

APPENDIX A
HYDROLOGY STUDY



K &S ENGINEERING, INC.

Planning Engineering Surveying

PRELIMINARY HYDROLOGY STUDY FOR CONDITIONAL USE PERMIT

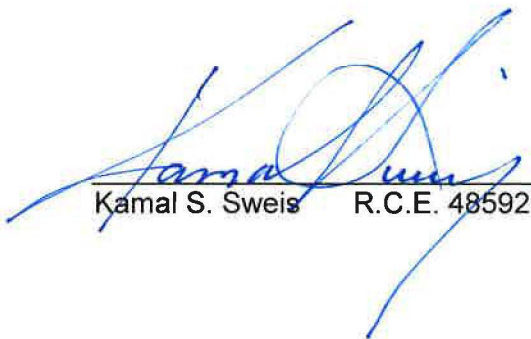
FOR

**2281 FAIRMONT AVENUE
SAN DIEGO, CA**

P.T.S. # 607352

Prepared By:

**K&S Engineering, Inc.
7801 Mission Center Court, Suite 100
San Diego, CA 92108**


Kamal S. Sweis R.C.E. 48592

7/26/18
Date



July 26, 2018
K&S Job No. 18-024

TABLE OF CONTENTS

1. SITE DESCRIPTION
2. HYDROLOGY DESIGN MODELS
3. HYDROLOGIC CALCULATIONS..... APPENDIX A
4. TABLES AND CHARTS..... APPENDIX B
5. HYDROLOGY MAPS..... APPENDIX C

1. SITE DESCRIPTION

EXISTING CONDITION

The site consists of a 0.53 acre (22,995 SF) project located on Fairmont Avenue in the City of San Diego. It comprises APN: 541-280-09-00.

The existing condition is already developed with one automotive repair building, concrete parking lot, concrete walkways, landscape/dirt areas and a concrete lined channel along the westerly side of the project. Also, has a storm drain catch basin to intercept the project runoff and by underground pipe directs it to the existing channel. The surrounding area is commercial and residential land use.

Currently the project contains two basins that will discharge at the existing channel via sheet flow and underground pipe.

Basin 1, commence with runoff from the easterly slope that surface flow towards the parking lot and then, the runoff is captured by an existing 4.5' x 3' catch basin on the south west side of the property that will direct the runoff via underground through an 8" pvc pipe at 4.6% towards the existing concrete lined channel.

Basin 2, commence with runoff from the easterly slope that surface flow towards the northerly side of the project and will continue as surface flow until reached the existing concrete lined channel.

PROPOSED CONDITION

The site drainage path will remain the same as the existing condition, the project proposes to construct a handy cap ramp, re-construct of portion of the driveway and some parking stalls, these changes will reduce the total impervious square foot area and increase the landscape impervious area. The result of this will be the reduction of the runoff generated by the project.

CONCLUSION

The proposed development will not adversely affect the downstream since there will be no increase in runoff; furthermore it will be reduced.

Project is not required to obtain approval from the regional Water Quality Control Board under Federal Clean Water Act section 401 nor 404, since project does discharge into the navigable waters, nor dredged or fill material will be discharged into waters of the United States.

2. HYDROLOGY DESIGN MODELS

A. DESIGN METHODS

THE RATIONAL METHOD IS USED FOR WATERSHED AREAS LES THAN 0.5 SQUARE MILE;
THE RATIONAL FORMULA IS AS FOLLOWS:

$Q = CIA$, WHERE: Q= PEAK DISCHARGE IN CUBIC FEET/SECOND *

C = RUNOFF COEFFICIENT (DIMENSIONLESS)

I = RAINFALL INTENSITY IN INCHES/HOUR (PER APPENDIX XI-A)

A = TRIBUTARY DRAINAGE AREA IN ACRES

*1 ACRE INCHES/HOUR = 1.008 CUBIC FEET/SEC

ALSO THE URBAN OVERLAND METHOD IS USED IN THIS HYDROLOGY STUDY, WHICH
FORMULA IS AS FOLLOWS:

$$T_c = 1.8(1.1 - C)(L)^5 / [S(100)]^{333}$$

L = OVERLAND TRAVEL DISTANCE IN FEET

S = SLOPE IN FT. / FT.

T_c = TIME IN MINUTES

B. DESIGN CRITERIA

FREQUENCY, FOR TRIBUTARY AREAS UNDER 1 SQUARE MILE PER SECTION 1-102.2:

- THE STORM DRAIN SHALL BE DESIGNED SO THAT THE COMBINATION OF STORM DRAIN SYSTEM CAPACITY AND OVERFLOW WILL BE ABLE TO CARRY THE 100 YR FREQUENCY STORM
- THE RUNOFF CRITERIA FOR THE UNDERGROUND STORM DRAIN SYSTEM SHALL BE BASED UPON 50-YR FREQUENCY STORM

LAND USE PER SPECIFIC PLAN AND TENTATIVE MAP.

RAIN FALL INTENSITY PER COUNTY OF SAN DIEGO 2003 HYDROLOGY DESIGN MANUAL.

C. REFERENCES

- CITY OF SAN DIEGO DRAINAGE DESIGN MANUAL JANUARY 2017.
- COUNTY OF SAN DIEGO 2006 REGIONAL STANDARD DRAWING.
- HAND BOOK OF HYDRAULICS BY BRATER & KING, SIXTH EDITION.

APPENDIX A

(3. HYDROLOGIC CALCULATIONS)

WEIGHTED "C"

AREA#	TOTAL AREA (SQ.FT.)	IMPERVIOUS AREA (SQ.FT.)	PERVIOUS AREA (SQ.FT.)	WEIGHTED RUNOFF COEFFICIENT "C"
	21,780	(C=1.00)	(C=0.45)	
EXISTING CONDITION	-	12,390	9,390	0.76
AREA#	TOTAL AREA (SQ.FT.)	IMPERVIOUS AREA (SQ.FT.)	PERVIOUS AREA (SQ.FT.)	WEIGHTED RUNOFF COEFFICIENT "C"
	21,780	(C=1.00)	(C=0.45)	
PROPOSED CONDITION	-	9,390	10,520	0.71

EXISTING CONDITION
Q50 RATIONAL METHOD

Q=CIA

DATE: 7.26.2018

C RUNOFF COEFFICIENT
I INTENSITY (IN/HR)
A CONTRIBUTING AREA (AC)

A BASIN 1

C= 0.76 (SEE WAIGHTED CALCULATIONS)
I= 4.5 (SEE RAINFALL INTENSITY CHART)
A= 0.31 (SEE ATTACHED EXHIBIT MAP)

Q= 1.06 CFS

TOTAL AREA ON BASIN 1 = 1.06 CFS

B BASIN 2

C= 0.76
I= 4.5 (SEE RAINFALL INTENSITY CHART)
A= 0.19 (SEE ATTACHED EXHIBIT MAP)

TOTAL AREA ON BASIN 2 = 0.65 CFS

CONDITION= 1.71 CFS

DATE: 7.26.2018

Q= 0.99 CFS

TOTAL AREA ON BASIN 1 = 0.99 CFS

TOTAL AREA ON BASIN	2	=	0.61 CFS
----------------------------	----------	----------	-----------------

TOTAL PROPOSED CONDITION=	1.60 CFS
--------------------------------------	-----------------

CAPACITY OF AN 8" PVC PIPE AT 4.6%

Manning Pipe Calculator

Given Input Data:

Shape Circular
Solving for Flowrate
Diameter 8.0000 in
Depth 7.2000 in
Slope 0.0460 ft/ft
Manning's n 0.0130

Computed Results:

Flowrate 2.7623 cfs > 0.99 cfs (proposed) THEREFORE, EX. PIPE SHOULD BE ADEQUATE
Area 0.3491 ft²
Wetted Area 0.3309 ft²
Wetted Perimeter 19.9847 in
Perimeter 25.1327 in
Velocity 8.3478 fps
Hydraulic Radius 2.3843 in
Percent Full 90.0000 %
Full flow Flowrate 2.5918 cfs
Full flow velocity 7.4248 fps

APPENDIX B

(4. TABLES AND CHARTS)

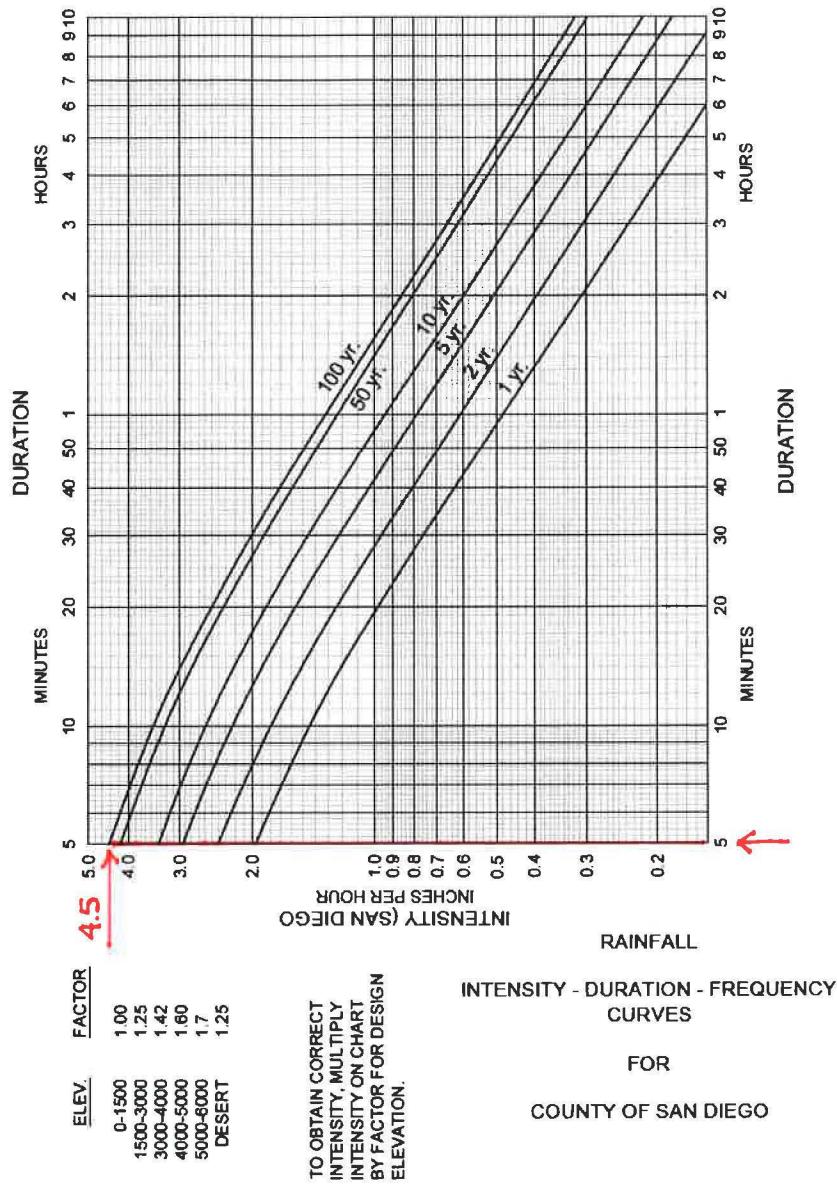


Figure A-1. Intensity-Duration-Frequency Design Chart

APPENDIX C: MANNING ROUGHNESS COEFFICIENTS

Table C-2. Average Manning Roughness Coefficients for Closed Conduits ⁽¹⁾

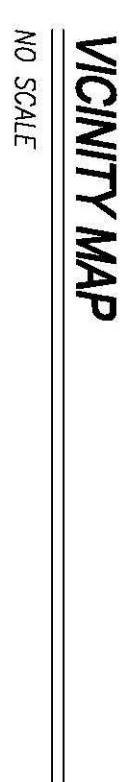
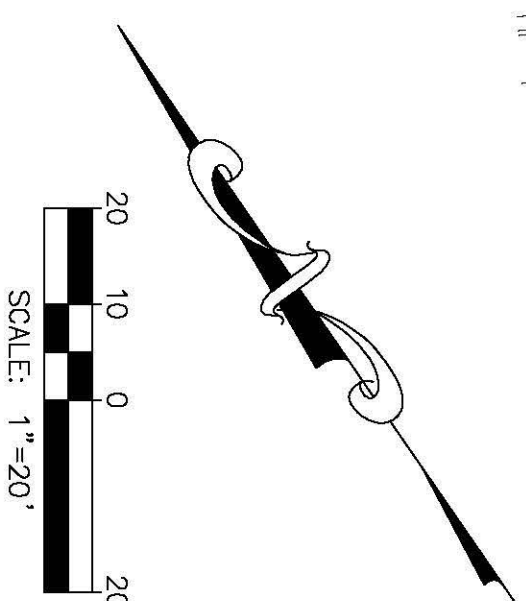
Conduit	Manning Roughness Coefficient (n)
Reinforced Concrete Pipe (RCP)	0.013
Corrugated Metal Pipe and Pipe Arch	
2-3/8 x 1/2 inch Corrugations	
Unlined	0.024
Half Lined	
Full Flow	0.018
d/D ≥ 0.60	0.016
d/D < 0.60	0.013
Fully Lined	0.013
3x1 inch Corrugations	0.027
6x2 inch Corrugations	0.032
Spiral Rib Pipe	0.013
Helically Wound Pipe	
18-inch	0.015
24-inch	0.017
30-inch	0.019
36-inch	0.021
42-inch	0.022
48-inch	0.023
Plastic Pipe (HDPE and PVC)	
Smooth	0.013
Corrugated	0.024
Vitrified Clay Pipe	0.014
Cast-Iron Pipe (Uncoated)	0.013
Steel Pipe	0.011
Brick	0.017
Cast-In-Place Concrete Pipe	
Rough Wood Forms	0.017
Smooth Wood or Steel Forms	0.014

⁽¹⁾ Based on materials and workmanship required by standard specifications.

→ USED FOR EX. 8" PVC @ 4.6%

APPENDIX C

(5. HYDROLOGY MAP)



TOTAL BOUNDARY AREA = 22,995 SF

TOTAL IMP.	15,153 SF
TOTAL PERV.	7,842 SF
TOTAL	22,995 SF

TOTAL CONTRIBUTING AREA = 21,780 SF

TOTAL PERV. 9,390 SF	
TOTAL 21,780 SF	



Date:	7/20/20
Project:	FAIRBROOK M.O.
File:	
Revisions:	
Δ	
Δ	
Δ	
Δ	
Sheet Title:	
EXISTING HYDROLOGY MAP	

SHEET: 1 OF: 2



**ON-SITE IMPERVIOUS & PERVIOUS
AREA CALCULATION**

TOTAL BOUNDARY AREA = 22,995 SF
TOTAL DISTURBED AREA = 3,900 SF

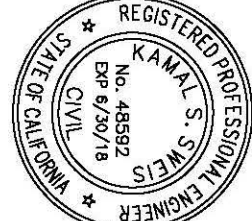
IMPERVIOUS - ROOF	3,445 SF	
IMPERVIOUS - CONCRETE PARKING AND WALKWAYS	7,765 SF	
IMPERVIOUS - CONC. CHANNEL	2,763 SF	TOTAL IMP. 14,023 SF
PERVIOUS - LANDSCAPE	8,972 SF	TOTAL PERV. 8,972 SF
	TOTAL	22,995 SF

**FOR HYDROLOGY PURPOSES
OFF-SITE AND ON-SITE BASIN AREA**

TOTAL CONTRIBUTING AREA = 21,790 SF
TOTAL DISTURBED AREA = 3,900 SF

IMPERVIOUS - ROOF	3,445 SF	
IMPERVIOUS - CONCRETE PARKING AND WALKWAYS	7,765 SF	TOTAL IMP. 11,260 SF
PERVIOUS - LANDSCAPE ON-SITE & OFF-SITE	10,530 SF	TOTAL PERV. 10,530 SF
	TOTAL	21,790 SF

2281 FAIRMOUNT AVENUE
SAN DIEGO, CA



K&S ENGINEERING, INC.
Planning . Engineering . Surveying
8/8/2016
7801 Mission Center Court, Suite 100 San Diego, CA 92108
(619) 296-5565 Fax: (619) 296-5564

Sheet Title:
PROPOSED HYDROLOGY MAP

SHEET: 2 OF: 2

H2

APPENDIX B

FEMA LETTER OF MAP AMENDMENT



Federal Emergency Management Agency

Washington, D.C. 20472

LETTER OF MAP REVISION FLOODWAY DETERMINATION DOCUMENT (REMOVAL)

COMMUNITY AND MAP PANEL INFORMATION		LEGAL PROPERTY DESCRIPTION
COMMUNITY	CITY OF SAN DIEGO, SAN DIEGO COUNTY, CALIFORNIA	A portion of Lots 1 and 6, Valle Granada Annex, as described in the Quitclaim Deed recorded as Document No. 2000-0299363, in the Office of the Recorder, San Diego County, California The portion of property is more particularly described by the following metes and bounds:
	COMMUNITY NO.: 060295	
AFFECTED MAP PANEL	NUMBER: 06073C1901G	
	DATE: 5/16/2012	
FLOODING SOURCE: HOME AVENUE BRANCH		APPROXIMATE LATITUDE & LONGITUDE OF PROPERTY: 32.728642, -117.098613 SOURCE OF LAT & LONG: LOMA LOGIC DATUM: NAD 83

DETERMINATION

LOT	BLOCK/ SECTION	SUBDIVISION	STREET	OUTCOME WHAT IS REMOVED FROM THE SFHA	FLOOD ZONE	1% ANNUAL CHANCE FLOOD ELEVATION (NAVD 88)	LOWEST ADJACENT GRADE ELEVATION (NAVD 88)	LOWEST LOT ELEVATION (NAVD 88)
1 & 6	--	Valle Granada	2281 Fairmount Avenue	Portion of Property	X (shaded)	--	--	161.3 feet

Special Flood Hazard Area (SFHA) - The SFHA is an area that would be inundated by the flood having a 1-percent chance of being equaled or exceeded in any given year (base flood).

ADDITIONAL CONSIDERATIONS (Please refer to the appropriate section on Attachment 1 for the additional considerations listed below.)

LEGAL PROPERTY DESCRIPTION
INADVERTENT INCLUSION FLOODWAY 1
PORTIONS REMAIN IN THE SFHA

This document provides the Federal Emergency Management Agency's determination regarding a request for a Letter of Map Revision for the property described above. Using the information submitted and the effective National Flood Insurance Program (NFIP) map, we have determined that the described portion(s) of the property(ies) is/are not located in the NFIP regulatory floodway or the SFHA, an area inundated by the flood having a 1-percent chance of being equaled or exceeded in any given year (base flood). This document revises the effective NFIP map to remove the subject property from the NFIP regulatory floodway and the SFHA located on the effective NFIP map; therefore, the Federal mandatory flood insurance requirement does not apply. However, the lender has the option to continue the flood insurance requirement to protect its financial risk on the loan. A Preferred Risk Policy (PRP) is available for buildings located outside the SFHA. Information about the PRP and how one can apply is enclosed.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange (FMIX) toll free at (877) 336-2627 (877-FEMA MAP) or by letter addressed to the Federal Emergency Management Agency, Engineering Library, 3601 Eisenhower Ave Ste 500, Alexandria, VA 22304-6426.

Luis V. Rodriguez, P.E., Director
Engineering and Modeling Division
Federal Insurance and Mitigation Administration



Federal Emergency Management Agency

Washington, D.C. 20472

LETTER OF MAP REVISION FLOODWAY DETERMINATION DOCUMENT (REMOVAL)

ATTACHMENT 1 (ADDITIONAL CONSIDERATIONS)

LEGAL PROPERTY DESCRIPTION (CONTINUED)

COMMENCING AT THE MOST SOUTHERLY CORNER OF SAID LOT 1; THENCE ALONG THE SOUTHERLY LINE THEREOF NORTH 56°09'26" EAST 5.77 FEET TO AN INTERSECTION WITH THE NORTHEASTERLY BOUNDARY OF THAT PORTION OF LAND CONVEYED BY ROBERT LEO SCHNAUTZ, A MARRIED MAN AS HIS SOLE AND SEP ARA TE PROPERTY TO THE CITY OF SAN DIEGO IN THE GRANT DEED RECORDED APRIL 18, 1994 AS INSTRUMENT NO. 251806 OF OFFICIAL RECORDS, BEING A POINT ON THE ARC OF A 542.00 FOOT RADIUS CURVE CONCAVE SOUTHWESTERLY, A RADIAL INTO SAID POINT OF INTERSECTION BEARS NORTH 40°08'28" EAST, BEING THE TRUE POINT OF BEGINNING; THENCE NORTHWESTERLY ALONG THE BOUNDARY OF SAID LAND CONVEYED TO THE CITY OF SAN DIEGO, BEING ALONG THE ARC OF SAID CURVE THROUGH AN ANGLE OF 09°53 '31" 93.58 FEET; THENCE LEAVING SAID CURVE NORTH 37°18'40" EAST 51.96 FEET; THENCE NORTH 38°53'56" EAST 104.40 FEET; THENCE NORTH 85°14'22' EAST 17.80 FEET; THENCE NORTH 43°39'10" EAST 6.42 FEET TO A POINT OF INTERSECTION WITH THE CENTER LINE OF THAT CERTAIN 8.0 FOOT DRAINAGE EASEMENT AS SAID EASEMENT IS DELINEATED AND SET FORTH ON SAID MAP NO. 4954, SAID POINT BEING 129.01 FEET NORTHWESTERLY OF THE INTERSECTION OF SAID CENTER LINE WITH THE SOUTHEASTERLY LINE OF SAID LOT 6 OF MAP 4954; THENCE ALONG THE CENTER LINE OF SAID 8.0 FOOT EASEMENT SOUTH 41°25'57" EAST 129.01 FEET TO AN INTERSECTION WITH THE SOUTHEASTERLY LINE OF SAID LOT 6 OF MAP 4954; THENCE SOUTHWESTERLY ALONG THE BOUNDARY OF SAID LOT 6 OF MAP 4954 AND OF SAID LOT 1 OF MAP 3422, SOUTH 56°11'19" WEST 154.36 FEET TO THE TRUE POINT OF BEGINNING

This attachment provides additional information regarding this request. If you have any questions about this attachment, please contact the FEMA Map Information eXchange (FMIX) toll free at (877) 336-2627 (877-FEMA MAP) or by letter addressed to the Federal Emergency Management Agency, Engineering Library, 3601 Eisenhower Ave Ste 500, Alexandria, VA 22304-6426.

Luis V. Rodriguez, P.E., Director
Engineering and Modeling Division
Federal Insurance and Mitigation Administration



Federal Emergency Management Agency

Washington, D.C. 20472

LETTER OF MAP REVISION FLOODWAY DETERMINATION DOCUMENT (REMOVAL)

ATTACHMENT 1 (ADDITIONAL CONSIDERATIONS)

INADVERTENT INCLUSION IN THE FLOODWAY 1 (PORTIONS OF THE PROPERTY REMAIN IN THE FLOODWAY) (This Additional Consideration applies to the preceding 1 Property.)

A portion of this property is located within the National Flood Insurance Program (NFIP) regulatory floodway for the flooding source indicated on the Determination Document, while the subject of this determination is not. The NFIP regulatory floodway is the area that must remain unobstructed in order to prevent unacceptable increases in base flood elevations. Therefore, no construction may take place in an NFIP regulatory floodway that may cause an increase in the base flood elevation, and any future construction or substantial improvement on the property remains subject to Federal, State/Commonwealth, and local regulations for floodplain management. The NFIP regulatory floodway is provided to the community as a tool to regulate floodplain development. Therefore, the NFIP regulatory floodway modification described in the Determination Document, while acceptable to the Federal Emergency Management Agency (FEMA), must also be acceptable to the community and adopted by appropriate community action, as specified in Paragraph 60.3(d) of the NFIP regulations. Any proposed revision to the NFIP regulatory floodway must be submitted to FEMA by community officials. The community should contact either the Regional Director (for those communities in Regions I-IV, and VI-X), or the Regional Engineer (for those communities in Region V) for guidance on the data which must be submitted for a revision to the NFIP regulatory floodway. Contact information for each regional office can be obtained by calling the FEMA Map Assistance Center toll free at (877) 336-2627 (877-FEMA MAP) or from our web site at <http://www.fema.gov/about/regoff.htm>.

PORTIONS OF THE PROPERTY REMAIN IN THE SFHA (This Additional Consideration applies to the preceding 1 Property.)

Portions of this property, but not the subject of the Determination/Comment document, may remain in the Special Flood Hazard Area. Therefore, any future construction or substantial improvement on the property remains subject to Federal, State/Commonwealth, and local regulations for floodplain management.

This attachment provides additional information regarding this request. If you have any questions about this attachment, please contact the FEMA Map Information eXchange (FMIX) toll free at (877) 336-2627 (877-FEMA MAP) or by letter addressed to the Federal Emergency Management Agency, Engineering Library, 3601 Eisenhower Ave Ste 500, Alexandria, VA 22304-6426.

Luis V. Rodriguez, P.E., Director
Engineering and Modeling Division
Federal Insurance and Mitigation Administration

LETTER OF MAP AMENDMENT
FOR
2281 FAIRMOUNT AVENUE
SAN DIEGO, CA 92105

August 9, 2018

ChangConsultants
Civil Engineering • Hydrology • Hydraulics • Sedimentation

P.O. Box 9496
Rancho Santa Fe, CA 92067
(858) 692-0760
wayne@changconsultants.com

DEPARTMENT OF HOMELAND SECURITY - FEDERAL EMERGENCY MANAGEMENT AGENCY
PROPERTY INFORMATION FORM

O.M.B. NO. 1660-0015
Expires February 28, 2014

PAPERWORK BURDEN DISCLOSURE NOTICE

Public reporting burden for this data collection is estimated to average 1.63 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing and submitting the form. This collection is required to obtain or retain benefits. You are not required to respond to this collection of information unless a valid OMB control number is displayed on this form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden to: Information Collections Management, Department of Homeland Security, Federal Emergency Management Agency, 1800 South Bell Street, Arlington, VA 20598-3005, Paperwork Reduction Project (1660-0015). **NOTE: Do not send your completed form to this address.**

This form may be completed by the property owner, property owner's agent, licensed land surveyor, or registered professional engineer to support a request for a Letter of Map Amendment (LOMA), Conditional Letter of Map Amendment (CLOMA), Letter of Map Revision Based on Fill (LOMR-F), or Conditional Letter of Map Revision Based on Fill (CLOMR-F) for existing or proposed, single or multiple lots/structures. In order to process your request, all information on this form must be completed **in its entirety**, unless stated as optional. **Incomplete submissions will result in processing delays.** Please check the item below that describes your request:

☒ LOMA	A letter from DHS-FEMA stating that an existing structure or parcel of land that has not been elevated by fill (natural grade) would not be inundated by the base flood.
☐ CLOMA	A letter from DHS-FEMA stating that a proposed structure that is not to be elevated by fill (natural grade) would not be inundated by the base flood if built as proposed.
☐ LOMR-F	A letter from DHS-FEMA stating that an existing structure or parcel of land that has been elevated by fill would not be inundated by the base flood.
☐ CLOMR-F	A letter from DHS-FEMA stating that a parcel of land or proposed structure that will be elevated by fill would not be inundated by the base flood if fill is placed on the parcel as proposed or the structure is built as proposed.

Fill is defined as material from any source (including the subject property) placed that raises the ground to or above the Base Flood Elevation (BFE). The common construction practice of removing unsuitable existing material (topsoil) and backfilling with select structural material is not considered the placement of fill if the practice does not alter the existing (natural grade) elevation, which is at or above the BFE. **Fill that is placed before the date of the first National Flood Insurance Program (NFIP) map showing the area in a Special Flood Hazard Area (SFHA) is considered natural grade.**

Has fill been placed on your property to raise ground that was previously below the BFE?

☒ Yes ☐ No

If yes, when was fill placed?

Circa 1965.

mm/dd/yyyy

Will fill be placed on your property to raise ground that is below the BFE?

☐ Yes* ☒ No

If yes, when will fill be placed?

mm/dd/yyyy

* If yes, Endangered Species Act (ESA) compliance must be documented to FEMA prior to issuance of the CLOMR-F determination (please refer page 4 to the MT-1 instructions).

1. Street Address of the Property (if request is for multiple structures or units, please attach additional sheet referencing each address and enter street names below):

2281 Fairmount Avenue, San Diego, CA 92105 (Assessor's Parcel No. 541-280-09-00)

2. Legal description of Property (Lot, Block, Subdivision or abbreviated description from the Deed):

A portion of Lot 6 of Map 4954 and a portion of Lot 1 of Map 3422 filed in San Diego County. The site is now a single lot.

3. Are you requesting that a flood zone determination be completed for (check one):

- ☐ Structures on the property? What are the dates of construction? _____ (MM/YYYY)
- ☒ A portion of land within the bounds of the property? (A certified metes and bounds description and map of the area to be removed, certified by a licensed land surveyor or registered professional engineer, are **required**. For the preferred format of metes and bounds descriptions, please refer to the MT-1 Form 1 Instructions.)
- ☐ The entire legally recorded property?

4. Is this request for a (check one):

- ☐ Single structure
- ☒ Single lot
- ☐ Multiple structures (How many structures are involved in your request? List the number: _____)
- ☐ Multiple lots (How many lots are involved in your request? List the number: _____)

In addition to this form (MT-1 Form 1), please complete the checklist below. **ALL** requests must include one copy of the following:

- ☒ Copy of the effective FIRM panel on which the structure and/or property location has been accurately plotted (property inadvertently located in the NFIP regulatory floodway will require Section B of MT-1 Form 3)
- ☐ Copy of the Subdivision Plat Map for the property **(with recordation data and stamp of the Recorder's Office)**
OR
- ☒ Copy of the Property Deed **(with recordation data and stamp of the Recorder's Office)**, **accompanied by** a tax assessor's map or other certified map showing the surveyed location of the property relative to local streets and watercourses. The map should include at least one street intersection that is shown on the FIRM panel.
- ☒ Form 2 – Elevation Form. If the request is to remove the structure, and an Elevation Certificate has already been completed for this property, it may be submitted in lieu of Form 2. If the request is to remove the entire legally recorded property, or a portion thereof, the lowest lot elevation must be provided on Form 2.
- ☒ Please include a map scale and North arrow on all maps submitted.

For LOMR-Fs and CLOMR-Fs, the following must be submitted in addition to the items listed above:

- ☒ Form 3 – Community Acknowledgment Form

For CLOMR-Fs, the following must be submitted in addition to the items listed above: **N/A. This is a LOMA.**

- ☐ Documented ESA compliance, which may include a copy of an Incidental Take Permit, an Incidental Take Statement, a "not likely to adversely affect" determination from the National Marine Fisheries Service (NMFS) or the U.S. Fish and Wildlife Service (USFWS), or an official letter from NMFS or USFWS concurring that the project has "No Effect" on proposed or listed species or designated critical habitat. Please refer to the MT-1 instructions for additional information.

Please do not submit original documents. Please retain a copy of all submitted documents for your records.

DHS-FEMA encourages the submission of all required data in a digital format (e.g. scanned documents and images on Compact Disc [CD]). Digital submissions help to further DHS-FEMA's Digital Vision and also may facilitate the processing of your request.

Incomplete submissions will result in processing delays. For additional information regarding this form, including where to obtain the supporting documents listed above, please refer to the MT-1 Form Instructions located at http://www.fema.gov/plan/prevent/fhm/dl_mt-1.shtm.

Processing Fee (see instructions for appropriate mailing address; or visit http://www.fema.gov/fhm/frm_fees.shtm for the most current fee schedule)

Revised fee schedules are published periodically, but no more than once annually, as noted in the **Federal Register**. Please note: single/multiple lot(s)/structure(s) LOMAs are fee exempt. The current review and processing fees are listed below:

Check the fee that applies to your request:

- ☐ \$325 (single lot/structure LOMR-F following a CLOMR-F)
- ☐ \$425 (single lot/structure LOMR-F)
- ☐ \$500 (single lot/structure CLOMA or CLOMR-F)
- ☐ \$700 (multiple lot/structure LOMR-F following a CLOMR-F, or multiple lot/structure CLOMA)
- ☐ \$800 (multiple lot/structure LOMR-F or CLOMR-F)

Please submit the Payment Information Form for remittance of applicable fees. Please make your check or money order payable to:

National Flood Insurance Program.

All documents submitted in support of this request are correct to the best of my knowledge. I understand that any false statement may be punishable by fine or imprisonment under Title 18 of the United States Code, Section 1001.

Applicant's Name (required): **Wayne W. Chang**

Company (if applicable): **Chang Consultants**

Mailing Address (required):

Daytime Telephone No. (required): **(858) 692-0760**

P.O. Box 9496, Rancho Santa Fe, CA 92067

E-Mail Address (optional): ☒ By checking here you may receive correspondence electronically at the email address provided):

Fax No. (optional):

Date (required) **08/09/2018**



Signature of Applicant (required)

DEPARTMENT OF HOMELAND SECURITY - FEDERAL EMERGENCY MANAGEMENT AGENCY
ELEVATION FORM

O.M.B. NO. 1660-0015
Expires February 28, 2014

PAPERWORK BURDEN DISCLOSURE NOTICE

Public reporting burden for this data collection is estimated to average 1.25 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing and submitting the form. This collection is required to obtain or retain benefits. You are not required to respond to this collection of information unless a valid OMB control number is displayed on this form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden to: Information Collections Management, Department of Homeland Security, Federal Emergency Management Agency, 1800 South Bell Street, Arlington, VA 20598-3005, Paperwork Reduction Project (1660-0015). **NOTE: Do not send your completed form to this address.**

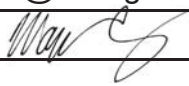
This form must be completed for requests and must be completed and signed by a registered professional engineer or licensed land surveyor. **A DHS - FEMA National Flood Insurance Program (NFIP) Elevation Certificate may be submitted in lieu of this form for single structure requests.**

For requests to remove a structure on natural grade OR on engineered fill from the Special Flood Hazard Area (SFHA), submit the lowest adjacent grade (the lowest ground touching the structure), **including an attached deck or garage**. For requests to remove an entire parcel of land from the SFHA, provide the lowest lot elevation; or, if the request involves an area described by metes and bounds, provide the lowest elevation within the metes and bounds description. All measurements are to be rounded to nearest tenth of a foot. In order to process your request, all information on this form must be completed **in its entirety**. **Incomplete submissions will result in processing delays.**

- NFIP Community Number: 060295 Property Name or Address: 2281 Fairmount Avenue, San Diego, CA 92105
- Are the elevations listed below based on ☒ **existing** or ☐ **proposed** conditions? (Check one)
- For the existing or proposed structures listed below, what are the types of construction? (check all that apply)
☐ crawl space ☒ slab on grade ☐ basement/enclosure ☐ other (explain)
- Has DHS - FEMA identified this area as subject to land subsidence or uplift? (see instructions) ☐ Yes ☒ No
If yes, what is the date of the current re-leveling? / (month/year)
- What is the elevation datum? ☐ NGVD 29 ☒ NAVD 88 ☐ Other (explain)
If any of the elevations listed below were computed using a datum different than the datum used for the effective Flood Insurance Rate Map (FIRM) (e.g., NGVD 29 or NAVD 88), what was the conversion factor? NAVD 88 = NGVD 29 + 2.1
Local Elevation +/- ft. = FIRM Datum
- Please provide the Latitude and Longitude of the most upstream edge of the **structure** (in decimal degrees to the nearest fifth decimal place):
Indicate Datum: ☒ WGS84 ☐ NAD83 ☐ NAD27 Lat. 32.72887 Long. -117.09863
Please provide the Latitude and Longitude of the most upstream edge of the **property** (in decimal degrees to the nearest fifth decimal place):
Indicate Datum: ☒ WGS84 ☐ NAD83 ☐ NAD27 Lat. 32.72897 Long. -117.09861

Address	Lot Number	Block Number	Lowest Lot Elevation*	Lowest Adjacent Grade To Structure	Base Flood Elevation	BFE Source
2281 Fairmount Avenue	See metes	and bounds.	161.3 NAVD 88	164.5 NAVD 88	160.0 NAVD 88	FIRM 06073C1901G
						dated May 16, 2012

This certification is to be signed and sealed by a licensed land surveyor, registered professional engineer, or architect authorized by law to certify elevation information. All documents submitted in support of this request are correct to the best of my knowledge. I understand that any false statement may be punishable by fine or imprisonment under Title 18 of the United States Code, Section 1001.

Certifier's Name: Wayne W. Chang	License No.: 46548	Expiration Date: 6/30/2019
Company Name: Chang Consultants	Telephone No.: (858) 692-0760	
Email: wayne@changconsultants.com	Fax No. (858) 832-1402	
Signature: 	Date: August 9, 2018	

* For requests involving a portion of property, include the lowest ground elevation within the metes and bounds description.
Please note: If the Lowest Adjacent Grade to Structure is the only elevation provided, a determination will be issued for the structure only.

COMMUNITY ACKNOWLEDGMENT FORM

PAPERWORK BURDEN DISCLOSURE NOTICE

Public reporting burden for this data collection is estimated to average 1.38 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing and submitting the form. This collection is required to obtain or retain benefits. You are not required to respond to this collection of information unless a valid OMB control number is displayed on this form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden to: Information Collections Management, Department of Homeland Security, Federal Emergency Management Agency, 1800 South Bell Street, Arlington, VA 20598-3005, Paperwork Reduction Project (1660-0015). NOTE: Do not send your completed form to this address.

This form must be completed for requests involving the existing or proposed placement of fill (complete Section A) **OR** to provide acknowledgment of this request to remove a property from the SFHA which was previously located within the regulatory floodway (complete Section B).

This form must be completed and signed by the official responsible for floodplain management in the community. **The six digit NFIP community number and the subject property address must appear in the spaces provided below. Incomplete submissions will result in processing delays.** Please refer to the MT-1 instructions for additional information about this form.

Community Number: 06073C1901GProperty Name or Address: 2281 Fairmount Avenue, San Diego, CA 92105**A. REQUESTS INVOLVING THE PLACEMENT OF FILL**

As the community official responsible for floodplain management, I hereby acknowledge that we have received and reviewed this Letter of Map Revision Based on Fill (LOMR-F) or Conditional LOMR-F request. Based upon the community's review, we find the completed or proposed project meets or is designed to meet all of the community floodplain management requirements, including the requirement that no fill be placed in the regulatory floodway, and that all necessary Federal, State, and local permits have been, or in the case of a Conditional LOMR-F, will be obtained. For Conditional LOMR-F requests, the applicant has or will document Endangered Species Act (ESA) compliance to FEMA prior to issuance of the Conditional LOMR-F determination. For LOMR-F requests, I acknowledge that compliance with Sections 9 and 10 of the ESA has been achieved independently of FEMA's process. Section 9 of the ESA prohibits anyone from "taking" or harming an endangered species. If an action might harm an endangered species, a permit is required from U.S. Fish and Wildlife Service or National Marine Fisheries Service under Section 10 of the ESA. For actions authorized, funded, or being carried out by Federal or State agencies, documentation from the agency showing its compliance with Section 7(a)(2) of the ESA will be submitted. In addition, we have determined that the land and any existing or proposed structures to be removed from the SFHA are or will be reasonably safe from flooding as defined in 44CFR 65.2(c), and that we have available upon request by DHS-FEMA, all analyses and documentation used to make this determination. For LOMR-F requests, we understand that this request is being forwarded to DHS-FEMA for a possible map revision.

Community Comments:

Community Official's Name and Title: *(Please Print or Type)*

Sean Torres, Senior Civil Engineer, Floodplain Manager

Telephone No.:

(858) 541-4348

Community Name: **City of San Diego**

9370 Chesapeake Dr., Suite 100, San Diego, CA 92123

Community Official's Signature: *(required)*

Date:

8/20/2018

B. PROPERTY LOCATED WITHIN THE REGULATORY FLOODWAY

As the community official responsible for floodplain management, I hereby acknowledge that we have received and reviewed this request for a LOMA. We understand that this request is being forwarded to DHS-FEMA to determine if this property has been inadvertently included in the regulatory floodway. We acknowledge that no fill on this property has been or will be placed within the designated regulatory floodway. We find that the completed or proposed project meets or is designed to meet all of the community floodplain management requirements.

Community Comments:

Community Official's Name and Title: *(Please Print or Type)*

Sean Torres, Senior Civil Engineer, Floodplain Manager

Telephone No.:

(858) 541-4348

Community Name: **City of San Diego**

9370 Chesapeake Dr., Suite 100, San Diego, CA 92123

Community Official's Signature: *(required)*

Date:

8/20/2018

Metes and Bounds

EXHIBIT "A"
APN 541-280-09-00

PARCEL 'A'

THAT PORTION OF LOT 6 OF VALLE GRANADO ANNEX, ACCORDING TO MAP THEREOF NO. 4954, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, APRIL 24, 1962, WHICH LIES SOUTHEASTERLY OF THE CENTER LINE OF THAT CERTAIN 30 FOOT DRAINAGE EASEMENT, AND SOUTHWESTERLY OF THE CENTER LINE OF THAT CERTAIN 8.0 FOOT DRAINAGE EASEMENT AS BOTH EASEMENTS ARE DELINEATED AND SET FORTH ON SAID MAP NO. 4954;

TOGETHER WITH THAT PORTION OF LOT 1 OF VALLE GRANADO, ACCORDING TO MAP THEREOF NO. 3422, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, MAY 4, 1956, WHICH LIES SOUTHEASTERLY OF THE CENTER LINE OF THAT CERTAIN 30 FOOT DRAINAGE EASEMENT AS DELINEATED AND SET FORTH ON SAID MAP NO. 3422,

EXCEPTING THEREFROM THAT PORTION OF LAND CONVEYED BY ROBERT LEO SCHNAUTZ, A MARRIED MAN AS HIS SOLE AND SEPARATE PROPERTY TO THE CITY OF SAN DIEGO IN THE GRANT DEED RECORDED APRIL 18, 1994 AS INSTRUMENT NO. 251806 OF OFFICIAL RECORDS;

DESCRIBED AS FOLLOWS:

COMMENCING AT THE MOST SOUTHERLY CORNER OF SAID LOT 1; THENCE ALONG THE SOUTHERLY LINE THEREOF NORTH 56°09'26" EAST 5.77 FEET TO AN INTERSECTION WITH THE NORTHEASTERLY BOUNDARY OF THAT PORTION OF LAND CONVEYED BY ROBERT LEO SCHNAUTZ, A MARRIED MAN AS HIS SOLE AND SEPARATE PROPERTY TO THE CITY OF SAN DIEGO IN THE GRANT DEED RECORDED APRIL 18, 1994 AS INSTRUMENT NO. 251806 OF OFFICIAL RECORDS, BEING A POINT ON THE ARC OF A 542.00 FOOT RADIUS CURVE CONCAVE SOUTHWESTERLY, A RADIAL INTO SAID POINT OF INTERSECTION BEARS NORTH 40°08'28" EAST, BEING THE **TRUE POINT OF BEGINNING**;

THENCE NORTHWESTERLY ALONG THE BOUNDARY OF SAID LAND
CONVEYED TO THE CITY OF SAN DIEGO, BEING ALONG THE ARC OF
SAID CURVE THROUGH AN ANGLE OF 09°53'31" 93.58 FEET;
THENCE LEAVING SAID CURVE NORTH 37°18'40" EAST 51.96 FEET;
THENCE NORTH 38°53'56" EAST 104.40 FEET;
THENCE NORTH 85°14'22" EAST 17.80 FEET;
THENCE NORTH 43°39'10" EAST 6.42 FEET TO A POINT OF INTERSECTION
WITH THE CENTER LINE OF THAT CERTAIN 8.0 FOOT DRAINAGE
EASEMENT AS SAID EASEMENT IS DELINEATED AND SET FORTH ON
SAID MAP NO. 4954, SAID POINT BEING 129.01 FEET NORTHWESTERLY
OF THE INTERSECTION OF SAID CENTER LINE WITH THE
SOUTHEASTERLY LINE OF SAID LOT 6 OF MAP 4954;
THENCE ALONG THE CENTER LINE OF SAID 8.0 FOOT EASEMENT
SOUTH 41°25'57" EAST 129.01 FEET TO AN INTERSECTION WITH THE
SOUTHEASTERLY LINE OF SAID LOT 6 OF MAP 4954;
THENCE SOUTHWESTERLY ALONG THE BOUNDARY OF SAID LOT 6 OF
MAP 4954 AND OF SAID LOT 1 OF MAP 3422, SOUTH 56°11'19" WEST
154.36 FEET TO THE **TRUE POINT OF BEGINNING.**

PREPARED BY ME OR
UNDER MY DIRECTION

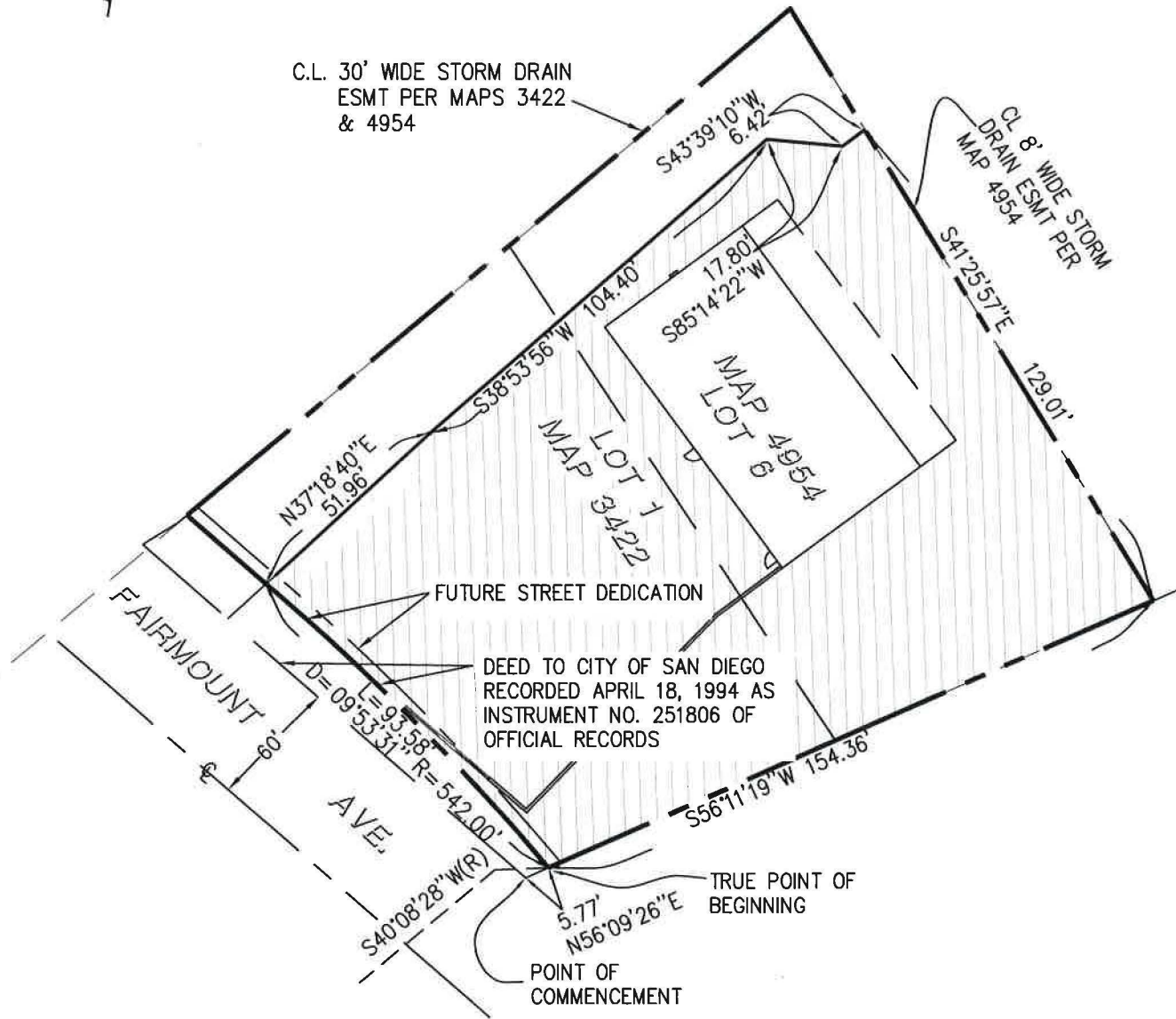

DENNIS W. GOOD LS8084



EXHIBIT "B"



SCALE: 1"=40'



Dennis W. Good 2018.10.01
DENNIS W. GOOD DATE



K&S ENGINEERING, INC.
Planning . Engineering . Surveying
7801 Mission Center Court, Suite 100 San Diego, CA 92108
(619) 296-5565 Fax: (619) 296-5564



APN 541-280-09

National Flood Hazard Layer FIRMette



32°43'57.36"N



USGS The National Map: Orthoimagery. Data refreshed October 2017. 1:6,000 32°43'27.10"N

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		Area of Minimal Flood Hazard Zone X
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard Zone D
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 8/10/2018 at 12:16:56 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

RECORDING REQUESTED BY

AND WHEN RECORDED MAIL TO

Name Mr. & Mrs. R. L. Schnautz
Street 4254 North Rogers Road
Address Spring Valley, California
City & State H-807766 cp

FILE/PAGE No. 59164
RECORDED REQUEST OF
TITLE INSURANCE & TRUST CO.
APR 5 9:00 AM '65
SERIES 6 BOOK 1965
OFFICIAL RECORDS
SAN DIEGO COUNTY, CALIF.
A. & GRAY, RECORDER
\$2.30

SPACE ABOVE THIS LINE FOR RECORDER'S USE

AFFIX I.R.S. \$16.50 IN THIS SPACE

Corporation Grant Deed

TO 406 C

THIS FORM FURNISHED BY TITLE INSURANCE AND TRUST COMPANY

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged,
COLUMBUS CLUB OF SAN DIEGO

a corporation organized under the laws of the state of California
hereby GRANTS to

ROBERT LEO SCHNAUTZ and MARCELLA C. SCHNAUTZ, husband and wife, as
joint tenants,

the following described real property in the city of San Diego
County of San Diego, State of California:

Parcel 1:

That portion of Lot 6 of Valle Granado Annex,

Parcel 2:

That portion of Lot 1 of Valle Granado, as more particularly set
forth on the legal description attached hereto and made a part here of.

PARCEL 1:

That portion of Lot 6 of Valle Granado Annex, in the City of
San Diego, County of San Diego, State of California, according
to Map thereof No. 4954, filed in the office of the County
Recorder of San Diego County, April 24, 1962, which lies
Southeasterly of the center line of that certain 30 foot
drainage easement, and Southwesterly of the center line of
that certain 8.0 foot drainage easement as both easements are
delineated and set forth on said Map No. 4954.

PARCEL 2:

That portion of Lot 1 of Valle Granado, in the City of San
Diego, County of San Diego, State of California, according to
Map thereof No. 3422, filed in the office of the County
Recorder of San Diego County, May 4, 1956; which lies
Southeasterly of the center line of that certain 30 foot
drainage easement as delineated and set forth on said Map
No. 3422.

COUNTY OF San Diego
On March 26, 1965, before me, the under-
signed, a Notary Public in and for said State, personally appeared
Francis J. Riedy, known to me to be the President, and
John J. Kevane, known to me to be the Treasurer.

