



MEMORANDUM

Date: August 15, 2022
To: Honorable Mayor and City Council Members
From: Michael Diaz, Director of Community Development
Subject: **CITIES OF CLAREMONT AND UPLAND CORRESPONDENCE RELATED TO MONTCLAIR STATION PROJECT/HUNTINGTON DRIVE**

I received the attached correspondences via emails today from Brad Johnson, City of Claremont Director of Community Development and Robert Dalquest, City of Upland Development Services Director. The City of Claremont email contains two attached documents and comments regarding potential future improvements to Huntington Drive west of the proposed Montclair Station project site.

Mr. Johnson has requested to meet with City staff in September to discuss the potential realignment and/or improvements to Huntington Drive in response to two previous invitations from City staff since June 27, 2022. Staff will be meeting next month with Claremont, and possibly Upland, staff to discuss Huntington Drive.

Mr. Dalquest's emailed letter arrived at 2:03 p.m. today and are the first comments received from the City of Upland. Based on a quick review of the comments raised in the letter, it appears many of the concerns are addressed in the agenda staff report and conditions of approval.

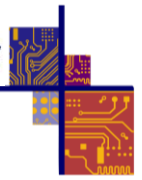
As the plans indicate, and as mentioned in the staff report, the proposed Montclair Station project in and of itself does not include or propose changes to Huntington Drive beyond the western boundary of the project site.

Regarding possible future changes to the Huntington Drive segment west of the proposed project site leading up to Claremont Boulevard the City has retained Moule & Polyzoides to begin studying the issue. Staff is committed to including Claremont, Upland, SBCTA, and Huntington Drive residents in the process. A copy of the correspondence and documents from Claremont and Upland have been forwarded to our consultant.

MD:csc

c: Edward C. Starr, City Manager
Diane Robbins, City Attorney
Andrea M. Myrick, City Clerk





MEMORANDUM

To: Maria Tipping, City of Claremont
cc: Vincent Ramos, City of Claremont
From: John Dorado, ADVANTEC Consulting Engineers, Inc.
Date: August 4, 2022

Subject: **Review Services for Alexan Montclair Station: Claremont Boulevard/1st Street – Huntington Drive Operations Assessment (revised) Technical Memorandum, Dated: July 7, 2021**

ADVANTEC Consulting Engineers, Inc. (ADVANTEC) has completed our initial review of the Alexan Montclair Station: Claremont Boulevard/1st Street – Huntington Drive Operations Assessment (revised) Technical Memorandum, Dated: July 7, 2021.

As part our review, the City of Claremont and ADVANTEC discussed proposed development and our concerns related to the project and its impacts to surrounding areas. Based on our discussion and overall, we feel there should be additional analysis and a comprehensive study due to the following:

Huntington Drive is proposed to be a new roadway link that provides direct access between the Cities of Claremont and Montclair via their major north-south arterials Claremont Boulevard and Monte Vista Avenue. This new roadway link provides an alternate route between the Cities of Claremont and Montclair. Current access east-west is provided on 6th Street (to the north) and Arrow Highway (to the south). It also provides direct access between each city's Metrolink stations including Downtown Claremont and the colleges, and Montclair's major shopping centers and Montclair Place mall. With that said, the usage of this roadway will be transformed when compared to current operations and operate more like a collector roadway. We anticipate an increase in all modes of transportation including public vehicles, transit vehicles, pedestrians, and bicyclists.

With the new roadway link, the existing Class II and Class I (Pacific Electric trail) bike facilities needs to be addressed as well. This includes analysis and evaluation of their alignment, access, circulation, and connectivity to Huntington Drive.

With the new roadway link, the Claremont Boulevard at First Street intersection and the roadway segment between the development should also be included in this analysis. The Claremont Boulevard at First Street intersection is unconventional—on the east leg, east-west movements are separated by a large median including the traffic circulation—this area should require a new roadway alignment and reconfiguration analysis with alternatives to meet demands and safety requirements due to the new roadway segment, traffic, and bicycle circulation.

Overall, we recommend a comprehensive study and analysis with supporting alternatives and conceptual plans that addresses our concerns as mentioned above.

In addition to our overall statement above, following summarizes the City's and ADVANTEC's primary concerns and comments related to the technical memorandum:

- Claremont Boulevard at First Street:
 - Existing unconventional intersection alignment was not addressed. There are many conflicting points with vehicles and bicycles.
 - We have safety concerns due to the additional traffic while maintaining the current travel lanes, configuration, and traffic circulation.
 - There are safety concerns with poor circulation patterns that are not being addressed.
 - This intersection needs to be evaluated to address the additional traffic volumes and the safety of bicyclists and pedestrians using the Regional Citrus Bikeway and Pacific Electric Trail.
- Claremont Portion of the Regional Citrus Bikeway (Class II bike infrastructure):
 - This regional bikeway ends at the City/County limit at the terminus of First Street.
 - Pacific Electric trail (Class I) starts at the county border.
 - The Technical memo from Dudek fails to address how the project will deal with the existing Class II and Class I facilities to create a seamless/safe transition.
- The proposed Huntington extension will ultimately link Monte Vista and Claremont Boulevard, thus, this extension will act as a collector. Roadway should be designed appropriately.
- Dudek Memo proposes a roadway extension similar to the existing configuration. This is not appropriate as the current configuration only serves a handful of homes.
- The roadway extension does not align with the existing roadway (Huntington Drive) on the City of Claremont side
- Queueing at the Claremont Boulevard/1st Street – Huntington Drive intersection
 - The queueing analysis recommendations are not acceptable. Providing "Keep Clear" pavement markings does not address the actual deficiency at this intersection. At minimum, it is recommended to have a dedicated left-turn lane and through lane
 - Due to the new roadway link, it is recommended to provide a roadway alignment and reconfiguration analysis with alternatives to meet demands and safety requirements due to the new roadway segment, traffic, and bicycle circulation.
- The trip distribution assumptions are not clearly shown. Provide the percentages on the figures as well
- Due to the new roadway, the memorandum shall address how traffic will be redistributed in area of influence, not just within the immediate vicinity of the development
- Study area should be expanded to analyze additional potential impacts to nearby intersections along Claremont Boulevard/Mills Avenue and Indian Hill Boulevard from the I-10 freeway to Foothill Boulevard (possibly up to the 210 Freeway)
- Claremont/First intersection and the roadway between the development should be reconfigured and analyzed analysis with supporting alternatives and conceptual plans
- Due to the new roadway link, has environmental documentation (CEQA) been conducted for approval of these improvements?
- We recommend a comprehensive study and analysis with supporting alternatives and conceptual plans that addresses our concerns as mentioned above

If you have any questions, please contact me at 714-904-0067 or email at jdorado@advantec-usa.com.

TECHNICAL MEMORANDUM

To: Tony Ditteaux, TCR
From: Amanda Meroux, EIT, Assistant Transportation Engineer
Dennis Pascua, Transportation Services Manager
Subject: Alexan Montclair Station: Claremont Boulevard/1st Street – Huntington Drive Operations Assessment (revised)
Date: July 7, 2021
cc: Todd Phillips, TCR
Erin Gustafson, TCR
Attachment(s): Figure 1 – Proposed Site Plan (Scheme B)
Figure 2 – Project Trip Distribution and Assignment
Figure 3 – Existing Peak Hour Traffic Volumes Re-Assignment w/ Huntington Drive Extension
Figure 4 – Buildout Year Peak Hour Traffic Volumes Re-Assignment w/ Huntington Dr. Ext.
Figure 5 – Existing plus Project Traffic Volumes
Figure 6 – Buildout Year (2040) plus Project Traffic Volumes
Attachment A – Raw Traffic Counts
Attachment B – LOS and SimTraffic Worksheets

This (revised) memorandum is based on the April 9, 2021 Technical Memorandum, titled “*Alexan Montclair Station: Claremont Boulevard/1st Street – Huntington Drive Operations Assessment*” (Technical Memorandum). Although cut-through traffic was analyzed in the April 9, 2021 Technical Memorandum, the City of Montclair noted in a June 21, 2021 e-mail correspondence that additional cut-through traffic associated with the Montclair Transcenter should be taken into consideration, as well as, potential effects to the Monte Vista Avenue/Richton Street intersection. The City noted that there is surplus parking at the Montclair Transcenter compared to the Claremont station, and a shorter travel distance provided to East Claremont residents would increase the likelihood that those residents would use the Montclair Transcenter instead, and use the Huntington Drive extension.

As such, this revised focused analysis examines the Claremont Boulevard/1st Street – Huntington Drive as well as the Monte Vista Avenue/Huntington Drive – Richton Street intersections for existing and buildout year (2040) conditions to assess the intersection’s operations, vehicle queuing, and cut-through traffic associated with the extension of Huntington Drive with the development of the 302 dwelling unit (DU) residential development (Project). The Project is located west of Monte Vista Avenue in the northern portion of the City, and access to the project site is proposed at the intersection of Monte Vista Avenue/Richton Street, and a new east extension of Huntington Drive from its intersection at Claremont Boulevard. It should be noted that portions of the intersection in study are located in different jurisdictions including the cities of Claremont and Upland; and, the San Bernardino County Transportation Authority (SBCTA) for the adjacent Pacific Electric Bike Trail.

CEQA Assessment

The following assessment has been prepared to determine the project’s consistency with the North Montclair Downtown Specific Plan, and is based on traffic information from approved Specific Plans in the area, including the

North Montclair Downtown Specific Plan and Montclair Place District Specific Plan, as well as the City of Montclair General Plan Circulation Element. The Project is located within the northwestern portion of the North Montclair Downtown Specific Plan. The project site plan is shown on Figure 1 (attached).

Methodology

Level of service (LOS) is commonly used as a qualitative description of intersection operations and is based on the design capacity of the intersection configuration, compared to the volume of traffic using the facility. For purposes of this analysis, LOS is presented as a metric to analyze traffic operations at the Claremont Boulevard/1st Street – Huntington Drive and Monte Vista Avenue/Huntington Drive – Richton Street intersections and their ability to accommodate traffic from the Project. The City of Montclair General Plan Circulation Element, Policy CE-1.1.6, identifies LOS D as the target LOS standard. Additionally, a queuing analysis was prepared for this intersection to assess the adequacy of available storage at the intersection, as well as at the northern and southern extents of Huntington Drive.

The *Highway Capacity Manual, 6th Edition* (HCM 6) methodology was used to assess level of service and queuing for intersections and driveways within the study area. The HCM intersection analysis methodology was used to analyze the operation of signalized and unsignalized study intersections. The HCM analysis methodology describes the operation of an intersection using a range of LOS from LOS A (free-flow conditions) to LOS F (severely congested conditions), based on the corresponding control delay experienced per vehicle for unsignalized intersections. The Synchro 10 LOS software was used to determine intersection LOS. Synchro is consistent with the HCM methodology. Table 1 shows the LOS values by delay ranges for unsignalized and signalized intersections under the HCM methodology.

Table 1 – Levels of Service for Intersections using HCM Methodology

Level of Service	Signalized Intersections Control Delay (in seconds per vehicle)
A	< 10.0
B	> 10.0 to < 20.0
C	> 20.0 to < 35.0
D	> 35.0 to < 55.0
E	> 55.0 to < 80.0
F	> 80.0

Source: HCM 6, 2016.

Existing Conditions

Roadway System

Regional access to the Project would be via Interstate 10 (I-10) to the south and State Route 210 (SR-210) to the north. SR-210 has an interchange along Baseline Road, east of Monte Vista Avenue, and I-10 has an interchange at Monte Vista Avenue, which provides access to the eastern side of the project site at the intersection of Richton Street. Huntington Drive, which currently terminates approximately 600 feet east of Claremont Boulevard, will connect the western side of the project site to the City of Claremont.

Transit Facilities

Metrolink, Omnitrans, and Foothill Transit serve as the primary transit providers near the project site. The Metrolink San Bernardino Line provides two stations within one mile of the project site, including the Claremont Metrolink Station approximately ¾-mile to the west, and the Montclair Metrolink Station approximately ¼-mile to the east. Omnitrans provides bus service along Monte Vista Avenue east of the project site, with the nearest bus stop serving routes 85 and 88 at the intersection of Monte Vista Avenue and Arrow Highway. Additionally, Foothill Transit provides bus service along Claremont Boulevard west of the project site and Arrow Highway to the south, including stops serving bus routes 188, 197, 292, 480, and 492.

Bicycle Facilities

Currently, Class II bicycle facilities exist along Claremont Boulevard, 1st Street, and Monte Vista Avenue near the project site. Additionally, the Pacific Electric Bike Trail begins within the approximately 75-foot median of Huntington Drive, east of its intersection with Claremont Boulevard, and extends along the northern boundary of the project site and 21 miles into the City of Rialto to the east. The Pacific Electric Bike Trail is a Class I bike path that would serve as a primary bicycle route from the Project site to both the Claremont Metrolink and Montclair Metrolink Stations, and would connect the Project site to the Class II bicycle facilities noted above. Additionally, approximately 24 vehicle parking spaces are provided for access to the Pacific Electric Bike Trail along the southern half of the median on Huntington Drive.

Pedestrian Facilities

There are sidewalks along both sides of Claremont Boulevard, 1st Street, and Monte Vista Avenue in the vicinity of the project. Along with the Pacific Electric Bike Trail noted above, a sidewalk exists along the northern stretch of Huntington Drive to the east of the Claremont Boulevard/1st Street – Huntington Drive intersection. Both primary intersections to the project site, including the Monte Vista Avenue/Richton Street intersection and the Claremont Boulevard/1st Street – Huntington Drive intersection have pedestrian phasing and crosswalks along all legs of the intersection.

Project Trip Generation

Trip Generation

Trip generation estimates for the Project are based on daily and AM and PM peak hour trip generation rates obtained from the Institute of Transportation Engineers (ITE) *Trip Generation, 10th Edition* (2017)., The multifamily housing, mid-rise land use (ITE Code 221) was used in this analysis. As shown in Table 2, the Project would generate 1643 daily trips, 109 AM peak hour trips (28 inbound and 81 outbound), and 133 PM peak hour trips (81 inbound and 52 outbound).

Table 2 – Trip Generation Summary

Land Use	ITE Code	Size/Units	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Trip Rates¹									
Multifamily Housing (Mid-Rise)	221	DU	5.44	0.09	0.27	0.36	0.27	0.17	0.44
Trip Generation									
Alexan Montclair Station	221	302 DU	1643	28	81	109	81	52	133

Notes: DU = dwelling unit

¹Trip rates from the Institute of Transportation Engineers (ITE), *Trip Generation, 10th Edition, 2017.*

As discussed above, the Project would be served by the Metrolink San Bernardino Line, which provides two stations within one-mile of the project site, including the Claremont Metrolink Station approximately ¾-mile to the west, and the Montclair Metrolink Station approximately ¼-mile to the east. Additionally, Omnitrans and Foothill Transit provide bus service along Monte Vista Avenue and Claremont Boulevard, respectively. As residential land uses often result in commute trips via public transportation, transit trip reductions could be applied to the trip generation. However, to provide a conservative analysis, no transit trip reductions were applied to the trip generation of the Project.

Trip Distribution and Assignment

As discussed in the previous April 2021 Technical Memorandum, project trip distribution percentages were based on logical travel paths to commute corridors in the study area. Based on the project location, approximately 60 percent of traffic is assumed to travel to the east towards Monte Vista Avenue, which provides freeway ramp access to SR-210 to the north and I-10 to the south, and approximately 40 percent of the project traffic is assumed to travel west to the Claremont Boulevard/1st Street – Huntington Drive intersection. Of the 40 percent of project traffic distributed to the west, approximately 16 percent is distributed to the south on Claremont, 16 percent to the north on Claremont, and 8 percent to the west along 1st Street. Of the 60 percent of project traffic distribution to the east, approximately 25 percent is distributed to the south on Monte Vista Avenue, 20 percent to the north on Monte Vista Avenue, and 15 percent to the east along Richton Street. Project trips were assigned to these corridors by applying the project trip generation estimates to the trip distribution percentages at each location. The project trip distribution and assignment are shown in Figure 2.

Additionally, as Huntington Drive would extend from Claremont Boulevard to Monte Vista Avenue upon completion of the Project, existing (baseline) and buildout year (2040) traffic volumes were re-assigned through the Claremont Boulevard/1st Street – Huntington Drive and Monte Vista Avenue/Huntington Drive – Richton Street intersections to capture cut-through traffic between Claremont Boulevard and Monte Vista Avenue. As noted in the previous April 2021 Technical Memorandum, it was assumed that 25 percent of traffic traveling eastbound left and eastbound right at the Claremont Boulevard intersection would be redistributed to the eastbound through movement, and 25 percent of traffic traveling northbound left and southbound right would be redistributed to the westbound through movement. Additionally, to take into consideration the potential for additional cut-through traffic associated with patrons of the Claremont station that would shift to the Montclair Transcenter based on more parking availability (as noted by the City), an additional 25 percent of traffic traveling westbound left and westbound right at the Monte Vista Avenue intersection would be redistributed to the westbound through movement, and 25 percent of traffic traveling northbound right and southbound left would be redistributed to the eastbound through movement. These

cut-through re-assignments are carried over to both intersections to provide a conservative analysis, and existing (baseline) and buildout year (2040) traffic volumes are shown in Figures 3 and 4, respectively.

Project Intersection Analysis

Traffic Volumes

Existing plus Project

Traffic counts at the intersections of Mills Avenue – Claremont Boulevard/Arrow Highway and Claremont Boulevard/1st Street – Huntington Drive were collected on January 7, 2021. Historical (pre-pandemic) counts were available from 2018 at the Mills Avenue – Claremont Boulevard/Arrow Highway intersection. These 2018 counts were compared to the January 7th (pandemic) counts to obtain percentage differences at the Mills Avenue – Claremont Boulevard/Arrow Highway intersection. These percentages were then applied to the Claremont Boulevard/1st Street – Huntington Drive intersection, and adjusted to 2021 using a growth factor of 1.25% per year during the AM peak hour and 1.35% per year during the PM peak hour. Growth factors are based on the comparison of 2040 traffic volumes available at the Mills Avenue – Claremont Boulevard/Arrow Highway derived from the San Bernardino Travel Analysis Model (SBTAM), as discussed below and were used to adjust traffic volumes to 2021 (non-pandemic) conditions. Additionally, historical counts were available from 2019 at the Monte Vista Avenue/Huntington Drive – Richton intersection. A conservative 2% annual ambient growth factor was applied to these counts to adjust traffic volumes to 2021 conditions.

The project's trip assignment shown in Figure 2 was added to the existing (baseline) traffic volumes, with the adjustments noted above and shown in Figure 3, to derive the Existing plus Project peak hour traffic volumes at the intersection. Those volumes are shown in Figure 5.

Buildout Year (2040) plus Project

Buildout Year (2040) volumes were derived from SBTAM for the year 2040. SBTAM model year 2040 traffic volumes were available at the Monte Vista Avenue/Huntington Drive – Richton Street and Claremont Boulevard – Mills Avenue/Arrow Highway intersections from the traffic analysis conducted for the Montclair Place District Specific Plan. A similar growth factor method to that used to derive existing (non-pandemic) conditions was utilized to derive Buildout Year (2040) traffic volumes at the Claremont Boulevard/1st Street – Huntington Drive intersection.

The project's trip assignment shown in Figure 2 was added to the buildout year (2040) traffic volumes, with the adjustments noted above and shown in Figure 4, to derive the Buildout Year (2040) plus Project peak hour traffic volumes at the intersection. Those volumes are shown in Figure 6.

Level of Service Analysis

A focused intersection LOS analysis was performed at Claremont Boulevard/1st Street – Huntington Drive and Monte Vista Avenue/Huntington Drive – Richton Street for the Existing and Buildout Year (2040) conditions, with the addition of traffic from the Project, using HCM 6th Edition methodology via the Synchro LOS software.

