

## **SFMTA - TASC SUMMARY SHEET**

<b>PreStaff_Date:</b> 5/31/2022 <b>Requested_by:</b> SFMTA <b>Handled:</b> Elizabeth Chen <b>Section Head :</b> M. Sallaberry	<input type="checkbox"/> <b>Public Hearing Consent</b> <input type="checkbox"/> <b>Public Hearing Regular</b> <input type="checkbox"/> <b>Informational / Other</b> <small>PH - Regular</small>	<b>No objections:</b> _____ <b>Item Held:</b> _____ <b>Other:</b> _____
<b>Location:</b> Duboce Avenue and 13th Street from Valencia Street to Harrison Street		
<b>Subject:</b> 13th Street Safety Project		
<b>PROPOSAL / REQUEST:</b>  Please see attached for legislation language.		
<b>BACKGROUND INFORMATION / COMMENTS</b> Please see attached for background and supplemental information regarding the proposed improvements.		
<b>HEARING NOTIFICATION AND PROCESSING NOTES:</b>	<b>ENVIRONMENTAL CLEARANCE BY:</b> <input type="checkbox"/> SFMTA <input type="checkbox"/> Attached <input type="checkbox"/> Pending	
<b>CHECK IF PREPARING SEPARATE SFMTA BOARD CALENDAR ITEM FOR PROPOSAL:</b> <input type="checkbox"/>		

Duboce Avenue between Valencia Street and Mission Street & 13<sup>th</sup> Street between Mission Street and Harrison Street – 13<sup>th</sup> Street Safety Project

ESTABLISH – CLASS IV BIKEWAY (PARKING PROTECTED BIKEWAY)

Duboce Avenue, westbound, north side, between Valencia Street and Otis Street

Duboce Avenue, eastbound, south side, between Valencia Street and Mission Street

13<sup>th</sup> Street, westbound, north side, between Mission Street and Isis Street

13<sup>th</sup> Street, eastbound, south side, between Mission Street and Trainor Street

ESTABLISH – TOW-AWAY, NO STOPPING ANYTIME

ESTABLISH – SIDEWALK WIDENING

Mission Street, west side, from Duboce Avenue to 48 feet southerly (removes meter 1704 & 1706) (11-foot bulb)

Mission Street, east side, from 13<sup>th</sup> Street to 30 feet southerly (6-foot bulb)

13<sup>th</sup> Street (north frontage road), north side, from South Van Ness Avenue to 35 feet easterly (6-foot bulb)

13<sup>th</sup> Street, north side, from Folsom Street to 25 feet westerly (8-foot bulb)

13<sup>th</sup> Street, south side, from Folsom Street to 19 feet easterly (6-foot bulb)

ESTABLISH – SIDEWALK WIDENING

13<sup>th</sup> Street, south side, from Folsom Street to 61 feet westerly (closes eastbound right turn slip lane to vehicles but allows for bikes)

Folsom Street, west side, from 13<sup>th</sup> Street to 32 feet southerly (closes eastbound right turn slip lane to vehicles but allows for bikes)

ESTABLISH – NEW CURB RADIUS

13<sup>th</sup> Street at Folsom Street, southeast corner (tightens curb radius from 30 feet to 10 feet)

ESTABLISH – TOW-AWAY, NO STOPPING ANYTIME

Duboce Avenue, north side, from Valencia Street to Stevenson Street

Duboce Avenue, south side, from Valencia Street to 124 feet easterly

Duboce Avenue, south side, Mission Street to 117 feet westerly

13<sup>th</sup> Street, north side, from Mission Street to South Van Ness Avenue

13<sup>th</sup> Street, south side, from Mission to South Van Ness Avenue

13<sup>th</sup> Street, north side, from 25 feet to 75 feet west of Folsom Street

13<sup>th</sup> Street, north side, from South Van Ness Avenue to 425 feet east of South Van Ness Avenue

13<sup>th</sup> Street, south side, from Folsom Street to 280 feet westerly

13<sup>th</sup> Street, north side, from Folsom Street to Isis Street

ESTABLISH – TOW-AWAY, NO PARKING ANYTIME

Duboce Avenue, south side, from Woodward Street to 34 feet easterly (fire hydrant)

ESTABLISH – RED ZONE

Stevenson Street, east side, from Duboce Avenue to 12 feet northerly

Duboce Avenue, south side, from 173 feet to 230 feet east of Valencia Street

Duboce Avenue, south side, from 71 feet to 102 feet west of Woodward Street

Duboce Avenue, south side, from Woodward Street to 50 feet westerly

Mission Street, west side, from 113 feet to 123 feet south of Duboce Avenue

13<sup>th</sup> Street, south side, from South Van Ness Avenue to 19 feet easterly  
13<sup>th</sup> Street, south side, from 220 feet to 228 feet east of South Van Ness Avenue

**ESTABLISH – LEFT LANE MUST TURN LEFT**

13<sup>th</sup> Street, eastbound, at Folsom Street

**ESTABLISH – NO TURN ON RED, EXCEPT BICYCLES**

Duboce Avenue, westbound, at Valencia Street  
Duboce Avenue, eastbound, at Mission Street  
Otis Street, southbound, at Duboce Avenue  
Mission Street, northbound, at 13<sup>th</sup> Street  
South Van Ness Avenue, northbound, at 13<sup>th</sup> Street  
13<sup>th</sup> Street, westbound, at South Van Ness Avenue  
Folsom Street, southbound, at 13<sup>th</sup> Street  
Folsom Street, northbound, at 13<sup>th</sup> Street  
13<sup>th</sup> Street, westbound, at Folsom Street  
13<sup>th</sup> Street, eastbound, at Folsom Street

**ESTABLISH – NO LEFT TURN**

South Van Ness Avenue, southbound, at 13<sup>th</sup> Street

**ESTABLISH – GENERAL METERED PARKING, 2-HOUR TIME LIMIT, 9 AM TO 6 PM, MONDAY THROUGH SATURDAY**

Mission Street, west side, from 92 feet to 113 feet south of Duboce Avenue (shifts existing meter northerly by 7 feet)

**ESTABLISH – YELLOW METERED LOADING ZONE, 7 AM TO 4 PM, WHITE ZONE, PASSENGER LOADING, 4 PM TO 2 AM, MONDAY THROUGH SATURDAY**

Mission Street, west side, from 48 feet to 92 feet south of Duboce Avenue (shifts existing white zone northerly by 10 feet)

**ESTABLISH – YELLOW COMMERCIAL LOADING ZONE, 8 AM TO 6 PM, MONDAY THROUGH SATURDAY**

Duboce Avenue, south side, from 230 feet to 250 feet east of Valencia Street (20-foot zone)  
Duboce Avenue, south side, from 50 feet to 71 feet west of Woodward Street (21-foot zone)  
Duboce Avenue, south side, from 34 feet to 54 feet east of Woodward Street (20-foot zone)

**ESTABLISH – BLUE ZONE**

Stevenson Street, east side, from 12 feet to 32 feet north of Duboce Avenue  
13<sup>th</sup> Street, south side, from South Van Ness Avenue to 19 feet easterly

**ESTABLISH – UNMETERED MOTORCYCLE PARKING**

Duboce Avenue, south side, from 124 feet to 173 feet east of Valencia Street (49-foot zone for 14 motorcycle spaces)

**ESTABLISH – RECTANGULAR RAPID FLASHING BEACON**

US-101 Northbound Off-ramp at Mission Street

ESTABLISH – TRAFFIC SIGNAL

ESTABLISH – CROSSWALK

US-101 Southbound On-ramp at South Van Ness Avenue, 200 feet south of 13<sup>th</sup> Street

ESTABLISH – STOP SIGN

South Van Ness Avenue, southbound right turn slip-lane, at 13<sup>th</sup> Street

ESTABLISH – RAISED CROSSWALK

Trainor Street at 13<sup>th</sup> Street

(Supervisor District 6)

The 13<sup>th</sup> Street Safety Project aims to improve traffic safety, enhance pedestrian facilities, and expand the bike network on Duboce Avenue and 13<sup>th</sup> Street between Valencia and Folsom Streets. This project would include installing protected bike lanes, curb extensions, signal modifications, lane reductions, and modifying on-street parking and loading.

Elizabeth Chen, [elizabeth.chen@sfmta.com](mailto:elizabeth.chen@sfmta.com)

## BACKGROUND

Previous efforts on 13<sup>th</sup> Street and Division Street improved walking, biking, and driving between Townsend Street and Folsom Street. The 13<sup>th</sup> Street Safety Project will further expand the bike network by extending protected facilities on 13<sup>th</sup> Street west and connect to Valencia Street. The project scope is informed by the SF Planning Department's Market-Octavia Plan Amendment (the Hub) Public Realm Plan and the SF County Transportation Authority's SoMa Freeway Ramps Intersection Safety Study.

### **Existing Conditions**

#### Street Use:

13<sup>th</sup> Street is an eastbound and westbound street that is separated by a concrete center median under the US 101 Central Freeway. Roadway and sidewalk widths vary between Mission Street and Folsom Street. Each direction ranges between 2 lanes to 3 lanes with 1 or 2 turn pockets. There is metered parking and unmetered parking in some areas on both sides of the street. Between South Van Ness Avenue and Folsom Street, there is also a parallel frontage road on the north and south sides of the street that serve commercial businesses.

Duboce Avenue is an eastbound and westbound street with a concrete center median between Otis Street and Woodward Street. The sidewalk is 10 feet wide and the roadway width narrows down to 60 feet at Valencia Street. The eastbound direction opens from 1 lane to 3 lanes and the westbound direction has 3 lanes. This block has commercial businesses with unmetered parking and loading on both sides of the street.

#### Transit:

There is no revenue service on 13<sup>th</sup> Street or Duboce Avenue within the project limits. The 14, 14R, and 49 run on Mission Street/Otis Street. The 12 and 27 run on Folsom Street.

#### Collisions:

13<sup>th</sup> Street is part of the city's High-Injury Network, the 13 percent of streets that disproportionately account for 75 percent of severe and fatal traffic collisions. Between 2015 and 2019, 99 collisions occurred in the project corridor and resulted in injury. Over one-third of reported collisions involved bicyclists or pedestrians, and the most common collision factors were red signal violations, high speeds, and unsafe left turns.

#### Parking/Loading:

Duboce between Valencia and Mission/Otis: 10 unmetered parking spaces, 2 unmetered yellow zone, 1 unmetered blue zone, and 15 unmetered motorcycle spaces

13<sup>th</sup> Street between Mission/Otis and South Van Ness: 20 unmetered parking spaces

13<sup>th</sup> Street between South Van Ness and Folsom: 3 unmetered parking spaces and 10 metered parking spaces

#### Volumes:

At 13<sup>th</sup> and South Van Ness: AM Peak Hour – 1737 vehicles (13<sup>th</sup>), 1582 vehicles (SVN), 15 bicycles, 78 pedestrians. PM Peak Hour – 2126 vehicles (13<sup>th</sup>), 1922 vehicles (SVN), 12 bicycles, 132 pedestrians.

### **Proposed Conditions**

Proposed changes to 13<sup>th</sup> Street and Duboce Avenue include upgrades to bike, pedestrian, and vehicle facilities. One vehicle lane in each direction will be removed so proposed vehicle lanes will range between 1 lane and 2 lanes with 1 turn pocket.

#### Bicycles:

Parking protected or concrete protected bikeway on the north side and south sides of the street between Valencia and Isis Streets (slightly east of Folsom Street). The bikeway ranges between 5 feet and 7 feet wide. Bike signals with phase separation and turning vehicles will be installed throughout the corridor. Painted bike boxes and bike channelizers are also being proposed.

#### Pedestrians:

Bulb-outs, sidewalk widening, new concrete pedestrian medians, curb ramps, and APS are being proposed throughout the corridor. New sidewalk and a signalized crosswalk is also being proposed on the US-101 S on-ramp on South Van Ness Avenue. RRFBs are also being proposed at the US-101 N off-ramp at Mission Street.

#### Parking:

Duboce between Valencia and Mission/Otis: 1 metered parking space, 2 metered yellow spaces, and 14 metered motorcycle spaces

Stevenson at Duboce: 1 unmetered blue zone

13<sup>th</sup> Street between Mission/Otis and South Van Ness: TANSAT

13<sup>th</sup> Street between South Van Ness and Folsom: 10 metered parking spaces

### **Public Outreach**

Door to door outreach with merchants and stakeholders along the project corridor have occurred for the duration of the project. General public outreach was conducted in April 2022 through a virtual open house using StoryMaps was live for 2 weeks. 2 tabling events and 4 online office hours were also held during this time. Merchants also had a chance to fill out loading surveys and follow-up meetings were held multiple times with various stakeholders.

# 13<sup>th</sup> Street Safety Project

Duboce Avenue between Valencia Street and Otis Street

13<sup>th</sup> Street between Mission and Harrison Street

Class IV Bikeway

## TABLE OF CONTENTS

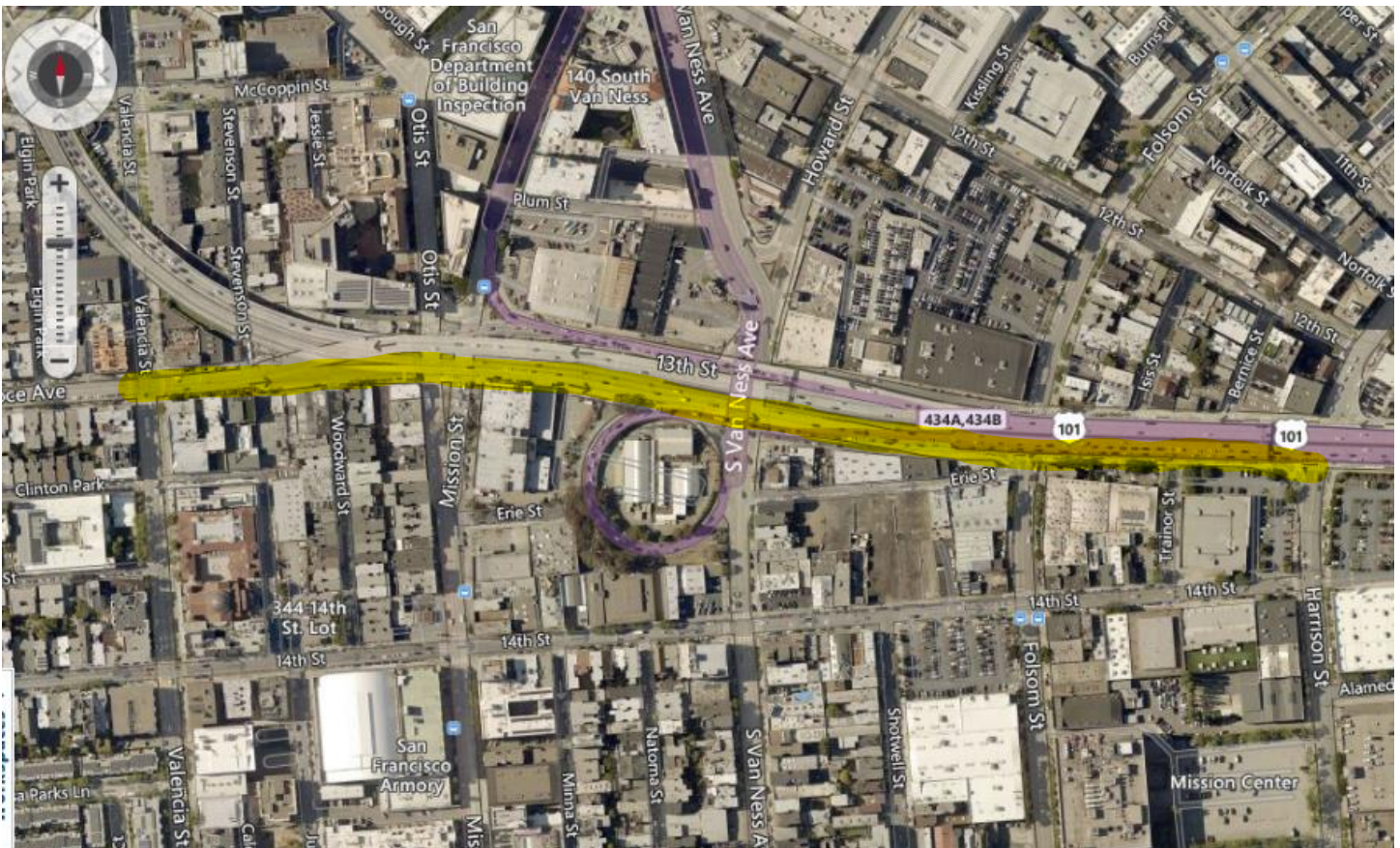
Number	Page	Item
#1	1	TASC Summary sheet
#2	2	Table of Contents
#3	3	Legislation Language & Background
<b>Project Area</b>		
#4	8	GIS & Pictometry Map
#5	9	Muni & Bike Network Map
<b>Proposed</b>		
#6	10	Existing/Proposed Striping Diagram
#7	12	Existing/Proposed Curb Design
#8	15	Turn Templates
<b>Signal Design</b>		
#9	35	LOS Table - AM
#10	36	LOS Table - PM
#11	37	AM & PM Intersection Counts
#12	38	Phase Diagrams
#13	39	Synchro Reports - AM
#14	83	Synchro Reports - PM
#15	113	Existing Signal Inventory Drawings
<b>Data</b>		
#16	117	Collision Data
#17	134	Volume Data
#18	148	Speed Data
<b>Supplemental Documents</b>		
#19	150	Street View Photos
#20	162	Grade Maps
#21	164	SoMa Ramps Final Report

# Traffic Calming Look Up Map

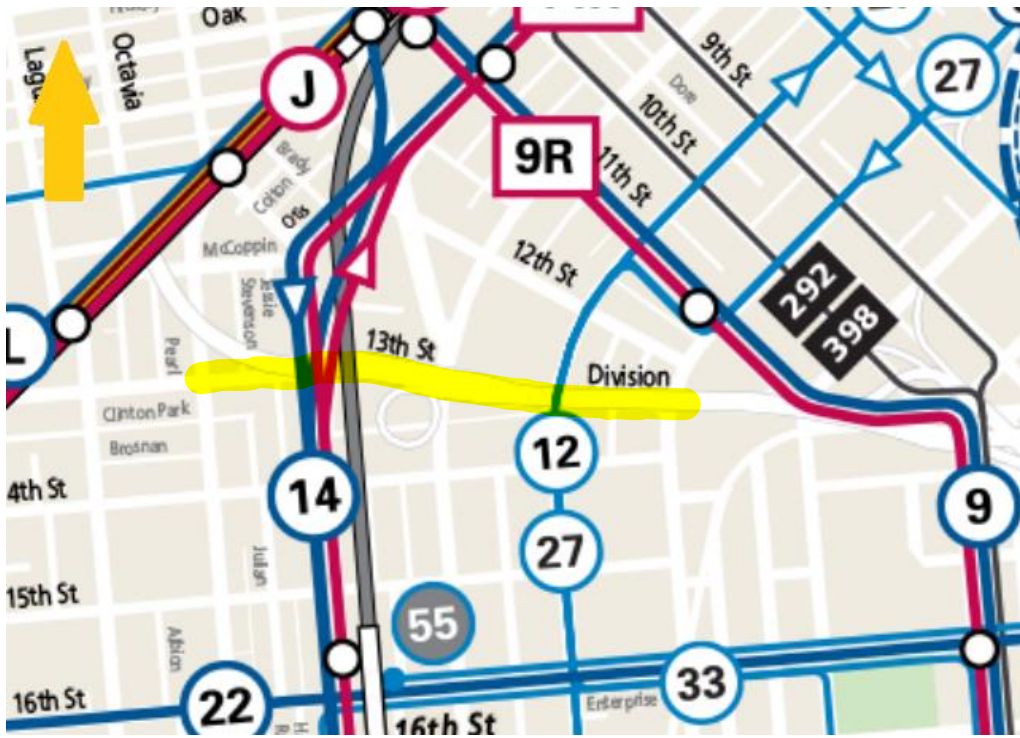


Basemap for proposed traffic calming location.

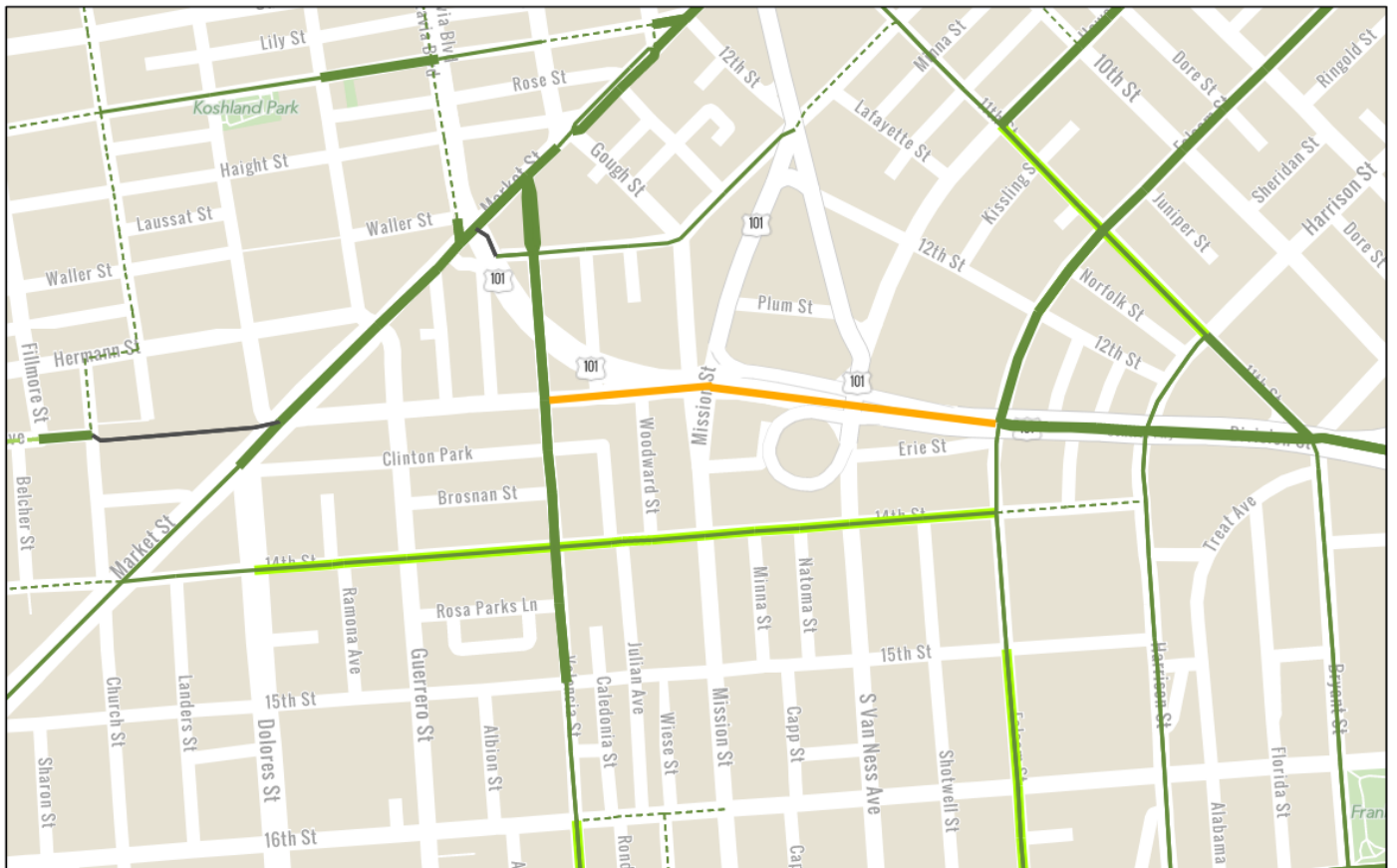
300ft





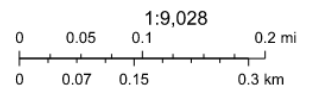


San Francisco Bikeway Network

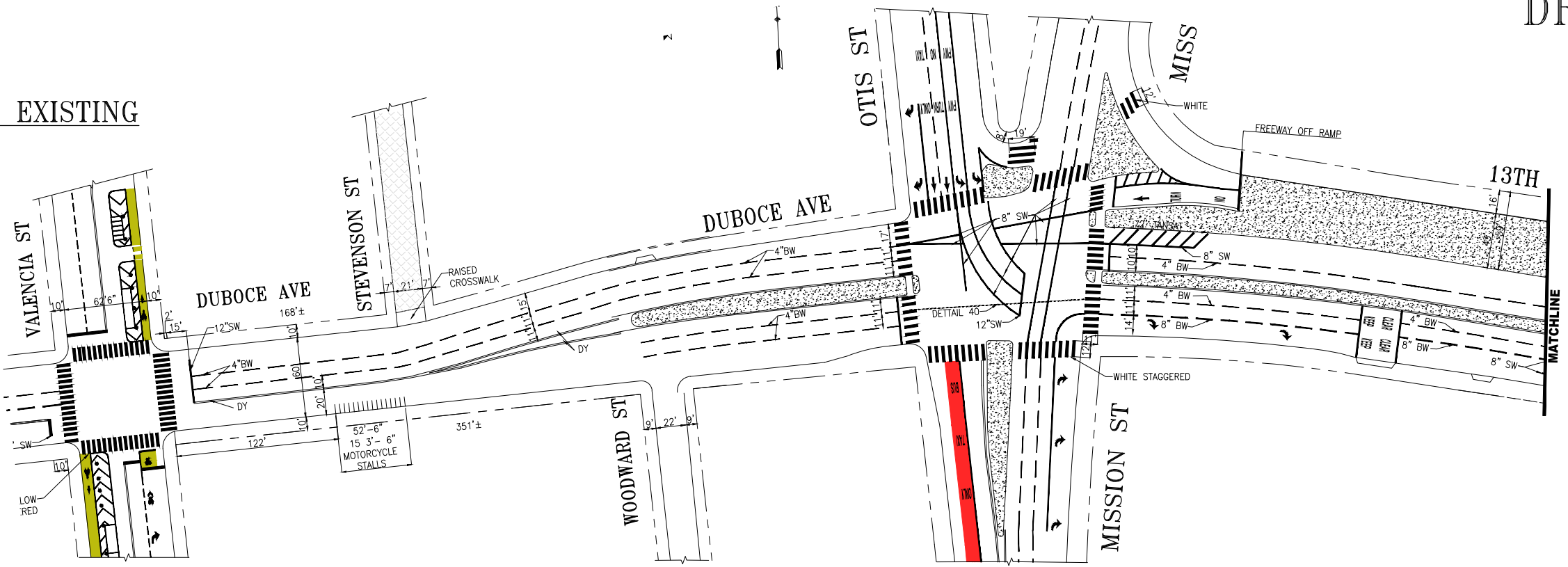


4/28/2022, 3:52:33 PM

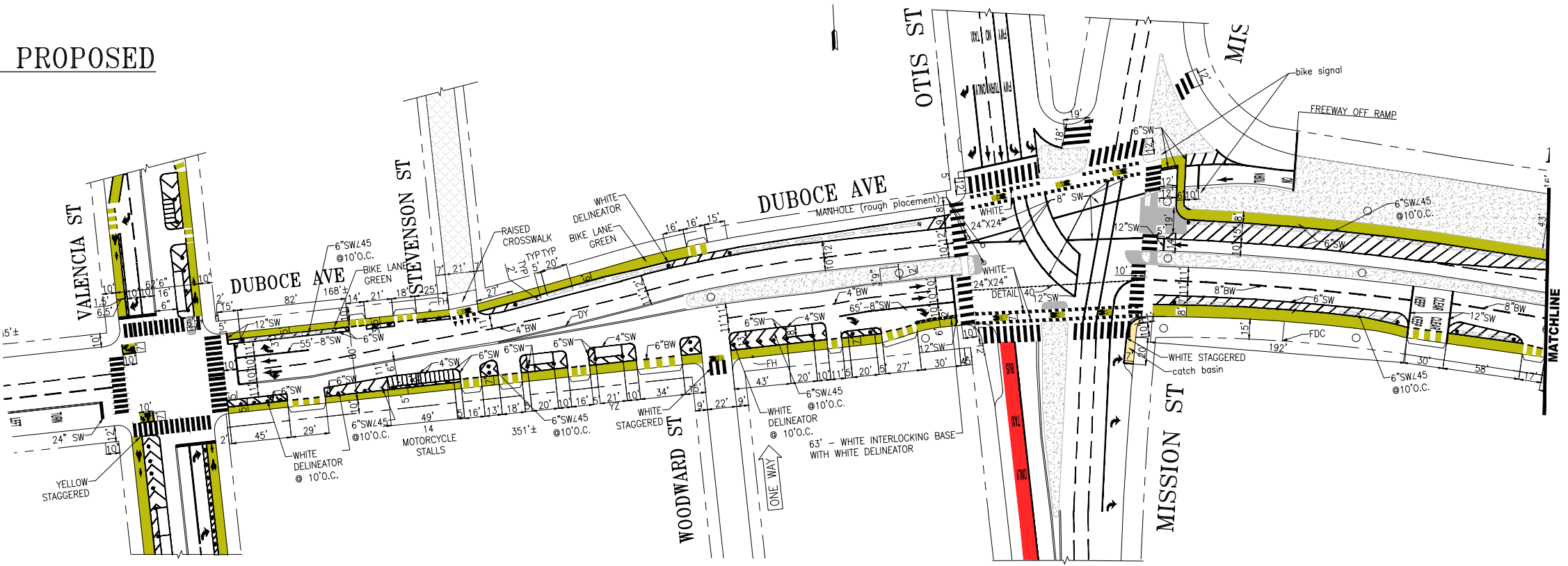
- Bikeway Network
- Separated Bikeway
- Bike Lane
- Neighborhood
- Bike Route
- Bike Path



