24.8	36.4	60.5	43.6	48.7
LnGrp LOS	E	D	D	E	C	C	D	C	D	E	D	D
Approach Vol, veh/h		1393			1489			1757			1474	
Approach Delay, s/veh		38.8			38.6			30.7			47.7	
Approach LOS		D			D			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.8	48.6	12.4	42.2	12.2	53.2	13.6	41.0				
Change Period (Y+Rc), s	3.5	5.5	3.5	5.2	3.5	5.5	3.5	5.2				
Max Green Setting (Gmax), s	14.5	38.5	13.5	35.8	15.5	37.5	13.5	35.8				
Max Q Clear Time (g_c+I1), s	13.2	25.8	8.8	28.4	8.5	23.5	10.0	25.2				
Green Ext Time (p_c), s	0.1	7.9	0.1	5.2	0.1	8.2	0.1	7.7				
Intersection Summary												
HCM 6th Ctrl Delay			38.5									
HCM 6th LOS			D									

Lanes, Volumes, Timings
12: San Mateo & Prospect

Coffee Shop - San Mateo & Menaul

02/18/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								  			  	
Traffic Volume (vph)	43	6	101	88	11	9	68	1590	69	27	1393	66
Future Volume (vph)	43	6	101	88	11	9	68	1590	69	27	1393	66
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	125		0	100		0	125		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.91	0.91
Frt		0.859			0.932			0.994			0.993	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1600	0	1770	1736	0	1770	5055	0	1770	5050	0
Flt Permitted	0.743			0.590			0.129			0.102		
Satd. Flow (perm)	1384	1600	0	1099	1736	0	240	5055	0	190	5050	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		110			10			8			8	
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		294			258			253			660	
Travel Time (s)		6.7			5.9			4.3			11.3	
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
Adj. Flow (vph)	47	7	110	96	12	10	74	1728	75	29	1514	72
Shared Lane Traffic (%)												
Lane Group Flow (vph)	47	117	0	96	22	0	74	1803	0	29	1586	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		

Lanes, Volumes, Timings
12: San Mateo & Prospect

Coffee Shop - San Mateo & Menaul

02/18/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		3.0	20.0		3.0	20.0	
Minimum Split (s)	13.5	13.5		13.5	13.5		6.5	25.5		6.5	25.5	
Total Split (s)	36.0	36.0		36.0	36.0		19.0	65.0		19.0	65.0	
Total Split (%)	30.0%	30.0%		30.0%	30.0%		15.8%	54.2%		15.8%	54.2%	
Maximum Green (s)	30.5	30.5		30.5	30.5		15.5	59.5		15.5	59.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	4.0		3.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		0.5	1.5		0.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.5	5.5		5.5	5.5		3.5	5.5		3.5	5.5	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		1.5	4.0		1.5	4.0	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Act Effect Green (s)	13.9	13.9		13.9	13.9		95.6	90.2		93.7	88.0	
Actuated g/C Ratio	0.12	0.12		0.12	0.12		0.80	0.75		0.78	0.73	
v/c Ratio	0.29	0.41		0.76	0.10		0.29	0.47		0.14	0.43	
Control Delay	51.3	14.2		84.3	30.9		5.8	7.1		4.5	7.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	51.3	14.2		84.3	30.9		5.8	7.1		4.5	7.4	
LOS	D	B		F	C		A	A		A	A	
Approach Delay		24.8			74.3			7.1			7.3	
Approach LOS		C			E			A			A	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 43 (36%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 10.1

Intersection LOS: B

Intersection Capacity Utilization 59.6%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 12: San Mateo & Prospect



HCM 6th Signalized Intersection Summary 12: San Mateo & Prospect

Coffee Shop - San Mateo & Menaul

02/18/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	6	101	88	11	9	68	1590	69	27	1393	66
Future Volume (veh/h)	43	6	101	88	11	9	68	1590	69	27	1393	66
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	47	7	110	96	12	10	74	1728	75	29	1514	72
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	265	15	238	177	149	124	288	3540	154	231	3468	165
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.03	0.71	0.71	0.02	0.69	0.69
Sat Flow, veh/h	1390	96	1504	1275	943	786	1781	5018	218	1781	4994	237
Grp Volume(v), veh/h	47	0	117	96	0	22	74	1172	631	29	1032	554
Grp Sat Flow(s),veh/h/ln	1390	0	1600	1275	0	1729	1781	1702	1831	1781	1702	1828
Q Serve(g_s), s	3.6	0.0	8.0	8.9	0.0	1.3	1.5	18.6	18.6	0.6	16.0	16.0
Cycle Q Clear(g_c), s	4.9	0.0	8.0	16.8	0.0	1.3	1.5	18.6	18.6	0.6	16.0	16.0
Prop In Lane	1.00		0.94	1.00		0.45	1.00		0.12	1.00		0.13
Lane Grp Cap(c), veh/h	265	0	253	177	0	274	288	2401	1292	231	2364	1269
V/C Ratio(X)	0.18	0.00	0.46	0.54	0.00	0.08	0.26	0.49	0.49	0.13	0.44	0.44
Avail Cap(c_a), veh/h	398	0	407	299	0	439	471	2401	1292	434	2364	1269
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	45.1	0.0	45.9	53.5	0.0	43.1	6.3	7.9	7.9	6.5	8.0	8.0
Incr Delay (d2), s/veh	0.1	0.0	0.5	1.0	0.0	0.0	0.2	0.7	1.3	0.1	0.6	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	3.2	2.9	0.0	0.6	0.5	6.0	6.7	0.2	5.3	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.3	0.0	46.4	54.5	0.0	43.1	6.4	8.7	9.3	6.6	8.6	9.1
LnGrp LOS	D	A	D	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h	164			118			1877			1615		
Approach Delay, s/veh	46.0			52.4			8.8			8.8		
Approach LOS	D			D			A			A		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.4	90.2		24.5	6.7	88.8		24.5				
Change Period (Y+Rc), s	3.5	5.5		5.5	3.5	5.5		5.5				
Max Green Setting (Gmax), s	15.5	59.5		30.5	15.5	59.5		30.5				
Max Q Clear Time (g_c+I1), s	2.6	20.6		10.0	3.5	18.0		18.8				
Green Ext Time (p_c), s	0.0	24.3		0.5	0.0	21.4		0.1				
Intersection Summary												
HCM 6th Ctrl Delay	11.8											
HCM 6th LOS	B											

HCM 6th TWSC
1: North Access & Menaul

02/18/2021

Intersection

Int Delay, s/veh 0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑↑		↑
Traffic Vol, veh/h	826	50	0	0	0	15
Future Vol, veh/h	826	50	0	0	0	15
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	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	898	54	0	0	0	16

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	- - - 476
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - - 7.14
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - - 3.92
Pot Cap-1 Maneuver	-	-	0 - 0 458
Stage 1	-	-	0 - 0
Stage 2	-	-	0 - 0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - - 458
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	13.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	458	-	-	-
HCM Lane V/C Ratio	0.036	-	-	-
HCM Control Delay (s)	13.2	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-

Lanes, Volumes, Timings

2: Madeira & Menaul

02/18/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	804	8	4	890	11	0	0	6	0	0	15
Future Volume (vph)	30	804	8	4	890	11	0	0	6	0	0	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	75		0	0		0	0		0
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.998				0.865			0.865
Flt Protected	0.950			0.950								
Satd. Flow (prot)	1770	5075	0	1770	5075	0	0	0	1611	0	0	1611
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	1770	5075	0	1770	5075	0	0	0	1611	0	0	1611
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		73			458			200			194	
Travel Time (s)		1.7			10.4			4.5			4.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	874	9	4	967	12	0	0	7	0	0	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	33	883	0	4	979	0	0	0	7	0	0	16
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		18			18			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	27.4%											
Analysis Period (min)	15											
	ICU Level of Service A											

HCM 6th TWSC
2: Madeira & Menaul

02/18/2021

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵ ↑↑↑			↵ ↑↑↑			↵			↵		
Traffic Vol, veh/h	30	804	8	4	890	11	0	0	6	0	0	15
Future Vol, veh/h	30	804	8	4	890	11	0	0	6	0	0	15
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	75	-	-	75	-	-	-	-	0	-	-	0
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	33	874	9	4	967	12	0	0	7	0	0	16
Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	979	0	0	883	0	0	-	-	442	-	-	490
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	5.34	-	-	5.34	-	-	-	-	7.14	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.12	-	-	3.12	-	-	-	-	3.92	-	-	3.92
Pot Cap-1 Maneuver	401	-	-	446	-	-	0	0	482	0	0	448
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	401	-	-	446	-	-	-	-	482	-	-	448
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	0.5		0.1		12.6		13.3					
HCM LOS					B		B					
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	482	401	-	-	446	-	-	448				
HCM Lane V/C Ratio	0.014	0.081	-	-	0.01	-	-	0.036				
HCM Control Delay (s)	12.6	14.8	-	-	13.2	-	-	13.3				
HCM Lane LOS	B	B	-	-	B	-	-	B				
HCM 95th %tile O(veh)	0	0.3	-	-	0	-	-	0.1				

Lanes, Volumes, Timings
7: San Mateo & Menaul

02/18/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	78	383	68	163	643	92	146	842	297	180	787	139
Future Volume (vph)	78	383	68	163	643	92	146	842	297	180	787	139
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	250		0	0		300	225		0
Storage Lanes	2		0	2		0	2		1	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.91	0.91	0.97	0.91	0.91	0.97	0.91	1.00	0.97	0.91	0.91
Frt		0.977			0.981				0.850		0.977	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	4968	0	3433	4989	0	3433	5085	1583	3433	4968	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	4968	0	3433	4989	0	3433	5085	1583	3433	4968	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		31			26				323		33	
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		365			256			173			390	
Travel Time (s)		7.1			5.0			2.9			6.6	
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
Adj. Flow (vph)	85	416	74	177	699	100	159	915	323	196	855	151
Shared Lane Traffic (%)												
Lane Group Flow (vph)	85	490	0	177	799	0	159	915	323	196	1006	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			26			26	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases									8			

Lanes, Volumes, Timings

7: San Mateo & Menaul

02/18/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2		1	6		3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	3.0	16.0		3.0	16.0		3.0	16.0	16.0	3.0	16.0	
Minimum Split (s)	6.5	21.5		6.5	21.5		6.5	21.2	21.2	6.5	23.2	
Total Split (s)	11.0	34.0		21.0	44.0		15.0	42.0	42.0	13.0	40.0	
Total Split (%)	10.0%	30.9%		19.1%	40.0%		13.6%	38.2%	38.2%	11.8%	36.4%	
Maximum Green (s)	7.5	28.5		17.5	38.5		11.5	36.8	36.8	9.5	34.8	
Yellow Time (s)	3.0	4.5		3.0	4.5		3.0	4.2	4.2	3.0	4.2	
All-Red Time (s)	0.5	1.0		0.5	1.0		0.5	1.0	1.0	0.5	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	3.5	5.5		3.5	5.5		3.5	5.2	5.2	3.5	5.2	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	4.0		1.5	4.0		1.5	4.0	4.0	1.5	4.0	
Recall Mode	None	C-Max		None	C-Max		None	Max	Max	None	Max	
Act Effect Green (s)	6.4	36.4		9.6	41.2		8.9	37.5	37.5	8.8	37.4	
Actuated g/C Ratio	0.06	0.33		0.09	0.37		0.08	0.34	0.34	0.08	0.34	
v/c Ratio	0.43	0.29		0.59	0.42		0.57	0.53	0.43	0.71	0.59	
Control Delay	56.4	26.4		56.3	26.1		63.4	26.7	4.1	63.9	30.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	56.4	26.4		56.3	26.1		63.4	26.7	4.1	63.9	30.9	
LOS	E	C		E	C		E	C	A	E	C	
Approach Delay		30.9			31.6			25.6			36.3	
Approach LOS		C			C			C			D	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 3 (3%), Referenced to phase 2:EBT and 6:WBT, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.71

Intersection Signal Delay: 30.8

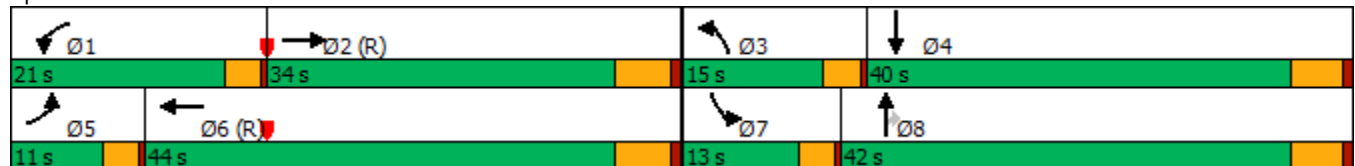
Intersection LOS: C

Intersection Capacity Utilization 56.0%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 7: San Mateo & Menaul



HCM 6th Signalized Intersection Summary

7: San Mateo & Menaul

02/18/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	78	383	68	163	643	92	146	842	297	180	787	139
Future Volume (veh/h)	78	383	68	163	643	92	146	842	297	180	787	139
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	85	416	74	177	699	100	159	915	323	196	855	151
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	136	1581	274	240	1768	250	217	1708	530	256	1511	265
Arrive On Green	0.04	0.36	0.36	0.07	0.39	0.39	0.13	0.67	0.67	0.07	0.35	0.35
Sat Flow, veh/h	3456	4378	759	3456	4519	640	3456	5106	1585	3456	4369	767
Grp Volume(v), veh/h	85	321	169	177	525	274	159	915	323	196	665	341
Grp Sat Flow(s),veh/h/ln	1728	1702	1734	1728	1702	1755	1728	1702	1585	1728	1702	1732
Q Serve(g_s), s	2.7	7.3	7.6	5.5	12.2	12.4	4.9	10.2	12.5	6.1	17.5	17.6
Cycle Q Clear(g_c), s	2.7	7.3	7.6	5.5	12.2	12.4	4.9	10.2	12.5	6.1	17.5	17.6
Prop In Lane	1.00		0.44	1.00		0.36	1.00		1.00	1.00		0.44
Lane Grp Cap(c), veh/h	136	1229	626	240	1332	687	217	1708	530	256	1177	599
V/C Ratio(X)	0.62	0.26	0.27	0.74	0.39	0.40	0.73	0.54	0.61	0.77	0.56	0.57
Avail Cap(c_a), veh/h	236	1229	626	550	1332	687	361	1708	530	298	1177	599
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	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	52.0	24.8	24.9	50.2	24.1	24.2	47.2	13.8	14.2	50.0	29.2	29.3
Incr Delay (d2), s/veh	1.7	0.5	1.1	1.7	0.9	1.7	1.8	1.2	5.1	7.9	2.0	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	3.0	3.3	2.4	5.0	5.4	2.0	3.0	3.8	2.9	7.2	7.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.8	25.3	25.9	51.9	25.0	25.9	49.0	15.0	19.3	57.9	31.2	33.2
LnGrp LOS	D	C	C	D	C	C	D	B	B	E	C	C
Approach Vol, veh/h		575			976			1397			1202	
Approach Delay, s/veh		29.7			30.1			19.9			36.1	
Approach LOS		C			C			B			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.1	45.2	10.4	43.2	7.8	48.5	11.6	42.0				
Change Period (Y+Rc), s	3.5	5.5	3.5	5.2	3.5	5.5	3.5	5.2				
Max Green Setting (Gmax), s	17.5	28.5	11.5	34.8	7.5	38.5	9.5	36.8				
Max Q Clear Time (g_c+I1), s	7.5	9.6	6.9	19.6	4.7	14.4	8.1	14.5				
Green Ext Time (p_c), s	0.1	4.0	0.1	7.4	0.0	7.5	0.0	10.5				
Intersection Summary												
HCM 6th Ctrl Delay			28.4									
HCM 6th LOS			C									