Existing plus Project

As shown in Table 3, the intersection of Claremont Boulevard/1st Street – Huntington Drive would operate at LOS B during both peak hours with the addition of project traffic. Additionally, the intersection Monte Vista Avenue/Huntington Drive – Richton Street would operate at LOS C or better with the addition of project traffic. As both intersections would not operate at a deficient LOS (LOS E or F), these intersections would continue to be consistent with the City’s LOS standards under Existing plus Project conditions.

Buildout Year 2040 plus Project

As shown in Table 4, the intersection of Claremont Boulevard/1st Street – Huntington Drive is forecast to continue to operate at LOS B or better under Buildout Year (2040) conditions and under Buildout Year (2040) conditions with the addition of project traffic. Additionally, the intersection Monte Vista Avenue/Huntington Drive – Richton Street would continue to operate at LOS C or better under Buildout Year (2040) conditions and under Buildout Year (2040) conditions with the addition of project traffic. As both intersections would not operate at a deficient LOS (LOS E or F), these intersections would continue to be consistent with the City’s LOS standards under Buildout Year (2040) plus Project conditions.

Table 3. Existing plus Project Peak Hour Intersection Level of Service

No.	Intersection	Jurisdiction	LOS Method	Existing				Existing plus Project				Change in Delay		Inconsistent with City LOS Standard? ³	
				AM Peak		PM Peak		AM Peak		PM Peak		AM	PM	AM	PM
				Delay ¹	LOS ²	Delay ¹	LOS ²	Delay ¹	LOS ²	Delay ¹	LOS ²				
1	Claremont Boulevard/Huntington Drive-1st Street	City of Montclair	HCM	7.0	A	9.2	A	11.2	B	11.8	B	4.2	2.6	No	No
2	Monte Vista Avenue/Huntington Drive-Richton Street	City of Montclair	HCM	16.8	B	17.6	B	19.6	B	20.5	C	2.8	2.9	No	No

Notes: HCM = Highway Capacity Manual

¹ Delay in seconds per vehicle

² Level of Service (LOS)

³ LOS standard D, as defined in the City of Montclair General Plan Circulation Element

Table 4. Buildout Year (2040) plus Project Peak Hour Intersection Level of Service

No.	Intersection	Jurisdiction	LOS Method	Buildout Year (2040)				Buildout Year (2040) plus Project				Change in Delay		Inconsistent with City LOS Standard? ³	
				AM Peak		PM Peak		AM Peak		PM Peak		AM	PM	AM	PM
				Delay ¹	LOS ²	Delay ¹	LOS ²	Delay ¹	LOS ²	Delay ¹	LOS ²				
1	Claremont Boulevard/Huntington Drive-1st Street	City of Montclair	HCM	7.8	A	11.2	B	13.9	B	16.4	B	6.1	5.2	No	No
2	Monte Vista Avenue/Huntington Drive-Richton Street	City of Montclair	HCM	18.8	B	22.5	C	21.0	C	22.9	C	2.2	0.4	No	No

Notes: HCM = Highway Capacity Manual

¹ Delay in seconds per vehicle

² Level of Service (LOS)

³ LOS standard D, as defined in the City of Montclair General Plan Circulation Element

Non-CEQA Operational Assessment

The following assessment has been prepared to assist in the design of the street network within and adjacent to the project site. The analysis methodologies and design criteria below are not related to CEQA significant criteria, and are meant for practical purposes related to the project's access design.

Queueing

A queuing analysis was prepared for the Claremont Boulevard/1st Street – Huntington Drive intersection to assess the adequacy of available storage at the intersection, as well as at the northern and southern extents of Huntington Drive, with additional cut-through traffic as noted above. As shown in Tables 5 and 6 below, the “Connector” roadway refers to the approximately 75-foot stretch connecting the southern and northern extents of Huntington Drive. The storage length for the westbound movements at the intersection of Huntington Drive were measured from the stop bar to the median break at the Connector. Queueing was analyzed utilizing the SimTraffic software, which calculates the 95th percentile (design) queue. All queuing analysis data and SimTraffic queuing worksheets are further provided below and in Attachment B.

Existing plus Project

As shown in Table 5, queueing under existing conditions at this intersection and along Huntington Drive is minimal and would not extend over available striped pocket lengths, into adjacent intersections, or block the parking spaces south of the Pacific Electric Bike Trail terminus. Development of the project would increase vehicular traffic on Huntington Drive; however, the additional cut-through traffic analyzed in this addendum would slightly extend 95th percentile queueing over what was analyzed in the Technical Memorandum. The majority of queues would still be within available storage lengths, except for those at the westbound left-through turning movement at the Claremont Boulevard/1st Street – Huntington Drive intersection and those at the westbound right turning movement at the Connector/Huntington Drive (south). With the additional cut-through traffic, queueing would increase by just over three car lengths¹ at most, instead of the two car lengths noted in the previous April 2021 Technical Memorandum. The westbound left-through turning movement at the Claremont Boulevard/1st Street – Huntington Drive intersection would experience the highest queueing increase at 65 feet during the AM peak hour.

Although 95th percentile queueing would increase by just over three car lengths at most, queueing would extend approximately 17 feet over the available storage length of 75 feet into the adjacent intersection (Connector/Huntington Drive North). However, additional storage capacity is available within the northbound left-right lane along the “Connector” leg between north and south Huntington Drive. With the addition of project and new cut-through traffic under existing conditions, 95th percentile queueing is forecast to extend approximately 13 feet, less than one vehicle length, of the total 75 feet of available storage capacity within the northbound left-right lane. As such, the addition of “Keep Clear”, “Do Not Block”, or similar pavement markings and/or signage at the Connector/Huntington Drive intersection is recommended to prohibit queueing within, and maintain flow through, the intersection.

¹ One car length is measured as 25-feet.

Additionally, analysis of project traffic with the additional cut-through traffic would extend queueing at the Connector/Huntington Drive (south) past the westernmost parking spaces south of the Pacific Electric Bike Trail terminus. However, queueing would only extend approximately 16 feet (less than one car length) into the nearest parking spaces and average vehicle queueing shows that this queue length would not be sustained, with average queues of 52 feet throughout the AM peak hour, as shown in Attachment B. Due to the speed limit along Huntington Drive (assumed to be 25 mph) and nearby stop sign, the additional queue length would not be anticipated to limit accessibility to or from the Pacific Electric Bike Trail terminus parking.

Table 5. Existing plus Project Queuing Summary

Intersection	Movement	Storage Length ¹	Existing				Existing plus Project			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
			95th Percentile Queue ²	Exceeds Storage Length?	95th Percentile Queue ²	Exceeds Storage Length?	95th Percentile Queue ²	Exceeds Storage Length?	95th Percentile Queue ²	Exceeds Storage Length?
Claremont Boulevard/Huntington Drive-1st Street	EBL	125	28	No	66	No	26	No	61	No
	EBR	255	42	No	55	No	40	No	51	No
	WBLT	75	23	No	37	No	88	Yes	86	Yes
	WBR	75	0	No	0	No	18	No	20	No
	NBL	155	51	No	32	No	47	No	29	No
	SBL	90	15	No	25	No	27	No	39	No
	SBR	90	40	No	31	No	45	No	31	No
Connector/Huntington Drive (north)	NBLR	75	0	No	0	No	13	No	16	No
Connector/Huntington Drive (south)	WBR ³	70	30	No	39	No	86	Yes	79	Yes
	SBL	75	4	No	2	No	7	No	5	No

Notes: EBL = eastbound left; EBR = eastbound right; WBLT = westbound left-through; WBR = westbound right; NBL = northbound left; NBLR = northbound left-right; SBL = southbound left; SBR = southbound right

¹ Measured in feet.

² Base on 95th percentile (design) queue length in SimTraffic 10.

³ Storage length measured from stop bar to westernmost parking space.

Buildout Year 2040 plus Project

As shown in Table 6, queueing under 2040 conditions at this intersection and along Huntington Drive is not forecast to extend over available striped pocket lengths, into adjacent intersections, or block the parking spaces south of the Pacific Electric Bike Trail terminus. Development of the project during 2040 conditions would increase vehicular traffic on Huntington Drive; however, the additional cut-through traffic analyzed in this addendum would slightly extend 95th percentile queueing over what was analyzed in the previous April 2021 Technical Memorandum, with higher queueing within the westbound through-left movement at the Claremont Boulevard/1st Street – Huntington Drive intersection along north Huntington Drive and at the Connector/Huntington Drive (south) intersection.

The westbound through-left movement would experience the highest queuing increase of 68 feet during the PM peak hour with the addition of project traffic. Although 95th percentile queuing would increase by just over two car lengths at most, queuing would extend approximately 18 feet over the available storage length of 75 feet into the adjacent intersection (Connector/Huntington Drive North). However, as with existing conditions, additional storage capacity is available within the northbound left-right lane along the “Connector” leg between north and south Huntington Drive. With the additional cut-through traffic and the addition of project traffic under 2040 conditions, 95th percentile queuing is forecast to extend approximately 28 feet, just over one vehicle length, of the total 75 feet of available storage capacity within the northbound left-right lane. As such, the addition of “Keep Clear”, “Do Not Block”, or similar pavement markings and/or signage at the Connector/Huntington Drive intersection is recommended to prohibit queuing within, and maintain flow through, the intersection.

Similar to the Existing plus Project condition, analysis of project traffic with the additional cut-through traffic would extend queuing at the Connector/Huntington Drive (south) past the westernmost parking spaces south of the Pacific Electric Bike Trail terminus. However, queuing would only extend approximately 52 feet (just over two car lengths) into the nearest parking spaces and average vehicle queuing shows that this queue length would not be sustained, with average queues of 74 feet throughout the PM peak hour, as shown in Attachment B. Due to the speed limit along Huntington Drive (assumed to be 25 mph) and nearby stop sign, the additional queue length would not be anticipated to limit accessibility to or from the Pacific Electric Bike Trail terminus parking.

Table 6. Buildout Year (2040) plus Project Queuing Summary

Intersection	Movement	Storage Length ¹	Buildout Year (2040)				Buildout Year (2040) plus Project			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
			95th Percentile Queue ²	Exceeds Storage Length?	95th Percentile Queue ²	Exceeds Storage Length?	95th Percentile Queue ²	Exceeds Storage Length?	95th Percentile Queue ²	Exceeds Storage Length?
Claremont Boulevard/Huntington Drive-1st Street	EBL	125	40	No	77	No	48	No	78	No
	EBR	255	44	No	91	No	48	No	92	No
	WBLT	75	25	No	44	No	93	Yes	86	Yes
	WBR	75	6	No	0	No	22	No	40	No
	NBL	155	83	No	82	No	93	No	76	No
	SBL	90	22	No	76	No	29	No	80	No
	SBR	90	46	No	65	No	54	No	70	No
Connector/Huntington Drive (north)	NBLR	75	3	No	4	No	28	No	27	No
Connector/Huntington Drive (south)	WBR ³	70	37	No	47	No	108	Yes	122	Yes
	SBL	75	3	No	2	No	5	No	8	No

Notes: EBL = eastbound left; EBR = eastbound right; WBLT = westbound left-through; WBR = westbound right; NBL = northbound left; NBLR = northbound left-right; SBL = southbound left; SBR = southbound right

¹ Measured in feet.

² Base on 95th percentile (design) queue length in SimTraffic 10.

³ Storage length measured from stop bar to westernmost parking space.

Conclusion

Based on this revised analysis to the previous April 9, 2021 Technical Memorandum that assessed the operations, and vehicle queuing associated with the development of the 302 dwelling unit residential townhome development, the following findings are made:

- The Project would generate approximately 1643 daily trips, 109 AM peak hour trips (28 inbound and 81 outbound), and 133 PM peak hour trips (81 inbound and 52 outbound).
- The Claremont Boulevard/1st Street – Huntington Drive intersection would operate with LOS B conditions, consistent with the City’s LOS standards, during both peak hours under both Existing plus Project and Buildout Year (2040) plus Project conditions. Additionally, the intersection of Monte Vista Avenue/Huntington Drive – Richton Street would operate with LOS C or better conditions under both Existing plus Project and Buildout Year (2040) plus Project conditions.
- Queuing at the Claremont Boulevard/1st Street – Huntington Drive intersection, and along the southern and northern extents of Huntington Drive, would not exceed available storage lengths during either peak hour under Existing plus Project conditions however, queueing would extend by approximately 13 feet into the Connector/Huntington Drive North intersection from the westbound through-left movement of the Claremont Boulevard/1st Street – Huntington Drive intersection. The addition of “Keep Clear”, “Do Not Block”, or similar pavement markings and/or signage within the Connector/Huntington Drive North is recommended to prohibit queuing within, and maintain flow through, the intersection. Additionally, queueing would also extend up to 16 feet into the nearest Pacific Electric Bike Trail parking spaces; however, this extent of queueing would not be sustained throughout the peak hour, and the low speed along Huntington Drive and proximity to the nearby stop sign would continue to facilitate movement into and out of the parking spaces.
- Queueing at the Claremont Boulevard/1st Street – Huntington Drive intersection, and along the southern and northern extents of Huntington Drive, would not exceed available storage lengths during either peak hour under Buildout Year (2040) plus Project conditions; however, queueing would extend by approximately 18 feet into the Connector/Huntington Drive North intersection from the westbound through-left movement of the Claremont Boulevard/1st Street – Huntington Drive intersection. As discussed under Existing plus Project conditions, the addition of “Keep Clear”, “Do Not Block”, or similar pavement markings and/or signage within the Connector/Huntington Drive North is recommended to prohibit queuing within, and maintain flow through, the intersection. Additionally, queueing would also extend up to 52 feet into the nearest Pacific Electric Bike Trail parking spaces; however, this extent of queueing would not be sustained throughout the peak hour, and the low speed along Huntington Drive and proximity to the nearby stop sign would continue to facilitate movement into and out of the parking spaces.
- The proposed extension of the Huntington Drive roadway along the northern boundary of the project site would not conflict with the North Montclair Downtown Specific Plan, which proposes to extend Huntington Drive from Claremont Boulevard to Monte Vista Avenue. Additionally, development of the future Huntington

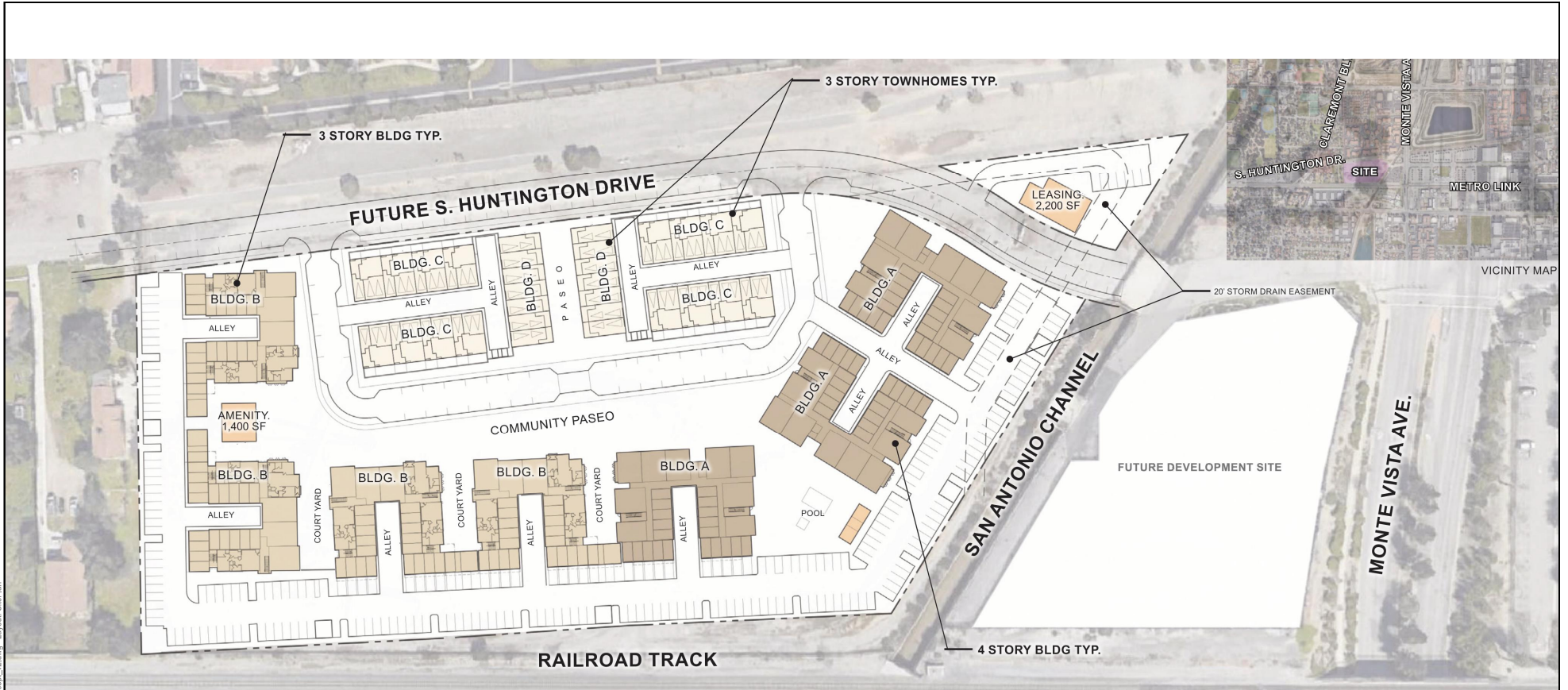
Drive roadway would include sidewalk facilities, which would be consistent with the planned roadway standards as identified in the build out conditions of the North Montclair Downtown Specific Plan.

- The addition of vehicular traffic generated by the Project would not conflict with the Pacific Electric Bike Trail, nor would it conflict with pedestrian or bicycle operations at Claremont Boulevard/1st Street – Huntington Drive intersection or along the segment of Huntington Drive east of the intersection.

Based on these findings, the Project would not significantly affect queueing or result in unsatisfactory intersection operations along Huntington Drive, and at the intersection of Claremont Boulevard/1st Street – Huntington Drive. Queueing would extend up to 52 feet into the nearest Pacific Electric Bike Trail parking spaces; however, this extent of queueing would not be sustained throughout the peak hour, and the low speed along Huntington Drive and proximity to the stop sign would continue to facilitate movement into and out of the parking spaces. Due to the extension of queueing up to 18 feet over the 75-foot storage capacity of the westbound through-left lane at Claremont Boulevard/1st Street – Huntington Drive, Dudek recommends the addition of pavement markings and/or signage to prohibit queueing within, and maintain flow through, the Connector/Huntington Drive intersection. Additionally, pedestrian and bicycle traffic would continue to be accommodated by the existing Pacific Electric Bike Trail, along with existing sidewalk and crosswalk pedestrian facilities at the intersection of Claremont Boulevard/1st Street – Huntington Drive. Therefore, the current design of Huntington Drive and its intersection at Claremont Boulevard would be able to accommodate the addition of project traffic associated with the 302 dwelling unit residential townhome development. The addition of “Keep Clear”, “Do Not Block”, or similar pavement markings and/or signage within the Connector/Huntington Drive North is recommended to prohibit queueing within, and maintain flow through, the intersection.



Figures 1 – 6



PROJECT SUMMARY

SITE:	± 9.60 AC (GROSS)
UNITS:	302 DU
DENSITY:	31 DU/AC (GROSS)
BLDG. TYPE:	3 & 4 STORY ON GRADE
SPECIFIC PLAN AREA:	NORTH MONTCLAIR DT (NEIGHBORHOOD HOUSING)
PARKING PROVIDED:	533 SPACES
NET RENTABLE AREA:	+/- 274,244 SF (+/- 908 SF AVE.)