PLAN - EXISTING



PLAN - PROPOSED



NO.	DATE	DESCRIPTION	BY	APP
TABLE OF REVISIONS				
CHECK WITH TRACING TO SEE IF YOU HAVE LATEST REVISION				



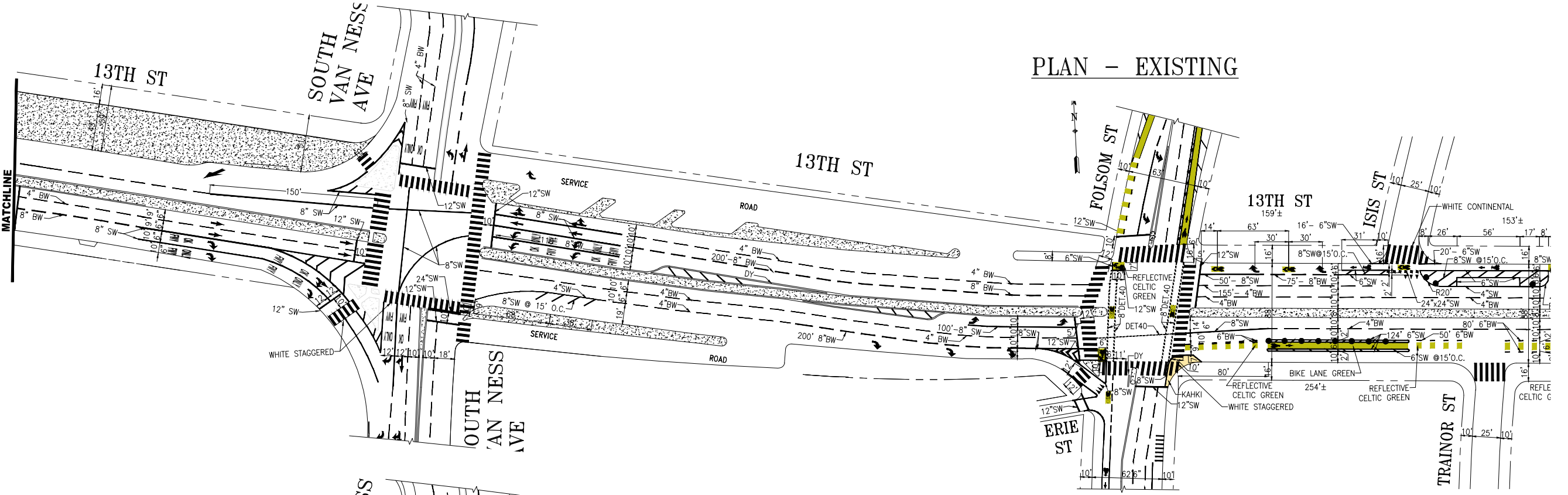
APPROVED	SCALE:
SENIOR ENGINEER	1" = 50'
CITY TRAFFIC ENGINEER	SHEET/SHEETS:
DATE:	DATE:
DATE:	DATE:

PROPOSED DESIGN

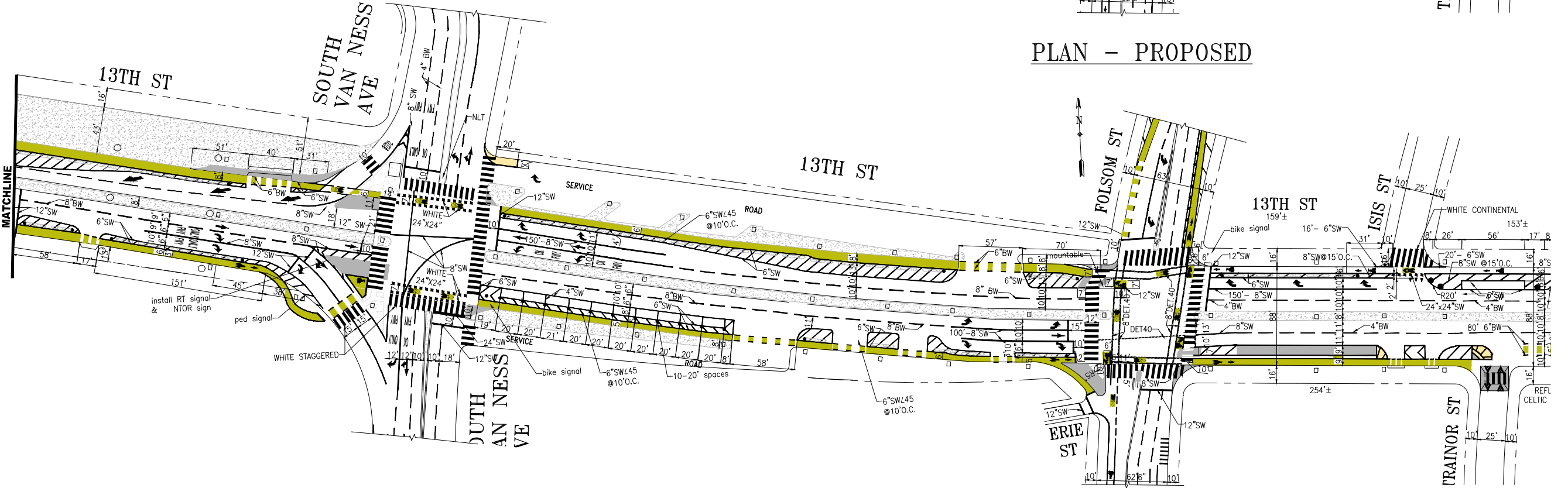
DUBOCE AVENUE & 13TH STREET  
VALENCIA STREET TO OTIS/MISSION STREET

CONTRACT NO.
DRAWING NO.
FILE NO.
REV. NO.

FILE NAME: DATE:



PLAN - EXISTING



PLAN - PROPOSED

NO.	DATE	DESCRIPTION	BY	APP
TABLE OF REVISIONS				
CHECK WITH TRACING TO SEE IF YOU HAVE LATEST REVISION				



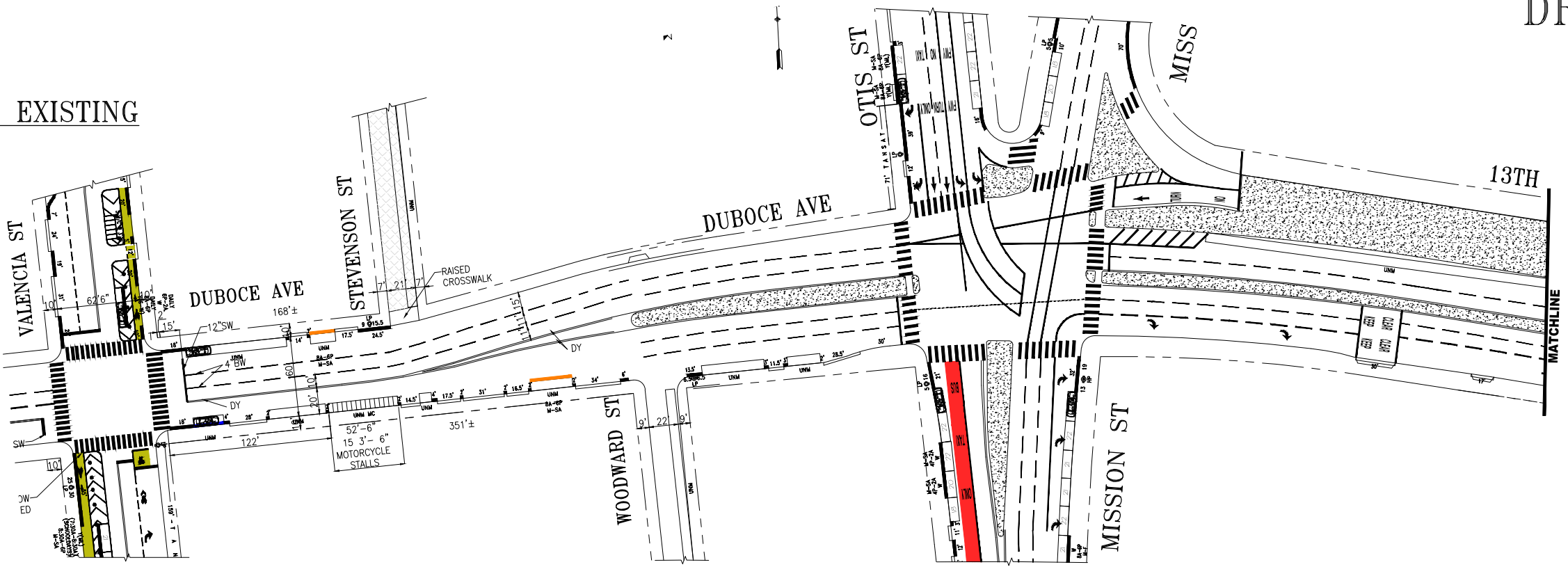
APPROVED	SCALE:
SENIOR ENGINEER	1" = 50'
CITY TRAFFIC ENGINEER	SHEET/SHEETS:

PROPOSED DESIGN  
 13TH STREET  
 OTIS/MISSION STREET TO FOLSOM STREET

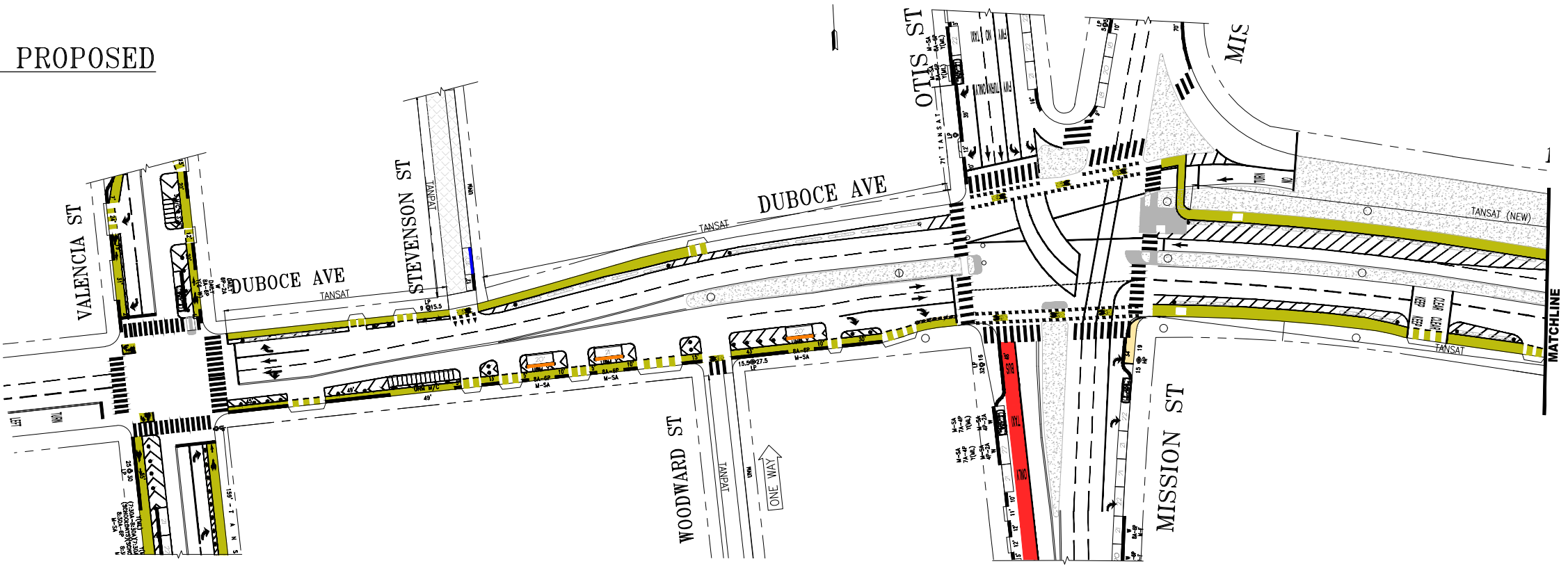
CONTRACT NO.
DRAWING NO.
FILE NO.
REV. NO.

FILE NAME:  
DATE: --/--

PLAN - EXISTING



PLAN - PROPOSED



NO.	DATE	DESCRIPTION	BY	APP
TABLE OF REVISIONS				
CHECK WITH TRACING TO SEE IF YOU HAVE LATEST REVISION				

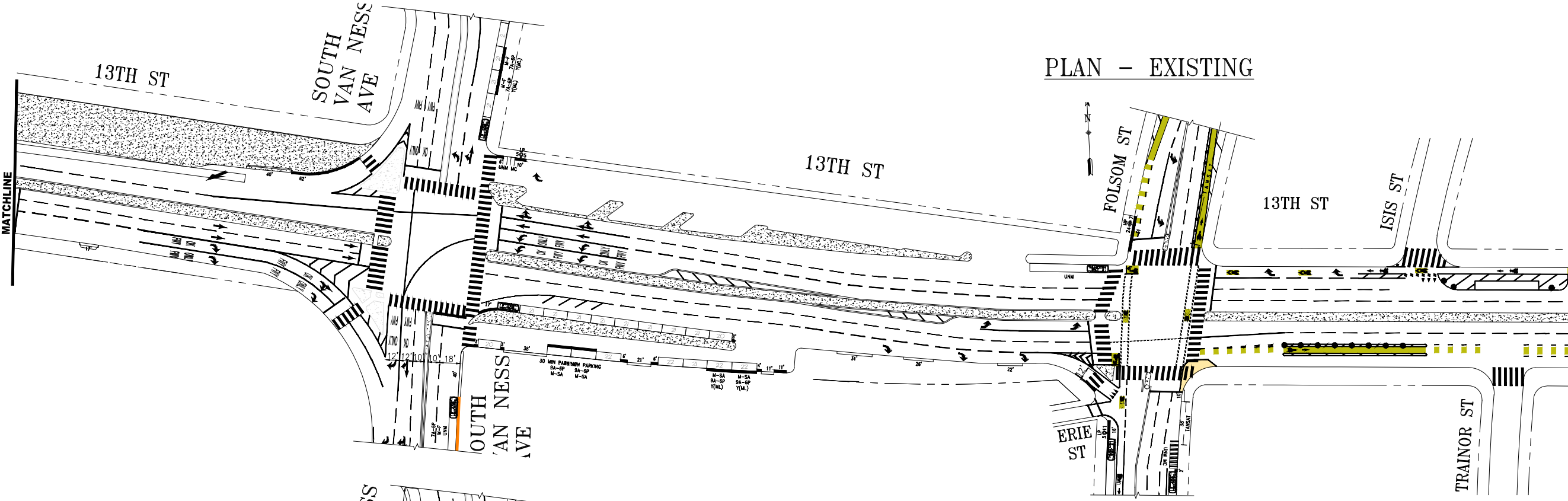


APPROVED	SCALE:
SENIOR ENGINEER	1" = 50'
CITY TRAFFIC ENGINEER	SHEET/SHEETS:
DRAWN:	DATE:
CHECKED:	DATE:

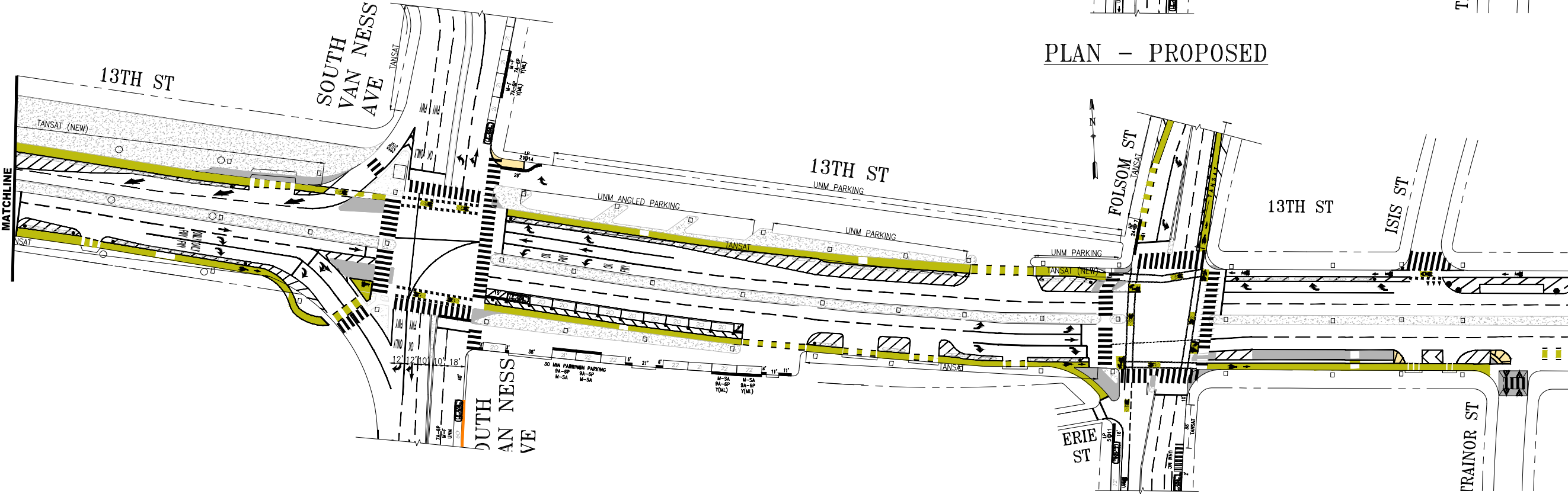
METER  
PROPOSED DESIGN

DUBOCE AVENUE & 13TH STREET  
VALENCIA STREET TO OTIS/MISSION STREET

CONTRACT NO.
DRAWING NO.
FILE NO.
REV. NO.



PLAN - EXISTING



PLAN - PROPOSED

NO.	DATE	DESCRIPTION	BY	APP
TABLE OF REVISIONS				
CHECK WITH TRACING TO SEE IF YOU HAVE LATEST REVISION				



APPROVED	SCALE:
SENIOR ENGINEER	1" = 50'
CITY TRAFFIC ENGINEER	SHEET/SHEETS:

DATE:	DATE:
DATE:	DATE:

METER  
PROPOSED DESIGN

13TH STREET  
OTIS/MISSION STREET TO FOLSOM STREET

CONTRACT NO.
DRAWING NO.
FILE NO.
REV. NO.

FILE NAME:  
DATE: --/--

**13th Street Safety Project**

Parking Changes Inventory - Existing and Proposed Supply by Type and Block

Block	Street	Cross-streets	Street Side	Existing 2020											Proposed Project											Difference																					
				UMP	UMY	UMG	GMP	Yellow	White	Green	Blue	M/C	Total*	UMP	UMY	UMG	GMP (#)	Yellow	White (f	Green (#	Blue (#)	M/C (#)	Total*	UMP	UMY	UMG	GMP (#)	Yellow	White (	Green (#)	Blue (#	M/C (#)	Total*														
Unit	Duboce	Valencia - Stevenson	N	4	1	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-4	-1	0	0	0	0	0	0	0	0	0	0	0	0	0	-5
Unit	Duboce	Valencia - Woodward	S	3	1	0	0	0	0	0	0	0	1	15	8	0	2	0	0	0	0	0	0	0	0	14	4.8	-3	1	0	0	0	0	0	0	-1	-1	-3.2									
Unit	Duboce	Stevenson - Mission	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Unit	Duboce	Woodward - Mission	S	3	0	0	0	0	0	0	0	0	0	0	3	0	1	0	0	0	0	0	0	0	0	0	1	-3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	-2				
Unit	13th	Mission - SVN	N	20	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-20
Unit	13th	Mission - SVN	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Unit	13th	SVN - Folsom	N	3	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-3
Unit	13th	SVN - Folsom	S	0	0	0	10	0	0	0	0	0	0	0	10	0	0	0	10	0	0	0	0	1	0	0	11	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	1				
Subtotal by actual spaces				33	2	0	10	0	0	0	0	1	15	61	0	3	0	10	0	0	0	0	1	14	28	-33	1	0	0	0	0	0	0	-1	-1	-33											

**Legend**

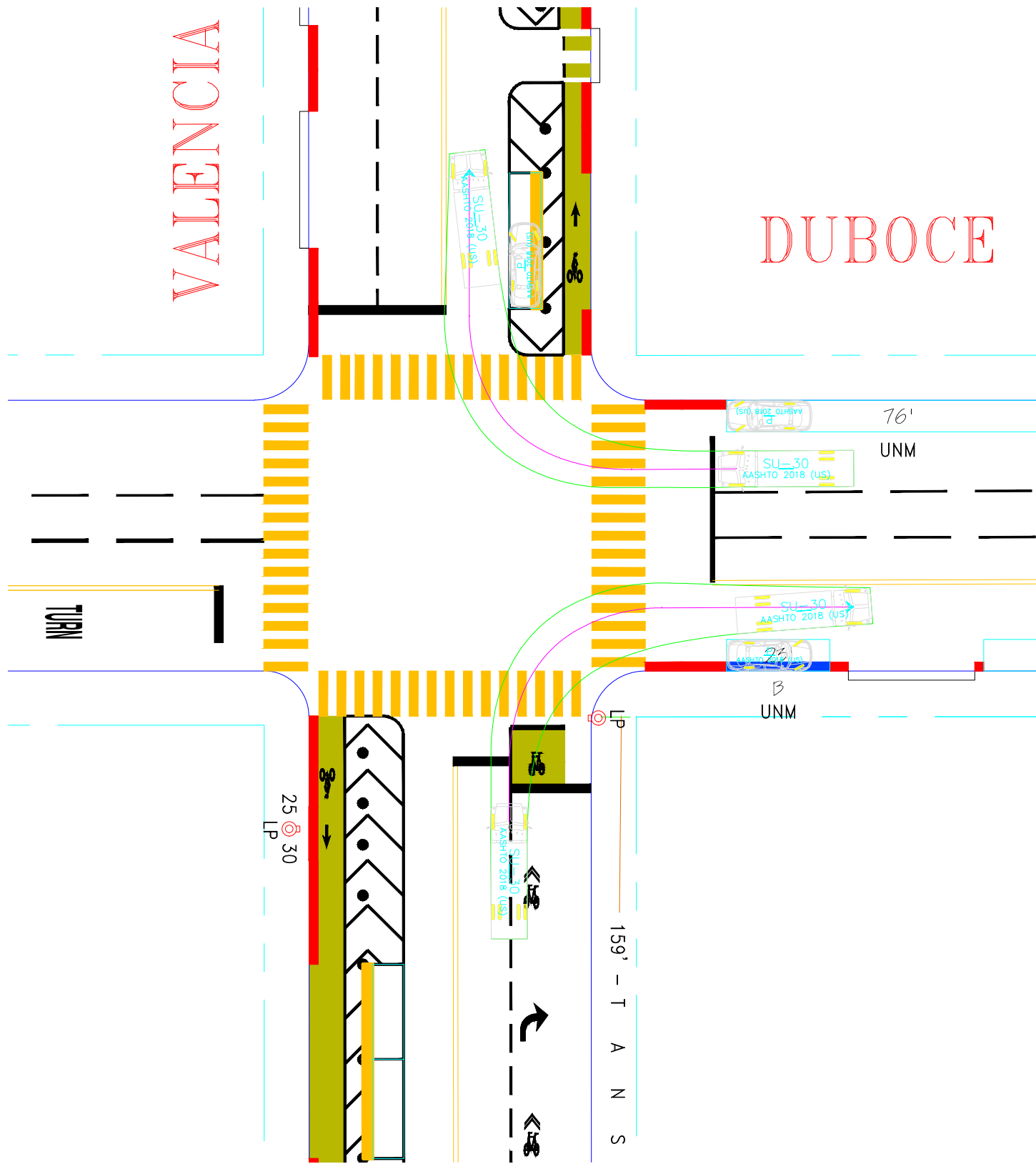
<b>UMP (#)</b>	Unmetered (RPP or street cleaning only)
<b>UMY (#)</b>	Unmetered yellow stalls (RPP or street cleaning only)
<b>UMG (#)</b>	Unmetered green stalls (RPP or street cleaning only)
<b>GMP (#)</b>	General (regular) metered parking stalls
<b>Yellow (#)</b>	Yellow metered loading stalls
<b>White (ft)</b>	White passenger loading, taxi or tour bus zone, in feet
<b>Green (#)</b>	Green short term metered parking stall
<b>Blue (#)</b>	Blue accessible parking stalls
<b>M/C (#)</b>	Motorcycle parking stalls

Total number of spaces (not including side streets)