Witness my hand and official seal
(Seal)
Signature LORRAINE JENSEN

(13)

Name (Typed or Printed)

Notary Public in and for said State

COLUMBUS CLUB OF SAN DIEGO

By Francis J. Riedy President

By John J. Kevane Treasurer
LORRAINE JENSEN
Notary Public
San Diego County, Calif.
Title Order No. 1965

RECORDING REQUESTED BY **GRANTED**

1554

86-169902

MAIL TAX STATEMENT TO

RECORDED IN
OFFICIAL RECORDS
OF SAN DIEGO COUNTY

1986 APR 30 AM 11:44

VERA L. LYLE
COUNTY RECORDER

RF	3
AR	1
MG	1
UF	—
OC	✓
TXPD	—

WHEN RECORDED MAIL TO

Name
Street
Address
City
State
Zip

Robert L. Schnautz
2286 Fairmount Avenue
San Diego, CA 92105

ORDER NO.
ESCROW NO.

RECORDERS USE ONLY

DOCUMENTARY TRANSFER TAX \$ 0
COMPUTED ON FULL VALUE OF PROPERTY CONVEYED, OR
COMPUTED ON FULL VALUE LESS LIENS AND ENCUMBRANCES
REMAINING THEREON AT TIME OF SALE.

Signature of declarant or agent determining tax - Firm Name

Unincorporated Area City of

Tax Parcel No. 541 066 11 08 + 541-280-04-00

QUITCLAIM DEED

MARCELLA C. SCHNAUTZ

FOR A VALUABLE CONSIDERATION, DOES HEREBY QUITCLAIM to

ROBERT LEO SCHNAUTZ

the real property in the County of San Diego, State of California, described as:

Parcel 1;

That portion of Lot 6 of Valle Granada Annex,

Parcel 2:

That portion of Lot 1 of Valle Granada, as more particularly set forth on the legal description hereto attached and made a part thereof.

Parcel 1:

That portion of Lot 6 of Valle Granada Annex, in the City of San Diego, County of San Diego, State of California, according to Map thereof No. 4954, filed in the office of the County Recorder of San Diego County, April 24, 1962, which lies Southeasterly of the center line of that certain 30 foot drainage easement, and Southwesterly of the center line of that certain 8.0 foot drainage easement as both are delineated and set forth on said Map No. 4954.

Parcel 2:

That portion of Lot 1 of Valle Granada, in the City of San Diego, County of San Diego, State of California, according to Map thereof No. 3422, filed in the office of the County Recorder of San Diego County, May 4, 1956; which lies Southeasterly of the center line of that certain 30 foot drainage easement as delineated and set forth on said Map No. 3422.

Dated: April 22, 1986

STATE OF CALIFORNIA
COUNTY OF San Diego

On April 22, 1986,
before me, the undersigned, a Notary Public in and for said
County and State, personally appeared

Marcella C. Schnautz

known to me to be the person whose name is
subscribed to the within instrument and acknowledged that
she executed the same.

WITNESS my hand and official seal.

Patty F. Evans
Notary Public in and for said County and State.

Marcella C. Schnautz
Marcella C. Schnautz

Notary Seal



MAIL TAX STATEMENT AS DIRECTED ABOVE

PT-18

OFFICIAL RECORDS, SAN DIEGO COUNTY, VERA L. LYLE, RECORDER

RECORDING REQUESTED BY:

ATTORNEY

AND WHEN RECORDED PLEASE RETURN TO:

NORMAN MICHAEL COOLEY, ESQ.
600 West Broadway - Suite 1550
San Diego, California 92101

DOC # 1994-0315750
198612-MAY-1994 02:04 PM

OFFICIAL RECORDS
SAN DIEGO COUNTY RECORDER'S OFFICE
GREGORY SMITH, COUNTY RECORDER
RF: 4.00 FEES: 8.00
AF: 3.00 OC
MF: 1.00

QUITCLAIM

DEED

DOCUMENTARY TRANSFER TAX \$ 0
[] computed on full value of property conveyed, or
[] computed on full value less value of liens and encumbrances remaining at the time of sale

NORMAN MICHAEL COOLEY, ESQ.
Signature of Declarant or Firm Name of Agent
Determining Tax

PARENT - CHILD TRANSFER

I, ROBERT LEO SCHNAUTZ, a married man, as my sole and separate property, as a gift made purely out of love and affection, do hereby remise, release, and forever quitclaim to my son, KIM SCHNAUTZ, as his sole and separate property, an undivided Fifty Percent (50%) of my right, title, and interest in and to the following described real property:

That portion of Lot 6 of Valle Granada Annex, and of Lot 1 of Valle Granada, in the City of San Diego, County of San Diego, State of California, as more fully described in EXHIBIT A, which is attached hereto and incorporated herein by this reference.

Assessor's Parcel No. 542-280-07

EXECUTED ON MAY 10, 1994, in SAN DIEGO, California.
(date)

Robert Leo Schnautz
ROBERT LEO SCHNAUTZ

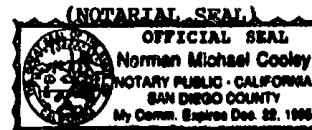
ACKNOWLEDGMENT

STATE OF CALIFORNIA)
COUNTY OF SAN DIEGO)

On MAY 10, 1994, before me, NORMAN MICHAEL COOLEY, the undersigned, a Notary Public in and for said County and State, personally appeared ROBERT LEO SCHNAUTZ, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument, and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal

Norman Michael Cooley
Signature of Notary



Send Tax Statements to:
KIM SCHNAUTZ, 2286 Fairmont Avenue, San Diego, CA 92105

EXHIBIT A**Parcel 1:**

That portion of Lot 6 of Valle Granada Annex, in the City of San Diego, County of San Diego, State of California, according to Map thereof No. 4954, filed in the office of the County Recorder of San Diego County, April 24, 1962, which lies Southeasterly of the center line of that certain 30 foot drainage easement, and Southwesterly of the center of that certain 3.0 foot drainage easement as both are delineated and set forth on said Map No. 4954.

Parcel 2:

That portion of Lot 1 of Valle Granada, in the City of San Diego, County of San Diego, State of California, according to Map thereof No. 3422, filed in the office of the County Recorder of San Diego County, May 4, 1956; which lies Southeasterly of the center line of that certain 30 foot drainage easement as delineated and set forth on said Map No. 3422.

RECORDING REQUESTED BY:

ATTORNEY

AND WHEN RECORDED PLEASE RETURN TO:

NORMAN MICHAEL COOLEY, ESQ.
600 West Broadway - Suite 1550
San Diego, California 92101

DOC # 1995-0232063
02-JUN-1995 11:24 AM

OFFICIAL RECORDS
SAN DIEGO COUNTY RECORDER'S OFFICE
GREGORY SMITH, COUNTY RECORDER

RF: 6.00 FEES: 10.00
AF: 3.00 OC
MF: 1.00

844

**QUITCLAIM
DEED**

DOCUMENTARY TRANSFER TAX \$ 8

- ☐ Computed on full value of property conveyed, or
☐ Computed on full value less value of liens and encumbrances remaining at the time of sale


Signature of Declarant or Firm
Name of Agent Determining Tax

NORMAN MICHAEL COOLEY, ESQ.

PARENT - CHILD GIFT TRANSFER

I, **ROBERT LEO SCHNAUTZ**, a married man, as a gift made out of love and affection and for no consideration whatsoever, do hereby remise, release, and forever quitclaim to my son, **KIM SCHNAUTZ**, all of my right, title, and interest in and to the following described real property, which is my sole and separate property:

Parcel 1: That portion of Lot 6 of Valle Granada Annex, in the City of San Diego, County of San Diego, State of California, according to Map thereof No. 4954, filed in the office of the County Recorder of San Diego County, April 24, 1962, which lies Southeasterly of the center line of that certain 30 foot drainage easement, and Southwesterly of the center line of that certain 3.0 foot drainage easement as both are delineated and set forth on said Map No. 4954.

Parcel 2: That portion of Lot 1 of Valle Granada, in the City of San Diego, County of San Diego, State of California, according to Map thereof No. 3422, filed in the office of the County Recorder of San Diego County, May 4, 1956, which lies Southeasterly of the center line of that certain 30 foot drainage easement as delineated and set forth on said Map No. 3422.

Assessor's Parcel No. 542-280-07

EXECUTED ON May 23, 1995, in San Diego, California.


ROBERT LEO SCHNAUTZ

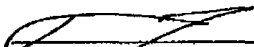
ACKNOWLEDGMENT

**STATE OF CALIFORNIA)
COUNTY OF SAN DIEGO)**

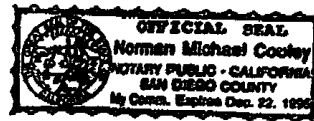
On May 23, 1995, at the hour of 10:35 a.m., before me, **NORMAN MICHAEL COOLEY**, the undersigned, a Notary Public in and for said County and State, personally appeared **ROBERT LEO SCHNAUTZ**, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument, and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal

(NOTARIAL SEAL)



Signature of Notary



Send Tax Statements to:

KIM T. SCHNAUTZ, 10145 Canejo Lane, Santee, California 92071

RECORDING REQUESTED BY:

ATTORNEY

AND WHEN RECORDED
PLEASE RETURN TO:

NORMAN MICHAEL COOLEY
600 West Broadway - Suite 1550
San Diego, CA 902101

DOC # 2000-0299363

Jun 07, 2000 10:57 AM

3026

OFFICIAL RECORDS
SAN DIEGO COUNTY RECORDER'S OFFICE
GREGORY J. SMITH, COUNTY RECORDER
FEES: 10.00
OC: 00



2000-0299363

**QUITCLAIM
DEED**

DOCUMENTARY TRANSFER TAX \$

☐ Computed on full value of property conveyed, or

☐ Computed on full value less value of liens and encumbrances remaining at the time of sale

Signature of Declarant or Firm
Name of Agent Determining Tax

NORMAN MICHAEL COOLEY, ESQ.

TRANSFER TO REVOCABLE FAMILY TRUST

KIM T. SCHNAUTZ, a married man, does hereby remise, release, and forever quitclaim to KIM T. SCHNAUTZ and SHARON ANN SCHNAUTZ, as Co-Trustees, and to any successor Trustee, as designated in that certain Declaration of Trust dated February 21, 1994 and known as THE 1994 SCHNAUTZ REVOCABLE FAMILY TRUST, as the Community Property of KIM T. SCHNAUTZ and SHARON ANN SCHNAUTZ, husband and wife, all of his right, title, and interest in and to the following described real property:

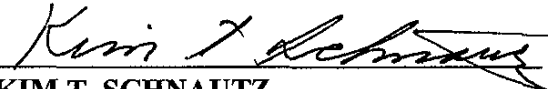
Parcel 1: That portion of Lot 6 of Valle Granada Annex, in the City of San Diego, County of San Diego, State of California, according to Map thereof No. 4954, filed in the office of the County Recorder of San Diego County, April 24, 1962, which lies Southeasterly of the center line of that certain 30 foot drainage easement, and Southwesterly of the center of that certain 3.0 foot drainage easement as both are delineated and set forth on said Map No. 4954.

Parcel 2: That portion of Lot 1 of Valle Granada, in the City of San Diego, County of San Diego, State of California, according to Map thereof No. 3422, filed in the office of the County Recorder of San Diego County, May 4, 1956, which lies Southeasterly of the center line of that certain 30 foot drainage easement as delineated and set forth on said Map No. 3422.

Assessor's Parcel No. 541-280-09-00

3027

EXECUTED ON April 25, 2000, in San Diego County, California.


KIM T. SCHNAUTZ

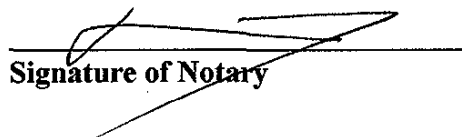
ACKNOWLEDGMENT

STATE OF CALIFORNIA)
COUNTY OF SAN DIEGO)

On April 25, 2000, before me, **Norman Michael Cooley**, the undersigned, a Notary Public in and for said County and State, personally appeared **KIM T. SCHNAUTZ**, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument, and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

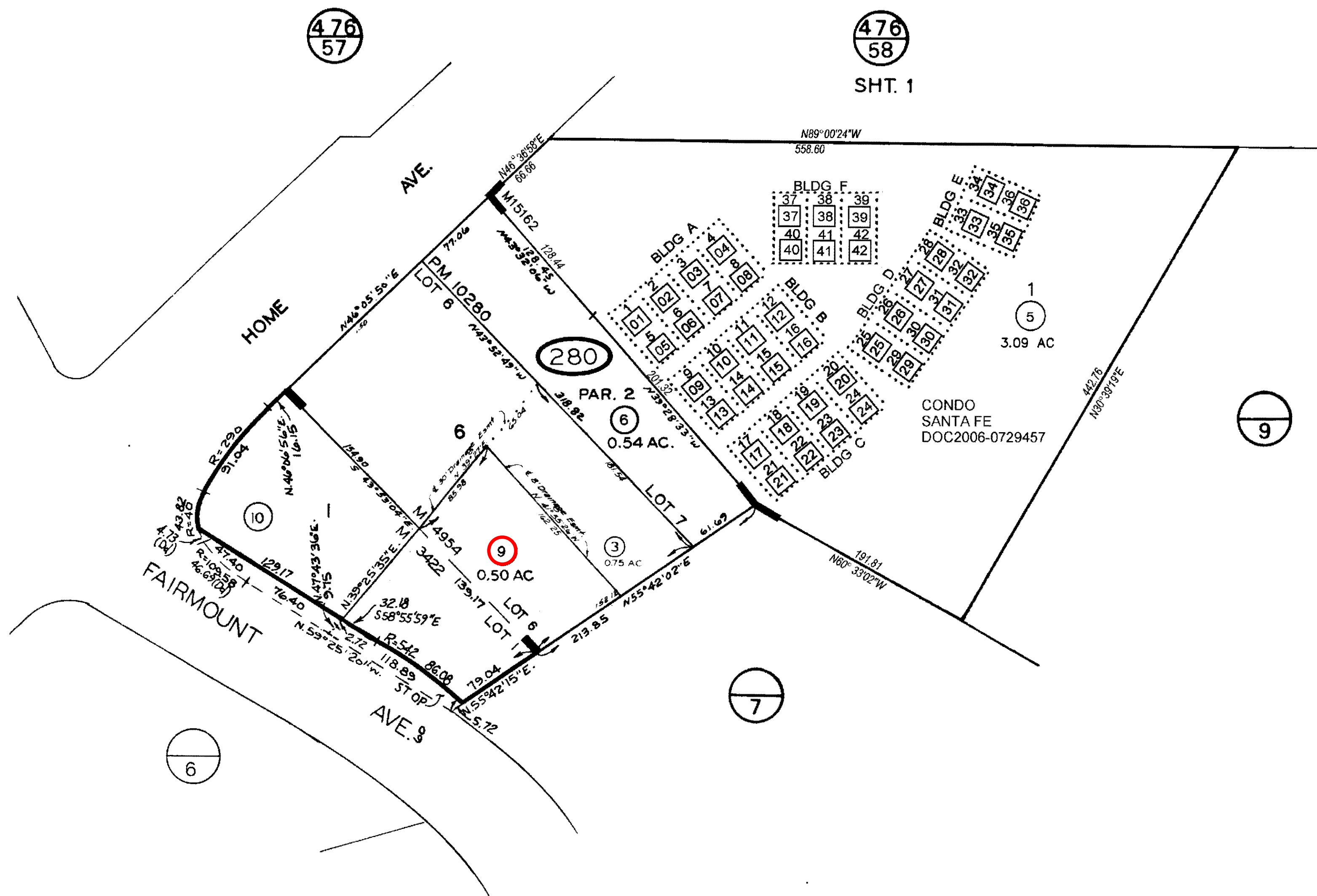
WITNESS my hand and official seal

(NOTARIAL SEAL)


Signature of Notary



Send Tax Statements to: **KIM T. SCHNAUTZ, Trustee**
10145 Canejo Lane
Santee, CA 92071

[illegible]


 SAN DIEGO COUNTY
 ASSESSOR'S MAP
 BOOK **541** PAGE **28**

THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSES ONLY. NO LIABILITY IS ASSUMED FOR THE ACCURACY OF THE DATA SHOWN. ASSESSOR'S PARCELS MAY NOT COMPLY WITH LOCAL SUBDIVISION OR BUILDING ORDINANCES.

MAP 15162 - 4455-73 HOME AVENUE CONDOMINIUMS
MAP 4954 - VALLE GRANADO ANNEX
MAP 3422 - VALLE GRANADO
ROS 6263, 6512

TABLE 12: FLOODING SOURCE DATUM SHIFT VALUES

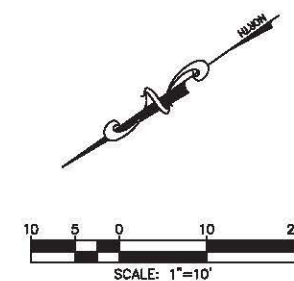
Stream Name	Elevation (feet NAVD above NGVD)
Deer Springs Creek	+2.4
Descanso Creek	+2.4
Escanto Branch	+2.1
Escondido Creek (Above Lake Wohlford)	+2.2
Escondido Creek (At Encinitas)	+2.3
Escondido Creek (At Escondido)	+2.3
Escondido Creek (Left Reach)	+2.3
Eucalyptus Hills (East Branch)	+2.0
Eucalyptus Hills (West Branch)	+2.0
Florida Drive Branch	+2.1
Forester Creek	+2.1
Garrison Creek	+2.3
Gopher Canyon Creek	+2.3
Gonzales Canyon Creek	+2.1
Green Valley Creek	+2.2
Green Valley Creek Tributary	+2.2
Harbison Canyon Creek	+2.1
Hatfield Creek	+2.2
Home Avenue Branch	+2.1
Johnson Canyon Creek	+2.2
Keys Canyon Creek	+2.3
Keys Canyon Creek Tributary 1	+2.3
Keys Canyon Creek Tributary 2	+2.3
Kit Carson Park Creek	+2.2
Las Chollas Creek	+2.1
Las Posas Creek (Lower)	+2.3
Las Posas Creek (Upper)	+2.3
Las Puleta Creek	+2.1
Lawson Valley Creek	+2.3
Loma Alta Creek	+2.3
Los Penasquitos Creek	+2.1
Lusardi Creek	+2.2
McGonigle Canyon Creek	+2.2
McGonigle Canyon Creek Tributary A	+2.2
Mexican Canyon Creek	+2.1

The vertical datum of the topographic map is NGVD 29. The vertical datum of the FIRM is NAVD 88. This sheet is from the County of San Diego "Flood Insurance Study" and shows NAVD 88 = NGVD 29 + 2.1 feet.

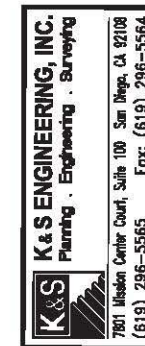


ABBREVIATIONS:

- CB - CATCH BASIN
- EM - ELECTRIC METER
- HVAC - HEATING, VENTILATION AND AC
- OH - OVERHEAD WIRES
- PB - PULLBOX
- PP - POWER POLE
- WM - WATER METER



NOTE:
THE BOUNDARY SHOWN ON THESE PLANS IS NOT NECESSARILY THE RESULT OF A BOUNDARY SURVEY BY K & S ENGINEERING. PROPERTY LINES SHOWN HEREON ARE APPROXIMATE ONLY FROM RECORD INFORMATION. A BOUNDARY SURVEY MAY RESULT IN ALTERNATIVE LOCATIONS FOR THE PROPERTY LINES.



CLIENT:

**MARCH &
ASH**

2835 CAMINO DEL RIO SOUTH
SUITE 100
SAN DIEGO, CA 92108

PROJECT:

**FAIRMOUNT
M.O.**

APN: 541-280-09-00

2281 FAIRMOUNT AVENUE
SAN DIEGO, CA 92105-5222

REVISION	ITEM	DATE
△		
△		
△		
△		
△		
△		

THIS SET ISSUE DATE

☐ SCHEMATIC	
☒ INITIAL SUBMITTAL	5/7/2018
☒ FULL SUBMITTAL	5/22/2018
☐ PLAN CHECK 1	
☐ PLAN CHECK 2	
☐ CONSTRUCTION	
☐ AS-BUILT	

SHEET TITLE / CONTENTS

**TOPOGRAPHIC
MAP**

BENCH MARK

DESCRIPTION: NEBP

LOCATION: INTERSECTION OF HOME AVE. AND
MENLO AVE.

ELEVATION: 186.284'

DATE: NOV029

SCALE: AS NOTED
DATE DRAWN: 5/2/2018

SHEET: 9

OF: 11

C1.1

APPENDIX C

ACCESS ANALYSIS



MEMO

ATTN: *Bladimir Gonzalez Sequen / Leo Alo*
City of San Diego

E-Mail: ▼
bgonzalezseq@sandiego.gov

FROM: *Justin P. Schlaefli, PE TE PTOE*

TOTAL PAGES (Including 15 +
Cover): Attachments

DATE: *November 20th, 2018* **TIME:** *11:32:11 AM* **JOB NUMBER:** *004118*
PROJECT NUMBER: *607352*

SUBJECT: *2281 Fairmount Avenue CUP – Access Analysis Memorandum*

Confidential Communications

This transmittal is intended for the recipient named above. Unless otherwise expressly indicated, this entire communication is confidential and privileged information. If you are not the intended recipient, do not disclose, copy, distribute or use this information. If you received this transmission in error, please notify us immediately by telephone, at our expense and destroy the information.

Urban Systems Associates, Inc. (USAI) has been retained by TRH, Inc. to prepare an Access Analysis for the proposed Marijuana Outlet (M.O.) Project to be located at the address of 2281 Fairmount Avenue. The Project is located on the east side of Fairmount Avenue, just south of the intersection of Fairmount Avenue with Home Avenue in the Mid-City Communities Plan area. The project will require a Conditional Use Permit (CUP) and does not require a Community Plan Amendment to operate a 2,800 square-foot M.O. within an existing 3,976 square-foot building.

Previous approvals and entitlements on the property have allowed the construction of an existing auto repair shop which is currently in operation on the site. The project site is in close proximity (within 1,320 feet of walking distance) to six (6) bus stops. Access for the project will be from one 24-foot wide driveway on Fairmount Avenue.

The Project has been previously scoped with City of San Diego staff. Comments for the Scoping Memorandum dated 8/8/2018 are included as **Attachment 1** of this document.

A project vicinity map is included in **Attachment 2** for your reference.

A preliminary site plan (*Existing and Proposed*) and *Project Summary* sheet are included in **Attachment 3** for your reference.

1. Project Land-Use, Description, and Trip Generation:

As shown in **Attachment 3**, the Project would include approximately 2,800 SF of marijuana outlet (M.O.) space in an existing 3,976 SF building currently operating as an auto repair shop. The project site is located within a ¼-mile walking distance of six (6) bus stops. Additionally, the project site lies in an industrial-light zone (IL-3-1) and within an open space-residential zone (OR-1-1). For your reference, **Attachment 4** includes the zoning map for Grid Tile 16.

Trip generation estimates for the 2281 Fairmount Avenue project are based on the land-use assumptions discussed above. In addition, a Marijuana Dispensary land use does not currently exist under the City of San Diego Land Development Code Trip Generation Manual (05/2003). As such, and considering the Review Cycle Issue comments dated 6/19/2018 the ITE Trip Generation Manual 10th Edition has been referenced to estimate the trip generation of the proposed uses for this project. Trip Generation for the project is presented in **Table 1** below. Using City of San Diego standard trip generation rates for the existing use, along with City of San Diego directed rates for the proposed use (as commented on the Scoping Memo dated 8/8/2018), the total project trip generation is projected to generate a net increase of **620** average daily trips (ADT) with **57** AM peak hour trips (**28** in / **30** out) and **103** PM peak hour trips (**53** in / **51** out).

Table 1: Project Trip Generation

Land Use	Intensity	Rate*	ADT	AM						PM					
				Peak %	Vol.	In %	Out%	In	Out	Peak %	Vol.	In %	Out%	In	Out
Existing Land Use															
Repair Shop	3.976 /KSF	20 /KSF	80	8%	6	70% : 30%	4	2	11%	9	40% : 60%	3	5		
Proposed Project															
Marijuana Dispensary (882)	2.800 /KSF	250 /KSF	700	9%	63	50% : 50%	32	32	16%	112	50% : 50%	56	56		
Net Total			620		57		28	30		103		53	51		

Source:

Existing Land Use rates taken from the City of San Diego Trip Generation Manual, May 2003

Proposed Project rates taken from compilation of source rates based on the ITE Trip Generation Manual 10th Edition for Marijuana Dispensaries (Land Use Code 882)

Notes:

ADT= Average Daily Trips

KSF = 1,000 Square Feet

2. Project Study Area and Project Traffic Distribution:

Attachment 5 shows the study area with four (4) intersections and three (3) street segments to be analyzed in the Access Analysis. This study area includes the following street segments and intersections:

Study Street Segments:

1. Fairmount Ave. / 47th St. (Home Avenue – Federal Blvd.)
2. Home Ave. (I-805 NB Ramps – Fairmount Ave.)
3. Home Ave. (Fairmount Ave. – Euclid Ave.)

Study Intersections:

1. Fairmount Ave. – Home Ave.
2. Home Ave. – Euclid Ave.
3. Home Ave. – I-805 NB Ramps

4. 47th St. – Federal Blvd.
5. Project Driveway – Fairmount Ave.

The City of San Diego Traffic Impact Study Manual (07/1998) provides guidelines for estimating the area of impact for projects and determining the appropriate study area. **Attachment 6** the project traffic distribution based on a manual distribution and knowledge of the area. As described in the City of San Diego Traffic Impact Study Guidelines (07/1998), manual estimates on traffic volumes, experience, judgment, and knowledge of the area are appropriate ways to estimate project traffic distribution. The project trip distribution has been estimated considering the proximity of the project site to the Home Avenue / I-805 Ramps and the predominantly residential condition of the project's surrounding area. Project traffic is assumed to travel primarily to the nearby freeway access along Home Avenue, while the remainder of the project traffic is assumed to travel and disperse throughout the predominantly residential surrounding area.

Therefore, as shown in **Attachment 6**, the analysis would assume project traffic distribution of 70% distributing north off the project site along Fairmount Avenue while 30% is assumed to distribute south of the project site along Fairmount Avenue. It is assumed that 50% of the project traffic would distribute along the Home Avenue segment between Fairmount Avenue and I-805 NB Ramps.

3. **Methodology:**

The City of San Diego has developed a Traffic Impact Study Manual (July 1998). The stated purpose of the Traffic Impact Study Manual (TISM) is “....to ensure consistency with all applicable City and State regulations.” The Traffic Impact Study Manual provides guidance regarding preparation of traffic impact reports in the City of San Diego. Since the Project is located in the City of San Diego, this traffic impact report follows the procedures outlined in their traffic manual. The manual includes guidelines for forecasting, trip generation, trip assignment, and analysis procedures.

The City's Significance Determination Thresholds (July 2016) establish criteria that identify the allowable change in delay or V/C ratio due to project impacts. This publication also establishes criteria for measuring project impacts at intersections. This method establishes an allowable increase in delay at intersections due to the addition of project trips. The City of San Diego's Traffic Impact Study Manual specifies the use of the most current Highway Capacity Manual (HCM) operational method for studying intersections. For analyzing intersections, a software package called Synchro is used. To be more specific, Synchro 10, which is the most current version; Synchro 10 implements the most current HCM methodology, HCM 6th Edition. For all of the intersections unable to be processed with HCM 6th Edition methodology, the HCM 2000 methodology is used. This software package (Synchro 10) is a direct and faithful application of the HCM methodology.

Street Segment Level Of Service Thresholds:

When analyzing street segments, the Level of Service (LOS) must be determined. LOS is a measure used to describe the conditions of traffic flow. LOS is expressed using letter designations from “A” to “F.” LOS “A” represents the best case, and LOS “F” represents the worst case. Generally, LOS “A” through “C” represents free-flowing traffic conditions with little or no delay. LOS “D” represents limited congestion and some delay. However, the duration of periods of delay is acceptable to most people. LOS “E” and “F” represent significant delays on local streets, which are generally unacceptable for urban design purposes. The LOS descriptions are sourced from Chapter 5 and Chapter 16 of the Highway Capacity Manual (HCM) 6th Edition (*Transportation Research Board, 2016*).

The City of San Diego has developed LOS threshold tables based on the different functional street classifications and their ability to carry traffic. For the City of San Diego, LOS “D” is the acceptable LOS standard for roadways and intersections.

Intersection Level Of Service Thresholds:

To determine an intersection peak hour LOS, the City of San Diego Traffic Impact Study Guidelines require the use of the most recent procedure from the HCM (HCM 6th Edition, *Transportation Research Board, 2016*). The procedure in Chapter 19, which is used to analyze signalized intersections, is the “operational method.” This method determines LOS based on average control delay expressed in seconds. **Table 2** shows the LOS based upon the delay. The procedure in Chapter 20 (Two Way Stop Control) and Chapter 21 (All-Way Stop Control) were used to analyze unsignalized intersections. The measure of effectiveness for unsignalized intersections is determined by the computed control delay and is defined for each minor movement. A computer program called Synchro 10 supports this methodology and is used to complete the analysis for signalized and unsignalized intersections. The intersection analysis includes pedestrian and bike volumes based on actual count data obtained in the field on Thursday, July 19th, 2018. As discussed above, the City guidelines have established LOS “D” or better as the objective for intersections and street segments.

Table 2: Level Of Service Criteria for Intersections

Signalized Intersections

Control Delay (s/veh)	<u>LOS by Volume-to-Capacity Ratio</u>	
	≤ 1.0	> 1.0
≤ 10	A	F
$> 10-20$	B	F
$> 20-35$	C	F
$> 35-55$	D	F
$> 55-80$	E	F
> 80	F	F

Source: HCM 6th Edition, Transportation Research Board 2016, Exhibit 19-8

Two-Way Stop-Controlled Intersections

Control Delay (s/veh)	<u>LOS by Volume-to-Capacity Ratio</u>	
	$v/c \leq 1.0$	$v/c > 1.0$
0-10	A	F
$> 10-15$	B	F
$> 15-25$	C	F
$> 25-35$	D	F
$> 35-50$	E	F
> 50	F	F

Source: HCM 6th Edition, Transportation Research Board 2016, Exhibit 20-2

Note:

- 1) The LOS criteria apply to each lane on a given approach and to each approach on the minor street. LOS is not calculated for major-street approaches or for the intersection as a whole.
- 2) The intersection worst approach delay is the reported delay for TWSC intersections. Note that it is important to consider measures of effectiveness such as V/C ratios, average queue lengths, and 95th percentile queue lengths in addition to considering delay.

All-Way Stop-Controlled Intersections

Control Delay (s/veh)	<u>LOS by Volume-to-Capacity Ratio</u>	
	$v/c \leq 1.0$	$v/c > 1.0$
0-10	A	F
$> 10-15$	B	F
$> 15-25$	C	F
$> 25-35$	D	F
$> 35-50$	E	F
> 50	F	F

Source: HCM 6th Edition, Transportation Research Board 2016, Exhibit 21-8

Significance Thresholds:

As discussed above, two criteria must be met before project traffic mitigation is required. First, an unacceptable LOS (i.e., “E” or “F”) must occur, and second, significance thresholds for only project traffic must be exceeded. Alternatively, if project traffic causes a facility to degrade from LOS “D” to “E” or “F”, a significant impact would occur. The City’s significance thresholds are summarized in **Table 3**. These thresholds are used in this analysis along with LOS to determine if project mitigation is required. **Table 4** shows the roadway classifications for the City of San Diego. The study area for this TIA was based on criteria and thresholds established in the City of San Diego, Traffic Impact Study Manual. Based on this criterion, street segments and intersections with less than 50 peak hour trips in the peak direction were not evaluated. Likewise, metered freeway ramp locations with less than 20 peak hour trips were not evaluated.

Table 3: Significance Thresholds

Level of Service with Project *	Allowable Change Due To Project Impact **					
	Freeways		Roadway Segments		Intersections	Ramp Metering
	V/C	Speed (mph)	V/C	Speed (mph)	Delay (sec.)	Delay (min.)
E (or ramp meter delays above 15 min.)	0.010	1.0	0.02	1.0	2.0	2.0
F (or ramp meter delays above 15 min.)	0.005	0.5	0.01	0.5	1.0	1.0

Note 1: The allowable increase in delay at a ramp meter with more than 15 minutes delay and freeway LOS E is 2 minutes.

Note 2: The allowable increase in delay at a ramp meter with more than 15 minutes delay and freeway LOS F is 1 minute.

* All LOS measurements are based upon Highway Capacity Manual procedures for peak-hour conditions. However, V/C ratios for roadway segments are estimated on an ADT/24-hour traffic volume basis (using Table 2 of the City’s Traffic Impact Study Manual. The acceptable LOS for freeways, roadways, and intersections is generally “D” (“C” for undeveloped locations). For metered freeway ramps, LOS does not apply. However, ramp meter delays above 15 minutes are considered excessive.

** If a proposed project’s traffic causes the values shown in the table to be exceeded, the impacts are determined to be significant. The project applicant shall then identify feasible improvements (within the Traffic Impact Study) that will restore/and maintain the traffic facility at an acceptable LOS. If the LOS with the proposed project becomes unacceptable (see above * note), or if the project adds a significant amount of peak-hour trips to cause any traffic queues to exceed on- or off-ramp storage capacities, the project applicant shall be responsible for mitigating the project’s direct significant and/or cumulatively considerable traffic impacts.

KEY: Delay = Average control delay per vehicle measured in seconds for intersections, or minutes for ramp meters
 LOS = Level of Service
 Speed = Speed measured in miles per hour
 V/C = Volume to Capacity ratio

Table 4: Roadway Classifications

Street Classification	Lanes	Level of Service W/ADT				
		A	B	C	D	E
Expressway	6 Lanes	30,000	42,000	60,000	70,000	80,000
Prime Arterial	6 Lanes	25,000	35,000	50,000	55,000	60,000
Major Arterial	6 Lanes	20,000	28,000	40,000	45,000	50,000
Major Arterial	4 Lanes	15,000	21,000	30,000	35,000	40,000
Secondary Arterial/ Collector	4 Lanes	10,000	14,000	20,000	25,000	30,000
Collector (no center lane) (continuous left- turn lane)	4 Lanes 2 Lanes	5,000	7,000	10,000	13,000	15,000
Collector (no fronting property)	2 Lanes	4,000	5,500	7,500	9,000	10,000
Collector (commercial- industrial fronting)	2 Lanes	2,500	3,500	5,000	6,500	8,000
Collector (multi-family)	2 Lanes	2,500	3,500	5,000	6,500	8,000
Sub-Collector (single-family)	2 Lanes	---	---	2,200	---	---

Notes:

1. The volumes and the average daily level of service listed above are only intended as a general planning guideline.
2. Levels of service are not applied to residential streets since their primary purpose is to serve abutting lots, not carry through traffic. Levels of service normally apply to roads carrying through traffic between major trip generators and attractors.

4. Existing Conditions:

To analyze the existing conditions, count data was obtained on Thursday, July 19th, 2018. **Attachment 7** shows the intersection and street segment counts along with signal timing provided by the City of San Diego.

Street Segment Analysis:

Existing street segment volumes for the study street segments are shown in **Attachment 8**. The studied roadway street segment facilities are described in detail below:

Home Avenue – is an east-west corridor that is ultimately classified as a 2-lane collector in the Mid City Communities Plan. This facility is currently built to operate as a four (4) lane major between I-805 NB Ramps and Fairmount Avenue, and as a collector street (transitioning between two and three travel lanes) with a continuous two-way left turn lane (TWLTL) between Fairmount Avenue and Euclid Avenue. For the purposes of this analysis, the segment between Fairmount Avenue and Euclid Avenue has been analyzed as a two (2) lane collector with continuous TWLTL. The posted speed limit of this facility is 35 mph (between I-805 NB Ramps – Fairmount Avenue and between Fairmount Avenue – Euclid Avenue in the WB direction) 40 mph (between Fairmount Avenue – Euclid Avenue in the EB direction). An existing class II bike lane is provided along the segment between Fairmount Avenue and Euclid Avenue on both directions of travel. On-street parking is permitted along the segment between Fairmount Avenue and Euclid Avenue on both sides of the street except for the segment between Menlo Avenue and Fairmount Avenue for the WB direction. Sidewalks exist along the segments under study of Home Avenue on both sides of the street except for the segment between Fairmount Avenue and Menlo Avenue where no sidewalk on the north side of the roadway currently exists. The existing sidewalks have the following characteristics:

- North Sidewalk: from west to east, a contiguous sidewalk with a width of approximately 5 feet.
- South Sidewalk: from west to east, a non-contiguous sidewalk with a width ranging from approximately 4 feet to 10 feet.

Fairmount Avenue - is a north-south four-lane roadway which is built to its ultimate classification per the Mid-City Communities Plan as a four (4) lane collector. The posted speed limit of this facility is 35 mph. Class II bike lanes are provided along the segment under study on both directions of travel. Parking is not permitted along the studied segment. Sidewalks exist along the segment under study of Fairmount Avenue on both sides of the street. The existing sidewalks have the following characteristics:

- East Sidewalk: from north to south, a contiguous sidewalk from Home Avenue to just south of the bridge deck with a width ranging from approximately 5 feet to 8 feet, followed by a non-contiguous sidewalk just south from the bridge deck and up to approximately 80 feet north of the Fairmount Avenue / 47th Street intersection with a width ranging from approximately 4 feet to 6 feet, and followed by a contiguous sidewalk from approximately 80 feet north of the Fairmount Avenue / 47th Street intersection to the Fairmount Avenue / 47th Street intersection with a width ranging from approximately 5 feet to 8 feet.
- West Sidewalk: from north to south, a contiguous sidewalk from Home Avenue to approximately 150 feet south of the Fairmount Avenue / Ridge View Drive intersection with a width ranging from approximately 5 feet to 8 feet, followed by a non-contiguous sidewalk from approximately 150 feet south of the Fairmount Avenue / Ridge View Drive intersection to just north of the bridge deck with a width ranging from approximately 4 feet to 6 feet, and followed by a contiguous sidewalk from just

north of the bridge deck to the Fairmount Avenue / 47th Street intersection with a width ranging from approximately 5 to 6 feet.

47th Street – is a north-south four-lane roadway which is built to its ultimate classification per the Mid-City Communities Plan as a four (4) lane collector. Class II bike lanes are provided along the segment under study on both directions of travel. Parking is not permitted along the studied segment. Sidewalks exist along the segment under study of 47th Street on both sides of the street.

- East Sidewalk: from north to south, a contiguous sidewalk with a width ranging from approximately 5 feet to 6 feet.
- West Sidewalk: from north to south, a contiguous sidewalk with a width ranging from approximately 5 feet to 6 feet.

As shown in **Attachment 8**, based on Existing volumes and the City's street classification thresholds, study street segments currently operate at an acceptable Level Of Service (LOS) D, except for the following:

- Home Avenue (Fairmount Avenue – Euclid Avenue)
 - LOS F

Attachment 9 displays the Existing ADT volumes for the study street segments.

Intersection Analysis:

Existing peak hour traffic volumes at the studied intersections are shown in **Attachment 10**. The average delay and level of service at the study intersections in the AM and PM peak hour were analyzed using a software package called Synchro 10, which is an application of the Highway Capacity Manual methodology.

Refer to **Attachment 11** for the Existing intersection LOS.

As shown in **Attachment 11**, the study intersections currently operate at an acceptable LOS D or better in both AM and PM peak hour settings.

Refer to **Attachment 12** for Existing Lane Configurations.

Refer to **Attachment 13** for Existing Synchro worksheets.

5. Existing With Project Conditions:

The Existing with Project traffic volumes were derived by adding the project only traffic volumes to the existing traffic volumes to determine if any significant direct impacts would occur.

Street Segment Analysis:

Existing With Project street segment volumes for the study street segments are shown in **Attachment 14**.

As shown in **Attachment 14**, based on Existing with Project volumes and the City's street classification thresholds, study street segments are anticipated to operate at an acceptable Level Of Service (LOS) D, except for the following:

- Home Avenue (Fairmount Avenue – Euclid Avenue)
 - LOS F

Attachment 15 displays the Existing With Project ADT volumes for the study street segments.

Attachment 16 shows a street segment comparison table for Existing and Existing With Project conditions. As shown, in this attachment, there are no significant impacts for the study street segments under Existing conditions.

Intersection Analysis:

Existing With Project peak hour traffic volumes at the studied intersections are shown in **Attachment 17**. The average delay and level of service at the study intersections in the AM and PM peak hour were analyzed using a software package called Synchro 10, which is an application of the Highway Capacity Manual methodology.

Refer to **Attachment 18** for the Existing With Project intersection LOS.

As shown in **Attachment 18**, the study intersections are anticipated to operate at an acceptable LOS D or better in both AM and PM peak hour settings.

Attachment 19 shows an intersection peak hour comparison table for Existing and Existing With Project conditions. As shown, in this attachment, there are no significant impacts for the study intersections under Existing conditions.

Refer to **Attachment 20** for Existing With Project Synchro worksheets.

6. Near-Term (Opening Day Year 2020) Conditions:

To analyze the Near-Term (Opening Day Year 2020) conditions, Urban Systems Associates scoped with City of San Diego staff on the methodology to analyze Near-Term conditions. After researching in the Development Services Department Open DSD Map and scoping with City of San Diego staff for cumulative projects in reasonable proximity to the 2281 Fairmount Avenue CUP Project, City staff instructed on 9/10/2018 the use of two (2) projects for Near-Term (Opening Day Year 2020) analysis. For this reason, research of the nature of these two projects was conducted. These two projects are listed below:

1. PTS#611536
 - Marijuana Outlet / Marijuana Production Facility (M.O. / M.P.F.) at 3940 Home Avenue
2. PTS#593686
 - Marijuana Outlet (M.O.) at 4337 Home Avenue

After evaluating research items provided by City staff regarding the nature of these two projects, the following was concluded for each of the two projects:

1. PTS#611536
 - The lack of convergence between the study area of this project and the study area of 2281 Fairmount Avenue Project lead to the conclusion that no concise information for this project was available for Urban Systems Associates to use this as a cumulative project.

2. PTS#593686

- Per the City of San Diego Municipal Code §141.0504(a)(1), Marijuana outlets shall maintain a minimum separation between uses of 1,000 feet from other marijuana outlets. As such, based on the close proximity of both PTS#593686 and PTS#607352 (2281 Fairmount Avenue CUP), these two Marijuana Outlets are meant to not be approved simultaneously. Refer to **Attachment 21** for the San Diego Municipal Code §141.0504(a).

Therefore, based on the details described above for both of the cumulative projects, it was concluded that there currently are no projects that would have a foreseeable effect in the study area of the 2281 Fairmount Avenue Project.

Further discussions with City of San Diego staff on the most adequate practice to evaluate Near-Term conditions led to the calculation of a growth rate based on historical count data. Urban Systems Associates conducted research on available street segment counts for the street segments under study through the census count database from the City of San Diego Open Data Portal. Counts dating up to 10 years were observed for growth trends. From the available count data, growth trends were observed to fluctuate over time with instances of decay and growth. Graphs showing the growth trends over time for the three (3) segments under study are provided in **Attachment 22**.

After evaluating the available counts, a growth rate was calculated for each segment under study by calculating the growth rate between the Year 2008 volume count observed in the chart within the observed 10 years (2008 – 2018) and the Year 2018 counts. Note the following assumptions:

- Where a Year 2008 count is shown to be higher than the Year 2018 count or no Year 2008 data is available, the count year where a segment count is shown to be the lowest between the 10 years of observation was selected for the computation of the growth rate.
- For the street segments where more than one set of Year 2018 counts were available, the highest volume count was used in the calculation as a conservative approach.

In order to establish a yearly growth rate, the calculated growth rate was then divided by the number of years spanning between the two sets of counts used to compute the growth rate. As such, yearly growth rates for the study street segments were calculated to be the following:

- Home Avenue (I-805 NB Ramps – Fairmount Avenue)
 - 1.8%
- Fairmount Avenue / 47th Street (Home Avenue – Federal Boulevard)
 - 2.5%
- Home Avenue (Fairmount Avenue – Euclid Avenue)
 - 1.5%

Furthermore, the individual growth rates were then averaged to a calculated growth rate of 1.9%. Consequently, Urban Systems Associates applied a 2.0% ambient growth rate as a conservative approach for the analysis of Near-Term (Opening Day Year 2020).

For street segments, the Near-Term (Opening Day Year 2020) volumes were calculated by adding to the Year 2018 street segment counts the product of the Year 2018 street segment counts by the number of years between the Existing conditions and Opening Day (2 years) and by the yearly growth rate as shown in the example below:

- Year 2018 Volume = 34,435 ADT
- % Yearly Growth Rate = 2%
- Numer of Years from 2018 to Opening Day = 2 years

- Year 2020 Volume = 34,435 ADT + (34,435) (2%) (2) = 35,812 ADT

Refer to **Attachment 23** for a table showing the Near-Term (Opening Day Year 2020) street segment calculations.

For peak hour volumes, the Near-Term volumes were calculated by applying the previously calculated 2.0% ambient growth factor (multiplied by the number of years between Existing conditions and Opening Day) to each intersection approach for all intersections within the study area.

Refer to **Attachment 23** for a table showing the Near-Term (Opening Day Year 2020) peak hour volume calculations.

Street Segment Analysis:

Near-Term (Opening Day Year 2020) street segment volumes for the study street segments are shown in **Attachment 24**.

As shown in **Attachment 24**, based on Near-Term (Opening Day Year 2020) volumes and the City's street classification thresholds, study street segments are anticipated to operate at an acceptable Level Of Service (LOS) D, except for the following:

- Home Avenue (I-805 NB Ramps – Fairmount Avenue)
 - LOS E
- Home Avenue (Fairmount Avenue – Euclid Avenue)
 - LOS F

Attachment 25 displays the Near-Term (Opening Day Year 2020) ADT volumes for the study street segments.

Intersection Analysis:

Near-Term (Opening Day Year 2020) peak hour traffic volumes at the studied intersections are shown in **Attachment 26**. The average delay and level of service at the study intersections in the AM and PM peak hour were analyzed using a software package called Synchro 10, which is an application of the Highway Capacity Manual methodology.

Refer to **Attachment 27** for the Near-Term (Opening Day Year 2020) intersection LOS.

As shown in **Attachment 27**, the study intersections are anticipated to operate at an acceptable LOS D or better in both AM and PM peak hour settings.

Refer to **Attachment 28** for Near-Term (Opening Day Year 2020) Synchro worksheets.

7. Near-Term With Project (Opening Day Year 2020) Conditions:

The Near-Term With Project (Opening Day Year 2020) traffic volumes were derived by adding the project only traffic volumes to the Near-Term (Opening Day Year 2020) traffic volumes to determine if any cumulative significant impacts would occur.

Street Segment Analysis:

Near-Term With Project (Opening Day Year 2020) street segment volumes for the study street segments are shown in **Attachment 29**.

As shown in **Attachment 29**, based on Near-Term With Project (Opening Day Year 2020) volumes and the City's street classification thresholds, study street segments are anticipated to operate at an acceptable Level Of Service (LOS) D, except for the following:

- Home Avenue (I-805 NB Ramps – Fairmount Avenue)
 - LOS E
- Home Avenue (Fairmount Avenue – Euclid Avenue)
 - LOS F

Attachment 30 displays the Near-Term With Project (Opening Day Year 2020) ADT volumes for the study street segments.

Attachment 31 shows a street segment comparison table for Near-Term (Opening Day Year 2020) and Near-Term With Project (Opening Day Year 2020) conditions. As shown, in this attachment, there are no significant impacts for the study street segments under Near-Term conditions.

Intersection Analysis:

Near-Term With Project (Opening Day Year 2020) peak hour traffic volumes at the studied intersections are shown in **Attachment 32**. The average delay and level of service at the study intersections in the AM and PM peak hour were analyzed using a software package called Synchro 10, which is an application of the Highway Capacity Manual methodology.

Refer to **Attachment 33** for the Near-Term With Project (Opening Day Year 2020) intersection LOS.

As shown in **Attachment 33**, the study intersections are anticipated to operate at an acceptable LOS D or better in both AM and PM peak hour settings.

Attachment 34 shows an intersection peak hour comparison table for Near-Term (Opening Day Year 2020) and Near-Term With Project (Opening Day Year 2020) conditions. As shown, in this attachment, there are no significant impacts for the study intersections under Near-Term (Opening Day Year 2020) conditions.

Refer to **Attachment 35** for Near-Term With Project (Opening Day Year 2020) Synchro worksheets.

8. Project Access:

Access to the Project would be primarily from one 24 feet wide driveway on Fairmount Avenue, south of the project site (accommodating all parking). The driveway is planned to be reconstructed (as shown in **Attachment 2**). No signalized access is currently planned. Access will be configured as shown on the site plan in **Attachment 2**.

9. Queuing Analysis:

Existing Conditions

In order to analyze queuing for the Existing Without Project conditions, Urban Systems Associates assumed the distribution of traffic for the existing uses onsite (auto repair shop) to distribute 50% of traffic north of the project site along Fairmount Avenue while 50% of the traffic would distribute south of the project site along Fairmount Avenue.

As shown in **Attachment 13**, the Project's driveway is estimated to operate with an average delay of 11.7 seconds (LOS B for the worst approach (driveway approach) in the AM Peak period (critical peak). As shown in **Table 1**, the estimated ADT that the driveway experiences is 80 ADT.

Existing With Project Conditions

As shown in **Attachment 20**, the Project's driveway is expected to operate with an average delay of 11.5 seconds (LOS B) for the worst approach (driveway approach) in the AM and PM peak periods (both are critical peaks). As shown in **Table 1**, the projected ADT that the driveway would experience is 620 ADT.

Near-Term (Opening Day Year 2020) Conditions

In order to analyze queuing for the Near-Term Without Project (Opening Day Year 2020) conditions, Urban Systems Associates assumed the distribution of traffic for the existing uses onsite (auto repair shop) to distribute 50% of traffic north of the project site along Fairmount Avenue while 50% of the traffic would distribute south of the project site along Fairmount Avenue.

As shown in **Attachment 28**, the Project's driveway is expected to operate with an average delay of 11.9 seconds (LOS B for the worst approach (driveway approach) in the AM Peak period (critical peak). As shown in **Table 1**, the estimated ADT that the driveway experiences is 80 ADT.

Near-Term With Project (Opening Day Year 2020) Conditions

As shown in **Attachment 35**, the Project's driveway is expected to operate with an average delay of 11.7 seconds (LOS B) for the worst approach (driveway approach) in the AM period (critical peak). As shown in **Table 1**, the projected ADT that the driveway would experience is 620 ADT.

10. Parking:

As shown in **Attachment 3**, parking for the Project is planned to meet the parking requirements contained in the City of San Diego Municipal Code. Parking for the Project will be accommodated by surface parking stalls accessed from the Project access driveway located along Fairmount Avenue. The parking stall total required for the Project is 14 stalls. The Project plans to provide 14 stalls as shown in the Building Data under **Attachment 3**.

