
APPENDIX J.2:

Transportation Study



Memorandum

Date: May 7, 2026
To: City of Costa Mesa
Karen Gulley, Placeworks
From: Paul Herrmann, P.E.
Biling Liu

Subject: Fairview Development Center Specific Plan Transportation Study

OC23-1003

Fehr & Peers has completed the transportation study for the Fairview Development Center Specific Plan (Project) in the City of Costa Mesa (City), California. This memorandum summarizes the traffic operations analysis methodology per the requirements set in the *Draft City of Costa Mesa Transportation Impact Analysis Guidelines*, findings, and conclusions of the study, including identification of recommended improvements.

The remainder of this memorandum is divided into the following sections: Project Description, Methodology, Project Traffic, Level-of-Service (LOS) Analysis, and Conclusions.

Project Description

Background

The Project is located in the southwest quadrant of the Harbor Boulevard and Merrimac Way intersection, bounded by Shelley Circle in the City of Costa Mesa, California. Access to the Project is provided by Fair Drive.

From 1959 to 2021, the Project site was occupied by a State-operated residential care facility dedicated to serving individuals with developmental disabilities. The site is currently maintained by 66 employees, supporting several residents living in the neighboring housing. No patients are actively living in the residential care facility buildings.

The Project proposes redeveloping the site as a housing opportunity site which is consistent with the City's 6th Cycle Housing Element.

The proposed land uses include:

- Multifamily residential – 4,000 dwelling units
 - Multifamily low-rise residential – 100 units
 - Multifamily mid-rise residential – 2,980 units
 - Affordable housing – 920 units
- Commercial – 35,000 square feet

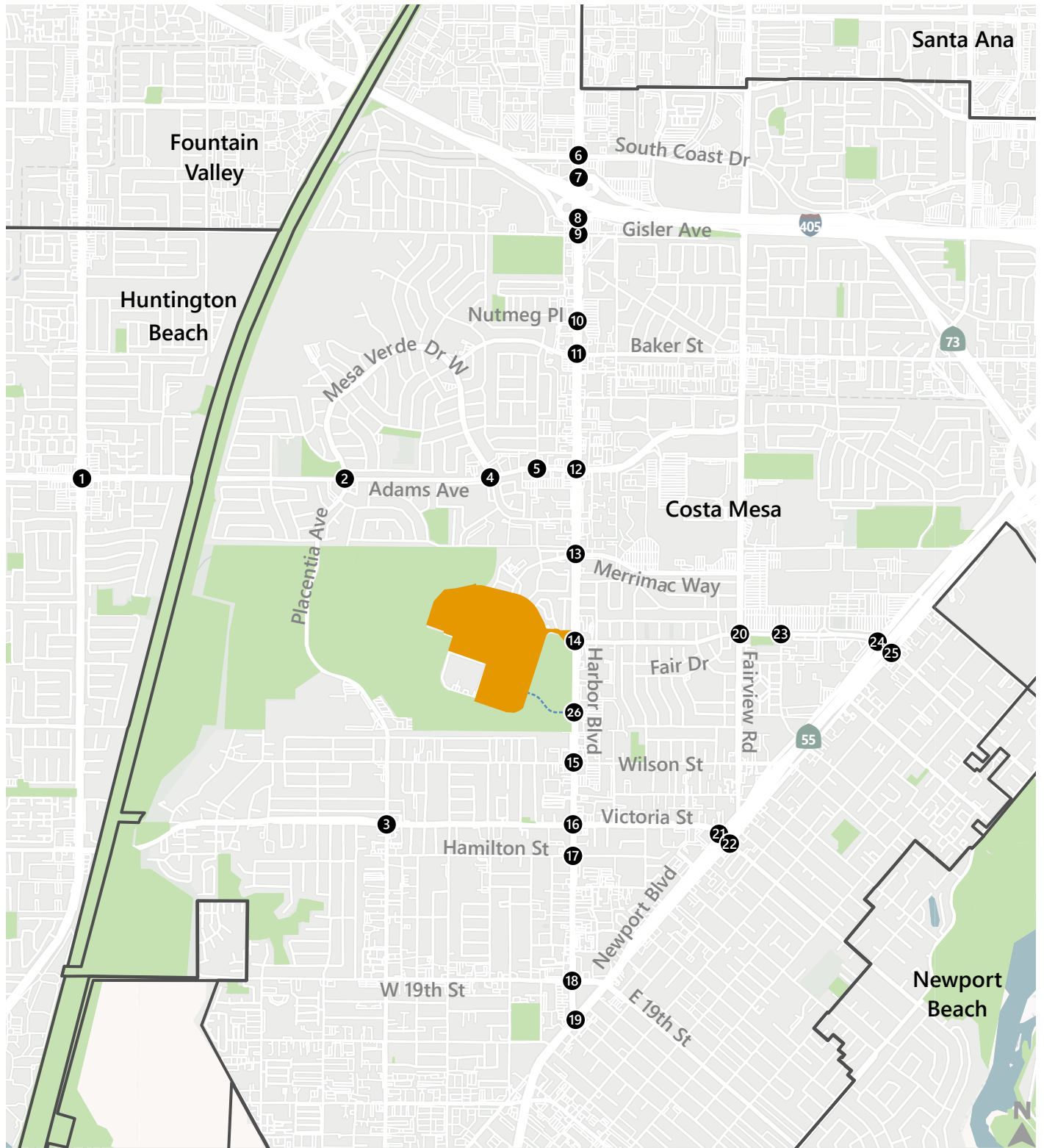
- Open space – 14 acres
 - Based on the program-level design plan, this analysis assumes two sports fields within the designated open space and park area

Study Locations

The City approved the following study intersections as identified in the *Fairview Development Center Specific Plan Transportation Analysis Scoping Assessment* Fehr & Peers submitted in October 2023:

1. Brookhurst Street and Adams Avenue
2. Placentia Avenue and Adams Avenue
3. Placentia Avenue and Victoria Street
4. Mesa Verde Drive East and Adams Avenue
5. Royal Palm Drive and Adams Avenue
6. Harbor Boulevard and South Coast Drive
7. Harbor Boulevard and Interstate 405 (I-405) Northbound Off-Ramp
8. Harbor Boulevard and I-405 Southbound Off-Ramp
9. Harbor Boulevard and Gisler Avenue
10. Harbor Boulevard and Nutmeg Place
11. Harbor Boulevard and Baker Street
12. Harbor Boulevard and Adams Avenue
13. Harbor Boulevard and Merrimac Way
14. Harbor Boulevard and Fair Drive
15. Harbor Boulevard and Wilson Street
16. Harbor Boulevard and Victoria Street
17. Harbor Boulevard and Hamilton Street
18. Harbor Boulevard and West 19th Street
19. Harbor Boulevard and Newport Boulevard
20. Fairview Road and Fair Drive
21. Southbound Newport Boulevard and Victoria Street
22. Northbound Newport Boulevard and Victoria Street/22nd Street
23. Vanguard Way and Fair Drive
24. Southbound Newport Boulevard and Fair Drive
25. Northbound Newport Boulevard and Fair Drive/Del Mar Avenue
26. Harbor Boulevard and Harbor Center/New Access (proposed new access intersection)

As determined by the Project team, a new west leg will be added to Harbor Boulevard and Harbor Center intersection, serving as the second Project access. **Figure 1** presents the selected study intersections.



- Project Site
- City Boundaries
- # Study Intersections
- New Project Access

FIGURE 1

Study Locations

Data Collection

Traffic counts collected in 2019, 2022 and 2023 were referenced for the analysis below. The traffic counts account for typical school and commute traffic but do not account for Orange County Fair traffic during the summer months, which primarily impacts Newport Boulevard and Fair Drive¹. Historical traffic counts were compared to more recent counts in 2023 and were adjusted to reflect 2023 conditions.

Traffic counts at study intersections were collected during the AM peak period (7:00–9:00 AM) and PM peak period (4:00–6:00 PM) on a typical weekday. Traffic counts are included as **Appendix A**.

Analysis Scenarios

Consistent with the *Draft City of Costa Mesa Transportation Impact Analysis Guidelines*, Fehr & Peers studied peak hour intersection LOS at the previously identified study intersections for the following scenarios:

- Existing (2025) – Existing traffic volumes and lane geometries were used to evaluate existing conditions. The Existing (2023) scenario has been analyzed in the *Fairview Specific Plan Existing Conditions Report* submitted to the City in December 2023. This study increased the 2023 volumes to reflect Existing (2025) conditions².
- Cumulative Year (2045) Without Project – Traffic forecasts that are consistent with the growth assumptions in OCTAM for the Future Year and reflect the City's 6th Cycle Housing Element Rezoning³.
- Cumulative Year (2045) With Project – Cumulative Year (2045) Without Project conditions traffic volumes plus traffic generated by the Project.

Methodology

LOS Methodology

Consistent with the *Draft City of Costa Mesa Transportation Impact Analysis (TIA) Guidelines*, all signalized study intersections within the City's jurisdiction were analyzed utilizing the Intersection Capacity Utilization (ICU) methodology. The ICU methodology reports the Volume-to-Capacity (V/C) ratio for signalized intersections, which is determined by evaluating the critical movements for each intersection and comparing them to the critical movement capacity of the intersection. For all ICU calculations, a saturation flow rate of 1,700 vehicles per hour per lane (vphpl) and 5% lost time was used. For intersections within Caltrans jurisdiction (along I-405), the methodology described in the Highway Capacity Manual (HCM) 7th Edition was used to estimate intersection delay and prescribe an LOS grade. The HCM methodology takes into account intersection timing parameters, coordination programming, and other more detailed parameters (derived from the traffic signal

¹ Orange County Fair has specific weekend peak periods, which is different from the typical weekday peak hours that analyzed for the Fairview Development Center Specific Plan.. Therefore, the weekend traffic effect of Orange County Fair was not analyzed in this study.

² According to the citywide growth from the latest OCTAM version 5.1 model, an annual growth rate of 1% was applied to 2023 traffic counts to estimate 2025 traffic volumes.

³ At the time this analysis was prepared, the City's 6th Cycle Housing Element Rezoning was still pending.

timing sheets provided by Caltrans) as compared to the ICU methodology which primarily focuses on number of approach lanes.

After the quantitative V/C or delay estimates are complete, the methodologies assign a qualitative letter grade which represents the operations of the intersection. These grades range from level of service (LOS) A (minimal delay) to LOS F (excessive congestion). LOS E represents at-capacity operations. Descriptions of the LOS letter grades for intersections are provided in **Table 1**. The *Draft City of Costa Mesa Transportation Impact Analysis (TIA) Guidelines* has identified that the LOS should be “D” or better for intersections in the City. All analysis was performed using the PTV Vistro 2025 Software and Synchro 12 Software⁴.

For intersections controlled by Caltrans (along I-405 within City of Costa Mesa, and at Harbor Boulevard and Newport Boulevard (SR-55)), methodologies consistent with the HCM 7th Edition were utilized to evaluate study intersections. Caltrans no longer defines acceptable LOS standards with their latest adoption of the *Vehicle Miles Traveled-Focused Transportation Impact Study Guide (May 2020)*. This study assumes City of Costa Mesa’s LOS “D” minimum acceptable standard at Caltrans locations.

Table 1: Intersection Level of Service Grades

Level of Service	Description	Signalized Volume-to-Capacity (V/C) Ratio	Signalized Delay (Seconds)
A	Operations with very low delay occurring with favorable progression and/or short cycle length	0.000–0.600	< 10.0
B	Operations with low delay occurring with good progression and/or short cycle lengths	0.601–0.700	> 10.0 to 20.0
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear	0.701–0.800	> 20.0 to 35.0
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable	0.801–0.900	> 35.0 to 55.0
E	Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences	0.901–1.000	> 55.0 to 80.0
F	Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths	Greater than 1.000	> 80.0

Source: HCM 7th Edition (Transportation Research Board, 2022)

Future Forecasting

The Orange County Transportation Analysis Model (OCTAM) Version 5.1⁵ was utilized to develop forecasts in the study area. OCTAM is considered the most appropriate tool for testing changes in

⁴ Synchro 12 was used to evaluate LOS at Harbor Boulevard and Newport Boulevard due to Vistro’s limitations in analyzing intersections with non-typical NEMA phasing.

⁵ OCTAM Version 5.1 was released in June 2024.

land use and roadway network in Orange County. OCTAM is available in Base Year (2019) and Future Year (2050), each with land use and roadway network assumptions for the given year.

The Base Year and Future Year models produce intersection volume forecasts. National Cooperative Highway Research Program (NCHRP) Report 255 prescribes a variety of methods for developing intersection turning movement volume forecasts from travel demand model outputs. For typical applications, the Base Year and Future Year model outputs are compared to one another and are used in conjunction with existing traffic counts to develop future traffic forecasts. In this study, the absolute difference between the Base Year (2019) and Future Year (2050) model outputs were utilized to develop the raw 2050 volume forecasts. This method is known as the difference method and is a state-of-the-practice approach consistent with NCHRP Report 255. The Cumulative Year (2045) No Project forecasts were developed by interpolating between the 2025 and 2050 traffic volumes. Some turning movement model forecasts were adjusted to maintain at minimum a one percent per year growth at all turning movements.

The OCTAM future year model was updated to include the roadway network and land use to reflect the adopted 6th cycle Housing Element Rezoning. **Table 2** presents the citywide land use inputs. The updated model was used to forecast traffic volumes at the study intersections as part of this assessment.

Table 2: Citywide and Project SED Assumptions (2045)

Input	City (Without Project)	Project
Households	61,411	4,000
Total Population	149,632	9,926
Retail Employment	18,075	74
Total Employment	114,247	74

Note: Residents were estimated based on 2.6 residents per dwelling unit from American Community Survey 2023. Retail employment was estimated using 475 square feet per employee factor, consistent with the City's 6th Cycle Housing Element Rezoning.

LOS Traffic Study

Trip Generation

Trip generation refers to the process of estimating the amount of vehicle traffic that would enter and exit a Project. Estimates for the proposed Project were calculated for the weekday peak (one-hour) periods during the morning (AM) and evening (PM) commute when traffic volumes on the adjacent streets are typically the highest.

Fehr & Peers used the *Trip Generation Manual, 12th Edition* (Institute of Transportation Engineers [ITE], 2025) to obtain the trip rates for calculating the number of trips that the Project would generate on a typical weekday. **Table 3** identifies the trip generation rates and the associated daily and peak hour Project trip generation for the Project.

Mixed-Use Internal Capture Adjustments

Internal capture credits were applied for the mixed-use nature of the residential and commercial uses on-site. Internal capture for complementary land uses was estimated using Fehr & Peers' MXD tool, which uses the Environmental Protection Agency's (EPA's) mixed-use development (MXD)

methodology^{6,7} to estimate internalization. Traditional trip generation methods often overestimate traffic from mixed-use development since standard ITE trip generation rates treat each land use independently and assume most trips arrive by car (when applied without adjustment for mixed-use context). In reality, mixed-use places function differently: people walk between uses, combine trips, or arrive by transit or bike. MXD builds on conventional ITE trip generation methods to estimate trips for mixed-use development, accounting for internal trips between complementary land uses and how the surrounding environment influences travel by walking, biking, transit, and driving. By incorporating built environment variables, often referred to in transportation planning as the “D’s” (such as density, diversity of land uses, and design/connectivity), MXD captures how land use mix and site context shape travel behavior.

The enhanced model evaluates seven key variables that influence trip-making patterns, allowing it to more accurately represent how different types and scales of development generate travel. The result is a more realistic picture of how people move within mixed-use environments, helping address a common bias against mixed-use development in traditional traffic analysis and producing more accurate traffic estimates. The MXD methodology is validated to real-world data, originally derived from 239 mixed-use sites across the county, and trip generation estimates closely match multiple validation sites’ actual trips. In 2019, traffic count data was collected at 13 calibration sites across the US, ranging in size from 4 to 220 acres. The sites represented a range of environments, including suburban areas, walkable and bikeable settings, and locations near high-quality transit. MXD was recalibrated based on this dataset and then tested at three independent validation sites.

For the Project, the MXD methodology estimated a 4.3% daily internal capture for the complementary uses of the residential, commercial and park components of the project, of which includes a 5.7% AM peak hour and 5.3% PM peak hour internal capture reduction.

Mode-Shift Adjustments

The MXD methodology also estimated a 2% mode shift to transit and 5% mode shift to walk and bike, based on factors such as access to transit, socioeconomic makeup, density, job accessibility, auto ownership and other variables. However, as discussed with City Staff, this assessment conservatively decided to cap the shift to walk/bike to 2% and not apply reductions for additional transit usage. While the Project’s proposed Transportation Demand Management (TDM) measures and design features are anticipated to decrease single-occupant vehicle trips, this assessment did not want to over estimate that reduction in trips to appropriately plan for future infrastructure. The mode shift from vehicle trips to walk and bike that was applied reflects the project design features that promote active transportation, such as the proposed bicycle and pedestrian infrastructure and connectivity to nearby attractions and job centers, such as Orange Coast College (OCC).

Existing Land Use Credits

An existing land use credit was applied for the office space currently in use onsite that will be replaced.

⁶ More information on the MXD tool is available on the Fehr & Peers website:
<https://www.fehrandpeers.com/mxd/>

⁷ Detailed information on the preparation and calibration of the MXD model is provided in this white paper:
https://www.fehrandpeers.com/wp-content/uploads/2026/03/MXD_Recalibration_Paper_July2020.pdf

Other Considerations

While it is typical to apply a pass-by reduction for commercial trips that would already be on the road and “pass-by” retail spaces while on route to an ultimate destination (such as stopping for gas on your typical route to work), pass-by reductions were conservatively not applied to the trip generation estimates.

Trip Distribution and Assignment

Project trip distribution refers to the directions of approach and departure that vehicles would use to travel to and from the project site. The trip distribution is generally accounting for commute trips and school trips that would occur during typical commute hours. As shown in **Figure 2**, the proposed trip distributions for the Project Alternatives were determined in the *Fairview Development Center Specific Plan Transportation Analysis Scoping Assessment* approved by the City in October 2023. The assignments of the Project trips are developed from the trip generation and distribution. **Figure 3** presents the Project generated trip assignment.

Table 3: Project Trip Generation Estimates

Fairview Development Center Specific Plan																	
Land Use	ITE Land Code	Quantity	Unit ¹	Trip Generation Rates ²							Estimated Trip Generation						
				Daily Rate	AM Peak			PM Peak			Daily Trips	AM Peak			PM Peak		
					Rate	% In	% Out	Rate	% In	% Out		In	Out	Total	In	Out	Total
PROJECT LAND USE																	
Multifamily Low-Rise (Harbor Village)	220	100	DU	6.21	0.41	24%	76%	0.52	62%	38%	621	10	31	41	32	20	52
Multifamily Mid-Rise	221	2,980	DU	4.46	0.38	23%	77%	0.38	64%	36%	13,291	260	872	1,132	724	408	1,132
Affordable Housing (Income Limit)	223	820	DU	4.81	0.36	29%	71%	0.46	59%	41%	3,944	86	209	295	222	155	377
Affordable Housing (Special Needs)	223	39	Residents	0.79	0.08	72%	28%	0.05	50%	50%	31	2	1	3	1	1	2
Affordable Housing (Special Needs, Harbor Village)	223	61	Residents	0.79	0.08	72%	28%	0.05	50%	50%	48	4	1	5	2	1	3
Sports Field	488	2	Fields	71.33	0.99	61%	39%	16.43	66%	34%	143	1	1	2	22	11	33
Commercial	821	35	KSF	101.43	3.54	60%	40%	8.58	49%	51%	3,550	74	50	124	147	153	300
Project Trips Total											21,628	437	1,165	1,602	1,150	749	1,899
Reduction ³																	
Internalization				4.3%	5.7%	5.7%	5.7%	5.3%	5.3%	5.3%	-930	-25	-66	-91	-61	-40	-101
Shift to Walk/Bike				2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	5.0%	-433	-9	-23	-32	-23	-15	-38
Total Reductions											-1,363	-34	-89	-123	-84	-55	-139
EXISTING USE CREDIT																	
General Office	710	66	Employees	3.44	0.49	86%	14%	0.45	18%	82%	-227	-28	-4	-32	-5	-25	-30
Net Existing Credits											-227	-28	-4	-32	-5	-25	-30
Net New External Trips											20,038	375	1,072	1,447	1,061	669	1,730

Notes:

1. KSF = 1,000 square feet, DUs = Dwelling Units
2. Sources: Trip Generation Manual 12th Edition (Institute of Transportation Engineers, 2025)
3. Internalization and mode shift to walk/bike reductions were estimated using Fehr & Peers' MXD tool, which uses the Environmental Protection Agency's (EPA's) mixed-use development (MXD) methodology to estimate internalization.

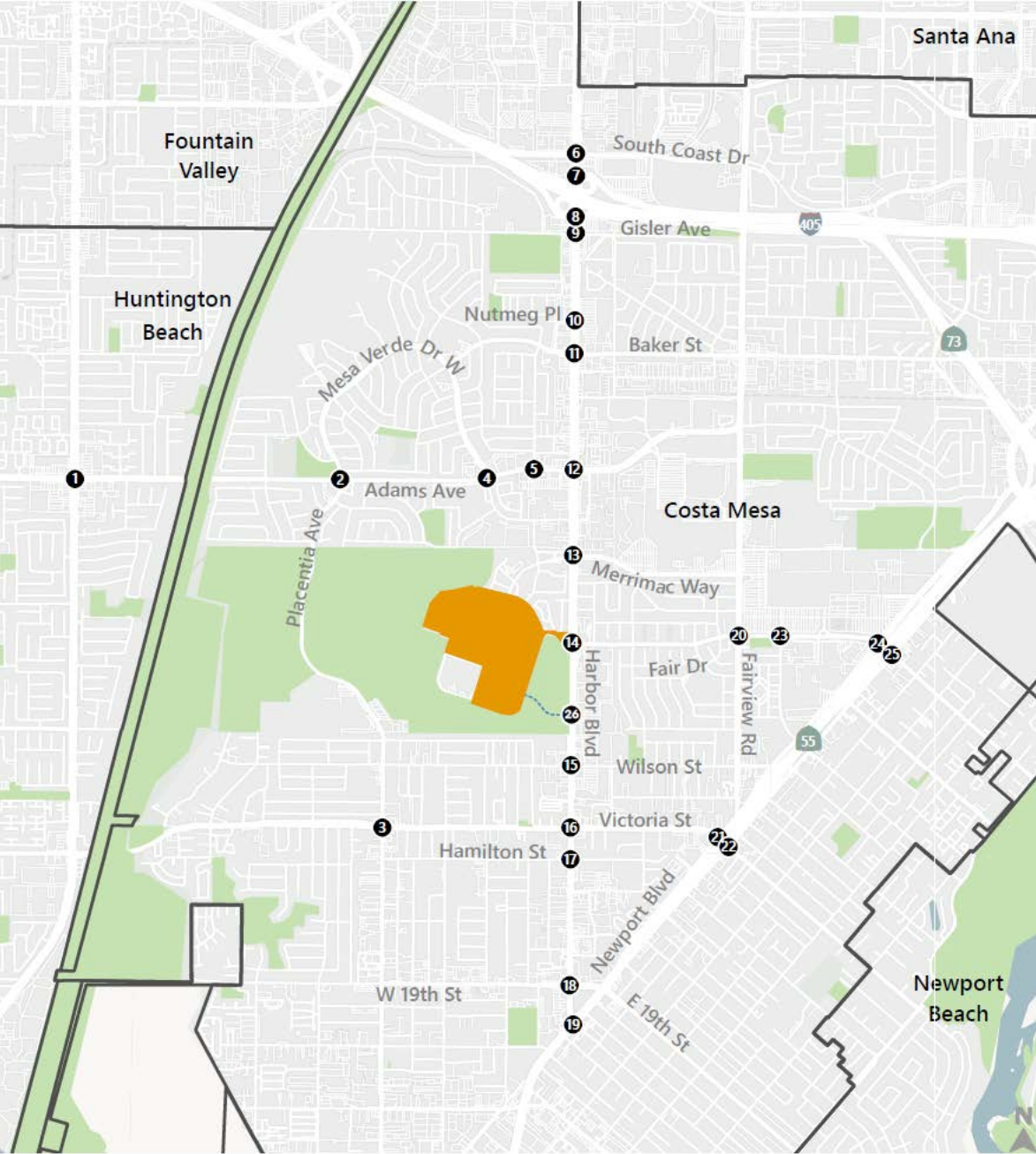


FIGURE 3
Peak Hour Volumes and Permitted Turning Movements
Project Assignment

1. Brookhurst St/Adams Ave	2. Placentia Ave/Mesa Verde Dr /Adams Ave	3. Placentia Ave/Victoria St	4. Mesa Verde Dr E/Adams Ave	5. Royal Palm Dr/Adams Ave
6. Harbor Blvd/South Coast Dr	7. Harbor Blvd/I-405 NB Off Ramp	8. Harbor Blvd/I-405 SB Off Ramp	9. Harbor Blvd/Gisler Ave	10. Harbor Blvd/Nutmeg Place
11. Harbor Blvd/Baker St	12. Harbor Blvd/Adams Ave	13. Harbor Blvd/Merrimac Way	14. Harbor Blvd/Fair Dr	15. Harbor Blvd/Wilson St
16. Harbor Blvd/Victoria St	17. Harbor Blvd/Hamilton St	18. Harbor Blvd/W 19th St	19. Harbor Blvd/Newport Blvd	20. Fairview Rd/Fair Dr

LEGEND

#

Study Intersection

AM (PM)

Peak Hour Traffic Volume

Lane Configuration

Signalized

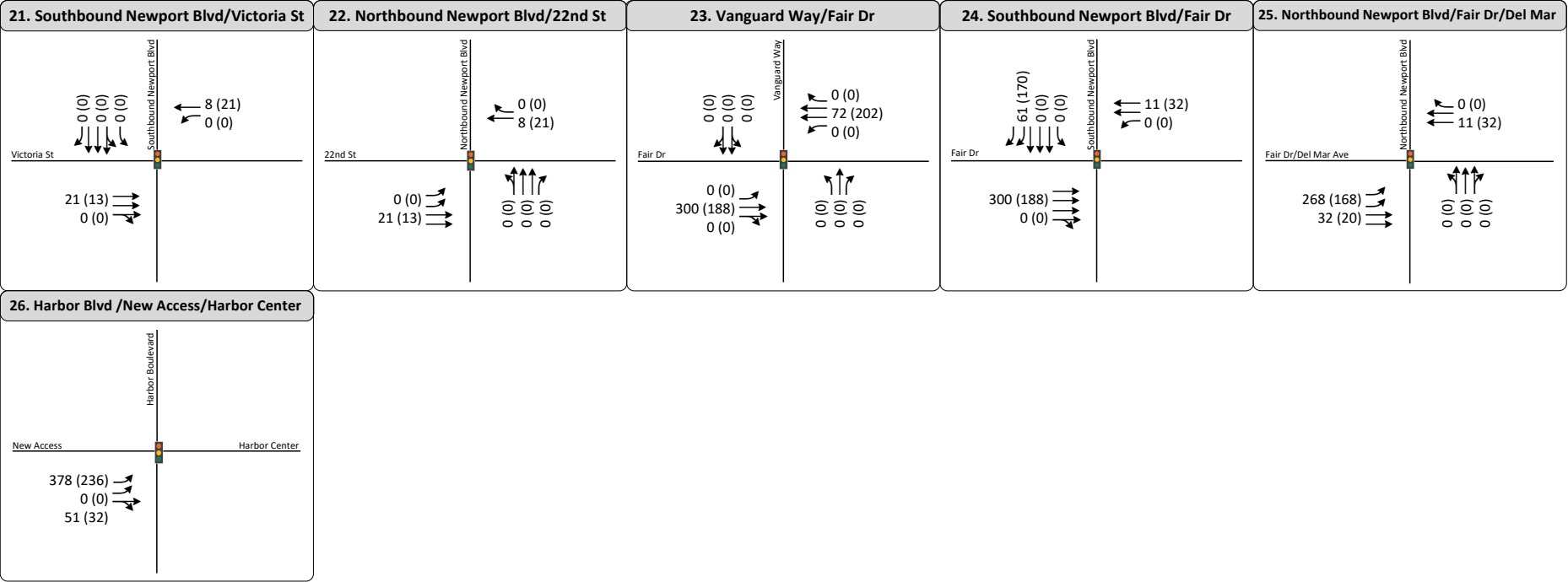
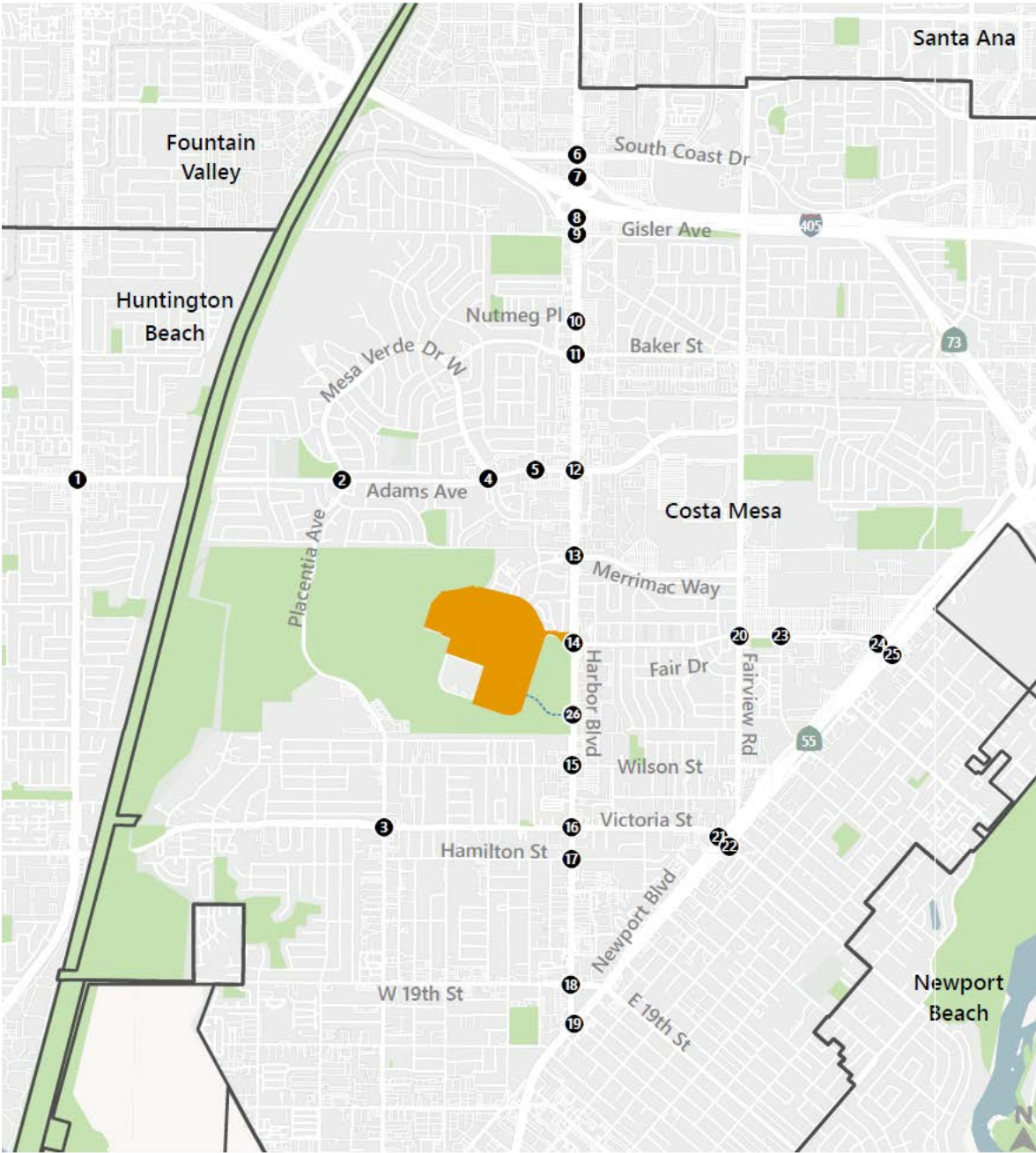


FIGURE 3
Peak Hour Volumes and Permitted Turning Movements
Project Assignment

LEGEND

#

Study Intersection

AM (PM)

Peak Hour Traffic Volume

Lane Configuration

Signalized

LOS Analysis

Existing (2025) Conditions

The Existing (2025) conditions intersection LOS was evaluated based on the adjusted 2025 counts as presented in **Figure 4**. As shown in **Table 4**, all the study intersections operated at LOS C or better under Existing (2025) conditions. Appendix B provides the LOS worksheets.

Cumulative Year (2045) Conditions

Under cumulative conditions, with the implementation of housing element projects, the following infrastructure projects are expected to be completed, consistent with the Costa Mesa General Plan Circulation Element:

- Harbor Boulevard and Gisler Avenue: Add one dedicated southbound right-turn lane and a 3rd eastbound left-turn lane
- Harbor Boulevard and Adams Avenue: Add a third northbound left-turn lane and one dedicated northbound right-turn lane
- Southbound Newport Boulevard and Fair Drive: Add a second southbound right-turn lane

The peak hour turning movement forecasts for Cumulative Year (2045) Without and With Project conditions are presented in **Figure 5** and **6**.

Table 5 presents the LOS estimates for the Cumulative Year (2045) scenarios. The following findings and improvements are observed and discussed based on the LOS results:

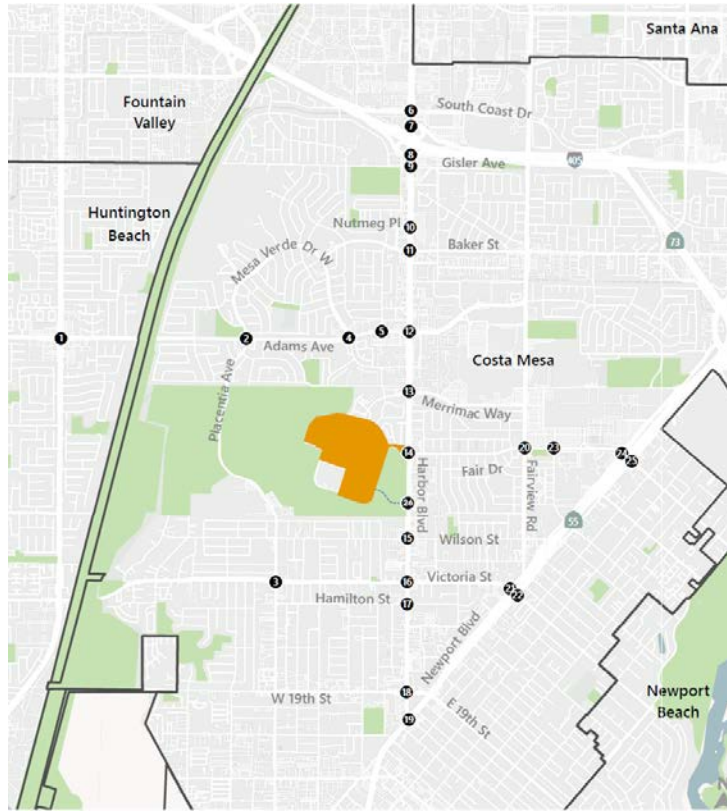
- Under Cumulative year (2045) without Project conditions, most intersections will operate acceptably except for the following which is forecast to operate at LOS E:
 - Placentia Avenue and Victoria Street (PM peak hour)
- Under Cumulative year (2045) with Project conditions, most intersections will operate acceptably except for the following which are all forecast to operate at LOS E:
 - Placentia Avenue and Victoria Street (PM peak hour)
 - Harbor Boulevard and Fair Drive (PM peak hour)
- Improvements were considered at the deficient intersections:
 - Placentia Avenue and Victoria Street
 - The addition of westbound through lane would improve Cumulative Year (2045) with Project conditions to LOS D during PM peak hour.
 - However, this intersection is built out at all corners; no feasible infrastructure improvements are available within the available right-of-way (ROW).
 - The City could evaluate current and emerging strategies that optimize the existing roadway system including adaptive signal control technology, improved traffic signal coordination, and autonomous vehicle and connected vehicle technology. While future scenarios assume optimized traffic signal timings, the additional benefits of advanced ITS improvements were not included in the analysis and would improve future operations.
 - Harbor Boulevard and Fair Drive
 - The addition of one eastbound left-turn lane improves Cumulative Year (2045) with Project conditions to LOS D during PM peak hour.

- This additional turn lane appears feasible within the Project ROW and is recommended for the Project to implement.

Conclusion

This assessment evaluated the effect of vehicle traffic on existing and future conditions in Costa Mesa that would be potentially affected by the Proposed Land Use Plan. The analysis evaluated the potential full buildout of the proposed specific plan under a future scenario that included the full implementation of the City's proposed housing element land use. The LOS analysis indicates that the Project would not adversely affect the majority of the 26 study intersections under Cumulative Year (2045) with Project conditions.

The intersections of Placentia Avenue and Victoria Street, and Harbor Boulevard and Fair Drive are forecast to operate at LOS E during the PM peak hour under Cumulative Year (2045) with Project conditions. No feasible infrastructure improvements are available within the existing right-of-way at Placentia Avenue and Victoria Street; however, the addition of one eastbound left-turn lane at Harbor Boulevard and Fair Drive is recommended and appears feasible within the Project right-of-way. With implementation of this improvement, all study intersections where feasible mitigation exists would operate at LOS D or better, consistent with the City of Costa Mesa's minimum acceptable LOS standard.



1. Brookhurst St/Adams Ave Brookhurst St Adams Ave 105 (117) 600 (828) 255 (296) 167 (201) 1,593 (700) 86 (80)	2. Placentia Ave/Mesa Verde Dr /Adams Ave Placentia Ave Adams Ave 192 (220) 203 (230) 23 (38) 104 (95) 1,881 (888) 217 (225)	3. Placentia Ave/Victoria St Placentia Ave Victoria St 52 (113) 575 (431) 93 (73) 53 (56) 1,062 (618) 474 (318)	4. Mesa Verde Dr E/Adams Ave Mesa Verde Dr E Adams Ave 64 (114) 140 (69) 57 (46) 60 (40) 1,868 (856) 230 (147)	5. Royal Palm Dr/Adams Ave Royal Palm Dr Adams Ave 27 (56) 5 (23) 23 (50) 26 (37) 1,990 (901) 28 (67)
6. Harbor Blvd/South Coast Dr Harbor Blvd South Coast Dr 61 (69) 1,744 (1,497) 50 (53) 11 (21) 31 (36) 117 (325)	7. Harbor Blvd/I-405 NB Off Ramp Harbor Blvd I-405 NB Off Ramp 1,945 (2,095) 702 (945) 494 (612)	8. Harbor Blvd/I-405 SB Off Ramp Harbor Blvd I-405 SB Off Ramp 1,490 (1,800) 262 (173) 265 (642)	9. Harbor Blvd/Gisler Ave Harbor Blvd Gisler Ave 230 (439) 1,436 (1,831) 89 (109) 565 (428) 39 (32) 128 (144)	10. Harbor Blvd/Nutmeg Place Harbor Blvd Nutmeg Place 29 (29) 1,847 (1,847) 128 (181) 108 (131) 7 (26) 28 (147)
11. Harbor Blvd/Baker St Harbor Blvd Baker St 29 (29) 1,328 (1,690) 191 (187) 244 (195) 29 (29) 56 (86)	12. Harbor Blvd/Adams Ave Harbor Blvd Adams Ave 892 (574) 927 (1,223) 130 (127) 706 (313) 1,142 (600) 159 (107)	13. Harbor Blvd/Merrimac Way Harbor Blvd Merrimac Way 38 (58) 1,291 (1,360) 184 (120) 61 (44) 19 (10) 54 (43)	14. Harbor Blvd/Fair Dr Harbor Blvd Fair Dr 31 (17) 1,075 (1,281) 260 (182) 23 (14) 33 (9) 24 (13)	15. Harbor Blvd/Wilson St Harbor Blvd Wilson St 184 (385) 852 (954) 67 (97) 358 (242) 363 (214) 136 (86)
16. Harbor Blvd/Victoria St Harbor Blvd Victoria St 182 (198) 905 (1,040) 123 (146) 235 (213) 1,092 (733) 67 (94)	17. Harbor Blvd/Hamilton St Harbor Blvd Hamilton St 216 (186) 967 (895) 18 (26) 222 (163) 99 (82) 36 (61)	18. Harbor Blvd/W 19th St Harbor Blvd W 19th St 262 (334) 499 (516) 153 (140) 197 (381) 756 (744) 38 (52)	19. Harbor Blvd/Newport Blvd Harbor Blvd Newport Blvd 3 (47) 2,556 (2,463) 35 (48) 495 (427)	20. Fairview Rd/Fair Dr Fairview Rd Fair Dr 138 (100) 421 (343) 223 (182) 337 (588) 279 (1,039) 29 (61)

LEGEND



Study Intersection

AM (PM)

Peak Hour Traffic Volume



Lane Configuration



Signalized

FIGURE 4

**Peak Hour Volumes and Permitted Turning Movements
Existing Conditions (2025)**

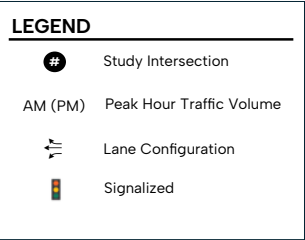
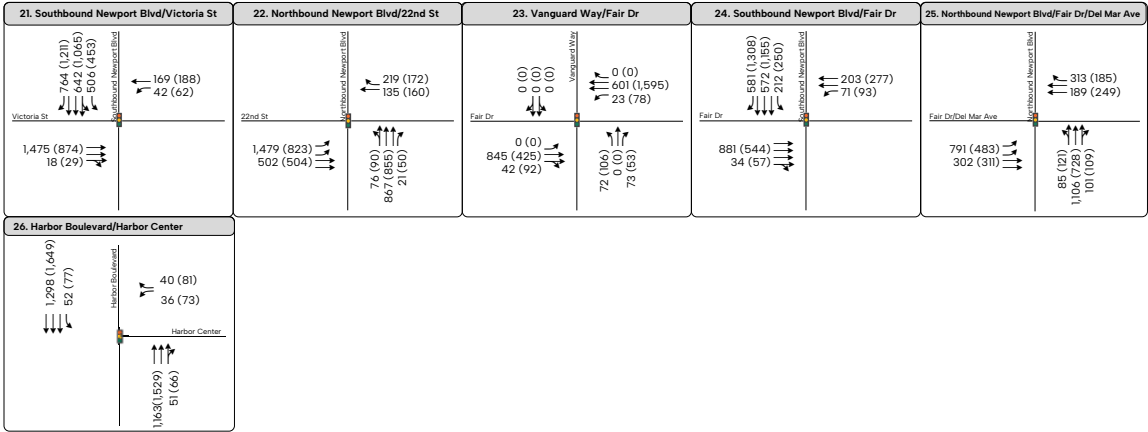
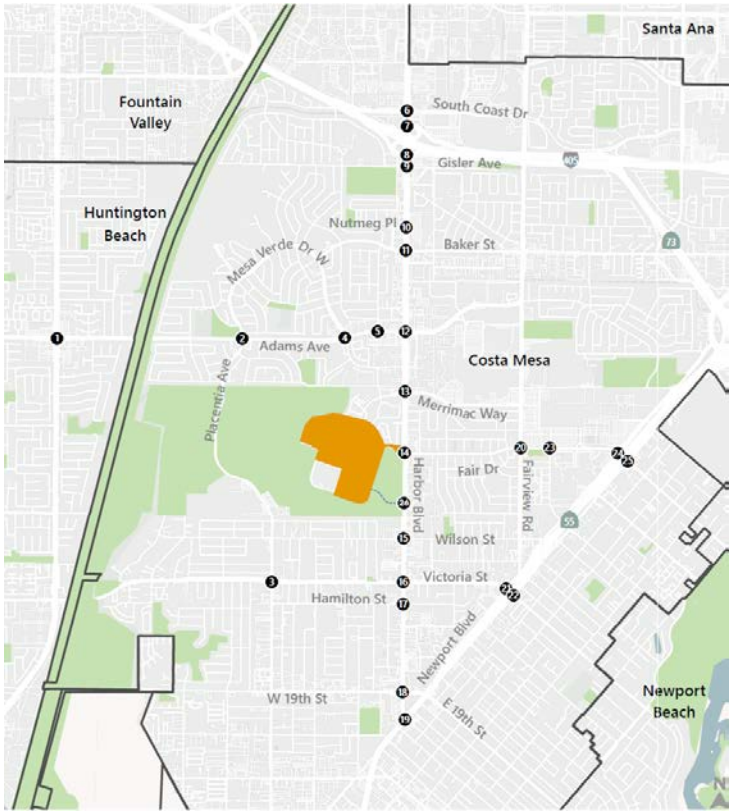


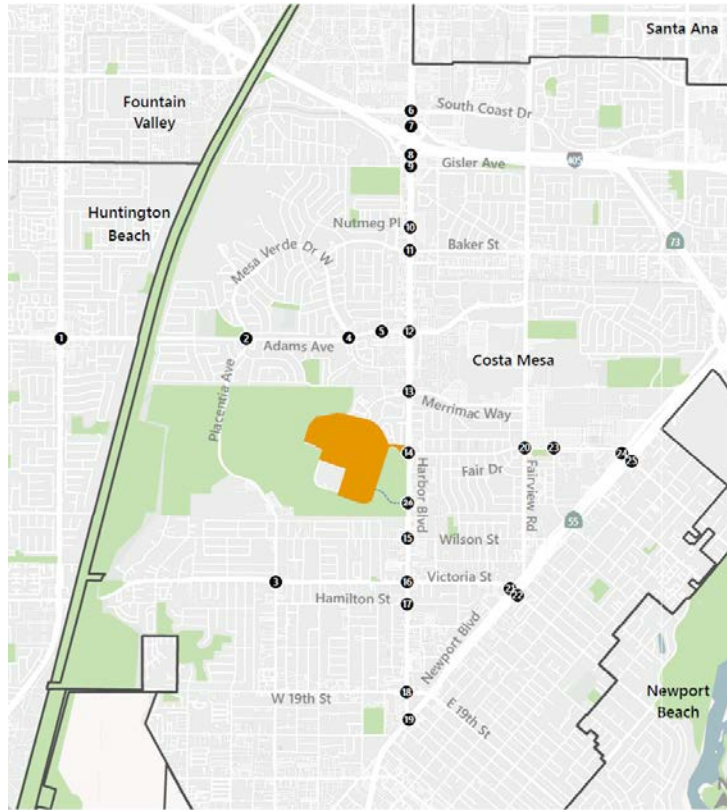
FIGURE 4
**Peak Hour Volumes and Permitted Turning Movements
 Existing Conditions (2025)**

Table 4: Existing (2025) Intersection LOS

ID	Intersection	Control Type	Analysis Method	Period	V/C or Delay (s)	LOS
1	Brookhurst Street and Adams Avenue	Signalized	ICU	AM	0.706	C
				PM	0.785	C
2	Placentia Avenue and Adams Avenue	Signalized	ICU	AM	0.654	B
				PM	0.734	C
3	Placentia Avenue and Victoria Street	Signalized	ICU	AM	0.710	C
				PM	0.764	C
4	Mesa Verde Drive East and Adams Avenue	Signalized	ICU	AM	0.540	A
				PM	0.615	B
5	Royal Palm Drive and Adams Avenue	Signalized	ICU	AM	0.483	A
				PM	0.557	A
6	Harbor Boulevard and South Coast Drive	Signalized	ICU	AM	0.437	A
				PM	0.621	B
7	Harbor Boulevard and I-405 Northbound Off-Ramp	Signalized	HCM	AM	15.200	B
				PM	24.900	C
8	Harbor Boulevard and I-405 Southbound Off-Ramp	Signalized	HCM	AM	5.700	A
				PM	10.900	B
9	Harbor Boulevard and Gisler Avenue	Signalized	ICU	AM	0.621	B
				PM	0.721	C
10	Harbor Boulevard and Nutmeg Place	Signalized	ICU	AM	0.447	A
				PM	0.498	A
11	Harbor Boulevard and Baker Street	Signalized	ICU	AM	0.508	A
				PM	0.575	A
12	Harbor Boulevard and Adams Avenue	Signalized	ICU	AM	0.555	A
				PM	0.644	B
13	Harbor Boulevard and Merrimac Way	Signalized	ICU	AM	0.424	A
				PM	0.664	B
14	Harbor Boulevard and Fair Drive	Signalized	ICU	AM	0.398	A
				PM	0.595	A
15	Harbor Boulevard and Wilson Street	Signalized	ICU	AM	0.431	A
				PM	0.582	A
16	Harbor Boulevard and Victoria Street	Signalized	ICU	AM	0.625	B
				PM	0.659	B
17	Harbor Boulevard and Hamilton Street	Signalized	ICU	AM	0.467	A
				PM	0.466	A
18	Harbor Boulevard and West 19th Street	Signalized	ICU	AM	0.481	A
				PM	0.564	A
19	Harbor Boulevard and Newport Boulevard	Signalized	HCM	AM	17.000	B
				PM	18.700	B
20	Fairview Road and Fair Drive	Signalized	ICU	AM	0.413	A
				PM	0.576	A
21	Southbound Newport Boulevard and Victoria Street	Signalized	ICU	AM	0.518	A
				PM	0.589	A
22	Northbound Newport Boulevard and Victoria Street	Signalized	ICU	AM	0.770	C
				PM	0.549	A
23	Vanguard Way and Fair Drive	Signalized	ICU	AM	0.367	A
				PM	0.581	A
24	Southbound Newport Boulevard and Fair Drive	Signalized	ICU	AM	0.322	A
				PM	0.390	A
25	Northbound Newport Boulevard and Fair Drive/Del Mar Avenue	Signalized	ICU	AM	0.671	B
				PM	0.439	A
26	Harbor Blvd and Access Rd 2	Signalized	ICU	AM	0.358	A
				PM	0.395	A

Note:

1. **Bold** font indicates LOS below threshold.



1. Brookhurst St/Adams Ave 	2. Placentia Ave/Mesa Verde Dr /Adams Ave 	3. Placentia Ave/Victoria St 	4. Mesa Verde Dr E/Adams Ave 	5. Royal Palm Dr/Adams Ave
6. Harbor Blvd/South Coast Dr 	7. Harbor Blvd/I-405 NB Off Ramp 	8. Harbor Blvd/I-405 SB Off Ramp 	9. Harbor Blvd/Gisler Ave 	10. Harbor Blvd/Nutmeg Place
11. Harbor Blvd/Baker St 	12. Harbor Blvd/Adams Ave 	13. Harbor Blvd/Merrimac Way 	14. Harbor Blvd/Fair Dr 	15. Harbor Blvd/Wilson St
16. Harbor Blvd/Victoria St 	17. Harbor Blvd/Hamilton St 	18. Harbor Blvd/W 19th St 	19. Harbor Blvd/Newport Blvd 	20. Fairview Rd/Fair Dr

LEGEND



Study Intersection

AM (PM)

Peak Hour Traffic Volume



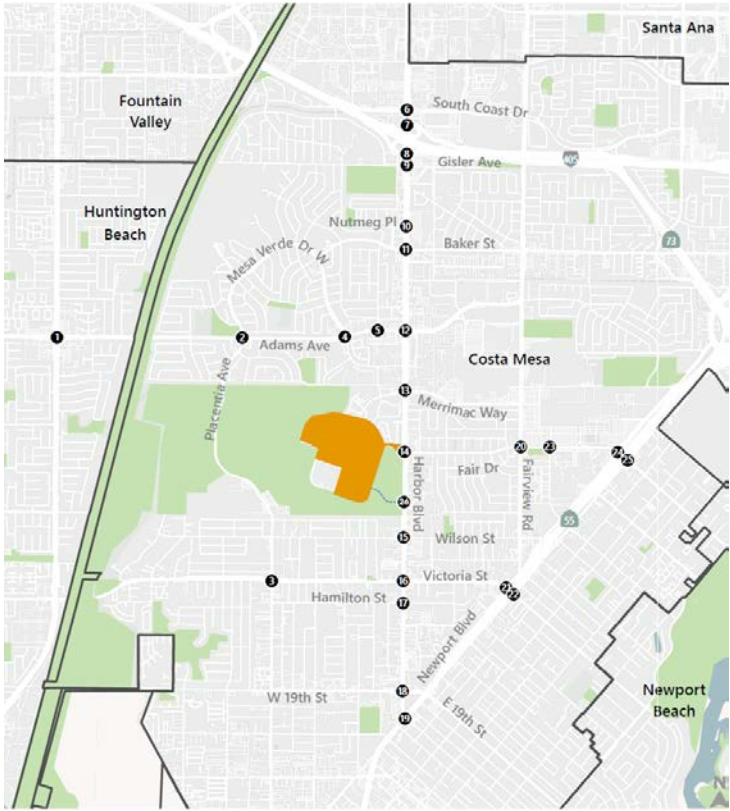
Lane Configuration



Signalized

FIGURE 5

**Peak Hour Volumes and Permitted Turning Movements
Cumulative Year (2045) Without Project**

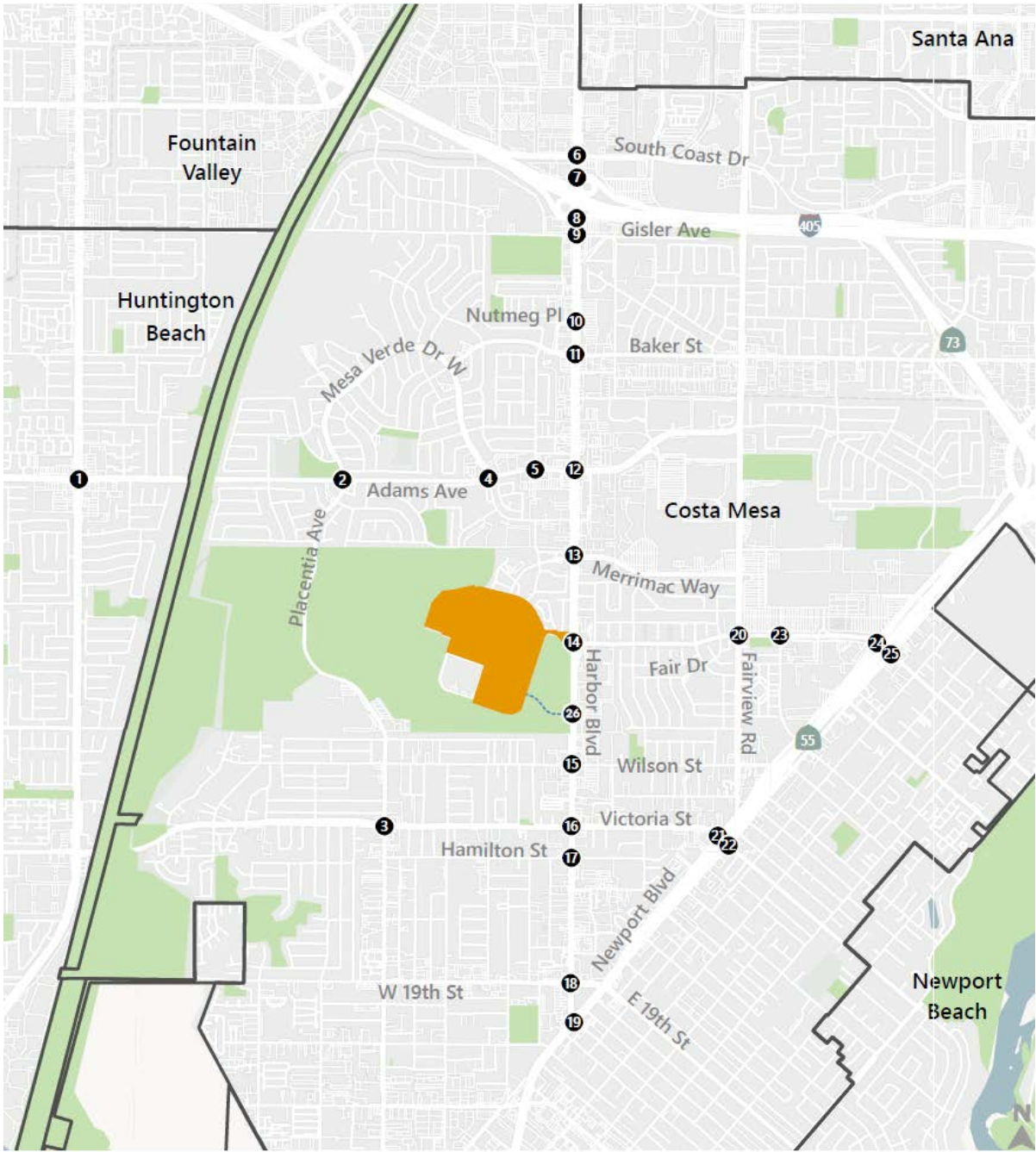


21. Southbound Newport Blvd/Victoria St 	22. Northbound Newport Blvd/22nd St 	23. Vanguard Way/Fair Dr 	24. Southbound Newport Blvd/Fair Dr 	25. Northbound Newport Blvd/Fair Dr/Del Mar Ave
26. Harbor Boulevard/Harbor Center 				

LEGEND

- Study Intersection
- AM (PM) Peak Hour Traffic Volume
- Lane Configuration
- Signalized

FIGURE 5
Peak Hour Volumes and Permitted Turning Movements
Cumulative Year (2045) Without Project



1. Brookhurst St/Adams Ave 130 (140) 720 (980) 310 (310) 240 (540) 683 (1,707) 320 (320) 200 (250) 1,935 (892) 110 (110) 100 (220) 760 (1,380) 350 (230)
--

LEGEND

#

Study Intersection

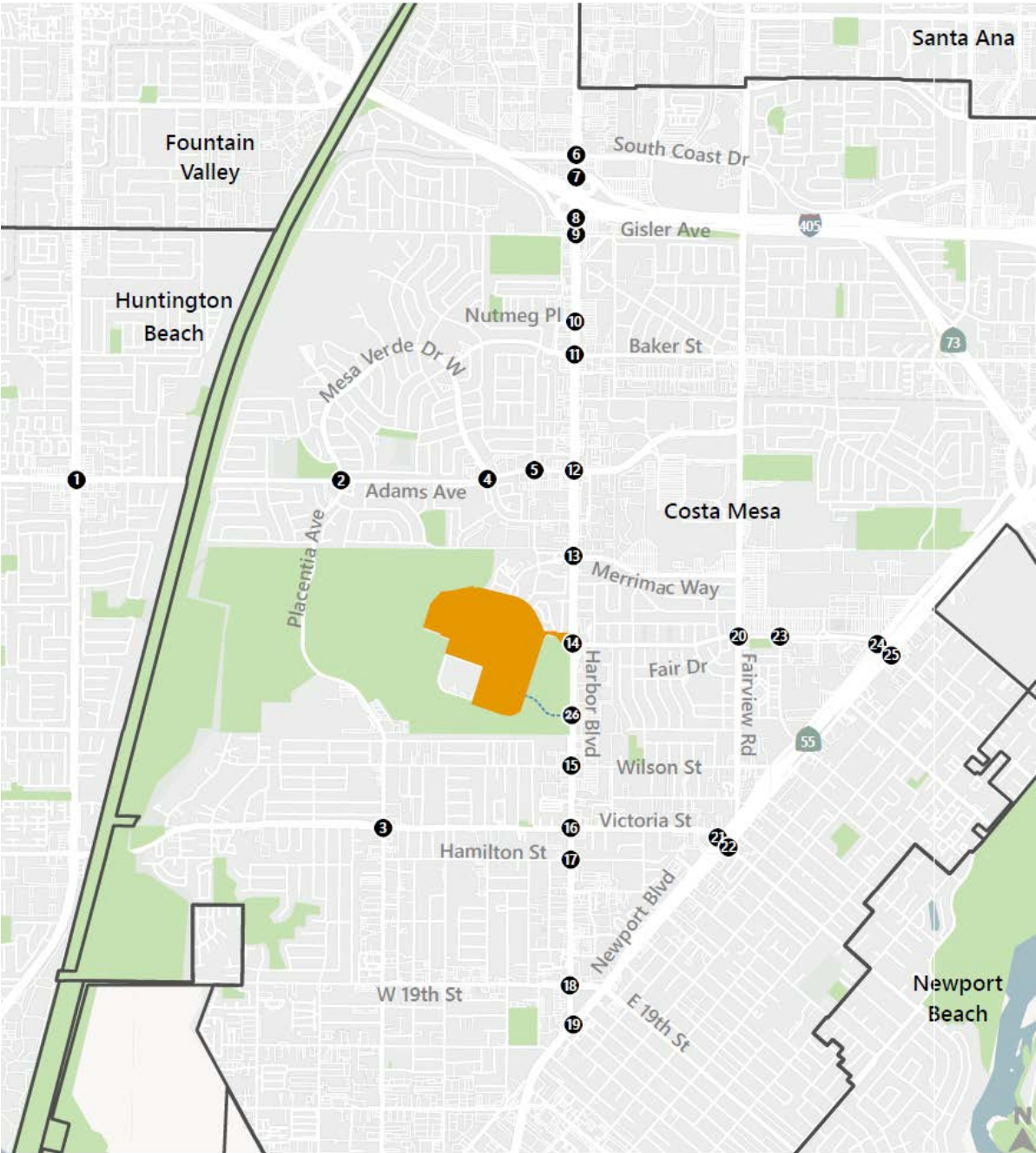
AM (PM)

Peak Hour Traffic Volume

Lane Configuration

Signalized

FIGURE 6
Peak Hour Volumes and Permitted Turning Movements
Cumulative Year (2045) With Project



21. Southbound Newport Blvd/Victoria St	22. Northbound Newport Blvd/22nd St	23. Vanguard Way/Fair Dr	24. Southbound Newport Blvd/Fair Dr	25. Northbound Newport Blvd/Fair Dr/Del Mar Ave
Victoria St Southbound Newport Blvd 850 (1,460) 800 (1,180) 540 (650) 208 (241) 50 (70) 1,801 (943) 20 (40)	22nd St Northbound Newport Blvd 230 (220) 168 (201) 1,710 (870) 631 (623) 90 (110) 950 (870) 30 (70)	Fair Dr Vanguard Way 0 (0) 0 (0) 0 (0) 0 (0) 702 (1,912) 30 (80) 10 (10) 1,240 (658) 50 (100) 100 (130) 0 (0) 100 (70)	Fair Dr Southbound Newport Blvd 741 (1,740) 610 (1,390) 270 (300) 281 (502) 80 (360) 1,370 (928) 50 (70)	Fair Dr/Del Mar Ave Northbound Newport Blvd 420 (240) 251 (702) 1,158 (758) 482 (470) 110 (160) 1,330 (880) 430 (180)
26. Harbor Boulevard/New Access/Harbor Center				
New Access Harbor Boulevard Harbor Center 378 (236) 0 (0) 51 (32)				

FIGURE 6
Peak Hour Volumes and Permitted Turning Movements
Cumulative Year (2045) With Project

LEGEND

#

Study Intersection

AM (PM)

Peak Hour Traffic Volume

Lane Configuration

Signalized

Table 5: Future (2045) Intersection LOS

ID	Intersection	Control Type	Analysis Method	Period	No Project		With Project	
					V/C or Delay (s)	LOS	V/C or Delay (s)	LOS
1	Brookhurst Street and Adams Avenue	Signalized	ICU	AM	0.829	D	0.832	D
				PM	0.860	D	0.865	D
2	Placentia Avenue and Adams Avenue	Signalized	ICU	AM	0.789	C	0.803	D
				PM	0.886	D	0.899	D
3	Placentia Avenue and Victoria Street	Signalized	ICU	AM	0.815	D	0.817	D
				PM	0.944	E	0.948	E
4	Mesa Verde Drive East and Adams Avenue	Signalized	ICU	AM	0.654	B	0.660	B
				PM	0.731	C	0.745	C
5	Royal Palm Drive and Adams Avenue	Signalized	ICU	AM	0.585	A	0.592	A
				PM	0.601	B	0.614	B
6	Harbor Boulevard and South Coast Drive	Signalized	ICU	AM	0.584	A	0.589	A
				PM	0.743	C	0.758	C
7	Harbor Boulevard and I-405 Northbound Off-Ramp	Signalized	HCM	AM	13.300	B	14.000	B
				PM	23.300	C	32.600	C
8	Harbor Boulevard and I-405 Southbound Off-Ramp	Signalized	HCM	AM	8.500	A	9.500	A
				PM	12.400	B	19.800	B
9	Harbor Boulevard and Gisler Avenue	Signalized	ICU	AM	0.691	B	0.723	C
				PM	0.726	C	0.818	D
10	Harbor Boulevard and Nutmeg Place	Signalized	ICU	AM	0.478	A	0.557	A
				PM	0.571	A	0.663	B
11	Harbor Boulevard and Baker Street	Signalized	ICU	AM	0.559	A	0.638	B
				PM	0.654	B	0.735	C
12	Harbor Boulevard and Adams Avenue	Signalized	ICU	AM	0.610	B	0.715	C
				PM	0.668	B	0.734	C
13	Harbor Boulevard and Merrimac Way	Signalized	ICU	AM	0.494	A	0.620	B
				PM	0.717	C	0.796	C
14	Harbor Boulevard and Fair Drive	Signalized	ICU	AM	0.449	A	0.756	C
				PM	0.663	B	0.967	E
15	Harbor Boulevard and Wilson Street	Signalized	ICU	AM	0.484	A	0.507	A
				PM	0.750	C	0.750	C
16	Harbor Boulevard and Victoria Street	Signalized	ICU	AM	0.749	C	0.755	C
				PM	0.758	C	0.792	C
17	Harbor Boulevard and Hamilton Street	Signalized	ICU	AM	0.564	A	0.570	A
				PM	0.597	A	0.601	B
18	Harbor Boulevard and West 19th Street	Signalized	ICU	AM	0.606	B	0.606	B
				PM	0.735	C	0.735	C
19	Harbor Boulevard and Newport Boulevard	Signalized	HCM	AM	17.400	B	17.600	B
				PM	18.700	B	19.800	B
20	Fairview Road and Fair Drive	Signalized	ICU	AM	0.443	A	0.521	A
				PM	0.633	B	0.682	B
21	Southbound Newport Boulevard and Victoria Street	Signalized	ICU	AM	0.611	B	0.615	B
				PM	0.641	B	0.643	B
22	Northbound Newport Boulevard and Victoria Street	Signalized	ICU	AM	0.864	D	0.864	D
				PM	0.598	A	0.598	A
23	Vanguard Way and Fair Drive	Signalized	ICU	AM	0.418	A	0.506	A
				PM	0.641	B	0.701	C
24	Southbound Newport Boulevard and Fair Drive	Signalized	ICU	AM	0.391	A	0.436	A
				PM	0.624	B	0.652	B
25	Northbound Newport Boulevard and Fair Drive/Del Mar Avenue	Signalized	ICU	AM	0.812	D	0.891	D
				PM	0.596	A	0.655	B
26	Harbor Blvd and New Access	Signalized	ICU	AM	0.388	A	0.654	B
				PM	0.516	A	0.739	C

Note:

1. **Bold** font indicates LOS below threshold.

Appendix A – Traffic Counts

INTERSECTION TURNING MOVEMENT COUNTS

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

T101823

DATE:
Thu, Nov 2, 23

LOCATION:
NORTH & SOUTH: Costa Mesa
EAST & WEST: Brookhurst St
Adams Ave

PROJECT #: SC4286
LOCATION #: 1
CONTROL: SIGNAL

NOTES:	AM		▲	
	PM		N	
	MD	◀ W		E ▶
	OTHER		S	
	OTHER		▼	

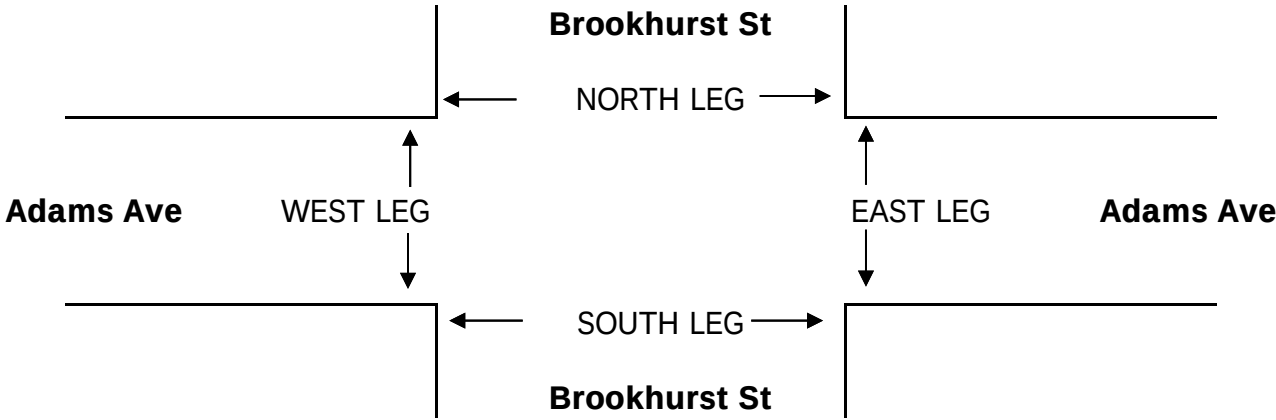
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Brookhurst St			Brookhurst St			Adams Ave			Adams Ave			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	2	3	0	2	3	0	2	3	1	2	3	1	

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

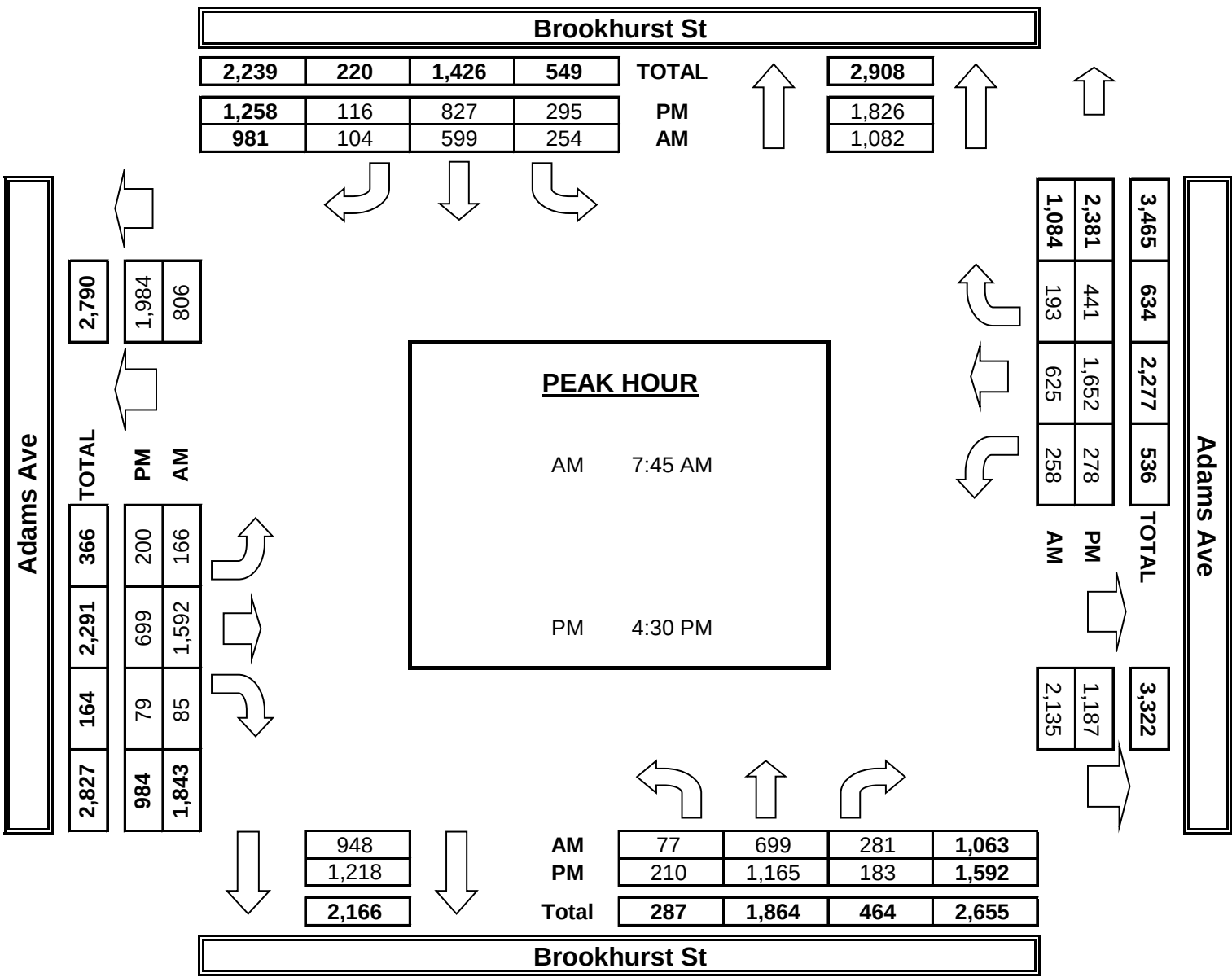
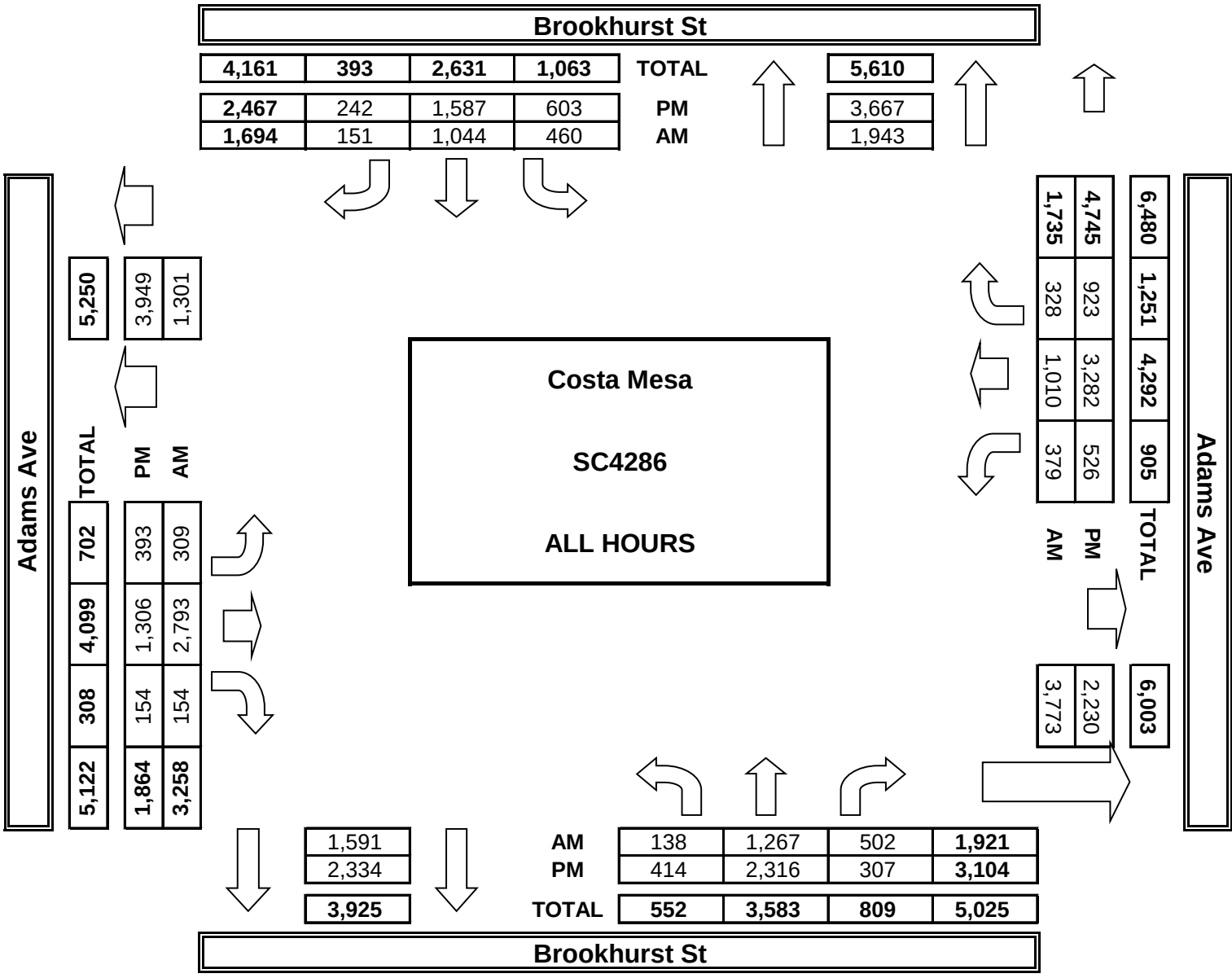
AM	7:00 AM	9	111	36	20	80	7	33	208	10	18	68	28	628
	7:15 AM	15	131	57	45	91	8	28	299	18	22	89	32	835
	7:30 AM	15	153	63	66	140	7	38	367	13	39	92	37	1,030
	7:45 AM	13	157	74	57	131	18	23	407	27	56	171	51	1,185
	8:00 AM	21	153	61	64	162	40	44	404	20	74	160	62	1,265
	8:15 AM	20	183	62	71	160	26	49	394	17	70	165	37	1,254
	8:30 AM	23	206	84	62	146	20	50	387	21	58	129	43	1,229
	8:45 AM	22	173	65	75	134	25	44	327	28	42	136	38	1,109
	VOLUMES	138	1,267	502	460	1,044	151	309	2,793	154	379	1,010	328	8,608
	APPROACH %	7%	66%	26%	27%	62%	9%	9%	86%	5%	22%	58%	19%	
	APP/DEPART	1,921	/	1,943	1,694	/	1,591	3,258	/	3,773	1,735	/	1,301	0
	BEGIN PEAK HR	7:45 AM												
PM	VOLUMES	77	699	281	254	599	104	166	1,592	85	258	625	193	4,971
	APPROACH %	7%	66%	26%	26%	61%	11%	9%	86%	5%	24%	58%	18%	
	PEAK HR FACTOR	0.844			0.912			0.985			0.909			0.979
	APP/DEPART	1,063	/	1,082	981	/	948	1,843	/	2,135	1,084	/	806	0
	4:00 PM	49	306	23	79	189	28	57	138	19	66	415	118	1,487
	4:15 PM	57	292	29	75	164	28	41	175	20	48	426	118	1,473
	4:30 PM	55	314	54	77	217	29	50	157	12	62	396	104	1,527
	4:45 PM	46	282	43	74	180	20	54	193	27	76	441	125	1,561
	5:00 PM	48	295	44	62	225	32	38	142	15	69	402	97	1,469
	5:15 PM	61	274	42	82	205	35	58	207	25	71	413	115	1,588
	5:30 PM	59	290	34	67	211	28	50	139	19	61	403	133	1,494
	5:45 PM	39	263	38	87	196	42	45	155	17	73	386	113	1,454
	VOLUMES	414	2,316	307	603	1,587	242	393	1,306	154	526	3,282	923	12,180
	APPROACH %	13%	75%	10%	24%	64%	10%	21%	70%	8%	11%	69%	19%	
	APP/DEPART	3,104	/	3,667	2,467	/	2,334	1,864	/	2,230	4,745	/	3,949	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	210	1,165	183	295	827	116	200	699	79	278	1,652	441	6,215
	APPROACH %	13%	73%	11%	23%	66%	9%	20%	71%	8%	12%	69%	19%	
	PEAK HR FACTOR	0.928			0.950			0.848			0.923			0.971
	APP/DEPART	1,592	/	1,826	1,258	/	1,218	984	/	1,187	2,381	/	1,984	0

1	2	2	1	6
1	5	0	1	7
1	5	0	4	10
2	5	0	2	9
0	3	0	2	5
2	8	0	0	10
2	8	0	4	14
5	3	0	4	12
14	39	2	18	73

4	5	1	1	11
9	4	0	1	14
6	8	0	1	15
12	3	3	3	21
12	5	3	2	22
4	4	0	4	12
10	3	1	0	14
10	3	3	2	18
67	35	11	14	127



AimTD LLC
TURNING MOVEMENT COUNTS



City of Costa Mesa
N/S: Mesa Verde Drive W/Placentia Avenue
E/W: Adams Avenue
Weather: Clear

File Name : 15_CSM_Pla_Adams AM
Site Code : 23922356
Start Date : 4/21/2022
Page No : 1

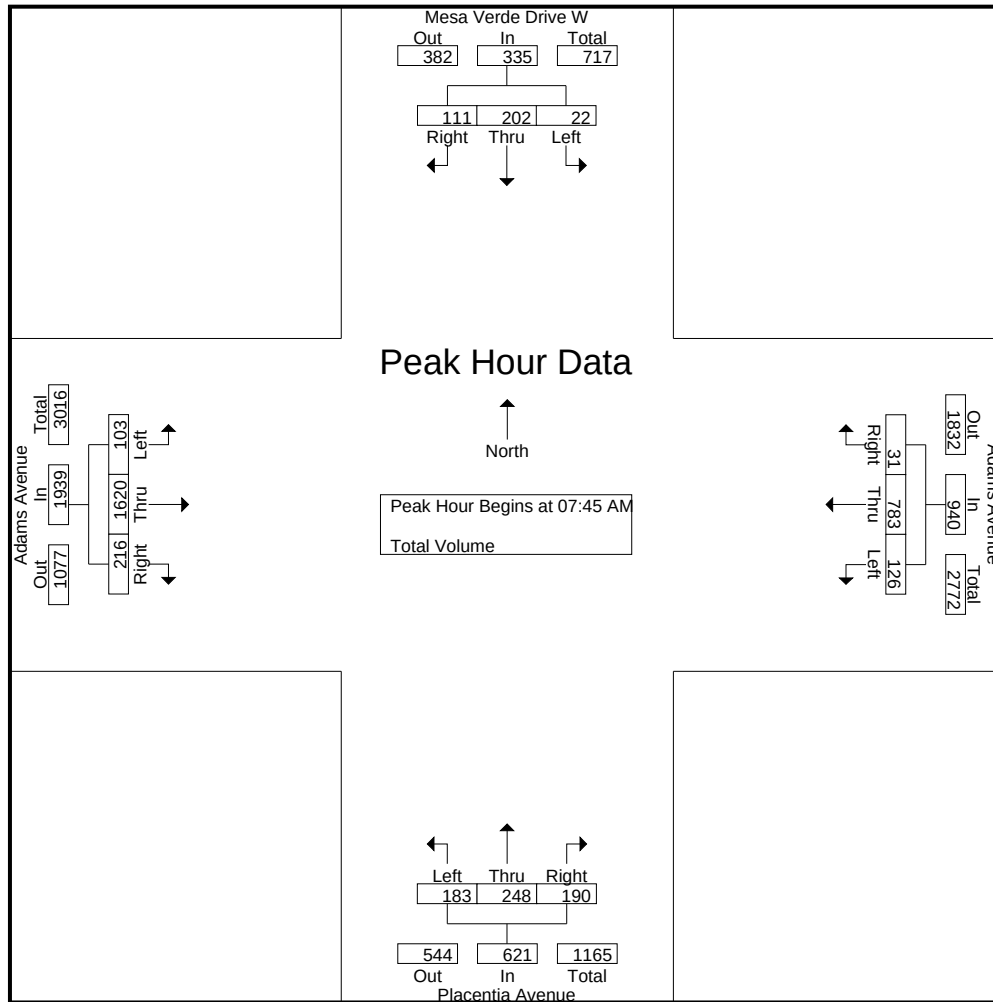
Groups Printed- Total Volume

	Mesa Verde Drive W Southbound				Adams Avenue Westbound				Placentia Avenue Northbound				Adams Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	9	7	16	11	86	6	103	24	12	24	60	6	230	26	262	441
07:15 AM	5	16	13	34	19	110	5	134	21	15	17	53	15	316	43	374	595
07:30 AM	4	65	15	84	42	128	6	176	31	21	41	93	17	400	64	481	834
07:45 AM	10	64	30	104	40	222	5	267	56	77	73	206	23	422	53	498	1075
Total	19	154	65	238	112	546	22	680	132	125	155	412	61	1368	186	1615	2945
08:00 AM	6	50	33	89	29	208	5	242	46	67	47	160	27	365	56	448	939
08:15 AM	3	46	20	69	33	210	12	255	45	71	37	153	24	425	49	498	975
08:30 AM	3	42	28	73	24	143	9	176	36	33	33	102	29	408	58	495	846
08:45 AM	9	32	20	61	33	145	9	187	29	37	38	104	27	377	56	460	812
Total	21	170	101	292	119	706	35	860	156	208	155	519	107	1575	219	1901	3572
Grand Total	40	324	166	530	231	1252	57	1540	288	333	310	931	168	2943	405	3516	6517
Apprch %	7.5	61.1	31.3		15	81.3	3.7		30.9	35.8	33.3		4.8	83.7	11.5		
Total %	0.6	5	2.5	8.1	3.5	19.2	0.9	23.6	4.4	5.1	4.8	14.3	2.6	45.2	6.2	54	

	Mesa Verde Drive W Southbound				Adams Avenue Westbound				Placentia Avenue Northbound				Adams Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	10	64	30	104	40	222	5	267	56	77	73	206	23	422	53	498	1075
08:00 AM	6	50	33	89	29	208	5	242	46	67	47	160	27	365	56	448	939
08:15 AM	3	46	20	69	33	210	12	255	45	71	37	153	24	425	49	498	975
08:30 AM	3	42	28	73	24	143	9	176	36	33	33	102	29	408	58	495	846
Total Volume																	3835
% App. Total	6.6	60.3	33.1		13.4	83.3	3.3		29.5	39.9	30.6		5.3	83.5	11.1		
PHF	.550	.789	.841	.805	.788	.882	.646	.880	.817	.805	.651	.754	.888	.953	.931	.973	.892

City of Costa Mesa
N/S: Mesa Verde Drive W/Placentia Avenue
E/W: Adams Avenue
Weather: Clear

File Name : 15_CSM_Pla_Adams AM
Site Code : 23922356
Start Date : 4/21/2022
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:45 AM				07:45 AM			
+0 mins.	4	65	15	84	42	128	6	176	56	77	73	206	23	422	53	498
+15 mins.	10	64	30	104	40	222	5	267	46	67	47	160	27	365	56	448
+30 mins.	6	50	33	89	29	208	5	242	45	71	37	153	24	425	49	498
+45 mins.	3	46	20	69	33	210	12	255	36	33	33	102	29	408	58	495
Total Volume	23	225	98	346	144	768	28	940	183	248	190	621	103	1620	216	1939
% App. Total	6.6	65	28.3		15.3	81.7	3		29.5	39.9	30.6		5.3	83.5	11.1	
PHF	.575	.865	.742	.832	.857	.865	.583	.880	.817	.805	.651	.754	.888	.953	.931	.973

City of Costa Mesa
N/S: Mesa Verde Drive W/Placentia Avenue
E/W: Adams Avenue
Weather: Clear

File Name : 15_CSM_Pla_Adams MD
Site Code : 23922356
Start Date : 4/21/2022
Page No : 1

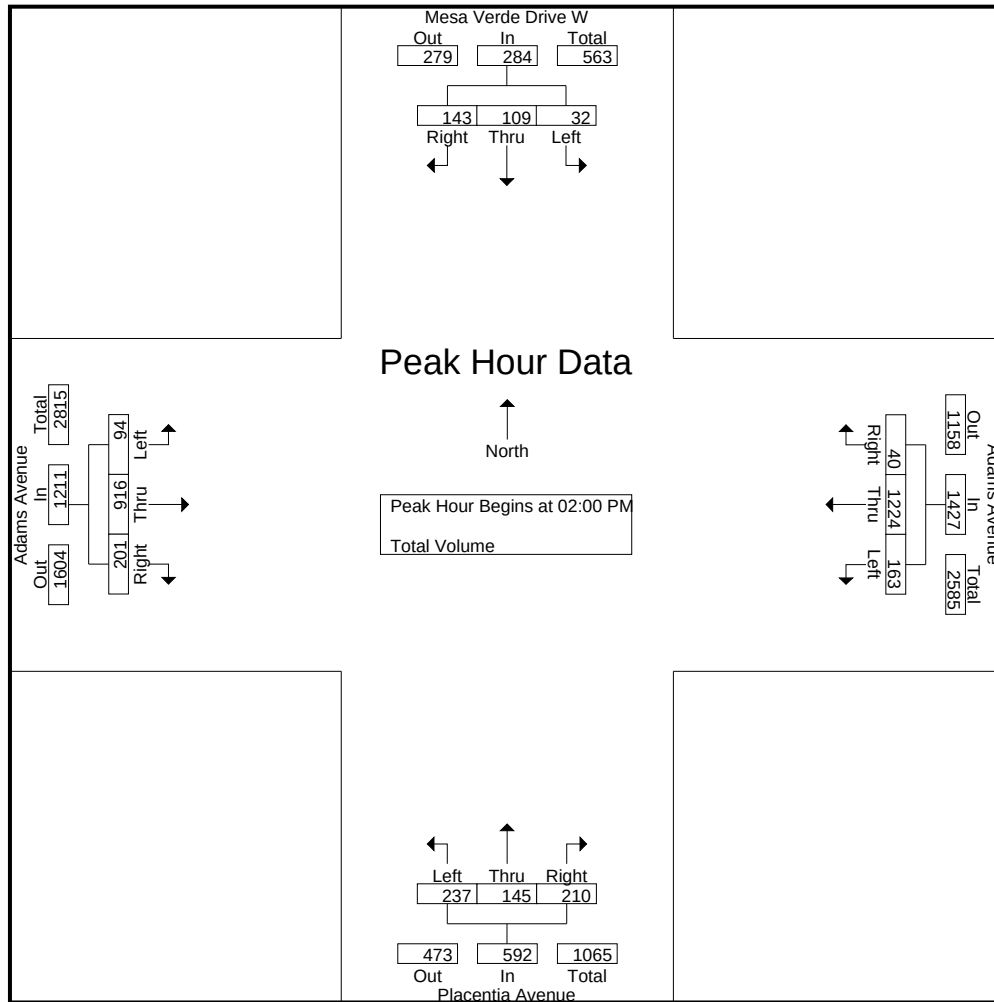
Groups Printed- Total Volume

	Mesa Verde Drive W Southbound				Adams Avenue Westbound				Placentia Avenue Northbound				Adams Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
12:00 PM	7	19	28	54	31	249	14	294	50	17	47	114	21	200	43	264	726
12:15 PM	6	20	30	56	29	280	10	319	63	18	35	116	23	213	35	271	762
12:30 PM	10	26	27	63	32	300	6	338	47	23	38	108	19	226	39	284	793
12:45 PM	8	19	34	61	36	271	11	318	61	19	40	120	29	190	36	255	754
Total	31	84	119	234	128	1100	41	1269	221	77	160	458	92	829	153	1074	3035
01:00 PM	9	18	23	50	42	267	15	324	44	18	50	112	22	213	52	287	773
01:15 PM	8	23	21	52	38	248	8	294	40	14	24	78	16	197	55	268	692
01:30 PM	7	30	23	60	37	267	8	312	44	33	55	132	14	219	46	279	783
01:45 PM	7	29	28	64	44	274	9	327	64	38	44	146	24	243	51	318	855
Total	31	100	95	226	161	1056	40	1257	192	103	173	468	76	872	204	1152	3103
02:00 PM	12	32	32	76	43	248	9	300	54	37	56	147	28	231	44	303	826
02:15 PM	7	24	35	66	37	306	10	353	72	35	46	153	20	253	46	319	891
02:30 PM	4	20	38	62	35	329	15	379	60	33	52	145	17	192	52	261	847
02:45 PM	9	33	38	80	48	341	6	395	51	40	56	147	29	240	59	328	950
Total	32	109	143	284	163	1224	40	1427	237	145	210	592	94	916	201	1211	3514
Grand Total	94	293	357	744	452	3380	121	3953	650	325	543	1518	262	2617	558	3437	9652
Apprch %	12.6	39.4	48		11.4	85.5	3.1		42.8	21.4	35.8		7.6	76.1	16.2		
Total %	1	3	3.7	7.7	4.7	35	1.3	41	6.7	3.4	5.6	15.7	2.7	27.1	5.8	35.6	