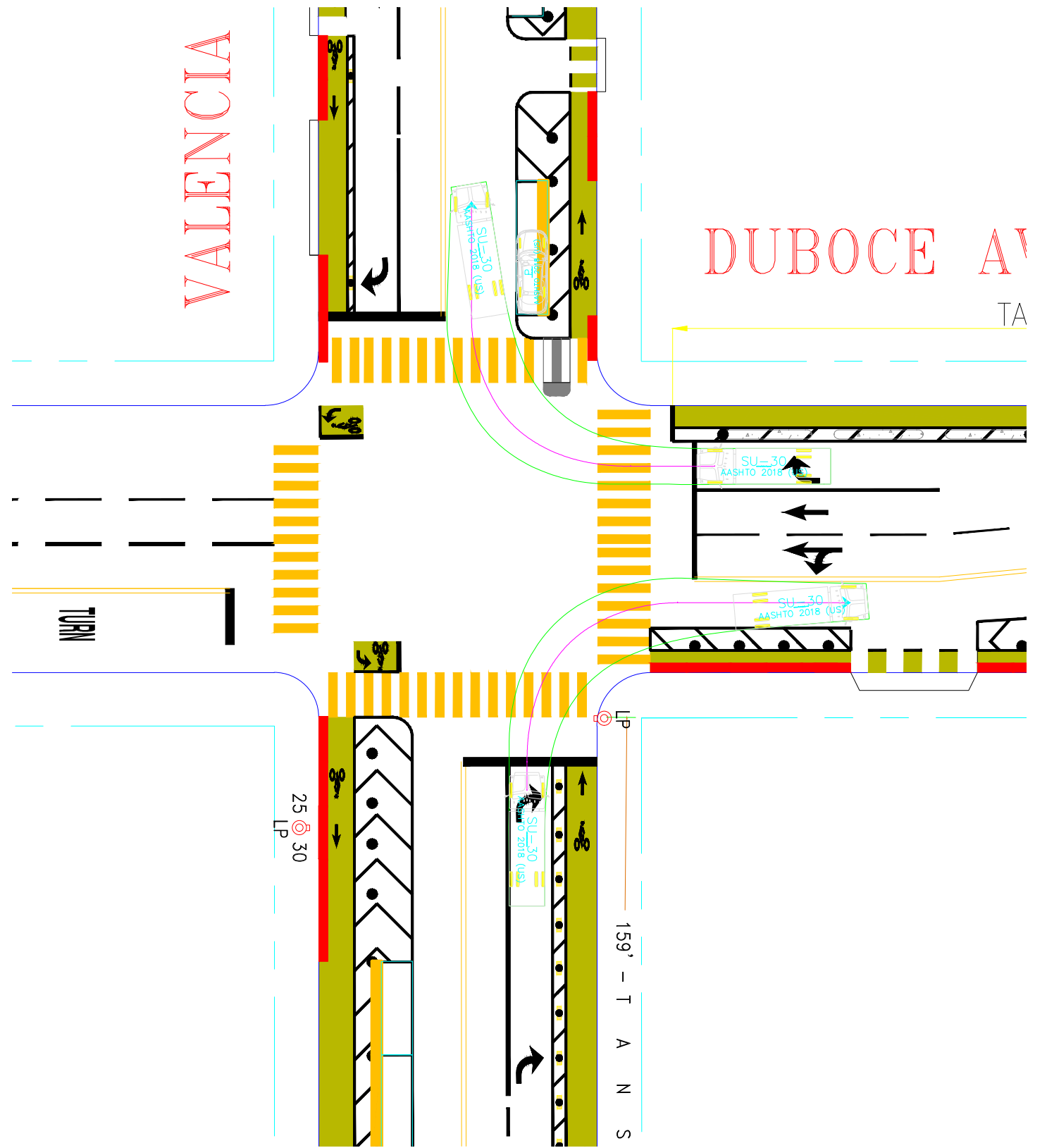
	Existing Supply	Proposed Supply	Change	% Ch.
UMP	33	0	(33)	
UMY	2	3	1	
UMG	0	0	0	
GMP	10	10	0	0%
Yellow	0	0	0	#DIV/0!
White	0.0	0.0	0	#DIV/0!
Green	0	0	0	#DIV/0!
Blue	1	1	0	0%
M/C	15	14	(1)	-7%
Total	61.0	28.0	-33	-54%

Updated: 4/22/22

PLAN-EXISTING



PLAN-PROPOSED



NO.	DATE	DESCRIPTION	BY	APP
TABLE OF REVISIONS				
CHECK WITH TRACING TO SEE IF YOU HAVE LATEST REVISION				



DRAWN:	DATE:
CHECKED:	DATE:

APPROVED	SCALE:
SENIOR ENGINEER	1" = 50'
CITY TRAFFIC ENGINEER	SHEET/SHEETS:
	01 OF 05

DATE:	DATE:
DATE:	DATE:

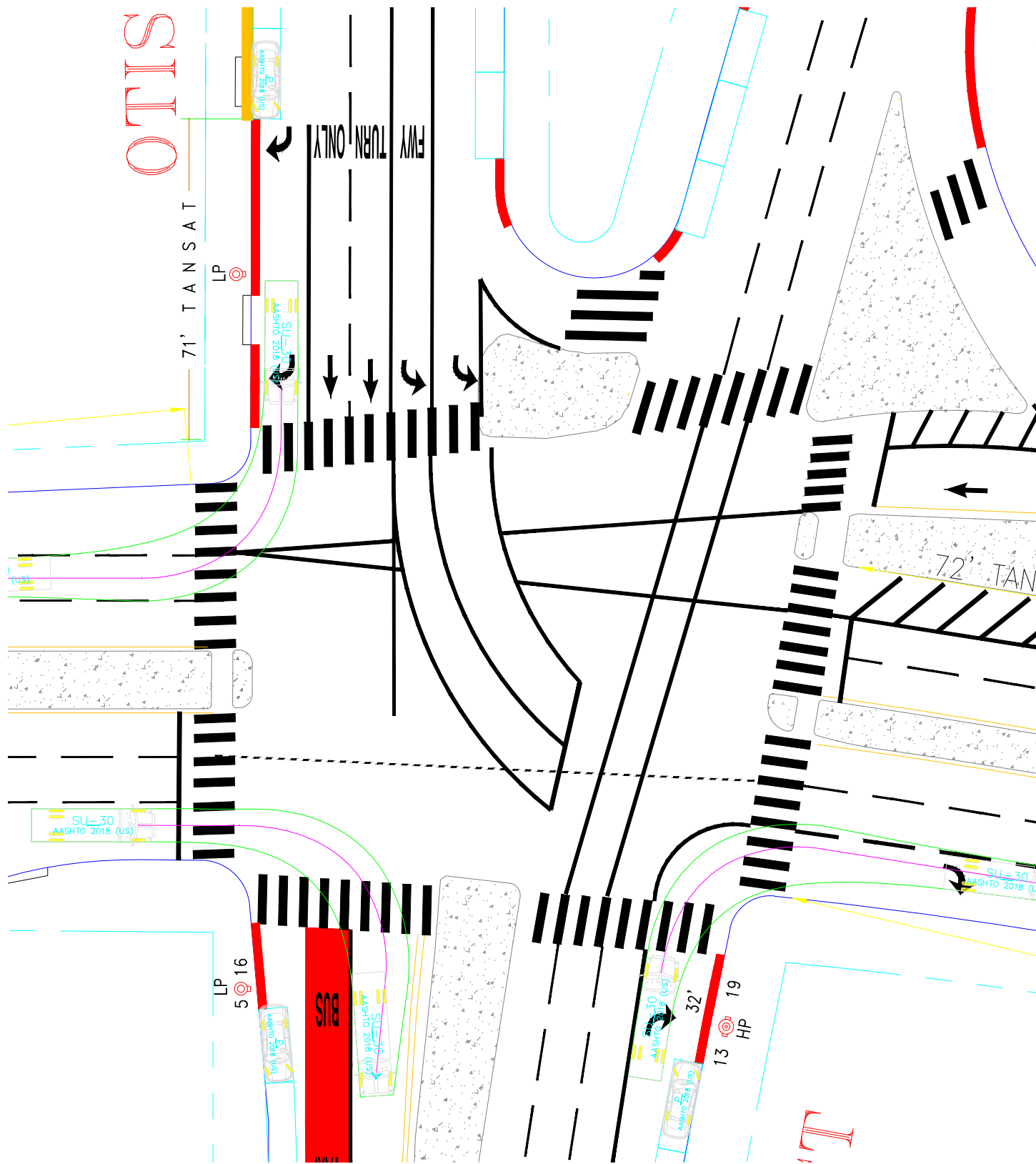
TURN TEMPLATES  
SU-30

13TH STREET SAFETY PROJECT  
VALENCIA STREET

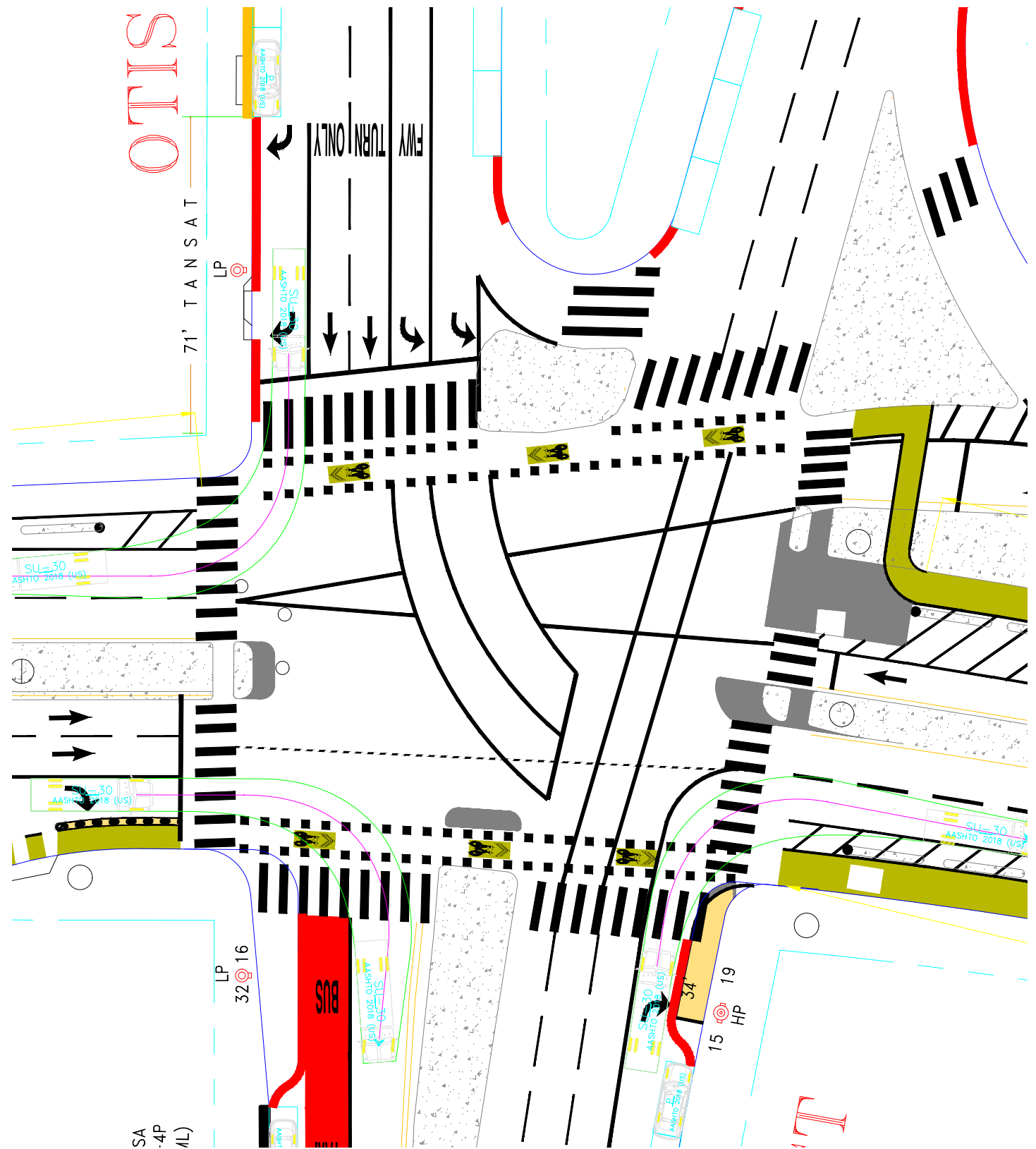
CONTRACT NO.
DRAWING NO.
FILE NO.
DRAFT
REV. NO.

FILE NAME: ---/---/---  
DATE: ---/---/---

PLAN-EXISTING



PLAN-PROPOSED



NO.	DATE	DESCRIPTION	BY	APP
TABLE OF REVISIONS				
CHECK WITH TRACING TO SEE IF YOU HAVE LATEST REVISION				



DRAWN:	DATE:	SENIOR ENGINEER	DATE:
CHECKED:	DATE:	CITY TRAFFIC ENGINEER	DATE:

APPROVED	SCALE:
1" = 50'	SHEET/SHEETS:
02 OF 05	

TURN TEMPLATES  
SU-30

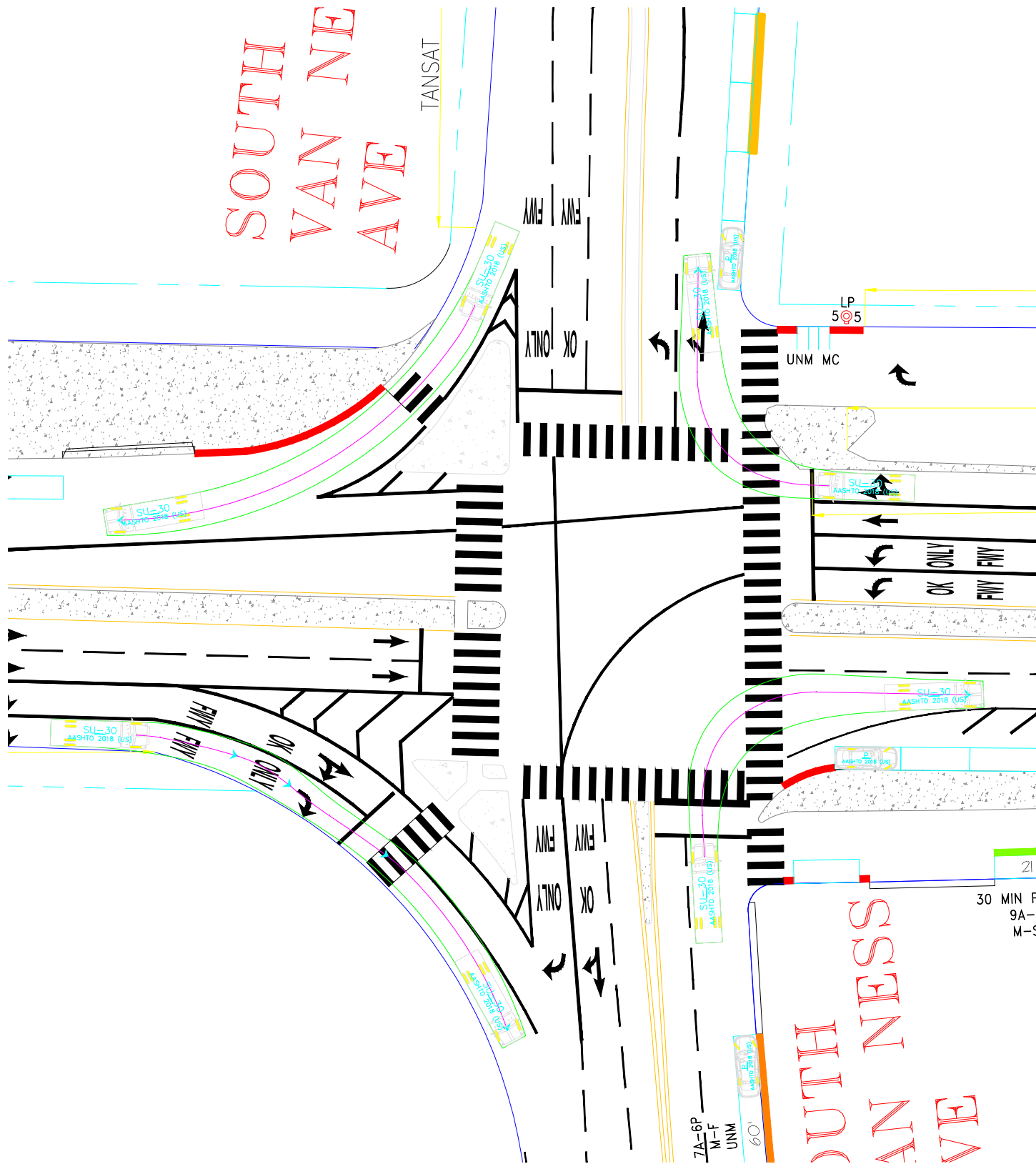
13TH STREET SAFETY PROJECT  
MISSION/OTIS STREET

CONTRACT NO.
DRAWING NO.
FILE NO.
DRAFT
REV. NO.

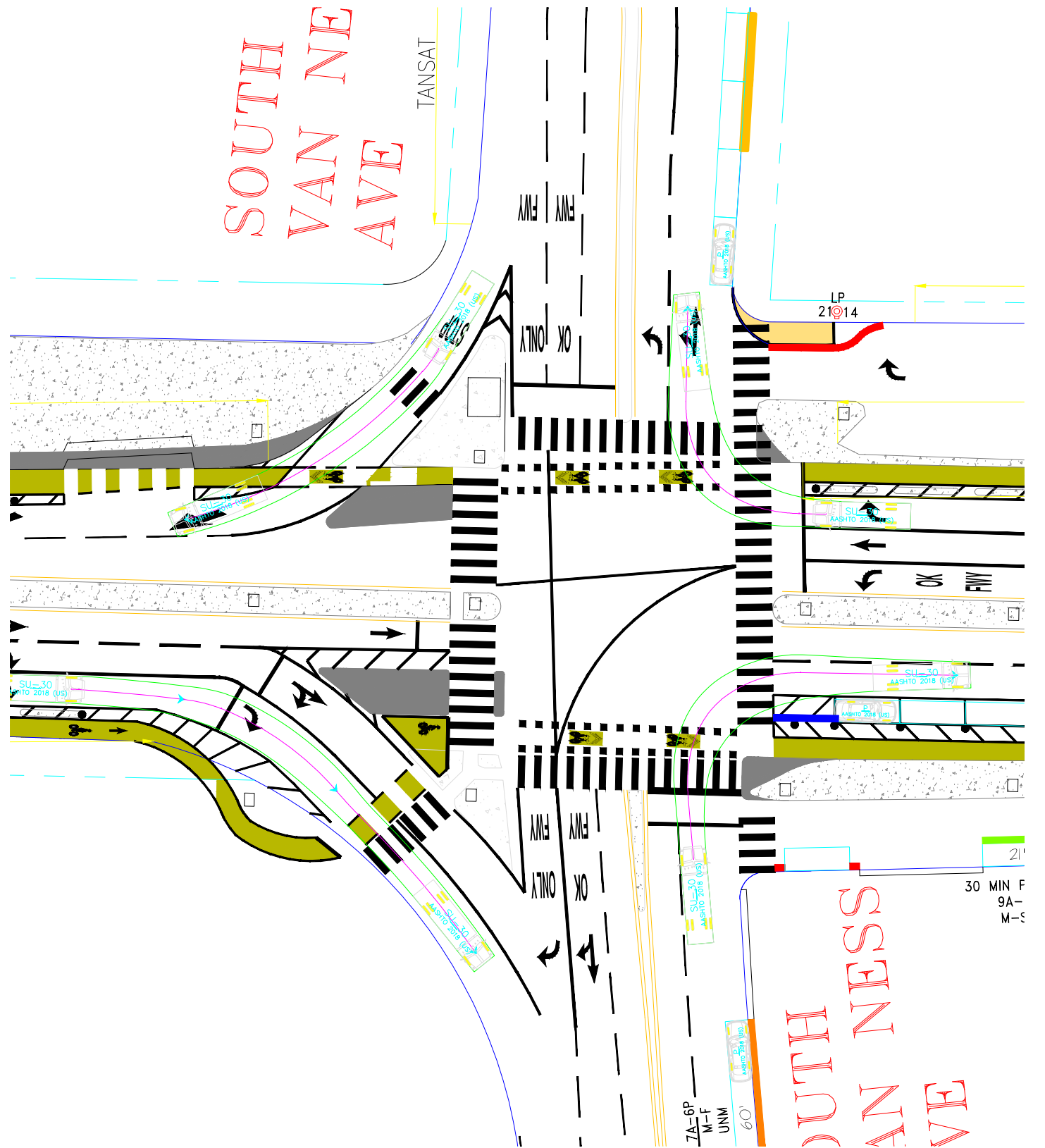
FILE NAME:  
DATE: --/--/---



PLAN-EXISTING



PLAN-PROPOSED



NO.	DATE	DESCRIPTION	BY	APP
TABLE OF REVISIONS				
CHECK WITH TRACING TO SEE IF YOU HAVE LATEST REVISION				



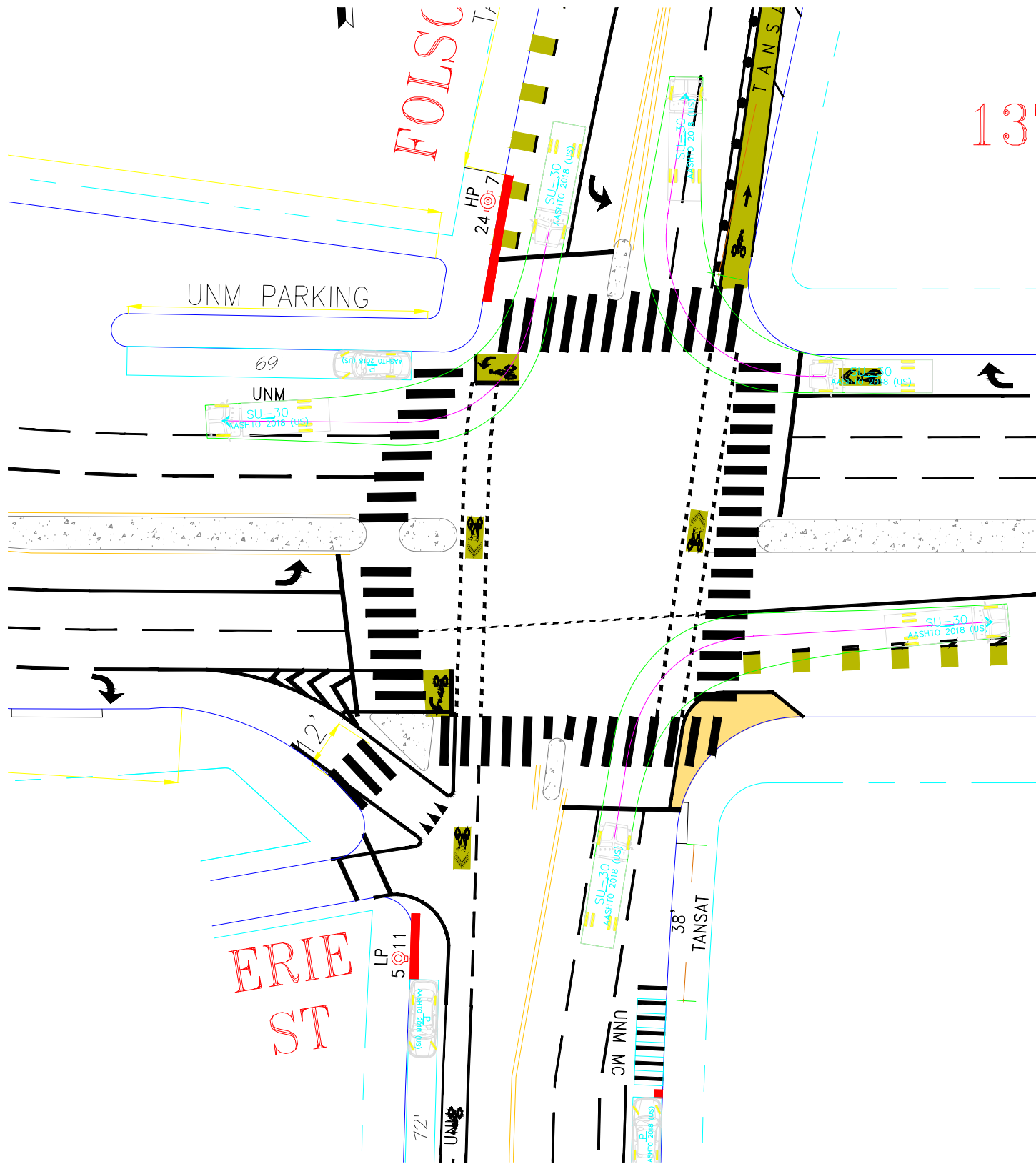
SFMTA



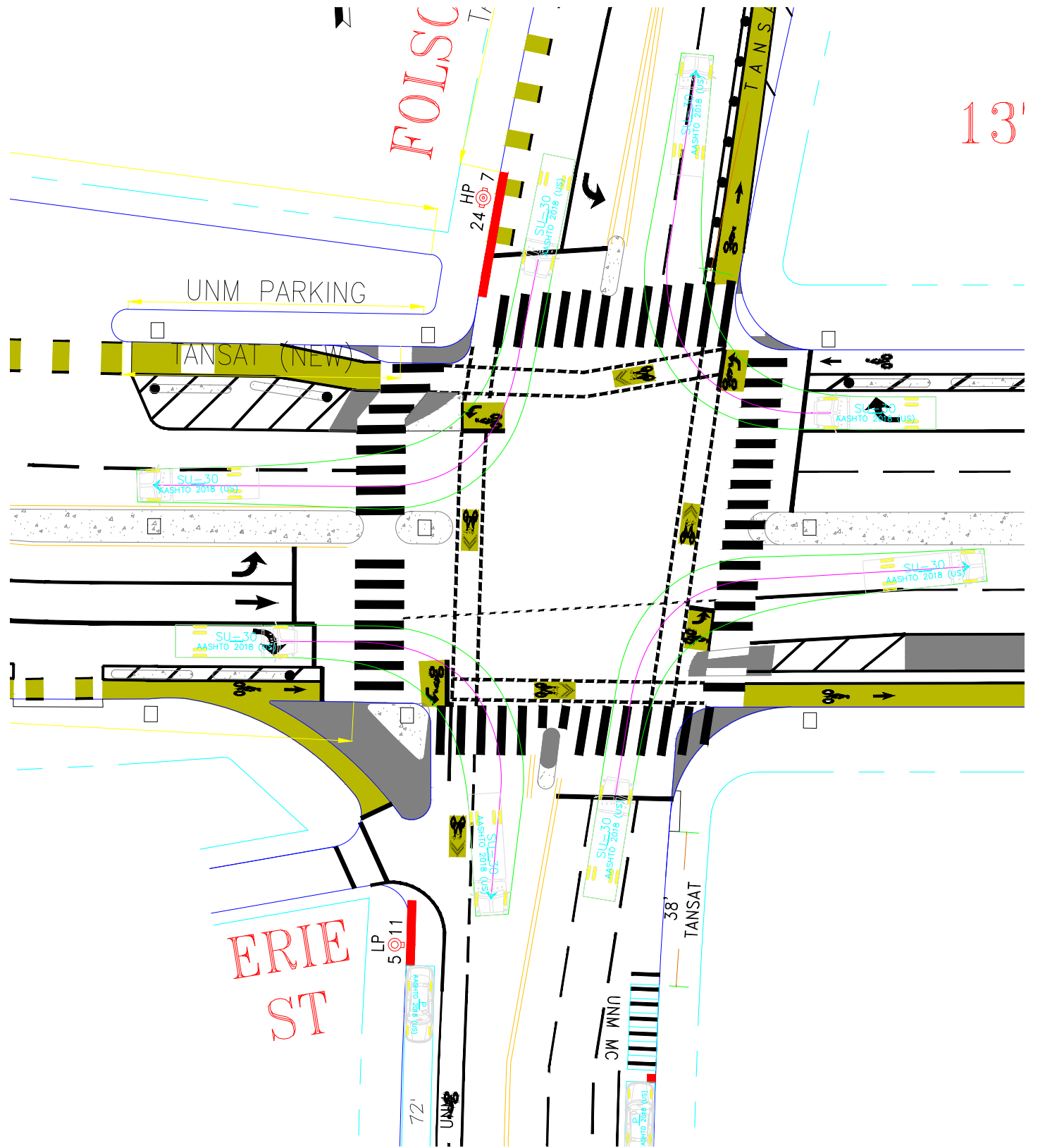
APPROVED	SCALE:	TURN TEMPLATES SU-30	CONTRACT NO.
SENIOR ENGINEER	1" = 50'		DRAWING NO.
CITY TRAFFIC ENGINEER	SHEET/SHEETS:	13TH STREET SAFETY PROJECT SOUTH VAN NESS AVE	FILE NO.
	03 OF 05		DRAFT
			REV. NO.