11. Conclusion:

Based on this analysis, the Marijuana Outlet (M.O.) Project is not expected to create any traffic operational issues on the study street segments and intersections as shown in the analysis conducted for Existing, Existing With Project, Near-Term (Opening Day Year 2020), and Near-Term With Project (Opening Day Year 2020) conditions. There are no significant impacts as a result of the Project on the study street segments and intersections; therefore, no mitigation is required.

Attachment 1

Scoping Memo (8/8/2018)



MEMO

ATTN: Bladimir Gonzalez Sequen / Leo Alo
City of San Diego
E-Mail: ▼
bgonzalez@san-diego.gov
BGonzalez@san-diego.gov

FROM: Justin P. Schlaefli, PE TE PTOE
TOTAL PAGES (Including Cover): 3 + Attachments

DATE: August 8th, 2018
TIME: 2:35:39 PM
JOB NUMBER: 004118

SUBJECT: 2281 Fairmount Avenue CUP Access Analysis – Scoping *Project # 607352*

Confidential Communications

This transmittal is intended for the recipient named above. Unless otherwise expressly indicated, this entire communication is confidential and privileged information. If you are not the intended recipient, do not disclose, copy, distribute or use this information. If you received this transmission in error, please notify us immediately by telephone, at our expense and destroy the information.

This memo is intended to provide information initiating the Access Analysis scoping process with the City of San Diego. The proposed marijuana outlet (M.O.) project, at the address of 2281 Fairmount Avenue, is located on the east side of Fairmount Avenue, just south of the intersection of Fairmount Avenue with Home Avenue in the City Heights Community Planning area. The project will require a Conditional Use Permit (CUP) and does not require a Community Plan Amendment. *to operate a 3,000 square foot M.O. within an existing 3,976 square foot building.*

Previous approvals and entitlements on the property have allowed the construction of an existing auto repair shop which is currently in operation on the site. The project site is in close proximity (within 1,320 feet of walking distance) to six (6) bus stops. Access for the project will be from Fairmount Avenue. *on 24 foot wide driveway or*

A project vicinity map is included in Attachment 1 for your reference.

A preliminary site plan (Existing and Proposed) and Project Summary sheet are included in Attachment 2 for your reference.

Project Land-Use and Trip Generation:

As shown in Attachment 2, the proposed project may include approximately 3,000 SF of marijuana outlet (M.O.) space on an existing 3,976 SF space currently operating as an auto repair shop. The project site is located within ¼-mile walking distance of up to six (6) bus stops. Additionally, the project site lies in an industrial-light zone (IL-3-1) and within an open space-residential zone (OR-1-1). For your reference, Attachment 3 includes the zoning map for Grid Tile 16. *clearly shows project site and the two zones the site lies within*

Trip generation estimates for the 2281 Fairmount Avenue project are based on the land-use assumptions discussed above. In addition, a Marijuana Dispensary land use does not currently exist under the City of San Diego Land Development Code Trip Generation Manual (05/2003). As such, and considering the Review Cycle Issue comments dated 6/19/18, the ITE Trip Generation Manual 10th Edition has been referenced to estimate the trip generation of the proposed uses for this project. Trip Generation for the project is presented in below.

Bladimir Gonzalez Sequen
City of San Diego

© Urban Systems Associates, Inc.
August 8th, 2018

Using City of San Diego standard trip generation rates for the existing use, along with ^{City directed} ITE Trip Generation 10th Edition rates for the proposed use, the total project trip generation is projected to generate ⁶⁷⁹ average daily trips (ADT) with ⁶² 25 AM peak hour trips (³⁰ 13 in / ³² 12 out) and ⁵⁶ 56 PM peak hour trips (⁵⁹ 29 in / ⁵⁵ 27 out).

TRIP GENERATION

Land Use	Intensity	Rate ¹	ADT	AM					PM						
				Peak % Rate	Vol.	In %	Out %	In	Out	Peak % Rate	Vol.	In %	Out %	In	Out
Existing Land Use															
Repair Shop	3,978 KSF	20 KSF	80	8%	4	70%	30%	4	2	11%	9	40%	60%	3	5
Proposed Project															
Marjones Dispensary (982)	3,000 KSF	258 252.20 KSF	758 286	9% JEA4/82SF	68 31	30% 68%	70%	34 31	34	16% 24.83 KSF	128 120	45% 48%	55% 52%	68 37	68
Net Total		679 679	679		62 35	62% 68%		32 33	32 34		111 85	59% 55%		59 29	59

Sources:

Existing Land Use rates taken from the City of San Diego Trip Generation Manual, May 2003.

Proposed Project rates taken from ITE Trip Generation Manual 10th Edition. ^{Compilation of source rates based on the ITE Trip Generation}

^{*** Note that the trip generation for T680 (US Code 382) is not sufficient size - the trip generation average rate has been selected as Manual 10th Edition for Marjones Dispensary}

Notes:

ADT = Average Daily Trips

KSF = 1,000 Square Feet

Attachment 4 shows the recommended study area with four (4) intersections and three (3) street segments to be analyzed in the Access Analysis. This recommended study area would include the following street segments and intersections:

Study Street Segments:

1. Fairmount Ave. / 47th St. (Home Avenue – Federal Blvd.)
2. Home Ave. (I-805 NB Ramps – Fairmount Ave.)
3. Home Ave. (Fairmount Ave. – Euclid Ave.)

Study Intersections:

1. Fairmount Ave. – Home Ave.
2. Home Ave. – Euclid Ave.
3. Home Ave. – I-805 NB Ramps
4. 47th St. – Federal Blvd.

Handwritten notes:
Block
Access analysis
Study area
Intersections
Fig 2

Attachment 5 shows the project traffic distribution based on a manual distribution and knowledge of the area. As shown, the analysis would assume project traffic distribution of 70% distributing north off the project site

Handwritten note: Provide more explanation

Bladimir Gonzalez Sequen
City of San Diego

© Urban Systems Associates, Inc.
August 8th, 2018

along Fairmount Avenue while 30% is assumed to distribute south of the project site along Fairmount Avenue. It is assumed that 50% of the project traffic would distribute along the Home Avenue segment between Fairmount Avenue and I-805 NB Ramps.

Proposed Study Contents:

Based on the road network and geographic study area assumptions discussed above, and considering that the proposed project is estimated to have an opening day on early 2019 and no foreseeable projects are in the nearby vicinity of the proposed project site, the proposed study would analyze the vehicular system (street segments and intersections) for the following scenarios:

- Existing Conditions
- Existing with Project Conditions

• New-term (Opening Day Year) + Project
IF no nearby projects, a growth factor may need to be applied for this analysis.

Check open
OSD to ensure
that are
no nearby
projects.

In addition to the scenarios discussed above, the proposed Access Analysis would include the following analysis and discussion sections:

- Project impacts
- Mitigation of Impacts
- Community Plan Consistency
- Project Site Circulation and Access

Please note that even though there is an app/ano @ 4237 Home Ave, that is an actual application, there will be no need to include the analysis because it is impossible to have both projects approved simultaneously, per SDATC.

All analysis would be consistent with the requirements of the City of San Diego, Traffic Impact Study Manual and industry practice.

Please let us know if you concur with our approach moving forward with this proposed project.

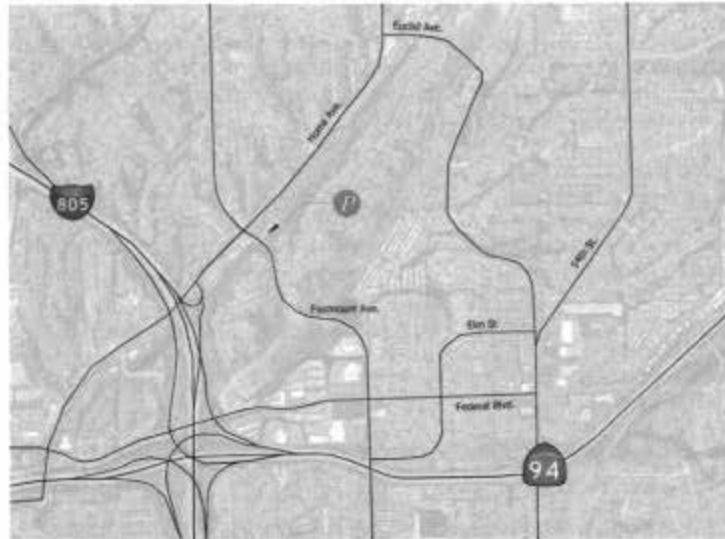
If you have any questions, please contact our office at (858) 560-4911.

Bladimir Gonzalez Sequen
City of San Diego

© Urban Systems Associates, Inc.
August 8th, 2018

Figure
Attachment 1

Vicinity Map



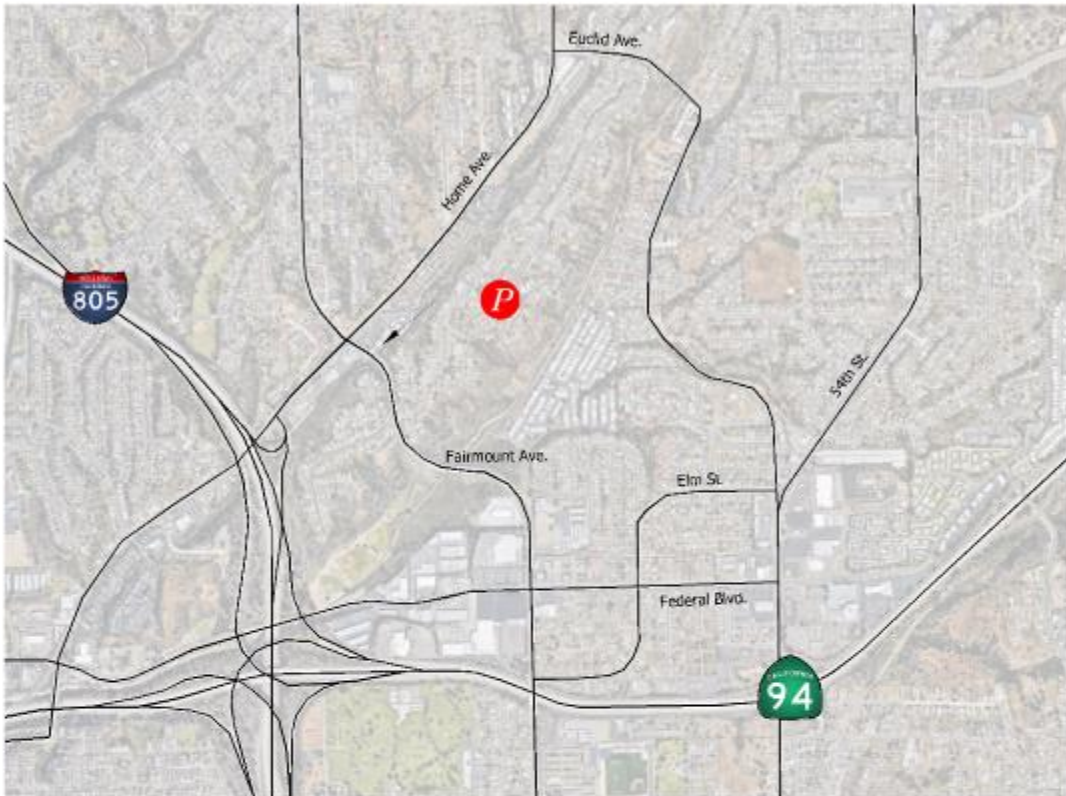
Legend

 = Project Location Indicator



Attachment 2

Vicinity Map



Legend

 = Project Location Indicator



Attachment 3

Concept Site Plan (see attached)

[illegible]



1350 COLUMBIA ST.
SUITE 100
SAN DIEGO, CA 92101
TEL: 619 230-1000
FAX: 619 230-1000



CLIENT:

**MARCH &
ASH**

2835 CAMINO DEL RIO SOUTH
SUITE 100
SAN DIEGO, CA 92108

PROJECT:

**FAIRMOUNT
M.O.**

APN: 541-285-09-00

2281 FAIRMOUNT AVENUE
SAN DIEGO, CA 92105-5222

REVISION	ITEM	DATE
△		
△		
△		
△		

THIS SET ISSUE DATE

☐ SCHEMATIC	5/1/2018
☒ INITIAL SUBMITTAL	5/1/2018
☒ FULL SUBMITTAL	5/22/2018
☒ 1ST RESUBMITTAL	7/30/2018
☒ 2ND RESUBMITTAL	10/3/2018
☒ 3RD RESUBMITTAL	10/31/2018

SHEET TITLE / CONTENTS

**CHURCH
SLOPE
ANALYSIS**

TRH PROJECT#: 285-18
SCALE: AS NOTED
DRAWN BY: TRH
DATE DRAWN: 4/27/2018
CHECKED BY: KDS

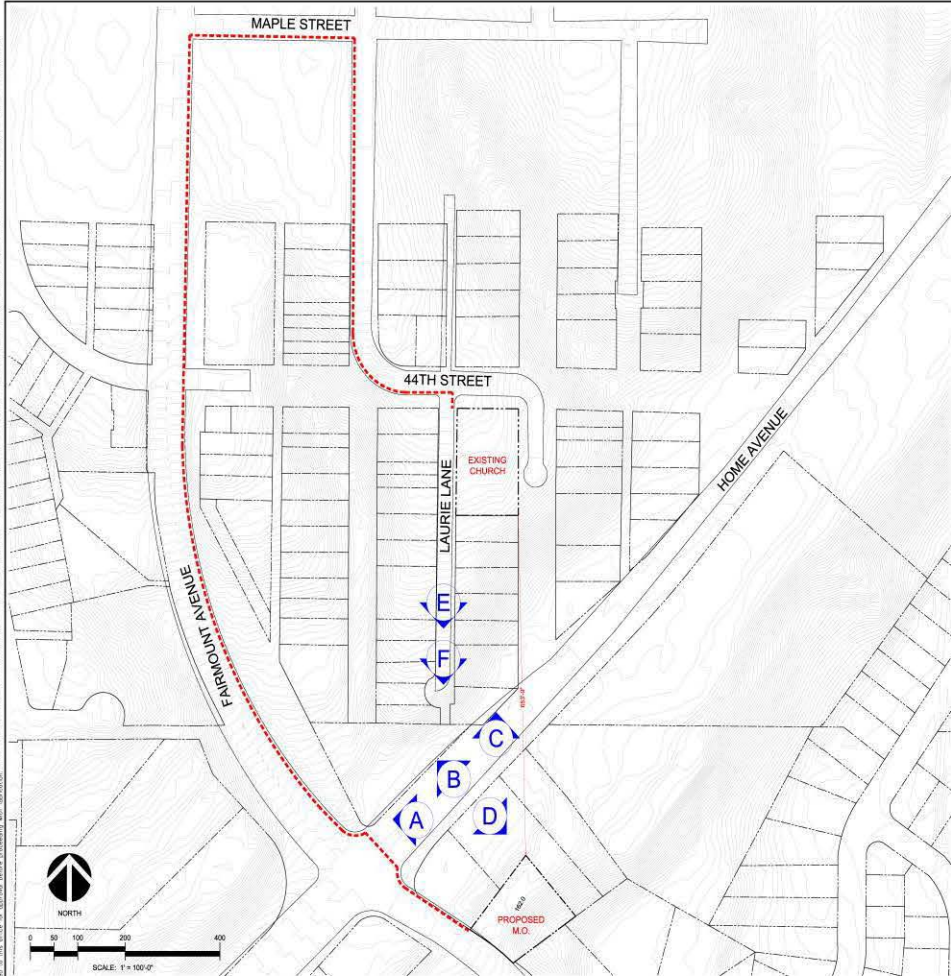
SHEET: 2 OF: 16

A1.0



LEGEND

- WALKING PATH OF TRAVEL BETWEEN EXISTING CHURCH AND PROPOSED M.O.
(3,196 LINEAR FEET)
- EXISTING PROPERTY LINE
- DIRECTION OF PHOTO
- PHOTO NUMBER







INC.

1380 COLUMBIA BL.
SUITE 100
SAN DIEGO, CA 92101

TEL: 619.594.1000
FAX: 619.594.1000



CLIENT:

MARCH & ASH

2835 CAMINO DEL RIO SOUTH
SUITE 100
SAN DIEGO, CA 92108

PROJECT:

**FAIRMOUNT
M.O.**

APN: 541-280-09-00

2281 FAIRMOUNT AVENUE
SAN DIEGO, CA 92105-5222

THIS SET

☐ SCHEMATIC

☒ INITIAL SUBMITTAL 5/1/2018

☒ FULL SUBMITTAL 5/22/2018

☒ 1ST RESUBMITTAL 7/30/2018

☒ 2ND RESUBMITTAL 10/3/2018

☒ 3RD RESUBMITTAL 10/31/2018

SHEET TITLE / CONTENTS

**EXISTING
1ST FLOOR PLAN**

TRH PROJECT: 285-18

SCALE: AS NOTED

DRAWN BY: TRH

DATE DRAWN: 4/27/2018

CHECKED BY: KDS

SHEET: 4 OF: 18

A2.0

KEYNOTES

- 1 EXISTING EXTERIOR MASONRY WALL
- 2 EXISTING EXTERIOR METAL SIDING WALL
- 3 EXISTING INTERIOR FULL HEIGHT WALL
- 4 EXISTING INTERIOR PARTITION WALL
- 5 EXISTING RESTROOM
- 6 EXISTING SINK
- 7 EXISTING PERSONNEL DOOR
- 8 EXISTING METAL ROLL UP DOOR
- 9 EXISTING INTERIOR WINDOW
- 10 EXISTING INTERIOR STAIRS
- 11 EXISTING EXTERIOR STAIRS
- 12 EXISTING ROOF OVERHANG ABOVE
- 13 EXISTING STRUCTURAL STEEL COLUMN
- 14 EXISTING SECOND FLOOR OVERHANG ABOVE
- 15 EXISTING EXTERIOR ELECTRICAL MSB AND PANELS

FLOOR PLAN LEGEND

- EXISTING EXTERIOR MASONRY WALL
- EXISTING INTERIOR WALL
- DIMENSION TO FACE OF STUD, COLUMN OR WALL
- ACCESSIBLE PATH OF TRAVEL
- KEYNOTE SYMBOL
- DOOR SYMBOL PER DOOR SCHEDULE
- WINDOW SYMBOL PER WINDOW SCHEDULE
- EXTERIOR ELEVATIONS DETAIL NUMBER
- EXTERIOR ELEVATIONS SHEET NUMBER

DOOR SCHEDULE

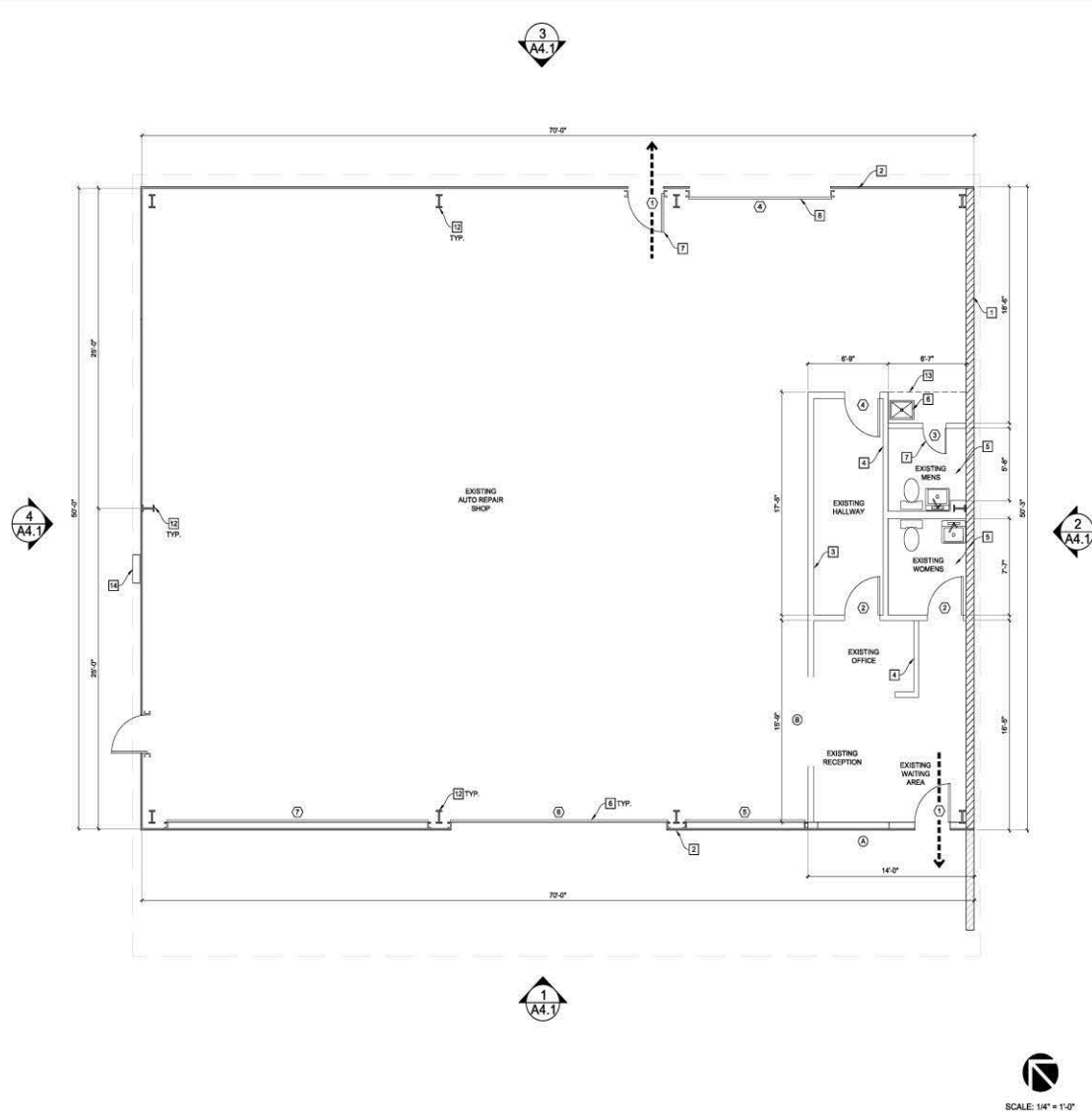
SYM.	WIDTH	HEIGHT	OPERATION	OPENING	HARDWARE	LATCH	MATERIAL	CLOSER	LOCK	PULL	REMARKS
1	3'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	EXISTING
2	3'-0"	6'-8"	SWINGING	LEVER	LOOKING	NO	WOOD	NO	YES	YES	EXISTING
3	7'-6"	6'-8"	SWINGING	LEVER	LOOKING	NO	WOOD	NO	YES	YES	EXISTING
4	12'-0"	14'-0"	ROLL-UP	-	-	NO	METAL	NO	NO	NO	EXISTING
5	10'-0"	14'-0"	ROLL-UP	-	-	NO	METAL	NO	NO	NO	EXISTING
6	18'-0"	14'-0"	ROLL-UP	-	-	NO	METAL	NO	NO	NO	EXISTING
7	22'-0"	14'-0"	ROLL-UP	-	-	NO	METAL	NO	NO	NO	EXISTING

1. ALL DOORS AND GATES SHALL COMPLY WITH CBC 11B-404.2.2 & 11B-404.3.3
2. ALL DOOR AND GATES SHALL BE MINIMUM 33" HIGH CLEAR WIDTH PER CBC FIG. 11B-404.3.3

WINDOW SCHEDULE

SYM.	WIDTH	HEIGHT	OPERATION	HARDWARE	MATERIAL	REMARKS
A	6'-0"	4'-0"	FIXED	NO	ALUMINUM	EXISTING EXTERIOR TO BE REPLACED
B	7'-0"	4'-0"	FIXED	NO	WOOD	EXISTING INTERIOR TO BE REPLACED

EXISTING FIRST FLOOR PLAN





1840 COLLEMBIA BL.
SUITE 100
SAN DIEGO, CA 92101
TEL: 619 594-1000
FAX: 619 594-1001



CLIENT:

MARCH & ASH

2835 CAMINO DEL RIO SOUTH
SUITE 100
SAN DIEGO, CA 92108

PROJECT:

**FAIRMOUNT
M.O.**

APN: 541-280-09-00

2281 FAIRMOUNT AVENUE
SAN DIEGO, CA 92105-5222

REVISION	ITEM	DATE
1		
2		
3		
4		
5		

THIS SET

ISSUE DATE
SCHEMATIC
INITIAL SUBMITTAL 9/12/2018
FULL SUBMITTAL 5/22/2018
1ST RESUBMITTAL 7/20/2018
2ND RESUBMITTAL 10/30/2018
3RD RESUBMITTAL 10/31/2018

SHEET TITLE / CONTENTS

**PROPOSED
1ST FLOOR PLAN**

TRH PROJECT: 288-18
SCALE: AS NOTED
DRAWN BY: TRH
DATE DRAWN: 4/27/2018
CHECKED BY: KDS

SHEET: 5 OF: 18

A2.1

DOOR SCHEDULE

NO.	WIDTH	HEIGHT	OPERATION	OPENING	HARDWARE	LATCH	MATERIAL	CLOSER	LOCK	PULL	REMARKS
1	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
2	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
3	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
4	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
5	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
6	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
7	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
8	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
9	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
10	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
11	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
12	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
13	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
14	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
15	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
16	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
17	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
18	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
19	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
20	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
21	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
22	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
23	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
24	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
25	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
26	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
27	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
28	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
29	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
30	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
31	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
32	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
33	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
34	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
35	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
36	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
37	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
38	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
39	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
40	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
41	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
42	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
43	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
44	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
45	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
46	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
47	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
48	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
49	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
50	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
51	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
52	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
53	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
54	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
55	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
56	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
57	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
58	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
59	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
60	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
61	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
62	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
63	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
64	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
65	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
66	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
67	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
68	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
69	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
70	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
71	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
72	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
73	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
74	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
75	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
76	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
77	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
78	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
79	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
80	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
81	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
82	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
83	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
84	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
85	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
86	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
87	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
88	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
89	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
90	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
91	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
92	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
93	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
94	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
95	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
96	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
97	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
98	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
99	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW
100	2'-0"	7'-0"	SWINGING	LEVER	LOOKING	NO	METAL	YES	YES	YES	NEW

- 788 BULLET RESISTANT DOOR LEVEL 1
- ALL DOORS AND GATES SHALL COMPLY WITH CBC 11B-404.2.2 & 11B-404.2.3
- ALL DOOR AND GATES SHALL BE MINIMUM 32" INCH CLEAR WIDTH PER CBC FIG. 11B-404.2.3

WINDOW SCHEDULE

NO.	WIDTH	HEIGHT	OPERATION	HARDWARE	MATERIAL	REMARKS
1	6'-0"	4'-0"	FIXED	NO	ACRYLIC	CHL LEVEL 1 CLEAR VISION BULLET RESISTANT
2	7'-0"	4'-0"	FIXED	NO	ACRYLIC	CHL LEVEL 1 CLEAR VISION BULLET RESISTANT
3	7'-0"	4'-0"	FIXED	NO	ACRYLIC	ONE WAY MIRROR OR PRIVACY GLASS
4	18'-0"	14'-0"	FIXED	NO	ACRYLIC	CHL LEVEL 1 CLEAR VISION BULLET RESISTANT
5	8'-0"	6'-0"	FIXED	NO	ACRYLIC	CHL LEVEL 1 CLEAR VISION BULLET RESISTANT
6	7'-0"	9'-0"	FIXED	NO	ACRYLIC	CHL LEVEL 1 CLEAR VISION BULLET RESISTANT SPEAK-THRU

OCCUPANT LOAD CALCS

CONDITION	AREA / ROOM NAME	TENANT	AREA	OCCUP. FACTOR	OCCUP. LOAD	OCCUP. TYPE
PROPOSED	1ST FLOOR	MARCH & ASH	2,800 S.F.	60	48	M V
TOTAL			2,800 S.F.		48	M V

KEYNOTES

- EXISTING EXTERIOR MASONRY WALL TO REMAIN
- EXISTING EXTERIOR METAL SIDING WALL TO REMAIN
- EXISTING INTERIOR FULL HEIGHT WALL TO BE REFINISHED
- EXISTING INTERIOR PARTITION WALL TO BE REMOVED
- EXISTING RESTROOMS TO BE REPLACED WITH NEW
- EXISTING SINK TO BE RELOCATED
- EXISTING PERSONNEL DOOR TO BE REMOVED
- EXISTING METAL ROLL UP DOOR TO BE REMOVED
- EXISTING INTERIOR WINDOW TO BE REMOVED
- EXISTING EXTERIOR STAIRS TO REMAIN
- EXISTING ROOF OVERHANG ABOVE TO REMAIN
- EXISTING STRUCTURAL STEEL COLUMN TO REMAIN
- EXISTING METAL FRAME CHANNEL TO BE REMOVED
- EXISTING EXTERIOR ELECTRICAL MSB AND PANELS TO REMAIN
- EXISTING EXTERIOR METAL SIDING WALL TO BE REMOVED
- EXISTING EXTERIOR RETAINING WALL
- PROPOSED NEW EXTERIOR BULLET RESISTANT WALL
- PROPOSED NEW INTERIOR BULLET RESISTANT WALL
- PROPOSED NEW SERVICE COUNTER
- PROPOSED ACCESSIBLE PATH OF TRAVEL
- PROPOSED EXTERIOR SOFFIT AREA
- PROPOSED NEW INTERIOR WALL
- PROPOSED EXTERIOR BULLET RESISTANT STOREFRONT WINDOW
- PROPOSED INTERIOR BULLET RESISTANT WINDOW
- PROPOSED INTERIOR ONE WAY MIRROR GLASS WINDOW
- PROPOSED RELOCATED / NEW SINK
- PROPOSED NEW LOWER & UPPER CABINETS

FLOOR PLAN LEGEND

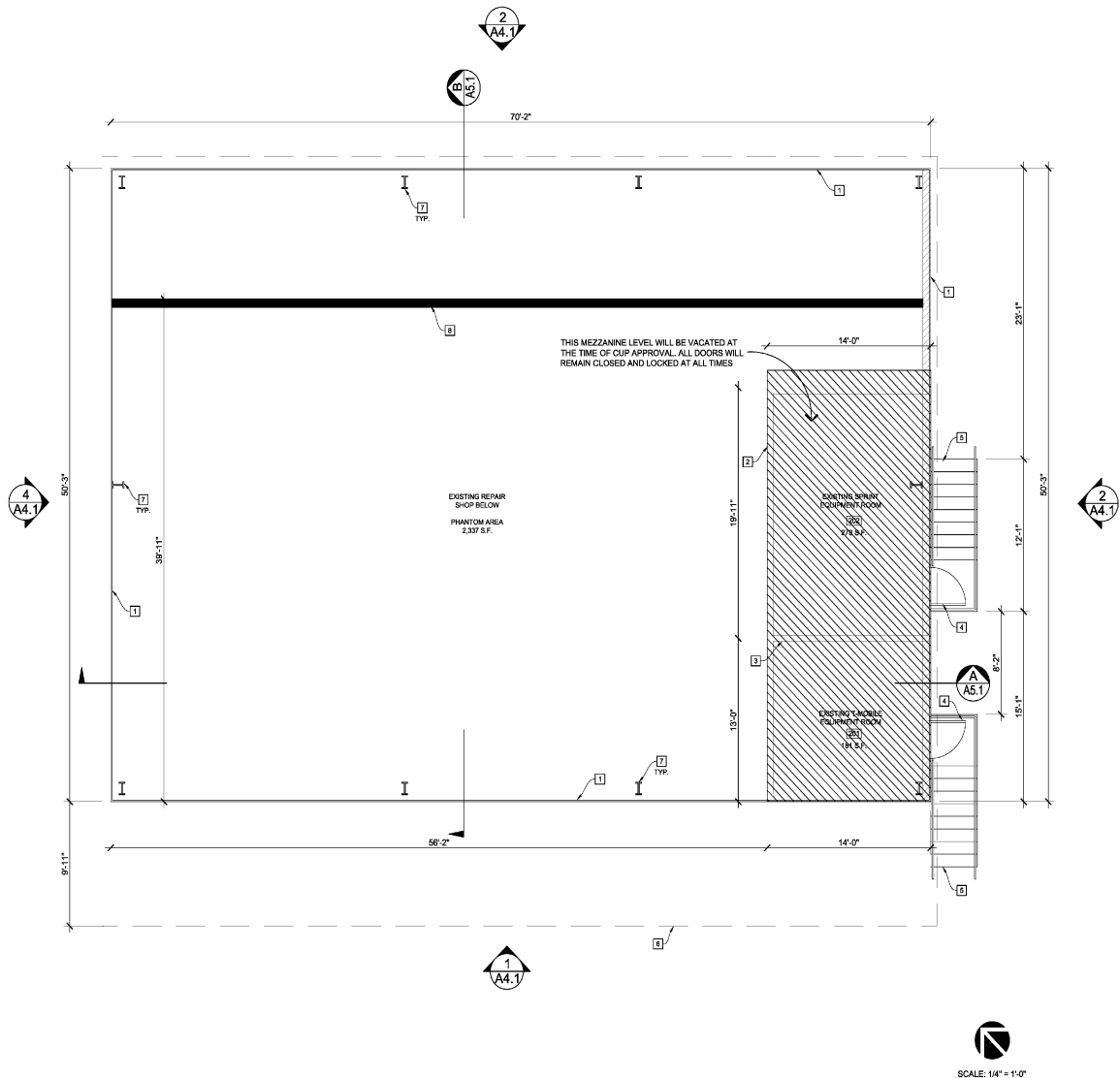
- EXISTING EXTERIOR MASONRY WALL
- EXISTING INTERIOR WALLS
- EXISTING INTERIOR WALLS TO BE REMOVED
- PROPOSED ARMORCORE BULLET RESISTANT INTERIOR WALL
- PROPOSED EXTERIOR WALL
- PROPOSED INTERIOR WALL
- PROPOSED PLUMBING WALL
- DIMENSION TO FACE OF STUD COLUMN OR WALL
- ACCESSIBLE PATH OF TRAVEL
- ROOM NUMBER
- KEYNOTE SYMBOL
- DOOR SYMBOL PER DOOR SCHEDULE
- WINDOW SYMBOL PER WINDOW SCHEDULE
- EXTERIOR ELEVATIONS DETAIL NUMBER
- EXTERIOR ELEVATIONS SHEET NUMBER
- INTERIOR ELEVATIONS DETAIL NUMBER
- INTERIOR ELEVATIONS SHEET NUMBER

GROSS FLOOR AREA CALCS

FIRST FLOOR - A2.1				
CONDITION	ROOM NUMBER	ROOM NAME	ROOM AREA	G.F.A.
PROPOSED	100	SECURITY CHECK	303 S.F.	303 S.F.
PROPOSED	101	WAITING AREA	475 S.F.	475 S.F.
PROPOSED	102	RECEPTION ROOM	158 S.F.	158 S.F.
PROPOSED	103	DISPENSARY AREA	996 S.F.	996 S.F.
PROPOSED	104	OFFICE/CAMERA ROOM	227 S.F.	227 S.F.
PROPOSED	105	PREP. ROOM	266 S.F.	266 S.F.
PROPOSED	106	BREAK ROOM	166 S.F.	166 S.F.
PROPOSED	107	HALLWAY	86 S.F.	86 S.F.
PROPOSED	108	WOMENS	69 S.F.	69 S.F.
PROPOSED	109	MENS	61 S.F.	61 S.F.
PROPOSED		EXTERIOR SOFFIT	717 S.F.	717 S.F.
TOTAL 1ST FLOOR			3,517 S.F.	3,517 S.F.
MEZZANINE FLOOR - A2.2				
CONDITION	ROOM NUMBER	ROOM NAME	ROOM AREA	G.F.A.
EXISTING	201	VACANT	181 S.F.	181 S.F.
EXISTING	202	VACANT	278 S.F.	278 S.F.
EXISTING		PHANTOM AREA	2,337 S.F.	2,337 S.F.
TOTAL MEZZANINE FLOOR			2,796 S.F.	2,796 S.F.
TOTAL FIRST FLOOR G.F.A.				3,517 S.F.
TOTAL MEZZANINE FLOOR G.F.A.				2,796 S.F.
TOTAL BUILDING G.F.A.				6,313 S.F.



A2.2

[illegible]

1	EXISTING EXTERIOR METAL SIDING TO REMAIN
2	EXISTING INTERIOR FULL HEIGHT WALL
3	EXISTING INTERIOR PARTITION WALL
4	EXISTING PERSONNEL DOOR
5	EXISTING EXTERIOR STAIRS
6	EXISTING ROOF OVERHANG ABOVE
7	EXISTING STRUCTURAL STEEL COLUMN
8	PROPOSED FULL HEIGHT EXTERIOR WALL

	EXISTING EXTERIOR METAL SIDING WALLS
	EXISTING EXTERIOR WALLS
	PROPOSED EXTERIOR WALL
	EXISTING INTERIOR WALLS
	DIMENSION TO FACE OF STUD, COLUMN OR WALL
	ROOM NUMBER
	KEYNOTE SYMBOL
	EXTERIOR ELEVATIONS DETAIL NUMBER
	EXTERIOR ELEVATIONS SHEET NUMBER
	INTERIOR ELEVATIONS DETAIL NUMBER
	INTERIOR ELEVATIONS SHEET NUMBER



INC.

13840 COLUMBIA HT.
BOSTON, MA 02125
TEL: 617 850-1000
FAX: 617 850-1000



CLIENT:

MARCH & ASH

2835 CAMINO DEL RIO SOUTH
SUITE 100
SAN DIEGO, CA 92108

PROJECT:

**FAIRMOUNT
M.O.**

APN: 541-280-09-00

2281 FAIRMOUNT AVENUE
SAN DIEGO, CA 92105-5222

REVISION ITEM DATE

△		
△		
△		
△		
△		

THIS SET ISSUE DATE

☐	SCHEMATIC	
■	INITIAL SUBMITTAL	9/7/2018
■	FULL SUBMITTAL	5/22/2018
■	1ST RESUBMITTAL	7/30/2018
■	2ND RESUBMITTAL	10/3/2018
■	3RD RESUBMITTAL	10/31/2018

SHEET TITLE / CONTENTS

**PROPOSED
SECURITY
PLAN, LEGEND
& NOTES**

TRH PROJECT: 285-18
SCALE: AS NOTED
DRAWN BY: TRH
DATE DRAWN: 4/27/2018
CHECKED BY: KDS

SHEET: 7 OF: 18

A2.3

SECURITY KEYNOTES

1. ORL ROUND LEVEL 1 CLEAR-VISION BULLET RESISTANT ACRYLIC SPEAK-THRU
2. TSS BULLET RESISTANT ACRYLIC DOOR LEVEL 1
3. BULLET RESISTANT ACRYLIC WINDOW
4. BULLET RESISTANT WALL SEE SECURITY PLAN LEGEND THIS SHEET

SECURITY PLAN LEGEND

ARLO SECURITY CAMERAS (100% WIRELESS)

OUTSIDE BULLET CAMS QHO-7030R

ARMORCORE® FULL-HEIGHT BULLET RESISTANT FIBERGLASS

PANELS LEVEL 1 BULLET RESISTANT EXTERIOR WALL

ARMORCORE® FULL-HEIGHT BULLET RESISTANT FIBERGLASS

PANELS LEVEL 1 BULLET RESISTANT INTERIOR WALL

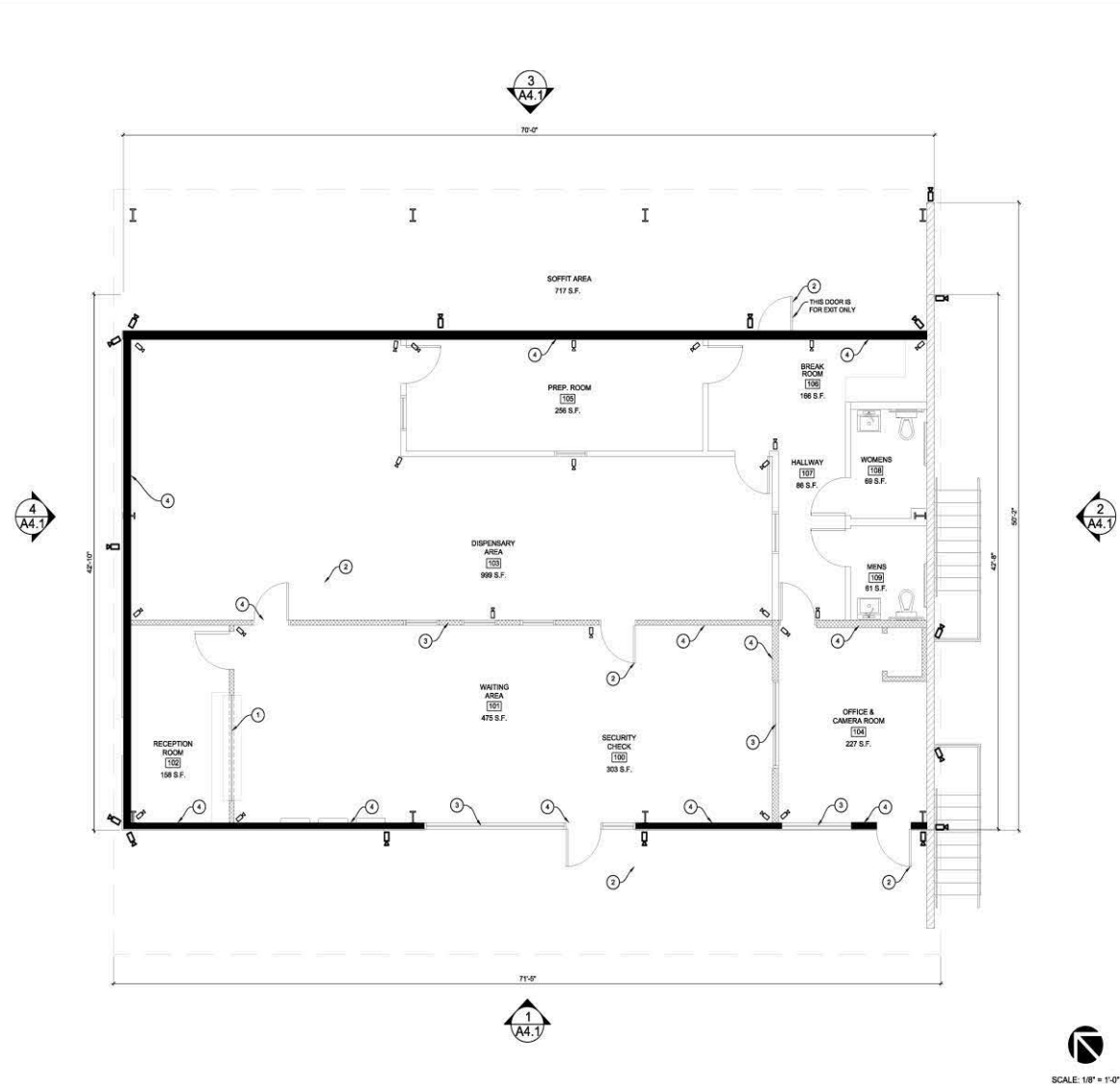
EXTERIOR ELEVATIONS DETAIL NUMBER

EXTERIOR ELEVATIONS SHEET NUMBER

SECURITY PLAN NOTES

1. REFER TO CONDITIONAL USE PERMIT FOR ADDITIONAL INFORMATION.
2. ALL EXTERIOR WINDOWS SHALL BE PROVIDED WITH 1" LAMINATED GLASS MIN.
3. ALL EXTERIOR DOORS SHALL BE BULLET RESISTANT.
4. SECURITY SHALL INCLUDE OPERABLE CAMERAS AND A METAL DETECTOR TO THE SATISFACTION OF DEVELOPMENT SERVICES DEPARTMENT. THIS FACILITY SHALL ALSO INCLUDE ALARMS AND UNARMED SECURITY GUARDS. NOTHING HEREIN SHALL BE INTERPRETED TO REQUIRE OR ALLOW A VIOLATION OF FEDERAL FIREARMS LAWS. THE SECURITY GUARDS SHALL BE LICENSED BY THE STATE OF CALIFORNIA. ONE SECURITY GUARD MUST BE ON THE PREMISES 24 HOURS A DAY, SEVEN DAYS A WEEK. THE OTHER MUST BE PRESENT DURING BUSINESS HOURS. THE SECURITY GUARDS SHOULD ONLY BE ENGAGED IN ACTIVITIES RELATED TO PROVIDING SECURITY FOR THE FACILITY, EXCEPT ON AN INCIDENTAL BASIS. THE CAMERAS SHALL HAVE AND USE A RECORDING DEVICE THAT MAINTAINS THE RECORDS FOR A MINIMUM OF 30 DAYS.
5. THE OWNER/PERMITTEE SHALL INSTALL A COMBINATION OF FULL-HEIGHT BULLET RESISTANT GLASS, PLASTIC, OR LAMINATE SHIELD AND BULLET RESISTANT ARMOR PANELS OR SOLID GROUTED MASONRY BLOCK WALLS, DESIGNED BY A LICENSED PROFESSIONAL AT THE RECEPTION AREA.
6. THE OWNER/PERMITTEE SHALL INSTALL A COMBINATION OF FULL-HEIGHT BULLET RESISTANT ARMOR PANELS OR SOLID GROUTED MASONRY BLOCK WALLS, DESIGNED BY A LICENSED PROFESSIONAL, IN COMMON AREAS WITH OTHER TENANTS, RECEPTION AREA AND VALET ROOM.
7. THE OWNER/PERMITTEE OR OPERATOR SHALL MAINTAIN THE NO. ADJACENT PUBLIC SIDEWALKS AND AREAS UNDER THE CONTROL OF THE OWNER OR OPERATOR, FREE OF LITTER AND GRAFFITI AT ALL TIMES. THE OWNER OR OPERATOR SHALL PROVIDE FOR DAILY REMOVAL OF TRASH, LITTER, AND DEBRIS. GRAFFITI SHALL BE REMOVED WITHIN 24 HOURS.

PROPOSED SECURITY PLAN





1380 COLUMBIA ST.
SUITE 100
SAN DIEGO, CA 92101
TEL: (619) 593-1088
FAX: (619) 593-1089



CLIENT:

**MARCH &
ASH**

2835 CAMINO DEL RIO SOUTH
SUITE 100
SAN DIEGO, CA 92108

PROJECT:

**FAIRMOUNT
M.O.**

APN: 541-280-09-00

2281 FAIRMOUNT AVENUE
SAN DIEGO, CA 92105-5222

REVISION ITEM DATE

△		
△		
△		
△		
△		

THIS SET ISSUE DATE

☐	SCHEMATIC	
☒	INITIAL SUBMITTAL	9/12/2018
☒	FULL SUBMITTAL	5/22/2018
☒	1ST RESUBMITTAL	7/30/2018
☒	2ND RESUBMITTAL	10/3/2018
☒	3RD RESUBMITTAL	10/31/2018

SHEET TITLE / CONTENTS

**EXISTING
ROOF PLAN,
KEYNOTES &
LEGEND**

TRH PROJECT#: 285-18
SCALE: AS NOTED
DRAWN BY: TRH
DATE DRAWN: 4/27/2018
CHECKED BY: KDS

SHEET: 8 OF: 16

A2.5

ROOF KEYNOTES

- ◇ EXISTING CLASS 'A' ROOF SYSTEM TO REMAIN
- ◇ EXISTING WALL BELOW
- ◇ EXISTING COMMERCIAL GRADE GUTTER TO REMAIN
- ◇ EXISTING ROOF TOP CONFLUA TO REMAIN
- ◇ EXISTING ROOF VENTS TO REMAIN
- ◇ EXISTING SKYLIGHTS TO REMAIN
- ◇ EXISTING ROOF RIDGE TO REMAIN
- ◇ EXISTING COMMERCIAL GRADE DOWNSPOUT (TOTAL 4) TO REMAIN
- ◇ EXISTING EXTERIOR STAIRS BELOW
- ◇ EXISTING SOLAR PANELS TO REMAIN
- ◇ PROPOSED COOL ROOF
- ◇ PROPOSED NEW WALL BELOW

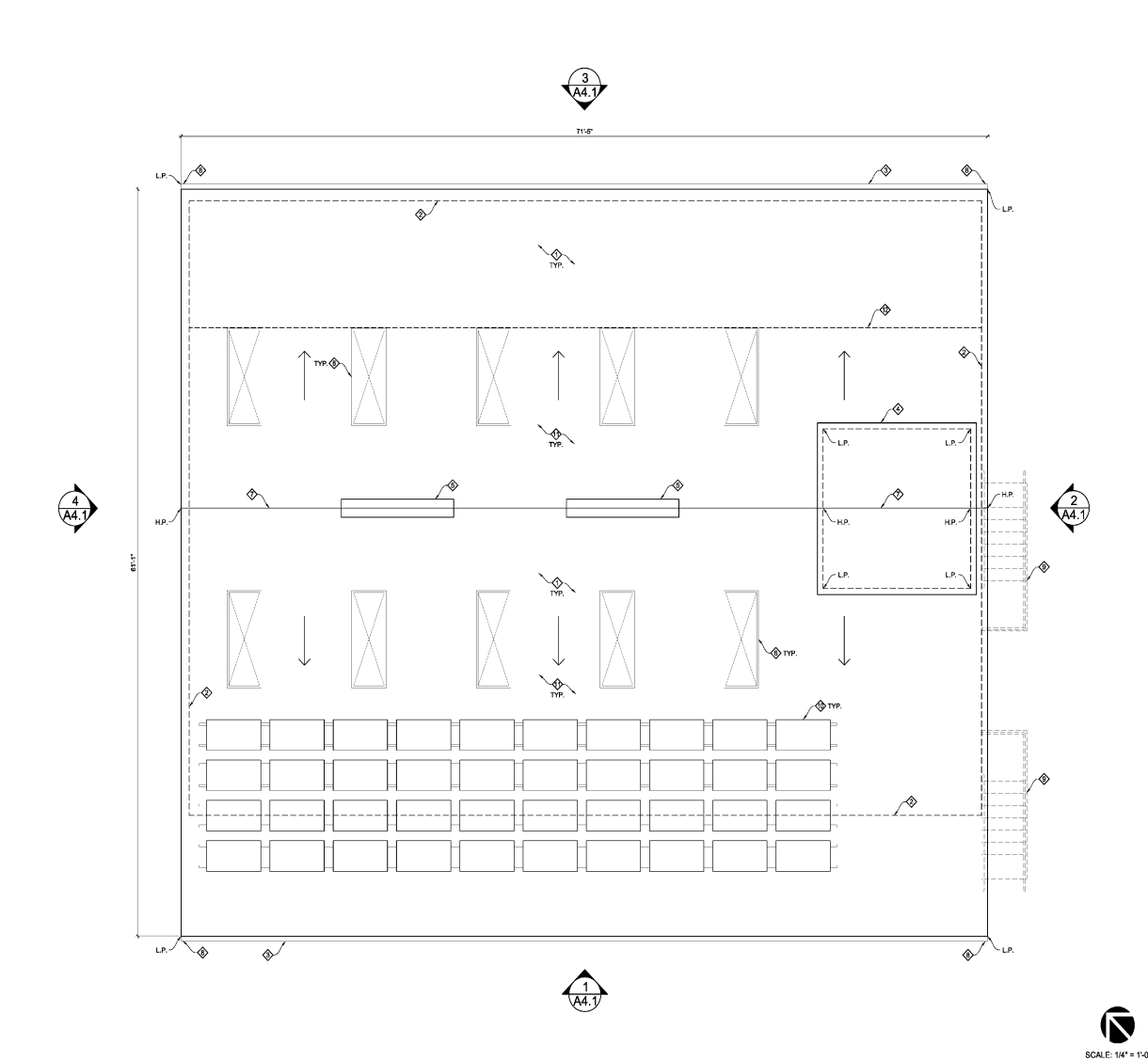
ROOF PLAN LEGEND

- DIMENSION TO FACE OF STUD, COLUMN OR WALL
- ◇ ROOF KEYNOTE SYMBOL
- H.P. HIGH POINT
- L.P. LOW POINT
- DIRECTION OF EXISTING ROOF SLOPE
- ⊙ EXTERIOR ELEVATIONS DETAIL NUMBER
- ⊙ EXTERIOR ELEVATIONS SHEET NUMBER

ROOF PLAN NOTES

NO ROOF, DECK OR BALCONY DRAINS ARE PROPOSED FOR THIS PROJECT.