Lanes, Volumes, Timings
9: San Mateo & West Access

02/18/2021

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations			   			   
Traffic Volume (vph)	0	0	1233	0	0	0
Future Volume (vph)	0	0	1233	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.86	0.86	1.00	0.91
Frt						
Flt Protected						
Satd. Flow (prot)	0	1863	6408	0	0	5085
Flt Permitted						
Satd. Flow (perm)	0	1863	6408	0	0	5085
Link Speed (mph)	30		30			30
Link Distance (ft)	124		660			173
Travel Time (s)	2.8		15.0			3.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	1340	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	1340	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		2			2
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 21.2%						
ICU Level of Service A						
Analysis Period (min) 15						

Lanes, Volumes, Timings

12: San Mateo & Prospect

02/18/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	38	4	56	58	11	3	125	1239	40	24	971	57
Future Volume (vph)	38	4	56	58	11	3	125	1239	40	24	971	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	125		0	100		0	125		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.91	0.91
Frt		0.859			0.970			0.995			0.992	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1600	0	1770	1807	0	1770	5060	0	1770	5045	0
Flt Permitted	0.748			0.715			0.226			0.178		
Satd. Flow (perm)	1393	1600	0	1332	1807	0	421	5060	0	332	5045	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		61			3			6			11	
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		294			258			253			660	
Travel Time (s)		6.7			5.9			4.3			11.3	
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
Adj. Flow (vph)	41	4	61	63	12	3	136	1347	43	26	1055	62
Shared Lane Traffic (%)												
Lane Group Flow (vph)	41	65	0	63	15	0	136	1390	0	26	1117	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		

Lanes, Volumes, Timings

12: San Mateo & Prospect

02/18/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		3.0	20.0		3.0	20.0	
Minimum Split (s)	13.5	13.5		13.5	13.5		6.5	25.5		6.5	25.5	
Total Split (s)	35.0	35.0		35.0	35.0		18.0	57.0		18.0	57.0	
Total Split (%)	31.8%	31.8%		31.8%	31.8%		16.4%	51.8%		16.4%	51.8%	
Maximum Green (s)	29.5	29.5		29.5	29.5		14.5	51.5		14.5	51.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	4.0		3.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		0.5	1.5		0.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.5	5.5		5.5	5.5		3.5	5.5		3.5	5.5	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		1.5	4.0		1.5	4.0	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Act Effect Green (s)	10.3	10.3		10.3	10.3		92.4	87.7		88.6	82.3	
Actuated g/C Ratio	0.09	0.09		0.09	0.09		0.84	0.80		0.81	0.75	
v/c Ratio	0.32	0.32		0.51	0.09		0.32	0.34		0.08	0.30	
Control Delay	52.0	16.9		60.9	38.7		4.0	4.8		2.8	5.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	52.0	16.9		60.9	38.7		4.0	4.8		2.8	5.4	
LOS	D	B		E	D		A	A		A	A	
Approach Delay		30.4			56.6			4.7			5.4	
Approach LOS		C			E			A			A	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 51 (46%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.51

Intersection Signal Delay: 7.3

Intersection LOS: A

Intersection Capacity Utilization 50.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 12: San Mateo & Prospect



HCM 6th Signalized Intersection Summary

12: San Mateo & Prospect

02/18/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	4	56	58	11	3	125	1239	40	24	971	57
Future Volume (veh/h)	38	4	56	58	11	3	125	1239	40	24	971	57
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	41	4	61	63	12	3	136	1347	43	26	1055	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	10	155	152	149	37	461	3814	122	349	3592	211
Arrive On Green	0.10	0.10	0.10	0.10	0.10	0.10	0.04	0.75	0.75	0.01	0.73	0.73
Sat Flow, veh/h	1398	98	1502	1337	1444	361	1781	5083	162	1781	4933	290
Grp Volume(v), veh/h	41	0	65	63	0	15	136	902	488	26	728	389
Grp Sat Flow(s),veh/h/ln	1398	0	1600	1337	0	1805	1781	1702	1841	1781	1702	1818
Q Serve(g_s), s	3.0	0.0	4.2	5.1	0.0	0.8	2.1	9.9	9.9	0.4	8.1	8.1
Cycle Q Clear(g_c), s	3.8	0.0	4.2	9.3	0.0	0.8	2.1	9.9	9.9	0.4	8.1	8.1
Prop In Lane	1.00		0.94	1.00		0.20	1.00		0.09	1.00		0.16
Lane Grp Cap(c), veh/h	199	0	165	152	0	186	461	2554	1381	349	2479	1324
V/C Ratio(X)	0.21	0.00	0.39	0.41	0.00	0.08	0.29	0.35	0.35	0.07	0.29	0.29
Avail Cap(c_a), veh/h	430	0	429	373	0	484	630	2554	1381	557	2479	1324
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	46.4	0.0	46.1	50.5	0.0	44.6	3.6	4.7	4.7	4.0	5.2	5.2
Incr Delay (d2), s/veh	0.2	0.0	0.6	0.7	0.0	0.1	0.1	0.4	0.7	0.0	0.3	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	1.1	0.0	1.7	1.7	0.0	0.4	0.5	2.8	3.1	0.1	2.4	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.6	0.0	46.7	51.1	0.0	44.7	3.7	5.1	5.4	4.0	5.5	5.7
LnGrp LOS	D	A	D	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h	106			78			1526			1143		
Approach Delay, s/veh	46.6			49.9			5.0			5.5		
Approach LOS	D			D			A			A		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.1	88.0		16.8	7.6	85.6		16.8				
Change Period (Y+Rc), s	3.5	5.5		5.5	3.5	5.5		5.5				
Max Green Setting (Gmax), s	14.5	51.5		29.5	14.5	51.5		29.5				
Max Q Clear Time (g_c+I1), s	2.4	11.9		6.2	4.1	10.1		11.3				
Green Ext Time (p_c), s	0.0	17.4		0.3	0.1	13.0		0.1				
Intersection Summary												
HCM 6th Ctrl Delay	8.0											
HCM 6th LOS	A											

HCM 6th TWSC
2: Madeira & Menaul

02/18/2021

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵ ↑↑↑			↵ ↑↑↑			↵			↵		
Traffic Vol, veh/h	30	798	8	4	883	11	0	0	6	0	0	15
Future Vol, veh/h	30	798	8	4	883	11	0	0	6	0	0	15
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	75	-	-	75	-	-	-	-	0	-	-	0
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	33	867	9	4	960	12	0	0	7	0	0	16

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	972	0	0	876	0	0	-	-	438	-	-	486
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	5.34	-	-	5.34	-	-	-	-	7.14	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.12	-	-	3.12	-	-	-	-	3.92	-	-	3.92
Pot Cap-1 Maneuver	404	-	-	449	-	-	0	0	484	0	0	451
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	404	-	-	449	-	-	-	-	484	-	-	451
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.5			0.1			12.5			13.3		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	484	404	-	-	449	-	-	451
HCM Lane V/C Ratio	0.013	0.081	-	-	0.01	-	-	0.036
HCM Control Delay (s)	12.5	14.7	-	-	13.1	-	-	13.3
HCM Lane LOS	B	B	-	-	B	-	-	B
HCM 95th %tile Q(veh)	0	0.3	-	-	0	-	-	0.1

Lanes, Volumes, Timings
7: San Mateo & Menaul

02/18/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	78	378	68	147	652	92	113	823	297	160	787	139
Future Volume (vph)	78	378	68	147	652	92	113	823	297	160	787	139
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	250		0	0		300	225		0
Storage Lanes	2		0	2		0	2		1	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.91	0.91	0.97	0.91	0.91	0.97	0.91	1.00	0.97	0.91	0.91
Frt		0.977			0.981				0.850		0.977	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	4968	0	3433	4989	0	3433	5085	1583	3433	4968	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	4968	0	3433	4989	0	3433	5085	1583	3433	4968	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		31			26				323		33	
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		365			256			173			390	
Travel Time (s)		7.1			5.0			2.9			6.6	
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
Adj. Flow (vph)	85	411	74	160	709	100	123	895	323	174	855	151
Shared Lane Traffic (%)												
Lane Group Flow (vph)	85	485	0	160	809	0	123	895	323	174	1006	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			26			26	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases									8			

Lanes, Volumes, Timings

7: San Mateo & Menaul

02/18/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2		1	6		3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	3.0	16.0		3.0	16.0		3.0	16.0	16.0	3.0	16.0	
Minimum Split (s)	6.5	21.5		6.5	21.5		6.5	21.2	21.2	6.5	21.2	
Total Split (s)	11.0	34.0		21.0	44.0		15.0	42.0	42.0	13.0	40.0	
Total Split (%)	10.0%	30.9%		19.1%	40.0%		13.6%	38.2%	38.2%	11.8%	36.4%	
Maximum Green (s)	7.5	28.5		17.5	38.5		11.5	36.8	36.8	9.5	34.8	
Yellow Time (s)	3.0	4.5		3.0	4.5		3.0	4.2	4.2	3.0	4.2	
All-Red Time (s)	0.5	1.0		0.5	1.0		0.5	1.0	1.0	0.5	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	3.5	5.5		3.5	5.5		3.5	5.2	5.2	3.5	5.2	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	4.0		1.5	4.0		1.5	4.0	4.0	1.5	4.0	
Recall Mode	None	C-Max		None	C-Max		None	Max	Max	None	Max	
Act Effect Green (s)	6.4	37.0		9.0	41.2		7.8	37.7	37.7	8.6	38.5	
Actuated g/C Ratio	0.06	0.34		0.08	0.37		0.07	0.34	0.34	0.08	0.35	
v/c Ratio	0.43	0.29		0.57	0.43		0.50	0.51	0.43	0.65	0.57	
Control Delay	56.4	26.0		56.3	26.2		63.3	26.6	4.4	60.7	29.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	56.4	26.0		56.3	26.2		63.3	26.6	4.4	60.7	29.9	
LOS	E	C		E	C		E	C	A	E	C	
Approach Delay		30.5			31.2			24.6			34.4	
Approach LOS		C			C			C			C	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 3 (3%), Referenced to phase 2:EBT and 6:WBT, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.65

Intersection Signal Delay: 29.9

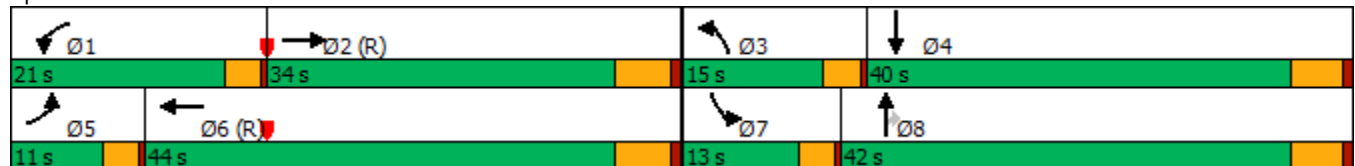
Intersection LOS: C

Intersection Capacity Utilization 55.2%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 7: San Mateo & Menaul



HCM 6th Signalized Intersection Summary

7: San Mateo & Menaul

02/18/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	78	378	68	147	652	92	113	823	297	160	787	139
Future Volume (veh/h)	78	378	68	147	652	92	113	823	297	160	787	139
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	85	411	74	160	709	100	123	895	323	174	855	151
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	136	1628	286	222	1800	252	179	1708	530	234	1531	269
Arrive On Green	0.04	0.37	0.37	0.06	0.40	0.40	0.10	0.67	0.67	0.07	0.35	0.35
Sat Flow, veh/h	3456	4370	767	3456	4528	633	3456	5106	1585	3456	4369	767
Grp Volume(v), veh/h	85	318	167	160	531	278	123	895	323	174	665	341
Grp Sat Flow(s),veh/h/ln	1728	1702	1732	1728	1702	1756	1728	1702	1585	1728	1702	1732
Q Serve(g_s), s	2.7	7.1	7.4	5.0	12.3	12.4	3.8	9.8	12.5	5.4	17.4	17.5
Cycle Q Clear(g_c), s	2.7	7.1	7.4	5.0	12.3	12.4	3.8	9.8	12.5	5.4	17.4	17.5
Prop In Lane	1.00		0.44	1.00		0.36	1.00		1.00	1.00		0.44
Lane Grp Cap(c), veh/h	136	1268	646	222	1353	698	179	1708	530	234	1193	607
V/C Ratio(X)	0.62	0.25	0.26	0.72	0.39	0.40	0.69	0.52	0.61	0.74	0.56	0.56
Avail Cap(c_a), veh/h	236	1268	646	550	1353	698	361	1708	530	298	1193	607
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	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	52.0	23.9	24.0	50.5	23.7	23.7	48.4	13.7	14.2	50.3	28.8	28.9
Incr Delay (d2), s/veh	1.7	0.5	1.0	1.6	0.9	1.7	1.7	1.2	5.1	5.0	1.9	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	1.2	2.9	3.1	2.2	5.0	5.4	1.6	2.9	3.8	2.5	7.1	7.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.8	24.4	24.9	52.1	24.5	25.4	50.2	14.9	19.3	55.3	30.7	32.6
LnGrp LOS	D	C	C	D	C	C	D	B	B	E	C	C
Approach Vol, veh/h	570			969			1341			1180		
Approach Delay, s/veh	28.9			29.3			19.2			34.9		
Approach LOS	C			C			B			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.6	46.5	9.2	43.7	7.8	49.2	10.9	42.0				
Change Period (Y+Rc), s	3.5	5.5	3.5	5.2	3.5	5.5	3.5	5.2				
Max Green Setting (Gmax), s	17.5	28.5	11.5	34.8	7.5	38.5	9.5	36.8				
Max Q Clear Time (g_c+I1), s	7.0	9.4	5.8	19.5	4.7	14.4	7.4	14.5				
Green Ext Time (p_c), s	0.1	3.9	0.1	7.4	0.0	7.6	0.0	10.3				
Intersection Summary												
HCM 6th Ctrl Delay	27.5											
HCM 6th LOS	C											