UNIT MIX

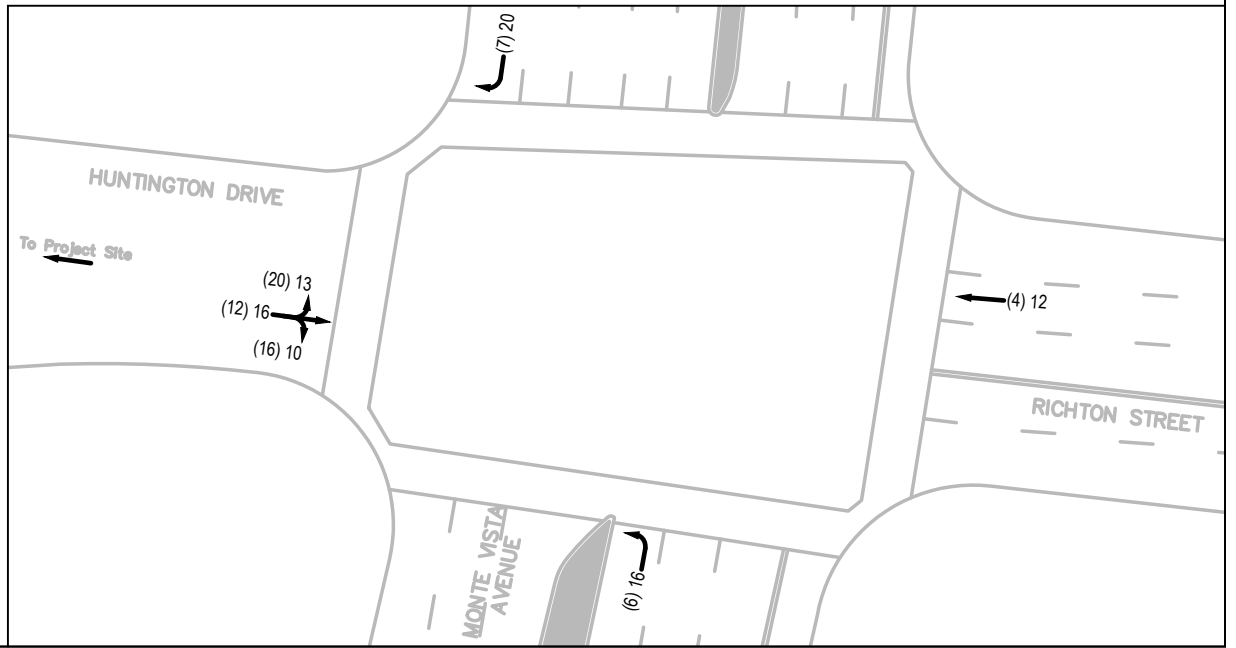
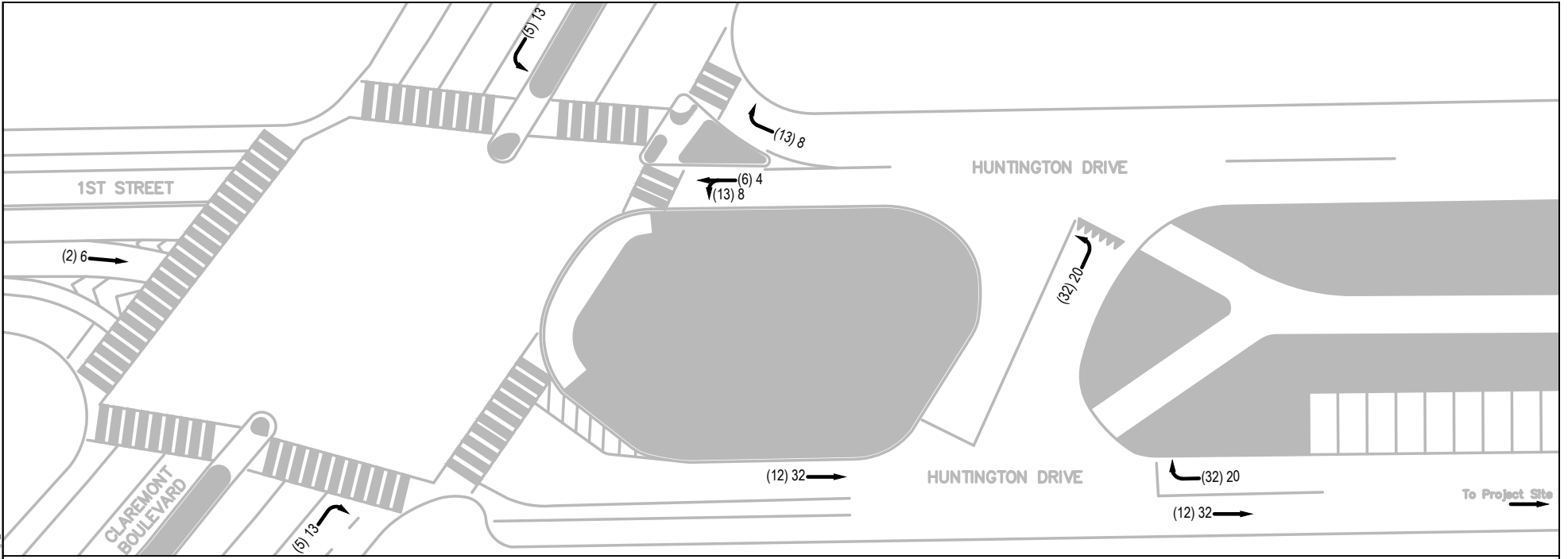
FLATS:			
STUDIO	(+/- 510 SF)	X	24 DU
1BR / 1BA	(+/- 715 SF)	X	128 DU
1BR / 1BA	(+/- 896 SF)	X	24 DU
1BR/1BA	(+/- 900 SF)	X	16 DU
2BR / 2BA	(+/- 1,020 SF)	X	52 DU
2BR / 2BA	(+/- 1,045 SF)	X	12 DU
TOTAL			256 DU
TOWNHOMES:			
2BR / 2.5BA	(+/- 1,302 SF)	X	16 DU
3BR / 3BA	(+/- 1,579 SF)	X	16 DU
3BR / 3BA	(+/- 1,636 SF)	X	14 DU
TOTAL			46 DU
GRAND TOTAL			302 DU

PARKING SUMMARY

PARKING REQUIRED PER SPECIFIC PLAN:	
1.5 SPACES / DU =	453 SPACES
0.25 GUEST SPACES / DU =	76 SPACES
TOTAL	529 SPACES
PROVIDED:	
GARAGE:	216 SPACES
OPEN (PARALLEL):	82 SPACES
OPEN (STANDARD):	205 SPACES
OPEN (TANDEM):	30 SPACES
TOTAL	533 SPACES
(RATIO: 1.76 SPACES / DU)	

SOURCE: Architecture Design Collaborative 2020

Jul 02, 2021 - 12:44pm amercou P:\300.Environmental\13207 Alexan Montclair Station\Graphics\13207_Concept_070121.dwg Layout: Fig1 - Traffic Sign_A0D



Legend

- (X) Weekday AM Peak Hour Traffic Volumes
- X Weekday PM Peak Hour Traffic Volumes

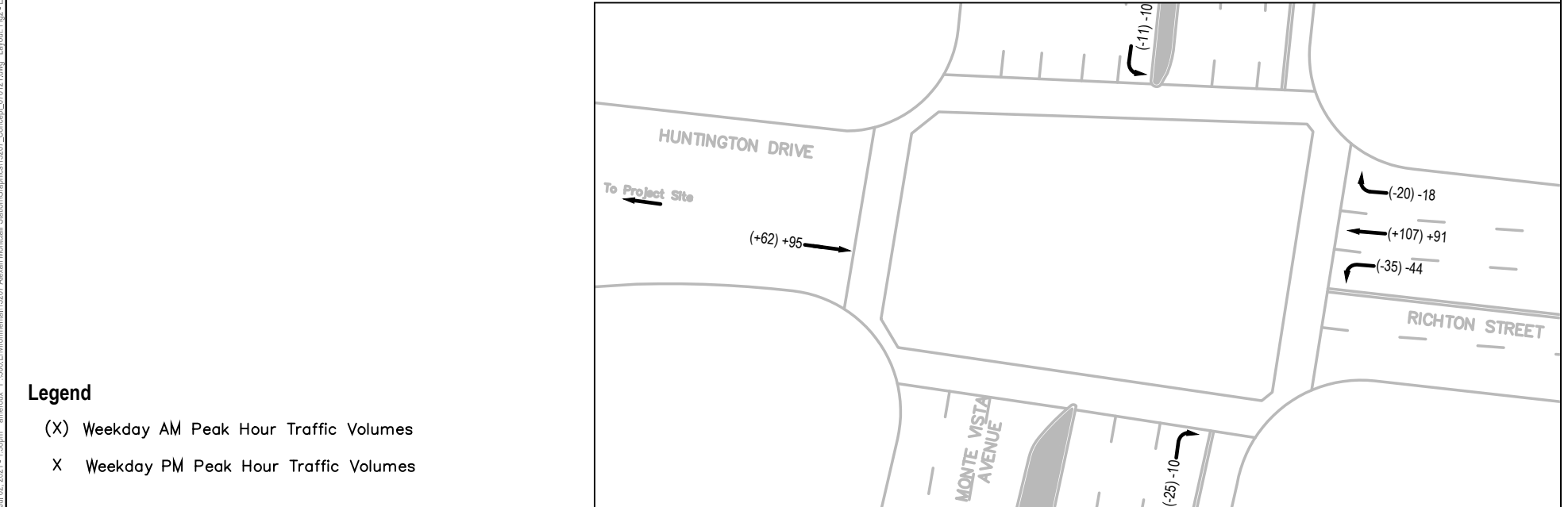
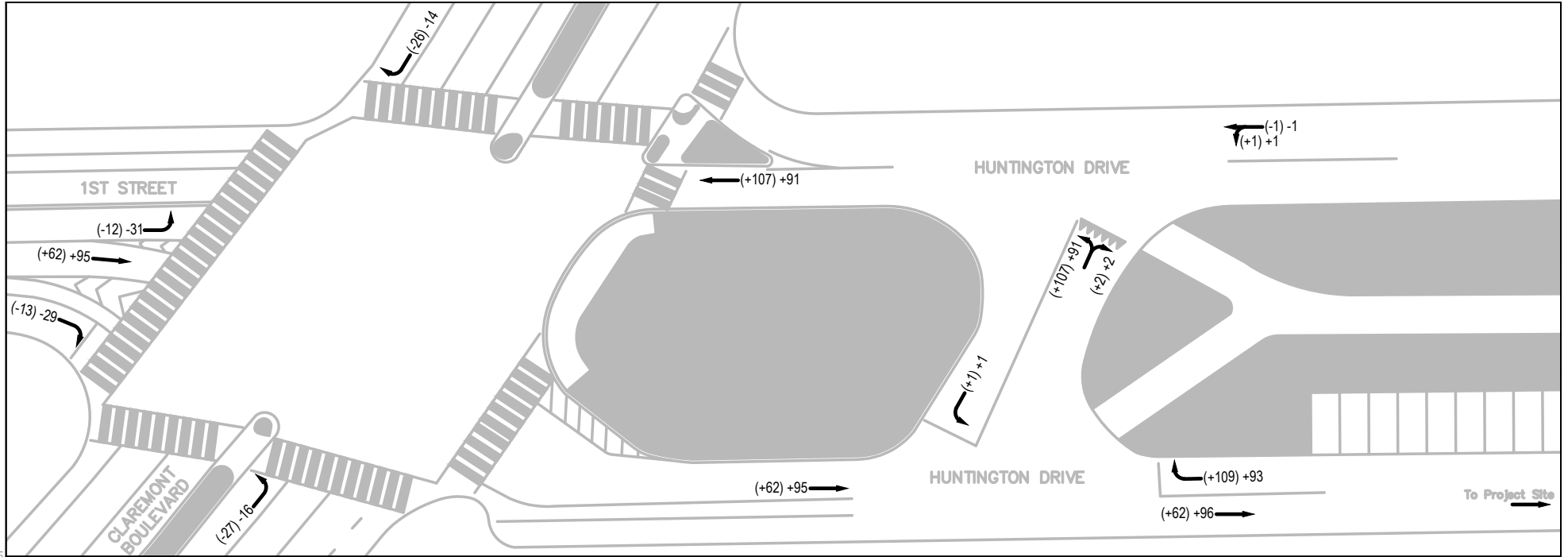
SOURCE: Bing Maps



NOT TO SCALE

Figure 2
Project Trip Distribution and Assignment

Alexan Montclair Station



Legend

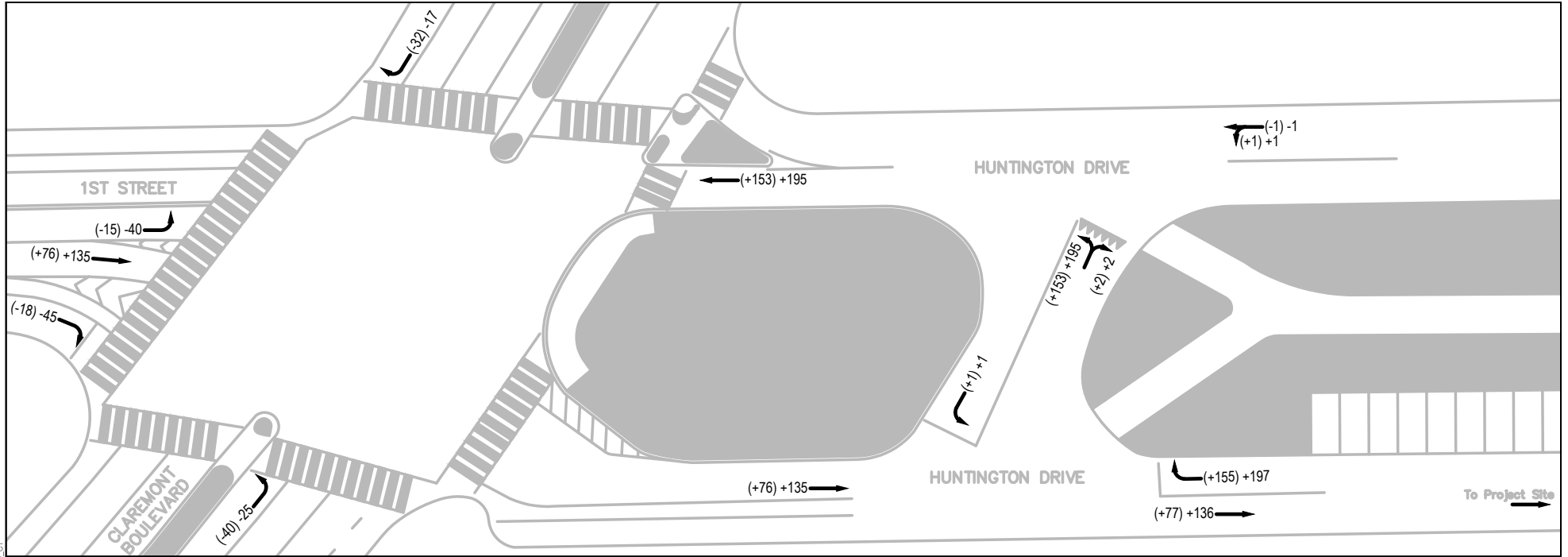
(X) Weekday AM Peak Hour Traffic Volumes

X Weekday PM Peak Hour Traffic Volumes

SOURCE: Bing Maps

Figure 3
Existing Peak Hour Traffic Volume Re-Assignment with Huntington Drive Extension
Alexan Montclair Station

Jul 02, 2021 - 1:38pm - amercus - P:\306\Environmental\13207 Alexan Montclair Station\Graphics\13207_Concept_070121.dwg Layout: Fig2 - Ex CT



Legend

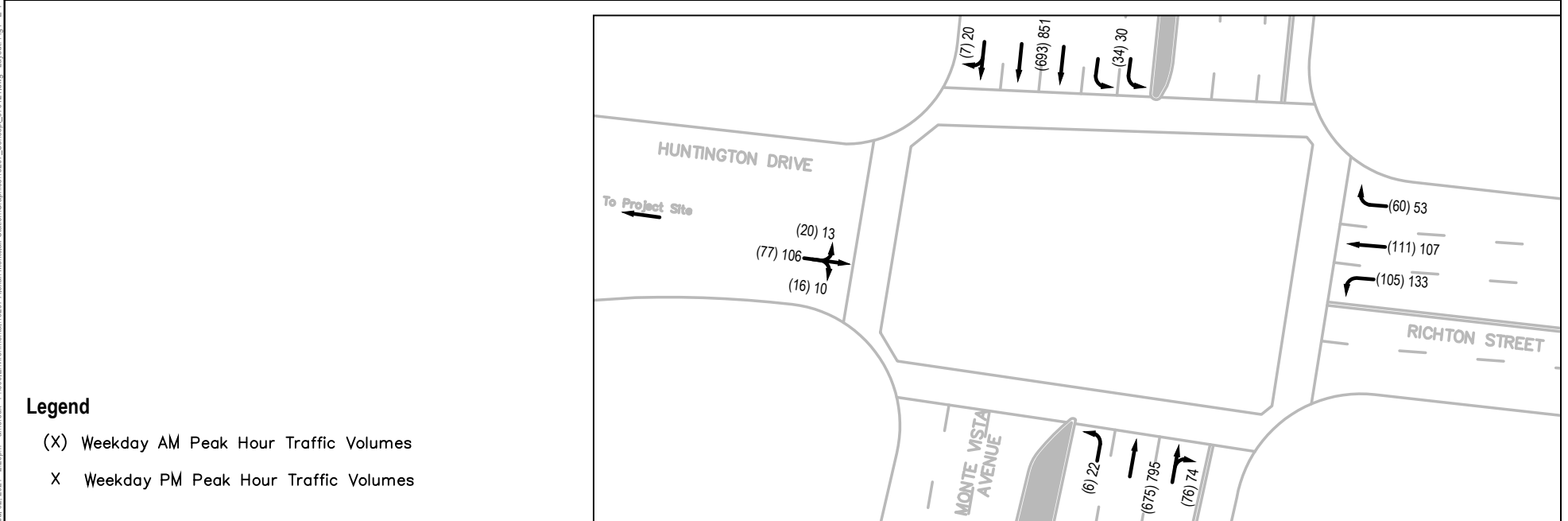
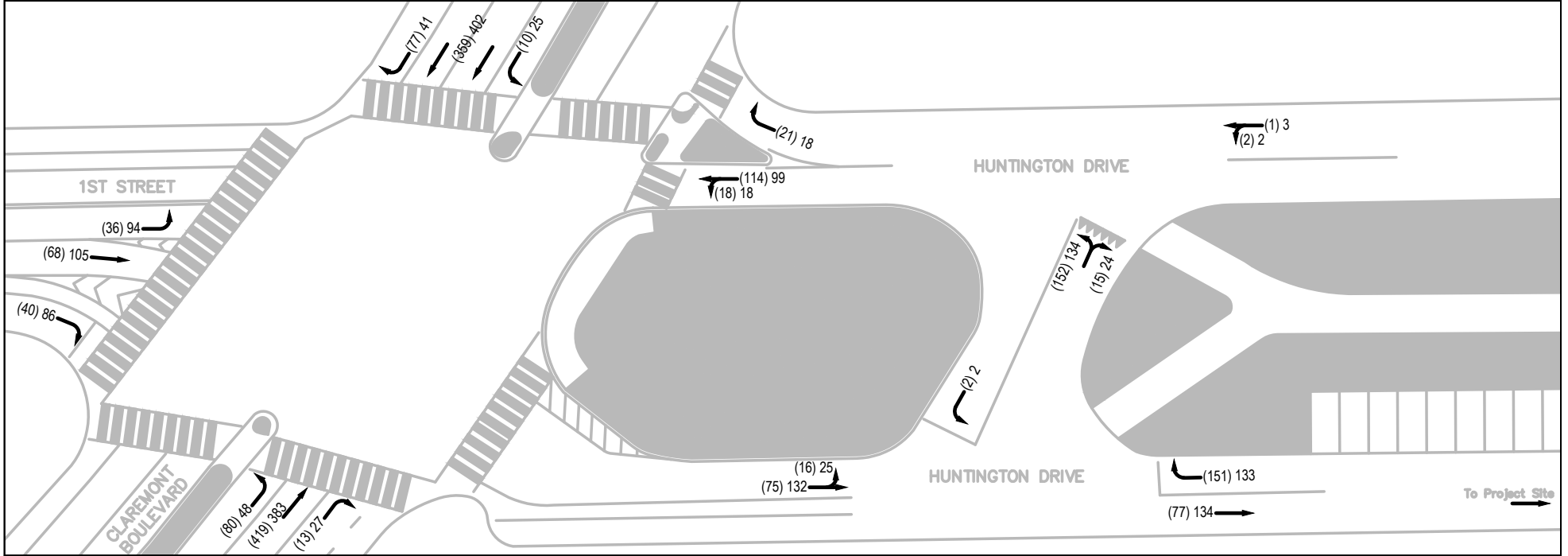
(X) Weekday AM Peak Hour Traffic Volumes