FILE NAME:  
DATE: --/--

PLAN-EXISTING



PLAN-PROPOSED



NO.	DATE	DESCRIPTION	BY	APP
TABLE OF REVISIONS				
CHECK WITH TRACING TO SEE IF YOU HAVE LATEST REVISION				



APPROVED	SCALE:
SENIOR ENGINEER	1" = 50'
CITY TRAFFIC ENGINEER	SHEET/SHEETS:
	04 OF 05

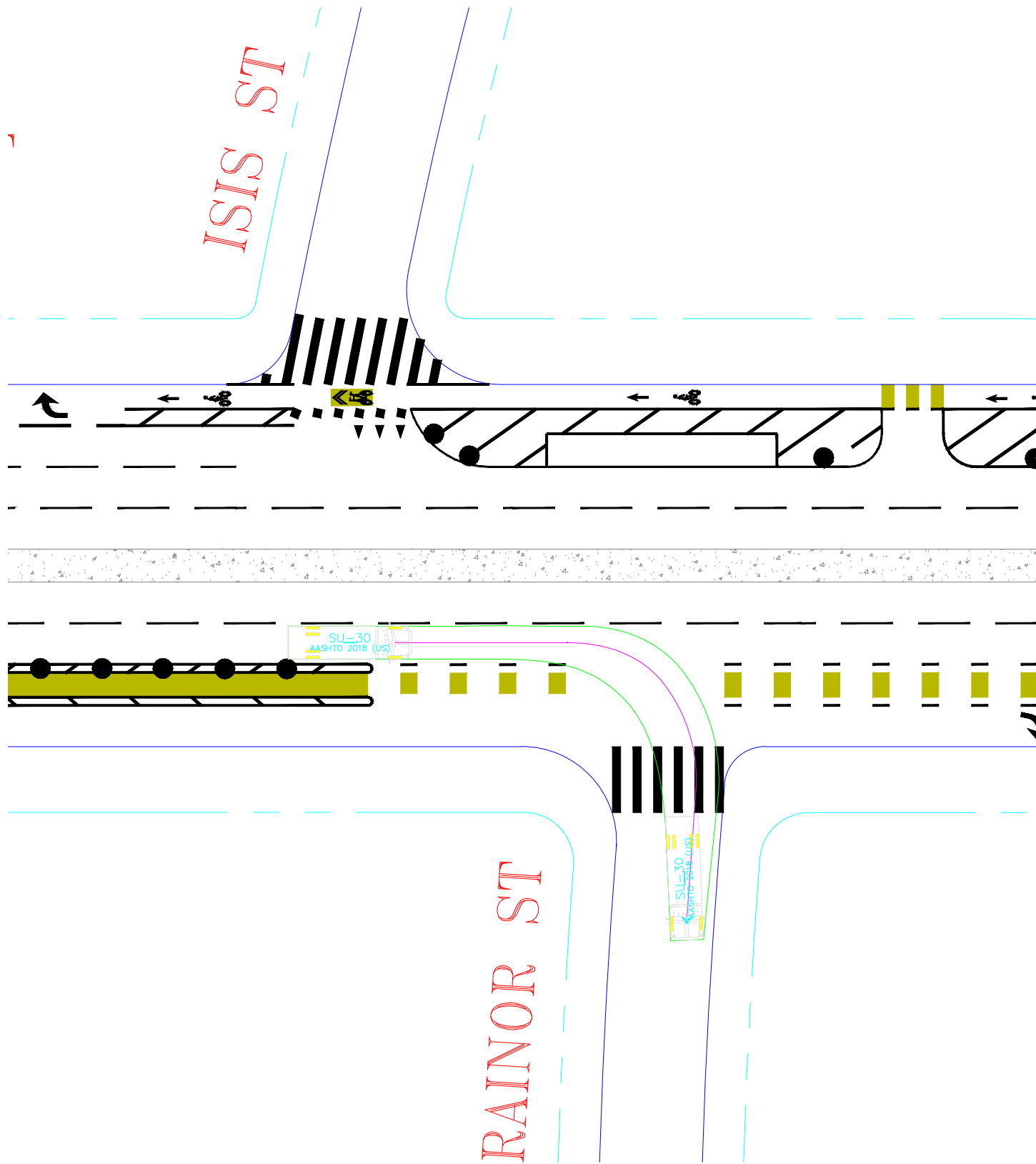
TURN TEMPLATES  
SU-30

13TH STREET SAFETY PROJECT  
FOLSOM

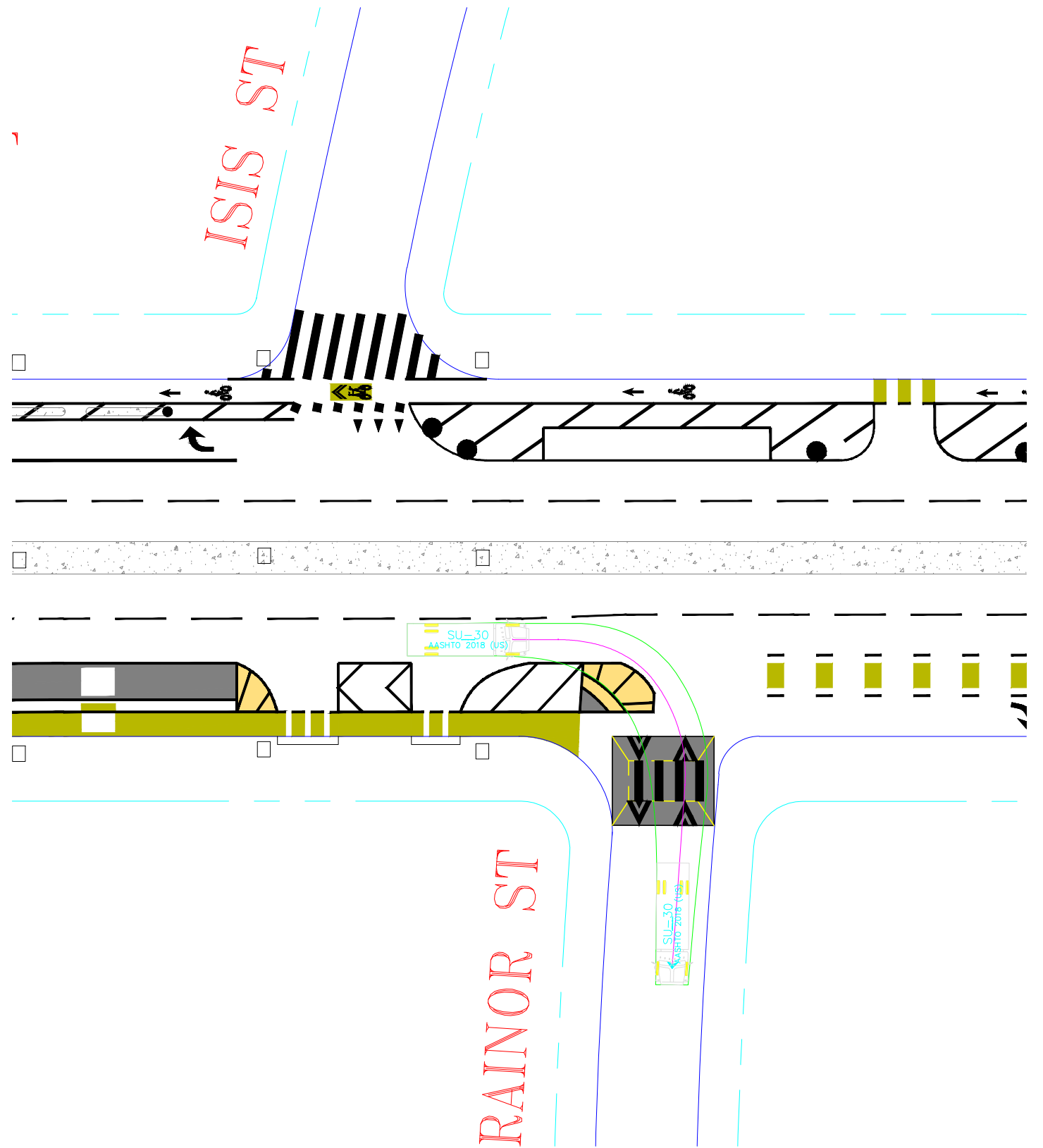
CONTRACT NO.
DRAWING NO.
FILE NO.
DRAFT
REV. NO.

FILE NAME:  
DATE: --/--

PLAN-EXISTING



PLAN-PROPOSED



NO.	DATE	DESCRIPTION	BY	APP
TABLE OF REVISIONS				
CHECK WITH TRACING TO SEE IF YOU HAVE LATEST REVISION				



APPROVED	SCALE:
SENIOR ENGINEER	1" = 50'
CITY TRAFFIC ENGINEER	SHEET/SHEETS:
	05 OF 05

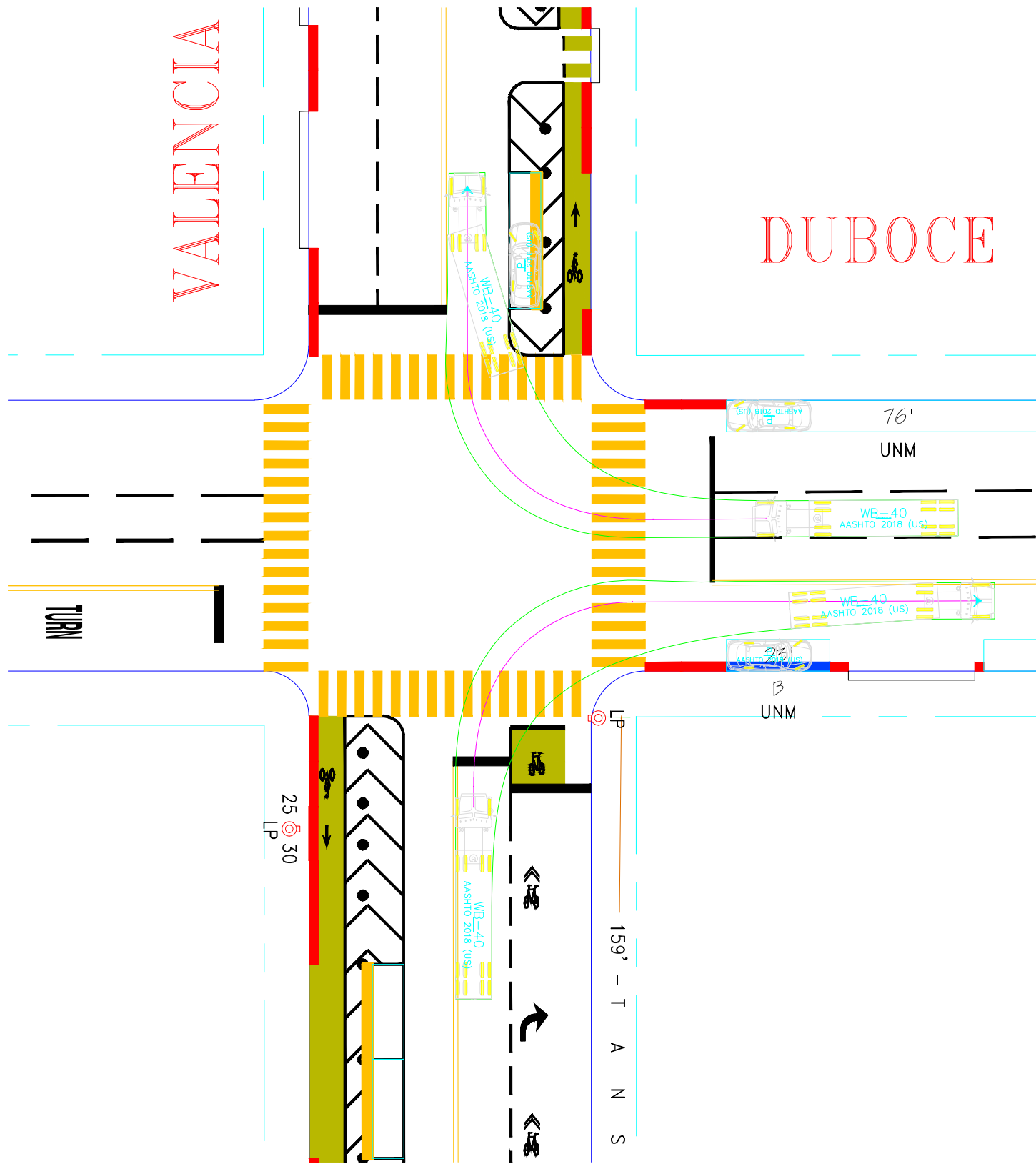
DRAWN:	DATE:	APPROVED:	DATE:
CHECKED:	DATE:	SENIOR ENGINEER	DATE:
		CITY TRAFFIC ENGINEER	DATE:

TURN TEMPLATES  
SU-30

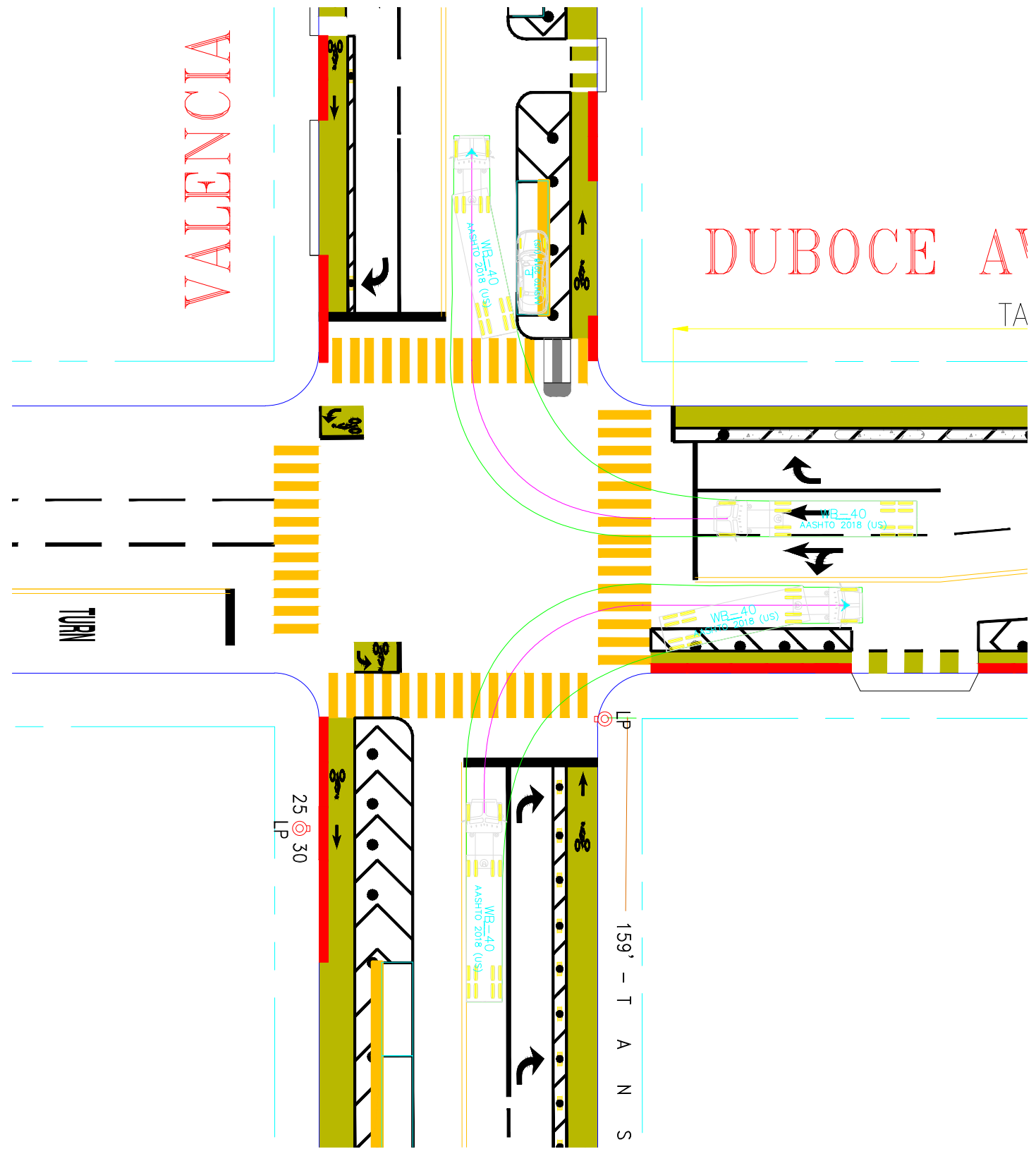
13TH STREET SAFETY PROJECT  
RAINOR

CONTRACT NO.
DRAWING NO.
FILE NO.
DRAFT
REV. NO.

PLAN-EXISTING



PLAN-PROPOSED



NO.	DATE	DESCRIPTION	BY	APP
TABLE OF REVISIONS				
CHECK WITH TRACING TO SEE IF YOU HAVE LATEST REVISION				



DRAWN:	DATE:
CHECKED:	DATE:

APPROVED	
SENIOR ENGINEER	DATE:
CITY TRAFFIC ENGINEER	DATE:

SCALE:	1" = 50'
SHEET/SHEETS:	01 OF 05

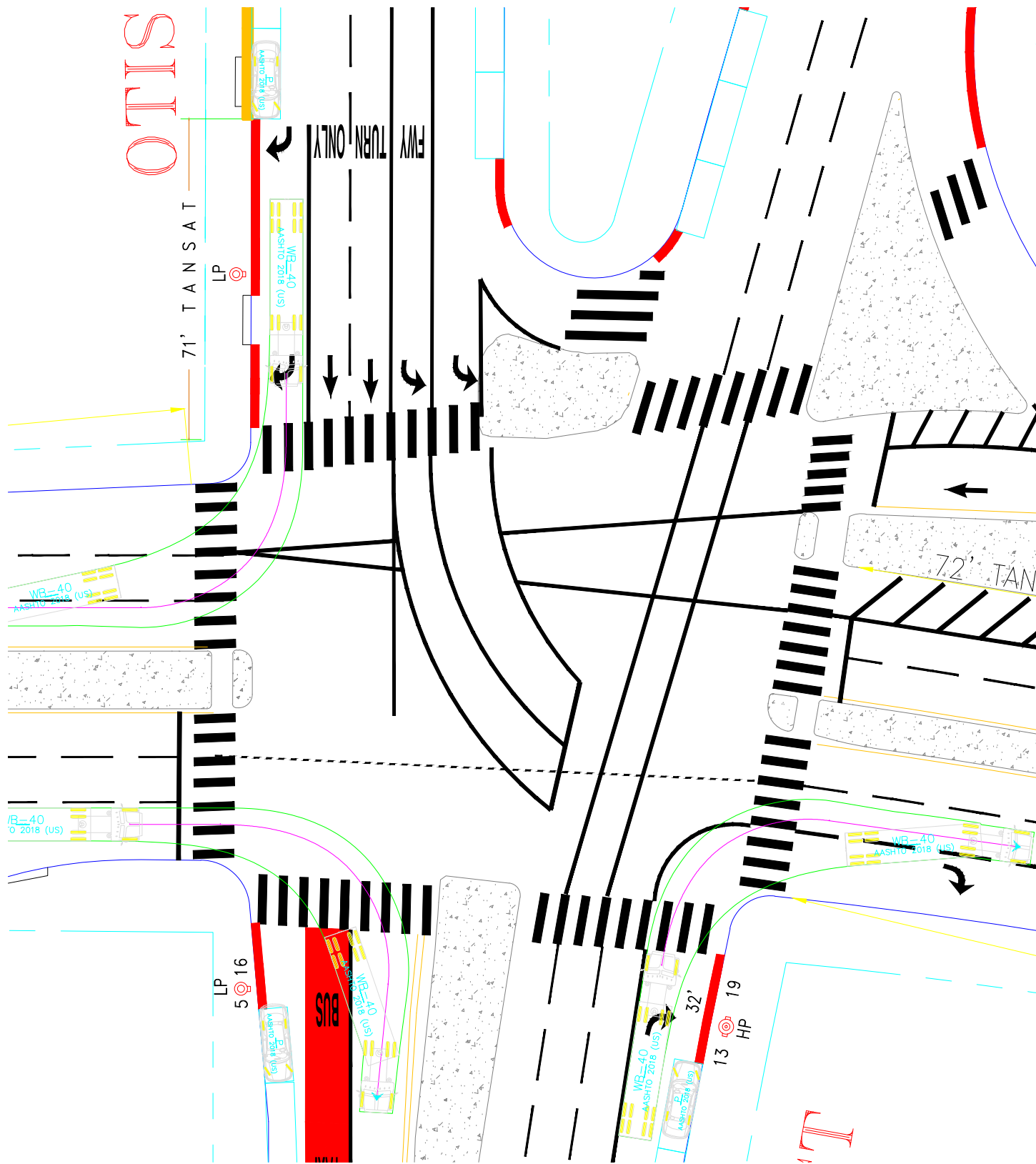
TURN TEMPLATES  
WB-40

13TH STREET SAFETY PROJECT  
VALENCIA STREET

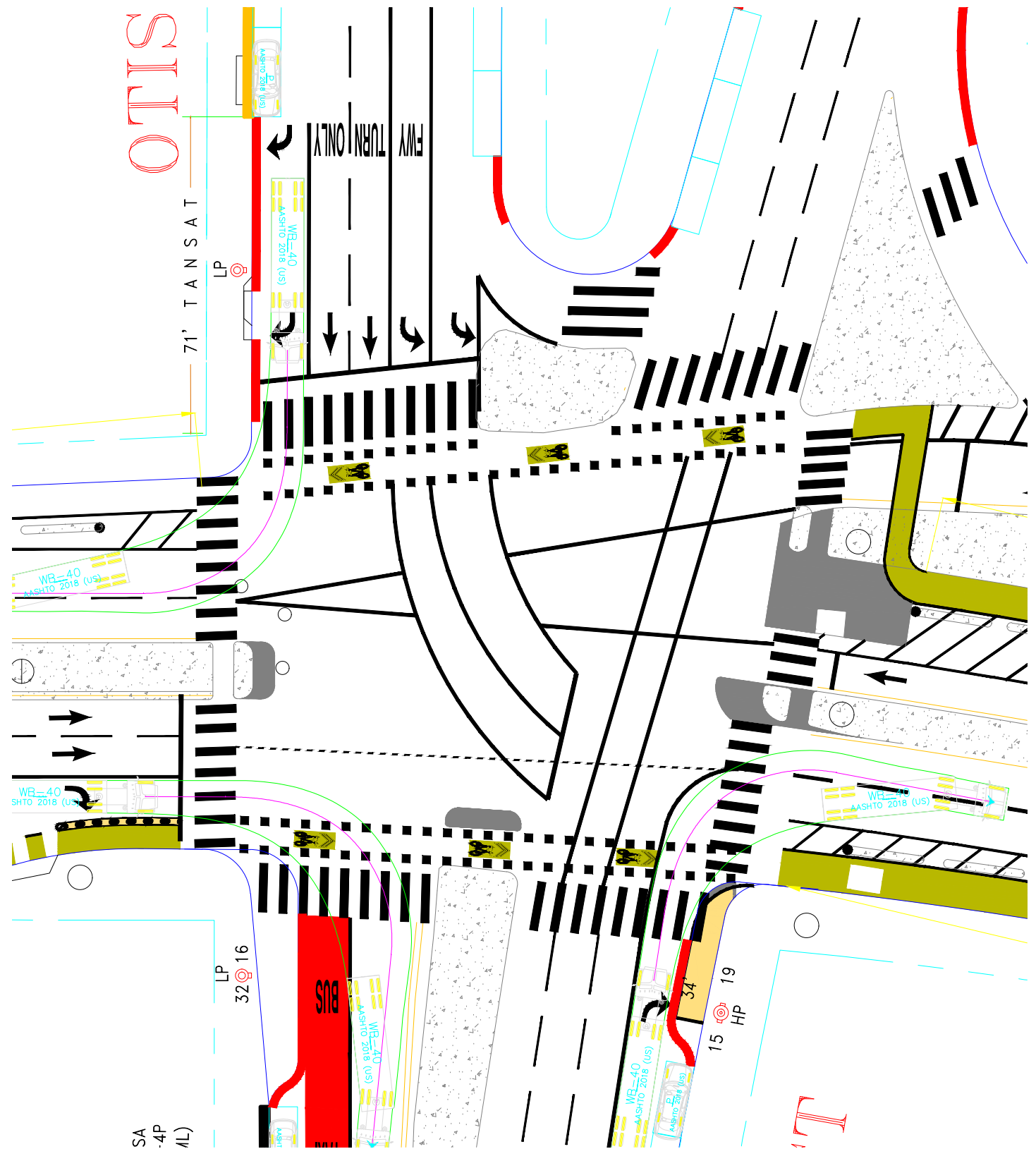
CONTRACT NO.
DRAWING NO.
FILE NO.
DRAFT
REV. NO.