EXISTING ROOF PLAN



SCALE: 1/4" = 1'-0"



1380 COLUMLIA MT.
ROAD 100
SAN DIEGO, CA 92101
TEL: 619-592-1088
FAX: 619-592-1089



CLIENT:

**MARCH &
ASH**

2835 CAMINO DEL RIO SOUTH
SUITE 100
SAN DIEGO, CA 92108

PROJECT:

**FAIRMOUNT
M.O.**

APN: 541-280-09-00

2281 FAIRMOUNT AVENUE
SAN DIEGO, CA 92105-5522

REVISION	ITEM	DATE
△		
△		
△		
△		

THIS SET	ISSUE DATE
☐ SCHEMATIC	
☒ INITIAL SUBMITTAL	5/19/2018
☒ FULL SUBMITTAL	5/22/2018
☒ 1ST RESUBMITTAL	7/30/2018
☒ 2ND RESUBMITTAL	10/30/2018
☒ 3RD RESUBMITTAL	10/31/2018

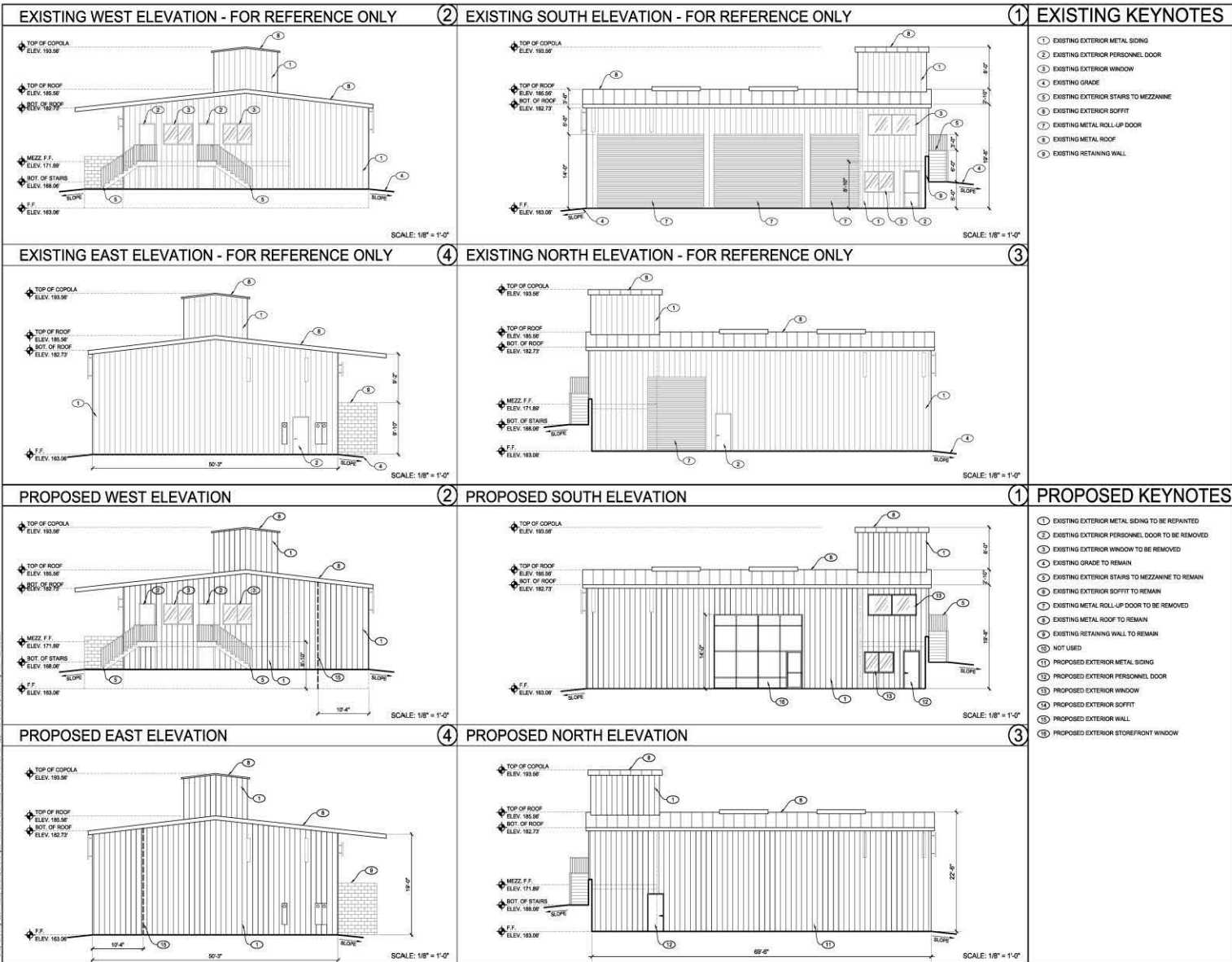
SHEET TITLE / CONTENTS

**EXTERIOR
ELEVATIONS**

TRH PROJECT#: 286-18
SCALE: AS NOTED
DRAWN BY: TRH
DATE DRAWN: 4/27/2018
CHECKED BY: KDS

SHEET: 9 OF: 16

A4.1





13810 COLUMBIA MT.
SUITE 100
SAN DIEGO, CA 92121
TEL: 619.592-1988
FAX: 619.592-1989



CLIENT:

**MARCH &
ASH**

2835 CAMINO DEL RIO SOUTH
SUITE 100
SAN DIEGO, CA 92108

PROJECT:

**FAIRMOUNT
M.O.**

APN: 541-280-09-00

2281 FAIRMOUNT AVENUE
SAN DIEGO, CA 92105-5222

REVISION ITEM DATE

△		
△		
△		
△		
△		

THIS SET ISSUE DATE

☐	SCHEMATIC	
☒	INITIAL SUBMITTAL	5/1/2018
☒	FULL SUBMITTAL	5/22/2018
☒	1ST RESUBMITTAL	7/30/2018
☒	2ND RESUBMITTAL	10/3/2018
☒	3RD RESUBMITTAL	10/31/2018

SHEET TITLE / CONTENTS

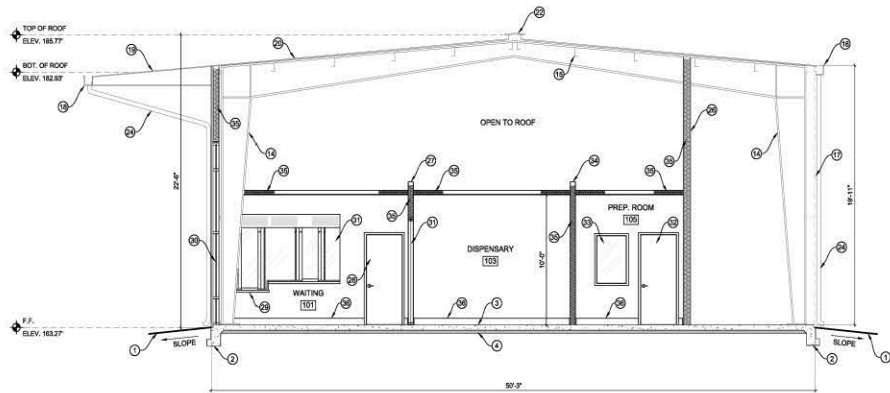
**BUILDING
SECTIONS**

TRH PROJECT#: 286-18
SCALE: AS NOTED
DRAWN BY: TRH
DATE DRAWN: 4/27/2018
CHECKED BY: KDS

SHEET: 10 OF: 16

A5.1

BUILDING SECTION - B

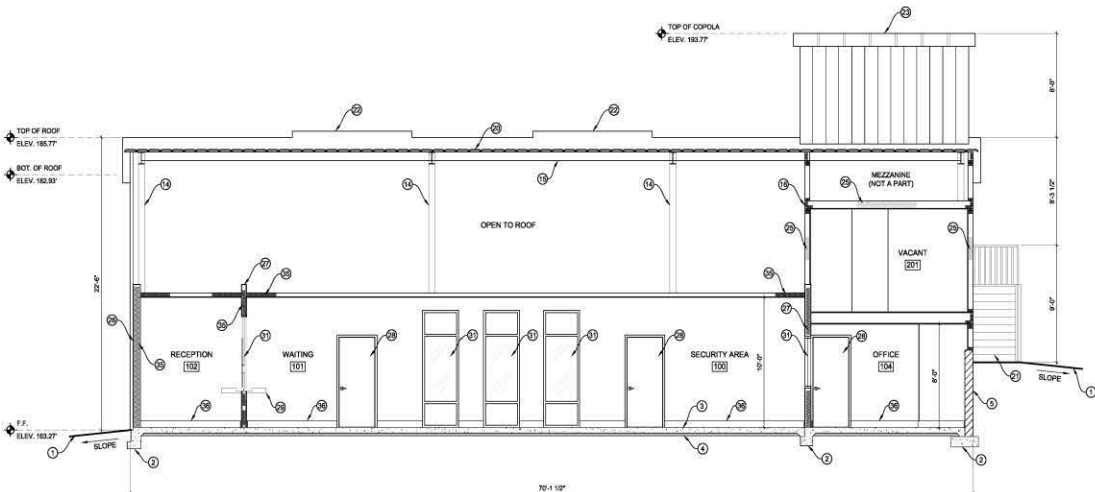


SCALE: 1/4" = 1'-0"

BUILDING SECTION KEYNOTES

- 1 EXISTING GRADE TO REMAIN
- 2 EXISTING CONCRETE FOUNDATION TO REMAIN
- 3 EXISTING INTERIOR CONCRETE SLAB TO REMAIN
- 4 EXISTING SAND BELOW SLAB TO REMAIN
- 5 EXISTING MASONRY WALL TO REMAIN
- 6 EXISTING ROOF LINE TO REMAIN
- 7 EXISTING METAL COLUMNS TO REMAIN
- 8 EXISTING EXTERIOR WOOD SIDING TO REMAIN
- 9 EXISTING MEZZANINE FLOOR WOOD FRAMING
- 10 EXISTING EXTERIOR OVERHANG TO REMAIN
- 11 EXISTING PLYWOOD AND FLOORING MATERIAL ABOVE - N.A.P.
- 12 EXISTING EXTERIOR WINDOW TO BE REPLACED WITH BULLET RESISTANT WINDOW
- 13 EXISTING INTERIOR DRYWALL - CLEAN, PATCH, REPAIR, PREP & PAINT
- 14 EXISTING STEEL COLUMN TO REMAIN
- 15 EXISTING PAULING TO REMAIN
- 16 EXISTING WOOD FRAMING TO REMAIN
- 17 EXISTING EXTERIOR METAL SIDING TO BE REMOVED
- 18 EXISTING METAL GUTTERS TO REMAIN
- 19 EXISTING METAL OVERHANG TO REMAIN
- 20 EXISTING CORRUGATED METAL ROOF TO REMAIN
- 21 EXISTING METAL STAIRS TO REMAIN
- 22 EXISTING ROOF VENT TO REMAIN
- 23 EXISTING ROOF COPULA TO REMAIN
- 24 EXISTING METAL DOWNSPOUT TO REMAIN
- 25 EXISTING INSULATION TO REMAIN
- 26 PROPOSED NEW BULLET RESISTANT EXTERIOR WALL
- 27 PROPOSED NEW BULLET RESISTANT INTERIOR WALL
- 28 PROPOSED NEW BULLET RESISTANT INTERIOR DOOR
- 29 PROPOSED NEW ACCESSIBLE COUNTER 34" MAXIMUM HEIGHT PER CBC 119-227.3
- 30 PROPOSED EXTERIOR BULLET RESISTANT STOREFRONT WINDOW
- 31 PROPOSED INTERIOR BULLET RESISTANT WINDOW
- 32 PROPOSED NEW INTERIOR DOOR
- 33 PROPOSED NEW INTERIOR WINDOW
- 34 PROPOSED NEW INTERIOR WALL
- 35 PROPOSED NEW INSULATION
- 36 PROPOSED FLOOR MOLDING

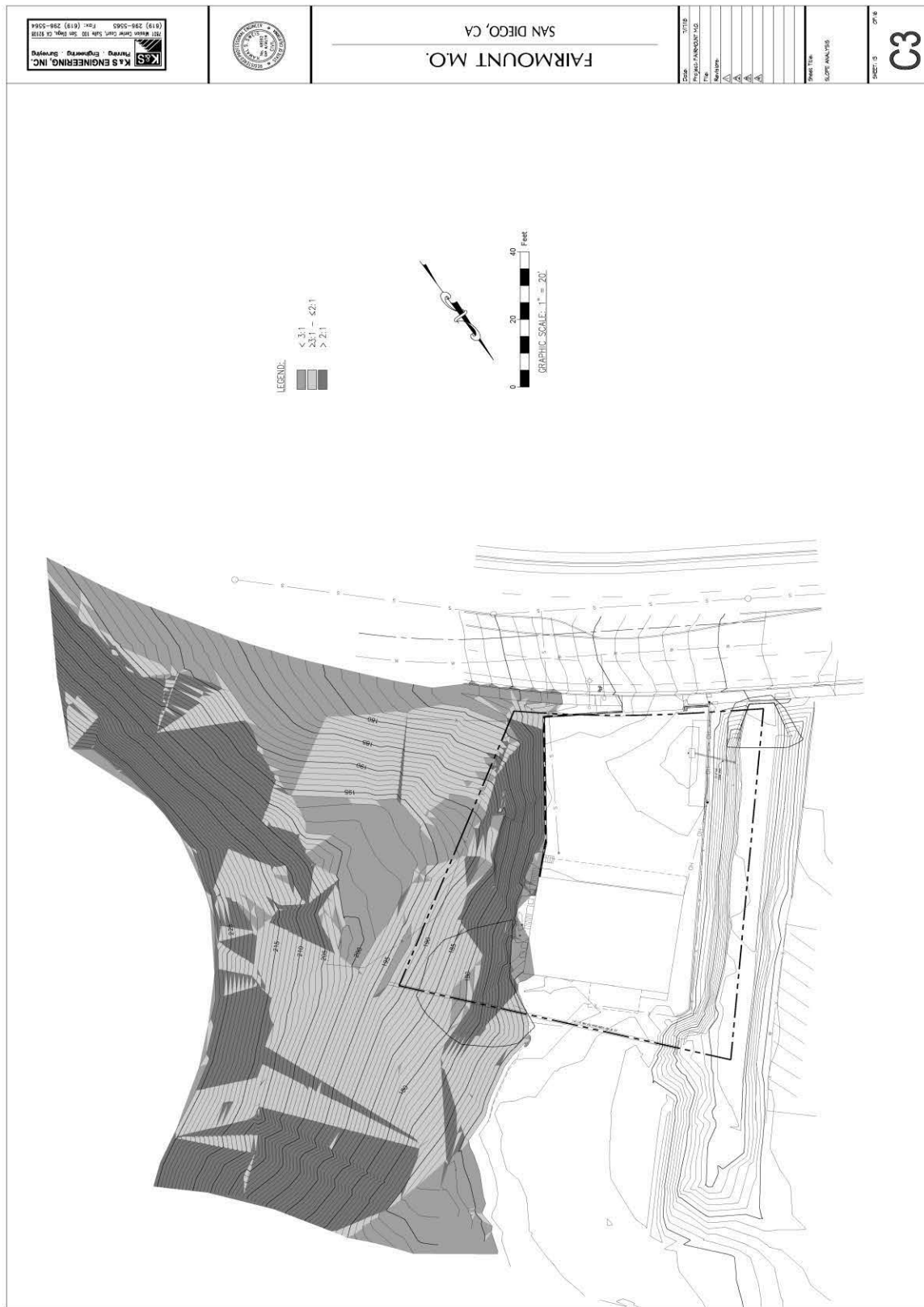
BUILDING SECTION - A



SCALE: 1/4" = 1'-0"







[illegible]

[illegible]



Hutter Designs, Inc.
Landscape Architects
3625 Ruffin Road, Ste. 108
San Diego, Ca 92123
T: (619) 337-6044
F: (619) 342-8528



CLIENT:

MARCH & ASH

2835 CAMINO DEL RIO SOUTH
SUITE 100
SAN DIEGO, CA 92108

PROJECT:

FAIRMOUNT M.O.

APN: 541-280-09-00

2281 FAIRMOUNT AVENUE
SAN DIEGO, CA 92108-5022

REVISION	ITEM	DATE
1		
2		
3		
4		
5		

THIS SET

ISSUE DATE
☐ SCHEMATIC
☒ INITIAL SUBMITTAL 5/7/2018
☒ FULL SUBMITTAL 5/22/2018
☒ 1ST RESUBMITTAL 7/30/2018
☒ 2ND RESUBMITTAL 10/3/2018
☒ 3RD RESUBMITTAL 10/31/2018

SHEET TITLE / CONTENTS

LANDSCAPE AREA DIAGRAM

PROJECT#: 18012
SCALE: AS NOTED
DRAWN BY: SHH
DATE DRAWN: 5/18/2018
CHECKED BY: HCI

SHEET: 16 OF: 16

L-3

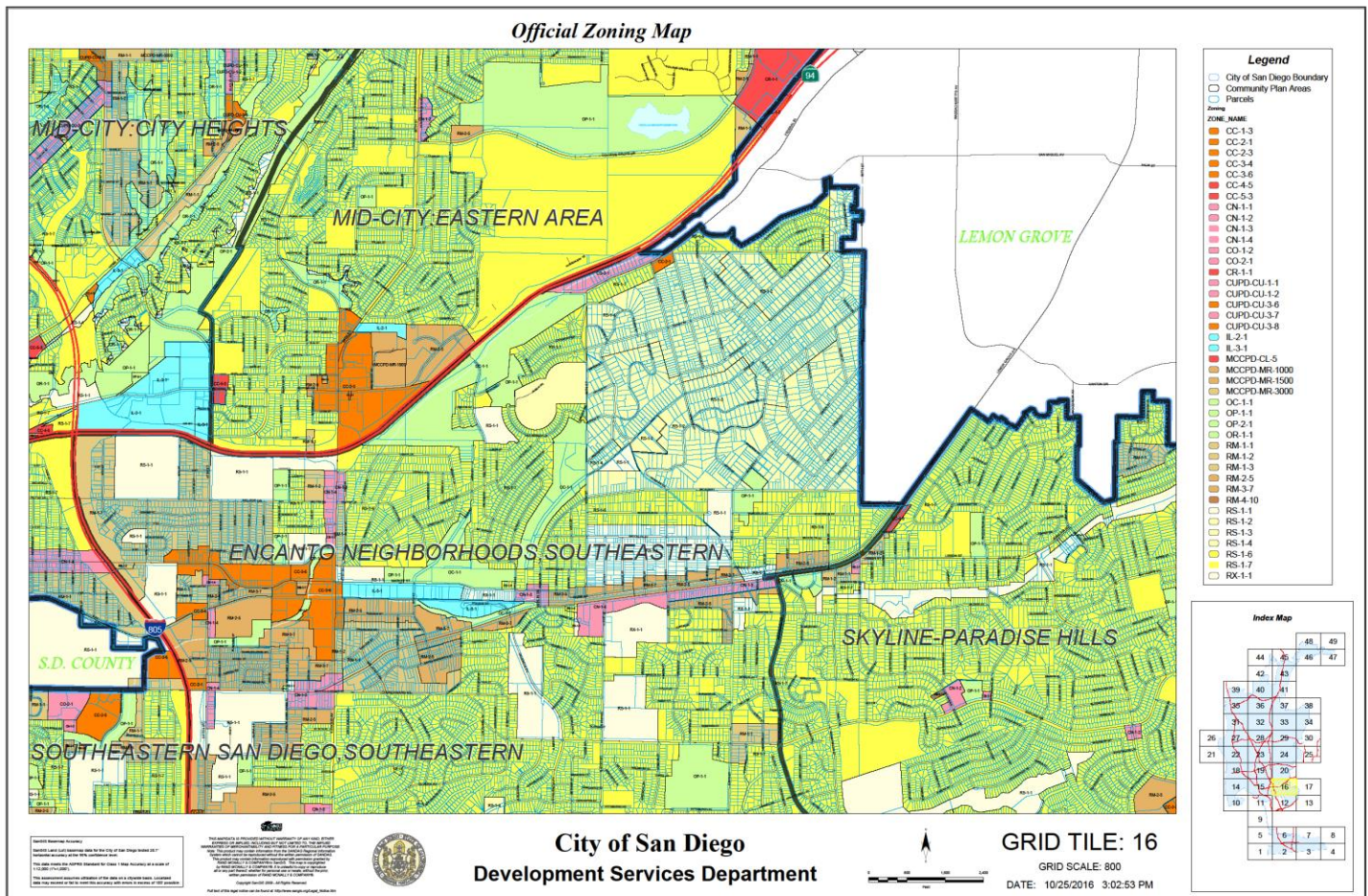
LANDSCAPE CALCULATIONS

STREET TREES IN PUBLIC RIGHT OF WAY	
LENGTH OF STREET FRONTAGE	94'
STREET TREES REQUIRED (@ 30' o.c.)	3.0
STREET TREES PROVIDED	3.0
STREET YARD	
FAIRMOUNT AVENUE	
TOTAL AREA	11,650 SF
PLANTING AREA REQ'D (25%)	2,913 SF
PLANTING AREA PROVIDED	6,688 SF
PLANT POINTS REQUIRED (.05 PTS/SF)	583 PTS
PLANT POINTS PROVIDED	625+ PTS
PTS ACHIEVED W/ TREES (50% MIN)	320+ PTS
VEHICLE USE AREA	
(INSIDE THE STREET YARD)	
TOTAL AREA	4,922 SF
40 SQ. FT. PER TREE PROVIDED	123 TREES
PLANT POINTS REQUIRED (.05 PTS/SF)	246 PTS
PLANT POINTS PROVIDED	280+ PTS
(1) TREE WITHIN 30' OF EACH PARKING SPACE	PROVIDED
REMAINING YARD	
TOTAL AREA	3,457 SF
PLANTING AREA REQ'D (30%)	1,037 SF
PLANTING AREA PROVIDED	1,383 SF
PLANT POINTS REQUIRED (.05 PTS/SF)	173 PTS
PLANT POINTS PROVIDED	180+ PTS



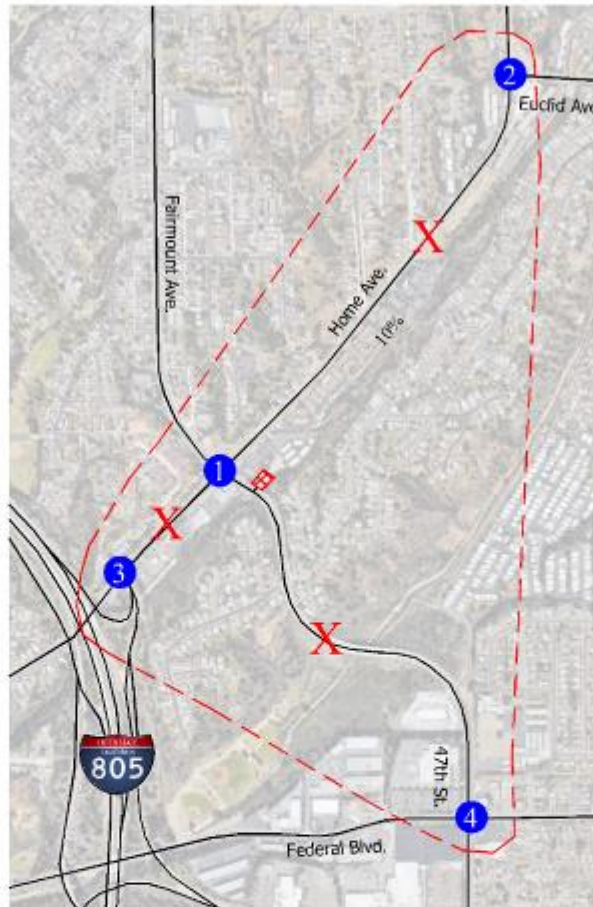
Attachment 4

Zoning Map Grid Tile 16 (Full Map and Detail)



Attachment 5

Project Study Area



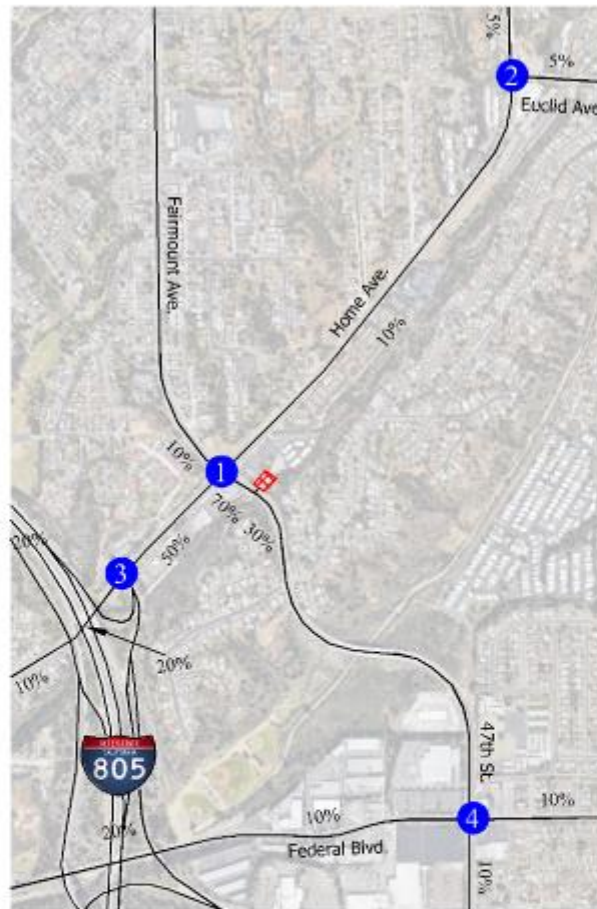
Legend

-  = Project Location
-  = Studied Intersection Location
-  = Studied Street Segment
-  = Study Area Boundary



Attachment 6

Project Trip Distribution



Legend

-  = Project Location
-  = Studied Intersection Location
- XX% = Distribution Percentage



Intersection Turning Movement and Street Segment Counts (July 19th, 2018) and Signal Timing Sheets

THURSDAY - JULY 19, 2018				CITY: CITY HEIGHTS				PROJECT: PTD18-0720-03								
HOME AVE - I-805 NB RAMP TO FAIRMOUNT AVE																
AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB							
00:00			93	46	12:00			203	240							
00:15			101	24	12:15			225	255							
00:30			82	29	12:30			223	244							
00:45			56	332	20	119	451	12:45	231	882	232	971	1853			
01:00			59	28	13:00			252	231							
01:15			55	19	13:15			240	280							
01:30			34	24	13:30			243	284							
01:45			51	199	27	98	297	13:45	227	962	240	1035	1997			
02:00			41	9	14:00			261	254							
02:15			48	20	14:15			268	238							
02:30			27	25	14:30			275	272							
02:45			34	150	7	61	211	14:45	316	1120	275	1039	2159			
03:00			35	18	15:00			254	277							
03:15			34	19	15:15			266	258							
03:30			27	24	15:30			296	315							
03:45			31	127	20	81	208	15:45	298	1114	316	1166	2280			
04:00			26	27	16:00			269	290							
04:15			24	39	16:15			286	275							
04:30			32	68	16:30			281	315							
04:45			33	115	50	184	299	16:45	335	1171	309	1189	2360			
05:00			44	77	17:00			283	305							
05:15			52	102	17:15			296	312							
05:30			59	126	17:30			275	331							
05:45			85	240	127	432	672	17:45	245	1099	327	1275	2374			
06:00			102	157	18:00			270	252							
06:15			111	214	18:15			259	249							
06:30			90	285	18:30			241	294							
06:45			134	437	293	949	1386	18:45	261	1031	236	1031	2062			
07:00			148	277	19:00			299	258							
07:15			143	266	19:15			263	227							
07:30			166	325	19:30			250	175							
07:45			167	624	259	1127	1751	19:45	264	1076	211	871	1947			
08:00			146	240	20:00			262	186							
08:15			162	261	20:15			259	195							
08:30			156	288	20:30			245	175							
08:45			189	653	308	1097	1750	20:45	258	1024	204	760	1784			
09:00			160	212	21:00			261	167							
09:15			176	212	21:15			280	178							
09:30			172	203	21:30			275	166							
09:45			182	690	234	861	1551	21:45	221	1037	148	659	1696			
10:00			177	202	22:00			209	131							
10:15			214	216	22:15			194	109							
10:30			191	240	22:30			190	96							
10:45			185	767	236	894	1661	22:45	175	768	107	443	1211			
11:00			198	188	23:00			152	78							
11:15			230	200	23:15			128	66							
11:30			215	236	23:30			117	75							
11:45			204	847	207	831	1678	23:45	123	520	58	277	797			
Total Vol.			5181	6734	11915				11804	10716	22520					
												Dayly Totals				
												NB	SB	EB	WB	Combined
														16985	17450	34435
												AM		PM		
Split %			43.5%	56.5%	34.6%					52.4%	47.6%	65.4%				
Peak Hour			11:45	06:45	11:45					16:30	17:00	16:45				
Volume			855	1161	1801					1195	1275	2446				
P.H.F.			0.95	0.89	0.94					0.89	0.96	0.95				

41

THURSDAY - JULY 19, 2018					CITY: CITY HEIGHTS					PROJECT: PTD18-0728-03				
FAIRMOUNT AVE - HOME AVE TO FEDERAL BLVD														
AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB					
00:00	10	16			12:00	60								
00:15	5	20			12:15	69								
00:30	6	11			12:30	73								
00:45	6	28	10	57	12:45	55	257			257				
01:00	8	10			13:00	66								
01:15	4	7			13:15	87								
01:30	7	10			13:30	81								
01:45	7	26	5	32	13:45	99	293			293				
02:00	2	11			14:00	62								
02:15	7	9			14:15	56								
02:30	8	3			14:30	73								
02:45	1	18	5	28	14:45	68	259			259				
03:00	2	11			15:00	74								
03:15	4	8			15:15	65								
03:30	5	5			15:30	78								
03:45	1	12	7	31	15:45	92	309			309				
04:00	7	8			16:00	100								
04:15	10	8			16:15	74								
04:30	14	10			16:30	86								
04:45	12	43	9	35	16:45	58	318			318				
05:00	17	15			17:00	71								
05:15	19	16			17:15	71								
05:30	37	14			17:30	67								
05:45	30	103	21	66	17:45	71	280			280				
06:00	59	31			18:00	58								
06:15	87	15			18:15	56								
06:30	127	30			18:30	69								
06:45	126	299	54	130	18:45	63	246			246				
07:00	135	45			19:00	59								
07:15	146	58			19:15	50								
07:30	108	57			19:30	36								
07:45	102	491	48	208	19:45	54	199			199				
08:00	100	44			20:00	46								
08:15	99	58			20:15	48								
08:30	84	48			20:30	31								
08:45	77	360	57	207	20:45	55	180			180				
09:00	56	49			21:00	42								
09:15	59	68			21:15	35								
09:30	51	49			21:30	43								
09:45	48	214	55	221	21:45	35	155			155				
10:00	60	44			22:00	27								
10:15	61	65			22:15	30								
10:30	72	78			22:30	17								
10:45	63	256	62	249	22:45	25	99			99				
11:00	52	67			23:00	16								
11:15	56	57			23:15	19								
11:30	70	71			23:30	18								
11:45	55	233	59	254	23:45	13	66			66				
Total Vol.	2182	1518		3700		2661				2661				
										Daily Totals				
										NB	SB	EB	WB	Combined
										4843				6361
										PM				
Split %	59.0%	41.0%		58.2%		100.0%				41.6%				
Peak Hour	06:30	10:15		06:45		15:45				15:45				
Volume	534	272		729		352				352				
P.H.F.	6.91	6.87		6.89		0.85				0.88				

PACIFIC TECHNICAL DATA

THURSDAY - JULY 19, 2018					CITY: CITY HEIGHTS					PROJECT: PTD18-0728-03				
HOME AVE - FAIRMOUNT AVE TO EUCLID AVE														
AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB					
00:00			46	25	12:00			108	132					
00:15			46	17	12:15			109	130					
00:30			50	22	12:30			125	118					
00:45			28	170	12	06	256	134	476	134	506	982		
01:00			39	17	13:00			128	111					
01:15			29	15	13:15			130	120					
01:30			18	14	13:30			135	136					
01:45			27	113	18	64	177	131	544	134	501	1045		
02:00			24	7	14:00			159	143					
02:15			19	10	14:15			154	138					
02:30			16	14	14:30			190	140					
02:45			13	72	6	37	109	180	683	153	574	1257		
03:00			15	17	15:00			148	143					
03:15			14	15	15:15			174	141					
03:30			14	19	15:30			181	175					
03:45			12	95	22	73	128	182	686	148	607	1293		
04:00			8	18	16:00			175	153					
04:15			14	27	16:15			160	155					
04:30			16	53	16:30			171	169					
04:45			16	54	36	134	188	210	716	171	648	1364		
05:00			18	58	17:00			177	173					
05:15			26	83	17:15			170	162					
05:30			26	101	17:30			152	166					
05:45			33	103	116	358	461	160	659	146	647	1306		
06:00			46	102	18:00			159	149					
06:15			61	122	18:15			154	158					
06:30			56	141	18:30			161	171					
06:45			72	235	154	519	754	164	638	122	592	1220		
07:00			81	144	19:00			175	153					
07:15			87	142	19:15			176	138					
07:30			107	186	19:30			144	112					
07:45			93	368	129	601	969	153	648	114	517	1165		
08:00			79	134	20:00			165	103					
08:15			91	147	20:15			142	109					
08:30			97	151	20:30			139	122					
08:45			116	383	173	605	988	156	602	104	438	1040		
09:00			89	124	21:00			146	91					
09:15			106	118	21:15			163	117					
09:30			95	124	21:30			165	88					
09:45			97	389	164	530	919	137	611	85	381	992		
10:00			94	105	22:00			127	84					
10:15			124	119	22:15			119	55					
10:30			110	123	22:30			102	67					
10:45			106	434	137	484	918	95	443	62	268	711		
11:00			108	105	23:00			91	50					
11:15			122	111	23:15			65	31					
11:30			110	123	23:30			51	43					
11:45			127	467	121	460	927	67	274	35	159	433		
Total Vol.			2843	3951	6794				6980	5838	12818			
Daily Totals														
NB SB EB WB Combined														
9823 9789 19612														
AM PM														
Split % 41.8% 58.2% 34.6% 54.5% 45.5% 65.4%														
Peak Hour 11:45 05:45 08:00 16:30 16:30 16:30														
Volume 469 626 988 728 675 1403														
P.H.F. 0.92 0.84 0.85 0.87 0.96 0.92														

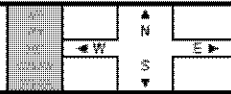
PACIFIC TECHNICAL DATA

INTERSECTION TURNING MOVEMENT COUNTS

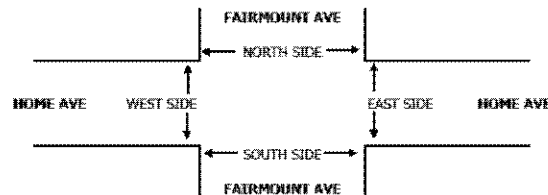
PREPARED BY: PACIFIC TECHNICAL DATA

DATE: 7/19/18 THURSDAY
LOCATION: CITY HEIGHTS
NORTH & SOUTH: FAIRMOUNT AVE
EAST & WEST: HOME AVE
PROJECT #: PTD18-0720-03
LOCATION #: 1
CONTROL: SIGNAL

NOTES:
INCLUDES BIKE AND PED



	NORTHBOUND FAIRMOUNT AVE			SOUTHBOUND FAIRMOUNT AVE			EASTBOUND HOME AVE			WESTBOUND HOME AVE			TOTAL	U-TURNS				
	LN	LT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR		NB X	SB X	EB X	WB X	TTL
7:00 AM	45	88	14	13	22	94	57	60	18	11	117	16	533			18	2	20
7:15 AM	38	101	16	12	36	115	60	59	12	7	104	27	587			12	1	13
7:30 AM	26	66	13	24	23	123	53	68	12	20	154	25	607			26	1	27
7:45 AM	38	56	14	5	22	92	51	74	22	3	115	10	562			11	4	15
8:00 AM	27	65	8	7	33	89	55	67	7	4	110	12	484			13	2	15
8:15 AM	26	53	7	12	31	91	70	74	17	5	139	6	531			7	2	9
8:30 AM	31	47	13	5	29	113	59	69	15	10	131	14	536			11	7	18
8:45 AM	28	33	17	15	30	120	62	90	18	5	152	17	587			11	2	13
VOLUMES	259	501	102	93	226	837	467	561	113	65	1,022	121	4,367	0	0	109	21	130
APPROACH %	30%	58%	12%	8%	20%	72%	41%	49%	10%	5%	85%	10%						
APPRODEPART	862	/	1,089	1,156	/	404	1,141	/	756	1,208	/	2,118	0					
BEGIN PEAK HR	7:00 AM																	
VOLUMES	147	363	57	54	103	424	221	261	56	41	490	72	2,229					
APPROACH %	29%	60%	11%	9%	18%	73%	41%	49%	10%	7%	81%	12%						
PEAK HR FACTOR	0.818																	
APPRODEPART	507	/	596	581	/	200	558	/	372	603	/	1,061	0					
4:00 PM	20	52	19	15	65	138	87	144	23	13	115	12	723			18	1	19
4:15 PM	18	41	14	9	57	123	102	152	29	23	123	15	746			8	1	9
4:30 PM	21	38	12	13	107	137	83	134	37	21	146	11	760			13	3	16
4:45 PM	14	21	9	16	65	141	96	200	34	21	144	12	773			12	3	15
5:00 PM	14	37	13	13	111	139	91	156	37	15	135	16	777			12	3	15
5:15 PM	23	39	9	10	102	158	109	138	37	13	128	18	799			8		8
5:30 PM	24	38	9	17	94	163	106	135	24	15	136	12	773			7	4	11
5:45 PM	22	35	13	18	96	188	73	132	13	14	104	13	721			16	3	19
VOLUMES	156	301	98	111	757	1,167	742	1,211	234	135	1,031	109	6,072	0	0	94	18	112
APPROACH %	28%	54%	18%	5%	37%	58%	34%	53%	11%	11%	81%	9%						
APPRODEPART	555	/	1,152	2,055	/	1,126	2,187	/	1,420	1,275	/	2,374	0					
BEGIN PEAK HR	4:45 PM																	
VOLUMES	75	135	40	56	372	601	397	549	132	64	543	58	3,122					
APPROACH %	30%	54%	16%	5%	36%	58%	34%	55%	11%	10%	82%	9%						
PEAK HR FACTOR	0.880																	
APPRODEPART	250	/	590	1,029	/	568	1,178	/	745	665	/	1,219	0					



		PEDESTRIAN CROSSINGS			
		N SIDE	S SIDE	E SIDE	W SIDE
7:00 AM	AM	2			
7:15 AM		4			3
7:30 AM		1	2	1	
7:45 AM		1	2	1	
8:00 AM		1	2		1
8:15 AM			3		1
8:30 AM			5		
8:45 AM			3	1	
TOTAL		3	23	3	5
4:00 PM	PM				1
4:15 PM		2	2	2	
4:30 PM			1		2
4:45 PM		1	3	1	
5:00 PM			2		1
5:15 PM			1		
5:30 PM			2		1
5:45 PM					1
TOTAL		3	11	3	5

		PEDESTRIAN ACTIVATIONS			
		N SIDE	S SIDE	E SIDE	W SIDE
7:00 AM	AM				
7:15 AM					
7:30 AM					
7:45 AM					
8:00 AM					
8:15 AM					
8:30 AM					
8:45 AM					
TOTAL		0	0	0	0
4:00 PM	PM				
4:15 PM					
4:30 PM					
4:45 PM					
5:00 PM					
5:15 PM					
5:30 PM					
5:45 PM					
TOTAL		0	0	0	0

		BICYCLE CROSSINGS			
		N SIDE	S SIDE	E SIDE	W SIDE
7:00 AM	AM				
7:15 AM					
7:30 AM					
7:45 AM					
8:00 AM					
8:15 AM					
8:30 AM					
8:45 AM					
TOTAL		0	0	0	0
4:00 PM	PM				
4:15 PM					
4:30 PM					
4:45 PM					
5:00 PM					
5:15 PM					
5:30 PM					
5:45 PM					
TOTAL		0	0	0	0

		BICYCLE ACTIVATIONS			
		N SIDE	S SIDE	E SIDE	W SIDE
7:00 AM	AM				
7:15 AM					
7:30 AM					
7:45 AM					
8:00 AM					
8:15 AM					
8:30 AM					
8:45 AM					
TOTAL		0	0	0	0
4:00 PM	PM				
4:15 PM					
4:30 PM					
4:45 PM					
5:00 PM					
5:15 PM					
5:30 PM					
5:45 PM					
TOTAL		0	0	0	0

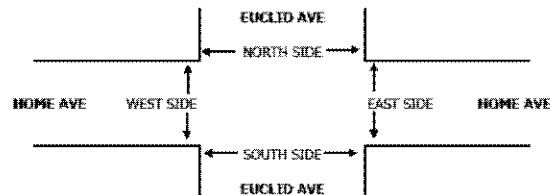
INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: PACIFIC TECHNICAL DATA

DATE: 7/19/18 THURSDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	CITY HEIGHTS EUCLID AVE HOME AVE	PROJECT #: LOCATION #: CONTROL:	PTD18-0720-03 2 SIGNAL
------------------------------	---	--	---------------------------------------	------------------------------

NOTES:	
--------	--

LANES:	NORTHBOUND EUCLID AVE			SOUTHBOUND EUCLID AVE			EASTBOUND HOME AVE			WESTBOUND HOME AVE			TOTAL	U-TURNS				
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR		NB X	SB X	EB X	WB X	TTL
7:00 AM	45	0	80					52	28	16	54		271					0
7:15 AM	50	0	95					53	35	31	62		326					0
7:30 AM	56	0	95					58	32	30	81		352					0
7:45 AM	55	1	88					54	37	25	49		269					0
8:00 AM	65	0	58					35	26	15	33		234					0
8:15 AM	39	0	58					48	33	25	65		260					0
8:30 AM	63	0	52					59	31	24	79		308					0
8:45 AM	60	0	55					61	31	30	76		313					0
VOLUMES	417	1	561	0	0	0	0	420	245	196	521	0	2,361	0	0	0	0	0
APPROACH %	43%	0%	57%	0%	0%	0%	0%	63%	37%	27%	73%	0%						
APPRO/DEPART	979	/	1	0	/	441	665	/	981	717	/	938	0					
BEGIN PEAK HR	7:00 AM																	
VOLUMES	190	1	338	0	0	0	0	217	124	102	246	0	1,218					
APPROACH %	36%	0%	64%	0%	0%	0%	0%	64%	36%	29%	71%	0%						
PEAK HR FACTOR	0.876																	
APPRO/DEPART	525	/	1	0	/	226	351	/	555	348	/	436	0					
4:00 PM	50	0	47					52	58	54	80		381					0
4:15 PM	51	0	57					77	62	59	59		405					0
4:30 PM	45	0	42					53	41	58	56		387					0
4:45 PM	52	0	45					88	58	59	83		395					0
5:00 PM	54	0	44					105	50	58	86		407					0
5:15 PM	41	0	54					87	43	70	79		374					0
5:30 PM	45	0	42					89	48	46	106		376					0
5:45 PM	35	0	44					70	56	70	91		366					0
VOLUMES	373	0	375	0	0	0	0	701	416	504	722	0	3,091	0	0	1	0	1
APPROACH %	50%	0%	50%	0%	0%	0%	0%	63%	37%	41%	59%	0%						
APPRO/DEPART	748	/	0	0	/	920	1,117	/	1,076	1,226	/	1,095	0					
BEGIN PEAK HR	4:15 PM																	
VOLUMES	202	0	188	0	0	0	0	363	211	264	266	0	1,594					
APPROACH %	52%	0%	48%	0%	0%	0%	0%	63%	37%	42%	58%	0%						
PEAK HR FACTOR	0.903																	
APPRO/DEPART	390	/	0	0	/	475	574	/	551	630	/	568	0					



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

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
1	1			2
2	5			7
	2			2
2				2
1				1
2	1			3
		3		3
				0
8	9	0	3	20
3	1			4
3				3
	1			1
				0
2	1			3
1	2		1	4
1				1
1	1			2
TOTAL	11	6	1	18

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

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

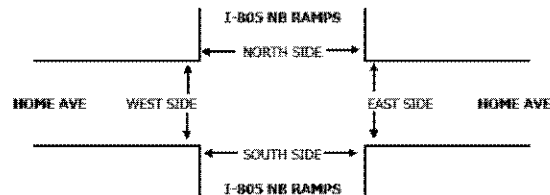
INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: PACIFIC TECHNICAL DATA

DATE: 7/19/18 THURSDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	CITY HEIGHTS I-805 NB RAMP HOME AVE	PROJECT #: LOCATION #: CONTROL:	PTD18-0720-03 3 SIGNAL
------------------------------	---	---	---------------------------------------	------------------------------

NOTES:	
INCLUDES BIKE AND PED	

	NORTHBOUND I-805 NB RAMP			SOUTHBOUND I-805 SB RAMP			EASTBOUND HOME AVE			WESTBOUND HOME AVE			TOTAL	U-TURNS				
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR		NB X	SB X	EB X	WB X	TTL
7:00 AM	14		50					64	38	90	173		439				14	14
7:15 AM	12		55					66	32	92	172		434				21	21
7:30 AM	14		51					76	43	90	235		509				13	13
7:45 AM	23		90					83	38	81	180		467				15	15
8:00 AM	14		58					84	50	69	166		440				8	8
8:15 AM	17		78					75	39	78	185		472				5	5
8:30 AM	21		69					73	42	90	203		488				12	12
8:45 AM	27		76					97	30	86	216		512				10	10
VOLUMES	142	0	557	0	0	0	0	618	384	610	1,530	0	3,761	0	0	0	98	98
APPROACH %	20%	0%	80%	0%	0%	0%	0%	67%	33%	29%	71%	0%						
APPROXIMATE	699	0	914	0	0	0	0	1,175	2,140	1,175	2,140	0	0					
BEGIN PEAK HR	6:00 AM																	
VOLUMES	79	0	281	0	0	0	0	329	161	292	770	0	1,912					
APPROACH %	23%	0%	78%	0%	0%	0%	0%	67%	33%	27%	73%	0%						
PEAK HR FACTOR	0.874		0.000					0.914		0.938			0.934					
APPROXIMATE	380	0	453	0	0	0	0	610	1,062	1,062	849	0	0					
4:00 PM	42		108					152	19	58	234		613				8	8
4:15 PM	38		132					176	30	46	209		633				17	17
4:30 PM	40		146					135	22	54	226		623				13	13
4:45 PM	26		141					160	29	51	235		662				17	17
5:00 PM	36		110					158	32	47	226		608				18	18
5:15 PM	52		136					169	22	47	251		677				15	15
5:30 PM	34		121					142	35	60	260		652				8	8
5:45 PM	27		115					156	22	46	284		650				14	14
VOLUMES	295	0	1,009	0	0	0	0	1,250	211	409	1,945	0	5,119	0	0	0	110	110
APPROACH %	23%	0%	77%	0%	0%	0%	0%	86%	14%	17%	83%	0%						
APPROXIMATE	1,304	0	620	0	0	0	0	2,290	2,354	2,354	2,240	0	0					
BEGIN PEAK HR	4:45 PM																	
VOLUMES	148	0	508	0	0	0	0	529	118	205	992	0	2,600					
APPROACH %	23%	0%	77%	0%	0%	0%	0%	84%	16%	17%	83%	0%						
PEAK HR FACTOR	0.872		0.000					0.978		0.935			0.960					
APPROXIMATE	656	0	323	0	0	0	0	747	1,137	1,137	1,140	0	0					



	PEDESTRIAN CROSSINGS				TOTAL	PEDESTRIAN ACTIVATIONS				TOTAL	BICYCLE CROSSINGS				TOTAL
	N SIDE	S SIDE	E SIDE	W SIDE		N SIDE	S SIDE	E SIDE	W SIDE		NS	SS	ES	WS	
7:00 AM	1				1					0					0
7:15 AM	1				1					0					0
7:30 AM					0					0					0
7:45 AM					0					0					0
8:00 AM	1				1					0	2				2
8:15 AM					0					0					0
8:30 AM					0					0					0
8:45 AM	1				1					0	1				1
TOTAL	0	4	0	0	4	0	0	0	0	0	0	3	0	0	3
4:00 PM					0					0					0
4:15 PM	1				1					0					0
4:30 PM					0					0					0
4:45 PM					0					0					0
5:00 PM					0					0					0
5:15 PM					0					0					0
5:30 PM	1				1					0					0
5:45 PM	1				1					0					0
TOTAL	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0

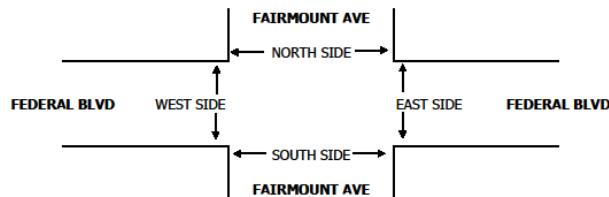
INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: PACIFIC TECHNICAL DATA

DATE: 7/19/18 THURSDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	CITY HEIGHTS FAIRMOUNT AVE FEDERAL BLVD	PROJECT #: LOCATION #: CONTROL:	PTD18-0720-03 4 SIGNAL
------------------------------	---	---	---------------------------------------	------------------------------