X Weekday PM Peak Hour Traffic Volumes

SOURCE: Bing Maps

Figure 4
Buildout Year (2040) Peak Hour Traffic Volume Re-Assignment with Huntington Drive Extension

Jul 02, 2021 - 1:55pm - amercus - P:\306\Environmental\13207 Alexan Montclair Station\Graphics\13207_Concept_070121.dwg - Layout: Figs - 2040_CT



Legend

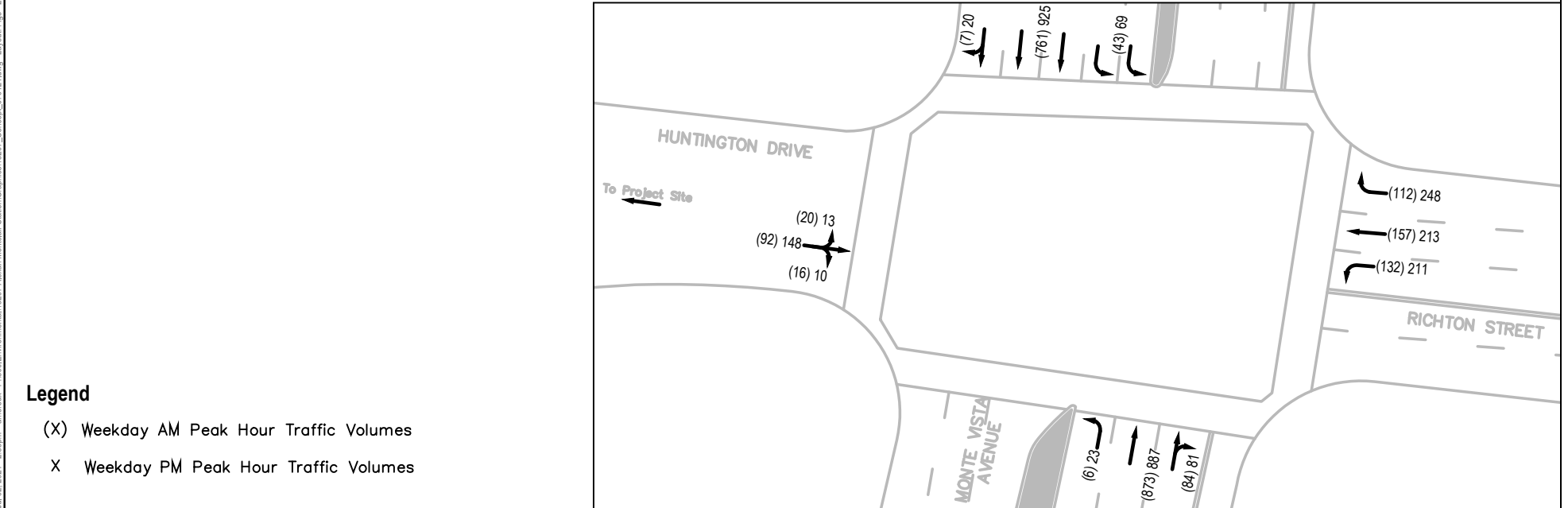
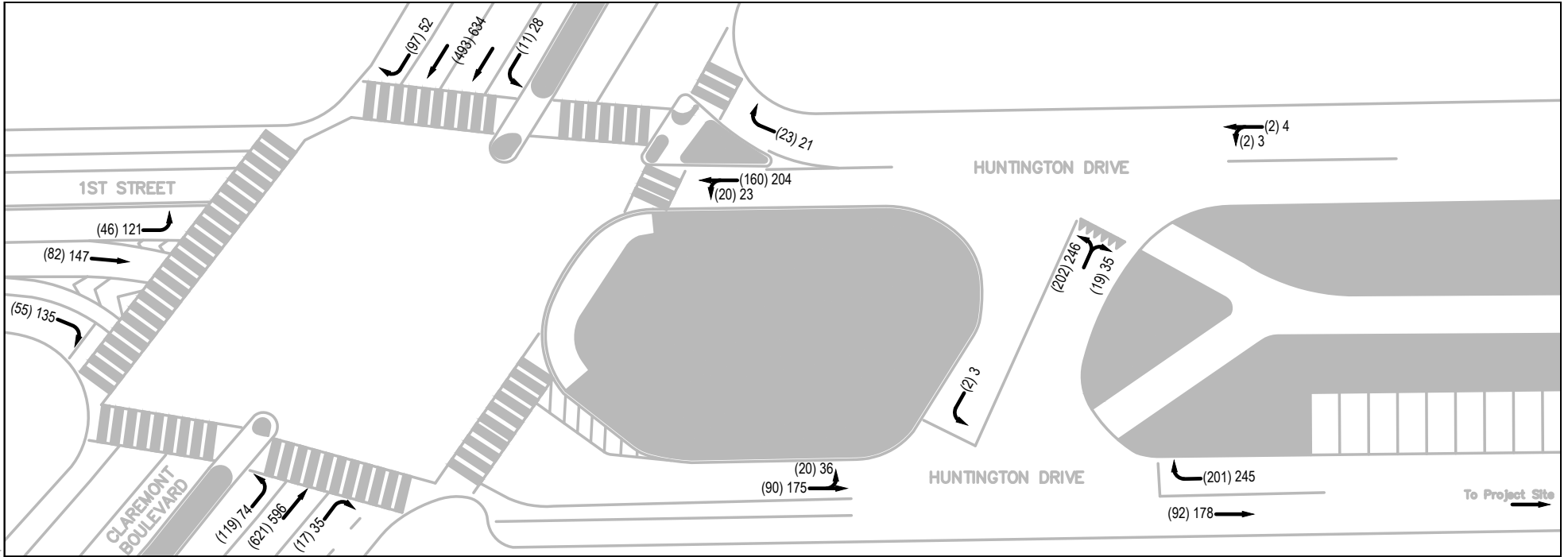
(X) Weekday AM Peak Hour Traffic Volumes

X Weekday PM Peak Hour Traffic Volumes

SOURCE: Bing Maps

Figure 5
Existing plus Project Peak Hour Traffic Volumes
Alexan Montclair Station

Jul 02, 2021 - 2:26pm - amercus - P:\306\Environmental\13207 Alexan Montclair Station\Graphics\13207_Concept_070121.dwg - Layout: Fig4 - E-IP



Legend

- (X) Weekday AM Peak Hour Traffic Volumes
- X Weekday PM Peak Hour Traffic Volumes

SOURCE: Bing Maps

Figure 6
Buildout Year (2040) plus Project Peak Hour Traffic Volumes

Jul 02, 2021 - 2:38pm - amercus - P:\306\Environmental\13207 Alexan Montclair Station\Graphics\13207_Concept_070121.dwg - Layout: Fig5 - 2040-P



Attachment A

Raw Traffic Counts

National Data & Surveying Services Intersection Turning Movement Count

Location: S Claremont Blvd & E 1st St or Huntington Dr
City: Claremont
Control: Signalized

Project ID: 21-030001-001
Date: 1/7/2021

Data - Totals

NS/EW Streets:	S Claremont Blvd				S Claremont Blvd				E 1st St or Huntington Dr				E 1st St or Huntington Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	2 NT	0 NR	0 NU	1 SL	2 ST	1 SR	0 SU	1 EL	1 ET	1 ER	0 EU	0.5 WL	0.5 WT	1 WR	0 WU	
7:00 AM	6	34	3	0	0	29	4	0	1	1	3	0	3	0	1	0	85
7:15 AM	5	32	1	0	0	34	5	0	4	0	5	0	2	0	2	0	90
7:30 AM	9	39	0	2	0	34	7	0	4	0	10	0	0	0	0	0	105
7:45 AM	10	60	1	0	0	44	8	0	4	0	3	0	1	0	1	0	132
8:00 AM	7	26	1	0	1	40	11	0	3	1	7	0	0	0	0	0	97
8:15 AM	12	38	1	1	0	30	5	0	6	0	5	0	0	0	2	0	100
8:30 AM	10	34	0	0	0	30	17	1	6	0	6	0	1	0	0	0	105
8:45 AM	6	43	0	0	0	27	17	0	7	0	5	0	0	1	0	0	106
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
	65	306	7	3	1	268	74	1	35	2	44	0	7	1	6	0	820
APPROACH %'s:	17.06%	80.31%	1.84%	0.79%	0.29%	77.91%	21.51%	0.29%	43.21%	2.47%	54.32%	0.00%	50.00%	7.14%	42.86%	0.00%	
PEAK HR:	07:45 AM - 08:45 AM																
PEAK HR VOL:	39	158	3	1	1	144	41	1	19	1	21	0	2	0	3	0	434
PEAK HR FACTOR:	0.813	0.658	0.750	0.250	0.250	0.818	0.603	0.250	0.792	0.250	0.750	0.000	0.500	0.000	0.375	0.000	0.822
	0.708				0.899				0.854				0.625				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	2 NT	0 NR	0 NU	1 SL	2 ST	1 SR	0 SU	1 EL	1 ET	1 ER	0 EU	0.5 WL	0.5 WT	1 WR	0 WU	
4:00 PM	11	62	1	0	3	49	16	0	14	1	11	0	3	0	1	0	172
4:15 PM	9	62	0	0	1	47	14	0	12	0	16	0	0	1	1	0	163
4:30 PM	9	53	1	0	1	43	7	0	19	0	11	0	2	0	2	0	148
4:45 PM	16	62	2	0	1	72	14	0	17	2	15	0	0	0	2	0	203
5:00 PM	8	55	4	1	2	62	3	0	19	1	27	0	0	1	0	0	183
5:15 PM	7	54	3	1	3	55	9	0	17	0	12	0	5	0	3	0	169
5:30 PM	9	82	0	0	1	44	7	0	24	0	12	0	0	1	1	0	181
5:45 PM	11	34	1	0	2	53	6	0	5	0	13	0	0	0	1	0	126
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
	80	464	12	2	14	425	76	0	127	4	117	0	10	3	11	0	1345
APPROACH %'s:	14.34%	83.15%	2.15%	0.36%	2.72%	82.52%	14.76%	0.00%	51.21%	1.61%	47.18%	0.00%	41.67%	12.50%	45.83%	0.00%	
PEAK HR:	04:45 PM - 05:45 PM																
PEAK HR VOL:	40	253	9	2	7	233	33	0	77	3	66	0	5	2	6	0	736
PEAK HR FACTOR:	0.625	0.771	0.563	0.500	0.583	0.809	0.589	0.000	0.802	0.375	0.611	0.000	0.250	0.500	0.500	0.000	0.906
	0.835				0.784				0.777				0.406				

National Data & Surveying Services Intersection Turning Movement Count

Location: S Claremont Blvd & E 1st St or Huntington Dr
 City: Claremont
 Control: Signalized

Project ID: 21-030001-001
 Date: 1/7/2021

Data - Bikes

NS/EW Streets:	S Claremont Blvd				S Claremont Blvd				E 1st St or Huntington Dr				E 1st St or Huntington Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1 NL	2 NT	0 NR	0 NU	1 SL	2 ST	1 SR	0 SU	1 EL	1 ET	1 ER	0 EU	0.5 WL	0.5 WT	1 WR	0 WU	TOTAL
7:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	3
7:45 AM	2	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	4
8:00 AM	0	0	2	0	1	0	0	0	0	3	0	0	2	1	0	0	9
8:15 AM	2	0	1	0	0	0	0	0	0	0	2	0	0	2	0	0	7
8:30 AM	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2
8:45 AM	2	0	0	0	0	1	0	0	0	2	0	0	0	0	0	0	5
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	58.33%	8.33%	33.33%	0.00%	33.33%	33.33%	33.33%	0.00%	0.00%	80.00%	20.00%	0.00%	25.00%	75.00%	0.00%	0.00%	33
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	5	0	4	0	1	0	0	0	0	4	2	0	2	4	0	0	22
PEAK HR FACTOR :	0.625	0.000	0.500	0.000	0.250	0.000	0.000	0.000	0.000	0.333	0.250	0.000	0.250	0.500	0.000	0.000	0.611
	0.750				0.250				0.500				0.500				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1 NL	2 NT	0 NR	0 NU	1 SL	2 ST	1 SR	0 SU	1 EL	1 ET	1 ER	0 EU	0.5 WL	0.5 WT	1 WR	0 WU	TOTAL
4:00 PM	0	0	0	0	0	0	1	0	0	1	2	0	0	0	1	0	5
4:15 PM	0	5	1	0	1	2	1	0	0	2	1	0	0	3	0	1	17
4:30 PM	0	0	0	0	0	0	1	0	0	7	1	0	1	2	1	0	13
4:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	1	3	0	0	5
5:00 PM	0	0	0	0	0	3	0	0	1	3	1	0	1	0	1	0	10
5:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	3
5:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0.00%	83.33%	16.67%	0.00%	10.00%	50.00%	40.00%	0.00%	4.76%	71.43%	23.81%	0.00%	23.53%	52.94%	17.65%	5.88%	54
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	3	1	0	1	5	1	0	3	4	1	0	19
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.250	0.417	0.250	0.000	0.750	0.333	0.250	0.000	0.475
	0.000				0.333				0.350				0.500				

National Data & Surveying Services Intersection Turning Movement Count

Location: S Claremont Blvd & E 1st St or Huntington Dr
City: Claremont

Project ID: 21-030001-001
Date: 1/7/2021

Data - Pedestrians (Crosswalks)

NS/EW Streets:	S Claremont Blvd		S Claremont Blvd		E 1st St or Huntington Dr		E 1st St or Huntington Dr		TOTAL
	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
AM	EB	WB	EB	WB	NB	SB	NB	SB	
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	2	0	1	1	0	0	1	5
7:30 AM	1	0	0	0	0	0	1	0	2
7:45 AM	0	1	0	0	0	0	0	0	1
8:00 AM	3	1	0	0	0	0	0	0	4
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	2	1	2	1	0	3	0	9
8:45 AM	0	0	1	0	0	0	2	0	3
TOTAL VOLUMES :	EB 4	WB 6	EB 2	WB 3	NB 2	SB 0	NB 6	SB 1	TOTAL 24
APPROACH %'s :	40.00%	60.00%	40.00%	60.00%	100.00%	0.00%	85.71%	14.29%	
PEAK HR :	07:45 AM - 08:45 AM								TOTAL
PEAK HR VOL :	3	4	1	2	1	0	3	0	14
PEAK HR FACTOR :	0.250	0.500	0.250	0.250	0.250	0	0.250	0	0.389
	0.438		0.250		0.250		0.250		

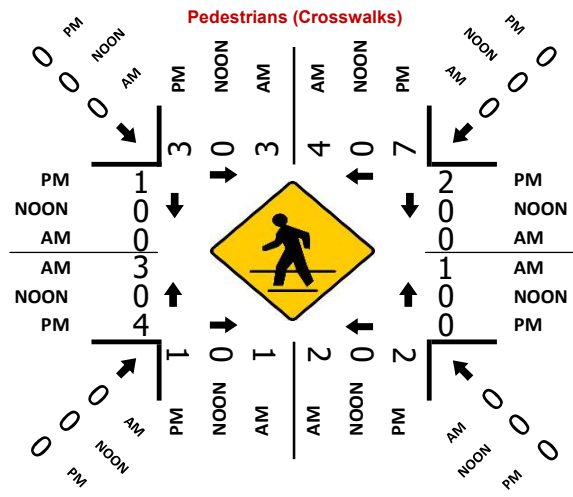
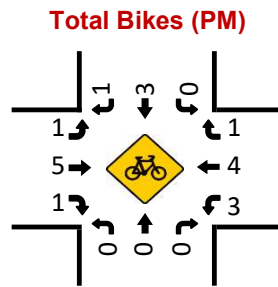
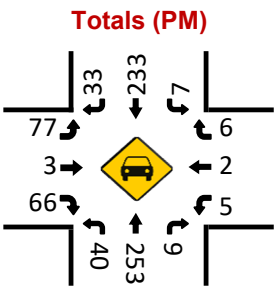
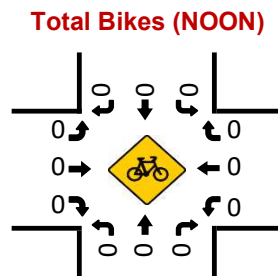
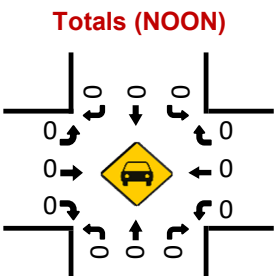
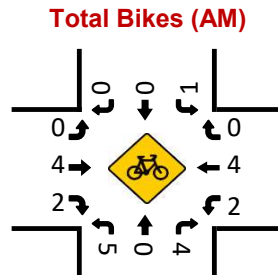
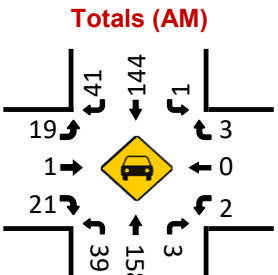
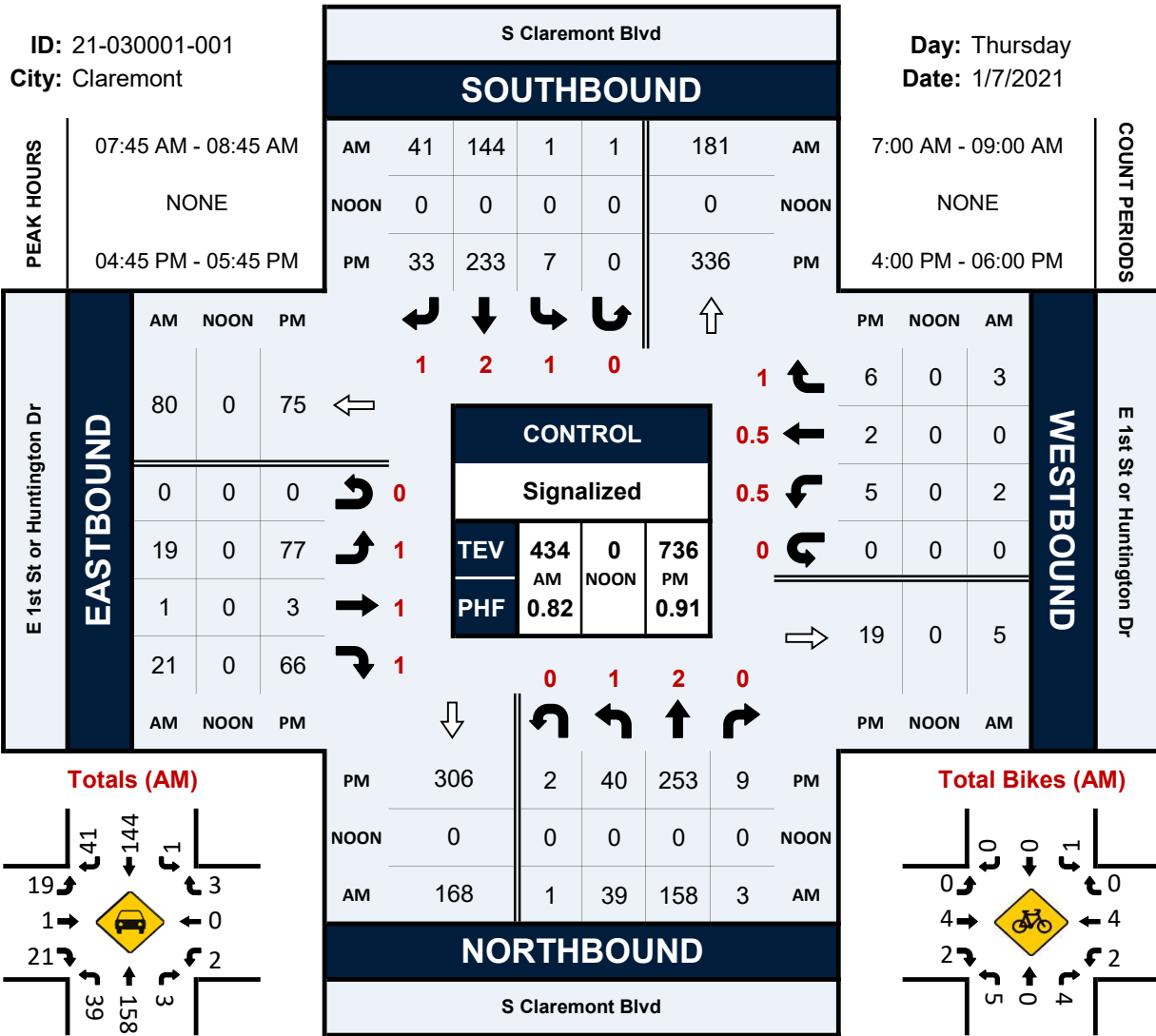
NS/EW Streets:	S Claremont Blvd		S Claremont Blvd		E 1st St or Huntington Dr		E 1st St or Huntington Dr		TOTAL
	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
PM	EB	WB	EB	WB	NB	SB	NB	SB	
4:00 PM	0	2	2	1	0	1	2	0	8
4:15 PM	1	2	0	2	0	0	0	1	6
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	1	3	0	0	0	0	0	0	4
5:00 PM	0	2	0	0	0	2	0	1	5
5:15 PM	0	0	1	2	0	0	3	0	6
5:30 PM	2	2	0	0	0	0	1	0	5
5:45 PM	1	0	0	0	0	0	3	1	5
TOTAL VOLUMES :	EB 5	WB 11	EB 3	WB 5	NB 0	SB 3	NB 9	SB 3	TOTAL 39
APPROACH %'s :	31.25%	68.75%	37.50%	62.50%	0.00%	100.00%	75.00%	25.00%	
PEAK HR :	04:45 PM - 05:45 PM								TOTAL
PEAK HR VOL :	3	7	1	2	0	2	4	1	20
PEAK HR FACTOR :	0.375	0.583	0.250	0.250	0.250	0.250	0.333	0.250	0.833
	0.625		0.250		0.250		0.417		