FILE NAME:  
DATE: ---/---/---

PLAN-EXISTING



PLAN-PROPOSED



NO.	DATE	DESCRIPTION	BY	APP
TABLE OF REVISIONS				
CHECK WITH TRACING TO SEE IF YOU HAVE LATEST REVISION				



APPROVED	SCALE:
SENIOR ENGINEER	1" = 50'
CITY TRAFFIC ENGINEER	SHEET/SHEETS:
	02 OF 05

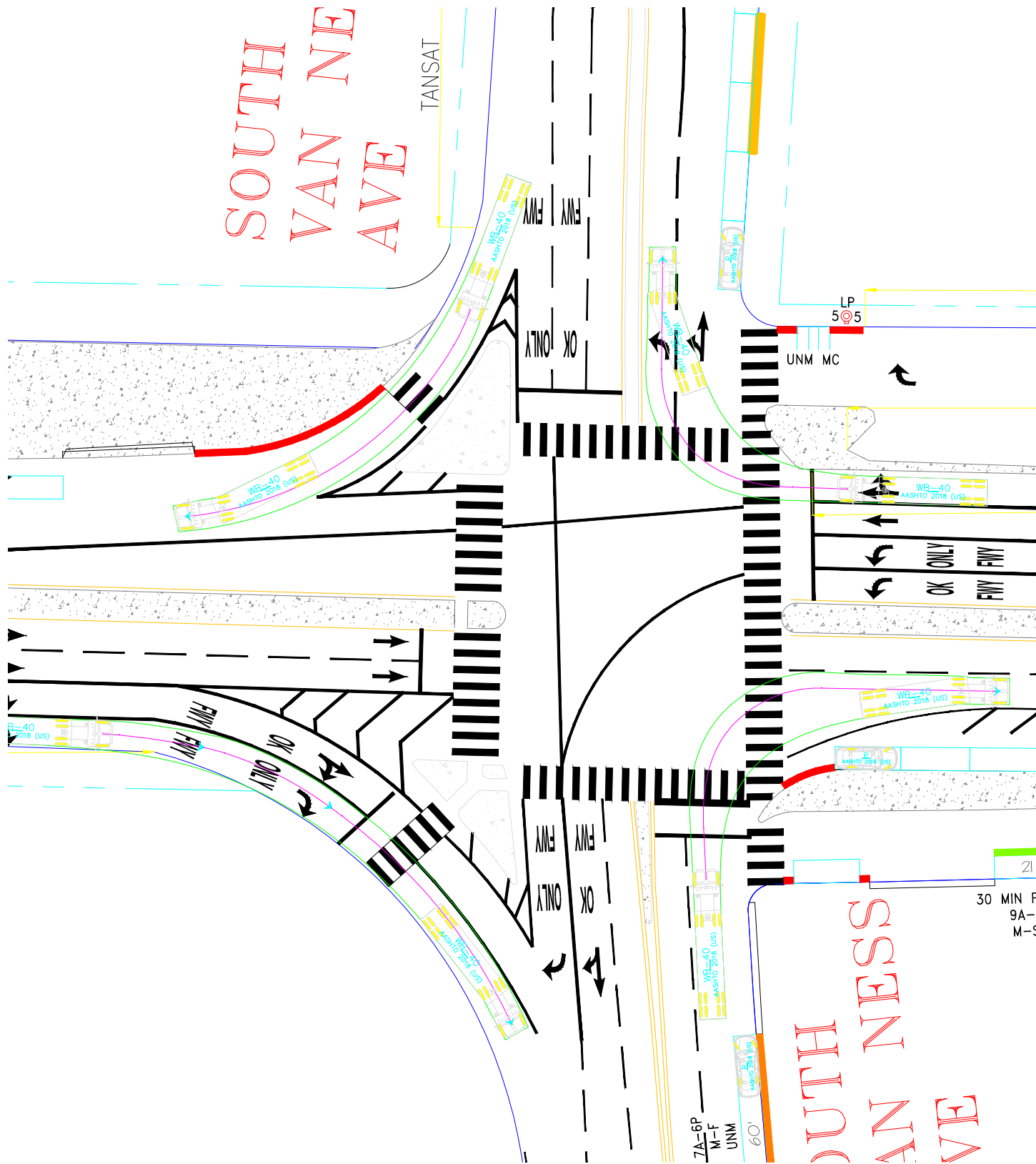
TURN TEMPLATES  
WB-40

13TH STREET SAFETY PROJECT  
MISSION/OTIS STREET

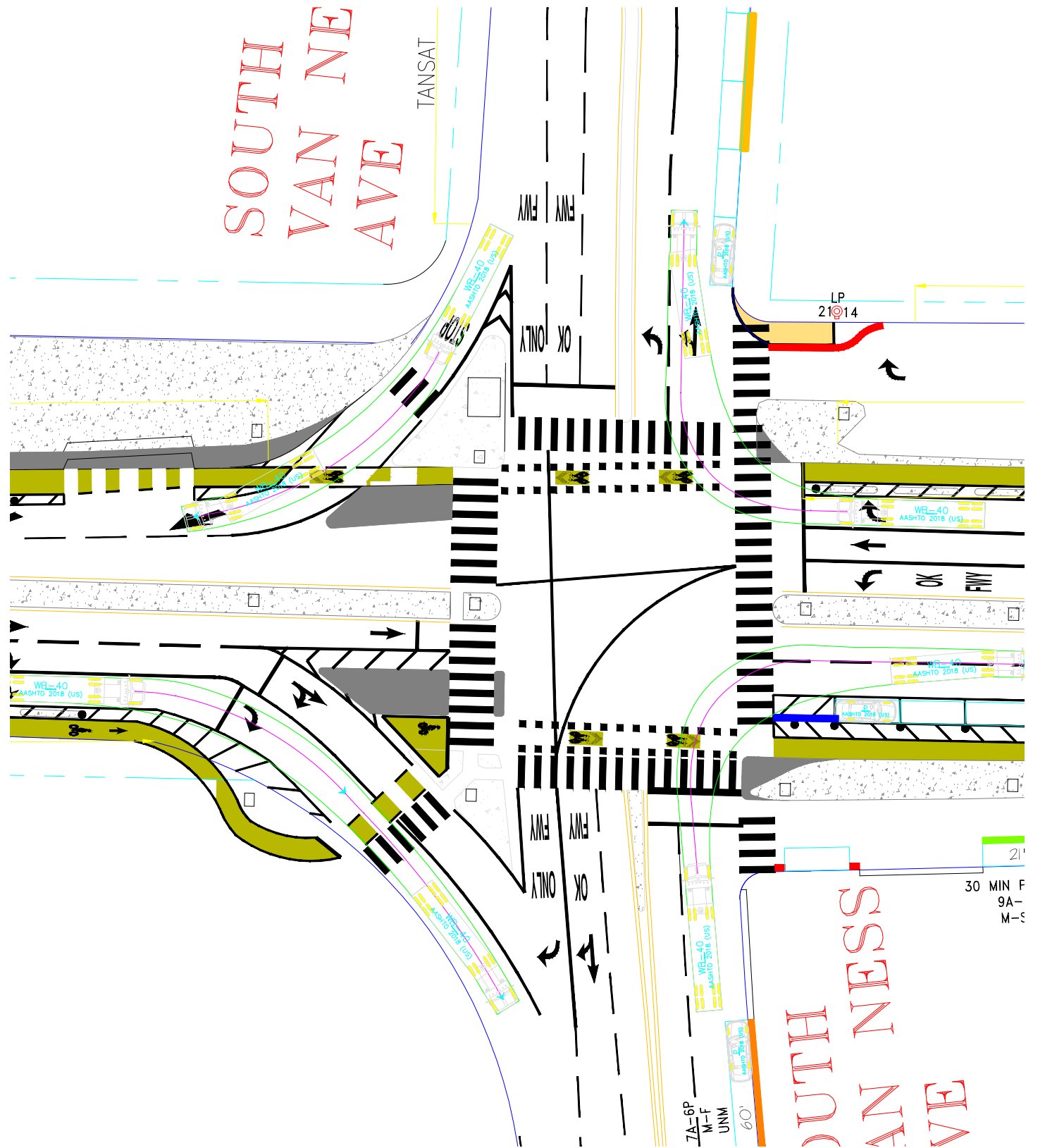
CONTRACT NO.
DRAWING NO.
FILE NO.
DRAFT
REV. NO.

FILE NAME:  
DATE: --/--/---

PLAN-EXISTING



PLAN-PROPOSED



NO.	DATE	DESCRIPTION	BY	APP
TABLE OF REVISIONS				
CHECK WITH TRACING TO SEE IF YOU HAVE LATEST REVISION				



APPROVED	SCALE:
SENIOR ENGINEER	1" = 50'
CITY TRAFFIC ENGINEER	SHEET/SHEETS:
	03 OF 05

DRAWN:	DATE:	SENIOR ENGINEER	DATE:
CHECKED:	DATE:	CITY TRAFFIC ENGINEER	DATE:

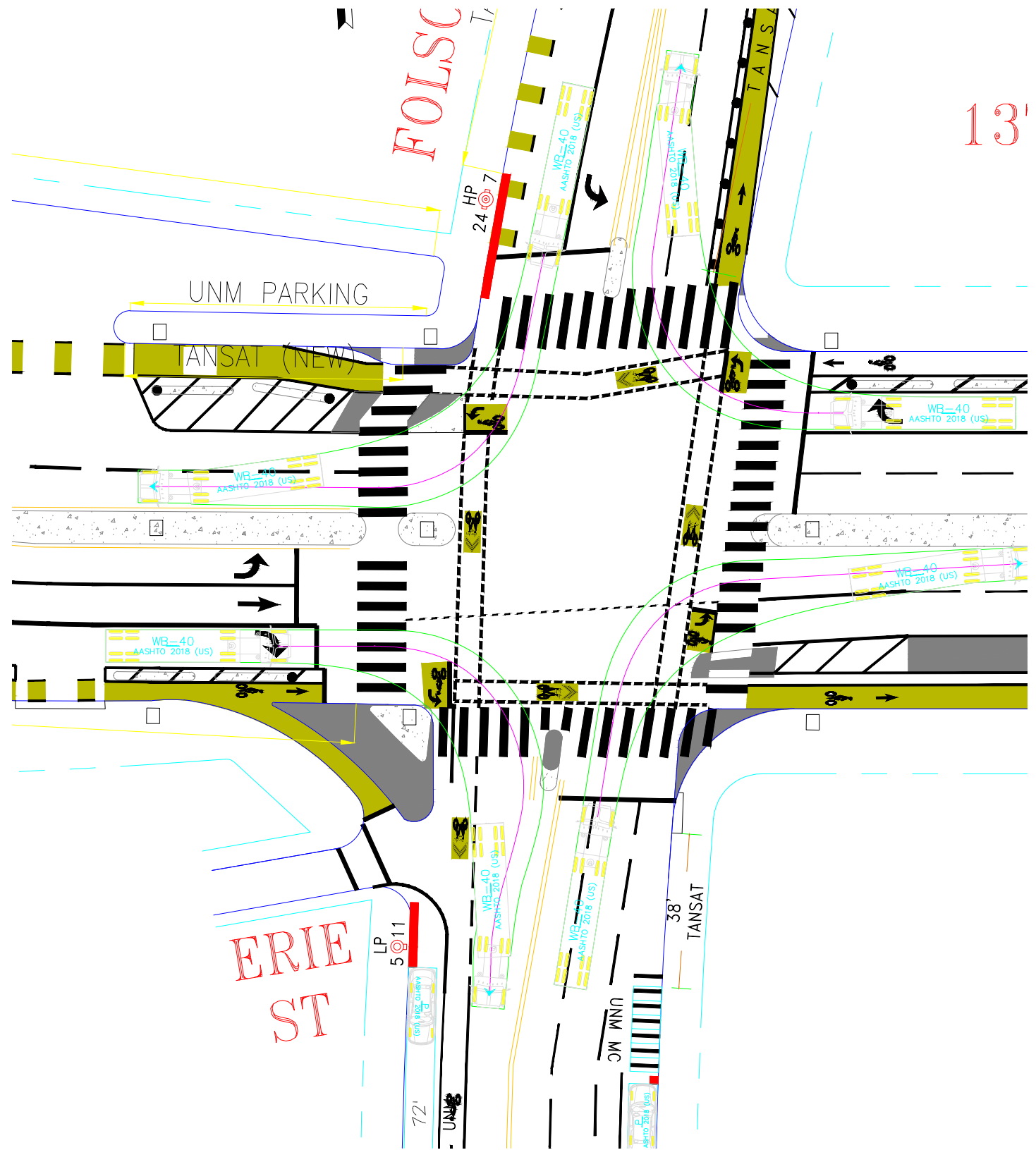
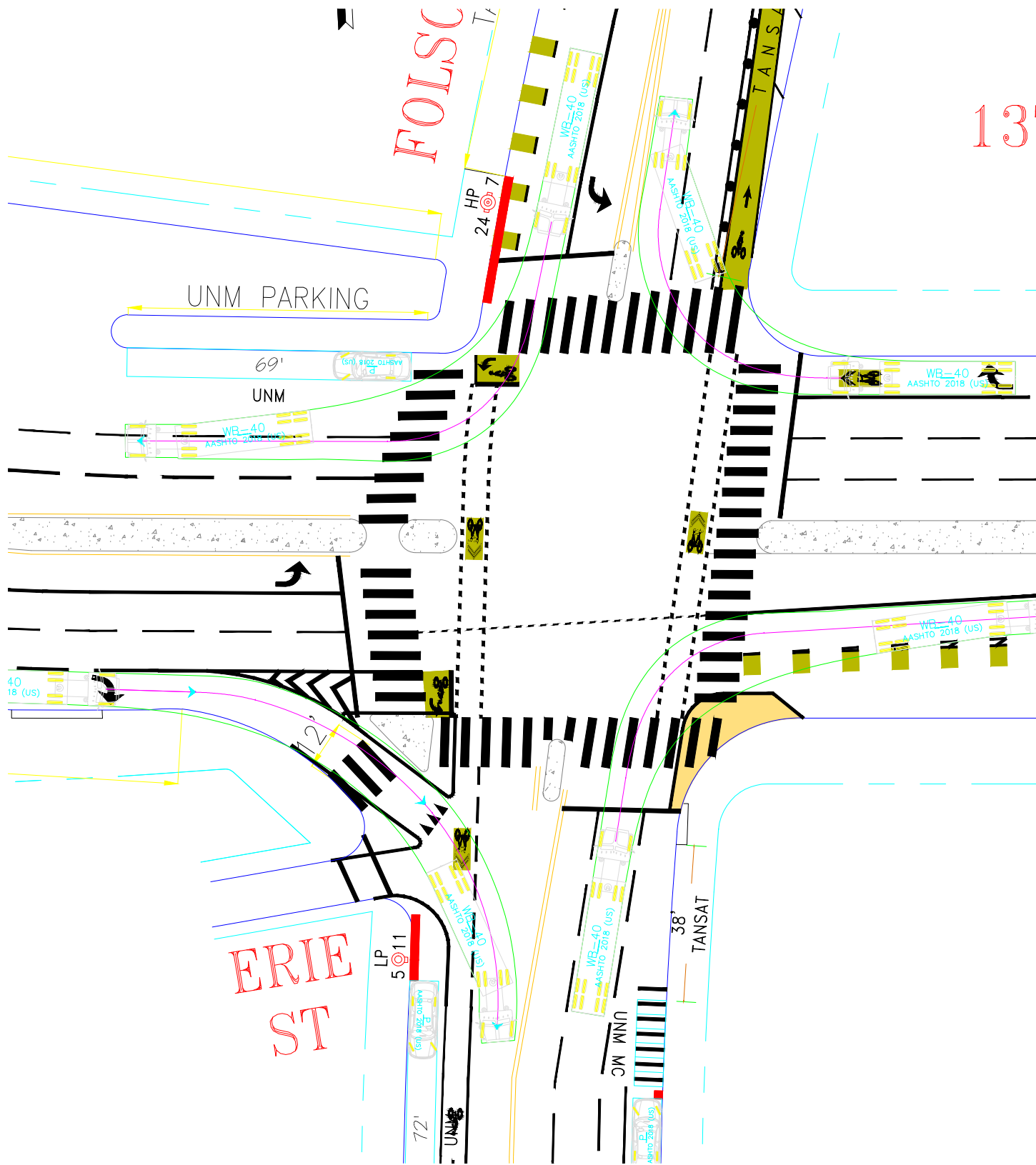
TURN TEMPLATES  
WB-40

13TH STREET SAFETY PROJECT  
SOUTH VAN NESS AVE

CONTRACT NO.
DRAWING NO.
FILE NO.
DRAFT
REV. NO.

PLAN-EXISTING

PLAN-PROPOSED



13'

13'

NO.	DATE	DESCRIPTION	BY	APP
TABLE OF REVISIONS				
CHECK WITH TRACING TO SEE IF YOU HAVE LATEST REVISION				



DRAWN:		DATE:		APPROVED		SCALE:	
CHECKED:		DATE:		SENIOR ENGINEER		1" = 50'	
				CITY TRAFFIC ENGINEER		SHEET/SHEETS:	
						04 OF 05	

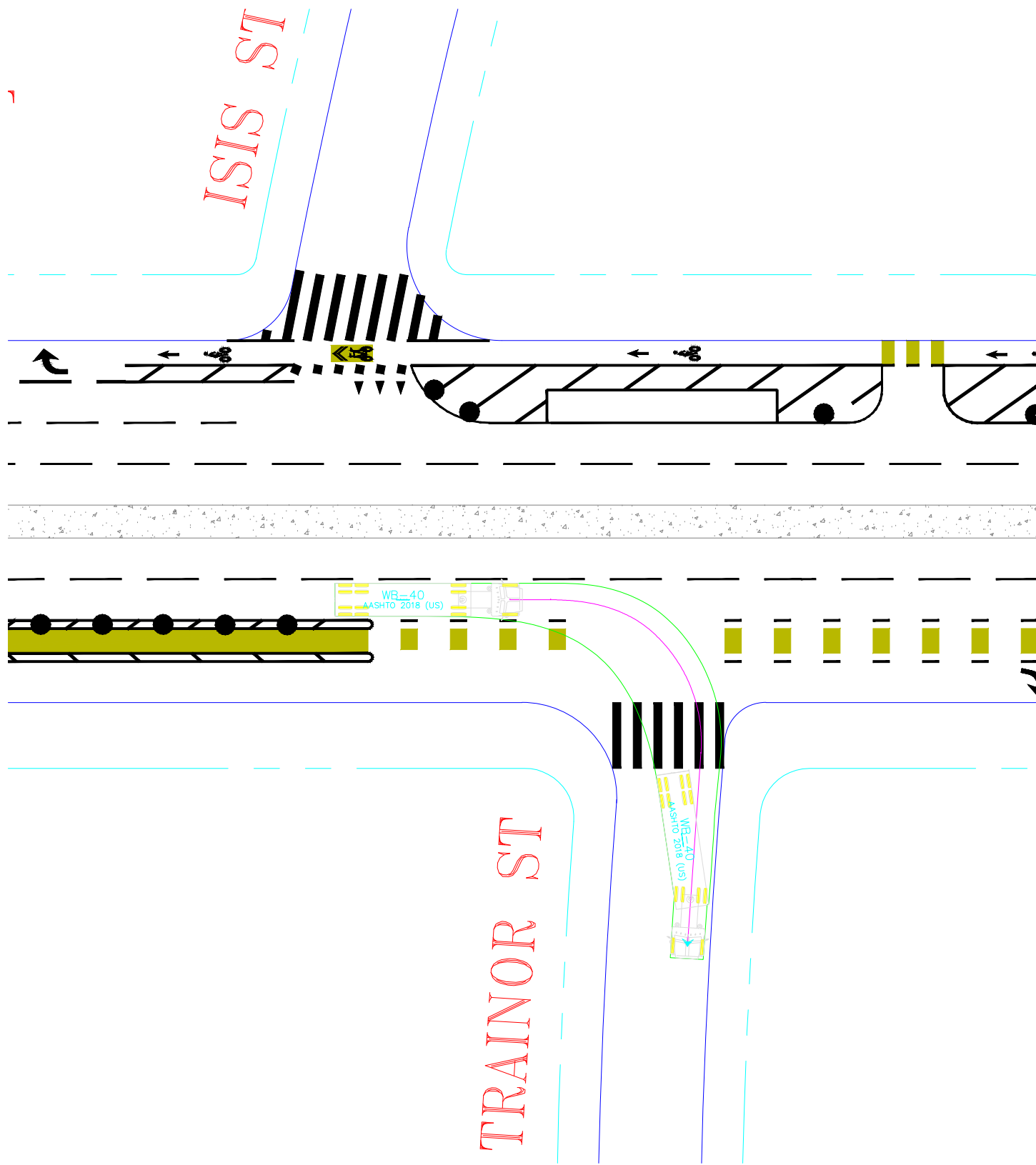
TURN TEMPLATES  
WB-40

13TH STREET SAFETY PROJECT  
FOLSOM

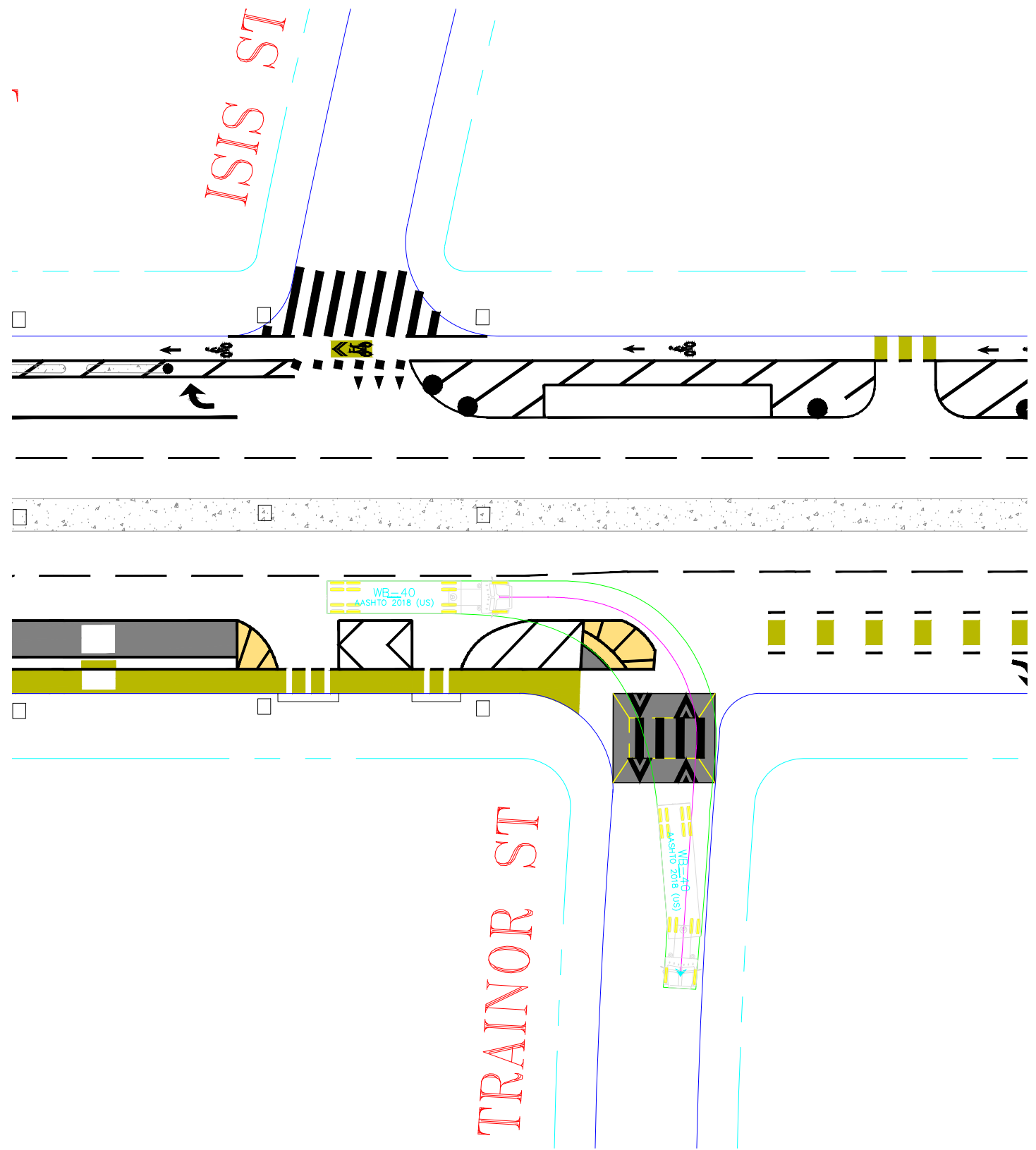
CONTRACT NO.
DRAWING NO.
FILE NO.
DRAFT
REV. NO.

FILE NAME:  
DATE: --/--/--

PLAN-EXISTING



PLAN-PROPOSED



NO.	DATE	DESCRIPTION	BY	APP
TABLE OF REVISIONS				
CHECK WITH TRACING TO SEE IF YOU HAVE LATEST REVISION				



SFMTA



DRAWN:	DATE:
CHECKED:	DATE:

APPROVED	
SENIOR ENGINEER	DATE:
CITY TRAFFIC ENGINEER	DATE:

SCALE:  
1" = 50'  
SHEET/SHEETS:  
05 OF 05

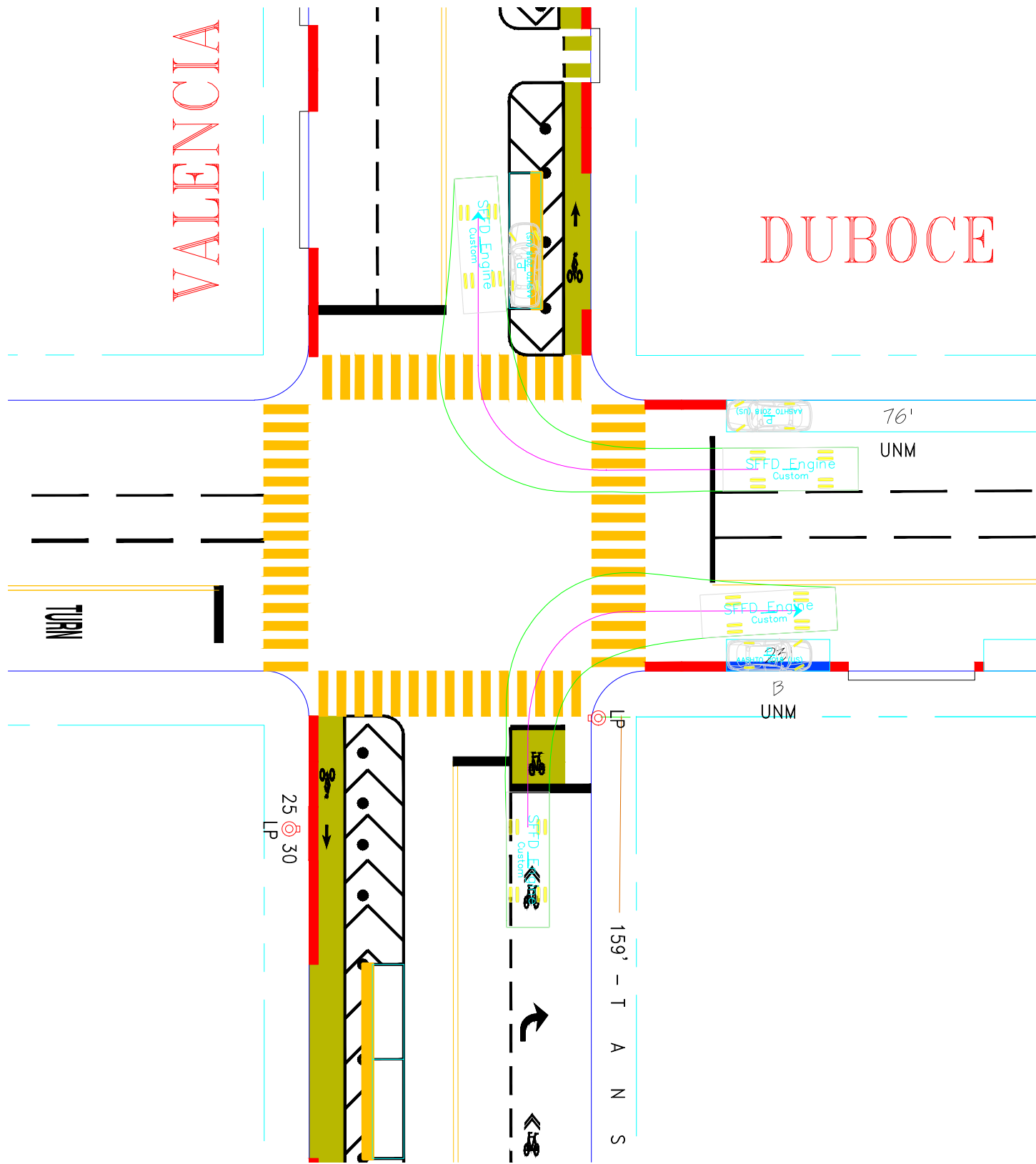
TURN TEMPLATES  
WB-40  
13TH STREET SAFETY PROJECT  
TRAINOR

CONTRACT NO.
DRAWING NO.
FILE NO.
DRAFT
REV. NO.