NOTES:	AM PM MD OTHER OTHER	▲ N ◀ W S ▶ E ▼
INCLUDES BIKE AND PED		

	NORTHBOUND FAIRMOUNT AVE			SOUTHBOUND FAIRMOUNT AVE			EASTBOUND FEDERAL BLVD			WESTBOUND FEDERAL BLVD			TOTAL	U-TURNS				
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR		NB	SB	EB	WB	TTL
7:00 AM	15	76	22	4	51	7	2	14	21	55	24	64	355					0
7:15 AM	23	71	20	12	45	5	4	10	14	32	36	52	324					0
7:30 AM	18	64	17	11	55	5	3	8	9	47	24	33	294					0
7:45 AM	14	39	17	14	29	6	4	4	2	42	25	44	240					0
8:00 AM	5	46	19	13	31	5	0	8	9	45	17	36	234					0
8:15 AM	4	50	18	16	38	2	4	8	22	37	22	32	253					0
8:30 AM	9	43	15	25	32	5	3	12	22	46	10	31	253					0
8:45 AM	5	32	21	10	44	2	1	18	20	43	15	23	234					0
VOLUMES	93	421	149	105	325	37	21	82	119	347	173	315	2,187					0
APPROACH %	14%	63%	22%	22%	70%	8%	9%	37%	54%	42%	21%	38%						0
APP/DEPART	663	/	757	467	/	791	222	/	336	835	/	303	0					0
BEGIN PEAK HR	7:00 AM																	
VOLUMES	70	250	76	41	180	23	13	36	46	176	109	193	1,213					0
APPROACH %	18%	63%	19%	17%	74%	9%	14%	38%	48%	37%	23%	40%						0
PEAK HR FACTOR	0.868																	
APP/DEPART	396	/	456	244	/	402	95	/	153	478	/	202	0					0
4:00 PM	2	49	43	28	92	0	9	34	42	77	14	28	418					0
4:15 PM	3	40	36	38	100	5	11	24	45	58	14	27	401					0
4:30 PM	9	38	42	31	98	13	7	29	50	69	18	23	427					0
4:45 PM	11	24	33	35	105	4	10	38	54	59	15	18	406					0
5:00 PM	3	35	33	27	126	7	8	22	56	64	14	25	420					0
5:15 PM	8	31	29	31	98	4	11	22	48	70	20	25	397					0
5:30 PM	2	29	42	33	103	6	7	26	40	44	14	27	373					0
5:45 PM	3	37	39	33	110	3	8	36	45	72	14	23	423					0
VOLUMES	41	283	297	256	832	42	71	231	380	513	123	196	3,265					0
APPROACH %	7%	46%	48%	23%	74%	4%	10%	34%	56%	62%	15%	24%						0
APP/DEPART	621	/	550	1,130	/	1,725	682	/	784	832	/	206	0					0
BEGIN PEAK HR	4:15 PM																	
VOLUMES	26	137	144	131	429	29	36	113	205	250	61	93	1,654					0
APPROACH %	8%	45%	47%	22%	73%	5%	10%	32%	58%	62%	15%	23%						0
PEAK HR FACTOR	0.862																	
APP/DEPART	307	/	266	589	/	884	354	/	388	404	/	116	0					0



	PEDESTRIAN CROSSINGS					PEDESTRIAN ACTIVATIONS					BICYCLE CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
7:00 AM		1			1					0					0
7:15 AM	1		4	1	6					0					0
7:30 AM	2		4	1	7					0					0
7:45 AM					0					0					0
8:00 AM	1	1	1	2	5					0					0
8:15 AM			1	1	2					0					0
8:30 AM		1	1	1	3					0	1				1
8:45 AM			6		6					0					0
TOTAL	4	3	16	6	29	0	0	0	0	0	0	1	0	2	3
4:00 PM					0					0					0
4:15 PM					0					0					0
4:30 PM	2		2	1	5					0					0
4:45 PM	1	3	5	1	10					0					0
5:00 PM	2	2	1	2	7					0					0
5:15 PM		1	3	1	5					0					0
5:30 PM		1			1					0					0
5:45 PM	1		1		2					0					0
TOTAL	6	7	12	5	30	0	0	0	0	0	0	0	1	2	3

City of San Diego

INTERSECTION: 47TH ST @ FEDERAL BL

223 Program

Row	Time	Function	Day of Week	Column F
0	:	:	:	Phases/Bits
1	:	:	:	
2	:	:	:	
3	:	:	:	
4	:	:	:	
5	:	:	:	
6	:	:	:	
7	:	:	:	
8	:	:	:	
9	:	:	:	
A	:	:	:	
B	:	:	:	
C	:	:	:	
D	:	:	:	
E	:	:	:	
F	:	:	:	

TOD Function

T + ROW

<D Page>

D + F + ROW

Row		E
0	Exclusive Phases	
1	RR-1 Clear Phases	
2	RR-2 Clear Phases	
3	RR-2 Limited Service	
4	Prot / Perm Phases	
5	Overlap A - Green Onlt	
6	Overlap B - Green Onlt	
7	Overlap C - Green Onlt	
8	Overlap D - Green Onlt	
9	Overlap Yellow Flash	
A	EV-A Phases	2 5
B	EV-B Phases	4 7
C	EV-C Phases	1 6
D	EV-D Phases	3 8
E	Extra 1 Config. Bits	1 345
F	IC Select (Interconnect)	2

Configuration

E + E + ROW

For access, set F + 9 + E = 1

3.4.3.3 Functions
 0 = Permitted Phases
 1 = Roll Lock
 2 = Yellow Lock
 3 = Vch Min Recall
 4 = Ped Recall
 5 =
 6 = Roll in Walk
 7 = Ped Recall
 8 = Double Entry
 9 = Vch Max Recall
 A = Vch Soft Recall
 B = Maximum Z
 C = Conditional Service
 D = Free Lag Phases
 E = Bit 1 - Local Override
 Bt 2 - Phase Bank 2
 Bt 3 - Phase Bank 3
 Bt 4 - Disable Detector
 OFF Monitor
 Bt 7 - Detector Count Monitor
 Bt 8 - Real Time Split Monitor
 F = Output Bits 1 thru 8

Day of Week

1 = Sunday
 2 = Monday
 3 = Tuesday
 4 = Wednesday
 5 = Thursday
 6 = Friday
 7 = Saturday

Time and Date

8-0 Hour, Minute, Day-of-Week
 8-1 Day-of-Month, Year, Month
 8-F Seconds

Program Information

C = C + Q = program
 C = C + F = version

Row		F
0		
1	RR Overlap A - Phases	
2	RR Overlap B - Phases	
3	RR Overlap C - Phases	
4	RR Overlap D - Phases	
5	Pad 2P	2
6	Pad 6P	6
7	Pad 4P	4
8	Pad 8P	8
9	Yellow Flash Phases	
A	Overlap A - Phases	
B	Overlap B - Phases	
C	Overlap C - Phases	
D	Overlap D - Phases	
E	Restricted Phases	
F	Assign 5 Outputs	

Configuration

E + F + ROW

<E Page>

Assign 5 Outputs

1 = Right Turn Overlay
 2 = TOD Outputs
 3 = EV Beacon - Steady
 4 = EV Beacon - Flashing
 5 = Special Event Outputs
 6 = Phase 3 & 7 Ped
 7 = Advanced Warning Sign
 8 =

Disable Parity

0 0+0+0
 Dial-Up Telephone Communications
 (If set to a non-zero value, parity will be disabled)

Remote Download

C + Q + 4 = 1-255
 w/ E + E + E bit 5 on

INTERSECTION: 47TH ST @ FEDERAL BL

223 Program

Row	1 Delay	3 Carry-over	Detector Name	332 Input File	Detector Number
0				111	14
1		1.8		212U	1
2				212L	5
3				213U	21
4				213L	25
5				214	9
6				315	16
7		1.8		416U	3
8				416L	7
9				417U	23
A				417L	27
B				418	11
C				119U	18
D				319L	20
E	---	---	---	---	---
F	---	---	---	---	---

Row	2 Delay	4 Carry-over	Detector Name	332 Input File	Detector Number
0				5J1	13
1		1.8		6J2U	2
2				6J2L	6
3				6J3U	22
4				6J3L	26
5				6J4	10
6				7J5	15
7		1.8		8J6U	4
8				8J6L	8
9				8J7U	24
A				8J7L	28
B				8J8	12
C				5J9U	17
D				7J9L	19
E	---	---	---	---	---
F	---	---	---	---	---

Detector Delay & Carryover <D Page>

D + X (across) + ROW

Row	Detector Numbers	E
A	1 2 3 4 5 6 7 8	12345678
B	9 10 11 12 -- -- --	1234
C	13 14 15 16 17 18 19 20	12345678
D	-- -- -- -- 21 22 23 24	5678
E	-- -- -- -- -- -- --	1234
F	-- 25 26 27 28 -- -- --	2345

Active Detectors <D Page>

Row	0 Detector #
0	
1	System Det. # 1
2	System Det. # 2
3	System Det. # 3
4	System Det. # 4
5	System Det. # 5
6	System Det. # 6
7	System Det. # 7
8	System Det. # 8

System Detectors <D Page>

Max ON (min)	5	D+A+E
Max OFF (min)	60	D+A+F

Detector Failure Monitor

Phase Number		F+C+1
Time Before Yellow		F+C+3

Advance Warning Beacon - Sign 1

Phase Number		F+D+1
Time Before Yellow		F+D+3

Advance Warning Beacon - Sign 2

Long Failure	0.5	F+D+6
Short Failure	0.5	F+D+7

Power Cycle Correction (Default = 0.5)

INTERSECTION: EUCLID AV @ HOME AV 233 Pro m

Group Assignment: N/S Street: EUCLID AV/HOME AV
Field Master Assignment: E/W Street: HOME AV
System Reference Number: Last Database Change:

Timing sheets by: EFF
Approved by: EFF
Timing implemented on: 6/21/2006

		HOME								EUCLID								HOME							
		Phase								Phase								Phase							
		1								2								3							
		4								5								6							
		7								8								9							
0	Ped Walk																								
1	Ped FDW																								
2	Min Green	4								10								10							
3	Type 3 Disconnect																								
4	Added per Vehicle																								
5	Veh Extension	2.0								4.4								3.2							
6	Max Gap	2.0								4.4								3.2							
7	Min Gap	2.0								0.2								0.2							
8	Max Limit	30								50								50							
9	Max Limit 2																								
A	Adv. / Delay Walk																	7							
B	PE Min Ped FDW																								
C	Cond Serv Check																								
D	Reduce Every									0.7								1.0							
E	Yellow Change	3.4								4.2								4.5							
F	Red Clear	1.0								1.0								1.0							

Phase Timing - Bank 1 <F/1+Phase+Row>

Current Calculated Cycle Length: C/0 + B + F

	S	A	B	C	D
Phase 1					
Phase 2					
Phase 3					
Phase 4					
Phase 5					
Phase 6					
Phase 7					
Phase 8					
Max Initial					
Alternate Walk					
Alternate FDW					
Alternate Initial					
Alternate Extension					
Alternate Timing	<F/1+Column+Phase>				
Free Lag	2	6	8	<C/1+F+0>	

How to Set Page Access Code:
F/1 - C + 0 + F = 1

Drop Number <C/0+0+0>
Zone Number <C/0+0+1>
Area Number <C/0+0+2>
Area Address <C/0+0+3>
QuickNet Channel (Dig) (QuickNet)

Communication Addresses

Flash Start 0 <F/1+0+E>
Red Revert 5.0 <F/1+0+F>
All Red Start 0.0 <F/1+C+0>
Start / Revert Times

Notes: LPI on Phase 8.
3.5 fps Ped Walking Speed due to Audible Signals.

Manual Plan 14 <C/0+A+1>
Manual Offset 0 <C/0+B+1>
Manual Selection

Phase Functions <F/1+F+Row>

	12	6	8
RR-1 Delay			
RR-1 Clear			
EV-A Delay	0		
EV-A Clear	0		
EV-B Delay			
EV-B Clear			
EV-C Delay	0		
EV-C Clear	0		
EV-D Delay	0		
EV-D Clear	0		
RR-2 Delay			
RR-2 Clear			
View EV Delay	--		
View EV Clear	--		
View RR Delay	--		
View RR Clear	--		

Manual Plan 14 <C/0+A+1>
Manual Offset 0 <C/0+B+1>
Manual Selection

Manual Plan 14 <C/0+A+1>
Manual Offset 0 <C/0+B+1>
Manual Selection

INTERSECTION: EUCLID AV @ HOME AV

233 Program

		Overlap									
		1	2	3	4	5	6	7	8		
Row										Row	
0	Load Switch Number									Fast Green Flash Phase	0
1	Veh Set 1 - Phases									Green Flash Phases	1
2	Veh Set 2 - Phases									Flashing Walk Phases	2
3	Veh Set 3 - Phases									Guaranteed Passage	3
4	Neg Veh Phases									Simultaneous Gap Term	4
5	Neg Ped Phases									Sequential Timing	5
6	Green Omit Phases									Advance Walk Phases	6
7	Green Clear Omit Phs.									Delay Walk Phases	7
8										External Recall	8
9										Start-up Overlap Green	9
A										Max Extension	A
B										Inhibit Ped Reserve	B
C										Semi-Actuated	C
D	Green Clear									Start-up Overlap Yellow	D
E	Yellow Change									Start-up Vehicle Calls	E
F	Red Clear									Start-up Ped Calls	F

Overlap Assignments <E/29+Column+Row>

Specials <F/2+F+Row>

Row		
0	Exclusive Phases	
1	RR-1 Clear Phases	
2	RR-2 Clear Phases	
3	RR-2 Limited Service	
4	Prot / Perm Phases	
5	Flash to PE Circuits	
6	Flash Entry Phases	
7	Disable Yellow Range	
8	Disable Ovp Yel Range	
9	Overlap Yellow Flash	
A	EV-A Phases	2
B	EV-B Phases	
C	EV-C Phases	1 6
D	EV-D Phases	8
E	Extra 1 Config. Bits	1 345
F	IC Select (Interconnect)	2

Configuration <E/125+E+Row>

- Extra 1 Flags
- 1 = TBC Type 1
 - 2 = NEMA Ext. Coord
 - 3 = Auto Daylight Savings
 - 4 = EV Advance
 - 5 = Extended Svc
 - 6 = International Ped
 - 7 = Flash - Clear Outputs
 - 8 = Split Ring
- IC Select Flags
- 1 = Modern
 - 2 = Slave
 - 3 = Flash / Free
 - 4 = Simplex Master
 - 5 = 7-Wire Master
 - 6 = Offset Interrupter

Row		
0	Ext. Permit 1 Phases	
1	Ext. Permit 2 Phases	
2	Exclusive Ped Assign	
3	Preempt Non-Lock	12345678
4	Ped for 2P Output	2
5	Ped for 6P Output	
6	Ped for 4P Output	
7	Ped for 8P Output	8
8	Yellow Flash Phases	
9	Low Priority A Phases	
A	Low Priority B Phases	
B	Low Priority C Phases	
C	Low Priority D Phases	
D	Restricted Phases	
E	Extra 2 Config. Bits	

Configuration <E/125+F+Row>

- Extra 2 Flags
- 1 = AWD During Initial
 - 2 = LNU Installed
 - 3 = Disable Min Walk
 - 4 = QuickNet System
 - 5 = Ignom IMP on FV
 - 6 = Reserved
 - 7 = Reserved
 - 8 =
- Flash to PE & PE Interlock
- 1 = EV A 5 = RR 1
 - 2 = EV B 6 = RR 2
 - 3 = EV C 7 = SE 1
 - 4 = EV D 8 = SE 2

Row		
0	EV-A	
1	EV-B	
2	EV-C	
3	EV-D	
4	RR-1 *	---
5	RR-2 *	---
6	SE-1	0
7	SE-2	0

<E/125+C+Row>

Preemption Priority
(* RR-1 is always Highest and RR-2 is always Second Highest)

Row		
0		
1		
2		
3		
4		
5		
6		
7		
8		
9		
A		
B		
C		
D		
E		
F		

Row		
0	Phase 1	0
1	Phase 2	0
2	Phase 3	0
3	Phase 4	0
4	Phase 5	0
5	Phase 6	0
6	Phase 7	0
7	Phase 8	0

Coordination Transition Minimums
<C/5+2+Row>

8-0 Hour, Minute, Day-of-Week
8-1 Day-of-Month, Year, Month
8-F Seconds

Time and Date

Begin Month	0	<C/5+2+A>
Begin Week	0	<C/5+2+B>
End Month	0	<C/5+2+C>
End Week	0	<C/5+2+D>

Daylight Savings Time

Daylight Savings Date
If set to all zeros, standard dates will be used.

Printed 11/2006 2:37 PM

Version RV2
Revision: Diego 1

Page 2

INTERSECTION: EUCLID AV @ HOME AV

233 Program

Row	Detector Name	C1 Pin Number	Attributes	Phase(s)	Assign	Delay	Carry-Over
0	111U						
1	111L						
2	212U						1.8
3	212L						
4	213U						
5	213L						
6	214						
7	315						
8	416U						
9	416L						
A	417U						
B	417L						
C							
D							
E							
F							

Program Type:

Ped / Phase / Overlap								Row
1	2	3	4	5	6	7	8	
Walk								0
Don't Walk								1
Phase Green								2
Phase Yellow								3
Phase Red								4
Overlap Green								5
Overlap Yellow								6
Overlap Red								7

Redirect Phase Outputs <E/127+Column+Row>

Cabinet Type 0

<E/125+D+0>

Enable Redirection

(Enable Redirection = 30)

Max OFF (minutes) 5 <D/0+0+1>

Max ON (minutes) 60 <D/0+0+2>

Detector Failure Monitor

Row	D
0	
1	Output Port 1
2	Output Port 2
3	Output Port 3
4	Output Port 4
5	Output Port 5
6	Output Port 6
7	Output Port 7

Dimming <E/125+D+Row>

Row	Detector Name	C1 Pin Number	Attributes	Phase(s)	Assign	Delay	Carry-Over
0							
1	6J2U						1.8
2	6J2L						
3	6J3U						
4	6J3L						
5	6J4						
6	7J5						
7	8J6U						10.0
8	8J6L						
9	8J7U						
A	8J7L						
B							
C							
D							
E							
F							

Detector Assignments <E/126+Column+Row>

<D/0+Column+Row>

Detector Attributes

- 1 = Full Time Delay
- 2 = Ped Call
- 3 =
- 4 = Count
- 5 = Extension
- 6 = Type 3
- 7 = Calling
- 8 = Alternate

Det. Assignments

- 1 = Det. Set 1
- 2 = Det. Set 2
- 3 = Det. Set 3
- 4 =
- 5 =
- 6 = Failure - Min Recall
- 7 = Failure - Max Recall
- 8 = Report on Failure

Number of Digits

- 1 st Digit
- 2 nd Digit
- 3 rd Digit
- 4 th Digit
- 5 th Digit
- 6 th Digit
- 7 th Digit
- 8 th Digit
- 9 th Digit
- 10 th Digit
- 11 th Digit
- 12 th Digit
- 13 th Digit
- 14 th Digit
- 15 th Digit

Dial-Back Telephone Number

Disable Alarms

- 1 = Stop Time
- 2 = Flash Sense
- 3 = Keyboard Entry
- 4 = Manual Plan
- 5 = Police Control
- 6 = External Alarm
- 7 = Detector Failure
- 8 =

Row	B
A	DELAY-A 0
B	DELAY-B 0
C	DELAY-C 0
D	DELAY-D 0
E	DELAY-E 0
F	DELAY-F 0

<D/0+B+Row> (seconds)

Delay Logic Times

Omit Alarm

<C/5+F+0>

Disable Alarm Reporting

Time 0 <C/5+C+0>

Redial Time (minutes)

(View Redial Timer at E/2+D+6)

INTERSECTION: EUCLID AV @ HOME AV

233 Program

Row	Time	Plan	Offset	Day of Week	Time	Plan	Offset	Day of Week	Phases/Bits	Row	Day	Year	Month	Holiday Type	Time	Plan	Offset	Holiday Type	Row	Time	Plan	Offset	Holiday Type
0										0									0				
1										1									1				
2										2									2				
3										3									3				
4										4									4				
5										5									5				
6										6									6				
7										7									7				
8										8									8				
9										9									9				
A										A									A				
B										B									B				
C										C									C				
D										D									D				
E										E									E				
F										F									F				

TOD Coordination <9/0.1+Row> (Bank 1)

TOD Function <7/0.1+Row>

Column 4 Phases/Bits <E/27+4+Row>

Holiday Dates <8/1.1+Row> (Bank 1)

Holiday Events <9/1.1+Row> (Bank 1)

TOD Coordination <9/0.2+Row> (Bank 2)

Holiday TOD Function <7/0.2+Row>

Column 4 Phases/Bits <E/28+Row>

Holiday Dates <8/1.2+Row> (Bank 2)

Holiday Events <9/1.2+Row> (Bank 2)

T.O.D. Functions:
 0 =
 1 = Red Lock
 2 = Yellow Lock
 3 = Veh Min Recall
 4 = Ped Recall
 5 =
 6 = Red Is Walk
 7 = Red Rest
 8 = Double Entry
 9 = Veh Max Recall
 A = Veh Soft Recall
 B = Maximum 2
 C = Conditional Service
 D = Free Lag Phases
 E = Set 1 - Local Override
 F =
 Bit 4 - Disable Detector
 Bit 5 - Detector Monitor
 Bit 6 - Detector Count
 Bit 7 - Real Time Split
 Bit 8 - Monitor
 Bit 9 - Output Bits 1 thru 8
 Plan Select:
 1 thru 9 = Coordination
 Plan 1 thru 9
 14 or E = Flood
 15 or F = Flash
 Month Select:
 1 = January
 2 = February
 3 = March
 4 = April
 5 = May
 6 = June
 7 = July
 8 = August
 9 = September
 A = October
 B = November
 C = December
 Cycle Timer:
 Master: C0 + A + 0
 Ring A: C0 + B + 0
 Ring B: C0 + D + 0
 Interval Total:
 Ring A: F0 + A + Interval
 Ring B: F0 + B + Interval
 Ring C: F0 + C + Interval
 Master Plan: C0 + A + 2
 Current Plan: C0 + A + 3
 TOD Plan: C0 + A + 5

Printed on 11/20/2018 2:37 PM

Version: 233 RV2
Revision: S - Diego 1

Page 4

INTERSECTION: EUCLID AV @ HOME AV

233 Project

Row	Column 9	Column A	Column B	Column C	Column D	Column E	Column F	Row
0	Spec. Funct. 1	NOT-3	Max 2	Pretimed	Set Monday	Dial 2 (7-Wire)	Sim Term	0
1	Spec. Funct. 2	NOT-4	System Det 1	Plan 1	Ext. Perm 1	Dial 3 (7-Wire)	EV-A	1
2	Spec. Funct. 3	OR-4 (a)	System Det 2	Plan 2	Ext. Perm 2	Offset 1 (7-Wire)	EV-B	2
3	Spec. Funct. 4	OR-4 (b)	System Det 3	Plan 3	Dimming	Offset 2 (7-Wire)	EV-C	3
4	NAND-3 (a)	OR-5 (a)	System Det 4	Plan 4	Set Clock	Offset 3 (7-Wire)	EV-D	4
5	NAND-3 (b)	OR-5 (b)	System Det 5	Plan 5	Stop Time	Free (7-Wire)	RR-1	5
6	NAND-4 (a)	OR-6 (a)	System Det 6	Plan 6	Flash Sense	Flash (7-Wire)	RR-2	6
7	NAND-4 (b)	OR-6 (b)	System Det 7	Plan 7	Manual Enable	Excl. Ped Omit	Spec. Event 1	7
8	OR-7 (a)	Fig 3 Diamond	System Det 8	Plan 8	Man. Advance	NOT-1	Spec. Event 2	8
9	OR-7 (b)	Fig 4 Diamond	Max Inhibit (nema)	Plan 9	External Alarm	NOT-2	External Lag	9
A	OR-7 (c)	AND-4 (a)	Force A (nema)	DELAY-A	Phase Bank 2	OR-1 (a)	AND-1 (a)	A
B	OR-7 (d)	AND-4 (b)	Force B (nema)	DELAY-B	Phase Bank 3	OR-1 (b)	AND-1 (b)	B
C	OR-8 (a)	NAND-1 (a)	C.N.A. (nema)	DELAY-C	Overlap Set 2	OR-2 (a)	AND-2 (a)	C
D	OR-8 (b)	NAND-1 (b)	Hold (nema)	DELAY-D	Overlap Set 3	OR-2 (b)	AND-2 (b)	D
E	OR-8 (c)	NAND-2 (a)	Max Recall	DELAY-E	Detector Set 2	OR-3 (a)	AND-3 (a)	E
F	OR-8 (d)	NAND-2 (b)	Min Recall	DELAY-F	Detector Set 3	OR-3 (b)	AND-3 (b)	F

Assignable Inputs

<E/126+Column+Row>

Row	Column 9	Column A	Column B	Column C	Column D	Column E	Column F	Row
0	Phase ON - 1	Preempt Fail	Flasher 0	Free	NOT-1	TOD Out 1	Dial 2 (7-Wire)	0
1	Phase ON - 2	Sp Evt Out 1	Flasher 1	Plan 1	OR-1	TOD Out 2	Dial 3 (7-Wire)	1
2	Phase ON - 3	Sp Evt Out 2	Fast Flasher	Plan 2	OR-2	TOD Out 3	Offset 1 (7-Wire)	2
3	Phase ON - 4	Sp Evt Out 3	Fig 3 Diamond	Plan 3	OR-3	TOD Out 4	Offset 2 (7-Wire)	3
4	Phase ON - 5	Sp Evt Out 4	Fig 4 Diamond	Plan 4	AND-1	TOD Out 5	Offset 3 (7-Wire)	4
5	Phase ON - 6	Sp Evt Out 5		Plan 5	AND-2	TOD Out 6	Free (7-Wire)	5
6	Phase ON - 7	Sp Evt Out 6		Plan 6	AND-3	TOD Out 7	Flash (7-Wire)	6
7	Phase ON - 8	Sp Evt Out 7		Plan 7	NOT-2	TOD Out 8	Preempt	7
8	Ph. Check - 1	Sp Evt Out 8	NOT-3	Plan 8	EV-A	Adv. Warn - 1	Low Priority A	8
9	Ph. Check - 2		NOT-4	Plan 9	EV-B	Adv. Warn - 2	Low Priority B	9
A	Ph. Check - 3	Detector Fail	OR-4	Spec. Funct. 3	EV-C	DELAY-A	Low Priority C	A
B	Ph. Check - 4	Spec. Funct. 1	OR-5	Spec. Funct. 4	EV-D	DELAY-B	Low Priority D	B
C	Ph. Check - 5	Spec. Funct. 2	OR-6	NAND-3	RR-1	DELAY-C		C
D	Ph. Check - 6	Central Control	AND-4	NAND-4	RR-2	DELAY-D		D
E	Ph. Check - 7	Excl. Ped DW	NAND-1	OR-7	Spec. Event 1	DELAY-E		E
F	Ph. Check - 8	Excl. Ped WK	NAND-2	OR-8	Spec. Event 2	DELAY-F		F

Assignable Outputs

<E/127+Column+Row>

INTERSECTION: FAIRMOUNT @ HOME

Group Assignment: NONE
Field Master Assignment: NONE

W/E Green Name: FAIRMOUNT
E/W Street Name: HOME

Timing Sheet By: *MAC*
Approved By: *MAC*

Lead Distance Change:
System Ref. Number:
Drawing Number: 20065-28-0
Timing Implemented On: 8/29/2002

Columns: 1 2 3 4 5 6 7 8

Phase: 1 2 3 4 5 6 7 8

Row	1	2	3	4	5	6	7	8
0 Ped Walk		7		7		7		7
1 Ped FDW		24 19		29 24		23 18		23 24
2 Min Green	4	10	4	7	27 4	10	4	7
3 Type 3 Limit								
4 Add Veh								
5 Veh Extn	2.0	4.6 3.9	2.0	4.3 4.9	2.0	3.9 3.4	2.0	4.1 6.3
6 Max Gap	2.0	4.6 3.9	2.0	4.3 4.9	2.0	3.9 3.4	2.0	4.1 6.3
7 Min Gap	2.0	0.2	2.0	0.2	2.0	0.2	2.0	0.2
8 Max Limit	30	40	30	40	30 50	50	30	40
9 Max Limit 2								
A Bus Adv								
B Call to Phs								
C Reduce By		0.1		0.1		0.1		0.1
D Every	1.0	0.7 0.8		0.7 0.6		2.8 0.9		0.8 0.5
E Yellow	3.4 3.0	3.9	3.4 3.0	4.4 5.5	3.4 3.0	4.3 4.2	3.4 3.0	5.5 4.3
F Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

Phase Timing - Bank 1
F + Phase + Row

Overlap Timing

Row	Green Clear	Yellow Change	Red Clear	Load-Switch #
Overlap A	A			
Overlap B	B			
Overlap C	C			
Overlap D	D			

Manual Plan: 14
Manual Offset: 0

Manual Selection:
Manual Plan: 0 = Automatic
1-9 = Plan 1-9
14 = Free
15 = Flash

Manual Offset:
0 = Automatic
1 = Offset A
2 = Offset B
3 = Offset C

Downtime Flash: 255 (minutes)
Downtime Before Auto Manual Flash: F + 0 + 8

Disable Ports: 234
Disable Communication Ports: D + 0 + 9

Printed on 8/15/02 2:48 PM

PAGE 1

City of San Diego

INTERSECTION: FAIRMOUNT @ HOME
223 Program

Row	Time	Function	Day of Week	Column F
0	:	:	:	:
1	:	:	:	:
2	:	:	:	:
3	:	:	:	:
4	:	:	:	:
5	:	:	:	:
6	:	:	:	:
7	:	:	:	:
8	:	:	:	:
9	:	:	:	:
A	:	:	:	:
B	:	:	:	:
C	:	:	:	:
D	:	:	:	:
E	:	:	:	:
F	:	:	:	:

TOD Function
7 + ROW

<D Page>
D + F + ROW

T.O.D. Excludes
 0 = Permitted Phases
 1 = Red Lock
 2 = Yellow Lock
 3 = Veh Min Recall
 4 = Ped Recall
 5 =
 6 = Red In Walk
 7 = Red Rast
 8 = Double Entry
 9 = Veh Max Recall
 A = Veh Soft Recall
 B = Maximum 2
 C = Conditional Service
 D = Free Lag Phases
 E = Bit 1 - Local Override
 BR 2 = Phase Bank 2
 BR 3 = Phase Bank 3
 BR 4 = Disable Defector
 OFF Monitor
 BR 7 = Defector Count Monitor
 Bit 5 = Real Time Split Monitor
 F = Output Bits 1 thru 4

Day of Week
 1 = Sunday
 2 = Monday
 3 = Tuesday
 4 = Wednesday
 5 = Thursday
 6 = Friday
 7 = Saturday

Assign 5 Outputs
 1 = Right Turn Overlay
 2 = TOD Overlay
 3 = EV Beacon - Steady
 4 = EV Beacon - Flashing
 5 = Special Event Outputs
 6 = Phase 3 & 7 Ped
 7 = Advanced Warning Sign
 8 =

IC Select Flags
 1 =
 2 = Modern
 3 = 7-Wire Slave
 4 = Flash / Free
 5 =
 6 = Simplex Master
 7 = 7-Wire Master
 8 = Offset Interruptor

Time and Date
 8-0 Hour, Minute, Day-of-Week
 8-1 Day-of-Month, Year, Month
 8-F Seconds

Program Information
 C + C + 0 = program
 C + C + F = version

Remote Download
 C + 0 + 4 = 1-255
 w/ E + E + E bit 5 on

Disable Parity 0=0=0
Dial-Up Telephone Communications
 (if set to a non-zero value, parity will be disabled)

Row	Time	Function	Day of Week	Column E
0	:	:	:	:
1	:	:	:	:
2	:	:	:	:
3	:	:	:	:
4	:	:	:	:
5	:	:	:	:
6	:	:	:	:
7	:	:	:	:
8	:	:	:	:
9	:	:	:	:
A	:	:	:	:
B	:	:	:	:
C	:	:	:	:
D	:	:	:	:
E	:	:	:	:
F	:	:	:	:

Configuration
E + E + ROW

IC Select Flags
 1 =
 2 = Modern
 3 = 7-Wire Slave
 4 = Flash / Free
 5 =
 6 = Simplex Master
 7 = 7-Wire Master
 8 = Offset Interruptor

Time and Date
 8-0 Hour, Minute, Day-of-Week
 8-1 Day-of-Month, Year, Month
 8-F Seconds

Program Information
 C + C + 0 = program
 C + C + F = version

Remote Download
 C + 0 + 4 = 1-255
 w/ E + E + E bit 5 on

Disable Parity 0=0=0
Dial-Up Telephone Communications
 (if set to a non-zero value, parity will be disabled)

For access, set F + 9 + E = 1

Print: 11/22 9:49 AM

AGE 2

of San Diego

INTERSECTION: FAIRMOUNT @ HOME

223 Program

Row	1 Delay	3 Carry-over	Detector Name	332 Input File	Detector Number
0				111	14
1		1.8		212U	1
2				212L	5
3				213U	21
4				213L	25
5				214	9
6				315	16
7		1.8		416U	3
8				416L	7
9				417U	23
A				417L	27
B				418	11
C				119U	18
D				319L	20
E	---	---	---	---	---
F	---	---	---	---	---

Row	Detector Numbers	E
A	1 2 3 4 5 6 7 8	12345678
B	9 10 11 12 - - - -	1234
C	13 14 15 16 17 18 19 20	12345678
D	- - - - 21 22 23 24	5678
E	- - - - - - - -	1234
F	- 25 26 27 28 - - -	2345

Active Detectors <D Page>

Row	2 Delay	4 Carry-over	Detector Name	332 Input File	Detector Number
0				511	13
1		1.8		612U	2
2				612L	6
3				613U	22
4				613L	26
5				614	10
6				715	15
7		1.8		816U	4
8				816L	8
9		1.8		817U	24
A	10.0			817L	28
B				818	12
C				519U	17
D				719L	19
E	---	---	---	---	---
F	---	---	---	---	---

Row	Detector #
0	
1	System Det. # 1
2	System Det. # 2
3	System Det. # 3
4	System Det. # 4
5	System Det. # 5
6	System Det. # 6
7	System Det. # 7
8	System Det. # 8

System Detectors <U Page>

Max ON (min)	5	D+A+E
Max OFF (min)	60	D+A+F

Detector Failure Monitor

Phase Number		F+C+1
Time Before Yellow		F+C+3

Advance Warning Beacon - Sign 1

Phase Number		F+D+1
Time Before Yellow		F+D+3

Advance Warning Beacon - Sign 2

Long Failure	0.5	F+C+6
Short Failure	0.5	F+C+7

Power Cycle Correction (Default = 0.5)

Detector Delay & Carryover <D Page>

D + X (across) + ROW

Printed on 8/20/22 10:20 AM

PAGE 3

City of San Diego

Attachment 8

Existing Street Segment LOS

Road	Segment	Standard	# of Ln.	Class.	Cap.	Volume	V/C	LOS
Home Avenue	I-805 NB Ramps - Fairmount Avenue	SD	4	4-M	40,000	34,435	0.86	D
Fairmount Avenue / 47th Street	Home Avenue - Federal Boulevard	SD	4	4-C	30,000	6,361	0.21	A
Home Avenue	Fairmount Avenue - Euclid Avenue	SD	2	2-Ca	15,000	19,612	1.31	F

Legend:

Class. = Functional Class

Cap. = Capacity

LOS = Level of Service

2-Ca = 2 Lane Collector (w/continuous left-turn lane)

4-M = 4 Lane Major Arterial

Attachment 9

Existing Street Segment ADT



Legend



= Project Location



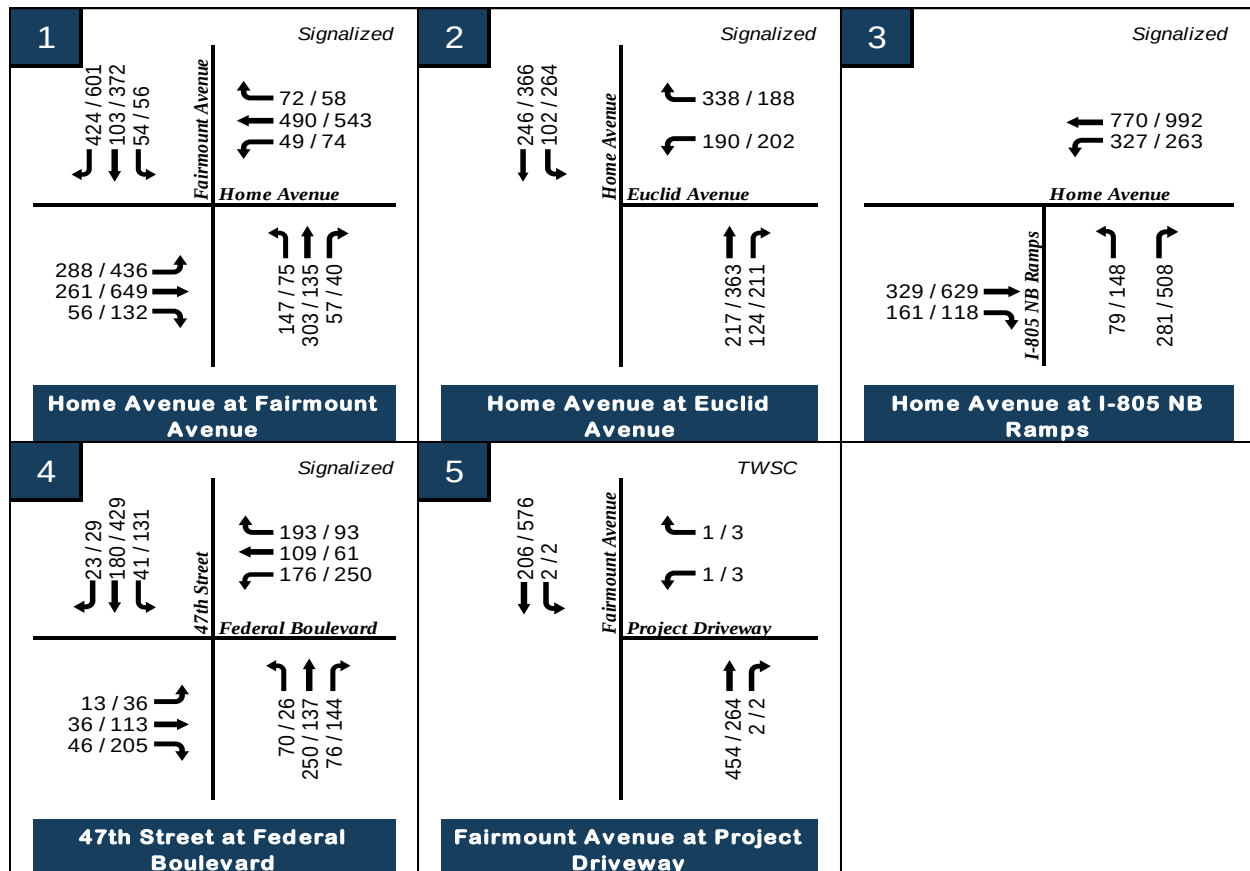
= Studied Intersection Location

XX,XXX = ADT Number



Attachment 10

Existing Peak Hour Traffic Volumes



XX / XX = AM / PM Peak hour volumes

TWSC = Two-Way Stop Controlled

Attachment 11

Existing Intersection Peak Hour LOS

Number	Intersection	Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	Home Avenue at Fairmount Avenue	Signalized	31.5	C	43.0	D
2	Home Avenue at Euclid Avenue	Signalized	18.2	B	19.1	B
3	Home Avenue at I-805 NB Ramps	Signalized	15.8	B	20.9	C
4	47th Street at Federal Boulevard	Signalized	30.6	C	32.8	C
5	Fairmount Avenue at Project Driveway	TWSC	11.7	B	11.3	B

Notes:

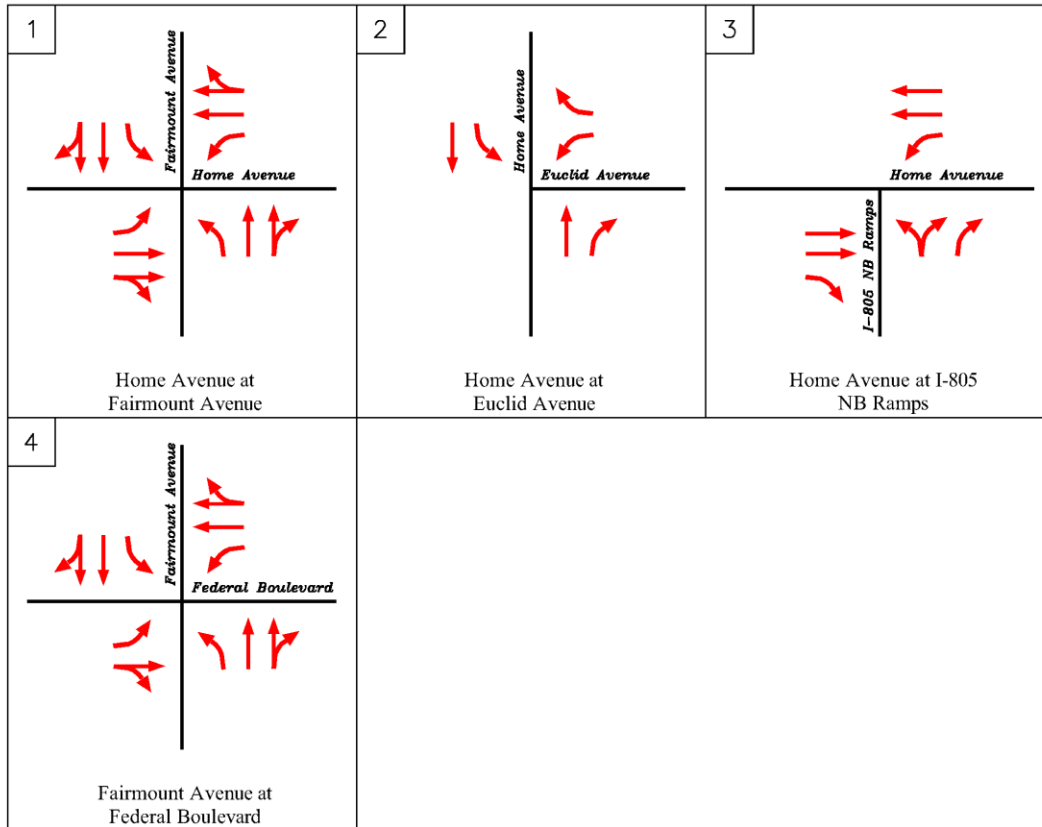
Delay = seconds per vehicle

LOS = Level of Service

TWSC = Two-Way Stop Controlled

Attachment 12

Existing Lane Configurations



Legend

 = Signalized Intersection

Attachment 13

Existing AM & PM Synchro Worksheets

HCM 6th Signalized Intersection Summary
1: Home Ave. & Fairmount Ave.

Existing AM
10/31/2018

												
Movement	SEL	SET	SER	NW/L	NW/T	NW/R	NEL	NET	NER	SW/L	SW/T	SW/R
Lane Configurations												
Traffic Volume (veh/h)	54	103	424	147	303	57	288	261	56	49	490	72
Future Volume (veh/h)	54	103	424	147	303	57	288	261	56	49	490	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	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/hln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	59	112	0	160	329	62	313	284	61	53	533	78
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	76	204	173	195	525	98	543	1493	316	68	762	111
Arrive On Green	0.04	0.11	0.00	0.11	0.18	0.18	0.31	0.51	0.51	0.04	0.24	0.24
Sat Flow, veh/h	1781	1870	1585	1781	2988	557	1781	2916	616	1781	3111	454
Grp Volume(v), veh/h	59	112	0	160	194	197	313	171	174	53	304	307
Grp Sat Flow(s), veh/hln	1781	1870	1585	1781	1777	1768	1781	1777	1755	1781	1777	1787
Q Serve(g_s), s	2.9	5.0	0.0	7.8	8.9	9.1	13.1	4.6	4.7	2.6	13.8	13.9
Cycle Q Clear(g_c), s	2.9	5.0	0.0	7.8	8.9	9.1	13.1	4.6	4.7	2.6	13.8	13.9
Prop In Lane	1.00		1.00	1.00		0.31	1.00		0.35	1.00		0.25
Lane Grp Cap(c), veh/h	76	204	173	195	312	311	543	910	899	68	435	438
W/C Ratio(X)	0.78	0.55	0.00	0.82	0.62	0.63	0.58	0.19	0.19	0.78	0.70	0.70
Avail Cap(c_a), veh/h	199	761	645	294	821	817	556	1002	990	189	629	632
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(f)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.9	37.4	0.0	38.6	33.7	33.8	25.9	11.7	11.7	42.2	30.4	30.5
Incr Delay (d2), s/veh	6.3	3.6	0.0	6.4	3.0	3.1	0.9	0.2	0.2	7.1	2.8	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/h	1.4	2.5	0.0	3.7	4.0	4.1	5.4	1.7	1.8	1.3	6.1	6.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.2	41.0	0.0	44.9	36.7	37.0	26.8	11.8	11.9	49.3	33.2	33.3
LnGrp LOS	D	D	A	D	D	D	C	B	B	D	C	C
Approach Vol, veh/h		171			551			658			664	
Approach Delay, s/veh		43.5			39.2			19.0			34.5	
Approach LOS		D			D			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.8	50.6	14.1	16.0	31.4	27.0	8.2	21.9				
Change Period (Y+Rc), s	4.4	* 5.3	4.4	6.4	4.4	5.3	4.4	* 6.4				
Max Green Setting (Gmax), s	9.4	* 50	14.6	36.0	27.6	31.3	9.9	* 41				
Max Q Clear Time (g_c+1), s	4.6	6.7	9.8	7.0	15.1	15.9	4.9	11.1				
Green Ext Time (p_c), s	0.0	3.8	0.1	0.9	0.4	4.5	0.0	3.6				
Intersection Summary												
HCM 6th Ctrl Delay			31.5									
HCM 6th LOS			C									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 6th Signalized Intersection Summary
2: Home Ave. & Euclid Ave.

Existing AM
10/31/2018

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	←	←	↑	↑	←	←
Traffic Volume (veh/h)	190	338	217	124	102	246
Future Volume (veh/h)	190	338	217	124	102	246
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.99	1.00	
Parking Bus, Adj	1.00	1.00		1.00	1.00	
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/hln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	207	367	236	135	111	267
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	475	423	787	660	142	1070
Arrive On Green	0.27	0.27	0.42	0.42	0.08	0.57
Sat Flow, veh/h	1781	1585	1870	1570	1781	1870
Grp Volume(v), veh/h	207	367	236	135	111	267
Grp Sat Flow(s), veh/hln	1781	1585	1870	1570	1781	1870
Q Serve(g_s), s	5.9	13.6	5.1	3.3	3.8	4.4
Cycle Q Clear(g_c), s	5.9	13.6	5.1	3.3	3.8	4.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	475	423	787	660	142	1070
V/C Ratio(X)	0.44	0.87	0.30	0.20	0.78	0.25
Avail Cap(c_a), veh/h	726	646	787	660	206	1070
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.7	21.5	11.8	11.3	27.7	6.6
Incr Delay (d2), s/veh	0.2	5.3	1.0	0.7	6.4	0.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	5.2	2.1	1.2	1.8	1.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	18.9	26.8	12.8	12.0	34.1	7.1
LnGrp LOS	B	C	B	B	C	A
Approach Vol, veh/h	574		371			378
Approach Delay, s/veh	23.9		12.5			15.0
Approach LOS	C		B			B
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	9.3	31.3			40.6	20.8
Change Period (Y+Rc), s	4.4	* 5.5			5.5	4.4
Max Green Setting (Gmax), s	7.1	* 24			35.1	25.0
Max Q Clear Time (g_c+I1), s	5.8	7.1			6.4	15.6
Green Ext Time (p_c), s	0.0	2.7			1.8	0.8
Intersection Summary						
HCM 6th Ctrl Delay			18.2			
HCM 6th LOS			B			
Notes						
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.						

HCM 6th Signalized Intersection Summary
3: I-805 NB Ramps & Home Ave.

Existing AM
10/31/2018

HCM 6th Edition methodology does not support turning movements with shared & exclusive lanes.

HCM Signalized Intersection Capacity Analysis
3: I-805 NB Ramps & Home Ave.

Existing AM
10/31/2018

						
Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	79	281	329	161	327	770
Future Volume (vph)	79	281	329	161	327	770
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1	5.4		4.7	5.4
Lane Util. Factor	1.00	0.95	0.95		1.00	0.95
Frpb, ped/bikes	1.00	1.00	0.99		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	0.91	0.85	0.95		1.00	1.00
Flt Protected	0.98	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1668	1504	3336		1770	3539
Flt Permitted	0.98	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1668	1504	3336		1770	3539
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	86	305	358	175	355	837
RTOR Reduction (vph)	54	151	69	0	0	0
Lane Group Flow (vph)	145	41	464	0	355	837
Confl. Peds. (#/hr)				2		
Confl. Bikes (#/hr)				3		
Turn Type	Prot	Perm	NA		Prot	NA
Protected Phases	4		2		1	6
Permitted Phases		4				
Actuated Green, G (s)	13.8	13.8	16.1		19.0	39.8
Effective Green, g (s)	13.8	13.8	16.1		19.0	39.8
Actuated g/C Ratio	0.22	0.22	0.25		0.30	0.62
Clearance Time (s)	5.1	5.1	5.4		4.7	5.4
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	359	323	837		524	2197
w/s Ratio Prot	c0.09		c0.14		c0.20	0.24
w/s Ratio Perm		0.03				
w/c Ratio	0.40	0.13	0.55		0.68	0.38
Uniform Delay, d1	21.6	20.3	20.9		19.9	6.0
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	0.7	0.2	0.8		3.5	0.1
Delay (s)	22.4	20.5	21.7		23.3	6.1
Level of Service	C	C	C		C	A
Approach Delay (s)	21.4		21.7			11.3
Approach LOS	C		C			B
Intersection Summary						
HCM 2000 Control Delay			15.8		HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.56			
Actuated Cycle Length (s)			64.1		Sum of lost time (s)	15.2
Intersection Capacity Utilization			57.5%		ICU Level of Service	B
Analysis Period (min)			15			

c Critical Lane Group

HCM 6th Signalized Intersection Summary
4: Federal Blvd. & 47th St.