S Claremont Blvd & E 1st St or Huntington Dr

Peak Hour Turning Movement Count

ID: 21-030001-001
City: Claremont

Day: Thursday
Date: 1/7/2021



National Data & Surveying Services Intersection Turning Movement Count

Location: S Mills Ave or S Claremont Blvd & E Arrow Hwy
City: Claremont
Control: Signalized

Project ID: 21-030001-002
Date: 1/7/2021

Data - Totals

NS/EW Streets:	S Mills Ave or S Claremont Blvd				S Mills Ave or S Claremont Blvd				E Arrow Hwy				E Arrow Hwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	2 NT	0 NR	0 NU	1 SL	1 ST	1 SR	0 SU	1 EL	2 ET	0 ER	0 EU	1 WL	2 WT	0 WR	0 WU	
7:00 AM	6	25	3	0	5	18	11	0	6	35	2	0	1	43	11	0	166
7:15 AM	9	21	5	0	7	17	15	0	14	46	1	0	2	47	4	0	188
7:30 AM	8	22	3	0	10	19	19	0	16	39	4	0	4	62	14	0	220
7:45 AM	5	37	5	0	5	21	22	0	23	55	2	0	3	56	8	0	242
8:00 AM	10	18	5	0	8	18	19	0	8	48	3	0	1	48	10	0	196
8:15 AM	4	31	1	0	7	21	10	0	12	47	3	0	2	50	8	0	196
8:30 AM	4	29	4	0	11	10	14	0	7	52	0	0	3	34	9	0	177
8:45 AM	7	24	3	0	3	18	12	0	16	46	5	0	5	49	7	0	195
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
	53	207	29	0	56	142	122	0	102	368	20	0	21	389	71	0	1580
APPROACH %'s:	18.34%	71.63%	10.03%	0.00%	17.50%	44.38%	38.13%	0.00%	20.82%	75.10%	4.08%	0.00%	4.37%	80.87%	14.76%	0.00%	
PEAK HR:	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL:	27	108	14	0	30	79	70	0	59	189	12	0	10	216	40	0	854
PEAK HR FACTOR:	0.675	0.730	0.700	0.000	0.750	0.940	0.795	0.000	0.641	0.859	0.750	0.000	0.625	0.871	0.714	0.000	0.882
	0.793				0.932				0.813				0.831				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	2 NT	0 NR	0 NU	1 SL	1 ST	1 SR	0 SU	1 EL	2 ET	0 ER	0 EU	1 WL	2 WT	0 WR	0 WU	
4:00 PM	14	34	19	0	12	25	27	0	27	130	11	0	8	66	11	0	384
4:15 PM	12	33	3	0	12	37	14	0	28	165	12	0	13	70	13	0	412
4:30 PM	13	43	8	0	8	30	15	0	16	133	14	1	6	63	8	0	358
4:45 PM	17	36	3	0	14	52	23	0	34	143	12	0	6	63	9	0	412
5:00 PM	9	35	9	0	17	47	25	0	17	161	14	0	13	70	10	0	427
5:15 PM	17	43	13	0	11	39	24	0	18	174	13	0	5	92	8	0	457
5:30 PM	14	52	5	0	14	27	16	0	25	145	8	0	14	76	10	0	406
5:45 PM	13	19	5	0	15	34	18	0	13	105	6	0	6	58	13	0	305
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
	109	295	65	0	103	291	162	0	178	1156	90	1	71	558	82	0	3161
APPROACH %'s:	23.24%	62.90%	13.86%	0.00%	18.53%	52.34%	29.14%	0.00%	12.49%	81.12%	6.32%	0.07%	9.99%	78.48%	11.53%	0.00%	
PEAK HR:	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL:	57	166	30	0	56	165	88	0	94	623	47	0	38	301	37	0	1702
PEAK HR FACTOR:	0.838	0.798	0.577	0.000	0.824	0.793	0.880	0.000	0.691	0.895	0.839	0.000	0.679	0.818	0.925	0.000	0.931
	0.866				0.868				0.932				0.895				

National Data & Surveying Services

Intersection Turning Movement Count

Location: S Mills Ave & E Arrow Hwy
City: Montclair
Control: Signalized

Project ID: 18-06063-001
Date: 5/10/2018

Total

NS/EW Streets:	S Mills Ave				S Mills Ave				E Arrow Hwy				E Arrow Hwy				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	1	2	0	0	1	1	1	0	1	2	0	0	1	2	0	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
7:00 AM	18	32	7	0	7	36	36	1	11	33	2	0	3	101	20	0	307
7:15 AM	13	44	8	0	7	38	31	0	13	76	5	0	9	147	17	0	408
7:30 AM	24	93	5	0	13	44	49	0	30	61	7	0	5	164	33	0	528
7:45 AM	33	68	7	0	10	57	52	0	38	99	6	0	11	176	31	0	588
8:00 AM	14	70	7	0	11	45	33	0	29	111	8	0	12	129	25	0	494
8:15 AM	9	54	5	0	11	40	36	1	22	90	4	1	5	129	21	0	428
8:30 AM	15	49	4	0	16	32	23	0	20	65	7	0	9	75	28	0	343
8:45 AM	15	36	5	0	12	32	38	0	15	111	5	0	3	69	8	0	349
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
	141	446	48	0	87	324	298	2	178	646	44	1	57	990	183	0	3445
APPROACH %'s:	22.20%	70.24%	7.56%	0.00%	12.24%	45.57%	41.91%	0.28%	20.48%	74.34%	5.06%	0.12%	4.63%	80.49%	14.88%	0.00%	
PEAK HR:	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL:	80	285	24	0	45	186	170	1	119	361	25	1	33	598	110	0	2038
PEAK HR FACTOR:	0.606	0.766	0.857	0.000	0.865	0.816	0.817	0.250	0.783	0.813	0.781	0.250	0.688	0.849	0.833	0.000	0.866
	0.797				0.845				0.855				0.850				
PM	1	2	0	0	1	1	1	0	1	2	0	0	1	2	0	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	19	47	4	0	17	59	38	0	37	176	14	0	8	104	15	0	538
4:15 PM	17	56	12	0	22	51	32	0	38	226	7	0	11	124	18	0	614
4:30 PM	18	50	10	0	28	69	36	0	25	225	11	0	10	118	14	0	614
4:45 PM	19	63	11	0	30	46	38	2	47	307	13	0	9	109	23	0	717
5:00 PM	14	54	7	0	42	81	35	0	40	235	14	0	10	92	15	0	639
5:15 PM	17	45	7	0	20	49	39	0	40	270	15	0	5	117	17	0	641
5:30 PM	18	44	5	0	22	55	46	0	37	277	10	0	12	103	17	0	646
5:45 PM	11	48	6	0	14	46	42	0	45	219	12	0	10	117	16	0	586
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
	133	407	62	0	195	456	306	2	309	1935	96	0	75	884	135	0	4995
APPROACH %'s:	22.09%	67.61%	10.30%	0.00%	20.33%	47.55%	31.91%	0.21%	13.21%	82.69%	4.10%	0.00%	6.86%	80.80%	12.34%	0.00%	
PEAK HR:	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL:	68	206	30	0	114	231	158	2	164	1089	52	0	36	421	72	0	2643
PEAK HR FACTOR:	0.895	0.817	0.682	0.000	0.679	0.713	0.859	0.250	0.872	0.887	0.867	0.000	0.750	0.900	0.783	0.000	0.922
	0.817				0.799				0.889				0.938				

National Data & Surveying Services

Intersection Turning Movement Count

Location: S Mills Ave & E Arrow Hwy
City: Montclair
Control: Signalized

Project ID: 18-06063-001
Date: 5/10/2018

Bikes

NS/EW Streets:	S Mills Ave				S Mills Ave				E Arrow Hwy				E Arrow Hwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	2 NT	0 NR	0 NU	1 SL	1 ST	1 SR	0 SU	1 EL	2 ET	0 ER	0 EU	1 WL	2 WT	0 WR	0 WU	
7:00 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
7:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	2
7:45 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
8:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0	0.00%	0.00%	66.67%	0.00%	33.33%	0.00%	16
PEAK HR:	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL:	0	7	0	0	0	1	0	0	0	0	0	0	0	0	1	0	9
PEAK HR FACTOR:	0.000	0.438	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.563
	0.438				0.250								0.250				

NS/EW Streets:	S Mills Ave				S Mills Ave				E Arrow Hwy				E Arrow Hwy				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	2 NT	0 NR	0 NU	1 SL	1 ST	1 SR	0 SU	1 EL	2 ET	0 ER	0 EU	1 WL	2 WT	0 WR	0 WU	
4:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0	3
5:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	33.33%	66.67%	0.00%	0.00%	0.00%	66.67%	33.33%	0.00%	66.67%	33.33%	0.00%	0.00%	0	0	0	0	9
PEAK HR:	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL:	0	1	0	0	0	2	1	0	1	1	0	0	0	0	0	0	6
PEAK HR FACTOR:	0.00	0.250	0.000	0.000	0.000	0.500	0.250	0.000	0.250	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.500
	0.250				0.375				0.500								

National Data & Surveying Services

Intersection Turning Movement Count

Location: S Mills Ave & E Arrow Hwy
City: Montclair

Project ID: 18-05063-001
Date: 5/10/2018

Pedestrians (Crosswalks)

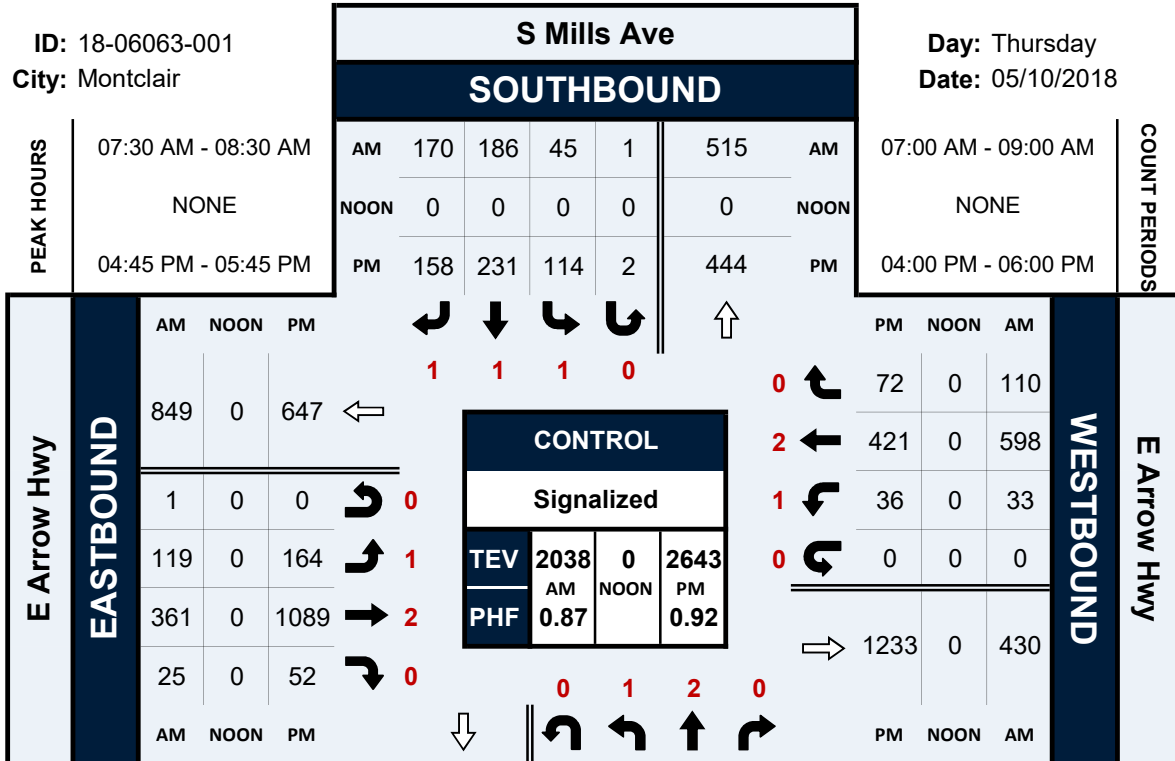
NS/EW Streets:	S Mills Ave		S Mills Ave		E Arrow Hwy		E Arrow Hwy				
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL		
	EB	WB	EB	WB	NB	SB	NB	SB			
	7:00 AM	1	1	0	0	1	1	0		0	4
	7:15 AM	1	0	0	0	0	0	2		2	5
	7:30 AM	0	0	0	0	0	0	1		0	1
	7:45 AM	0	0	1	0	0	1	1		2	5
	8:00 AM	0	0	0	0	1	1	0		0	2
	8:15 AM	0	0	0	0	0	1	2		1	4
	8:30 AM	0	0	0	0	1	0	0		0	1
	8:45 AM	0	0	0	1	0	2	0		0	3
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL		
APPROACH %'s :	66.67%	33.33%	50.00%	50.00%	33.33%	66.67%	54.55%	45.45%	25		
PEAK HR :	07:30 AM - 08:30 AM								TOTAL		
PEAK HR VOL :	0	0	1	0	1	3	4	3	12		
PEAK HR FACTOR :			0.250	0	0.250	0.750	0.500	0.375	0.600		
			0.250		0.500		0.583				
PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL		
	EB	WB	EB	WB	NB	SB	NB	SB			
	4:00 PM	2	0	0	0	0	0	0		2	
	4:15 PM	0	0	1	0	1	0	0		2	
	4:30 PM	0	0	0	0	2	0	1		3	
	4:45 PM	0	0	0	0	0	1	0		3	4
	5:00 PM	0	0	0	0	0	0	0		0	0
	5:15 PM	0	0	0	0	0	1	0		0	1
	5:30 PM	0	0	0	0	0	0	0		0	0
	5:45 PM	0	0	0	0	2	0	0		0	2
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL		
APPROACH %'s :	100.00%	0.00%	100.00%	0.00%	71.43%	28.57%	25.00%	75.00%	14		
PEAK HR :	04:45 PM - 05:45 PM								TOTAL		
PEAK HR VOL :	0	0	0	0	0	2	0	3	5		
PEAK HR FACTOR :					0.500	0.500	0.250	0.250	0.313		
					0.500		0.250				

S Mills Ave & E Arrow Hwy

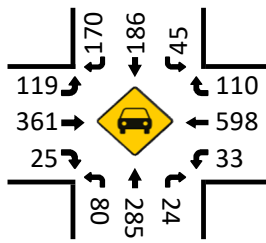
Peak Hour Turning Movement Count

ID: 18-06063-001
City: Montclair

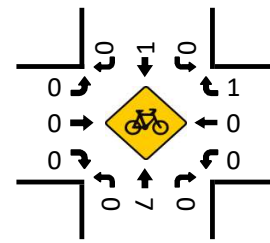
Day: Thursday
Date: 05/10/2018



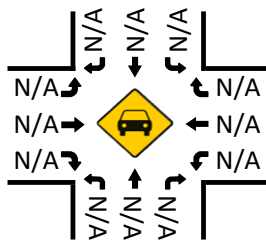
Total Vehicles (AM)



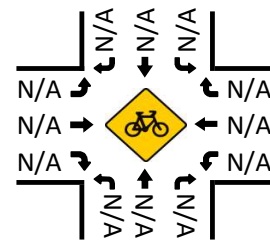
Bikes (AM)



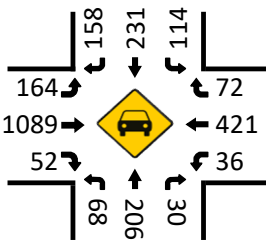
Total Vehicles (Noon)



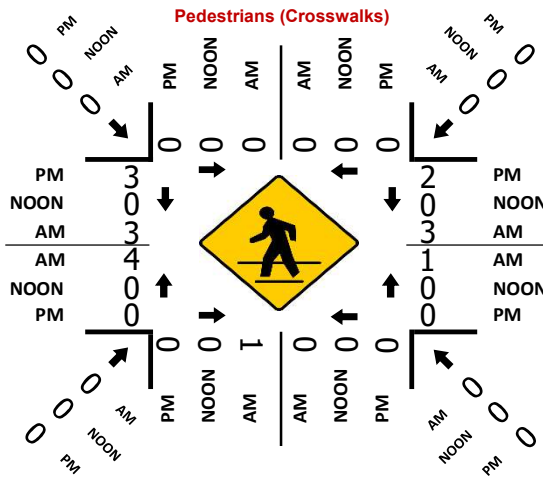
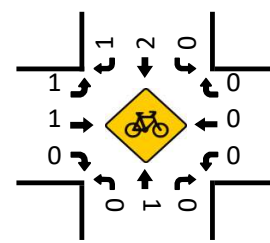
Bikes (NOON)