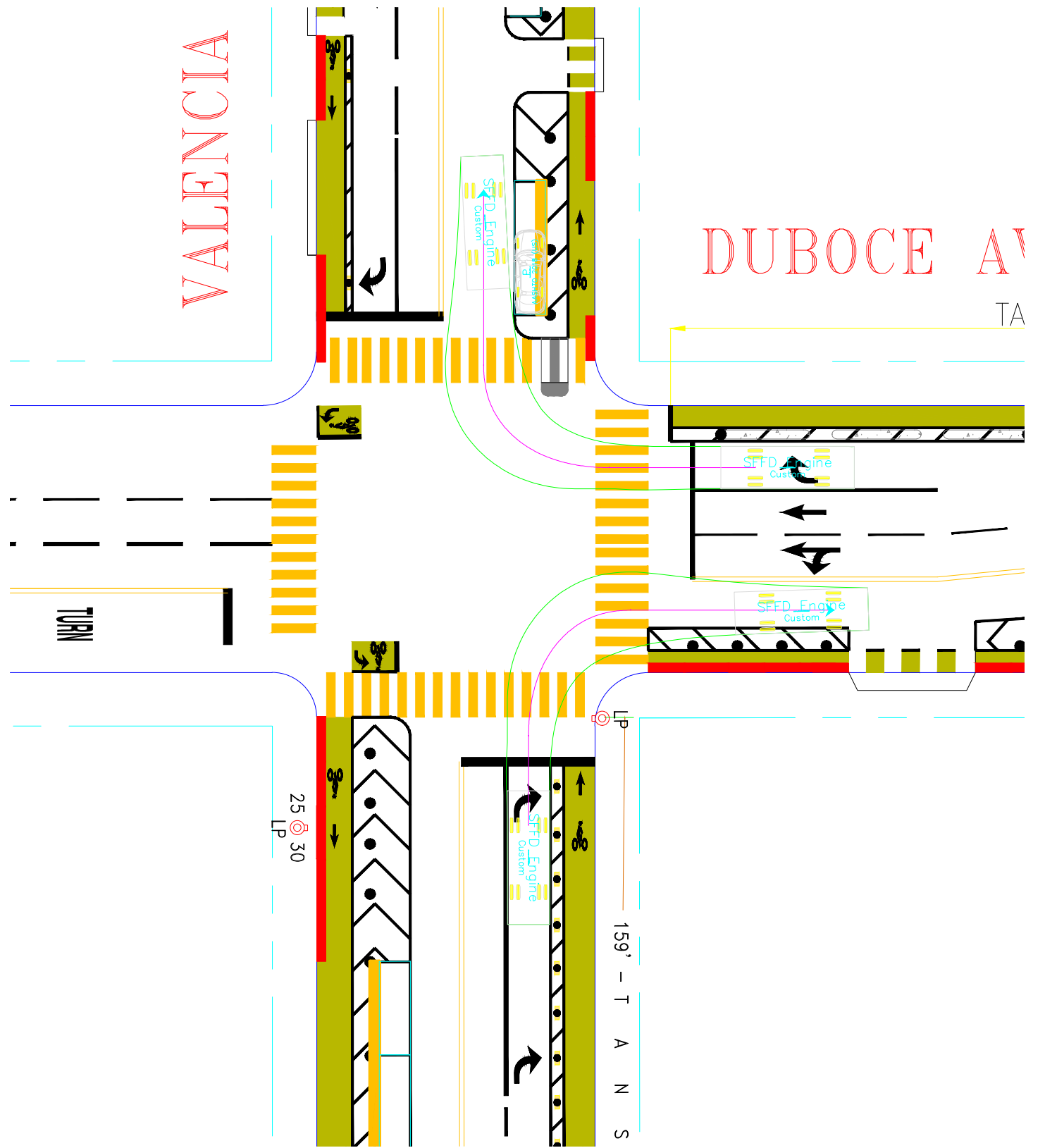
FILE NAME:  
DATE: --/--/--



PLAN-EXISTING



PLAN-PROPOSED



NO.	DATE	DESCRIPTION	BY	APP
TABLE OF REVISIONS				
CHECK WITH TRACING TO SEE IF YOU HAVE LATEST REVISION				



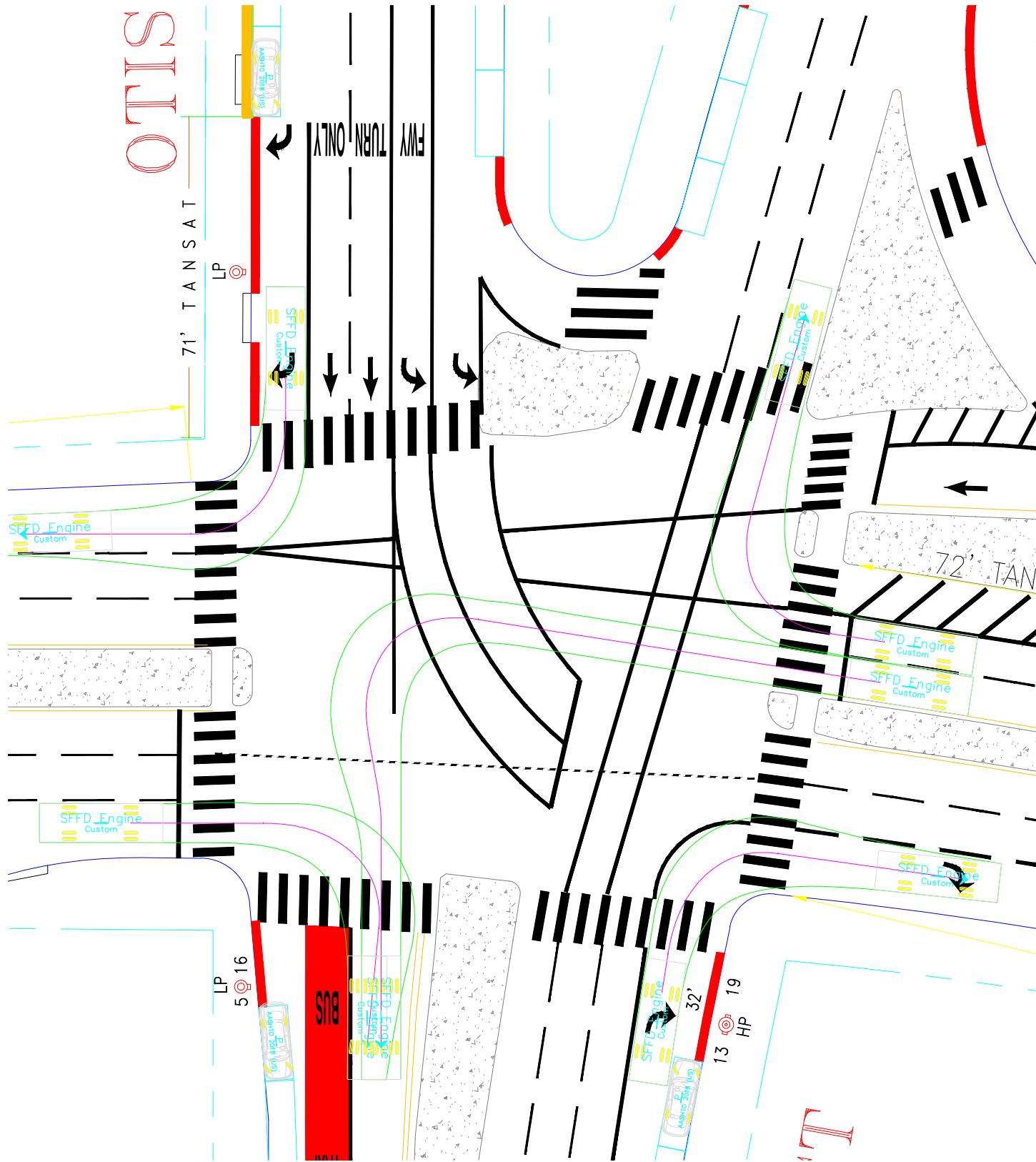
DRAWN:	DATE:
CHECKED:	DATE:

APPROVED	SCALE:
SENIOR ENGINEER	1" = 50'
CITY TRAFFIC ENGINEER	SHEET/SHEETS:
	01 OF 05

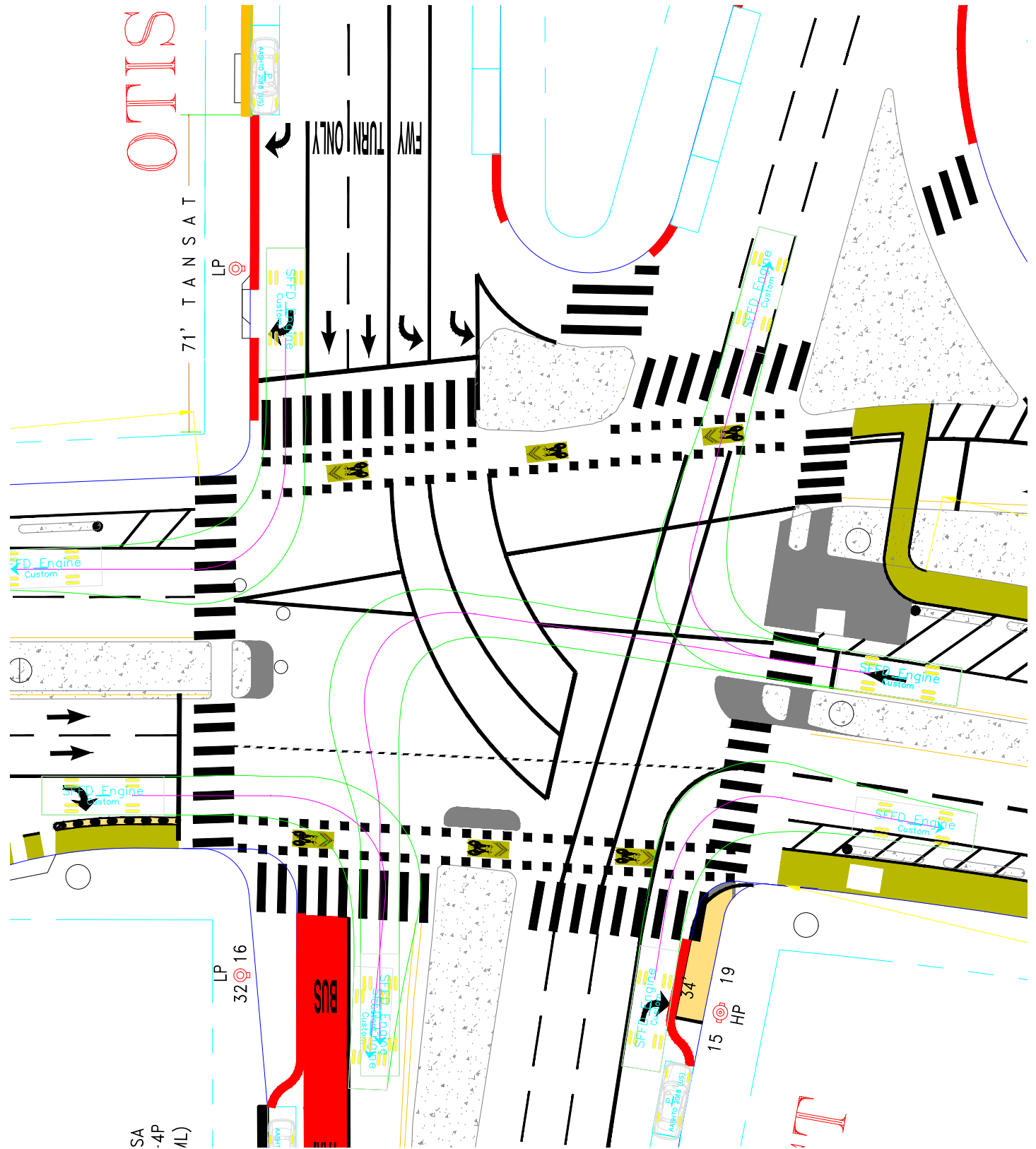
CONTRACT NO.  
DRAWING NO.  
FILE NO.  
DRAFT  
REV. NO.

TURN TEMPLATES  
SFFD ENGINE  
13TH STREET SAFETY PROJECT  
VALENCIA STREET

PLAN-EXISTING



PLAN-PROPOSED



NO.	DATE	DESCRIPTION	BY	APP
TABLE OF REVISIONS				
CHECK WITH TRACING TO SEE IF YOU HAVE LATEST REVISION				



APPROVED	SCALE:
SENIOR ENGINEER	1" = 50'
CITY TRAFFIC ENGINEER	SHEET/SHEETS:
	02 OF 05

DRAWN:	DATE:
CHECKED:	DATE:

APPROVED		SCALE:
SENIOR ENGINEER	DATE:	1" = 50'
CITY TRAFFIC ENGINEER	DATE:	SHEET/SHEETS:
		02 OF 05

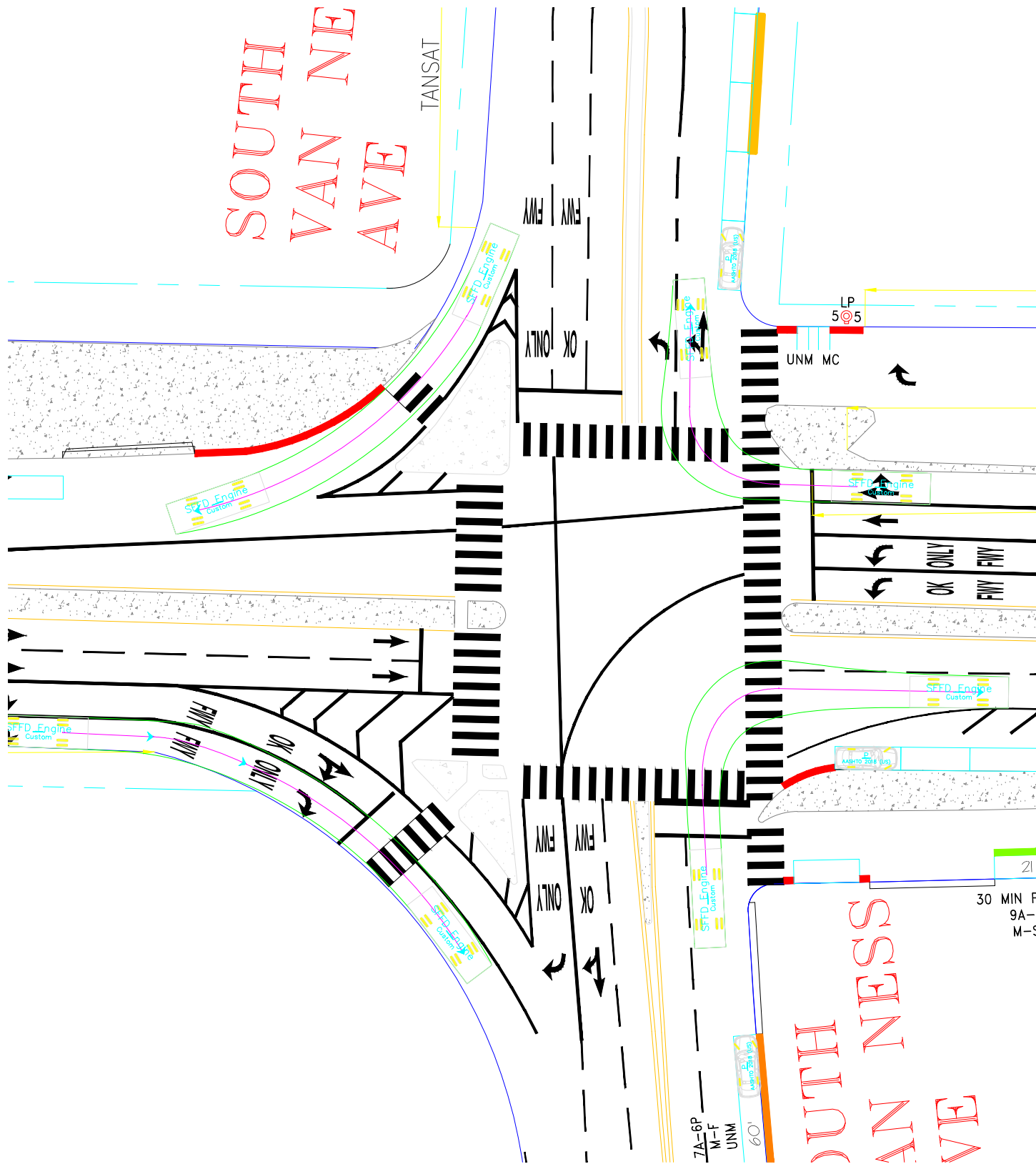
TURN TEMPLATES  
SFFD ENGINE

13TH STREET SAFETY PROJECT  
MISSION/OTIS STREET

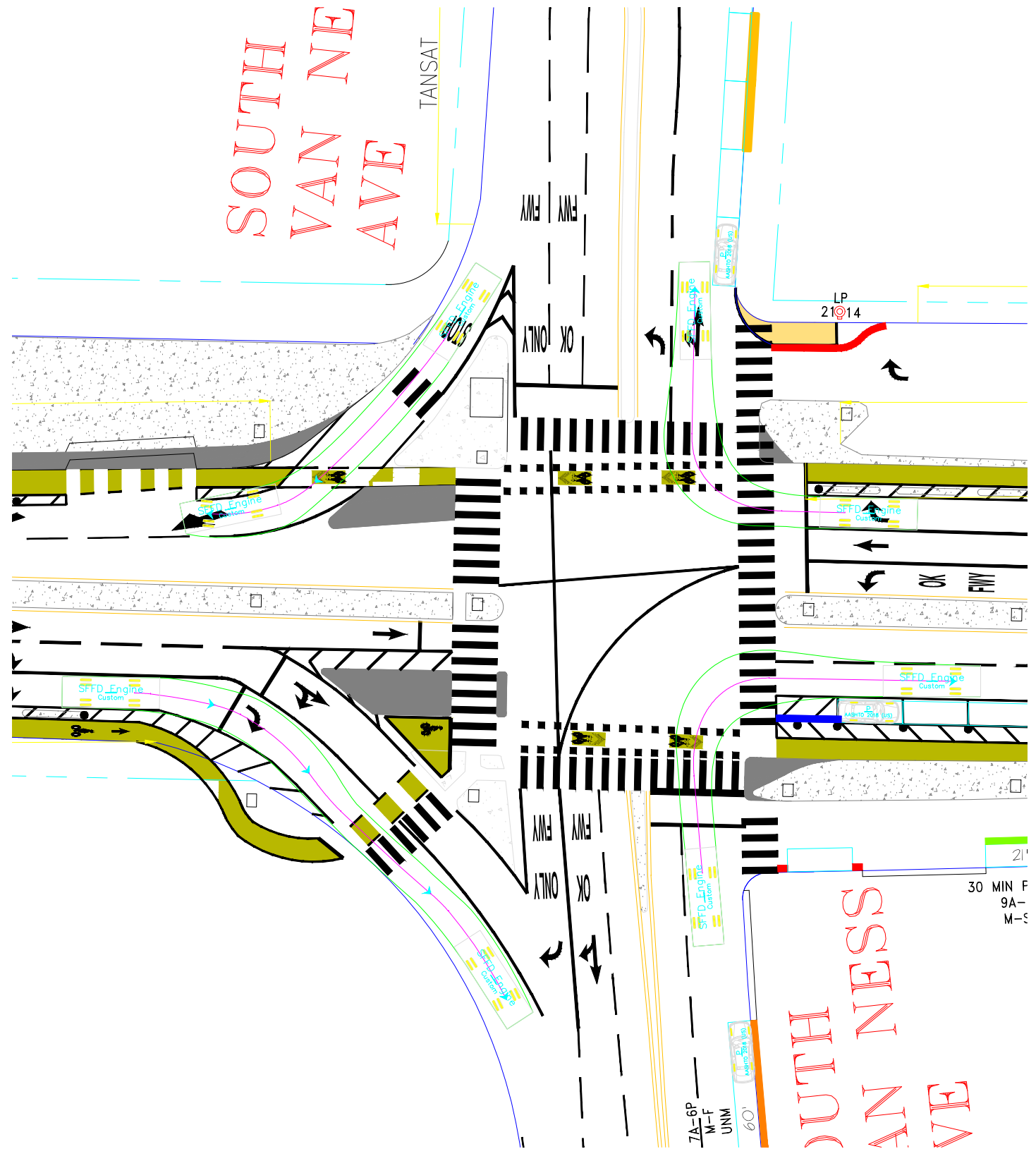
CONTRACT NO.
DRAWING NO.
FILE NO.
DRAFT
REV. NO.

FILE NAME:  
DATE: --/--/---

PLAN-EXISTING



PLAN-PROPOSED



NO.	DATE	DESCRIPTION	BY	APP
TABLE OF REVISIONS				
CHECK WITH TRACING TO SEE IF YOU HAVE LATEST REVISION				



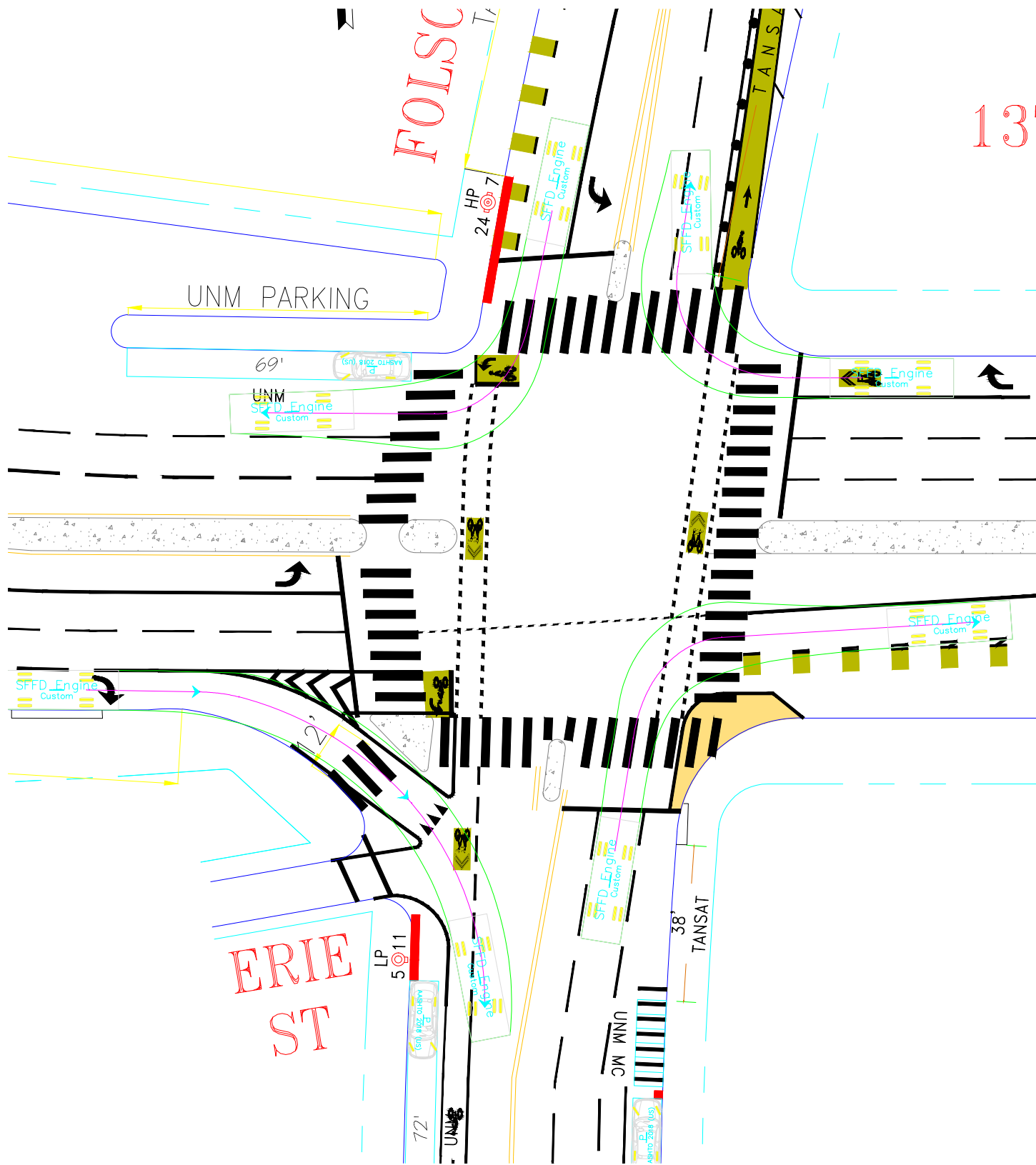
SFMTA



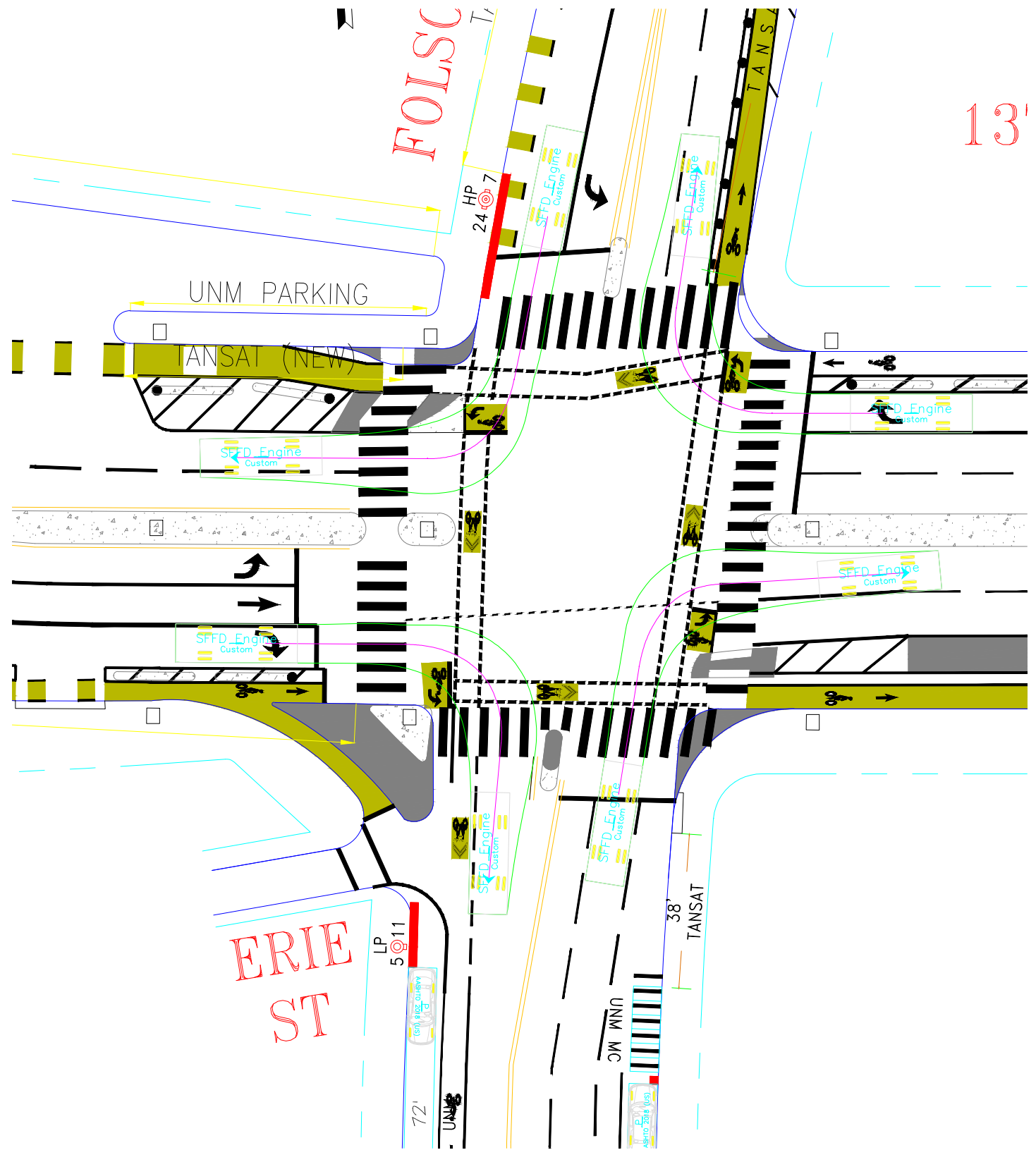
APPROVED	SCALE:	TURN TEMPLATES SFFD ENGINE	CONTRACT NO.
1" = 50'	DRAWING NO.		
DRAWN: DATE:	SENIOR ENGINEER DATE:	13TH STREET SAFETY PROJECT SOUTH VAN NESS AVE	FILE NO.
CHECKED: DATE:	CITY TRAFFIC ENGINEER DATE:		DRAFT
			REV. NO.