	Mesa Verde Drive W Southbound				Adams Avenue Westbound				Placentia Avenue Northbound				Adams Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 02:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 02:00 PM																	
02:00 PM	12	32	32	76	43	248	9	300	54	37	56	147	28	231	44	303	826
02:15 PM	7	24	35	66	37	306	10	353	72	35	46	153	20	253	46	319	891
02:30 PM	4	20	38	62	35	329	15	379	60	33	52	145	17	192	52	261	847
02:45 PM	9	33	38	80	48	341	6	395	51	40	56	147	29	240	59	328	950
Total Volume	32	109	143	284	163	1224	40	1427	237	145	210	592	94	916	201	1211	3514
% App. Total	11.3	38.4	50.4		11.4	85.8	2.8		40	24.5	35.5		7.8	75.6	16.6		
PHF	.667	.826	.941	.888	.849	.897	.667	.903	.823	.906	.938	.967	.810	.905	.852	.923	.925

City of Costa Mesa
N/S: Mesa Verde Drive W/Placentia Avenue
E/W: Adams Avenue
Weather: Clear

File Name : 15_CSM_Pla_Adams MD
Site Code : 23922356
Start Date : 4/21/2022
Page No : 2



Peak Hour Analysis From 12:00 PM to 02:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	02:00 PM				02:00 PM				02:00 PM				01:30 PM			
+0 mins.	12	32	32	76	43	248	9	300	54	37	56	147	14	219	46	279
+15 mins.	7	24	35	66	37	306	10	353	72	35	46	153	24	243	51	318
+30 mins.	4	20	38	62	35	329	15	379	60	33	52	145	28	231	44	303
+45 mins.	9	33	38	80	48	341	6	395	51	40	56	147	20	253	46	319
Total Volume	32	109	143	284	163	1224	40	1427	237	145	210	592	86	946	187	1219
% App. Total	11.3	38.4	50.4		11.4	85.8	2.8		40	24.5	35.5		7.1	77.6	15.3	
PHF	.667	.826	.941	.888	.849	.897	.667	.903	.823	.906	.938	.967	.768	.935	.917	.955

City of Costa Mesa
N/S: Mesa Verde Drive W/Placentia Avenue
E/W: Adams Avenue
Weather: Clear

File Name : 15_CSM_Pla_Adams PM
Site Code : 23922356
Start Date : 4/21/2022
Page No : 1

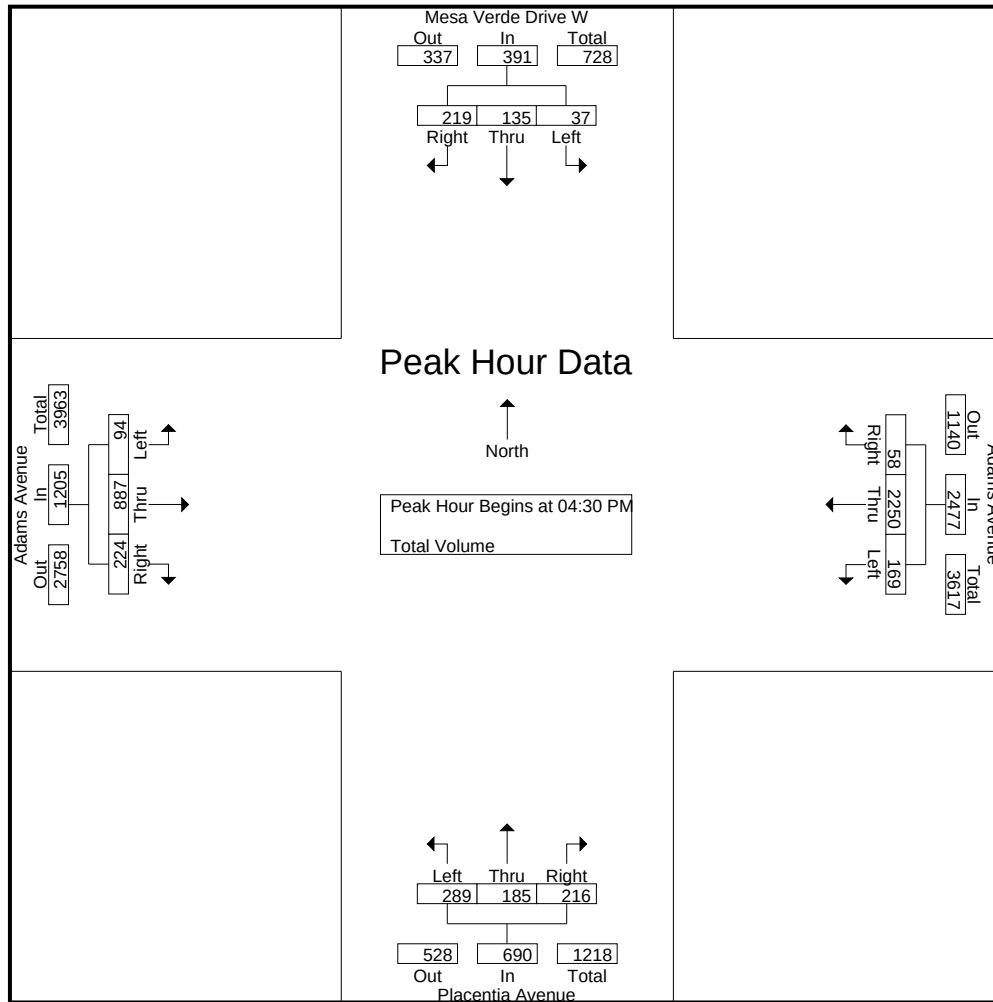
Groups Printed- Total Volume

	Mesa Verde Drive W Southbound				Adams Avenue Westbound				Placentia Avenue Northbound				Adams Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
03:00 PM	8	53	37	98	45	406	14	465	74	50	70	194	25	207	57	289	1046
03:15 PM	7	29	52	88	40	435	11	486	61	48	50	159	31	241	44	316	1049
03:30 PM	8	35	38	81	45	465	15	525	94	49	60	203	29	186	54	269	1078
03:45 PM	9	67	61	137	43	551	19	613	59	32	50	141	28	196	39	263	1154
Total	32	184	188	404	173	1857	59	2089	288	179	230	697	113	830	194	1137	4327
04:00 PM	9	38	53	100	39	561	12	612	74	44	62	180	28	235	51	314	1206
04:15 PM	6	24	55	85	44	552	10	606	68	31	39	138	15	175	48	238	1067
04:30 PM	13	19	47	79	28	581	9	618	88	40	42	170	22	203	51	276	1143
04:45 PM	9	49	56	114	39	528	14	581	69	52	66	187	25	201	57	283	1165
Total	37	130	211	378	150	2222	45	2417	299	167	209	675	90	814	207	1111	4581
05:00 PM	6	29	50	85	42	601	20	663	67	35	50	152	23	196	49	268	1168
05:15 PM	9	38	66	113	60	540	15	615	65	58	58	181	24	287	67	378	1287
05:30 PM	8	22	59	89	48	533	8	589	66	37	57	160	17	192	58	267	1105
05:45 PM	8	29	50	87	51	521	15	587	50	37	48	135	21	223	56	300	1109
Total	31	118	225	374	201	2195	58	2454	248	167	213	628	85	898	230	1213	4669
Grand Total	100	432	624	1156	524	6274	162	6960	835	513	652	2000	288	2542	631	3461	13577
Apprch %	8.7	37.4	54		7.5	90.1	2.3		41.8	25.6	32.6		8.3	73.4	18.2		
Total %	0.7	3.2	4.6	8.5	3.9	46.2	1.2	51.3	6.2	3.8	4.8	14.7	2.1	18.7	4.6	25.5	

	Mesa Verde Drive W Southbound				Adams Avenue Westbound				Placentia Avenue Northbound				Adams Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	13	19	47	79	28	581	9	618	88	40	42	170	22	203	51	276	1143
04:45 PM	9	49	56	114	39	528	14	581	69	52	66	187	25	201	57	283	1165
05:00 PM	6	29	50	85	42	601	20	663	67	35	50	152	23	196	49	268	1168
05:15 PM	9	38	66	113	60	540	15	615	65	58	58	181	24	287	67	378	1287
Total Volume																	4763
% App. Total	9.5	34.5	56		6.8	90.8	2.3		41.9	26.8	31.3		7.8	73.6	18.6		
PHF	.712	.689	.830	.857	.704	.936	.725	.934	.821	.797	.818	.922	.940	.773	.836	.797	.925

City of Costa Mesa
N/S: Mesa Verde Drive W/Placentia Avenue
E/W: Adams Avenue
Weather: Clear

File Name : 15_CSM_Pla_Adams PM
Site Code : 23922356
Start Date : 4/21/2022
Page No : 2



Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	03:15 PM				04:30 PM				03:00 PM				05:00 PM			
+0 mins.	7	29	52	88	28	581	9	618	74	50	70	194	23	196	49	268
+15 mins.	8	35	38	81	39	528	14	581	61	48	50	159	24	287	67	378
+30 mins.	9	67	61	137	42	601	20	663	94	49	60	203	17	192	58	267
+45 mins.	9	38	53	100	60	540	15	615	59	32	50	141	21	223	56	300
Total Volume	33	169	204	406	169	2250	58	2477	288	179	230	697	85	898	230	1213
% App. Total	8.1	41.6	50.2		6.8	90.8	2.3		41.3	25.7	33		7	74	19	
PHF	.917	.631	.836	.741	.704	.936	.725	.934	.766	.895	.821	.858	.885	.782	.858	.802

City of Costa Mesa
N/S: Mesa Verde Drive W/Placentia Avenue
E/W: Adams Avenue
Weather: Clear

File Name : 15_CSM_Pla_Adams SAT
Site Code : 23922356
Start Date : 4/23/2022
Page No : 1

Groups Printed- Total Volume

	Mesa Verde Drive W Southbound				Adams Avenue Westbound				Placentia Avenue Northbound				Adams Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
01:00 PM	15	22	35	72	42	256	6	304	50	27	38	115	17	209	37	263	754
01:15 PM	7	18	32	57	46	281	8	335	44	8	34	86	27	192	61	280	758
01:30 PM	8	16	23	47	46	304	7	357	43	22	38	103	23	211	58	292	799
01:45 PM	8	23	27	58	36	281	9	326	47	25	39	111	20	215	57	292	787
Total	38	79	117	234	170	1122	30	1322	184	82	149	415	87	827	213	1127	3098
02:00 PM	5	17	23	45	41	241	8	290	58	16	39	113	22	193	63	278	726
02:15 PM	14	28	30	72	41	251	10	302	54	27	41	122	26	196	59	281	777
02:30 PM	5	23	25	53	34	231	10	275	56	27	32	115	15	180	48	243	686
02:45 PM	6	12	19	37	37	263	12	312	63	21	48	132	24	186	58	268	749
Total	30	80	97	207	153	986	40	1179	231	91	160	482	87	755	228	1070	2938
Grand Total	68	159	214	441	323	2108	70	2501	415	173	309	897	174	1582	441	2197	6036
Apprch %	15.4	36.1	48.5		12.9	84.3	2.8		46.3	19.3	34.4		7.9	72	20.1		
Total %	1.1	2.6	3.5	7.3	5.4	34.9	1.2	41.4	6.9	2.9	5.1	14.9	2.9	26.2	7.3	36.4	

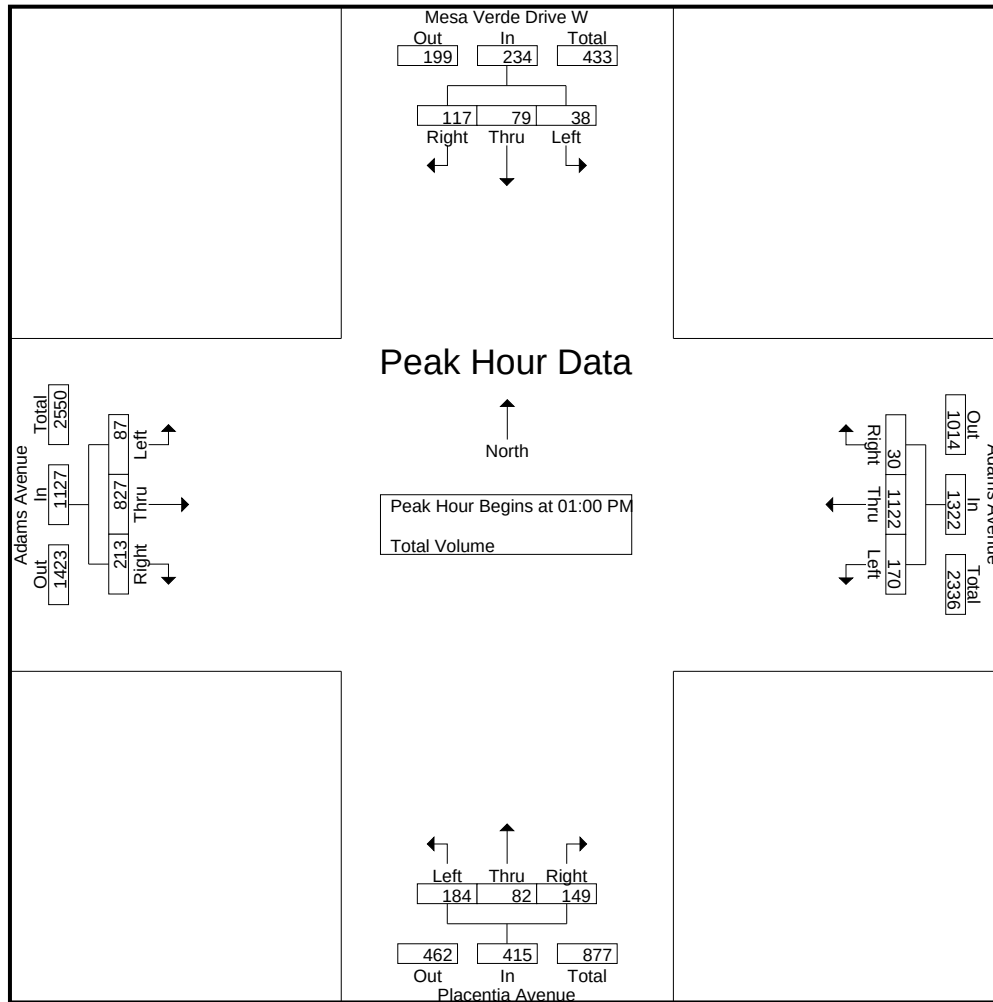
	Mesa Verde Drive W Southbound				Adams Avenue Westbound				Placentia Avenue Northbound				Adams Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
01:00 PM	15	22	35	72	42	256	6	304	50	27	38	115	17	209	37	263	754
01:15 PM	7	18	32	57	46	281	8	335	44	8	34	86	27	192	61	280	758
01:30 PM	8	16	23	47	46	304	7	357	43	22	38	103	23	211	58	292	799
01:45 PM	8	23	27	58	36	281	9	326	47	25	39	111	20	215	57	292	787
Total Volume	38	79	117	234	170	1122	30	1322	184	82	149	415	87	827	213	1127	3098
% App. Total	16.2	33.8	50		12.9	84.9	2.3		44.3	19.8	35.9		7.7	73.4	18.9		
PHF	.633	.859	.836	.813	.924	.923	.833	.926	.920	.759	.955	.902	.806	.962	.873	.965	.969

Peak Hour Analysis From 01:00 PM to 02:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 01:00 PM

City of Costa Mesa
N/S: Mesa Verde Drive W/Placentia Avenue
E/W: Adams Avenue
Weather: Clear

File Name : 15_CSM_Pla_Adams SAT
Site Code : 23922356
Start Date : 4/23/2022
Page No : 2



Peak Hour Analysis From 01:00 PM to 02:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	01:00 PM				01:00 PM				02:00 PM				01:30 PM			
+0 mins.	15	22	35	72	42	256	6	304	58	16	39	113	23	211	58	292
+15 mins.	7	18	32	57	46	281	8	335	54	27	41	122	20	215	57	292
+30 mins.	8	16	23	47	46	304	7	357	56	27	32	115	22	193	63	278
+45 mins.	8	23	27	58	36	281	9	326	63	21	48	132	26	196	59	281
Total Volume	38	79	117	234	170	1122	30	1322	231	91	160	482	91	815	237	1143
% App. Total	16.2	33.8	50		12.9	84.9	2.3		47.9	18.9	33.2		8	71.3	20.7	
PHF	.633	.859	.836	.813	.924	.923	.833	.926	.917	.843	.833	.913	.875	.948	.940	.979

Location: Costa Mesa
 N/S: Mesa Verde Dr W/Placentia Ave
 E/W: Baker Street



PEDESTRIANS

Date: 4/21/2022
 Day: Thursday

	North Leg Mesa Verde Drive W Pedestrians	East Leg Baker Street Pedestrians	South Leg Placentia Avenue Pedestrians	West Leg Baker Street Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	1	0	1
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	2	0	0	2
8:15 AM	0	2	0	0	2
8:30 AM	0	2	0	0	2
8:45 AM	0	2	0	0	2
TOTAL VOLUMES:	0	8	1	0	9

Date: 4/21/2022
 Day: Thursday

	North Leg Mesa Verde Drive W Pedestrians	East Leg Baker Street Pedestrians	South Leg Placentia Avenue Pedestrians	West Leg Baker Street Pedestrians	
12:00 PM	1	2	3	0	6
12:15 PM	2	0	0	0	2
12:30 PM	0	1	0	0	1
12:45 PM	0	0	0	0	0
1:00 PM	0	0	0	0	0
1:15 PM	0	0	0	0	0
1:30 PM	1	2	0	0	3
1:45 PM	0	0	0	0	0
2:00 PM	0	0	0	0	0
2:15 PM	0	0	0	0	0
2:30 PM	0	0	0	0	0
2:45 PM	0	0	1	0	1
TOTAL VOLUMES:	4	5	4	0	13

Date: 4/21/2022
 Day: Thursday

	North Leg Mesa Verde Drive W Pedestrians	East Leg Baker Street Pedestrians	South Leg Placentia Avenue Pedestrians	West Leg Baker Street Pedestrians	
3:00 PM	0	1	0	0	1
3:15 PM	0	0	0	0	0
3:30 PM	0	1	1	0	2
3:45 PM	0	1	0	0	1
4:00 PM	0	0	0	0	0
4:15 PM	0	1	0	0	1
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	1	0	0	1
5:30 PM	0	0	1	0	1
5:45 PM	0	1	0	0	1
TOTAL VOLUMES:	0	6	2	0	8

Date: 4/23/2022
 Day: Saturday

	North Leg Mesa Verde Drive W Pedestrians	East Leg Baker Street Pedestrians	South Leg Placentia Avenue Pedestrians	West Leg Baker Street Pedestrians	
1:00 PM	0	0	1	0	1
1:15 PM	0	2	0	0	2
1:30 PM	0	0	0	0	0
1:45 PM	0	1	0	0	1
2:00 PM	1	1	0	0	2
2:15 PM	1	0	0	0	1
2:30 PM	0	0	0	0	0
2:45 PM	0	2	0	0	2
TOTAL VOLUMES:	2	6	1	0	9

Location: Costa Mesa
 N/S: Mesa Verde Dr W/Placentia Ave
 E/W: Baker Street



BICYCLES

Date: 4/21/2022
 Day: Thursday

	Southbound Mesa Verde Drive W			Westbound Baker Street			Northbound Placentia Avenue			Eastbound Baker Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
7:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
7:30 AM	0	3	0	0	2	0	0	0	0	0	1	0	6
7:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	1	0	0	0	0	0	0	0	0	1	1	3
TOTAL VOLUMES:	0	5	0	0	3	0	0	1	0	0	4	1	14

Date: 4/21/2022
 Day: Thursday

	Southbound Mesa Verde Drive W			Westbound Baker Street			Northbound Placentia Avenue			Eastbound Baker Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
12:00 PM	0	0	0	0	1	0	0	1	0	0	0	0	2
12:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
12:30 PM	0	0	0	0	1	0	0	1	0	0	1	0	3
12:45 PM	0	0	0	1	0	0	0	0	0	0	0	0	1
1:00 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	1	1	0	0	0	0	0	0	0	2
1:45 PM	0	0	0	0	1	0	0	0	0	1	1	0	3
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	2	0	0	0	0	0	1	0	3
2:30 PM	0	1	0	1	0	1	0	0	0	0	0	0	3
2:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
TOTAL VOLUMES:	0	2	0	3	6	1	0	4	0	1	4	0	21

Date: 4/21/2022
 Day: Thursday

	Southbound Mesa Verde Drive W			Westbound Baker Street			Northbound Placentia Avenue			Eastbound Baker Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
3:00 PM	0	0	0	0	0	0	0	1	1	0	0	0	2
3:15 PM	0	0	0	0	1	0	0	2	0	0	1	1	5
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	1	0	0	3	1	0	0	0	5
4:00 PM	0	0	0	0	0	2	1	1	0	0	1	0	5
4:15 PM	0	2	0	0	1	0	0	0	0	0	0	0	3
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	1	0	0	0	0	0	1	0	0	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	1	0	0	1	1	0	3	0	6
5:45 PM	0	1	0	1	1	0	0	2	0	0	2	2	9
TOTAL VOLUMES:	0	4	0	1	6	2	1	11	3	0	7	3	38

Date: 4/23/2022
 Day: Saturday

	Southbound Mesa Verde Drive W			Westbound Baker Street			Northbound Placentia Avenue			Eastbound Baker Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1:00 PM	0	0	1	1	0	0	0	0	0	0	0	0	2
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	2	0	0	1	1	0	0	0	0	0	0	4
1:45 PM	0	3	0	0	0	0	0	2	0	0	1	0	6
2:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	1
2:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	2
2:30 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
2:45 PM	0	0	0	0	0	0	0	1	0	0	2	0	3
TOTAL VOLUMES:	0	8	1	1	2	1	0	3	1	0	3	0	20

City of Costa Mesa
N/S: Placentia Avenue
E/W: Victoria Street
Weather: Clear

File Name : 21_CSM_Pla_Victoria AM
Site Code : 23922356
Start Date : 4/21/2022
Page No : 1

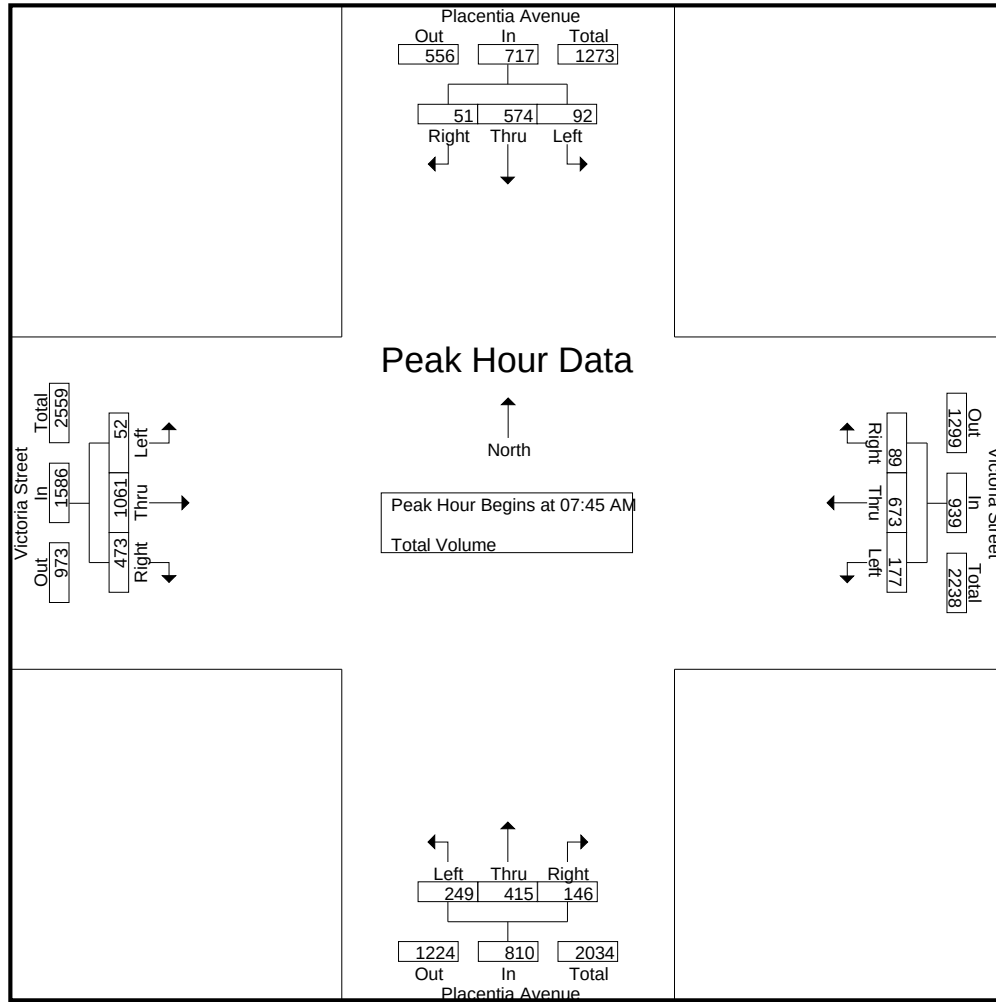
Groups Printed- Total Volume

	Placentia Avenue Southbound				Victoria Street Westbound				Placentia Avenue Northbound				Victoria Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	18	69	4	91	27	94	13	134	31	48	30	109	5	197	61	263	597
07:15 AM	18	87	7	112	26	79	16	121	49	63	32	144	6	269	85	360	737
07:30 AM	24	117	7	148	29	87	34	150	51	121	27	199	10	241	87	338	835
07:45 AM	23	158	16	197	55	153	40	248	64	134	39	237	11	286	118	415	1097
Total	83	431	34	548	137	413	103	653	195	366	128	689	32	993	351	1376	3266
08:00 AM	25	164	12	201	45	180	28	253	69	116	39	224	12	245	118	375	1053
08:15 AM	27	133	15	175	40	198	16	254	72	92	38	202	24	279	121	424	1055
08:30 AM	17	119	8	144	37	142	5	184	44	73	30	147	5	251	116	372	847
08:45 AM	20	150	10	180	46	124	6	176	49	83	36	168	8	248	130	386	910
Total	89	566	45	700	168	644	55	867	234	364	143	741	49	1023	485	1557	3865
Grand Total	172	997	79	1248	305	1057	158	1520	429	730	271	1430	81	2016	836	2933	7131
Apprch %	13.8	79.9	6.3		20.1	69.5	10.4		30	51	19		2.8	68.7	28.5		
Total %	2.4	14	1.1	17.5	4.3	14.8	2.2	21.3	6	10.2	3.8	20.1	1.1	28.3	11.7	41.1	

	Placentia Avenue Southbound				Victoria Street Westbound				Placentia Avenue Northbound				Victoria Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	23	158	16	197	55	153	40	248	64	134	39	237	11	286	118	415	1097
08:00 AM	25	164	12	201	45	180	28	253	69	116	39	224	12	245	118	375	1053
08:15 AM	27	133	15	175	40	198	16	254	72	92	38	202	24	279	121	424	1055
08:30 AM	17	119	8	144	37	142	5	184	44	73	30	147	5	251	116	372	847
Total Volume																	4052
% App. Total	12.8	80.1	7.1		18.8	71.7	9.5		30.7	51.2	18		3.3	66.9	29.8		
PHF	.852	.875	.797	.892	.805	.850	.556	.924	.865	.774	.936	.854	.542	.927	.977	.935	.923

City of Costa Mesa
N/S: Placentia Avenue
E/W: Victoria Street
Weather: Clear

File Name : 21_CSM_Pla_Victoria AM
Site Code : 23922356
Start Date : 4/21/2022
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:45 AM				07:30 AM				07:45 AM			
+0 mins.	24	117	7	148	55	153	40	248	51	121	27	199	11	286	118	415
+15 mins.	23	158	16	197	45	180	28	253	64	134	39	237	12	245	118	375
+30 mins.	25	164	12	201	40	198	16	254	69	116	39	224	24	279	121	424
+45 mins.	27	133	15	175	37	142	5	184	72	92	38	202	5	251	116	372
Total Volume	99	572	50	721	177	673	89	939	256	463	143	862	52	1061	473	1586
% App. Total	13.7	79.3	6.9		18.8	71.7	9.5		29.7	53.7	16.6		3.3	66.9	29.8	
PHF	.917	.872	.781	.897	.805	.850	.556	.924	.889	.864	.917	.909	.542	.927	.977	.935

City of Costa Mesa
N/S: Placentia Avenue
E/W: Victoria Street
Weather: Clear

File Name : 21_CSM_Pla_Victoria MD
Site Code : 23922356
Start Date : 4/21/2022
Page No : 1

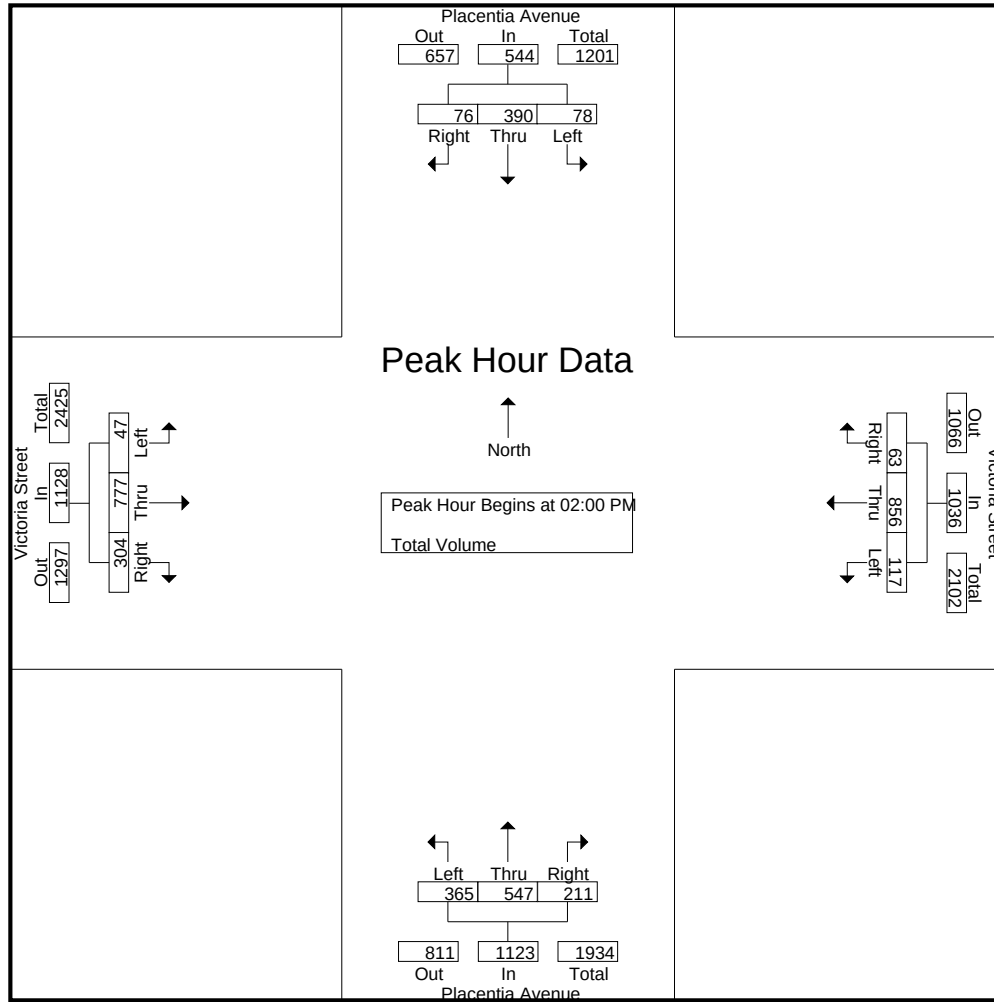
Groups Printed- Total Volume

	Placentia Avenue Southbound				Victoria Street Westbound				Placentia Avenue Northbound				Victoria Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
12:00 PM	7	78	12	97	46	172	14	232	82	115	45	242	10	146	88	244	815
12:15 PM	15	94	17	126	41	194	17	252	85	97	43	225	11	173	69	253	856
12:30 PM	12	91	18	121	36	222	20	278	67	96	39	202	9	174	74	257	858
12:45 PM	15	95	17	127	37	185	10	232	75	91	33	199	12	171	70	253	811
Total	49	358	64	471	160	773	61	994	309	399	160	868	42	664	301	1007	3340
01:00 PM	11	107	14	132	35	192	12	239	80	116	37	233	8	170	64	242	846
01:15 PM	15	115	7	137	35	206	8	249	85	91	38	214	8	169	64	241	841
01:30 PM	17	107	12	136	29	201	15	245	61	123	43	227	17	179	63	259	867
01:45 PM	16	119	19	154	49	212	15	276	69	117	32	218	12	185	89	286	934
Total	59	448	52	559	148	811	50	1009	295	447	150	892	45	703	280	1028	3488
02:00 PM	18	112	15	145	32	162	17	211	72	105	48	225	12	202	61	275	856
02:15 PM	13	92	22	127	33	255	9	297	96	127	42	265	8	203	69	280	969
02:30 PM	19	71	19	109	18	222	18	258	88	141	77	306	8	161	81	250	923
02:45 PM	28	115	20	163	34	217	19	270	109	174	44	327	19	211	93	323	1083
Total	78	390	76	544	117	856	63	1036	365	547	211	1123	47	777	304	1128	3831
Grand Total	186	1196	192	1574	425	2440	174	3039	969	1393	521	2883	134	2144	885	3163	10659
Apprch %	11.8	76	12.2		14	80.3	5.7		33.6	48.3	18.1		4.2	67.8	28		
Total %	1.7	11.2	1.8	14.8	4	22.9	1.6	28.5	9.1	13.1	4.9	27	1.3	20.1	8.3	29.7	

	Placentia Avenue Southbound				Victoria Street Westbound				Placentia Avenue Northbound				Victoria Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 02:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 02:00 PM																	
02:00 PM	18	112	15	145	32	162	17	211	72	105	48	225	12	202	61	275	856
02:15 PM	13	92	22	127	33	255	9	297	96	127	42	265	8	203	69	280	969
02:30 PM	19	71	19	109	18	222	18	258	88	141	77	306	8	161	81	250	923
02:45 PM	28	115	20	163	34	217	19	270	109	174	44	327	19	211	93	323	1083
Total Volume	78	390	76	544	117	856	63	1036	365	547	211	1123	47	777	304	1128	3831
% App. Total	14.3	71.7	14		11.3	82.6	6.1		32.5	48.7	18.8		4.2	68.9	27		
PHF	.696	.848	.864	.834	.860	.839	.829	.872	.837	.786	.685	.859	.618	.921	.817	.873	.884

City of Costa Mesa
N/S: Placentia Avenue
E/W: Victoria Street
Weather: Clear

File Name : 21_CSM_Pla_Victoria MD
Site Code : 23922356
Start Date : 4/21/2022
Page No : 2



Peak Hour Analysis From 12:00 PM to 02:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	01:15 PM				01:45 PM				02:00 PM				02:00 PM			
+0 mins.	15	115	7	137	49	212	15	276	72	105	48	225	12	202	61	275
+15 mins.	17	107	12	136	32	162	17	211	96	127	42	265	8	203	69	280
+30 mins.	16	119	19	154	33	255	9	297	88	141	77	306	8	161	81	250
+45 mins.	18	112	15	145	18	222	18	258	109	174	44	327	19	211	93	323
Total Volume	66	453	53	572	132	851	59	1042	365	547	211	1123	47	777	304	1128
% App. Total	11.5	79.2	9.3		12.7	81.7	5.7		32.5	48.7	18.8		4.2	68.9	27	
PHF	.917	.952	.697	.929	.673	.834	.819	.877	.837	.786	.685	.859	.618	.921	.817	.873

City of Costa Mesa
N/S: Placentia Avenue
E/W: Victoria Street
Weather: Clear

File Name : 21_CSM_Pla_Victoria PM
Site Code : 23922356
Start Date : 4/21/2022
Page No : 1

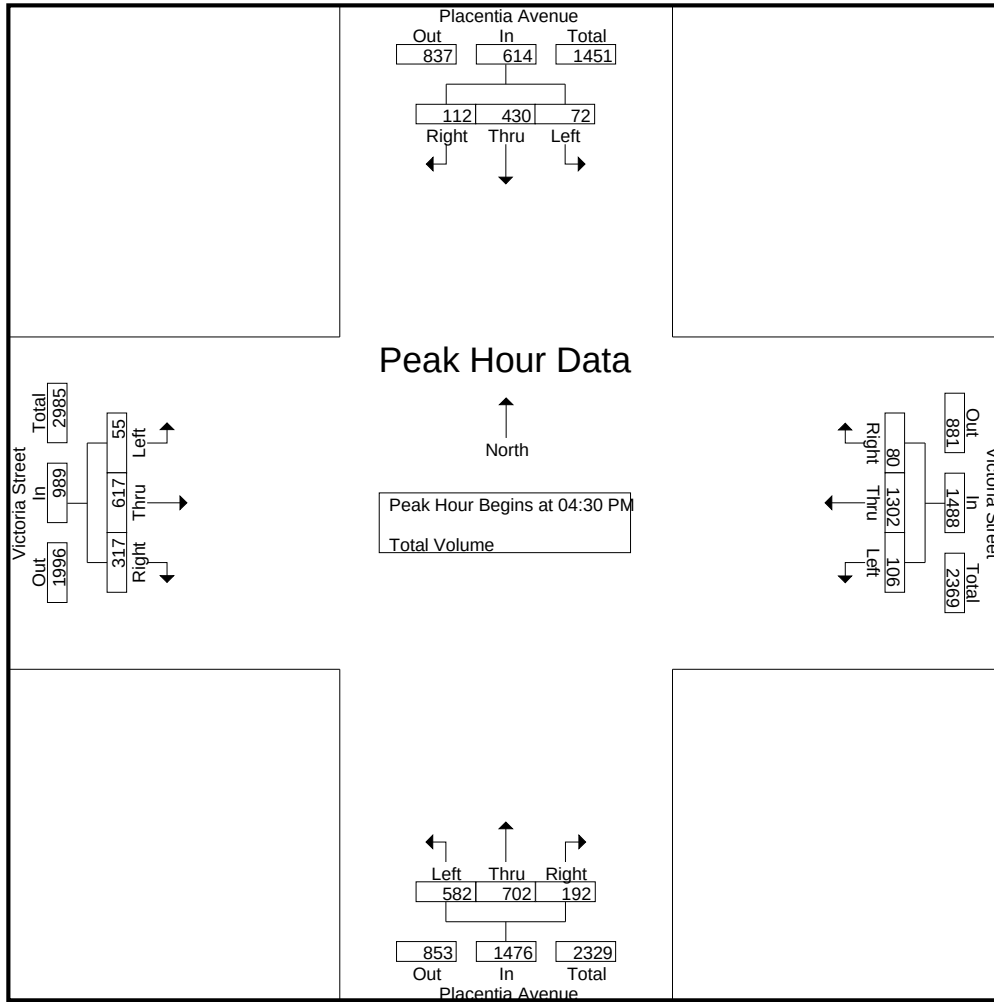
Groups Printed- Total Volume

	Placentia Avenue Southbound				Victoria Street Westbound				Placentia Avenue Northbound				Victoria Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
03:00 PM	22	98	10	130	26	236	23	285	95	147	46	288	13	180	77	270	973
03:15 PM	18	102	17	137	26	252	16	294	96	126	38	260	10	149	74	233	924
03:30 PM	16	102	25	143	25	309	11	345	128	161	48	337	12	129	82	223	1048
03:45 PM	22	115	22	159	37	284	21	342	143	145	40	328	14	145	77	236	1065
Total	78	417	74	569	114	1081	71	1266	462	579	172	1213	49	603	310	962	4010
04:00 PM	19	87	23	129	25	303	18	346	154	150	52	356	15	142	70	227	1058
04:15 PM	19	88	26	133	25	338	17	380	130	142	53	325	8	161	66	235	1073
04:30 PM	15	94	23	132	20	299	20	339	157	189	61	407	10	164	65	239	1117
04:45 PM	23	105	26	154	30	325	23	378	127	157	42	326	21	170	88	279	1137
Total	76	374	98	548	100	1265	78	1443	568	638	208	1414	54	637	289	980	4385
05:00 PM	17	110	26	153	25	350	21	396	150	167	46	363	11	134	83	228	1140
05:15 PM	17	121	37	175	31	328	16	375	148	189	43	380	13	149	81	243	1173
05:30 PM	18	112	36	166	28	326	14	368	149	150	56	355	15	146	66	227	1116
05:45 PM	28	112	29	169	18	344	19	381	105	124	36	265	14	117	64	195	1010
Total	80	455	128	663	102	1348	70	1520	552	630	181	1363	53	546	294	893	4439
Grand Total	234	1246	300	1780	316	3694	219	4229	1582	1847	561	3990	156	1786	893	2835	12834
Apprch %	13.1	70	16.9		7.5	87.3	5.2		39.6	46.3	14.1		5.5	63	31.5		
Total %	1.8	9.7	2.3	13.9	2.5	28.8	1.7	33	12.3	14.4	4.4	31.1	1.2	13.9	7	22.1	

	Placentia Avenue Southbound				Victoria Street Westbound				Placentia Avenue Northbound				Victoria Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	15	94	23	132	20	299	20	339	157	189	61	407	10	164	65	239	1117
04:45 PM	23	105	26	154	30	325	23	378	127	157	42	326	21	170	88	279	1137
05:00 PM	17	110	26	153	25	350	21	396	150	167	46	363	11	134	83	228	1140
05:15 PM	17	121	37	175	31	328	16	375	148	189	43	380	13	149	81	243	1173
Total Volume																	4567
% App. Total	11.7	70	18.2		7.1	87.5	5.4		39.4	47.6	13		5.6	62.4	32.1		
PHF	.783	.888	.757	.877	.855	.930	.870	.939	.927	.929	.787	.907	.655	.907	.901	.886	

City of Costa Mesa
N/S: Placentia Avenue
E/W: Victoria Street
Weather: Clear

File Name : 21_CSM_Pla_Victoria PM
Site Code : 23922356
Start Date : 4/21/2022
Page No : 2



Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				04:30 PM				04:30 PM			
+0 mins.	17	110	26	153	25	350	21	396	157	189	61	407	10	164	65	239
+15 mins.	17	121	37	175	31	328	16	375	127	157	42	326	21	170	88	279
+30 mins.	18	112	36	166	28	326	14	368	150	167	46	363	11	134	83	228
+45 mins.	28	112	29	169	18	344	19	381	148	189	43	380	13	149	81	243
Total Volume	80	455	128	663	102	1348	70	1520	582	702	192	1476	55	617	317	989
% App. Total	12.1	68.6	19.3		6.7	88.7	4.6		39.4	47.6	13		5.6	62.4	32.1	
PHF	.714	.940	.865	.947	.823	.963	.833	.960	.927	.929	.787	.907	.655	.907	.901	.886

City of Costa Mesa
N/S: Placentia Avenue
E/W: Victoria Street
Weather: Clear

File Name : 21_CSM_Pla_Victoria SAT
Site Code : 23922356
Start Date : 4/23/2022
Page No : 1

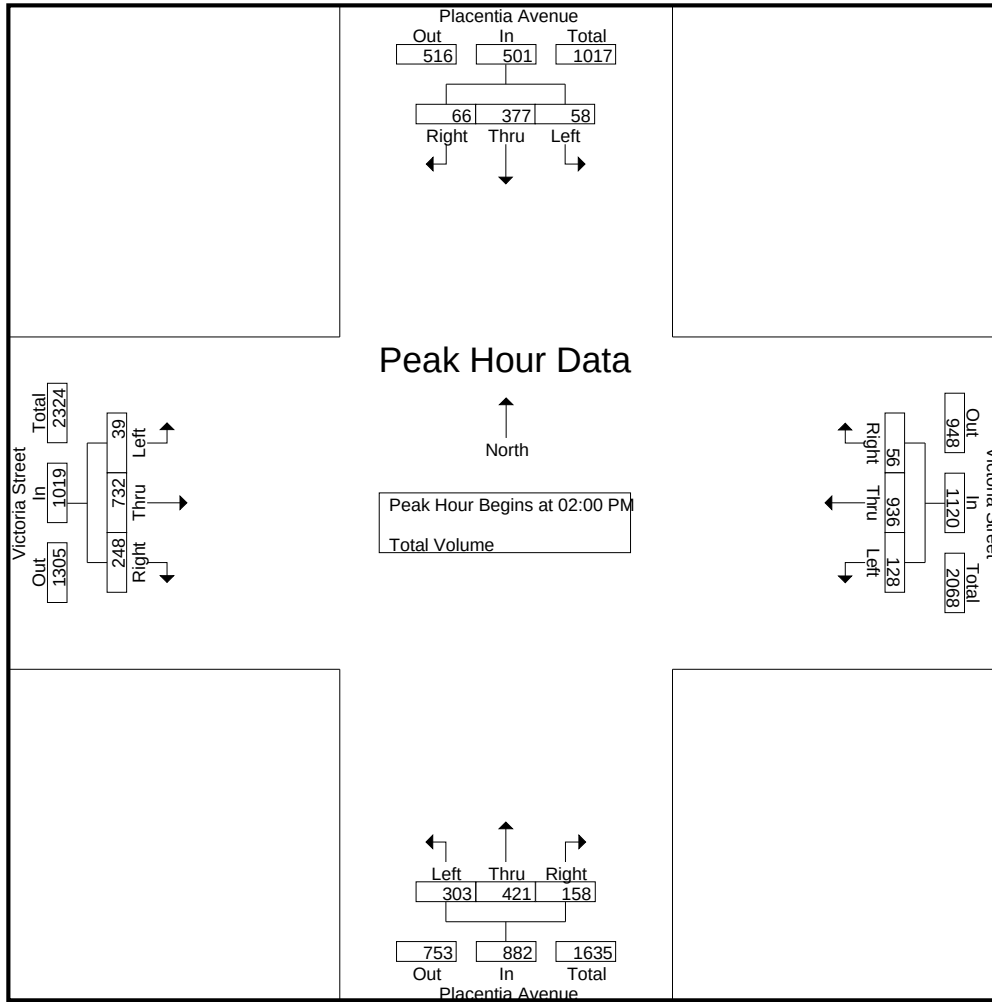
Groups Printed- Total Volume

	Placentia Avenue Southbound				Victoria Street Westbound				Placentia Avenue Northbound				Victoria Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
01:00 PM	15	71	15	101	41	202	14	257	84	99	41	224	9	141	73	223	805
01:15 PM	19	115	23	157	45	218	11	274	92	94	44	230	4	178	72	254	915
01:30 PM	15	100	18	133	36	204	16	256	71	104	40	215	20	199	78	297	901
01:45 PM	14	104	9	127	42	228	18	288	71	106	35	212	9	169	67	245	872
Total	63	390	65	518	164	852	59	1075	318	403	160	881	42	687	290	1019	3493
02:00 PM	15	93	14	122	27	241	5	273	74	93	43	210	9	158	60	227	832
02:15 PM	16	98	18	132	40	211	20	271	72	101	36	209	6	195	76	277	889
02:30 PM	20	87	13	120	28	232	19	279	83	121	45	249	12	193	58	263	911
02:45 PM	7	99	21	127	33	252	12	297	74	106	34	214	12	186	54	252	890
Total	58	377	66	501	128	936	56	1120	303	421	158	882	39	732	248	1019	3522
Grand Total	121	767	131	1019	292	1788	115	2195	621	824	318	1763	81	1419	538	2038	7015
Apprch %	11.9	75.3	12.9		13.3	81.5	5.2		35.2	46.7	18		4	69.6	26.4		
Total %	1.7	10.9	1.9	14.5	4.2	25.5	1.6	31.3	8.9	11.7	4.5	25.1	1.2	20.2	7.7	29.1	

	Placentia Avenue Southbound				Victoria Street Westbound				Placentia Avenue Northbound				Victoria Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 01:00 PM to 02:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 02:00 PM																	
02:00 PM	15	93	14	122	27	241	5	273	74	93	43	210	9	158	60	227	832
02:15 PM	16	98	18	132	40	211	20	271	72	101	36	209	6	195	76	277	889
02:30 PM	20	87	13	120	28	232	19	279	83	121	45	249	12	193	58	263	911
02:45 PM	7	99	21	127	33	252	12	297	74	106	34	214	12	186	54	252	890
Total Volume	58	377	66	501	128	936	56	1120	303	421	158	882	39	732	248	1019	3522
% App. Total	11.6	75.2	13.2		11.4	83.6	5		34.4	47.7	17.9		3.8	71.8	24.3		
PHF	.725	.952	.786	.949	.800	.929	.700	.943	.913	.870	.878	.886	.813	.938	.816	.920	.967

City of Costa Mesa
N/S: Placentia Avenue
E/W: Victoria Street
Weather: Clear

File Name : 21_CSM_Pla_Victoria SAT
Site Code : 23922356
Start Date : 4/23/2022
Page No : 2



Peak Hour Analysis From 01:00 PM to 02:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	01:15 PM				02:00 PM				02:00 PM				01:30 PM			
+0 mins.	19	115	23	157	27	241	5	273	74	93	43	210	20	199	78	297
+15 mins.	15	100	18	133	40	211	20	271	72	101	36	209	9	169	67	245
+30 mins.	14	104	9	127	28	232	19	279	83	121	45	249	9	158	60	227
+45 mins.	15	93	14	122	33	252	12	297	74	106	34	214	6	195	76	277
Total Volume	63	412	64	539	128	936	56	1120	303	421	158	882	44	721	281	1046
% App. Total	11.7	76.4	11.9		11.4	83.6	5		34.4	47.7	17.9		4.2	68.9	26.9	
PHF	.829	.896	.696	.858	.800	.929	.700	.943	.913	.870	.878	.886	.550	.906	.901	.880

Location: Costa Mesa
 N/S: Placentia Avenue
 E/W: Victoria Street



PEDESTRIANS

Date: 4/21/2022
 Day: Thursday

	North Leg Placentia Avenue Pedestrians	East Leg Victoria Street Pedestrians	South Leg Placentia Avenue Pedestrians	West Leg Victoria Street Pedestrians	
7:00 AM	0	3	1	1	5
7:15 AM	6	5	6	3	20
7:30 AM	2	15	3	9	29
7:45 AM	1	6	1	0	8
8:00 AM	0	6	3	2	11
8:15 AM	1	5	3	1	10
8:30 AM	2	0	4	5	11
8:45 AM	0	7	1	0	8
TOTAL VOLUMES:	12	47	22	21	102

Date: 4/21/2022
 Day: Thursday

	North Leg Placentia Avenue Pedestrians	East Leg Victoria Street Pedestrians	South Leg Placentia Avenue Pedestrians	West Leg Victoria Street Pedestrians	
12:00 PM	1	2	1	1	5
12:15 PM	0	4	2	7	13
12:30 PM	0	1	2	1	4
12:45 PM	4	3	1	0	8
1:00 PM	0	6	3	0	9
1:15 PM	0	0	3	1	4
1:30 PM	4	4	3	7	18
1:45 PM	1	18	12	20	51
2:00 PM	1	5	2	0	8
2:15 PM	0	2	2	2	6
2:30 PM	1	1	0	2	4
2:45 PM	4	2	0	0	6
TOTAL VOLUMES:	16	48	31	41	136

Date: 4/21/2022
 Day: Thursday

	North Leg Placentia Avenue Pedestrians	East Leg Victoria Street Pedestrians	South Leg Placentia Avenue Pedestrians	West Leg Victoria Street Pedestrians	
3:00 PM	1	6	2	6	15
3:15 PM	5	21	16	18	60
3:30 PM	1	3	3	13	20
3:45 PM	0	1	3	1	5
4:00 PM	1	9	7	3	20
4:15 PM	1	8	3	4	16
4:30 PM	1	3	1	3	8
4:45 PM	0	5	2	1	8
5:00 PM	1	3	12	5	21
5:15 PM	5	6	5	2	18
5:30 PM	1	4	4	1	10
5:45 PM	4	5	1	6	16
TOTAL VOLUMES:	21	74	59	63	217

Date: 4/23/2022
 Day: Saturday

	North Leg Placentia Avenue Pedestrians	East Leg Victoria Street Pedestrians	South Leg Placentia Avenue Pedestrians	West Leg Victoria Street Pedestrians	
1:00 PM	0	2	1	1	4
1:15 PM	1	4	0	0	5
1:30 PM	0	1	0	0	1
1:45 PM	1	2	0	1	4
2:00 PM	0	1	0	0	1
2:15 PM	0	2	3	0	5
2:30 PM	0	2	2	2	6
2:45 PM	0	3	0	0	3
TOTAL VOLUMES:	2	17	6	4	29

Location: Costa Mesa
N/S: Placentia Avenue
E/W: Victoria Street



BICYCLES

Date: 4/21/2022
Day: Thursday

	Southbound Placentia Avenue			Westbound Victoria Street			Northbound Placentia Avenue			Eastbound Victoria Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	1	2	0	0	0	0	0	0	0	0	0	0	3
7:15 AM	0	0	0	0	1	1	0	0	0	0	2	0	4
7:30 AM	0	2	0	0	0	0	1	5	0	1	1	1	11
7:45 AM	0	1	0	0	1	1	0	5	0	3	0	0	11
8:00 AM	0	0	0	0	0	0	0	1	0	1	0	0	2
8:15 AM	0	1	0	0	1	0	0	1	0	0	0	0	3
8:30 AM	0	3	1	0	2	0	0	0	0	0	3	0	9
8:45 AM	0	2	0	0	2	1	0	2	0	0	1	0	8
TOTAL VOLUMES:	1	11	1	0	7	3	1	14	0	5	7	1	51

Date: 4/21/2022
Day: Thursday

	Southbound Placentia Avenue			Westbound Victoria Street			Northbound Placentia Avenue			Eastbound Victoria Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
12:00 PM	0	3	1	0	1	0	0	1	0	0	0	1	7
12:15 PM	0	1	0	1	0	0	2	1	0	0	1	0	6
12:30 PM	0	2	0	0	2	2	0	0	0	0	0	0	6
12:45 PM	0	1	0	0	0	0	0	1	0	0	1	0	3
1:00 PM	0	1	0	0	0	0	0	1	0	0	0	0	2
1:15 PM	0	0	0	0	0	1	4	1	0	0	0	0	6
1:30 PM	0	10	0	0	0	0	0	2	0	0	0	0	12
1:45 PM	0	0	0	0	2	0	0	0	0	0	0	0	2
2:00 PM	0	3	0	0	0	0	0	2	0	0	1	1	7
2:15 PM	0	2	0	0	0	0	0	2	0	0	1	0	5
2:30 PM	2	1	0	0	0	0	0	2	0	0	2	0	7
2:45 PM	0	2	1	0	1	0	0	1	0	0	2	1	8
TOTAL VOLUMES:	2	26	2	1	6	3	6	14	0	0	8	3	71

Date: 4/21/2022
Day: Thursday

	Southbound Placentia Avenue			Westbound Victoria Street			Northbound Placentia Avenue			Eastbound Victoria Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
3:00 PM	0	4	0	0	0	0	0	1	0	0	1	0	6
3:15 PM	2	1	0	0	0	0	2	1	0	0	0	3	9
3:30 PM	0	4	0	0	0	0	0	3	0	1	0	0	8
3:45 PM	0	3	1	1	1	0	0	2	0	1	0	0	9
4:00 PM	0	0	0	0	0	2	0	3	0	0	0	0	5
4:15 PM	1	4	0	1	0	0	0	1	0	0	1	0	8
4:30 PM	1	3	0	0	1	0	0	1	0	0	0	0	6
4:45 PM	1	2	0	0	0	0	0	1	0	0	1	1	6
5:00 PM	0	0	1	0	0	0	0	0	0	0	2	0	3
5:15 PM	0	1	1	0	0	2	0	4	0	0	2	0	10
5:30 PM	0	2	0	0	1	0	0	6	0	0	0	0	9
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
TOTAL VOLUMES:	5	24	3	2	3	4	2	23	0	2	8	4	80

Date: 4/23/2022
Day: Saturday

	Southbound Placentia Avenue			Westbound Victoria Street			Northbound Placentia Avenue			Eastbound Victoria Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1:00 PM	0	0	0	0	1	0	0	2	3	2	0	0	8
1:15 PM	0	1	1	0	0	0	0	0	0	0	0	0	2
1:30 PM	0	0	0	0	2	0	0	0	0	0	1	0	3
1:45 PM	0	0	1	0	3	0	0	0	0	0	1	0	5
2:00 PM	0	2	0	0	1	0	0	1	0	0	1	0	5
2:15 PM	1	1	0	1	2	0	0	0	0	0	0	0	5
2:30 PM	1	1	0	0	0	1	0	0	0	0	0	0	3
2:45 PM	0	0	0	0	0	2	0	0	1	1	1	0	5
TOTAL VOLUMES:	2	5	2	1	9	3	0	3	4	3	4	0	36

INTERSECTION TURNING MOVEMENT COUNTS

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

T101823

DATE: Thu, Nov 2, 23	LOCATION: NORTH & SOUTH: EAST & WEST:	Costa Mesa Mesa Verde Dr E Adams Ave	PROJECT #: LOCATION #: CONTROL:	SC4286 2 SIGNAL
-------------------------	---	--	---------------------------------------	-----------------------

NOTES:	AM		▲	
	PM		N	
	MD	◀ W		E ▶
	OTHER		S	
	OTHER		▼	

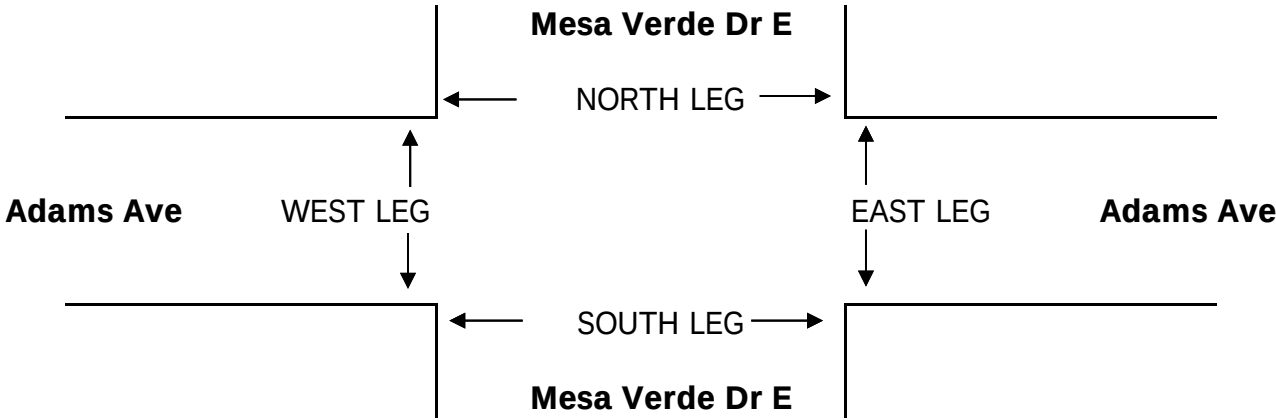
	NORTHBOUND Mesa Verde Dr E			SOUTHBOUND Mesa Verde Dr E			EASTBOUND Adams Ave			WESTBOUND Adams Ave			
LANES:	NL 1.5	NT 0.5	NR 1	SL 1	ST 2	SR 1	EL 1	ET 3	ER 1	WL 1	WT 3	WR 0	TOTAL

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

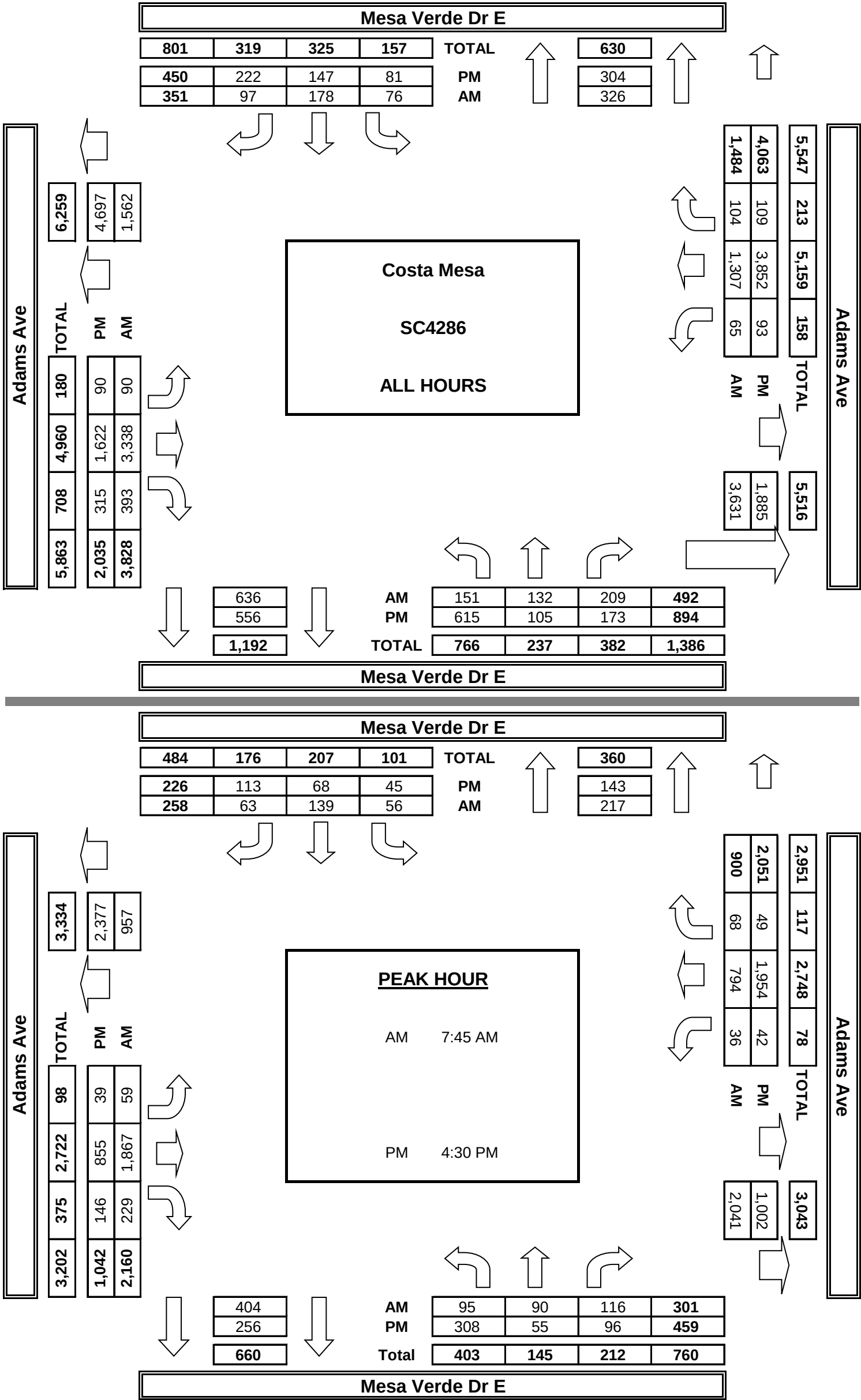
AM	7:00 AM	15	2	17	1	3	5	2	245	30	7	108	3	438
	7:15 AM	17	7	31	2	13	8	9	352	36	7	106	6	594
	7:30 AM	7	16	28	8	15	7	8	413	38	7	141	12	700
	7:45 AM	29	31	32	18	28	20	8	486	62	5	195	20	934
	8:00 AM	22	36	27	16	51	19	11	446	51	8	216	16	919
	8:15 AM	23	6	27	12	26	10	21	498	62	12	200	20	917
	8:30 AM	21	17	30	10	34	14	19	437	54	11	183	12	842
	8:45 AM	17	17	17	9	8	14	12	461	60	8	158	15	796
	VOLUMES	151	132	209	76	178	97	90	3,338	393	65	1,307	104	6,155
	APPROACH %	31%	27%	42%	22%	51%	28%	2%	87%	10%	4%	88%	7%	
	APP/DEPART	492	/	326	351	/	636	3,828	/	3,631	1,484	/	1,562	0
	BEGIN PEAK HR	7:45 AM												
	VOLUMES	95	90	116	56	139	63	59	1,867	229	36	794	68	3,619
	APPROACH %	32%	30%	39%	22%	54%	24%	3%	86%	11%	4%	88%	8%	
	PEAK HR FACTOR	0.818			0.750			0.926			0.934			0.969
	APP/DEPART	301	/	217	258	/	404	2,160	/	2,041	900	/	957	0
PM	4:00 PM	80	14	15	10	28	30	13	167	35	15	492	16	915
	4:15 PM	75	12	14	7	16	26	17	204	46	10	483	18	928
	4:30 PM	70	15	26	15	15	37	8	220	32	9	463	13	923
	4:45 PM	63	10	22	13	17	22	14	248	47	11	511	14	992
	5:00 PM	89	15	22	13	22	32	11	171	32	12	494	11	924
	5:15 PM	86	15	26	4	14	22	6	216	35	10	486	11	931
	5:30 PM	76	12	28	9	18	28	11	189	52	14	461	13	911
	5:45 PM	76	12	20	10	17	25	10	207	36	12	462	13	900
	VOLUMES	615	105	173	81	147	222	90	1,622	315	93	3,852	109	7,442
	APPROACH %	69%	12%	19%	18%	33%	49%	4%	80%	15%	2%	95%	3%	
	APP/DEPART	894	/	304	450	/	556	2,035	/	1,885	4,063	/	4,697	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	308	55	96	45	68	113	39	855	146	42	1,954	49	3,778
	APPROACH %	67%	12%	21%	20%	30%	50%	4%	82%	14%	2%	95%	2%	
	PEAK HR FACTOR	0.904			0.843			0.840			0.951			0.948
	APP/DEPART	459	/	143	226	/	256	1,042	/	1,002	2,051	/	2,377	0

0	0	1	0	1
0	0	0	3	3
0	0	0	0	0
0	0	0	0	0
0	0	2	1	3
0	0	2	0	2
0	0	1	1	2
0	0	1	3	4
0	0	7	8	15

0	0	0	0	0
0	0	4	0	4
0	0	1	1	2
0	0	1	3	4
0	0	0	1	1
0	0	0	1	1
0	0	1	3	4
1	0	1	0	2
1	0	8	9	18



AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

T101823

DATE: Thu, Nov 2, 23	LOCATION: NORTH & SOUTH: EAST & WEST:	Costa Mesa Royal Palm Dr Adams Ave	PROJECT #: LOCATION #: CONTROL:	SC4286 3 SIGNAL
-------------------------	---	--	---------------------------------------	-----------------------

NOTES:	AM		▲	
	PM		N	
	MD	◀ W		E ▶
	OTHER		S	
	OTHER		▼	

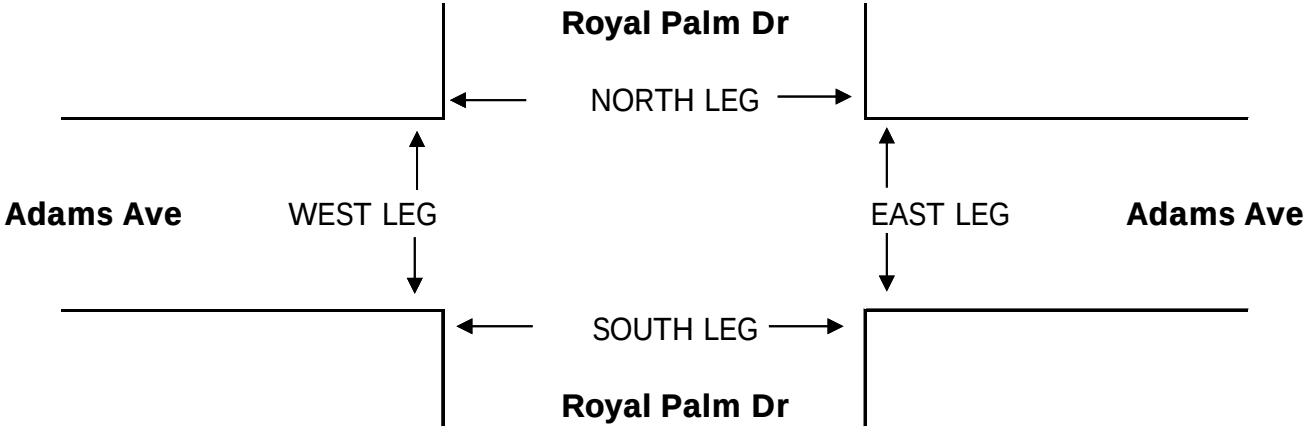
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Royal Palm Dr			Royal Palm Dr			Adams Ave			Adams Ave			
LANES:	NL 1	NT 0.5	NR 0.5	SL 1	ST 1	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 1	TOTAL

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

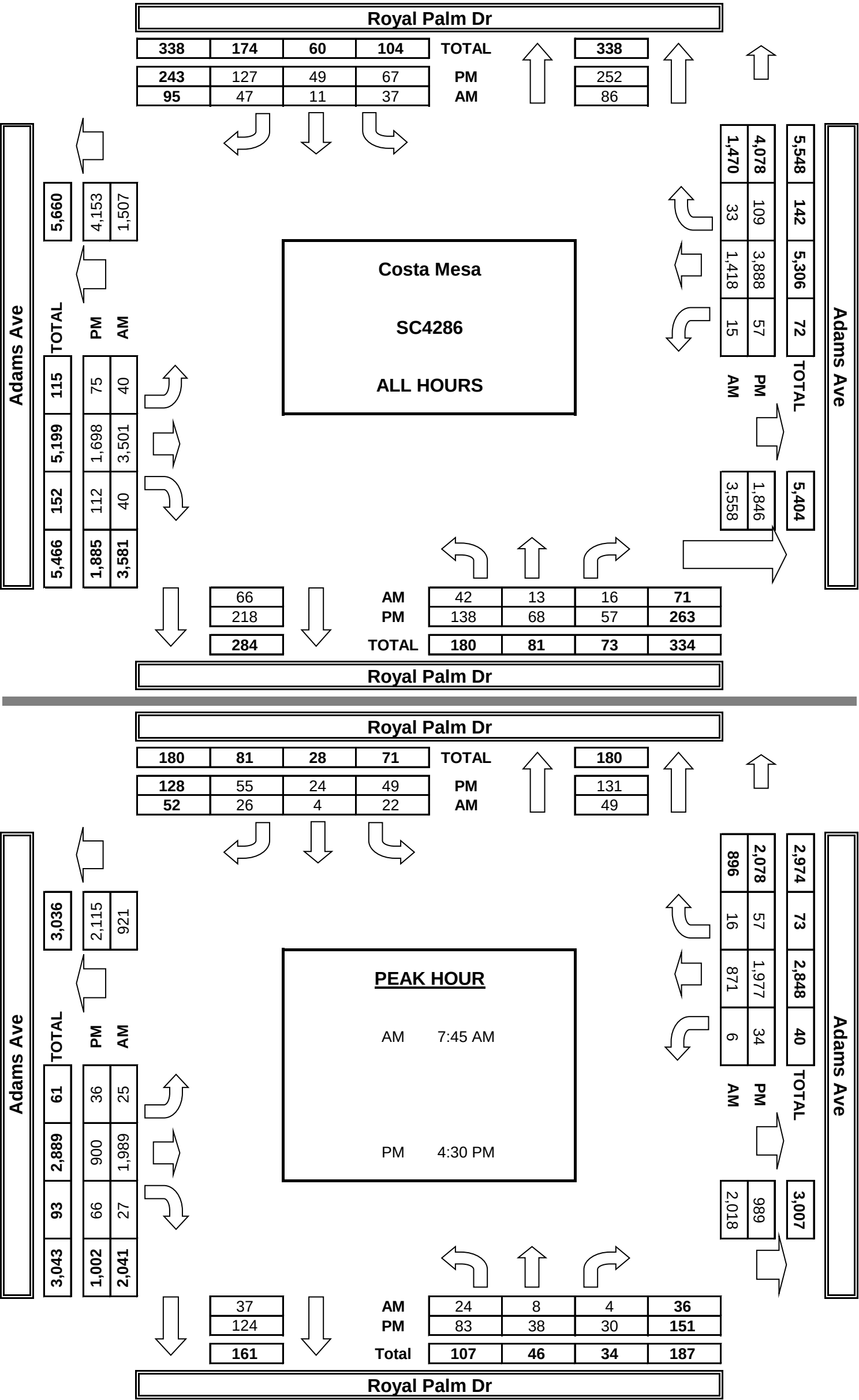
AM	7:00 AM	6	1	3	4	0	7	4	218	2	1	92	3	341
	7:15 AM	4	1	1	3	0	5	4	386	2	1	134	3	544
	7:30 AM	3	2	0	4	3	6	1	445	2	0	150	5	621
	7:45 AM	5	3	0	6	1	3	4	524	6	1	222	5	780
	8:00 AM	5	1	0	7	1	7	4	486	1	0	240	2	754
	8:15 AM	7	3	1	6	2	11	7	496	7	2	209	6	757
	8:30 AM	7	1	3	3	0	5	10	483	13	3	200	3	731
	8:45 AM	5	1	8	4	4	3	6	463	7	7	171	6	685
	VOLUMES	42	13	16	37	11	47	40	3,501	40	15	1,418	33	5,217
	APPROACH %	59%	18%	23%	39%	12%	49%	1%	98%	1%	1%	96%	2%	
PM	APP/DEPART	71	/	86	95	/	66	3,581	/	3,558	1,470	/	1,507	0
	BEGIN PEAK HR	7:45 AM												
	VOLUMES	24	8	4	22	4	26	25	1,989	27	6	871	16	3,025
	APPROACH %	67%	22%	11%	42%	8%	50%	1%	97%	1%	1%	97%	2%	
	PEAK HR FACTOR	0.818			0.684			0.956			0.922			0.970
	APP/DEPART	36	/	49	52	/	37	2,041	/	2,018	896	/	921	0
	4:00 PM	17	5	7	5	7	15	12	165	11	5	504	4	757
	4:15 PM	16	11	8	5	7	21	5	194	13	2	488	14	784
	4:30 PM	19	16	6	13	5	11	5	225	17	7	492	20	836
	4:45 PM	17	3	9	10	4	17	11	272	18	11	503	15	890
	5:00 PM	18	11	10	9	6	15	5	182	18	10	491	7	782
	5:15 PM	29	8	5	17	9	12	15	221	13	6	491	15	841
	5:30 PM	12	6	7	5	4	17	8	232	9	8	475	18	801
	5:45 PM	10	8	5	3	7	19	14	207	13	8	444	16	754
	VOLUMES	138	68	57	67	49	127	75	1,698	112	57	3,888	109	6,469
	APPROACH %	52%	26%	22%	28%	20%	52%	4%	90%	6%	1%	95%	3%	
	APP/DEPART	263	/	252	243	/	218	1,885	/	1,846	4,078	/	4,153	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	83	38	30	49	24	55	36	900	66	34	1,977	57	3,359
	APPROACH %	55%	25%	20%	38%	19%	43%	4%	90%	7%	2%	95%	3%	
	PEAK HR FACTOR	0.899			0.842			0.832			0.978			0.941
	APP/DEPART	151	/	131	128	/	124	1,002	/	989	2,078	/	2,115	0

0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	0	2	2
0	0	0	0	0
0	0	0	0	0
0	0	0	4	4

0	0	0	4	4
0	0	0	3	3
0	0	0	2	2
0	0	0	2	2
0	0	0	3	3
0	0	0	3	3
0	0	0	2	2
0	0	0	5	5
0	0	0	24	24



AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

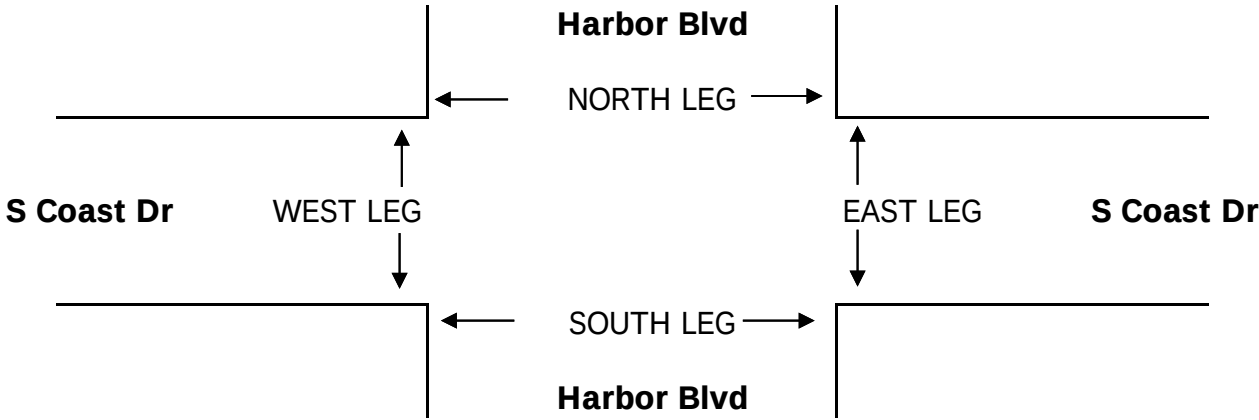
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

T101823

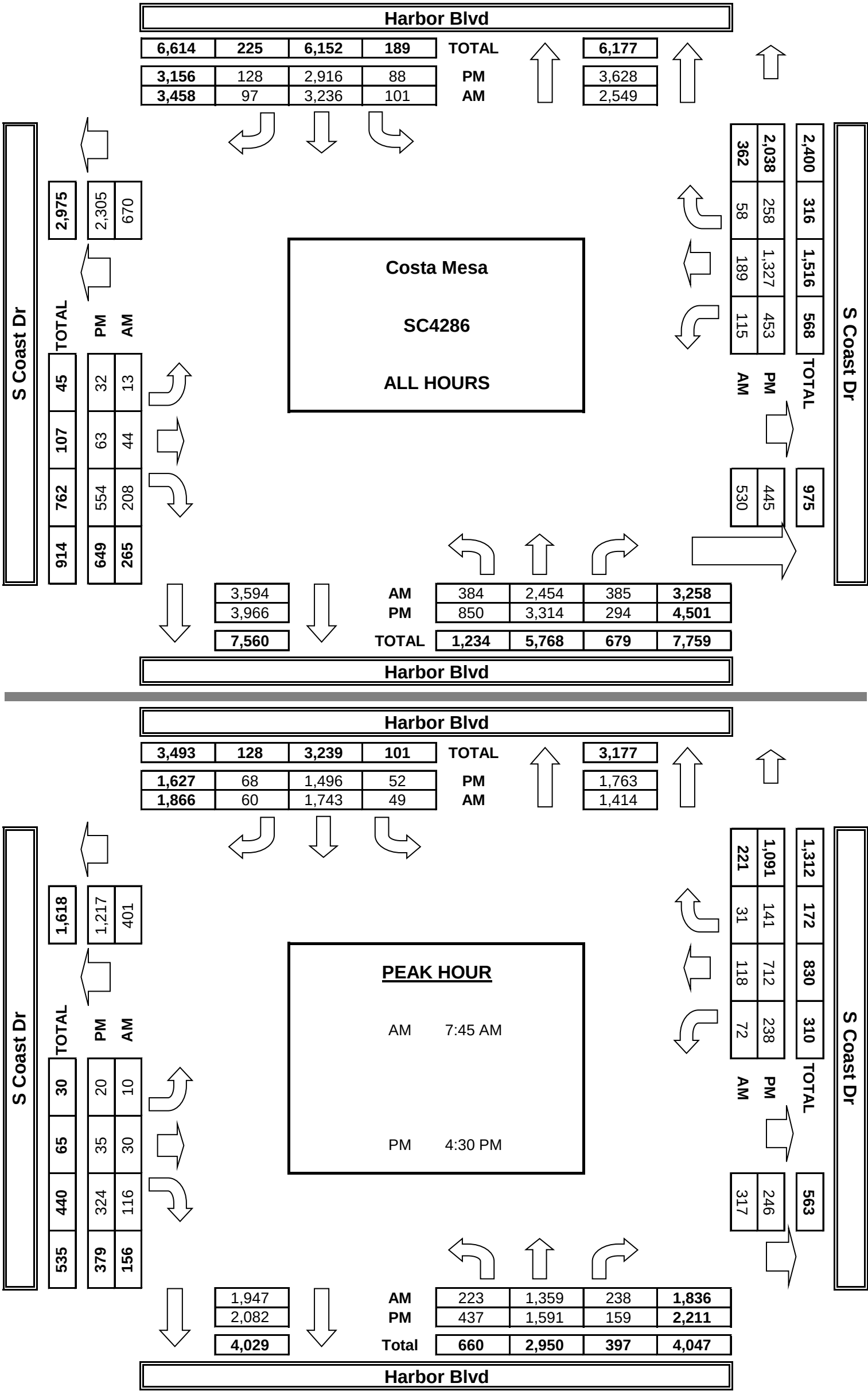
DATE: Thu, Nov 2, 23		LOCATION: NORTH & SOUTH: EAST & WEST:		Costa Mesa Harbor Blvd S Coast Dr		PROJECT #: LOCATION #: CONTROL:		SC4286 4 SIGNAL					
NOTES:						AM		▲					
						PM		N					
						MD	◀ W		E ▶				
						OTHER		S					
						OTHER		▼					
	NORTHBOUND Harbor Blvd			SOUTHBOUND Harbor Blvd			EASTBOUND S Coast Dr			WESTBOUND S Coast Dr			
LANES:	NL 2	NT 4	NR 1	SL 2	ST 4	SR 1	EL 1	ET 0.5	ER 1.5	WL 2	WT 2	WR 1	TOTAL
7:00 AM	39	201	39	6	312	7	0	3	19	7	17	6	656
7:15 AM	24	246	30	9	336	5	0	4	18	10	10	7	699
7:30 AM	34	309	36	14	433	15	0	2	28	10	11	9	901
7:45 AM	44	394	58	12	414	11	3	5	22	15	26	7	1,011
8:00 AM	68	316	73	11	450	20	1	9	35	20	30	8	1,041
8:15 AM	52	314	47	16	441	17	4	9	32	15	30	8	985
8:30 AM	59	335	60	10	438	12	2	7	27	22	32	8	1,012
8:45 AM	64	339	42	23	412	10	3	5	27	16	33	5	979
VOLUMES	384	2,454	385	101	3,236	97	13	44	208	115	189	58	7,343
APPROACH %	12%	75%	12%	3%	94%	3%	5%	17%	78%	32%	52%	16%	
APP/DEPART	3,258	/	2,549	3,458	/	3,594	265	/	530	362	/	670	0
BEGIN PEAK HR	7:45 AM												
VOLUMES	223	1,359	238	49	1,743	60	10	30	116	72	118	31	4,079
APPROACH %	12%	74%	13%	3%	93%	3%	6%	19%	74%	33%	53%	14%	
PEAK HR FACTOR	0.918			0.964			0.867			0.891			0.974
APP/DEPART	1,836	/	1,414	1,866	/	1,947	156	/	317	221	/	401	0
4:00 PM	128	418	28	8	350	13	2	7	64	55	144	23	1,240
4:15 PM	105	458	28	9	358	14	2	7	57	54	141	21	1,254
4:30 PM	107	391	40	12	356	19	4	8	83	52	176	30	1,278
4:45 PM	119	373	40	14	344	19	6	11	73	49	176	31	1,255
5:00 PM	102	443	38	14	424	8	4	9	85	65	159	37	1,388
5:15 PM	109	384	41	12	372	22	6	7	83	72	201	43	1,352
5:30 PM	84	438	46	13	352	18	1	6	58	54	156	39	1,265
5:45 PM	96	409	33	6	360	15	7	8	51	52	174	34	1,245
VOLUMES	850	3,314	294	88	2,916	128	32	63	554	453	1,327	258	10,344
APPROACH %	19%	74%	7%	3%	92%	4%	5%	10%	85%	22%	65%	13%	
APP/DEPART	4,501	/	3,628	3,156	/	3,966	649	/	445	2,038	/	2,305	0
BEGIN PEAK HR	4:30 PM												
VOLUMES	437	1,591	159	52	1,496	68	20	35	324	238	712	141	5,308
APPROACH %	20%	72%	7%	3%	92%	4%	5%	9%	85%	22%	65%	13%	
PEAK HR FACTOR	0.934			0.904			0.967			0.863			0.947
APP/DEPART	2,211	/	1,763	1,627	/	2,082	379	/	246	1,091	/	1,217	0

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	
3	2	0	0	5
1	3	0	0	4
1	2	0	0	3
4	2	0	0	6
3	3	0	0	6
7	6	0	0	13
2	3	0	0	5
14	3	0	0	17
35	24	0	0	59

6	4	0	0	10
5	5	0	0	10
3	2	0	0	5
3	3	0	0	6
9	4	0	0	13
9	2	0	0	11
5	3	0	0	8
3	1	0	0	4
43	24	0	0	67



AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

T101823

DATE:
Thu, Nov 2, 23

LOCATION: Costa Mesa
NORTH & SOUTH: Harbor Blvd
EAST & WEST: I-405 WB Ramps

PROJECT #: SC4286
LOCATION #: 5
CONTROL: SIGNAL

NOTES:	AM		▲	
	PM		N	
	MD	◀ W		E ▶
	OTHER		S	
	OTHER		▼	

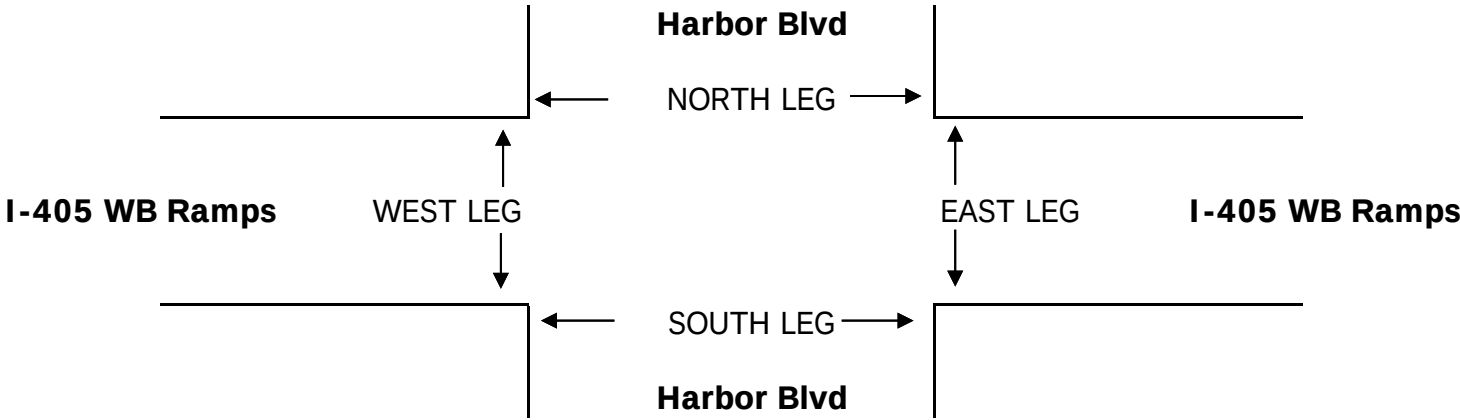
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Harbor Blvd			Harbor Blvd			I-405 WB Ramps			I-405 WB Ramps			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	X	3	1	X	5	X	X	X	X	1.5	X	1.5	

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

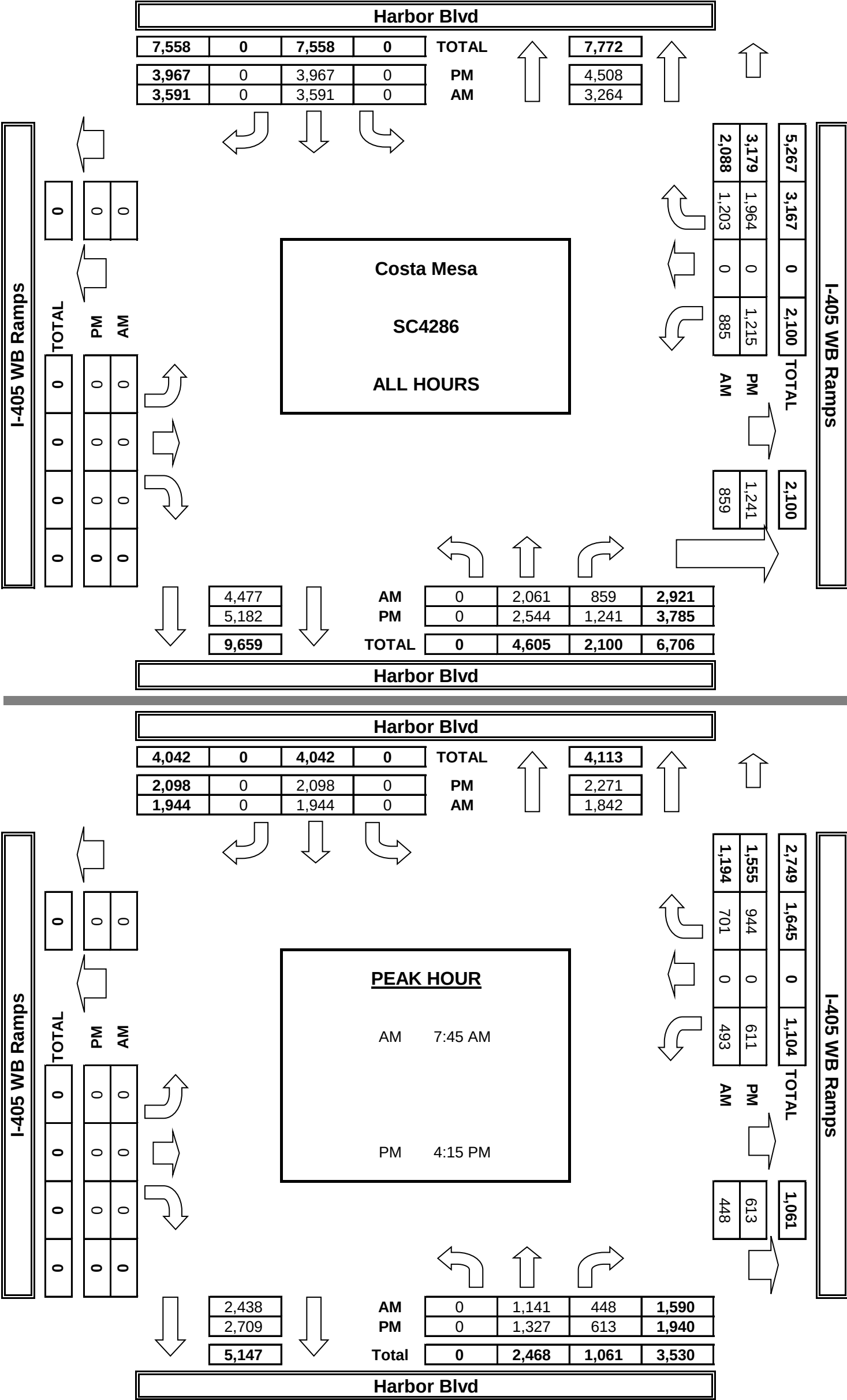
AM	7:00 AM	0	181	76	0	341	0	0	0	0	73	0	101	772
	7:15 AM	0	203	115	0	365	0	0	0	0	96	0	98	877
	7:30 AM	0	242	134	0	472	0	0	0	0	102	0	138	1,088
	7:45 AM	0	309	111	0	452	0	0	0	0	148	0	191	1,211
	8:00 AM	0	286	121	0	508	0	0	0	0	115	0	170	1,200
	8:15 AM	0	256	101	0	495	0	0	0	0	124	0	164	1,140
	8:30 AM	0	290	115	0	489	0	0	0	0	106	0	176	1,176
	8:45 AM	0	294	86	0	469	0	0	0	0	121	0	165	1,135
	VOLUMES	0	2,061	859	0	3,591	0	0	0	0	885	0	1,203	8,600
	APPROACH %	0%	71%	29%	0%	100%	0%	0%	0%	0%	42%	0%	58%	
	APP/DEPART	2,921	/	3,264	3,591	/	4,477	0	/	859	2,088	/	0	0
	BEGIN PEAK HR	7:45 AM												
	VOLUMES	0	1,141	448	0	1,944	0	0	0	0	493	0	701	4,728
	APPROACH %	0%	72%	28%	0%	100%	0%	0%	0%	0%	41%	0%	59%	
	PEAK HR FACTOR	0.944			0.957			0.000			0.881			0.975
	APP/DEPART	1,590	/	1,842	1,944	/	2,438	0	/	448	1,194	/	0	0
PM	4:00 PM	0	334	126	0	455	0	0	0	0	134	0	246	1,295
	4:15 PM	0	349	147	0	482	0	0	0	0	140	0	247	1,365
	4:30 PM	0	322	169	0	523	0	0	0	0	163	0	219	1,396
	4:45 PM	0	335	137	0	484	0	0	0	0	152	0	201	1,309
	5:00 PM	0	321	160	0	609	0	0	0	0	156	0	277	1,523
	5:15 PM	0	286	157	0	497	0	0	0	0	141	0	257	1,338
	5:30 PM	0	305	185	0	477	0	0	0	0	176	0	268	1,411
	5:45 PM	0	292	160	0	440	0	0	0	0	153	0	249	1,294
	VOLUMES	0	2,544	1,241	0	3,967	0	0	0	0	1,215	0	1,964	10,931
	APPROACH %	0%	67%	33%	0%	100%	0%	0%	0%	0%	38%	0%	62%	
	APP/DEPART	3,785	/	4,508	3,967	/	5,182	0	/	1,241	3,179	/	0	0
	BEGIN PEAK HR	4:15 PM												
	VOLUMES	0	1,327	613	0	2,098	0	0	0	0	611	0	944	5,593
	APPROACH %	0%	68%	32%	0%	100%	0%	0%	0%	0%	39%	0%	61%	
	PEAK HR FACTOR	0.978			0.861			0.000			0.898			0.918
	APP/DEPART	1,940	/	2,271	2,098	/	2,709	0	/	613	1,555	/	0	0