Total Vehicles (PM)



Bikes (PM)




























Attachment B

Synchro LOS and SimTraffic Queuing Worksheets

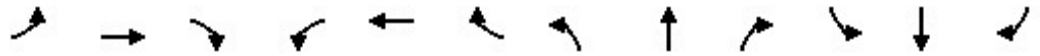
HCM 6th Signalized Intersection Summary
 1: Claremont Boulevard & 1st Street/Huntington Drive

Existing
 Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	3	53	5	0	8	107	419	9	5	359	102
Future Volume (veh/h)	48	3	53	5	0	8	107	419	9	5	359	102
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		1.00	1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	59	4	65	6	0	0	130	511	11	6	438	124
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	195	205	167	45	0		568	1854	40	571	1854	824
Arrive On Green	0.11	0.11	0.11	0.03	0.00	0.00	0.52	0.52	0.52	0.52	0.52	0.52
Sat Flow, veh/h	1781	1870	1524	1781	0	1585	847	3555	76	879	3554	1580
Grp Volume(v), veh/h	59	4	65	6	0	0	130	255	267	6	438	124
Grp Sat Flow(s),veh/h/ln	1781	1870	1524	1781	0	1585	847	1777	1854	879	1777	1580
Q Serve(g_s), s	1.2	0.1	1.6	0.1	0.0	0.0	3.9	3.2	3.2	0.2	2.6	1.6
Cycle Q Clear(g_c), s	1.2	0.1	1.6	0.1	0.0	0.0	6.5	3.2	3.2	3.3	2.6	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	195	205	167	45	0		568	927	967	571	1854	824
V/C Ratio(X)	0.30	0.02	0.39	0.13	0.00		0.23	0.28	0.28	0.01	0.24	0.15
Avail Cap(c_a), veh/h	816	857	698	816	0		568	927	967	571	1854	824
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.1	15.6	16.3	18.7	0.0	0.0	6.9	5.3	5.3	6.2	5.1	4.9
Incr Delay (d2), s/veh	0.9	0.0	1.5	1.3	0.0	0.0	0.9	0.7	0.7	0.0	0.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.5	0.1	0.0	0.0	0.6	0.8	0.8	0.0	0.5	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.0	15.6	17.7	20.1	0.0	0.0	7.8	6.0	6.0	6.2	5.4	5.3
LnGrp LOS	B	B	B	C	A		A	A	A	A	A	A
Approach Vol, veh/h		128			6	A		652			568	
Approach Delay, s/veh		17.3			20.1			6.3			5.4	
Approach LOS		B			C			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		25.0		5.5		25.0		8.8				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		20.5		18.0		20.5		18.0				
Max Q Clear Time (g_c+I1), s		8.5		2.1		5.3		3.6				
Green Ext Time (p_c), s		3.0		0.0		2.8		0.3				
Intersection Summary												
HCM 6th Ctrl Delay			7.0									
HCM 6th LOS			A									
Notes												
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th Signalized Intersection Summary
 34: Monte Vista Ave & Huntington Drive/Richton Street

Existing
 Timing Plan: AM Peak Hour


























Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↗	↖	↗	↗	↕		↗	↖	↖
Traffic Volume (veh/h)	0	0	0	139	0	80	0	675	102	46	693	0
Future Volume (veh/h)	0	0	0	139	0	80	0	675	102	46	693	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	0	0	146	0	84	0	711	107	48	729	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	2	0	229	241	201	2	1590	237	1603	4300	0
Arrive On Green	0.00	0.00	0.00	0.13	0.00	0.13	0.00	0.35	0.35	0.46	0.83	0.00
Sat Flow, veh/h	0	-38000	0	1810	1900	1591	1810	4544	677	3510	5358	0
Grp Volume(v), veh/h	0	0	0	146	0	84	0	539	279	48	729	0
Grp Sat Flow(s),veh/h/ln	0	1900	0	1810	1900	1591	1810	1729	1762	1755	1729	0
Q Serve(g_s), s	0.0	0.0	0.0	6.9	0.0	4.4	0.0	10.8	11.0	0.7	2.5	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	6.9	0.0	4.4	0.0	10.8	11.0	0.7	2.5	0.0
Prop In Lane	0.00		0.00	1.00		1.00	1.00		0.38	1.00		0.00
Lane Grp Cap(c), veh/h	0	2	0	229	241	201	2	1210	617	1603	4300	0
V/C Ratio(X)	0.00	0.00	0.00	0.64	0.00	0.42	0.00	0.45	0.45	0.03	0.17	0.00
Avail Cap(c_a), veh/h	0	433	0	422	918	769	151	1210	617	1603	4300	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	37.3	0.0	36.2	0.0	22.5	22.6	13.5	1.5	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	2.9	0.0	1.4	0.0	1.2	2.4	0.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	3.1	0.0	1.7	0.0	4.3	4.6	0.2	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	40.3	0.0	37.6	0.0	23.7	25.0	13.5	1.6	0.0
LnGrp LOS	A	A	A	D	A	D	A	C	C	B	A	A
Approach Vol, veh/h		0			230			818			777	
Approach Delay, s/veh		0.0			39.3			24.1			2.3	
Approach LOS					D			C			A	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	43.1	33.5	13.4	0.0	0.0	76.6		13.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	6.5	29.0	18.5	18.0	5.0	30.5		41.0				
Max Q Clear Time (g_c+I1), s	2.7	13.0	8.9	0.0	0.0	4.5		6.4				
Green Ext Time (p_c), s	0.0	4.4	0.2	0.0	0.0	4.8		0.2				

Intersection Summary												
HCM 6th Ctrl Delay				16.8								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 1: Claremont Boulevard & 1st Street/Huntington Drive

Existing
 Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	125	4	114	10	4	10	64	383	14	12	402	54
Future Volume (veh/h)	125	4	114	10	4	10	64	383	14	12	402	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	137	4	125	11	4	0	70	421	15	13	442	59
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	260	273	223	47	17		548	1708	61	574	1736	772
Arrive On Green	0.15	0.15	0.15	0.04	0.04	0.00	0.49	0.49	0.49	0.49	0.49	0.49
Sat Flow, veh/h	1781	1870	1530	1323	481	1585	896	3497	124	951	3554	1580
Grp Volume(v), veh/h	137	4	125	15	0	0	70	213	223	13	442	59
Grp Sat Flow(s),veh/h/ln	1781	1870	1530	1804	0	1585	896	1777	1844	951	1777	1580
Q Serve(g_s), s	2.9	0.1	3.1	0.3	0.0	0.0	2.0	2.9	2.9	0.3	3.0	0.8
Cycle Q Clear(g_c), s	2.9	0.1	3.1	0.3	0.0	0.0	5.0	2.9	2.9	3.2	3.0	0.8
Prop In Lane	1.00		1.00	0.73		1.00	1.00		0.07	1.00		1.00
Lane Grp Cap(c), veh/h	260	273	223	65	0		548	868	901	574	1736	772
V/C Ratio(X)	0.53	0.01	0.56	0.23	0.00		0.13	0.25	0.25	0.02	0.25	0.08
Avail Cap(c_a), veh/h	805	845	691	793	0		548	868	901	574	1736	772
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.2	15.0	16.3	19.2	0.0	0.0	7.6	6.1	6.1	7.0	6.1	5.6
Incr Delay (d2), s/veh	1.6	0.0	2.2	1.8	0.0	0.0	0.5	0.7	0.7	0.1	0.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	1.0	0.2	0.0	0.0	0.3	0.8	0.8	0.1	0.7	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.8	15.0	18.4	21.0	0.0	0.0	8.1	6.8	6.7	7.1	6.5	5.8
LnGrp LOS	B	B	B	C	A		A	A	A	A	A	A
Approach Vol, veh/h		266			15	A		506			514	
Approach Delay, s/veh		18.1			21.0			6.9			6.4	
Approach LOS		B			C			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		24.5		6.0		24.5		10.5				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		20.0		18.0		20.0		18.5				
Max Q Clear Time (g_c+I1), s		7.0		2.3		5.2		5.1				
Green Ext Time (p_c), s		2.3		0.0		2.6		0.7				
Intersection Summary												
HCM 6th Ctrl Delay				9.2								
HCM 6th LOS				A								
Notes												
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th Signalized Intersection Summary
 34: Monte Vista Ave & Huntington Drive/Richton Street

Existing
 Timing Plan: PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	177	0	71	6	795	99	41	851	0
Future Volume (veh/h)	0	0	0	177	0	71	6	795	99	41	851	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	0	0	186	0	75	6	837	104	43	896	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	2	0	270	284	238	64	1633	202	1523	3882	0
Arrive On Green	0.00	0.00	0.00	0.15	0.00	0.15	0.04	0.35	0.35	0.43	0.75	0.00
Sat Flow, veh/h	0	-38000	0	1810	1900	1594	1810	4665	576	3510	5358	0
Grp Volume(v), veh/h	0	0	0	186	0	75	6	619	322	43	896	0
Grp Sat Flow(s),veh/h/ln	0	1900	0	1810	1900	1594	1810	1729	1783	1755	1729	0
Q Serve(g_s), s	0.0	0.0	0.0	8.8	0.0	3.8	0.3	12.8	12.9	0.6	4.7	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	8.8	0.0	3.8	0.3	12.8	12.9	0.6	4.7	0.0
Prop In Lane	0.00		0.00	1.00		1.00	1.00		0.32	1.00		0.00
Lane Grp Cap(c), veh/h	0	2	0	270	284	238	64	1210	624	1523	3882	0
V/C Ratio(X)	0.00	0.00	0.00	0.69	0.00	0.31	0.09	0.51	0.52	0.03	0.23	0.00
Avail Cap(c_a), veh/h	0	433	0	422	918	770	151	1210	624	1523	3882	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	36.3	0.0	34.2	42.0	23.2	23.2	14.6	3.4	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	3.1	0.0	0.7	0.6	1.5	3.0	0.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	4.0	0.0	1.5	0.1	5.0	5.5	0.2	1.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	39.4	0.0	34.9	42.6	24.7	26.2	14.6	3.6	0.0
LnGrp LOS	A	A	A	D	A	C	D	C	C	B	A	A
Approach Vol, veh/h		0			261			947			939	
Approach Delay, s/veh		0.0			38.1			25.3			4.1	
Approach LOS					D			C			A	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	41.1	33.5	15.4	0.0	5.2	69.4		15.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	6.5	29.0	18.5	18.0	5.0	30.5		41.0				
Max Q Clear Time (g_c+I1), s	2.6	14.9	10.8	0.0	2.3	6.7		5.8				
Green Ext Time (p_c), s	0.0	4.8	0.3	0.0	0.0	6.0		0.2				
Intersection Summary												
HCM 6th Ctrl Delay				17.6								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 1: Claremont Boulevard & 1st Street/Huntington Drive

Existing plus Project
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	68	40	18	114	21	80	419	13	10	359	77
Future Volume (veh/h)	36	68	40	18	114	21	80	419	13	10	359	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		1.00	1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	44	83	49	22	139	0	98	511	16	12	438	94
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	199	209	170	34	215		489	1598	50	476	1616	718
Arrive On Green	0.11	0.11	0.11	0.13	0.13	0.00	0.45	0.45	0.45	0.45	0.45	0.45
Sat Flow, veh/h	1781	1870	1519	254	1604	1585	871	3514	110	875	3554	1580
Grp Volume(v), veh/h	44	83	49	161	0	0	98	258	269	12	438	94
Grp Sat Flow(s),veh/h/ln	1781	1870	1519	1858	0	1585	871	1777	1847	875	1777	1580
Q Serve(g_s), s	1.0	1.9	1.3	3.7	0.0	0.0	3.6	4.2	4.2	0.4	3.5	1.6
Cycle Q Clear(g_c), s	1.0	1.9	1.3	3.7	0.0	0.0	7.0	4.2	4.2	4.6	3.5	1.6
Prop In Lane	1.00		1.00	0.14		1.00	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	199	209	170	249	0		489	808	840	476	1616	718
V/C Ratio(X)	0.22	0.40	0.29	0.65	0.00		0.20	0.32	0.32	0.03	0.27	0.13
Avail Cap(c_a), veh/h	711	747	606	742	0		489	808	840	476	1616	718
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.2	18.6	18.4	18.5	0.0	0.0	9.8	7.8	7.8	9.3	7.6	7.1
Incr Delay (d2), s/veh	0.6	1.2	0.9	2.8	0.0	0.0	0.9	1.0	1.0	0.1	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.7	0.4	1.6	0.0	0.0	0.6	1.4	1.4	0.1	1.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.8	19.8	19.3	21.3	0.0	0.0	10.7	8.9	8.9	9.4	8.1	7.5
LnGrp LOS	B	B	B	C	A		B	A	A	A	A	A
Approach Vol, veh/h		176			161	A		625			544	
Approach Delay, s/veh		19.4			21.3			9.2			8.0	
Approach LOS		B			C			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		25.0		10.5		25.0		9.5				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		20.5		18.0		20.5		18.0				
Max Q Clear Time (g_c+I1), s		9.0		5.7		6.6		3.9				
Green Ext Time (p_c), s		2.8		0.6		2.6		0.5				

Intersection Summary























HCM 6th Ctrl Delay	11.2
HCM 6th LOS	B

Notes

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

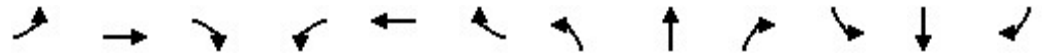
HCM 6th Signalized Intersection Summary
 34: Monte Vista Ave & Huntington Drive/Richton Street

Existing plus Project
 Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	77	16	105	111	60	6	675	76	34	693	7
Future Volume (veh/h)	20	77	16	105	111	60	6	675	76	34	693	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	1.00		0.99	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	81	17	111	117	63	6	711	80	36	729	7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	75	164	32	190	488	412	64	1653	184	1145	3394	33
Arrive On Green	0.13	0.13	0.13	0.11	0.26	0.26	0.04	0.35	0.35	0.33	0.64	0.64
Sat Flow, veh/h	217	1266	247	1810	1900	1601	1810	4724	527	3510	5296	51
Grp Volume(v), veh/h	119	0	0	111	117	63	6	519	272	36	476	260
Grp Sat Flow(s),veh/h/ln	1729	0	0	1810	1900	1601	1810	1729	1793	1755	1729	1889
Q Serve(g_s), s	2.5	0.0	0.0	5.3	4.4	2.7	0.3	10.3	10.5	0.6	5.2	5.2
Cycle Q Clear(g_c), s	5.6	0.0	0.0	5.3	4.4	2.7	0.3	10.3	10.5	0.6	5.2	5.2
Prop In Lane	0.18		0.14	1.00		1.00	1.00		0.29	1.00		0.03
Lane Grp Cap(c), veh/h	271	0	0	190	488	412	64	1210	628	1145	2216	1210
V/C Ratio(X)	0.44	0.00	0.00	0.58	0.24	0.15	0.09	0.43	0.43	0.03	0.21	0.22
Avail Cap(c_a), veh/h	437	0	0	422	918	774	151	1210	628	1145	2216	1210
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.5	0.0	0.0	38.4	26.5	25.9	42.0	22.4	22.4	20.6	6.7	6.7
Incr Delay (d2), s/veh	1.1	0.0	0.0	2.8	0.3	0.2	0.6	1.1	2.2	0.0	0.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	0.0	2.4	1.9	1.0	0.1	4.0	4.4	0.2	1.6	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.6	0.0	0.0	41.2	26.7	26.0	42.6	23.5	24.6	20.6	7.0	7.1
LnGrp LOS	D	A	A	D	C	C	D	C	C	C	A	A
Approach Vol, veh/h		119			291			797			772	
Approach Delay, s/veh		37.6			32.1			24.0			7.7	
Approach LOS		D			C			C			A	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	31.4	33.5	11.5	13.7	5.2	59.7		25.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	6.5	29.0	18.5	18.0	5.0	30.5		41.0				
Max Q Clear Time (g_c+I1), s	2.6	12.5	7.3	7.6	2.3	7.2		6.4				
Green Ext Time (p_c), s	0.0	4.3	0.2	0.3	0.0	4.4		0.8				
Intersection Summary												
HCM 6th Ctrl Delay				19.6								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 1: Claremont Boulevard & 1st Street/Huntington Drive

Existing plus Project
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	94	105	86	18	99	18	48	383	27	25	402	41
Future Volume (veh/h)	94	105	86	18	99	18	48	383	27	25	402	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		1.00	1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	103	115	95	20	109	0	53	421	30	27	442	45
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	239	251	205	32	174		501	1514	107	511	1602	712
Arrive On Green	0.13	0.13	0.13	0.11	0.11	0.00	0.45	0.45	0.45	0.45	0.45	0.45
Sat Flow, veh/h	1781	1870	1526	288	1568	1585	908	3358	238	938	3554	1580
Grp Volume(v), veh/h	103	115	95	129	0	0	53	222	229	27	442	45
Grp Sat Flow(s),veh/h/ln	1781	1870	1526	1856	0	1585	908	1777	1820	938	1777	1580
Q Serve(g_s), s	2.4	2.5	2.5	2.9	0.0	0.0	1.7	3.5	3.5	0.8	3.5	0.7
Cycle Q Clear(g_c), s	2.4	2.5	2.5	2.9	0.0	0.0	5.2	3.5	3.5	4.3	3.5	0.7
Prop In Lane	1.00		1.00	0.16		1.00	1.00		0.13	1.00		1.00
Lane Grp Cap(c), veh/h	239	251	205	206	0		501	801	820	511	1602	712
V/C Ratio(X)	0.43	0.46	0.46	0.63	0.00		0.11	0.28	0.28	0.05	0.28	0.06
Avail Cap(c_a), veh/h	743	780	636	753	0		501	801	820	511	1602	712
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.7	17.7	17.7	18.8	0.0	0.0	9.3	7.6	7.7	9.0	7.6	6.9
Incr Delay (d2), s/veh	1.2	1.3	1.6	3.1	0.0	0.0	0.4	0.9	0.8	0.2	0.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	1.0	0.8	1.3	0.0	0.0	0.3	1.1	1.2	0.1	1.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.9	19.0	19.4	22.0	0.0	0.0	9.7	8.5	8.5	9.2	8.1	7.1
LnGrp LOS	B	B	B	C	A		A	A	A	A	A	A
Approach Vol, veh/h		313			129	A		504			514	
Approach Delay, s/veh		19.1			22.0			8.6			8.0	
Approach LOS		B			C			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		24.5		9.4		24.5		10.4				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		20.0		18.0		20.0		18.5				
Max Q Clear Time (g_c+I1), s		7.2		4.9		6.3		4.5				
Green Ext Time (p_c), s		2.3		0.5		2.5		1.0				

Intersection Summary

HCM 6th Ctrl Delay	11.8
HCM 6th LOS	B

Notes

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

HCM 6th Signalized Intersection Summary
 34: Monte Vista Ave & Huntington Drive/Richton Street