Lanes, Volumes, Timings

12: San Mateo & Prospect

02/18/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	4	56	58	11	3	125	1230	40	13	963	56
Future Volume (vph)	37	4	56	58	11	3	125	1230	40	13	963	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	125		0	100		0	125		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.91	0.91
Frt		0.859			0.970			0.995			0.992	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1600	0	1770	1807	0	1770	5060	0	1770	5045	0
Flt Permitted	0.748			0.715			0.227			0.183		
Satd. Flow (perm)	1393	1600	0	1332	1807	0	423	5060	0	341	5045	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		61			3			6			11	
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		294			258			253			660	
Travel Time (s)		6.7			5.9			4.3			11.3	
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
Adj. Flow (vph)	40	4	61	63	12	3	136	1337	43	14	1047	61
Shared Lane Traffic (%)												
Lane Group Flow (vph)	40	65	0	63	15	0	136	1380	0	14	1108	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		

Lanes, Volumes, Timings

12: San Mateo & Prospect

02/18/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		3.0	20.0		3.0	20.0	
Minimum Split (s)	13.5	13.5		13.5	13.5		6.5	25.5		6.5	25.5	
Total Split (s)	35.0	35.0		35.0	35.0		18.0	57.0		18.0	57.0	
Total Split (%)	31.8%	31.8%		31.8%	31.8%		16.4%	51.8%		16.4%	51.8%	
Maximum Green (s)	29.5	29.5		29.5	29.5		14.5	51.5		14.5	51.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	4.0		3.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		0.5	1.5		0.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.5	5.5		5.5	5.5		3.5	5.5		3.5	5.5	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		1.5	4.0		1.5	4.0	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Act Effect Green (s)	10.3	10.3		10.3	10.3		92.9	89.3		88.4	82.3	
Actuated g/C Ratio	0.09	0.09		0.09	0.09		0.84	0.81		0.80	0.75	
v/c Ratio	0.31	0.32		0.51	0.09		0.32	0.34		0.04	0.29	
Control Delay	51.7	16.9		60.9	38.7		4.0	4.2		2.5	5.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	51.7	16.9		60.9	38.7		4.0	4.2		2.5	5.4	
LOS	D	B		E	D		A	A		A	A	
Approach Delay		30.1			56.6			4.2			5.4	
Approach LOS		C			E			A			A	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 51 (46%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.51

Intersection Signal Delay: 7.1

Intersection LOS: A

Intersection Capacity Utilization 50.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 12: San Mateo & Prospect



HCM 6th Signalized Intersection Summary

12: San Mateo & Prospect

02/18/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	4	56	58	11	3	125	1230	40	13	963	56
Future Volume (veh/h)	37	4	56	58	11	3	125	1230	40	13	963	56
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	40	4	61	63	12	3	136	1337	43	14	1047	61
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	10	155	152	149	37	464	3840	124	345	3597	209
Arrive On Green	0.10	0.10	0.10	0.10	0.10	0.10	0.04	0.76	0.76	0.01	0.73	0.73
Sat Flow, veh/h	1398	98	1502	1337	1444	361	1781	5082	163	1781	4935	287
Grp Volume(v), veh/h	40	0	65	63	0	15	136	896	484	14	722	386
Grp Sat Flow(s),veh/h/ln	1398	0	1600	1337	0	1805	1781	1702	1841	1781	1702	1819
Q Serve(g_s), s	2.9	0.0	4.2	5.1	0.0	0.8	2.0	9.6	9.6	0.2	8.0	8.0
Cycle Q Clear(g_c), s	3.8	0.0	4.2	9.3	0.0	0.8	2.0	9.6	9.6	0.2	8.0	8.0
Prop In Lane	1.00		0.94	1.00		0.20	1.00		0.09	1.00		0.16
Lane Grp Cap(c), veh/h	199	0	165	152	0	186	464	2573	1391	345	2481	1325
V/C Ratio(X)	0.20	0.00	0.39	0.41	0.00	0.08	0.29	0.35	0.35	0.04	0.29	0.29
Avail Cap(c_a), veh/h	430	0	429	373	0	484	634	2573	1391	563	2481	1325
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	46.3	0.0	46.1	50.5	0.0	44.6	3.5	4.5	4.5	4.0	5.1	5.1
Incr Delay (d2), s/veh	0.2	0.0	0.6	0.7	0.0	0.1	0.1	0.4	0.7	0.0	0.3	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	1.0	0.0	1.7	1.7	0.0	0.4	0.5	2.6	3.0	0.1	2.4	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.5	0.0	46.7	51.1	0.0	44.7	3.6	4.8	5.1	4.0	5.4	5.7
LnGrp LOS	D	A	D	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h	105			78			1516			1122		
Approach Delay, s/veh	46.6			49.9			4.8			5.5		
Approach LOS	D			D			A			A		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.5	88.6		16.8	7.5	85.7		16.8				
Change Period (Y+Rc), s	3.5	5.5		5.5	3.5	5.5		5.5				
Max Green Setting (Gmax), s	14.5	51.5		29.5	14.5	51.5		29.5				
Max Q Clear Time (g_c+I1), s	2.2	11.6		6.2	4.0	10.0		11.3				
Green Ext Time (p_c), s	0.0	17.3		0.3	0.1	12.9		0.1				
Intersection Summary												
HCM 6th Ctrl Delay	7.9											
HCM 6th LOS	A											

HCM 6th TWSC
1: North Access & Menaul

02/18/2021

Intersection

Int Delay, s/veh 0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑↑		↑
Traffic Vol, veh/h	750	50	0	0	0	15
Future Vol, veh/h	750	50	0	0	0	15
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	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	815	54	0	0	0	16

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	- 435
Stage 1	-	-	- -
Stage 2	-	-	- -
Critical Hdwy	-	-	- 7.14
Critical Hdwy Stg 1	-	-	- -
Critical Hdwy Stg 2	-	-	- -
Follow-up Hdwy	-	-	- 3.92
Pot Cap-1 Maneuver	-	0	0 487
Stage 1	-	0	0 -
Stage 2	-	0	0 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- 487
Mov Cap-2 Maneuver	-	-	- -
Stage 1	-	-	- -
Stage 2	-	-	- -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	12.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	487	-	-	-
HCM Lane V/C Ratio	0.033	-	-	-
HCM Control Delay (s)	12.6	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-

Lanes, Volumes, Timings

2: Madeira & Menaul

02/18/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	731	7	4	810	10	0	0	5	0	0	14
Future Volume (vph)	27	731	7	4	810	10	0	0	5	0	0	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	75		0	0		0	0		0
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.998				0.865			0.865
Flt Protected	0.950			0.950								
Satd. Flow (prot)	1770	5080	0	1770	5075	0	0	0	1611	0	0	1611
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	1770	5080	0	1770	5075	0	0	0	1611	0	0	1611
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		73			458			200			194	
Travel Time (s)		1.7			10.4			4.5			4.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	29	795	8	4	880	11	0	0	5	0	0	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	29	803	0	4	891	0	0	0	5	0	0	15
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		18			18			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	25.9%						ICU Level of Service A					
Analysis Period (min)	15											

HCM 6th TWSC
2: Madeira & Menaul

02/18/2021

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵ ↑↑↑			↵ ↑↑↑					↵			↵
Traffic Vol, veh/h	27	731	7	4	810	10	0	0	5	0	0	14
Future Vol, veh/h	27	731	7	4	810	10	0	0	5	0	0	14
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	75	-	-	75	-	-	-	-	0	-	-	0
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	29	795	8	4	880	11	0	0	5	0	0	15
Major/Minor	Major1		Major2			Minor1			Minor2			
Conflicting Flow All	891	0	0	803	0	0	-	-	402	-	-	446
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	5.34	-	-	5.34	-	-	-	-	7.14	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.12	-	-	3.12	-	-	-	-	3.92	-	-	3.92
Pot Cap-1 Maneuver	442	-	-	487	-	-	0	0	511	0	0	479
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	442	-	-	487	-	-	-	-	511	-	-	479
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	0.5		0.1			12.1			12.8			
HCM LOS						B			B			
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	511	442	-	-	487	-	-	479				
HCM Lane V/C Ratio	0.011	0.066	-	-	0.009	-	-	0.032				
HCM Control Delay (s)	12.1	13.7	-	-	12.5	-	-	12.8				
HCM Lane LOS	B	B	-	-	B	-	-	B				
HCM 95th %tile Q(veh)	0	0.2	-	-	0	-	-	0.1				

Lanes, Volumes, Timings
7: San Mateo & Menaul

02/18/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	71	349	62	150	584	84	136	767	270	165	715	126
Future Volume (vph)	71	349	62	150	584	84	136	767	270	165	715	126
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	250		0	0		300	225		0
Storage Lanes	2		0	2		0	2		1	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.91	0.91	0.97	0.91	0.91	0.97	0.91	1.00	0.97	0.91	0.91
Frt		0.977			0.981				0.850		0.978	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	4968	0	3433	4989	0	3433	5085	1583	3433	4973	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	4968	0	3433	4989	0	3433	5085	1583	3433	4973	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		31			26				293		33	
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		365			256			173			390	
Travel Time (s)		7.1			5.0			2.9			6.6	
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
Adj. Flow (vph)	77	379	67	163	635	91	148	834	293	179	777	137
Shared Lane Traffic (%)												
Lane Group Flow (vph)	77	446	0	163	726	0	148	834	293	179	914	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			26			26	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases									8			

Lanes, Volumes, Timings

7: San Mateo & Menaul

02/18/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2		1	6		3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0		3.0	16.0		3.0	16.0	16.0	3.0	16.0	
Minimum Split (s)	6.5	20.5		6.5	21.5		6.5	21.2	21.2	6.5	21.2	
Total Split (s)	11.0	34.0		21.0	44.0		15.0	41.0	41.0	14.0	40.0	
Total Split (%)	10.0%	30.9%		19.1%	40.0%		13.6%	37.3%	37.3%	12.7%	36.4%	
Maximum Green (s)	7.5	28.5		17.5	38.5		11.5	35.8	35.8	10.5	34.8	
Yellow Time (s)	3.0	4.5		3.0	4.5		3.0	4.2	4.2	3.0	4.2	
All-Red Time (s)	0.5	1.0		0.5	1.0		0.5	1.0	1.0	0.5	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	3.5	5.5		3.5	5.5		3.5	5.2	5.2	3.5	5.2	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	4.0		1.5	4.0		1.5	4.0	4.0	1.5	4.0	
Recall Mode	None	C-Max		None	C-Max		None	Max	Max	None	Max	
Act Effect Green (s)	6.2	36.9		9.1	41.4		8.6	37.2	37.2	9.1	37.7	
Actuated g/C Ratio	0.06	0.34		0.08	0.38		0.08	0.34	0.34	0.08	0.34	
v/c Ratio	0.40	0.26		0.57	0.38		0.55	0.48	0.40	0.63	0.53	
Control Delay	55.8	25.6		56.4	25.4		61.2	26.7	4.2	59.0	29.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	55.8	25.6		56.4	25.4		61.2	26.7	4.2	59.0	29.6	
LOS	E	C		E	C		E	C	A	E	C	
Approach Delay		30.1			31.1			25.6			34.4	
Approach LOS		C			C			C			C	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 3 (3%), Referenced to phase 2:EBT and 6:WBT, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.63

Intersection Signal Delay: 30.0

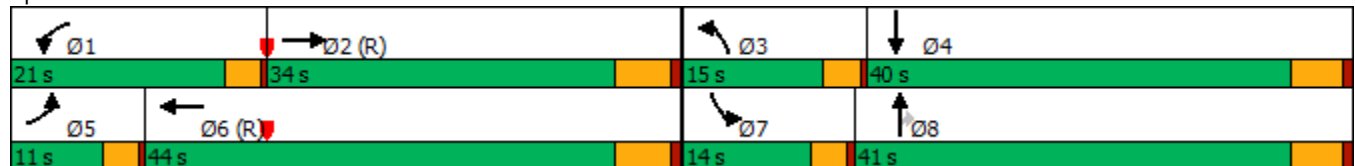
Intersection LOS: C

Intersection Capacity Utilization 52.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 7: San Mateo & Menaul



HCM 6th Signalized Intersection Summary

7: San Mateo & Menaul

02/18/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	  		 	  		 	  	
Traffic Volume (veh/h)	71	349	62	150	584	84	136	767	270	165	715	126
Future Volume (veh/h)	71	349	62	150	584	84	136	767	270	165	715	126
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	77	379	67	163	635	91	148	834	293	179	777	137
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	126	1663	286	225	1843	261	205	1662	516	239	1466	256
Arrive On Green	0.04	0.38	0.38	0.07	0.41	0.41	0.12	0.65	0.65	0.07	0.34	0.34
Sat Flow, veh/h	3456	4385	754	3456	4519	640	3456	5106	1585	3456	4372	765
Grp Volume(v), veh/h	77	292	154	163	476	250	148	834	293	179	604	310
Grp Sat Flow(s),veh/h/ln	1728	1702	1735	1728	1702	1755	1728	1702	1585	1728	1702	1733
Q Serve(g_s), s	2.4	6.4	6.7	5.1	10.6	10.8	4.5	9.3	11.3	5.6	15.8	16.0
Cycle Q Clear(g_c), s	2.4	6.4	6.7	5.1	10.6	10.8	4.5	9.3	11.3	5.6	15.8	16.0
Prop In Lane	1.00		0.43	1.00		0.36	1.00		1.00	1.00		0.44
Lane Grp Cap(c), veh/h	126	1291	658	225	1389	716	205	1662	516	239	1141	581
V/C Ratio(X)	0.61	0.23	0.23	0.72	0.34	0.35	0.72	0.50	0.57	0.75	0.53	0.53
Avail Cap(c_a), veh/h	236	1291	658	550	1389	716	361	1662	516	330	1141	581
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	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	52.2	23.2	23.3	50.4	22.4	22.5	47.6	14.6	14.9	50.2	29.5	29.6
Incr Delay (d2), s/veh	1.8	0.4	0.8	1.7	0.7	1.3	1.8	1.1	4.5	3.4	1.8	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	1.1	2.6	2.8	2.2	4.3	4.6	1.9	2.9	3.5	2.5	6.5	7.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.0	23.6	24.1	52.1	23.1	23.8	49.4	15.7	19.4	53.7	31.3	33.1
LnGrp LOS	D	C	C	D	C	C	D	B	B	D	C	C
Approach Vol, veh/h		523			889			1275			1093	
Approach Delay, s/veh		28.2			28.6			20.4			35.5	
Approach LOS		C			C			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.7	47.2	10.0	42.1	7.5	50.4	11.1	41.0				
Change Period (Y+Rc), s	3.5	5.5	3.5	5.2	3.5	5.5	3.5	5.2				
Max Green Setting (Gmax), s	17.5	28.5	11.5	34.8	7.5	38.5	10.5	35.8				
Max Q Clear Time (g_c+I1), s	7.1	8.7	6.5	18.0	4.4	12.8	7.6	13.3				
Green Ext Time (p_c), s	0.1	3.6	0.1	7.1	0.0	6.9	0.1	9.5				
Intersection Summary												
HCM 6th Ctrl Delay			27.8									
HCM 6th LOS			C									