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

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



AimTD LLC
TURNING MOVEMENT COUNTS



City of Costa Mesa
N/S: Harbor Boulevard
E/W: I-405 Northbound Off Ramp
Weather: Clear

File Name : 12_CSM_Harbor_405N Off Ramp AM
Site Code : 00319172
Start Date : 3/14/2019
Page No : 1

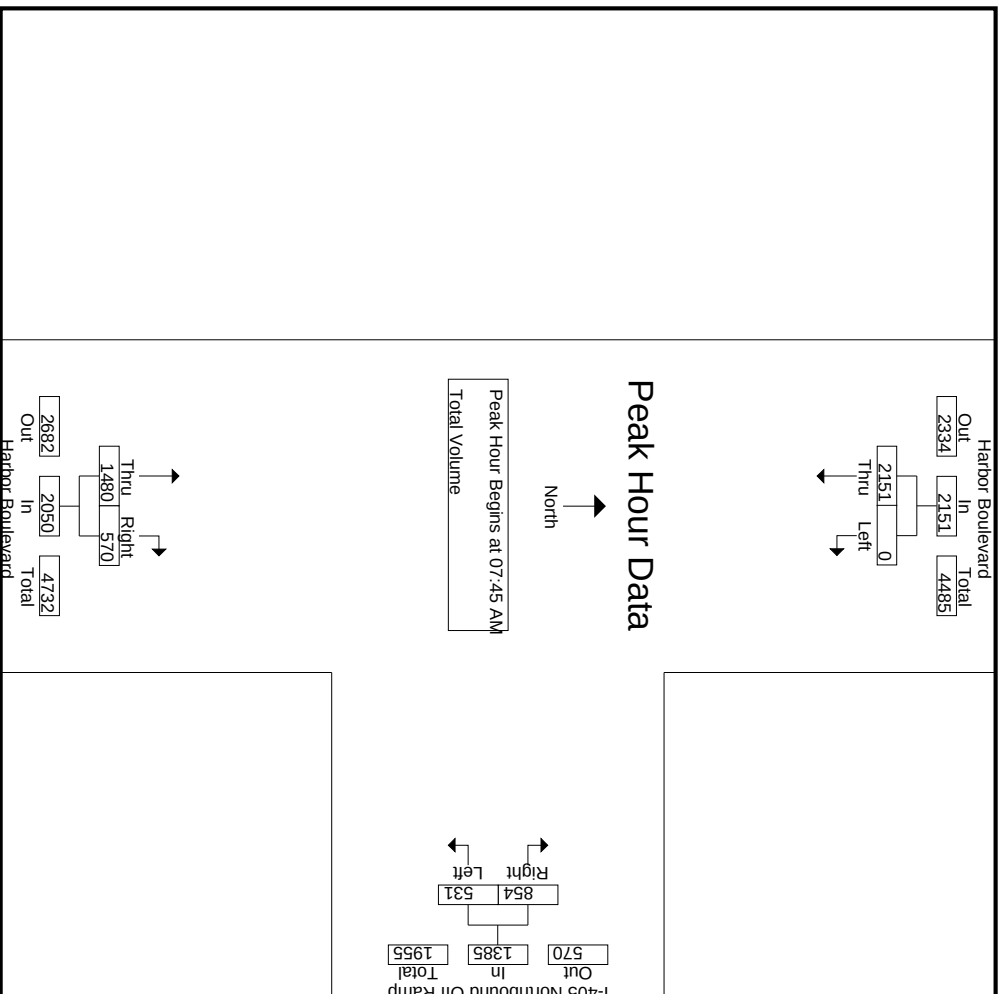
Groups Printed- Total Volume

	Harbor Boulevard Southbound			I-405 Northbound Off Ramp Westbound			Harbor Boulevard Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	458	458	81	154	235	186	129	315	1008
07:15 AM	0	515	515	82	165	247	207	124	331	1093
07:30 AM	0	591	591	112	160	272	302	140	442	1305
07:45 AM	0	564	564	158	218	376	358	151	509	1449
Total	0	2128	2128	433	697	1130	1053	544	1597	4855
08:00 AM	0	545	545	120	200	320	368	144	512	1377
08:15 AM	0	519	519	130	219	349	380	136	516	1384
08:30 AM	0	523	523	123	217	340	374	139	513	1376
08:45 AM	0	558	558	118	234	352	337	135	472	1382
Total	0	2145	2145	491	870	1361	1459	554	2013	5519
Grand Total	0	4273	4273	924	1567	2491	2512	1098	3610	10374
Apprch %	0	100		37.1	62.9		69.6	30.4		
Total %	0	41.2	41.2	8.9	15.1	24	24.2	10.6	34.8	

	Harbor Boulevard Southbound			I-405 Northbound Off Ramp Westbound			Harbor Boulevard Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:45 AM										
07:45 AM	0	564	564	158	218	376	358	151	509	1449
08:00 AM	0	545	545	120	200	320	368	144	512	1377
08:15 AM	0	519	519	130	219	349	380	136	516	1384
08:30 AM	0	523	523	123	217	340	374	139	513	1376
Total Volume	0	2151	2151	531	854	1385	1480	570	2050	5586
% App. Total	0	100		38.3	61.7		72.2	27.8		
PHF	.000	.953	.953	.840	.975	.921	.974	.944	.993	.964

City of Costa Mesa
N/S: Harbor Boulevard
EW: I-405 Northbound Off Ramp
Weather: Clear

File Name : 12_CSM_Harbor_405N Off Ramp AM
Site Code : 00319172
Start Date : 3/14/2019
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM	07:45 AM	07:45 AM	
+0 mins.	0	591	591	
+15 mins.	0	564	564	
+30 mins.	0	545	545	
+45 mins.	0	519	519	
Total Volume	0	2219	2219	
% App. Total	0	100	38.3	
PHF	.000	.939	.939	

City of Costa Mesa
N/S: Harbor Boulevard
E/W: I-405 Northbound Off Ramp
Weather: Clear

File Name : 12_CSM_Harbor_405N Off Ramp PM
Site Code : 00319172
Start Date : 3/14/2019
Page No : 1

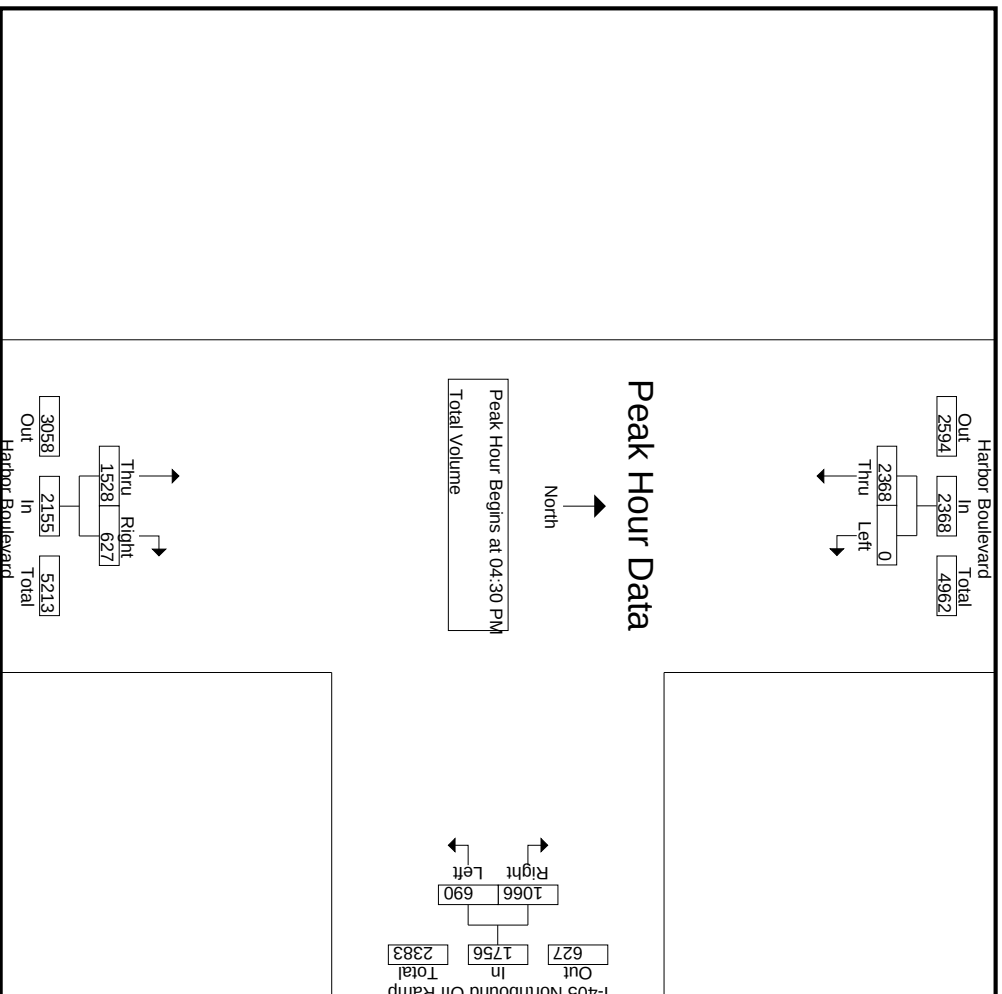
Groups Printed- Total Volume

	Harbor Boulevard Southbound			I-405 Northbound Off Ramp Westbound			Harbor Boulevard Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	501	501	129	258	387	400	138	538	1426
04:15 PM	0	495	495	149	293	442	435	144	579	1516
04:30 PM	0	538	538	154	271	425	412	136	548	1511
04:45 PM	0	552	552	178	283	461	362	184	546	1559
Total	0	2086	2086	610	1105	1715	1609	602	2211	6012
05:00 PM	0	640	640	169	234	403	382	158	540	1583
05:15 PM	0	638	638	189	278	467	372	149	521	1626
05:30 PM	0	536	536	163	284	447	364	123	487	1470
05:45 PM	0	434	434	178	251	429	371	147	518	1381
Total	0	2248	2248	699	1047	1746	1489	577	2066	6060
Grand Total	0	4334	4334	1309	2152	3461	3098	1179	4277	12072
Apprch %	0	100		37.8	62.2		72.4	27.6		
Total %	0	35.9	35.9	10.8	17.8	28.7	25.7	9.8	35.4	

	Harbor Boulevard Southbound			I-405 Northbound Off Ramp Westbound			Harbor Boulevard Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	0	538	538	154	271	425	412	136	548	1511
04:45 PM	0	552	552	178	283	461	362	184	546	1559
05:00 PM	0	640	640	169	234	403	382	158	540	1583
05:15 PM	0	638	638	189	278	467	372	149	521	1626
Total Volume	0	2368	2368	690	1066	1756	1528	627	2155	6279
% App. Total	0	100		39.3	60.7		70.9	29.1		
PHF	.000	.925	.925	.913	.942	.940	.927	.852	.983	.965

City of Costa Mesa
N/S: Harbor Boulevard
EW: I-405 Northbound Off Ramp
Weather: Clear

File Name : 12_CSM_Harbor_405N Off Ramp PM
Site Code : 00319172
Start Date : 3/14/2019
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM	04:45 PM	04:15 PM	
+0 mins.	0	538	538	579
+15 mins.	0	552	552	548
+30 mins.	0	640	640	546
+45 mins.	0	638	638	540
Total Volume	0	2368	2368	2213
% App. Total	0	100	39.3	
PHF	.000	.925	.950	.956

INTERSECTION TURNING MOVEMENT COUNTS

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

T101823

DATE:
Thu, Nov 2, 23

LOCATION: Costa Mesa
NORTH & SOUTH: Harbor Blvd
EAST & WEST: I-405 EB of Ramps

PROJECT #: SC4286
LOCATION #: 6
CONTROL: SIGNAL

NOTES:	Queue SB AM/PM	AM		▲	
		PM		N	
		MD	◀ W		E ▶
		OTHER		S	
		OTHER		▼	

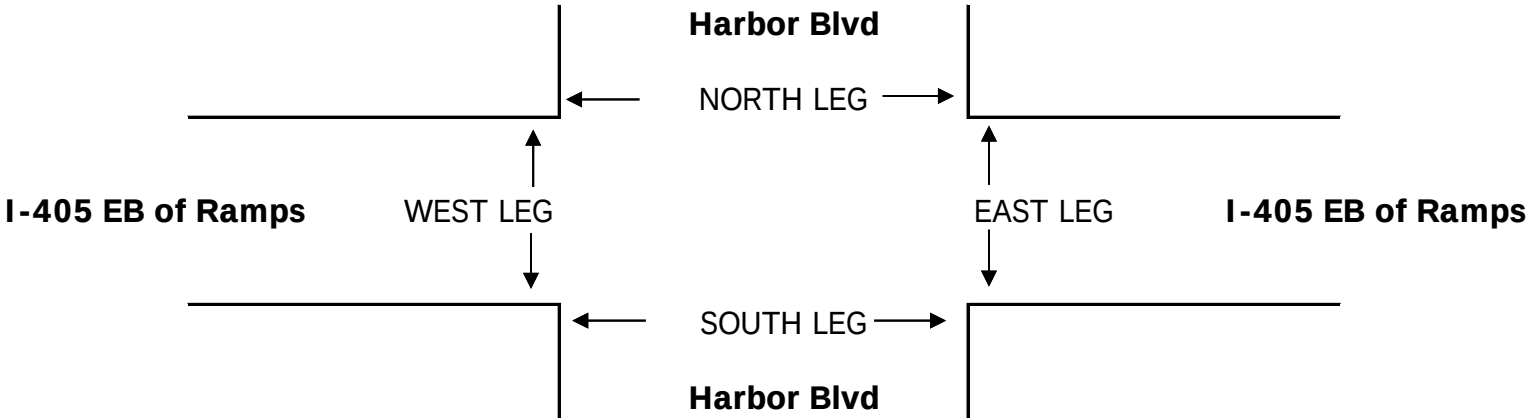
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Harbor Blvd			Harbor Blvd			I-405 EB of Ramps			I-405 EB of Ramps			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	X	4	2	X	4	0	1,5	X	1,5	X	X	X	

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

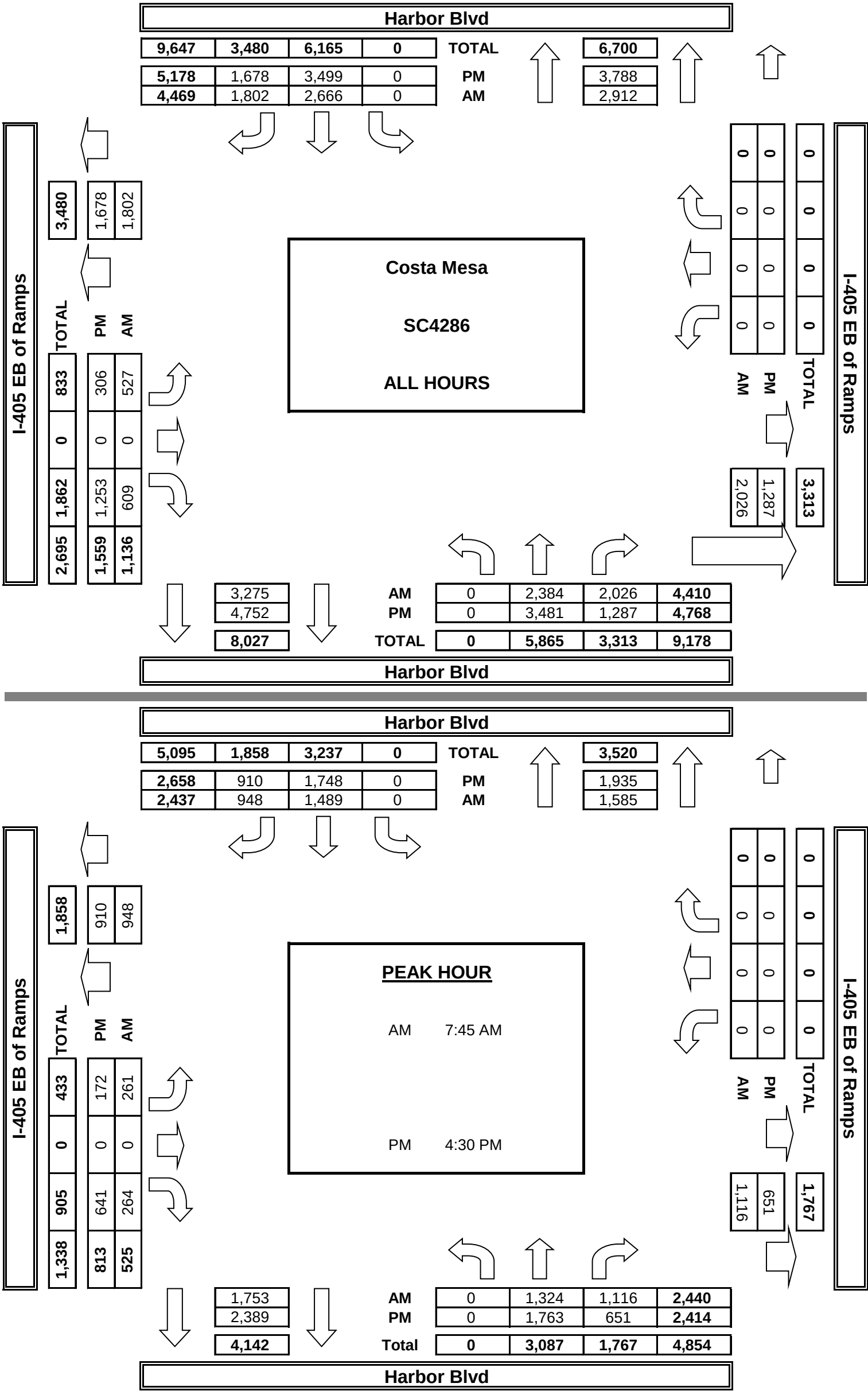
AM	7:00 AM	0	173	165	0	224	190	89	0	104	0	0	0	945
	7:15 AM	0	248	221	0	250	211	67	0	87	0	0	0	1,084
	7:30 AM	0	298	270	0	314	260	61	0	74	0	0	0	1,277
	7:45 AM	0	354	282	0	373	227	78	0	58	0	0	0	1,372
	8:00 AM	0	355	298	0	383	240	65	0	67	0	0	0	1,408
	8:15 AM	0	312	285	0	379	240	46	0	73	0	0	0	1,335
	8:30 AM	0	303	251	0	354	241	72	0	66	0	0	0	1,287
	8:45 AM	0	341	254	0	389	193	49	0	80	0	0	0	1,306
	VOLUMES	0	2,384	2,026	0	2,666	1,802	527	0	609	0	0	0	10,015
	APPROACH %	0%	54%	46%	0%	60%	40%	46%	0%	54%	0%	0%	0%	
	APP/DEPART	4,410	/	2,912	4,469	/	3,275	1,136	/	2,026	0	/	1,802	0
	BEGIN PEAK HR	7:45 AM												
	VOLUMES	0	1,324	1,116	0	1,489	948	261	0	264	0	0	0	5,402
	APPROACH %	0%	54%	46%	0%	61%	39%	50%	0%	50%	0%	0%	0%	
	PEAK HR FACTOR	0.934			0.978			0.951			0.000			0.959
	APP/DEPART	2,440	/	1,585	2,437	/	1,753	525	/	1,116	0	/	948	0
PM	4:00 PM	0	452	169	0	414	208	32	0	147	0	0	0	1,422
	4:15 PM	0	440	168	0	426	199	33	0	142	0	0	0	1,408
	4:30 PM	0	441	167	0	435	223	44	0	158	0	0	0	1,468
	4:45 PM	0	438	154	0	424	210	44	0	164	0	0	0	1,434
	5:00 PM	0	459	165	0	466	267	40	0	160	0	0	0	1,557
	5:15 PM	0	425	165	0	423	210	44	0	159	0	0	0	1,426
	5:30 PM	0	412	155	0	439	192	29	0	163	0	0	0	1,390
	5:45 PM	0	414	144	0	472	169	40	0	160	0	0	0	1,399
	VOLUMES	0	3,481	1,287	0	3,499	1,678	306	0	1,253	0	0	0	11,505
	APPROACH %	0%	73%	27%	0%	68%	32%	20%	0%	80%	0%	0%	0%	
	APP/DEPART	4,768	/	3,788	5,178	/	4,752	1,559	/	1,287	0	/	1,678	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	0	1,763	651	0	1,748	910	172	0	641	0	0	0	5,885
	APPROACH %	0%	73%	27%	0%	66%	34%	21%	0%	79%	0%	0%	0%	
	PEAK HR FACTOR	0.967			0.907			0.977			0.000			0.945
	APP/DEPART	2,414	/	1,935	2,658	/	2,389	813	/	651	0	/	910	0

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

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



AimTD LLC
TURNING MOVEMENT COUNTS



City of Costa Mesa
N/S: Harbor Boulevard
E/W: I-405 Southbound Off Ramp
Weather: Clear

File Name : 11_CSM_Harbor_405S Off Ramp AM
Site Code : 00319172
Start Date : 3/14/2019
Page No : 1

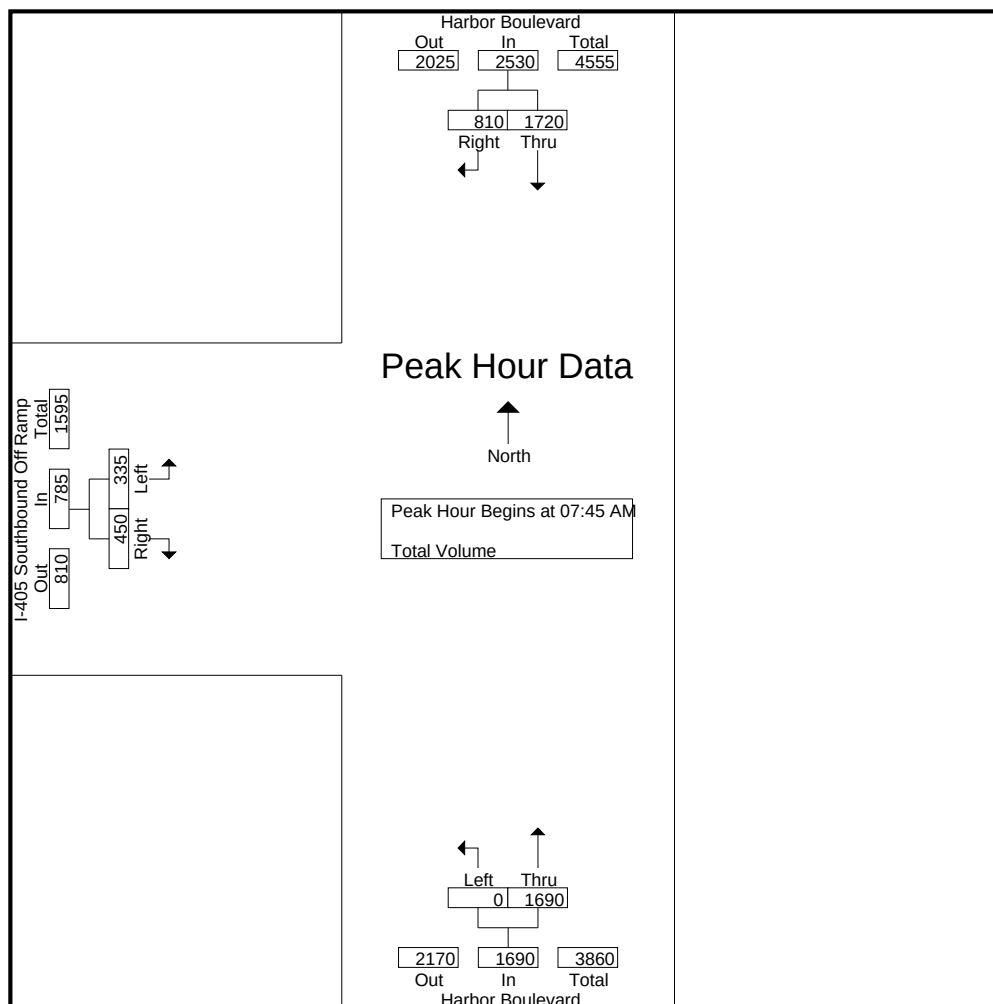
Groups Printed- Total Volume

	Harbor Boulevard Southbound			Harbor Boulevard Northbound			I-405 Southbound Off Ramp Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
07:00 AM	238	210	448	0	268	268	56	96	152	868
07:15 AM	284	197	481	0	281	281	57	77	134	896
07:30 AM	373	217	590	0	356	356	83	87	170	1116
07:45 AM	465	211	676	0	425	425	88	104	192	1293
Total	1360	835	2195	0	1330	1330	284	364	648	4173
08:00 AM	420	208	628	0	418	418	80	128	208	1254
08:15 AM	414	194	608	0	434	434	83	106	189	1231
08:30 AM	421	197	618	0	413	413	84	112	196	1227
08:45 AM	453	196	649	0	395	395	93	124	217	1261
Total	1708	795	2503	0	1660	1660	340	470	810	4973
Grand Total	3068	1630	4698	0	2990	2990	624	834	1458	9146
Apprch %	65.3	34.7		0	100		42.8	57.2		
Total %	33.5	17.8	51.4	0	32.7	32.7	6.8	9.1	15.9	

	Harbor Boulevard Southbound			Harbor Boulevard Northbound			I-405 Southbound Off Ramp Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:45 AM										
07:45 AM	465	211	676	0	425	425	88	104	192	1293
08:00 AM	420	208	628	0	418	418	80	128	208	1254
08:15 AM	414	194	608	0	434	434	83	106	189	1231
08:30 AM	421	197	618	0	413	413	84	112	196	1227
Total Volume	1720	810	2530	0	1690	1690	335	450	785	5005
% App. Total	68	32		0	100		42.7	57.3		
PHF	.925	.960	.936	.000	.974	.974	.952	.879	.944	.968

City of Costa Mesa
N/S: Harbor Boulevard
E/W: I-405 Southbound Off Ramp
Weather: Clear

File Name : 11_CSM_Harbor_405S Off Ramp AM
Site Code : 00319172
Start Date : 3/14/2019
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:45 AM			07:45 AM			08:00 AM		
+0 mins.	465	211	676	0	425	425	80	128	208
+15 mins.	420	208	628	0	418	418	83	106	189
+30 mins.	414	194	608	0	434	434	84	112	196
+45 mins.	421	197	618	0	413	413	93	124	217
Total Volume	1720	810	2530	0	1690	1690	340	470	810
% App. Total	68	32		0	100		42	58	
PHF	.925	.960	.936	.000	.974	.974	.914	.918	.933

City of Costa Mesa
N/S: Harbor Boulevard
E/W: I-405 Southbound Off Ramp
Weather: Clear

File Name : 11_CSM_Harbor_405S Off Ramp PM
Site Code : 00319172
Start Date : 3/14/2019
Page No : 1

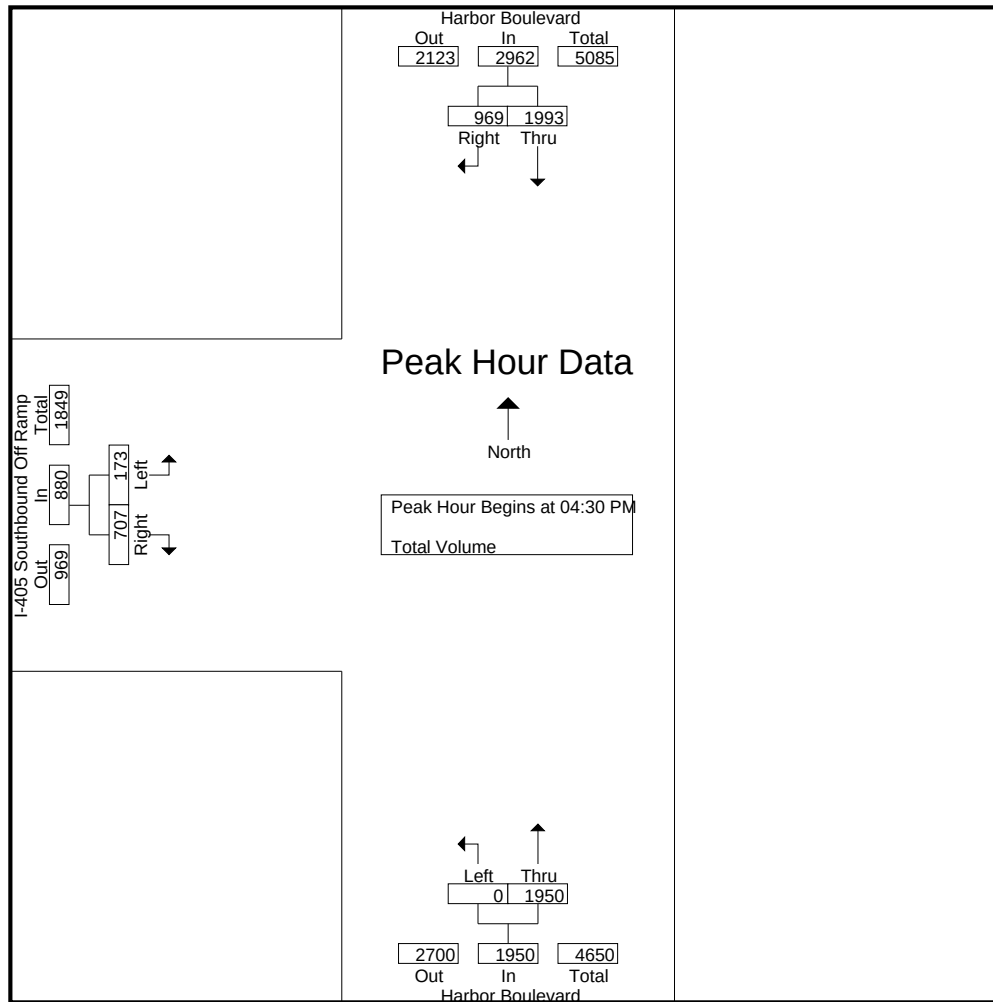
Groups Printed- Total Volume

	Harbor Boulevard Southbound			Harbor Boulevard Northbound			I-405 Southbound Off Ramp Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
04:00 PM	421	189	610	0	486	486	43	174	217	1313
04:15 PM	432	204	636	0	530	530	39	168	207	1373
04:30 PM	470	208	678	0	490	490	52	164	216	1384
04:45 PM	479	230	709	0	483	483	41	175	216	1408
Total	1802	831	2633	0	1989	1989	175	681	856	5478
05:00 PM	526	268	794	0	490	490	46	185	231	1515
05:15 PM	518	263	781	0	487	487	34	183	217	1485
05:30 PM	486	179	665	0	438	438	35	194	229	1332
05:45 PM	461	166	627	0	471	471	33	212	245	1343
Total	1991	876	2867	0	1886	1886	148	774	922	5675
Grand Total	3793	1707	5500	0	3875	3875	323	1455	1778	11153
Apprch %	69	31		0	100		18.2	81.8		
Total %	34	15.3	49.3	0	34.7	34.7	2.9	13	15.9	

	Harbor Boulevard Southbound			Harbor Boulevard Northbound			I-405 Southbound Off Ramp Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	470	208	678	0	490	490	52	164	216	1384
04:45 PM	479	230	709	0	483	483	41	175	216	1408
05:00 PM	526	268	794	0	490	490	46	185	231	1515
05:15 PM	518	263	781	0	487	487	34	183	217	1485
Total Volume	1993	969	2962	0	1950	1950	173	707	880	5792
% App. Total	67.3	32.7		0	100		19.7	80.3		
PHF	.947	.904	.933	.000	.995	.995	.832	.955	.952	.956

City of Costa Mesa
N/S: Harbor Boulevard
E/W: I-405 Southbound Off Ramp
Weather: Clear

File Name : 11_CSM_Harbor_405S Off Ramp PM
Site Code : 00319172
Start Date : 3/14/2019
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM			04:15 PM			05:00 PM		
+0 mins.	470	208	678	0	530	530	46	185	231
+15 mins.	479	230	709	0	490	490	34	183	217
+30 mins.	526	268	794	0	483	483	35	194	229
+45 mins.	518	263	781	0	490	490	33	212	245
Total Volume	1993	969	2962	0	1993	1993	148	774	922
% App. Total	67.3	32.7		0	100		16.1	83.9	
PHF	.947	.904	.933	.000	.940	.940	.804	.913	.941

INTERSECTION TURNING MOVEMENT COUNTS

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

T101823

DATE: Thu, Nov 2, 23	LOCATION: NORTH & SOUTH: EAST & WEST:	Costa Mesa Harbor Blvd Gisler Ave	PROJECT #: LOCATION #: CONTROL:	SC4286 7 SIGNAL
-------------------------	---	---	---------------------------------------	-----------------------

NOTES:	AM PM MD OTHER OTHER		▲ N S ▼	
Queue AM/PM NB		◀ W		E ▶

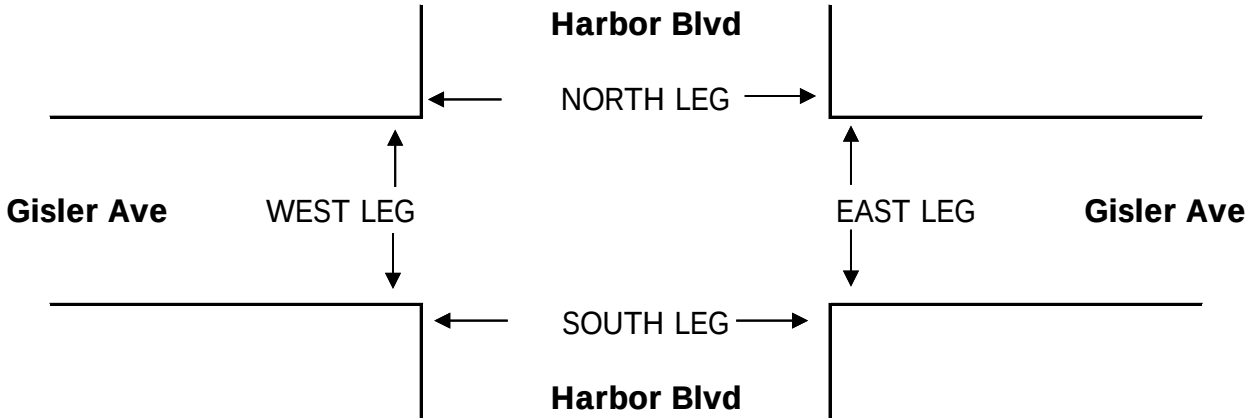
	NORTHBOUND Harbor Blvd			SOUTHBOUND Harbor Blvd			EASTBOUND Gisler Ave			WESTBOUND Gisler Ave			
LANES:	NL 1	NT 4	NR 1	SL 1	ST 4	SR 0	EL 1	ET 1	ER 1	WL 1	WT 1	WR 1	TOTAL

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

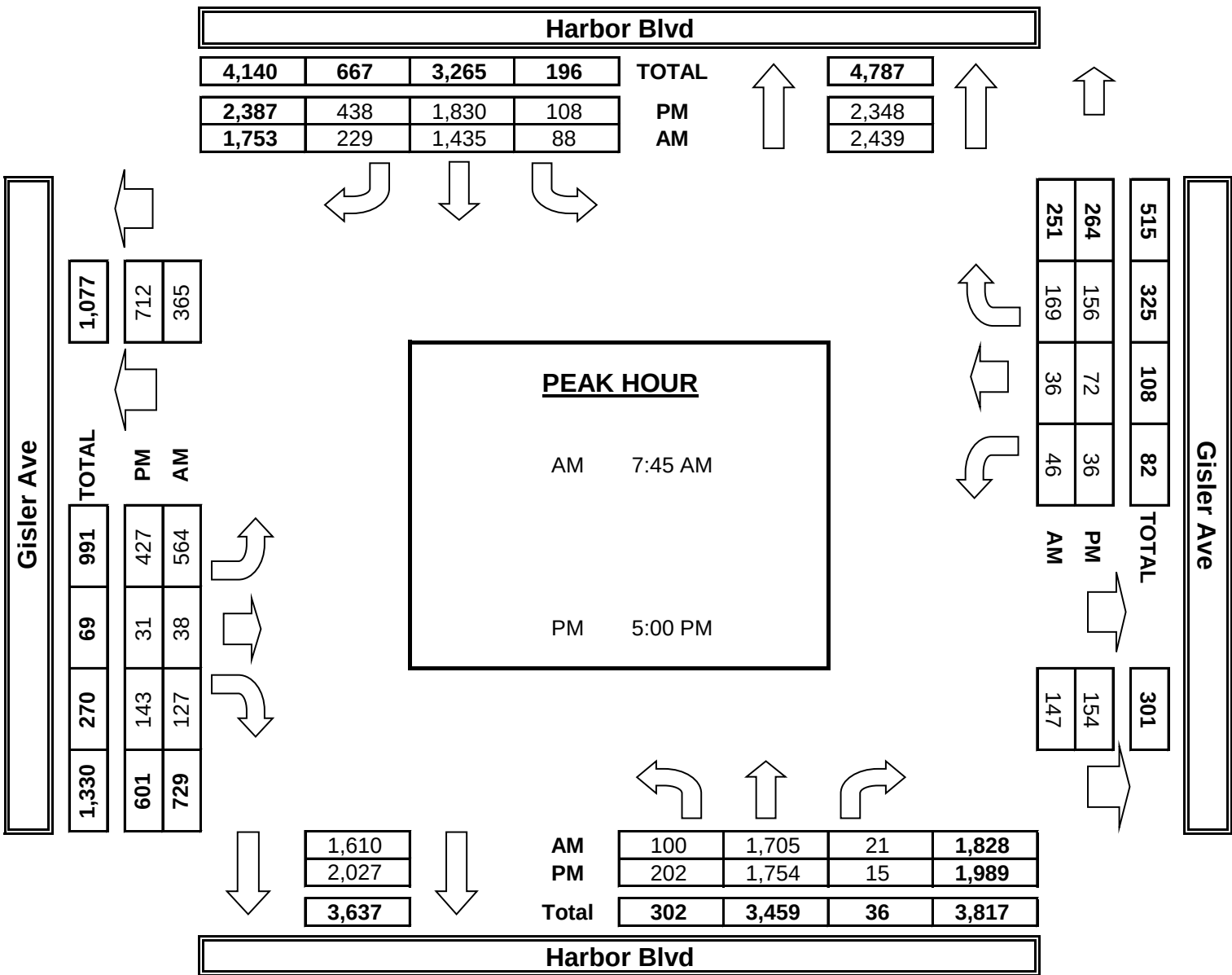
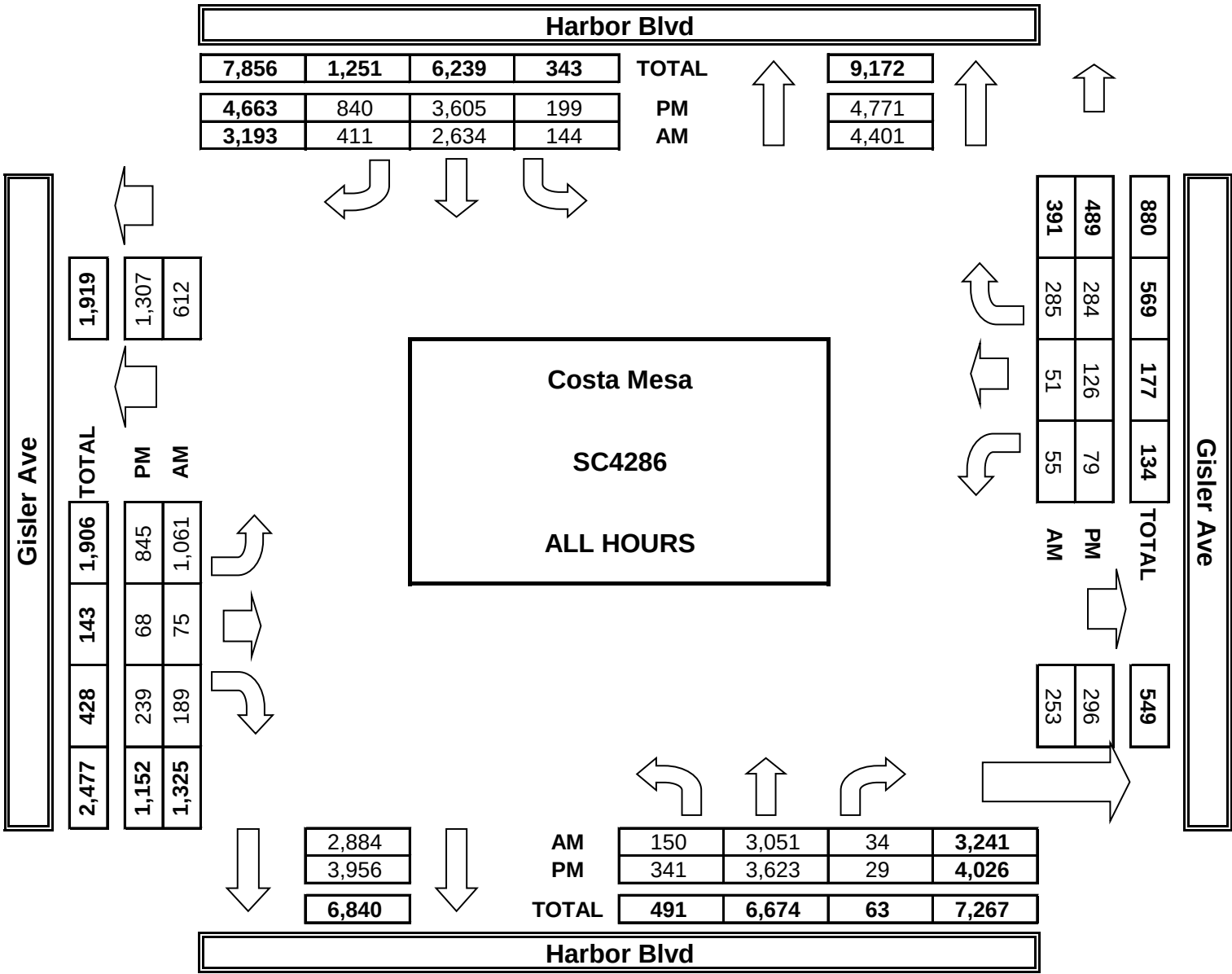
AM	7:00 AM	11	239	3	11	282	30	86	8	11	3	4	21	709
	7:15 AM	8	305	5	16	262	49	115	4	11	2	4	30	811
	7:30 AM	21	381	3	14	264	66	159	9	21	2	3	30	973
	7:45 AM	37	429	3	21	342	68	156	8	44	10	11	44	1,173
	8:00 AM	29	451	5	21	361	65	178	11	43	9	8	35	1,216
	8:15 AM	20	454	8	23	388	55	108	14	21	16	8	40	1,155
	8:30 AM	14	371	5	23	344	41	122	5	19	11	9	50	1,014
	8:45 AM	10	421	2	15	391	37	137	16	19	2	4	35	1,089
	VOLUMES	150	3,051	34	144	2,634	411	1,061	75	189	55	51	285	8,150
	APPROACH %	5%	94%	1%	5%	82%	13%	80%	6%	14%	14%	13%	73%	
	APP/DEPART	3,241	/	4,401	3,193	/	2,884	1,325	/	253	391	/	612	0
	BEGIN PEAK HR	7:45 AM												
PM	VOLUMES	100	1,705	21	88	1,435	229	564	38	127	46	36	169	4,561
	APPROACH %	5%	93%	1%	5%	82%	13%	77%	5%	17%	18%	14%	67%	
	PEAK HR FACTOR	0.940			0.940			0.786			0.896			0.937
	APP/DEPART	1,828	/	2,439	1,753	/	1,610	729	/	147	251	/	365	0
	4:00 PM	25	482	2	23	419	108	104	8	23	7	10	36	1,247
	4:15 PM	35	458	5	23	441	89	109	12	20	17	16	37	1,262
	4:30 PM	30	466	2	25	467	92	111	9	27	9	14	33	1,285
	4:45 PM	49	463	5	20	448	113	94	8	26	10	14	22	1,272
	5:00 PM	47	469	4	27	489	108	111	5	33	7	14	38	1,352
	5:15 PM	46	434	4	24	439	109	92	8	34	11	22	39	1,262
	5:30 PM	60	457	5	32	445	100	104	11	26	10	15	36	1,301
	5:45 PM	49	394	2	25	457	121	120	7	50	8	21	43	1,297
	VOLUMES	341	3,623	29	199	3,605	840	845	68	239	79	126	284	10,330
	APPROACH %	8%	90%	1%	4%	77%	18%	73%	6%	21%	16%	26%	58%	
	APP/DEPART	4,026	/	4,771	4,663	/	3,956	1,152	/	296	489	/	1,307	0
	BEGIN PEAK HR	5:00 PM												
	VOLUMES	202	1,754	15	108	1,830	438	427	31	143	36	72	156	5,241
	APPROACH %	10%	88%	1%	5%	77%	18%	71%	5%	24%	14%	27%	59%	
	PEAK HR FACTOR	0.945			0.955			0.849			0.917			0.964
	APP/DEPART	1,989	/	2,348	2,387	/	2,027	601	/	154	264	/	712	0

2	1	0	0	3
1	2	0	0	3
1	0	0	0	1
0	1	0	0	1
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
6	4	0	0	10

2	2	0	0	4
5	0	0	0	5
4	4	0	0	8
4	2	0	0	6
6	1	0	0	7
5	8	0	0	13
3	2	0	0	5
4	0	0	0	4
33	19	0	0	52



AimTD LLC
TURNING MOVEMENT COUNTS



City of Costa Mesa
N/S: Harbor Boulevard
E/W: Baker Street
Weather: Clear

File Name : 19_CSM_Harbor_Baker AM
Site Code : 00319172
Start Date : 3/14/2019
Page No : 1

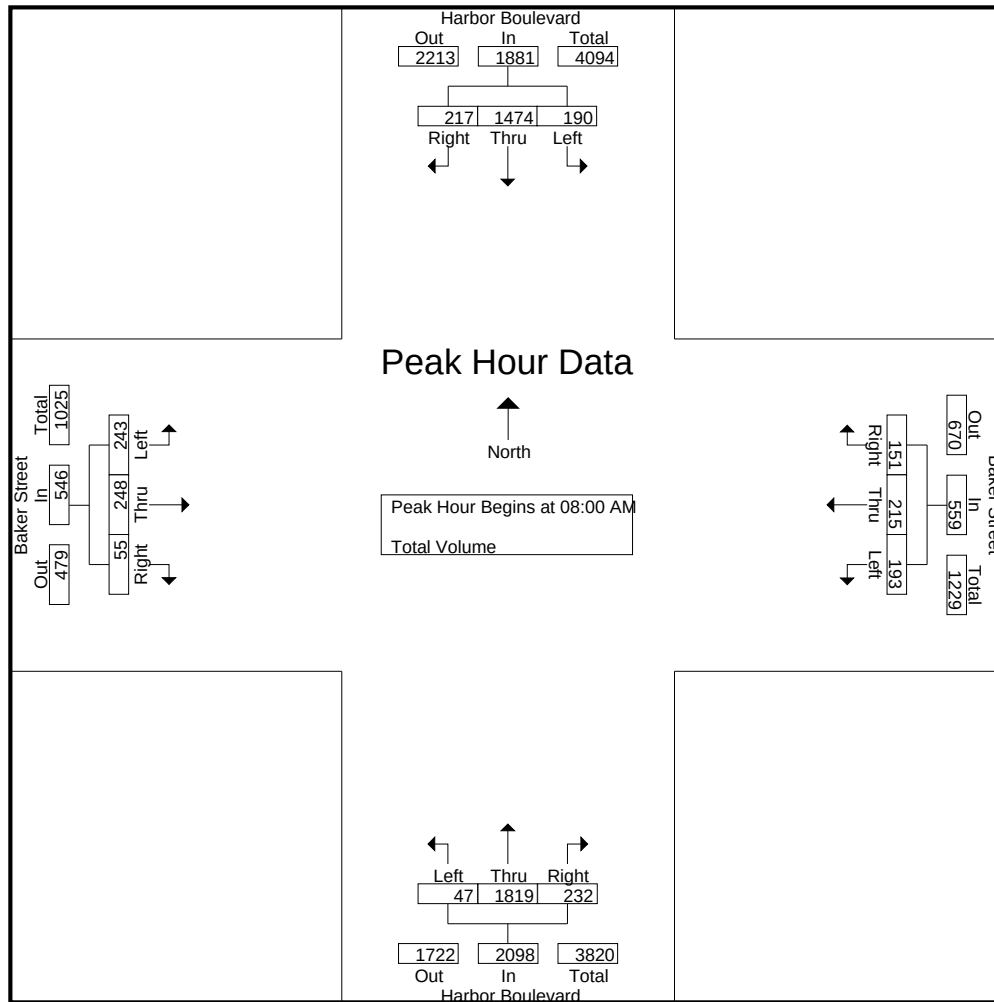
Groups Printed- Total Volume

	Harbor Boulevard Southbound				Baker Street Westbound				Harbor Boulevard Northbound				Baker Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	24	216	27	267	28	19	26	73	3	308	26	337	44	34	2	80	757
07:15 AM	43	237	31	311	27	30	28	85	9	394	34	437	58	35	13	106	939
07:30 AM	51	317	39	407	38	27	35	100	5	400	53	458	42	54	12	108	1073
07:45 AM	48	345	52	445	45	50	34	129	8	413	55	476	62	63	24	149	1199
Total	166	1115	149	1430	138	126	123	387	25	1515	168	1708	206	186	51	443	3968
08:00 AM	36	378	54	468	46	61	49	156	13	459	71	543	72	63	20	155	1322
08:15 AM	47	365	44	456	42	49	40	131	9	452	65	526	56	70	10	136	1249
08:30 AM	51	360	69	480	52	50	28	130	9	453	41	503	54	58	11	123	1236
08:45 AM	56	371	50	477	53	55	34	142	16	455	55	526	61	57	14	132	1277
Total	190	1474	217	1881	193	215	151	559	47	1819	232	2098	243	248	55	546	5084
Grand Total	356	2589	366	3311	331	341	274	946	72	3334	400	3806	449	434	106	989	9052
Apprch %	10.8	78.2	11.1		35	36	29		1.9	87.6	10.5		45.4	43.9	10.7		
Total %	3.9	28.6	4	36.6	3.7	3.8	3	10.5	0.8	36.8	4.4	42	5	4.8	1.2	10.9	

	Harbor Boulevard Southbound				Baker Street Westbound				Harbor Boulevard Northbound				Baker Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	36	378	54	468	46	61	49	156	13	459	71	543	72	63	20	155	1322
08:15 AM	47	365	44	456	42	49	40	131	9	452	65	526	56	70	10	136	1249
08:30 AM	51	360	69	480	52	50	28	130	9	453	41	503	54	58	11	123	1236
08:45 AM	56	371	50	477	53	55	34	142	16	455	55	526	61	57	14	132	1277
Total Volume	190	1474	217	1881	193	215	151	559	47	1819	232	2098	243	248	55	546	5084
% App. Total	10.1	78.4	11.5		34.5	38.5	27		2.2	86.7	11.1		44.5	45.4	10.1		
PHF	.848	.975	.786	.980	.910	.881	.770	.896	.734	.991	.817	.966	.844	.886	.688	.881	.961

City of Costa Mesa
N/S: Harbor Boulevard
E/W: Baker Street
Weather: Clear

File Name : 19_CSM_Harbor_Baker AM
Site Code : 00319172
Start Date : 3/14/2019
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	08:00 AM				08:00 AM				08:00 AM				07:45 AM			
+0 mins.	36	378	54	468	46	61	49	156	13	459	71	543	62	63	24	149
+15 mins.	47	365	44	456	42	49	40	131	9	452	65	526	72	63	20	155
+30 mins.	51	360	69	480	52	50	28	130	9	453	41	503	56	70	10	136
+45 mins.	56	371	50	477	53	55	34	142	16	455	55	526	54	58	11	123
Total Volume	190	1474	217	1881	193	215	151	559	47	1819	232	2098	244	254	65	563
% App. Total	10.1	78.4	11.5		34.5	38.5	27		2.2	86.7	11.1		43.3	45.1	11.5	
PHF	.848	.975	.786	.980	.910	.881	.770	.896	.734	.991	.817	.966	.847	.907	.677	.908

City of Costa Mesa
N/S: Harbor Boulevard
E/W: Baker Street
Weather: Clear

File Name : 19_CSM_Harbor_Baker PM
Site Code : 00319172
Start Date : 3/14/2019
Page No : 1

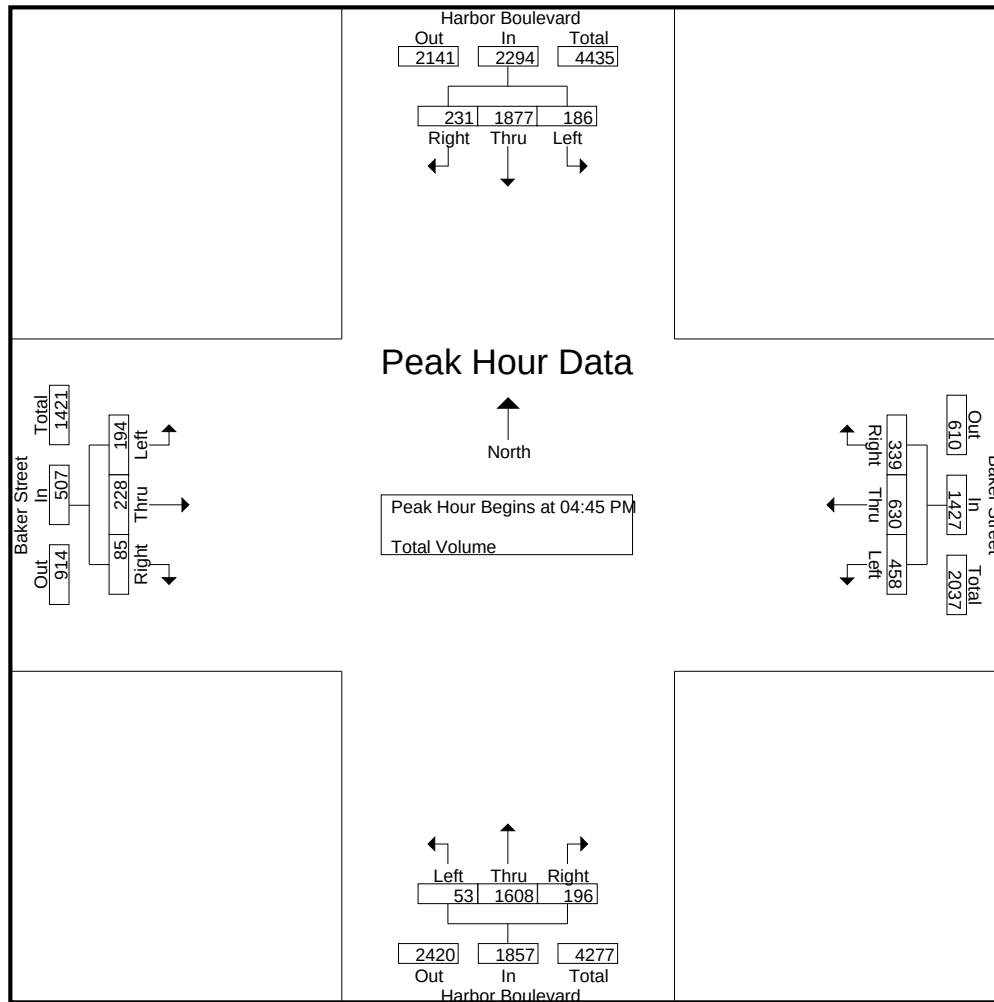
Groups Printed- Total Volume

	Harbor Boulevard Southbound				Baker Street Westbound				Harbor Boulevard Northbound				Baker Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	51	396	57	504	101	124	72	297	13	414	49	476	76	53	18	147	1424
04:15 PM	59	370	50	479	92	114	77	283	17	450	64	531	64	61	9	134	1427
04:30 PM	42	414	57	513	107	158	93	358	21	370	56	447	46	42	19	107	1425
04:45 PM	38	464	49	551	126	166	90	382	13	390	45	448	52	63	22	137	1518
Total	190	1644	213	2047	426	562	332	1320	64	1624	214	1902	238	219	68	525	5794
05:00 PM	43	479	47	569	116	154	76	346	9	403	39	451	49	55	24	128	1494
05:15 PM	53	484	62	599	112	152	90	354	20	427	53	500	49	51	22	122	1575
05:30 PM	52	450	73	575	104	158	83	345	11	388	59	458	44	59	17	120	1498
05:45 PM	50	444	65	559	90	164	74	328	14	384	45	443	53	42	11	106	1436
Total	198	1857	247	2302	422	628	323	1373	54	1602	196	1852	195	207	74	476	6003
Grand Total	388	3501	460	4349	848	1190	655	2693	118	3226	410	3754	433	426	142	1001	11797
Apprch %	8.9	80.5	10.6		31.5	44.2	24.3		3.1	85.9	10.9		43.3	42.6	14.2		
Total %	3.3	29.7	3.9	36.9	7.2	10.1	5.6	22.8	1	27.3	3.5	31.8	3.7	3.6	1.2	8.5	

	Harbor Boulevard Southbound				Baker Street Westbound				Harbor Boulevard Northbound				Baker Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	38	464	49	551	126	166	90	382	13	390	45	448	52	63	22	137	1518
05:00 PM	43	479	47	569	116	154	76	346	9	403	39	451	49	55	24	128	1494
05:15 PM	53	484	62	599	112	152	90	354	20	427	53	500	49	51	22	122	1575
05:30 PM	52	450	73	575	104	158	83	345	11	388	59	458	44	59	17	120	1498
Total Volume	186	1877	231	2294	458	630	339	1427	53	1608	196	1857	194	228	85	507	6085
% App. Total	8.1	81.8	10.1		32.1	44.1	23.8		2.9	86.6	10.6		38.3	45	16.8		
PHF	.877	.970	.791	.957	.909	.949	.942	.934	.663	.941	.831	.929	.933	.905	.885	.925	.966

City of Costa Mesa
N/S: Harbor Boulevard
E/W: Baker Street
Weather: Clear

File Name : 19_CSM_Harbor_Baker PM
Site Code : 00319172
Start Date : 3/14/2019
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				04:30 PM				04:00 PM				04:00 PM			
+0 mins.	43	479	47	569	107	158	93	358	13	414	49	476	76	53	18	147
+15 mins.	53	484	62	599	126	166	90	382	17	450	64	531	64	61	9	134
+30 mins.	52	450	73	575	116	154	76	346	21	370	56	447	46	42	19	107
+45 mins.	50	444	65	559	112	152	90	354	13	390	45	448	52	63	22	137
Total Volume	198	1857	247	2302	461	630	349	1440	64	1624	214	1902	238	219	68	525
% App. Total	8.6	80.7	10.7		32	43.8	24.2		3.4	85.4	11.3		45.3	41.7	13	
PHF	.934	.959	.846	.961	.915	.949	.938	.942	.762	.902	.836	.895	.783	.869	.773	.893

City of Costa Mesa
N/S: Harbor Boulevard
E/W: Nutmeg Place
Weather: Clear

File Name : 18_CSM_Harbor_Nutmeg AM
Site Code : 00319172
Start Date : 3/14/2019
Page No : 1

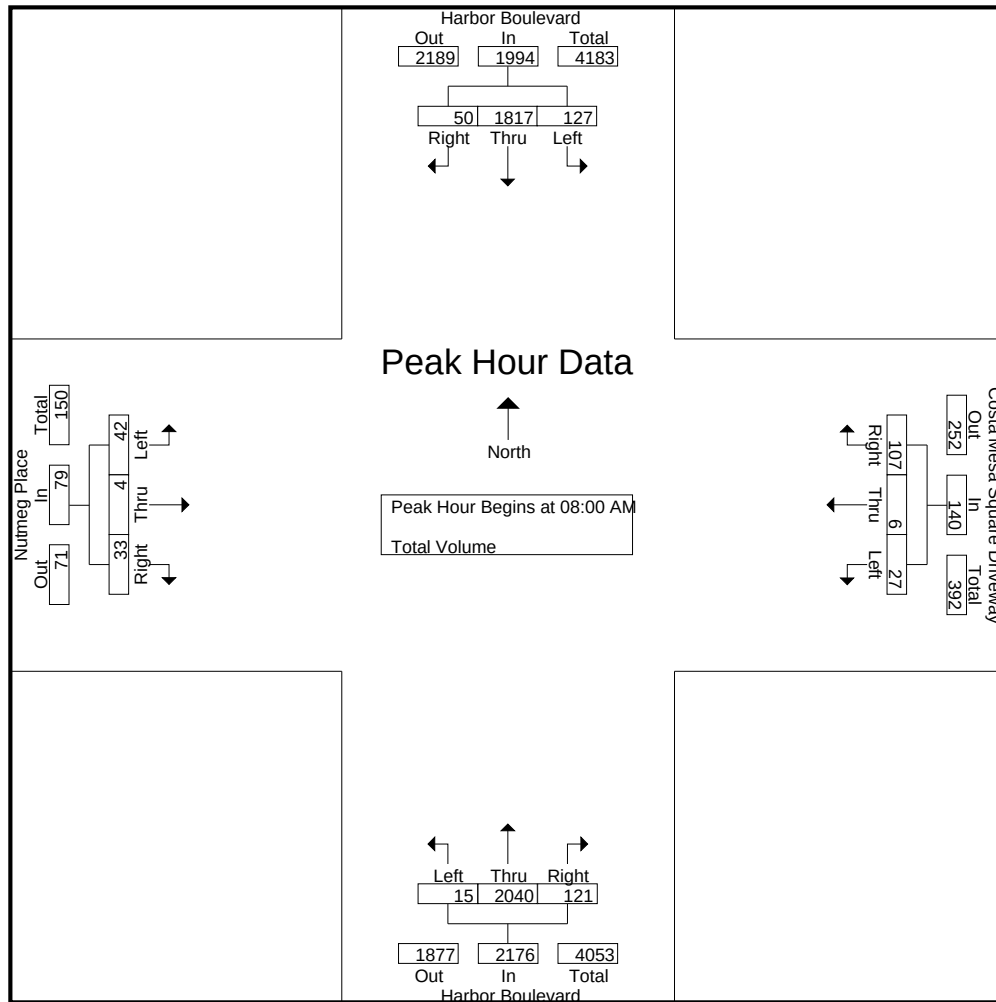
Groups Printed- Total Volume

	Harbor Boulevard Southbound				Costa Mesa Square Driveway Westbound				Harbor Boulevard Northbound				Nutmeg Place Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	13	262	18	293	1	1	14	16	3	347	9	359	6	0	2	8	676
07:15 AM	15	305	14	334	2	1	14	17	1	424	13	438	13	1	6	20	809
07:30 AM	18	399	8	425	6	0	16	22	2	479	8	489	11	3	2	16	952
07:45 AM	31	439	10	480	5	2	18	25	2	506	11	519	13	0	5	18	1042
Total	77	1405	50	1532	14	4	62	80	8	1756	41	1805	43	4	15	62	3479
08:00 AM	34	454	14	502	3	1	24	28	4	525	25	554	9	1	8	18	1102
08:15 AM	24	454	12	490	5	1	24	30	3	510	27	540	11	1	7	19	1079
08:30 AM	32	455	12	499	5	0	24	29	2	496	35	533	11	1	12	24	1085
08:45 AM	37	454	12	503	14	4	35	53	6	509	34	549	11	1	6	18	1123
Total	127	1817	50	1994	27	6	107	140	15	2040	121	2176	42	4	33	79	4389
Grand Total	204	3222	100	3526	41	10	169	220	23	3796	162	3981	85	8	48	141	7868
Apprch %	5.8	91.4	2.8		18.6	4.5	76.8		0.6	95.4	4.1		60.3	5.7	34		
Total %	2.6	41	1.3	44.8	0.5	0.1	2.1	2.8	0.3	48.2	2.1	50.6	1.1	0.1	0.6	1.8	

	Harbor Boulevard Southbound				Costa Mesa Square Driveway Westbound				Harbor Boulevard Northbound				Nutmeg Place Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	34	454	14	502	3	1	24	28	4	525	25	554	9	1	8	18	1102
08:15 AM	24	454	12	490	5	1	24	30	3	510	27	540	11	1	7	19	1079
08:30 AM	32	455	12	499	5	0	24	29	2	496	35	533	11	1	12	24	1085
08:45 AM	37	454	12	503	14	4	35	53	6	509	34	549	11	1	6	18	1123
Total Volume	127	1817	50	1994	27	6	107	140	15	2040	121	2176	42	4	33	79	4389
% App. Total	6.4	91.1	2.5		19.3	4.3	76.4		0.7	93.8	5.6		53.2	5.1	41.8		
PHF	.858	.998	.893	.991	.482	.375	.764	.660	.625	.971	.864	.982	.955	1.00	.688	.823	.977

City of Costa Mesa
N/S: Harbor Boulevard
E/W: Nutmeg Place
Weather: Clear

File Name : 18_CSM_Harbor_Nutmeg AM
Site Code : 00319172
Start Date : 3/14/2019
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	08:00 AM				08:00 AM				08:00 AM				07:45 AM			
+0 mins.	34	454	14	502	3	1	24	28	4	525	25	554	13	0	5	18
+15 mins.	24	454	12	490	5	1	24	30	3	510	27	540	9	1	8	18
+30 mins.	32	455	12	499	5	0	24	29	2	496	35	533	11	1	7	19
+45 mins.	37	454	12	503	14	4	35	53	6	509	34	549	11	1	12	24
Total Volume	127	1817	50	1994	27	6	107	140	15	2040	121	2176	44	3	32	79
% App. Total	6.4	91.1	2.5		19.3	4.3	76.4		0.7	93.8	5.6		55.7	3.8	40.5	
PHF	.858	.998	.893	.991	.482	.375	.764	.660	.625	.971	.864	.982	.846	.750	.667	.823

City of Costa Mesa
N/S: Harbor Boulevard
E/W: Nutmeg Place
Weather: Clear

File Name : 18_CSM_Harbor_Nutmeg PM
Site Code : 00319172
Start Date : 3/14/2019
Page No : 1

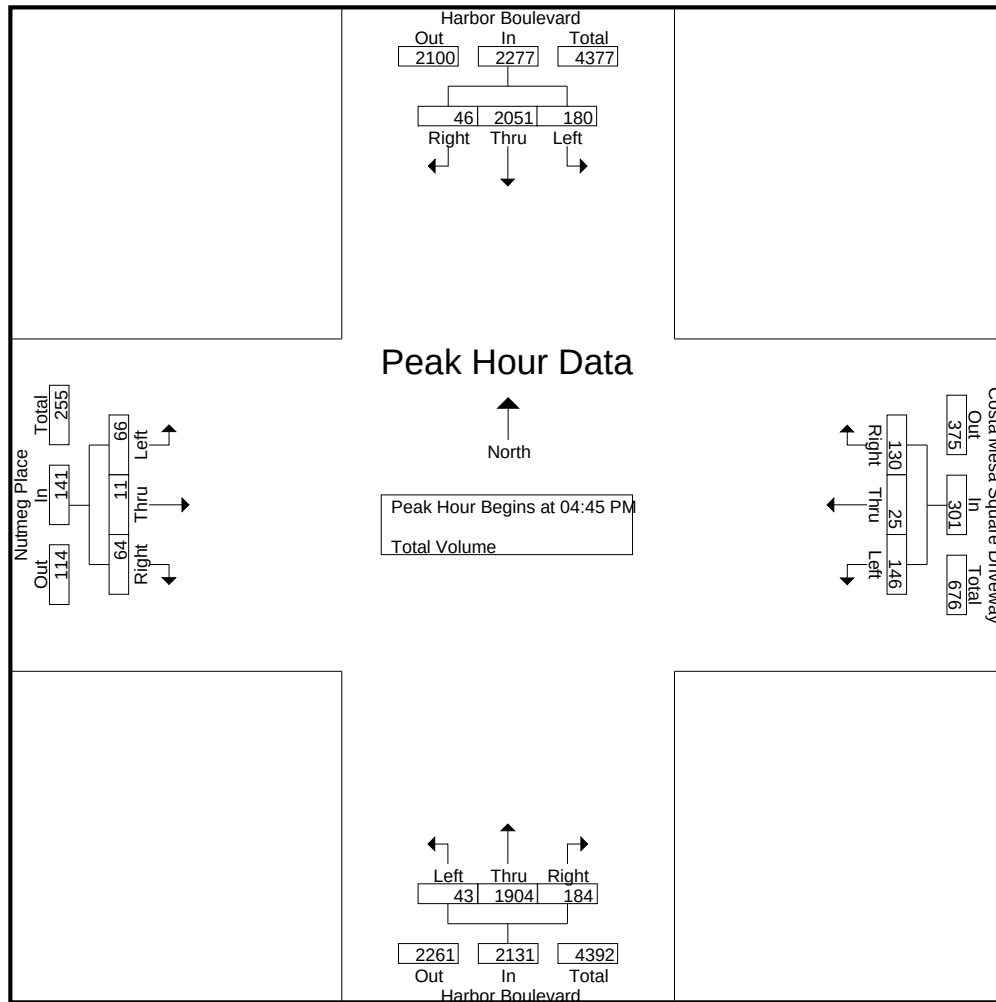
Groups Printed- Total Volume

	Harbor Boulevard Southbound				Costa Mesa Square Driveway Westbound				Harbor Boulevard Northbound				Nutmeg Place Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	46	449	7	502	36	6	34	76	7	484	40	531	13	6	8	27	1136
04:15 PM	48	411	13	472	42	5	35	82	13	516	50	579	12	8	12	32	1165
04:30 PM	57	475	8	540	29	6	35	70	13	433	38	484	23	6	6	35	1129
04:45 PM	48	496	9	553	31	8	35	74	12	482	46	540	12	4	22	38	1205
Total	199	1831	37	2067	138	25	139	302	45	1915	174	2134	60	24	48	132	4635
05:00 PM	50	516	15	581	34	6	32	72	6	485	47	538	15	1	13	29	1220
05:15 PM	43	529	18	590	46	5	33	84	10	475	55	540	26	4	9	39	1253
05:30 PM	39	510	4	553	35	6	30	71	15	462	36	513	13	2	20	35	1172
05:45 PM	44	506	5	555	36	3	42	81	10	433	50	493	10	3	10	23	1152
Total	176	2061	42	2279	151	20	137	308	41	1855	188	2084	64	10	52	126	4797
Grand Total	375	3892	79	4346	289	45	276	610	86	3770	362	4218	124	34	100	258	9432
Apprch %	8.6	89.6	1.8		47.4	7.4	45.2		2	89.4	8.6		48.1	13.2	38.8		
Total %	4	41.3	0.8	46.1	3.1	0.5	2.9	6.5	0.9	40	3.8	44.7	1.3	0.4	1.1	2.7	

	Harbor Boulevard Southbound				Costa Mesa Square Driveway Westbound				Harbor Boulevard Northbound				Nutmeg Place Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	48	496	9	553	31	8	35	74	12	482	46	540	12	4	22	38	1205
05:00 PM	50	516	15	581	34	6	32	72	6	485	47	538	15	1	13	29	1220
05:15 PM	43	529	18	590	46	5	33	84	10	475	55	540	26	4	9	39	1253
05:30 PM	39	510	4	553	35	6	30	71	15	462	36	513	13	2	20	35	1172
Total Volume	180	2051	46	2277	146	25	130	301	43	1904	184	2131	66	11	64	141	4850
% App. Total	7.9	90.1	2		48.5	8.3	43.2		2	89.3	8.6		46.8	7.8	45.4		
PHF	.900	.969	.639	.965	.793	.781	.929	.896	.717	.981	.836	.987	.635	.688	.727	.904	.968

City of Costa Mesa
N/S: Harbor Boulevard
E/W: Nutmeg Place
Weather: Clear

File Name : 18_CSM_Harbor_Nutmeg PM
Site Code : 00319172
Start Date : 3/14/2019
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				04:15 PM				04:30 PM			
+0 mins.	50	516	15	581	34	6	32	72	13	516	50	579	23	6	6	35
+15 mins.	43	529	18	590	46	5	33	84	13	433	38	484	12	4	22	38
+30 mins.	39	510	4	553	35	6	30	71	12	482	46	540	15	1	13	29
+45 mins.	44	506	5	555	36	3	42	81	6	485	47	538	26	4	9	39
Total Volume	176	2061	42	2279	151	20	137	308	44	1916	181	2141	76	15	50	141
% App. Total	7.7	90.4	1.8		49	6.5	44.5		2.1	89.5	8.5		53.9	10.6	35.5	
PHF	.880	.974	.583	.966	.821	.833	.815	.917	.846	.928	.905	.924	.731	.625	.568	.904

National Data & Surveying Services

Intersection Turning Movement Count

Location: Harbor Blvd & Adams Ave
City: Costa Mesa
Control: Signalized

Project ID: 22-010098-001
Date: 9/27/2022

Data - Totals

NS/EW Streets:	Harbor Blvd				Harbor Blvd				Adams Ave				Adams Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	2 NL	2.5 NT	0.5 NR	0 NU	2 SL	4 ST	2 SR	0 SU	3 EL	3 ET	1 ER	0 EU	2 WL	3 WT	1 WR	0 WU	
7:00 AM	21	147	9	0	21	140	41	2	89	170	13	0	21	69	18	0	761
7:15 AM	25	147	19	0	28	163	40	4	156	224	18	0	24	48	16	0	912
7:30 AM	26	207	22	0	50	193	45	1	150	265	34	0	23	100	14	0	1130
7:45 AM	46	264	36	7	60	272	57	3	152	353	48	0	35	108	34	0	1475
8:00 AM	30	193	39	1	45	252	85	1	138	315	40	0	36	127	25	0	1327
8:15 AM	38	231	27	0	50	233	76	1	141	316	54	0	39	110	32	0	1348
8:30 AM	29	204	22	0	40	244	84	0	169	317	59	0	24	91	24	0	1307
8:45 AM	44	205	21	0	42	251	62	1	155	273	66	0	32	101	22	0	1275
TOTAL VOLUMES :	NL 259	NT 1598	NR 195	NU 8	SL 336	ST 1748	SR 490	SU 13	EL 1150	ET 2233	ER 332	EU 0	WL 234	WT 754	WR 185	WU 0	TOTAL 9535
APPROACH %'s :	12.57%	77.57%	9.47%	0.39%	12.99%	67.57%	18.94%	0.50%	30.96%	60.11%	8.94%	0.00%	19.95%	64.28%	15.77%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	143	892	124	8	195	1001	302	5	600	1301	201	0	134	436	115	0	5457
PEAK HR FACTOR :	0.777	0.845	0.795	0.286	0.813	0.920	0.888	0.417	0.888	0.921	0.852	0.000	0.859	0.858	0.846	0.000	0.925
	0.826				0.959				0.950				0.911				

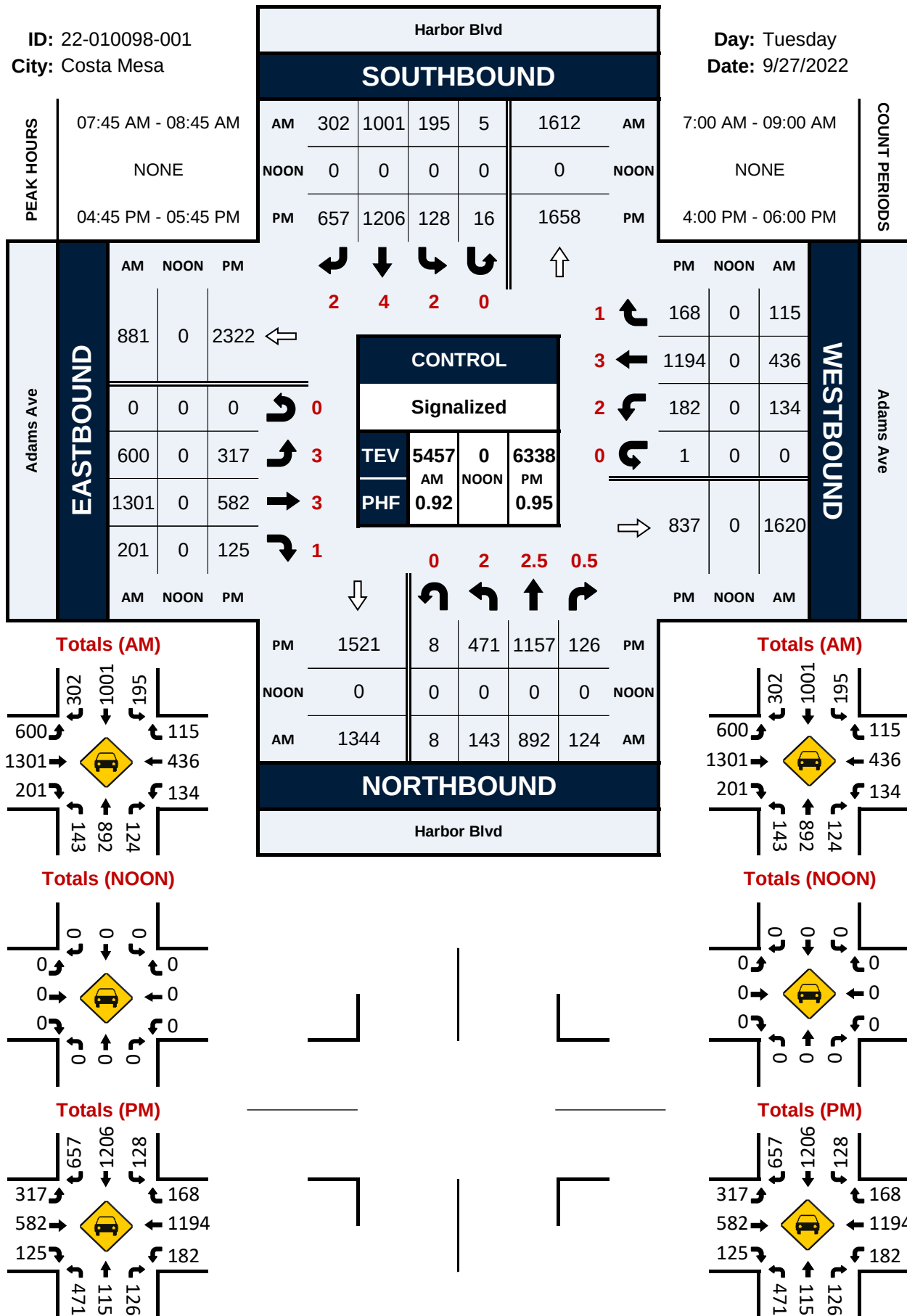
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	2 NL	2.5 NT	0.5 NR	0 NU	2 SL	4 ST	2 SR	0 SU	3 EL	3 ET	1 ER	0 EU	2 WL	3 WT	1 WR	0 WU	
4:00 PM	117	269	38	0	22	302	147	1	90	134	19	0	43	242	26	0	1450
4:15 PM	108	265	31	0	27	287	148	3	73	133	33	0	43	285	26	1	1463
4:30 PM	106	276	23	2	28	278	137	1	80	144	36	0	50	272	41	0	1474
4:45 PM	126	288	27	2	31	296	163	9	71	163	28	0	51	278	37	0	1570
5:00 PM	118	280	34	4	33	279	164	3	81	136	34	0	40	338	45	1	1590
5:15 PM	118	297	29	2	37	339	184	1	77	150	25	0	50	325	34	0	1668
5:30 PM	109	292	36	0	27	292	146	3	88	133	38	0	41	253	52	0	1510
5:45 PM	92	244	32	0	46	289	177	3	68	158	31	0	37	234	43	0	1454
TOTAL VOLUMES :	NL 894	NT 2211	NR 250	NU 10	SL 251	ST 2362	SR 1266	SU 24	EL 628	ET 1151	ER 244	EU 0	WL 355	WT 2227	WR 304	WU 2	TOTAL 12179
APPROACH %'s :	26.57%	65.71%	7.43%	0.30%	6.43%	60.52%	32.44%	0.61%	31.04%	56.90%	12.06%	0.00%	12.29%	77.11%	10.53%	0.07%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	471	1157	126	8	128	1206	657	16	317	582	125	0	182	1194	168	1	6338
PEAK HR FACTOR :	0.935	0.974	0.875	0.500	0.865	0.889	0.893	0.444	0.901	0.893	0.822	0.000	0.892	0.883	0.808	0.250	0.950
	0.988				0.894				0.977				0.911				

Harbor Blvd & Adams Ave

Peak Hour Turning Movement Count

ID: 22-010098-001
City: Costa Mesa

Day: Tuesday
Date: 9/27/2022



INTERSECTION TURNING MOVEMENT COUNTS

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

T101823

DATE:
Thu, Nov 2, 23

LOCATION:
NORTH & SOUTH:
EAST & WEST:

Costa Mesa
Harbor Blvd
Adams Ave

PROJECT #:
LOCATION #:
CONTROL:

SC4286
8
SIGNAL

NOTES:

AM
PM
MD
OTHER
OTHER

▲
N
S
▼

◀ W
E ▶

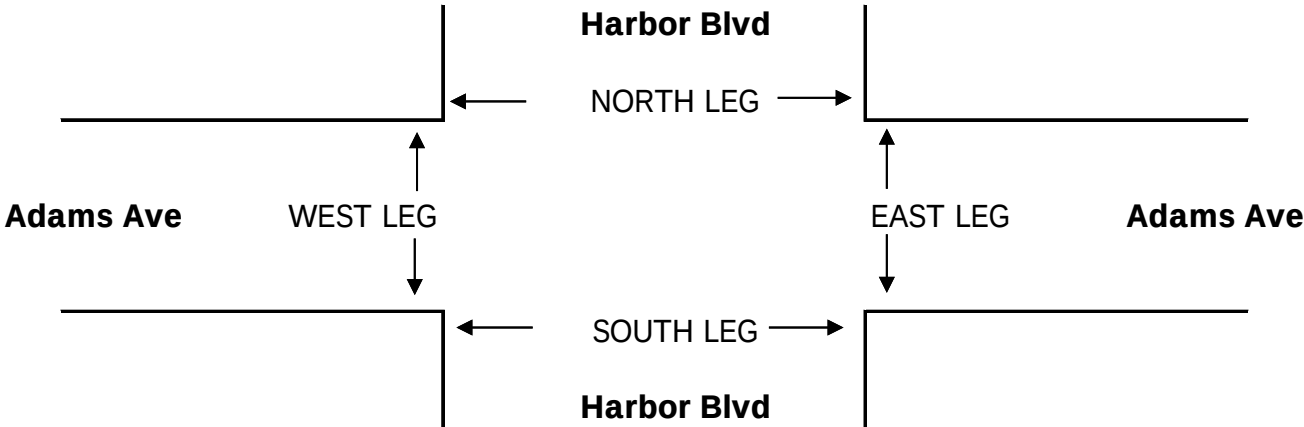
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Harbor Blvd			Harbor Blvd			Adams Ave			Adams Ave			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	2	2.5	0.5	2	4	2	3	3	1	2	3	1	

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

AM	7:00 AM	17	139	9	15	153	47	108	140	19	13	45	10	715
	7:15 AM	21	181	14	12	158	40	125	207	15	9	64	14	860
	7:30 AM	32	213	30	25	167	50	145	259	22	25	71	18	1,057
	7:45 AM	34	244	27	36	242	77	184	297	36	41	106	20	1,344
	8:00 AM	45	247	20	44	242	91	194	265	40	31	110	25	1,354
	8:15 AM	52	212	29	25	193	85	177	295	37	37	105	24	1,271
	8:30 AM	31	228	27	24	249	68	150	284	45	25	90	26	1,247
	8:45 AM	26	199	22	35	244	66	175	244	41	19	88	28	1,187
	VOLUMES	258	1,663	178	216	1,648	524	1,258	1,991	255	200	679	165	9,051
	APPROACH %	12%	79%	8%	9%	69%	22%	36%	57%	7%	19%	65%	16%	
	APP/DEPART	2,100	/	3,099	2,401	/	2,104	3,505	/	2,386	1,045	/	1,462	0
	BEGIN PEAK HR	7:45 AM												
PM	VOLUMES	162	931	103	129	926	321	705	1,141	158	134	411	95	5,225
	APPROACH %	14%	78%	9%	9%	67%	23%	35%	57%	8%	21%	64%	15%	
	PEAK HR FACTOR	0.959			0.909			0.970			0.954			0.963
	APP/DEPART	1,197	/	1,737	1,382	/	1,219	2,005	/	1,374	641	/	895	0
	4:00 PM	129	381	31	22	260	132	63	101	26	40	252	39	1,476
	4:15 PM	99	323	36	30	324	139	77	114	25	44	276	42	1,529
	4:30 PM	130	315	36	27	296	140	89	121	30	37	251	54	1,526
	4:45 PM	97	324	29	31	286	151	86	175	23	46	269	48	1,565
	5:00 PM	99	341	33	31	306	140	75	110	30	40	281	46	1,532
	5:15 PM	112	344	33	39	313	140	78	150	29	57	260	40	1,595
	5:30 PM	107	304	47	25	317	142	73	164	24	54	260	42	1,559
	5:45 PM	119	319	36	30	332	135	77	125	27	49	229	49	1,527
	VOLUMES	892	2,651	281	235	2,434	1,119	618	1,060	214	367	2,078	360	12,366
	APPROACH %	23%	69%	7%	6%	64%	29%	33%	56%	11%	13%	74%	13%	
	APP/DEPART	3,833	/	3,667	3,826	/	3,024	1,893	/	1,585	2,814	/	4,090	0
	BEGIN PEAK HR	4:45 PM												
	VOLUMES	415	1,313	142	126	1,222	573	312	599	106	197	1,070	176	6,282
	APPROACH %	22%	70%	8%	6%	63%	29%	31%	59%	10%	14%	74%	12%	
	PEAK HR FACTOR	0.956			0.979			0.896			0.983			0.981
	APP/DEPART	1,874	/	1,823	1,943	/	1,529	1,018	/	871	1,447	/	2,059	0

0	1	0	0	1
0	3	0	0	3
0	1	0	0	1
0	2	0	1	3
0	3	0	0	3
0	1	0	0	1
1	0	1	0	2
0	2	0	0	2
1	13	1	1	16

2	5	0	1	8
1	2	0	3	6
1	3	0	0	4
0	7	0	2	9
2	7	1	1	11
1	4	0	1	6
1	4	0	0	5
1	6	0	1	8
9	38	1	9	57