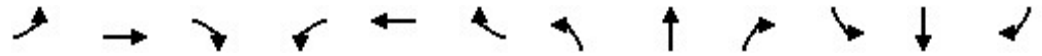
Existing plus Project
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↗	↖	↗	↗	↕		↖	↖	↖
Traffic Volume (veh/h)	13	106	10	133	107	53	22	795	74	30	851	20
Future Volume (veh/h)	13	106	10	133	107	53	22	795	74	30	851	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	1.00		0.99	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	14	112	11	140	113	56	23	837	78	32	896	21
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	60	210	20	223	535	451	94	1687	156	1060	3125	73
Arrive On Green	0.14	0.14	0.14	0.12	0.28	0.28	0.05	0.35	0.35	0.30	0.60	0.60
Sat Flow, veh/h	118	1544	145	1810	1900	1602	1810	4820	447	3510	5210	122
Grp Volume(v), veh/h	137	0	0	140	113	56	23	599	316	32	594	323
Grp Sat Flow(s),veh/h/ln	1807	0	0	1810	1900	1602	1810	1729	1809	1755	1729	1874
Q Serve(g_s), s	2.0	0.0	0.0	6.6	4.1	2.3	1.1	12.3	12.4	0.6	7.5	7.5
Cycle Q Clear(g_c), s	6.3	0.0	0.0	6.6	4.1	2.3	1.1	12.3	12.4	0.6	7.5	7.5
Prop In Lane	0.10		0.08	1.00		1.00	1.00		0.25	1.00		0.07
Lane Grp Cap(c), veh/h	290	0	0	223	535	451	94	1210	633	1060	2074	1124
V/C Ratio(X)	0.47	0.00	0.00	0.63	0.21	0.12	0.24	0.50	0.50	0.03	0.29	0.29
Avail Cap(c_a), veh/h	453	0	0	422	918	774	151	1210	633	1060	2074	1124
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.2	0.0	0.0	37.5	24.7	24.1	41.0	23.0	23.0	22.1	8.7	8.7
Incr Delay (d2), s/veh	1.2	0.0	0.0	2.9	0.2	0.1	1.3	1.4	2.8	0.0	0.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.0	0.0	3.0	1.8	0.9	0.5	4.8	5.3	0.2	2.4	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.4	0.0	0.0	40.4	24.9	24.2	42.3	24.4	25.8	22.1	9.1	9.4
LnGrp LOS	D	A	A	D	C	C	D	C	C	C	A	A
Approach Vol, veh/h		137			309			938				949
Approach Delay, s/veh		37.4			31.8			25.3				9.6
Approach LOS		D			C			C				A
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	29.2	33.5	13.1	14.3	6.7	56.0		27.3				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	6.5	29.0	18.5	18.0	5.0	30.5		41.0				
Max Q Clear Time (g_c+I1), s	2.6	14.4	8.6	8.3	3.1	9.5		6.1				
Green Ext Time (p_c), s	0.0	4.8	0.2	0.4	0.0	5.5		0.8				
Intersection Summary												
HCM 6th Ctrl Delay				20.5								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 1: Claremont Boulevard & 1st Street/Huntington Drive

Year 2040
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	4	73	7	0	10	158	621	13	6	493	129
Future Volume (veh/h)	61	4	73	7	0	10	158	621	13	6	493	129
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	74	5	89	9	0	0	193	757	16	7	601	157
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	188	198	160	51	0		508	2134	45	484	2133	949
Arrive On Green	0.11	0.11	0.11	0.03	0.00	0.00	0.60	0.60	0.60	0.60	0.60	0.60
Sat Flow, veh/h	1781	1870	1516	1781	0	1585	706	3556	75	697	3554	1581
Grp Volume(v), veh/h	74	5	89	9	0	0	193	378	395	7	601	157
Grp Sat Flow(s),veh/h/ln	1781	1870	1516	1781	0	1585	706	1777	1855	697	1777	1581
Q Serve(g_s), s	2.0	0.1	2.8	0.3	0.0	0.0	9.2	5.5	5.5	0.3	4.1	2.2
Cycle Q Clear(g_c), s	2.0	0.1	2.8	0.3	0.0	0.0	13.3	5.5	5.5	5.8	4.1	2.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	188	198	160	51	0		508	1066	1113	484	2133	949
V/C Ratio(X)	0.39	0.03	0.56	0.18	0.00		0.38	0.35	0.35	0.01	0.28	0.17
Avail Cap(c_a), veh/h	631	662	537	631	0		508	1066	1113	484	2133	949
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.2	20.4	21.6	24.1	0.0	0.0	8.1	5.2	5.2	6.6	4.9	4.5
Incr Delay (d2), s/veh	1.3	0.1	3.0	1.6	0.0	0.0	2.2	0.9	0.9	0.1	0.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	1.0	0.1	0.0	0.0	1.3	1.5	1.5	0.0	0.9	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.5	20.4	24.6	25.7	0.0	0.0	10.3	6.1	6.1	6.7	5.2	4.9
LnGrp LOS	C	C	C	C	A		B	A	A	A	A	A
Approach Vol, veh/h		168			9	A		966			765	
Approach Delay, s/veh		23.6			25.7			6.9			5.2	
Approach LOS		C			C			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		35.0		6.0		35.0		9.9				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		30.5		18.0		30.5		18.0				
Max Q Clear Time (g_c+I1), s		15.3		2.3		7.8		4.8				
Green Ext Time (p_c), s		5.6		0.0		4.5		0.4				

Intersection Summary

HCM 6th Ctrl Delay	7.8
HCM 6th LOS	A

Notes

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

HCM 6th Signalized Intersection Summary
 34: Monte Vista Ave & Huntington Drive/Richton Street

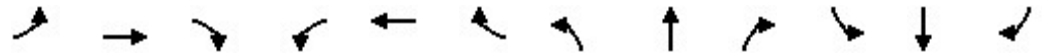
Year 2040
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↙	↑	↗	↙	↑↑↑		↗	↑↑↑	
Traffic Volume (veh/h)	0	0	0	176	0	149	0	873	112	57	761	0
Future Volume (veh/h)	0	0	0	176	0	149	0	873	112	57	761	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	0	0	185	0	157	0	919	118	60	801	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	2	0	269	298	250	2	1677	214	1457	4142	0
Arrive On Green	0.00	0.00	0.00	0.15	0.00	0.16	0.00	0.36	0.36	0.42	0.80	0.00
Sat Flow, veh/h	0	-23955	0	1810	1900	1595	1810	4644	594	3510	5358	0
Grp Volume(v), veh/h	0	0	0	185	0	157	0	683	354	60	801	0
Grp Sat Flow(s),veh/h/ln	0	1900	0	1810	1900	1595	1810	1729	1779	1755	1729	0
Q Serve(g_s), s	0.0	0.0	0.0	8.7	0.0	8.3	0.0	14.2	14.3	0.9	3.3	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	8.7	0.0	8.3	0.0	14.2	14.3	0.9	3.3	0.0
Prop In Lane	0.00		0.00	1.00		1.00	1.00		0.33	1.00		0.00
Lane Grp Cap(c), veh/h	0	2	0	269	298	250	2	1249	643	1457	4142	0
V/C Ratio(X)	0.00	0.00	0.00	0.69	0.00	0.63	0.00	0.55	0.55	0.04	0.19	0.00
Avail Cap(c_a), veh/h	0	433	0	422	918	771	151	1249	643	1457	4142	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	36.3	0.0	35.5	0.0	22.9	22.9	15.7	2.2	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	3.1	0.0	2.6	0.0	1.7	3.4	0.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	3.9	0.0	3.3	0.0	5.6	6.1	0.3	0.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	39.4	0.0	38.0	0.0	24.6	26.3	15.7	2.3	0.0
LnGrp LOS	A	A	A	D	A	D	A	C	C	B	A	A
Approach Vol, veh/h		0			342			1037			861	
Approach Delay, s/veh		0.0			38.8			25.2			3.2	
Approach LOS					D			C			A	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	39.4	34.5	15.4	0.7	0.0	73.9		16.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.5	30.0	18.5	18.0	5.0	30.5		41.0				
Max Q Clear Time (g_c+I1), s	2.9	16.3	10.7	0.0	0.0	5.3		10.3				
Green Ext Time (p_c), s	0.0	5.3	0.3	0.0	0.0	5.3		0.5				
Intersection Summary												
HCM 6th Ctrl Delay				18.8								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 1: Claremont Boulevard & 1st Street/Huntington Drive

Year 2040
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	161	5	180	15	5	13	99	596	22	15	634	70
Future Volume (veh/h)	161	5	180	15	5	13	99	596	22	15	634	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	177	5	198	16	5	0	109	655	24	16	697	77
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	345	363	298	58	18		389	1593	58	415	1621	721
Arrive On Green	0.19	0.19	0.19	0.04	0.04	0.00	0.46	0.46	0.46	0.46	0.46	0.46
Sat Flow, veh/h	1781	1870	1538	1373	429	1585	696	3492	128	760	3554	1580
Grp Volume(v), veh/h	177	5	198	21	0	0	109	333	346	16	697	77
Grp Sat Flow(s),veh/h/ln	1781	1870	1538	1802	0	1585	696	1777	1843	760	1777	1580
Q Serve(g_s), s	3.9	0.1	5.2	0.5	0.0	0.0	5.5	5.5	5.5	0.6	5.8	1.2
Cycle Q Clear(g_c), s	3.9	0.1	5.2	0.5	0.0	0.0	11.3	5.5	5.5	6.1	5.8	1.2
Prop In Lane	1.00		1.00	0.76		1.00	1.00		0.07	1.00		1.00
Lane Grp Cap(c), veh/h	345	363	298	76	0		389	811	841	415	1621	721
V/C Ratio(X)	0.51	0.01	0.66	0.28	0.00		0.28	0.41	0.41	0.04	0.43	0.11
Avail Cap(c_a), veh/h	752	789	649	740	0		389	811	841	415	1621	721
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.8	14.3	16.4	20.4	0.0	0.0	11.9	8.0	8.0	10.0	8.1	6.8
Incr Delay (d2), s/veh	1.2	0.0	2.5	2.0	0.0	0.0	1.8	1.5	1.5	0.2	0.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	1.7	0.2	0.0	0.0	0.9	1.8	1.8	0.1	1.6	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.0	14.3	18.9	22.3	0.0	0.0	13.7	9.5	9.5	10.2	8.9	7.1
LnGrp LOS	B	B	B	C	A		B	A	A	B	A	A
Approach Vol, veh/h		380			21	A		788			790	
Approach Delay, s/veh		17.9			22.3			10.1			8.8	
Approach LOS		B			C			B			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		24.5		6.3		24.5		13.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		20.0		18.0		20.0		18.5				
Max Q Clear Time (g_c+I1), s		13.3		2.5		8.1		7.2				
Green Ext Time (p_c), s		2.7		0.0		3.8		0.9				

Intersection Summary

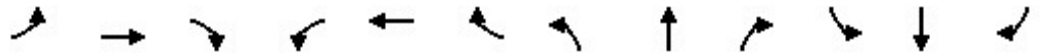
HCM 6th Ctrl Delay	11.2
HCM 6th LOS	B

Notes

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

HCM 6th Signalized Intersection Summary
 34: Monte Vista Ave & Huntington Drive/Richton Street

Year 2040
 Timing Plan: PM Peak Hour

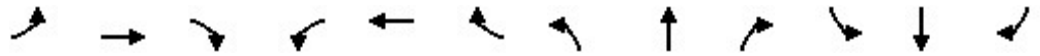


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↗	↖	↗	↗	↕		↖	↖	↖
Traffic Volume (veh/h)	0	0	0	281	0	331	7	887	108	92	925	0
Future Volume (veh/h)	0	0	0	281	0	331	7	887	108	92	925	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	0	0	296	0	348	7	934	114	97	974	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	70	0	375	506	426	66	1636	199	1113	3269	0
Arrive On Green	0.00	0.00	0.00	0.21	0.00	0.27	0.04	0.35	0.35	0.32	0.63	0.00
Sat Flow, veh/h	0	1900	0	1810	1900	1601	1810	4674	568	3510	5358	0
Grp Volume(v), veh/h	0	0	0	296	0	348	7	690	358	97	974	0
Grp Sat Flow(s),veh/h/ln	0	1900	0	1810	1900	1601	1810	1729	1784	1755	1729	0
Q Serve(g_s), s	0.0	0.0	0.0	14.0	0.0	18.3	0.3	14.6	14.7	1.7	7.7	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	14.0	0.0	18.3	0.3	14.6	14.7	1.7	7.7	0.0
Prop In Lane	0.00		0.00	1.00		1.00	1.00		0.32	1.00		0.00
Lane Grp Cap(c), veh/h	0	70	0	375	506	426	66	1210	625	1113	3269	0
V/C Ratio(X)	0.00	0.00	0.00	0.79	0.00	0.82	0.11	0.57	0.57	0.09	0.30	0.00
Avail Cap(c_a), veh/h	0	433	0	422	918	774	151	1210	625	1113	3269	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	33.8	0.0	30.9	41.9	23.8	23.8	21.6	7.6	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	8.7	0.0	3.9	0.7	2.0	3.8	0.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	6.7	0.0	7.1	0.2	5.8	6.3	0.7	2.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	42.5	0.0	34.8	42.6	25.7	27.6	21.6	7.8	0.0
LnGrp LOS	A	A	A	D	A	C	D	C	C	C	A	A
Approach Vol, veh/h		0			644			1055			1071	
Approach Delay, s/veh		0.0			38.3			26.5			9.1	
Approach LOS					D			C			A	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	30.5	33.5	20.7	5.3	5.3	58.7		26.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	6.5	29.0	18.5	18.0	5.0	30.5		41.0				
Max Q Clear Time (g_c+I1), s	3.7	16.7	16.0	0.0	2.3	9.7		20.3				
Green Ext Time (p_c), s	0.1	5.1	0.2	0.0	0.0	6.3		1.1				

Intersection Summary												
HCM 6th Ctrl Delay				22.5								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 1: Claremont Boulevard & 1st Street/Huntington Drive

Year 2040 plus Project
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	82	55	20	160	23	119	621	17	11	493	97
Future Volume (veh/h)	46	82	55	20	160	23	119	621	17	11	493	97
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		1.00	1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	56	100	67	24	195	0	145	757	21	13	601	118
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	186	195	158	33	269		419	1792	50	379	1805	803
Arrive On Green	0.10	0.10	0.10	0.16	0.16	0.00	0.51	0.51	0.51	0.51	0.51	0.51
Sat Flow, veh/h	1781	1870	1515	204	1656	1585	732	3529	98	693	3554	1580
Grp Volume(v), veh/h	56	100	67	219	0	0	145	381	397	13	601	118
Grp Sat Flow(s),veh/h/ln	1781	1870	1515	1860	0	1585	732	1777	1850	693	1777	1580
Q Serve(g_s), s	1.7	3.0	2.5	6.7	0.0	0.0	8.8	8.1	8.1	0.7	6.0	2.4
Cycle Q Clear(g_c), s	1.7	3.0	2.5	6.7	0.0	0.0	14.8	8.1	8.1	8.8	6.0	2.4
Prop In Lane	1.00		1.00	0.11		1.00	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	186	195	158	303	0		419	903	940	379	1805	803
V/C Ratio(X)	0.30	0.51	0.42	0.72	0.00		0.35	0.42	0.42	0.03	0.33	0.15
Avail Cap(c_a), veh/h	534	561	454	558	0		419	903	940	379	1805	803
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.9	25.4	25.2	23.9	0.0	0.0	13.1	9.3	9.3	12.0	8.7	7.9
Incr Delay (d2), s/veh	0.9	2.1	1.8	3.3	0.0	0.0	2.3	1.4	1.4	0.2	0.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.3	0.9	3.1	0.0	0.0	1.5	2.8	2.9	0.1	1.9	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.8	27.5	27.0	27.1	0.0	0.0	15.4	10.7	10.6	12.2	9.2	8.2
LnGrp LOS	C	C	C	C	A		B	B	B	B	A	A
Approach Vol, veh/h		223			219	A		923			732	
Approach Delay, s/veh		26.9			27.1			11.4			9.1	
Approach LOS		C			C			B			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		35.0		14.3		35.0		10.8				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		30.5		18.0		30.5		18.0				
Max Q Clear Time (g_c+I1), s		16.8		8.7		10.8		5.0				
Green Ext Time (p_c), s		4.9		0.8		4.2		0.7				

Intersection Summary

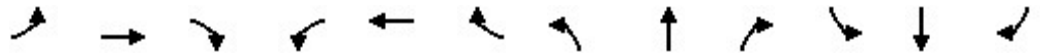
HCM 6th Ctrl Delay	13.9
HCM 6th LOS	B

Notes

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

HCM 6th Signalized Intersection Summary
 34: Monte Vista Ave & Huntington Drive/Richton Street

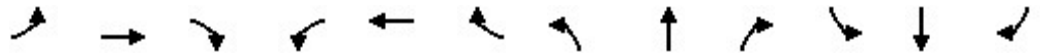
Year 2040 plus Project
 Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↗	↑	↖	↗	↑↑↑		↖	↑↑↑	
Traffic Volume (veh/h)	20	92	16	132	157	112	6	873	84	43	761	7
Future Volume (veh/h)	20	92	16	132	157	112	6	873	84	43	761	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	1.00		0.99	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	97	17	139	165	118	6	919	88	45	801	7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	72	182	30	222	536	452	64	1736	166	1018	3263	28
Arrive On Green	0.14	0.14	0.14	0.12	0.28	0.28	0.04	0.36	0.36	0.29	0.62	0.62
Sat Flow, veh/h	185	1323	217	1810	1900	1602	1810	4806	459	3510	5302	46
Grp Volume(v), veh/h	135	0	0	139	165	118	6	660	347	45	522	286
Grp Sat Flow(s),veh/h/ln	1725	0	0	1810	1900	1602	1810	1729	1807	1755	1729	1890
Q Serve(g_s), s	2.8	0.0	0.0	6.6	6.1	5.1	0.3	13.6	13.7	0.8	6.2	6.2
Cycle Q Clear(g_c), s	6.4	0.0	0.0	6.6	6.1	5.1	0.3	13.6	13.7	0.8	6.2	6.2
Prop In Lane	0.16		0.13	1.00		1.00	1.00		0.25	1.00		0.02
Lane Grp Cap(c), veh/h	284	0	0	222	536	452	64	1249	652	1018	2128	1163
V/C Ratio(X)	0.48	0.00	0.00	0.63	0.31	0.26	0.09	0.53	0.53	0.04	0.25	0.25
Avail Cap(c_a), veh/h	434	0	0	422	918	774	151	1249	652	1018	2128	1163
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.1	0.0	0.0	37.5	25.4	25.0	42.0	22.7	22.7	23.0	7.8	7.8
Incr Delay (d2), s/veh	1.2	0.0	0.0	2.9	0.3	0.3	0.6	1.6	3.1	0.0	0.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.0	0.0	3.0	2.7	1.9	0.1	5.3	5.9	0.3	1.9	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.4	0.0	0.0	40.4	25.7	25.3	42.6	24.3	25.8	23.0	8.1	8.3
LnGrp LOS	D	A	A	D	C	C	D	C	C	C	A	A
Approach Vol, veh/h		135			422			1013			853	
Approach Delay, s/veh		37.4			30.5			24.9			9.0	
Approach LOS		D			C			C			A	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	28.1	34.5	13.0	14.4	5.2	57.4		27.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.5	30.0	18.5	18.0	5.0	30.5		41.0				
Max Q Clear Time (g_c+I1), s	2.8	15.7	8.6	8.4	2.3	8.2		8.1				
Green Ext Time (p_c), s	0.0	5.2	0.2	0.4	0.0	4.8		1.3				
Intersection Summary												
HCM 6th Ctrl Delay				21.0								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 1: Claremont Boulevard & 1st Street/Huntington Drive