Lanes, Volumes, Timings
9: San Mateo & West Access

02/18/2021

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations			  			  
Traffic Volume (vph)	0	62	1233	0	0	0
Future Volume (vph)	0	62	1233	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.86	0.86	1.00	0.91
Fr't	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	6408	0	0	5085
Flt Permitted						
Satd. Flow (perm)	0	1611	6408	0	0	5085
Link Speed (mph)	30	30		30		
Link Distance (ft)	124	660		173		
Travel Time (s)	2.8	15.0		3.9		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	67	1340	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	67	1340	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0	2		2		
Link Offset(ft)	0	0		0		
Crosswalk Width(ft)	16	16		16		
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	9		15	
Sign Control	Stop	Free		Free		
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	28.4%			ICU Level of Service A		
Analysis Period (min)	15					

Lanes, Volumes, Timings

12: San Mateo & Prospect

02/18/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	4	51	53	10	3	114	1127	36	23	883	52
Future Volume (vph)	35	4	51	53	10	3	114	1127	36	23	883	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	125		0	100		0	125		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.91	0.91
Frt		0.860			0.968			0.995			0.992	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1602	0	1770	1803	0	1770	5060	0	1770	5045	0
Flt Permitted	0.748			0.719			0.255			0.206		
Satd. Flow (perm)	1393	1602	0	1339	1803	0	475	5060	0	384	5045	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		55			3			6			11	
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		294			258			253			660	
Travel Time (s)		6.7			5.9			4.3			11.3	
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
Adj. Flow (vph)	38	4	55	58	11	3	124	1225	39	25	960	57
Shared Lane Traffic (%)												
Lane Group Flow (vph)	38	59	0	58	14	0	124	1264	0	25	1017	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		

Lanes, Volumes, Timings

12: San Mateo & Prospect

02/18/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		3.0	20.0		3.0	20.0	
Minimum Split (s)	13.5	13.5		13.5	13.5		6.5	25.5		6.5	25.5	
Total Split (s)	35.0	35.0		35.0	35.0		18.0	57.0		18.0	57.0	
Total Split (%)	31.8%	31.8%		31.8%	31.8%		16.4%	51.8%		16.4%	51.8%	
Maximum Green (s)	29.5	29.5		29.5	29.5		14.5	51.5		14.5	51.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	4.0		3.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		0.5	1.5		0.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.5	5.5		5.5	5.5		3.5	5.5		3.5	5.5	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		1.5	4.0		1.5	4.0	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Act Effect Green (s)	10.0	10.0		10.0	10.0		92.5	88.0		89.0	82.8	
Actuated g/C Ratio	0.09	0.09		0.09	0.09		0.84	0.80		0.81	0.75	
v/c Ratio	0.30	0.30		0.48	0.08		0.27	0.31		0.07	0.27	
Control Delay	52.0	17.6		60.0	38.8		3.4	4.4		2.5	5.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	52.0	17.6		60.0	38.8		3.4	4.4		2.5	5.1	
LOS	D	B		E	D		A	A		A	A	
Approach Delay		31.1			55.8			4.3			5.0	
Approach LOS		C			E			A			A	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 51 (46%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.48

Intersection Signal Delay: 7.0

Intersection LOS: A

Intersection Capacity Utilization 48.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 12: San Mateo & Prospect



HCM 6th Signalized Intersection Summary

12: San Mateo & Prospect

02/18/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	4	51	53	10	3	114	1127	36	23	883	52
Future Volume (veh/h)	35	4	51	53	10	3	114	1127	36	23	883	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	38	4	55	58	11	3	124	1225	39	25	960	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	189	10	142	147	135	37	501	3854	123	390	3640	216
Arrive On Green	0.10	0.10	0.10	0.10	0.10	0.10	0.03	0.76	0.76	0.01	0.74	0.74
Sat Flow, veh/h	1400	109	1493	1344	1415	386	1781	5083	162	1781	4930	292
Grp Volume(v), veh/h	38	0	59	58	0	14	124	820	444	25	662	355
Grp Sat Flow(s),veh/h/ln	1400	0	1602	1344	0	1801	1781	1702	1841	1781	1702	1818
Q Serve(g_s), s	2.8	0.0	3.8	4.7	0.0	0.8	1.8	8.4	8.4	0.4	7.0	7.0
Cycle Q Clear(g_c), s	3.6	0.0	3.8	8.5	0.0	0.8	1.8	8.4	8.4	0.4	7.0	7.0
Prop In Lane	1.00		0.93	1.00		0.21	1.00		0.09	1.00		0.16
Lane Grp Cap(c), veh/h	189	0	153	147	0	172	501	2581	1396	390	2513	1342
V/C Ratio(X)	0.20	0.00	0.39	0.39	0.00	0.08	0.25	0.32	0.32	0.06	0.26	0.26
Avail Cap(c_a), veh/h	431	0	430	379	0	483	674	2581	1396	599	2513	1342
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	47.0	0.0	46.7	50.7	0.0	45.4	3.2	4.2	4.2	3.6	4.7	4.7
Incr Delay (d2), s/veh	0.2	0.0	0.6	0.6	0.0	0.1	0.1	0.3	0.6	0.0	0.3	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	1.0	0.0	1.5	1.6	0.0	0.4	0.5	2.3	2.6	0.1	2.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.2	0.0	47.3	51.3	0.0	45.4	3.3	4.6	4.8	3.6	4.9	5.2
LnGrp LOS	D	A	D	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h	97			72			1388			1042		
Approach Delay, s/veh	47.3			50.2			4.5			5.0		
Approach LOS	D			D			A			A		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.1	88.9		16.0	7.3	86.7		16.0				
Change Period (Y+Rc), s	3.5	5.5		5.5	3.5	5.5		5.5				
Max Green Setting (Gmax), s	14.5	51.5		29.5	14.5	51.5		29.5				
Max Q Clear Time (g_c+I1), s	2.4	10.4		5.8	3.8	9.0		10.5				
Green Ext Time (p_c), s	0.0	15.4		0.2	0.1	11.5		0.1				
Intersection Summary												
HCM 6th Ctrl Delay				7.6								
HCM 6th LOS				A								

HCM 6th TWSC
2: Madeira & Menaul

02/18/2021

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↑↑↑			↰ ↑↑↑			↰			↰		
Traffic Vol, veh/h	27	725	7	4	803	10	0	0	5	0	0	14
Future Vol, veh/h	27	725	7	4	803	10	0	0	5	0	0	14
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	75	-	-	75	-	-	-	-	0	-	-	0
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	29	788	8	4	873	11	0	0	5	0	0	15
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	884	0	0	796	0	0	-	-	398	-	-	442
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	5.34	-	-	5.34	-	-	-	-	7.14	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.12	-	-	3.12	-	-	-	-	3.92	-	-	3.92
Pot Cap-1 Maneuver	445	-	-	490	-	-	0	0	514	0	0	482
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	445	-	-	490	-	-	-	-	514	-	-	482
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.5			0.1			12.1			12.7		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	514	445	-	-	490	-	-	482				
HCM Lane V/C Ratio	0.011	0.066	-	-	0.009	-	-	0.032				
HCM Control Delay (s)	12.1	13.7	-	-	12.4	-	-	12.7				
HCM Lane LOS	B	B	-	-	B	-	-	B				
HCM 95th %tile O(veh)	0	0.2	-	-	0	-	-	0.1				

Lanes, Volumes, Timings

7: San Mateo & Menaul

02/18/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	71	344	62	134	593	84	103	748	270	145	715	126
Future Volume (vph)	71	344	62	134	593	84	103	748	270	145	715	126
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	250		0	0		300	225		0
Storage Lanes	2		0	2		0	2		1	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.91	0.91	0.97	0.91	0.91	0.97	0.91	1.00	0.97	0.91	0.91
Frt		0.977			0.981				0.850		0.978	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	4968	0	3433	4989	0	3433	5085	1583	3433	4973	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	4968	0	3433	4989	0	3433	5085	1583	3433	4973	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		31			26				293		33	
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		365			256			173			390	
Travel Time (s)		7.1			5.0			2.9			6.6	
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
Adj. Flow (vph)	77	374	67	146	645	91	112	813	293	158	777	137
Shared Lane Traffic (%)												
Lane Group Flow (vph)	77	441	0	146	736	0	112	813	293	158	914	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			26			26	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases									8			

AM Existing AM Existing 7:52 pm 02/14/2021 AM Existing

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Lanes, Volumes, Timings

7: San Mateo & Menaul

02/18/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2		1	6		3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	3.0	16.0		3.0	16.0		3.0	16.0	16.0	3.0	16.0	
Minimum Split (s)	6.5	21.5		9.5	21.5		6.5	21.2	21.2	6.5	21.2	
Total Split (s)	11.0	34.0		21.0	44.0		15.0	42.0	42.0	13.0	40.0	
Total Split (%)	10.0%	30.9%		19.1%	40.0%		13.6%	38.2%	38.2%	11.8%	36.4%	
Maximum Green (s)	7.5	28.5		17.5	38.5		11.5	36.8	36.8	9.5	34.8	
Yellow Time (s)	3.0	4.5		3.0	4.5		3.0	4.2	4.2	3.0	4.2	
All-Red Time (s)	0.5	1.0		0.5	1.0		0.5	1.0	1.0	0.5	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	3.5	5.5		3.5	5.5		3.5	5.2	5.2	3.5	5.2	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	1.5	4.0		1.5	4.0		1.5	4.0	4.0	1.5	4.0	
Recall Mode	None	C-Max		None	C-Max		None	Max	Max	None	Max	
Act Effect Green (s)	6.2	37.4		8.6	41.4		7.5	38.0	38.0	8.3	38.8	
Actuated g/C Ratio	0.06	0.34		0.08	0.38		0.07	0.35	0.35	0.08	0.35	
v/c Ratio	0.40	0.26		0.55	0.39		0.48	0.46	0.40	0.61	0.51	
Control Delay	55.8	25.2		56.2	25.5		62.3	25.9	4.4	59.4	28.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	55.8	25.2		56.2	25.5		62.3	25.9	4.4	59.4	28.6	
LOS	E	C		E	C		E	C	A	E	C	
Approach Delay		29.7			30.6			24.1			33.1	
Approach LOS		C			C			C			C	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 3 (3%), Referenced to phase 2:EBT and 6:WBT, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.61

Intersection Signal Delay: 29.0

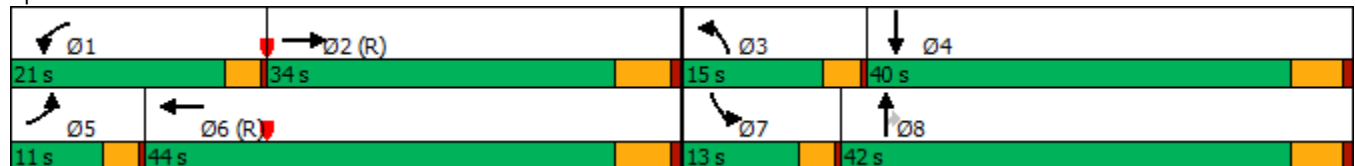
Intersection LOS: C

Intersection Capacity Utilization 52.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 7: San Mateo & Menaul



HCM 6th Signalized Intersection Summary

7: San Mateo & Menaul

02/18/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	344	62	134	593	84	103	748	270	145	715	126
Future Volume (veh/h)	71	344	62	134	593	84	103	748	270	145	715	126
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	77	374	67	146	645	91	112	813	293	158	777	137
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	126	1670	291	207	1835	256	167	1708	530	218	1527	267
Arrive On Green	0.04	0.38	0.38	0.06	0.41	0.41	0.10	0.67	0.67	0.06	0.35	0.35
Sat Flow, veh/h	3456	4375	762	3456	4529	632	3456	5106	1585	3456	4372	765
Grp Volume(v), veh/h	77	289	152	146	483	253	112	813	293	158	604	310
Grp Sat Flow(s),veh/h/ln	1728	1702	1733	1728	1702	1757	1728	1702	1585	1728	1702	1733
Q Serve(g_s), s	2.4	6.3	6.6	4.6	10.8	11.0	3.4	8.5	10.7	4.9	15.4	15.6
Cycle Q Clear(g_c), s	2.4	6.3	6.6	4.6	10.8	11.0	3.4	8.5	10.7	4.9	15.4	15.6
Prop In Lane	1.00		0.44	1.00		0.36	1.00		1.00	1.00		0.44
Lane Grp Cap(c), veh/h	126	1299	661	207	1379	712	167	1708	530	218	1189	605
V/C Ratio(X)	0.61	0.22	0.23	0.70	0.35	0.36	0.67	0.48	0.55	0.73	0.51	0.51
Avail Cap(c_a), veh/h	236	1299	661	550	1379	712	361	1708	530	298	1189	605
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	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	52.2	23.0	23.1	50.7	22.7	22.7	48.8	13.5	13.9	50.6	28.3	28.4
Incr Delay (d2), s/veh	1.8	0.4	0.8	1.6	0.7	1.4	1.7	1.0	4.1	2.9	1.6	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	2.6	2.8	2.0	4.4	4.7	1.5	2.6	3.3	2.2	6.3	6.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.0	23.4	23.9	52.4	23.4	24.1	50.6	14.5	18.0	53.5	29.9	31.5
LnGrp LOS	D	C	C	D	C	C	D	B	B	D	C	C
Approach Vol, veh/h	518			882			1218			1072		
Approach Delay, s/veh	28.1			28.4			18.6			33.8		
Approach LOS	C			C			B			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.1	47.5	8.8	43.6	7.5	50.1	10.4	42.0				
Change Period (Y+Rc), s	3.5	5.5	3.5	5.2	3.5	5.5	3.5	5.2				
Max Green Setting (Gmax), s	17.5	28.5	11.5	34.8	7.5	38.5	9.5	36.8				
Max Q Clear Time (g_c+I1), s	6.6	8.6	5.4	17.6	4.4	13.0	6.9	12.7				
Green Ext Time (p_c), s	0.1	3.6	0.1	7.2	0.0	7.0	0.0	9.6				
Intersection Summary												
HCM 6th Ctrl Delay	26.7											
HCM 6th LOS	C											