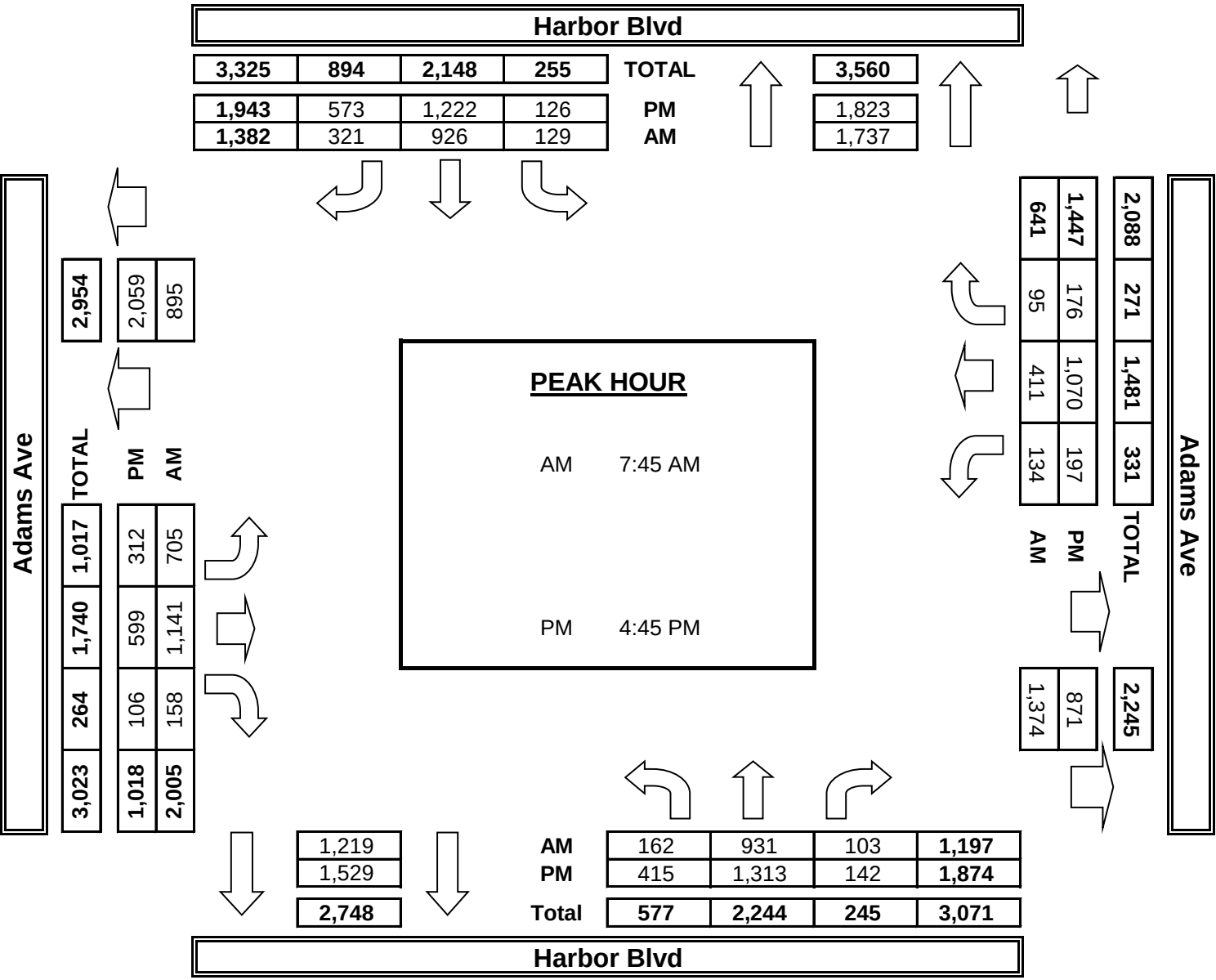
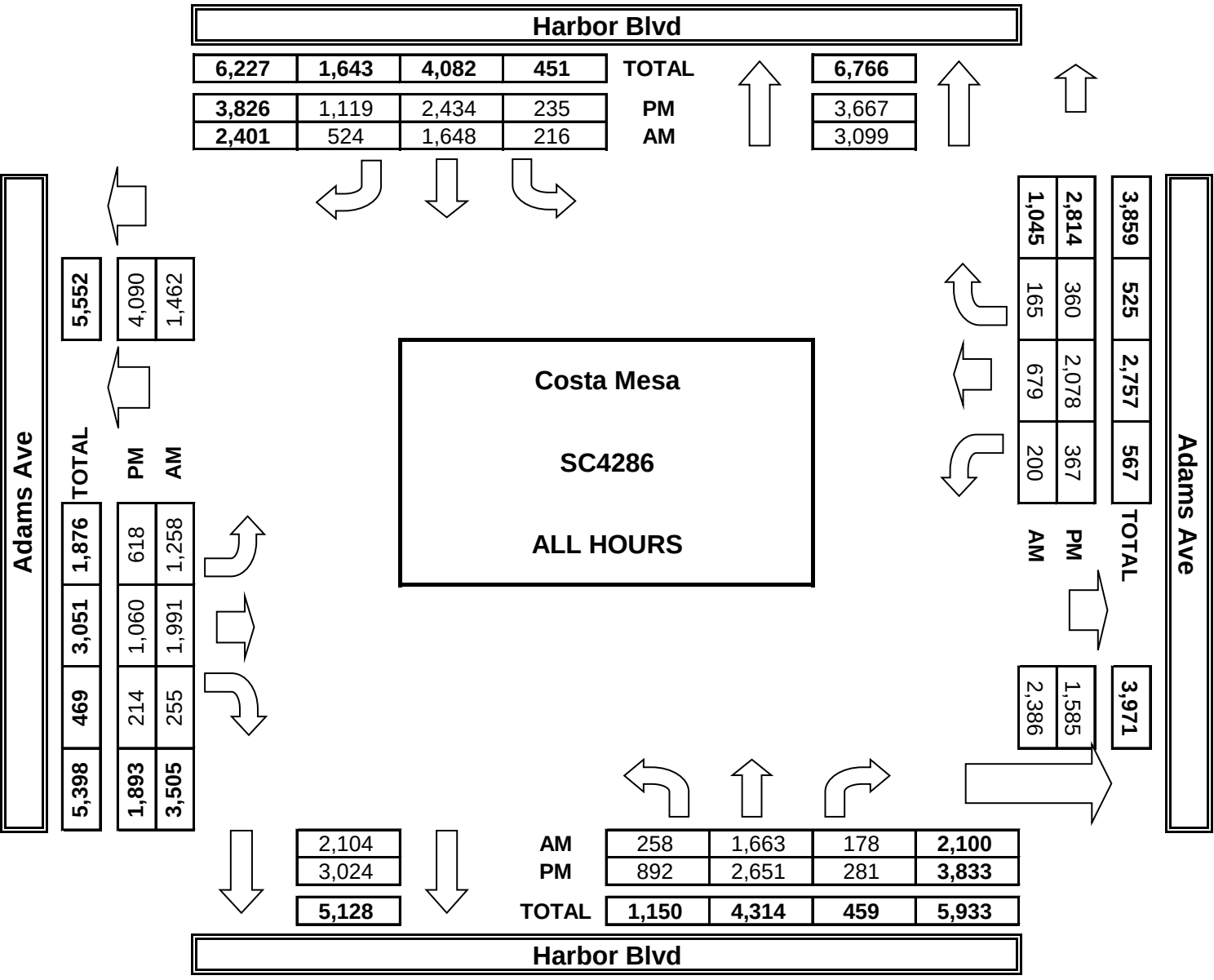
AM	7:00 AM
	7:15 AM
	7:30 AM
	7:45 AM
	8:00 AM
	8:15 AM
	8:30 AM
	8:45 AM
	TOTAL
	BEGIN PEAK HR
PM	4:00 PM
	4:15 PM
	4:30 PM
	4:45 PM
	5:00 PM
	5:15 PM
	5:30 PM
	5:45 PM
	TOTAL
	BEGIN PEAK HR

ALL PED + BIKE & SCOOTER				
N LEG	S LEG	E LEG	W LEG	TOTAL
2	1	3	5	11
3	1	2	1	7
0	1	4	6	11
2	6	4	5	17
0	6	4	4	14
2	1	2	2	7
1	2	1	2	6
6	7	3	6	22
16	25	23	31	95
7:45 AM				
2	8	14	5	29
5	7	10	5	27
1	1	15	5	22
0	3	5	5	13
9	4	3	3	19
5	9	11	9	34
1	9	6	5	21
5	9	4	11	29
28	50	68	48	194
4:45 PM				

PEDESTRIAN CROSSINGS				
N LEG	S LEG	E LEG	W LEG	TOTAL
1	1	2	2	6
2	1	2	0	5
0	1	2	1	4
1	4	2	2	9
0	3	4	0	7
1	0	1	0	2
1	1	0	0	2
5	5	2	5	17
11	16	15	10	52
3	8	7	2	20
2	8	12	3	25
3	5	9	2	19
0	1	14	4	19
0	1	0	3	4
5	3	0	2	10
3	8	10	3	24
1	8	5	5	19
5	7	3	9	24
19	41	53	31	144
9	20	15	13	57

BICYCLE & SCOOTER CROSSINGS				
NL	SL	EL	WL	TOTAL
1	0	1	3	5
1	0	0	1	2
0	0	2	5	7
1	2	2	3	8
0	3	0	4	7
1	1	1	2	5
0	1	1	2	4
1	2	1	1	5
5	9	8	21	43
0	0	2	2	4
2	2	1	3	8
1	0	1	1	3
0	2	5	2	9
4	1	3	1	9
2	1	1	6	10
0	1	1	0	2
0	2	1	2	5
9	9	15	17	50

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

T101823

DATE:
Thu, Nov 2, 23

LOCATION: Costa Mesa
NORTH & SOUTH: Harbor Blvd
EAST & WEST: Merrimac Way

PROJECT #: SC4286
LOCATION #: 9
CONTROL: SIGNAL

NOTES:	AM		▲	
	PM		N	
	MD	◀ W		E ▶
	OTHER		S	
	OTHER		▼	

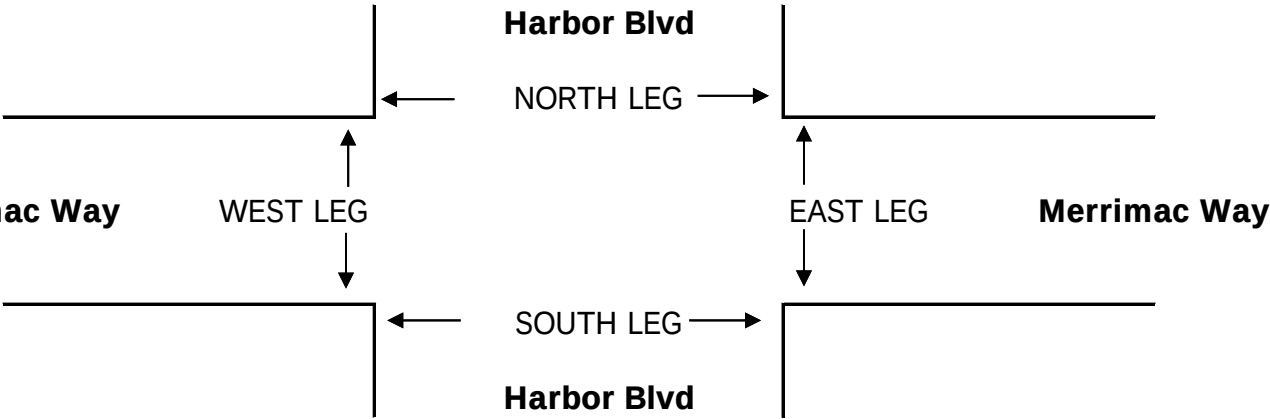
	NORTHBOUND Harbor Blvd			SOUTHBOUND Harbor Blvd			EASTBOUND Merrimac Way			WESTBOUND Merrimac Way			
LANES:	NL 1	NT 3	NR 0	SL 2	ST 3	SR 0	EL 1	ET 1	ER 0	WL 1	WT 1	WR 1	TOTAL

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

AM	7:00 AM	2	131	4	16	161	7	18	3	6	3	5	7	363
	7:15 AM	10	169	7	29	216	7	11	1	9	0	4	7	470
	7:30 AM	2	211	12	18	250	2	18	5	10	2	1	15	546
	7:45 AM	7	292	21	31	347	9	18	3	7	9	3	14	761
	8:00 AM	3	286	24	52	316	11	15	6	12	13	3	13	754
	8:15 AM	3	264	18	59	322	10	16	8	20	11	4	33	768
	8:30 AM	3	266	19	41	305	7	11	1	14	13	2	24	706
	8:45 AM	7	235	13	56	310	7	19	6	3	16	2	25	699
	VOLUMES	37	1,854	118	302	2,227	60	126	33	81	67	24	138	5,082
	APPROACH %	2%	92%	6%	12%	86%	2%	53%	14%	34%	29%	10%	60%	
	APP/DEPART	2,014	/	2,127	2,598	/	2,380	240	/	454	230	/	121	0
	BEGIN PEAK HR	7:45 AM												
PM	VOLUMES	16	1,108	82	183	1,290	37	60	18	53	46	12	84	2,998
	APPROACH %	1%	92%	7%	12%	85%	2%	46%	14%	40%	32%	8%	59%	
	PEAK HR FACTOR	0.939			0.964			0.744			0.745			0.972
	APP/DEPART	1,209	/	1,257	1,515	/	1,392	131	/	284	143	/	65	0
	4:00 PM	5	500	16	24	328	11	22	4	3	20	6	67	1,006
	4:15 PM	6	459	15	31	343	17	12	0	6	11	13	53	966
	4:30 PM	10	479	7	30	350	11	10	1	8	12	5	64	987
	4:45 PM	17	450	8	28	326	17	11	1	12	18	8	72	968
	5:00 PM	13	491	15	24	355	10	8	2	9	17	9	69	1,022
	5:15 PM	9	497	12	35	321	14	12	3	9	19	11	67	1,009
	5:30 PM	15	487	11	36	359	17	13	2	7	11	8	69	1,035
	5:45 PM	16	511	15	24	324	16	10	2	17	25	5	53	1,018
	VOLUMES	91	3,874	99	232	2,706	113	98	15	71	133	65	514	8,064
	APPROACH %	2%	95%	2%	8%	88%	4%	53%	8%	39%	19%	9%	72%	
	APP/DEPART	4,086	/	4,515	3,080	/	2,932	184	/	348	714	/	269	0
	BEGIN PEAK HR	5:00 PM												
	VOLUMES	53	1,986	53	119	1,359	57	43	9	42	72	33	258	4,107
	APPROACH %	3%	94%	3%	8%	88%	4%	46%	10%	45%	20%	9%	71%	
	PEAK HR FACTOR	0.962			0.931			0.810			0.929			0.989
	APP/DEPART	2,104	/	2,297	1,545	/	1,485	94	/	182	364	/	143	0

0	2	0	0	2
0	2	0	0	2
0	0	0	0	0
2	2	0	1	5
0	1	0	0	1
1	2	0	0	3
0	0	0	0	0
2	0	0	0	2
5	9	0	1	15

2	5	0	0	7
1	5	0	0	6
6	6	0	1	13
1	3	0	0	4
3	4	0	0	7
4	1	0	1	6
0	3	0	0	3
5	2	0	0	7
22	29	0	2	53



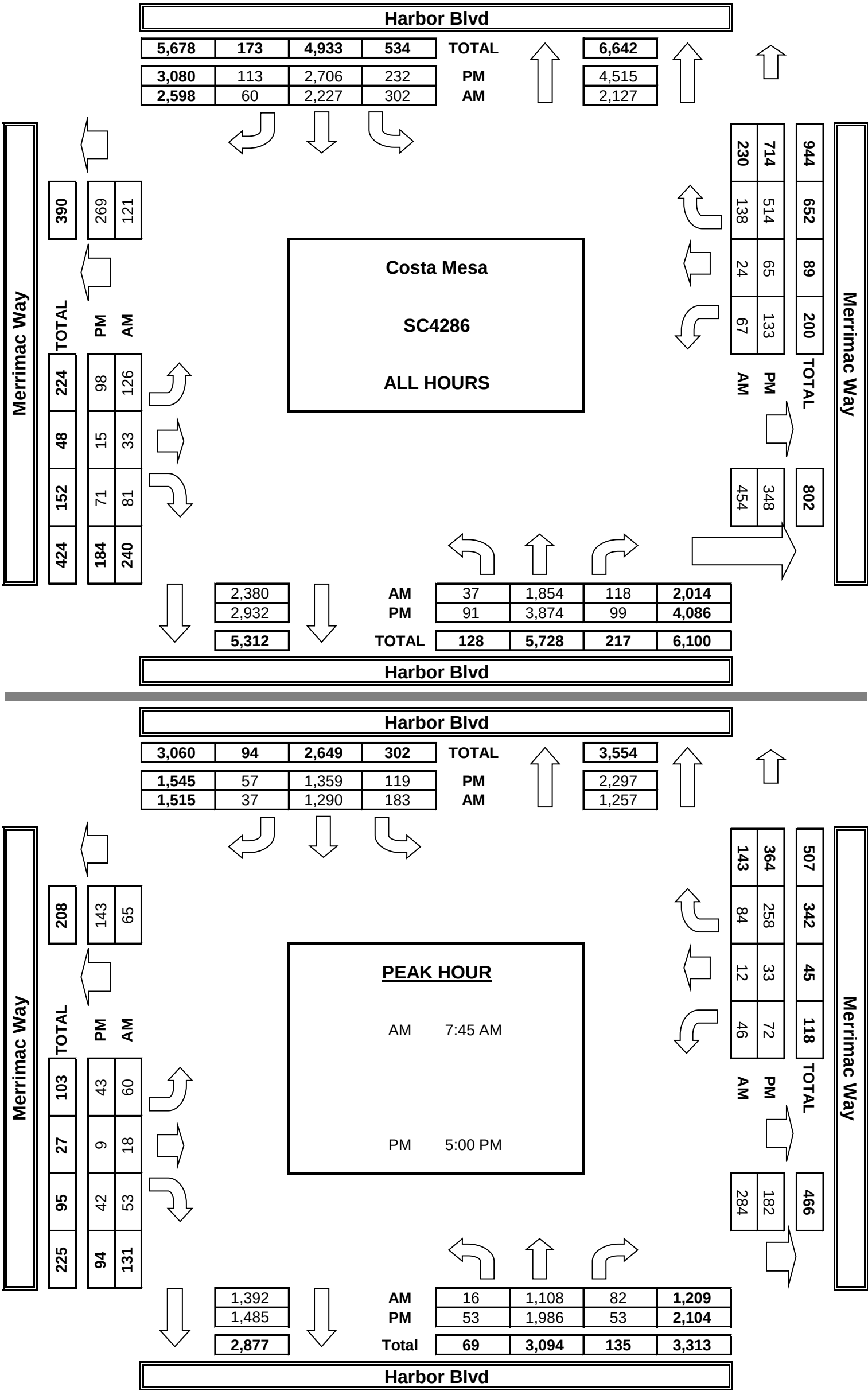
AM	7:00 AM
	7:15 AM
	7:30 AM
	7:45 AM
	8:00 AM
	8:15 AM
	8:30 AM
	8:45 AM
PM	TOTAL
	BEGIN PEAK HR
	4:00 PM
	4:15 PM
	4:30 PM
	4:45 PM
	5:00 PM
	5:15 PM
	5:30 PM
	5:45 PM
	TOTAL
	BEGIN PEAK HR

ALL PED + BIKE & SCOOTER				
N LEG	S LEG	E LEG	W LEG	TOTAL
2	1	3	3	9
0	2	1	10	13
1	1	3	6	11
7	0	1	2	10
7	3	1	3	14
3	3	2	5	13
1	1	2	7	11
2	1	1	5	9
23	12	14	41	90
7:45 AM				
5	2	3	11	21
3	4	2	13	22
3	0	2	12	17
5	2	2	8	17
1	3	1	6	11
4	0	1	5	10
3	2	3	4	12
0	1	0	9	10
24	14	14	68	120
5:00 PM				

PEDESTRIAN CROSSINGS				
N LEG	S LEG	E LEG	W LEG	TOTAL
2	0	2	2	6
0	1	1	3	5
1	0	3	0	4
5	0	1	1	7
4	0	1	1	6
2	1	2	3	8
0	0	2	5	7
2	0	1	3	6
16	2	13	18	49
11	1	6	10	28
1	1	2	2	6
0	1	2	5	8
2	0	1	7	10
3	0	2	1	6
0	1	1	1	3
4	0	1	1	6
0	0	2	0	2
0	1	0	4	5
10	4	11	21	46
4	2	4	6	16

BICYCLE & SCOOTER CROSSINGS				
NL	SL	EL	WL	TOTAL
0	1	1	1	3
0	1	0	7	8
0	1	0	6	7
2	0	0	1	3
3	3	0	2	8
1	2	0	2	5
1	1	0	2	4
0	1	0	2	3
7	10	1	23	41
4	1	1	9	15
3	3	0	8	14
1	0	1	5	7
2	2	0	7	11
1	2	0	5	8
0	0	0	4	4
3	2	1	4	10
0	0	0	5	5
14	10	3	47	74

AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

T101823

DATE:
Thu, Nov 2, 23

LOCATION: Costa Mesa
NORTH & SOUTH: Harbor Blvd
EAST & WEST: Fair Dr

PROJECT #: SC4286
LOCATION #: 10
CONTROL: SIGNAL

NOTES:	AM		▲	
	PM		N	
	MD	◀ W		E ▶
	OTHER		S	
	OTHER		▼	

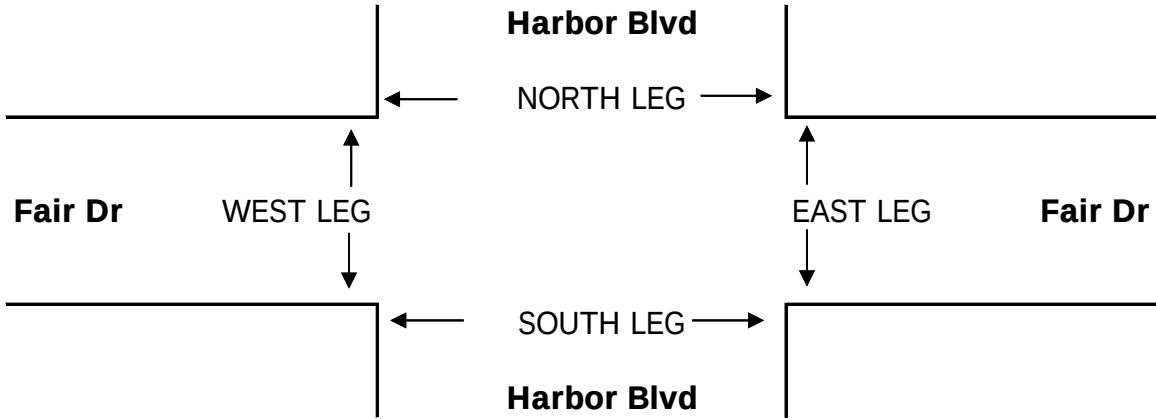
	NORTHBOUND Harbor Blvd			SOUTHBOUND Harbor Blvd			EASTBOUND Fair Dr			WESTBOUND Fair Dr			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	1	3	0	2	3	0	1	1	1	2	0.5	1.5	

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

AM	7:00 AM	1	118	45	28	137	5	1	7	1	26	4	20	393
	7:15 AM	3	147	41	38	163	9	4	3	4	21	4	28	465
	7:30 AM	2	184	49	42	200	4	7	4	4	29	5	44	574
	7:45 AM	4	248	66	77	295	8	6	8	8	40	12	64	836
	8:00 AM	2	237	66	62	269	5	6	9	9	50	2	51	768
	8:15 AM	2	223	72	53	250	10	5	12	4	53	4	65	753
	8:30 AM	0	225	56	67	261	7	5	3	2	56	4	51	737
	8:45 AM	4	214	40	50	278	3	3	4	7	35	4	33	675
	VOLUMES	18	1,596	435	417	1,853	51	37	50	39	310	39	356	5,226
	APPROACH %	1%	77%	21%	18%	79%	2%	29%	40%	31%	44%	6%	50%	
	APP/DEPART	2,063	/	2,000	2,332	/	2,216	126	/	902	705	/	108	0
	BEGIN PEAK HR	7:45 AM												
	VOLUMES	8	933	260	259	1,075	30	22	32	23	199	22	231	3,109
	APPROACH %	1%	77%	22%	19%	78%	2%	29%	42%	30%	44%	5%	51%	
	PEAK HR FACTOR	0.949			0.896			0.802			0.926			0.926
	APP/DEPART	1,207	/	1,195	1,373	/	1,303	77	/	551	452	/	60	0
PM	4:00 PM	2	334	54	43	311	1	7	6	6	70	8	173	1,015
	4:15 PM	1	297	42	41	268	4	2	4	4	66	5	178	912
	4:30 PM	1	314	51	44	326	5	10	0	2	100	5	151	1,009
	4:45 PM	4	297	64	44	287	3	4	3	10	108	5	156	985
	5:00 PM	3	356	46	50	326	3	4	3	5	87	2	184	1,069
	5:15 PM	2	344	43	46	316	4	0	0	2	90	6	178	1,031
	5:30 PM	4	330	65	37	329	8	6	3	2	100	0	187	1,071
	5:45 PM	1	353	61	48	309	1	3	2	3	79	3	160	1,023
	VOLUMES	18	2,625	426	353	2,472	29	36	21	34	700	34	1,367	8,163
	APPROACH %	1%	85%	14%	12%	86%	1%	40%	23%	37%	33%	2%	65%	
	APP/DEPART	3,096	/	4,049	2,875	/	3,233	91	/	800	2,101	/	81	0
	BEGIN PEAK HR	5:00 PM												
	VOLUMES	10	1,383	215	181	1,280	16	13	8	12	356	11	709	4,218
	APPROACH %	1%	85%	13%	12%	86%	1%	39%	24%	36%	33%	1%	66%	
	PEAK HR FACTOR	0.969			0.974			0.688			0.937			0.978
	APP/DEPART	1,620	/	2,117	1,489	/	1,660	33	/	404	1,076	/	37	0

1	0	0	0	1
1	1	0	0	2
3	0	0	0	3
0	3	0	0	3
0	1	0	0	1
3	3	0	0	6
3	2	0	0	5
3	1	0	0	4
14	11	0	0	25

2	3	0	0	5
4	4	0	0	8
4	2	0	0	6
5	0	0	0	5
6	3	0	0	9
0	5	0	0	5
3	3	0	0	6
3	1	0	0	4
27	21	0	0	48



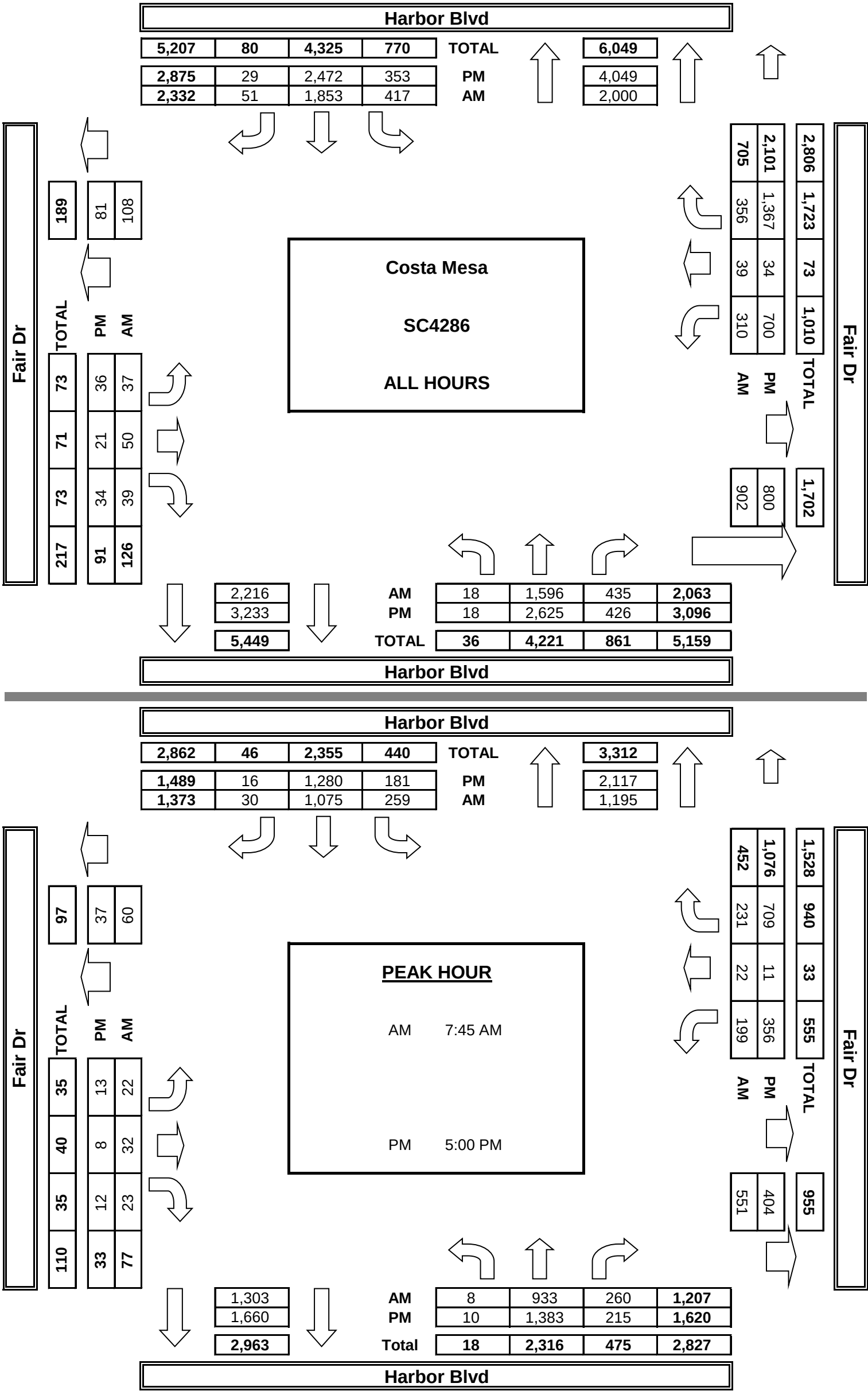
AM	7:00 AM
	7:15 AM
	7:30 AM
	7:45 AM
	8:00 AM
	8:15 AM
	8:30 AM
	8:45 AM
	TOTAL
BEGIN PEAK HR	
PM	4:00 PM
	4:15 PM
	4:30 PM
	4:45 PM
	5:00 PM
	5:15 PM
	5:30 PM
	5:45 PM
	TOTAL
BEGIN PEAK HR	

ALL PED + BIKE & SCOOTER				
N LEG	S LEG	E LEG	W LEG	TOTAL
0	2	0	0	2
0	4	3	5	12
0	2	2	8	12
0	2	0	6	8
0	0	1	5	6
0	1	5	3	9
0	2	2	4	8
0	4	2	6	12
0	17	15	37	69
7:45 AM				
0	5	3	12	20
0	4	3	11	18
1	3	2	5	11
0	4	5	8	17
0	2	1	6	9
0	2	5	12	19
0	5	1	6	12
0	3	2	12	17
1	28	22	72	123
5:00 PM				

PEDESTRIAN CROSSINGS				
N LEG	S LEG	E LEG	W LEG	TOTAL
0	2	0	0	2
0	2	3	1	6
0	0	1	1	2
0	2	0	0	2
0	0	0	1	1
0	1	4	0	5
0	2	1	1	4
0	3	1	1	5
0	12	10	5	27
0	5	5	2	12
0	4	1	6	11
0	2	1	4	7
0	1	1	1	3
0	1	3	3	7
0	2	1	2	5
0	1	3	2	6
0	2	0	3	5
0	2	1	8	11
0	15	11	29	55
0	7	5	15	27

BICYCLE & SCOOTER CROSSINGS				
NL	SL	EL	WL	TOTAL
0	0	0	0	0
0	2	0	4	6
0	2	1	7	10
0	0	0	6	6
0	0	1	4	5
0	0	1	3	4
0	0	1	3	4
0	1	1	5	7
0	5	5	32	42
0	1	2	6	9
0	2	2	7	11
1	2	1	4	8
0	3	2	5	10
0	0	0	4	4
0	1	2	10	13
0	3	1	3	7
0	1	1	4	6
1	13	11	43	68

AimTD LLC
TURNING MOVEMENT COUNTS



National Data & Surveying ServicesIntersection Turning Movement Count

Location: Harbor Blvd & Wilson St
City: Costa Mesa
Control: Signalized

Project ID: 22-010098-002
Date: 9/27/2022

Data - Totals

NS/EW Streets:	Harbor Blvd				Harbor Blvd				Wilson St				Wilson St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	3 NT	1 NR	0 NU	1 SL	3 ST	1 SR	0 SU	2 EL	2 ET	1 ER	0 EU	2 WL	2 WT	1 WR	0 WU	
7:00 AM	12	112	14	1	8	113	22	0	45	69	23	0	30	29	11	0	489
7:15 AM	12	103	13	0	10	104	21	1	52	63	25	0	32	38	8	0	482
7:30 AM	15	154	22	1	11	134	30	0	70	96	28	0	30	44	7	0	642
7:45 AM	7	198	29	3	15	219	32	2	108	102	25	0	42	45	16	0	843
8:00 AM	11	228	32	2	16	230	54	0	105	72	34	0	43	59	8	0	894
8:15 AM	15	213	28	3	15	217	60	2	77	110	48	0	40	79	25	0	932
8:30 AM	11	202	26	2	16	185	37	0	67	78	28	0	67	58	17	0	794
8:45 AM	11	194	20	4	10	245	41	2	51	82	45	0	50	30	12	1	798
TOTAL VOLUMES :	NL 94	NT 1404	NR 184	NU 16	SL 101	ST 1447	SR 297	SU 7	EL 575	ET 672	ER 256	EU 0	WL 334	WT 382	WR 104	WU 1	TOTAL 5874
APPROACH %'s :	5.54%	82.69%	10.84%	0.94%	5.45%	78.13%	16.04%	0.38%	38.26%	44.71%	17.03%	0.00%	40.68%	46.53%	12.67%	0.12%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	44	841	115	10	62	851	183	4	357	362	135	0	192	241	66	0	3463
PEAK HR FACTOR :	0.733	0.922	0.898	0.833	0.969	0.925	0.763	0.500	0.826	0.823	0.703	0.000	0.716	0.763	0.660	0.000	0.929
	0.925				0.917				0.909				0.866				

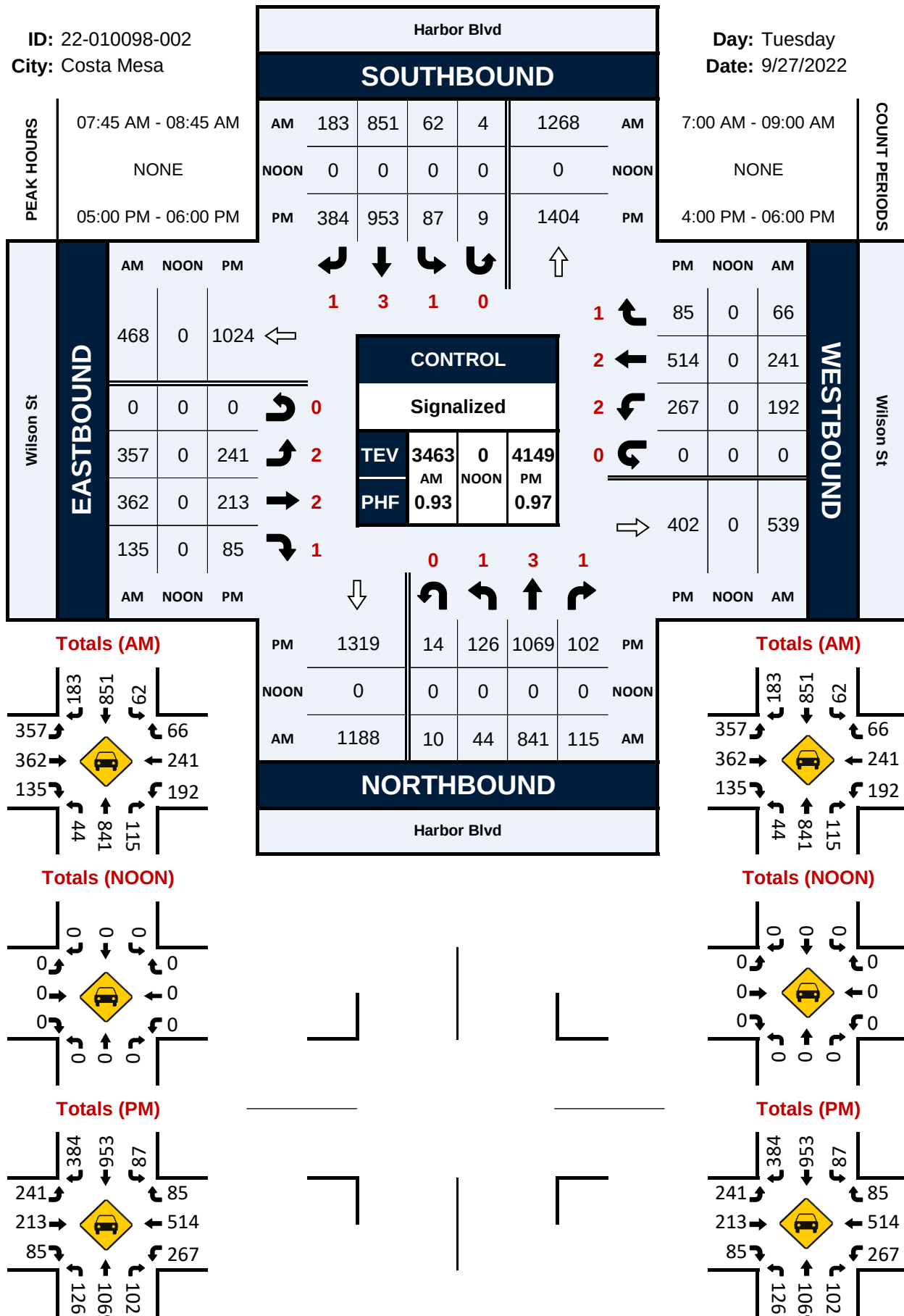
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	3 NT	1 NR	0 NU	1 SL	3 ST	1 SR	0 SU	2 EL	2 ET	1 ER	0 EU	2 WL	2 WT	1 WR	0 WU	
4:00 PM	20	264	32	2	33	260	76	4	54	73	28	0	69	112	27	0	1054
4:15 PM	20	255	27	4	21	219	76	2	48	50	23	0	64	115	24	0	948
4:30 PM	21	237	16	1	32	258	74	2	57	66	22	0	64	114	28	0	992
4:45 PM	27	255	41	6	15	248	71	2	44	56	28	0	63	106	30	2	994
5:00 PM	38	273	26	1	19	225	92	0	60	55	17	0	59	131	20	0	1016
5:15 PM	21	277	35	2	17	232	98	4	53	51	24	0	66	118	11	0	1009
5:30 PM	29	278	27	6	28	255	96	4	61	51	20	0	65	124	26	0	1070
5:45 PM	38	241	14	5	23	241	98	1	67	56	24	0	77	141	28	0	1054
TOTAL VOLUMES :	NL 214	NT 2080	NR 218	NU 27	SL 188	ST 1938	SR 681	SU 19	EL 444	ET 458	ER 186	EU 0	WL 527	WT 961	WR 194	WU 2	TOTAL 8137
APPROACH %'s :	8.43%	81.92%	8.59%	1.06%	6.65%	68.58%	24.10%	0.67%	40.81%	42.10%	17.10%	0.00%	31.29%	57.07%	11.52%	0.12%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	126	1069	102	14	87	953	384	9	241	213	85	0	267	514	85	0	4149
PEAK HR FACTOR :	0.829	0.961	0.729	0.583	0.777	0.934	0.980	0.563	0.899	0.951	0.885	0.000	0.867	0.911	0.759	0.000	0.969
	0.964				0.935				0.917				0.880				

Harbor Blvd & Wilson St

Peak Hour Turning Movement Count

ID: 22-010098-002
City: Costa Mesa

Day: Tuesday
Date: 9/27/2022



City of Costa Mesa
N/S: Harbor Boulevard
E/W: Victoria Street
Weather: Clear

File Name : 28_CSM_Harbor_Vic AM
Site Code : 23922356
Start Date : 4/21/2022
Page No : 1

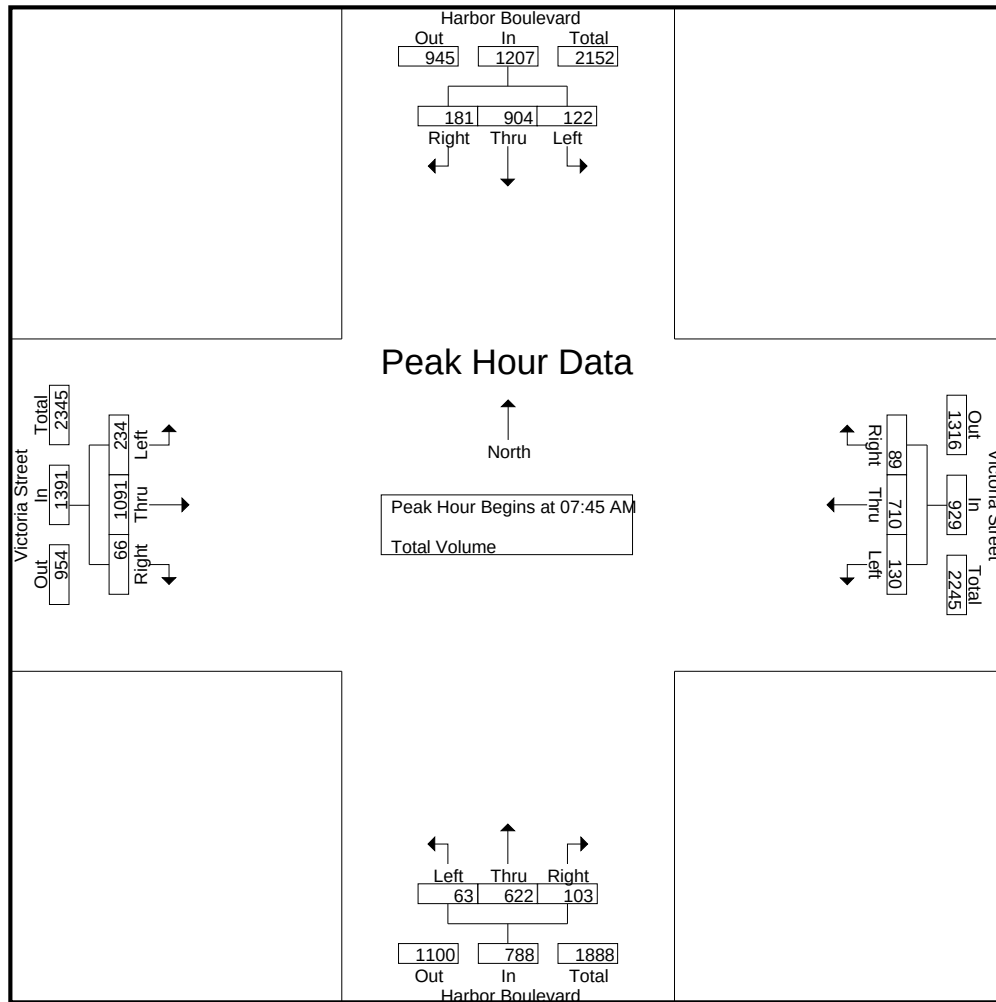
Groups Printed- Total Volume

	Harbor Boulevard Southbound				Victoria Street Westbound				Harbor Boulevard Northbound				Victoria Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	24	140	27	191	16	113	21	150	8	102	24	134	21	272	15	308	783
07:15 AM	29	154	26	209	18	95	20	133	3	117	25	145	37	269	11	317	804
07:30 AM	29	230	28	287	28	101	22	151	11	137	31	179	53	296	24	373	990
07:45 AM	26	252	54	332	33	185	18	236	14	175	28	217	67	275	13	355	1140
Total	108	776	135	1019	95	494	81	670	36	531	108	675	178	1112	63	1353	3717
08:00 AM	31	229	38	298	40	191	23	254	27	147	23	197	57	279	18	354	1103
08:15 AM	28	210	48	286	25	195	27	247	11	147	27	185	57	288	18	363	1081
08:30 AM	37	213	41	291	32	139	21	192	11	153	25	189	53	249	17	319	991
08:45 AM	30	221	22	273	25	141	20	186	15	125	21	161	47	303	21	371	991
Total	126	873	149	1148	122	666	91	879	64	572	96	732	214	1119	74	1407	4166
Grand Total	234	1649	284	2167	217	1160	172	1549	100	1103	204	1407	392	2231	137	2760	7883
Apprch %	10.8	76.1	13.1		14	74.9	11.1		7.1	78.4	14.5		14.2	80.8	5		
Total %	3	20.9	3.6	27.5	2.8	14.7	2.2	19.6	1.3	14	2.6	17.8	5	28.3	1.7	35	

	Harbor Boulevard Southbound				Victoria Street Westbound				Harbor Boulevard Northbound				Victoria Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	26	252	54	332	33	185	18	236	14	175	28	217	67	275	13	355	1140
08:00 AM	31	229	38	298	40	191	23	254	27	147	23	197	57	279	18	354	1103
08:15 AM	28	210	48	286	25	195	27	247	11	147	27	185	57	288	18	363	1081
08:30 AM	37	213	41	291	32	139	21	192	11	153	25	189	53	249	17	319	991
Total Volume																	4315
% App. Total	10.1	74.9	15		14	76.4	9.6		8	78.9	13.1		16.8	78.4	4.7		
PHF	.824	.897	.838	.909	.813	.910	.824	.914	.583	.889	.920	.908	.873	.947	.917	.958	

City of Costa Mesa
N/S: Harbor Boulevard
E/W: Victoria Street
Weather: Clear

File Name : 28_CSM_Harbor_Vic AM
Site Code : 23922356
Start Date : 4/21/2022
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:45 AM				07:30 AM			
+0 mins.	26	252	54	332	33	185	18	236	14	175	28	217	53	296	24	373
+15 mins.	31	229	38	298	40	191	23	254	27	147	23	197	67	275	13	355
+30 mins.	28	210	48	286	25	195	27	247	11	147	27	185	57	279	18	354
+45 mins.	37	213	41	291	32	139	21	192	11	153	25	189	57	288	18	363
Total Volume	122	904	181	1207	130	710	89	929	63	622	103	788	234	1138	73	1445
% App. Total	10.1	74.9	15		14	76.4	9.6		8	78.9	13.1		16.2	78.8	5.1	
PHF	.824	.897	.838	.909	.813	.910	.824	.914	.583	.889	.920	.908	.873	.961	.760	.968

City of Costa Mesa
N/S: Harbor Boulevard
E/W: Victoria Street
Weather: Clear

File Name : 28_CSM_Harbor_Vic MD
Site Code : 23922356
Start Date : 4/21/2022
Page No : 1

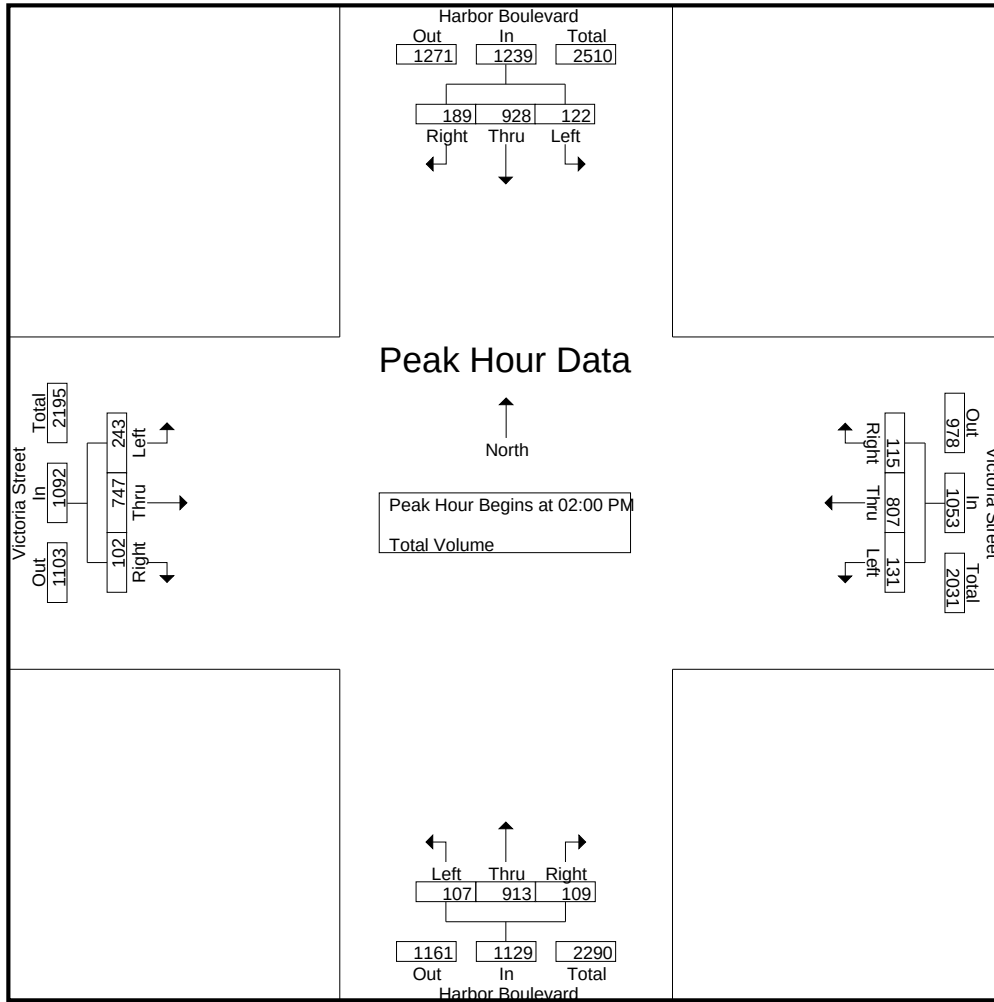
Groups Printed- Total Volume

	Harbor Boulevard Southbound				Victoria Street Westbound				Harbor Boulevard Northbound				Victoria Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
12:00 PM	30	187	49	266	32	194	30	256	29	229	26	284	62	141	20	223	1029
12:15 PM	28	244	46	318	24	190	36	250	19	212	36	267	37	169	31	237	1072
12:30 PM	34	222	50	306	32	195	28	255	23	220	25	268	47	178	20	245	1074
12:45 PM	33	240	35	308	24	190	34	248	24	222	33	279	53	170	14	237	1072
Total	125	893	180	1198	112	769	128	1009	95	883	120	1098	199	658	85	942	4247
01:00 PM	32	208	40	280	39	196	24	259	25	193	32	250	44	166	25	235	1024
01:15 PM	26	231	43	300	30	198	41	269	21	180	29	230	64	153	24	241	1040
01:30 PM	33	211	53	297	30	185	22	237	24	202	19	245	64	187	20	271	1050
01:45 PM	29	227	53	309	28	193	34	255	22	236	23	281	62	162	23	247	1092
Total	120	877	189	1186	127	772	121	1020	92	811	103	1006	234	668	92	994	4206
02:00 PM	34	213	38	285	29	187	33	249	23	235	28	286	46	196	28	270	1090
02:15 PM	33	239	62	334	32	220	30	282	27	225	23	275	58	182	26	266	1157
02:30 PM	32	249	41	322	37	199	26	262	24	223	30	277	58	181	24	263	1124
02:45 PM	23	227	48	298	33	201	26	260	33	230	28	291	81	188	24	293	1142
Total	122	928	189	1239	131	807	115	1053	107	913	109	1129	243	747	102	1092	4513
Grand Total	367	2698	558	3623	370	2348	364	3082	294	2607	332	3233	676	2073	279	3028	12966
Apprch %	10.1	74.5	15.4		12	76.2	11.8		9.1	80.6	10.3		22.3	68.5	9.2		
Total %	2.8	20.8	4.3	27.9	2.9	18.1	2.8	23.8	2.3	20.1	2.6	24.9	5.2	16	2.2	23.4	

	Harbor Boulevard Southbound				Victoria Street Westbound				Harbor Boulevard Northbound				Victoria Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 02:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 02:00 PM																	
02:00 PM	34	213	38	285	29	187	33	249	23	235	28	286	46	196	28	270	1090
02:15 PM	33	239	62	334	32	220	30	282	27	225	23	275	58	182	26	266	1157
02:30 PM	32	249	41	322	37	199	26	262	24	223	30	277	58	181	24	263	1124
02:45 PM	23	227	48	298	33	201	26	260	33	230	28	291	81	188	24	293	1142
Total Volume	122	928	189	1239	131	807	115	1053	107	913	109	1129	243	747	102	1092	4513
% App. Total	9.8	74.9	15.3		12.4	76.6	10.9		9.5	80.9	9.7		22.3	68.4	9.3		
PHF	.897	.932	.762	.927	.885	.917	.871	.934	.811	.971	.908	.970	.750	.953	.911	.932	.975

City of Costa Mesa
N/S: Harbor Boulevard
E/W: Victoria Street
Weather: Clear

File Name : 28_CSM_Harbor_Vic MD
Site Code : 23922356
Start Date : 4/21/2022
Page No : 2



Peak Hour Analysis From 12:00 PM to 02:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	01:45 PM				02:00 PM				02:00 PM				02:00 PM			
+0 mins.	29	227	53	309	29	187	33	249	23	235	28	286	46	196	28	270
+15 mins.	34	213	38	285	32	220	30	282	27	225	23	275	58	182	26	266
+30 mins.	33	239	62	334	37	199	26	262	24	223	30	277	58	181	24	263
+45 mins.	32	249	41	322	33	201	26	260	33	230	28	291	81	188	24	293
Total Volume	128	928	194	1250	131	807	115	1053	107	913	109	1129	243	747	102	1092
% App. Total	10.2	74.2	15.5		12.4	76.6	10.9		9.5	80.9	9.7		22.3	68.4	9.3	
PHF	.941	.932	.782	.936	.885	.917	.871	.934	.811	.971	.908	.970	.750	.953	.911	.932

City of Costa Mesa
N/S: Harbor Boulevard
E/W: Victoria Street
Weather: Clear

File Name : 28_CSM_Harbor_Vic PM
Site Code : 23922356
Start Date : 4/21/2022
Page No : 1

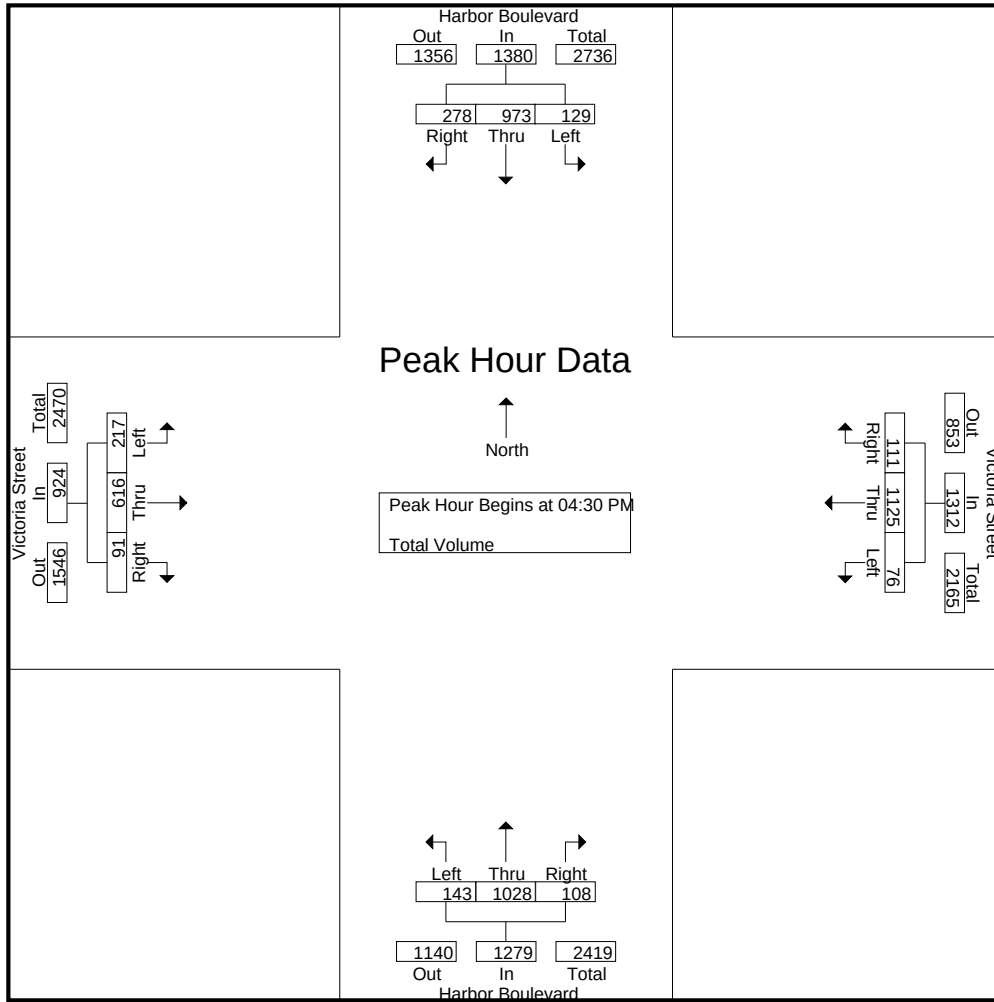
Groups Printed- Total Volume

	Harbor Boulevard Southbound				Victoria Street Westbound				Harbor Boulevard Northbound				Victoria Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
03:00 PM	37	225	70	332	11	213	25	249	61	198	21	280	65	209	22	296	1157
03:15 PM	27	248	46	321	19	210	29	258	30	234	27	291	56	137	27	220	1090
03:30 PM	33	212	52	297	24	301	20	345	25	216	28	269	60	158	25	243	1154
03:45 PM	34	235	46	315	12	266	22	300	25	252	26	303	53	144	24	221	1139
Total	131	920	214	1265	66	990	96	1152	141	900	102	1143	234	648	98	980	4540
04:00 PM	38	236	48	322	24	274	25	323	34	250	32	316	56	149	22	227	1188
04:15 PM	29	228	61	318	11	307	22	340	32	234	25	291	47	161	22	230	1179
04:30 PM	31	230	59	320	21	296	25	342	29	238	29	296	55	166	29	250	1208
04:45 PM	34	254	66	354	13	273	25	311	40	245	20	305	58	153	22	233	1203
Total	132	948	234	1314	69	1150	97	1316	135	967	106	1208	216	629	95	940	4778
05:00 PM	33	249	76	358	16	279	31	326	38	256	24	318	60	139	23	222	1224
05:15 PM	31	240	77	348	26	277	30	333	36	289	35	360	44	158	17	219	1260
05:30 PM	21	233	63	317	10	272	19	301	40	258	26	324	70	144	23	237	1179
05:45 PM	24	184	65	273	17	280	22	319	42	191	27	260	51	130	22	203	1055
Total	109	906	281	1296	69	1108	102	1279	156	994	112	1262	225	571	85	881	4718
Grand Total	372	2774	729	3875	204	3248	295	3747	432	2861	320	3613	675	1848	278	2801	14036
Apprch %	9.6	71.6	18.8		5.4	86.7	7.9		12	79.2	8.9		24.1	66	9.9		
Total %	2.7	19.8	5.2	27.6	1.5	23.1	2.1	26.7	3.1	20.4	2.3	25.7	4.8	13.2	2	20	

	Harbor Boulevard Southbound				Victoria Street Westbound				Harbor Boulevard Northbound				Victoria Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	31	230	59	320	21	296	25	342	29	238	29	296	55	166	29	250	1208
04:45 PM	34	254	66	354	13	273	25	311	40	245	20	305	58	153	22	233	1203
05:00 PM	33	249	76	358	16	279	31	326	38	256	24	318	60	139	23	222	1224
05:15 PM	31	240	77	348	26	277	30	333	36	289	35	360	44	158	17	219	1260
Total Volume	129	973	278	1380	76	1125	111	1312	143	1028	108	1279	217	616	91	924	4895
% App. Total	9.3	70.5	20.1		5.8	85.7	8.5		11.2	80.4	8.4		23.5	66.7	9.8		
PHF	.949	.958	.903	.964	.731	.950	.895	.959	.894	.889	.771	.888	.904	.928	.784	.924	.971

City of Costa Mesa
N/S: Harbor Boulevard
E/W: Victoria Street
Weather: Clear

File Name : 28_CSM_Harbor_Vic PM
Site Code : 23922356
Start Date : 4/21/2022
Page No : 2



Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:15 PM				04:45 PM				03:00 PM			
+0 mins.	31	230	59	320	11	307	22	340	40	245	20	305	65	209	22	296
+15 mins.	34	254	66	354	21	296	25	342	38	256	24	318	56	137	27	220
+30 mins.	33	249	76	358	13	273	25	311	36	289	35	360	60	158	25	243
+45 mins.	31	240	77	348	16	279	31	326	40	258	26	324	53	144	24	221
Total Volume	129	973	278	1380	61	1155	103	1319	154	1048	105	1307	234	648	98	980
% App. Total	9.3	70.5	20.1		4.6	87.6	7.8		11.8	80.2	8		23.9	66.1	10	
PHF	.949	.958	.903	.964	.726	.941	.831	.964	.963	.907	.750	.908	.900	.775	.907	.828

City of Costa Mesa
N/S: Harbor Boulevard
E/W: Victoria Street
Weather: Clear

File Name : 28_CSM_Harbor_Vic SAT
Site Code : 23922356
Start Date : 4/23/2022
Page No : 1

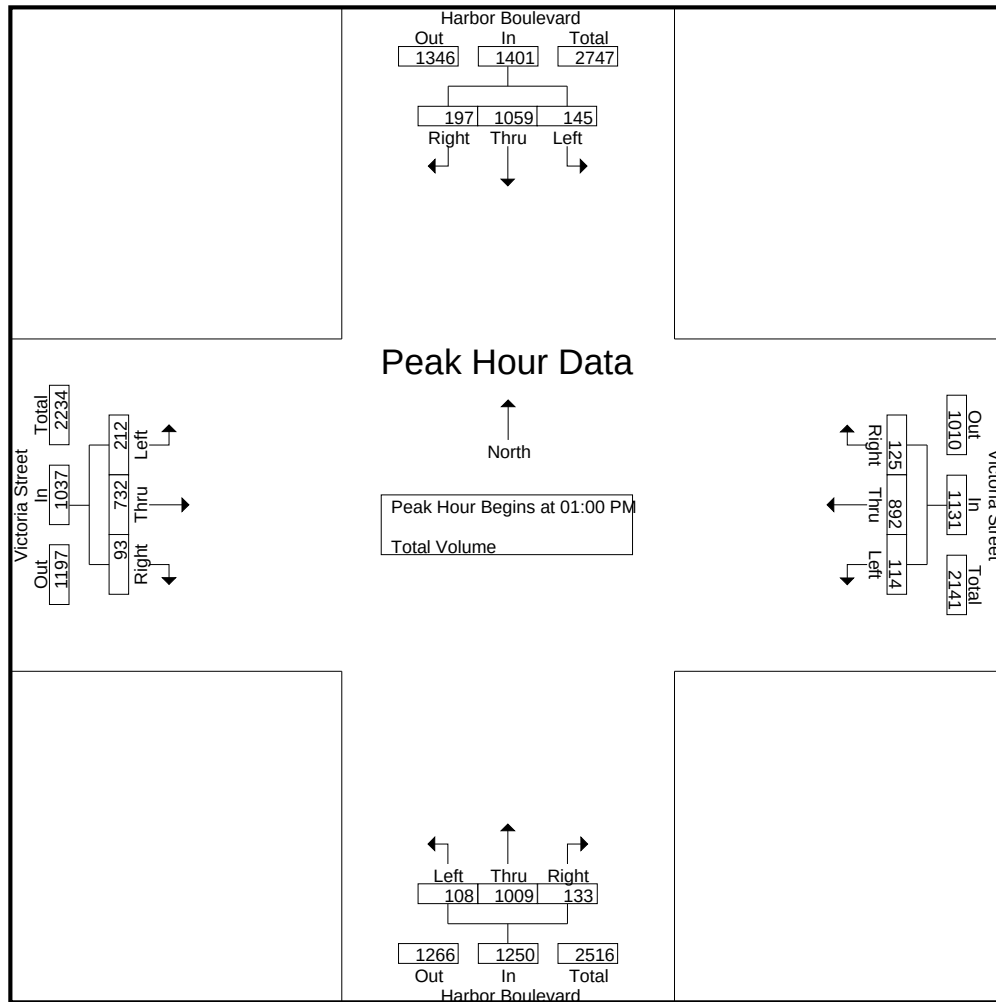
Groups Printed- Total Volume

	Harbor Boulevard Southbound				Victoria Street Westbound				Harbor Boulevard Northbound				Victoria Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
01:00 PM	32	270	55	357	23	219	41	283	34	262	38	334	50	161	25	236	1210
01:15 PM	34	263	46	343	24	232	28	284	29	232	29	290	59	184	24	267	1184
01:30 PM	43	246	50	339	36	222	34	292	22	265	29	316	51	205	24	280	1227
01:45 PM	36	280	46	362	31	219	22	272	23	250	37	310	52	182	20	254	1198
Total	145	1059	197	1401	114	892	125	1131	108	1009	133	1250	212	732	93	1037	4819
02:00 PM	34	280	55	369	15	222	41	278	25	230	31	286	60	154	19	233	1166
02:15 PM	35	279	62	376	30	215	34	279	31	244	26	301	58	177	16	251	1207
02:30 PM	29	260	48	337	23	220	30	273	22	224	41	287	58	186	19	263	1160
02:45 PM	25	288	55	368	18	219	17	254	27	248	30	305	64	172	24	260	1187
Total	123	1107	220	1450	86	876	122	1084	105	946	128	1179	240	689	78	1007	4720
Grand Total	268	2166	417	2851	200	1768	247	2215	213	1955	261	2429	452	1421	171	2044	9539
Apprch %	9.4	76	14.6		9	79.8	11.2		8.8	80.5	10.7		22.1	69.5	8.4		
Total %	2.8	22.7	4.4	29.9	2.1	18.5	2.6	23.2	2.2	20.5	2.7	25.5	4.7	14.9	1.8	21.4	

	Harbor Boulevard Southbound				Victoria Street Westbound				Harbor Boulevard Northbound				Victoria Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 01:00 PM to 02:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 01:00 PM																	
01:00 PM	32	270	55	357	23	219	41	283	34	262	38	334	50	161	25	236	1210
01:15 PM	34	263	46	343	24	232	28	284	29	232	29	290	59	184	24	267	1184
01:30 PM	43	246	50	339	36	222	34	292	22	265	29	316	51	205	24	280	1227
01:45 PM	36	280	46	362	31	219	22	272	23	250	37	310	52	182	20	254	1198
Total Volume																	4819
% App. Total	10.3	75.6	14.1		10.1	78.9	11.1		8.6	80.7	10.6		20.4	70.6	9		
PHF	.843	.946	.895	.968	.792	.961	.762	.968	.794	.952	.875	.936	.898	.893	.930	.926	

City of Costa Mesa
N/S: Harbor Boulevard
E/W: Victoria Street
Weather: Clear

File Name : 28_CSM_Harbor_Vic SAT
Site Code : 23922356
Start Date : 4/23/2022
Page No : 2



Peak Hour Analysis From 01:00 PM to 02:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	02:00 PM				01:00 PM				01:00 PM				01:00 PM			
+0 mins.	34	280	55	369	23	219	41	283	34	262	38	334	50	161	25	236
+15 mins.	35	279	62	376	24	232	28	284	29	232	29	290	59	184	24	267
+30 mins.	29	260	48	337	36	222	34	292	22	265	29	316	51	205	24	280
+45 mins.	25	288	55	368	31	219	22	272	23	250	37	310	52	182	20	254
Total Volume	123	1107	220	1450	114	892	125	1131	108	1009	133	1250	212	732	93	1037
% App. Total	8.5	76.3	15.2		10.1	78.9	11.1		8.6	80.7	10.6		20.4	70.6	9	
PHF	.879	.961	.887	.964	.792	.961	.762	.968	.794	.952	.875	.936	.898	.893	.930	.926

Location: Costa Mesa
N/S: Harbor Boulevard
E/W: Victoria Street



PEDESTRIANS

Date: 4/21/2022
Day: Thursday

	North Leg Harbor Boulevard Pedestrians	East Leg Victoria Street Pedestrians	South Leg Harbor Boulevard Pedestrians	West Leg Victoria Street Pedestrians	
7:00 AM	7	3	1	9	20
7:15 AM	4	4	1	5	14
7:30 AM	8	9	3	4	24
7:45 AM	9	1	0	5	15
8:00 AM	6	3	1	5	15
8:15 AM	1	6	1	2	10
8:30 AM	1	3	4	1	9
8:45 AM	7	3	0	2	12
TOTAL VOLUMES:	43	32	11	33	119

Date: 4/21/2022
Day: Thursday

	North Leg Harbor Boulevard Pedestrians	East Leg Victoria Street Pedestrians	South Leg Harbor Boulevard Pedestrians	West Leg Victoria Street Pedestrians	
12:00 PM	2	7	1	2	12
12:15 PM	8	5	3	1	17
12:30 PM	4	0	0	3	7
12:45 PM	4	3	3	5	15
1:00 PM	3	5	1	1	10
1:15 PM	3	3	7	2	15
1:30 PM	5	4	1	2	12
1:45 PM	1	10	0	6	17
2:00 PM	2	10	1	3	16
2:15 PM	3	4	1	3	11
2:30 PM	6	11	0	4	21
2:45 PM	4	4	1	5	14
TOTAL VOLUMES:	45	66	19	37	167

Date: 4/21/2022
Day: Thursday

	North Leg Harbor Boulevard Pedestrians	East Leg Victoria Street Pedestrians	South Leg Harbor Boulevard Pedestrians	West Leg Victoria Street Pedestrians	
3:00 PM	9	8	6	6	29
3:15 PM	7	7	3	10	27
3:30 PM	7	8	4	6	25
3:45 PM	3	9	2	6	20
4:00 PM	4	6	2	8	20
4:15 PM	10	6	1	14	31
4:30 PM	0	3	1	2	6
4:45 PM	3	4	0	5	12
5:00 PM	8	6	3	10	27
5:15 PM	4	9	2	3	18
5:30 PM	9	15	9	6	39
5:45 PM	8	3	1	12	24
TOTAL VOLUMES:	72	84	34	88	278

Date: 4/23/2022
Day: Saturday

	North Leg Harbor Boulevard Pedestrians	East Leg Victoria Street Pedestrians	South Leg Harbor Boulevard Pedestrians	West Leg Victoria Street Pedestrians	
1:00 PM	7	9	1	1	18
1:15 PM	4	3	3	6	16
1:30 PM	5	5	5	3	18
1:45 PM	9	7	0	6	22
2:00 PM	2	3	0	1	6
2:15 PM	6	7	4	5	22
2:30 PM	4	4	1	2	11
2:45 PM	2	8	2	2	14
TOTAL VOLUMES:	39	46	16	26	127

Location: Costa Mesa
N/S: Harbor Boulevard
E/W: Victoria Street



BICYCLES

Date: 4/21/2022
Day: Thursday

	Southbound Harbor Boulevard			Westbound Victoria Street			Northbound Harbor Boulevard			Eastbound Victoria Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	1	0	0	1	0	0	0	0	0	1	0	3
7:15 AM	0	2	0	1	2	0	0	0	0	0	0	0	5
7:30 AM	0	1	0	0	0	0	0	1	0	0	0	1	3
7:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	2
8:00 AM	0	1	0	0	0	0	0	1	0	0	0	0	2
8:15 AM	0	0	0	1	0	0	0	1	1	0	0	0	3
8:30 AM	0	1	0	0	1	0	0	0	0	0	0	0	2
8:45 AM	0	3	1	0	2	0	0	0	0	0	0	0	6
TOTAL VOLUMES:	0	10	1	3	6	0	0	3	1	0	1	1	26

Date: 4/21/2022
Day: Thursday

	Southbound Harbor Boulevard			Westbound Victoria Street			Northbound Harbor Boulevard			Eastbound Victoria Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
12:00 PM	0	0	2	0	0	0	0	2	0	0	0	0	4
12:15 PM	0	1	0	0	0	0	0	4	0	0	3	0	8
12:30 PM	0	1	0	0	1	0	0	1	0	0	0	0	3
12:45 PM	1	0	0	0	1	0	0	2	0	0	1	0	5
1:00 PM	0	0	0	0	0	0	0	3	0	1	0	0	4
1:15 PM	0	1	0	0	0	0	0	1	0	0	0	0	2
1:30 PM	2	0	1	0	0	0	0	4	0	0	1	0	8
1:45 PM	0	0	0	0	0	0	0	3	0	0	0	0	3
2:00 PM	0	0	0	0	2	0	0	3	0	0	0	0	5
2:15 PM	0	1	0	0	1	0	0	3	0	0	0	0	5
2:30 PM	1	2	1	0	0	0	0	2	0	0	3	0	9
2:45 PM	0	1	0	0	0	0	0	1	0	1	0	0	3
TOTAL VOLUMES:	4	7	4	0	5	0	0	29	0	2	8	0	59

Date: 4/21/2022
Day: Thursday

	Southbound Harbor Boulevard			Westbound Victoria Street			Northbound Harbor Boulevard			Eastbound Victoria Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
3:00 PM	0	5	0	0	1	0	0	2	0	0	0	0	8
3:15 PM	0	3	0	0	0	0	1	4	0	0	2	0	10
3:30 PM	0	1	0	0	1	0	0	2	1	0	0	0	5
3:45 PM	0	2	0	0	0	0	0	2	0	0	2	0	6
4:00 PM	0	2	0	3	1	0	0	2	0	0	0	0	8
4:15 PM	0	2	0	0	1	0	0	1	0	0	0	0	4
4:30 PM	0	4	0	0	1	0	0	5	0	1	1	1	13
4:45 PM	0	7	0	1	2	0	0	3	2	1	2	0	18
5:00 PM	0	1	1	0	1	0	0	1	0	1	0	0	5
5:15 PM	0	0	0	0	1	0	0	0	0	0	3	0	4
5:30 PM	1	2	0	0	1	0	0	0	0	0	1	0	5
5:45 PM	0	5	0	0	0	0	0	0	0	0	1	0	6
TOTAL VOLUMES:	1	34	1	4	10	0	1	22	3	3	12	1	92

Date: 4/23/2022
Day: Saturday

	Southbound Harbor Boulevard			Westbound Victoria Street			Northbound Harbor Boulevard			Eastbound Victoria Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1:00 PM	0	0	0	0	2	1	0	0	0	0	1	0	4
1:15 PM	0	1	0	0	0	0	0	1	0	0	1	0	3
1:30 PM	0	0	0	0	1	0	0	0	0	1	1	1	4
1:45 PM	0	1	0	0	1	0	1	0	0	0	0	1	4
2:00 PM	0	0	0	0	0	0	0	2	0	0	1	1	4
2:15 PM	0	1	0	0	1	0	0	2	0	0	0	0	4
2:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	1
2:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
TOTAL VOLUMES:	0	3	0	0	5	1	1	6	0	2	4	3	25

City of Costa Mesa
N/S: Harbor Boulevard
E/W: W 19th Street
Weather: Clear

File Name : 39_CSM_Har_19th AM
Site Code : 23922356
Start Date : 4/21/2022
Page No : 1

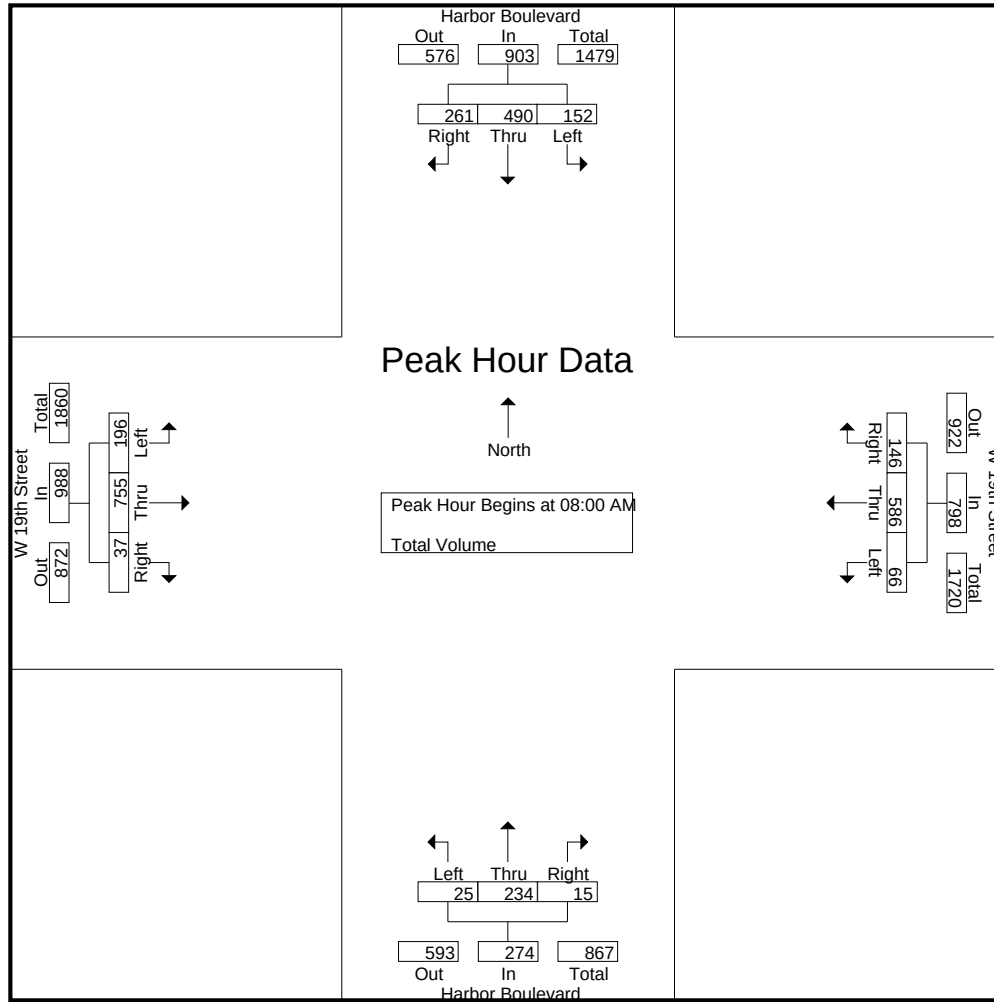
Groups Printed- Total Volume

	Harbor Boulevard Southbound				W 19th Street Westbound				Harbor Boulevard Northbound				W 19th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	31	76	38	145	5	80	22	107	7	37	1	45	32	159	7	198	495
07:15 AM	42	88	40	170	8	117	12	137	4	28	5	37	47	194	6	247	591
07:30 AM	36	139	50	225	12	120	22	154	4	42	4	50	47	207	7	261	690
07:45 AM	34	152	49	235	8	173	37	218	9	51	2	62	42	179	4	225	740
Total	143	455	177	775	33	490	93	616	24	158	12	194	168	739	24	931	2516
08:00 AM	40	127	82	249	14	172	35	221	3	79	4	86	40	183	6	229	785
08:15 AM	40	120	61	221	21	117	37	175	5	46	4	55	58	200	10	268	719
08:30 AM	30	112	60	202	12	138	38	188	11	51	5	67	44	200	10	254	711
08:45 AM	42	131	58	231	19	159	36	214	6	58	2	66	54	172	11	237	748
Total	152	490	261	903	66	586	146	798	25	234	15	274	196	755	37	988	2963
Grand Total	295	945	438	1678	99	1076	239	1414	49	392	27	468	364	1494	61	1919	5479
Apprch %	17.6	56.3	26.1		7	76.1	16.9		10.5	83.8	5.8		19	77.9	3.2		
Total %	5.4	17.2	8	30.6	1.8	19.6	4.4	25.8	0.9	7.2	0.5	8.5	6.6	27.3	1.1	35	

	Harbor Boulevard Southbound				W 19th Street Westbound				Harbor Boulevard Northbound				W 19th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	40	127	82	249	14	172	35	221	3	79	4	86	40	183	6	229	785
08:15 AM	40	120	61	221	21	117	37	175	5	46	4	55	58	200	10	268	719
08:30 AM	30	112	60	202	12	138	38	188	11	51	5	67	44	200	10	254	711
08:45 AM	42	131	58	231	19	159	36	214	6	58	2	66	54	172	11	237	748
Total Volume	152	490	261	903	66	586	146	798	25	234	15	274	196	755	37	988	2963
% App. Total	16.8	54.3	28.9		8.3	73.4	18.3		9.1	85.4	5.5		19.8	76.4	3.7		
PHF	.905	.935	.796	.907	.786	.852	.961	.903	.568	.741	.750	.797	.845	.944	.841	.922	.944

City of Costa Mesa
N/S: Harbor Boulevard
E/W: W 19th Street
Weather: Clear

File Name : 39_CSM_Har_19th AM
Site Code : 23922356
Start Date : 4/21/2022
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:45 AM				08:00 AM				08:00 AM			
+0 mins.	36	139	50	225	8	173	37	218	3	79	4	86	40	183	6	229
+15 mins.	34	152	49	235	14	172	35	221	5	46	4	55	58	200	10	268
+30 mins.	40	127	82	249	21	117	37	175	11	51	5	67	44	200	10	254
+45 mins.	40	120	61	221	12	138	38	188	6	58	2	66	54	172	11	237
Total Volume	150	538	242	930	55	600	147	802	25	234	15	274	196	755	37	988
% App. Total	16.1	57.8	26		6.9	74.8	18.3		9.1	85.4	5.5		19.8	76.4	3.7	
PHF	.938	.885	.738	.934	.655	.867	.967	.907	.568	.741	.750	.797	.845	.944	.841	.922

City of Costa Mesa
N/S: Harbor Boulevard
E/W: W 19th Street
Weather: Clear

File Name : 39_CSM_Har_19th MD
Site Code : 23922356
Start Date : 4/21/2022
Page No : 1

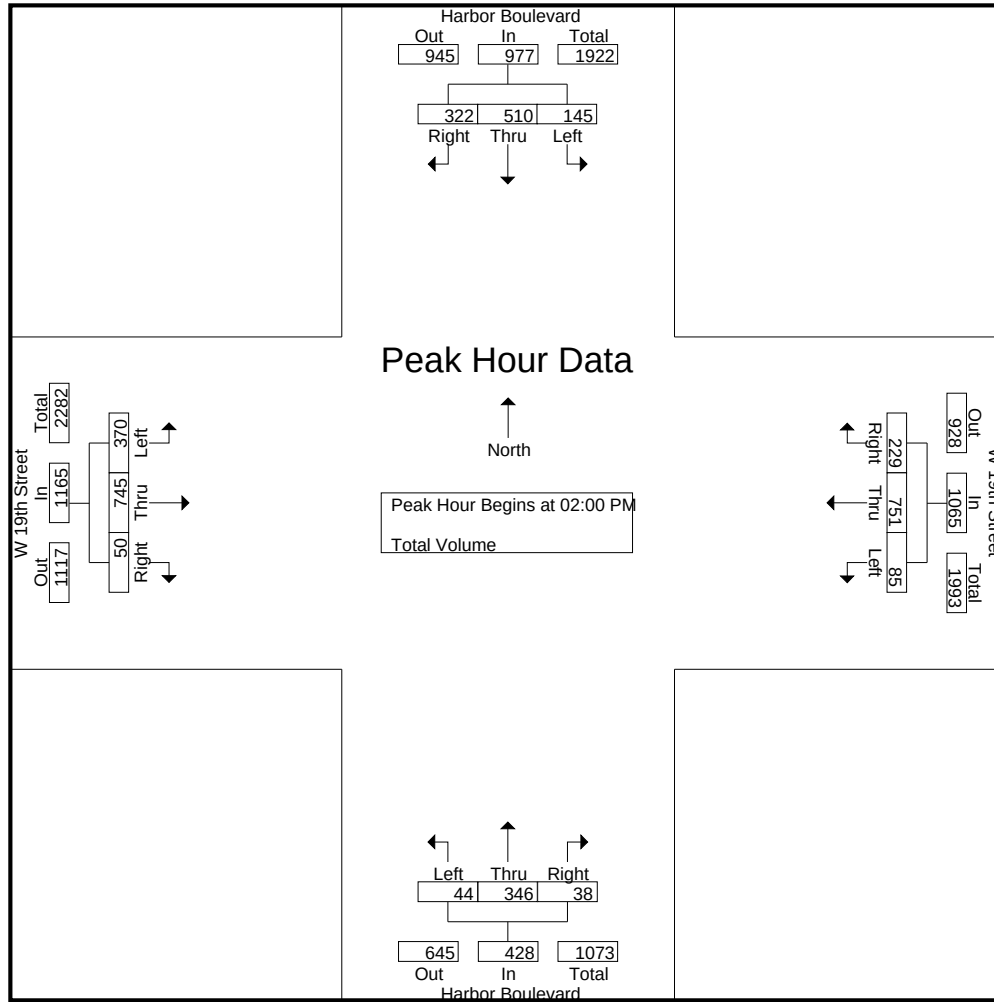
Groups Printed- Total Volume

	Harbor Boulevard Southbound				W 19th Street Westbound				Harbor Boulevard Northbound				W 19th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
12:00 PM	30	100	75	205	25	153	45	223	7	85	7	99	104	156	14	274	801
12:15 PM	42	140	94	276	27	172	56	255	12	83	9	104	86	147	5	238	873
12:30 PM	37	127	83	247	14	159	46	219	10	87	2	99	93	194	19	306	871
12:45 PM	38	127	71	236	17	132	40	189	18	103	9	130	101	150	14	265	820
Total	147	494	323	964	83	616	187	886	47	358	27	432	384	647	52	1083	3365
01:00 PM	38	120	93	251	32	163	45	240	19	84	3	106	76	148	18	242	839
01:15 PM	31	143	75	249	28	166	42	236	14	73	9	96	87	156	16	259	840
01:30 PM	43	128	75	246	24	167	54	245	13	86	14	113	79	178	12	269	873
01:45 PM	40	124	70	234	22	193	55	270	20	89	6	115	80	180	14	274	893
Total	152	515	313	980	106	689	196	991	66	332	32	430	322	662	60	1044	3445
02:00 PM	28	122	80	230	22	197	50	269	16	91	12	119	88	172	11	271	889
02:15 PM	43	142	77	262	24	177	51	252	10	73	13	96	86	186	9	281	891
02:30 PM	35	131	89	255	18	181	65	264	7	85	8	100	97	211	18	326	945
02:45 PM	39	115	76	230	21	196	63	280	11	97	5	113	99	176	12	287	910
Total	145	510	322	977	85	751	229	1065	44	346	38	428	370	745	50	1165	3635
Grand Total	444	1519	958	2921	274	2056	612	2942	157	1036	97	1290	1076	2054	162	3292	10445
Apprch %	15.2	52	32.8		9.3	69.9	20.8		12.2	80.3	7.5		32.7	62.4	4.9		
Total %	4.3	14.5	9.2	28	2.6	19.7	5.9	28.2	1.5	9.9	0.9	12.4	10.3	19.7	1.6	31.5	

	Harbor Boulevard Southbound				W 19th Street Westbound				Harbor Boulevard Northbound				W 19th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 02:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 02:00 PM																	
02:00 PM	28	122	80	230	22	197	50	269	16	91	12	119	88	172	11	271	889
02:15 PM	43	142	77	262	24	177	51	252	10	73	13	96	86	186	9	281	891
02:30 PM	35	131	89	255	18	181	65	264	7	85	8	100	97	211	18	326	945
02:45 PM	39	115	76	230	21	196	63	280	11	97	5	113	99	176	12	287	910
Total Volume	145	510	322	977	85	751	229	1065	44	346	38	428	370	745	50	1165	3635
% App. Total	14.8	52.2	33		8	70.5	21.5		10.3	80.8	8.9		31.8	63.9	4.3		
PHF	.843	.898	.904	.932	.885	.953	.881	.951	.688	.892	.731	.899	.934	.883	.694	.893	.962

City of Costa Mesa
N/S: Harbor Boulevard
E/W: W 19th Street
Weather: Clear

File Name : 39_CSM_Har_19th MD
Site Code : 23922356
Start Date : 4/21/2022
Page No : 2



Peak Hour Analysis From 12:00 PM to 02:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	12:15 PM				02:00 PM				12:45 PM				02:00 PM			
+0 mins.	42	140	94	276	22	197	50	269	18	103	9	130	88	172	11	271
+15 mins.	37	127	83	247	24	177	51	252	19	84	3	106	86	186	9	281
+30 mins.	38	127	71	236	18	181	65	264	14	73	9	96	97	211	18	326
+45 mins.	38	120	93	251	21	196	63	280	13	86	14	113	99	176	12	287
Total Volume	155	514	341	1010	85	751	229	1065	64	346	35	445	370	745	50	1165
% App. Total	15.3	50.9	33.8		8	70.5	21.5		14.4	77.8	7.9		31.8	63.9	4.3	
PHF	.923	.918	.907	.915	.885	.953	.881	.951	.842	.840	.625	.856	.934	.883	.694	.893

City of Costa Mesa
N/S: Harbor Boulevard
E/W: W 19th Street
Weather: Clear

File Name : 39_CSM_Har_19th PM
Site Code : 23922356
Start Date : 4/21/2022
Page No : 1

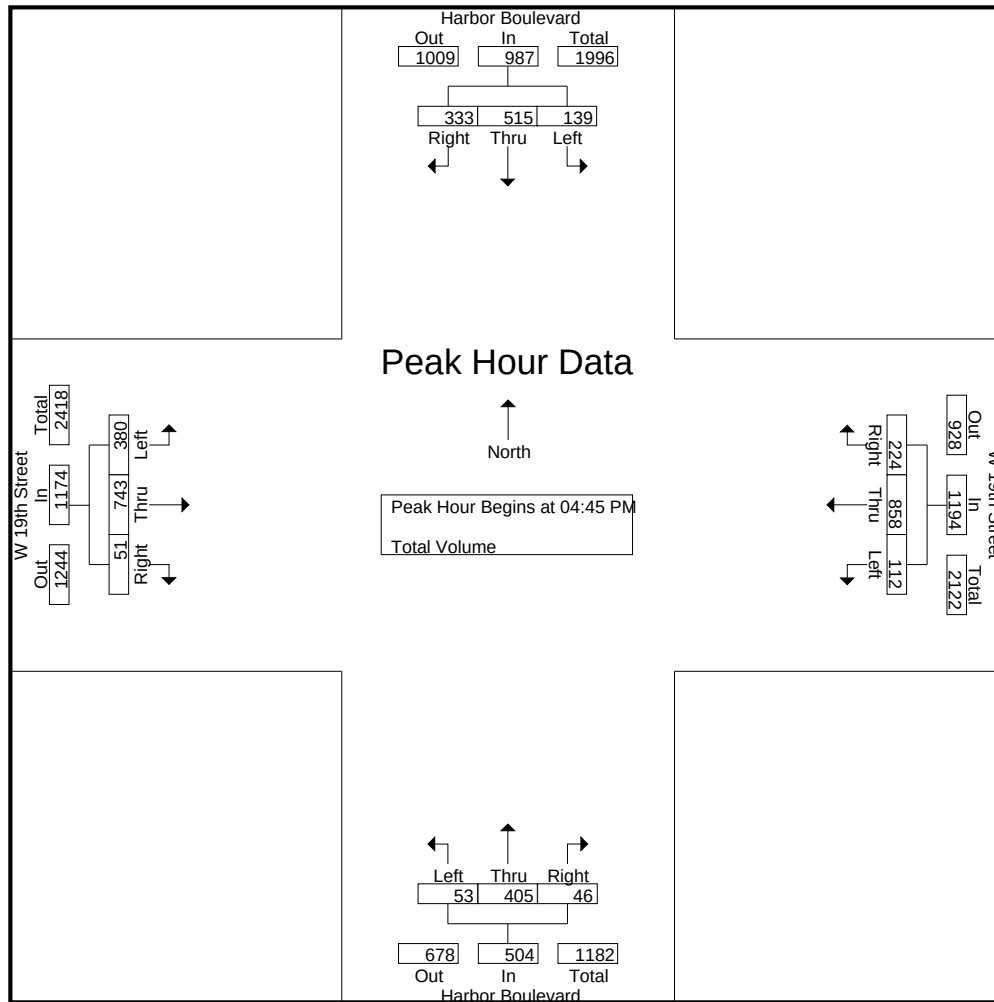
Groups Printed- Total Volume

	Harbor Boulevard Southbound				W 19th Street Westbound				Harbor Boulevard Northbound				W 19th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
03:00 PM	31	127	66	224	21	214	77	312	13	80	10	103	93	188	12	293	932
03:15 PM	37	137	86	260	26	196	57	279	11	89	6	106	87	200	11	298	943
03:30 PM	34	121	84	239	35	185	50	270	18	99	5	122	92	149	24	265	896
03:45 PM	38	107	98	243	20	204	54	278	5	87	6	98	93	192	8	293	912
Total	140	492	334	966	102	799	238	1139	47	355	27	429	365	729	55	1149	3683
04:00 PM	38	121	82	241	32	227	50	309	14	102	12	128	87	180	16	283	961
04:15 PM	26	109	66	201	26	221	71	318	12	100	5	117	81	172	16	269	905
04:30 PM	29	131	81	241	15	207	60	282	16	84	8	108	90	208	6	304	935
04:45 PM	33	125	85	243	30	216	57	303	9	92	11	112	77	187	10	274	932
Total	126	486	314	926	103	871	238	1212	51	378	36	465	335	747	48	1130	3733
05:00 PM	38	125	83	246	34	205	60	299	19	110	11	140	105	203	16	324	1009
05:15 PM	34	110	78	222	23	221	54	298	13	112	10	135	113	185	10	308	963
05:30 PM	34	155	87	276	25	216	53	294	12	91	14	117	85	168	15	268	955
05:45 PM	37	96	79	212	20	183	47	250	15	81	11	107	91	143	10	244	813
Total	143	486	327	956	102	825	214	1141	59	394	46	499	394	699	51	1144	3740
Grand Total	409	1464	975	2848	307	2495	690	3492	157	1127	109	1393	1094	2175	154	3423	11156
Apprch %	14.4	51.4	34.2		8.8	71.4	19.8		11.3	80.9	7.8		32	63.5	4.5		
Total %	3.7	13.1	8.7	25.5	2.8	22.4	6.2	31.3	1.4	10.1	1	12.5	9.8	19.5	1.4	30.7	