FILE NAME: ---/---/---  
DATE: ---/---/---

PLAN-EXISTING



PLAN-PROPOSED



NO.	DATE	DESCRIPTION	BY	APP
TABLE OF REVISIONS				
CHECK WITH TRACING TO SEE IF YOU HAVE LATEST REVISION				



DRAWN:		DATE:		APPROVED		SCALE:	
CHECKED:		DATE:		SENIOR ENGINEER		1" = 50'	
				CITY TRAFFIC ENGINEER		SHEET/SHEETS:	
						04 OF 05	

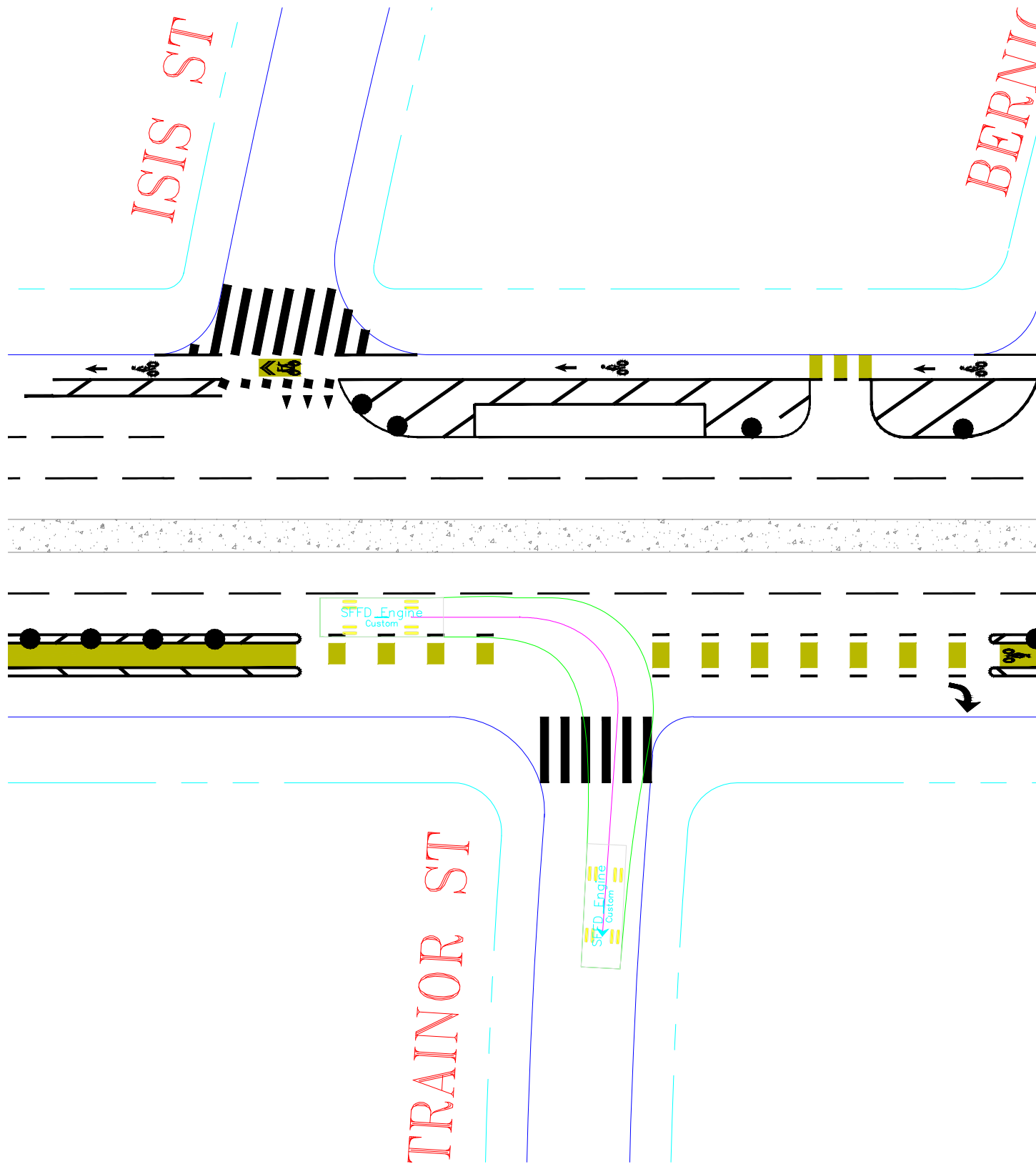
TURN TEMPLATES  
SFFD ENGINE

13TH STREET SAFETY PROJECT  
FOLSOM

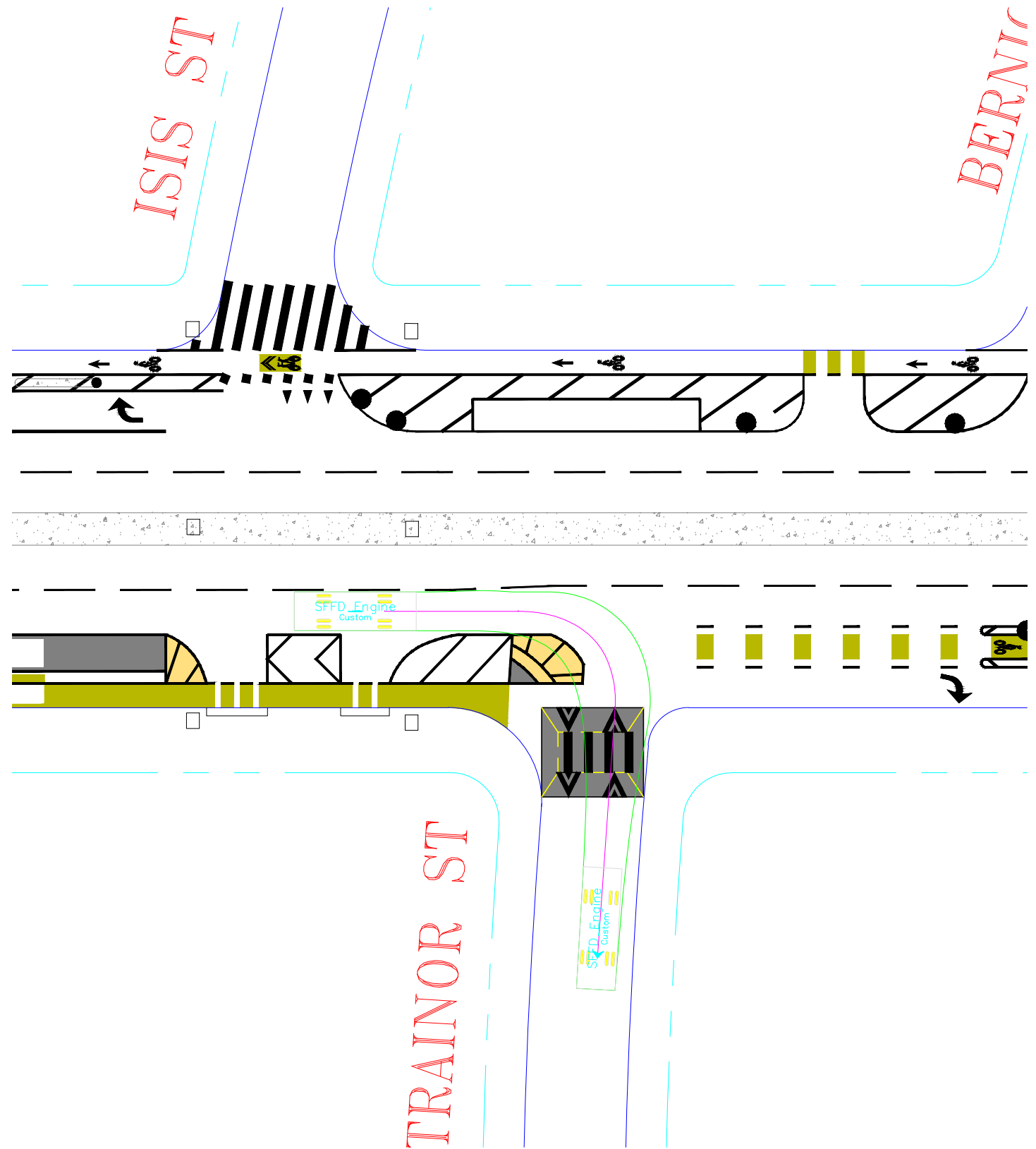
CONTRACT NO.
DRAWING NO.
FILE NO.
DRAFT
REV. NO.

FILE NAME:  
DATE: --/--

PLAN-EXISTING



PLAN-PROPOSED



NO.	DATE	DESCRIPTION	BY	APP
TABLE OF REVISIONS				
CHECK WITH TRACING TO SEE IF YOU HAVE LATEST REVISION				



SFMTA



DRAWN:	DATE:
CHECKED:	DATE:

APPROVED	
SENIOR ENGINEER	DATE:
CITY TRAFFIC ENGINEER	DATE:

SCALE:  
1" = 50'  
SHEET/SHEETS:  
05 OF 05

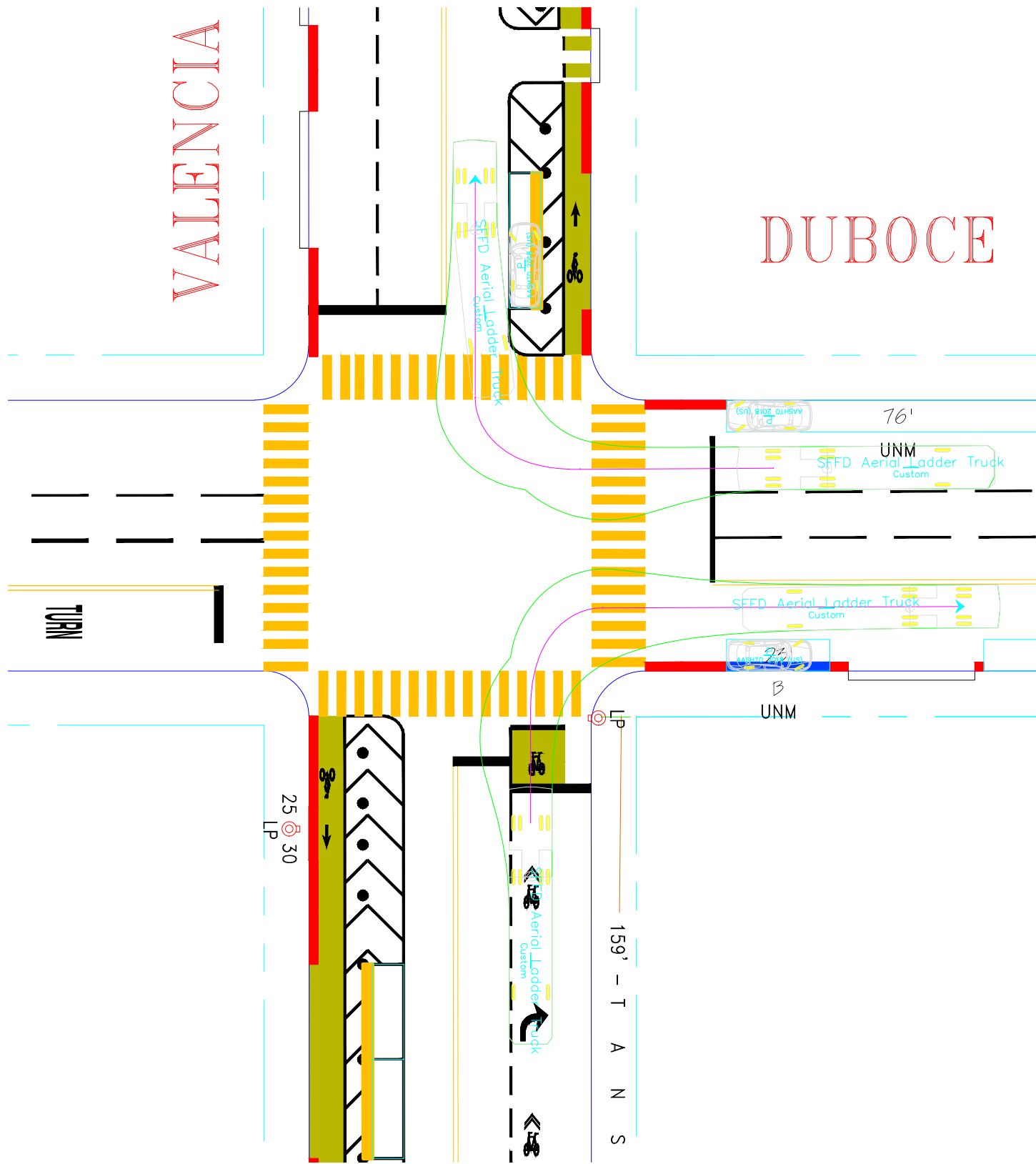
TURN TEMPLATES  
SFFD ENGINE

13TH STREET SAFETY PROJECT  
TRAINOR

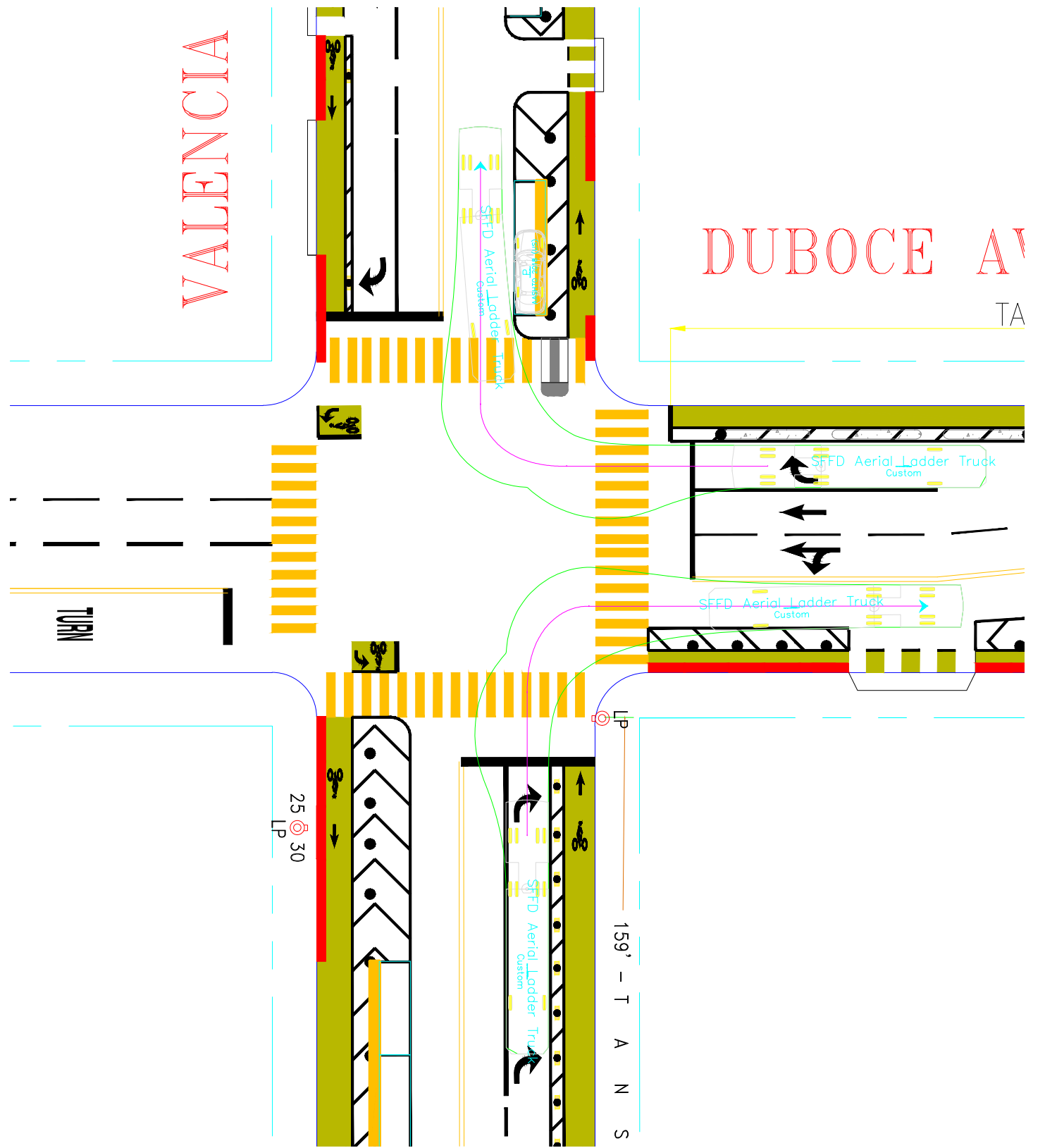
CONTRACT NO.
DRAWING NO.
FILE NO.
DRAFT
REV. NO.

FILE NAME:  
DATE: --/--/---

PLAN-EXISTING



PLAN-PROPOSED



NO.	DATE	DESCRIPTION	BY	APP
TABLE OF REVISIONS				
CHECK WITH TRACING TO SEE IF YOU HAVE LATEST REVISION				



DRAWN:	DATE:	SENIOR ENGINEER	DATE:
CHECKED:	DATE:	CITY TRAFFIC ENGINEER	DATE:

APPROVED	SCALE:
	1" = 50'
SHEET/SHEETS:	
01 OF 05	

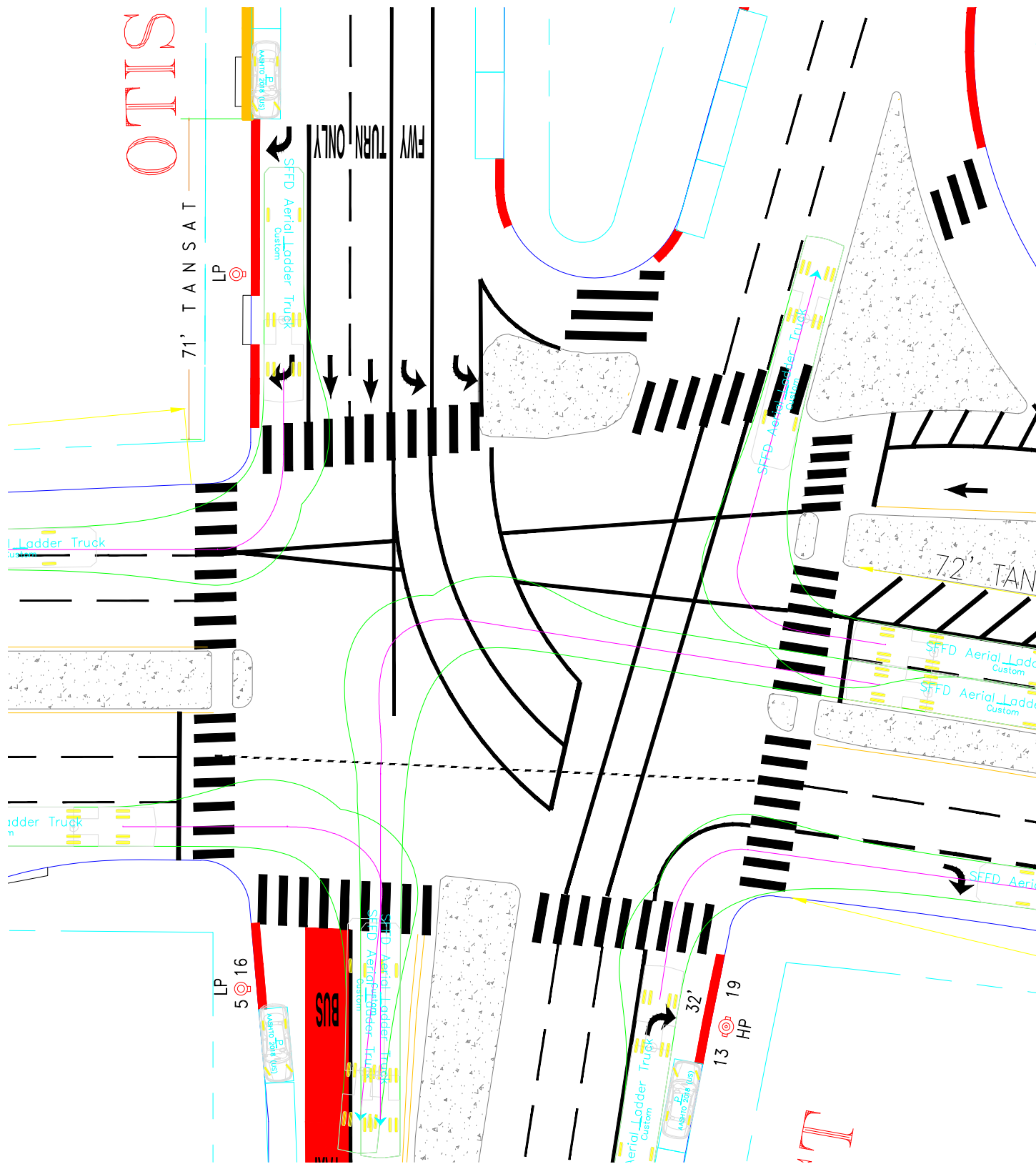
TURN TEMPLATES  
SFFD LADDER

13TH STREET SAFETY PROJECT  
VALENCIA STREET

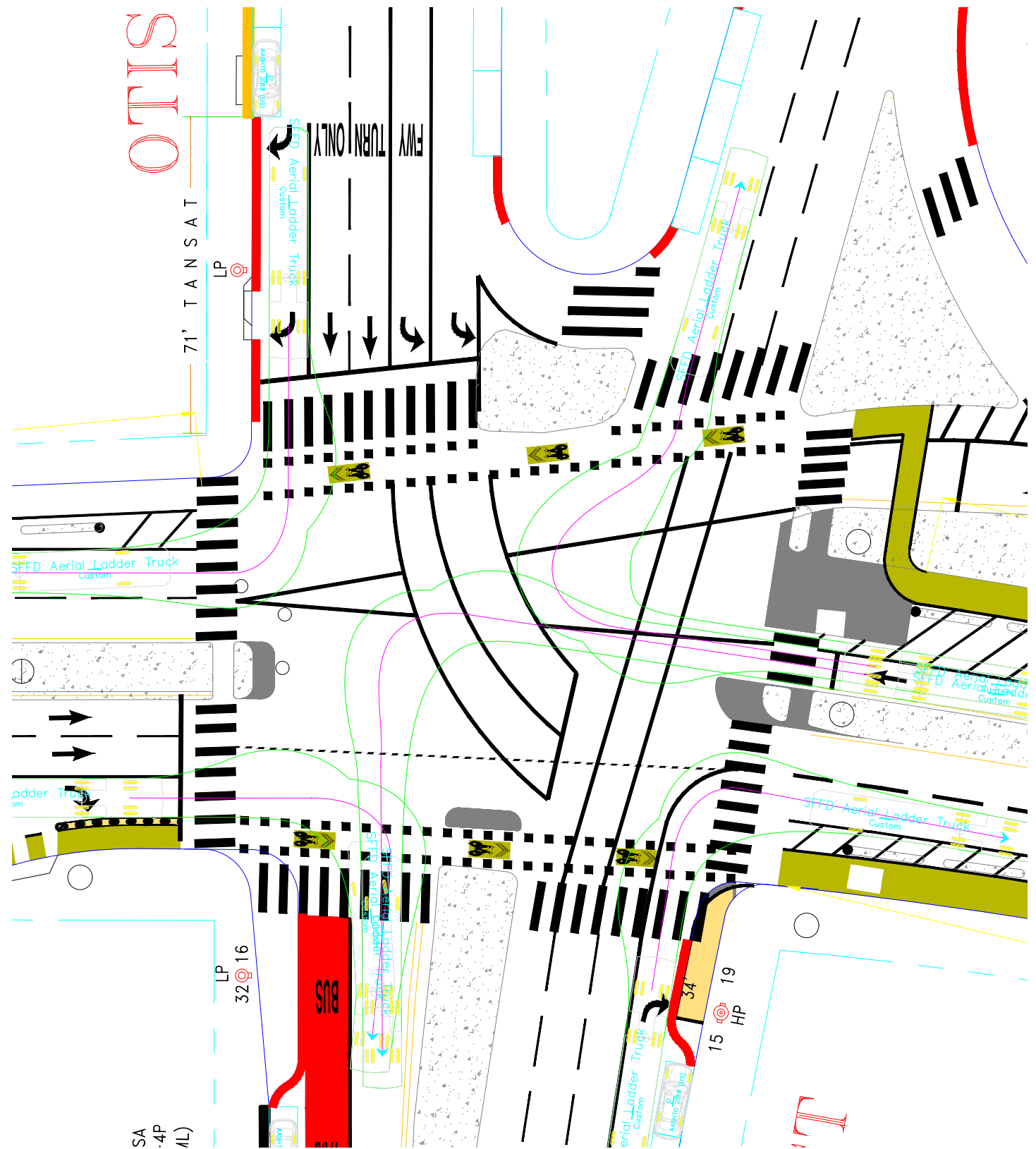
CONTRACT NO.
DRAWING NO.
FILE NO.
DRAFT
REV. NO.