Lanes, Volumes, Timings

12: San Mateo & Prospect

02/18/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	4	51	53	10	3	114	1118	36	12	875	51
Future Volume (vph)	34	4	51	53	10	3	114	1118	36	12	875	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	125		0	100		0	125		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.91	0.91
Frt		0.860			0.968			0.995			0.992	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1602	0	1770	1803	0	1770	5060	0	1770	5045	0
Flt Permitted	0.748			0.719			0.256			0.210		
Satd. Flow (perm)	1393	1602	0	1339	1803	0	477	5060	0	391	5045	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		55			3			6			11	
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		294			258			253			660	
Travel Time (s)		6.7			5.9			4.3			11.3	
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
Adj. Flow (vph)	37	4	55	58	11	3	124	1215	39	13	951	55
Shared Lane Traffic (%)												
Lane Group Flow (vph)	37	59	0	58	14	0	124	1254	0	13	1006	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		

AM Existing AM Existing 7:52 pm 02/14/2021 AM Existing

Synchro 11 Report
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Lanes, Volumes, Timings

12: San Mateo & Prospect

02/18/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		3.0	20.0		3.0	20.0	
Minimum Split (s)	13.5	13.5		13.5	13.5		6.5	25.5		6.5	25.5	
Total Split (s)	35.0	35.0		35.0	35.0		18.0	57.0		18.0	57.0	
Total Split (%)	31.8%	31.8%		31.8%	31.8%		16.4%	51.8%		16.4%	51.8%	
Maximum Green (s)	29.5	29.5		29.5	29.5		14.5	51.5		14.5	51.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	4.0		3.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		0.5	1.5		0.5	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.5	5.5		5.5	5.5		3.5	5.5		3.5	5.5	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		1.5	4.0		1.5	4.0	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Act Effect Green (s)	10.0	10.0		10.0	10.0		93.1	89.6		88.9	82.8	
Actuated g/C Ratio	0.09	0.09		0.09	0.09		0.85	0.81		0.81	0.75	
v/c Ratio	0.29	0.30		0.48	0.08		0.27	0.30		0.04	0.26	
Control Delay	51.8	17.6		60.0	38.8		3.3	3.9		2.4	5.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	51.8	17.6		60.0	38.8		3.3	3.9		2.4	5.1	
LOS	D	B		E	D		A	A		A	A	
Approach Delay		30.8			55.8			3.9			5.0	
Approach LOS		C			E			A			A	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 51 (46%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.48

Intersection Signal Delay: 6.8

Intersection LOS: A

Intersection Capacity Utilization 47.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 12: San Mateo & Prospect



HCM 6th Signalized Intersection Summary

12: San Mateo & Prospect

02/18/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	4	51	53	10	3	114	1118	36	12	875	51
Future Volume (veh/h)	34	4	51	53	10	3	114	1118	36	12	875	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	37	4	55	58	11	3	124	1215	39	13	951	55
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	10	142	147	135	37	505	3882	125	387	3648	211
Arrive On Green	0.10	0.10	0.10	0.10	0.10	0.10	0.03	0.76	0.76	0.01	0.74	0.74
Sat Flow, veh/h	1400	109	1493	1344	1415	386	1781	5082	163	1781	4938	285
Grp Volume(v), veh/h	37	0	59	58	0	14	124	814	440	13	655	351
Grp Sat Flow(s),veh/h/ln	1400	0	1602	1344	0	1801	1781	1702	1841	1781	1702	1819
Q Serve(g_s), s	2.7	0.0	3.8	4.7	0.0	0.8	1.8	8.2	8.2	0.2	6.8	6.9
Cycle Q Clear(g_c), s	3.5	0.0	3.8	8.5	0.0	0.8	1.8	8.2	8.2	0.2	6.8	6.9
Prop In Lane	1.00		0.93	1.00		0.21	1.00		0.09	1.00		0.16
Lane Grp Cap(c), veh/h	189	0	153	147	0	172	505	2600	1406	387	2515	1344
V/C Ratio(X)	0.20	0.00	0.39	0.39	0.00	0.08	0.25	0.31	0.31	0.03	0.26	0.26
Avail Cap(c_a), veh/h	431	0	430	379	0	483	679	2600	1406	606	2515	1344
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	47.0	0.0	46.7	50.7	0.0	45.4	3.1	4.0	4.0	3.7	4.7	4.7
Incr Delay (d2), s/veh	0.2	0.0	0.6	0.6	0.0	0.1	0.1	0.3	0.6	0.0	0.3	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	1.0	0.0	1.5	1.6	0.0	0.4	0.4	2.2	2.5	0.1	2.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.1	0.0	47.3	51.3	0.0	45.4	3.2	4.3	4.6	3.7	4.9	5.1
LnGrp LOS	D	A	D	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h	96			72			1378			1019		
Approach Delay, s/veh	47.3			50.2			4.3			5.0		
Approach LOS	D			D			A			A		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.5	89.5		16.0	7.3	86.8		16.0				
Change Period (Y+Rc), s	3.5	5.5		5.5	3.5	5.5		5.5				
Max Green Setting (Gmax), s	14.5	51.5		29.5	14.5	51.5		29.5				
Max Q Clear Time (g_c+I1), s	2.2	10.2		5.8	3.8	8.9		10.5				
Green Ext Time (p_c), s	0.0	15.3		0.2	0.1	11.4		0.1				
Intersection Summary												
HCM 6th Ctrl Delay				7.5								
HCM 6th LOS				A								

Appendix C

CRASH DATA

DATE	YEAR	DOW	Hour	AStreet	BStreet	Severity2	TopCFacc	Analysis	HitRun	Alcinv	Druginv	PEDinv	MCinv	TRKinv	Killed	Injured	CrashDIR	Weather	Light
1/31/2015	2015	Saturday	1200	SAN MATEO BLVD NE	MENAU BLVD NE	Injury Crash	Inadequate Brakes	Fixed Object - Utility or Telephone Pole	No						0	1	West	Clear	Daylight
2/4/2015	2015	Wednesday	1000	SAN MATEO BLVD NE	MENAU BLVD NE	Injury Crash	Driver Inattention	Other Vehicle - Both Going Straight/Entering At Angle	No						0	1	South	Clear	Daylight
2/6/2015	2015	Friday	1800	MENAU BLVD NE	SAN MATEO BLVD NE	Injury Crash	Alcohol/Drug Involved	Other Vehicle - From Opposite Direction/Both Going Straight	No		1				0	1	West	Clear	Daylight
2/25/2015	2015	Wednesday	1700	MENAU BLVD NE	SAN MATEO BLVD NE	Injury Crash	Improper Lane Change	Other Vehicle - Both Going Straight/Entering At Angle	No						0	1	West	Clear	Daylight
2/27/2015	2015	Friday	1500	MENAU BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	Missing Data	Other Vehicle - Snow/Ice/Slush	No						0	0	West	Snowing	Dusk
2/28/2015	2015	Saturday	700	MENAU BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	Speed Too Fast for Conditions	Other Vehicle - From Same Direction/Both Going Straight	No					1	0	0	West	Snowing	Daylight
3/1/2015	2015	Sunday	1800	MENAU BLVD NE	SAN MATEO BLVD NE	Injury Crash	None	Other Vehicle - Both Going Straight/Entering At Angle	No						0	1	East	Clear	Daylight
3/1/2015	2015	Sunday	1800	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Made Improper Turn	Other Vehicle - From Opposite Direction	1						0	0	North	Clear	Daylight
3/8/2015	2015	Sunday	1200	MENAU BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	Failed to Yield Right of Way	Other Vehicle - From Opposite Direction	1						0	0	West	Clear	Daylight
3/9/2015	2015	Monday	1200	MENAU BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	Following Too Closely	Other Vehicle - From Same Direction/Both Going Straight	No						0	0	East	Clear	Daylight
3/23/2015	2015	Monday	1700	MENAU BLVD NE	SAN MATEO BLVD NE	Injury Crash	Failed to Yield Right of Way	Pedestrian Collision - Vehicle Turning Right	No			1			0	1	West	Clear	Daylight
3/23/2015	2015	Monday	1700	MENAU BLVD NE	SAN MATEO BLVD NE	Injury Crash	Alcohol/Drug Involved	Vehicle Struck Pedalcyclist At Angle	1	1					0	1	East	Clear	Daylight
3/24/2015	2015	Tuesday	1400	SAN MATEO & MENAU BLVD NE	SAN MATEO & MENAU BLVD NE	Property Damage Only Crash	Missing Data	Other Vehicle - From Same Direction/Both Going Straight	1						0	0	North	Left Blank	Left Blank
3/30/2015	2015	Monday	800	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Alcohol/Drug Involved	Other Vehicle - Both Going Straight/Entering At Angle	No	1	1				0	0	North	Clear	Daylight
4/19/2015	2015	Sunday	1300	MENAU BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	Driver Inattention	Parked Vehicle - Unknown/Not Stated	1						0	0	North	Clear	Daylight
5/29/2015	2015	Friday	1400	SB SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Other Mechanical Defect	Other Vehicle - From Opposite Direction	No					1	0	0	South	Clear	Daylight
6/6/2015	2015	Saturday	1500	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Disregarded Traffic Signal	Other Vehicle - From Opposite Direction	No						0	0	North	Clear	Daylight
6/13/2015	2015	Saturday	1600	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Speed Too Fast for Conditions	Other Vehicle - From Same Direction/Both Going Straight	No						0	0	North	Raining	Left Blank
6/15/2015	2015	Monday	1500	WEST BOUND MENAU BLVD NE	SAN MATEO / CARLSLE BLVD NE	Property Damage Only Crash	Missing Data	Other Vehicle - From Opposite Direction	1						0	0	West	Dust	Dusk
6/20/2015	2015	Saturday	1600	MENAU BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	Disregarded Traffic Signal	Invalid Code	No						0	0	Northeast	Clear	Daylight
6/20/2015	2015	Saturday	1300	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Following Too Closely	Other Vehicle - From Same Direction/Both Going Straight	No						0	0	North	Clear	Daylight
6/27/2015	2015	Saturday	1600	MENAU BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	Improper Overtaking	Other Vehicle - From Opposite Direction	No						0	0	East	Clear	Daylight
7/19/2015	2015	Sunday	2200	SAN MATEO BLVD NE	MENAU BLVD NE	Injury Crash	Driver Inattention	Other Vehicle - From Same Direction/Rear End Collision	No				1		0	1	South	Clear	Dark-Lighted
8/1/2015	2015	Saturday	1600	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Failed to Yield Right of Way	Other Vehicle - All Others/Entering At Angle	No						0	0	South	Clear	Daylight
8/22/2015	2015	Saturday	2100	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Driver Inattention	Other Vehicle - From Opposite Direction	1						0	0	South	Clear	Dark-Lighted
8/24/2015	2015	Monday	800	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Following Too Closely	Other Vehicle - From Opposite Direction	No						0	0	North	Clear	Daylight
8/29/2015	2015	Saturday	1400	MENAU BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	Failed to Yield Right of Way	Other Vehicle - Both Going Straight/Entering At Angle	No						0	0	West	Clear	Daylight
9/5/2015	2015	Saturday	1500	MENAU BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	Speed Too Fast for Conditions	Other Vehicle - From Opposite Direction	No						0	0	West	Raining	Daylight
9/9/2015	2015	Wednesday	1600	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Following Too Closely	Other Vehicle - From Same Direction/Both Going Straight	No						0	0	South	Clear	Daylight
9/9/2015	2015	Wednesday	1000	MENAU BLVD NE	SAN MATEO BLVD NE	Injury Crash	Disregarded Traffic Signal	Other Vehicle - One Vehicle/Stopped Traffic	No						0	2	West	Clear	Daylight
9/18/2015	2015	Friday	2000	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Driver Inattention	Other Vehicle - From Same Direction/Rear End Collision	No						0	0	South	Clear	Daylight
9/24/2015	2015	Thursday	0	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Missing Data	Invalid Code	No						0	0	North	Clear	Daylight
9/25/2015	2015	Friday	1300	MENAU BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	Failed to Yield Right of Way	Other Vehicle - From Opposite Direction	No						0	0	East	Clear	Daylight
10/10/2015	2015	Saturday	0	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Excessive Speed	Fixed Object - Sign or Sign Post (Traffic)	1						0	0	South	Clear	Dark-Lighted
10/18/2015	2015	Sunday	1900	SAN MATEO BLVD NE	MENAU BLVD NE	Injury Crash	Following Too Closely	Other Vehicle - From Same Direction/Both Going Straight	1						0	1	North	Clear	Dark-Lighted
10/21/2015	2015	Wednesday	1300	SAN MATEO BLVD NE	1 BLOCK SOUTH OF MENAU BLVD NE	Property Damage Only Crash	Speed Too Fast for Conditions	Other Vehicle - From Opposite Direction	No						0	0		Raining	Daylight
11/5/2015	2015	Thursday	1700	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Excessive Speed	Invalid Code	No						0	0	North	Clear	Daylight
11/12/2015	2015	Thursday	1400	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Disregarded Traffic Signal	Other Vehicle - From Opposite Direction	No						0	0	North	Clear	Daylight
11/14/2015	2015	Saturday	1800	MENAU BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	Alcohol/Drug Involved	Fixed Object - Fence (Wood, Brick, Stone)	No	1					0	0	Northeast	Clear	Dark-Lighted
11/15/2015	2015	Sunday	2100	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Driver Inattention	Other Vehicle - From Same Direction/Rear End Collision	No						0	0	North	Clear	Dark-Lighted
11/17/2015	2015	Tuesday	1300	SAN MATEO BLVD NE	MENAU BLVD NE	Injury Crash	Inadequate Brakes	Other Vehicle - From Same Direction/Rear End Collision	No						0	1	South	Clear	Daylight
11/27/2015	2015	Friday	1400	MENAU BLVD NE	SAN MATEO BLVD NE	Injury Crash	Driver Inattention	Other Vehicle - From Same Direction/Both Going Straight	1						0	2	East	Clear	Daylight
11/30/2015	2015	Monday	1500	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Following Too Closely	Other Vehicle - One Vehicle/Stopped Traffic	No						0	0		Clear	Daylight
12/5/2015	2015	Saturday	200	MENAU BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	Excessive Speed	Fixed Object - Traffic Signal Standard	1						0	0	East	Clear	Dark-Lighted
12/23/2015	2015	Tuesday	1900	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Driver Inattention	Left Blank	1						0	0	North	Clear	Dark-Lighted
12/23/2015	2015	Wednesday	1100	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Driver Inattention	Other Vehicle - From Same Direction/One Stopped	No						0	0	South	Clear	Daylight
12/24/2015	2015	Thursday	1600	MENAU BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	Failed to Yield Right of Way	Other Vehicle - From Opposite Direction	No						0	0	East	Clear	Daylight
12/24/2015	2015	Thursday	2100	MENAU BLVD NE	SAN MATEO BLVD NE	Injury Crash	Made Improper Turn	Other Vehicle - One Left Turn/Entering At Angle	No						0	4	Southwest	Clear	Dark-Lighted
12/28/2015	2015	Monday	1700	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Missing Data	Other Vehicle - From Opposite Direction	No						0	0		Left Blank	Left Blank
1/12/2016	2016	Tuesday	1600	SAN MATEO SOUTH BOUND	MENAU BLVD NE	Property Damage Only Crash	Driver Inattention	Left Blank	No						0	0		Clear	Daylight
1/15/2016	2016	Friday	1700	SAN MATEO BLVD NE	MENAU BLVD NE	Injury Crash	Following Too Closely	Other Vehicle - From Opposite Direction	1						0	2	North	Clear	Daylight
1/30/2016	2016	Saturday	1300	SAN MATEO AND MENAU BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Failed to Yield Right of Way	Other Vehicle - From Opposite Direction	1						0	0	West	Raining	Dark-Lighted
2/4/2016	2016	Thursday	1600	SAN MATEO BLVD NE	CARLSLE - MENAU BLVD NE	Property Damage Only Crash	Driver Inattention	Other Vehicle - From Opposite Direction	No						0	0	North	Clear	Daylight
2/12/2016	2016	Friday	1800	MENAU BLVD NE	SAN MATEO BLVD NE	Injury Crash	Improper Lane Change	Other Vehicle - Both Going Straight/Entering At Angle	1						0	1	West	Clear	Dark-Lighted
2/15/2016	2016	Monday	1000	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Following Too Closely	Invalid Code	No						0	0	North	Clear	Daylight
2/15/2016	2016	Monday	1000	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Disregarded Traffic Signal	Left Blank	1						0	0	South	Clear	Daylight
2/16/2016	2016	Tuesday	1300	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Improper Backing	Invalid Code	No						0	0	North	Clear	Daylight
2/16/2016	2016	Tuesday	1700	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Missing Data	Other Vehicle - From Opposite Direction	No						0	0		Left Blank	Left Blank
2/24/2016	2016	Wednesday	700	SAN MATEO BLVD NE	MENAU BLVD NE	Incapacitating Injury	Drove Left Of Center	Other Vehicle - Vehicle Wrong Way On Divided Hwy - Other Imp	No						0	2	South	Clear	Daylight
3/1/2016	2016	Tuesday	1700	MENAU BLVD NE	SAN MATEO BLVD NE	Incapacitating Injury	Missing Data	Other Vehicle - From Opposite Direction/One Left Turn	No			1			0	1	South	Clear	Dusk
3/11/2016	2016	Friday	600	MENAU BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	Disregarded Traffic Signal	Other Vehicle - Both Going Straight/Entering At Angle	No						0	0	West	Clear	Daylight
3/14/2016	2016	Monday	1000	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Driver Inattention	Other Vehicle - From Same Direction/Rear End Collision	No						0	0	South	Clear	Daylight
3/26/2016	2016	Saturday	2200	MENAU BLVD NE	SAN MATEO BLVD NE	Injury Crash	Driver Inattention	Non-Collision - All Other/Not Stated	No				1		0	1	East	Clear	Dark-Lighted
3/30/2016	2016	Wednesday	1300	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Drove Left Of Center	Left Blank	1						0	0	North	Clear	Daylight
4/1/2016	2016	Friday	1400	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Disregarded Traffic Signal	Other Vehicle - From Opposite Direction	No						0	0	North	Clear	Daylight
4/7/2016	2016	Thursday	800	MENAU BLVD NE WEST OF SAN MATEO BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	None	Left Blank	1						0	0	West	Clear	Dark-Lighted
4/13/2016	2016	Wednesday	1000	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Alcohol/Drug Involved	Fixed Object - Light Standard (Light Pole)	No	1					0	0	South	Clear	Dark-Lighted
4/20/2016	2016	Wednesday	1900	MENAU BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	Failed to Yield Right of Way	Other Vehicle - One Left Turn/Entering At Angle	No			1			0	0	East	Clear	Dark-Lighted
4/21/2016	2016	Thursday	700	MENAU BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	Missing Data	Invalid Code	No						0	0		Other	Daylight
4/26/2016	2016	Tuesday	1600	MENAU BLVD NE	SAN MATEO BLVD NE	Injury Crash	Alcohol/Drug Involved	Pedestrian Collision - Vehicle Going Straight	No	1		1			0	1	West	Clear	Dark-Lighted
5/13/2016	2016	Friday	1600	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Following Too Closely	Other Vehicle - From Same Direction/Rear End Collision	No						0	0	South	Clear	Daylight