	Harbor Boulevard Southbound				W 19th Street Westbound				Harbor Boulevard Northbound				W 19th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	33	125	85	243	30	216	57	303	9	92	11	112	77	187	10	274	932
05:00 PM	38	125	83	246	34	205	60	299	19	110	11	140	105	203	16	324	1009
05:15 PM	34	110	78	222	23	221	54	298	13	112	10	135	113	185	10	308	963
05:30 PM	34	155	87	276	25	216	53	294	12	91	14	117	85	168	15	268	955
Total Volume	139	515	333	987	112	858	224	1194	53	405	46	504	380	743	51	1174	3859
% App. Total	14.1	52.2	33.7		9.4	71.9	18.8		10.5	80.4	9.1		32.4	63.3	4.3		
PHF	.914	.831	.957	.894	.824	.971	.933	.985	.697	.904	.821	.900	.841	.915	.797	.906	.956

City of Costa Mesa
N/S: Harbor Boulevard
E/W: W 19th Street
Weather: Clear

File Name : 39_CSM_Har_19th PM
Site Code : 23922356
Start Date : 4/21/2022
Page No : 2



Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:00 PM				04:45 PM				04:30 PM			
+0 mins.	33	125	85	243	32	227	50	309	9	92	11	112	90	208	6	304
+15 mins.	38	125	83	246	26	221	71	318	19	110	11	140	77	187	10	274
+30 mins.	34	110	78	222	15	207	60	282	13	112	10	135	105	203	16	324
+45 mins.	34	155	87	276	30	216	57	303	12	91	14	117	113	185	10	308
Total Volume	139	515	333	987	103	871	238	1212	53	405	46	504	385	783	42	1210
% App. Total	14.1	52.2	33.7		8.5	71.9	19.6		10.5	80.4	9.1		31.8	64.7	3.5	
PHF	.914	.831	.957	.894	.805	.959	.838	.953	.697	.904	.821	.900	.852	.941	.656	.934

City of Costa Mesa
N/S: Harbor Boulevard
E/W: W 19th Street
Weather: Clear

File Name : 39_CSM_Har_19th SAT
Site Code : 23922356
Start Date : 4/23/2022
Page No : 1

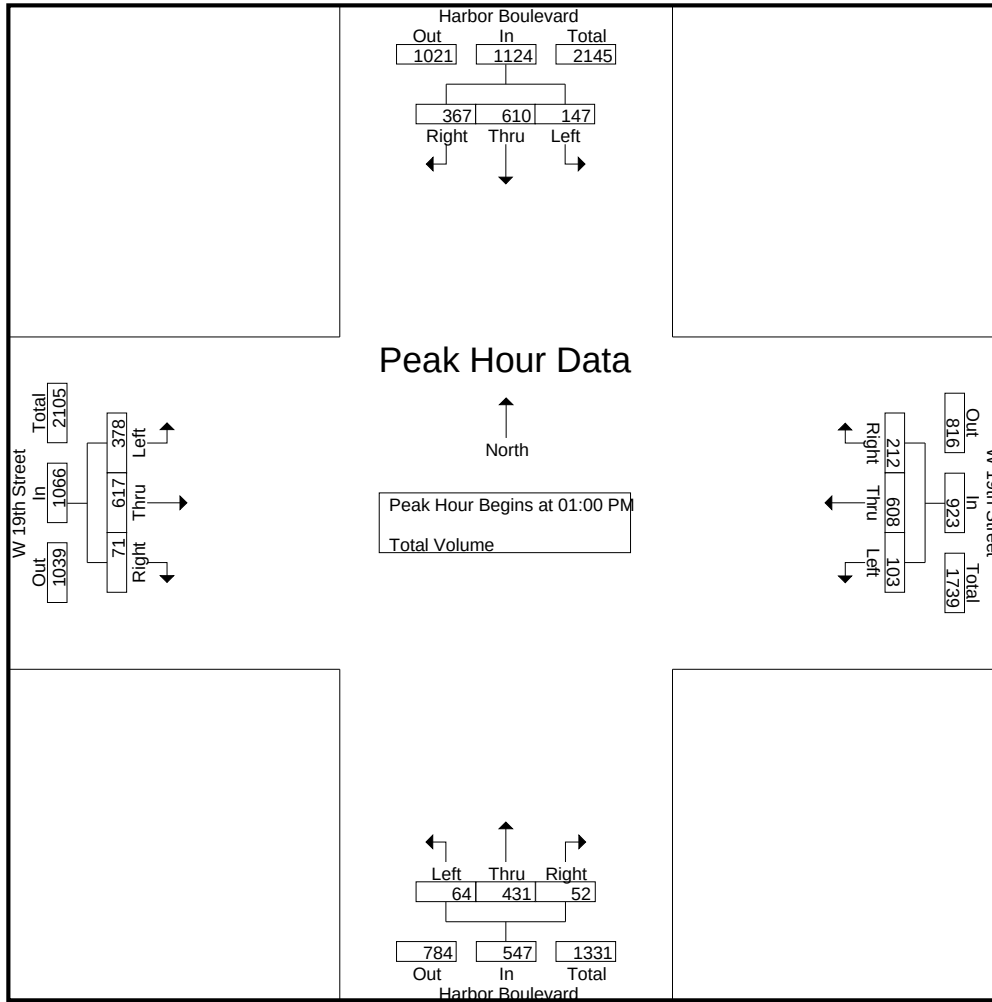
Groups Printed- Total Volume

	Harbor Boulevard Southbound				W 19th Street Westbound				Harbor Boulevard Northbound				W 19th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
01:00 PM	33	164	103	300	29	156	57	242	17	102	10	129	107	169	14	290	961
01:15 PM	29	165	87	281	27	140	57	224	11	103	11	125	91	142	11	244	874
01:30 PM	39	136	91	266	27	159	43	229	22	110	17	149	87	157	22	266	910
01:45 PM	46	145	86	277	20	153	55	228	14	116	14	144	93	149	24	266	915
Total	147	610	367	1124	103	608	212	923	64	431	52	547	378	617	71	1066	3660
02:00 PM	49	132	80	261	27	148	47	222	14	100	7	121	87	168	22	277	881
02:15 PM	36	144	78	258	23	162	64	249	16	96	7	119	91	143	14	248	874
02:30 PM	38	157	87	282	28	142	58	228	13	80	10	103	84	190	15	289	902
02:45 PM	40	151	98	289	23	179	47	249	16	110	19	145	83	167	20	270	953
Total	163	584	343	1090	101	631	216	948	59	386	43	488	345	668	71	1084	3610
Grand Total	310	1194	710	2214	204	1239	428	1871	123	817	95	1035	723	1285	142	2150	7270
Apprch %	14	53.9	32.1		10.9	66.2	22.9		11.9	78.9	9.2		33.6	59.8	6.6		
Total %	4.3	16.4	9.8	30.5	2.8	17	5.9	25.7	1.7	11.2	1.3	14.2	9.9	17.7	2	29.6	

	Harbor Boulevard Southbound				W 19th Street Westbound				Harbor Boulevard Northbound				W 19th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 01:00 PM to 02:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 01:00 PM																	
01:00 PM	33	164	103	300	29	156	57	242	17	102	10	129	107	169	14	290	961
01:15 PM	29	165	87	281	27	140	57	224	11	103	11	125	91	142	11	244	874
01:30 PM	39	136	91	266	27	159	43	229	22	110	17	149	87	157	22	266	910
01:45 PM	46	145	86	277	20	153	55	228	14	116	14	144	93	149	24	266	915
Total Volume	147	610	367	1124	103	608	212	923	64	431	52	547	378	617	71	1066	3660
% App. Total	13.1	54.3	32.7		11.2	65.9	23		11.7	78.8	9.5		35.5	57.9	6.7		
PHF	.799	.924	.891	.937	.888	.956	.930	.954	.727	.929	.765	.918	.883	.913	.740	.919	.952

City of Costa Mesa
N/S: Harbor Boulevard
E/W: W 19th Street
Weather: Clear

File Name : 39_CSM_Har_19th SAT
Site Code : 23922356
Start Date : 4/23/2022
Page No : 2



Peak Hour Analysis From 01:00 PM to 02:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	01:00 PM				02:00 PM				01:00 PM				02:00 PM			
+0 mins.	33	164	103	300	27	148	47	222	17	102	10	129	87	168	22	277
+15 mins.	29	165	87	281	23	162	64	249	11	103	11	125	91	143	14	248
+30 mins.	39	136	91	266	28	142	58	228	22	110	17	149	84	190	15	289
+45 mins.	46	145	86	277	23	179	47	249	14	116	14	144	83	167	20	270
Total Volume	147	610	367	1124	101	631	216	948	64	431	52	547	345	668	71	1084
% App. Total	13.1	54.3	32.7		10.7	66.6	22.8		11.7	78.8	9.5		31.8	61.6	6.5	
PHF	.799	.924	.891	.937	.902	.881	.844	.952	.727	.929	.765	.918	.948	.879	.807	.938

Location: Costa Mesa
N/S: Harbor Boulevard
E/W: W 19th Street



PEDESTRIANS

Date: 4/21/2022
Day: Thursday

	North Leg Harbor Boulevard Pedestrians	East Leg W 19th Street Pedestrians	South Leg Harbor Boulevard Pedestrians	West Leg W 19th Street Pedestrians	
7:00 AM	2	1	2	3	8
7:15 AM	3	5	3	1	12
7:30 AM	2	2	3	3	10
7:45 AM	2	1	5	1	9
8:00 AM	1	1	2	0	4
8:15 AM	3	2	4	2	11
8:30 AM	4	3	0	0	7
8:45 AM	0	1	0	2	3
TOTAL VOLUMES:	17	16	19	12	64

Date: 4/21/2022
Day: Thursday

	North Leg Harbor Boulevard Pedestrians	East Leg W 19th Street Pedestrians	South Leg Harbor Boulevard Pedestrians	West Leg W 19th Street Pedestrians	
12:00 PM	2	2	3	3	10
12:15 PM	4	2	5	0	11
12:30 PM	0	1	3	0	4
12:45 PM	5	1	1	5	12
1:00 PM	8	8	1	5	22
1:15 PM	5	2	3	3	13
1:30 PM	5	4	4	1	14
1:45 PM	0	3	6	3	12
2:00 PM	0	4	7	1	12
2:15 PM	10	9	5	0	24
2:30 PM	6	1	2	3	12
2:45 PM	8	3	7	7	25
TOTAL VOLUMES:	53	40	47	31	171

Date: 4/21/2022
Day: Thursday

	North Leg Harbor Boulevard Pedestrians	East Leg W 19th Street Pedestrians	South Leg Harbor Boulevard Pedestrians	West Leg W 19th Street Pedestrians	
3:00 PM	3	2	4	2	11
3:15 PM	0	5	3	3	11
3:30 PM	5	5	5	4	19
3:45 PM	7	2	4	8	21
4:00 PM	7	10	6	0	23
4:15 PM	6	7	10	6	29
4:30 PM	2	3	8	6	19
4:45 PM	2	1	8	6	17
5:00 PM	1	4	9	1	15
5:15 PM	2	3	6	2	13
5:30 PM	3	5	8	9	25
5:45 PM	5	7	7	6	25
TOTAL VOLUMES:	43	54	78	53	228

Date: 4/23/2022
Day: Saturday

	North Leg Harbor Boulevard Pedestrians	East Leg W 19th Street Pedestrians	South Leg Harbor Boulevard Pedestrians	West Leg W 19th Street Pedestrians	
1:00 PM	1	3	5	3	12
1:15 PM	7	5	4	4	20
1:30 PM	8	8	15	9	40
1:45 PM	0	6	6	6	18
2:00 PM	6	2	4	4	16
2:15 PM	3	4	3	3	13
2:30 PM	5	6	3	7	21
2:45 PM	3	10	1	3	17
TOTAL VOLUMES:	33	44	41	39	157

Location: Costa Mesa
N/S: Harbor Boulevard
E/W: W 19th Street



BICYCLES

Date: 4/21/2022
Day: Thursday

	Southbound Harbor Boulevard			Westbound W 19th Street			Northbound Harbor Boulevard			Eastbound W 19th Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	2	0	0	0	0	0	0	0	2
7:15 AM	1	3	0	0	0	0	0	0	0	0	0	0	4
7:30 AM	0	3	0	0	0	0	0	0	0	0	1	0	4
7:45 AM	0	1	0	0	1	0	0	0	0	0	0	0	2
8:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
8:15 AM	0	2	0	0	0	0	0	0	0	1	0	0	3
8:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
8:45 AM	0	1	0	1	0	0	0	1	0	1	1	0	5
TOTAL VOLUMES:	1	10	0	1	3	0	0	1	0	2	4	0	22

Date: 4/21/2022
Day: Thursday

	Southbound Harbor Boulevard			Westbound W 19th Street			Northbound Harbor Boulevard			Eastbound W 19th Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
12:00 PM	0	0	0	0	1	0	0	0	0	9	0	0	10
12:15 PM	0	1	0	0	1	0	0	1	0	2	0	0	5
12:30 PM	0	0	1	0	0	0	0	0	0	0	1	0	2
12:45 PM	1	1	0	1	4	0	0	1	0	0	1	0	9
1:00 PM	0	0	0	0	8	1	0	2	0	0	1	0	12
1:15 PM	1	1	0	0	0	0	0	0	0	0	0	0	2
1:30 PM	0	1	1	1	1	0	0	1	0	1	0	0	6
1:45 PM	0	1	0	0	3	1	0	0	0	0	0	1	6
2:00 PM	0	1	0	0	0	0	0	1	0	0	2	0	4
2:15 PM	1	2	0	0	2	1	2	0	0	1	0	0	9
2:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	1
2:45 PM	0	0	0	1	1	0	0	0	0	1	1	0	4
TOTAL VOLUMES:	3	8	2	3	21	3	3	6	0	14	6	1	70

Date: 4/21/2022
Day: Thursday

	Southbound Harbor Boulevard			Westbound W 19th Street			Northbound Harbor Boulevard			Eastbound W 19th Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
3:00 PM	1	1	1	0	0	0	0	0	0	1	0	0	4
3:15 PM	0	2	0	0	3	2	0	0	0	0	1	0	8
3:30 PM	1	1	0	0	0	2	0	0	0	1	1	0	6
3:45 PM	0	0	0	0	2	0	0	0	0	1	1	0	4
4:00 PM	0	6	1	1	1	0	1	0	0	0	0	0	10
4:15 PM	1	2	0	0	0	0	0	0	0	0	1	0	4
4:30 PM	0	0	0	0	2	0	0	0	0	0	0	0	2
4:45 PM	0	2	3	0	0	2	0	1	0	0	2	0	10
5:00 PM	1	0	1	0	3	1	0	2	0	0	2	0	10
5:15 PM	0	1	0	0	3	1	1	0	0	0	0	0	6
5:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
5:45 PM	0	1	1	0	0	1	0	0	0	0	0	0	3
TOTAL VOLUMES:	4	16	7	1	14	9	2	3	0	3	9	0	68

Date: 4/23/2022
Day: Saturday

	Southbound Harbor Boulevard			Westbound W 19th Street			Northbound Harbor Boulevard			Eastbound W 19th Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1:00 PM	0	0	0	1	2	0	0	0	0	0	0	0	3
1:15 PM	0	0	0	0	1	0	0	2	0	0	1	0	4
1:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
1:45 PM	0	1	0	0	0	0	0	0	0	0	1	0	2
2:00 PM	0	1	0	0	2	0	0	0	0	0	0	0	3
2:15 PM	0	1	0	0	1	0	0	0	0	0	3	0	5
2:30 PM	0	0	0	1	3	1	0	0	0	0	0	0	5
2:45 PM	1	0	0	0	1	0	0	1	0	0	2	0	5
TOTAL VOLUMES:	1	4	0	2	10	1	0	3	0	0	7	0	28

INTERSECTION TURNING MOVEMENT COUNTS

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

T101823

DATE: Thu, Nov 2, 23	LOCATION: NORTH & SOUTH: EAST & WEST:	Costa Mesa Harbor Blvd Hamilton St	PROJECT #: LOCATION #: CONTROL:	SC4286 11 SIGNAL
-------------------------	---	--	---------------------------------------	------------------------

NOTES:	AM PM MD OTHER OTHER	▲ N ◀ W S ▶ E
Queue NB AM/PM		

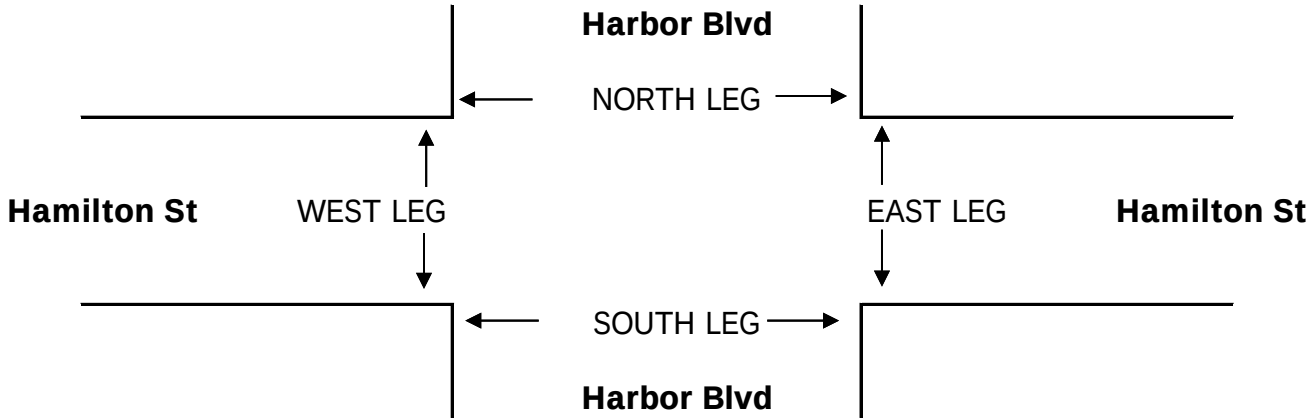
	NORTHBOUND Harbor Blvd			SOUTHBOUND Harbor Blvd			EASTBOUND Hamilton St			WESTBOUND Hamilton St			
LANES:	NL 1	NT 3	NR 0	SL 1	ST 3	SR 0	EL 1	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL

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

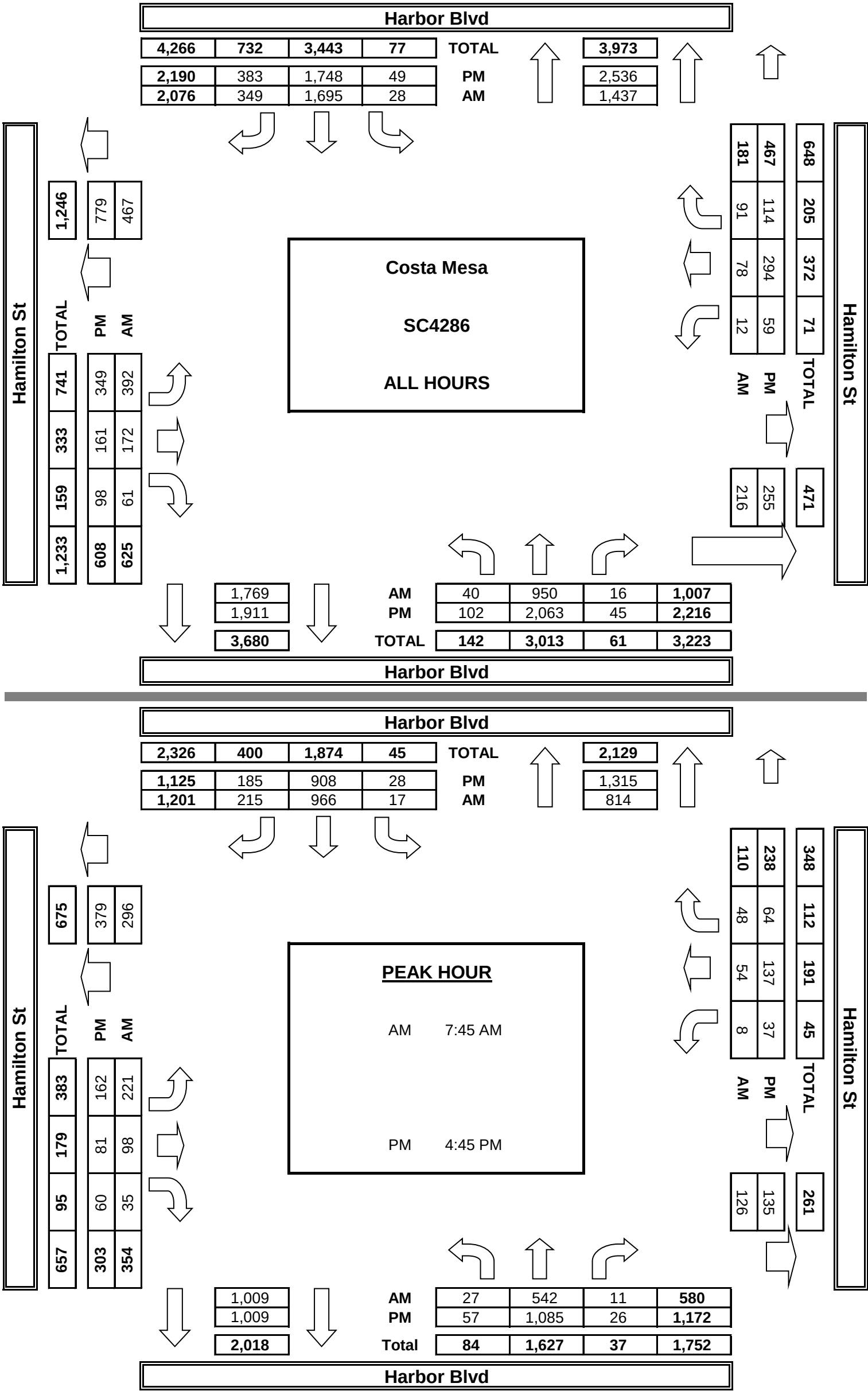
AM	7:00 AM	4	80	1	4	121	18	31	16	5	1	4	11	296
	7:15 AM	2	76	0	4	163	35	45	19	9	0	4	9	366
	7:30 AM	2	107	2	0	199	48	56	20	9	0	9	12	464
	7:45 AM	9	130	3	0	258	61	71	35	6	4	13	15	605
	8:00 AM	5	161	6	3	250	67	52	19	6	1	11	16	597
	8:15 AM	8	143	2	10	226	46	48	22	14	2	19	8	548
	8:30 AM	5	108	0	4	232	41	50	22	9	1	11	9	492
	8:45 AM	5	145	2	3	246	33	39	19	3	3	7	11	516
	VOLUMES	40	950	16	28	1,695	349	392	172	61	12	78	91	3,889
	APPROACH %	4%	94%	2%	1%	82%	17%	63%	28%	10%	7%	43%	50%	
	APP/DEPART	1,007	/	1,437	2,076	/	1,769	625	/	216	181	/	467	0
	BEGIN PEAK HR	7:45 AM												
PM	VOLUMES	27	542	11	17	966	215	221	98	35	8	54	48	2,245
	APPROACH %	5%	93%	2%	1%	80%	18%	62%	28%	10%	7%	49%	44%	
	PEAK HR FACTOR	0.843			0.938			0.790			0.859			0.926
	APP/DEPART	580	/	814	1,201	/	1,009	354	/	126	110	/	296	0
	4:00 PM	8	252	7	6	189	55	51	21	11	2	29	11	642
	4:15 PM	15	224	3	2	222	42	45	14	5	7	37	16	632
	4:30 PM	10	247	3	6	199	46	44	24	10	6	54	15	664
	4:45 PM	7	264	7	9	250	53	44	25	12	3	50	12	736
	5:00 PM	16	277	5	6	212	47	53	17	27	19	19	30	728
	5:15 PM	13	265	8	5	229	36	36	22	10	13	31	18	686
	5:30 PM	21	279	6	8	217	49	29	17	11	2	37	4	680
	5:45 PM	12	255	6	7	230	55	47	21	12	7	37	8	697
	VOLUMES	102	2,063	45	49	1,748	383	349	161	98	59	294	114	5,481
	APPROACH %	5%	93%	2%	2%	80%	17%	57%	26%	16%	13%	63%	24%	
	APP/DEPART	2,216	/	2,536	2,190	/	1,911	608	/	255	467	/	779	0
	BEGIN PEAK HR	4:45 PM												
	VOLUMES	57	1,085	26	28	908	185	162	81	60	37	137	64	2,838
	APPROACH %	5%	93%	2%	2%	81%	16%	53%	27%	20%	16%	58%	27%	
	PEAK HR FACTOR	0.951			0.899			0.781			0.875			0.963
	APP/DEPART	1,172	/	1,315	1,125	/	1,009	303	/	135	238	/	379	0

0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
0	1	0	0	1
0	0	0	0	0
0	1	0	0	1
0	1	0	0	1
0	1	0	0	1
1	4	0	0	5

2	2	0	0	4
0	1	0	0	1
0	3	0	0	3
0	1	0	0	1
2	1	0	0	3
0	1	0	0	1
2	1	0	0	3
0	0	0	0	0
6	10	0	0	16



AimTD LLC
TURNING MOVEMENT COUNTS



National Data & Surveying Services

Intersection Turning Movement Count

Location: Newport Blvd & Harbor Blvd
City: Costa Mesa
Control: Signalized

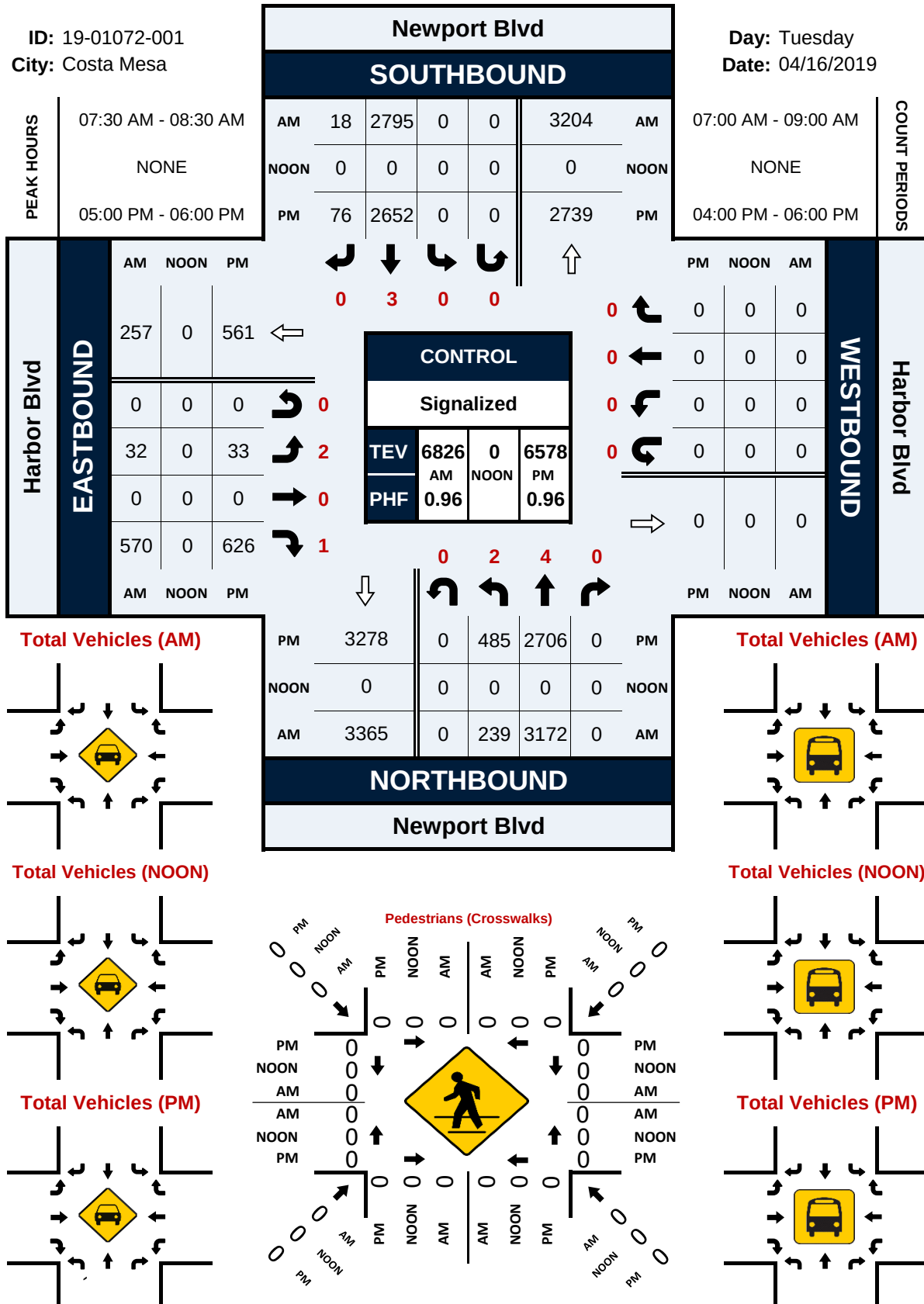
Project ID: 19-01072-001
Date: 4/16/2019

Total

NS/EW Streets:	Newport Blvd				Newport Blvd				Harbor Blvd				Harbor Blvd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	2 NL	4 NT	0 NR	0 NU	0 SL	3 ST	0 SR	0 SU	2 EL	0 ET	1 ER	0 EU	0 WL	0 WT	0 WR	0 WU	
7:00 AM	36	589	0	0	0	546	5	0	1	0	89	0	0	0	0	0	1266
7:15 AM	47	712	0	0	0	584	2	0	8	0	108	0	0	0	0	0	1461
7:30 AM	45	811	0	0	0	705	4	0	8	0	127	0	0	0	0	0	1700
7:45 AM	61	829	0	0	0	738	6	0	6	0	139	0	0	0	0	0	1779
8:00 AM	87	751	0	0	0	661	5	0	10	0	164	0	0	0	0	0	1678
8:15 AM	46	781	0	0	0	691	3	0	8	0	140	0	0	0	0	0	1669
8:30 AM	62	761	0	0	0	664	4	0	10	0	139	0	0	0	0	0	1640
8:45 AM	74	713	0	0	0	700	4	0	10	0	153	0	0	0	0	0	1654
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	458	5947	0	0	0	5289	33	0	61	0	1059	0	0	0	0	0	12847
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	239	3172	0	0	0	2795	18	0	32	0	570	0	0	0	0	0	6826
PEAK HR FACTOR :	0.687	0.957	0.000	0.000	0.000	0.947	0.750	0.000	0.800	0.000	0.869	0.000	0.000	0.000	0.000	0.000	0.959
	0.958				0.945				0.865								

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	2 NL	4 NT	0 NR	0 NU	0 SL	3 ST	0 SR	0 SU	2 EL	0 ET	1 ER	0 EU	0 WL	0 WT	0 WR	0 WU	
4:00 PM	126	627	0	0	0	620	10	0	17	0	143	0	0	0	0	0	1543
4:15 PM	100	717	0	0	0	704	14	0	8	0	144	0	0	0	0	0	1687
4:30 PM	119	660	0	0	0	648	9	0	5	0	140	0	0	0	0	0	1581
4:45 PM	129	596	0	0	0	592	14	0	14	0	190	0	0	0	0	0	1535
5:00 PM	112	743	0	0	0	674	18	0	12	0	160	0	0	0	0	0	1719
5:15 PM	139	727	0	0	0	630	17	0	5	0	160	0	0	0	0	0	1678
5:30 PM	120	606	0	0	0	632	28	0	12	0	170	0	0	0	0	0	1568
5:45 PM	114	630	0	0	0	716	13	0	4	0	136	0	0	0	0	0	1613
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	959	5306	0	0	0	5216	123	0	77	0	1243	0	0	0	0	0	12924
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	485	2706	0	0	0	2652	76	0	33	0	626	0	0	0	0	0	6578
PEAK HR FACTOR :	0.872	0.910	0.000	0.000	0.000	0.926	0.679	0.000	0.688	0.000	0.921	0.000	0.000	0.000	0.000	0.000	0.957
	0.921				0.936				0.905								

Day: Tuesday
Date: 04/16/2019



INTERSECTION TURNING MOVEMENT COUNTS

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

T101823

DATE: Thu, Nov 2, 23	LOCATION: NORTH & SOUTH: EAST & WEST:	Costa Mesa Harbor Blvd Newport Blvd	PROJECT #: LOCATION #: CONTROL:	SC4286 12 SIGNAL
-------------------------	---	---	---------------------------------------	------------------------

NOTES:	AM PM MD OTHER OTHER	▲ N ◀ W S ▶ E
Queue EB AM/PM		

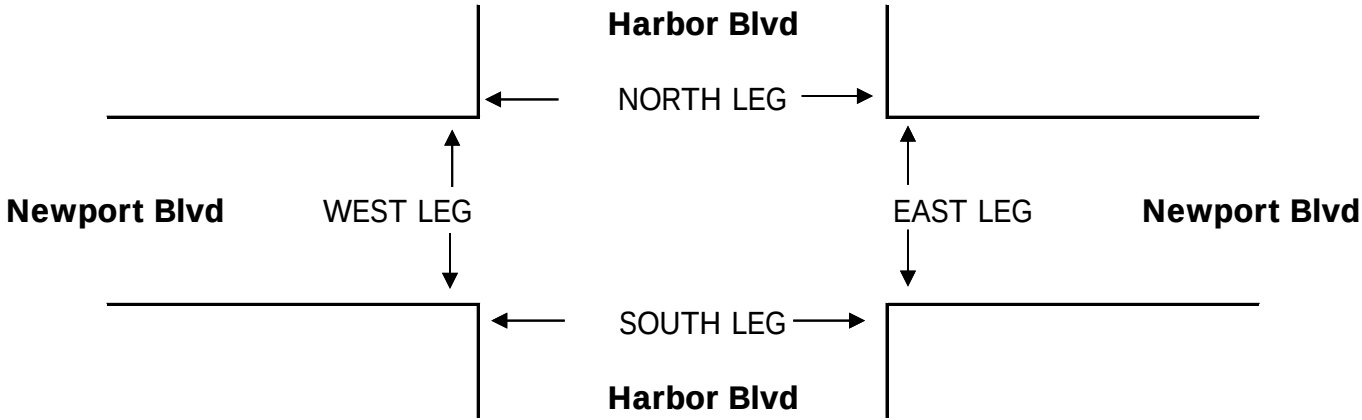
	NORTHBOUND Harbor Blvd			SOUTHBOUND Harbor Blvd			EASTBOUND Newport Blvd			WESTBOUND Newport Blvd			
LANES:	NL X	NT X	NR X	SL 1	ST X	SR 2	EL 2	ET 4	ER X	WL X	WT 3	WR 0	TOTAL

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

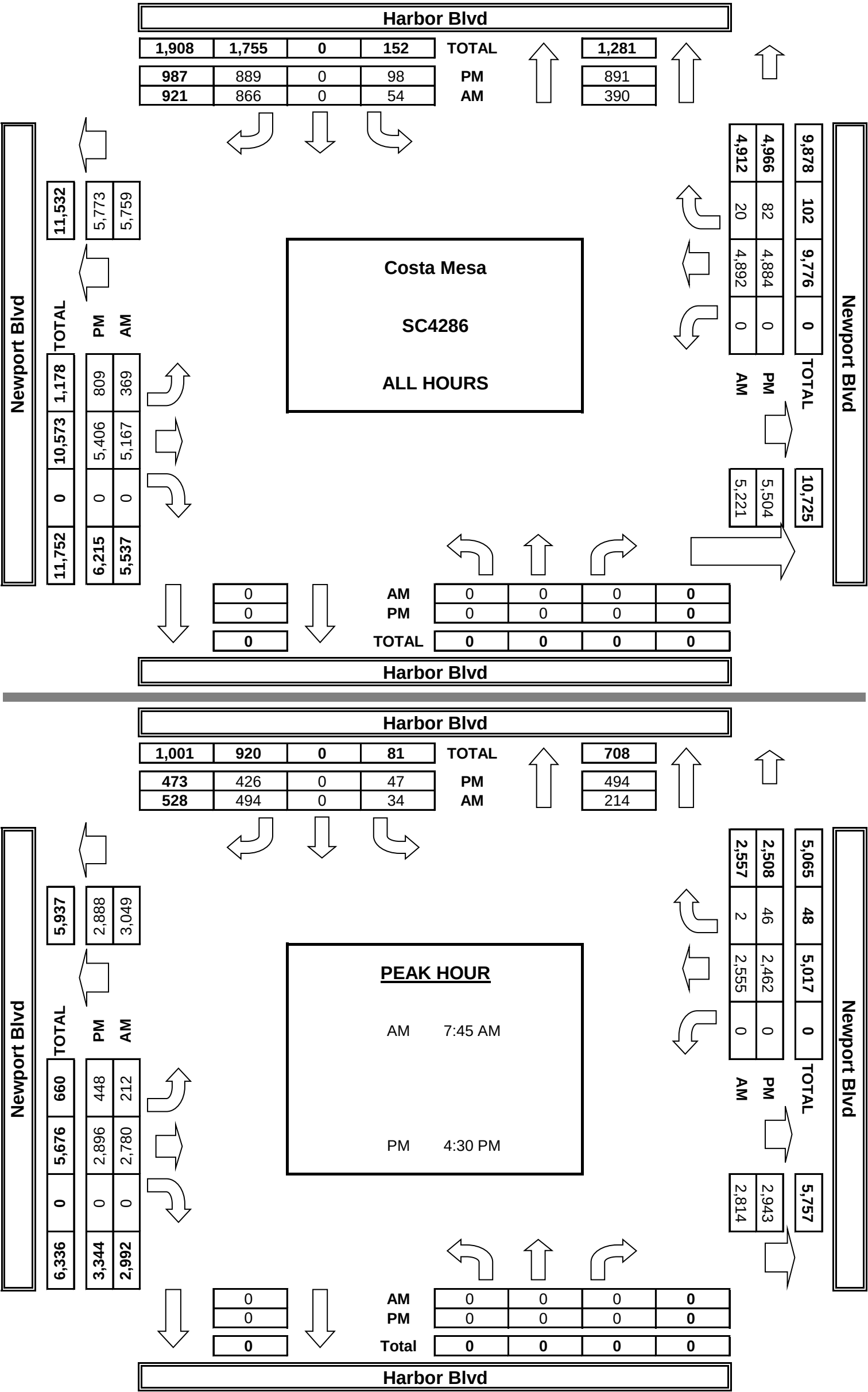
AM	7:00 AM	0	0	0	2	0	61	22	480	0	0	569	5	1,139
	7:15 AM	0	0	0	1	0	84	43	620	0	0	530	7	1,285
	7:30 AM	0	0	0	5	0	105	36	654	0	0	653	1	1,454
	7:45 AM	0	0	0	7	0	128	43	765	0	0	699	1	1,643
	8:00 AM	0	0	0	8	0	131	55	669	0	0	616	0	1,479
	8:15 AM	0	0	0	13	0	131	62	620	0	0	587	1	1,414
	8:30 AM	0	0	0	6	0	104	52	726	0	0	653	0	1,541
	8:45 AM	0	0	0	12	0	122	56	633	0	0	585	5	1,413
	VOLUMES	0	0	0	54	0	866	369	5,167	0	0	4,892	20	11,370
	APPROACH %	0%	0%	0%	6%	0%	94%	7%	93%	0%	0%	100%	0%	
	APP/DEPART	0	/	390	921	/	0	5,537	/	5,221	4,912	/	5,759	0
	BEGIN PEAK HR	7:45 AM												
PM	VOLUMES	0	0	0	34	0	494	212	2,780	0	0	2,555	2	6,077
	APPROACH %	0%	0%	0%	6%	0%	94%	7%	93%	0%	0%	100%	0%	
	PEAK HR FACTOR	0.000			0.917			0.926			0.913			0.925
	APP/DEPART	0	/	214	528	/	0	2,992	/	2,814	2,557	/	3,049	0
	4:00 PM	0	0	0	15	0	96	80	643	0	0	637	10	1,481
	4:15 PM	0	0	0	12	0	122	92	661	0	0	540	9	1,436
	4:30 PM	0	0	0	11	0	88	101	728	0	0	654	11	1,593
	4:45 PM	0	0	0	11	0	132	105	688	0	0	564	4	1,504
	5:00 PM	0	0	0	15	0	95	116	728	0	0	627	11	1,592
	5:15 PM	0	0	0	10	0	111	126	752	0	0	617	20	1,636
	5:30 PM	0	0	0	11	0	133	97	604	0	0	605	7	1,457
	5:45 PM	0	0	0	13	0	112	92	602	0	0	640	10	1,469
	VOLUMES	0	0	0	98	0	889	809	5,406	0	0	4,884	82	12,168
	APPROACH %	0%	0%	0%	10%	0%	90%	13%	87%	0%	0%	98%	2%	
	APP/DEPART	0	/	891	987	/	0	6,215	/	5,504	4,966	/	5,773	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	0	0	0	47	0	426	448	2,896	0	0	2,462	46	6,325
	APPROACH %	0%	0%	0%	10%	0%	90%	13%	87%	0%	0%	98%	2%	
	PEAK HR FACTOR	0.000			0.827			0.952			0.943			0.967
	APP/DEPART	0	/	494	473	/	0	3,344	/	2,943	2,508	/	2,888	0

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

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



AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

T101823

DATE: Thu, Nov 2, 23	LOCATION: NORTH & SOUTH: EAST & WEST:	Costa Mesa Fairview Rd Fair Dr	PROJECT #: LOCATION #: CONTROL:	SC4286 13 SIGNAL
-------------------------	---	--------------------------------------	---------------------------------------	------------------------

NOTES:	AM		▲	
	PM		N	
	MD	◀ W		E ▶
	OTHER		S	
	OTHER		▼	

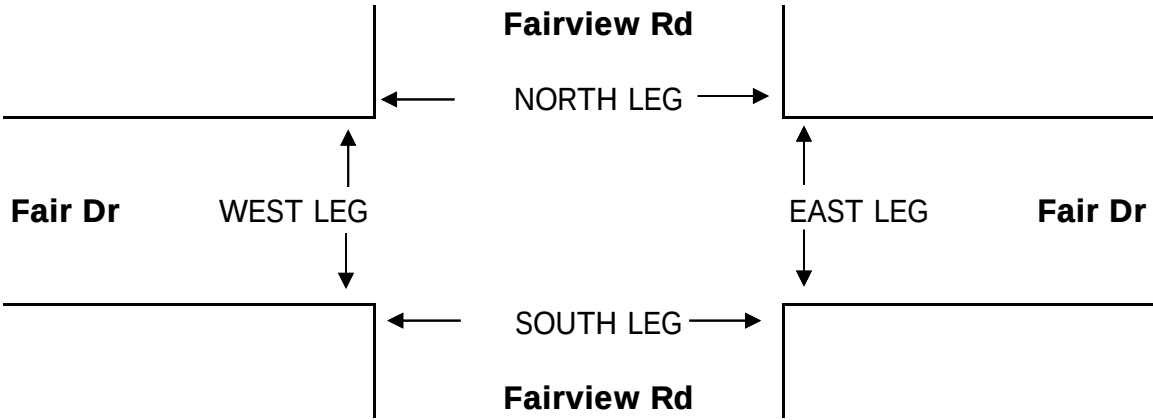
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Fairview Rd			Fairview Rd			Fair Dr			Fair Dr			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	1	3	1	2	3	1	1	2	1	1	1.5	1.5	

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

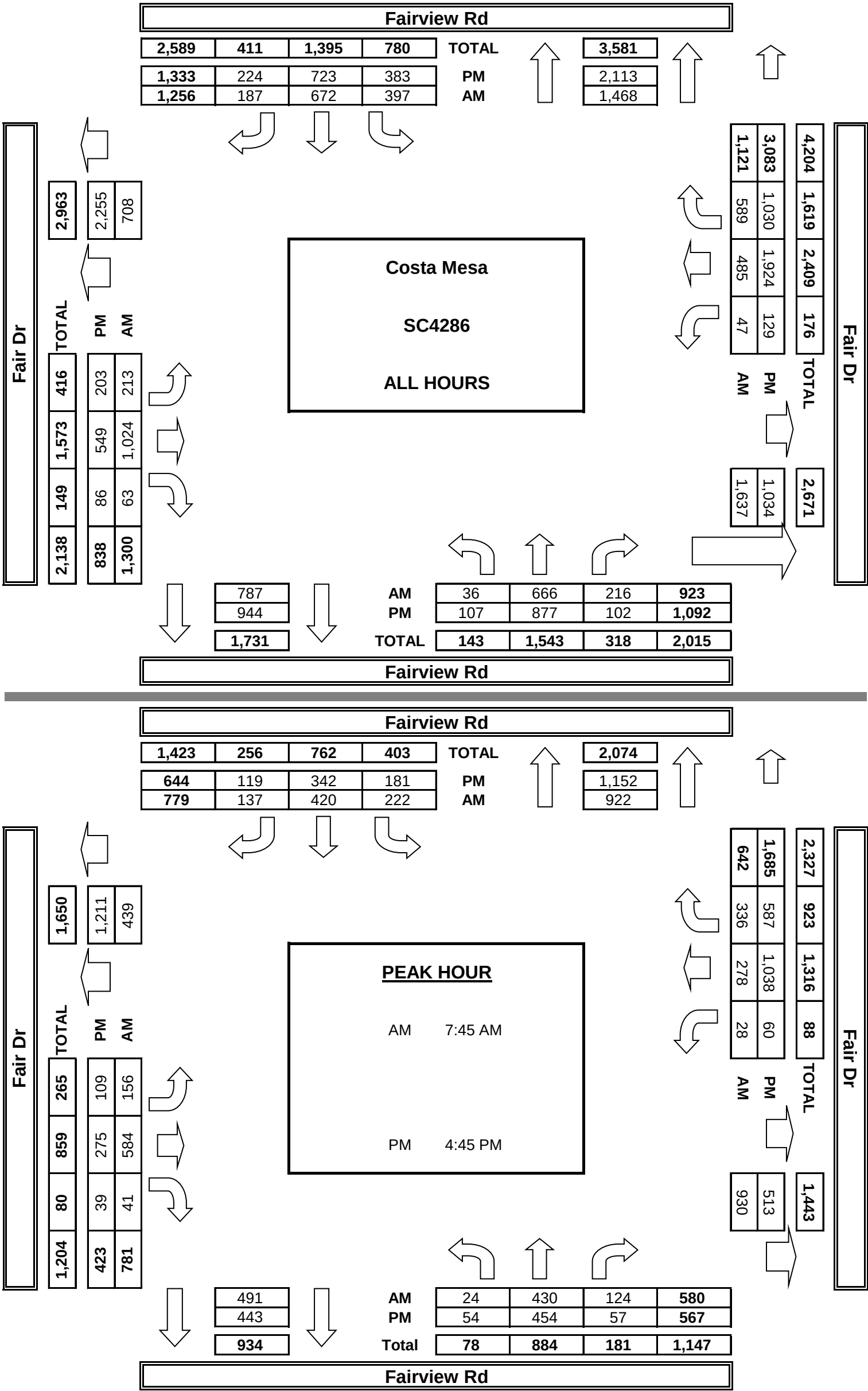
AM	7:00 AM	3	41	19	38	50	2	6	82	2	6	46	47	342
	7:15 AM	1	62	25	36	46	12	13	93	7	2	43	58	398
	7:30 AM	5	73	27	40	81	27	23	134	9	3	69	66	557
	7:45 AM	5	73	35	56	79	40	31	150	12	5	81	85	652
	8:00 AM	11	143	33	48	102	37	59	173	21	7	56	81	771
	8:15 AM	2	137	33	68	149	30	46	132	4	7	65	87	760
	8:30 AM	6	77	23	50	90	30	20	129	4	9	76	83	597
	8:45 AM	3	60	21	61	75	9	15	131	4	8	49	82	518
	VOLUMES	36	666	216	397	672	187	213	1,024	63	47	485	589	4,600
	APPROACH %	4%	72%	23%	32%	54%	15%	16%	79%	5%	4%	43%	53%	
	APP/DEPART	923	/	1,468	1,256	/	787	1,300	/	1,637	1,121	/	708	0
	BEGIN PEAK HR	7:45 AM												
	VOLUMES	24	430	124	222	420	137	156	584	41	28	278	336	2,782
	APPROACH %	4%	74%	21%	28%	54%	18%	20%	75%	5%	4%	43%	52%	
	PEAK HR FACTOR	0.775			0.788			0.772			0.939			0.902
	APP/DEPART	580	/	922	779	/	491	781	/	930	642	/	439	0
PM	4:00 PM	19	111	11	55	99	30	29	66	16	17	208	108	769
	4:15 PM	16	101	18	60	107	23	12	61	13	12	230	90	743
	4:30 PM	7	85	8	48	90	31	21	67	10	21	221	120	729
	4:45 PM	10	103	16	43	86	39	33	69	15	12	232	142	800
	5:00 PM	13	129	13	49	83	24	28	70	7	14	267	125	822
	5:15 PM	19	111	6	51	76	25	25	66	8	14	261	139	801
	5:30 PM	12	111	22	38	97	31	23	70	9	20	278	181	892
	5:45 PM	11	126	8	39	85	21	32	80	8	19	227	125	781
	VOLUMES	107	877	102	383	723	224	203	549	86	129	1,924	1,030	6,346
	APPROACH %	10%	80%	9%	29%	54%	17%	24%	66%	10%	4%	62%	33%	
	APP/DEPART	1,092	/	2,113	1,333	/	944	838	/	1,034	3,083	/	2,255	0
	BEGIN PEAK HR	4:45 PM												
	VOLUMES	54	454	57	181	342	119	109	275	39	60	1,038	587	3,319
	APPROACH %	10%	80%	10%	28%	53%	18%	26%	65%	9%	4%	62%	35%	
	PEAK HR FACTOR	0.915			0.953			0.904			0.879			0.929
	APP/DEPART	567	/	1,152	644	/	443	423	/	513	1,685	/	1,211	0

1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
2	0	0	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
2	0	0	0	2
5	0	0	0	5

3	0	0	0	3
0	1	0	0	1
0	0	0	0	0
0	1	0	0	1
0	1	0	0	1
0	1	0	0	1
1	0	0	0	1
1	0	0	0	1
1	0	0	0	1
6	3	0	0	9



AimTD LLC
TURNING MOVEMENT COUNTS



City of Costa Mesa
N/S: Newport Boulevard (Southbound)
E/W: Victoria Street
Weather: Clear

File Name : 27_CSM_NP_SB_Vic AM
Site Code : 23922356
Start Date : 4/21/2022
Page No : 1

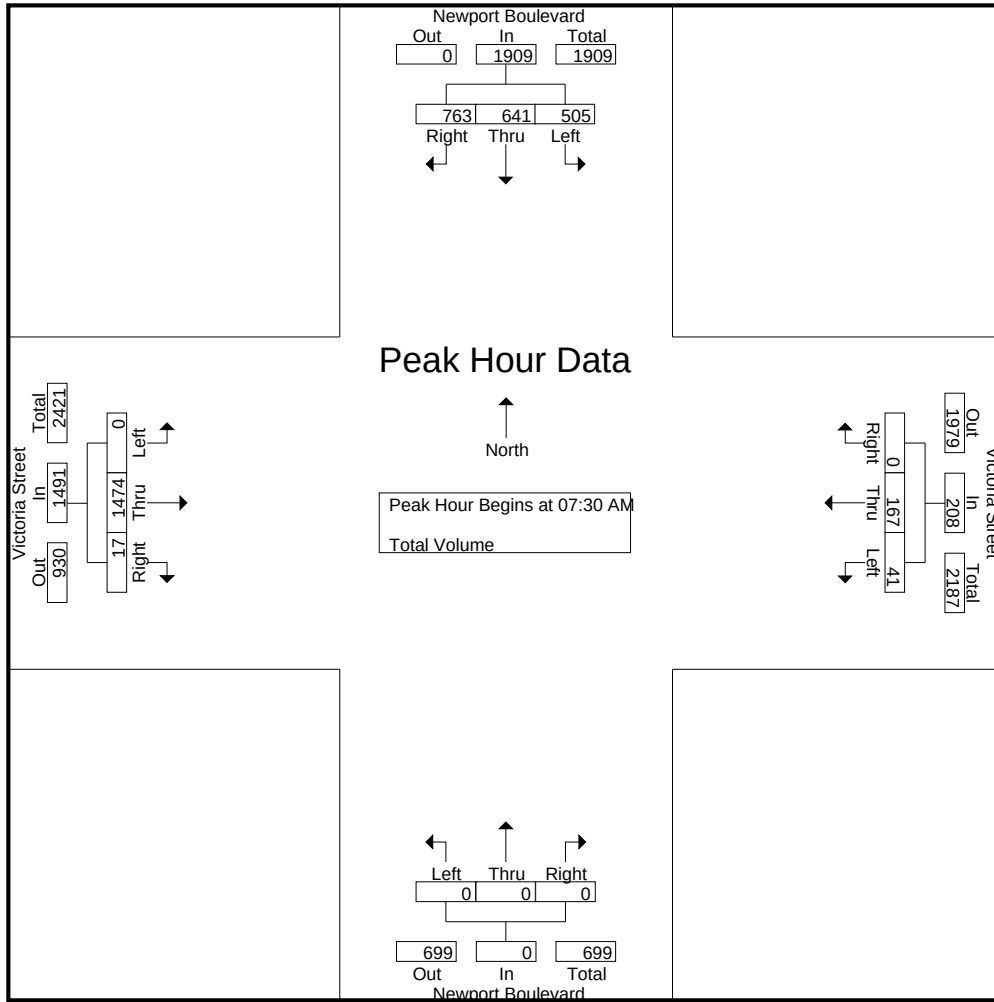
Groups Printed- Total Volume

	Newport Boulevard Southbound				Victoria Street Westbound				Newport Boulevard Northbound				Victoria Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	76	85	130	291	7	28	0	35	0	0	0	0	0	339	5	344	670
07:15 AM	107	87	112	306	11	27	0	38	0	0	0	0	0	351	5	356	700
07:30 AM	115	126	149	390	10	21	0	31	0	0	0	0	0	427	4	431	852
07:45 AM	136	170	208	514	6	46	0	52	0	0	0	0	0	352	4	356	922
Total	434	468	599	1501	34	122	0	156	0	0	0	0	0	1469	18	1487	3144
08:00 AM	147	187	194	528	10	54	0	64	0	0	0	0	0	325	5	330	922
08:15 AM	107	158	212	477	15	46	0	61	0	0	0	0	0	370	4	374	912
08:30 AM	101	151	165	417	12	35	0	47	0	0	0	0	0	336	7	343	807
08:45 AM	97	160	153	410	12	35	0	47	0	0	0	0	0	358	8	366	823
Total	452	656	724	1832	49	170	0	219	0	0	0	0	0	1389	24	1413	3464
Grand Total	886	1124	1323	3333	83	292	0	375	0	0	0	0	0	2858	42	2900	6608
Apprch %	26.6	33.7	39.7		22.1	77.9	0		0	0	0		0	98.6	1.4		
Total %	13.4	17	20	50.4	1.3	4.4	0	5.7	0	0	0	0	0	43.3	0.6	43.9	

	Newport Boulevard Southbound				Victoria Street Westbound				Newport Boulevard Northbound				Victoria Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	115	126	149	390	10	21	0	31	0	0	0	0	0	427	4	431	852
07:45 AM	136	170	208	514	6	46	0	52	0	0	0	0	0	352	4	356	922
08:00 AM	147	187	194	528	10	54	0	64	0	0	0	0	0	325	5	330	922
08:15 AM	107	158	212	477	15	46	0	61	0	0	0	0	0	370	4	374	912
Total Volume																	3608
% App. Total	26.5	33.6	40		19.7	80.3	0		0	0	0		0	98.9	1.1		
PHF	.859	.857	.900	.904	.683	.773	.000	.813	.000	.000	.000	.000	.000	.863	.850	.865	

City of Costa Mesa
N/S: Newport Boulevard (Southbound)
E/W: Victoria Street
Weather: Clear

File Name : 27_CSM_NP SB_Vic AM
Site Code : 23922356
Start Date : 4/21/2022
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:00 AM				07:30 AM			
+0 mins.	136	170	208	514	6	46	0	52	0	0	0	0	0	427	4	431
+15 mins.	147	187	194	528	10	54	0	64	0	0	0	0	0	352	4	356
+30 mins.	107	158	212	477	15	46	0	61	0	0	0	0	0	325	5	330
+45 mins.	101	151	165	417	12	35	0	47	0	0	0	0	0	370	4	374
Total Volume	491	666	779	1936	43	181	0	224	0	0	0	0	0	1474	17	1491
% App. Total	25.4	34.4	40.2		19.2	80.8	0		0	0	0	0	0	98.9	1.1	
PHF	.835	.890	.919	.917	.717	.838	.000	.875	.000	.000	.000	.000	.000	.863	.850	.865

City of Costa Mesa
N/S: Newport Boulevard (Southbound)
E/W: Victoria Street
Weather: Clear

File Name : 27_CSM_NP SB_Vic MD
Site Code : 23922356
Start Date : 4/21/2022
Page No : 1

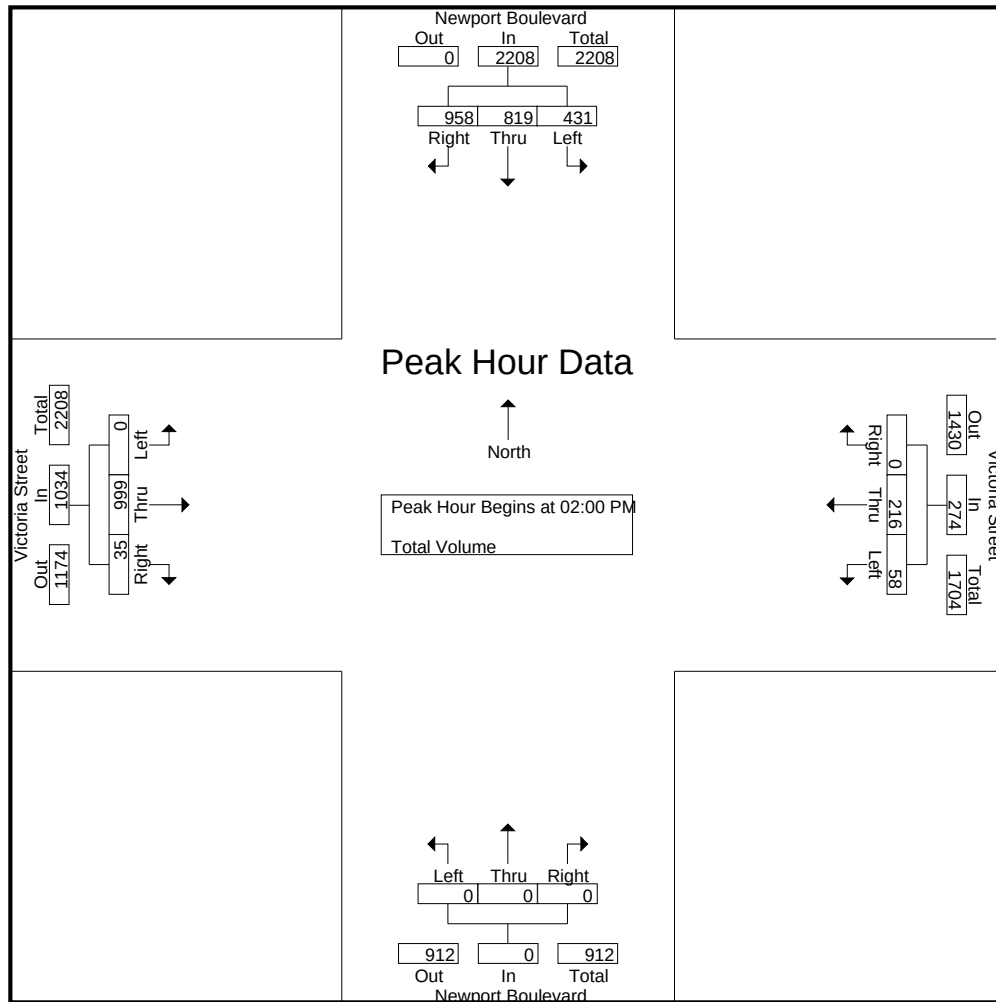
Groups Printed- Total Volume

	Newport Boulevard Southbound				Victoria Street Westbound				Newport Boulevard Northbound				Victoria Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
12:00 PM	91	182	222	495	9	36	0	45	0	0	0	0	0	196	9	205	745
12:15 PM	99	168	219	486	9	39	0	48	0	0	0	0	0	226	11	237	771
12:30 PM	86	169	221	476	15	40	0	55	0	0	0	0	0	243	14	257	788
12:45 PM	114	186	226	526	14	38	0	52	0	0	0	0	0	198	7	205	783
Total	390	705	888	1983	47	153	0	200	0	0	0	0	0	863	41	904	3087
01:00 PM	79	196	208	483	10	42	0	52	0	0	0	0	0	251	9	260	795
01:15 PM	72	205	216	493	16	44	0	60	0	0	0	0	0	194	10	204	757
01:30 PM	109	211	285	605	19	40	0	59	0	0	0	0	0	246	5	251	915
01:45 PM	97	199	270	566	9	39	0	48	0	0	0	0	0	213	8	221	835
Total	357	811	979	2147	54	165	0	219	0	0	0	0	0	904	32	936	3302
02:00 PM	98	188	212	498	15	54	0	69	0	0	0	0	0	248	8	256	823
02:15 PM	107	186	253	546	19	59	0	78	0	0	0	0	0	257	11	268	892
02:30 PM	122	206	253	581	10	52	0	62	0	0	0	0	0	249	9	258	901
02:45 PM	104	239	240	583	14	51	0	65	0	0	0	0	0	245	7	252	900
Total	431	819	958	2208	58	216	0	274	0	0	0	0	0	999	35	1034	3516
Grand Total	1178	2335	2825	6338	159	534	0	693	0	0	0	0	0	2766	108	2874	9905
Apprch %	18.6	36.8	44.6		22.9	77.1	0		0	0	0	0	0	96.2	3.8		
Total %	11.9	23.6	28.5	64	1.6	5.4	0	7	0	0	0	0	0	27.9	1.1	29	

	Newport Boulevard Southbound				Victoria Street Westbound				Newport Boulevard Northbound				Victoria Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 02:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 02:00 PM																	
02:00 PM	98	188	212	498	15	54	0	69	0	0	0	0	0	248	8	256	823
02:15 PM	107	186	253	546	19	59	0	78	0	0	0	0	0	257	11	268	892
02:30 PM	122	206	253	581	10	52	0	62	0	0	0	0	0	249	9	258	901
02:45 PM	104	239	240	583	14	51	0	65	0	0	0	0	0	245	7	252	900
Total Volume	431	819	958	2208	58	216	0	274	0	0	0	0	0	999	35	1034	3516
% App. Total	19.5	37.1	43.4		21.2	78.8	0		0	0	0	0	0	96.6	3.4		
PHF	.883	.857	.947	.947	.763	.915	.000	.878	.000	.000	.000	.000	.000	.972	.795	.965	.976

City of Costa Mesa
N/S: Newport Boulevard (Southbound)
E/W: Victoria Street
Weather: Clear

File Name : 27_CSM_NP SB_Vic MD
Site Code : 23922356
Start Date : 4/21/2022
Page No : 2



Peak Hour Analysis From 12:00 PM to 02:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	01:30 PM				02:00 PM				12:00 PM				02:00 PM			
+0 mins.	109	211	285	605	15	54	0	69	0	0	0	0	0	248	8	256
+15 mins.	97	199	270	566	19	59	0	78	0	0	0	0	0	257	11	268
+30 mins.	98	188	212	498	10	52	0	62	0	0	0	0	0	249	9	258
+45 mins.	107	186	253	546	14	51	0	65	0	0	0	0	0	245	7	252
Total Volume	411	784	1020	2215	58	216	0	274	0	0	0	0	0	999	35	1034
% App. Total	18.6	35.4	46		21.2	78.8	0		0	0	0	0	0	96.6	3.4	
PHF	.943	.929	.895	.915	.763	.915	.000	.878	.000	.000	.000	.000	.000	.972	.795	.965

City of Costa Mesa
N/S: Newport Boulevard (Southbound)
E/W: Victoria Street
Weather: Clear

File Name : 27_CSM_NP_SB_Vic PM
Site Code : 23922356
Start Date : 4/21/2022
Page No : 1

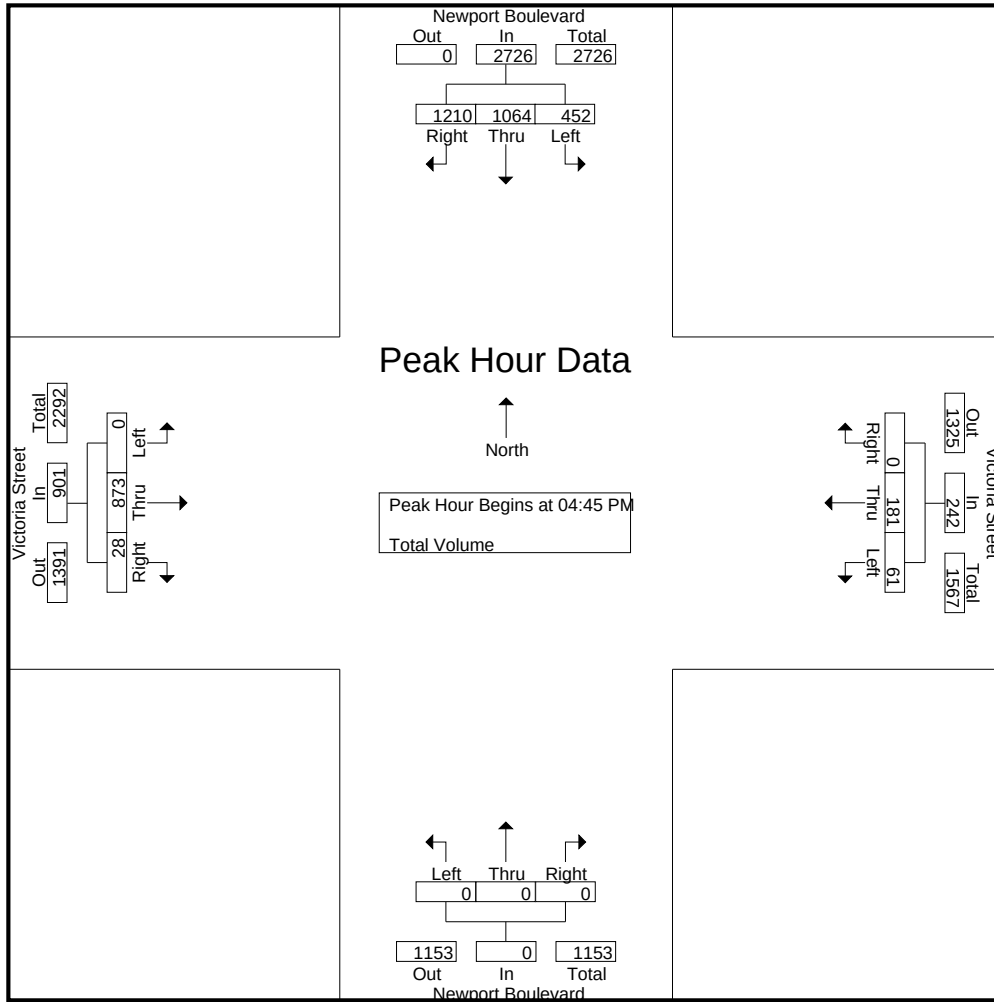
Groups Printed- Total Volume

	Newport Boulevard Southbound				Victoria Street Westbound				Newport Boulevard Northbound				Victoria Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
03:00 PM	104	213	260	577	13	43	0	56	0	0	0	0	0	209	5	214	847
03:15 PM	112	201	250	563	17	57	0	74	0	0	0	0	0	222	10	232	869
03:30 PM	103	212	289	604	20	46	0	66	0	0	0	0	0	213	6	219	889
03:45 PM	111	237	271	619	18	47	0	65	0	0	0	0	0	194	7	201	885
Total	430	863	1070	2363	68	193	0	261	0	0	0	0	0	838	28	866	3490
04:00 PM	106	187	307	600	19	50	0	69	0	0	0	0	0	207	13	220	889
04:15 PM	114	240	307	661	20	53	0	73	0	0	0	0	0	204	12	216	950
04:30 PM	111	234	314	659	18	35	0	53	0	0	0	0	0	201	5	206	918
04:45 PM	116	263	293	672	14	47	0	61	0	0	0	0	0	223	5	228	961
Total	447	924	1221	2592	71	185	0	256	0	0	0	0	0	835	35	870	3718
05:00 PM	111	274	270	655	19	46	0	65	0	0	0	0	0	230	5	235	955
05:15 PM	110	265	330	705	12	46	0	58	0	0	0	0	0	212	10	222	985
05:30 PM	115	262	317	694	16	42	0	58	0	0	0	0	0	208	8	216	968
05:45 PM	106	232	302	640	23	41	0	64	0	0	0	0	0	162	11	173	877
Total	442	1033	1219	2694	70	175	0	245	0	0	0	0	0	812	34	846	3785
Grand Total	1319	2820	3510	7649	209	553	0	762	0	0	0	0	0	2485	97	2582	10993
Apprch %	17.2	36.9	45.9		27.4	72.6	0		0	0	0	0	0	96.2	3.8		
Total %	12	25.7	31.9	69.6	1.9	5	0	6.9	0	0	0	0	0	22.6	0.9	23.5	

	Newport Boulevard Southbound				Victoria Street Westbound				Newport Boulevard Northbound				Victoria Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	116	263	293	672	14	47	0	61	0	0	0	0	0	223	5	228	961
05:00 PM	111	274	270	655	19	46	0	65	0	0	0	0	0	230	5	235	955
05:15 PM	110	265	330	705	12	46	0	58	0	0	0	0	0	212	10	222	985
05:30 PM	115	262	317	694	16	42	0	58	0	0	0	0	0	208	8	216	968
Total Volume																	3869
% App. Total	16.6	39	44.4		25.2	74.8	0		0	0	0		0	96.9	3.1		
PHF	.974	.971	.917	.967	.803	.963	.000	.931	.000	.000	.000	.000	.000	.949	.700	.959	

City of Costa Mesa
N/S: Newport Boulevard (Southbound)
E/W: Victoria Street
Weather: Clear

File Name : 27_CSM_NP SB_Vic PM
Site Code : 23922356
Start Date : 4/21/2022
Page No : 2



Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				03:15 PM				03:00 PM				04:45 PM			
+0 mins.	116	263	293	672	17	57	0	74	0	0	0	0	0	223	5	228
+15 mins.	111	274	270	655	20	46	0	66	0	0	0	0	0	230	5	235
+30 mins.	110	265	330	705	18	47	0	65	0	0	0	0	0	212	10	222
+45 mins.	115	262	317	694	19	50	0	69	0	0	0	0	0	208	8	216
Total Volume	452	1064	1210	2726	74	200	0	274	0	0	0	0	0	873	28	901
% App. Total	16.6	39	44.4		27	73	0		0	0	0	0	0	96.9	3.1	
PHF	.974	.971	.917	.967	.925	.877	.000	.926	.000	.000	.000	.000	.000	.949	.700	.959

City of Costa Mesa
N/S: Newport Boulevard (Southbound)
E/W: Victoria Street
Weather: Clear

File Name : 27_CSM_NP SB_Vic SAT
Site Code : 23922356
Start Date : 4/23/2022
Page No : 1

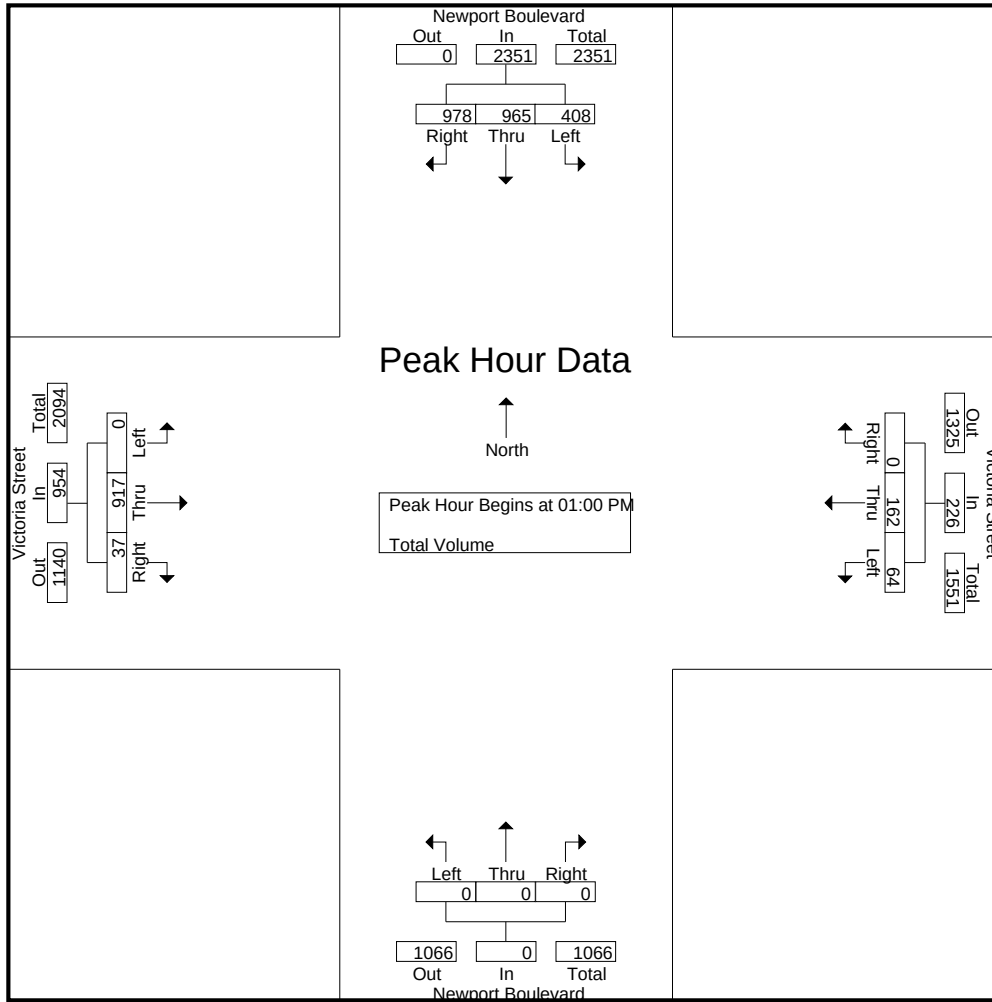
Groups Printed- Total Volume

	Newport Boulevard Southbound				Victoria Street Westbound				Newport Boulevard Northbound				Victoria Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
01:00 PM	105	285	253	643	22	42	0	64	0	0	0	0	0	198	10	208	915
01:15 PM	101	242	267	610	19	50	0	69	0	0	0	0	0	214	9	223	902
01:30 PM	86	219	225	530	10	29	0	39	0	0	0	0	0	267	8	275	844
01:45 PM	116	219	233	568	13	41	0	54	0	0	0	0	0	238	10	248	870
Total	408	965	978	2351	64	162	0	226	0	0	0	0	0	917	37	954	3531
02:00 PM	88	197	244	529	19	34	0	53	0	0	0	0	0	198	8	206	788
02:15 PM	108	215	261	584	11	51	0	62	0	0	0	0	0	253	12	265	911
02:30 PM	111	242	257	610	12	41	0	53	0	0	0	0	0	239	14	253	916
02:45 PM	110	221	260	591	13	33	0	46	0	0	0	0	0	249	13	262	899
Total	417	875	1022	2314	55	159	0	214	0	0	0	0	0	939	47	986	3514
Grand Total	825	1840	2000	4665	119	321	0	440	0	0	0	0	0	1856	84	1940	7045
Apprch %	17.7	39.4	42.9		27	73	0		0	0	0		0	95.7	4.3		
Total %	11.7	26.1	28.4	66.2	1.7	4.6	0	6.2	0	0	0	0	0	26.3	1.2	27.5	

	Newport Boulevard Southbound				Victoria Street Westbound				Newport Boulevard Northbound				Victoria Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 01:00 PM to 02:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 01:00 PM																	
01:00 PM	105	285	253	643	22	42	0	64	0	0	0	0	0	198	10	208	915
01:15 PM	101	242	267	610	19	50	0	69	0	0	0	0	0	214	9	223	902
01:30 PM	86	219	225	530	10	29	0	39	0	0	0	0	0	267	8	275	844
01:45 PM	116	219	233	568	13	41	0	54	0	0	0	0	0	238	10	248	870
Total Volume	408	965	978	2351	64	162	0	226	0	0	0	0	0	917	37	954	3531
% App. Total	17.4	41	41.6		28.3	71.7	0		0	0	0		0	96.1	3.9		
PHF	.879	.846	.916	.914	.727	.810	.000	.819	.000	.000	.000	.000	.000	.859	.925	.867	.965

City of Costa Mesa
N/S: Newport Boulevard (Southbound)
E/W: Victoria Street
Weather: Clear

File Name : 27_CSM_NP SB_Vic SAT
Site Code : 23922356
Start Date : 4/23/2022
Page No : 2



Peak Hour Analysis From 01:00 PM to 02:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	01:00 PM				01:00 PM				01:00 PM				01:30 PM			
+0 mins.	105	285	253	643	22	42	0	64	0	0	0	0	0	267	8	275
+15 mins.	101	242	267	610	19	50	0	69	0	0	0	0	0	238	10	248
+30 mins.	86	219	225	530	10	29	0	39	0	0	0	0	0	198	8	206
+45 mins.	116	219	233	568	13	41	0	54	0	0	0	0	0	253	12	265
Total Volume	408	965	978	2351	64	162	0	226	0	0	0	0	0	956	38	994
% App. Total	17.4	41	41.6		28.3	71.7	0		0	0	0	0	0	96.2	3.8	
PHF	.879	.846	.916	.914	.727	.810	.000	.819	.000	.000	.000	.000	.000	.895	.792	.904

Location: Costa Mesa
 N/S: Newport Blvd SB
 E/W: Victoria Street



PEDESTRIANS

Date: 4/21/2022
 Day: Thursday

	North Leg Newport Blvd SB Pedestrians	East Leg Victoria Street Pedestrians	South Leg Newport Blvd SB Pedestrians	West Leg Victoria Street Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	2	2
7:30 AM	0	0	0	3	3
7:45 AM	0	0	0	3	3
8:00 AM	0	0	0	1	1
8:15 AM	0	0	0	1	1
8:30 AM	0	0	0	1	1
8:45 AM	0	0	0	1	1
TOTAL VOLUMES:	0	0	0	12	12

Date: 4/21/2022
 Day: Thursday

	North Leg Newport Blvd SB Pedestrians	East Leg Victoria Street Pedestrians	South Leg Newport Blvd SB Pedestrians	West Leg Victoria Street Pedestrians	
12:00 PM	0	0	0	0	0
12:15 PM	0	0	0	1	1
12:30 PM	0	0	0	0	0
12:45 PM	0	0	2	4	6
1:00 PM	0	0	1	0	1
1:15 PM	0	0	3	1	4
1:30 PM	0	0	1	1	2
1:45 PM	0	0	4	0	4
2:00 PM	0	0	1	1	2
2:15 PM	0	0	1	2	3
2:30 PM	0	0	2	1	3
2:45 PM	0	0	2	2	4
TOTAL VOLUMES:	0	0	17	13	30

Date: 4/21/2022
 Day: Thursday

	North Leg Newport Blvd SB Pedestrians	East Leg Victoria Street Pedestrians	South Leg Newport Blvd SB Pedestrians	West Leg Victoria Street Pedestrians	
3:00 PM	0	0	2	2	4
3:15 PM	0	0	3	4	7
3:30 PM	0	0	3	5	8
3:45 PM	0	0	1	2	3
4:00 PM	0	0	0	0	0
4:15 PM	0	0	2	5	7
4:30 PM	0	0	0	0	0
4:45 PM	0	0	1	0	1
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	1	1
5:30 PM	0	0	0	1	1
5:45 PM	0	0	1	2	3
TOTAL VOLUMES:	0	0	13	22	35

Date: 4/23/2022
 Day: Saturday

	North Leg Newport Blvd SB Pedestrians	East Leg Victoria Street Pedestrians	South Leg Newport Blvd SB Pedestrians	West Leg Victoria Street Pedestrians	
1:00 PM	0	0	0	0	0
1:15 PM	0	0	0	1	1
1:30 PM	0	0	1	0	1
1:45 PM	0	0	1	2	3
2:00 PM	0	0	1	2	3
2:15 PM	0	0	0	2	2
2:30 PM	0	0	0	0	0
2:45 PM	0	0	2	0	2
TOTAL VOLUMES:	0	0	5	7	12

Location: Costa Mesa
N/S: Newport Blvd SB
E/W: Victoria Street



BICYCLES

Date: 4/21/2022
Day: Thursday

	Southbound Newport Blvd SB			Westbound Victoria Street			Northbound Newport Blvd SB			Eastbound Victoria Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	2
7:15 AM	0	2	0	0	0	0	0	0	0	0	1	0	3
7:30 AM	3	0	0	0	0	0	0	0	0	0	1	0	4
7:45 AM	1	0	0	0	0	0	0	0	0	0	2	1	4
8:00 AM	0	2	0	0	0	0	1	0	0	0	0	0	3
8:15 AM	0	3	0	0	0	0	2	0	0	0	2	0	7
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
TOTAL VOLUMES:	4	9	0	0	0	0	3	1	0	0	7	1	25

Date: 4/21/2022
Day: Thursday

	Southbound Newport Blvd SB			Westbound Victoria Street			Northbound Newport Blvd SB			Eastbound Victoria Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
12:00 PM	2	1	0	0	0	0	0	0	0	0	1	0	4
12:15 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
12:30 PM	0	1	0	0	3	0	0	0	0	2	0	0	6
12:45 PM	0	7	0	0	4	0	0	2	0	0	2	0	15
1:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
1:15 PM	0	1	0	0	0	0	1	0	0	0	0	0	2
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
2:00 PM	1	3	0	0	0	0	0	1	0	0	0	0	5
2:15 PM	1	0	0	0	1	0	0	2	0	0	0	0	4
2:30 PM	1	0	0	0	0	0	1	2	0	0	1	0	5
2:45 PM	1	1	0	0	0	0	0	1	0	0	0	0	3
TOTAL VOLUMES:	6	16	0	0	8	0	2	10	0	2	5	0	49

Date: 4/21/2022
Day: Thursday

	Southbound Newport Blvd SB			Westbound Victoria Street			Northbound Newport Blvd SB			Eastbound Victoria Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
3:00 PM	0	0	0	0	0	0	0	3	0	0	0	0	3
3:15 PM	1	1	0	0	0	0	0	0	0	0	0	0	2
3:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
3:45 PM	0	0	0	0	2	0	0	1	0	0	1	0	4
4:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	0	0	0	0	1	0	1	0	0	0	3
4:45 PM	1	1	0	0	2	0	0	0	0	0	1	0	5
5:00 PM	0	2	0	0	1	0	0	2	0	0	0	0	5
5:15 PM	3	3	0	0	1	0	0	0	0	0	2	0	9
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
TOTAL VOLUMES:	5	8	0	0	6	0	2	8	1	0	4	0	34

Date: 4/23/2022
Day: Saturday

	Southbound Newport Blvd SB			Westbound Victoria Street			Northbound Newport Blvd SB			Eastbound Victoria Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1:00 PM	0	1	0	0	2	1	0	0	0	0	0	0	4
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	2
1:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
2:00 PM	1	2	0	0	0	0	0	1	0	0	0	0	4
2:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
2:30 PM	0	1	0	0	0	0	0	1	0	0	0	1	3
2:45 PM	0	1	0	0	2	0	0	0	0	0	1	1	5
TOTAL VOLUMES:	1	7	0	0	4	1	0	2	0	0	3	2	20

City of Costa Mesa
N/S: Newport Boulevard (Northbound)
E/W: Victoria Street/22nd Street
Weather: Clear

File Name : 26_CSM_NP NB_Vic AM
Site Code : 23922356
Start Date : 4/21/2022
Page No : 1

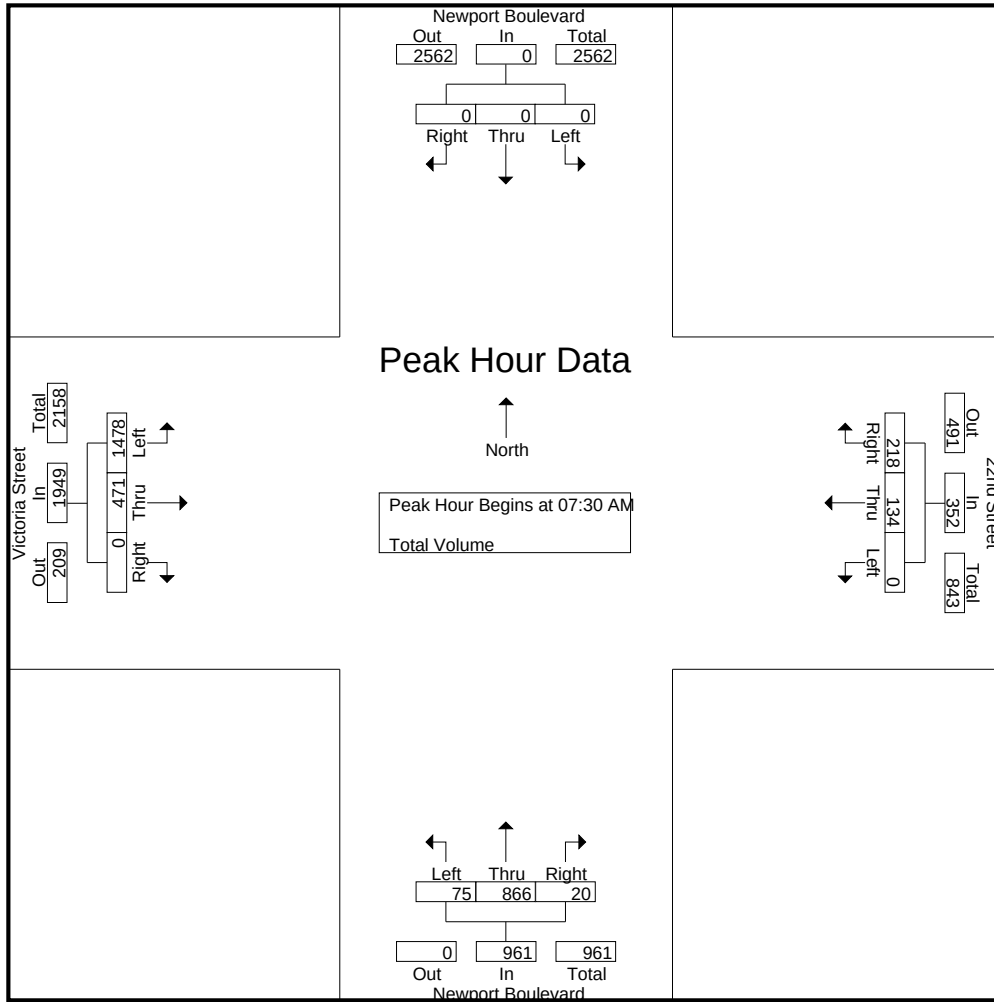
Groups Printed- Total Volume

	Newport Boulevard Southbound				22nd Street Westbound				Newport Boulevard Northbound				Victoria Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	18	23	41	15	141	5	161	345	68	0	413	615
07:15 AM	0	0	0	0	0	24	30	54	15	155	9	179	356	99	0	455	688
07:30 AM	0	0	0	0	0	18	49	67	13	207	6	226	425	108	0	533	826
07:45 AM	0	0	0	0	0	34	47	81	19	232	3	254	364	117	0	481	816
Total	0	0	0	0	0	94	149	243	62	735	23	820	1490	392	0	1882	2945
08:00 AM	0	0	0	0	0	47	69	116	17	209	6	232	325	137	0	462	810
08:15 AM	0	0	0	0	0	35	53	88	26	218	5	249	364	109	0	473	810
08:30 AM	0	0	0	0	0	30	55	85	19	185	7	211	350	79	0	429	725
08:45 AM	0	0	0	0	0	33	39	72	11	202	13	226	352	96	0	448	746
Total	0	0	0	0	0	145	216	361	73	814	31	918	1391	421	0	1812	3091
Grand Total	0	0	0	0	0	239	365	604	135	1549	54	1738	2881	813	0	3694	6036
Apprch %	0	0	0		0	39.6	60.4		7.8	89.1	3.1		78	22	0		
Total %	0	0	0		0	4	6	10	2.2	25.7	0.9	28.8	47.7	13.5	0	61.2	

	Newport Boulevard Southbound				22nd Street Westbound				Newport Boulevard Northbound				Victoria Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	0	0	0	18	49	67	13	207	6	226	425	108	0	533	826
07:45 AM	0	0	0	0	0	34	47	81	19	232	3	254	364	117	0	481	816
08:00 AM	0	0	0	0	0	47	69	116	17	209	6	232	325	137	0	462	810
08:15 AM	0	0	0	0	0	35	53	88	26	218	5	249	364	109	0	473	810
Total Volume	0	0	0	0	0	134	218	352	75	866	20	961	1478	471	0	1949	3262
% App. Total	0	0	0		0	38.1	61.9		7.8	90.1	2.1		75.8	24.2	0		
PHF	.000	.000	.000	.000	.000	.713	.790	.759	.721	.933	.833	.946	.869	.859	.000	.914	.987

City of Costa Mesa
N/S: Newport Boulevard (Northbound)
E/W: Victoria Street/22nd Street
Weather: Clear

File Name : 26_CSM_NP NB_Vic AM
Site Code : 23922356
Start Date : 4/21/2022
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:45 AM				07:30 AM				07:30 AM			
+0 mins.	0	0	0	0	0	34	47	81	13	207	6	226	425	108	0	533
+15 mins.	0	0	0	0	0	47	69	116	19	232	3	254	364	117	0	481
+30 mins.	0	0	0	0	0	35	53	88	17	209	6	232	325	137	0	462
+45 mins.	0	0	0	0	0	30	55	85	26	218	5	249	364	109	0	473
Total Volume	0	0	0	0	0	146	224	370	75	866	20	961	1478	471	0	1949
% App. Total	0	0	0	0	0	39.5	60.5		7.8	90.1	2.1		75.8	24.2	0	
PHF	.000	.000	.000	.000	.000	.777	.812	.797	.721	.933	.833	.946	.869	.859	.000	.914

City of Costa Mesa
N/S: Newport Boulevard (Northbound)
E/W: Victoria Street/22nd Street
Weather: Clear

File Name : 26_CSM_NP NB_Vic MD
Site Code : 23922356
Start Date : 4/21/2022
Page No : 1