Existing AM
10/31/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	36	46	176	109	193	70	250	76	41	180	23
Future Volume (veh/h)	13	36	46	176	109	193	70	250	76	41	180	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
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/hln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	14	39	50	191	118	210	76	272	83	45	196	25
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	24	229	294	209	732	652	98	820	245	57	895	113
Arrive On Green	0.01	0.31	0.31	0.12	0.41	0.41	0.05	0.31	0.31	0.03	0.28	0.28
Sat Flow, veh/h	1781	744	954	1781	1777	1582	1781	2688	802	1781	3170	399
Grp Volume(v), veh/h	14	0	89	191	118	210	76	178	177	45	109	112
Grp Sat Flow(s), veh/hln	1781	0	1698	1781	1777	1582	1781	1777	1713	1781	1777	1792
Q Serve(g_s), s	0.6	0.0	3.0	8.3	3.3	7.0	3.3	6.0	6.3	2.0	3.7	3.8
Cycle Q Clear(g_c), s	0.6	0.0	3.0	8.3	3.3	7.0	3.3	6.0	6.3	2.0	3.7	3.8
Prop In Lane	1.00		0.56	1.00		1.00	1.00		0.47	1.00		0.22
Lane Grp Cap(c), veh/h	24	0	523	209	732	652	98	542	523	57	502	506
V/C Ratio(X)	0.59	0.00	0.17	0.91	0.16	0.32	0.78	0.33	0.34	0.79	0.22	0.22
Avail Cap(c_a), veh/h	116	0	523	209	732	652	137	542	523	116	502	506
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.4	0.0	19.8	34.1	14.5	15.6	36.5	21.0	21.1	37.6	21.5	21.5
Incr Delay (d2), s/veh	8.2	0.0	0.7	38.2	0.5	1.3	10.8	1.6	1.8	8.9	1.0	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	0.3	0.0	1.2	5.7	1.3	2.6	1.7	2.7	2.7	1.0	1.6	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.6	0.0	20.5	72.3	15.0	16.9	47.4	22.6	22.8	46.5	22.5	22.5
LnGrp LOS	D	A	C	E	B	B	D	C	C	D	C	C
Approach Vol, veh/h	103			519			431			266		
Approach Delay, s/veh	24.0			36.9			27.1			26.6		
Approach LOS	C			D			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.6	29.0	8.7	27.0	5.4	37.2	6.9	28.8				
Change Period (Y+Rc), s	4.4	4.9	4.4	4.9	4.4	4.9	4.4	4.9				
Max Green Setting (Gmax), s	9.2	24.1	6.0	22.1	5.1	28.2	5.1	23.0				
Max Q Clear Time (g_c+I1), s	10.3	5.0	5.3	5.8	2.6	9.0	4.0	8.3				
Green Ext Time (p_c), s	0.0	0.5	0.0	1.5	0.0	2.1	0.0	1.8				
Intersection Summary												
HCM 6th Ctrl Delay	30.6											
HCM 6th LOS	C											

HCM 6th TWSC
5: Fairmount Ave. & Driveway

Existing AM
10/31/2018

Intersection						
Int Delay, s/veh	0.1					
Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations		↑↑	↑↑		Y	
Traffic Vol, veh/h	2	206	454	2	1	1
Future Vol, veh/h	2	206	454	2	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	224	493	2	1	1
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	495	0	-	0	610	248
Stage 1	-	-	-	-	494	-
Stage 2	-	-	-	-	116	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1065	-	-	-	426	752
Stage 1	-	-	-	-	579	-
Stage 2	-	-	-	-	896	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1065	-	-	-	425	752
Mov Cap-2 Maneuver	-	-	-	-	425	-
Stage 1	-	-	-	-	578	-
Stage 2	-	-	-	-	896	-
Approach	SE	NW	SW			
HCM Control Delay, s	0.1	0	11.7			
HCM LOS			B			
Minor Lane/Major Mvmt	NWT	NWR	SEL	SETSWLn1		
Capacity (veh/h)	-	-	1065	-	543	
HCM Lane V/C Ratio	-	-	0.002	-	0.004	
HCM Control Delay (s)	-	-	8.4	0	11.7	
HCM Lane LOS	-	-	A	A	B	
HCM 95th %tile Q(veh)	-	-	0	-	0	

HCM 6th Signalized Intersection Summary
1: Home Ave. & Fairmount Ave.

Existing PM
10/31/2018

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	56	372	601	75	135	40	436	649	132	74	543	58
Future Volume (veh/h)	56	372	601	75	135	40	436	649	132	74	543	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	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/hln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	57	380	92	77	138	41	445	662	135	76	554	59
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	73	450	380	98	693	199	473	1389	283	97	849	90
Arrive On Green	0.04	0.24	0.24	0.05	0.25	0.25	0.27	0.47	0.47	0.05	0.26	0.26
Sat Flow, veh/h	1781	1870	1581	1781	2723	782	1781	2938	598	1781	3241	344
Grp Volume(v), veh/h	57	380	92	77	88	91	445	400	397	76	303	310
Grp Sat Flow(s),veh/hln	1781	1870	1581	1781	1777	1728	1781	1777	1759	1781	1777	1808
Q Serve(g_s), s	3.7	22.4	5.4	4.9	4.5	4.8	28.3	17.7	17.8	4.9	17.6	17.7
Cycle Q Clear(g_c), s	3.7	22.4	5.4	4.9	4.5	4.8	28.3	17.7	17.8	4.9	17.6	17.7
Prop In Lane	1.00		1.00	1.00		0.45	1.00		0.34	1.00		0.19
Lane Grp Cap(c), veh/h	73	450	380	98	452	440	473	840	832	97	465	473
V/C Ratio(X)	0.78	0.84	0.24	0.79	0.20	0.21	0.94	0.48	0.48	0.78	0.65	0.65
Avail Cap(c_a), veh/h	149	582	492	117	524	509	548	840	832	186	465	473
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.9	41.9	35.4	54.0	33.8	33.9	41.6	20.8	20.8	54.0	38.0	38.0
Incr Delay (d2), s/veh	6.4	10.3	0.5	20.7	0.3	0.3	21.9	1.9	2.0	5.1	6.9	6.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	11.5	2.2	2.8	2.0	2.1	15.1	7.6	7.6	2.3	8.5	8.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.3	52.1	35.9	74.7	34.2	34.3	63.5	22.7	22.7	59.1	44.9	44.9
LnGrp LOS	E	D	D	E	C	C	E	C	C	E	D	D
Approach Vol, veh/h	529			256			1242			689		
Approach Delay, s/veh	50.3			46.4			37.3			46.5		
Approach LOS	D			D			D			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.7	60.0	10.8	34.2	35.1	35.6	9.2	35.8				
Change Period (Y+Rc), s	4.4	* 5.3	4.4	6.4	4.4	5.3	4.4	* 6.4				
Max Green Setting (Gmax), s	12.1	* 54	7.6	36.0	35.6	30.3	9.7	* 34				
Max Q Clear Time (g_c+I1), s	6.9	19.8	6.9	24.4	30.3	19.7	5.7	6.8				
Green Ext Time (p_c), s	0.0	10.0	0.0	3.0	0.4	3.6	0.0	1.5				
Intersection Summary												
HCM 6th Ctrl Delay	43.0											
HCM 6th LOS	D											
Notes												

HCM 6th Signalized Intersection Summary
2: Home Ave. & Euclid Ave.

Existing PM
10/31/2018

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	←	←	↑	↑	←	↑
Traffic Volume (veh/h)	202	188	363	211	264	366
Future Volume (veh/h)	202	188	363	211	264	366
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/hln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	220	204	395	229	287	398
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	297	264	760	642	336	1250
Arrive On Green	0.17	0.17	0.41	0.41	0.19	0.67
Sat Flow, veh/h	1781	1585	1870	1581	1781	1870
Grp Volume(v), veh/h	220	204	395	229	287	398
Grp Sat Flow(s), veh/hln	1781	1585	1870	1581	1781	1870
Q Serve(g_s), s	7.0	7.4	9.5	6.0	9.3	5.4
Cycle Q Clear(g_c), s	7.0	7.4	9.5	6.0	9.3	5.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	297	264	760	642	336	1250
V/C Ratio(X)	0.74	0.77	0.52	0.36	0.85	0.32
Avail Cap(c_a), veh/h	742	660	760	642	374	1250
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.8	23.9	13.4	12.4	23.5	4.2
Incr Delay (d2), s/veh	1.4	1.8	2.5	1.5	14.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	2.7	4.0	2.2	5.0	1.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	25.1	25.7	15.9	13.9	38.2	4.9
LnGrp LOS	C	C	B	B	D	A
Approach Vol, veh/h	424		624			685
Approach Delay, s/veh	25.4		15.2			18.8
Approach LOS	C		B			B
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	15.7	29.9			45.6	14.4
Change Period (Y+Rc), s	4.4	* 5.5			5.5	4.4
Max Green Setting (Gmax), s	12.6	* 23			40.1	25.0
Max Q Clear Time (g_c+I), s	11.3	11.5			7.4	9.4
Green Ext Time (p_c), s	0.1	4.0			2.9	0.6
Intersection Summary						
HCM 6th Ctrl Delay			19.1			
HCM 6th LOS			B			
Notes						
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.						

HCM 6th Signalized Intersection Summary
3: I-805 NB Ramps & Home Ave.

Existing PM
10/31/2018

HCM 6th Edition methodology does not support turning movements with shared & exclusive lanes.

HCM Signalized Intersection Capacity Analysis
3: I-805 NB Ramps & Home Ave.

Existing PM
10/31/2018

						
Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	148	508	629	118	263	992
Future Volume (vph)	148	508	629	118	263	992
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1	5.4		4.7	5.4
Lane Util. Factor	1.00	0.95	0.95		1.00	0.95
Frpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	0.92	0.85	0.98		1.00	1.00
Flt Protected	0.98	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1670	1504	3444		1770	3539
Flt Permitted	0.98	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1670	1504	3444		1770	3539
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	161	552	684	128	286	1078
RTOR Reduction (vph)	49	257	16	0	0	0
Lane Group Flow (vph)	316	91	796	0	286	1078
Confl. Peds. (#/hr)				1		
Turn Type	Prot	Perm	NA		Prot	NA
Protected Phases	4		2		1	6
Permitted Phases		4				
Actuated Green, G (s)	20.5	20.5	25.8		17.2	47.7
Effective Green, g (s)	20.5	20.5	25.8		17.2	47.7
Actuated g/C Ratio	0.26	0.26	0.33		0.22	0.61
Clearance Time (s)	5.1	5.1	5.4		4.7	5.4
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	435	391	1129		386	2144
w/s Ratio Prot	c0.19		c0.23		c0.16	0.30
w/s Ratio Perm		0.06				
w/c Ratio	0.73	0.23	0.70		0.74	0.50
Uniform Delay, d1	26.5	22.9	23.1		28.7	8.8
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	6.0	0.3	2.0		7.5	0.2
Delay (s)	32.5	23.2	25.1		36.1	9.0
Level of Service	C	C	C		D	A
Approach Delay (s)	28.0		25.1			14.7
Approach LOS	C		C			B
Intersection Summary						
HCM 2000 Control Delay			20.9		HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.72			
Actuated Cycle Length (s)			78.7		Sum of lost time (s)	15.2
Intersection Capacity Utilization			69.6%		ICU Level of Service	C
Analysis Period (min)			15			
c Critical Lane Group						

HCM 6th Signalized Intersection Summary
4: Federal Blvd. & 47th St.

Existing PM
10/31/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	113	205	250	61	93	26	137	144	131	429	29
Future Volume (veh/h)	36	113	205	250	61	93	26	137	144	131	429	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/hln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	39	123	223	272	66	101	28	149	157	142	466	32
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	52	193	349	312	835	742	42	285	248	177	796	54
Arrive On Green	0.03	0.32	0.32	0.17	0.47	0.47	0.02	0.16	0.16	0.10	0.24	0.24
Sat Flow, veh/h	1781	594	1077	1781	1777	1580	1781	1777	1546	1781	3370	231
Grp Volume(v), veh/h	39	0	346	272	66	101	28	149	157	142	245	253
Grp Sat Flow(s), veh/hln	1781	0	1671	1781	1777	1580	1781	1777	1546	1781	1777	1824
Q Serve(g_s), s	1.7	0.0	13.6	11.5	1.6	2.8	1.2	5.9	7.3	6.0	9.4	9.5
Cycle Q Clear(g_c), s	1.7	0.0	13.6	11.5	1.6	2.8	1.2	5.9	7.3	6.0	9.4	9.5
Prop In Lane	1.00		0.64	1.00		1.00	1.00		1.00	1.00		0.13
Lane Grp Cap(c), veh/h	52	0	542	312	835	742	42	285	248	177	420	431
V/C Ratio(X)	0.75	0.00	0.64	0.87	0.08	0.14	0.67	0.52	0.63	0.80	0.58	0.59
Avail Cap(c_a), veh/h	118	0	542	342	835	742	132	530	461	199	597	613
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.1	0.0	22.2	31.0	11.3	11.6	37.4	29.7	30.2	34.0	26.1	26.1
Incr Delay (d2), s/veh	7.6	0.0	5.7	18.6	0.2	0.4	6.8	1.5	2.8	16.7	1.9	1.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	5.9	6.4	0.6	1.0	0.6	2.6	2.8	3.4	4.0	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.7	0.0	27.9	49.6	11.4	12.0	44.1	31.2	33.0	50.7	28.0	28.0
LnGrp LOS	D	A	C	D	B	B	D	C	C	D	C	C
Approach Vol, veh/h	385			439			334			640		
Approach Delay, s/veh	29.6			35.2			33.1			33.0		
Approach LOS	C			D			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.9	29.9	6.2	23.1	6.7	41.1	12.0	17.3				
Change Period (Y+Rc), s	4.4	4.9	4.4	4.9	4.4	4.9	4.4	4.9				
Max Green Setting (Gmax), s	14.8	25.0	5.7	25.9	5.1	34.7	8.6	23.0				
Max Q Clear Time (g_c+I1), s	13.5	15.6	3.2	11.5	3.7	4.8	8.0	9.3				
Green Ext Time (p_c), s	0.1	1.7	0.0	3.6	0.0	1.1	0.0	1.6				
Intersection Summary												
HCM 6th Ctrl Delay	32.8											
HCM 6th LOS	C											

HCM 6th TWSC
5: Fairmount Ave. & Driveway

Existing PM
10/31/2018

Intersection						
Int Delay, s/veh	0.1					
Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations		↑↑	↑↑		Y	
Traffic Vol , veh/h	2	576	264	2	3	3
Future Vol, veh/h	2	576	264	2	3	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	626	287	2	3	3
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	289	0	-	0	605	145
Stage 1	-	-	-	-	288	-
Stage 2	-	-	-	-	317	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1270	-	-	-	429	876
Stage 1	-	-	-	-	735	-
Stage 2	-	-	-	-	711	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1270	-	-	-	428	876
Mov Cap-2 Maneuver	-	-	-	-	428	-
Stage 1	-	-	-	-	734	-
Stage 2	-	-	-	-	711	-
Approach	SE	NW		SW		
HCM Control Delay, s	0	0		11.3		
HCM LOS				B		
Minor Lane/Major Mvmt	NWT	NWR	SEL	SETSWLn1		
Capacity (veh/h)	-	-	1270	-	575	
HCM Lane V/C Ratio	-	-	0.002	-	0.011	
HCM Control Delay (s)	-	-	7.8	0	11.3	
HCM Lane LOS	-	-	A	A	B	
HCM 95th %tile Q(veh)	-	-	0	-	0	

Attachment 14

Existing With Project Street Segment LOS

Road	Segment	Standard	# of Ln.	Class.	Cap.	Volume	V/C	LOS
Home Avenue	I-805 NB Ramps - Fairmount Avenue	SD	4	4-M	40,000	34,745	0.87	D
Fairmount Avenue / 47th Street	Home Avenue - Federal Boulevard	SD	4	4-C	30,000	6,981	0.23	A
Home Avenue	Fairmount Avenue - Euclid Avenue	SD	2	2-Ca	15,000	19,674	1.31	F

Legend:

Class. = Functional Class

Cap. = Capacity

LOS = Level of Service

2-Ca = 2 Lane Collector (w/continuous left-turn lane)

4-M = 4 Lane Major Arterial

Attachment 15

Existing With Project Street Segment ADT



Legend



= Project Location



= Studied Intersection Location

XX,XXX = ADT Number



Attachment 16

Existing & Existing With Project Street Segment LOS Comparison

Road	Segment	# of Lanes	LOS "E" Capacity	Class.	Existing			Existing + Project			Δ V/C	Is this impact Significant?
					LOS	Volume	V/C	LOS	Volume	V/C		
Home Avenue	I-805 NB Ramps - Fairmount Avenue	4	40,000	4-M	D	34,435	0.86	D	34,745	0.87	0.008	NO
Fairmount Avenue / 47th Street	Home Avenue - Federal Boulevard	4	30,000	4-C	A	6,361	0.21	A	6,981	0.23	0.021	NO
Home Avenue	Fairmount Avenue - Euclid Avenue	2	15,000	2-Ca	F	19,612	1.31	F	19,674	1.31	0.004	NO

Legend:

LOS= Level of Service

V/C= Volume to Capacity Ratio

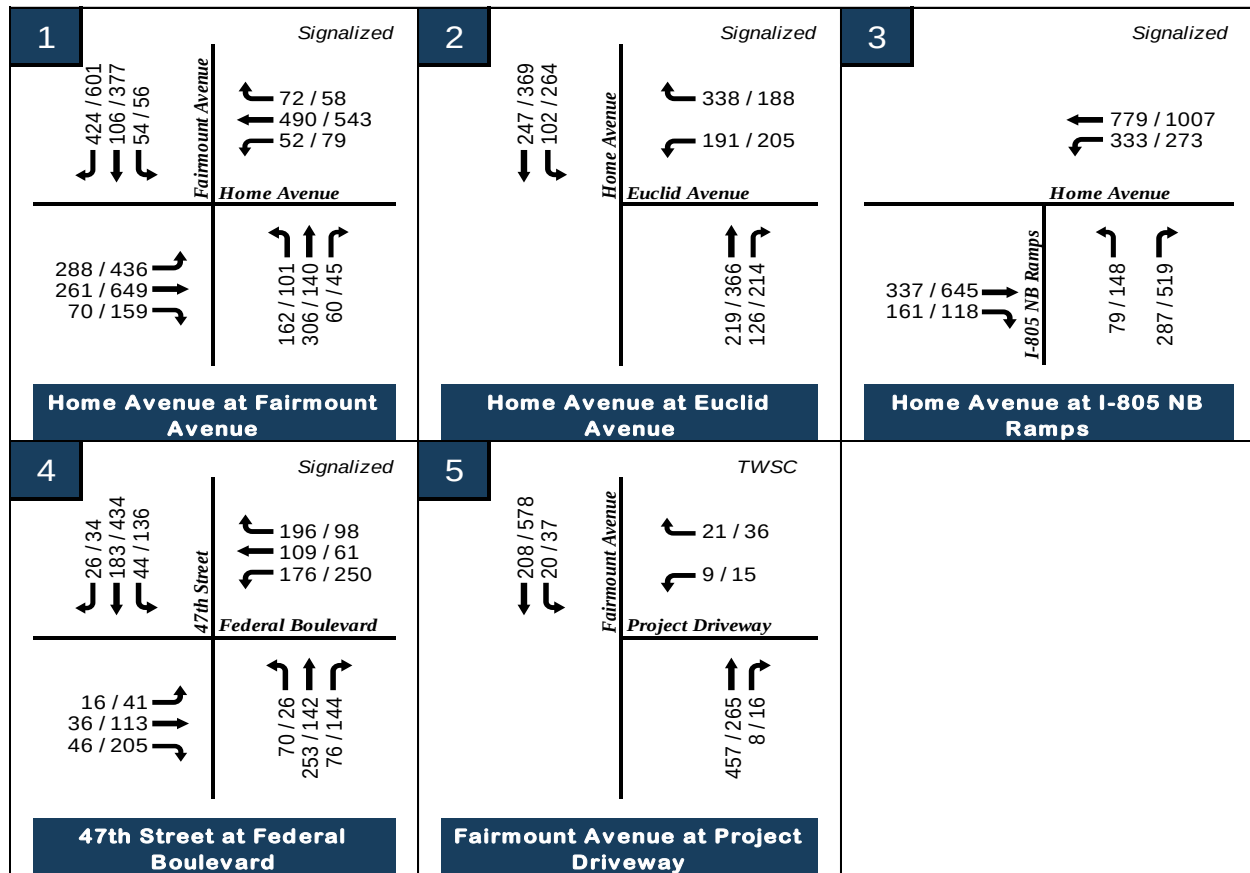
Δ V/C= Change in V/C ratio

2-Ca = 2 Lane Collector (w/continuous left-turn lane)

4-M = 4 Lane Major Arterial

Attachment 17

Existing With Project Peak Hour Traffic Volumes



XX / XX = AM / PM Peak hour volumes

TWSC = Two-Way Stop Controlled

Attachment 18

Existing With Project Intersection Peak Hour LOS

Number	Intersection	Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	Home Avenue at Fairmount Avenue	Signalized	32.1	C	46.8	D
2	Home Avenue at Euclid Avenue	Signalized	18.2	B	19.1	B
3	Home Avenue at I-805 NB Ramps	Signalized	16	B	21.5	C
4	47th Street at Federal Boulevard	Signalized	30.7	C	33.3	C
5	Fairmount Avenue at Project Driveway	TWSC	11.5	B	11.5	B

Notes:

Delay = seconds per vehicle

LOS = Level of Service

TWSC = Two-Way Stop Controlled

Attachment 19

Existing With Project Intersection Peak Hour LOS Comparison

#	Intersection	Existing				Existing + Project (Buildout)							
		AM Peak Hour		PM Peak Hour		AM Peak Hour		Δ	S ?	PM Peak Hour		Δ	S ?
		D	LOS	D	LOS	D	LOS			D	LOS		
1	Home Avenue at Fairmount Avenue	31.5	C	43	D	32.1	C	0.6	No	46.8	D	3.8	No
2	Home Avenue at Euclid Avenue	18.2	B	19.1	B	18.2	B	0.0	No	19.1	B	0.0	No
3	Home Avenue at I-805 NB Ramps	15.8	B	20.9	C	16.0	B	0.2	No	21.5	C	0.6	No
4	47th Street at Federal Boulevard	30.6	C	32.8	C	30.7	C	0.1	No	33.3	C	0.5	No
5	Fairmount Avenue at Project Driveway	11.7	B	11.3	B	11.5	B	-0.2	No	11.5	B	0.2	No

Notes:

LOS = Level of Service

Δ = Change

S = Significant

D = Delay

Attachment 20

Existing With Project AM & PM Synchro Worksheets

HCM 6th Signalized Intersection Summary
1: Home Ave. & Fairmount Ave.

Existing With Project AM
10/31/2018

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	54	106	424	162	306	60	288	261	70	52	490	72
Future Volume (veh/h)	54	106	424	162	306	60	288	261	70	52	490	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj (A _{pb} T)	1.00		1.00	1.00		1.00	1.00		0.99	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/hln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	59	115	0	176	333	65	313	284	76	57	533	78
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	76	206	174	211	553	107	536	1395	366	73	753	110
Arrive On Green	0.04	0.11	0.00	0.12	0.19	0.19	0.30	0.50	0.50	0.04	0.24	0.24
Sat Flow, veh/h	1781	1870	1585	1781	2969	573	1781	2780	730	1781	3111	454
Grp Volume(v), veh/h	59	115	0	176	198	200	313	180	180	57	304	307
Grp Sat Flow(s), veh/hln	1781	1870	1585	1781	1777	1765	1781	1777	1734	1781	1777	1787
Q Serve(g_s), s	2.9	5.2	0.0	8.7	9.1	9.4	13.4	5.0	5.2	2.8	14.0	14.1
Cycle Q Clear(g_c), s	2.9	5.2	0.0	8.7	9.1	9.4	13.4	5.0	5.2	2.8	14.0	14.1
Prop In Lane	1.00		1.00	1.00		0.32	1.00		0.42	1.00		0.25
Lane Grp Cap(c), veh/h	76	206	174	211	331	328	536	892	870	73	430	433
V/C Ratio(X)	0.78	0.56	0.00	0.83	0.60	0.61	0.58	0.20	0.21	0.78	0.71	0.71
Avail Cap(c_a), veh/h	196	750	636	310	829	824	548	968	945	187	600	603
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.5	37.9	0.0	38.7	33.5	33.5	26.6	12.4	12.4	42.6	31.1	31.1
Incr Delay (d2), s/veh	6.3	3.7	0.0	7.9	2.5	2.7	1.0	0.2	0.2	6.5	3.0	3.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	2.6	0.0	4.2	4.1	4.2	5.6	1.9	1.9	1.4	6.2	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	48.8	41.6	0.0	46.6	36.0	36.2	27.6	12.6	12.6	49.1	34.1	34.2
LnGrp LOS	D	D	A	D	D	D	C	B	B	D	C	C
Approach Vol, veh/h		174			574			673			668	
Approach Delay, s/veh		44.0			39.3			19.6			35.4	
Approach LOS		D			D			B			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.1	50.3	15.0	16.3	31.4	27.0	8.2	23.1				
Change Period (Y+Rc), s	4.4	* 5.3	4.4	6.4	4.4	5.3	4.4	* 6.4				
Max Green Setting (Gmax), s	9.4	* 49	15.6	36.0	27.6	30.3	9.9	* 42				
Max Q Clear Time (g_c+I1), s	4.8	7.2	10.7	7.2	15.4	16.1	4.9	11.4				
Green Ext Time (p_c), s	0.0	4.0	0.1	0.9	0.4	4.3	0.0	3.7				
Intersection Summary												
HCM 6th Ctrl Delay			32.1									
HCM 6th LOS			C									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 6th Signalized Intersection Summary
2: Home Ave. & Euclid Ave.

Existing With Project AM
10/31/2018

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	←	←	↑	↑	←	←
Traffic Volume (veh/h)	191	338	219	126	102	247
Future Volume (veh/h)	191	338	219	126	102	247
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.99	1.00	
Parking Bus, Adj	1.00	1.00		1.00	1.00	
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/hln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	208	367	238	137	111	268
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	475	423	787	660	142	1070
Arrive On Green	0.27	0.27	0.42	0.42	0.08	0.57
Sat Flow, veh/h	1781	1585	1870	1570	1781	1870
Grp Volume(v), veh/h	208	367	238	137	111	268
Grp Sat Flow(s), veh/hln	1781	1585	1870	1570	1781	1870
Q Serve(g_s), s	5.9	13.6	5.2	3.4	3.8	4.4
Cycle Q Clear(g_c), s	5.9	13.6	5.2	3.4	3.8	4.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	475	423	787	660	142	1070
V/C Ratio(X)	0.44	0.87	0.30	0.21	0.78	0.25
Avail Cap(c_a), veh/h	726	646	787	660	206	1070
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.7	21.5	11.8	11.3	27.7	6.6
Incr Delay (d2), s/veh	0.2	5.3	1.0	0.7	6.4	0.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	5.2	2.1	1.2	1.8	1.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	18.9	26.8	12.8	12.0	34.1	7.1
LnGrp LOS	B	C	B	B	C	A
Approach Vol, veh/h	575		375			379
Approach Delay, s/veh	23.9		12.5			15.0
Approach LOS	C		B			B
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	9.3	31.3			40.6	20.8
Change Period (Y+Rc), s	4.4	* 5.5			5.5	4.4
Max Green Setting (Gmax), s	7.1	* 24			35.1	25.0
Max Q Clear Time (g_c+I1), s	5.8	7.2			6.4	15.6
Green Ext Time (p_c), s	0.0	2.7			1.8	0.8
Intersection Summary						
HCM 6th Ctrl Delay			18.2			
HCM 6th LOS			B			
Notes						
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.						

HCM 6th Signalized Intersection Summary
3: I-805 NB Ramps & Home Ave.

Existing With Project AM
10/31/2018

HCM 6th Edition methodology does not support turning movements with shared & exclusive lanes.

HCM Signalized Intersection Capacity Analysis
3: I-805 NB Ramps & Home Ave.

Existing With Project AM
10/31/2018

						
Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	79	287	337	161	333	779
Future Volume (vph)	79	287	337	161	333	779
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1	5.4		4.7	5.4
Lane Util. Factor	1.00	0.95	0.95		1.00	0.95
Frpb, ped/bikes	1.00	1.00	0.99		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	0.91	0.85	0.95		1.00	1.00
Flt Protected	0.98	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1666	1504	3339		1770	3539
Flt Permitted	0.98	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1666	1504	3339		1770	3539
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	86	312	366	175	362	847
RTOR Reduction (vph)	56	151	67	0	0	0
Lane Group Flow (vph)	149	42	474	0	362	847
Confl. Peds. (#/hr)				2		
Confl. Bikes (#/hr)				3		
Turn Type	Prot	Perm	NA		Prot	NA
Protected Phases	4		2		1	6
Permitted Phases		4				
Actuated Green, G (s)	13.9	13.9	16.2		19.0	39.9
Effective Green, g (s)	13.9	13.9	16.2		19.0	39.9
Actuated g/C Ratio	0.22	0.22	0.25		0.30	0.62
Clearance Time (s)	5.1	5.1	5.4		4.7	5.4
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	360	325	841		523	2196
w/s Ratio Prot	c0.09		c0.14		c0.20	0.24
w/s Ratio Perm		0.03				
w/c Ratio	0.41	0.13	0.56		0.69	0.39
Uniform Delay, d1	21.7	20.3	21.0		20.1	6.1
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	0.8	0.2	0.9		3.9	0.1
Delay (s)	22.5	20.5	21.8		24.0	6.2
Level of Service	C	C	C		C	A
Approach Delay (s)	21.5		21.8			11.5
Approach LOS	C		C			B
Intersection Summary						
HCM 2000 Control Delay			16.0		HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.57			
Actuated Cycle Length (s)			64.3		Sum of lost time (s)	15.2
Intersection Capacity Utilization			58.3%		ICU Level of Service	B
Analysis Period (min)			15			

c Critical Lane Group

HCM 6th Signalized Intersection Summary
4: Federal Blvd. & 47th St.

Existing With Project AM
10/31/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	36	46	176	109	196	70	253	76	44	183	26
Future Volume (veh/h)	16	36	46	176	109	196	70	253	76	44	183	26
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
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/hln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	17	39	50	191	118	213	76	275	83	48	199	28
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	28	229	294	209	728	648	98	817	241	60	883	122
Arrive On Green	0.02	0.31	0.31	0.12	0.41	0.41	0.05	0.30	0.30	0.03	0.28	0.28
Sat Flow, veh/h	1781	744	954	1781	1777	1582	1781	2696	796	1781	3128	433
Grp Volume(v), veh/h	17	0	89	191	118	213	76	179	179	48	112	115
Grp Sat Flow(s), veh/hln	1781	0	1698	1781	1777	1582	1781	1777	1715	1781	1777	1785
Q Serve(g_s), s	0.7	0.0	3.0	8.3	3.3	7.2	3.3	6.1	6.4	2.1	3.8	3.9
Cycle Q Clear(g_c), s	0.7	0.0	3.0	8.3	3.3	7.2	3.3	6.1	6.4	2.1	3.8	3.9
Prop In Lane	1.00		0.56	1.00		1.00	1.00		0.46	1.00		0.24
Lane Grp Cap(c), veh/h	28	0	523	209	728	648	98	539	520	60	502	504
V/C Ratio(X)	0.60	0.00	0.17	0.91	0.16	0.33	0.78	0.33	0.34	0.79	0.22	0.23
Avail Cap(c_a), veh/h	116	0	523	209	728	648	137	539	520	116	502	504
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.3	0.0	19.8	34.1	14.6	15.8	36.5	21.1	21.2	37.5	21.5	21.6
Incr Delay (d2), s/veh	7.5	0.0	0.7	38.2	0.5	1.4	10.8	1.7	1.8	8.5	1.0	1.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	1.2	5.7	1.4	2.7	1.7	2.7	2.7	1.0	1.7	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	45.8	0.0	20.5	72.3	15.1	17.1	47.4	22.8	23.0	46.0	22.5	22.6
LnGrp LOS	D	A	C	E	B	B	D	C	C	D	C	C
Approach Vol, veh/h	106			522			434			275		
Approach Delay, s/veh	24.6			36.9			27.2			26.7		
Approach LOS	C			D			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.6	29.0	8.7	27.0	5.6	37.0	7.1	28.6				
Change Period (Y+Rc), s	4.4	4.9	4.4	4.9	4.4	4.9	4.4	4.9				
Max Green Setting (Gmax), s	9.2	24.1	6.0	22.1	5.1	28.2	5.1	23.0				
Max Q Clear Time (g_c+I1), s	10.3	5.0	5.3	5.9	2.7	9.2	4.1	8.4				
Green Ext Time (p_c), s	0.0	0.5	0.0	1.5	0.0	2.1	0.0	1.9				
Intersection Summary												
HCM 6th Ctrl Delay	30.7											
HCM 6th LOS	C											

HCM 6th TWSC
5: Fairmount Ave. & Driveway

Existing With Project AM
10/31/2018

Intersection						
Int Delay, s/veh	0.7					
Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations		↑↑	↑↑		↓	
Traffic Vol, veh/h	20	208	457	8	9	21
Future Vol, veh/h	20	208	457	8	9	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	226	497	9	10	23
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	506	0	-	0	659	253
Stage 1	-	-	-	-	502	-
Stage 2	-	-	-	-	157	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1055	-	-	-	397	746
Stage 1	-	-	-	-	573	-
Stage 2	-	-	-	-	855	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1055	-	-	-	387	746
Mov Cap-2 Maneuver	-	-	-	-	387	-
Stage 1	-	-	-	-	559	-
Stage 2	-	-	-	-	855	-
Approach	SE	NW	SW			
HCM Control Delay, s	0.8	0	11.5			
HCM LOS			B			
Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1	
Capacity (veh/h)	-	-	1055	-	584	
HCM Lane V/C Ratio	-	-	0.021	-	0.056	
HCM Control Delay (s)	-	-	8.5	0.1	11.5	
HCM Lane LOS	-	-	A	A	B	
HCM 95th %tile Q(veh)	-	-	0.1	-	0.2	

HCM 6th Signalized Intersection Summary
1: Home Ave. & Fairmount Ave.

Existing With Project PM
10/31/2018

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	56	377	601	101	140	45	436	649	159	79	543	58
Future Volume (veh/h)	56	377	601	101	140	45	436	649	159	79	543	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pb T)	1.00		1.00	1.00		1.00	1.00		0.99	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/hln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	57	385	95	103	143	46	445	662	162	81	554	59
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	73	449	379	126	719	223	469	1308	320	103	833	89
Arrive On Green	0.04	0.24	0.24	0.07	0.27	0.27	0.26	0.46	0.46	0.06	0.26	0.26
Sat Flow, veh/h	1781	1870	1581	1781	2668	829	1781	2827	691	1781	3241	344
Grp Volume(v), veh/h	57	385	95	103	94	95	445	416	408	81	303	310
Grp Sat Flow(s),veh/hln	1781	1870	1581	1781	1777	1720	1781	1777	1742	1781	1777	1808
Q Serve(g_s), s	3.8	23.9	5.9	6.9	4.9	5.2	29.8	19.9	20.0	5.4	18.5	18.6
Cycle Q Clear(g_c), s	3.8	23.9	5.9	6.9	4.9	5.2	29.8	19.9	20.0	5.4	18.5	18.6
Prop In Lane	1.00		1.00	1.00		0.48	1.00		0.40	1.00		0.19
Lane Grp Cap(c), veh/h	73	449	379	126	479	463	469	822	806	103	457	465
V/C Ratio(X)	0.78	0.86	0.25	0.82	0.20	0.21	0.95	0.51	0.51	0.79	0.66	0.67
Avail Cap(c_a), veh/h	142	555	469	126	514	497	495	822	806	183	457	465
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.6	44.2	37.3	55.6	34.2	34.3	43.9	22.9	22.9	56.5	40.4	40.4
Incr Delay (d2), s/veh	6.4	12.2	0.5	30.6	0.3	0.3	26.8	2.2	2.3	5.0	7.4	7.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	12.5	0.1	4.2	2.2	2.2	16.4	8.6	8.5	2.6	9.0	9.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.0	56.4	37.9	86.2	34.5	34.6	70.7	25.1	25.1	61.5	47.8	47.8
LnGrp LOS	E	E	D	F	C	C	E	C	C	E	D	D
Approach Vol, veh/h	537			292			1269			694		
Approach Delay, s/veh	53.9			52.7			41.1			49.4		
Approach LOS	D			D			D			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.4	61.5	13.0	35.5	36.4	36.5	9.4	39.1				
Change Period (Y+Rc), s	4.4	* 5.3	4.4	6.4	4.4	5.3	4.4	* 6.4				
Max Green Setting (Gmax), s	12.5	* 53	8.6	36.0	33.7	31.2	9.7	* 35				
Max Q Clear Time (g_c+I1), s	7.4	22.0	8.9	25.9	31.8	20.6	5.8	7.2				
Green Ext Time (p_c), s	0.0	10.1	0.0	2.8	0.2	3.6	0.0	1.6				
Intersection Summary												
HCM 6th Ctrl Delay	46.8											
HCM 6th LOS	D											
Notes												

HCM 6th Signalized Intersection Summary
2: Home Ave. & Euclid Ave.

Existing With Project PM
10/31/2018

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	←	←	↑	↑	←	←
Traffic Volume (veh/h)	205	188	366	214	264	369
Future Volume (veh/h)	205	188	366	214	264	369
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/hln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	223	204	398	233	287	401
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	297	264	760	642	336	1250
Arrive On Green	0.17	0.17	0.41	0.41	0.19	0.67
Sat Flow, veh/h	1781	1585	1870	1581	1781	1870
Grp Volume(v), veh/h	223	204	398	233	287	401
Grp Sat Flow(s), veh/hln	1781	1585	1870	1581	1781	1870
Q Serve(g_s), s	7.2	7.4	9.6	6.2	9.4	5.4
Cycle Q Clear(g_c), s	7.2	7.4	9.6	6.2	9.4	5.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	297	264	760	642	336	1250
V/C Ratio(X)	0.75	0.77	0.52	0.36	0.85	0.32
Avail Cap(c_a), veh/h	742	660	760	642	374	1250
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.8	23.9	13.4	12.4	23.5	4.2
Incr Delay (d2), s/veh	1.4	1.8	2.6	1.6	14.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	2.7	4.1	2.2	5.0	1.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	25.3	25.7	16.0	14.0	38.2	4.9
LnGrp LOS	C	C	B	B	D	A
Approach Vol, veh/h	427		631			688
Approach Delay, s/veh	25.5		15.3			18.8
Approach LOS	C		B			B
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	15.7	29.9			45.6	14.4
Change Period (Y+Rc), s	4.4	* 5.5			5.5	4.4
Max Green Setting (Gmax), s	12.6	* 23			40.1	25.0
Max Q Clear Time (g_c+I1), s	11.4	11.6			7.4	9.4
Green Ext Time (p_c), s	0.1	4.0			2.9	0.6
Intersection Summary						
HCM 6th Ctrl Delay			19.1			
HCM 6th LOS			B			
Notes						
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.						

HCM 6th Signalized Intersection Summary
3: I-805 NB Ramps & Home Ave.

Existing With Project PM
10/31/2018

HCM 6th Edition methodology does not support turning movements with shared & exclusive lanes.

HCM Signalized Intersection Capacity Analysis
3: I-805 NB Ramps & Home Ave.

Existing With Project PM
10/31/2018

						
Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	148	519	645	118	273	1007
Future Volume (vph)	148	519	645	118	273	1007
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1	5.4		4.7	5.4
Lane Util. Factor	1.00	0.95	0.95		1.00	0.95
Frpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	0.92	0.85	0.98		1.00	1.00
Flt Protected	0.98	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1669	1504	3446		1770	3539
Flt Permitted	0.98	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1669	1504	3446		1770	3539
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	161	564	701	128	297	1095
RTOR Reduction (vph)	50	263	15	0	0	0
Lane Group Flow (vph)	320	92	814	0	297	1095
Confl. Peds. (#/hr)				1		
Turn Type	Prot	Perm	NA		Prot	NA
Protected Phases	4		2		1	6
Permitted Phases		4				
Actuated Green, G (s)	20.8	20.8	26.3		17.7	48.7
Effective Green, g (s)	20.8	20.8	26.3		17.7	48.7
Actuated g/C Ratio	0.26	0.26	0.33		0.22	0.61
Clearance Time (s)	5.1	5.1	5.4		4.7	5.4
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	433	391	1132		391	2154
w/s Ratio Prot	c0.19		c0.24		c0.17	0.31
w/s Ratio Perm		0.06				
w/c Ratio	0.74	0.24	0.72		0.76	0.51
Uniform Delay, d1	27.1	23.3	23.6		29.2	8.9
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	6.5	0.3	2.2		8.2	0.2
Delay (s)	33.6	23.6	25.8		37.4	9.1
Level of Service	C	C	C		D	A
Approach Delay (s)	28.7		25.8			15.1
Approach LOS	C		C			B
Intersection Summary						
HCM 2000 Control Delay			21.5		HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.74			
Actuated Cycle Length (s)			80.0		Sum of lost time (s)	15.2
Intersection Capacity Utilization			71.0%		ICU Level of Service	C
Analysis Period (min)			15			
c Critical Lane Group						

HCM 6th Signalized Intersection Summary
4: Federal Blvd. & 47th St.

Existing With Project PM
10/31/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	113	205	250	61	98	26	142	144	136	434	34
Future Volume (veh/h)	41	113	205	250	61	98	26	142	144	136	434	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/hln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	45	123	223	272	66	107	28	154	157	148	472	37
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	57	191	347	311	826	735	42	285	248	183	799	62
Arrive On Green	0.03	0.32	0.32	0.17	0.47	0.47	0.02	0.16	0.16	0.10	0.24	0.24
Sat Flow, veh/h	1781	594	1077	1781	1777	1580	1781	1777	1546	1781	3334	260
Grp Volume(v), veh/h	45	0	346	272	66	107	28	154	157	148	251	258
Grp Sat Flow(s), veh/hln	1781	0	1671	1781	1777	1580	1781	1777	1546	1781	1777	1818
Q Serve(g_s), s	1.9	0.0	13.7	11.5	1.6	3.0	1.2	6.2	7.4	6.3	9.7	9.8
Cycle Q Clear(g_c), s	1.9	0.0	13.7	11.5	1.6	3.0	1.2	6.2	7.4	6.3	9.7	9.8
Prop In Lane	1.00		0.64	1.00		1.00	1.00		1.00	1.00		0.14
Lane Grp Cap(c), veh/h	57	0	538	311	826	735	42	285	248	183	426	436
V/C Ratio(X)	0.79	0.00	0.64	0.87	0.08	0.15	0.67	0.54	0.63	0.81	0.59	0.59
Avail Cap(c_a), veh/h	117	0	538	340	826	735	131	527	458	197	593	607
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.3	0.0	22.5	31.2	11.5	11.9	37.6	29.9	30.4	34.1	26.1	26.1
Incr Delay (d2), s/veh	8.7	0.0	5.8	18.9	0.2	0.4	6.8	1.7	2.8	18.4	1.9	1.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	6.0	6.4	0.6	1.1	0.6	2.7	2.8	3.6	4.2	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.0	0.0	28.3	50.1	11.7	12.3	44.4	31.6	33.2	52.5	28.0	28.0
LnGrp LOS	D	A	C	D	B	B	D	C	C	D	C	C
Approach Vol, veh/h	391			445			339			657		
Approach Delay, s/veh	30.3			35.3			33.4			33.5		
Approach LOS	C			D			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.0	29.9	6.2	23.5	6.9	41.0	12.4	17.3				
Change Period (Y+Rc), s	4.4	4.9	4.4	4.9	4.4	4.9	4.4	4.9				
Max Green Setting (Gmax), s	14.8	25.0	5.7	25.9	5.1	34.7	8.6	23.0				
Max Q Clear Time (g_c+I1), s	13.5	15.7	3.2	11.8	3.9	5.0	8.3	9.4				
Green Ext Time (p_c), s	0.1	1.7	0.0	3.6	0.0	1.1	0.0	1.6				
Intersection Summary												
HCM 6th Ctrl Delay				33.3								
HCM 6th LOS				C								

HCM 6th TWSC
5: Fairmount Ave. & Driveway

Existing With Project PM
10/31/2018

Intersection						
Int Delay, s/veh	1.1					
Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations		↑↑	↑↑		↓	
Traffic Vol, veh/h	37	578	265	16	15	36
Future Vol, veh/h	37	578	265	16	15	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	40	628	288	17	16	39
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	305	0	-	0	691	153
Stage 1	-	-	-	-	297	-
Stage 2	-	-	-	-	394	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1253	-	-	-	378	866
Stage 1	-	-	-	-	728	-
Stage 2	-	-	-	-	650	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1253	-	-	-	359	866
Mov Cap-2 Maneuver	-	-	-	-	359	-
Stage 1	-	-	-	-	692	-
Stage 2	-	-	-	-	650	-
Approach	SE	NW	SW			
HCM Control Delay, s	0.7	0	11.5			
HCM LOS			B			
Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1	
Capacity (veh/h)	-	-	1253	-	612	
HCM Lane V/C Ratio	-	-	0.032	-	0.091	
HCM Control Delay (s)	-	-	8	0.2	11.5	
HCM Lane LOS	-	-	A	A	B	
HCM 95th %tile Q(veh)	-	-	0.1	-	0.3	

Attachment 21

San Diego Municipal Code §141.0504(a)

San Diego Municipal Code
(10-2017)

Chapter 14: General Regulations

§141.0504 Marijuana Outlets

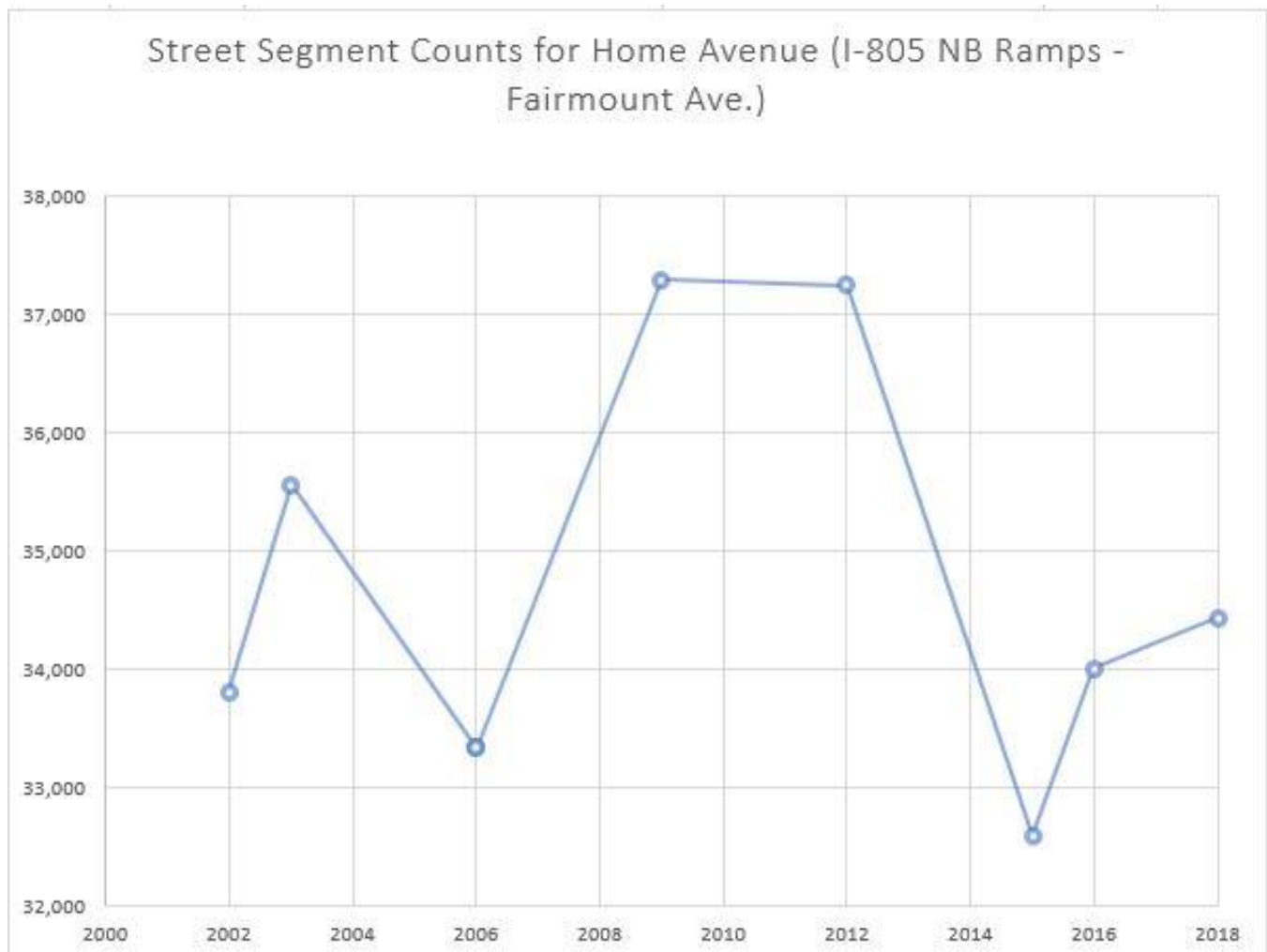
Marijuana outlets that are consistent with the requirements for retailer or dispensary license requirements in the California Business and Professions Code may be permitted with a Conditional Use Permit decided in accordance with Process Three in the zones indicated with a “C” in the Use Regulations Tables in Chapter 13, Article 1 (Base Zones), provided that no more than four *marijuana outlets* are permitted in each City Council District. *Marijuana outlets* are subject to the following regulations.

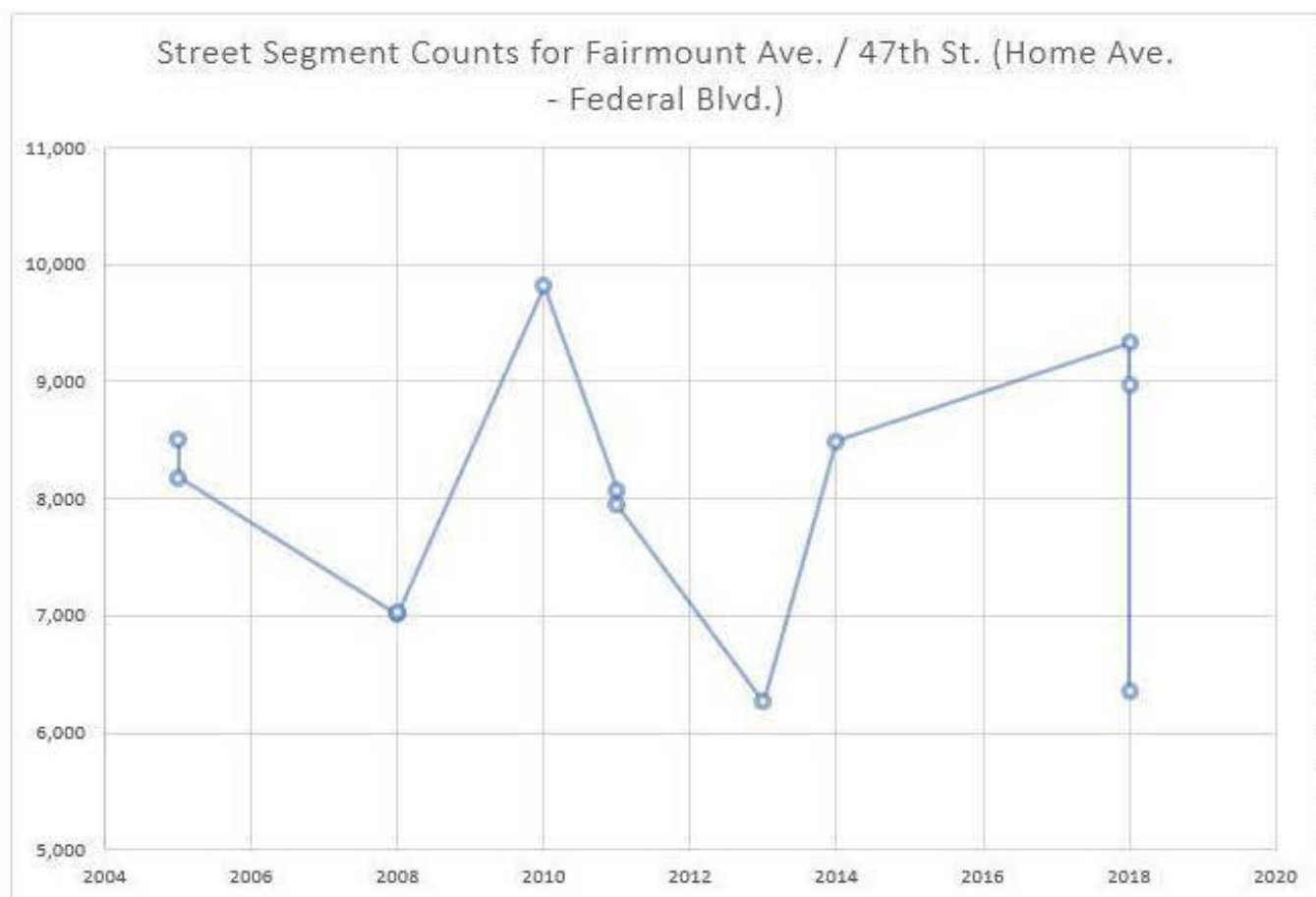
- (a) *Marijuana outlets* shall maintain the following minimum separation between uses, as measured between *property lines*, in accordance with Section 113.0225:
 - (1) 1,000 feet from resource and population-based city parks, other *marijuana outlets*, *churches*, child care centers, *playgrounds*, libraries owned and operated by the City of San Diego, *minor-oriented facilities*, residential care facilities, and schools. For purposes of this section, school means any public or private institution of learning providing instruction in kindergarten or grades 1 to 12, inclusive, but does not include any private school in which education is primarily conducted in private homes.
 - (2) 100 feet from a residential zone.
- (b) Lighting shall be provided to illuminate the interior, façade, and the immediate surrounding area of the *marijuana outlet*, including any *accessory uses*, parking lots, and adjoining sidewalks. Lighting shall be hooded or oriented to deflect light away from adjacent properties.
- (c) Security shall be provided at the *marijuana outlet* which shall include operable cameras, alarms, and a security guard. The security guard shall be licensed by the State of California and be present on the *premises* during business hours. The security guard shall only be engaged in activities related to providing security for the facility, except on an incidental basis.
- (d) Primary *signs* shall be posted on the outside of the *marijuana outlet* and shall only contain the name of the business, which shall contain only alphabetic characters, and shall be limited to two colors.
- (e) The name and emergency contact phone number of an operator or manager shall be posted in a location visible from outside the *marijuana outlet* in character size at least two inches in height.