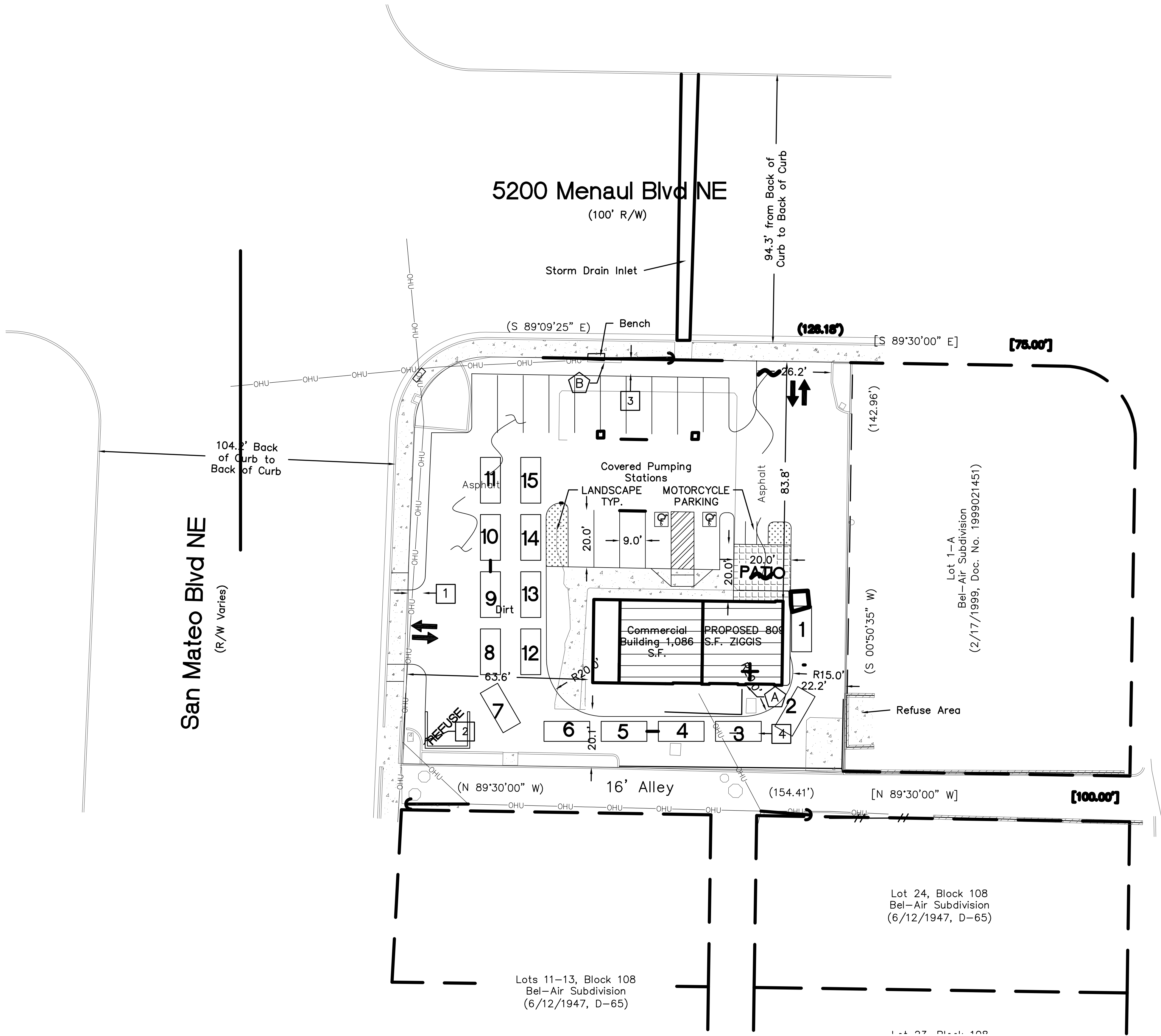
5/21/2016	2016	Saturday	1600	SAN MATEO	MENAU	Property Damage Only Crash	Following Too Closely	Other Vehicle - From Opposite Direction	No							0	0	North	Clear	Daylight
5/22/2016	2016	Sunday	200	SAN MATEO BLVD NE	MENAU BLVD NE	Injury Crash	Excessive Speed	Other Vehicle - From Same Direction/Both Going Straight	No							0	1	South	Clear	Daylight
6/7/2016	2016	Tuesday	1100	SAN MATEO	MENAU	Property Damage Only Crash	Disregarded Traffic Signal	Left Blank	1							0	0	South	Clear	Daylight
6/13/2016	2016	Monday	1600	MENAU	SAN MATEO	Property Damage Only Crash	Disregarded Traffic Signal	Left Blank	No							0	0	West	Clear	Dark-Lighted
6/14/2016	2016	Tuesday	1300	SAN MATEO	MENAU	Property Damage Only Crash	Driver Inattention	Invalid Code	No							0	0	Southeast	Snowing	Daylight
6/15/2016	2016	Wednesday	1100	MENAU BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	Driver Inattention	Other Vehicle - All Others/Entering At Angle	No							0	0	East	Raining	Daylight
6/22/2016	2016	Wednesday	1200	MENAU BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	Driver Inattention	Other Vehicle - From Same Direction/Rear End Collision	1							0	0	East	Clear	Dark-Lighted
6/24/2016	2016	Friday	1600	MANUAL HEADED EAST LT	AT MANUAL AND SAN MATEO	Property Damage Only Crash	Failed to Yield Right of Way	Other Vehicle - One Vehicle/Enter Parked Position	No							0	0	East	Clear	Daylight
7/1/2016	2016	Friday	1200	MENAU BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	Missing Data	Left Blank	No							0	0	East	Clear	Daylight
7/6/2016	2016	Wednesday	1600	MENAU BLVD NE		Property Damage Only Crash	Improper Lane Change	Other Vehicle - All Others/Entering At Angle	No							0	0	East	Clear	Daylight
7/12/2016	2016	Tuesday	1200	MENAU BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	Avoid No Contact - Other	Other Vehicle - Both Going Straight/Entering At Angle	1							0	0	West	Clear	Daylight
7/16/2016	2016	Saturday	1600	MENAU	SAN MATEO	Property Damage Only Crash	Failed to Yield Right of Way	Other Vehicle - From Opposite Direction	1							0	0	West	Clear	Daylight
8/6/2016	2016	Saturday	800	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Disregarded Traffic Signal	Other Vehicle - From Opposite Direction	No							0	0	East	Clear	Daylight
8/10/2016	2016	Wednesday	2100	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Failed to Yield Right of Way	Left Blank	No							0	0	South	Clear	Daylight
8/30/2016	2016	Tuesday	1900	SAN MATEO BLVD NE	MENAU BLVD NE	Injury Crash	Driver Inattention	Other Vehicle - From Same Direction/Both Going Straight	No							0	1	South	Clear	Daylight
9/2/2016	2016	Friday	2000	MENAU BLVD NE	SAN MATEO BLVD NE	Injury Crash	None	Other Vehicle - From Opposite Direction/Both Going Straight	No							0	1	West	Clear	Daylight
9/8/2016	2016	Thursday	1300	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Driver Inattention	Other Vehicle - From Same Direction/Sideswipe Collision	No							0	0	North	Clear	Daylight
9/16/2016	2016	Friday	1700	SAN MATEO BLVD NE	MENAU BLVD NE	Injury Crash	Following Too Closely	Other Vehicle - From Same Direction/Rear End Collision	No							0	1	South	Clear	Daylight
9/16/2016	2016	Friday	1800	MENAU BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	Improper Lane Change	Other Vehicle - One Left Turn/Entering At Angle	No							0	0	South	Clear	Daylight
10/1/2016	2016	Saturday	1000	MENAU BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	Driver Inattention	Other Vehicle - From Same Direction/Both Going Straight	No							0	0	West	Clear	Daylight
10/5/2016	2016	Wednesday	600	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Other Improper Driving	Other Vehicle - Both Going Straight/Entering At Angle	1				1			0	0	North	Clear	Daylight
10/12/2016	2016	Wednesday	1400	MENAU	SAN MATEO	Property Damage Only Crash	Improper Overtaking	Left Blank	No							0	0	West	Clear	Daylight
10/12/2016	2016	Wednesday	1800	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Driver Inattention	Other Vehicle - Both Going Straight/Entering At Angle	1							0	0	North	Clear	Daylight
10/13/2016	2016	Thursday	1600	MENAU BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	Driver Inattention	Other Vehicle - One Left Turn/Entering At Angle	No							0	0	East	Clear	Daylight
10/21/2016	2016	Friday	1900	MENAU BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	Driver Inattention	Other Vehicle - Both Going Straight/Entering At Angle	No							0	0	East	Clear	Daylight
10/22/2016	2016	Saturday	900	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Driver Inattention	Fixed Object - Sign or Sign Post (Traffic)	1							0	0	North	Clear	Dark-Lighted
10/22/2016	2016	Saturday	1000	SAN MATEO BLVD NE	MENAU BLVD NE	Injury Crash	Driver Inattention	Other Vehicle - From Same Direction/Both Going Straight	1							0	1	South	Clear	Dark-Lighted
11/2/2016	2016	Wednesday	1400	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Disregarded Traffic Signal	Other Vehicle - From Same Direction/Sideswipe Collision	1							0	0	South	Clear	Daylight
11/5/2016	2016	Saturday	1400	SAN MATEO NE		Property Damage Only Crash	Driver Inattention	Other Vehicle - One Right Turn/Entering At Angle	1							0	0	Northeast	Clear	Daylight
11/7/2016	2016	Monday	800	MENAU BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	Other Improper Driving	Other Vehicle - From Opposite Direction/Both Going Straight	1							0	0	East	Clear	Daylight
11/21/2016	2016	Monday	800	MENAU BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	Driver Inattention	Other Vehicle - From Same Direction/Both Going Straight	No				1			0	0	South	Clear	Daylight
11/30/2016	2016	Wednesday	1700	MENAU BLVD NE	SAN MATEO BLVD NE	Injury Crash	Avoid No Contact - Vehicle	Pedestrian Collision - Vehicle Turning Right	No				1			0	1	West	Clear	Daylight
12/18/2016	2016	Sunday	1300	MENAU BLVD NE	SAN MATEO BLVD NE	Injury Crash	Avoid No Contact - Other	Other Vehicle - From Same Direction/One Stopped	1							0	1	East	Clear	Daylight
2/7/2017	2017	Tuesday	1100	SAN MATEO BLVD NE	MENAU BLVD NE	Injury Crash	Driver Inattention	Other Vehicle - From Same Direction/Both Going Straight	No							0	1	South	Clear	Daylight
2/9/2017	2017	Thursday	1600	SAN MATEO BLVD NE		Injury Crash	Failed to Yield Right of Way	Other Vehicle - Both Going Straight/Entering At Angle	No							0	1	North	Clear	Daylight
2/13/2017	2017	Monday	1200	SAN MATEO	MENAU	Property Damage Only Crash	Missing Data	Other Vehicle - From Opposite Direction	No							0	0	South	Clear	Daylight
2/17/2017	2017	Friday	1000	SAN MATEO BLVD NE	MENAU BLVD NE	Injury Crash	Failed to Yield Right of Way	Other Vehicle - One Right Turn/Entering At Angle	No							0	1	North	Clear	Daylight
2/21/2017	2017	Tuesday	2100	SAN MATEO BLVD NE		Property Damage Only Crash	Other - No Driver Error	Fixed Object - Unknown/Not Stated	No							0	0	South	Clear	Dawn
2/21/2017	2017	Tuesday	1700	MENAU BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	Improper Lane Change	Other Vehicle - Both Going Straight/Entering At Angle	1							0	0	West	Clear	Daylight
3/11/2017	2017	Saturday	1000	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Driver Inattention	Other Vehicle - From Opposite Direction/One Left Turn	No				1			0	0	East	Clear	Daylight
3/12/2017	2017	Sunday	1700	MENAU @ SAN MATEO	MENAU @ SAN MATEO	Property Damage Only Crash	Passed Stop Sign	Other Vehicle - One Left Turn/Entering At Angle	1							0	0	Northeast	Clear	Daylight
3/22/2017	2017	Wednesday	1400	MENAU BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	Driver Inattention	Other Vehicle - From Same Direction/Both Going Straight	No							0	0	East	Clear	Daylight
3/23/2017	2017	Thursday	1400	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Driver Inattention	Other Vehicle - From Same Direction/Rear End Collision	1							0	0	North	Clear	Daylight
3/25/2017	2017	Saturday	200	MENAU	SAN MATEO	Injury Crash	Other - No Driver Error	Pedestrian Collision - All Others and Not Known	No				1			0	1	East	Clear	Dark-Lighted
4/4/2017	2017	Tuesday	900	SAN MATEO BLVD NE	MENAU BLVD NE	Injury Crash	Following Too Closely	Other Vehicle - From Same Direction/Rear End Collision	No							0	1	South	Clear	Daylight
4/24/2017	2017	Monday	1700	MENAU	SAN MATEO	Property Damage Only Crash	Excessive Speed	Left Blank	No							0	0	East	Clear	Daylight
4/25/2017	2017	Tuesday	1800	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Following Too Closely	Other Vehicle - From Same Direction/Both Going Straight	No							0	0	South	Raining	Daylight
5/7/2017	2017	Sunday	1600	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Made Improper Turn	Other Vehicle - From Same Direction/One Left Turn	No							0	0	South	Clear	Daylight
5/15/2017	2017	Monday	1700	MENAU BLVD NE	SAN MATEO BLVD NE	Injury Crash	Driver Inattention	Other Vehicle - From Same Direction/Both Going Straight	1							0	2	West	Clear	Daylight
5/19/2017	2017	Friday	1800	SAN MATEO BLVD. NE		Property Damage Only Crash	Failed to Yield Right of Way	Other Vehicle - All Others/Entering At Angle	No							0	0	West	Clear	Daylight
5/23/2017	2017	Tuesday	1200	SAN MATEO RD		Property Damage Only Crash	Following Too Closely	Other Vehicle - From Same Direction/Rear End Collision	No							0	0	South	Clear	Daylight
5/23/2017	2017	Tuesday	1200	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Following Too Closely	Other Vehicle - From Same Direction/Rear End Collision	No							0	0	South	Clear	Daylight
5/27/2017	2017	Saturday	2000	SAN MATEO BLVD NE	MENAU BLVD NE	Injury Crash	Disregarded Traffic Signal	Other Vehicle - Both Going Straight/Entering At Angle	1							0	2	South	Clear	Dark-Lighted
6/17/2017	2017	Saturday	1500	MENAU BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	Improper Lane Change	Other Vehicle - Both Going Straight/Entering At Angle	No							0	0	East	Clear	Daylight
7/8/2017	2017	Saturday	2200	SAN MATEO BLVD NE	MENAU BLVD NE	Injury Crash	Driver Inattention	Vehicle Struck Pedalcyclist At Angle	1							0	1	South	Clear	Dark-Lighted
7/14/2017	2017	Friday	2100	SAN MATEO BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	Failed to Yield Right of Way	Other Vehicle - From Same Direction/Both Going Straight	No							0	0	West	Clear	Dark-Lighted
7/19/2017	2017	Wednesday	1200	MENAU/SAN MATEO		Property Damage Only Crash	Excessive Speed	Left Blank	No							0	0		Clear	Daylight
8/3/2017	2017	Thursday	2000	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Disregarded Traffic Signal	Other Vehicle - One Left Turn/Entering At Angle	No							0	0	East	Clear	Dusk
8/11/2017	2017	Friday	1500	MENAU	SAN MATEO	Property Damage Only Crash	Following Too Closely	Left Blank	1							0	0	East	Raining	Daylight
8/21/2017	2017	Monday	1400	MENAU BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	Missing Data	Left Blank	No							0	0	Northeast	Clear	Daylight
9/1/2017	2017	Friday	1200	MENAU (EASTBOUND)	JUST PASSED SAN MATEO	Property Damage Only Crash	Excessive Speed	Other Vehicle - From Opposite Direction	1							0	0	East	Clear	Daylight
9/6/2017	2017	Wednesday	1200	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Disregarded Traffic Signal	Other Vehicle - Both Going Straight/Entering At Angle	No							0	0	South	Clear	Daylight
9/6/2017	2017	Wednesday	2100	MENAU BLVD NE	SAN MATEO BLVD NE	Injury Crash	Improper Lane Change	Other Vehicle - From Same Direction/One Right Turn	No				1			0	1	West	Clear	Dark-Lighted
9/14/2017	2017	Thursday	900	MENAU BLVD	SAN MATEO	Property Damage Only Crash	Driver Inattention	Left Blank	No							0	0	West	Clear	Daylight
9/18/2017	2017	Monday	800	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Driver Inattention	Other Vehicle - From Same Direction/Both Going Straight	1							0	0	South	Clear	Daylight
9/19/2017	2017	Tuesday	2100	MENAU BLVD NE	SAN MATEO BLVD NE	Injury Crash	Driver Inattention	Vehicle Struck Pedalcyclist At Angle	No							0	1	West	Clear	Dark-Lighted
9/29/2017	2017	Friday	300	MENAU BLVD NE		Injury Crash	Other Improper Driving	Fixed Object - Sign or Sign Post (Traffic)	No							0	1	East	Clear	Dark-Lighted
9/29/2017	2017	Friday	1400	MENAU BLVD NE	SAN MATEO BLVD NE	Injury Crash	Excessive Speed	Other Vehicle - From Same Direction/Both Going Straight	No							0	1	South	Clear	Daylight
10/1/2017	2017	Sunday	1500	SAN MATEO	MANUEL	Property Damage Only Crash	Disregarded Traffic Signal	Left Blank	1							0	0	East	Clear	Daylight
10/9/2017	2017	Monday	2100	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Improper Lane Change	Other Vehicle - From Same Direction/Both Going Straight	1							0	0	South	Clear	Dark-Lighted
10/10/2017	2017	Tuesday	1400	SAN MATEO BLVD NE	MADEIRA DR NE	Injury Crash	Driver Inattention	Other Vehicle - From Same Direction/Both Going Straight	No							0	1	East	Clear	Daylight
10/17/2017	2017	Tuesday	1100	MENAU BLVD NE		Injury Crash	Driver Inattention	Other Vehicle - Both Going Straight/Entering At Angle	No							0	1	West	Clear	Daylight