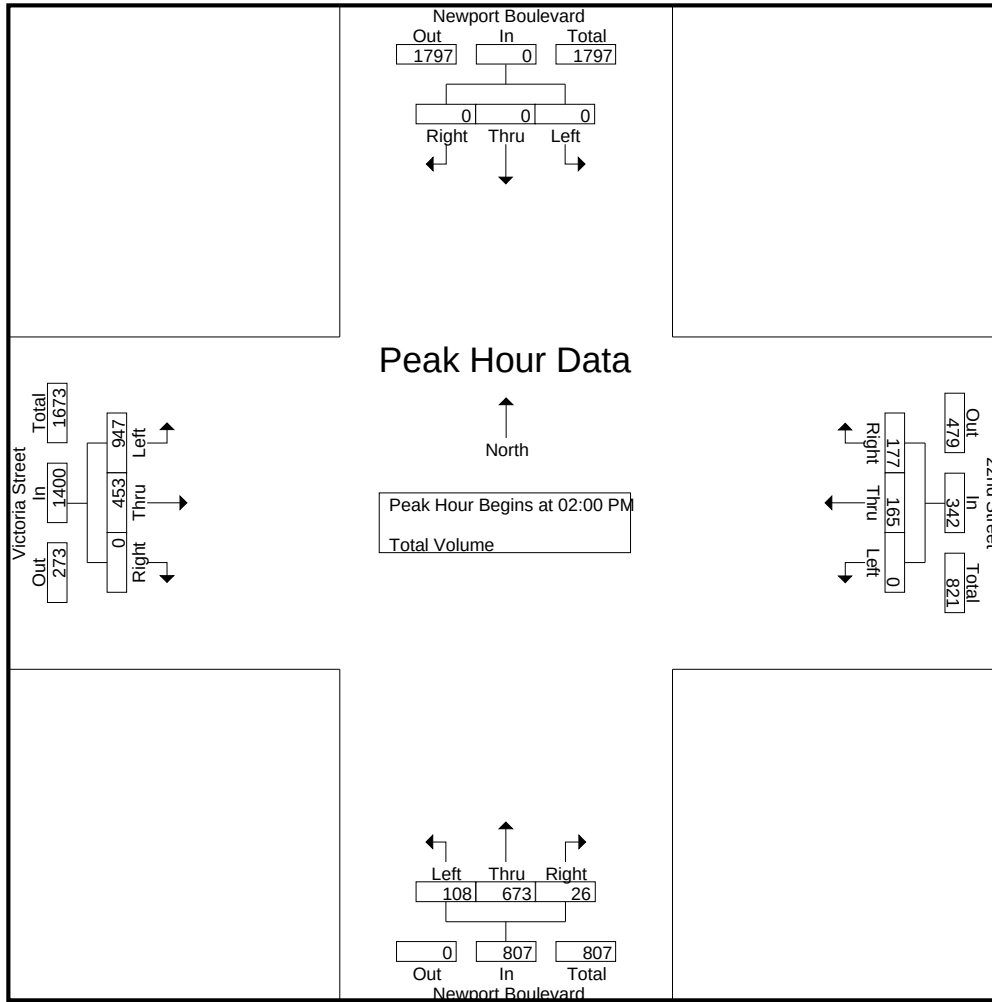
Groups Printed- Total Volume

	Newport Boulevard Southbound				22nd Street Westbound				Newport Boulevard Northbound				Victoria Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
12:00 PM	0	0	0	0	0	26	48	74	17	173	9	199	183	99	0	282	555
12:15 PM	0	0	0	0	0	28	52	80	23	168	12	203	231	97	0	328	611
12:30 PM	0	0	0	0	0	39	38	77	18	186	9	213	247	79	0	326	616
12:45 PM	0	0	0	0	0	31	39	70	24	180	11	215	210	94	0	304	589
Total	0	0	0	0	0	124	177	301	82	707	41	830	871	369	0	1240	2371
01:00 PM	0	0	0	0	0	25	40	65	28	186	8	222	239	78	0	317	604
01:15 PM	0	0	0	0	0	35	47	82	26	143	8	177	177	84	0	261	520
01:30 PM	0	0	0	0	0	31	42	73	26	166	10	202	237	108	0	345	620
01:45 PM	0	0	0	0	0	30	44	74	18	192	10	220	206	97	0	303	597
Total	0	0	0	0	0	121	173	294	98	687	36	821	859	367	0	1226	2341
02:00 PM	0	0	0	0	0	45	43	88	25	192	4	221	235	104	0	339	648
02:15 PM	0	0	0	0	0	47	35	82	33	183	5	221	237	113	0	350	653
02:30 PM	0	0	0	0	0	37	51	88	23	168	8	199	237	124	0	361	648
02:45 PM	0	0	0	0	0	36	48	84	27	130	9	166	238	112	0	350	600
Total	0	0	0	0	0	165	177	342	108	673	26	807	947	453	0	1400	2549
Grand Total	0	0	0	0	0	410	527	937	288	2067	103	2458	2677	1189	0	3866	7261
Apprch %	0	0	0		0	43.8	56.2		11.7	84.1	4.2		69.2	30.8	0		
Total %	0	0	0		0	5.6	7.3	12.9	4	28.5	1.4	33.9	36.9	16.4	0	53.2	

	Newport Boulevard Southbound				22nd Street Westbound				Newport Boulevard Northbound				Victoria Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 02:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 02:00 PM																	
02:00 PM	0	0	0	0	0	45	43	88	25	192	4	221	235	104	0	339	648
02:15 PM	0	0	0	0	0	47	35	82	33	183	5	221	237	113	0	350	653
02:30 PM	0	0	0	0	0	37	51	88	23	168	8	199	237	124	0	361	648
02:45 PM	0	0	0	0	0	36	48	84	27	130	9	166	238	112	0	350	600
Total Volume	0	0	0	0	0	165	177	342	108	673	26	807	947	453	0	1400	2549
% App. Total	0	0	0		0	48.2	51.8		13.4	83.4	3.2		67.6	32.4	0		
PHF	.000	.000	.000	.000	.000	.878	.868	.972	.818	.876	.722	.913	.995	.913	.000	.970	.976

City of Costa Mesa
N/S: Newport Boulevard (Northbound)
E/W: Victoria Street/22nd Street
Weather: Clear

File Name : 26_CSM_NP NB_Vic MD
Site Code : 23922356
Start Date : 4/21/2022
Page No : 2



Peak Hour Analysis From 12:00 PM to 02:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	12:00 PM				02:00 PM				01:30 PM				02:00 PM			
+0 mins.	0	0	0	0	0	45	43	88	26	166	10	202	235	104	0	339
+15 mins.	0	0	0	0	0	47	35	82	18	192	10	220	237	113	0	350
+30 mins.	0	0	0	0	0	37	51	88	25	192	4	221	237	124	0	361
+45 mins.	0	0	0	0	0	36	48	84	33	183	5	221	238	112	0	350
Total Volume	0	0	0	0	0	165	177	342	102	733	29	864	947	453	0	1400
% App. Total	0	0	0	0	0	48.2	51.8		11.8	84.8	3.4		67.6	32.4	0	
PHF	.000	.000	.000	.000	.000	.878	.868	.972	.773	.954	.725	.977	.995	.913	.000	.970

City of Costa Mesa
N/S: Newport Boulevard (Northbound)
E/W: Victoria Street/22nd Street
Weather: Clear

File Name : 26_CSM_NP NB_Vic PM
Site Code : 23922356
Start Date : 4/21/2022
Page No : 1

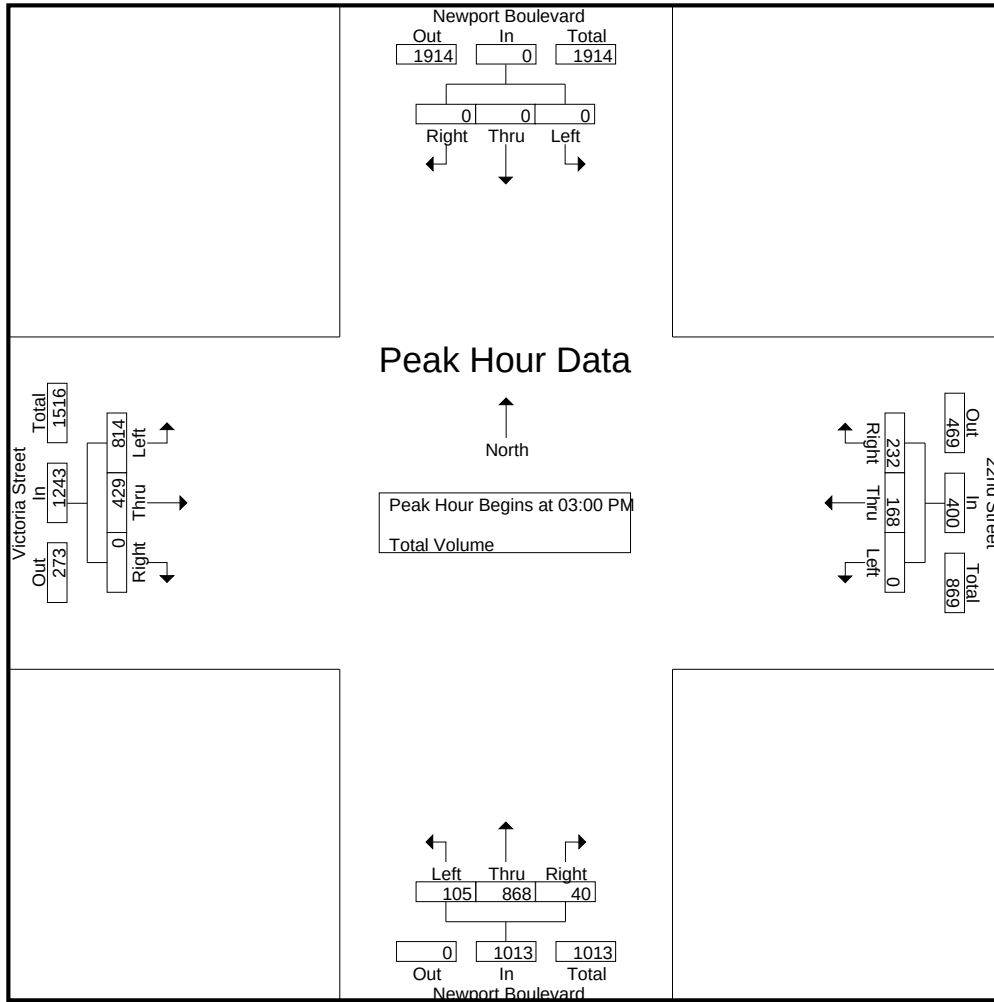
Groups Printed- Total Volume

	Newport Boulevard Southbound				22nd Street Westbound				Newport Boulevard Northbound				Victoria Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
03:00 PM	0	0	0	0	0	46	69	115	25	203	11	239	204	97	0	301	655
03:15 PM	0	0	0	0	0	48	63	111	29	235	10	274	216	111	0	327	712
03:30 PM	0	0	0	0	0	34	50	84	23	224	10	257	207	109	0	316	657
03:45 PM	0	0	0	0	0	40	50	90	28	206	9	243	187	112	0	299	632
Total	0	0	0	0	0	168	232	400	105	868	40	1013	814	429	0	1243	2656
04:00 PM	0	0	0	0	0	45	57	102	23	192	11	226	199	108	0	307	635
04:15 PM	0	0	0	0	0	48	42	90	25	232	15	272	199	109	0	308	670
04:30 PM	0	0	0	0	0	36	41	77	17	220	3	240	205	109	0	314	631
04:45 PM	0	0	0	0	0	38	50	88	24	204	19	247	215	117	0	332	667
Total	0	0	0	0	0	167	190	357	89	848	48	985	818	443	0	1261	2603
05:00 PM	0	0	0	0	0	43	37	80	20	215	10	245	205	120	0	325	650
05:15 PM	0	0	0	0	0	41	47	88	20	216	5	241	200	124	0	324	653
05:30 PM	0	0	0	0	0	37	37	74	25	219	15	259	202	129	0	331	664
05:45 PM	0	0	0	0	0	31	31	62	28	167	13	208	158	102	0	260	530
Total	0	0	0	0	0	152	152	304	93	817	43	953	765	475	0	1240	2497
Grand Total	0	0	0	0	0	487	574	1061	287	2533	131	2951	2397	1347	0	3744	7756
Apprch %	0	0	0		0	45.9	54.1		9.7	85.8	4.4		64	36	0		
Total %	0	0	0		0	6.3	7.4	13.7	3.7	32.7	1.7	38	30.9	17.4	0	48.3	

	Newport Boulevard Southbound				22nd Street Westbound				Newport Boulevard Northbound				Victoria Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:00 PM																	
03:00 PM	0	0	0	0	0	46	69	115	25	203	11	239	204	97	0	301	655
03:15 PM	0	0	0	0	0	48	63	111	29	235	10	274	216	111	0	327	712
03:30 PM	0	0	0	0	0	34	50	84	23	224	10	257	207	109	0	316	657
03:45 PM	0	0	0	0	0	40	50	90	28	206	9	243	187	112	0	299	632
Total Volume	0	0	0	0	0	168	232	400	105	868	40	1013	814	429	0	1243	2656
% App. Total	0	0	0		0	42	58		10.4	85.7	3.9		65.5	34.5	0		
PHF	.000	.000	.000	.000	.000	.875	.841	.870	.905	.923	.909	.924	.942	.958	.000	.950	.933

City of Costa Mesa
N/S: Newport Boulevard (Northbound)
E/W: Victoria Street/22nd Street
Weather: Clear

File Name : 26_CSM_NP NB_Vic PM
Site Code : 23922356
Start Date : 4/21/2022
Page No : 2



Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	03:00 PM				03:00 PM				03:00 PM				04:45 PM			
+0 mins.	0	0	0	0	0	46	69	115	25	203	11	239	215	117	0	332
+15 mins.	0	0	0	0	0	48	63	111	29	235	10	274	205	120	0	325
+30 mins.	0	0	0	0	0	34	50	84	23	224	10	257	200	124	0	324
+45 mins.	0	0	0	0	0	40	50	90	28	206	9	243	202	129	0	331
Total Volume	0	0	0	0	0	168	232	400	105	868	40	1013	822	490	0	1312
% App. Total	0	0	0	0	0	42	58		10.4	85.7	3.9		62.7	37.3	0	
PHF	.000	.000	.000	.000	.000	.875	.841	.870	.905	.923	.909	.924	.956	.950	.000	.988

City of Costa Mesa
N/S: Newport Boulevard (Northbound)
E/W: Victoria Street/22nd Street
Weather: Clear

File Name : 26_CSM_NP NB_Vic SAT
Site Code : 23922356
Start Date : 4/23/2022
Page No : 1

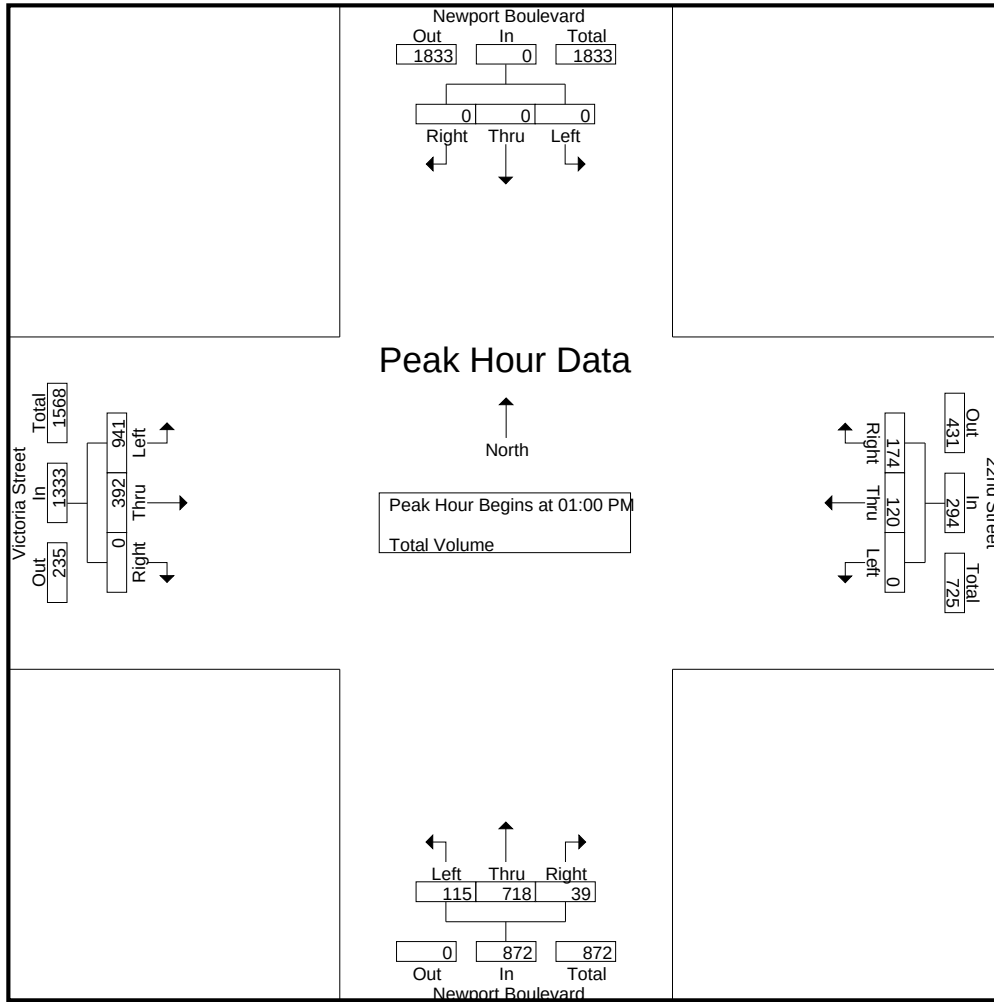
Groups Printed- Total Volume

	Newport Boulevard Southbound				22nd Street Westbound				Newport Boulevard Northbound				Victoria Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
01:00 PM	0	0	0	0	0	30	48	78	42	197	7	246	198	99	0	297	621
01:15 PM	0	0	0	0	0	40	48	88	26	180	15	221	208	108	0	316	625
01:30 PM	0	0	0	0	0	24	37	61	16	165	8	189	271	87	0	358	608
01:45 PM	0	0	0	0	0	26	41	67	31	176	9	216	264	98	0	362	645
Total	0	0	0	0	0	120	174	294	115	718	39	872	941	392	0	1333	2499
02:00 PM	0	0	0	0	0	27	41	68	27	168	10	205	188	97	0	285	558
02:15 PM	0	0	0	0	0	37	41	78	28	172	12	212	244	128	0	372	662
02:30 PM	0	0	0	0	0	30	48	78	21	178	9	208	237	111	0	348	634
02:45 PM	0	0	0	0	0	26	41	67	20	176	13	209	265	97	0	362	638
Total	0	0	0	0	0	120	171	291	96	694	44	834	934	433	0	1367	2492
Grand Total	0	0	0	0	0	240	345	585	211	1412	83	1706	1875	825	0	2700	4991
Apprch %	0	0	0		0	41	59		12.4	82.8	4.9		69.4	30.6	0		
Total %	0	0	0		0	4.8	6.9	11.7	4.2	28.3	1.7	34.2	37.6	16.5	0	54.1	

	Newport Boulevard Southbound				22nd Street Westbound				Newport Boulevard Northbound				Victoria Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 01:00 PM to 02:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 01:00 PM																	
01:00 PM	0	0	0	0	0	30	48	78	42	197	7	246	198	99	0	297	621
01:15 PM	0	0	0	0	0	40	48	88	26	180	15	221	208	108	0	316	625
01:30 PM	0	0	0	0	0	24	37	61	16	165	8	189	271	87	0	358	608
01:45 PM	0	0	0	0	0	26	41	67	31	176	9	216	264	98	0	362	645
Total Volume	0	0	0	0	0	120	174	294	115	718	39	872	941	392	0	1333	2499
% App. Total	0	0	0		0	40.8	59.2		13.2	82.3	4.5		70.6	29.4	0		
PHF	.000	.000	.000	.000	.000	.750	.906	.835	.685	.911	.650	.886	.868	.907	.000	.921	.969

City of Costa Mesa
N/S: Newport Boulevard (Northbound)
E/W: Victoria Street/22nd Street
Weather: Clear

File Name : 26_CSM_NP NB_Vic SAT
Site Code : 23922356
Start Date : 4/23/2022
Page No : 2



Peak Hour Analysis From 01:00 PM to 02:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	01:00 PM				01:00 PM				01:00 PM				01:30 PM			
+0 mins.	0	0	0	0	0	30	48	78	42	197	7	246	271	87	0	358
+15 mins.	0	0	0	0	0	40	48	88	26	180	15	221	264	98	0	362
+30 mins.	0	0	0	0	0	24	37	61	16	165	8	189	188	97	0	285
+45 mins.	0	0	0	0	0	26	41	67	31	176	9	216	244	128	0	372
Total Volume	0	0	0	0	0	120	174	294	115	718	39	872	967	410	0	1377
% App. Total	0	0	0	0	0	40.8	59.2		13.2	82.3	4.5		70.2	29.8	0	
PHF	.000	.000	.000	.000	.000	.750	.906	.835	.685	.911	.650	.886	.892	.801	.000	.925

Location: Costa Mesa
 N/S: Newport Blvd NB
 E/W: Victoria Street/22nd Street



PEDESTRIANS

Date: 4/21/2022
 Day: Thursday

	North Leg Newport Blvd NB Pedestrians	East Leg 22nd Street Pedestrians	South Leg Newport Blvd NB Pedestrians	West Leg Victoria Street Pedestrians	
7:00 AM	0	0	1	0	1
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	2	2
7:45 AM	0	0	4	4	8
8:00 AM	0	0	2	5	7
8:15 AM	0	0	0	2	2
8:30 AM	0	0	1	2	3
8:45 AM	0	0	0	2	2
TOTAL VOLUMES:	0	0	8	17	25

Date: 4/21/2022
 Day: Thursday

	North Leg Newport Blvd NB Pedestrians	East Leg 22nd Street Pedestrians	South Leg Newport Blvd NB Pedestrians	West Leg Victoria Street Pedestrians	
12:00 PM	0	0	3	3	6
12:15 PM	0	0	0	0	0
12:30 PM	0	0	1	1	2
12:45 PM	0	0	1	1	2
1:00 PM	0	0	2	3	5
1:15 PM	0	0	1	7	8
1:30 PM	0	0	3	0	3
1:45 PM	0	0	4	6	10
2:00 PM	0	0	0	1	1
2:15 PM	0	0	2	2	4
2:30 PM	0	0	3	3	6
2:45 PM	0	0	4	2	6
TOTAL VOLUMES:	0	0	24	29	53

Date: 4/21/2022
 Day: Thursday

	North Leg Newport Blvd NB Pedestrians	East Leg 22nd Street Pedestrians	South Leg Newport Blvd NB Pedestrians	West Leg Victoria Street Pedestrians	
3:00 PM	0	0	1	2	3
3:15 PM	0	0	4	8	12
3:30 PM	0	0	0	0	0
3:45 PM	0	0	3	2	5
4:00 PM	0	0	4	0	4
4:15 PM	0	0	2	2	4
4:30 PM	0	0	4	4	8
4:45 PM	0	0	4	1	5
5:00 PM	0	0	0	0	0
5:15 PM	0	0	1	1	2
5:30 PM	0	0	1	0	1
5:45 PM	0	0	3	2	5
TOTAL VOLUMES:	0	0	27	22	49

Date: 4/23/2022
 Day: Saturday

	North Leg Newport Blvd NB Pedestrians	East Leg 22nd Street Pedestrians	South Leg Newport Blvd NB Pedestrians	West Leg Victoria Street Pedestrians	
1:00 PM	3	0	0	0	3
1:15 PM	0	0	0	0	0
1:30 PM	2	0	0	2	4
1:45 PM	0	0	0	1	1
2:00 PM	1	0	0	1	2
2:15 PM	8	0	0	1	9
2:30 PM	0	0	0	0	0
2:45 PM	3	0	0	4	7
TOTAL VOLUMES:	17	0	0	9	26

Location: Costa Mesa
N/S: Newport Blvd NB
E/W: Victoria Street/22nd Street



BICYCLES

Date: 4/21/2022
Day: Thursday

	Southbound Newport Blvd NB			Westbound 22nd Street			Northbound Newport Blvd NB			Eastbound Victoria Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	0	2	0	0	0	0	0	0	0	0	0	0	2
7:30 AM	0	2	0	0	0	0	0	0	0	0	0	0	2
7:45 AM	1	3	0	0	1	0	0	0	0	0	2	0	7
8:00 AM	0	0	0	0	0	0	0	0	0	1	1	0	2
8:15 AM	0	2	0	0	0	0	0	0	0	0	0	0	2
8:30 AM	0	0	0	0	0	0	0	0	4	0	1	0	5
8:45 AM	1	1	0	0	0	0	0	0	0	0	0	0	2
TOTAL VOLUMES:	2	11	0	0	1	0	0	0	4	1	4	0	23

Date: 4/21/2022
Day: Thursday

	Southbound Newport Blvd NB			Westbound 22nd Street			Northbound Newport Blvd NB			Eastbound Victoria Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
12:00 PM	0	2	0	1	0	0	0	0	2	0	2	0	7
12:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	1
12:30 PM	0	0	0	0	1	0	0	0	0	3	1	0	5
12:45 PM	0	1	2	0	0	4	0	0	3	0	1	0	11
1:00 PM	0	0	1	0	0	0	0	0	0	0	1	0	2
1:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	1
1:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	1
1:45 PM	0	0	0	0	0	0	0	0	1	0	1	0	2
2:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	1
2:15 PM	0	0	1	0	2	0	0	0	3	3	3	0	12
2:30 PM	0	2	1	0	0	0	0	0	0	1	1	0	5
2:45 PM	0	1	1	0	1	0	0	0	1	0	0	0	4
TOTAL VOLUMES:	0	6	7	1	4	4	0	0	12	8	10	0	52

Date: 4/21/2022
Day: Thursday

	Southbound Newport Blvd NB			Westbound 22nd Street			Northbound Newport Blvd NB			Eastbound Victoria Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
3:00 PM	0	0	0	0	0	0	0	0	1	1	0	0	2
3:15 PM	0	1	0	0	0	0	0	0	0	1	0	0	2
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	1	0	0	0	0	0	1	1	0	1	0	4
4:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	2
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
4:45 PM	0	1	0	1	0	0	0	1	0	0	0	0	3
5:00 PM	0	0	0	0	0	1	0	0	0	1	1	0	3
5:15 PM	0	4	0	0	0	0	0	1	0	1	1	0	7
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	7	0	1	1	1	0	3	2	6	3	0	24

Date: 4/23/2022
Day: Saturday

	Southbound Newport Blvd NB			Westbound 22nd Street			Northbound Newport Blvd NB			Eastbound Victoria Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1:00 PM	0	2	0	0	1	0	0	0	0	1	1	0	5
1:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
1:30 PM	0	0	0	0	3	0	0	0	0	0	0	0	3
1:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	1
2:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
2:15 PM	0	0	0	0	0	0	0	0	0	1	2	0	3
2:30 PM	0	0	0	0	0	0	0	0	0	2	1	0	3
2:45 PM	0	1	0	0	1	0	0	0	0	0	1	0	3
TOTAL VOLUMES:	0	3	0	0	5	0	0	0	0	5	7	0	20

INTERSECTION TURNING MOVEMENT COUNTS

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

T101823

DATE: Thu, Nov 2, 23	LOCATION: NORTH & SOUTH: EAST & WEST:	Costa Mesa Vanguard Way Fair Dr	PROJECT #: LOCATION #: CONTROL:	SC4286 14 SIGNAL
-------------------------	---	---------------------------------------	---------------------------------------	------------------------

NOTES:	AM		▲	
	PM		N	
	MD	◀ W		E ▶
	OTHER		S	
	OTHER		▼	

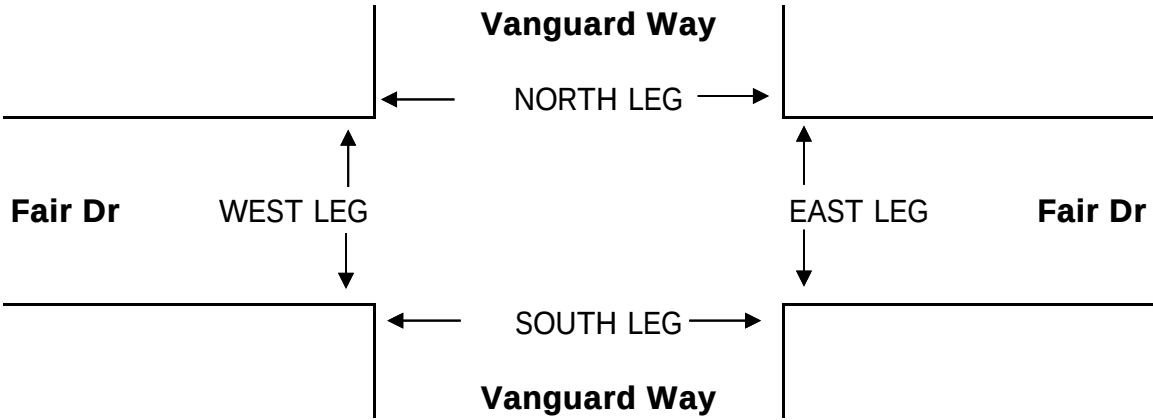
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Vanguard Way			Vanguard Way			Fair Dr			Fair Dr			
LANES:	NL 1	NT X	NR 0	SL X	ST X	SR X	EL X	ET 2	ER 0	WL 1	WT 2	WR X	TOTAL

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

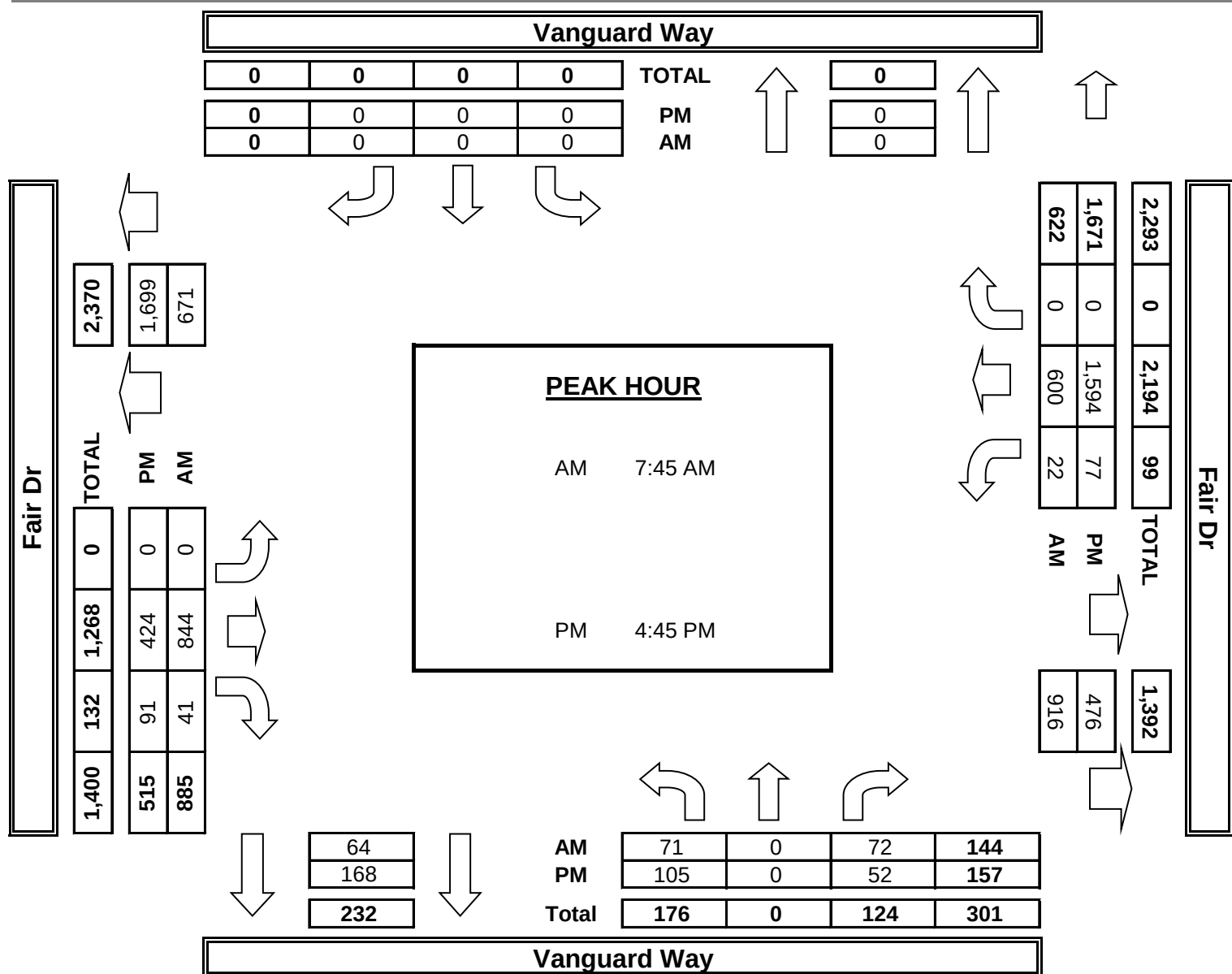
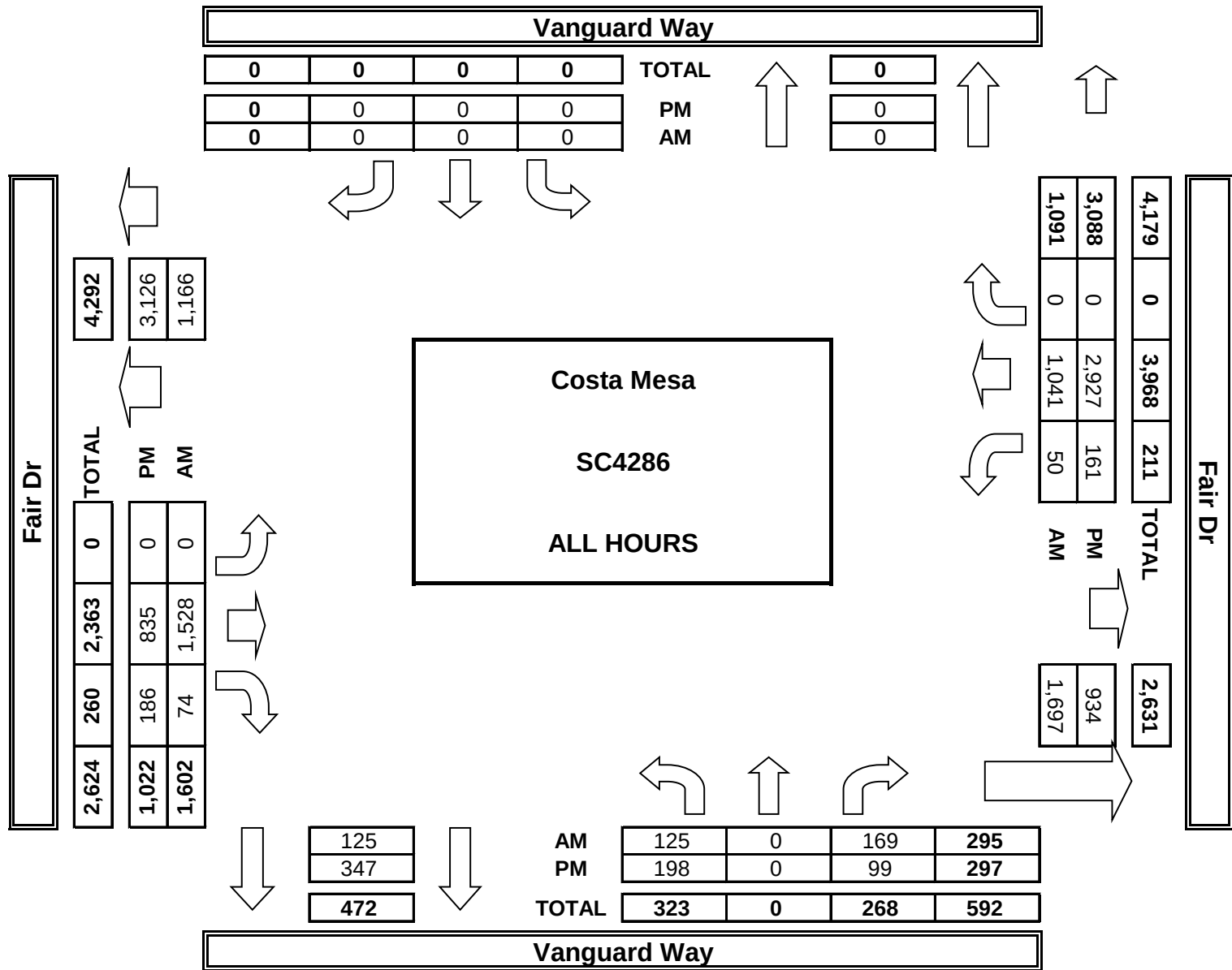
AM	7:00 AM	8	0	23	0	0	0	0	133	6	4	91	0	265
	7:15 AM	13	0	23	0	0	0	0	162	7	11	108	0	324
	7:30 AM	21	0	31	0	0	0	0	207	8	5	116	0	388
	7:45 AM	21	0	21	0	0	0	0	217	9	5	160	0	433
	8:00 AM	16	0	18	0	0	0	0	215	0	0	145	0	394
	8:15 AM	15	0	15	0	0	0	0	214	14	9	144	0	411
	8:30 AM	19	0	18	0	0	0	0	198	18	8	151	0	412
	8:45 AM	12	0	20	0	0	0	0	182	12	8	126	0	360
	VOLUMES	125	0	169	0	0	0	0	1,528	74	50	1,041	0	2,988
	APPROACH %	42%	0%	57%	0%	0%	0%	0%	95%	5%	5%	95%	0%	
	APP/DEPART	295	/	0	0	/	125	1,602	/	1,697	1,091	/	1,166	0
	BEGIN PEAK HR	7:45 AM												
PM	VOLUMES	71	0	72	0	0	0	0	844	41	22	600	0	1,651
	APPROACH %	49%	0%	50%	0%	0%	0%	0%	95%	5%	4%	96%	0%	
	PEAK HR FACTOR	0.857			0.000			0.970			0.942			0.953
	APP/DEPART	144	/	0	0	/	64	885	/	916	622	/	671	0
	4:00 PM	26	0	10	0	0	0	0	104	28	14	314	0	496
	4:15 PM	23	0	13	0	0	0	0	112	22	24	337	0	531
	4:30 PM	25	0	13	0	0	0	0	95	22	24	333	0	512
	4:45 PM	22	0	8	0	0	0	0	105	24	10	390	0	559
	5:00 PM	32	0	16	0	0	0	0	107	21	25	401	0	602
	5:15 PM	30	0	16	0	0	0	0	100	16	15	394	0	571
	5:30 PM	21	0	12	0	0	0	0	112	30	27	409	0	611
	5:45 PM	19	0	11	0	0	0	0	100	23	22	349	0	524
	VOLUMES	198	0	99	0	0	0	0	835	186	161	2,927	0	4,407
	APPROACH %	67%	0%	33%	0%	0%	0%	0%	82%	18%	5%	95%	0%	
	APP/DEPART	297	/	0	0	/	347	1,022	/	934	3,088	/	3,126	0
	BEGIN PEAK HR	4:45 PM												
	VOLUMES	105	0	52	0	0	0	0	424	91	77	1,594	0	2,343
	APPROACH %	67%	0%	33%	0%	0%	0%	0%	82%	18%	5%	95%	0%	
	PEAK HR FACTOR	0.818			0.000			0.907			0.958			0.959
	APP/DEPART	157	/	0	0	/	168	515	/	476	1,671	/	1,699	0

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

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



AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

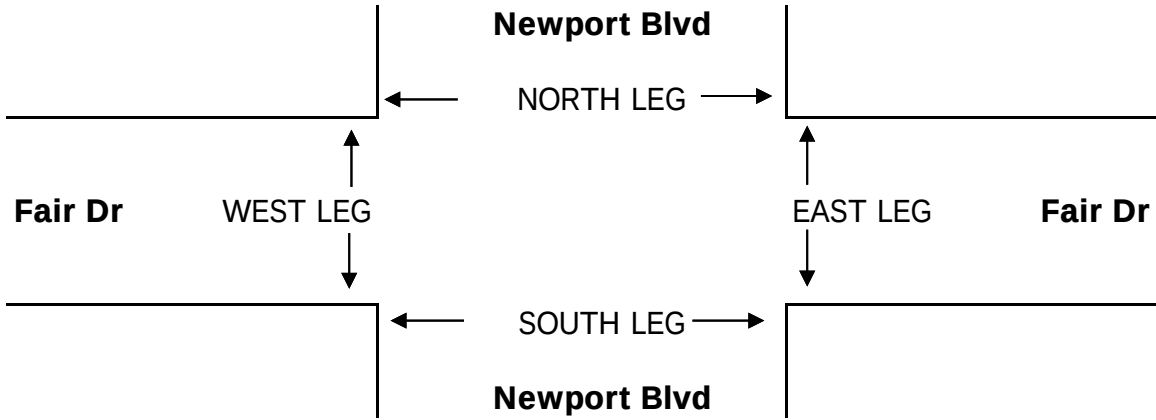
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

T101823

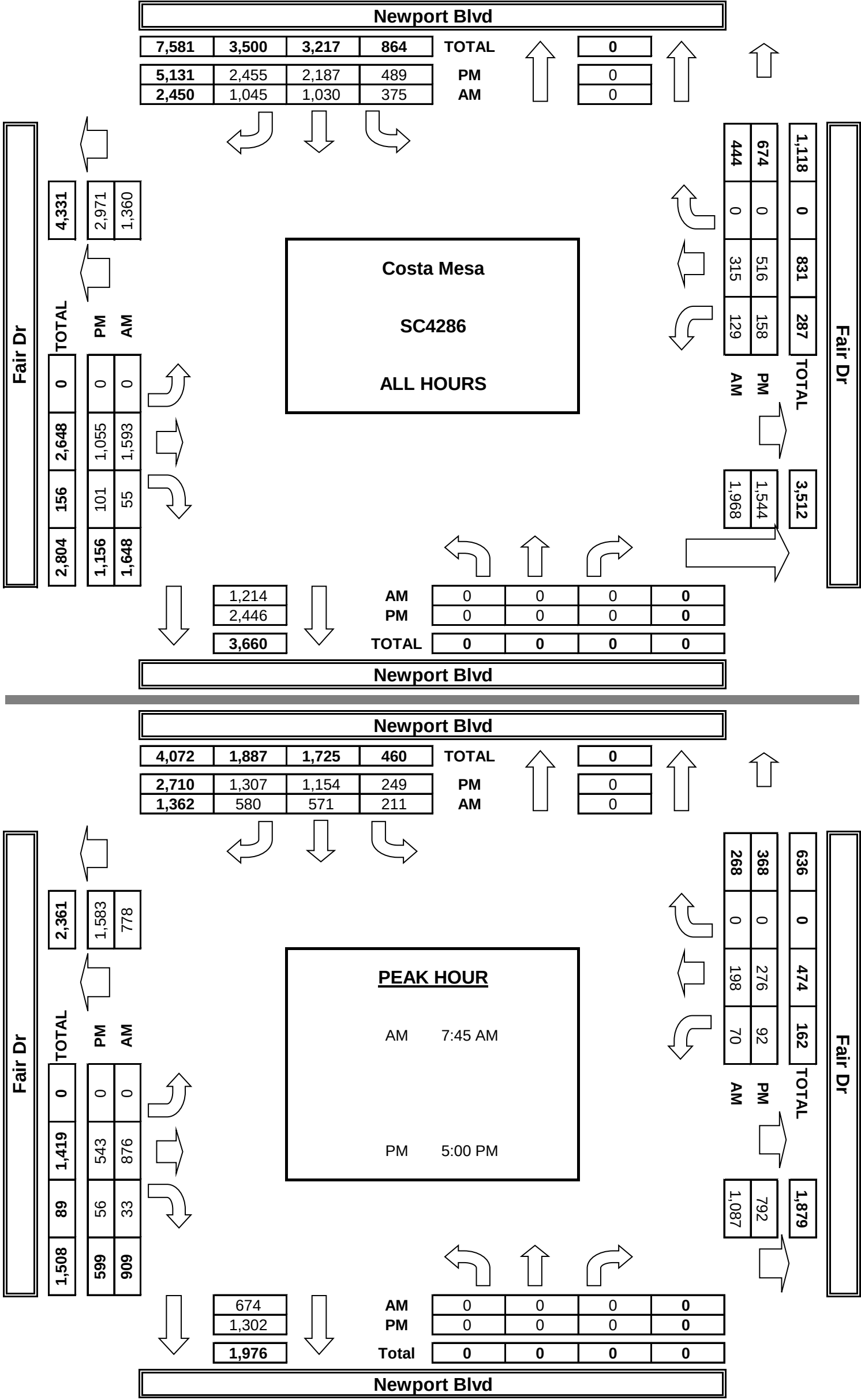
DATE: Thu, Nov 2, 23		LOCATION: NORTH & SOUTH: EAST & WEST:		Costa Mesa Newport Blvd Fair Dr		PROJECT #: LOCATION #: CONTROL:		SC4286 15 SIGNAL					
NOTES:						AM		▲					
						PM		N					
						MD	◀ W		E ▶				
						OTHER		S					
OTHER		▼											
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	Newport Blvd			Newport Blvd			Fair Dr			Fair Dr			
LANES:	NL X	NT X	NR X	SL 1	ST 3	SR 1	EL X	ET 3.5	ER 0.5	WL 1	WT 2	WR X	TOTAL
7:00 AM	0	0	0	39	78	106	0	148	2	9	23	0	405
7:15 AM	0	0	0	37	108	118	0	163	4	11	32	0	473
7:30 AM	0	0	0	52	137	125	0	201	5	19	18	0	557
7:45 AM	0	0	0	43	168	169	0	231	10	18	56	0	695
8:00 AM	0	0	0	63	138	131	0	246	8	18	41	0	645
8:15 AM	0	0	0	53	129	140	0	215	6	15	54	0	612
8:30 AM	0	0	0	52	136	140	0	184	9	19	47	0	587
8:45 AM	0	0	0	36	136	116	0	205	11	20	44	0	568
VOLUMES	0	0	0	375	1,030	1,045	0	1,593	55	129	315	0	4,542
APPROACH %	0%	0%	0%	15%	42%	43%	0%	97%	3%	29%	71%	0%	
APP/DEPART	0	/	0	2,450	/	1,214	1,648	/	1,968	444	/	1,360	0
BEGIN PEAK HR	7:45 AM												
VOLUMES	0	0	0	211	571	580	0	876	33	70	198	0	2,539
APPROACH %	0%	0%	0%	15%	42%	43%	0%	96%	4%	26%	74%	0%	
PEAK HR FACTOR	0.000			0.896			0.895			0.905			0.913
APP/DEPART	0	/	0	1,362	/	674	909	/	1,087	268	/	778	0
4:00 PM	0	0	0	55	227	247	0	106	6	15	48	0	704
4:15 PM	0	0	0	46	277	296	0	157	13	18	61	0	868
4:30 PM	0	0	0	57	266	293	0	124	12	18	61	0	831
4:45 PM	0	0	0	82	263	312	0	125	14	15	70	0	881
5:00 PM	0	0	0	69	283	340	0	149	16	15	60	0	932
5:15 PM	0	0	0	52	280	329	0	121	15	31	71	0	899
5:30 PM	0	0	0	59	289	338	0	132	10	21	75	0	924
5:45 PM	0	0	0	69	302	300	0	141	15	25	70	0	922
VOLUMES	0	0	0	489	2,187	2,455	0	1,055	101	158	516	0	6,961
APPROACH %	0%	0%	0%	10%	43%	48%	0%	91%	9%	23%	77%	0%	
APP/DEPART	0	/	0	5,131	/	2,446	1,156	/	1,544	674	/	2,971	0
BEGIN PEAK HR	5:00 PM												
VOLUMES	0	0	0	249	1,154	1,307	0	543	56	92	276	0	3,677
APPROACH %	0%	0%	0%	9%	43%	48%	0%	91%	9%	25%	75%	0%	
PEAK HR FACTOR	0.000			0.979			0.908			0.902			0.986
APP/DEPART	0	/	0	2,710	/	1,302	599	/	792	368	/	1,583	0

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

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



AimTD LLC
TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

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

T101823

DATE: Thu, Nov 2, 23	LOCATION: NORTH & SOUTH: EAST & WEST:	Costa Mesa Newport Blvd Del Mar Ave	PROJECT #: LOCATION #: CONTROL:	SC4286 16 SIGNAL
-------------------------	---	---	---------------------------------------	------------------------

NOTES:	AM		▲	
	PM		N	
	MD	◀ W		E ▶
	OTHER		S	
	OTHER		▼	

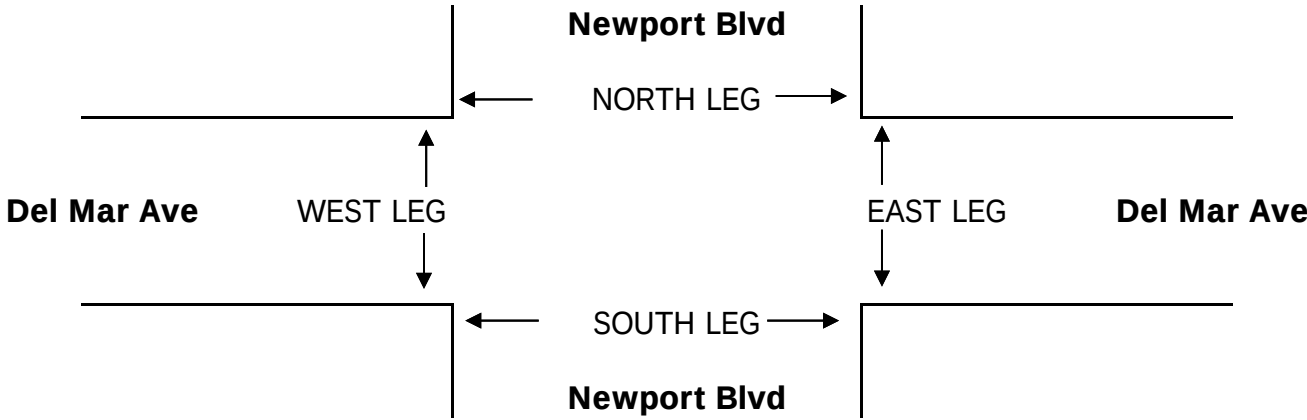
	NORTHBOUND Newport Blvd			SOUTHBOUND Newport Blvd			EASTBOUND Fair Dr			WESTBOUND Del Mar Ave			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	0.5	2.5	0	X	X	X	2	2	X	X	2	1	

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

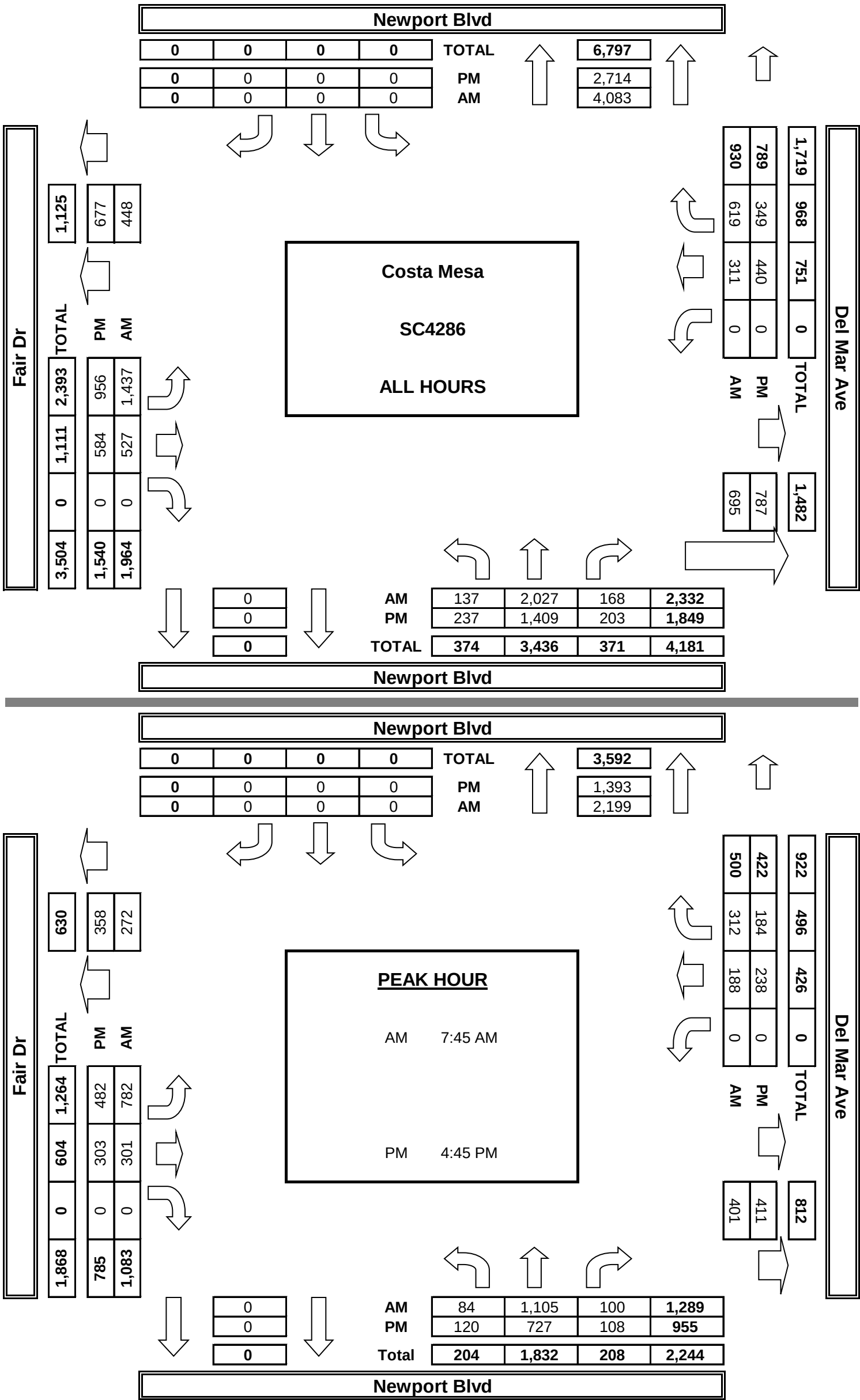
AM	7:00 AM	11	193	10	0	0	0	132	55	0	0	21	59	481
	7:15 AM	12	205	17	0	0	0	155	45	0	0	31	82	547
	7:30 AM	10	271	26	0	0	0	199	54	0	0	27	88	675
	7:45 AM	28	290	13	0	0	0	202	68	0	0	46	82	729
	8:00 AM	22	259	21	0	0	0	222	87	0	0	41	68	720
	8:15 AM	15	280	35	0	0	0	175	93	0	0	54	83	735
	8:30 AM	19	276	31	0	0	0	183	53	0	0	47	79	688
	8:45 AM	20	253	15	0	0	0	169	72	0	0	44	78	651
	VOLUMES	137	2,027	168	0	0	0	1,437	527	0	0	311	619	5,226
	APPROACH %	6%	87%	7%	0%	0%	0%	73%	27%	0%	0%	33%	67%	
	APP/DEPART	2,332	/	4,083	0	/	0	1,964	/	695	930	/	448	0
	BEGIN PEAK HR	7:45 AM												
PM	VOLUMES	84	1,105	100	0	0	0	782	301	0	0	188	312	2,872
	APPROACH %	7%	86%	8%	0%	0%	0%	72%	28%	0%	0%	38%	62%	
	PEAK HR FACTOR	0.974			0.000			0.876			0.912			0.977
	APP/DEPART	1,289	/	2,199	0	/	0	1,083	/	401	500	/	272	0
	4:00 PM	28	201	24	0	0	0	118	43	0	0	35	35	484
	4:15 PM	34	150	19	0	0	0	116	87	0	0	48	45	499
	4:30 PM	25	185	27	0	0	0	101	80	0	0	54	40	512
	4:45 PM	27	193	23	0	0	0	110	97	0	0	58	39	547
	5:00 PM	27	174	24	0	0	0	146	72	0	0	48	47	538
	5:15 PM	31	188	26	0	0	0	91	78	0	0	71	57	542
	5:30 PM	35	172	35	0	0	0	135	56	0	0	61	41	535
	5:45 PM	30	146	25	0	0	0	139	71	0	0	65	45	521
	VOLUMES	237	1,409	203	0	0	0	956	584	0	0	440	349	4,178
	APPROACH %	13%	76%	11%	0%	0%	0%	62%	38%	0%	0%	56%	44%	
	APP/DEPART	1,849	/	2,714	0	/	0	1,540	/	787	789	/	677	0
	BEGIN PEAK HR	4:45 PM												
	VOLUMES	120	727	108	0	0	0	482	303	0	0	238	184	2,162
	APPROACH %	13%	76%	11%	0%	0%	0%	61%	39%	0%	0%	56%	44%	
	PEAK HR FACTOR	0.974			0.000			0.900			0.824			0.988
	APP/DEPART	955	/	1,393	0	/	0	785	/	411	422	/	358	0

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

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



AimTD LLC
TURNING MOVEMENT COUNTS



Appendix B – LOS Worksheets

Fairview Development Center SP

Vistro File: C:\...\Fairview LOS 02192026.vistro

Scenario 1 Existing AM

Report File: C:\...\01_EXAM.pdf

2/27/2026

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Brookhurst Street and Adams Avenue	Signalized	ICU 1	EB Thru	0.706	-	C
2	Placentia Avenue and Adams Avenue	Signalized	ICU 1	EB Thru	0.654	-	B
3	Placentia Avenue and Victoria Street	Signalized	ICU 1	EB Thru	0.710	-	C
4	Mesa Verde Drive East and Adams Avenue	Signalized	ICU 1	EB Thru	0.540	-	A
5	Royal Palm Drive and Adams Avenue	Signalized	ICU 1	EB Right	0.483	-	A
6	Harbor Boulevard and South Coast Drive	Signalized	ICU 1	SB Thru	0.437	-	A
7	Harbor Boulevard and Interstate 405 (I-405) Westbound On/Off Ramps	Signalized	HCM 7th Edition	WB Right	0.649	15.2	B
8	Harbor Boulevard and I-405 Eastbound On/Off Ramps	Signalized	HCM 7th Edition	EB Right	0.520	5.7	A
9	Harbor Boulevard and Gisler Avenue	Signalized	ICU 1	NB Thru	0.621	-	B
10	Harbor Boulevard and Nutmeg Place	Signalized	ICU 1	NB Thru	0.447	-	A
11	Harbor Boulevard and Baker Street	Signalized	ICU 1	NB Thru	0.508	-	A
12	Harbor Boulevard and Adams Avenue	Signalized	ICU 1	EB Thru	0.555	-	A
13	Harbor Boulevard and Merrimac Way	Signalized	ICU 1	SB Thru	0.424	-	A
14	Harbor Boulevard and Fair Drive	Signalized	ICU 1	SB Right	0.398	-	A
15	Harbor Boulevard and Wilson Street	Signalized	ICU 1	SB Thru	0.431	-	A
16	Harbor Boulevard and Victoria Street	Signalized	ICU 1	EB Thru	0.625	-	B
17	Harbor Boulevard and Hamilton Street	Signalized	ICU 1	SB Thru	0.467	-	A

Version 2025 (SP 0-2)

18	Harbor Boulevard and West 19th Street	Signalized	ICU 1	EB Thru	0.481	-	A
19	Harbor Boulevard and Newport Boulevard	Signalized	ICU 1	WB Thru	0.760	-	C
20	Fairview Road and Fair Drive	Signalized	ICU 1	EB Thru	0.413	-	A
21	Southbound Newport Boulevard and Victoria Street	Signalized	ICU 1	EB Thru	0.518	-	A
22	Northbound Newport Boulevard and Victoria Street	Signalized	ICU 1	EB Left	0.770	-	C
23	Vanguard Way and Fair Drive	Signalized	ICU 1	EB Thru	0.367	-	A
24	Southbound Newport Boulevard and Fair Drive	Signalized	ICU 1	EB Right	0.322	-	A
25	Northbound Newport Boulevard and Fair Drive/Del Mar Avenue	Signalized	ICU 1	NB Thru	0.671	-	B
26	Harbor Boulevard and New Access/Home Depot	Signalized	ICU 1	SB Thru	0.358	-	A

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report

Intersection 1: Brookhurst Street and Adams Avenue

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.706

Intersection Setup

Name	Brookhurst St			Brookhurst St			Adams Ave			Adams Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	0	2	0	0	2	0	1	2	0	1
Entry Pocket Length [ft]	215.00	100.00	100.00	216.00	100.00	100.00	286.00	100.00	100.00	236.00	100.00	400.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Brookhurst St			Brookhurst St			Adams Ave			Adams Ave		
Base Volume Input [veh/h]	78	700	282	255	600	105	167	1593	86	259	626	194
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	78	700	282	255	600	105	167	1593	86	259	626	194
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	20	175	71	64	150	26	42	398	22	65	157	49
Total Analysis Volume [veh/h]	78	700	282	255	600	105	167	1593	86	259	626	194
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.19	0.19	0.08	0.14	0.14	0.05	0.31	0.05	0.08	0.12	0.11
Intersection LOS	C											
Intersection V/C	0.706											

Intersection Level Of Service Report

Intersection 2: Placentia Avenue and Adams Avenue

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.654

Intersection Setup

Name	Placentia Ave			Mesa Verde Dr W			Adams Ave			Adams Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	1	1	0	0
Entry Pocket Length [ft]	172.00	100.00	134.00	190.00	100.00	175.00	184.00	100.00	137.00	481.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Placentia Ave			Mesa Verde Dr W			Adams Ave			Adams Ave		
Base Volume Input [veh/h]	184	249	191	23	203	112	104	1881	217	127	784	32
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	184	249	191	23	203	112	104	1881	217	127	784	32
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	46	62	48	6	51	28	26	470	54	32	196	8
Total Analysis Volume [veh/h]	184	249	191	23	203	112	104	1881	217	127	784	32
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	7	4	0	3	8	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.15	0.11	0.01	0.06	0.07	0.06	0.37	0.13	0.07	0.16	0.16
Intersection LOS	B											
Intersection V/C	0.654											

Intersection Level Of Service Report

Intersection 3: Placentia Avenue and Victoria Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.710

Intersection Setup

Name	Placentia Avenue			Placentia Avenue			Victoria Street			Victoria Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	1	1	0	1	1	0	1	1	0	1
Entry Pocket Length [ft]	227.00	100.00	90.00	78.00	100.00	59.00	239.00	100.00	163.00	200.00	100.00	84.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Placentia Avenue			Placentia Avenue			Victoria Street			Victoria Street		
Base Volume Input [veh/h]	250	416	147	93	575	52	53	1062	474	178	674	90
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	250	416	147	93	575	52	53	1062	474	178	674	90
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	63	104	37	23	144	13	13	266	119	45	169	23
Total Analysis Volume [veh/h]	250	416	147	93	575	52	53	1062	474	178	674	90
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.07	0.12	0.09	0.05	0.17	0.03	0.03	0.31	0.00	0.10	0.20	0.05
Intersection LOS	C											
Intersection V/C	0.710											

Intersection Level Of Service Report

Intersection 4: Mesa Verde Drive East and Adams Avenue

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.540

Intersection Setup

Name	Mesa Verde Dr E			Mesa Verde Dr E			Adams Ave			Adams Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1	1	0	1	1	0	1
Entry Pocket Length [ft]	204.00	100.00	100.00	63.00	100.00	100.00	153.00	100.00	100.00	150.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Mesa Verde Dr E			Mesa Verde Dr E			Adams Ave			Adams Ave		
Base Volume Input [veh/h]	96	91	117	57	140	64	60	1868	230	37	795	69
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	96	91	117	57	140	64	60	1868	230	37	795	69
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	24	23	29	14	35	16	15	467	58	9	199	17
Total Analysis Volume [veh/h]	96	91	117	57	140	64	60	1868	230	37	795	69
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	2	0	3	6	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.06	0.05	0.07	0.03	0.04	0.04	0.04	0.37	0.14	0.02	0.16	0.04
Intersection LOS	A											
Intersection V/C	0.540											

Intersection Level Of Service Report
Intersection 5: Royal Palm Drive and Adams Avenue

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.483

Intersection Setup

Name	Royal Palm Dr			Driveway			Adams Ave			Adams Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	1	0	0	1	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	23.00	80.00	100.00	100.00	184.00	100.00	100.00	78.00	100.00	54.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Royal Palm Dr			Driveway			Adams Ave			Adams Ave		
Base Volume Input [veh/h]	25	9	5	23	5	27	26	1990	28	7	872	17
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	25	9	5	23	5	27	26	1990	28	7	872	17
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	2	1	6	1	7	7	498	7	2	218	4
Total Analysis Volume [veh/h]	25	9	5	23	5	27	26	1990	28	7	872	17
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	7	4	0	3	8	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.40	0.40	0.00	0.17	0.01
Intersection LOS	A											
Intersection V/C	0.483											

Intersection Level Of Service Report
Intersection 6: Harbor Boulevard and South Coast Drive

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.437

Intersection Setup

Name	Harbor Blvd			Harbor Blvd			South Coast Dr			South Coast Dr		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	1	2	0	2	1	0	0	2	0	1
Entry Pocket Length [ft]	160.00	100.00	245.00	215.00	100.00	189.00	198.00	100.00	100.00	250.00	100.00	185.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Harbor Blvd			Harbor Blvd			South Coast Dr			South Coast Dr		
Base Volume Input [veh/h]	224	1381	239	50	1744	61	11	31	117	73	119	32
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	224	1381	239	50	1744	61	11	31	117	73	119	32
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	56	345	60	13	436	15	3	8	29	18	30	8
Total Analysis Volume [veh/h]	224	1381	239	50	1744	61	11	31	117	73	119	32
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.07	0.20	0.14	0.01	0.26	0.04	0.01	0.04	0.04	0.02	0.04	0.02
Intersection LOS	A											
Intersection V/C	0.437											

Intersection Level Of Service Report**Intersection 7: Harbor Boulevard and Interstate 405 (I-405) Westbound On/Off Ramps**

Control Type:	Signalized	Delay (sec / veh):	15.2
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.649

Intersection Setup

Name	Harbor Blvd		Harbor Blvd		I-405 WB Off Ramp	
Approach	Northbound		Southbound		Westbound	
Lane Configuration	↑↑↑↑		↑↑↑↑		↵↵↵	
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	0	1
Entry Pocket Length [ft]	100.00	200.00	100.00	100.00	100.00	425.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		45.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		Yes	

Volumes

Name	Harbor Blvd		Harbor Blvd		I-405 WB Off Ramp	
Base Volume Input [veh/h]	1142	0	0	1945	494	702
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00					
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1142	0	0	1945	494	702
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	286	0	0	486	124	176
Total Analysis Volume [veh/h]	1142	0	0	1945	494	702
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - Coordination Group
Cycle Length [s]	120
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing (Basic)

Control Type	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
Flashing Yellow Arrow						
Signal Group	2	0	0	6	4	0
Auxiliary Signal Groups						
Maximum Green [s]	30	0	0	30	30	0
Amber [s]	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	1.0	0.0	0.0	1.0	1.0	0.0
Walk [s]	5.0	0.0	0.0	5.0	5.0	0.0
Pedestrian Clearance [s]	10.0	0.0	0.0	10.0	10.0	0.0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	64.0	0.0	0.0	64.0	56.0	0.0
Lead / Lag	-	-	-	-	Lead	-
Minimum Green [s]	10	0	0	10	5	0
Vehicle Extension [s]	3.0	0.0	0.0	3.0	3.0	0.0
Minimum Recall	No			No	No	
Maximum Recall	No			No	No	
Pedestrian Recall	No			No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R
C, Calculated Cycle Length [s]	79	79	79	79	79
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	45.2	45.2	26.3	26.3	26.3
g / C, Green / Cycle	0.57	0.57	0.33	0.33	0.33
(v / s)_i Volume / Saturation Flow Rate	0.19	0.32	0.25	0.27	0.28
s, saturation flow rate [veh/h]	6077	6077	1593	1460	1422
c, Capacity [veh/h]	3453	3453	528	484	471
d1, Uniform Delay [s]	9.14	10.92	23.74	24.48	24.73
k, delay calibration	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.06	0.15	2.22	3.60	4.27
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.33	0.56	0.75	0.82	0.85
d, Delay for Lane Group [s/veh]	9.20	11.06	25.96	28.09	29.00
Lane Group LOS	A	B	C	C	C
Critical Lane Group	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.19	4.46	6.28	6.63	6.77
50th-Percentile Queue Length [ft/ln]	54.76	111.57	157.09	165.74	169.14
95th-Percentile Queue Length [veh/ln]	3.94	7.93	10.39	10.85	11.03
95th-Percentile Queue Length [ft/ln]	98.56	198.19	259.86	271.30	275.78

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	9.20	0.00	0.00	11.06	26.37	28.60
Movement LOS	A			B	C	C
d_A, Approach Delay [s/veh]	9.20		11.06		27.68	
Approach LOS	A		B		C	
d_I, Intersection Delay [s/veh]	15.21					
Intersection LOS	B					
Intersection V/C	0.649					

Emissions

Vehicle Miles Traveled [mph]	189.18	166.84	50.94	50.94	50.94
Stops [stops/h]	396.84	808.62	284.62	300.29	306.45
Fuel consumption [US gal/h]	12.81	18.30	7.39	7.76	7.91
CO [g/h]	895.63	1279.16	516.63	542.32	552.82
NOx [g/h]	174.26	248.88	100.52	105.52	107.56
VOC [g/h]	207.57	296.46	119.73	125.69	128.12

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	31.25
I_p,int, Pedestrian LOS Score for Intersectio	0.000	0.000	2.519
Crosswalk LOS	F	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1510	1510	1309
d_b, Bicycle Delay [s]	2.39	2.39	4.75
I_b,int, Bicycle LOS Score for Intersection	2.031	2.362	3.533
Bicycle LOS	B	B	D

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report**Intersection 8: Harbor Boulevard and I-405 Eastbound On/Off Ramps**

Control Type:	Signalized	Delay (sec / veh):	5.7
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.520

Intersection Setup

Name	Harbor Blvd		Harbor Blvd		Interstate 405 (I-405) EB Off Ramp	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration	↑↑↑		↑↑↑↑		↵↵↵	
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	467.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		45.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		Yes	

Volumes

Name	Harbor Blvd		Harbor Blvd		Interstate 405 (I-405) EB Off Ramp	
Base Volume Input [veh/h]	0	1329	1490	948	262	265
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00					
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1329	1490	948	262	265
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	332	373	237	66	66
Total Analysis Volume [veh/h]	0	1329	1490	948	262	265
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - Coordination Group
Cycle Length [s]	120
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	7.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing (Basic)

Control Type	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
Flashing Yellow Arrow						
Signal Group	0	2	6	0	4	0
Auxiliary Signal Groups						
Maximum Green [s]	0	30	30	0	30	0
Amber [s]	0.0	3.0	3.0	0.0	3.0	0.0
All red [s]	0.0	1.0	1.0	0.0	1.0	0.0
Walk [s]	0.0	5.0	5.0	0.0	5.0	0.0
Pedestrian Clearance [s]	0.0	10.0	10.0	0.0	10.0	0.0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No	No		No	
I1, Start-Up Lost Time [s]	0.0	2.0	2.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	2.0	0.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	0.0	111.0	111.0	0.0	9.0	0.0
Lead / Lag	-	-	-	-	Lead	-
Minimum Green [s]	0	10	10	0	5	0
Vehicle Extension [s]	0.0	3.0	3.0	0.0	3.0	0.0
Minimum Recall		No	No		No	
Maximum Recall		No	No		No	
Pedestrian Recall		No	No		No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R
C, Calculated Cycle Length [s]	28	28	28	28	28
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	15.0	15.0	5.0	5.0	5.0
g / C, Green / Cycle	0.54	0.54	0.18	0.18	0.18
(v / s)_i Volume / Saturation Flow Rate	0.29	0.25	0.12	0.12	0.12
s, saturation flow rate [veh/h]	4558	6077	1593	1492	1422
c, Capacity [veh/h]	2450	3266	283	265	253
d1, Uniform Delay [s]	4.24	3.98	10.76	10.76	10.76
k, delay calibration	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.19	0.10	2.58	2.76	2.90
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.54	0.46	0.66	0.66	0.66
d, Delay for Lane Group [s/veh]	4.43	4.08	13.34	13.52	13.65
Lane Group LOS	A	A	B	B	B
Critical Lane Group	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.21	0.16	0.80	0.76	0.74
50th-Percentile Queue Length [ft/ln]	5.29	3.90	20.00	19.06	18.41
95th-Percentile Queue Length [veh/ln]	0.38	0.28	1.44	1.37	1.33
95th-Percentile Queue Length [ft/ln]	9.53	7.02	36.00	34.30	33.13

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	4.43	4.08	0.00	13.40	13.61
Movement LOS		A	A		B	B
d_A, Approach Delay [s/veh]	4.43		4.08		13.50	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]			5.70			
Intersection LOS			A			
Intersection V/C			0.520			

Emissions

Vehicle Miles Traveled [mph]	26.61	246.83	32.05	30.02	28.63
Stops [stops/h]	81.64	80.24	102.84	97.98	94.65
Fuel consumption [US gal/h]	2.95	10.87	2.88	2.73	2.62
CO [g/h]	206.45	759.65	201.52	190.63	183.16
NOx [g/h]	40.17	147.80	39.21	37.09	35.64
VOC [g/h]	47.85	176.06	46.70	44.18	42.45

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	6.45
I_p,int, Pedestrian LOS Score for Intersectio	0.000	0.000	2.129
Crosswalk LOS	F	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	7641	7641	357
d_b, Bicycle Delay [s]	111.41	111.41	9.45
I_b,int, Bicycle LOS Score for Intersection	2.291	2.174	2.429
Bicycle LOS	B	B	B

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 9: Harbor Boulevard and Gisler Avenue

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.621

Intersection Setup

Name	Harbor Boulevard			Harbor Blvd			Gisler Avenue			Gisler Avenue		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	158.00	100.00	70.00	173.00	100.00	100.00	435.00	100.00	113.00	172.00	100.00	123.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Blvd			Gisler Avenue			Gisler Avenue		
Base Volume Input [veh/h]	101	1711	22	89	1436	230	565	39	128	47	37	170
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	101	1711	22	89	1436	230	565	39	128	47	37	170
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	25	428	6	22	359	58	141	10	32	12	9	43
Total Analysis Volume [veh/h]	101	1711	22	89	1436	230	565	39	128	47	37	170
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.06	0.25	0.01	0.05	0.25	0.25	0.17	0.02	0.08	0.03	0.02	0.10
Intersection LOS	B											
Intersection V/C	0.621											

Intersection Level Of Service Report
Intersection 10: Harbor Boulevard and Nutmeg Place

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.447

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			Nutmeg Place			Nutmeg Place		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	2	0	0	0	0	1	0	0	1
Entry Pocket Length [ft]	120.00	100.00	203.00	178.00	100.00	100.00	100.00	100.00	52.00	100.00	100.00	79.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			25.00			10.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			Nutmeg Place			Nutmeg Place		
Base Volume Input [veh/h]	16	1837	122	128	1636	29	43	29	34	28	7	108
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	1837	122	128	1636	29	43	29	34	28	7	108
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	459	31	32	409	7	11	7	9	7	2	27
Total Analysis Volume [veh/h]	16	1837	122	128	1636	29	43	29	34	28	7	108
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	5	2	0	1	6	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.27	0.07	0.04	0.24	0.24	0.03	0.04	0.02	0.02	0.02	0.06
Intersection LOS	A											
Intersection V/C	0.447											

Intersection Level Of Service Report

Intersection 11: Harbor Boulevard and Baker Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.508

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			Baker Street			Baker Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	1	2	0	1	2	0	1	2	0	1
Entry Pocket Length [ft]	152.00	100.00	122.00	209.00	100.00	90.00	99.00	100.00	80.00	198.00	100.00	117.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			Baker Street			Baker Street		
Base Volume Input [veh/h]	48	1638	233	191	1328	29	244	29	56	194	216	152
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	48	1638	233	191	1328	29	244	29	56	194	216	152
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	410	58	48	332	7	61	7	14	49	54	38
Total Analysis Volume [veh/h]	48	1638	233	191	1328	29	244	29	56	194	216	152
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.24	0.14	0.06	0.20	0.02	0.07	0.01	0.03	0.06	0.06	0.09
Intersection LOS	A											
Intersection V/C	0.508											

Intersection Level Of Service Report

Intersection 12: Harbor Boulevard and Adams Avenue

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.555

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			Adams Ave			Adams Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	0	2	0	2	1	0	1	2	0	1
Entry Pocket Length [ft]	505.00	100.00	100.00	161.00	100.00	109.00	328.00	100.00	166.00	155.00	100.00	118.00
No. of Lanes in Exit Pocket	0	0	1	0	0	2	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	275.00	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			Adams Ave			Adams Ave		
Base Volume Input [veh/h]	163	932	104	130	927	322	706	1142	159	135	412	96
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	163	932	104	130	927	322	706	1142	159	135	412	96
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	41	233	26	33	232	81	177	286	40	34	103	24
Total Analysis Volume [veh/h]	163	932	104	130	927	322	706	1142	159	135	412	96
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.20	0.20	0.04	0.14	0.09	0.14	0.22	0.09	0.04	0.08	0.06
Intersection LOS	A											
Intersection V/C	0.555											

Intersection Level Of Service Report

Intersection 13: Harbor Boulevard and Merrimac Way

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.424

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			Merrimac Way			Merrimac Way		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	2	0	0	1	0	0	1	0	1
Entry Pocket Length [ft]	136.00	100.00	100.00	233.00	100.00	100.00	63.00	100.00	100.00	123.00	100.00	235.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	600.00
Speed [mph]	40.00			40.00			25.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			Merrimac Way			Merrimac Way		
Base Volume Input [veh/h]	17	1109	83	184	1291	38	61	19	54	47	13	85
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	17	1109	83	184	1291	38	61	19	54	47	13	85
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	277	21	46	323	10	15	5	14	12	3	21
Total Analysis Volume [veh/h]	17	1109	83	184	1291	38	61	19	54	47	13	85
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.23	0.23	0.05	0.26	0.26	0.04	0.04	0.04	0.03	0.01	0.05
Intersection LOS	A											
Intersection V/C	0.424											

Intersection Level Of Service Report

Intersection 14: Harbor Boulevard and Fair Drive

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.398

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			Fair Drive			Fair Drive		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	2	0	0	0	0	1	1	0	1
Entry Pocket Length [ft]	138.00	100.00	112.00	150.00	100.00	100.00	100.00	100.00	57.00	220.00	100.00	225.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			25.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			Fair Drive			Fair Drive		
Base Volume Input [veh/h]	9	934	261	260	1076	31	23	33	24	200	23	232
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	934	261	260	1076	31	23	33	24	200	23	232
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	234	65	65	269	8	6	8	6	50	6	58
Total Analysis Volume [veh/h]	9	934	261	260	1076	31	23	33	24	200	23	232
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.18	0.15	0.08	0.22	0.22	0.01	0.02	0.01	0.06	0.08	0.08
Intersection LOS	A											
Intersection V/C	0.398											

Intersection Level Of Service Report

Intersection 15: Harbor Boulevard and Wilson Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.431

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			Wilson Street			Wilson Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	2	0	1	2	0	1
Entry Pocket Length [ft]	212.00	100.00	58.00	187.00	100.00	101.00	172.00	100.00	80.00	186.00	100.00	120.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			Wilson Street			Wilson Street		
Base Volume Input [veh/h]	55	842	116	67	852	184	358	363	136	193	242	67
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	55	842	116	67	852	184	358	363	136	193	242	67
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	14	211	29	17	213	46	90	91	34	48	61	17
Total Analysis Volume [veh/h]	55	842	116	67	852	184	358	363	136	193	242	67
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.17	0.07	0.04	0.17	0.11	0.11	0.11	0.08	0.06	0.07	0.04
Intersection LOS	A											
Intersection V/C	0.431											

Intersection Level Of Service Report
Intersection 16: Harbor Boulevard and Victoria Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.625

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			Victoria Street			Victoria Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	2	0	1	2	0	1
Entry Pocket Length [ft]	205.00	100.00	113.00	93.00	100.00	125.00	197.00	100.00	134.00	95.00	100.00	95.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	159.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			Victoria Street			Victoria Street		
Base Volume Input [veh/h]	64	623	104	123	905	182	235	1092	67	131	711	90
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	64	623	104	123	905	182	235	1092	67	131	711	90
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	16	156	26	31	226	46	59	273	17	33	178	23
Total Analysis Volume [veh/h]	64	623	104	123	905	182	235	1092	67	131	711	90
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.12	0.06	0.07	0.18	0.11	0.07	0.32	0.04	0.04	0.21	0.05
Intersection LOS	B											
Intersection V/C	0.625											

Intersection Level Of Service Report

Intersection 17: Harbor Boulevard and Hamilton Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.467

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			Hamilton Street			Hamilton Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	0	0	1
Entry Pocket Length [ft]	137.00	100.00	100.00	101.00	100.00	100.00	155.00	100.00	100.00	100.00	100.00	20.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	2125.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			Hamilton Street			Hamilton Street		
Base Volume Input [veh/h]	28	543	12	18	967	216	222	99	36	9	55	49
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	28	543	12	18	967	216	222	99	36	9	55	49
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	136	3	5	242	54	56	25	9	2	14	12
Total Analysis Volume [veh/h]	28	543	12	18	967	216	222	99	36	9	55	49
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	ProtPer	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.11	0.11	0.01	0.23	0.23	0.13	0.08	0.08	0.01	0.03	0.03
Intersection LOS	A											
Intersection V/C	0.467											

Intersection Level Of Service Report
Intersection 18: Harbor Boulevard and West 19th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.481

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			West 19th Street			West 19th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1	2	0	1	1	0	1
Entry Pocket Length [ft]	150.00	100.00	100.00	200.00	100.00	228.00	235.00	100.00	93.00	258.00	100.00	209.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			West 19th Street			West 19th Street		
Base Volume Input [veh/h]	26	235	16	153	491	262	197	756	38	67	587	147
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	26	235	16	153	491	262	197	756	38	67	587	147
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	59	4	38	123	66	49	189	10	17	147	37
Total Analysis Volume [veh/h]	26	235	16	153	491	262	197	756	38	67	587	147
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.05	0.05	0.09	0.14	0.15	0.06	0.22	0.02	0.04	0.12	0.09
Intersection LOS	A											
Intersection V/C	0.481											

Intersection Level Of Service Report

Intersection 19: Harbor Boulevard and Newport Boulevard

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.760

Intersection Setup

Name	Harbor Boulevard		Newport Boulevard		Newport Boulevard	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration	⇐⇐⇐		⇐⇐		⇐	
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	2	0	0	0
Entry Pocket Length [ft]	115.00	100.00	400.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		Yes	

Volumes

Name	Harbor Boulevard		Newport Boulevard		Newport Boulevard	
Base Volume Input [veh/h]	35	495	213	2781	2556	3
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	35	495	213	2781	2556	3
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	124	53	695	639	1
Total Analysis Volume [veh/h]	35	495	213	2781	2556	3
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
Signal Group	4	0	5	2	6	0
Auxiliary Signal Groups						
Lead / Lag	Lead	-	Lead	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.15	0.06	0.41	0.50	0.50
Intersection LOS	C					
Intersection V/C	0.760					

Intersection Level Of Service Report

Intersection 20: Fairview Road and Fair Drive

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.413

Intersection Setup

Name	Fairview Road			Fairview Road			Fair Drive			Fair Drive		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	2	0	1	1	0	1	1	0	1
Entry Pocket Length [ft]	198.00	100.00	153.00	214.00	100.00	82.00	200.00	100.00	107.00	172.00	100.00	300.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Fairview Road			Fairview Road			Fair Drive			Fair Drive		
Base Volume Input [veh/h]	25	431	125	223	421	138	157	585	42	29	279	337
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	25	431	125	223	421	138	157	585	42	29	279	337
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	108	31	56	105	35	39	146	11	7	70	84
Total Analysis Volume [veh/h]	25	431	125	223	421	138	157	585	42	29	279	337
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.08	0.07	0.07	0.08	0.08	0.09	0.17	0.02	0.02	0.12	0.12
Intersection LOS	A											
Intersection V/C	0.413											

Intersection Level Of Service Report**Intersection 21: Southbound Newport Boulevard and Victoria Street**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.518

Intersection Setup

Name	So Ne			So Ne			Victoria Street			Victoria Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration				↰↱↱↱			↱↱↱			↰↱		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	1	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	302.00	100.00	134.00	100.00	100.00	112.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	150.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			No		

Volumes

Name	So Ne			So Ne			Victoria Street			Victoria Street		
Base Volume Input [veh/h]	0	0	0	506	642	764	0	1475	18	42	169	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	506	642	764	0	1475	18	42	169	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	127	161	191	0	369	5	11	42	0
Total Analysis Volume [veh/h]	0	0	0	506	642	764	0	1475	18	42	169	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	160
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Unsigna	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	0	0	2	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.15	0.17	0.00	0.00	0.29	0.29	0.02	0.10	0.00
Intersection LOS	A											
Intersection V/C	0.518											

Intersection Level Of Service Report**Intersection 22: Northbound Newport Boulevard and Victoria Street**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.770

Intersection Setup

Name	No Ne			No Ne			Victoria Street			Victoria Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	68.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	61.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	75.00
Speed [mph]	40.00			40.00			40.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			Yes		

Volumes

Name	No Ne			No Ne			Victoria Street			Victoria Street		
Base Volume Input [veh/h]	76	867	21	0	0	0	1479	502	0	0	135	219
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	76	867	21	0	0	0	1479	502	0	0	135	219
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	217	5	0	0	0	370	126	0	0	34	55
Total Analysis Volume [veh/h]	76	867	21	0	0	0	1479	502	0	0	135	219
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	230
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	2	0	0	0	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.18	0.01	0.00	0.00	0.00	0.44	0.15	0.00	0.00	0.08	0.13
Intersection LOS	C											
Intersection V/C	0.770											

Intersection Level Of Service Report

Intersection 23: Vanguard Way and Fair Drive

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.367

Intersection Setup

Name	Vanguard Way			Vanguard Way			Fair Drive			Fair Drive		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	0	0	0	1	0	0	1	0	1
Entry Pocket Length [ft]	150.00	100.00	61.00	100.00	100.00	100.00	200.00	100.00	100.00	150.00	100.00	225.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	150.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			10.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Vanguard Way			Vanguard Way			Fair Drive			Fair Drive		
Base Volume Input [veh/h]	72	0	73	0	0	0	0	845	42	23	601	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	72	0	73	0	0	0	0	845	42	23	601	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	0	18	0	0	0	0	211	11	6	150	0
Total Analysis Volume [veh/h]	72	0	73	0	0	0	0	845	42	23	601	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	4	0	0	8	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.00	0.04	0.00	0.00	0.00	0.00	0.26	0.26	0.01	0.18	0.00
Intersection LOS	A											
Intersection V/C	0.367											

Intersection Level Of Service Report**Intersection 24: Southbound Newport Boulevard and Fair Drive**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.322

Intersection Setup

Name	So Ne			So Ne			Fair Drive			Fair Drive		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1	0	0	2	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	300.00	100.00	100.00	200.00	150.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			No		

Volumes

Name	So Ne			So Ne			Fair Drive			Fair Drive		
Base Volume Input [veh/h]	0	0	0	212	572	581	0	881	34	71	203	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	212	572	581	0	881	34	71	203	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	53	143	145	0	220	9	18	51	0
Total Analysis Volume [veh/h]	0	0	0	212	572	581	0	881	34	71	203	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	240
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Unsigna	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	0	0	2	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.12	0.11	0.00	0.00	0.13	0.13	0.04	0.06	0.00
Intersection LOS	A											
Intersection V/C	0.322											

Intersection Level Of Service Report**Intersection 25: Northbound Newport Boulevard and Fair Drive/Del Mar Avenue**

Control Type: Signalized
 Analysis Method: ICU 1
 Analysis Period: 15 minutes

Delay (sec / veh): -
 Level Of Service: B
 Volume to Capacity (v/c): 0.671

Intersection Setup

Name	No Ne			No Ne			Fair Drive			Del Mar Avenue		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	105.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	225.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	256.00
Speed [mph]	40.00			40.00			40.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			Yes		

Volumes

Name	No Ne			No Ne			Fair Drive			Del Mar Avenue		
Base Volume Input [veh/h]	85	1106	101	0	0	0	791	302	0	0	189	313
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	85	1106	101	0	0	0	791	302	0	0	189	313
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	21	277	25	0	0	0	198	76	0	0	47	78
Total Analysis Volume [veh/h]	85	1106	101	0	0	0	791	302	0	0	189	313
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	240
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	2	0	0	0	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.23	0.06	0.00	0.00	0.00	0.23	0.09	0.00	0.00	0.06	0.18
Intersection LOS	B											
Intersection V/C	0.671											

Intersection Level Of Service Report**Intersection 26: Harbor Boulevard and New Access/Home Depot**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.358

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			New Access			Home Depot Driveway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			New Access			Home Depot Driveway		
Base Volume Input [veh/h]	0	1163	51	52	1298	0	0	0	0	36	0	40
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1163	51	52	1298	0	0	0	0	36	0	40
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	291	13	13	325	0	0	0	0	9	0	10
Total Analysis Volume [veh/h]	0	1163	51	52	1298	0	0	0	0	36	0	40
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	2	0	1	6	0	0	4	0	3	0	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.25	0.25	0.03	0.27	0.00	0.00	0.00	0.00	0.02	0.00	0.00
Intersection LOS	A											
Intersection V/C	0.358											

HCM Signalized Intersection Capacity Analysis

19: Newport Blvd & Harbor Blvd

03/03/2026

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	35	495	213	2781	2556	3
Future Volume (vph)	35	495	213	2781	2556	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	4.7	4.7	5.4	5.5	
Lane Util. Factor	1.00	0.88	0.97	0.86	0.91	
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	1.00	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1752	2760	3400	6346	5035	
Flt Permitted	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1752	2760	3400	6346	5035	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	36	510	220	2867	2635	3
RTOR Reduction (vph)	0	478	0	0	0	0
Lane Group Flow (vph)	36	32	220	2867	2638	0
Confl. Peds. (#/hr)						2
Confl. Bikes (#/hr)						3
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%
Turn Type	Prot	Perm	Prot	NA	NA	
Protected Phases	7		5	2	6	
Permitted Phases		7				
Actuated Green, G (s)	10.0	10.0	14.7	139.9	120.4	
Effective Green, g (s)	10.0	10.0	14.7	139.9	120.4	
Actuated g/C Ratio	0.06	0.06	0.09	0.87	0.75	
Clearance Time (s)	4.7	4.7	4.7	5.4	5.5	
Vehicle Extension (s)	2.0	2.0	2.0	4.5	4.5	
Lane Grp Cap (vph)	109	172	312	5548	3788	
v/s Ratio Prot	c0.02		c0.06	0.45	c0.52	
v/s Ratio Perm		0.01				
v/c Ratio	0.33	0.19	0.71	0.52	0.70	
Uniform Delay, d1	71.8	71.1	70.5	2.3	10.3	
Progression Factor	1.00	1.00	1.00	1.00	1.55	
Incremental Delay, d2	0.7	0.2	5.8	0.3	0.4	
Delay (s)	72.4	71.3	76.4	2.6	16.3	
Level of Service	E	E	E	A	B	
Approach Delay (s/veh)	71.4			7.9	16.3	
Approach LOS	E			A	B	
Intersection Summary						
HCM 2000 Control Delay (s/veh)			17.0		HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.69			
Actuated Cycle Length (s)			160.0		Sum of lost time (s)	19.6
Intersection Capacity Utilization			76.0%		ICU Level of Service	D
Analysis Period (min)			15			
c Critical Lane Group						