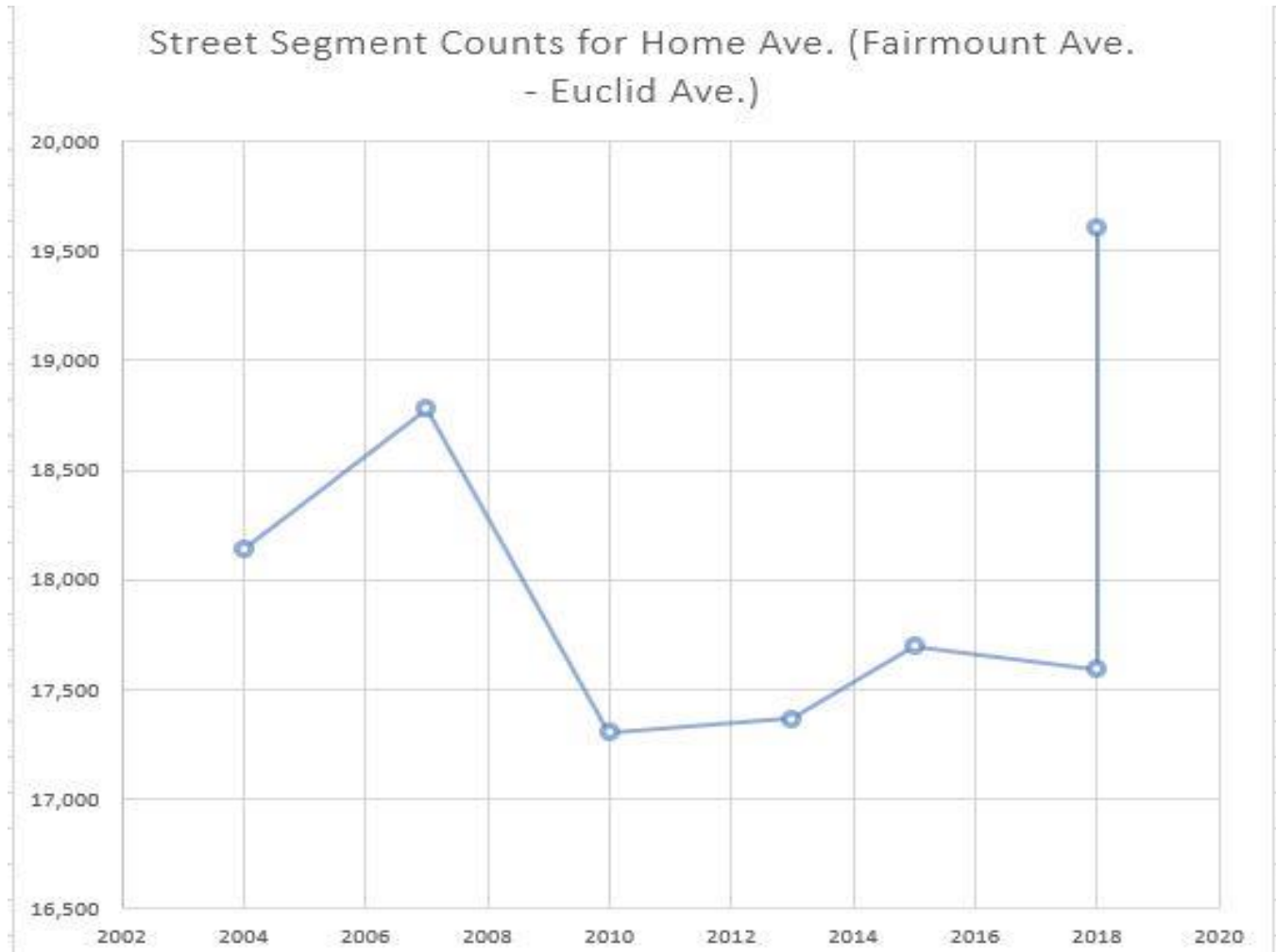
Ch.	Art.	Div.
14	1	5 9

Attachment 22

Historical Count Data of Street Segments / Growth Trends







Attachment 23

Near-Term (Opening Day Year 2020) Street Segment and Peak Hour Volume Calculations

	Year 2018 Counts	City of SD Historical Count Data	Count ID	Count Year	% Growth	% Yearly Growth	*Growth Rate	YR 2020 Volumes
Home Avenue	I-805 NB Ramps - Fairmount Avenue	34,435						
		32,594	HOMEAV042715	2015	5.3%	1.8%	2.0%	35,812
Fairmount Avenue / 47th Street	Home Avenue - Federal Boulevard	9,329	47ST023308	2008	24.9%	2.5%	2.0%	9,702
Home Avenue	Fairmount Avenue - Euclid Avenue	19,612	HOMEAV024710	2010	11.8%	1.5%	2.0%	20,396
					Average	1.9%		

Note A) 2018 Counts sourced from City of SD Historical Count Data. These are higher volume counts than the Year 2018 counts USAI obtained from vendor (6,361 ADT); therefore the use of the higher volume counts yielded a higher % growth rate for a more conservative approach.
B) * Per City comments received 10/29/2018, an ambient growth factor of 2.0% has been applied as a conservative approach.

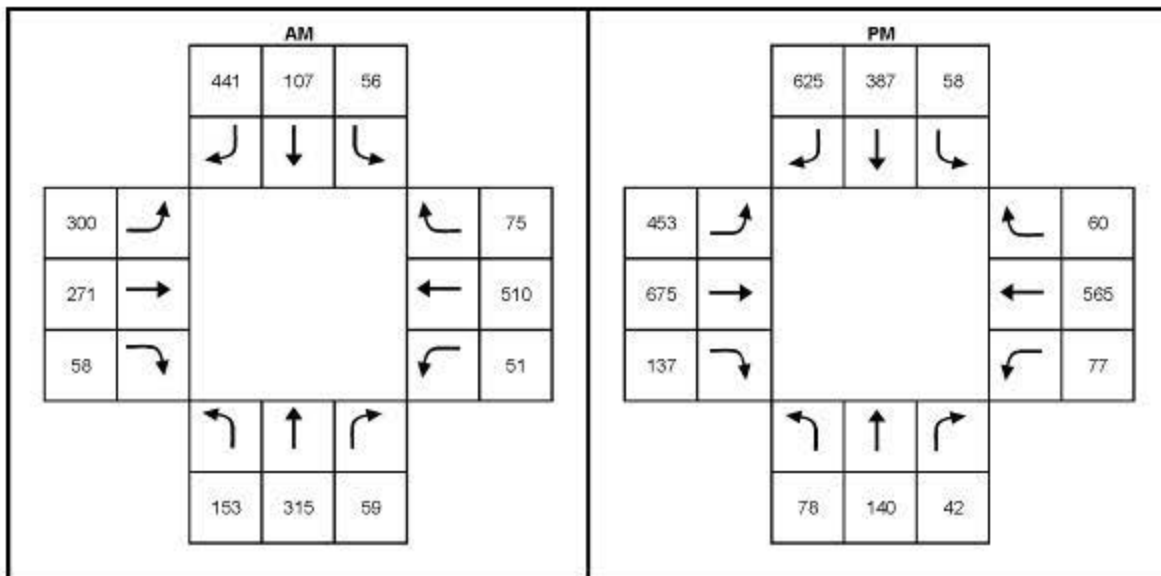
Buildout

Intersection 1

Analyst: Jorge Muradas
Intersection: Home Avenue at Fairmount Avenue
Future Condition: Year 2020
Date: 9/21/2018
Company: Urban Systems Associates, Inc.
Project Number: 004118
Intersection Control: Signalized

EW Street Name: Home Avenue
N/S Street Name: Fairmount Avenue
Factored Turns

Turn	Existing	Existing	Existing	Year 2020	% Factor	Year 2020	Year 2020
Movement	turn (v) AM	turn (v) PM	ADT	ADT		turn (v) AM	turn (v) PM
NLT	147	75	0	0	104%	153	78
NTH	303	135	0	0	104%	315	140
NRT	57	40	0	0	104%	59	42
SLT	54	56	0	0	104%	56	58
STH	103	372	0	0	104%	107	387
SRT	424	601	0	0	104%	441	625
ELT	288	436	0	0	104%	300	453
ETH	261	649	0	0	104%	271	675
ERT	56	132	0	0	104%	58	137
WLT	49	74	0	0	104%	51	77
WTH	490	543	0	0	104%	510	565
WRT	72	58	0	0	104%	75	60



Delay: 32.5
LOS: C

Delay: 46.6
LOS: D

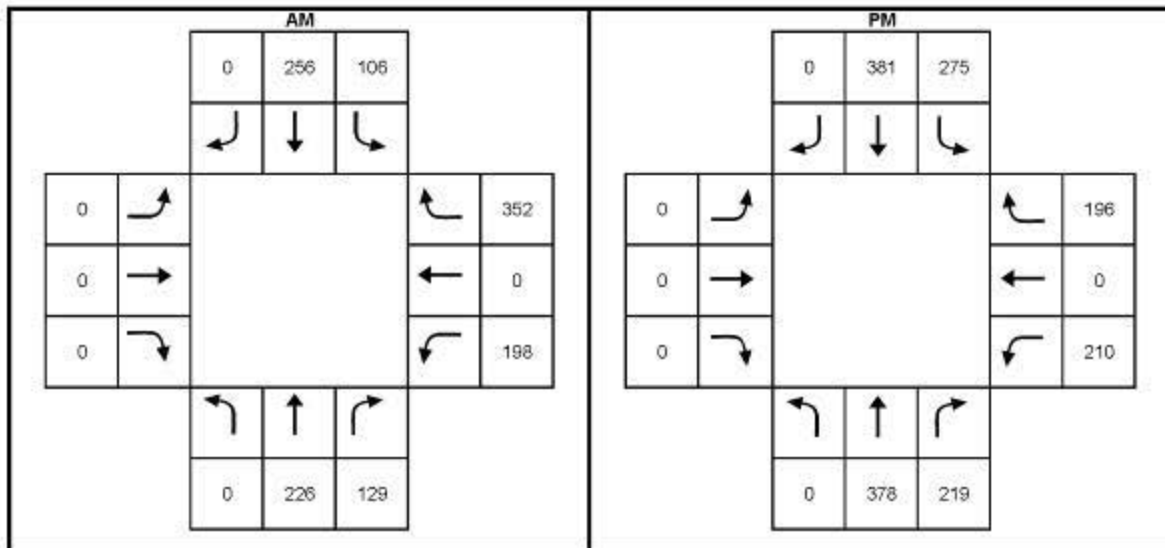
Buildout

Intersection 2

Analyst: Jorge Muradas
Intersection: Home Avenue at Euclid Avenue
Future Condition: Year 2020
Date: 9/21/2018
Company: Urban Systems Associates, Inc.
Project Number: 004118
Intersection Control: Signalized

EW Street Name: Euclid Avenue
N/S Street Name: Home Avenue
Factored Turns

Turn Movement	Existing turn (v) AM	Existing turn (v) PM	Existing ADT	Year 2020 ADT	% Factor	Year 2020 turn (v) AM	Year 2020 turn (v) PM
NLT	0	0	0	0		0	0
NTH	217	363	0	0	104%	226	378
NRT	124	211	0	0	104%	129	219
SLT	102	264	0	0	104%	106	275
STH	246	366	0	0	104%	256	381
SRT	0	0	0	0		0	0
ELT	0	0	0	0		0	0
ETH	0	0	0	0		0	0
ERT	0	0	0	0		0	0
WLT	190	202	0	0	104%	198	210
WTH	0	0	0	0		0	0
WRT	338	188	0	0	104%	352	196



Delay: 19.0
LOS: B

Delay: 19.8
LOS: B

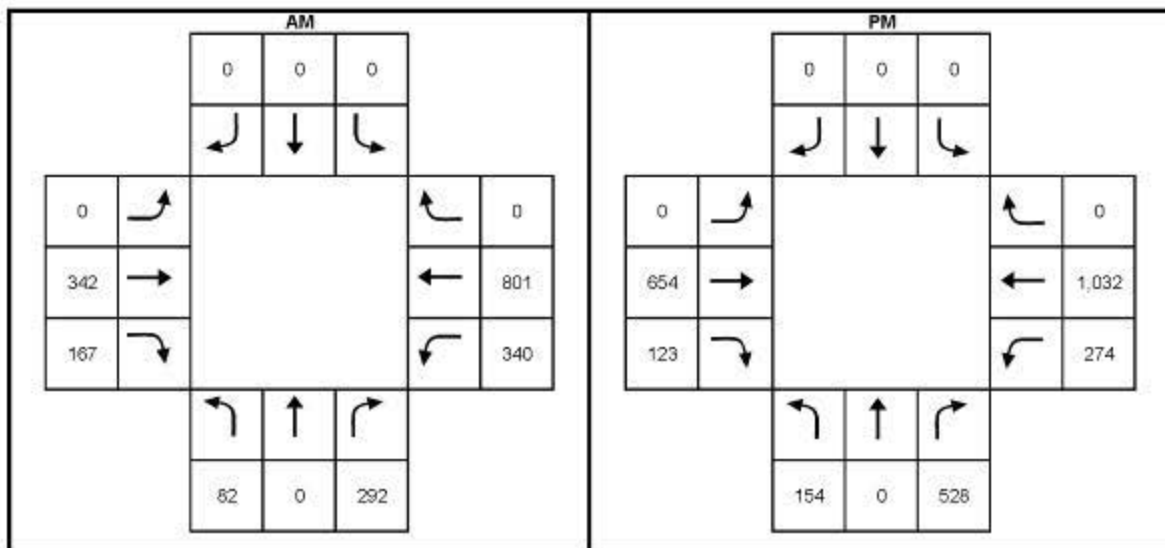
Buildout

Intersection 3

Analyst: Jorge Muradas
Intersection: Home Avenue at I-805 NB Ramps
Future Condition: Year 2020
Date: 9/21/2018
Company: Urban Systems Associates, Inc.
Project Number:
Intersection Control: Signalized

EW Street Name: Home Avenue
N/S Street Name: I-805 NB Ramps
Factored Turns

Turn	Existing	Existing	Existing	Year 2020	% Factor	Year 2020	Year 2020
Movement	turn (v) AM	turn (v) PM	ADT	ADT		turn (v) AM	turn (v) PM
NLT	79	148	0	0	104%	82	154
NTH	0	0	0	0		0	0
NRT	281	508	0	0	104%	292	528
SLT	0	0	0	0		0	0
STH	0	0	0	0		0	0
SRT	0	0	0	0		0	0
ELT	0	0	0	0		0	0
ETH	329	629	0	0	104%	342	654
ERT	161	118	0	0	104%	167	123
WLT	327	263	0	0	104%	340	274
WTH	770	992	0	0	104%	801	1032
WRT	0	0	0	0		0	0



Delay
16.2

LOS
B

Delay
22.0

LOS
C

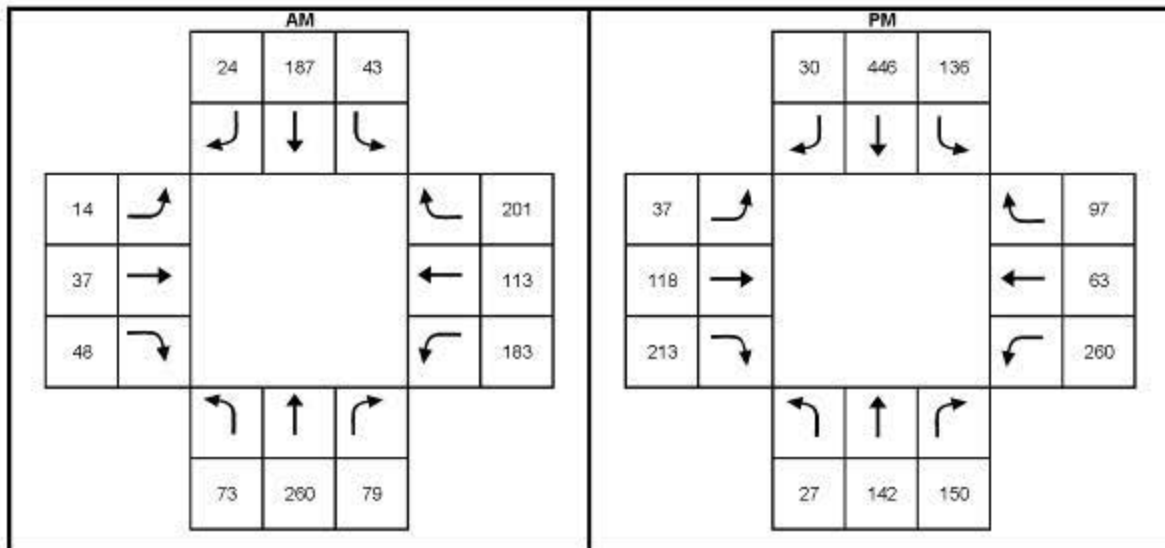
Buildout

Intersection 4

Analyst: Jorge Muradas
Intersection: 47th Street at Federal Boulevard
Future Condition: Year 2020
Date: 8/24/2018
Company: Urban Systems Associates, Inc.
Project Number: 004118
Intersection Control: Signalized

EW Street Name: Federal Boulevard
N/S Street Name: 47th Street
Factored Turns

Turn	Existing	Existing	Existing	Year 2020	% Factor	Year 2020	Year 2020
Movement	turn (v) AM	turn (v) PM	ADT	ADT		turn (v) AM	turn (v) PM
NLT	70	26	0	0	104%	73	27
NTH	250	137	0	0	104%	260	142
NRT	76	144	0	0	104%	79	150
SLT	41	131	0	0	104%	43	136
STH	180	429	0	0	104%	187	446
SRT	23	29	0	0	104%	24	30
ELT	13	36	0	0	104%	14	37
ETH	36	113	0	0	104%	37	118
ERT	46	205	0	0	104%	48	213
WLT	176	250	0	0	104%	183	260
WTH	109	61	0	0	104%	113	63
WRT	193	93	0	0	104%	201	97



Delay	LOS
32.4	C

Delay	LOS
34.3	C

Attachment 24

Near-Term (Opening Day Year 2020) Street Segment LOS

Road	Segment	Standard	# of Ln.	Class.	Cap.	Volume	V/C	LOS
Home Avenue	I-805 NB Ramps - Fairmount Avenue	SD	4	4-M	40,000	35,812	0.90	E
Fairmount Avenue / 47th Street	Home Avenue - Federal Boulevard	SD	4	4-C	30,000	9,702	0.32	A
Home Avenue	Fairmount Avenue - Euclid Avenue	SD	2	2-Ca	15,000	20,396	1.36	F

Legend:

Class. = Functional Class

Cap. = Capacity

LOS = Level of Service

2-Ca = 2 Lane Collector (w/continuous left-turn lane)

4-M = 4 Lane Major Arterial

Notes:

1) Volumes obtained by applying a growth factor based on Historical Count Data.

Attachment 25

Near-Term (Opening Day Year 2020) Street Segment ADT



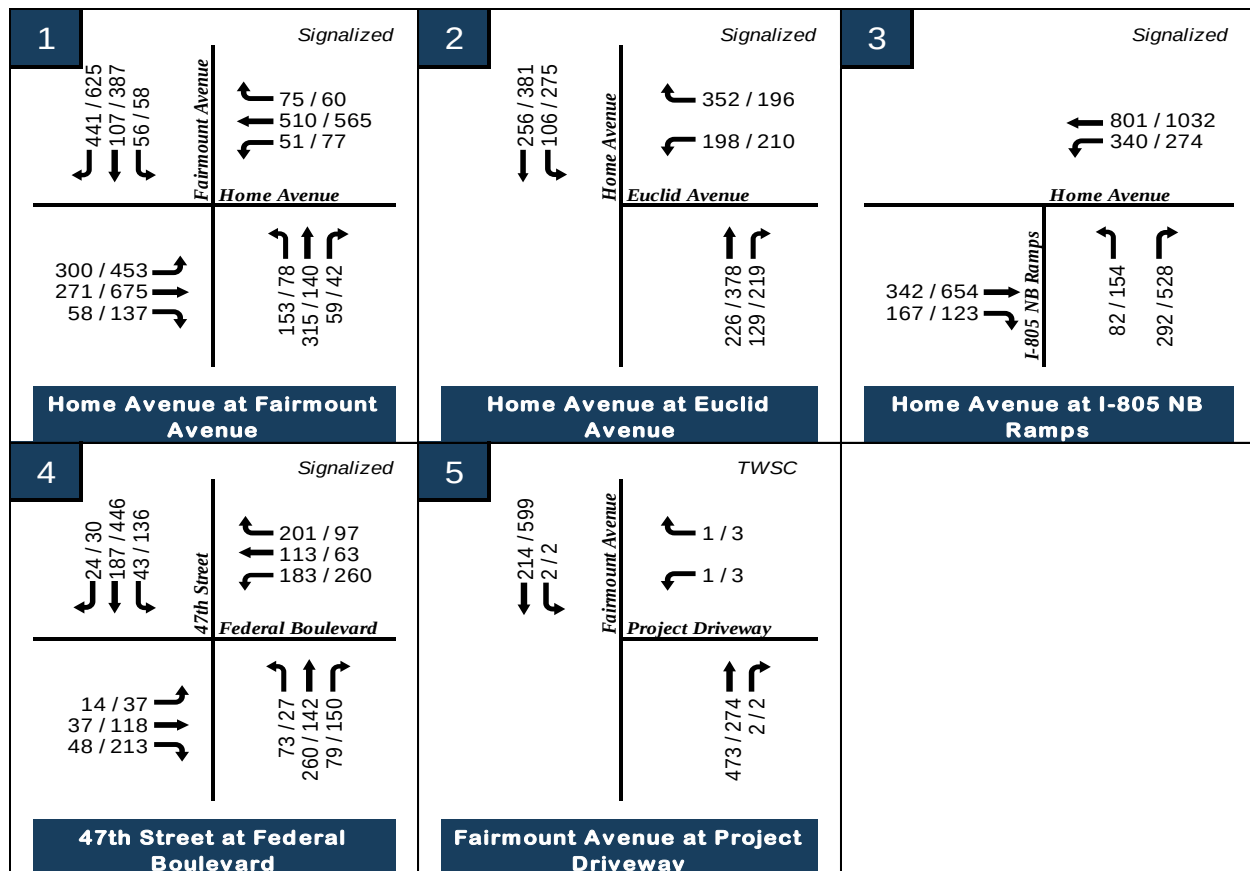
Legend

-  = Project Location
-  = Studied Intersection Location
- XX,XXX = ADT Number



Attachment 26

Near-Term (Opening Day Year 2020) Peak Hour Traffic Volumes



XX / XX = AM / PM Peak hour volumes

TWSC = Two-Way Stop Controlled

Attachment 27

Near-Term (Opening Day Year 2020) Intersection Peak Hour LOS

Number	Intersection	Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	Home Avenue at Fairmount Avenue	Signalized	32.5	C	46.6	D
2	Home Avenue at Euclid Avenue	Signalized	19	B	19.8	B
3	Home Avenue at I-805 NB Ramps	Signalized	16.2	B	22	C
4	47th Street at Federal Boulevard	Signalized	32.4	C	34.3	C
5	Fairmount Avenue at Project Driveway	TWSC	11.9	B	11.5	B

Notes:

Delay = seconds per vehicle

LOS = Level of Service

TWSC = Two-Way Stop Controlled

Attachment 28

Near-Term (Opening Day Year 2020) AM & PM Synchro Worksheets

HCM 6th Signalized Intersection Summary
1: Home Ave. & Fairmount Ave.

Near Term (Opening Day Year 2020) AM
10/31/2018

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	56	107	441	153	315	59	300	271	58	51	510	75
Future Volume (veh/h)	56	107	441	153	315	59	300	271	58	51	510	75
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		0.99	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	61	116	2	166	342	64	326	295	63	55	554	82
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	79	207	174	201	536	99	534	1487	313	71	775	114
Arrive On Green	0.04	0.11	0.11	0.11	0.18	0.18	0.30	0.51	0.51	0.04	0.25	0.25
Sat Flow, veh/h	1781	1870	1572	1781	2992	554	1781	2918	614	1781	3105	458
Grp Volume(v), veh/h	61	116	2	166	202	204	326	178	180	55	316	320
Grp Sat Flow(s),veh/h/ln	1781	1870	1572	1781	1777	1768	1781	1777	1756	1781	1777	1787
Q Serve(g_s), s	3.1	5.3	0.1	8.2	9.5	9.7	14.1	4.9	5.1	2.8	14.6	14.7
Cycle Q Clear(g_c), s	3.1	5.3	0.1	8.2	9.5	9.7	14.1	4.9	5.1	2.8	14.6	14.7
Prop In Lane	1.00		1.00	1.00		0.31	1.00		0.35	1.00		0.26
Lane Grp Cap(c), veh/h	79	207	174	201	318	317	534	906	895	71	444	446
V/C Ratio(X)	0.78	0.56	0.01	0.83	0.63	0.65	0.61	0.20	0.20	0.78	0.71	0.72
Avail Cap(c_a), veh/h	196	747	628	289	807	803	546	984	972	186	617	621
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.6	38.0	35.7	39.1	34.2	34.3	27.1	12.0	12.1	42.9	30.9	30.9
Incr Delay (d2), s/veh	6.0	3.7	0.0	8.5	3.1	3.2	1.4	0.2	0.2	6.8	3.1	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	2.6	0.0	4.0	4.3	4.4	6.0	1.9	1.9	1.3	6.5	6.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.7	41.7	35.7	47.6	37.3	37.5	28.4	12.2	12.3	49.7	34.0	34.1
LnGrp LOS	D	D	D	D	D	D	C	B	B	D	C	C
Approach Vol, veh/h	179			572			684			691		
Approach Delay, s/veh	44.0			40.4			20.0			35.3		
Approach LOS	D			D			B			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.0	51.2	14.5	16.4	31.4	27.8	8.4	22.5				
Change Period (Y+Rc), s	4.4	* 5.3	4.4	6.4	4.4	5.3	4.4	* 6.4				
Max Green Setting (Gmax), s	9.4	* 50	14.6	36.0	27.6	31.3	9.9	* 41				
Max Q Clear Time (g_c+I1), s	4.8	7.1	10.2	7.3	16.1	16.7	5.1	11.7				
Green Ext Time (p_c), s	0.0	4.0	0.1	1.0	0.4	4.5	0.0	3.8				
Intersection Summary												
HCM 6th Ctrl Delay	32.5											
HCM 6th LOS	C											
Notes												

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

HCM 6th Signalized Intersection Summary
2: Home Ave. & Euclid Ave.

Near Term (Opening Day Year 2020) AM
10/31/2018

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	200	352	226	129	106	256
Future Volume (veh/h)	200	352	226	129	106	256
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.99	1.00	
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/hln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	217	383	246	140	115	278
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	492	437	769	646	147	1056
Arrive On Green	0.28	0.28	0.41	0.41	0.08	0.56
Sat Flow, veh/h	1781	1585	1870	1570	1781	1870
Grp Volume(v), veh/h	217	383	246	140	115	278
Grp Sat Flow(s), veh/hln	1781	1585	1870	1570	1781	1870
Q Serve(g_s), s	6.2	14.3	5.5	3.6	3.9	4.7
Cycle Q Clear(g_c), s	6.2	14.3	5.5	3.6	3.9	4.7
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	492	437	769	646	147	1056
V/C Ratio(X)	0.44	0.88	0.32	0.22	0.78	0.26
Avail Cap(c_a), veh/h	717	638	769	646	203	1056
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.6	21.5	12.4	11.8	28.0	6.9
Incr Delay (d2), s/veh	0.2	6.9	1.1	0.8	8.1	0.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	5.7	2.3	1.3	1.9	1.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	18.8	28.3	13.5	12.6	36.1	7.5
LnGrp LOS	B	C	B	B	D	A
Approach Vol, veh/h	600		386			393
Approach Delay, s/veh	24.9		13.2			15.9
Approach LOS	C		B			B
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	9.5	31.1			40.6	21.6
Change Period (Y+Rc), s	4.4	* 5.5			5.5	4.4
Max Green Setting (Gmax), s	7.1	* 24			35.1	25.0
Max Q Clear Time (g_c+I1), s	5.9	7.5			6.7	16.3
Green Ext Time (p_c), s	0.0	2.8			1.8	0.8
Intersection Summary						
HCM 6th Ctrl Delay			19.0			
HCM 6th LOS			B			
Notes						
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.						

HCM 6th Signalized Intersection Summary
3: I-805 NB Ramps & Home Ave.

Near Term (Opening Day Year 2020) AM
10/31/2018

HCM 6th Edition methodology does not support turning movements with shared & exclusive lanes.

HCM Signalized Intersection Capacity Analysis Near Term (Opening Day Year 2020) AM
3: I-805 NB Ramps & Home Ave. 10/31/2018

						
Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	82	292	342	167	340	801
Future Volume (vph)	82	292	342	167	340	801
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1	5.4		4.7	5.4
Lane Util. Factor	1.00	0.95	0.95		1.00	0.95
Frpb, ped/bikes	1.00	1.00	0.99		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	0.91	0.85	0.95		1.00	1.00
Flt Protected	0.98	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1668	1504	3336		1770	3539
Flt Permitted	0.98	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1668	1504	3336		1770	3539
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	89	317	372	182	370	871
RTOR Reduction (vph)	54	157	68	0	0	0
Lane Group Flow (vph)	152	43	486	0	370	871
Confl. Peds. (#/hr)				2		
Confl. Bikes (#/hr)				3		
Turn Type	Prot	Perm	NA		Prot	NA
Protected Phases	4		2		1	6
Permitted Phases		4				
Actuated Green, G (s)	14.0	14.0	16.7		18.9	40.3
Effective Green, g (s)	14.0	14.0	16.7		18.9	40.3
Actuated g/C Ratio	0.22	0.22	0.26		0.29	0.62
Clearance Time (s)	5.1	5.1	5.4		4.7	5.4
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	360	324	859		516	2200
w/s Ratio Prot	c0.09		c0.15		c0.21	0.25
w/s Ratio Perm		0.03				
w/c Ratio	0.42	0.13	0.57		0.72	0.40
Uniform Delay, d1	21.9	20.5	20.9		20.6	6.1
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	0.8	0.2	0.9		4.7	0.1
Delay (s)	22.7	20.7	21.8		25.3	6.3
Level of Service	C	C	C		C	A
Approach Delay (s)	21.7		21.8			11.9
Approach LOS	C		C			B
Intersection Summary						
HCM 2000 Control Delay			16.2		HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.58			
Actuated Cycle Length (s)			64.8		Sum of lost time (s)	15.2
Intersection Capacity Utilization			59.2%		ICU Level of Service	B
Analysis Period (min)			15			

c: Critical Lane Group

HCM 6th Signalized Intersection Summary
4: Federal Blvd. & 47th St.

Near Term (Opening Day Year 2020) AM
10/31/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	37	48	183	113	201	73	260	79	43	187	24
Future Volume (veh/h)	14	37	48	183	113	201	73	260	79	43	187	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
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/hln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	15	40	52	199	123	218	79	283	86	47	203	26
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	25	227	295	209	729	649	101	822	244	59	892	113
Arrive On Green	0.01	0.31	0.31	0.12	0.41	0.41	0.06	0.31	0.31	0.03	0.28	0.28
Sat Flow, veh/h	1781	738	959	1781	1777	1582	1781	2690	800	1781	3168	400
Grp Volume(v), veh/h	15	0	92	199	123	218	79	185	184	47	113	116
Grp Sat Flow(s), veh/hln	1781	0	1697	1781	1777	1582	1781	1777	1714	1781	1777	1791
Q Serve(g_s), s	0.7	0.0	3.1	8.7	3.4	7.4	3.4	6.3	6.6	2.1	3.8	3.9
Cycle Q Clear(g_c), s	0.7	0.0	3.1	8.7	3.4	7.4	3.4	6.3	6.6	2.1	3.8	3.9
Prop In Lane	1.00		0.57	1.00		1.00	1.00		0.47	1.00		0.22
Lane Grp Cap(c), veh/h	25	0	521	209	729	649	101	543	523	59	500	504
V/C Ratio(X)	0.59	0.00	0.18	0.95	0.17	0.34	0.78	0.34	0.35	0.80	0.23	0.23
Avail Cap(c_a), veh/h	116	0	521	209	729	649	136	543	523	116	500	504
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.4	0.0	19.9	34.4	14.7	15.8	36.5	21.1	21.2	37.7	21.6	21.7
Incr Delay (d2), s/veh	7.9	0.0	0.7	48.4	0.5	1.4	12.6	1.7	1.9	8.7	1.0	1.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	1.3	6.5	1.4	2.8	1.8	2.8	2.8	1.0	1.7	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.4	0.0	20.7	82.9	15.2	17.2	49.1	22.8	23.1	46.4	22.7	22.7
LnGrp LOS	D	A	C	F	B	B	D	C	C	D	C	C
Approach Vol, veh/h	107			540			448			276		
Approach Delay, s/veh	24.3			40.9			27.6			26.7		
Approach LOS	C			D			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.6	29.0	8.9	27.0	5.5	37.1	7.0	28.9				
Change Period (Y+Rc), s	4.4	4.9	4.4	4.9	4.4	4.9	4.4	4.9				
Max Green Setting (Gmax), s	9.2	24.1	6.0	22.1	5.1	28.2	5.1	23.0				
Max Q Clear Time (g_c+I1), s	10.7	5.1	5.4	5.9	2.7	9.4	4.1	8.6				
Green Ext Time (p_c), s	0.0	0.5	0.0	1.6	0.0	2.1	0.0	1.9				
Intersection Summary												
HCM 6th Ctrl Delay	32.4											
HCM 6th LOS	C											

HCM 6th TWSC
5: Fairmount Ave. & Driveway

Near Term (Opening Day Year 2020) AM
10/31/2018

Intersection						
Int Delay, s/veh	0.1					
Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations		↑↑	↑↑		Y	
Traffic Vol, veh/h	2	214	473	2	1	1
Future Vol, veh/h	2	214	473	2	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	233	514	2	1	1
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	516	0	-	0	636	258
Stage 1	-	-	-	-	515	-
Stage 2	-	-	-	-	121	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1046	-	-	-	410	741
Stage 1	-	-	-	-	565	-
Stage 2	-	-	-	-	891	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1046	-	-	-	409	741
Mov Cap-2 Maneuver	-	-	-	-	409	-
Stage 1	-	-	-	-	564	-
Stage 2	-	-	-	-	891	-
Approach	SE	NW	SW			
HCM Control Delay, s	0.1	0	11.9			
HCM LOS			B			
Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1	
Capacity (veh/h)	-	-	1046	-	527	
HCM Lane V/C Ratio	-	-	0.002	-	0.004	
HCM Control Delay (s)	-	-	8.4	0	11.9	
HCM Lane LOS	-	-	A	A	B	
HCM 95th %tile Q(veh)	-	-	0	-	0	

HCM 6th Signalized Intersection Summary
1: Home Ave. & Fairmount Ave.

Near Term (Opening Day Year 2020) PM
10/31/2018

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	58	387	625	78	140	42	453	675	137	77	565	60
Future Volume (veh/h)	58	387	625	78	140	42	453	675	137	77	565	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	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/hln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	59	395	120	80	143	43	462	689	140	79	577	61
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	76	459	388	101	704	205	487	1389	282	100	829	87
Arrive On Green	0.04	0.25	0.25	0.06	0.26	0.26	0.27	0.47	0.47	0.06	0.26	0.26
Sat Flow, veh/h	1781	1870	1581	1781	2715	789	1781	2939	597	1781	3243	342
Grp Volume(v), veh/h	59	395	120	80	92	94	462	416	413	79	316	322
Grp Sat Flow(s), veh/hln	1781	1870	1581	1781	1777	1727	1781	1777	1759	1781	1777	1808
Q Serve(g_s), s	4.0	24.5	7.5	5.4	4.9	5.2	30.9	19.6	19.6	5.3	19.5	19.6
Cycle Q Clear(g_c), s	4.0	24.5	7.5	5.4	4.9	5.2	30.9	19.6	19.6	5.3	19.5	19.6
Prop In Lane	1.00		1.00	1.00		0.46	1.00		0.34	1.00		0.19
Lane Grp Cap(c), veh/h	76	459	388	101	461	448	487	840	831	100	454	462
V/C Ratio(X)	0.78	0.86	0.31	0.79	0.20	0.21	0.95	0.50	0.50	0.79	0.69	0.70
Avail Cap(c_a), veh/h	103	556	470	101	529	514	523	840	831	181	454	462
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.5	43.8	37.4	56.5	35.1	35.2	43.2	22.0	22.0	56.5	40.8	40.9
Incr Delay (d2), s/veh	15.5	12.6	0.7	31.1	0.3	0.3	25.6	2.1	2.1	5.1	8.5	8.4
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	2.1	12.9	3.0	3.3	2.2	2.2	16.8	8.5	8.4	2.5	9.6	9.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.0	56.4	38.1	87.5	35.4	35.5	68.9	24.1	24.1	61.5	49.3	49.3
LnGrp LOS	E	E	D	F	D	D	E	C	C	E	D	D
Approach Vol, veh/h		574			266			1291			717	
Approach Delay, s/veh		54.2			51.1			40.1			50.6	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.2	62.6	11.3	36.1	37.5	36.3	9.6	37.8				
Change Period (Y+Rc), s	4.4	* 5.3	4.4	6.4	4.4	5.3	4.4	* 6.4				
Max Green Setting (Gmax), s	12.3	* 55	6.9	36.0	35.6	31.0	7.0	* 36				
Max Q Clear Time (g_c+I1), s	7.3	21.6	7.4	26.5	32.9	21.6	6.0	7.2				
Green Ext Time (p_c), s	0.0	10.4	0.0	2.9	0.3	3.5	0.0	1.6				
Intersection Summary												
HCM 6th Ctrl Delay			46.6									
HCM 6th LOS			D									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 6th Signalized Intersection Summary
2: Home Ave. & Euclid Ave.

Near Term (Opening Day Year 2020) PM
10/31/2018

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	210	196	378	219	275	381
Future Volume (veh/h)	210	196	378	219	275	381
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/hln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	228	213	411	238	299	414
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	307	273	741	626	347	1242
Arrive On Green	0.17	0.17	0.40	0.40	0.19	0.66
Sat Flow, veh/h	1781	1585	1870	1581	1781	1870
Grp Volume(v), veh/h	228	213	411	238	299	414
Grp Sat Flow(s), veh/hln	1781	1585	1870	1581	1781	1870
Q Serve(g_s), s	7.3	7.8	10.3	6.5	9.8	5.8
Cycle Q Clear(g_c), s	7.3	7.8	10.3	6.5	9.8	5.8
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	307	273	741	626	347	1242
V/C Ratio(X)	0.74	0.78	0.55	0.38	0.86	0.33
Avail Cap(c_a), veh/h	737	656	741	626	372	1242
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.7	23.9	14.1	13.0	23.5	4.4
Incr Delay (d2), s/veh	1.3	1.8	3.0	1.8	16.3	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	2.8	4.4	2.3	5.4	1.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	25.1	25.7	17.1	14.7	39.8	5.1
LnGrp LOS	C	C	B	B	D	A
Approach Vol, veh/h	441		649			713
Approach Delay, s/veh	25.4		16.2			19.7
Approach LOS	C		B			B
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	16.2	29.4			45.6	14.8
Change Period (Y+Rc), s	4.4	* 5.5			5.5	4.4
Max Green Setting (Gmax), s	12.6	* 23			40.1	25.0
Max Q Clear Time (g_c+I1), s	11.8	12.3			7.8	9.8
Green Ext Time (p_c), s	0.0	4.0			3.0	0.6
Intersection Summary						
HCM 6th Ctrl Delay			19.8			
HCM 6th LOS			B			
Notes						
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.						

HCM 6th Signalized Intersection Summary
3: I-805 NB Ramps & Home Ave.

Near Term (Opening Day Year 2020) PM
10/31/2018

HCM 6th Edition methodology does not support turning movements with shared & exclusive lanes.

HCM Signalized Intersection Capacity Analysis Near Term (Opening Day Year 2020) PM
3: I-805 NB Ramps & Home Ave. 10/31/2018

						
Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	154	528	654	123	274	1032
Future Volume (vph)	154	528	654	123	274	1032
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1	5.4		4.7	5.4
Lane Util. Factor	1.00	0.95	0.95		1.00	0.95
Frpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	0.92	0.85	0.98		1.00	1.00
Flt Protected	0.98	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1670	1504	3443		1770	3539
Flt Permitted	0.98	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1670	1504	3443		1770	3539
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	167	574	711	134	298	1122
RTOR Reduction (vph)	49	267	16	0	0	0
Lane Group Flow (vph)	330	95	829	0	298	1122
Confl. Peds. (#/hr)				1		
Turn Type	Prot	Perm	NA		Prot	NA
Protected Phases	4		2		1	6
Permitted Phases		4				
Actuated Green, G (s)	21.3	21.3	26.7		17.8	49.2
Effective Green, g (s)	21.3	21.3	26.7		17.8	49.2
Actuated g/C Ratio	0.26	0.26	0.33		0.22	0.61
Clearance Time (s)	5.1	5.1	5.4		4.7	5.4
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	439	395	1134		388	2149
w/s Ratio Prot	c0.20		c0.24		c0.17	0.32
w/s Ratio Perm		0.06				
w/c Ratio	0.75	0.24	0.73		0.77	0.52
Uniform Delay, d1	27.4	23.5	24.0		29.7	9.1
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	7.1	0.3	2.5		8.8	0.2
Delay (s)	34.6	23.8	26.4		38.5	9.4
Level of Service	C	C	C		D	A
Approach Delay (s)	29.3		26.4			15.5
Approach LOS	C		C			B
Intersection Summary						
HCM 2000 Control Delay			22.0		HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.75			
Actuated Cycle Length (s)			81.0		Sum of lost time (s)	15.2
Intersection Capacity Utilization			71.8%		ICU Level of Service	C
Analysis Period (min)			15			
c Critical Lane Group						

HCM 6th Signalized Intersection Summary
4: Federal Blvd. & 47th St.