10/26/2017	2017	Thursday	900	MENAU BLVD NW	SAN MATEO BLVD NE	Property Damage Only Crash	Disregarded Traffic Signal	Left Blank	No							0	0	West	Clear	Daylight
10/30/2017	2017	Monday	1100	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Following Too Closely	Other Vehicle - From Same Direction/Rear End Collision	No							0	0	South	Clear	Daylight
11/6/2017	2017	Monday	1200	SAN MATEO NE SB	MENAU NE	Property Damage Only Crash	Missing Data	Left Blank	1							0	0		Left Blank	Left Blank
11/13/2017	2017	Monday	1100	SAN MATEO AND MENAU C		Property Damage Only Crash	Disregarded Traffic Signal	Left Blank	1							0	0		Clear	Daylight
11/28/2017	2017	Tuesday	1500	MENAU BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	Driver Inattention	Other Vehicle - From Same Direction/Both Going Straight	No							0	0	West	Clear	Daylight
12/7/2017	2017	Thursday	1900	MENAU AND SAN MATEO	SAN MATEO	Property Damage Only Crash	Missing Data	Left Blank	1							0	0	North	Left Blank	Left Blank
12/8/2017	2017	Friday	1100	SAN MATEO BLVD NE	MENAU BLVD NE	Injury Crash	Following Too Closely	Other Vehicle - From Same Direction/Both Going Straight	No							0	1	South	Clear	Daylight
12/11/2017	2017	Monday	900	MENAU	SAN MATEO	Property Damage Only Crash	Avoid No Contact - Vehicle	Left Blank	No							0	0	East	Clear	Daylight
12/12/2017	2017	Tuesday	1200	SAN MATEO BLVD NE		Property Damage Only Crash	Following Too Closely	Other Vehicle - Both Going Straight/Entering At Angle	No							0	0	South	Clear	Daylight
12/19/2017	2017	Tuesday	1500	MENAU RD NE	SAN MATEO BLVD NE	Injury Crash	Following Too Closely	Other Vehicle - From Same Direction/Both Going Straight	No							0	2	East	Clear	Daylight
12/21/2017	2017	Thursday	1700	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Improper Lane Change	Other Vehicle - From Same Direction/Sideswipe Collision	1							0	0	West	Clear	Dusk
12/22/2017	2017	Friday	1500	SAN MATEO BLVD NE	MENAU BLVD NE	Injury Crash	Disregarded Traffic Signal	Vehicle Struck Pedalcyclist At Angle	1							0	1	North	Clear	Daylight
12/27/2017	2017	Wednesday	1500	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Driver Inattention	Other Vehicle - From Same Direction/Rear End Collision	No							0	0	South	Clear	Daylight
1/4/2018	2018	Thursday	1300	MENAU BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	Driver Inattention	Other Vehicle - From Same Direction/Both Going Straight	1							0	0	East	Clear	Daylight
1/4/2018	2018	Thursday	1600	SAN MATEO BLVD NE	MENAU BLVD NE	Incapacitating Injury	Made Improper Turn	Other Vehicle - One Right Turn/Entering At Angle	1		1					0	1	North	Clear	Daylight
1/6/2018	2018	Saturday	1900	SAN MATEO BLVD NE	MENAU BLVD NE	Injury Crash	Driver Inattention	Other Vehicle - Both Going Straight/Entering At Angle	1							0	1	South	Clear	Dark-Lighted
1/7/2018	2018	Sunday	1300	MENAU BLVD NE	SAN MATEO BLVD NE	Injury Crash	Speed Too Fast for Conditions	Other Vehicle - From Same Direction/Both Going Straight	No							0	1	West	Clear	Daylight
2/5/2018	2018	Monday	1300	SAN MATEO	MENAU	Property Damage Only Crash	Missing Data	Left Blank	No							0	0	Northeast	Left Blank	Left Blank
2/6/2018	2018	Tuesday	1100	SAN MATEO BLVD NE	MENAU BLVD NE	Injury Crash	Driver Inattention	Other Vehicle - From Same Direction/Both Going Straight	No							0	2	South	Clear	Daylight
2/7/2018	2018	Wednesday	1500	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Made Improper Turn	Left Blank	No							0	0		Clear	Daylight
2/7/2018	2018	Wednesday	1000	SAN MATEO BLVD NE	MENAU RD NE	Injury Crash	Driver Inattention	Other Vehicle - From Same Direction/Both Going Straight	1							0	1	South	Clear	Daylight
3/5/2018	2018	Monday	1300	MENAU AND SAN MATEO IN	I WAS ON SAN MATEO	Property Damage Only Crash	Disregarded Traffic Signal	Left Blank	No							0	0		Clear	Daylight
4/6/2018	2018	Friday	1800	SAN MATEO BLVD NE	MENAU BLVD NE	Injury Crash	Avoid No Contact - Vehicle	Other Vehicle - From Same Direction/Both Going Straight	No			1				0	1	South	Clear	Daylight
4/7/2018	2018	Saturday	1600	MENAU BLVD NE	SAN MATEO BLVD NE	Injury Crash	Driver Inattention	Other Vehicle - From Same Direction/Rear End Collision	No							0	2	West	Clear	Daylight
5/3/2018	2018	Thursday	1100	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Driver Inattention	Other Vehicle - From Same Direction/Both Going Straight	No							0	0	North	Clear	Daylight
5/4/2018	2018	Friday	1600	MENAU BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	Missing Data	Left Blank	No							0	0	West	Left Blank	Left Blank
5/6/2018	2018	Sunday	2300	SAN MATEO BLVD NE	MENAU BLVD NE	Injury Crash	Made Improper Turn	Other Vehicle - From Same Direction/One Right Turn	No							0	1	South	Clear	Dark-Lighted
5/7/2018	2018	Monday	900	SAN MATEO/MENAU		Property Damage Only Crash	Missing Data	Left Blank	1							0	0	North	Clear	Daylight
5/7/2018	2018	Monday	1600	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Driver Inattention	Other Vehicle - Both Going Straight/Entering At Angle	No							0	0	North	Clear	Daylight
6/2/2018	2018	Saturday	1800	MENAU BLVD NE	SAN MATEO BLVD NE	Injury Crash	Alcohol/Drug Involved	Pedestrian Collision - Vehicle Turning Right	1	1		1				0	1	North	Clear	Daylight
6/3/2018	2018	Sunday	1200	SAN MATEO BLVD NE	MENAU BLVD NE	Injury Crash	Following Too Closely	Other Vehicle - From Same Direction/Rear End Collision	1							0	1	North	Clear	Daylight
6/7/2018	2018	Thursday	1600	MENAU BLVD NE	SAN MATEO BLVD NE	Injury Crash	Disregarded Traffic Signal	Other Vehicle - One Vehicle/Stopped Traffic	No							0	3	East	Clear	Daylight
7/1/2018	2018	Sunday	1500	SAN MATEO BLVD NE	MENAU BLVD NE	Injury Crash	Failed to Yield Right of Way	Other Vehicle - One Left Turn/Entering At Angle	No							0	1	Northwest	Clear	Daylight
7/2/2018	2018	Monday	1400	MENAU BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	Missing Data	Left Blank	No							0	0	West	Left Blank	Left Blank
7/3/2018	2018	Tuesday	500	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Drove Left Of Center	Left Blank	1							0	0	South	Clear	Dawn
7/3/2018	2018	Tuesday	1400	MENAU BLVD NE	SAN MATEO BLVD NE	Injury Crash	Driver Inattention	Other Vehicle - From Same Direction/Rear End Collision	1							0	1	East	Clear	Daylight
7/5/2018	2018	Thursday	1600	SAN MATEO BLVD NE	MENAU BLVD NE	Injury Crash	Disregarded Traffic Signal	Other Vehicle - Both Going Straight/Entering At Angle	No							0	1	South	Clear	Daylight
7/5/2018	2018	Thursday	2400	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Driver Inattention	Other Vehicle - From Same Direction/Rear End Collision	1							0	0	South	Clear	Dark-Lighted
7/6/2018	2018	Friday	1300	MENAU BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	Made Improper Turn	Left Blank	No							0	0	West	Left Blank	Daylight
7/7/2018	2018	Saturday	1700	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Improper Lane Change	Other Vehicle - Both Going Straight/Entering At Angle	1							0	0	North	Clear	Daylight
8/6/2018	2018	Monday	1200	MENAU BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	Driver Inattention	Other Vehicle - Both Going Straight/Entering At Angle	No							0	0	West	Clear	Daylight
8/7/2018	2018	Tuesday	1400	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Driver Inattention	Other Vehicle - Both Going Straight/Entering At Angle	No							0	0	East	Clear	Daylight
9/2/2018	2018	Sunday	1300	MENAU BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	Driver Inattention	Left Blank	No							0	0		Clear	Daylight
9/3/2018	2018	Monday	1700	MENAU	SAN MATEO	Property Damage Only Crash	Disregarded Traffic Signal	Left Blank	No							0	0	East	Clear	Daylight
9/3/2018	2018	Monday	1000	MENAU BLVD NE		Injury Crash	Failed to Yield Right of Way	Other Vehicle - From Same Direction/Sideswipe Collision	No		1					0	1	East	Clear	Daylight
9/5/2018	2018	Wednesday	1300	MENAU BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	Failed to Yield Right of Way	Other Vehicle - Both Going Straight/Entering At Angle	1							0	0	Northwest	Clear	Daylight
9/7/2018	2018	Friday	1000	MENAU	SAN MATEO	Injury Crash	Excessive Speed	Left Blank	1							0	2	West	Clear	Daylight
10/3/2018	2018	Wednesday	800	MENAU NE	SAN MATEO	Property Damage Only Crash	Failed to Yield Right of Way	Left Blank	No							0	0	West	Clear	Daylight
10/3/2018	2018	Wednesday	1200	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Driver Inattention	Other Vehicle - Both Going Straight/Entering At Angle	No							0	0	North	Clear	Daylight
10/3/2018	2018	Wednesday	1700	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Following Too Closely	Other Vehicle - From Same Direction/All Others	1							0	0	South	Clear	Daylight
10/4/2018	2018	Thursday	1300	MENAU BLVD NE	WASHINGTON AND SAN PEDRO	Property Damage Only Crash	Excessive Speed	Left Blank	No							0	0	East	Clear	Daylight
10/6/2018	2018	Saturday	0	MENAU BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	Made Improper Turn	Left Blank					1			0	0	East	Clear	Daylight
10/6/2018	2018	Saturday	1500	SAN MATEO BLVD NE	MENAU BLVD NE	Injury Crash	Driver Inattention	Other Vehicle - From Opposite Direction	No							0	1	South	Clear	Daylight
10/7/2018	2018	Sunday	1200	SAN MATEO	MENAU	Property Damage Only Crash	Improper Lane Change	Left Blank	No							0	0	North	Clear	Daylight
11/2/2018	2018	Friday	1200	MENAU BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	Speed Too Fast for Conditions	Left Blank	No							0	0		Clear	Daylight
11/3/2018	2018	Saturday	2400	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Driver Inattention	Other Vehicle - Both Going Straight/Entering At Angle	No							0	0	South	Clear	Daylight
11/4/2018	2018	Sunday	1500	MENAU BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	None	Other Vehicle - Both Going Straight/Entering At Angle	1							0	0	South	Clear	Daylight
11/4/2018	2018	Sunday	1200	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Driver Inattention	Other Vehicle - From Opposite Direction/Both Going Straight	No							0	0	North	Clear	Daylight
12/2/2018	2018	Sunday	1300	SAN MATEO NE		Injury Crash	Following Too Closely	Other Vehicle - From Same Direction/Both Going Straight	No							0	3	South	Clear	Daylight
12/4/2018	2018	Tuesday	600	MENAU BLVD	SAN MATEO BLVD NE	Property Damage Only Crash	Excessive Speed	Left Blank	1							0	0	East	Snowing	Daylight
12/7/2018	2018	Friday	1000	SAN MATEO BLVD NE		Property Damage Only Crash	Failed to Yield Right of Way	Other Vehicle - Both Going Straight/Entering At Angle	No							0	0	South	Clear	Daylight
1/2/2019	2019	Monday	1400	MENAU BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	Disregarded Traffic Signal	Pedalcyclist Struck Vehicle								0	0	East	Clear	Daylight
1/5/2019	2019	Thursday	800	MENAU	SAN MATEO	Property Damage Only Crash	Disregarded Traffic Signal	Left Blank								0	0	West	Clear	Daylight
1/5/2019	2019	Thursday	1700	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Following Too Closely	Other Vehicle - From Same Direction/Both Going Straight								0	0	South	Clear	Dark-Lighted
2/1/2019	2019	Sunday	500	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Driver Inattention	Other Vehicle - Both Turn Right/Entering At Angle								0	0	East	Clear	Dark-Lighted
2/3/2019	2019	Tuesday	900	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Following Too Closely	Left Blank								0	0		Snowing	Daylight
2/5/2019	2019	Thursday	1100	SAN MATEO	MENAU	Property Damage Only Crash	Other - No Driver Error	Left Blank								0	0	South	Clear	Daylight
3/2/2019	2019	Monday	1400	MENAU BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	Following Too Closely	Other Vehicle - From Same Direction/One Stopped								0	0	West	Clear	Daylight
3/6/2019	2019	Friday	200	SAN MATEO BLVD NE	MENAU BLVD NE	Injury Crash	Alcohol/Drug Involved	Other Vehicle - From Opposite Direction/Both Going Straight		1						0	3	South	Clear	Dark-Lighted
3/6/2019	2019	Friday	1500	SAN MATEO BLVD NE	MENAU BLVD NE	Injury Crash	Other Improper Driving	Other Vehicle - From Same Direction/Both Going Straight								0	1	South	Clear	Daylight
4/1/2019	2019	Sunday	2000	MENAU BLVD NE	SAN MATEO BLVD NE	Injury Crash	Pedestrian Error	Vehicle Struck Pedalcyclist At Angle								0	1	East	Clear	Dark-Lighted
4/2/2019	2019	Monday	1700	SAN MATEO BLVD NE	MENAU BLVD NE	Injury Crash	Driver Inattention	Other Vehicle - From Opposite Direction								0	1	North	Clear	Daylight