Fairview Development Center SP

Vistro File: C:\...\Fairview LOS 02192026.vistro

Scenario 2 Existing PM

Report File: C:\...\02_EXPM.pdf

2/27/2026

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Brookhurst Street and Adams Avenue	Signalized	ICU 1	WB Thru	0.785	-	C
2	Placentia Avenue and Adams Avenue	Signalized	ICU 1	WB Right	0.734	-	C
3	Placentia Avenue and Victoria Street	Signalized	ICU 1	WB Thru	0.764	-	C
4	Mesa Verde Drive East and Adams Avenue	Signalized	ICU 1	WB Thru	0.615	-	B
5	Royal Palm Drive and Adams Avenue	Signalized	ICU 1	WB Thru	0.557	-	A
6	Harbor Boulevard and South Coast Drive	Signalized	ICU 1	NB Thru	0.621	-	B
7	Harbor Boulevard and Interstate 405 (I-405) Westbound On/Off Ramps	Signalized	HCM 7th Edition	WB Right	0.752	24.9	C
8	Harbor Boulevard and I-405 Eastbound On/Off Ramps	Signalized	HCM 7th Edition	EB Right	0.714	72.0	E
9	Harbor Boulevard and Gisler Avenue	Signalized	ICU 1	SB Thru	0.721	-	C
10	Harbor Boulevard and Nutmeg Place	Signalized	ICU 1	SB Thru	0.498	-	A
11	Harbor Boulevard and Baker Street	Signalized	ICU 1	SB Thru	0.575	-	A
12	Harbor Boulevard and Adams Avenue	Signalized	ICU 1	NB Right	0.644	-	B
13	Harbor Boulevard and Merrimac Way	Signalized	ICU 1	NB Thru	0.664	-	B
14	Harbor Boulevard and Fair Drive	Signalized	ICU 1	NB Thru	0.595	-	A
15	Harbor Boulevard and Wilson Street	Signalized	ICU 1	SB Right	0.582	-	A
16	Harbor Boulevard and Victoria Street	Signalized	ICU 1	WB Thru	0.659	-	B
17	Harbor Boulevard and Hamilton Street	Signalized	ICU 1	NB Right	0.466	-	A

Version 2025 (SP 0-2)

18	Harbor Boulevard and West 19th Street	Signalized	ICU 1	EB Thru	0.564	-	A
19	Harbor Boulevard and Newport Boulevard	Signalized	ICU 1	WB Right	0.800	-	C
20	Fairview Road and Fair Drive	Signalized	ICU 1	WB Right	0.576	-	A
21	Southbound Newport Boulevard and Victoria Street	Signalized	ICU 1	SB Thru	0.589	-	A
22	Northbound Newport Boulevard and Victoria Street	Signalized	ICU 1	EB Left	0.549	-	A
23	Vanguard Way and Fair Drive	Signalized	ICU 1	WB Thru	0.581	-	A
24	Southbound Newport Boulevard and Fair Drive	Signalized	ICU 1	SB Thru	0.390	-	A
25	Northbound Newport Boulevard and Fair Drive/Del Mar Avenue	Signalized	ICU 1	NB Thru	0.439	-	A

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report

Intersection 1: Brookhurst Street and Adams Avenue

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.785

Intersection Setup

Name	Brookhurst St			Brookhurst St			Adams Ave			Adams Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	0	2	0	0	2	0	1	2	0	1
Entry Pocket Length [ft]	215.00	100.00	100.00	216.00	100.00	100.00	286.00	100.00	100.00	236.00	100.00	400.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Brookhurst St			Brookhurst St			Adams Ave			Adams Ave		
Base Volume Input [veh/h]	211	1166	184	296	828	117	201	700	80	279	1653	442
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	211	1166	184	296	828	117	201	700	80	279	1653	442
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	53	292	46	74	207	29	50	175	20	70	413	111
Total Analysis Volume [veh/h]	211	1166	184	296	828	117	201	700	80	279	1653	442
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.06	0.26	0.26	0.09	0.19	0.19	0.06	0.14	0.05	0.08	0.32	0.26
Intersection LOS	C											
Intersection V/C	0.785											

Intersection Level Of Service Report

Intersection 2: Placentia Avenue and Adams Avenue

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.734

Intersection Setup

Name	Placentia Ave			Mesa Verde Dr W			Adams Ave			Adams Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	1	1	0	0
Entry Pocket Length [ft]	172.00	100.00	134.00	190.00	100.00	175.00	184.00	100.00	137.00	481.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Placentia Ave			Mesa Verde Dr W			Adams Ave			Adams Ave		
Base Volume Input [veh/h]	290	186	217	38	136	220	95	888	225	170	2051	59
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	290	186	217	38	136	220	95	888	225	170	2051	59
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	73	47	54	10	34	55	24	222	56	43	513	15
Total Analysis Volume [veh/h]	290	186	217	38	136	220	95	888	225	170	2051	59
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	7	4	0	3	8	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.09	0.11	0.13	0.02	0.04	0.13	0.06	0.17	0.13	0.10	0.41	0.41
Intersection LOS	C											
Intersection V/C	0.734											

Intersection Level Of Service Report

Intersection 3: Placentia Avenue and Victoria Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.764

Intersection Setup

Name	Placentia Avenue			Placentia Avenue			Victoria Street			Victoria Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	1	1	0	1	1	0	1	1	0	1
Entry Pocket Length [ft]	227.00	100.00	90.00	78.00	100.00	59.00	239.00	100.00	163.00	200.00	100.00	84.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Placentia Avenue			Placentia Avenue			Victoria Street			Victoria Street		
Base Volume Input [veh/h]	583	703	193	73	431	113	56	618	318	107	1303	81
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	583	703	193	73	431	113	56	618	318	107	1303	81
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	146	176	48	18	108	28	14	155	80	27	326	20
Total Analysis Volume [veh/h]	583	703	193	73	431	113	56	618	318	107	1303	81
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.17	0.21	0.11	0.04	0.13	0.07	0.03	0.18	0.00	0.06	0.38	0.05
Intersection LOS	C											
Intersection V/C	0.764											

Intersection Level Of Service Report

Intersection 4: Mesa Verde Drive East and Adams Avenue

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.615

Intersection Setup

Name	Mesa Verde Dr E			Mesa Verde Dr E			Adams Ave			Adams Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1	1	0	1	1	0	1
Entry Pocket Length [ft]	204.00	100.00	100.00	63.00	100.00	100.00	153.00	100.00	100.00	150.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Mesa Verde Dr E			Mesa Verde Dr E			Adams Ave			Adams Ave		
Base Volume Input [veh/h]	309	56	97	46	69	114	40	856	147	43	1955	50
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	309	56	97	46	69	114	40	856	147	43	1955	50
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	77	14	24	12	17	29	10	214	37	11	489	13
Total Analysis Volume [veh/h]	309	56	97	46	69	114	40	856	147	43	1955	50
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Overlap	Permiss	Permiss	Permiss
Signal Group	0	4	0	3	8	0	0	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.09	0.11	0.06	0.03	0.02	0.07	0.02	0.17	0.00	0.03	0.38	0.03
Intersection LOS	B											
Intersection V/C	0.615											

Intersection Level Of Service Report
Intersection 5: Royal Palm Drive and Adams Avenue

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.557

Intersection Setup

Name	Royal Palm Dr			Driveway			Adams Ave			Adams Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	1	0	0	1	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	23.00	80.00	100.00	100.00	184.00	100.00	100.00	78.00	100.00	54.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Royal Palm Dr			Driveway			Adams Ave			Adams Ave		
Base Volume Input [veh/h]	84	39	31	50	25	56	37	901	67	35	1978	58
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	84	39	31	50	25	56	37	901	67	35	1978	58
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	21	10	8	13	6	14	9	225	17	9	495	15
Total Analysis Volume [veh/h]	84	39	31	50	25	56	37	901	67	35	1978	58
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	7	4	0	3	8	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.04	0.04	0.03	0.05	0.05	0.02	0.19	0.19	0.02	0.39	0.03
Intersection LOS	A											
Intersection V/C	0.557											

Intersection Level Of Service Report

Intersection 6: Harbor Boulevard and South Coast Drive

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.621

Intersection Setup

Name	Harbor Blvd			Harbor Blvd			South Coast Dr			South Coast Dr		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	1	2	0	2	1	0	0	2	0	1
Entry Pocket Length [ft]	160.00	100.00	245.00	215.00	100.00	189.00	198.00	100.00	100.00	250.00	100.00	185.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Harbor Blvd			Harbor Blvd			South Coast Dr			South Coast Dr		
Base Volume Input [veh/h]	438	1675	160	53	1497	69	21	36	325	239	713	142
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	438	1675	160	53	1497	69	21	36	325	239	713	142
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	110	419	40	13	374	17	5	9	81	60	178	36
Total Analysis Volume [veh/h]	438	1675	160	53	1497	69	21	36	325	239	713	142
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.13	0.25	0.09	0.02	0.22	0.04	0.01	0.11	0.11	0.07	0.21	0.08
Intersection LOS	B											
Intersection V/C	0.621											

Intersection Level Of Service Report**Intersection 7: Harbor Boulevard and Interstate 405 (I-405) Westbound On/Off Ramps**

Control Type:	Signalized	Delay (sec / veh):	24.9
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.752

Intersection Setup

Name	Harbor Blvd		Harbor Blvd		I-405 WB Off Ramp	
Approach	Northbound		Southbound		Westbound	
Lane Configuration	↑↑↑↑		↑↑↑↑		↵↵↵	
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	0	1
Entry Pocket Length [ft]	100.00	200.00	100.00	100.00	100.00	425.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		45.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		Yes	

Volumes

Name	Harbor Blvd		Harbor Blvd		I-405 WB Off Ramp	
Base Volume Input [veh/h]	1328	0	0	2099	612	945
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00					
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1328	0	0	2099	612	945
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	332	0	0	525	153	236
Total Analysis Volume [veh/h]	1328	0	0	2099	612	945
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - Coordination Group
Cycle Length [s]	120
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing (Basic)

Control Type	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
Flashing Yellow Arrow						
Signal Group	2	0	0	6	4	0
Auxiliary Signal Groups						
Maximum Green [s]	30	0	0	30	30	0
Amber [s]	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	1.0	0.0	0.0	1.0	1.0	0.0
Walk [s]	5.0	0.0	0.0	5.0	5.0	0.0
Pedestrian Clearance [s]	10.0	0.0	0.0	10.0	10.0	0.0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	64.0	0.0	0.0	64.0	56.0	0.0
Lead / Lag	-	-	-	-	Lead	-
Minimum Green [s]	10	0	0	10	5	0
Vehicle Extension [s]	3.0	0.0	0.0	3.0	3.0	0.0
Minimum Recall	No			No	No	
Maximum Recall	No			No	No	
Pedestrian Recall	No			No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R
C, Calculated Cycle Length [s]	110	110	110	110	110
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	57.6	57.6	43.9	43.9	43.9
g / C, Green / Cycle	0.53	0.53	0.40	0.40	0.40
(v / s)_i Volume / Saturation Flow Rate	0.22	0.35	0.33	0.36	0.36
s, saturation flow rate [veh/h]	6077	6077	1593	1450	1422
c, Capacity [veh/h]	3197	3197	639	581	570
d1, Uniform Delay [s]	15.76	18.81	29.17	30.63	30.97
k, delay calibration	0.11	0.11	0.23	0.29	0.30
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.09	0.23	5.37	11.81	14.08
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.42	0.66	0.81	0.89	0.91
d, Delay for Lane Group [s/veh]	15.84	19.04	34.55	42.45	45.05
Lane Group LOS	B	B	C	D	D
Critical Lane Group	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	4.72	8.93	12.24	13.77	14.22
50th-Percentile Queue Length [ft/ln]	118.09	223.22	306.12	344.13	355.46
95th-Percentile Queue Length [veh/ln]	8.29	13.83	17.98	19.85	20.40
95th-Percentile Queue Length [ft/ln]	207.20	345.73	449.59	496.24	510.06

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	15.84	0.00	0.00	19.04	35.75	43.88
Movement LOS	B			B	D	D
d_A, Approach Delay [s/veh]	15.84		19.04		40.68	
Approach LOS	B		B		D	
d_I, Intersection Delay [s/veh]	24.95					
Intersection LOS	C					
Intersection V/C	0.752					

Emissions

Vehicle Miles Traveled [mph]	220.00	180.05	66.31	66.31	66.31
Stops [stops/h]	621.06	1173.92	402.47	452.45	467.36
Fuel consumption [US gal/h]	18.26	26.12	10.93	12.38	12.84
CO [g/h]	1276.58	1825.47	763.70	865.47	897.65
NOx [g/h]	248.38	355.17	148.59	168.39	174.65
VOC [g/h]	295.86	423.07	177.00	200.58	208.04

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	46.13
I_p,int, Pedestrian LOS Score for Intersectio	0.000	0.000	2.710
Crosswalk LOS	F	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1096	1096	950
d_b, Bicycle Delay [s]	11.20	11.20	15.11
I_b,int, Bicycle LOS Score for Intersection	2.107	2.425	4.129
Bicycle LOS	B	B	D

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report**Intersection 8: Harbor Boulevard and I-405 Eastbound On/Off Ramps**

Control Type:	Signalized	Delay (sec / veh):	72.0
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.714

Intersection Setup

Name	Harbor Blvd		Harbor Blvd		Interstate 405 (I-405) EB Off Ramp	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration	↑↑↑		↑↑↑↑		↵↵↵	
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	467.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		45.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		Yes	

Volumes

Name	Harbor Blvd		Harbor Blvd		Interstate 405 (I-405) EB Off Ramp	
Base Volume Input [veh/h]	0	1769	1800	948	173	642
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00					
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1769	1800	948	173	642
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	442	450	237	43	161
Total Analysis Volume [veh/h]	0	1769	1800	948	173	642
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - Coordination Group
Cycle Length [s]	120
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	7.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing (Basic)

Control Type	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
Flashing Yellow Arrow						
Signal Group	0	2	6	0	4	0
Auxiliary Signal Groups						
Maximum Green [s]	0	30	30	0	30	0
Amber [s]	0.0	3.0	3.0	0.0	3.0	0.0
All red [s]	0.0	1.0	1.0	0.0	1.0	0.0
Walk [s]	0.0	5.0	5.0	0.0	5.0	0.0
Pedestrian Clearance [s]	0.0	10.0	10.0	0.0	10.0	0.0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No	No		No	
I1, Start-Up Lost Time [s]	0.0	2.0	2.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	2.0	0.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	0.0	111.0	111.0	0.0	9.0	0.0
Lead / Lag	-	-	-	-	Lead	-
Minimum Green [s]	0	10	10	0	5	0
Vehicle Extension [s]	0.0	3.0	3.0	0.0	3.0	0.0
Minimum Recall		No	No		No	
Maximum Recall		No	No		No	
Pedestrian Recall		No	No		No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R
C, Calculated Cycle Length [s]	43	43	43	43	43
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	29.8	29.8	5.0	5.0	5.0
g / C, Green / Cycle	0.70	0.70	0.12	0.12	0.12
(v / s)_i Volume / Saturation Flow Rate	0.39	0.30	0.11	0.23	0.23
s, saturation flow rate [veh/h]	4558	6077	1593	1422	1422
c, Capacity [veh/h]	3175	4233	186	166	166
d1, Uniform Delay [s]	3.22	2.80	18.75	18.92	18.92
k, delay calibration	0.11	0.11	0.24	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.15	0.07	30.86	441.69	441.69
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.56	0.43	0.93	1.93	1.93
d, Delay for Lane Group [s/veh]	3.38	2.87	49.61	460.61	460.61
Lane Group LOS	A	A	D	F	F
Critical Lane Group	Yes	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.31	0.19	2.94	21.66	21.66
50th-Percentile Queue Length [ft/ln]	7.72	4.87	73.46	541.62	541.62
95th-Percentile Queue Length [veh/ln]	0.56	0.35	5.29	35.39	35.39
95th-Percentile Queue Length [ft/ln]	13.89	8.77	132.22	884.85	884.85

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	3.38	2.87	0.00	49.61	460.61
Movement LOS		A	A		D	F
d_A, Approach Delay [s/veh]	3.38		2.87		373.37	
Approach LOS	A		A		F	
d_I, Intersection Delay [s/veh]	71.95					
Intersection LOS	E					
Intersection V/C	0.714					

Emissions

Vehicle Miles Traveled [mph]	35.41	298.19	29.78	55.25	55.25
Stops [stops/h]	77.97	65.58	247.33	1823.66	1823.66
Fuel consumption [US gal/h]	3.25	12.38	5.84	54.65	54.65
CO [g/h]	227.19	865.14	408.38	3820.19	3820.19
NOx [g/h]	44.20	168.32	79.46	743.27	743.27
VOC [g/h]	52.65	200.50	94.65	885.37	885.37

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	13.33
I_p,int, Pedestrian LOS Score for Intersectio	0.000	0.000	2.299
Crosswalk LOS	F	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	5004	5004	234
d_b, Bicycle Delay [s]	48.23	48.23	16.68
I_b,int, Bicycle LOS Score for Intersection	2.533	2.302	2.904
Bicycle LOS	B	B	C

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 9: Harbor Boulevard and Gisler Avenue

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.721

Intersection Setup

Name	Harbor Boulevard			Harbor Blvd			Gisler Avenue			Gisler Avenue		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	158.00	100.00	70.00	173.00	100.00	100.00	435.00	100.00	113.00	172.00	100.00	123.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Blvd			Gisler Avenue			Gisler Avenue		
Base Volume Input [veh/h]	203	1836	16	109	1831	439	428	32	144	37	73	157
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	203	1836	16	109	1831	439	428	32	144	37	73	157
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	51	459	4	27	458	110	107	8	36	9	18	39
Total Analysis Volume [veh/h]	203	1836	16	109	1831	439	428	32	144	37	73	157
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.12	0.27	0.01	0.06	0.33	0.33	0.13	0.02	0.08	0.02	0.04	0.09
Intersection LOS	C											
Intersection V/C	0.721											

Intersection Level Of Service Report

Intersection 10: Harbor Boulevard and Nutmeg Place

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.498

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			Nutmeg Place			Nutmeg Place		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	2	0	0	0	0	1	0	0	1
Entry Pocket Length [ft]	120.00	100.00	203.00	178.00	100.00	100.00	100.00	100.00	52.00	100.00	100.00	79.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			25.00			10.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			Nutmeg Place			Nutmeg Place		
Base Volume Input [veh/h]	44	1715	185	181	1847	29	67	29	65	147	26	131
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	44	1715	185	181	1847	29	67	29	65	147	26	131
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	429	46	45	462	7	17	7	16	37	7	33
Total Analysis Volume [veh/h]	44	1715	185	181	1847	29	67	29	65	147	26	131
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	5	2	0	1	6	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.25	0.11	0.05	0.28	0.28	0.04	0.06	0.04	0.09	0.10	0.08
Intersection LOS	A											
Intersection V/C	0.498											

Intersection Level Of Service Report

Intersection 11: Harbor Boulevard and Baker Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.575

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			Baker Street			Baker Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	1	2	0	1	2	0	1	2	0	1
Entry Pocket Length [ft]	152.00	100.00	122.00	209.00	100.00	90.00	99.00	100.00	80.00	198.00	100.00	117.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			Baker Street			Baker Street		
Base Volume Input [veh/h]	54	1448	197	187	1690	29	195	29	86	459	631	340
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	54	1448	197	187	1690	29	195	29	86	459	631	340
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	14	362	49	47	423	7	49	7	22	115	158	85
Total Analysis Volume [veh/h]	54	1448	197	187	1690	29	195	29	86	459	631	340
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.21	0.12	0.06	0.25	0.02	0.06	0.01	0.05	0.14	0.19	0.20
Intersection LOS	A											
Intersection V/C	0.575											

Intersection Level Of Service Report

Intersection 12: Harbor Boulevard and Adams Avenue

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.644

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			Adams Ave			Adams Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	0	2	0	2	1	0	1	2	0	1
Entry Pocket Length [ft]	505.00	100.00	100.00	161.00	100.00	109.00	328.00	100.00	166.00	155.00	100.00	118.00
No. of Lanes in Exit Pocket	0	0	1	0	0	2	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	275.00	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			Adams Ave			Adams Ave		
Base Volume Input [veh/h]	416	1314	143	127	1223	574	313	600	107	198	1071	177
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	416	1314	143	127	1223	574	313	600	107	198	1071	177
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	104	329	36	32	306	144	78	150	27	50	268	44
Total Analysis Volume [veh/h]	416	1314	143	127	1223	574	313	600	107	198	1071	177
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.12	0.29	0.29	0.04	0.18	0.17	0.06	0.12	0.06	0.06	0.21	0.10
Intersection LOS	B											
Intersection V/C	0.644											

Intersection Level Of Service Report

Intersection 13: Harbor Boulevard and Merrimac Way

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.664

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			Merrimac Way			Merrimac Way		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	2	0	0	1	0	0	1	0	1
Entry Pocket Length [ft]	136.00	100.00	100.00	233.00	100.00	100.00	63.00	100.00	100.00	123.00	100.00	235.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	600.00
Speed [mph]	40.00			40.00			25.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			Merrimac Way			Merrimac Way		
Base Volume Input [veh/h]	54	1987	54	120	1360	58	44	10	43	73	34	259
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	54	1987	54	120	1360	58	44	10	43	73	34	259
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	14	497	14	30	340	15	11	3	11	18	9	65
Total Analysis Volume [veh/h]	54	1987	54	120	1360	58	44	10	43	73	34	259
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.40	0.40	0.04	0.28	0.28	0.03	0.03	0.03	0.04	0.02	0.15
Intersection LOS	B											
Intersection V/C	0.664											

Intersection Level Of Service Report

Intersection 14: Harbor Boulevard and Fair Drive

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.595

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			Fair Drive			Fair Drive		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	2	0	0	0	0	1	1	0	1
Entry Pocket Length [ft]	138.00	100.00	112.00	150.00	100.00	100.00	100.00	100.00	57.00	220.00	100.00	225.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			25.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			Fair Drive			Fair Drive		
Base Volume Input [veh/h]	11	1384	216	182	1281	17	14	9	13	357	12	710
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	1384	216	182	1281	17	14	9	13	357	12	710
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	346	54	46	320	4	4	2	3	89	3	178
Total Analysis Volume [veh/h]	11	1384	216	182	1281	17	14	9	13	357	12	710
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.27	0.13	0.05	0.25	0.25	0.01	0.01	0.01	0.11	0.21	0.21
Intersection LOS	A											
Intersection V/C	0.595											

Intersection Level Of Service Report

Intersection 15: Harbor Boulevard and Wilson Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.582

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			Wilson Street			Wilson Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	2	0	1	2	0	1
Entry Pocket Length [ft]	212.00	100.00	58.00	187.00	100.00	101.00	172.00	100.00	80.00	186.00	100.00	120.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			Wilson Street			Wilson Street		
Base Volume Input [veh/h]	141	1070	103	97	954	385	242	214	86	268	515	86
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	141	1070	103	97	954	385	242	214	86	268	515	86
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	35	268	26	24	239	96	61	54	22	67	129	22
Total Analysis Volume [veh/h]	141	1070	103	97	954	385	242	214	86	268	515	86
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.21	0.06	0.06	0.19	0.23	0.07	0.06	0.05	0.08	0.15	0.05
Intersection LOS	A											
Intersection V/C	0.582											

Intersection Level Of Service Report
Intersection 16: Harbor Boulevard and Victoria Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.659

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			Victoria Street			Victoria Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	2	0	1	2	0	1
Entry Pocket Length [ft]	205.00	100.00	113.00	93.00	100.00	125.00	197.00	100.00	134.00	95.00	100.00	95.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	159.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			Victoria Street			Victoria Street		
Base Volume Input [veh/h]	109	1010	134	146	1060	198	213	733	94	115	893	126
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	109	1010	134	146	1060	198	213	733	94	115	893	126
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	27	253	34	37	265	50	53	183	24	29	223	32
Total Analysis Volume [veh/h]	109	1010	134	146	1060	198	213	733	94	115	893	126
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.06	0.20	0.08	0.09	0.21	0.12	0.06	0.22	0.06	0.03	0.26	0.07
Intersection LOS	B											
Intersection V/C	0.659											

Intersection Level Of Service Report

Intersection 17: Harbor Boulevard and Hamilton Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.466

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			Hamilton Street			Hamilton Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	0	0	1
Entry Pocket Length [ft]	137.00	100.00	100.00	101.00	100.00	100.00	155.00	100.00	100.00	100.00	100.00	20.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	2125.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			Hamilton Street			Hamilton Street		
Base Volume Input [veh/h]	58	1086	27	29	909	186	163	82	61	38	138	65
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	58	1086	27	29	909	186	163	82	61	38	138	65
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	272	7	7	227	47	41	21	15	10	35	16
Total Analysis Volume [veh/h]	58	1086	27	29	909	186	163	82	61	38	138	65
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	ProtPer	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.22	0.22	0.02	0.21	0.21	0.10	0.08	0.08	0.02	0.07	0.07
Intersection LOS	A											
Intersection V/C	0.466											

Intersection Level Of Service Report
Intersection 18: Harbor Boulevard and West 19th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.564

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			West 19th Street			West 19th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1	2	0	1	1	0	1
Entry Pocket Length [ft]	150.00	100.00	100.00	200.00	100.00	228.00	235.00	100.00	93.00	258.00	100.00	209.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			West 19th Street			West 19th Street		
Base Volume Input [veh/h]	54	406	47	140	516	334	381	744	52	113	859	225
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	54	406	47	140	516	334	381	744	52	113	859	225
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	14	102	12	35	129	84	95	186	13	28	215	56
Total Analysis Volume [veh/h]	54	406	47	140	516	334	381	744	52	113	859	225
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.09	0.09	0.08	0.15	0.20	0.11	0.22	0.03	0.07	0.17	0.13
Intersection LOS	A											
Intersection V/C	0.564											

Intersection Level Of Service Report

Intersection 19: Harbor Boulevard and Newport Boulevard

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.800

Intersection Setup

Name	Harbor Boulevard		Newport Boulevard		Newport Boulevard	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	2	0	0	0
Entry Pocket Length [ft]	115.00	100.00	400.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		Yes	

Volumes

Name	Harbor Boulevard		Newport Boulevard		Newport Boulevard	
Base Volume Input [veh/h]	48	427	449	2897	2463	47
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	48	427	449	2897	2463	47
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	107	112	724	616	12
Total Analysis Volume [veh/h]	48	427	449	2897	2463	47
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Permissive
Signal Group	4	0	5	2	6	0
Auxiliary Signal Groups						
Lead / Lag	Lead	-	Lead	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.13	0.13	0.43	0.49	0.49
Intersection LOS	C					
Intersection V/C	0.800					

Intersection Level Of Service Report
Intersection 20: Fairview Road and Fair Drive

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.576

Intersection Setup

Name	Fairview Road			Fairview Road			Fair Drive			Fair Drive		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	2	0	1	1	0	1	1	0	1
Entry Pocket Length [ft]	198.00	100.00	153.00	214.00	100.00	82.00	200.00	100.00	107.00	172.00	100.00	300.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Fairview Road			Fairview Road			Fair Drive			Fair Drive		
Base Volume Input [veh/h]	55	455	58	182	343	120	110	276	40	61	1039	588
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	55	455	58	182	343	120	110	276	40	61	1039	588
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	14	114	15	46	86	30	28	69	10	15	260	147
Total Analysis Volume [veh/h]	55	455	58	182	343	120	110	276	40	61	1039	588
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.09	0.03	0.05	0.07	0.07	0.06	0.08	0.02	0.04	0.32	0.32
Intersection LOS	A											
Intersection V/C	0.576											

Intersection Level Of Service Report**Intersection 21: Southbound Newport Boulevard and Victoria Street**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.589

Intersection Setup

Name	So Ne			So Ne			Victoria Street			Victoria Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration				↰↱↱↱			↱↱↱			↰↱		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	1	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	302.00	100.00	134.00	100.00	100.00	112.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	150.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			No		

Volumes

Name	So Ne			So Ne			Victoria Street			Victoria Street		
Base Volume Input [veh/h]	0	0	0	453	1065	1211	0	874	29	62	188	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	453	1065	1211	0	874	29	62	188	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	113	266	303	0	219	7	16	47	0
Total Analysis Volume [veh/h]	0	0	0	453	1065	1211	0	874	29	62	188	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	80
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Unsigna	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	0	0	2	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.13	0.31	0.00	0.00	0.18	0.18	0.04	0.11	0.00
Intersection LOS	A											
Intersection V/C	0.589											

Intersection Level Of Service Report**Intersection 22: Northbound Newport Boulevard and Victoria Street**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.549

Intersection Setup

Name	No Ne			No Ne			Victoria Street			Victoria Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	68.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	61.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	75.00
Speed [mph]	40.00			40.00			40.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			Yes		

Volumes

Name	No Ne			No Ne			Victoria Street			Victoria Street		
Base Volume Input [veh/h]	90	855	50	0	0	0	823	504	0	0	160	172
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	90	855	50	0	0	0	823	504	0	0	160	172
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	23	214	13	0	0	0	206	126	0	0	40	43
Total Analysis Volume [veh/h]	90	855	50	0	0	0	823	504	0	0	160	172
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	240
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	2	0	0	0	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.19	0.03	0.00	0.00	0.00	0.24	0.15	0.00	0.00	0.09	0.10
Intersection LOS	A											
Intersection V/C	0.549											

Intersection Level Of Service Report

Intersection 23: Vanguard Way and Fair Drive

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.581

Intersection Setup

Name	Vanguard Way			Vanguard Way			Fair Drive			Fair Drive		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	0	0	0	1	0	0	1	0	1
Entry Pocket Length [ft]	150.00	100.00	61.00	100.00	100.00	100.00	200.00	100.00	100.00	150.00	100.00	225.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	150.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			10.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Vanguard Way			Vanguard Way			Fair Drive			Fair Drive		
Base Volume Input [veh/h]	106	0	53	0	0	0	0	425	92	78	1595	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	106	0	53	0	0	0	0	425	92	78	1595	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	27	0	13	0	0	0	0	106	23	20	399	0
Total Analysis Volume [veh/h]	106	0	53	0	0	0	0	425	92	78	1595	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	4	0	0	8	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.06	0.00	0.03	0.00	0.00	0.00	0.00	0.15	0.15	0.05	0.47	0.00
Intersection LOS	A											
Intersection V/C	0.581											

Intersection Level Of Service Report**Intersection 24: Southbound Newport Boulevard and Fair Drive**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.390

Intersection Setup

Name	So Ne			So Ne			Fair Drive			Fair Drive		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1	0	0	2	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	300.00	100.00	100.00	200.00	150.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			No		

Volumes

Name	So Ne			So Ne			Fair Drive			Fair Drive		
Base Volume Input [veh/h]	0	0	0	250	1155	1308	0	544	57	93	277	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	250	1155	1308	0	544	57	93	277	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	63	289	327	0	136	14	23	69	0
Total Analysis Volume [veh/h]	0	0	0	250	1155	1308	0	544	57	93	277	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	240
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Unsigna	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	0	0	2	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.15	0.23	0.00	0.00	0.09	0.09	0.05	0.08	0.00
Intersection LOS	A											
Intersection V/C	0.390											

Intersection Level Of Service Report**Intersection 25: Northbound Newport Boulevard and Fair Drive/Del Mar Avenue**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.439

Intersection Setup

Name	No Ne			No Ne			Fair Drive			Del Mar Avenue		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	105.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	225.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	256.00
Speed [mph]	40.00			40.00			40.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			Yes		

Volumes

Name	No Ne			No Ne			Fair Drive			Del Mar Avenue		
Base Volume Input [veh/h]	121	728	109	0	0	0	483	311	0	0	249	185
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	121	728	109	0	0	0	483	311	0	0	249	185
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	30	182	27	0	0	0	121	78	0	0	62	46
Total Analysis Volume [veh/h]	121	728	109	0	0	0	483	311	0	0	249	185
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	230
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	2	0	0	0	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.07	0.17	0.06	0.00	0.00	0.00	0.14	0.09	0.00	0.00	0.07	0.11
Intersection LOS	A											
Intersection V/C	0.439											

HCM Signalized Intersection Capacity Analysis

19: Newport Blvd & Harbor Blvd

03/03/2026

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	48	427	449	2897	2463	47
Future Volume (vph)	48	427	449	2897	2463	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	4.7	4.7	5.4	5.9	
Lane Util. Factor	1.00	0.88	0.97	0.86	0.91	
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	1.00	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1752	2760	3400	6346	5020	
Flt Permitted	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1752	2760	3400	6346	5020	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	49	440	463	2987	2539	48
RTOR Reduction (vph)	0	412	0	0	1	0
Lane Group Flow (vph)	49	28	463	2987	2586	0
Confl. Peds. (#/hr)						7
Confl. Bikes (#/hr)						2
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%
Turn Type	Prot	Perm	Prot	NA	NA	
Protected Phases	7		5	2	6	
Permitted Phases		7				
Actuated Green, G (s)	10.1	10.1	34.7	139.8	99.9	
Effective Green, g (s)	10.1	10.1	34.7	139.8	99.9	
Actuated g/C Ratio	0.06	0.06	0.22	0.87	0.62	
Clearance Time (s)	4.7	4.7	4.7	5.4	5.9	
Vehicle Extension (s)	2.0	2.0	2.0	4.5	4.5	
Lane Grp Cap (vph)	110	174	737	5544	3134	
v/s Ratio Prot	c0.03		c0.14	0.47	c0.52	
v/s Ratio Perm		0.01				
v/c Ratio	0.45	0.16	0.63	0.54	0.83	
Uniform Delay, d1	72.3	70.9	56.8	2.4	23.3	
Progression Factor	1.00	1.00	1.00	1.00	0.85	
Incremental Delay, d2	1.0	0.2	1.2	0.4	0.2	
Delay (s)	73.3	71.1	58.0	2.8	20.0	
Level of Service	E	E	E	A	C	
Approach Delay (s/veh)	71.3			10.2	20.0	
Approach LOS	E			B	C	
Intersection Summary						
HCM 2000 Control Delay (s/veh)			18.7		HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.78			
Actuated Cycle Length (s)			160.0		Sum of lost time (s)	20.0
Intersection Capacity Utilization			81.7%		ICU Level of Service	D
Analysis Period (min)			15			
c Critical Lane Group						

Fairview Development Center

Vistro File: C:\...\Fairview LOS 1%GR_04232026.vistro

Scenario 3 FYNP AM

Report File: C:\...\03_FYAM_1%_new.pdf

4/24/2026

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Brookhurst Street and Adams Avenue	Signalized	ICU 1	EB Thru	0.829	-	D
2	Placentia Avenue and Adams Avenue	Signalized	ICU 1	EB Thru	0.789	-	C
3	Placentia Avenue and Victoria Street	Signalized	ICU 1	EB Thru	0.815	-	D
4	Mesa Verde Drive East and Adams Avenue	Signalized	ICU 1	EB Thru	0.654	-	B
5	Royal Palm Drive and Adams Avenue	Signalized	ICU 1	EB Thru	0.585	-	A
6	Harbor Boulevard and South Coast Drive	Signalized	ICU 1	SB Thru	0.584	-	A
7	Harbor Boulevard and Interstate 405 (I-405) Westbound On/Off Ramps	Signalized	HCM 7th Edition	WB Right	0.778	13.3	B
8	Harbor Boulevard and I-405 Eastbound On/Off Ramps	Signalized	HCM 7th Edition	EB Right	0.638	8.5	A
9	Harbor Boulevard and Gisler Avenue	Signalized	ICU 1	SB Thru	0.691	-	B
10	Harbor Boulevard and Nutmeg Place	Signalized	ICU 1	NB Thru	0.478	-	A
11	Harbor Boulevard and Baker Street	Signalized	ICU 1	NB Thru	0.559	-	A
12	Harbor Boulevard and Adams Avenue	Signalized	ICU 1	EB Thru	0.610	-	B
13	Harbor Boulevard and Merrimac Way	Signalized	ICU 1	SB Right	0.494	-	A
14	Harbor Boulevard and Fair Drive	Signalized	ICU 1	SB Thru	0.449	-	A
15	Harbor Boulevard and Wilson Street	Signalized	ICU 1	SB Thru	0.484	-	A
16	Harbor Boulevard and Victoria Street	Signalized	ICU 1	EB Thru	0.749	-	C
17	Harbor Boulevard and Hamilton Street	Signalized	ICU 1	SB Thru	0.564	-	A

Version 2025 (SP 0-5)

18	Harbor Boulevard and West 19th Street	Signalized	ICU 1	EB Thru	0.606	-	B
19	Harbor Boulevard and Newport Boulevard	Signalized	ICU 1	WB Thru	0.827	-	D
20	Fairview Road and Fair Drive	Signalized	ICU 1	EB Thru	0.443	-	A
21	Southbound Newport Boulevard and Victoria Street	Signalized	ICU 1	EB Thru	0.611	-	B
22	Northbound Newport Boulevard and Victoria Street	Signalized	ICU 1	EB Left	0.864	-	D
23	Vanguard Way and Fair Drive	Signalized	ICU 1	EB Thru	0.418	-	A
24	Southbound Newport Boulevard and Fair Drive	Signalized	ICU 1	EB Thru	0.391	-	A
25	Northbound Newport Boulevard and Fair Drive/Del Mar Avenue	Signalized	ICU 1	NB Thru	0.812	-	D
26	Harbor Boulevard and New Access/Home Depot	Signalized	ICU 1	SB Thru	0.388	-	A

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report

Intersection 1: Brookhurst Street and Adams Avenue

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.829

Intersection Setup

Name	Brookhurst St			Brookhurst St			Adams Ave			Adams Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	0	2	0	0	2	0	1	2	0	1
Entry Pocket Length [ft]	215.00	100.00	100.00	216.00	100.00	100.00	286.00	100.00	100.00	236.00	100.00	400.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Brookhurst St			Brookhurst St			Adams Ave			Adams Ave		
Base Volume Input [veh/h]	100	760	350	310	720	130	200	1920	110	320	640	240
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	100	760	350	310	720	130	200	1920	110	320	640	240
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	25	190	88	78	180	33	50	480	28	80	160	60
Total Analysis Volume [veh/h]	100	760	350	310	720	130	200	1920	110	320	640	240
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.22	0.22	0.09	0.17	0.17	0.06	0.38	0.06	0.09	0.13	0.14
Intersection LOS	D											
Intersection V/C	0.829											

Intersection Level Of Service Report

Intersection 2: Placentia Avenue and Adams Avenue

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.789

Intersection Setup

Name	Placentia Ave			Mesa Verde Dr W			Adams Ave			Adams Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	1	1	0	0
Entry Pocket Length [ft]	172.00	100.00	134.00	190.00	100.00	175.00	184.00	100.00	137.00	481.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Placentia Ave			Mesa Verde Dr W			Adams Ave			Adams Ave		
Base Volume Input [veh/h]	230	300	240	40	250	140	120	2270	240	160	800	50
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	230	300	240	40	250	140	120	2270	240	160	800	50
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	58	75	60	10	63	35	30	568	60	40	200	13
Total Analysis Volume [veh/h]	230	300	240	40	250	140	120	2270	240	160	800	50
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	7	4	0	3	8	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.07	0.18	0.14	0.02	0.07	0.08	0.07	0.45	0.14	0.09	0.17	0.17
Intersection LOS	C											
Intersection V/C	0.789											

Intersection Level Of Service Report

Intersection 3: Placentia Avenue and Victoria Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.815

Intersection Setup

Name	Placentia Avenue			Placentia Avenue			Victoria Street			Victoria Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	1	1	0	1	1	0	1	1	0	1
Entry Pocket Length [ft]	227.00	100.00	90.00	78.00	100.00	59.00	239.00	100.00	163.00	200.00	100.00	84.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Placentia Avenue			Placentia Avenue			Victoria Street			Victoria Street		
Base Volume Input [veh/h]	300	430	180	110	580	70	160	1280	580	220	690	110
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	300	430	180	110	580	70	160	1280	580	220	690	110
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	75	108	45	28	145	18	40	320	145	55	173	28
Total Analysis Volume [veh/h]	300	430	180	110	580	70	160	1280	580	220	690	110
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Version 2025 (SP 0-5)

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.09	0.13	0.11	0.06	0.17	0.04	0.09	0.38	0.00	0.13	0.20	0.06
Intersection LOS	D											
Intersection V/C	0.815											

Intersection Level Of Service Report**Intersection 4: Mesa Verde Drive East and Adams Avenue**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.654

Intersection Setup

Name	Mesa Verde Dr E			Mesa Verde Dr E			Adams Ave			Adams Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1	1	0	1	1	0	1
Entry Pocket Length [ft]	204.00	100.00	100.00	63.00	100.00	100.00	153.00	100.00	100.00	150.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Mesa Verde Dr E			Mesa Verde Dr E			Adams Ave			Adams Ave		
Base Volume Input [veh/h]	120	120	150	70	180	80	80	2240	280	60	820	80
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	120	120	150	70	180	80	80	2240	280	60	820	80
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	30	30	38	18	45	20	20	560	70	15	205	20
Total Analysis Volume [veh/h]	120	120	150	70	180	80	80	2240	280	60	820	80
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	2	0	3	6	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.07	0.07	0.09	0.04	0.05	0.05	0.05	0.44	0.16	0.04	0.16	0.05
Intersection LOS	B											
Intersection V/C	0.654											

Intersection Level Of Service Report
Intersection 5: Royal Palm Drive and Adams Avenue

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.585

Intersection Setup

Name	Royal Palm Dr			Driveway			Adams Ave			Adams Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	1	0	0	1	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	23.00	80.00	100.00	100.00	184.00	100.00	100.00	78.00	100.00	54.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Royal Palm Dr			Driveway			Adams Ave			Adams Ave		
Base Volume Input [veh/h]	40	10	10	40	10	40	40	2390	40	10	900	30
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	40	10	10	40	10	40	40	2390	40	10	900	30
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	3	3	10	3	10	10	598	10	3	225	8
Total Analysis Volume [veh/h]	40	10	10	40	10	40	40	2390	40	10	900	30
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Version 2025 (SP 0-5)

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	7	4	0	3	8	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.01	0.01	0.02	0.03	0.03	0.02	0.48	0.48	0.01	0.18	0.02
Intersection LOS	A											
Intersection V/C	0.585											

Intersection Level Of Service Report
Intersection 6: Harbor Boulevard and South Coast Drive

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.584

Intersection Setup

Name	Harbor Blvd			Harbor Blvd			South Coast Dr			South Coast Dr		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	1	2	0	2	1	0	0	2	0	1
Entry Pocket Length [ft]	160.00	100.00	245.00	215.00	100.00	189.00	198.00	100.00	100.00	250.00	100.00	185.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Harbor Blvd			Harbor Blvd			South Coast Dr			South Coast Dr		
Base Volume Input [veh/h]	390	1570	320	80	2050	80	20	90	200	110	160	40
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	390	1570	320	80	2050	80	20	90	200	110	160	40
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	98	393	80	20	513	20	5	23	50	28	40	10
Total Analysis Volume [veh/h]	390	1570	320	80	2050	80	20	90	200	110	160	40
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.11	0.23	0.19	0.02	0.30	0.05	0.01	0.09	0.09	0.03	0.05	0.02
Intersection LOS	A											
Intersection V/C	0.584											

Intersection Level Of Service Report**Intersection 7: Harbor Boulevard and Interstate 405 (I-405) Westbound On/Off Ramps**

Control Type:	Signalized	Delay (sec / veh):	13.3
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.778

Intersection Setup

Name	Harbor Blvd		Harbor Blvd		I-405 WB Off Ramp	
Approach	Northbound		Southbound		Westbound	
Lane Configuration	↑↑↑↑		↑↑↑↑		↵↵↵	
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	0	1
Entry Pocket Length [ft]	100.00	200.00	100.00	100.00	100.00	425.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		45.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		Yes	

Volumes

Name	Harbor Blvd		Harbor Blvd		I-405 WB Off Ramp	
Base Volume Input [veh/h]	1490	0	0	2360	510	790
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00					
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1490	0	0	2360	510	790
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	373	0	0	590	128	198
Total Analysis Volume [veh/h]	1490	0	0	2360	510	790
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - Coordination Group
Cycle Length [s]	120
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing (Basic)

Control Type	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
Flashing Yellow Arrow						
Signal Group	2	0	0	6	4	0
Auxiliary Signal Groups						
Maximum Green [s]	30	0	0	30	30	0
Amber [s]	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	1.0	0.0	0.0	1.0	1.0	0.0
Walk [s]	5.0	0.0	0.0	5.0	5.0	0.0
Pedestrian Clearance [s]	10.0	0.0	0.0	10.0	10.0	0.0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	30.0	0.0	0.0	30.0	90.0	0.0
Lead / Lag	-	-	-	-	Lead	-
Minimum Green [s]	10	0	0	10	5	0
Vehicle Extension [s]	3.0	0.0	0.0	3.0	3.0	0.0
Minimum Recall	No			No	No	
Maximum Recall	No			No	No	
Pedestrian Recall	No			No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R
C, Calculated Cycle Length [s]	55	55	55	55	55
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	26.0	26.0	20.9	20.9	20.9
g / C, Green / Cycle	0.47	0.47	0.38	0.38	0.38
(v / s)_i Volume / Saturation Flow Rate	0.25	0.39	0.27	0.30	0.30
s, saturation flow rate [veh/h]	6077	6077	1593	1450	1422
c, Capacity [veh/h]	2872	2872	609	554	543
d1, Uniform Delay [s]	10.14	12.51	14.43	14.99	15.11
k, delay calibration	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.15	0.62	1.56	2.47	2.74
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.52	0.82	0.71	0.78	0.80
d, Delay for Lane Group [s/veh]	10.28	13.13	15.99	17.45	17.85
Lane Group LOS	B	B	B	B	B
Critical Lane Group	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.35	4.66	3.76	4.01	4.08
50th-Percentile Queue Length [ft/ln]	58.76	116.52	94.08	100.33	101.94
95th-Percentile Queue Length [veh/ln]	4.23	8.20	6.77	7.22	7.34
95th-Percentile Queue Length [ft/ln]	105.77	205.03	169.34	180.59	183.50

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	10.28	0.00	0.00	13.13	16.21	17.67
Movement LOS	B			B	B	B
d_A, Approach Delay [s/veh]	10.28		13.13		17.10	
Approach LOS	B		B		B	
d_I, Intersection Delay [s/veh]	13.31					
Intersection LOS	B					
Intersection V/C	0.778					

Emissions

Vehicle Miles Traveled [mph]	246.83	202.43	55.37	55.37	55.37
Stops [stops/h]	615.94	1221.40	246.55	262.92	267.16
Fuel consumption [US gal/h]	18.01	25.56	6.37	6.71	6.79
CO [g/h]	1258.92	1786.30	445.52	468.75	474.90
NOx [g/h]	244.94	347.55	86.68	91.20	92.40
VOC [g/h]	291.77	413.99	103.25	108.64	110.06

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	19.21
I_p,int, Pedestrian LOS Score for Intersectio	0.000	0.000	2.550
Crosswalk LOS	F	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	946	946	3130
d_b, Bicycle Delay [s]	7.63	7.63	8.77
I_b,int, Bicycle LOS Score for Intersection	2.174	2.533	3.705
Bicycle LOS	B	B	D

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report**Intersection 8: Harbor Boulevard and I-405 Eastbound On/Off Ramps**

Control Type:	Signalized	Delay (sec / veh):	8.5
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.638

Intersection Setup

Name	Harbor Blvd		Harbor Blvd		Interstate 405 (I-405) EB Off Ramp	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	467.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		45.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		Yes	

Volumes

Name	Harbor Blvd		Harbor Blvd		Interstate 405 (I-405) EB Off Ramp	
Base Volume Input [veh/h]	0	1590	1810	948	350	480
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00					
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1590	1810	948	350	480
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	398	453	237	88	120
Total Analysis Volume [veh/h]	0	1590	1810	948	350	480
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - Coordination Group
Cycle Length [s]	120
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	7.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing (Basic)

Control Type	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
Flashing Yellow Arrow						
Signal Group	0	2	6	0	4	0
Auxiliary Signal Groups						
Maximum Green [s]	0	30	30	0	30	0
Amber [s]	0.0	3.0	3.0	0.0	3.0	0.0
All red [s]	0.0	1.0	1.0	0.0	1.0	0.0
Walk [s]	0.0	5.0	5.0	0.0	5.0	0.0
Pedestrian Clearance [s]	0.0	10.0	10.0	0.0	10.0	0.0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No	No		No	
I1, Start-Up Lost Time [s]	0.0	2.0	2.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	2.0	0.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	0.0	28.0	28.0	0.0	92.0	0.0
Lead / Lag	-	-	-	-	Lead	-
Minimum Green [s]	0	10	10	0	5	0
Vehicle Extension [s]	0.0	3.0	3.0	0.0	3.0	0.0
Minimum Recall		No	No		No	
Maximum Recall		No	No		No	
Pedestrian Recall		No	No		No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R
C, Calculated Cycle Length [s]	39	39	39	39	39
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	19.8	19.8	10.9	10.9	10.9
g / C, Green / Cycle	0.51	0.51	0.28	0.28	0.28
(v / s)_i Volume / Saturation Flow Rate	0.35	0.30	0.18	0.19	0.19
s, saturation flow rate [veh/h]	4558	6077	1593	1459	1422
c, Capacity [veh/h]	2331	3108	450	412	402
d1, Uniform Delay [s]	7.11	6.59	12.18	12.30	12.33
k, delay calibration	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.36	0.17	1.50	1.85	1.96
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.68	0.58	0.64	0.66	0.67
d, Delay for Lane Group [s/veh]	7.47	6.77	13.69	14.15	14.29
Lane Group LOS	A	A	B	B	B
Critical Lane Group	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.62	1.26	1.64	1.61	1.60
50th-Percentile Queue Length [ft/ln]	40.62	31.57	40.92	40.19	40.00
95th-Percentile Queue Length [veh/ln]	2.92	2.27	2.95	2.89	2.88
95th-Percentile Queue Length [ft/ln]	73.11	56.83	73.66	72.35	72.00

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	7.47	6.77	0.00	13.78	14.23
Movement LOS		A	A		B	B
d_A, Approach Delay [s/veh]	7.47		6.77		14.04	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	8.46					
Intersection LOS	A					
Intersection V/C	0.638					

Emissions

Vehicle Miles Traveled [mph]	31.83	299.84	49.32	47.08	46.45
Stops [stops/h]	454.28	470.85	152.57	149.85	149.12
Fuel consumption [US gal/h]	8.02	17.86	4.39	4.26	4.23
CO [g/h]	560.54	1248.35	306.57	298.10	295.77
NOx [g/h]	109.06	242.88	59.65	58.00	57.55
VOC [g/h]	129.91	289.32	71.05	69.09	68.55

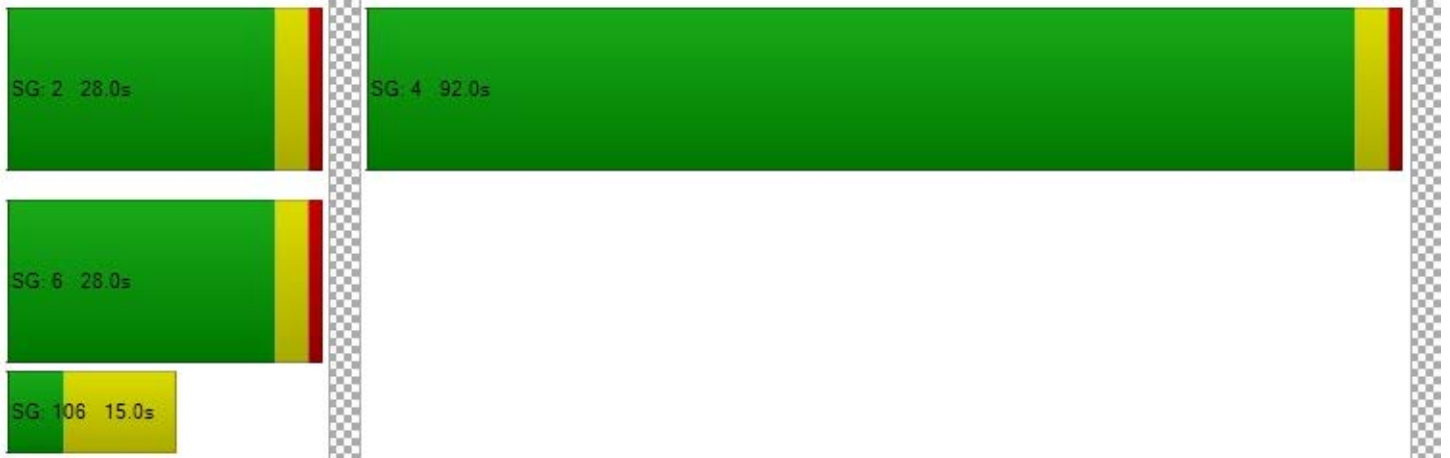
Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	11.36
I_p,int, Pedestrian LOS Score for Intersectio	0.000	0.000	2.300
Crosswalk LOS	F	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1243	1243	4557
d_b, Bicycle Delay [s]	2.77	2.77	31.56
I_b,int, Bicycle LOS Score for Intersection	2.434	2.306	2.929
Bicycle LOS	B	B	C

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Version 2025 (SP 0-5)



Intersection Level Of Service Report

Intersection 9: Harbor Boulevard and Gisler Avenue

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.691

Intersection Setup

Name	Harbor Boulevard			Harbor Blvd			Gisler Avenue			Gisler Avenue		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	1	1	0	1
Entry Pocket Length [ft]	158.00	100.00	70.00	173.00	100.00	100.00	435.00	100.00	113.00	172.00	100.00	123.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Blvd			Gisler Avenue			Gisler Avenue		
Base Volume Input [veh/h]	130	2000	40	110	1930	250	680	50	160	60	50	250
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	130	2000	40	110	1930	250	680	50	160	60	50	250
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	33	500	10	28	483	63	170	13	40	15	13	63
Total Analysis Volume [veh/h]	130	2000	40	110	1930	250	680	50	160	60	50	250
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.24	0.24	0.06	0.28	0.15	0.13	0.03	0.09	0.04	0.03	0.15
Intersection LOS	B											
Intersection V/C	0.691											

Intersection Level Of Service Report

Intersection 10: Harbor Boulevard and Nutmeg Place

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.478

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			Nutmeg Place			Nutmeg Place		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	2	0	0	0	0	1	0	0	1
Entry Pocket Length [ft]	120.00	100.00	203.00	178.00	100.00	100.00	100.00	100.00	52.00	100.00	100.00	79.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			25.00			10.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			Nutmeg Place			Nutmeg Place		
Base Volume Input [veh/h]	20	1950	160	140	1760	40	50	40	50	40	10	120
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	1950	160	140	1760	40	50	40	50	40	10	120
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	488	40	35	440	10	13	10	13	10	3	30
Total Analysis Volume [veh/h]	20	1950	160	140	1760	40	50	40	50	40	10	120
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Version 2025 (SP 0-5)

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	5	2	0	1	6	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.29	0.09	0.04	0.26	0.26	0.03	0.05	0.03	0.02	0.03	0.07
Intersection LOS	A											
Intersection V/C	0.478											

Intersection Level Of Service Report

Intersection 11: Harbor Boulevard and Baker Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.559

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			Baker Street			Baker Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	1	2	0	1	2	0	1	2	0	1
Entry Pocket Length [ft]	152.00	100.00	122.00	209.00	100.00	90.00	99.00	100.00	80.00	198.00	100.00	117.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			Baker Street			Baker Street		
Base Volume Input [veh/h]	60	1740	260	220	1440	40	300	40	70	220	260	170
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	60	1740	260	220	1440	40	300	40	70	220	260	170
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	435	65	55	360	10	75	10	18	55	65	43
Total Analysis Volume [veh/h]	60	1740	260	220	1440	40	300	40	70	220	260	170
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Version 2025 (SP 0-5)

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.26	0.15	0.06	0.21	0.02	0.09	0.01	0.04	0.06	0.08	0.10
Intersection LOS	A											
Intersection V/C	0.559											

Intersection Level Of Service Report
Intersection 12: Harbor Boulevard and Adams Avenue

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.610

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			Adams Ave			Adams Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	左左右			右左左			左左右			左左右		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	1	2	0	2	1	0	1	2	0	1
Entry Pocket Length [ft]	505.00	100.00	100.00	161.00	100.00	109.00	328.00	100.00	166.00	155.00	100.00	118.00
No. of Lanes in Exit Pocket	0	0	1	0	0	2	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	275.00	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			Adams Ave			Adams Ave		
Base Volume Input [veh/h]	180	1010	110	160	1000	340	850	1380	190	150	430	120
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	180	1010	110	160	1000	340	850	1380	190	150	430	120
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	45	253	28	40	250	85	213	345	48	38	108	30
Total Analysis Volume [veh/h]	180	1010	110	160	1000	340	850	1380	190	150	430	120
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.20	0.06	0.05	0.15	0.10	0.17	0.27	0.11	0.04	0.08	0.07
Intersection LOS	B											
Intersection V/C	0.610											

Intersection Level Of Service Report

Intersection 13: Harbor Boulevard and Merrimac Way

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.494

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			Merrimac Way			Merrimac Way		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	2	0	0	1	0	0	1	0	1
Entry Pocket Length [ft]	136.00	100.00	100.00	233.00	100.00	100.00	63.00	100.00	100.00	123.00	100.00	235.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	600.00
Speed [mph]	40.00			40.00			25.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			Merrimac Way			Merrimac Way		
Base Volume Input [veh/h]	20	1210	110	230	1368	50	80	20	70	60	20	120
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	1210	110	230	1368	50	80	20	70	60	20	120
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	303	28	58	342	13	20	5	18	15	5	30
Total Analysis Volume [veh/h]	20	1210	110	230	1368	50	80	20	70	60	20	120
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.26	0.26	0.07	0.28	0.28	0.05	0.05	0.05	0.04	0.01	0.07
Intersection LOS	A											
Intersection V/C	0.494											

Intersection Level Of Service Report

Intersection 14: Harbor Boulevard and Fair Drive

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.449

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			Fair Drive			Fair Drive		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	2	0	0	0	0	1	1	0	1
Entry Pocket Length [ft]	138.00	100.00	112.00	150.00	100.00	100.00	100.00	100.00	57.00	220.00	100.00	225.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			25.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			Fair Drive			Fair Drive		
Base Volume Input [veh/h]	28	990	320	310	1130	68	40	50	40	250	55	250
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	28	990	320	310	1130	68	40	50	40	250	55	250
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	248	80	78	283	17	10	13	10	63	14	63
Total Analysis Volume [veh/h]	28	990	320	310	1130	68	40	50	40	250	55	250
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.19	0.19	0.09	0.23	0.23	0.02	0.03	0.02	0.07	0.09	0.09
Intersection LOS	A											
Intersection V/C	0.449											

Intersection Level Of Service Report

Intersection 15: Harbor Boulevard and Wilson Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.484

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			Wilson Street			Wilson Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	2	0	1	2	0	1
Entry Pocket Length [ft]	212.00	100.00	58.00	187.00	100.00	101.00	172.00	100.00	80.00	186.00	100.00	120.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			Wilson Street			Wilson Street		
Base Volume Input [veh/h]	70	850	140	80	870	220	390	510	170	240	270	100
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	70	850	140	80	870	220	390	510	170	240	270	100
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	213	35	20	218	55	98	128	43	60	68	25
Total Analysis Volume [veh/h]	70	850	140	80	870	220	390	510	170	240	270	100
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Version 2025 (SP 0-5)

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.17	0.08	0.05	0.17	0.13	0.11	0.15	0.10	0.07	0.08	0.06
Intersection LOS	A											
Intersection V/C	0.484											

Intersection Level Of Service Report
Intersection 16: Harbor Boulevard and Victoria Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.749

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			Victoria Street			Victoria Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	2	0	1	2	0	1
Entry Pocket Length [ft]	205.00	100.00	113.00	93.00	100.00	125.00	197.00	100.00	134.00	95.00	100.00	95.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	159.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			Victoria Street			Victoria Street		
Base Volume Input [veh/h]	80	680	130	160	1090	190	250	1320	80	170	860	100
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	80	680	130	160	1090	190	250	1320	80	170	860	100
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	20	170	33	40	273	48	63	330	20	43	215	25
Total Analysis Volume [veh/h]	80	680	130	160	1090	190	250	1320	80	170	860	100
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.13	0.08	0.09	0.21	0.11	0.07	0.39	0.05	0.05	0.25	0.06
Intersection LOS	C											
Intersection V/C	0.749											

Intersection Level Of Service Report

Intersection 17: Harbor Boulevard and Hamilton Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.564

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			Hamilton Street			Hamilton Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	0	0	1
Entry Pocket Length [ft]	137.00	100.00	100.00	101.00	100.00	100.00	155.00	100.00	100.00	100.00	100.00	20.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	2125.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			Hamilton Street			Hamilton Street		
Base Volume Input [veh/h]	40	660	20	20	1160	260	280	120	50	10	70	60
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	40	660	20	20	1160	260	280	120	50	10	70	60
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	165	5	5	290	65	70	30	13	3	18	15
Total Analysis Volume [veh/h]	40	660	20	20	1160	260	280	120	50	10	70	60
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	ProtPer	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.13	0.13	0.01	0.28	0.28	0.16	0.10	0.10	0.01	0.04	0.04
Intersection LOS	A											
Intersection V/C	0.564											

Intersection Level Of Service Report
Intersection 18: Harbor Boulevard and West 19th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.606

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			West 19th Street			West 19th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1	2	0	1	1	0	1
Entry Pocket Length [ft]	150.00	100.00	100.00	200.00	100.00	228.00	235.00	100.00	93.00	258.00	100.00	209.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			West 19th Street			West 19th Street		
Base Volume Input [veh/h]	40	290	20	190	600	320	220	1010	50	80	710	180
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	40	290	20	190	600	320	220	1010	50	80	710	180
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	73	5	48	150	80	55	253	13	20	178	45
Total Analysis Volume [veh/h]	40	290	20	190	600	320	220	1010	50	80	710	180
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.06	0.06	0.11	0.18	0.19	0.06	0.30	0.03	0.05	0.14	0.11
Intersection LOS	B											
Intersection V/C	0.606											

Intersection Level Of Service Report

Intersection 19: Harbor Boulevard and Newport Boulevard

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.827

Intersection Setup

Name	Harbor Boulevard		Newport Boulevard		Newport Boulevard	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	2	0	0	0
Entry Pocket Length [ft]	115.00	100.00	400.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		Yes	

Volumes

Name	Harbor Boulevard		Newport Boulevard		Newport Boulevard	
Base Volume Input [veh/h]	50	600	230	2960	2710	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	50	600	230	2960	2710	10
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	150	58	740	678	3
Total Analysis Volume [veh/h]	50	600	230	2960	2710	10
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Version 2025 (SP 0-5)

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
Signal Group	4	0	5	2	6	0
Auxiliary Signal Groups						
Lead / Lag	Lead	-	Lead	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.18	0.07	0.44	0.53	0.53
Intersection LOS	D					
Intersection V/C	0.827					

Intersection Level Of Service Report

Intersection 20: Fairview Road and Fair Drive

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.443

Intersection Setup

Name	Fairview Road			Fairview Road			Fair Drive			Fair Drive		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	2	0	1	1	0	1	1	0	1
Entry Pocket Length [ft]	198.00	100.00	153.00	214.00	100.00	82.00	200.00	100.00	107.00	172.00	100.00	300.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Fairview Road			Fairview Road			Fair Drive			Fair Drive		
Base Volume Input [veh/h]	40	480	150	270	520	170	160	630	60	40	290	350
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	40	480	150	270	520	170	160	630	60	40	290	350
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	120	38	68	130	43	40	158	15	10	73	88
Total Analysis Volume [veh/h]	40	480	150	270	520	170	160	630	60	40	290	350
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.09	0.09	0.08	0.10	0.10	0.09	0.19	0.04	0.02	0.13	0.13
Intersection LOS	A											
Intersection V/C	0.443											

Intersection Level Of Service Report**Intersection 21: Southbound Newport Boulevard and Victoria Street**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.611

Intersection Setup

Name	So Ne			So Ne			Victoria Street			Victoria Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration				↰↱↱↱			↱↱↱			↰↱		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	1	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	302.00	100.00	134.00	100.00	100.00	112.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	150.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			No		

Volumes

Name	So Ne			So Ne			Victoria Street			Victoria Street		
Base Volume Input [veh/h]	0	0	0	540	800	850	0	1780	20	50	200	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	540	800	850	0	1780	20	50	200	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	135	200	213	0	445	5	13	50	0
Total Analysis Volume [veh/h]	0	0	0	540	800	850	0	1780	20	50	200	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	160
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Unsigna	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	0	0	2	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.16	0.20	0.00	0.00	0.35	0.35	0.03	0.12	0.00
Intersection LOS	B											
Intersection V/C	0.611											

Intersection Level Of Service Report**Intersection 22: Northbound Newport Boulevard and Victoria Street**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.864

Intersection Setup

Name	No Ne			No Ne			Victoria Street			Victoria Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	68.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	61.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	75.00
Speed [mph]	40.00			40.00			40.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			Yes		

Volumes

Name	No Ne			No Ne			Victoria Street			Victoria Street		
Base Volume Input [veh/h]	90	950	30	0	0	0	1710	610	0	0	160	230
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	90	950	30	0	0	0	1710	610	0	0	160	230
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	23	238	8	0	0	0	428	153	0	0	40	58
Total Analysis Volume [veh/h]	90	950	30	0	0	0	1710	610	0	0	160	230
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	230
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	2	0	0	0	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.20	0.02	0.00	0.00	0.00	0.50	0.18	0.00	0.00	0.09	0.14
Intersection LOS	D											
Intersection V/C	0.864											

Intersection Level Of Service Report

Intersection 23: Vanguard Way and Fair Drive

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.418

Intersection Setup

Name	Vanguard Way			Vanguard Way			Fair Drive			Fair Drive		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	0	0	0	1	0	0	1	0	1
Entry Pocket Length [ft]	150.00	100.00	61.00	100.00	100.00	100.00	200.00	100.00	100.00	150.00	100.00	225.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	150.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			10.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Vanguard Way			Vanguard Way			Fair Drive			Fair Drive		
Base Volume Input [veh/h]	100	0	100	0	0	0	10	940	50	30	630	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	100	0	100	0	0	0	10	940	50	30	630	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	25	0	25	0	0	0	3	235	13	8	158	0
Total Analysis Volume [veh/h]	100	0	100	0	0	0	10	940	50	30	630	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	4	0	0	8	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.06	0.00	0.06	0.00	0.00	0.00	0.01	0.29	0.29	0.02	0.19	0.00
Intersection LOS	A											
Intersection V/C	0.418											

Intersection Level Of Service Report**Intersection 24: Southbound Newport Boulevard and Fair Drive**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.391

Intersection Setup

Name	So Ne			So Ne			Fair Drive			Fair Drive		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1	0	0	2	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	300.00	100.00	100.00	200.00	150.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			No		

Volumes

Name	So Ne			So Ne			Fair Drive			Fair Drive		
Base Volume Input [veh/h]	0	0	0	270	610	680	0	1070	50	80	270	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	270	610	680	0	1070	50	80	270	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	68	153	170	0	268	13	20	68	0
Total Analysis Volume [veh/h]	0	0	0	270	610	680	0	1070	50	80	270	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	240
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Unsigna	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	0	0	2	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.16	0.12	0.00	0.00	0.16	0.16	0.05	0.08	0.00
Intersection LOS	A											
Intersection V/C	0.391											

Intersection Level Of Service Report**Intersection 25: Northbound Newport Boulevard and Fair Drive/Del Mar Avenue**

Control Type: Signalized
 Analysis Method: ICU 1
 Analysis Period: 15 minutes

Delay (sec / veh): -
 Level Of Service: D
 Volume to Capacity (v/c): 0.812

Intersection Setup

Name	No Ne			No Ne			Fair Drive			Del Mar Avenue		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	105.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	225.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	256.00
Speed [mph]	40.00			40.00			40.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			Yes		

Volumes

Name	No Ne			No Ne			Fair Drive			Del Mar Avenue		
Base Volume Input [veh/h]	110	1330	430	0	0	0	890	450	0	0	240	420
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	110	1330	430	0	0	0	890	450	0	0	240	420
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	28	333	108	0	0	0	223	113	0	0	60	105
Total Analysis Volume [veh/h]	110	1330	430	0	0	0	890	450	0	0	240	420
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	240
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	2	0	0	0	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.06	0.28	0.25	0.00	0.00	0.00	0.26	0.13	0.00	0.00	0.07	0.25
Intersection LOS	D											
Intersection V/C	0.812											

Intersection Level Of Service Report**Intersection 26: Harbor Boulevard and New Access/Home Depot**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.388

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			New Access			Home Depot Driveway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			New Access			Home Depot Driveway		
Base Volume Input [veh/h]	0	1240	64	64	1378	0	0	0	0	42	0	42
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1240	64	64	1378	0	0	0	0	42	0	42
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	310	16	16	345	0	0	0	0	11	0	11
Total Analysis Volume [veh/h]	0	1240	64	64	1378	0	0	0	0	42	0	42
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lag	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.27	0.27	0.04	0.29	0.00	0.00	0.00	0.00	0.03	0.00	0.03
Intersection LOS	A											
Intersection V/C	0.388											

HCM Signalized Intersection Capacity Analysis

19: Newport Blvd & Harbor Blvd

03/03/2026

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	50	600	230	2960	2710	10
Future Volume (vph)	50	600	230	2960	2710	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	4.7	4.7	5.4	5.5	
Lane Util. Factor	1.00	0.76	0.97	0.86	0.91	
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	1.00	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1752	3575	3400	6346	5033	
Flt Permitted	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1752	3575	3400	6346	5033	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	52	619	237	3052	2794	10
RTOR Reduction (vph)	0	584	0	0	0	0
Lane Group Flow (vph)	52	35	237	3052	2804	0
Confl. Peds. (#/hr)						2
Confl. Bikes (#/hr)						3
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%
Turn Type	Prot	Perm	Prot	NA	NA	
Protected Phases	7		5	2	6	
Permitted Phases		7				
Actuated Green, G (s)	9.0	9.0	18.7	140.9	117.4	
Effective Green, g (s)	9.0	9.0	18.7	140.9	117.4	
Actuated g/C Ratio	0.06	0.06	0.12	0.88	0.73	
Clearance Time (s)	4.7	4.7	4.7	5.4	5.5	
Vehicle Extension (s)	2.0	2.0	2.0	4.5	4.5	
Lane Grp Cap (vph)	98	201	397	5588	3692	
v/s Ratio Prot	c0.03		0.07	c0.48	c0.56	
v/s Ratio Perm		0.01				
v/c Ratio	0.53	0.17	0.60	0.55	0.76	
Uniform Delay, d1	73.4	72.0	67.1	2.2	12.8	
Progression Factor	1.00	1.00	1.00	1.00	1.21	
Incremental Delay, d2	2.7	0.2	1.6	0.4	0.5	
Delay (s)	76.2	72.1	68.7	2.6	16.0	
Level of Service	E	E	E	A	B	
Approach Delay (s/veh)	72.4			7.3	16.0	
Approach LOS	E			A	B	
Intersection Summary						
HCM 2000 Control Delay (s/veh)			17.4		HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.75			
Actuated Cycle Length (s)			160.0		Sum of lost time (s)	19.6
Intersection Capacity Utilization			79.2%		ICU Level of Service	D
Analysis Period (min)			15			
c Critical Lane Group						

Fairview Development Center

Vistro File: C:\...\Fairview LOS 1%GR_04232026.vistro

Scenario 4 FYNP PM

Report File: C:\...\04_FYPM_1%_new.pdf

4/24/2026

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Brookhurst Street and Adams Avenue	Signalized	ICU 1	WB Thru	0.860	-	D
2	Placentia Avenue and Adams Avenue	Signalized	ICU 1	WB Right	0.886	-	D
3	Placentia Avenue and Victoria Street	Signalized	ICU 1	WB Thru	0.944	-	E
4	Mesa Verde Drive East and Adams Avenue	Signalized	ICU 1	WB Thru	0.731	-	C
5	Royal Palm Drive and Adams Avenue	Signalized	ICU 1	WB Thru	0.601	-	B
6	Harbor Boulevard and South Coast Drive	Signalized	ICU 1	NB Thru	0.743	-	C
7	Harbor Boulevard and Interstate 405 (I-405) Westbound On/Off Ramps	Signalized	HCM 7th Edition	WB Right	0.925	23.3	C
8	Harbor Boulevard and I-405 Eastbound On/Off Ramps	Signalized	HCM 7th Edition	EB Right	0.773	12.4	B
9	Harbor Boulevard and Gisler Avenue	Signalized	ICU 1	SB Thru	0.726	-	C
10	Harbor Boulevard and Nutmeg Place	Signalized	ICU 1	SB Thru	0.571	-	A
11	Harbor Boulevard and Baker Street	Signalized	ICU 1	SB Thru	0.654	-	B
12	Harbor Boulevard and Adams Avenue	Signalized	ICU 1	NB Thru	0.668	-	B
13	Harbor Boulevard and Merrimac Way	Signalized	ICU 1	NB Right	0.717	-	C
14	Harbor Boulevard and Fair Drive	Signalized	ICU 1	NB Thru	0.663	-	B
15	Harbor Boulevard and Wilson Street	Signalized	ICU 1	SB Right	0.750	-	C
16	Harbor Boulevard and Victoria Street	Signalized	ICU 1	WB Thru	0.758	-	C
17	Harbor Boulevard and Hamilton Street	Signalized	ICU 1	NB Thru	0.597	-	A

Version 2025 (SP 0-5)

18	Harbor Boulevard and West 19th Street	Signalized	ICU 1	EB Thru	0.735	-	C
19	Harbor Boulevard and Newport Boulevard	Signalized	ICU 1	WB Thru	0.867	-	D
20	Fairview Road and Fair Drive	Signalized	ICU 1	WB Thru	0.633	-	B
21	Southbound Newport Boulevard and Victoria Street	Signalized	ICU 1	SB Thru	0.641	-	B
22	Northbound Newport Boulevard and Victoria Street	Signalized	ICU 1	EB Left	0.598	-	A
23	Vanguard Way and Fair Drive	Signalized	ICU 1	WB Thru	0.641	-	B
24	Southbound Newport Boulevard and Fair Drive	Signalized	ICU 1	SB Thru	0.624	-	B
25	Northbound Newport Boulevard and Fair Drive/Del Mar Avenue	Signalized	ICU 1	NB Thru	0.596	-	A
26	Harbor Boulevard and New Access/Home Depot	Signalized	ICU 1	SB Thru	0.516	-	A

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report

Intersection 1: Brookhurst Street and Adams Avenue

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.860

Intersection Setup

Name	Brookhurst St			Brookhurst St			Adams Ave			Adams Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	0	2	0	0	2	0	1	2	0	1
Entry Pocket Length [ft]	215.00	100.00	100.00	216.00	100.00	100.00	286.00	100.00	100.00	236.00	100.00	400.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Brookhurst St			Brookhurst St			Adams Ave			Adams Ave		
Base Volume Input [veh/h]	220	1380	230	310	980	140	250	850	110	320	1680	540
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	220	1380	230	310	980	140	250	850	110	320	1680	540
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	55	345	58	78	245	35	63	213	28	80	420	135
Total Analysis Volume [veh/h]	220	1380	230	310	980	140	250	850	110	320	1680	540
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.06	0.32	0.32	0.09	0.22	0.22	0.07	0.17	0.06	0.09	0.33	0.32
Intersection LOS	D											
Intersection V/C	0.860											

Intersection Level Of Service Report
Intersection 2: Placentia Avenue and Adams Avenue

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.886

Intersection Setup

Name	Placentia Ave			Mesa Verde Dr W			Adams Ave			Adams Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	1	1	0	0
Entry Pocket Length [ft]	172.00	100.00	134.00	190.00	100.00	175.00	184.00	100.00	137.00	481.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Placentia Ave			Mesa Verde Dr W			Adams Ave			Adams Ave		
Base Volume Input [veh/h]	350	230	260	50	170	280	120	1070	260	200	2470	70
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	350	230	260	50	170	280	120	1070	260	200	2470	70
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	88	58	65	13	43	70	30	268	65	50	618	18
Total Analysis Volume [veh/h]	350	230	260	50	170	280	120	1070	260	200	2470	70
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	7	4	0	3	8	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.10	0.14	0.15	0.03	0.05	0.16	0.07	0.21	0.15	0.12	0.50	0.50
Intersection LOS	D											
Intersection V/C	0.886											

Intersection Level Of Service Report
Intersection 3: Placentia Avenue and Victoria Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.944

Intersection Setup

Name	Placentia Avenue			Placentia Avenue			Victoria Street			Victoria Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	1	1	0	1	1	0	1	1	0	1
Entry Pocket Length [ft]	227.00	100.00	90.00	78.00	100.00	59.00	239.00	100.00	163.00	200.00	100.00	84.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Placentia Avenue			Placentia Avenue			Victoria Street			Victoria Street		
Base Volume Input [veh/h]	710	850	240	100	530	280	100	740	380	140	1570	110
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	710	850	240	100	530	280	100	740	380	140	1570	110
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	178	213	60	25	133	70	25	185	95	35	393	28
Total Analysis Volume [veh/h]	710	850	240	100	530	280	100	740	380	140	1570	110
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.21	0.25	0.14	0.06	0.16	0.16	0.06	0.22	0.00	0.08	0.46	0.06
Intersection LOS	E											
Intersection V/C	0.944											

Intersection Level Of Service Report**Intersection 4: Mesa Verde Drive East and Adams Avenue**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.731

Intersection Setup

Name	Mesa Verde Dr E			Mesa Verde Dr E			Adams Ave			Adams Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1	1	0	1	1	0	1
Entry Pocket Length [ft]	204.00	100.00	100.00	63.00	100.00	100.00	153.00	100.00	100.00	150.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Mesa Verde Dr E			Mesa Verde Dr E			Adams Ave			Adams Ave		
Base Volume Input [veh/h]	370	70	180	60	80	140	50	1030	180	80	2350	60
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	370	70	180	60	80	140	50	1030	180	80	2350	60
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	93	18	45	15	20	35	13	258	45	20	588	15
Total Analysis Volume [veh/h]	370	70	180	60	80	140	50	1030	180	80	2350	60
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Version 2025 (SP 0-5)

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Overlap	Permiss	Permiss	Permiss
Signal Group	0	4	0	3	8	0	0	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.11	0.13	0.11	0.04	0.02	0.08	0.03	0.20	0.00	0.05	0.46	0.04
Intersection LOS	C											
Intersection V/C	0.731											

Intersection Level Of Service Report

Intersection 5: Royal Palm Drive and Adams Avenue

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.601

Intersection Setup

Name	Royal Palm Dr			Driveway			Adams Ave			Adams Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	1	0	0	1	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	23.00	80.00	100.00	100.00	184.00	100.00	100.00	78.00	100.00	54.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Royal Palm Dr			Driveway			Adams Ave			Adams Ave		
Base Volume Input [veh/h]	110	50	50	80	40	70	50	960	80	50	2000	90
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	110	50	50	80	40	70	50	960	80	50	2000	90
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	28	13	13	20	10	18	13	240	20	13	500	23
Total Analysis Volume [veh/h]	110	50	50	80	40	70	50	960	80	50	2000	90
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	7	4	0	3	8	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.06	0.06	0.06	0.05	0.06	0.06	0.03	0.20	0.20	0.03	0.39	0.05
Intersection LOS	B											
Intersection V/C	0.601											

Intersection Level Of Service Report
Intersection 6: Harbor Boulevard and South Coast Drive

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.743

Intersection Setup

Name	Harbor Blvd			Harbor Blvd			South Coast Dr			South Coast Dr		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	1	2	0	2	1	0	0	2	0	1
Entry Pocket Length [ft]	160.00	100.00	245.00	215.00	100.00	189.00	198.00	100.00	100.00	250.00	100.00	185.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Harbor Blvd			Harbor Blvd			South Coast Dr			South Coast Dr		
Base Volume Input [veh/h]	570	1890	250	70	1690	80	40	50	410	310	860	200
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	570	1890	250	70	1690	80	40	50	410	310	860	200
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	143	473	63	18	423	20	10	13	103	78	215	50
Total Analysis Volume [veh/h]	570	1890	250	70	1690	80	40	50	410	310	860	200
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Version 2025 (SP 0-5)

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.17	0.28	0.15	0.02	0.25	0.05	0.02	0.14	0.14	0.09	0.25	0.12
Intersection LOS	C											
Intersection V/C	0.743											

Intersection Level Of Service Report**Intersection 7: Harbor Boulevard and Interstate 405 (I-405) Westbound On/Off Ramps**

Control Type:	Signalized	Delay (sec / veh):	23.3
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.925

Intersection Setup

Name	Harbor Blvd		Harbor Blvd		I-405 WB Off Ramp	
Approach	Northbound		Southbound		Westbound	
Lane Configuration	↑↑↑↑		↑↑↑↑		↵↵↵	
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	0	1
Entry Pocket Length [ft]	100.00	200.00	100.00	100.00	100.00	425.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		45.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		Yes	

Volumes

Name	Harbor Blvd		Harbor Blvd		I-405 WB Off Ramp	
Base Volume Input [veh/h]	1570	0	0	2410	690	1140
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00					
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1570	0	0	2410	690	1140
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	393	0	0	603	173	285
Total Analysis Volume [veh/h]	1570	0	0	2410	690	1140
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - Coordination Group
Cycle Length [s]	120
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing (Basic)

Control Type	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
Flashing Yellow Arrow						
Signal Group	2	0	0	6	4	0
Auxiliary Signal Groups						
Maximum Green [s]	30	0	0	30	30	0
Amber [s]	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	1.0	0.0	0.0	1.0	1.0	0.0
Walk [s]	5.0	0.0	0.0	5.0	5.0	0.0
Pedestrian Clearance [s]	10.0	0.0	0.0	10.0	10.0	0.0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	92.0	0.0	0.0	92.0	28.0	0.0
Lead / Lag	-	-	-	-	Lead	-
Minimum Green [s]	10	0	0	10	5	0
Vehicle Extension [s]	3.0	0.0	0.0	3.0	3.0	0.0
Minimum Recall	No			No	No	
Maximum Recall	No			No	No	
Pedestrian Recall	No			No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R
C, Calculated Cycle Length [s]	56	56	56	56	56
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	23.7	23.7	24.0	24.0	24.0
g / C, Green / Cycle	0.43	0.43	0.43	0.43	0.43
(v / s)_i Volume / Saturation Flow Rate	0.26	0.40	0.38	0.42	0.43
s, saturation flow rate [veh/h]	6077	6077	1593	1443	1422
c, Capacity [veh/h]	2593	2593	685	620	612
d1, Uniform Delay [s]	12.37	15.20	14.69	15.71	15.87
k, delay calibration	0.11	0.11	0.36	0.43	0.44
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.23	1.87	12.29	29.60	33.43
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.61	0.93	0.89	0.98	1.00
d, Delay for Lane Group [s/veh]	12.60	17.07	26.97	45.31	49.31
Lane Group LOS	B	B	C	D	D
Critical Lane Group	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.98	5.88	7.53	10.65	11.29
50th-Percentile Queue Length [ft/ln]	74.48	146.99	188.27	266.35	282.28
95th-Percentile Queue Length [veh/ln]	5.36	9.86	12.03	16.01	16.80
95th-Percentile Queue Length [ft/ln]	134.07	246.40	300.79	400.17	420.05

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	12.60	0.00	0.00	17.07	29.10	47.45
Movement LOS	B			B	C	D
d_A, Approach Delay [s/veh]	12.60		17.07		40.53	
Approach LOS	B		B		D	
d_I, Intersection Delay [s/veh]	23.25					
Intersection LOS	C					
Intersection V/C	0.925					

Emissions

Vehicle Miles Traveled [mph]	260.09	206.72	77.94	77.94	77.94
Stops [stops/h]	769.58	1518.75	486.34	688.00	729.17
Fuel consumption [US gal/h]	20.90	30.70	12.07	16.85	17.86
CO [g/h]	1461.09	2145.88	843.49	1177.85	1248.29
NOx [g/h]	284.28	417.51	164.11	229.17	242.87
VOC [g/h]	338.62	497.33	195.49	272.98	289.30

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	19.60
I_p,int, Pedestrian LOS Score for Intersectio	0.000	0.000	2.809
Crosswalk LOS	F	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	3157	3157	861
d_b, Bicycle Delay [s]	9.33	9.33	9.04
I_b,int, Bicycle LOS Score for Intersection	2.207	2.554	4.579
Bicycle LOS	B	B	E

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report**Intersection 8: Harbor Boulevard and I-405 Eastbound On/Off Ramps**

Control Type:	Signalized	Delay (sec / veh):	12.4
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.773

Intersection Setup

Name	Harbor Blvd		Harbor Blvd		Interstate 405 (I-405) EB Off Ramp	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	467.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		45.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		Yes	

Volumes

Name	Harbor Blvd		Harbor Blvd		Interstate 405 (I-405) EB Off Ramp	
Base Volume Input [veh/h]	0	2030	2180	948	280	710
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00					
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	2030	2180	948	280	710
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	508	545	237	70	178
Total Analysis Volume [veh/h]	0	2030	2180	948	280	710
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - Coordination Group
Cycle Length [s]	120
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	7.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing (Basic)

Control Type	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
Flashing Yellow Arrow						
Signal Group	0	2	6	0	4	0
Auxiliary Signal Groups						
Maximum Green [s]	0	30	30	0	30	0
Amber [s]	0.0	3.0	3.0	0.0	3.0	0.0
All red [s]	0.0	1.0	1.0	0.0	1.0	0.0
Walk [s]	0.0	5.0	5.0	0.0	5.0	0.0
Pedestrian Clearance [s]	0.0	10.0	10.0	0.0	10.0	0.0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No	No		No	
I1, Start-Up Lost Time [s]	0.0	2.0	2.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	2.0	0.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	0.0	37.0	37.0	0.0	83.0	0.0
Lead / Lag	-	-	-	-	Lead	-
Minimum Green [s]	0	10	10	0	5	0
Vehicle Extension [s]	0.0	3.0	3.0	0.0	3.0	0.0
Minimum Recall		No	No		No	
Maximum Recall		No	No		No	
Pedestrian Recall		No	No		No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R
C, Calculated Cycle Length [s]	59	59	59	59	59
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	32.8	32.8	18.5	18.5	18.5
g / C, Green / Cycle	0.55	0.55	0.31	0.31	0.31
(v / s)_i Volume / Saturation Flow Rate	0.45	0.36	0.18	0.25	0.25
s, saturation flow rate [veh/h]	4558	6077	1593	1422	1422
c, Capacity [veh/h]	2519	3359	498	445	445
d1, Uniform Delay [s]	10.72	9.27	17.03	18.71	18.71
k, delay calibration	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.64	0.21	1.00	3.34	3.34
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.81	0.65	0.56	0.80	0.80
d, Delay for Lane Group [s/veh]	11.35	9.48	18.03	22.05	22.05
Lane Group LOS	B	A	B	C	C
Critical Lane Group	Yes	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	5.06	3.47	2.78	4.09	4.09
50th-Percentile Queue Length [ft/ln]	126.55	86.82	69.52	102.34	102.34
95th-Percentile Queue Length [veh/ln]	8.75	6.25	5.01	7.37	7.37
95th-Percentile Queue Length [ft/ln]	218.80	156.27	125.14	184.22	184.22

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	11.35	9.48	0.00	18.03	22.05
Movement LOS		B	A		B	C
d_A, Approach Delay [s/veh]	11.35		9.48		20.91	
Approach LOS	B		A		C	
d_I, Intersection Delay [s/veh]	12.39					
Intersection LOS	B					
Intersection V/C	0.773					

Emissions

Vehicle Miles Traveled [mph]	40.64	361.14	48.19	61.10	61.10
Stops [stops/h]	921.02	842.44	168.66	248.28	248.28
Fuel consumption [US gal/h]	15.19	25.42	4.78	6.77	6.77
CO [g/h]	1062.04	1776.78	333.87	473.55	473.55
NOx [g/h]	206.63	345.70	64.96	92.13	92.13
VOC [g/h]	246.14	411.79	77.38	109.75	109.75

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	21.36
I_p,int, Pedestrian LOS Score for Intersectio	0.000	0.000	2.403
Crosswalk LOS	F	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1112	1112	2662
d_b, Bicycle Delay [s]	5.85	5.85	3.25
I_b,int, Bicycle LOS Score for Intersection	2.676	2.459	3.193
Bicycle LOS	B	B	C

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 9: Harbor Boulevard and Gisler Avenue

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.726

Intersection Setup

Name	Harbor Boulevard			Harbor Blvd			Gisler Avenue			Gisler Avenue		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	1	1	0	1
Entry Pocket Length [ft]	158.00	100.00	70.00	173.00	100.00	100.00	435.00	100.00	113.00	172.00	100.00	123.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Blvd			Gisler Avenue			Gisler Avenue		
Base Volume Input [veh/h]	250	2170	20	150	2170	480	440	50	180	50	100	210
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	250	2170	20	150	2170	480	440	50	180	50	100	210
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	63	543	5	38	543	120	110	13	45	13	25	53
Total Analysis Volume [veh/h]	250	2170	20	150	2170	480	440	50	180	50	100	210
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.15	0.26	0.26	0.09	0.32	0.28	0.09	0.03	0.11	0.03	0.06	0.12
Intersection LOS	C											
Intersection V/C	0.726											

Intersection Level Of Service Report

Intersection 10: Harbor Boulevard and Nutmeg Place

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.571

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			Nutmeg Place			Nutmeg Place		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	2	0	0	0	0	1	0	0	1
Entry Pocket Length [ft]	120.00	100.00	203.00	178.00	100.00	100.00	100.00	100.00	52.00	100.00	100.00	79.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			25.00			10.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			Nutmeg Place			Nutmeg Place		
Base Volume Input [veh/h]	60	1910	230	200	2060	40	80	40	80	180	40	150
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	60	1910	230	200	2060	40	80	40	80	180	40	150
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	478	58	50	515	10	20	10	20	45	10	38
Total Analysis Volume [veh/h]	60	1910	230	200	2060	40	80	40	80	180	40	150
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Version 2025 (SP 0-5)

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	5	2	0	1	6	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.28	0.14	0.06	0.31	0.31	0.05	0.07	0.05	0.11	0.13	0.09
Intersection LOS	A											
Intersection V/C	0.571											

Intersection Level Of Service Report

Intersection 11: Harbor Boulevard and Baker Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.654

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			Baker Street			Baker Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	1	2	0	1	2	0	1	2	0	1
Entry Pocket Length [ft]	152.00	100.00	122.00	209.00	100.00	90.00	99.00	100.00	80.00	198.00	100.00	117.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			Baker Street			Baker Street		
Base Volume Input [veh/h]	70	1630	240	230	1870	40	240	50	110	500	770	360
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	70	1630	240	230	1870	40	240	50	110	500	770	360
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	408	60	58	468	10	60	13	28	125	193	90
Total Analysis Volume [veh/h]	70	1630	240	230	1870	40	240	50	110	500	770	360
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Version 2025 (SP 0-5)