Year 2040 plus Project
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	121	147	135	23	204	21	74	596	35	28	634	52
Future Volume (veh/h)	121	147	135	23	204	21	74	596	35	28	634	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	133	162	148	25	224	0	81	655	38	31	697	57
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	292	307	252	35	312		309	1321	77	321	1378	612
Arrive On Green	0.16	0.16	0.16	0.19	0.19	0.00	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	1781	1870	1534	187	1674	1585	709	3408	197	750	3554	1579
Grp Volume(v), veh/h	133	162	148	249	0	0	81	341	352	31	697	57
Grp Sat Flow(s),veh/h/ln	1781	1870	1534	1861	0	1585	709	1777	1828	750	1777	1579
Q Serve(g_s), s	3.5	4.1	4.6	6.5	0.0	0.0	5.1	7.5	7.5	1.7	7.7	1.2
Cycle Q Clear(g_c), s	3.5	4.1	4.6	6.5	0.0	0.0	12.8	7.5	7.5	9.2	7.7	1.2
Prop In Lane	1.00		1.00	0.10		1.00	1.00		0.11	1.00		1.00
Lane Grp Cap(c), veh/h	292	307	252	347	0		309	689	709	321	1378	612
V/C Ratio(X)	0.46	0.53	0.59	0.72	0.00		0.26	0.50	0.50	0.10	0.51	0.09
Avail Cap(c_a), veh/h	639	671	550	649	0		309	689	709	321	1378	612
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.5	19.7	19.9	19.7	0.0	0.0	16.9	12.0	12.0	15.5	12.0	10.0
Incr Delay (d2), s/veh	1.1	1.4	2.2	2.8	0.0	0.0	2.1	2.5	2.5	0.6	1.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	1.7	1.6	2.9	0.0	0.0	0.9	2.9	2.9	0.3	2.6	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.6	21.1	22.1	22.5	0.0	0.0	19.0	14.5	14.4	16.1	13.4	10.3
LnGrp LOS	C	C	C	C	A		B	B	B	B	B	B
Approach Vol, veh/h		443			249	A		774			785	
Approach Delay, s/veh		21.3			22.5			14.9			13.2	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		24.5		14.1		24.5		13.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		20.0		18.0		20.0		18.5				
Max Q Clear Time (g_c+I1), s		14.8		8.5		11.2		6.6				
Green Ext Time (p_c), s		2.2		1.0		3.2		1.4				

Intersection Summary

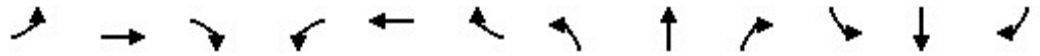
HCM 6th Ctrl Delay	16.4
HCM 6th LOS	B

Notes

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

HCM 6th Signalized Intersection Summary
 34: Monte Vista Ave & Huntington Drive/Richton Street

Year 2040 plus Project
 Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↗	↖	↗	↗	↕		↖	↖	↖
Traffic Volume (veh/h)	13	148	10	211	213	248	23	887	81	69	925	20
Future Volume (veh/h)	13	148	10	211	213	248	23	887	81	69	925	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	14	156	11	222	224	261	24	934	85	73	974	21
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	56	252	17	306	663	559	96	1691	153	823	2776	60
Arrive On Green	0.16	0.16	0.16	0.17	0.35	0.35	0.05	0.35	0.35	0.23	0.53	0.53
Sat Flow, veh/h	82	1600	109	1810	1900	1603	1810	4831	438	3510	5221	112
Grp Volume(v), veh/h	181	0	0	222	224	261	24	668	351	73	645	350
Grp Sat Flow(s),veh/h/ln	1792	0	0	1810	1900	1603	1810	1729	1811	1755	1729	1876
Q Serve(g_s), s	2.8	0.0	0.0	10.5	7.8	11.4	1.1	14.0	14.1	1.5	9.7	9.7
Cycle Q Clear(g_c), s	8.3	0.0	0.0	10.5	7.8	11.4	1.1	14.0	14.1	1.5	9.7	9.7
Prop In Lane	0.08		0.06	1.00		1.00	1.00		0.24	1.00		0.06
Lane Grp Cap(c), veh/h	325	0	0	306	663	559	96	1210	634	823	1839	997
V/C Ratio(X)	0.56	0.00	0.00	0.73	0.34	0.47	0.25	0.55	0.55	0.09	0.35	0.35
Avail Cap(c_a), veh/h	447	0	0	422	918	775	151	1210	634	823	1839	997
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.4	0.0	0.0	35.4	21.6	22.8	40.9	23.6	23.6	26.9	12.1	12.1
Incr Delay (d2), s/veh	1.5	0.0	0.0	3.9	0.3	0.6	1.4	1.8	3.5	0.0	0.5	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	0.0	0.0	4.7	3.3	4.1	0.5	5.6	6.1	0.6	3.4	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.9	0.0	0.0	39.3	21.9	23.4	42.3	25.4	27.1	27.0	12.7	13.1
LnGrp LOS	D	A	A	D	C	C	D	C	C	C	B	B
Approach Vol, veh/h		181			707			1043			1068	
Approach Delay, s/veh		36.9			27.9			26.3			13.8	
Approach LOS		D			C			C			B	
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	23.1	33.5	17.2	16.2	6.8	49.9		33.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	6.5	29.0	18.5	18.0	5.0	30.5		41.0				
Max Q Clear Time (g_c+I1), s	3.5	16.1	12.5	10.3	3.1	11.7		13.4				
Green Ext Time (p_c), s	0.0	5.0	0.3	0.5	0.0	5.8		2.1				

Intersection Summary

HCM 6th Ctrl Delay	22.9
HCM 6th LOS	C

Intersection: 1: Claremont Boulevard & 1st Street/Huntington Drive

Movement	EB	EB	EB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	T	R	LT	L	T	TR	L	T	T	R
Maximum Queue (ft)	43	18	60	30	74	44	56	27	99	84	60
Average Queue (ft)	10	1	20	5	17	3	5	2	28	20	15
95th Queue (ft)	28	10	42	23	51	21	28	15	71	59	40
Link Distance (ft)		426		24		1068	1068		428	428	
Upstream Blk Time (%)				3							
Queuing Penalty (veh)				0							
Storage Bay Dist (ft)	125		255		155			90			90
Storage Blk Time (%)									0	0	
Queuing Penalty (veh)									0	0	

Intersection: 3: Connector & Huntington Drive

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 4: Huntington Drive & Connector

Movement	WB	SB
Directions Served	R	L
Maximum Queue (ft)	31	6
Average Queue (ft)	8	0
95th Queue (ft)	30	4
Link Distance (ft)		8
Upstream Blk Time (%)		0
Queuing Penalty (veh)		0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Zone Summary

Zone wide Queuing Penalty: 0

Intersection: 1: Claremont Boulevard & 1st Street/Huntington Drive

Movement	EB	EB	EB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	T	R	LT	L	T	TR	L	T	T	R
Maximum Queue (ft)	100	18	66	46	52	51	55	28	111	79	40
Average Queue (ft)	28	1	31	11	9	7	10	7	49	25	11
95th Queue (ft)	66	9	55	37	32	30	38	25	97	62	31
Link Distance (ft)		426		24		1068	1068		428	428	
Upstream Blk Time (%)				6							
Queuing Penalty (veh)				1							
Storage Bay Dist (ft)	125		255		155			90			90
Storage Blk Time (%)	0								1	0	
Queuing Penalty (veh)	0								0	0	

Intersection: 3: Connector & Huntington Drive

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 4: Huntington Drive & Connector

Movement	WB	SB
Directions Served	R	L
Maximum Queue (ft)	36	3
Average Queue (ft)	13	0
95th Queue (ft)	39	2
Link Distance (ft)	328	8
Upstream Blk Time (%)		0
Queuing Penalty (veh)		0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Zone Summary

Zone wide Queuing Penalty: 1

Intersection: 1: Claremont Boulevard & 1st Street/Huntington Drive

Movement	EB	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	T	R	LT	R	L	T	TR	L	T	T	R
Maximum Queue (ft)	44	80	50	83	39	77	68	72	48	120	92	66
Average Queue (ft)	7	26	18	57	2	14	13	16	5	44	30	19
95th Queue (ft)	26	58	40	88	18	47	41	51	27	93	69	45
Link Distance (ft)		426		24	24		1068	1068		428	428	
Upstream Blk Time (%)				31	0							
Queuing Penalty (veh)				24	0							
Storage Bay Dist (ft)	125		255			155			90			90
Storage Blk Time (%)		0								1	0	0
Queuing Penalty (veh)		0								0	0	0

Intersection: 3: Connector & Huntington Drive

Movement	NB
Directions Served	LR
Maximum Queue (ft)	25
Average Queue (ft)	2
95th Queue (ft)	13
Link Distance (ft)	8
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: Huntington Drive & Connector

Movement	EB	WB	SB
Directions Served	LT	R	L
Maximum Queue (ft)	19	111	11
Average Queue (ft)	1	52	1
95th Queue (ft)	8	86	7
Link Distance (ft)	19	328	8
Upstream Blk Time (%)	0		0
Queuing Penalty (veh)	0		0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Zone Summary

Zone wide Queuing Penalty: 25

Intersection: 1: Claremont Boulevard & 1st Street/Huntington Drive

Movement	EB	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	T	R	LT	R	L	T	TR	L	T	T	R
Maximum Queue (ft)	82	80	61	85	42	52	62	72	48	136	102	37
Average Queue (ft)	24	33	29	53	2	6	12	15	14	61	30	11
95th Queue (ft)	61	66	51	86	20	29	37	48	39	114	69	31
Link Distance (ft)		426		24	24		1068	1068		428	428	
Upstream Blk Time (%)				34	0							
Queuing Penalty (veh)				24	0							
Storage Bay Dist (ft)	125		255			155			90			90
Storage Blk Time (%)	0									2	0	
Queuing Penalty (veh)	0									1	0	

Intersection: 3: Connector & Huntington Drive

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	6	29
Average Queue (ft)	0	2
95th Queue (ft)	4	16
Link Distance (ft)	353	8
Upstream Blk Time (%)		1
Queuing Penalty (veh)		1
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: Huntington Drive & Connector

Movement	EB	WB	SB
Directions Served	LT	R	L
Maximum Queue (ft)	6	101	11
Average Queue (ft)	0	48	1
95th Queue (ft)	6	79	5
Link Distance (ft)	19	328	8
Upstream Blk Time (%)	0		0
Queuing Penalty (veh)	0		0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Zone Summary

Zone wide Queuing Penalty: 25

Intersection: 1: Claremont Boulevard & 1st Street/Huntington Drive

Movement	EB	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	T	R	LT	R	L	T	TR	L	T	T	R
Maximum Queue (ft)	66	18	49	42	8	109	80	91	31	148	104	66
Average Queue (ft)	14	2	24	6	0	33	12	14	5	38	28	19
95th Queue (ft)	40	10	44	25	6	83	46	53	22	97	73	46
Link Distance (ft)		426		24	24		1068	1068		428	428	
Upstream Blk Time (%)				3	0							
Queuing Penalty (veh)				0	0							
Storage Bay Dist (ft)	125		255			155			90			90
Storage Blk Time (%)										1	0	
Queuing Penalty (veh)										0	0	

Intersection: 3: Connector & Huntington Drive

Movement	NB
Directions Served	LR
Maximum Queue (ft)	3
Average Queue (ft)	0
95th Queue (ft)	3
Link Distance (ft)	8
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: Huntington Drive & Connector

Movement	WB	SB
Directions Served	R	L
Maximum Queue (ft)	36	5
Average Queue (ft)	12	0
95th Queue (ft)	37	3
Link Distance (ft)		8
Upstream Blk Time (%)		0
Queuing Penalty (veh)		0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Zone Summary

Zone wide Queuing Penalty: 1

Intersection: 1: Claremont Boulevard & 1st Street/Huntington Drive

Movement	EB	EB	EB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	T	R	LT	L	T	TR	L	T	T	R
Maximum Queue (ft)	99	18	112	55	108	70	89	97	343	318	85
Average Queue (ft)	38	1	47	18	33	17	23	20	139	96	24
95th Queue (ft)	77	9	91	44	82	50	63	76	290	253	65
Link Distance (ft)		426		24		1068	1068		428	428	
Upstream Blk Time (%)				14					1	0	
Queuing Penalty (veh)				2					0	0	
Storage Bay Dist (ft)	125		255		155			90			90
Storage Blk Time (%)	0								27	5	0
Queuing Penalty (veh)	0								4	3	0

Intersection: 3: Connector & Huntington Drive

Movement	NB
Directions Served	LR
Maximum Queue (ft)	7
Average Queue (ft)	0
95th Queue (ft)	4
Link Distance (ft)	8
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: Huntington Drive & Connector

Movement	WB	SB
Directions Served	R	L
Maximum Queue (ft)	50	3
Average Queue (ft)	21	0
95th Queue (ft)	47	2
Link Distance (ft)	328	8
Upstream Blk Time (%)		0
Queuing Penalty (veh)		0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Zone Summary

Zone wide Queuing Penalty: 10

Intersection: 1: Claremont Boulevard & 1st Street/Huntington Drive

Movement	EB	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	T	R	LT	R	L	T	TR	L	T	T	R
Maximum Queue (ft)	77	103	58	96	53	119	96	110	40	190	169	79
Average Queue (ft)	16	34	24	67	3	37	27	35	8	67	51	22
95th Queue (ft)	48	74	48	93	22	93	70	86	29	139	112	54
Link Distance (ft)		426		24	24		1068	1068		428	428	
Upstream Blk Time (%)				46	0							
Queuing Penalty (veh)				47	0							
Storage Bay Dist (ft)	125		255			155			90			90
Storage Blk Time (%)		0				0	0			4	1	0
Queuing Penalty (veh)		0				0	0			0	1	0

Intersection: 3: Connector & Huntington Drive

Movement	NB
Directions Served	LR
Maximum Queue (ft)	54
Average Queue (ft)	6
95th Queue (ft)	28
Link Distance (ft)	8
Upstream Blk Time (%)	3
Queuing Penalty (veh)	6
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: Huntington Drive & Connector

Movement	EB	WB	SB
Directions Served	LT	R	L
Maximum Queue (ft)	19	135	10
Average Queue (ft)	1	65	1
95th Queue (ft)	9	108	5
Link Distance (ft)	19	328	8
Upstream Blk Time (%)	0		0
Queuing Penalty (veh)	0		0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Zone Summary

Zone wide Queuing Penalty: 56

Intersection: 1: Claremont Boulevard & 1st Street/Huntington Drive

Movement	EB	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	T	R	LT	R	L	T	TR	L	T	T	R
Maximum Queue (ft)	95	117	122	84	59	107	91	103	92	282	244	112
Average Queue (ft)	35	54	41	69	8	28	34	45	26	160	108	22
95th Queue (ft)	78	102	92	86	40	76	78	90	80	311	259	70
Link Distance (ft)		426		24	24		1068	1068		428	428	
Upstream Blk Time (%)				48	0					0	0	
Queuing Penalty (veh)				60	0					0	0	
Storage Bay Dist (ft)	125		255			155			90			90
Storage Blk Time (%)	0	0	0			0			0	27	8	0
Queuing Penalty (veh)	0	1	1			0			0	7	4	0

Intersection: 3: Connector & Huntington Drive

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	6	41
Average Queue (ft)	0	7
95th Queue (ft)	4	27
Link Distance (ft)	353	8
Upstream Blk Time (%)		4
Queuing Penalty (veh)		10
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: Huntington Drive & Connector

Movement	EB	WB	SB
Directions Served	LT	R	L
Maximum Queue (ft)	39	156	14
Average Queue (ft)	4	74	1
95th Queue (ft)	22	122	7
Link Distance (ft)	19	328	8
Upstream Blk Time (%)	0		0
Queuing Penalty (veh)	1		0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Zone Summary

Zone wide Queuing Penalty: 84



PUBLIC WORKS DEPARTMENT
1370 North Benson Avenue
Upland, California 91786-0460
Telephone (909) 291-2930
Facsimile (909) 291-2974

August 15, 2022

City of Montclair
Michael Diaz,
Community Development Director
5111 Benito Street
Montclair, CA 91763

Subject: Proposed Montclair Station Apartment Development

Dear Mr. Diaz,

This Letter is in response to your request for comments regarding the above subject development that the City of Montclair intends to take it to the council for approval.

While new development of residential housing is welcome in general, the proposed development will need to include adequate supporting infrastructure to make the development viable and to mitigate the impacts of the proposed development to surrounding residents, existing road users and facilities.

The provided Technical Memorandum was intended to amend the Montclair adopted Specific Plan. However, we feel that the Technical Memorandum focuses mainly on project trip generation and distribution and did not consider the potential trips that may be attracted to Huntington Dr when it is extended as a two-way street connecting Claremont Blvd to Monte Vista Ave. The Tech Memo did not address any potential operation and safety analysis.

Additional specific comments are provided below:

1) Intersection of Claremont Blvd and Hunting Dr. Operation and Safety Improvements

The intersection is currently signalized. A short distance to the east of the signalized intersection, where the Pacific Electric Trail (PET) begins, a connector road exists between N. Huntington Dr on the north side of the PET (with fronting homes within Upland city limits) and S. Huntington Dr on the south side of PET (within Montclair city limits). The connector roadway is controlled by a STOP sign for SB traffic and Yield sign for NB traffic. On the east side of the connector road is a Y-configuration for the beginning point of

PET that goes easterly. The two intersections at the connector road with North and South Huntington Dr are about 100 feet east of Claremont Blvd.

The current roadway configuration has many conflict points between motorists, pedestrians and bicyclists. While it is working with very low existing traffic volumes, operation and safety concerns need to be reviewed if S. Huntington Dr is to be extended along the proposed project frontage easterly to the existing intersection of Monte Vista and Richton as a two-way street. With the extension, Huntington Dr will be a more direct route to Monte Vista Ave and the Montclair Transcenter from the west. The existing roadway configuration east of the intersection of Claremont Blvd and Huntington Dr needs to be examined to minimize conflicts among motorists, pedestrians and bicyclists including possible re-alignment of traffic lanes, re-location of the connector road and modifications to the PET trailhead, including parking area.

2) Parking along Pacific Electric Trail and along Huntington Dr.

The proposed project contains 302 residential units, many of them are two- or three-bedroom units. While the number of parking spaces provided by the project meets city code of 1.5 parking spaces per unit plus 1 space per 4 units for visitor parking, given the current housing shortage and high rents, it is more likely than not that each rental unit will have a parking demand of more than 1.5 parking spaces for tenants. It is anticipated that many tenants potentially will be parking on public streets, such as Huntington Dr. How would existing residents on Huntington Dr and the parking spaces for the trail users be impacted? Will there be any measures needed to prevent project tenants/visitors from parking within the trail ROW?

3) Load Bearing of the Existing Bridge over San Antonio Channel

If Huntington Dr is to be extended to Monte Vista, will the bridge over the channel need to be re-constructed? Will the bridge be able to handle loading of construction traffic access Monte Vista Ave and southerly to I-10 freeway?

4) Existing Access Connections to Huntington Dr Extension

How will existing driveways and access be connected to the new Huntington Dr Extension up to Monte Vista Ave?

5) Landscape Plan along Pacific Electric Trail

The Project shall fully improve the Pacific Electric Trail segment adjacent to the Project Site with landscaping and trail amenities for pedestrians and bicyclists, this may include benches, shade

structures with seating, and trash receptacles. A detailed landscape plan for this segment of the Pacific Electric Trail shall be submitted with the construction plans.

6) Traffic Calming on Huntington Drive Extension

The new segment of South Huntington Drive will become a cut-through street for vehicles of the residents that live to the west and are going to the Montclair train station or from commercial trucks traveling through this area to get to the Freeway. To mitigate this, the design of the new segment of South Huntington Drive shall incorporate traffic calming methods to slow traffic down through this area.

Please let us know if you have any questions or wish to discuss the above concerns.

Sincerely,



Robert D. Dalquest, AICP
Development Services Director



Braden Yu, P.E.
Director of Public Works

CC: Bob Critchfield, Engineering Manager
Alan French, Principal Civil Engineer
Lawrence Tai, Traffic Engineer