4/6/2019	2019	Friday	1900	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Driver Inattention	Non-Collision - Person Fell/Jumped/Pushed From Vehicle						1		0	0	East	Clear	Daylight
4/6/2019	2019	Friday	1300	SAN MATEO BLVD NE	MENAU BLVD NE	Injury Crash	Disregarded Traffic Signal	Pedestrian Collision - Vehicle Turning Right					1			0	1	North	Clear	Daylight
4/7/2019	2019	Saturday	1300	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Other Improper Driving	Other Vehicle - Both Going Straight/Entering At Angle								0	0	Southeast	Clear	Daylight
5/1/2019	2019	Sunday	1500	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Driver Inattention	Left Blank								0	0	North	Clear	Daylight
5/2/2019	2019	Monday	1700	MENAU BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	Driver Inattention	Other Vehicle - From Same Direction/Rear End Collision								0	0	East	Raining	Daylight
5/3/2019	2019	Tuesday	0	MENAU BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	Avoid No Contact - Other	Left Blank								0	0	East	Clear	Daylight
5/3/2019	2019	Tuesday	0	MENAU BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	Missing Data	Left Blank								0	0	East	Raining	Dark-Lighted
5/3/2019	2019	Tuesday	2100	MENAU AND SAN MATEO		Property Damage Only Crash	None	Left Blank								0	0		Clear	Dark-Lighted
5/4/2019	2019	Wednesda	1200	MENAU BLVD	SAN MATEO BLVD	Property Damage Only Crash	Following Too Closely	Left Blank								0	0	West	Clear	Daylight
5/4/2019	2019	Wednesda	1500	SAN MATEO NE	MENAU	Property Damage Only Crash	None	Left Blank								0	0		Clear	Daylight
5/4/2019	2019	Wednesda	2000	SAN MATEO BLVD NE		Injury Crash	Disregarded Traffic Signal	Other Vehicle - From Opposite Direction/Both Going Straight								0	2	North	Clear	Dark-Lighted
5/5/2019	2019	Thursday	1700	5200 MENAU BLVD NE 8711		Property Damage Only Crash	Missing Data	Left Blank								0	0		Clear	Daylight
5/6/2019	2019	Friday	1200	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Driver Inattention	Left Blank								0	0	South	Clear	Daylight
6/2/2019	2019	Monday	1800	MENAU	SAN MATEO	Property Damage Only Crash	Made Improper Turn	Left Blank								0	0		Clear	Daylight
6/7/2019	2019	Saturday	1100	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Driver Inattention	Other Vehicle - From Same Direction/Sideswipe Collision								0	0	East	Clear	Daylight
7/4/2019	2019	Wednesda	1800	SAN MATEO BLVD NE		Property Damage Only Crash	Following Too Closely	Other Vehicle - From Same Direction/Rear End Collision								0	0	South	Clear	Daylight
7/5/2019	2019	Thursday	1500	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Improper Lane Change	Other Vehicle - From Opposite Direction								0	0		Clear	Daylight
7/6/2019	2019	Friday	700	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Improper Lane Change	Other Object - Unknown/Not Stated								0	0	North	Clear	Daylight
7/7/2019	2019	Saturday	2400	MENAU BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	Excessive Speed	Other Vehicle - Both Going Straight/Entering At Angle								0	0	East	Raining	Dark-Lighted
8/4/2019	2019	Wednesda	1300	MENAU	SAN MATEO	Property Damage Only Crash	Inadequate Brakes	Other Vehicle - From Same Direction/Rear End Collision								0	0	West	Clear	Daylight
8/5/2019	2019	Thursday	1200	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Driver Inattention	Other Vehicle - From Same Direction/Both Going Straight								0	0	South	Clear	Daylight
9/6/2019	2019	Friday	1200	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Avoid No Contact - Vehicle	Other Vehicle - From Same Direction/Rear End Collision								0	0	South	Clear	Daylight
9/7/2019	2019	Saturday	900	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Missing Data	Other Vehicle - From Opposite Direction						1		0	0	South	Clear	Daylight
10/2/2019	2019	Monday	0	MENAU	SAN MATEO	Property Damage Only Crash	Missing Data	Left Blank								0	0		Left Blank	Left Blank
10/4/2019	2019	Wednesda	1700	MENAU BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	Missing Data	Invalid Code								0	0		Left Blank	Left Blank
12/2/2019	2019	Monday	1500	MENAU BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	Following Too Closely	Other Vehicle - Both Going Straight/Entering At Angle								0	0	East	Clear	Daylight
12/4/2019	2019	Wednesda	2100	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Disregarded Traffic Signal	Other Vehicle - From Opposite Direction								0	0	South	Raining	Dark-Lighted
12/5/2019	2019	Thursday	1900	SAN MATEO BLVD NE	MENAU BLVD NE	Property Damage Only Crash	Driver Inattention	Other Vehicle - From Same Direction/Both Going Straight								0	0	South	Clear	Dark-Lighted
12/5/2019	2019	Thursday	800	SAN MATEO BLVD NE	MENAU BLVD NE	Injury Crash	Driver Inattention	Other Vehicle - From Same Direction/Both Going Straight								0	1	North	Clear	Daylight
12/6/2019	2019	Friday	1400	MENAU BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	Disregarded Traffic Signal	Left Blank								0	0	West	Clear	Daylight
12/6/2019	2019	Friday	700	MENAU BLVD NE	SAN MATEO BLVD NE	Property Damage Only Crash	Disregarded Traffic Signal	Other Vehicle - From Opposite Direction/Both Going Straight								0	0	East	Clear	Daylight
12/6/2019	2019	Friday	1700	SAN MATEO BLVD NE	MENAU BLVD NE	Injury Crash	Disregarded Traffic Signal	Vehicle Struck Pedalcyclist At Angle								0	1	South	Wind	Dusk

Appendix D

PROPOSED SITE PLAN



PROJECT: ZIGGIS COFFEE 5200 MENAUL BLVD. NE ALBUQUERQUE, NEW MEXICO		JOB NO.		DRAWN BY: COT	
DESIGNED BY: CARLOS TORRES		DATE: 02.10.21		SCALE: AS SHOWN	
CONCEPTUAL ARCHITECTURAL SITE PLAN		DATE: 02.10.21		SCALE: AS SHOWN	
PROJECT: ZIGGIS COFFEE 5200 MENAUL BLVD. NE ALBUQUERQUE, NEW MEXICO		JOB NO.		DRAWN BY: COT	
DESIGNED BY: CARLOS TORRES		DATE: 02.10.21		SCALE: AS SHOWN	
CONCEPTUAL ARCHITECTURAL SITE PLAN		DATE: 02.10.21		SCALE: AS SHOWN	



MODULUS ARCHITECTS
100 SUN AVE. N.W. SUITE 305
ALBUQUERQUE, NEW MEXICO 87109
PHONE (505) 338-1499 FAX (505) 338-1498

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