Near Term (Opening Day Year 2020) PM
10/31/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	118	213	260	63	97	27	142	150	136	446	30
Future Volume (veh/h)	37	118	213	260	63	97	27	142	150	136	446	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/hln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	40	128	232	283	68	105	29	154	163	148	485	33
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	53	189	342	321	832	740	43	289	252	183	815	55
Arrive On Green	0.03	0.32	0.32	0.18	0.47	0.47	0.02	0.16	0.16	0.10	0.24	0.24
Sat Flow, veh/h	1781	594	1077	1781	1777	1580	1781	1777	1546	1781	3372	229
Grp Volume(v), veh/h	40	0	360	283	68	105	29	154	163	148	255	263
Grp Sat Flow(s), veh/hln	1781	0	1671	1781	1777	1580	1781	1777	1546	1781	1777	1824
Q Serve(g_s), s	1.8	0.0	14.7	12.2	1.7	3.0	1.3	6.2	7.8	6.4	10.0	10.1
Cycle Q Clear(g_c), s	1.8	0.0	14.7	12.2	1.7	3.0	1.3	6.2	7.8	6.4	10.0	10.1
Prop In Lane	1.00		0.64	1.00		1.00	1.00		1.00	1.00		0.13
Lane Grp Cap(c), veh/h	53	0	531	321	832	740	43	289	252	183	429	441
V/C Ratio(X)	0.76	0.00	0.68	0.88	0.08	0.14	0.68	0.53	0.65	0.81	0.59	0.60
Avail Cap(c_a), veh/h	115	0	531	335	832	740	129	519	452	195	585	601
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.9	0.0	23.3	31.4	11.6	11.9	38.1	30.2	30.8	34.6	26.4	26.4
Incr Delay (d2), s/veh	8.0	0.0	6.8	21.2	0.2	0.4	7.0	1.6	2.9	19.2	1.9	1.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	6.5	6.9	0.7	1.1	0.6	2.7	3.0	3.7	4.3	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.9	0.0	30.2	52.7	11.7	12.3	45.1	31.8	33.7	53.7	28.3	28.3
LnGrp LOS	D	A	C	D	B	B	D	C	C	D	C	C
Approach Vol, veh/h	400			456			346			666		
Approach Delay, s/veh	31.7			37.3			33.8			34.0		
Approach LOS	C			D			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.6	29.9	6.3	23.9	6.7	41.8	12.5	17.7				
Change Period (Y+Rc), s	4.4	4.9	4.4	4.9	4.4	4.9	4.4	4.9				
Max Green Setting (Gmax), s	14.8	25.0	5.7	25.9	5.1	34.7	8.6	23.0				
Max Q Clear Time (g_c+I1), s	14.2	16.7	3.3	12.1	3.8	5.0	8.4	9.8				
Green Ext Time (p_c), s	0.0	1.7	0.0	3.7	0.0	1.1	0.0	1.6				
Intersection Summary												
HCM 6th Ctrl Delay	34.3											
HCM 6th LOS	C											

HCM 6th TWSC
5: Fairmount Ave. & Driveway

Near Term (Opening Day Year 2020) PM
10/31/2018

Intersection						
Int Delay, s/veh	0.1					
Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations		↑↑	↑↑		Y	
Traffic Vol, veh/h	2	599	274	2	3	3
Future Vol, veh/h	2	599	274	2	3	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	651	298	2	3	3
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	300	0	-	0	629	150
Stage 1	-	-	-	-	299	-
Stage 2	-	-	-	-	330	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1258	-	-	-	414	870
Stage 1	-	-	-	-	726	-
Stage 2	-	-	-	-	701	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1258	-	-	-	413	870
Mov Cap-2 Maneuver	-	-	-	-	413	-
Stage 1	-	-	-	-	725	-
Stage 2	-	-	-	-	701	-
Approach	SE	NW		SW		
HCM Control Delay, s	0	0		11.5		
HCM LOS				B		
Minor Lane/Major Mvmt	NWT	NWR	SEL	SETSWLn1		
Capacity (veh/h)	-	-	1258	-	560	
HCM Lane V/C Ratio	-	-	0.002	-	0.012	
HCM Control Delay (s)	-	-	7.9	0	11.5	
HCM Lane LOS	-	-	A	A	B	
HCM 95th %tile Q(veh)	-	-	0	-	0	

Attachment 29

Near-Term (Opening Day Year 2020) With Project Street Segment LOS

Road	Segment	Standard	# of Ln.	Class.	Cap.	Volume	V/C	LOS
Home Avenue	I-805 NB Ramps - Fairmount Avenue	SD	4	4-M	40,000	36,122	0.90	E
Fairmount Avenue / 47th Street	Home Avenue - Federal Boulevard	SD	4	4-C	30,000	10,322	0.34	B
Home Avenue	Fairmount Avenue - Euclid Avenue	SD	2	2-Ca	15,000	20,458	1.36	F

Legend:

Class. = Functional Class

Cap. = Capacity

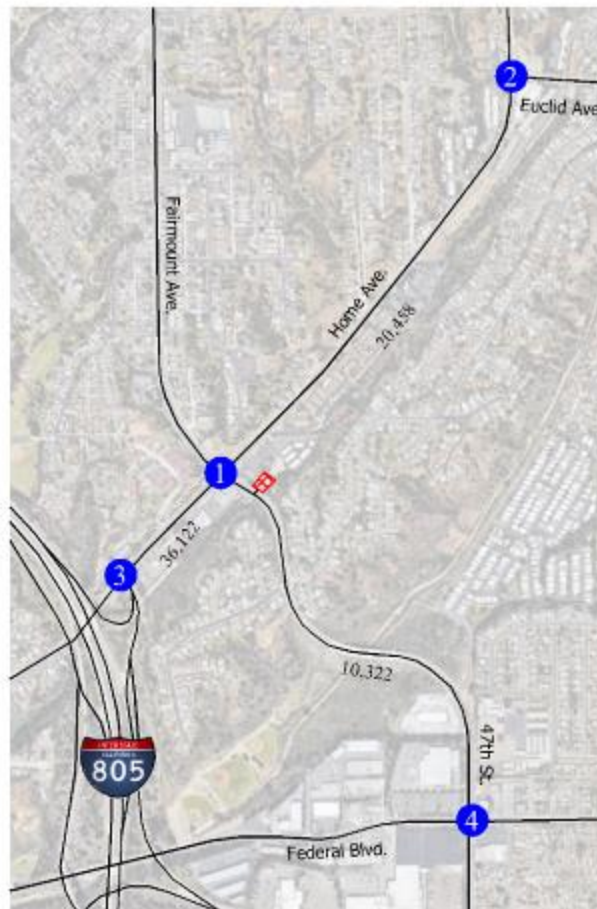
LOS = Level of Service

2-Ca = 2 Lane Collector (w/continuous left-turn lane)

4-M = 4 Lane Major Arterial

Attachment 30

Near-Term (Opening Day Year 2020) With Project Street Segment ADT



Legend



= Project Location



= Studied Intersection Location

XX,XXX = ADT Number



Attachment 31

Near-Term (Opening Day Year 2020) & Near-Term With Project (Opening Day Year 2020) Street Segment LOS Comparison

Road	Segment	# of Lanes	LOS "E" Capacity	Class.	Near Term			Near Term + Project			Δ V/C	Is this impact Significant?
					LOS	Volume	V/C	LOS	Volume	V/C		
Home Avenue	I-805 NB Ramps - Fairmount Avenue	4	40,000	4-M	E	35,812	0.90	E	36,122	0.90	0.008	NO
Fairmount Avenue / 47th Street	Home Avenue - Federal Boulevard	4	30,000	4-C	A	9,702	0.32	B	10,322	0.34	0.021	NO
Home Avenue	Fairmount Avenue - Euclid Avenue	2	15,000	2-Ca	F	20,396	1.36	F	20,458	1.36	0.004	NO

Legend:

LOS= Level of Service

V/C= Volume to Capacity Ratio

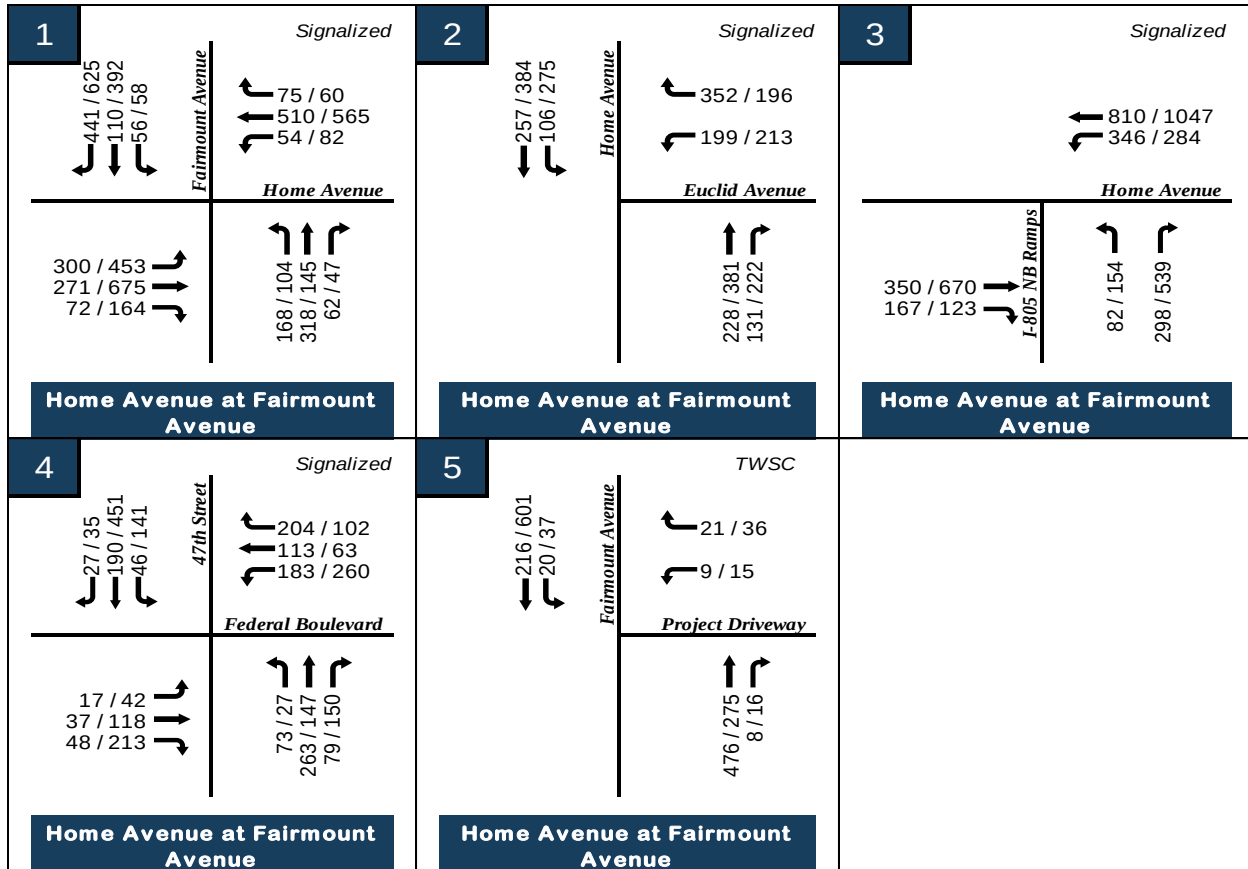
Δ V/C= Change in V/C ratio

2-Ca = 2 Lane Collector (w/continuous left-turn lane)

4-M = 4 Lane Major Arterial

Attachment 32

Near-Term With Project (Opening Day Year 2020) Peak Hour Traffic Volumes



XX / XX = AM / PM Peak hour volumes

TWSC = Two-Way Stop Controlled

Attachment 33

Near-Term With Project (Opening Day Year 2020) Intersection Peak Hour LOS

Number	Intersection	Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	Home Avenue at Fairmount Avenue	Signalized	33.2	C	49.2	D
2	Home Avenue at Euclid Avenue	Signalized	19	B	19.9	B
3	Home Avenue at I-805 NB Ramps	Signalized	16.5	B	22.6	C
4	47th Street at Federal Boulevard	Signalized	32.4	C	34.6	C
5	Fairmount Avenue at Project Driveway	TWSC	11.7	B	11.6	B

Notes:

Delay = seconds per vehicle

LOS = Level of Service

TWSC = Two-Way Stop Controlled

Attachment 34

Near-Term With Project (Opening Day Year 2020) Intersection Peak Hour LOS Comparison

#	Intersection	Year 2020				Year 2020 + Project							
		AM Peak Hour		PM Peak Hour		AM Peak Hour		Δ	S ?	PM Peak Hour		Δ	S ?
		D	LOS	D	LOS	D	LOS			D	LOS		
1	Home Avenue at Fairmount Avenue	32.5	C	46.6	D	33.2	C	0.7	No	49.2	D	2.6	No
2	Home Avenue at Euclid Avenue	19.0	B	19.8	B	19.0	B	0.0	No	19.9	B	0.1	No
3	Home Avenue at I-805 NB Ramps	16.2	B	22.0	C	16.5	B	0.3	No	22.6	C	0.6	No
4	47th Street at Federal Boulevard	32.4	C	34.3	C	32.4	C	0.0	No	34.6	C	0.3	No
5	Fairmount Avenue at Project Driveway	11.9	B	11.5	B	11.7	B	-0.2	No	11.6	B	0.1	No

Notes:

LOS = Level of Service

Δ = Change

S = Significant

D = Delay

Attachment 35

Near-Term With Project (Opening Day Year 2020) AM & PM Synchro Worksheets

HCM 6th Signalized Intersection Summary Near Term + Project (Opening Day Yr. 2020) AM
1: Home Ave. & Fairmount Ave. 10/31/2018

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	56	110	441	168	318	62	300	271	72	54	510	75
Future Volume (veh/h)	56	110	441	168	318	62	300	271	72	54	510	75
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		0.99	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/mn	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	61	120	4	183	346	67	326	295	78	59	554	82
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	79	210	177	218	567	109	525	1390	361	76	766	113
Arrive On Green	0.04	0.11	0.11	0.12	0.19	0.19	0.29	0.50	0.50	0.04	0.25	0.25
Sat Flow, veh/h	1781	1870	1572	1781	2973	569	1781	2788	724	1781	3105	458
Grp Volume(v), veh/h	61	120	4	183	205	208	326	186	187	59	316	320
Grp Sat Flow(s),veh/h/mn	1781	1870	1572	1781	1777	1766	1781	1777	1735	1781	1777	1787
Q Serve(g_s), s	3.1	5.6	0.2	9.2	9.7	9.9	14.5	5.4	5.5	3.0	14.9	15.0
Cycle Q Clear(g_c), s	3.1	5.6	0.2	9.2	9.7	9.9	14.5	5.4	5.5	3.0	14.9	15.0
Prop In Lane	1.00		1.00	1.00		0.32	1.00		0.42	1.00		0.26
Lane Grp Cap(c), veh/h	79	210	177	218	339	337	525	886	865	76	438	440
W/C Ratio(X)	0.78	0.57	0.02	0.84	0.61	0.62	0.62	0.21	0.22	0.78	0.72	0.73
Avail Cap(c_a), veh/h	193	735	618	303	813	808	537	949	927	183	588	591
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.3	38.5	36.2	39.3	33.9	34.0	27.9	12.8	12.9	43.4	31.6	31.7
Incr Delay (d2), s/veh	6.0	3.8	0.1	10.3	2.6	2.7	1.5	0.2	0.2	6.3	3.6	3.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/mn	1.5	2.7	0.1	4.6	4.4	4.4	6.1	2.1	2.1	1.4	6.7	6.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.3	42.4	36.2	49.6	36.5	36.7	29.4	13.1	13.1	49.7	35.3	35.4
LnGrp LOS	D	D	D	D	D	D	C	B	B	D	D	D
Approach Vol, veh/h	185			596			699			695		
Approach Delay, s/veh	44.5			40.6			20.7			36.5		
Approach LOS	D			D			C			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.3	51.0	15.6	16.7	31.4	27.9	8.4	23.9				
Change Period (Y+Rc), s	4.4	* 5.3	4.4	6.4	4.4	5.3	4.4	* 6.4				
Max Green Setting (Gmax), s	9.4	* 49	15.6	36.0	27.6	30.3	9.9	* 42				
Max Q Clear Time (g_c+I), s	5.0	7.5	11.2	7.6	16.5	17.0	5.1	11.9				
Green Ext Time (p_c), s	0.0	4.2	0.1	1.0	0.4	4.3	0.0	3.9				
Intersection Summary												
HCM 6th Ctrl Delay	33.2											
HCM 6th LOS	C											
Notes												

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

HCM 6th Signalized Intersection Summary Near Term + Project (Opening Day Yr. 2020) AM
2: Home Ave. & Euclid Ave. 10/31/2018

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	←	←	↑	↑	←	←
Traffic Volume (veh/h)	199	352	228	131	106	257
Future Volume (veh/h)	199	352	228	131	106	257
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pb T)	1.00	1.00		0.99	1.00	
Parking Bus, Adj	1.00	1.00		1.00	1.00	
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/hln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	216	383	248	142	115	279
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	492	437	769	646	147	1056
Arrive On Green	0.28	0.28	0.41	0.41	0.08	0.56
Sat Flow, veh/h	1781	1585	1870	1570	1781	1870
Grp Volume(v), veh/h	216	383	248	142	115	279
Grp Sat Flow(s), veh/hln	1781	1585	1870	1570	1781	1870
Q Serve(g_s), s	6.2	14.3	5.6	3.6	3.9	4.7
Cycle Q Clear(g_c), s	6.2	14.3	5.6	3.6	3.9	4.7
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	492	437	769	646	147	1056
V/C Ratio(X)	0.44	0.88	0.32	0.22	0.78	0.26
Avail Cap(c_a), veh/h	717	638	769	646	203	1056
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.5	21.5	12.4	11.8	28.0	6.9
Incr Delay (d2), s/veh	0.2	6.9	1.1	0.8	8.1	0.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	5.7	2.3	1.3	1.9	1.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	18.8	28.3	13.5	12.6	36.1	7.5
LnGrp LOS	B	C	B	B	D	A
Approach Vol, veh/h	599		390			394
Approach Delay, s/veh	24.9		13.2			15.9
Approach LOS	C		B			B
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	9.5	31.1			40.6	21.6
Change Period (Y+Rc), s	4.4	* 5.5			5.5	4.4
Max Green Setting (Gmax), s	7.1	* 24			35.1	25.0
Max Q Clear Time (g_c+I1), s	5.9	7.6			6.7	16.3
Green Ext Time (p_c), s	0.0	2.8			1.8	0.8
Intersection Summary						
HCM 6th Ctrl Delay			19.0			
HCM 6th LOS			B			
Notes						
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.						

HCM 6th Signalized Intersection Summary Near Term + Project (Opening Day Yr. 2020) AM
3: I-805 NB Ramps & Home Ave. 10/31/2018

HCM 6th Edition methodology does not support turning movements with shared & exclusive lanes.

HCM Signalized Intersection Capacity Analysis Clear Term + Project (Opening Day Yr. 2020) AM
3: I-805 NB Ramps & Home Ave. 10/31/2018

						
Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	82	298	350	167	346	810
Future Volume (vph)	82	298	350	167	346	810
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1	5.4		4.7	5.4
Lane Util. Factor	1.00	0.95	0.95		1.00	0.95
Frpb, ped/bikes	1.00	1.00	0.99		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	0.91	0.85	0.95		1.00	1.00
Flt Protected	0.98	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1666	1504	3339		1770	3539
Flt Permitted	0.98	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1666	1504	3339		1770	3539
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	89	324	380	182	376	880
RTOR Reduction (vph)	56	158	66	0	0	0
Lane Group Flow (vph)	156	43	496	0	376	880
Confl. Peds. (#/hr)				2		
Confl. Bikes (#/hr)				3		
Turn Type	Prot	Perm	NA		Prot	NA
Protected Phases	4		2		1	6
Permitted Phases		4				
Actuated Green, G (s)	14.1	14.1	17.0		18.9	40.6
Effective Green, g (s)	14.1	14.1	17.0		18.9	40.6
Actuated g/C Ratio	0.22	0.22	0.26		0.29	0.62
Clearance Time (s)	5.1	5.1	5.4		4.7	5.4
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	360	325	870		513	2203
w/s Ratio Prot	c0.09		c0.15		c0.21	0.25
w/s Ratio Perm		0.03				
w/c Ratio	0.43	0.13	0.57		0.73	0.40
Uniform Delay, d1	22.1	20.6	20.9		20.9	6.2
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	0.8	0.2	0.9		5.4	0.1
Delay (s)	22.9	20.8	21.8		26.2	6.3
Level of Service	C	C	C		C	A
Approach Delay (s)	21.9		21.8			12.3
Approach LOS	C		C			B
Intersection Summary						
HCM 2000 Control Delay			16.5		HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.59			
Actuated Cycle Length (s)			65.2		Sum of lost time (s)	15.2
Intersection Capacity Utilization			60.0%		ICU Level of Service	B
Analysis Period (min)			15			

c Critical Lane Group

HCM 6th Signalized Intersection Summary Near Term + Project (Opening Day Yr. 2020) AM
4: Federal Blvd. & 47th St. 10/31/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	37	48	183	113	204	73	263	79	46	190	27
Future Volume (veh/h)	17	37	48	183	113	204	73	263	79	46	190	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
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/hln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	18	40	52	199	123	222	79	286	86	50	207	29
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	29	227	295	209	725	645	101	818	241	63	882	122
Arrive On Green	0.02	0.31	0.31	0.12	0.41	0.41	0.06	0.30	0.30	0.04	0.28	0.28
Sat Flow, veh/h	1781	738	959	1781	1777	1582	1781	2698	794	1781	3130	432
Grp Volume(v), veh/h	18	0	92	199	123	222	79	186	186	50	116	120
Grp Sat Flow(s), veh/hln	1781	0	1697	1781	1777	1582	1781	1777	1715	1781	1777	1785
Q Serve(g_s), s	0.8	0.0	3.1	8.7	3.5	7.6	3.4	6.4	6.6	2.2	3.9	4.1
Cycle Q Clear(g_c), s	0.8	0.0	3.1	8.7	3.5	7.6	3.4	6.4	6.6	2.2	3.9	4.1
Prop In Lane	1.00		0.57	1.00		1.00	1.00		0.46	1.00		0.24
Lane Grp Cap(c), veh/h	29	0	521	209	725	645	101	539	520	63	500	503
V/C Ratio(X)	0.61	0.00	0.18	0.95	0.17	0.34	0.78	0.35	0.36	0.79	0.23	0.24
Avail Cap(c_a), veh/h	116	0	521	209	725	645	136	539	520	116	500	503
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.3	0.0	19.9	34.4	14.8	16.0	36.5	21.3	21.4	37.6	21.7	21.7
Incr Delay (d2), s/veh	7.4	0.0	0.7	48.4	0.5	1.5	12.6	1.8	1.9	8.0	1.1	1.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	1.3	6.5	1.4	2.8	1.8	2.8	2.8	1.1	1.7	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.7	0.0	20.7	82.9	15.3	17.5	49.1	23.0	23.3	45.6	22.7	22.8
LnGrp LOS	D	A	C	F	B	B	D	C	C	D	C	C
Approach Vol, veh/h	110			544			451			286		
Approach Delay, s/veh	24.8			40.9			27.7			26.8		
Approach LOS	C			D			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.6	29.0	8.9	27.0	5.7	36.9	7.2	28.7				
Change Period (Y+Rc), s	4.4	4.9	4.4	4.9	4.4	4.9	4.4	4.9				
Max Green Setting (Gmax), s	9.2	24.1	6.0	22.1	5.1	28.2	5.1	23.0				
Max Q Clear Time (g_c+I1), s	10.7	5.1	5.4	6.1	2.8	9.6	4.2	8.6				
Green Ext Time (p_c), s	0.0	0.5	0.0	1.6	0.0	2.2	0.0	1.9				
Intersection Summary												
HCM 6th Ctrl Delay	32.4											
HCM 6th LOS	C											

HCM 6th TWSC

Near Term + Project (Opening Day Yr. 2020) AM

5: Fairmount Ave. & Driveway

10/31/2018

Intersection						
Int Delay, s/veh	0.7					
Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations		↑↑	↑↑		Y	
Traffic Vol , veh/h	20	216	476	8	9	21
Future Vol, veh/h	20	216	476	8	9	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	235	517	9	10	23
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	526	0	-	0	684	263
Stage 1	-	-	-	-	522	-
Stage 2	-	-	-	-	162	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1037	-	-	-	382	735
Stage 1	-	-	-	-	560	-
Stage 2	-	-	-	-	850	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1037	-	-	-	373	735
Mov Cap-2 Maneuver	-	-	-	-	373	-
Stage 1	-	-	-	-	547	-
Stage 2	-	-	-	-	850	-
Approach	SE	NW		SW		
HCM Control Delay, s	0.8	0		11.7		
HCM LOS				B		
Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1	
Capacity (veh/h)	-	-	1037	-	569	
HCM Lane V/C Ratio	-	-	0.021	-	0.057	
HCM Control Delay (s)	-	-	8.5	0.1	11.7	
HCM Lane LOS	-	-	A	A	B	
HCM 95th %tile Q(veh)	-	-	0.1	-	0.2	

HCM 6th Signalized Intersection Summary Near Term + Project (Opening Day Yr. 2020) PM
1: Home Ave. & Fairmount Ave. 10/31/2018

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	58	392	625	104	145	47	453	675	164	82	565	60
Future Volume (veh/h)	58	392	625	104	145	47	453	675	164	82	565	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	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/hln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	59	400	123	106	148	15	462	689	139	84	577	53
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	76	461	389	124	891	89	485	1349	272	106	809	74
Arrive On Green	0.04	0.25	0.25	0.07	0.27	0.27	0.27	0.46	0.46	0.06	0.25	0.25
Sat Flow, veh/h	1781	1870	1581	1781	3261	327	1781	2943	593	1781	3291	302
Grp Volume(v), veh/h	59	400	123	106	80	83	462	416	412	84	311	319
Grp Sat Flow(s), veh/hln	1781	1870	1581	1781	1777	1811	1781	1777	1760	1781	1777	1816
Q Serve(g_s), s	4.0	25.3	7.8	7.3	4.2	4.3	31.4	20.4	20.4	5.7	19.7	19.8
Cycle Q Clear(g_c), s	4.0	25.3	7.8	7.3	4.2	4.3	31.4	20.4	20.4	5.7	19.7	19.8
Prop In Lane	1.00		1.00	1.00		0.18	1.00		0.34	1.00		0.17
Lane Grp Cap(c), veh/h	76	461	389	124	486	495	485	814	807	106	437	446
V/C Ratio(X)	0.78	0.87	0.32	0.85	0.16	0.17	0.95	0.51	0.51	0.79	0.71	0.72
Avail Cap(c_a), veh/h	143	546	462	124	503	513	500	814	807	183	437	446
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.5	44.6	38.0	56.7	34.1	34.1	44.1	23.6	23.6	57.2	42.5	42.6
Incr Delay (d2), s/veh	6.2	13.6	0.7	38.8	0.2	0.2	27.9	2.3	2.3	4.9	9.5	9.4
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	2.0	13.4	3.1	4.6	1.9	2.0	17.4	8.9	8.8	2.7	9.8	10.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.7	58.2	38.7	95.5	34.3	34.4	72.1	25.9	25.9	62.2	52.0	52.0
LnGrp LOS	E	E	D	F	C	C	E	C	C	E	D	D
Approach Vol, veh/h		582			269			1290			714	
Approach Delay, s/veh		54.7			58.5			42.4			53.2	
Approach LOS		D			E			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.7	61.8	13.0	36.8	38.0	35.6	9.7	40.1				
Change Period (Y+Rc), s	4.4	* 5.3	4.4	6.4	4.4	5.3	4.4	* 6.4				
Max Green Setting (Gmax), s	12.7	* 53	8.6	36.0	34.6	30.3	9.9	* 35				
Max Q Clear Time (g_c+I1), s	7.7	22.4	9.3	27.3	33.4	21.8	6.0	6.3				
Green Ext Time (p_c), s	0.0	10.0	0.0	2.8	0.1	3.2	0.0	1.3				
Intersection Summary												
HCM 6th Ctrl Delay			49.2									
HCM 6th LOS			D									
Notes												
User approved pedestrian interval to be less than phase max green.												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

07/20/2018 Baseline

Synchro 10 Report
Page 1

HCM 6th Signalized Intersection Summary Near Term + Project (Opening Day Yr. 2020) PM
2: Home Ave. & Euclid Ave. 10/31/2018

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	213	196	381	222	275	384
Future Volume (veh/h)	213	196	381	222	275	384
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00		1.00	1.00	
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/hln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	232	213	414	241	299	417
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	307	273	741	626	347	1242
Arrive On Green	0.17	0.17	0.40	0.40	0.19	0.66
Sat Flow, veh/h	1781	1585	1870	1581	1781	1870
Grp Volume(v), veh/h	232	213	414	241	299	417
Grp Sat Flow(s), veh/hln	1781	1585	1870	1581	1781	1870
Q Serve(g_s), s	7.5	7.8	10.4	6.6	9.8	5.8
Cycle Q Clear(g_c), s	7.5	7.8	10.4	6.6	9.8	5.8
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	307	273	741	626	347	1242
V/C Ratio(X)	0.76	0.78	0.56	0.38	0.86	0.34
Avail Cap(c_a), veh/h	737	656	741	626	372	1242
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.8	23.9	14.2	13.0	23.5	4.4
Incr Delay (d2), s/veh	1.4	1.8	3.0	1.8	16.3	0.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	2.8	4.5	2.4	5.4	1.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	25.2	25.7	17.2	14.8	39.8	5.1
LnGrp LOS	C	C	B	B	D	A
Approach Vol, veh/h	445		655			716
Approach Delay, s/veh	25.5		16.3			19.6
Approach LOS	C		B			B
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	16.2	29.4			45.6	14.8
Change Period (Y+Rc), s	4.4	* 5.5			5.5	4.4
Max Green Setting (Gmax), s	12.6	* 23			40.1	25.0
Max Q Clear Time (g_c+I1), s	11.8	12.4			7.8	9.8
Green Ext Time (p_c), s	0.0	4.0			3.1	0.7
Intersection Summary						
HCM 6th Ctrl Delay			19.9			
HCM 6th LOS			B			
Notes						
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.						

HCM 6th Signalized Intersection Summary Near Term + Project (Opening Day Yr. 2020) PM
3: I-805 NB Ramps & Home Ave. 10/31/2018

HCM 6th Edition methodology does not support turning movements with shared & exclusive lanes.

HCM Signalized Intersection Capacity Analysis Clear Term + Project (Opening Day Yr. 2020) PM
3: I-805 NB Ramps & Home Ave. 10/31/2018

						
Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	154	539	670	123	284	1047
Future Volume (vph)	154	539	670	123	284	1047
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1	5.4		4.7	5.4
Lane Util. Factor	1.00	0.95	0.95		1.00	0.95
Frpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	0.92	0.85	0.98		1.00	1.00
Flt Protected	0.98	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1669	1504	3445		1770	3539
Flt Permitted	0.98	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1669	1504	3445		1770	3539
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	167	586	728	134	309	1138
RTOR Reduction (vph)	50	272	15	0	0	0
Lane Group Flow (vph)	334	97	847	0	309	1138
Confl. Peds. (#/hr)				1		
Turn Type	Prot	Perm	NA		Prot	NA
Protected Phases	4		2		1	6
Permitted Phases		4				
Actuated Green, G (s)	21.6	21.6	27.3		18.4	50.4
Effective Green, g (s)	21.6	21.6	27.3		18.4	50.4
Actuated g/C Ratio	0.26	0.26	0.33		0.22	0.61
Clearance Time (s)	5.1	5.1	5.4		4.7	5.4
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	436	393	1139		394	2162
w/s Ratio Prot	c0.20		c0.25		c0.17	0.32
w/s Ratio Perm		0.06				
w/c Ratio	0.77	0.25	0.74		0.78	0.53
Uniform Delay, d1	28.1	24.0	24.5		30.2	9.2
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	7.8	0.3	2.7		9.8	0.2
Delay (s)	35.9	24.4	27.2		40.0	9.4
Level of Service	D	C	C		D	A
Approach Delay (s)	30.3		27.2			16.0
Approach LOS	C		C			B
Intersection Summary						
HCM 2000 Control Delay			22.6		HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.76			
Actuated Cycle Length (s)			82.5		Sum of lost time (s)	15.2
Intersection Capacity Utilization			73.2%		ICU Level of Service	D
Analysis Period (min)			15			
c Critical Lane Group						

HCM 6th Signalized Intersection Summary Near Term + Project (Opening Day Yr. 2020) PM
4: Federal Blvd. & 47th St. 10/31/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	118	213	260	63	102	27	147	150	141	451	35
Future Volume (veh/h)	42	118	213	260	63	102	27	147	150	141	451	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/hln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	46	128	232	283	68	111	29	160	163	153	490	38
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	58	188	340	321	824	733	42	290	252	188	816	63
Arrive On Green	0.03	0.32	0.32	0.18	0.46	0.46	0.02	0.16	0.16	0.11	0.24	0.24
Sat Flow, veh/h	1781	594	1077	1781	1777	1580	1781	1777	1546	1781	3337	258
Grp Volume(v), veh/h	46	0	360	283	68	111	29	160	163	153	260	268
Grp Sat Flow(s), veh/hln	1781	0	1671	1781	1777	1580	1781	1777	1546	1781	1777	1818
Q Serve(g_s), s	2.0	0.0	14.9	12.2	1.7	3.2	1.3	6.6	7.8	6.6	10.2	10.3
Cycle Q Clear(g_c), s	2.0	0.0	14.9	12.2	1.7	3.2	1.3	6.6	7.8	6.6	10.2	10.3
Prop In Lane	1.00		0.64	1.00		1.00	1.00		1.00	1.00		0.14
Lane Grp Cap(c), veh/h	58	0	528	321	824	733	42	290	252	188	435	445
V/C Ratio(X)	0.80	0.00	0.68	0.88	0.08	0.15	0.68	0.55	0.65	0.81	0.60	0.60
Avail Cap(c_a), veh/h	115	0	528	333	824	733	128	517	450	194	582	596
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.0	0.0	23.6	31.6	11.8	12.2	38.3	30.4	31.0	34.6	26.4	26.5
Incr Delay (d2), s/veh	8.9	0.0	7.0	21.5	0.2	0.4	7.0	1.7	2.9	20.6	1.9	1.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	6.6	7.0	0.7	1.1	0.6	2.9	3.0	3.9	4.4	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.9	0.0	30.5	53.1	12.0	12.7	45.3	32.2	33.9	55.2	28.4	28.4
LnGrp LOS	D	A	C	D	B	B	D	C	C	E	C	C
Approach Vol, veh/h	406			462			352			681		
Approach Delay, s/veh	32.4			37.3			34.0			34.4		
Approach LOS	C			D			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.6	29.9	6.3	24.2	7.0	41.6	12.7	17.8				
Change Period (Y+Rc), s	4.4	4.9	4.4	4.9	4.4	4.9	4.4	4.9				
Max Green Setting (Gmax), s	14.8	25.0	5.7	25.9	5.1	34.7	8.6	23.0				
Max Q Clear Time (g_c+I1), s	14.2	16.9	3.3	12.3	4.0	5.2	8.6	9.8				
Green Ext Time (p_c), s	0.0	1.6	0.0	3.7	0.0	1.2	0.0	1.6				
Intersection Summary												
HCM 6th Ctrl Delay	34.6											
HCM 6th LOS	C											

HCM 6th TWSC

Near Term + Project (Opening Day Yr. 2020) PM

5: Fairmount Ave. & Driveway

10/31/2018

Intersection						
Int Delay, s/veh	1.1					
Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations		↑↑	↑↑		W	
Traffic Vol, veh/h	37	601	275	16	15	36
Future Vol, veh/h	37	601	275	16	15	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	40	653	299	17	16	39
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	316	0	-	0	715	158
Stage 1	-	-	-	-	308	-
Stage 2	-	-	-	-	407	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1241	-	-	-	365	859
Stage 1	-	-	-	-	719	-
Stage 2	-	-	-	-	641	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1241	-	-	-	346	859
Mov Cap-2 Maneuver	-	-	-	-	346	-
Stage 1	-	-	-	-	682	-
Stage 2	-	-	-	-	641	-
Approach	SE	NW	SW			
HCM Control Delay, s	0.7	0	11.6			
HCM LOS			B			
Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1	
Capacity (veh/h)	-	-	1241	-	598	
HCM Lane V/C Ratio	-	-	0.032	-	0.093	
HCM Control Delay (s)	-	-	8	0.2	11.6	
HCM Lane LOS	-	-	A	A	B	
HCM 95th %tile Q(veh)	-	-	0.1	-	0.3	



CLIMATE ACTION PLAN CONSISTENCY CHECKLIST INTRODUCTION

In December 2015, the City adopted a Climate Action Plan (CAP) that outlines the actions that City will undertake to achieve its proportional share of State greenhouse gas (GHG) emission reductions. The purpose of the Climate Action Plan Consistency Checklist (Checklist) is to, in conjunction with the CAP, provide a streamlined review process for proposed new development projects that are subject to discretionary review and trigger environmental review pursuant to the California Environmental Quality Act (CEQA).¹

Analysis of GHG emissions and potential climate change impacts from new development is required under CEQA. The CAP is a plan for the reduction of GHG emissions in accordance with CEQA Guidelines Section 15183.5. Pursuant to CEQA Guidelines Sections 15064(h)(3), 15130(d), and 15183(b), a project's incremental contribution to a cumulative GHG emissions effect may be determined not to be cumulatively considerable if it complies with the requirements of the CAP.

This Checklist is part of the CAP and contains measures that are required to be implemented on a project-by-project basis to ensure that the specified emissions targets identified in the CAP are achieved. Implementation of these measures would ensure that new development is consistent with the CAP's assumptions for relevant CAP strategies toward achieving the identified GHG reduction targets. Projects that are consistent with the CAP as determined through the use of this Checklist may rely on the CAP for the cumulative impacts analysis of GHG emissions. Projects that are not consistent with the CAP must prepare a comprehensive project-specific analysis of GHG emissions, including quantification of existing and projected GHG emissions and incorporation of the measures in this Checklist to the extent feasible. Cumulative GHG impacts would be significant for any project that is not consistent with the CAP.

The Checklist may be updated to incorporate new GHG reduction techniques or to comply with later amendments to the CAP or local, State, or federal law.

¹ Certain projects seeking ministerial approval may be required to complete the Checklist. For example, projects in a Community Plan Implementation Overlay Zone may be required to use the Checklist to qualify for ministerial level review. See Supplemental Development Regulations in the project's community plan to determine applicability.

This page intentionally left blank



CAP CONSISTENCY CHECKLIST SUBMITTAL APPLICATION

- ❖ The Checklist is required only for projects subject to CEQA review.²
- ❖ If required, the Checklist must be included in the project submittal package. Application submittal procedures can be found in [Chapter 11: Land Development Procedures](#) of the City's Municipal Code.
- ❖ The requirements in the Checklist will be included in the project's conditions of approval.
- ❖ The applicant must provide an explanation of how the proposed project will implement the requirements described herein to the satisfaction of the Planning Department.

Application Information

Contact Information

Project No./Name: Project No. 607352 / Fairmount Marijuana Outlet

Property Address: 2281 Fairmount Avenue, San Diego, CA 92105-5222

Applicant Name/Co.: Blake Marchand / March & Ash

Contact Phone: (619) 890-5488 Contact Email: blake@BlakeMarchand.com

Was a consultant retained to complete this checklist? ☒ Yes ☐ No If Yes, complete the following

Consultant Name: Toby Hallal Contact Phone: (619) 230-1088

Company Name: TRH, Inc. Contact Email: toby@trhinc.com

Project Information

1. What is the size of the project (acres)? 0.5 acres
2. Identify all applicable proposed land uses:
- ☐ Residential (indicate # of single-family units): _____
- ☐ Residential (indicate # of multi-family units): _____
- ☒ Commercial (total square footage): 3,976 s.f. Total (2,800 s.f. proposed M.O.)
- ☐ Industrial (total square footage): _____
- ☐ Other (describe): _____
3. Is the project or a portion of the project located in a Transit Priority Area? ☐ Yes ☒ No
4. Provide a brief description of the project proposed:

Conditional Use Permit (CUP) to operate a 2,800 square foot Marijuana Outlet (MO) and remodel an existing 3,976 square foot building located at 2281 Fairmount Avenue. The 0.50 acre site is located within the IL-3-1 & OR-1-1 zone in the City Heights Neighborhood of the Mid City Communities Plan.

² Certain projects seeking ministerial approval may be required to complete the Checklist. For example, projects in a Community Plan Implementation Overlay Zone may be required to use the Checklist to qualify for ministerial level review. See Supplemental Development Regulations in the project's community plan to determine applicability.



CAP CONSISTENCY CHECKLIST QUESTIONS

Step 1: Land Use Consistency

The first step in determining CAP consistency for discretionary development projects is to assess the project's consistency with the growth projections used in the development of the CAP. This section allows the City to determine a project's consistency with the land use assumptions used in the CAP.

Step 1: Land Use Consistency		
Checklist Item (Check the appropriate box and provide explanation and supporting documentation for your answer)	Yes	No
A. Is the proposed project consistent with the existing General Plan and Community Plan land use and zoning designations? ³ <u>OR</u>		
B. If the proposed project is not consistent with the existing land use plan and zoning designations, and includes a land use plan and/or zoning designation amendment, would the proposed amendment result in an increased density within a Transit Priority Area (TPA) ⁴ and implement CAP Strategy 3 actions, as determined in Step 3 to the satisfaction of the Development Services Department? <u>OR</u>	☒	☐
C. If the proposed project is not consistent with the existing land use plan and zoning designations, does the project include a land use plan and/or zoning designation amendment that would result in an equivalent or less GHG-intensive project when compared to the existing designations?		

If **"Yes,"** proceed to Step 2 of the Checklist. For question B above, complete Step 3. For question C above, provide estimated project emissions under both existing and proposed designation(s) for comparison. Compare the maximum buildout of the existing designation and the maximum buildout of the proposed designation.

If **"No,"** in accordance with the City's Significance Determination Thresholds, the project's GHG impact is significant. The project must nonetheless incorporate each of the measures identified in Step 2 to mitigate cumulative GHG emissions impacts unless the decision maker finds that a measure is infeasible in accordance with CEQA Guidelines Section 15091. Proceed and complete Step 2 of the Checklist.

The project is to modify an existing commercial building for Marijuana Outlet, which is consistent with the relevant goals and policies of the Mid City Communities Plan and the IL-3-1 & OR-1-1 zones.

The General Plan designates this site as industrial employment and the community plan designates this site as general commercial with limited light industrial.

The project is consistent with the existing General Plan and the Community Plan land use and zoning designations.

³ This question may also be answered in the affirmative if the project is consistent with SANDAG Series 12 growth projections, which were used to determine the CAP projections, as determined by the Planning Department.

⁴ This category applies to all projects that answered in the affirmative to question 3 on the previous page: Is the project or a portion of the project located in a transit priority area.

Step 2: CAP Strategies Consistency

The second step of the CAP consistency review is to review and evaluate a project's consistency with the applicable strategies and actions of the CAP. Step 2 only applies to development projects that involve permits that would require a certificate of occupancy from the Building Official or projects comprised of one and two family dwellings or townhouses as defined in the California Residential Code and their accessory structures.⁵ All other development projects that would not require a certificate of occupancy from the Building Official shall implement Best Management Practices for construction activities as set forth in the [Greenbook](#) (for public projects).

Step 2: CAP Strategies Consistency			
Checklist Item (Check the appropriate box and provide explanation for your answer)	Yes	No	N/A
Strategy 1: Energy & Water Efficient Buildings			
1. <i>Cool/Green Roofs.</i> • Would the project include roofing materials with a minimum 3-year aged solar reflection and thermal emittance or solar reflection index equal to or greater than the values specified in the voluntary measures under California Green Building Standards Code (Attachment A)?; <u>OR</u> • Would the project roof construction have a thermal mass over the roof membrane, including areas of vegetated (green) roofs, weighing at least 25 pounds per square foot as specified in the voluntary measures under California Green Building Standards Code?; <u>OR</u> • Would the project include a combination of the above two options? Check "N/A" only if the project does not include a roof component. This project does not include a roof component. The proposed solar panels are voluntary measures.	☐	☐	☒

⁵ Actions that are not subject to Step 2 would include, for example: 1) discretionary map actions that do not propose specific development, 2) permits allowing wireless communication facilities, 3) special events permits, 4) use permits or other permits that do not result in the expansion or enlargement of a building (e.g., decks, garages, etc.), and 5) non-building infrastructure projects such as roads and pipelines. Because such actions would not result in new occupancy buildings from which GHG emissions reductions could be achieved, the items contained in Step 2 would not be applicable.

2. *Plumbing fixtures and fittings*

With respect to plumbing fixtures or fittings provided as part of the project, would those low-flow fixtures/appliances be consistent with each of the following:

Residential buildings:

- Kitchen faucets: maximum flow rate not to exceed 1.5 gallons per minute at 60 psi;
- Standard dishwashers: 4.25 gallons per cycle;
- Compact dishwashers: 3.5 gallons per cycle; and
- Clothes washers: water factor of 6 gallons per cubic feet of drum capacity?

Nonresidential buildings:

- Plumbing fixtures and fittings that do not exceed the maximum flow rate specified in [Table A5.303.2.3.1 \(voluntary measures\) of the California Green Building Standards Code](#) (See Attachment A); and
- Appliances and fixtures for commercial applications that meet the provisions of [Section A5.303.3 \(voluntary measures\) of the California Green Building Standards Code](#) (See Attachment A)?

Check "N/A" only if the project does not include any plumbing fixtures or fittings.

The replacement low-flow fixtures and fittings will be consistent with Attachment A.



Strategy 3: Bicycling, Walking, Transit & Land Use

3. Electric Vehicle Charging

- Multiple-family projects of 17 dwelling units or less: Would 3% of the total parking spaces required, or a minimum of one space, whichever is greater, be provided with a listed cabinet, box or enclosure connected to a conduit linking the parking spaces with the electrical service, in a manner approved by the building and safety official, to allow for the future installation of electric vehicle supply equipment to provide electric vehicle charging stations at such time as it is needed for use by residents?
- Multiple-family projects of more than 17 dwelling units: Of the total required listed cabinets, boxes or enclosures, would 50% have the necessary electric vehicle supply equipment installed to provide active electric vehicle charging stations ready for use by residents?
- Non-residential projects: Of the total required listed cabinets, boxes or enclosures, would 50% have the necessary electric vehicle supply equipment installed to provide active electric vehicle charging stations ready for use?

Check "N/A" only if the project is a single-family project or would not require the provision of listed cabinets, boxes, or enclosures connected to a conduit linking the parking spaces with electrical service, e.g., projects requiring fewer than 10 parking spaces.

Proposed Non-residential project:

Per SDMC Section 142.0530(d), this project is required to have (1) one Electric Vehicle Charging station. This project is proposing to provide (1) one required cabinet, box or enclosure (more than 50%) with the necessary vehicle supply equipment installed to provide active Electric Vehicle Charging station ready for use as required to be located within the on-site parking area as shown on the proposed site plan.



Strategy 3: Bicycling, Walking, Transit & Land Use

(Complete this section if project includes non-residential or mixed uses)

4. Bicycle Parking Spaces

Would the project provide more short- and long-term bicycle parking spaces than required in the City's Municipal Code ([Chapter 14, Article 2, Division 5](#))?⁶

Check "N/A" only if the project is a residential project.

Per SDMC Section 142.0530(e), this project is required to have (2) two short-term bicycle parking spaces and (1) one long-term bicycle parking space. This project is proposed to provide (2) two short-term bicycle parking spaces, and (1) one long-term bicycle parking space as required.



⁶ Non-portable bicycle corrals within 600 feet of project frontage can be counted towards the project's bicycle parking requirements.

5. *Shower facilities*

If the project includes nonresidential development that would accommodate over 10 tenant occupants (employees), would the project include changing/shower facilities in accordance with the voluntary measures under the [California Green Building Standards Code](#) as shown in the table below?

Number of Tenant Occupants (Employees)	Shower/Changing Facilities Required	Two-Tier (12" X 15" X 72") Personal Effects Lockers Required
0-10	0	0
11-50	1 shower stall	2
51-100	1 shower stall	3
101-200	1 shower stall	4
Over 200	1 shower stall plus 1 additional shower stall for each 200 additional tenant-occupants	1 two-tier locker plus 1 two-tier locker for each 50 additional tenant-occupants

Check "N/A" only if the project is a residential project, or if it does not include nonresidential development that would accommodate over 10 tenant occupants (employees).

N/A. The project will accommodate less than 10 employees and therefore will not include changing/shower facility in accordance with the California Green Building Standards Code.



6. *Designated Parking Spaces*

If the project includes a nonresidential use in a TPA, would the project provide designated parking for a combination of low-emitting, fuel-efficient, and carpool/vanpool vehicles in accordance with the following table?

Number of Required Parking Spaces	Number of Designated Parking Spaces
0-9	0
10-25	2
26-50	4
51-75	6
76-100	9
101-150	11
151-200	18
201 and over	At least 10% of total

This measure does not cover electric vehicles. See Question 4 for electric vehicle parking requirements.

Note: Vehicles bearing Clean Air Vehicle stickers from expired HOV lane programs may be considered eligible for designated parking spaces. The required designated parking spaces are to be provided within the overall minimum parking requirement, not in addition to it.

Check "N/A" only if the project is a residential project, or if it does not include nonresidential use in a TPA.

N/A. This project is not in a TPA

☐
☐
☒

7. *Transportation Demand Management Program*

If the project would accommodate over 50 tenant-occupants (employees), would it include a transportation demand management program that would be applicable to existing tenants and future tenants that includes:

At least one of the following components:

- Parking cash out program
- Parking management plan that includes charging employees market-rate for single-occupancy vehicle parking and providing reserved, discounted, or free spaces for registered carpools or vanpools
- Unbundled parking whereby parking spaces would be leased or sold separately from the rental or purchase fees for the development for the life of the development

And at least three of the following components:

- Commitment to maintaining an employer network in the SANDAG iCommute program and promoting its RideMatcher service to tenants/employees
- On-site carsharing vehicle(s) or bikesharing
- Flexible or alternative work hours
- Telework program
- Transit, carpool, and vanpool subsidies
- Pre-tax deduction for transit or vanpool fares and bicycle commute costs
- Access to services that reduce the need to drive, such as cafes, commercial stores, banks, post offices, restaurants, gyms, or childcare, either onsite or within 1,320 feet (1/4 mile) of the structure/use?

Check "N/A" only if the project is a residential project or if it would not accommodate over 50 tenant-occupants (employees).

N/A. This project does not include over 50 tenants/occupants.



Step 3: Project CAP Conformance Evaluation (if applicable)

The third step of the CAP consistency review only applies if Step 1 is answered in the affirmative under option B. The purpose of this step is to determine whether a project that is located in a TPA but that includes a land use plan and/or zoning designation amendment is nevertheless consistent with the assumptions in the CAP because it would implement CAP Strategy 3 actions. In general, a project that would result in a reduction in density inside a TPA would not be consistent with Strategy 3. The following questions must each be answered in the affirmative and fully explained.

1. Would the proposed project implement the General Plan's City of Villages strategy in an identified Transit Priority Area (TPA) that will result in an increase in the capacity for transit-supportive residential and/or employment densities?

Considerations for this question:

- Does the proposed land use and zoning designation associated with the project provide capacity for transit-supportive residential densities within the TPA?
- Is the project site suitable to accommodate mixed-use village development, as defined in the General Plan, within the TPA?
- Does the land use and zoning associated with the project increase the capacity for transit-supportive employment intensities within the TPA?

2. Would the proposed project implement the General Plan's Mobility Element in Transit Priority Areas to increase the use of transit?

Considerations for this question:

- Does the proposed project support/incorporate identified transit routes and stops/stations?
- Does the project include transit priority measures?

3. Would the proposed project implement pedestrian improvements in Transit Priority Areas to increase walking opportunities?

Considerations for this question:

- Does the proposed project circulation system provide multiple and direct pedestrian connections and accessibility to local activity centers (such as transit stations, schools, shopping centers, and libraries)?
- Does the proposed project urban design include features for walkability to promote a transit supportive environment?

4. Would the proposed project implement the City of San Diego's Bicycle Master Plan to increase bicycling opportunities?

Considerations for this question:

- Does the proposed project circulation system include bicycle improvements consistent with the Bicycle Master Plan?
- Does the overall project circulation system provide a balanced, multimodal, "complete streets" approach to accommodate mobility needs of all users?

5. Would the proposed project incorporate implementation mechanisms that support Transit Oriented Development?

Considerations for this question:

- Does the proposed project include new or expanded urban public spaces such as plazas, pocket parks, or urban greens in the TPA?
- Does the land use and zoning associated with the proposed project increase the potential for jobs within the TPA?
- Do the zoning/implementing regulations associated with the proposed project support the efficient use of parking through mechanisms such as: shared parking, parking districts, unbundled parking, reduced parking, paid or time-limited parking, etc.?

6. Would the proposed project implement the Urban Forest Management Plan to increase urban tree canopy coverage?

Considerations for this question:

- Does the proposed project provide at least three different species for the primary, secondary and accent trees in order to accommodate varying parkway widths?
- Does the proposed project include policies or strategies for preserving existing trees?
- Does the proposed project incorporate tree planting that will contribute to the City's 20% urban canopy tree coverage goal?



CLIMATE ACTION PLAN CONSISTENCY CHECKLIST ATTACHMENT A

This attachment provides performance standards for applicable Climate Action Plan (CAP) Consistency Checklist measures.

Table 1 Roof Design Values for Question 1: Cool/Green Roofs supporting Strategy 1: Energy & Water Efficient Buildings of the Climate Action Plan				
Land Use Type	Roof Slope	Minimum 3-Year Aged Solar Reflectance	Thermal Emittance	Solar Reflective Index
Low-Rise Residential	≤ 2:12	0.55	0.75	64
	> 2:12	0.20	0.75	16
High-Rise Residential Buildings, Hotels and Motels	≤ 2:12	0.55	0.75	64
	> 2:12	0.20	0.75	16
Non-Residential	≤ 2:12	0.55	0.75	64
	> 2:12	0.20	0.75	16
Source: Adapted from the California Green Building Standards Code (CALGreen) Tier 1 residential and non-residential voluntary measures shown in Tables A4.106.5.1 and A5.106.11.2.2, respectively. Roof installation and verification shall occur in accordance with the CALGreen Code. CALGreen does not include recommended values for low-rise residential buildings with roof slopes of ≤ 2:12 for San Diego's climate zones (7 and 10). Therefore, the values for climate zone 15 that covers Imperial County are adapted here. Solar Reflectance Index (SRI) equal to or greater than the values specified in this table may be used as an alternative to compliance with the aged solar reflectance values and thermal emittance.				

Table 2 Fixture Flow Rates for Non-Residential Buildings related to Question 2: Plumbing Fixtures and Fittings supporting Strategy 1: Energy & Water Efficient Buildings of the Climate Action Plan

Fixture Type	Maximum Flow Rate
Showerheads	1.8 gpm @ 80 psi
Lavatory Faucets	0.35 gpm @60 psi
Kitchen Faucets	1.6 gpm @ 60 psi
Wash Fountains	1.6 [rim space(in.)/20 gpm @ 60 psi]
Metering Faucets	0.18 gallons/cycle
Metering Faucets for Wash Fountains	0.18 [rim space(in.)/20 gpm @ 60 psi]
Gravity Tank-type Water Closets	1.12 gallons/flush
Flushometer Tank Water Closets	1.12 gallons/flush
Flushometer Valve Water Closets	1.12 gallons/flush
Electromechanical Hydraulic Water Closets	1.12 gallons/flush
Urinals	0.5 gallons/flush

Source: Adapted from the [California Green Building Standards Code](#) (CALGreen) Tier 1 non-residential voluntary measures shown in Tables A5.303.2.3.1 and A5.106.11.2.2, respectively. See the [California Plumbing Code](#) for definitions of each fixture type.

Where complying faucets are unavailable, aerators rated at 0.35 gpm or other means may be used to achieve reduction.

Acronyms:

gpm = gallons per minute

psi = pounds per square inch (unit of pressure)

in. = inch

Table 3 Standards for Appliances and Fixtures for Commercial Application related to Question 2: Plumbing Fixtures and Fittings supporting Strategy 1: Energy & Water Efficient Buildings of the Climate Action Plan

Appliance/Fixture Type	Standard	
Clothes Washers	Maximum Water Factor (WF) that will reduce the use of water by 10 percent below the California Energy Commissions' WF standards for commercial clothes washers located in Title 20 of the <i>California Code of Regulations</i> .	
Conveyor-type Dishwashers	0.70 maximum gallons per rack (2.6 L) (High-Temperature)	0.62 maximum gallons per rack (4.4 L) (Chemical)
Door-type Dishwashers	0.95 maximum gallons per rack (3.6 L) (High-Temperature)	1.16 maximum gallons per rack (2.6 L) (Chemical)
Undercounter-type Dishwashers	0.90 maximum gallons per rack (3.4 L) (High-Temperature)	0.98 maximum gallons per rack (3.7 L) (Chemical)
Combination Ovens	Consume no more than 10 gallons per hour (38 L/h) in the full operational mode.	
Commercial Pre-rinse Spray Valves (manufactured on or after January 1, 2006)	Function at equal to or less than 1.6 gallons per minute (0.10 L/s) at 60 psi (414 kPa) and • Be capable of cleaning 60 plates in an average time of not more than 30 seconds per plate. • Be equipped with an integral automatic shutoff. • Operate at static pressure of at least 30 psi (207 kPa) when designed for a flow rate of 1.3 gallons per minute (0.08 L/s) or less.	

Source: Adapted from the [California Green Building Standards Code](#) (CALGreen) Tier 1 non-residential voluntary measures shown in Section A5.303.3. See the [California Plumbing Code](#) for definitions of each appliance/fixture type.

Acronyms:

L = liter

L/h = liters per hour

L/s = liters per second

psi = pounds per square inch (unit of pressure)

kPa = kilopascal (unit of pressure)