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.24	0.14	0.07	0.28	0.02	0.07	0.01	0.06	0.15	0.23	0.21
Intersection LOS	B											
Intersection V/C	0.654											

Intersection Level Of Service Report

Intersection 12: Harbor Boulevard and Adams Avenue

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.668

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			Adams Ave			Adams Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	1	2	0	2	1	0	1	2	0	1
Entry Pocket Length [ft]	505.00	100.00	100.00	161.00	100.00	109.00	328.00	100.00	166.00	155.00	100.00	118.00
No. of Lanes in Exit Pocket	0	0	1	0	0	2	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	275.00	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			Adams Ave			Adams Ave		
Base Volume Input [veh/h]	420	1420	150	160	1360	700	360	620	130	240	1130	220
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	420	1420	150	160	1360	700	360	620	130	240	1130	220
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	105	355	38	40	340	175	90	155	33	60	283	55
Total Analysis Volume [veh/h]	420	1420	150	160	1360	700	360	620	130	240	1130	220
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.28	0.09	0.05	0.20	0.21	0.07	0.12	0.08	0.07	0.22	0.13
Intersection LOS	B											
Intersection V/C	0.668											

Intersection Level Of Service Report

Intersection 13: Harbor Boulevard and Merrimac Way

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.717

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			Merrimac Way			Merrimac Way		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	2	0	0	1	0	0	1	0	1
Entry Pocket Length [ft]	136.00	100.00	100.00	233.00	100.00	100.00	63.00	100.00	100.00	123.00	100.00	235.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	600.00
Speed [mph]	40.00			40.00			25.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			Merrimac Way			Merrimac Way		
Base Volume Input [veh/h]	70	2148	70	150	1520	70	60	10	60	100	50	260
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	70	2148	70	150	1520	70	60	10	60	100	50	260
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	537	18	38	380	18	15	3	15	25	13	65
Total Analysis Volume [veh/h]	70	2148	70	150	1520	70	60	10	60	100	50	260
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.43	0.43	0.04	0.31	0.31	0.04	0.04	0.04	0.06	0.03	0.15
Intersection LOS	C											
Intersection V/C	0.717											

Intersection Level Of Service Report

Intersection 14: Harbor Boulevard and Fair Drive

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.663

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			Fair Drive			Fair Drive		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	2	0	0	0	0	1	1	0	1
Entry Pocket Length [ft]	138.00	100.00	112.00	150.00	100.00	100.00	100.00	100.00	57.00	220.00	100.00	225.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			25.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			Fair Drive			Fair Drive		
Base Volume Input [veh/h]	20	1480	230	210	1380	20	38	25	37	430	20	790
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	1480	230	210	1380	20	38	25	37	430	20	790
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	370	58	53	345	5	10	6	9	108	5	198
Total Analysis Volume [veh/h]	20	1480	230	210	1380	20	38	25	37	430	20	790
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.29	0.14	0.06	0.27	0.27	0.02	0.01	0.02	0.13	0.24	0.24
Intersection LOS	B											
Intersection V/C	0.663											

Intersection Level Of Service Report

Intersection 15: Harbor Boulevard and Wilson Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.750

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			Wilson Street			Wilson Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	2	0	1	2	0	1
Entry Pocket Length [ft]	212.00	100.00	58.00	187.00	100.00	101.00	172.00	100.00	80.00	186.00	100.00	120.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			Wilson Street			Wilson Street		
Base Volume Input [veh/h]	180	1140	120	120	1150	470	250	260	100	320	830	130
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	180	1140	120	120	1150	470	250	260	100	320	830	130
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	45	285	30	30	288	118	63	65	25	80	208	33
Total Analysis Volume [veh/h]	180	1140	120	120	1150	470	250	260	100	320	830	130
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.11	0.22	0.07	0.07	0.23	0.28	0.07	0.08	0.06	0.09	0.24	0.08
Intersection LOS	C											
Intersection V/C	0.750											

Intersection Level Of Service Report

Intersection 16: Harbor Boulevard and Victoria Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.758

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			Victoria Street			Victoria Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	2	0	1	2	0	1
Entry Pocket Length [ft]	205.00	100.00	113.00	93.00	100.00	125.00	197.00	100.00	134.00	95.00	100.00	95.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	159.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			Victoria Street			Victoria Street		
Base Volume Input [veh/h]	130	1060	180	190	1170	220	240	890	110	160	1080	130
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	130	1060	180	190	1170	220	240	890	110	160	1080	130
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	33	265	45	48	293	55	60	223	28	40	270	33
Total Analysis Volume [veh/h]	130	1060	180	190	1170	220	240	890	110	160	1080	130
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.21	0.11	0.11	0.23	0.13	0.07	0.26	0.06	0.05	0.32	0.08
Intersection LOS	C											
Intersection V/C	0.758											

Intersection Level Of Service Report

Intersection 17: Harbor Boulevard and Hamilton Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.597

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			Hamilton Street			Hamilton Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	0	0	1
Entry Pocket Length [ft]	137.00	100.00	100.00	101.00	100.00	100.00	155.00	100.00	100.00	100.00	100.00	20.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	2125.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			Hamilton Street			Hamilton Street		
Base Volume Input [veh/h]	70	1310	40	40	1090	230	200	110	80	50	170	80
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	70	1310	40	40	1090	230	200	110	80	50	170	80
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	328	10	10	273	58	50	28	20	13	43	20
Total Analysis Volume [veh/h]	70	1310	40	40	1090	230	200	110	80	50	170	80
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Version 2025 (SP 0-5)

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	ProtPer	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.26	0.26	0.02	0.26	0.26	0.12	0.11	0.11	0.03	0.09	0.09
Intersection LOS	A											
Intersection V/C	0.597											

Intersection Level Of Service Report
Intersection 18: Harbor Boulevard and West 19th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.735

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			West 19th Street			West 19th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1	2	0	1	1	0	1
Entry Pocket Length [ft]	150.00	100.00	100.00	200.00	100.00	228.00	235.00	100.00	93.00	258.00	100.00	209.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			West 19th Street			West 19th Street		
Base Volume Input [veh/h]	70	490	60	170	620	390	470	1130	60	140	1230	280
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	70	490	60	170	620	390	470	1130	60	140	1230	280
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	123	15	43	155	98	118	283	15	35	308	70
Total Analysis Volume [veh/h]	70	490	60	170	620	390	470	1130	60	140	1230	280
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.11	0.11	0.10	0.18	0.23	0.14	0.33	0.04	0.08	0.24	0.16
Intersection LOS	C											
Intersection V/C	0.735											

Intersection Level Of Service Report

Intersection 19: Harbor Boulevard and Newport Boulevard

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.867

Intersection Setup

Name	Harbor Boulevard		Newport Boulevard		Newport Boulevard	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	2	0	0	0
Entry Pocket Length [ft]	115.00	100.00	400.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		Yes	

Volumes

Name	Harbor Boulevard		Newport Boulevard		Newport Boulevard	
Base Volume Input [veh/h]	60	450	540	2920	2620	60
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	60	450	540	2920	2620	60
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	113	135	730	655	15
Total Analysis Volume [veh/h]	60	450	540	2920	2620	60
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Permissive
Signal Group	4	0	5	2	6	0
Auxiliary Signal Groups						
Lead / Lag	Lag	-	Lead	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.13	0.16	0.43	0.53	0.53
Intersection LOS	D					
Intersection V/C	0.867					

Intersection Level Of Service Report

Intersection 20: Fairview Road and Fair Drive

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.633

Intersection Setup

Name	Fairview Road			Fairview Road			Fair Drive			Fair Drive		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	2	0	1	1	0	1	1	0	1
Entry Pocket Length [ft]	198.00	100.00	153.00	214.00	100.00	82.00	200.00	100.00	107.00	172.00	100.00	300.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Fairview Road			Fairview Road			Fair Drive			Fair Drive		
Base Volume Input [veh/h]	70	550	70	210	450	120	130	290	60	100	1110	610
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	70	550	70	210	450	120	130	290	60	100	1110	610
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	138	18	53	113	30	33	73	15	25	278	153
Total Analysis Volume [veh/h]	70	550	70	210	450	120	130	290	60	100	1110	610
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.11	0.04	0.06	0.09	0.07	0.08	0.09	0.04	0.06	0.34	0.34
Intersection LOS	B											
Intersection V/C	0.633											

Intersection Level Of Service Report**Intersection 21: Southbound Newport Boulevard and Victoria Street**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.641

Intersection Setup

Name	So Ne			So Ne			Victoria Street			Victoria Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration				↩↩↩↩			↩↩			↩↩		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	1	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	302.00	100.00	134.00	100.00	100.00	112.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	150.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			No		

Volumes

Name	So Ne			So Ne			Victoria Street			Victoria Street		
Base Volume Input [veh/h]	0	0	0	550	1180	1460	0	930	40	70	220	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	550	1180	1460	0	930	40	70	220	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	138	295	365	0	233	10	18	55	0
Total Analysis Volume [veh/h]	0	0	0	550	1180	1460	0	930	40	70	220	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	80
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Unsigna	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	0	0	2	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.16	0.35	0.00	0.00	0.19	0.19	0.04	0.13	0.00
Intersection LOS	B											
Intersection V/C	0.641											

Intersection Level Of Service Report**Intersection 22: Northbound Newport Boulevard and Victoria Street**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.598

Intersection Setup

Name	No Ne			No Ne			Victoria Street			Victoria Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	68.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	61.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	75.00
Speed [mph]	40.00			40.00			40.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			Yes		

Volumes

Name	No Ne			No Ne			Victoria Street			Victoria Street		
Base Volume Input [veh/h]	110	870	70	0	0	0	870	610	0	0	180	220
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	110	870	70	0	0	0	870	610	0	0	180	220
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	28	218	18	0	0	0	218	153	0	0	45	55
Total Analysis Volume [veh/h]	110	870	70	0	0	0	870	610	0	0	180	220
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	240
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	2	0	0	0	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.06	0.19	0.04	0.00	0.00	0.00	0.26	0.18	0.00	0.00	0.11	0.13
Intersection LOS	A											
Intersection V/C	0.598											

Intersection Level Of Service Report

Intersection 23: Vanguard Way and Fair Drive

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.641

Intersection Setup

Name	Vanguard Way			Vanguard Way			Fair Drive			Fair Drive		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	0	0	0	1	0	0	1	0	1
Entry Pocket Length [ft]	150.00	100.00	61.00	100.00	100.00	100.00	200.00	100.00	100.00	150.00	100.00	225.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	150.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			10.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Vanguard Way			Vanguard Way			Fair Drive			Fair Drive		
Base Volume Input [veh/h]	130	0	70	0	0	10	10	470	100	80	1710	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	130	0	70	0	0	10	10	470	100	80	1710	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	33	0	18	0	0	3	3	118	25	20	428	0
Total Analysis Volume [veh/h]	130	0	70	0	0	10	10	470	100	80	1710	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	4	0	0	8	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.00	0.04	0.00	0.00	0.00	0.01	0.17	0.17	0.05	0.50	0.00
Intersection LOS	B											
Intersection V/C	0.641											

Intersection Level Of Service Report**Intersection 24: Southbound Newport Boulevard and Fair Drive**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.624

Intersection Setup

Name	So Ne			So Ne			Fair Drive			Fair Drive		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1	0	0	2	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	300.00	100.00	100.00	200.00	150.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			No		

Volumes

Name	So Ne			So Ne			Fair Drive			Fair Drive		
Base Volume Input [veh/h]	0	0	0	300	1390	1570	0	740	70	360	470	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	300	1390	1570	0	740	70	360	470	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	75	348	393	0	185	18	90	118	0
Total Analysis Volume [veh/h]	0	0	0	300	1390	1570	0	740	70	360	470	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Version 2025 (SP 0-5)

Intersection Settings

Cycle Length [s]	240
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Unsigna	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	0	0	2	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.18	0.27	0.00	0.00	0.12	0.12	0.21	0.14	0.00
Intersection LOS	B											
Intersection V/C	0.624											

Intersection Level Of Service Report**Intersection 25: Northbound Newport Boulevard and Fair Drive/Del Mar Avenue**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.596

Intersection Setup

Name	No Ne			No Ne			Fair Drive			Del Mar Avenue		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	105.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	225.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	256.00
Speed [mph]	40.00			40.00			40.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			Yes		

Volumes

Name	No Ne			No Ne			Fair Drive			Del Mar Avenue		
Base Volume Input [veh/h]	160	880	180	0	0	0	590	450	0	0	670	240
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	160	880	180	0	0	0	590	450	0	0	670	240
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	40	220	45	0	0	0	148	113	0	0	168	60
Total Analysis Volume [veh/h]	160	880	180	0	0	0	590	450	0	0	670	240
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Version 2025 (SP 0-5)

Intersection Settings

Cycle Length [s]	230
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	2	0	0	0	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.09	0.20	0.11	0.00	0.00	0.00	0.17	0.13	0.00	0.00	0.20	0.14
Intersection LOS	A											
Intersection V/C	0.596											

Intersection Level Of Service Report**Intersection 26: Harbor Boulevard and New Access/Home Depot**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.516

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			New Access			Home Depot Driveway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			New Access			Home Depot Driveway		
Base Volume Input [veh/h]	0	1622	74	85	1749	0	0	0	0	85	0	95
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1622	74	85	1749	0	0	0	0	85	0	95
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	406	19	21	437	0	0	0	0	21	0	24
Total Analysis Volume [veh/h]	0	1622	74	85	1749	0	0	0	0	85	0	95
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.35	0.35	0.05	0.36	0.00	0.00	0.00	0.00	0.05	0.00	0.06
Intersection LOS	A											
Intersection V/C	0.516											

HCM Signalized Intersection Capacity Analysis

19: Newport Blvd & Harbor Blvd

03/03/2026

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	60	450	540	2920	2620	60
Future Volume (vph)	60	450	540	2920	2620	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	4.7	4.7	5.4	5.9	
Lane Util. Factor	1.00	0.76	0.97	0.86	0.91	
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	1.00	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1752	3575	3400	6346	5017	
Flt Permitted	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1752	3575	3400	6346	5017	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	62	464	557	3010	2701	62
RTOR Reduction (vph)	0	438	0	0	1	0
Lane Group Flow (vph)	62	26	557	3010	2762	0
Confl. Peds. (#/hr)						7
Confl. Bikes (#/hr)						2
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%
Turn Type	Prot	Perm	Prot	NA	NA	
Protected Phases	7		5	2	6	
Permitted Phases		7				
Actuated Green, G (s)	9.0	9.0	41.7	140.9	94.0	
Effective Green, g (s)	9.0	9.0	41.7	140.9	94.0	
Actuated g/C Ratio	0.06	0.06	0.26	0.88	0.59	
Clearance Time (s)	4.7	4.7	4.7	5.4	5.9	
Vehicle Extension (s)	2.0	2.0	2.0	4.5	4.5	
Lane Grp Cap (vph)	98	201	886	5588	2947	
v/s Ratio Prot	c0.04		c0.16	0.47	c0.55	
v/s Ratio Perm		0.01				
v/c Ratio	0.63	0.13	0.63	0.54	0.94	
Uniform Delay, d1	73.9	71.8	52.3	2.2	30.3	
Progression Factor	1.00	1.00	1.00	1.00	0.60	
Incremental Delay, d2	9.4	0.1	1.0	0.4	0.8	
Delay (s)	83.3	71.9	53.3	2.5	19.0	
Level of Service	F	E	D	A	B	
Approach Delay (s/veh)	73.2			10.5	19.0	
Approach LOS	E			B	B	
Intersection Summary						
HCM 2000 Control Delay (s/veh)			18.7		HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.86			
Actuated Cycle Length (s)			160.0		Sum of lost time (s)	20.0
Intersection Capacity Utilization			87.6%		ICU Level of Service	E
Analysis Period (min)			15			
c Critical Lane Group						

Fairview Development Center

Vistro File: C:\...\Fairview LOS 1%GR_04232026.vistro

Scenario 5 FYPP AM

Report File: C:\...\05_FYPPAM_1%_new.pdf

4/24/2026

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Brookhurst Street and Adams Avenue	Signalized	ICU 1	EB Thru	0.832	-	D
2	Placentia Avenue and Adams Avenue	Signalized	ICU 1	EB Thru	0.803	-	D
3	Placentia Avenue and Victoria Street	Signalized	ICU 1	EB Thru	0.817	-	D
4	Mesa Verde Drive East and Adams Avenue	Signalized	ICU 1	EB Thru	0.660	-	B
5	Royal Palm Drive and Adams Avenue	Signalized	ICU 1	EB Thru	0.592	-	A
6	Harbor Boulevard and South Coast Drive	Signalized	ICU 1	SB Thru	0.589	-	A
7	Harbor Boulevard and Interstate 405 (I-405) Westbound On/Off Ramps	Signalized	HCM 7th Edition	SB Thru	0.821	14.0	B
8	Harbor Boulevard and I-405 Eastbound On/Off Ramps	Signalized	HCM 7th Edition	EB Right	0.682	9.5	A
9	Harbor Boulevard and Gisler Avenue	Signalized	ICU 1	SB Thru	0.723	-	C
10	Harbor Boulevard and Nutmeg Place	Signalized	ICU 1	NB Thru	0.557	-	A
11	Harbor Boulevard and Baker Street	Signalized	ICU 1	NB Thru	0.638	-	B
12	Harbor Boulevard and Adams Avenue	Signalized	ICU 1	NB Thru	0.715	-	C
13	Harbor Boulevard and Merrimac Way	Signalized	ICU 1	NB Thru	0.620	-	B
14	Harbor Boulevard and Fair Drive	Signalized	ICU 1	SB Thru	0.756	-	C
15	Harbor Boulevard and Wilson Street	Signalized	ICU 1	SB Thru	0.507	-	A
16	Harbor Boulevard and Victoria Street	Signalized	ICU 1	EB Thru	0.755	-	C
17	Harbor Boulevard and Hamilton Street	Signalized	ICU 1	SB Thru	0.570	-	A

Version 2025 (SP 0-5)

18	Harbor Boulevard and West 19th Street	Signalized	ICU 1	EB Thru	0.606	-	B
19	Harbor Boulevard and Newport Boulevard	Signalized	ICU 1	WB Thru	0.840	-	D
20	Fairview Road and Fair Drive	Signalized	ICU 1	EB Thru	0.521	-	A
21	Southbound Newport Boulevard and Victoria Street	Signalized	ICU 1	EB Right	0.615	-	B
22	Northbound Newport Boulevard and Victoria Street	Signalized	ICU 1	EB Left	0.864	-	D
23	Vanguard Way and Fair Drive	Signalized	ICU 1	EB Right	0.506	-	A
24	Southbound Newport Boulevard and Fair Drive	Signalized	ICU 1	EB Thru	0.436	-	A
25	Northbound Newport Boulevard and Fair Drive/Del Mar Avenue	Signalized	ICU 1	EB Left	0.891	-	D
26	Harbor Boulevard and New Access/Home Depot	Signalized	ICU 1	SB Thru	0.654	-	B

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report

Intersection 1: Brookhurst Street and Adams Avenue

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.832

Intersection Setup

Name	Brookhurst St			Brookhurst St			Adams Ave			Adams Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	0	2	0	0	2	0	1	2	0	1
Entry Pocket Length [ft]	215.00	100.00	100.00	216.00	100.00	100.00	286.00	100.00	100.00	236.00	100.00	400.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Brookhurst St			Brookhurst St			Adams Ave			Adams Ave		
Base Volume Input [veh/h]	100	760	350	310	720	130	200	1935	110	320	683	240
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	100	760	350	310	720	130	200	1935	110	320	683	240
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	25	190	88	78	180	33	50	484	28	80	171	60
Total Analysis Volume [veh/h]	100	760	350	310	720	130	200	1935	110	320	683	240
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.22	0.22	0.09	0.17	0.17	0.06	0.38	0.06	0.09	0.13	0.14
Intersection LOS	D											
Intersection V/C	0.832											

Intersection Level Of Service Report
Intersection 2: Placentia Avenue and Adams Avenue

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.803

Intersection Setup

Name	Placentia Ave			Mesa Verde Dr W			Adams Ave			Adams Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	1	1	0	0
Entry Pocket Length [ft]	172.00	100.00	134.00	190.00	100.00	175.00	184.00	100.00	137.00	481.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Placentia Ave			Mesa Verde Dr W			Adams Ave			Adams Ave		
Base Volume Input [veh/h]	230	300	240	58	250	140	120	2285	240	160	843	114
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	230	300	240	58	250	140	120	2285	240	160	843	114
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	58	75	60	15	63	35	30	571	60	40	211	29
Total Analysis Volume [veh/h]	230	300	240	58	250	140	120	2285	240	160	843	114
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Version 2025 (SP 0-5)

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	7	4	0	3	8	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.07	0.18	0.14	0.03	0.07	0.08	0.07	0.45	0.14	0.09	0.19	0.19
Intersection LOS	D											
Intersection V/C	0.803											

Intersection Level Of Service Report

Intersection 3: Placentia Avenue and Victoria Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.817

Intersection Setup

Name	Placentia Avenue			Placentia Avenue			Victoria Street			Victoria Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	1	1	0	1	1	0	1	1	0	1
Entry Pocket Length [ft]	227.00	100.00	90.00	78.00	100.00	59.00	239.00	100.00	163.00	200.00	100.00	84.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Placentia Avenue			Placentia Avenue			Victoria Street			Victoria Street		
Base Volume Input [veh/h]	300	430	180	125	580	70	160	1288	580	220	711	164
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	300	430	180	125	580	70	160	1288	580	220	711	164
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	75	108	45	31	145	18	40	322	145	55	178	41
Total Analysis Volume [veh/h]	300	430	180	125	580	70	160	1288	580	220	711	164
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Version 2025 (SP 0-5)

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.09	0.13	0.11	0.07	0.17	0.04	0.09	0.38	0.00	0.13	0.21	0.10
Intersection LOS	D											
Intersection V/C	0.817											

Intersection Level Of Service Report**Intersection 4: Mesa Verde Drive East and Adams Avenue**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.660

Intersection Setup

Name	Mesa Verde Dr E			Mesa Verde Dr E			Adams Ave			Adams Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1	1	0	1	1	0	1
Entry Pocket Length [ft]	204.00	100.00	100.00	63.00	100.00	100.00	153.00	100.00	100.00	150.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Mesa Verde Dr E			Mesa Verde Dr E			Adams Ave			Adams Ave		
Base Volume Input [veh/h]	120	120	150	70	180	80	80	2273	280	60	927	80
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	120	120	150	70	180	80	80	2273	280	60	927	80
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	30	30	38	18	45	20	20	568	70	15	232	20
Total Analysis Volume [veh/h]	120	120	150	70	180	80	80	2273	280	60	927	80
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	2	0	3	6	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.07	0.07	0.09	0.04	0.05	0.05	0.05	0.45	0.16	0.04	0.18	0.05
Intersection LOS	B											
Intersection V/C	0.660											

Intersection Level Of Service Report
Intersection 5: Royal Palm Drive and Adams Avenue

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.592

Intersection Setup

Name	Royal Palm Dr			Driveway			Adams Ave			Adams Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	1	0	0	1	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	23.00	80.00	100.00	100.00	184.00	100.00	100.00	78.00	100.00	54.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Royal Palm Dr			Driveway			Adams Ave			Adams Ave		
Base Volume Input [veh/h]	40	10	10	40	10	40	40	2423	40	10	1007	30
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	40	10	10	40	10	40	40	2423	40	10	1007	30
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	3	3	10	3	10	10	606	10	3	252	8
Total Analysis Volume [veh/h]	40	10	10	40	10	40	40	2423	40	10	1007	30
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Version 2025 (SP 0-5)

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	7	4	0	3	8	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.01	0.01	0.02	0.03	0.03	0.02	0.48	0.48	0.01	0.20	0.02
Intersection LOS	A											
Intersection V/C	0.592											

Intersection Level Of Service Report
Intersection 6: Harbor Boulevard and South Coast Drive

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.589

Intersection Setup

Name	Harbor Blvd			Harbor Blvd			South Coast Dr			South Coast Dr		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	1	2	0	2	1	0	0	2	0	1
Entry Pocket Length [ft]	160.00	100.00	245.00	215.00	100.00	189.00	198.00	100.00	100.00	250.00	100.00	185.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Harbor Blvd			Harbor Blvd			South Coast Dr			South Coast Dr		
Base Volume Input [veh/h]	390	1677	320	80	2088	80	20	90	200	110	160	40
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	390	1677	320	80	2088	80	20	90	200	110	160	40
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	98	419	80	20	522	20	5	23	50	28	40	10
Total Analysis Volume [veh/h]	390	1677	320	80	2088	80	20	90	200	110	160	40
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Version 2025 (SP 0-5)

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.11	0.25	0.19	0.02	0.31	0.05	0.01	0.09	0.09	0.03	0.05	0.02
Intersection LOS	A											
Intersection V/C	0.589											

Intersection Level Of Service Report**Intersection 7: Harbor Boulevard and Interstate 405 (I-405) Westbound On/Off Ramps**

Control Type:	Signalized	Delay (sec / veh):	14.0
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.821

Intersection Setup

Name	Harbor Blvd		Harbor Blvd		I-405 WB Off Ramp	
Approach	Northbound		Southbound		Westbound	
Lane Configuration	↑↑↑↑		↑↑↑↑		↙↘↘	
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	0	1
Entry Pocket Length [ft]	100.00	200.00	100.00	100.00	100.00	425.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		45.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		Yes	

Volumes

Name	Harbor Blvd		Harbor Blvd		I-405 WB Off Ramp	
Base Volume Input [veh/h]	1597	0	0	2398	600	790
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00					
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1597	0	0	2398	600	790
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	399	0	0	600	150	198
Total Analysis Volume [veh/h]	1597	0	0	2398	600	790
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - Coordination Group
Cycle Length [s]	120
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing (Basic)

Control Type	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
Flashing Yellow Arrow						
Signal Group	2	0	0	6	4	0
Auxiliary Signal Groups						
Maximum Green [s]	30	0	0	30	30	0
Amber [s]	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	1.0	0.0	0.0	1.0	1.0	0.0
Walk [s]	5.0	0.0	0.0	5.0	5.0	0.0
Pedestrian Clearance [s]	10.0	0.0	0.0	10.0	10.0	0.0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	31.0	0.0	0.0	31.0	89.0	0.0
Lead / Lag	-	-	-	-	Lead	-
Minimum Green [s]	10	0	0	10	5	0
Vehicle Extension [s]	3.0	0.0	0.0	3.0	3.0	0.0
Minimum Recall	No			No	No	
Maximum Recall	No			No	No	
Pedestrian Recall	No			No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R
C, Calculated Cycle Length [s]	49	49	49	49	49
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	20.5	20.5	20.3	20.3	20.3
g / C, Green / Cycle	0.42	0.42	0.42	0.42	0.42
(v / s)_i Volume / Saturation Flow Rate	0.26	0.39	0.29	0.32	0.33
s, saturation flow rate [veh/h]	6077	6077	1593	1469	1422
c, Capacity [veh/h]	2561	2561	662	610	590
d1, Uniform Delay [s]	11.12	13.54	11.81	12.23	12.42
k, delay calibration	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.25	2.08	1.36	1.98	2.34
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.62	0.94	0.70	0.76	0.78
d, Delay for Lane Group [s/veh]	11.37	15.62	13.17	14.21	14.76
Lane Group LOS	B	B	B	B	B
Critical Lane Group	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.49	4.84	3.10	3.29	3.38
50th-Percentile Queue Length [ft/ln]	62.18	120.92	77.54	82.25	84.60
95th-Percentile Queue Length [veh/ln]	4.48	8.44	5.58	5.92	6.09
95th-Percentile Queue Length [ft/ln]	111.93	211.09	139.57	148.05	152.29

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	11.37	0.00	0.00	15.62	13.40	14.54
Movement LOS	B			B	B	B
d_A, Approach Delay [s/veh]	11.37		15.62		14.05	
Approach LOS	B		B		B	
d_I, Intersection Delay [s/veh]	13.95					
Intersection LOS	B					
Intersection V/C	0.821					

Emissions

Vehicle Miles Traveled [mph]	264.56	205.69	59.20	59.20	59.20
Stops [stops/h]	733.96	1427.25	228.80	242.71	249.65
Fuel consumption [US gal/h]	20.38	29.01	6.12	6.39	6.53
CO [g/h]	1424.65	2027.89	427.47	446.46	456.12
NOx [g/h]	277.18	394.55	83.17	86.87	88.74
VOC [g/h]	330.18	469.98	99.07	103.47	105.71

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	16.23
I_p,int, Pedestrian LOS Score for Intersectio	0.000	0.000	2.587
Crosswalk LOS	F	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1107	1107	3484
d_b, Bicycle Delay [s]	4.87	4.87	13.43
I_b,int, Bicycle LOS Score for Intersection	2.218	2.549	3.853
Bicycle LOS	B	B	D

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report**Intersection 8: Harbor Boulevard and I-405 Eastbound On/Off Ramps**

Control Type:	Signalized	Delay (sec / veh):	9.5
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.682

Intersection Setup

Name	Harbor Blvd		Harbor Blvd		Interstate 405 (I-405) EB Off Ramp	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	467.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		45.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		Yes	

Volumes

Name	Harbor Blvd		Harbor Blvd		Interstate 405 (I-405) EB Off Ramp	
Base Volume Input [veh/h]	0	1697	1938	948	350	574
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00					
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1697	1938	948	350	574
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	424	485	237	88	144
Total Analysis Volume [veh/h]	0	1697	1938	948	350	574
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - Coordination Group
Cycle Length [s]	120
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	7.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing (Basic)

Control Type	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
Flashing Yellow Arrow						
Signal Group	0	2	6	0	4	0
Auxiliary Signal Groups						
Maximum Green [s]	0	30	30	0	30	0
Amber [s]	0.0	3.0	3.0	0.0	3.0	0.0
All red [s]	0.0	1.0	1.0	0.0	1.0	0.0
Walk [s]	0.0	5.0	5.0	0.0	5.0	0.0
Pedestrian Clearance [s]	0.0	10.0	10.0	0.0	10.0	0.0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No	No		No	
I1, Start-Up Lost Time [s]	0.0	2.0	2.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	2.0	0.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	0.0	28.0	28.0	0.0	92.0	0.0
Lead / Lag	-	-	-	-	Lead	-
Minimum Green [s]	0	10	10	0	5	0
Vehicle Extension [s]	0.0	3.0	3.0	0.0	3.0	0.0
Minimum Recall		No	No		No	
Maximum Recall		No	No		No	
Pedestrian Recall		No	No		No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R
C, Calculated Cycle Length [s]	43	43	43	43	43
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	22.0	22.0	12.9	12.9	12.9
g / C, Green / Cycle	0.51	0.51	0.30	0.30	0.30
(v / s)_i Volume / Saturation Flow Rate	0.37	0.32	0.20	0.21	0.21
s, saturation flow rate [veh/h]	4558	6077	1593	1441	1422
c, Capacity [veh/h]	2339	3118	479	433	428
d1, Uniform Delay [s]	8.12	7.48	13.08	13.35	13.38
k, delay calibration	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.44	0.20	1.51	2.12	2.23
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.73	0.62	0.65	0.71	0.71
d, Delay for Lane Group [s/veh]	8.56	7.69	14.58	15.47	15.61
Lane Group LOS	A	A	B	B	B
Critical Lane Group	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.31	1.79	2.06	2.11	2.12
50th-Percentile Queue Length [ft/ln]	57.73	44.81	51.43	52.79	53.01
95th-Percentile Queue Length [veh/ln]	4.16	3.23	3.70	3.80	3.82
95th-Percentile Queue Length [ft/ln]	103.92	80.65	92.57	95.02	95.42

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	8.56	7.69	0.00	14.69	15.54
Movement LOS		A	A		B	B
d_A, Approach Delay [s/veh]	8.56		7.69		15.22	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	9.54					
Intersection LOS	A					
Intersection V/C	0.682					

Emissions

Vehicle Miles Traveled [mph]	33.97	321.05	53.80	52.69	52.54
Stops [stops/h]	581.61	601.83	172.69	177.26	178.01
Fuel consumption [US gal/h]	9.89	20.44	4.92	4.97	4.98
CO [g/h]	691.01	1429.02	343.84	347.68	348.39
NOx [g/h]	134.44	278.04	66.90	67.65	67.78
VOC [g/h]	160.15	331.19	79.69	80.58	80.74

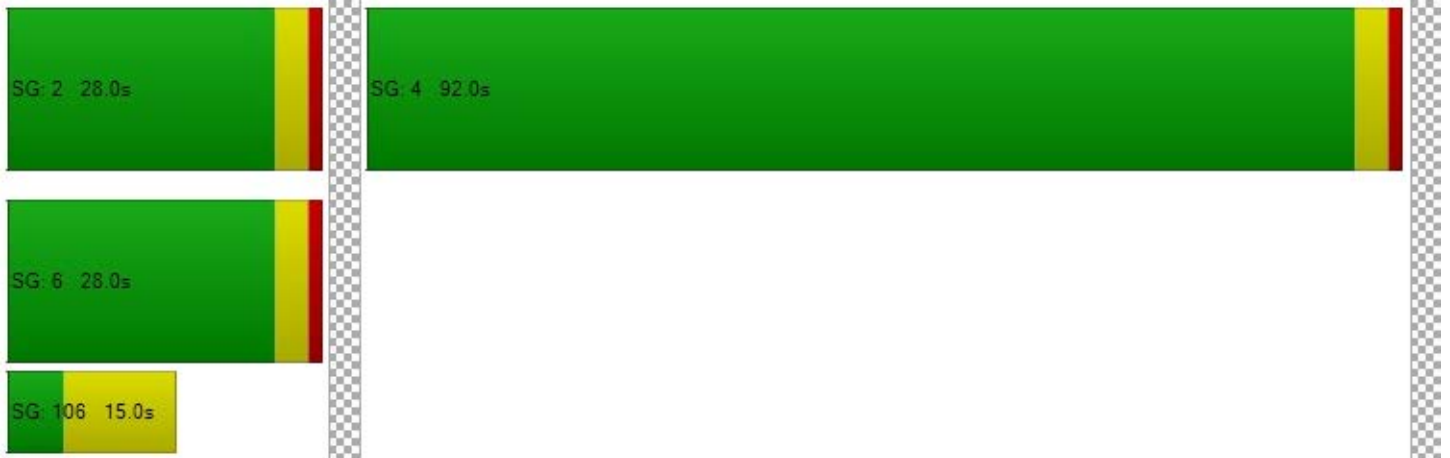
Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	13.39
I_p,int, Pedestrian LOS Score for Intersectio	0.000	0.000	2.352
Crosswalk LOS	F	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1119	1119	4104
d_b, Bicycle Delay [s]	4.16	4.16	23.73
I_b,int, Bicycle LOS Score for Intersection	2.493	2.359	3.084
Bicycle LOS	B	B	C

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Version 2025 (SP 0-5)



Intersection Level Of Service Report
Intersection 9: Harbor Boulevard and Gisler Avenue

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.723

Intersection Setup

Name	Harbor Boulevard			Harbor Blvd			Gisler Avenue			Gisler Avenue		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	1	1	0	1
Entry Pocket Length [ft]	158.00	100.00	70.00	173.00	100.00	100.00	435.00	100.00	113.00	172.00	100.00	123.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Blvd			Gisler Avenue			Gisler Avenue		
Base Volume Input [veh/h]	130	2538	40	110	2152	250	680	50	160	60	50	250
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	130	2538	40	110	2152	250	680	50	160	60	50	250
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	33	635	10	28	538	63	170	13	40	15	13	63
Total Analysis Volume [veh/h]	130	2538	40	110	2152	250	680	50	160	60	50	250
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Version 2025 (SP 0-5)

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.30	0.30	0.06	0.32	0.15	0.13	0.03	0.09	0.04	0.03	0.15
Intersection LOS	C											
Intersection V/C	0.723											

Intersection Level Of Service Report

Intersection 10: Harbor Boulevard and Nutmeg Place

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.557

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			Nutmeg Place			Nutmeg Place		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	2	0	0	0	0	1	0	0	1
Entry Pocket Length [ft]	120.00	100.00	203.00	178.00	100.00	100.00	100.00	100.00	52.00	100.00	100.00	79.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			25.00			10.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			Nutmeg Place			Nutmeg Place		
Base Volume Input [veh/h]	20	2488	160	140	1982	40	50	40	50	40	10	120
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	2488	160	140	1982	40	50	40	50	40	10	120
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	622	40	35	496	10	13	10	13	10	3	30
Total Analysis Volume [veh/h]	20	2488	160	140	1982	40	50	40	50	40	10	120
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Version 2025 (SP 0-5)

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	5	2	0	1	6	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.37	0.09	0.04	0.30	0.30	0.03	0.05	0.03	0.02	0.03	0.07
Intersection LOS	A											
Intersection V/C	0.557											

Intersection Level Of Service Report

Intersection 11: Harbor Boulevard and Baker Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.638

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			Baker Street			Baker Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	1	2	0	1	2	0	1	2	0	1
Entry Pocket Length [ft]	152.00	100.00	122.00	209.00	100.00	90.00	99.00	100.00	80.00	198.00	100.00	117.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			Baker Street			Baker Street		
Base Volume Input [veh/h]	60	2278	260	220	1662	40	300	40	70	220	260	170
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	60	2278	260	220	1662	40	300	40	70	220	260	170
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	570	65	55	416	10	75	10	18	55	65	43
Total Analysis Volume [veh/h]	60	2278	260	220	1662	40	300	40	70	220	260	170
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Version 2025 (SP 0-5)

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.34	0.15	0.06	0.24	0.02	0.09	0.01	0.04	0.06	0.08	0.10
Intersection LOS	B											
Intersection V/C	0.638											

Intersection Level Of Service Report
Intersection 12: Harbor Boulevard and Adams Avenue

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.715

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			Adams Ave			Adams Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	1	2	0	2	1	0	1	2	0	1
Entry Pocket Length [ft]	505.00	100.00	100.00	161.00	100.00	109.00	328.00	100.00	166.00	155.00	100.00	118.00
No. of Lanes in Exit Pocket	0	0	1	0	0	2	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	275.00	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			Adams Ave			Adams Ave		
Base Volume Input [veh/h]	287	1548	110	160	1222	340	850	1380	223	150	430	120
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	287	1548	110	160	1222	340	850	1380	223	150	430	120
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	72	387	28	40	306	85	213	345	56	38	108	30
Total Analysis Volume [veh/h]	287	1548	110	160	1222	340	850	1380	223	150	430	120
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.06	0.30	0.06	0.05	0.18	0.10	0.17	0.27	0.13	0.04	0.08	0.07
Intersection LOS	C											
Intersection V/C	0.715											

Intersection Level Of Service Report

Intersection 13: Harbor Boulevard and Merrimac Way

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.620

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			Merrimac Way			Merrimac Way		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	2	0	0	1	0	0	1	0	1
Entry Pocket Length [ft]	136.00	100.00	100.00	233.00	100.00	100.00	63.00	100.00	100.00	123.00	100.00	235.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	600.00
Speed [mph]	40.00			40.00			25.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			Merrimac Way			Merrimac Way		
Base Volume Input [veh/h]	20	1854	110	230	1623	50	80	20	70	60	20	120
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	1854	110	230	1623	50	80	20	70	60	20	120
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	464	28	58	406	13	20	5	18	15	5	30
Total Analysis Volume [veh/h]	20	1854	110	230	1623	50	80	20	70	60	20	120
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Version 2025 (SP 0-5)

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.39	0.39	0.07	0.33	0.33	0.05	0.05	0.05	0.04	0.01	0.07
Intersection LOS	B											
Intersection V/C	0.620											

Intersection Level Of Service Report

Intersection 14: Harbor Boulevard and Fair Drive

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.756

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			Fair Drive			Fair Drive		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	2	0	0	0	0	1	1	0	1
Entry Pocket Length [ft]	138.00	100.00	112.00	150.00	100.00	100.00	100.00	100.00	57.00	220.00	100.00	225.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			25.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			Fair Drive			Fair Drive		
Base Volume Input [veh/h]	53	1248	440	310	1241	212	427	230	117	270	107	250
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	53	1248	440	310	1241	212	427	230	117	270	107	250
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	312	110	78	310	53	107	58	29	68	27	63
Total Analysis Volume [veh/h]	53	1248	440	310	1241	212	427	230	117	270	107	250
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Version 2025 (SP 0-5)

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.24	0.26	0.09	0.28	0.28	0.25	0.14	0.07	0.08	0.11	0.11
Intersection LOS	C											
Intersection V/C	0.756											

Intersection Level Of Service Report

Intersection 15: Harbor Boulevard and Wilson Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.507

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			Wilson Street			Wilson Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	2	0	1	2	0	1
Entry Pocket Length [ft]	212.00	100.00	58.00	187.00	100.00	101.00	172.00	100.00	80.00	186.00	100.00	120.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			Wilson Street			Wilson Street		
Base Volume Input [veh/h]	70	892	140	80	998	220	390	510	170	240	270	100
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	70	892	140	80	998	220	390	510	170	240	270	100
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	223	35	20	250	55	98	128	43	60	68	25
Total Analysis Volume [veh/h]	70	892	140	80	998	220	390	510	170	240	270	100
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Version 2025 (SP 0-5)

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.17	0.08	0.05	0.20	0.13	0.11	0.15	0.10	0.07	0.08	0.06
Intersection LOS	A											
Intersection V/C	0.507											

Intersection Level Of Service Report
Intersection 16: Harbor Boulevard and Victoria Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.755

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			Victoria Street			Victoria Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	2	0	1	2	0	1
Entry Pocket Length [ft]	205.00	100.00	113.00	93.00	100.00	125.00	197.00	100.00	134.00	95.00	100.00	95.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	159.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			Victoria Street			Victoria Street		
Base Volume Input [veh/h]	80	691	130	181	1122	265	273	1320	80	170	860	108
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	80	691	130	181	1122	265	273	1320	80	170	860	108
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	20	173	33	45	281	66	68	330	20	43	215	27
Total Analysis Volume [veh/h]	80	691	130	181	1122	265	273	1320	80	170	860	108
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Version 2025 (SP 0-5)

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.14	0.08	0.11	0.22	0.16	0.08	0.39	0.05	0.05	0.25	0.06
Intersection LOS	C											
Intersection V/C	0.755											

Intersection Level Of Service Report

Intersection 17: Harbor Boulevard and Hamilton Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.570

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			Hamilton Street			Hamilton Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	0	0	1
Entry Pocket Length [ft]	137.00	100.00	100.00	101.00	100.00	100.00	155.00	100.00	100.00	100.00	100.00	20.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	2125.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			Hamilton Street			Hamilton Street		
Base Volume Input [veh/h]	40	671	20	20	1192	260	280	120	50	10	70	60
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	40	671	20	20	1192	260	280	120	50	10	70	60
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	168	5	5	298	65	70	30	13	3	18	15
Total Analysis Volume [veh/h]	40	671	20	20	1192	260	280	120	50	10	70	60
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Version 2025 (SP 0-5)

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	ProtPer	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.14	0.14	0.01	0.28	0.28	0.16	0.10	0.10	0.01	0.04	0.04
Intersection LOS	A											
Intersection V/C	0.570											

Intersection Level Of Service Report
Intersection 18: Harbor Boulevard and West 19th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.606

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			West 19th Street			West 19th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1	2	0	1	1	0	1
Entry Pocket Length [ft]	150.00	100.00	100.00	200.00	100.00	228.00	235.00	100.00	93.00	258.00	100.00	209.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			West 19th Street			West 19th Street		
Base Volume Input [veh/h]	40	301	20	190	632	320	220	1010	50	80	710	180
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	40	301	20	190	632	320	220	1010	50	80	710	180
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	75	5	48	158	80	55	253	13	20	178	45
Total Analysis Volume [veh/h]	40	301	20	190	632	320	220	1010	50	80	710	180
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Version 2025 (SP 0-5)

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.06	0.06	0.11	0.19	0.19	0.06	0.30	0.03	0.05	0.14	0.11
Intersection LOS	B											
Intersection V/C	0.606											

Intersection Level Of Service Report

Intersection 19: Harbor Boulevard and Newport Boulevard

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.840

Intersection Setup

Name	Harbor Boulevard		Newport Boulevard		Newport Boulevard	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	2	0	0	0
Entry Pocket Length [ft]	115.00	100.00	400.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		Yes	

Volumes

Name	Harbor Boulevard		Newport Boulevard		Newport Boulevard	
Base Volume Input [veh/h]	50	632	241	2960	2710	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	50	632	241	2960	2710	10
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	158	60	740	678	3
Total Analysis Volume [veh/h]	50	632	241	2960	2710	10
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Version 2025 (SP 0-5)

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
Signal Group	4	0	5	2	6	0
Auxiliary Signal Groups						
Lead / Lag	Lead	-	Lead	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.19	0.07	0.44	0.53	0.53
Intersection LOS	D					
Intersection V/C	0.840					

Intersection Level Of Service Report

Intersection 20: Fairview Road and Fair Drive

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.521

Intersection Setup

Name	Fairview Road			Fairview Road			Fair Drive			Fair Drive		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	2	0	1	1	0	1	1	0	1
Entry Pocket Length [ft]	198.00	100.00	153.00	214.00	100.00	82.00	200.00	100.00	107.00	172.00	100.00	300.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Fairview Road			Fairview Road			Fair Drive			Fair Drive		
Base Volume Input [veh/h]	40	480	150	270	520	170	160	930	60	40	362	350
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	40	480	150	270	520	170	160	930	60	40	362	350
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	120	38	68	130	43	40	233	15	10	91	88
Total Analysis Volume [veh/h]	40	480	150	270	520	170	160	930	60	40	362	350
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Version 2025 (SP 0-5)

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.09	0.09	0.08	0.10	0.10	0.09	0.27	0.04	0.02	0.14	0.14
Intersection LOS	A											
Intersection V/C	0.521											

Intersection Level Of Service Report**Intersection 21: Southbound Newport Boulevard and Victoria Street**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.615

Intersection Setup

Name	So Ne			So Ne			Victoria Street			Victoria Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration				↵↵↵↵			↵↵			↵↵		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	1	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	302.00	100.00	134.00	100.00	100.00	112.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	150.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			No		

Volumes

Name	So Ne			So Ne			Victoria Street			Victoria Street		
Base Volume Input [veh/h]	0	0	0	540	800	850	0	1801	20	50	208	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	540	800	850	0	1801	20	50	208	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	135	200	213	0	450	5	13	52	0
Total Analysis Volume [veh/h]	0	0	0	540	800	850	0	1801	20	50	208	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Version 2025 (SP 0-5)

Intersection Settings

Cycle Length [s]	160
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Unsigna	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	0	0	2	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.16	0.20	0.00	0.00	0.36	0.36	0.03	0.12	0.00
Intersection LOS	B											
Intersection V/C	0.615											

Intersection Level Of Service Report**Intersection 22: Northbound Newport Boulevard and Victoria Street**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.864

Intersection Setup

Name	No Ne			No Ne			Victoria Street			Victoria Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	68.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	61.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	75.00
Speed [mph]	40.00			40.00			40.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			Yes		

Volumes

Name	No Ne			No Ne			Victoria Street			Victoria Street		
Base Volume Input [veh/h]	90	950	30	0	0	0	1710	631	0	0	168	230
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	90	950	30	0	0	0	1710	631	0	0	168	230
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	23	238	8	0	0	0	428	158	0	0	42	58
Total Analysis Volume [veh/h]	90	950	30	0	0	0	1710	631	0	0	168	230
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	230
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	2	0	0	0	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.20	0.02	0.00	0.00	0.00	0.50	0.19	0.00	0.00	0.10	0.14
Intersection LOS	D											
Intersection V/C	0.864											

Intersection Level Of Service Report

Intersection 23: Vanguard Way and Fair Drive

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.506

Intersection Setup

Name	Vanguard Way			Vanguard Way			Fair Drive			Fair Drive		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	0	0	0	1	0	0	1	0	1
Entry Pocket Length [ft]	150.00	100.00	61.00	100.00	100.00	100.00	200.00	100.00	100.00	150.00	100.00	225.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	150.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			10.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Vanguard Way			Vanguard Way			Fair Drive			Fair Drive		
Base Volume Input [veh/h]	100	0	100	0	0	0	10	1240	50	30	702	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	100	0	100	0	0	0	10	1240	50	30	702	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	25	0	25	0	0	0	3	310	13	8	176	0
Total Analysis Volume [veh/h]	100	0	100	0	0	0	10	1240	50	30	702	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Version 2025 (SP 0-5)

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	4	0	0	8	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.06	0.00	0.06	0.00	0.00	0.00	0.01	0.38	0.38	0.02	0.21	0.00
Intersection LOS	A											
Intersection V/C	0.506											

Intersection Level Of Service Report**Intersection 24: Southbound Newport Boulevard and Fair Drive**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.436

Intersection Setup

Name	So Ne			So Ne			Fair Drive			Fair Drive		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1	0	0	2	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	300.00	100.00	100.00	200.00	150.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			No		

Volumes

Name	So Ne			So Ne			Fair Drive			Fair Drive		
Base Volume Input [veh/h]	0	0	0	270	610	741	0	1370	50	80	281	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	270	610	741	0	1370	50	80	281	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	68	153	185	0	343	13	20	70	0
Total Analysis Volume [veh/h]	0	0	0	270	610	741	0	1370	50	80	281	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Version 2025 (SP 0-5)

Intersection Settings

Cycle Length [s]	240
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Unsigna	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	0	0	2	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.16	0.12	0.00	0.00	0.21	0.21	0.05	0.08	0.00
Intersection LOS	A											
Intersection V/C	0.436											

Intersection Level Of Service Report**Intersection 25: Northbound Newport Boulevard and Fair Drive/Del Mar Avenue**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.891

Intersection Setup

Name	No Ne			No Ne			Fair Drive			Del Mar Avenue		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	105.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	225.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	256.00
Speed [mph]	40.00			40.00			40.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			Yes		

Volumes

Name	No Ne			No Ne			Fair Drive			Del Mar Avenue		
Base Volume Input [veh/h]	110	1330	430	0	0	0	1158	482	0	0	251	420
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	110	1330	430	0	0	0	1158	482	0	0	251	420
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	28	333	108	0	0	0	290	121	0	0	63	105
Total Analysis Volume [veh/h]	110	1330	430	0	0	0	1158	482	0	0	251	420
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	240
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	2	0	0	0	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.06	0.28	0.25	0.00	0.00	0.00	0.34	0.14	0.00	0.00	0.07	0.25
Intersection LOS	D											
Intersection V/C	0.891											

Intersection Level Of Service Report**Intersection 26: Harbor Boulevard and New Access/Home Depot**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.654

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			New Access			Home Depot Driveway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			New Access			Home Depot Driveway		
Base Volume Input [veh/h]	17	1265	64	64	1455	131	378	0	51	42	0	42
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	17	1265	64	64	1455	131	378	0	51	42	0	42
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	316	16	16	364	33	95	0	13	11	0	11
Total Analysis Volume [veh/h]	17	1265	64	64	1455	131	378	0	51	42	0	42
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Version 2025 (SP 0-5)

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.28	0.28	0.04	0.33	0.33	0.24	0.00	0.03	0.03	0.00	0.03
Intersection LOS	B											
Intersection V/C	0.654											

HCM Signalized Intersection Capacity Analysis

19: Newport Blvd & Harbor Blvd

04/24/2026

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	50	632	241	2960	2710	10
Future Volume (vph)	50	632	241	2960	2710	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	4.7	4.7	5.4	5.5	
Lane Util. Factor	1.00	0.76	0.97	0.86	0.91	
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	1.00	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1752	3575	3400	6346	5033	
Flt Permitted	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1752	3575	3400	6346	5033	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	52	652	248	3052	2794	10
RTOR Reduction (vph)	0	615	0	0	0	0
Lane Group Flow (vph)	52	37	248	3052	2804	0
Confl. Peds. (#/hr)						2
Confl. Bikes (#/hr)						3
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%
Turn Type	Prot	Perm	Prot	NA	NA	
Protected Phases	7		5	2	6	
Permitted Phases		7				
Actuated Green, G (s)	9.0	9.0	19.9	140.9	116.2	
Effective Green, g (s)	9.0	9.0	19.9	140.9	116.2	
Actuated g/C Ratio	0.06	0.06	0.12	0.88	0.73	
Clearance Time (s)	4.7	4.7	4.7	5.4	5.5	
Vehicle Extension (s)	2.0	2.0	2.0	4.5	4.5	
Lane Grp Cap (vph)	98	201	422	5588	3655	
v/s Ratio Prot	c0.03		0.07	c0.48	c0.56	
v/s Ratio Perm		0.01				
v/c Ratio	0.53	0.18	0.59	0.55	0.77	
Uniform Delay, d1	73.4	72.0	66.2	2.2	13.5	
Progression Factor	1.00	1.00	1.00	1.00	1.12	
Incremental Delay, d2	2.7	0.2	1.4	0.4	0.6	
Delay (s)	76.2	72.2	67.5	2.6	15.9	
Level of Service	E	E	E	A	B	
Approach Delay (s/veh)	72.5			7.5	15.9	
Approach LOS	E			A	B	
Intersection Summary						
HCM 2000 Control Delay (s/veh)			17.6		HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.75			
Actuated Cycle Length (s)			160.0		Sum of lost time (s)	19.6
Intersection Capacity Utilization			79.4%		ICU Level of Service	D
Analysis Period (min)			15			
c Critical Lane Group						

Fairview Development Center

Vistro File: C:\...\Fairview LOS 1%GR_04232026.vistro

Scenario 6 FYPP PM

Report File: C:\...\06_FYPPPM_1%_new.pdf

4/24/2026

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Brookhurst Street and Adams Avenue	Signalized	ICU 1	WB Thru	0.865	-	D
2	Placentia Avenue and Adams Avenue	Signalized	ICU 1	WB Thru	0.899	-	D
3	Placentia Avenue and Victoria Street	Signalized	ICU 1	WB Thru	0.948	-	E
4	Mesa Verde Drive East and Adams Avenue	Signalized	ICU 1	WB Thru	0.745	-	C
5	Royal Palm Drive and Adams Avenue	Signalized	ICU 1	WB Thru	0.614	-	B
6	Harbor Boulevard and South Coast Drive	Signalized	ICU 1	NB Thru	0.758	-	C
7	Harbor Boulevard and Interstate 405 (I-405) Westbound On/Off Ramps	Signalized	HCM 7th Edition	WB Right	0.980	32.6	C
8	Harbor Boulevard and I-405 Eastbound On/Off Ramps	Signalized	HCM 7th Edition	EB Right	0.868	19.8	B
9	Harbor Boulevard and Gisler Avenue	Signalized	ICU 1	SB Thru	0.818	-	D
10	Harbor Boulevard and Nutmeg Place	Signalized	ICU 1	SB Thru	0.663	-	B
11	Harbor Boulevard and Baker Street	Signalized	ICU 1	SB Thru	0.735	-	C
12	Harbor Boulevard and Adams Avenue	Signalized	ICU 1	NB Thru	0.734	-	C
13	Harbor Boulevard and Merrimac Way	Signalized	ICU 1	NB Thru	0.796	-	C
14	Harbor Boulevard and Fair Drive	Signalized	ICU 1	SB Thru	0.967	-	E
15	Harbor Boulevard and Wilson Street	Signalized	ICU 1	SB Right	0.750	-	C
16	Harbor Boulevard and Victoria Street	Signalized	ICU 1	WB Thru	0.792	-	C
17	Harbor Boulevard and Hamilton Street	Signalized	ICU 1	NB Right	0.601	-	B

Version 2025 (SP 0-5)

18	Harbor Boulevard and West 19th Street	Signalized	ICU 1	EB Thru	0.735	-	C
19	Harbor Boulevard and Newport Boulevard	Signalized	ICU 1	WB Thru	0.882	-	D
20	Fairview Road and Fair Drive	Signalized	ICU 1	WB Thru	0.682	-	B
21	Southbound Newport Boulevard and Victoria Street	Signalized	ICU 1	SB Thru	0.643	-	B
22	Northbound Newport Boulevard and Victoria Street	Signalized	ICU 1	EB Left	0.598	-	A
23	Vanguard Way and Fair Drive	Signalized	ICU 1	WB Thru	0.701	-	C
24	Southbound Newport Boulevard and Fair Drive	Signalized	ICU 1	SB Thru	0.652	-	B
25	Northbound Newport Boulevard and Fair Drive/Del Mar Avenue	Signalized	ICU 1	EB Left	0.655	-	B
26	Harbor Boulevard and New Access/Home Depot	Signalized	ICU 1	SB Thru	0.739	-	C

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report

Intersection 1: Brookhurst Street and Adams Avenue

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.865

Intersection Setup

Name	Brookhurst St			Brookhurst St			Adams Ave			Adams Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	0	2	0	0	2	0	1	2	0	1
Entry Pocket Length [ft]	215.00	100.00	100.00	216.00	100.00	100.00	286.00	100.00	100.00	236.00	100.00	400.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Brookhurst St			Brookhurst St			Adams Ave			Adams Ave		
Base Volume Input [veh/h]	220	1380	230	310	980	140	250	892	110	320	1707	540
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	220	1380	230	310	980	140	250	892	110	320	1707	540
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	55	345	58	78	245	35	63	223	28	80	427	135
Total Analysis Volume [veh/h]	220	1380	230	310	980	140	250	892	110	320	1707	540
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.06	0.32	0.32	0.09	0.22	0.22	0.07	0.17	0.06	0.09	0.33	0.32
Intersection LOS	D											
Intersection V/C	0.865											

Intersection Level Of Service Report

Intersection 2: Placentia Avenue and Adams Avenue

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.899

Intersection Setup

Name	Placentia Ave			Mesa Verde Dr W			Adams Ave			Adams Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	1	1	0	0
Entry Pocket Length [ft]	172.00	100.00	134.00	190.00	100.00	175.00	184.00	100.00	137.00	481.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Placentia Ave			Mesa Verde Dr W			Adams Ave			Adams Ave		
Base Volume Input [veh/h]	350	230	260	109	170	280	120	1112	260	200	2497	110
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	350	230	260	109	170	280	120	1112	260	200	2497	110
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	88	58	65	27	43	70	30	278	65	50	624	28
Total Analysis Volume [veh/h]	350	230	260	109	170	280	120	1112	260	200	2497	110
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	7	4	0	3	8	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.10	0.14	0.15	0.06	0.05	0.16	0.07	0.22	0.15	0.12	0.51	0.51
Intersection LOS	D											
Intersection V/C	0.899											

Intersection Level Of Service Report

Intersection 3: Placentia Avenue and Victoria Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.948

Intersection Setup

Name	Placentia Avenue			Placentia Avenue			Victoria Street			Victoria Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	1	1	0	1	1	0	1	1	0	1
Entry Pocket Length [ft]	227.00	100.00	90.00	78.00	100.00	59.00	239.00	100.00	163.00	200.00	100.00	84.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Placentia Avenue			Placentia Avenue			Victoria Street			Victoria Street		
Base Volume Input [veh/h]	710	850	240	149	530	280	100	761	380	140	1583	143
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	710	850	240	149	530	280	100	761	380	140	1583	143
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	178	213	60	37	133	70	25	190	95	35	396	36
Total Analysis Volume [veh/h]	710	850	240	149	530	280	100	761	380	140	1583	143
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.21	0.25	0.14	0.09	0.16	0.16	0.06	0.22	0.00	0.08	0.47	0.08
Intersection LOS	E											
Intersection V/C	0.948											

Intersection Level Of Service Report**Intersection 4: Mesa Verde Drive East and Adams Avenue**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.745

Intersection Setup

Name	Mesa Verde Dr E			Mesa Verde Dr E			Adams Ave			Adams Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1	1	0	1	1	0	1
Entry Pocket Length [ft]	204.00	100.00	100.00	63.00	100.00	100.00	153.00	100.00	100.00	150.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Mesa Verde Dr E			Mesa Verde Dr E			Adams Ave			Adams Ave		
Base Volume Input [veh/h]	370	70	180	60	80	140	50	1131	180	80	2417	60
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	370	70	180	60	80	140	50	1131	180	80	2417	60
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	93	18	45	15	20	35	13	283	45	20	604	15
Total Analysis Volume [veh/h]	370	70	180	60	80	140	50	1131	180	80	2417	60
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Version 2025 (SP 0-5)

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Overlap	Permiss	Permiss	Permiss
Signal Group	0	4	0	3	8	0	0	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.11	0.13	0.11	0.04	0.02	0.08	0.03	0.22	0.00	0.05	0.47	0.04
Intersection LOS	C											
Intersection V/C	0.745											

Intersection Level Of Service Report
Intersection 5: Royal Palm Drive and Adams Avenue

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.614

Intersection Setup

Name	Royal Palm Dr			Driveway			Adams Ave			Adams Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	1	0	0	1	0	0	1	0	1
Entry Pocket Length [ft]	100.00	100.00	23.00	80.00	100.00	100.00	184.00	100.00	100.00	78.00	100.00	54.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Royal Palm Dr			Driveway			Adams Ave			Adams Ave		
Base Volume Input [veh/h]	110	50	50	80	40	70	50	1061	80	50	2067	90
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	110	50	50	80	40	70	50	1061	80	50	2067	90
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	28	13	13	20	10	18	13	265	20	13	517	23
Total Analysis Volume [veh/h]	110	50	50	80	40	70	50	1061	80	50	2067	90
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	7	4	0	3	8	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.06	0.06	0.06	0.05	0.06	0.06	0.03	0.22	0.22	0.03	0.41	0.05
Intersection LOS	B											
Intersection V/C	0.614											

Intersection Level Of Service Report
Intersection 6: Harbor Boulevard and South Coast Drive

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.758

Intersection Setup

Name	Harbor Blvd			Harbor Blvd			South Coast Dr			South Coast Dr		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	1	2	0	2	1	0	0	2	0	1
Entry Pocket Length [ft]	160.00	100.00	245.00	215.00	100.00	189.00	198.00	100.00	100.00	250.00	100.00	185.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	Harbor Blvd			Harbor Blvd			South Coast Dr			South Coast Dr		
Base Volume Input [veh/h]	570	1957	250	70	1796	80	40	50	410	310	860	200
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	570	1957	250	70	1796	80	40	50	410	310	860	200
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	143	489	63	18	449	20	10	13	103	78	215	50
Total Analysis Volume [veh/h]	570	1957	250	70	1796	80	40	50	410	310	860	200
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.17	0.29	0.15	0.02	0.26	0.05	0.02	0.14	0.14	0.09	0.25	0.12
Intersection LOS	C											
Intersection V/C	0.758											

Intersection Level Of Service Report**Intersection 7: Harbor Boulevard and Interstate 405 (I-405) Westbound On/Off Ramps**

Control Type:	Signalized	Delay (sec / veh):	32.6
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.980

Intersection Setup

Name	Harbor Blvd		Harbor Blvd		I-405 WB Off Ramp	
Approach	Northbound		Southbound		Westbound	
Lane Configuration	↑↑↑↑		↑↑↑↑		↵↵↵	
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	0	1
Entry Pocket Length [ft]	100.00	200.00	100.00	100.00	100.00	425.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		45.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		Yes	

Volumes

Name	Harbor Blvd		Harbor Blvd		I-405 WB Off Ramp	
Base Volume Input [veh/h]	1637	0	0	2516	944	1140
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00					
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1637	0	0	2516	944	1140
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	409	0	0	629	236	285
Total Analysis Volume [veh/h]	1637	0	0	2516	944	1140
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - Coordination Group
Cycle Length [s]	120
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing (Basic)

Control Type	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
Flashing Yellow Arrow						
Signal Group	2	0	0	6	4	0
Auxiliary Signal Groups						
Maximum Green [s]	30	0	0	30	30	0
Amber [s]	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	1.0	0.0	0.0	1.0	1.0	0.0
Walk [s]	5.0	0.0	0.0	5.0	5.0	0.0
Pedestrian Clearance [s]	10.0	0.0	0.0	10.0	10.0	0.0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	81.0	0.0	0.0	81.0	39.0	0.0
Lead / Lag	-	-	-	-	Lead	-
Minimum Green [s]	10	0	0	10	5	0
Vehicle Extension [s]	3.0	0.0	0.0	3.0	3.0	0.0
Minimum Recall	No			No	No	
Maximum Recall	No			No	No	
Pedestrian Recall	No			No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R
C, Calculated Cycle Length [s]	75	75	75	75	75
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	32.5	32.5	35.0	35.0	35.0
g / C, Green / Cycle	0.43	0.43	0.46	0.46	0.46
(v / s)_i Volume / Saturation Flow Rate	0.27	0.41	0.44	0.47	0.49
s, saturation flow rate [veh/h]	6077	6077	1593	1479	1422
c, Capacity [veh/h]	2618	2618	738	685	659
d1, Uniform Delay [s]	16.75	20.88	19.30	20.28	20.28
k, delay calibration	0.11	0.11	0.41	0.47	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.25	3.10	18.85	36.73	50.22
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.63	0.96	0.94	1.01	1.05
d, Delay for Lane Group [s/veh]	16.99	23.98	38.15	57.01	70.50
Lane Group LOS	B	C	D	F	F
Critical Lane Group	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	4.87	9.80	13.32	16.79	18.61
50th-Percentile Queue Length [ft/ln]	121.65	245.07	332.99	419.77	465.30
95th-Percentile Queue Length [veh/ln]	8.48	14.94	19.30	23.75	26.69
95th-Percentile Queue Length [ft/ln]	212.09	373.43	482.62	593.75	667.35

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	16.99	0.00	0.00	23.98	43.13	65.23
Movement LOS	B			C	D	E
d_A, Approach Delay [s/veh]	16.99		23.98		55.22	
Approach LOS	B		C		E	
d_I, Intersection Delay [s/veh]	32.59					
Intersection LOS	C					
Intersection V/C	0.980					

Emissions

Vehicle Miles Traveled [mph]	271.18	215.82	88.76	88.76	88.76
Stops [stops/h]	928.45	1870.38	635.36	800.93	887.81
Fuel consumption [US gal/h]	24.50	38.38	16.34	21.06	24.05
CO [g/h]	1712.31	2683.05	1141.82	1472.03	1680.84
NOx [g/h]	333.15	522.02	222.16	286.40	327.03
VOC [g/h]	396.84	621.82	264.63	341.16	389.55

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	29.27
I_p,int, Pedestrian LOS Score for Intersectio	0.000	0.000	2.949
Crosswalk LOS	F	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	2041	2041	928
d_b, Bicycle Delay [s]	0.02	0.02	10.85
I_b,int, Bicycle LOS Score for Intersection	2.235	2.597	4.998
Bicycle LOS	B	B	E

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report**Intersection 8: Harbor Boulevard and I-405 Eastbound On/Off Ramps**

Control Type:	Signalized	Delay (sec / veh):	19.8
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.868

Intersection Setup

Name	Harbor Blvd		Harbor Blvd		Interstate 405 (I-405) EB Off Ramp	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	467.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		45.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		Yes	

Volumes

Name	Harbor Blvd		Harbor Blvd		Interstate 405 (I-405) EB Off Ramp	
Base Volume Input [veh/h]	0	2097	2540	948	280	975
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00					
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	2097	2540	948	280	975
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	524	635	237	70	244
Total Analysis Volume [veh/h]	0	2097	2540	948	280	975
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Version 2025 (SP 0-5)

Intersection Settings

Located in CBD	No
Signal Coordination Group	1 - Coordination Group
Cycle Length [s]	120
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	7.0
Offset Reference	Beginning of First Yellow
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing (Basic)

Control Type	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
Flashing Yellow Arrow						
Signal Group	0	2	6	0	4	0
Auxiliary Signal Groups						
Maximum Green [s]	0	30	30	0	30	0
Amber [s]	0.0	3.0	3.0	0.0	3.0	0.0
All red [s]	0.0	1.0	1.0	0.0	1.0	0.0
Walk [s]	0.0	5.0	5.0	0.0	5.0	0.0
Pedestrian Clearance [s]	0.0	10.0	10.0	0.0	10.0	0.0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No	No		No	
I1, Start-Up Lost Time [s]	0.0	2.0	2.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	2.0	0.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	0.0	45.0	45.0	0.0	75.0	0.0
Lead / Lag	-	-	-	-	Lead	-
Minimum Green [s]	0	10	10	0	5	0
Vehicle Extension [s]	0.0	3.0	3.0	0.0	3.0	0.0
Minimum Recall		No	No		No	
Maximum Recall		No	No		No	
Pedestrian Recall		No	No		No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	L	C	R
C, Calculated Cycle Length [s]	80	80	80	80	80
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	40.9	40.9	31.6	31.6	31.6
g / C, Green / Cycle	0.51	0.51	0.39	0.39	0.39
(v / s)_i Volume / Saturation Flow Rate	0.46	0.42	0.18	0.34	0.34
s, saturation flow rate [veh/h]	4558	6077	1593	1422	1422
c, Capacity [veh/h]	2314	3085	626	559	559
d1, Uniform Delay [s]	18.08	16.77	18.00	22.58	22.58
k, delay calibration	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.57	0.58	0.50	4.41	4.41
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.91	0.82	0.45	0.87	0.87
d, Delay for Lane Group [s/veh]	19.64	17.35	18.51	27.00	27.00
Lane Group LOS	B	B	B	C	C
Critical Lane Group	Yes	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	10.24	8.47	3.49	8.11	8.11
50th-Percentile Queue Length [ft/ln]	256.09	211.85	87.22	202.84	202.84
95th-Percentile Queue Length [veh/ln]	15.49	13.25	6.28	12.78	12.78
95th-Percentile Queue Length [ft/ln]	387.31	331.21	157.00	319.62	319.62

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	19.64	17.35	0.00	18.51	27.00
Movement LOS		B	B		B	C
d_A, Approach Delay [s/veh]	19.64		17.35		25.10	
Approach LOS	B		B		C	
d_I, Intersection Delay [s/veh]	19.82					
Intersection LOS	B					
Intersection V/C	0.868					

Emissions

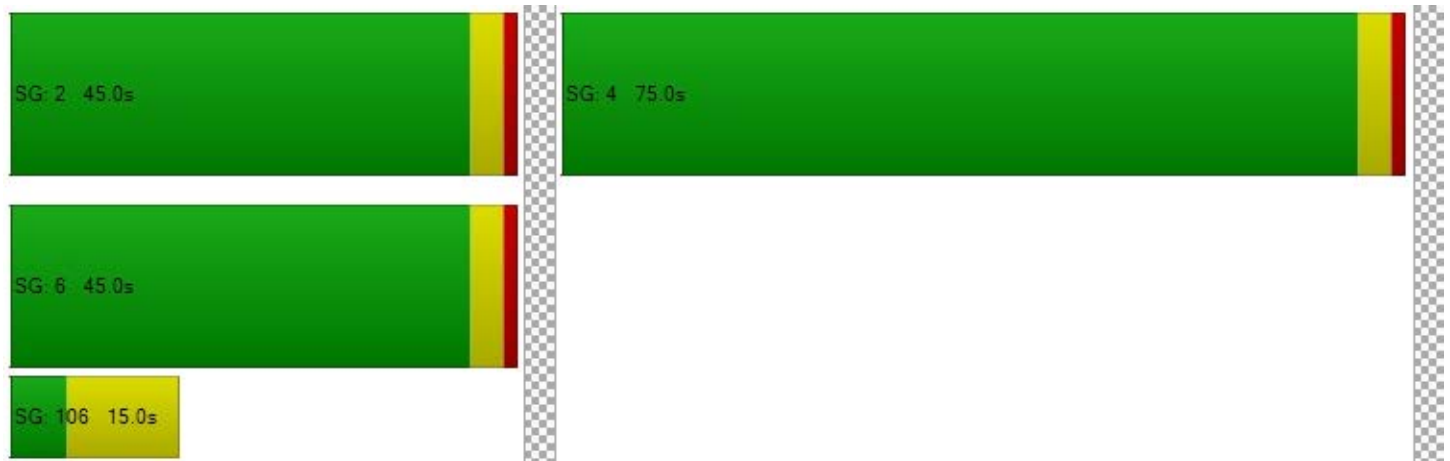
Vehicle Miles Traveled [mph]	41.98	420.78	48.19	83.91	83.91
Stops [stops/h]	1375.13	1516.81	156.12	363.06	363.06
Fuel consumption [US gal/h]	23.40	38.94	4.65	10.07	10.07
CO [g/h]	1635.38	2722.11	324.86	703.78	703.78
NOx [g/h]	318.19	529.62	63.21	136.93	136.93
VOC [g/h]	379.01	630.88	75.29	163.11	163.11

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	31.73
I_p,int, Pedestrian LOS Score for Intersectio	0.000	0.000	2.548
Crosswalk LOS	F	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1019	1019	1765
d_b, Bicycle Delay [s]	9.67	9.67	0.56
I_b,int, Bicycle LOS Score for Intersection	2.713	2.607	3.630
Bicycle LOS	B	B	D

Sequence

Ring 1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 9: Harbor Boulevard and Gisler Avenue

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.818

Intersection Setup

Name	Harbor Boulevard			Harbor Blvd			Gisler Avenue			Gisler Avenue		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↰↱↱↱↱			↰↱↱↱↱			↰↱↱↱↱			↰↱		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	1	1	0	1
Entry Pocket Length [ft]	158.00	100.00	70.00	173.00	100.00	100.00	435.00	100.00	113.00	172.00	100.00	123.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Blvd			Gisler Avenue			Gisler Avenue		
Base Volume Input [veh/h]	250	2506	20	150	2795	480	440	50	180	50	100	210
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	250	2506	20	150	2795	480	440	50	180	50	100	210
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	63	627	5	38	699	120	110	13	45	13	25	53
Total Analysis Volume [veh/h]	250	2506	20	150	2795	480	440	50	180	50	100	210
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Version 2025 (SP 0-5)

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.15	0.30	0.30	0.09	0.41	0.28	0.09	0.03	0.11	0.03	0.06	0.12
Intersection LOS	D											
Intersection V/C	0.818											

Intersection Level Of Service Report
Intersection 10: Harbor Boulevard and Nutmeg Place

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.663

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			Nutmeg Place			Nutmeg Place		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	2	0	0	0	0	1	0	0	1
Entry Pocket Length [ft]	120.00	100.00	203.00	178.00	100.00	100.00	100.00	100.00	52.00	100.00	100.00	79.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			25.00			10.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			Nutmeg Place			Nutmeg Place		
Base Volume Input [veh/h]	60	2246	230	200	2685	40	80	40	80	180	40	150
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	60	2246	230	200	2685	40	80	40	80	180	40	150
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	562	58	50	671	10	20	10	20	45	10	38
Total Analysis Volume [veh/h]	60	2246	230	200	2685	40	80	40	80	180	40	150
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Version 2025 (SP 0-5)

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	5	2	0	1	6	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.33	0.14	0.06	0.40	0.40	0.05	0.07	0.05	0.11	0.13	0.09
Intersection LOS	B											
Intersection V/C	0.663											

Intersection Level Of Service Report

Intersection 11: Harbor Boulevard and Baker Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.735

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			Baker Street			Baker Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	1	2	0	1	2	0	1	2	0	1
Entry Pocket Length [ft]	152.00	100.00	122.00	209.00	100.00	90.00	99.00	100.00	80.00	198.00	100.00	117.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			Baker Street			Baker Street		
Base Volume Input [veh/h]	70	1966	240	230	2495	40	240	50	110	500	770	360
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	70	1966	240	230	2495	40	240	50	110	500	770	360
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	492	60	58	624	10	60	13	28	125	193	90
Total Analysis Volume [veh/h]	70	1966	240	230	2495	40	240	50	110	500	770	360
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Version 2025 (SP 0-5)

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.29	0.14	0.07	0.37	0.02	0.07	0.01	0.06	0.15	0.23	0.21
Intersection LOS	C											
Intersection V/C	0.735											

Intersection Level Of Service Report
Intersection 12: Harbor Boulevard and Adams Avenue

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.734

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			Adams Ave			Adams Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	1	2	0	2	1	0	1	2	0	1
Entry Pocket Length [ft]	505.00	100.00	100.00	161.00	100.00	109.00	328.00	100.00	166.00	155.00	100.00	118.00
No. of Lanes in Exit Pocket	0	0	1	0	0	2	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	275.00	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			Adams Ave			Adams Ave		
Base Volume Input [veh/h]	487	1756	150	160	1985	700	360	620	231	240	1130	220
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	487	1756	150	160	1985	700	360	620	231	240	1130	220
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	122	439	38	40	496	175	90	155	58	60	283	55
Total Analysis Volume [veh/h]	487	1756	150	160	1985	700	360	620	231	240	1130	220
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Version 2025 (SP 0-5)

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.10	0.34	0.09	0.05	0.29	0.21	0.07	0.12	0.14	0.07	0.22	0.13
Intersection LOS	C											
Intersection V/C	0.734											

Intersection Level Of Service Report

Intersection 13: Harbor Boulevard and Merrimac Way

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.796

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			Merrimac Way			Merrimac Way		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	2	0	0	1	0	0	1	0	1
Entry Pocket Length [ft]	136.00	100.00	100.00	233.00	100.00	100.00	63.00	100.00	100.00	123.00	100.00	235.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	600.00
Speed [mph]	40.00			40.00			25.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			Merrimac Way			Merrimac Way		
Base Volume Input [veh/h]	70	2551	70	150	2246	70	60	10	60	100	50	260
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	70	2551	70	150	2246	70	60	10	60	100	50	260
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	638	18	38	562	18	15	3	15	25	13	65
Total Analysis Volume [veh/h]	70	2551	70	150	2246	70	60	10	60	100	50	260
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Version 2025 (SP 0-5)

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.51	0.51	0.04	0.45	0.45	0.04	0.04	0.04	0.06	0.03	0.15
Intersection LOS	C											
Intersection V/C	0.796											

Intersection Level Of Service Report

Intersection 14: Harbor Boulevard and Fair Drive

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.967

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			Fair Drive			Fair Drive		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	2	0	0	0	0	1	1	0	1
Entry Pocket Length [ft]	138.00	100.00	112.00	150.00	100.00	100.00	100.00	100.00	57.00	220.00	100.00	225.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			25.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			Fair Drive			Fair Drive		
Base Volume Input [veh/h]	94	1641	305	210	1696	430	279	138	84	485	166	790
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	94	1641	305	210	1696	430	279	138	84	485	166	790
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	24	410	76	53	424	108	70	35	21	121	42	198
Total Analysis Volume [veh/h]	94	1641	305	210	1696	430	279	138	84	485	166	790
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.06	0.32	0.18	0.06	0.42	0.42	0.16	0.08	0.05	0.14	0.28	0.28
Intersection LOS	E											
Intersection V/C	0.967											

Intersection Level Of Service Report

Intersection 15: Harbor Boulevard and Wilson Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.750

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			Wilson Street			Wilson Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	2	0	1	2	0	1
Entry Pocket Length [ft]	212.00	100.00	58.00	187.00	100.00	101.00	172.00	100.00	80.00	186.00	100.00	120.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			Wilson Street			Wilson Street		
Base Volume Input [veh/h]	180	1263	120	120	1229	470	250	260	100	320	830	130
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	180	1263	120	120	1229	470	250	260	100	320	830	130
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	45	316	30	30	307	118	63	65	25	80	208	33
Total Analysis Volume [veh/h]	180	1263	120	120	1229	470	250	260	100	320	830	130
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Version 2025 (SP 0-5)

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.11	0.25	0.07	0.07	0.24	0.28	0.07	0.08	0.06	0.09	0.24	0.08
Intersection LOS	C											
Intersection V/C	0.750											

Intersection Level Of Service Report
Intersection 16: Harbor Boulevard and Victoria Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.792

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			Victoria Street			Victoria Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	2	0	1	2	0	1
Entry Pocket Length [ft]	205.00	100.00	113.00	93.00	100.00	125.00	197.00	100.00	134.00	95.00	100.00	95.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	159.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			Victoria Street			Victoria Street		
Base Volume Input [veh/h]	130	1092	180	203	1190	266	310	890	110	160	1080	151
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	130	1092	180	203	1190	266	310	890	110	160	1080	151
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	33	273	45	51	298	67	78	223	28	40	270	38
Total Analysis Volume [veh/h]	130	1092	180	203	1190	266	310	890	110	160	1080	151
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.21	0.11	0.12	0.23	0.16	0.09	0.26	0.06	0.05	0.32	0.09
Intersection LOS	C											
Intersection V/C	0.792											

Intersection Level Of Service Report

Intersection 17: Harbor Boulevard and Hamilton Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.601

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			Hamilton Street			Hamilton Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	0	0	1
Entry Pocket Length [ft]	137.00	100.00	100.00	101.00	100.00	100.00	155.00	100.00	100.00	100.00	100.00	20.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	2125.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			Hamilton Street			Hamilton Street		
Base Volume Input [veh/h]	70	1342	40	40	1110	230	200	110	80	50	170	80
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	70	1342	40	40	1110	230	200	110	80	50	170	80
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	336	10	10	278	58	50	28	20	13	43	20
Total Analysis Volume [veh/h]	70	1342	40	40	1110	230	200	110	80	50	170	80
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Version 2025 (SP 0-5)

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	ProtPer	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.27	0.27	0.02	0.26	0.26	0.12	0.11	0.11	0.03	0.09	0.09
Intersection LOS	B											
Intersection V/C	0.601											

Intersection Level Of Service Report
Intersection 18: Harbor Boulevard and West 19th Street

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.735

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			West 19th Street			West 19th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1	2	0	1	1	0	1
Entry Pocket Length [ft]	150.00	100.00	100.00	200.00	100.00	228.00	235.00	100.00	93.00	258.00	100.00	209.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			West 19th Street			West 19th Street		
Base Volume Input [veh/h]	70	522	60	170	640	390	470	1130	60	140	1230	280
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	70	522	60	170	640	390	470	1130	60	140	1230	280
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	131	15	43	160	98	118	283	15	35	308	70
Total Analysis Volume [veh/h]	70	522	60	170	640	390	470	1130	60	140	1230	280
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Version 2025 (SP 0-5)

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.11	0.11	0.10	0.19	0.23	0.14	0.33	0.04	0.08	0.24	0.16
Intersection LOS	C											
Intersection V/C	0.735											

Intersection Level Of Service Report

Intersection 19: Harbor Boulevard and Newport Boulevard

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.882

Intersection Setup

Name	Harbor Boulevard		Newport Boulevard		Newport Boulevard	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	2	0	0	0
Entry Pocket Length [ft]	115.00	100.00	400.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		Yes	

Volumes

Name	Harbor Boulevard		Newport Boulevard		Newport Boulevard	
Base Volume Input [veh/h]	60	470	572	2920	2620	60
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	60	470	572	2920	2620	60
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	118	143	730	655	15
Total Analysis Volume [veh/h]	60	470	572	2920	2620	60
Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Version 2025 (SP 0-5)

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Permissive
Signal Group	4	0	5	2	6	0
Auxiliary Signal Groups						
Lead / Lag	Lead	-	Lead	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.14	0.17	0.43	0.53	0.53
Intersection LOS	D					
Intersection V/C	0.882					

Intersection Level Of Service Report

Intersection 20: Fairview Road and Fair Drive

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.682

Intersection Setup

Name	Fairview Road			Fairview Road			Fair Drive			Fair Drive		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	2	0	1	1	0	1	1	0	1
Entry Pocket Length [ft]	198.00	100.00	153.00	214.00	100.00	82.00	200.00	100.00	107.00	172.00	100.00	300.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Fairview Road			Fairview Road			Fair Drive			Fair Drive		
Base Volume Input [veh/h]	70	550	70	210	450	120	130	478	60	100	1312	610
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	70	550	70	210	450	120	130	478	60	100	1312	610
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	138	18	53	113	30	33	120	15	25	328	153
Total Analysis Volume [veh/h]	70	550	70	210	450	120	130	478	60	100	1312	610
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Version 2025 (SP 0-5)

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.11	0.04	0.06	0.09	0.07	0.08	0.14	0.04	0.06	0.39	0.36
Intersection LOS	B											
Intersection V/C	0.682											

Intersection Level Of Service Report**Intersection 21: Southbound Newport Boulevard and Victoria Street**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.643

Intersection Setup

Name	So Ne			So Ne			Victoria Street			Victoria Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration				↰↱↱↱			↱↱↱			↰↱		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	1	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	302.00	100.00	134.00	100.00	100.00	112.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	150.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			No		

Volumes

Name	So Ne			So Ne			Victoria Street			Victoria Street		
Base Volume Input [veh/h]	0	0	0	550	1180	1460	0	943	40	70	241	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	550	1180	1460	0	943	40	70	241	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	138	295	365	0	236	10	18	60	0
Total Analysis Volume [veh/h]	0	0	0	550	1180	1460	0	943	40	70	241	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	80
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Unsigna	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	0	0	2	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.16	0.35	0.00	0.00	0.19	0.19	0.04	0.14	0.00
Intersection LOS	B											
Intersection V/C	0.643											

Intersection Level Of Service Report**Intersection 22: Northbound Newport Boulevard and Victoria Street**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.598

Intersection Setup

Name	No Ne			No Ne			Victoria Street			Victoria Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	68.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	61.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	75.00
Speed [mph]	40.00			40.00			40.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			Yes		

Volumes

Name	No Ne			No Ne			Victoria Street			Victoria Street		
Base Volume Input [veh/h]	110	870	70	0	0	0	870	623	0	0	201	220
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	110	870	70	0	0	0	870	623	0	0	201	220
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	28	218	18	0	0	0	218	156	0	0	50	55
Total Analysis Volume [veh/h]	110	870	70	0	0	0	870	623	0	0	201	220
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	240
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	2	0	0	0	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.06	0.19	0.04	0.00	0.00	0.00	0.26	0.18	0.00	0.00	0.12	0.13
Intersection LOS	A											
Intersection V/C	0.598											

Intersection Level Of Service Report

Intersection 23: Vanguard Way and Fair Drive

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.701

Intersection Setup

Name	Vanguard Way			Vanguard Way			Fair Drive			Fair Drive		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	0	0	0	1	0	0	1	0	1
Entry Pocket Length [ft]	150.00	100.00	61.00	100.00	100.00	100.00	200.00	100.00	100.00	150.00	100.00	225.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	150.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			10.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Vanguard Way			Vanguard Way			Fair Drive			Fair Drive		
Base Volume Input [veh/h]	130	0	70	0	0	10	10	658	100	80	1912	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	130	0	70	0	0	10	10	658	100	80	1912	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	33	0	18	0	0	3	3	165	25	20	478	0
Total Analysis Volume [veh/h]	130	0	70	0	0	10	10	658	100	80	1912	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Version 2025 (SP 0-5)

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	4	0	0	8	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	-	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.00	0.04	0.00	0.00	0.00	0.01	0.22	0.22	0.05	0.56	0.00
Intersection LOS	C											
Intersection V/C	0.701											

Intersection Level Of Service Report**Intersection 24: Southbound Newport Boulevard and Fair Drive**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.652

Intersection Setup

Name	So Ne			So Ne			Fair Drive			Fair Drive		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1	0	0	2	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	300.00	100.00	100.00	200.00	150.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			Yes			No		

Volumes

Name	So Ne			So Ne			Fair Drive			Fair Drive		
Base Volume Input [veh/h]	0	0	0	300	1390	1740	0	928	70	360	502	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	300	1390	1740	0	928	70	360	502	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	75	348	435	0	232	18	90	126	0
Total Analysis Volume [veh/h]	0	0	0	300	1390	1740	0	928	70	360	502	0
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	240
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Unsigna	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	0	0	2	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.18	0.27	0.00	0.00	0.15	0.15	0.21	0.15	0.00
Intersection LOS	B											
Intersection V/C	0.652											

Intersection Level Of Service Report**Intersection 25: Northbound Newport Boulevard and Fair Drive/Del Mar Avenue**

Control Type: Signalized
 Analysis Method: ICU 1
 Analysis Period: 15 minutes

Delay (sec / veh): -
 Level Of Service: B
 Volume to Capacity (v/c): 0.655

Intersection Setup

Name	No Ne			No Ne			Fair Drive			Del Mar Avenue		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	0	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	105.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	225.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	256.00
Speed [mph]	40.00			40.00			40.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			No			No			Yes		

Volumes

Name	No Ne			No Ne			Fair Drive			Del Mar Avenue		
Base Volume Input [veh/h]	160	880	180	0	0	0	758	470	0	0	702	240
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	160	880	180	0	0	0	758	470	0	0	702	240
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	40	220	45	0	0	0	190	118	0	0	176	60
Total Analysis Volume [veh/h]	160	880	180	0	0	0	758	470	0	0	702	240
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Version 2025 (SP 0-5)

Intersection Settings

Cycle Length [s]	230
Lost time [s]	5.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	2	0	0	0	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.09	0.20	0.11	0.00	0.00	0.00	0.22	0.14	0.00	0.00	0.21	0.14
Intersection LOS	B											
Intersection V/C	0.655											

Intersection Level Of Service Report**Intersection 26: Harbor Boulevard and New Access/Home Depot**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.739

Intersection Setup

Name	Harbor Boulevard			Harbor Boulevard			New Access			Home Depot Driveway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Harbor Boulevard			Harbor Boulevard			New Access			Home Depot Driveway		
Base Volume Input [veh/h]	49	1696	74	85	1796	371	236	0	32	85	0	95
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	49	1696	74	85	1796	371	236	0	32	85	0	95
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	424	19	21	449	93	59	0	8	21	0	24
Total Analysis Volume [veh/h]	49	1696	74	85	1796	371	236	0	32	85	0	95
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	5	2	0	1	6	0	7	4	0	3	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.37	0.37	0.05	0.45	0.45	0.15	0.00	0.02	0.05	0.00	0.06
Intersection LOS	C											
Intersection V/C	0.739											

HCM Signalized Intersection Capacity Analysis

19: Newport Blvd & Harbor Blvd

04/24/2026

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	60	470	572	2920	2620	60
Future Volume (vph)	60	470	572	2920	2620	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.7	4.7	4.7	5.4	5.9	
Lane Util. Factor	1.00	0.76	0.97	0.86	0.91	
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	1.00	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1752	3575	3400	6346	5017	
Flt Permitted	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1752	3575	3400	6346	5017	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	62	485	590	3010	2701	62
RTOR Reduction (vph)	0	458	0	0	1	0
Lane Group Flow (vph)	62	27	590	3010	2762	0
Confl. Peds. (#/hr)						7
Confl. Bikes (#/hr)						2
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%
Turn Type	Prot	Perm	Prot	NA	NA	
Protected Phases	7		5	2	6	
Permitted Phases		7				
Actuated Green, G (s)	9.0	9.0	45.2	140.9	90.5	
Effective Green, g (s)	9.0	9.0	45.2	140.9	90.5	
Actuated g/C Ratio	0.06	0.06	0.28	0.88	0.57	
Clearance Time (s)	4.7	4.7	4.7	5.4	5.9	
Vehicle Extension (s)	2.0	2.0	2.0	4.5	4.5	
Lane Grp Cap (vph)	98	201	960	5588	2837	
v/s Ratio Prot	c0.04		c0.17	0.47	c0.55	
v/s Ratio Perm		0.01				
v/c Ratio	0.63	0.14	0.61	0.54	0.97	
Uniform Delay, d1	73.9	71.8	49.8	2.2	33.6	
Progression Factor	1.00	1.00	1.00	1.00	0.59	
Incremental Delay, d2	9.4	0.1	0.8	0.4	1.8	
Delay (s)	83.3	71.9	50.7	2.5	21.5	
Level of Service	F	E	D	A	C	
Approach Delay (s/veh)	73.2			10.4	21.5	
Approach LOS	E			B	C	
Intersection Summary						
HCM 2000 Control Delay (s/veh)			19.8		HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.87			
Actuated Cycle Length (s)			160.0		Sum of lost time (s)	20.0
Intersection Capacity Utilization			88.5%		ICU Level of Service	E
Analysis Period (min)			15			
c Critical Lane Group						