FILE NAME: ---/---/---  
DATE: ---/---/---

PLAN-EXISTING



PLAN-PROPOSED



NO.	DATE	DESCRIPTION	BY	APP
TABLE OF REVISIONS				
CHECK WITH TRACING TO SEE IF YOU HAVE LATEST REVISION				



APPROVED	SCALE:
SENIOR ENGINEER	1" = 50'
CITY TRAFFIC ENGINEER	SHEET/SHEETS:
	02 OF 05

TURN TEMPLATES  
SFFD LADDER

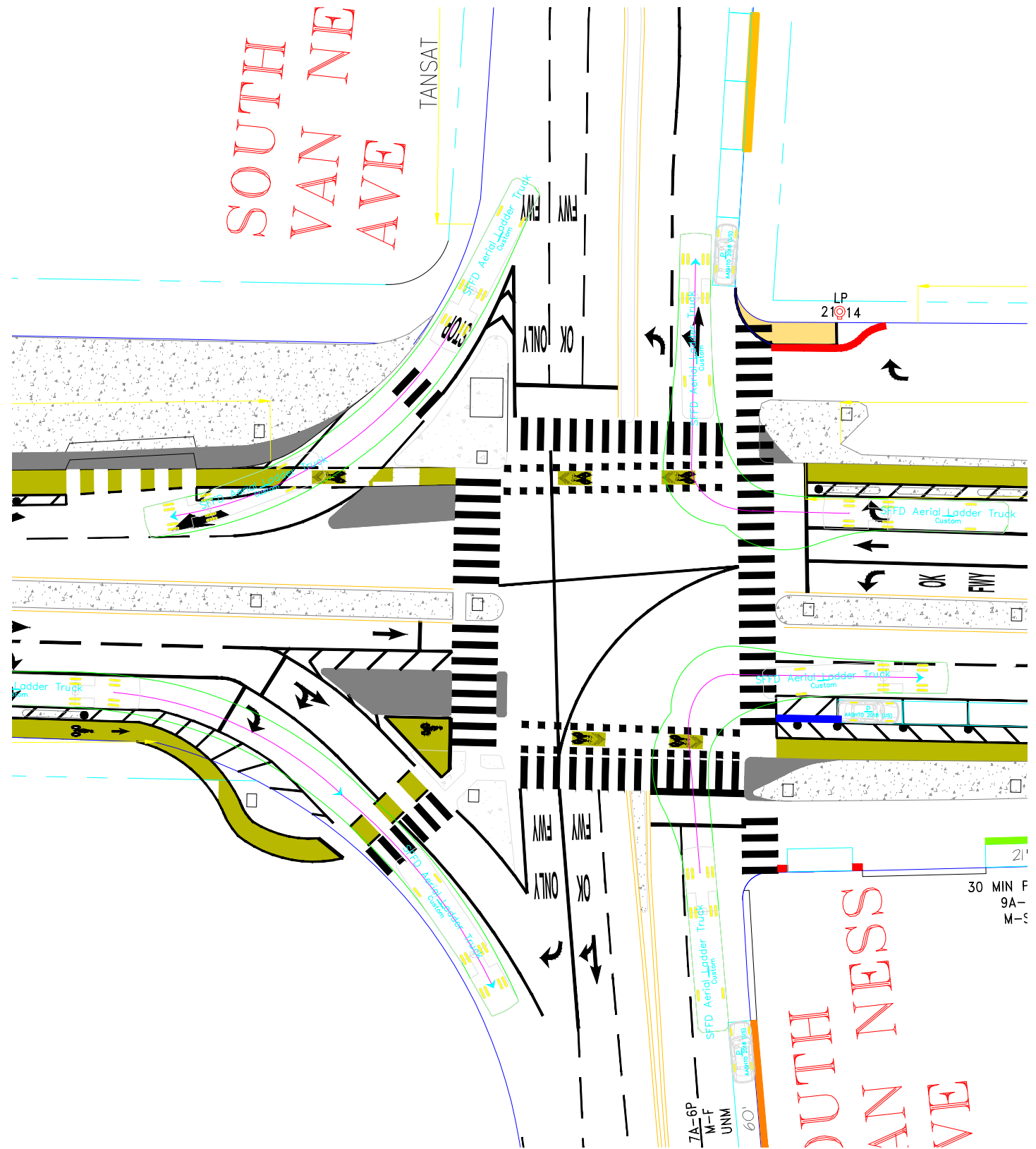
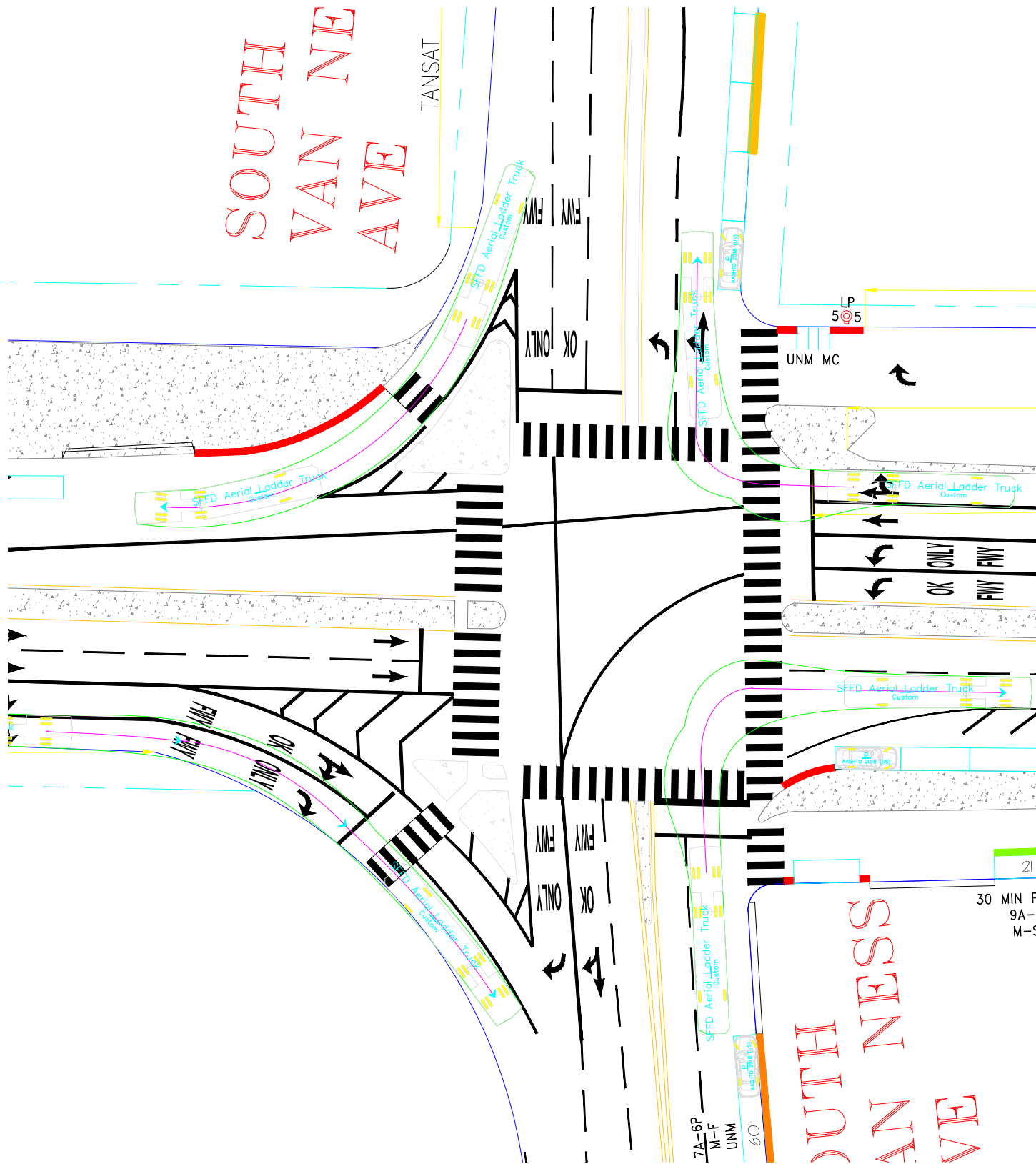
13TH STREET SAFETY PROJECT  
MISSION/OTIS STREET

CONTRACT NO.
DRAWING NO.
FILE NO.
DRAFT
REV. NO.

FILE NAME:  
DATE: --/--/---

PLAN-EXISTING

PLAN-PROPOSED



NO.	DATE	DESCRIPTION	BY	APP
TABLE OF REVISIONS				
CHECK WITH TRACING TO SEE IF YOU HAVE LATEST REVISION				



DRAWN:		DATE:		APPROVED		SCALE:	
CHECKED:		DATE:		SENIOR ENGINEER		1" = 50'	
				CITY TRAFFIC ENGINEER		SHEET/SHEETS:	
						03 OF 05	

TURN TEMPLATES  
SFFD LADDER

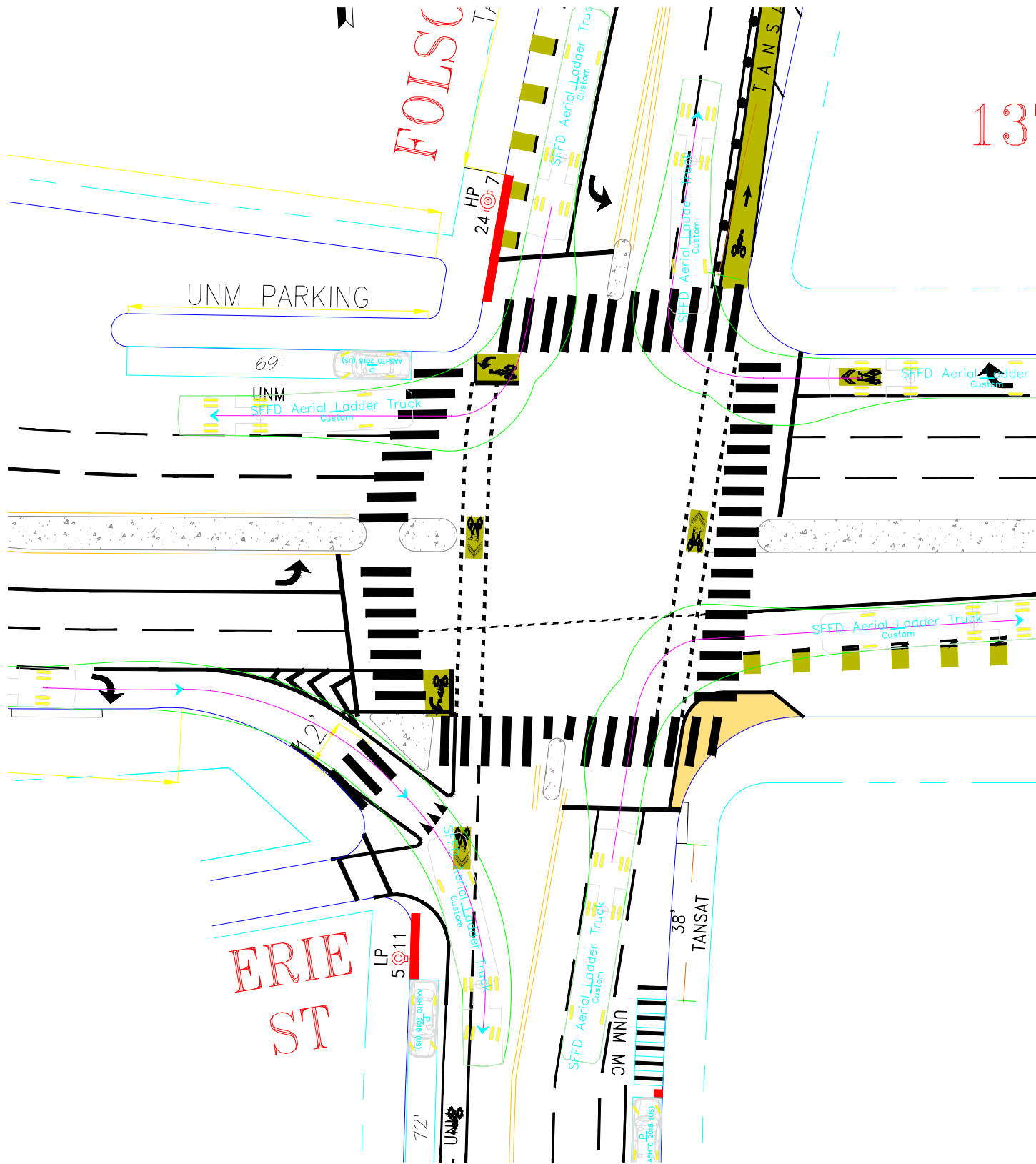
13TH STREET SAFETY PROJECT  
SOUTH VAN NESS AVE

CONTRACT NO.
DRAWING NO.
FILE NO.
DRAFT
REV. NO.

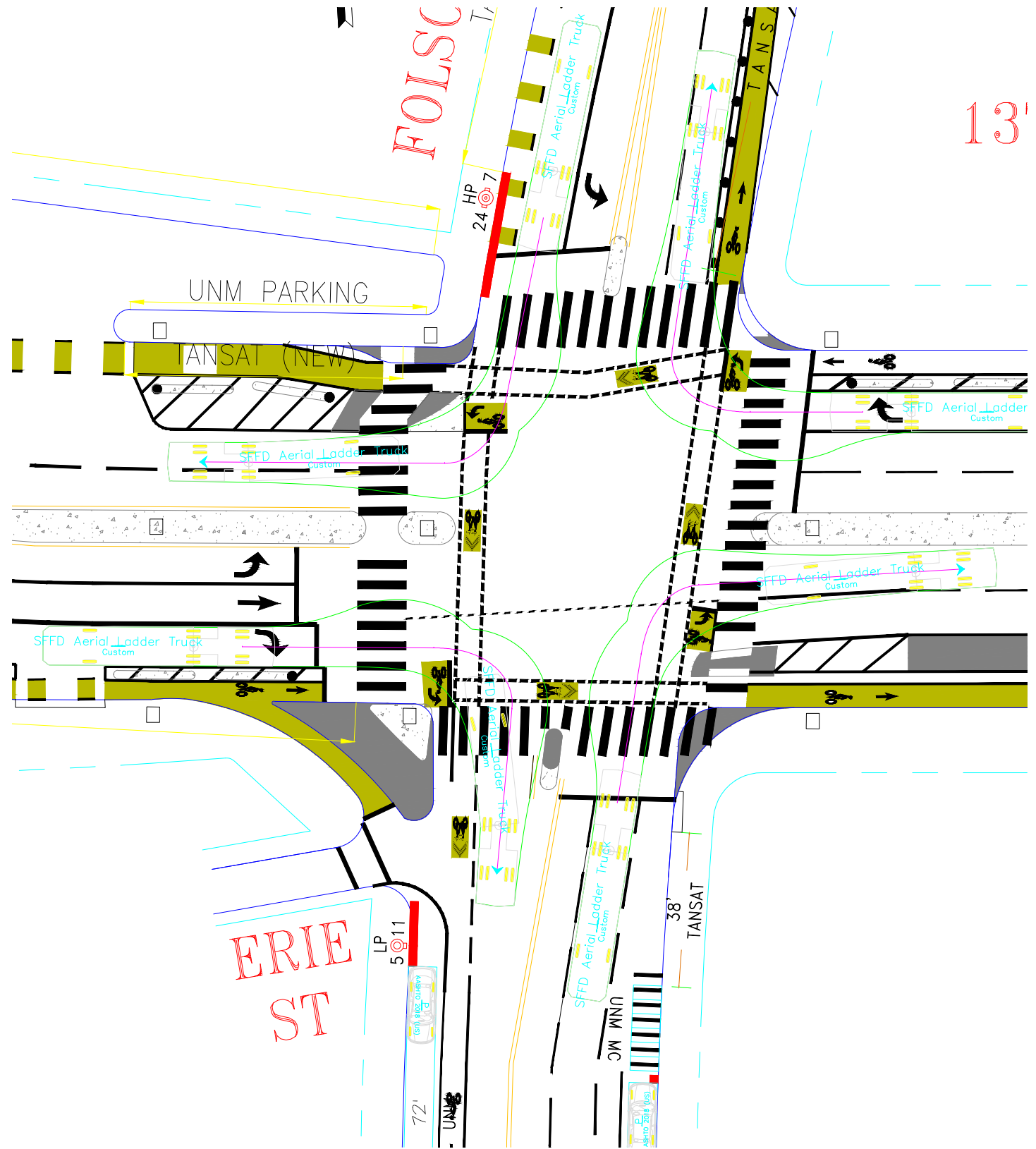
FILE NAME: ---/---/---  
DATE: ---/---/---



PLAN-EXISTING



PLAN-PROPOSED



NO.	DATE	DESCRIPTION	BY	APP
TABLE OF REVISIONS				
CHECK WITH TRACING TO SEE IF YOU HAVE LATEST REVISION				



APPROVED	SCALE:
SENIOR ENGINEER	1" = 50'
CITY TRAFFIC ENGINEER	SHEET/SHEETS:
	04 OF 05

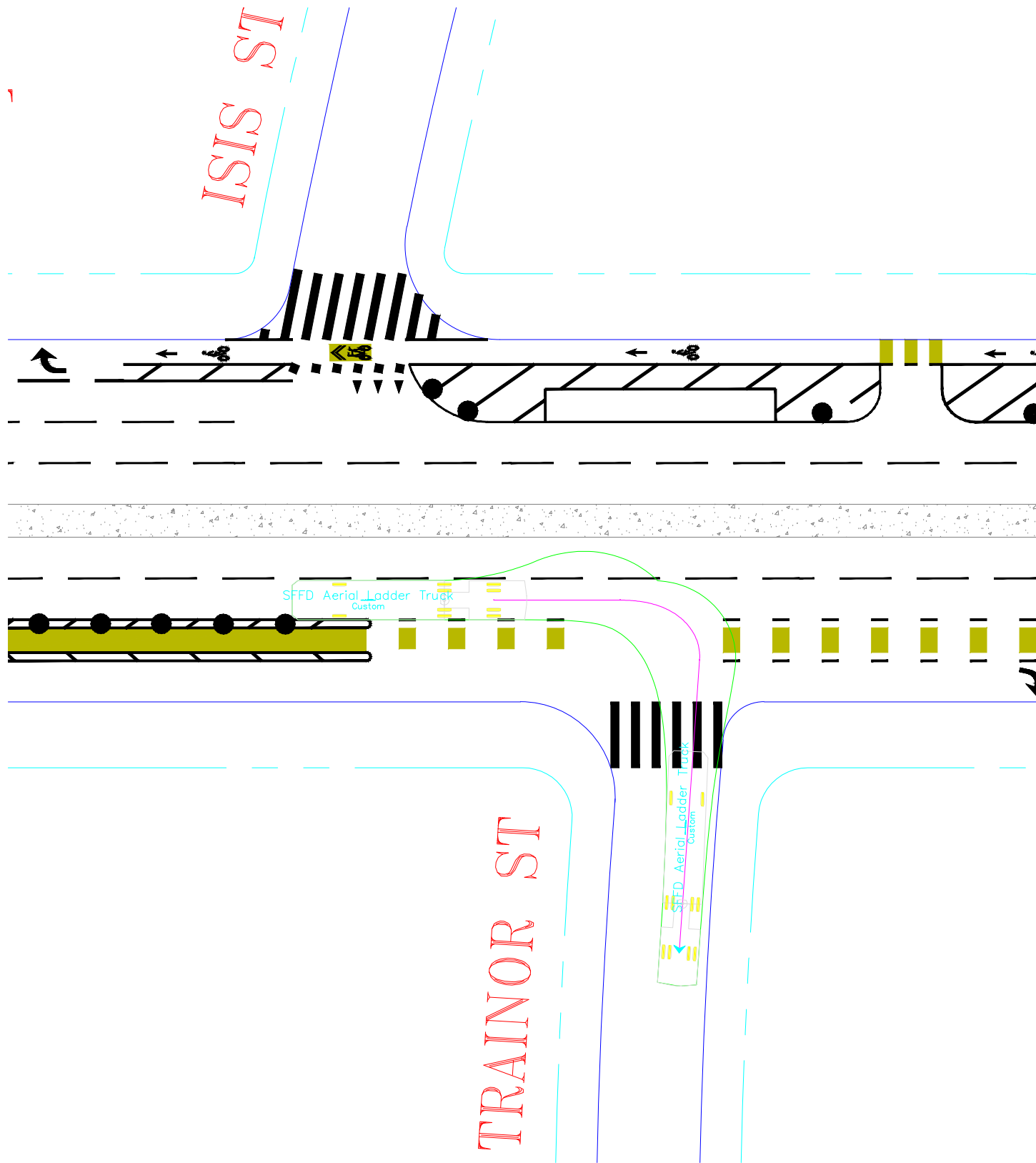
TURN TEMPLATES  
SFFD LADDER

13TH STREET SAFETY PROJECT  
FOLSOM

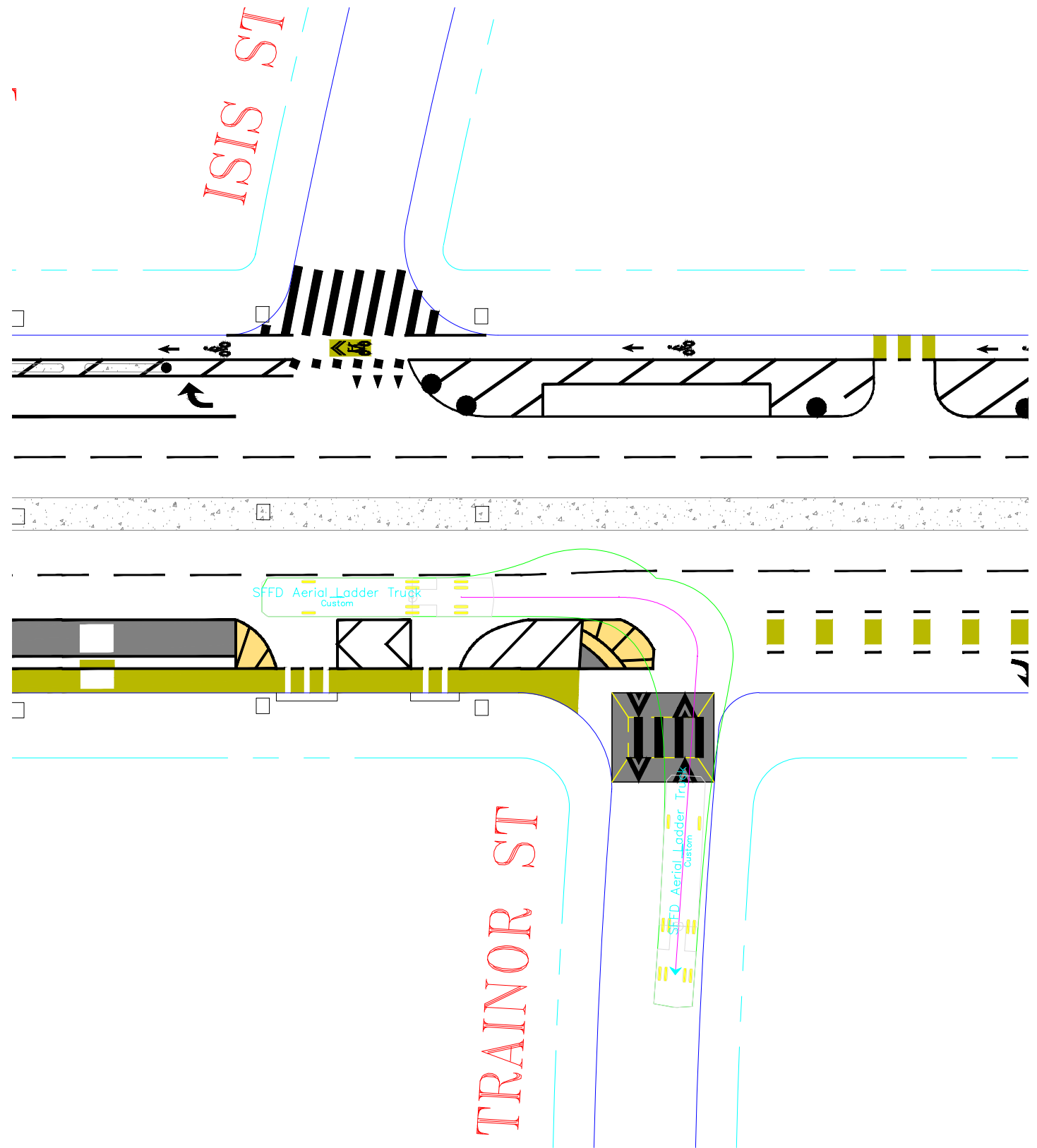
CONTRACT NO.
DRAWING NO.
FILE NO.
DRAFT
REV. NO.

FILE NAME:  
DATE: --/--/---

PLAN-EXISTING



PLAN-PROPOSED



NO.	DATE	DESCRIPTION	BY	APP
TABLE OF REVISIONS				
CHECK WITH TRACING TO SEE IF YOU HAVE LATEST REVISION				



DRAWN:	DATE:	CHECKED:	DATE:
--------	-------	----------	-------

APPROVED	
SENIOR ENGINEER	DATE:
CITY TRAFFIC ENGINEER	DATE:

SCALE:  
1" = 50'  
SHEET/SHEETS:  
05 OF 05

TURN TEMPLATES  
SFFD LADDER

13TH STREET SAFETY PROJECT  
TRAINOR

CONTRACT NO.
DRAWING NO.
FILE NO.
DRAFT
REV. NO.

FILE NAME:  
DATE: --/--/---

Existing (north is up)	Cycle Length (sec)	AM Existing LOS												LOS	
		V/C Ratio			V/C Ratio			V/C Ratio			V/C Ratio				V/C
		Total Delay (sec)			Total Delay (sec)			Total Delay (sec)			Total Delay (sec)				
		LOS			LOS			LOS			LOS				
		50/95 Queuing			50/95 Queuing			50/95 Queuing			50/95 Queuing				
L	T	R	L	T	R	L	T	R	L	T	R				
	90	13th WB			13th EB			Folsom NB			Folsom SB			Int.	
			0.45	0.09	0.74	0.43	0.01	-	0.62	0.34	0.11	0.27	-	0.74	
			26.7	23.4	62.4	16.4	12.6	-	25.2	21.7	19.7	20.5	-		
			C	C	E	B	B	-	C	C	B	C	-		
	116	18	81	135	3	-	169	82	8	70	-				
			152	42	#173	181	11		229	139		25	120		
	90	13th WB			13th EB			South Van Ness NB			South Van Ness SB			Int.	
			0.43	0.46	-		0.60	1.50		0.67	-		0.94	0.16	1.50
			45.6	15.3	-		25.8	257.4		28.3	-		45.1	20.9	
			D	B	-		C	F		C	-		D	C	
	29	131	-		166	~625		184	-		215	31			
			55	177	-		225	#767		248	-		#309	63	
	90	13th WB			13th EB			Otis/Mission NB			Otis/Mission SB			Int.	
			0.76				0.83	-		0.50	1.39		0.79	0.34	1.39
			35.0				18.3	-		36.7	232.2		38.9	14.4	
			C				B	-		D	F		D	B	
	192				140	-		73	~253		177	93			
			258				m118	-		104	#416		241	148	
	90	Duboce WB			Duboce EB			Valencia NB			Valencia SB			Int.	
			1.18				1.24			0.37	0.76		0.32	0.25	1.24
			67.9				149.7			17.2	55.4		16.7	35.1	
			E				F			B	E		B	D	
	273				~618			113	114		97	34			
			m#323				#844			176	#222		153	72	

Existing: WB 101 Offramp @ Otis/Mission		
	0.98	0.40
	69.3	0.8
	E	A
	271	0
	#471	0

Proposed (north is up)	Cycle Length (sec)	AM Proposed LOS												LOS	
		V/C Ratio			V/C Ratio			V/C Ratio			V/C Ratio				V/C
		Total Delay (sec)			Total Delay (sec)			Total Delay (sec)			Total Delay (sec)				
		LOS			LOS			LOS			LOS				
		50/95 Queuing			50/95 Queuing			50/95 Queuing			50/95 Queuing				
L	T	R	L	T	R	L	T	R	L	T	R				
	90	13th WB			13th EB			Folsom NB			Folsom SB			Int.	
			0.56	0.11	0.64	0.72	0.01		0.72	0.20	0.07	0.31		0.72	
			25.8	27.9	25.3	4.2	3.80		31.2	22.8	22.2	24.2			
			C	C	C	A	A		C	C	C	C			
	165	19	69	84	1		185	43	4	77					
			221	46	m72	m74	m1		251	83	17	131			
	90	13th WB			13th EB			South Van Ness NB			South Van Ness SB			Int.	
			0.59	0.57	1.04		1.01	1.34		0.88			0.78	0.21	1.34
			34.1	6.8	107.2		66.2	185.1		45			34.8	27.1	
			C	A	F		E	F		D			D	C	
	59	57	104		~402	~586		211			186	35			
			m118	87	#232		#636	#728		#313			236	72	
	90	13th WB			13th EB			Otis/Mission NB			Otis/Mission SB			Int.	
			1.25				1.01	0.08		0.40	1.1	1.00	0.35	0.09	1.25
			156.4				30.1	19.4		32	117.2	71.9	15.1	12.3	
			F				C	B		C	F	E	B	B	
	~509				~156	6		68	98	~215	191	95			
			#722				m115	m6		#378	#306		152	40	
	90	Duboce WB			Duboce EB			Valencia NB			Valencia SB			Int.	
			1.05	0.95			1.43			0.45	1.25		0.39	0.41	1.43
			51.7	48.5			232.3			23.2	187.1		22.2	45.6	
			D	D			F			C	F		C	D	
	~212	69			~673			131	~149		112	37			
			m188	m72			#899			205	#285		178	80	

Proposed: WB 101 Offramp @ Otis/Mission		
	0.85	0.40
	44.0	0.8
	D	A
	~252	0
	#427	0

PM Existing LOS															
Existing (north is up)	Cycle Length (sec)	V/C Ratio			V/C Ratio			V/C Ratio			V/C Ratio			LOS	
		Total Delay (sec)			Total Delay (sec)			Total Delay (sec)			Total Delay (sec)				
		LOS			LOS			LOS			LOS				
		50/95 Queuing			50/95 Queuing			50/95 Queuing			50/95 Queuing				
		L	T	R	L	T	R	L	T	R	L	T	R		
		13th WB			13th EB			Folsom NB			Folsom SB			Int.	
	90		0.64	0.08	0.87	0.37	0.16	-	0.70	0.19	0.15	0.53	-	C  0.87	
			29.7	23.4	82.6	25.1	23.5	-	28	19.6	20.5	25.0	-		
			C	C	F	C	C	-	C	B	C	C	-		
			176	16	81	131	42	-	165	43	13	152	-		
		13th WB			13th EB			South Van Ness NB			South Van Ness SB			Int.	
	90		0.84	0.70	-		0.61	0.96		0.47	-		0.73	0.16	C  0.96
			64.3	20.7	-		28.1	53.0		22.8	-		27.4	19.7	
			E	C	-		C	D		C	-		C	B	
			74	346	-		160	250		121	-		204	33	
		13th WB			13th EB			Otis/Mission NB			Otis/Mission SB			Int.	
	90		1.01	-			0.45			0.40	0.50	0.75	0.51	0.19	C  1.01
			63.8	-			19.7			35.2	42.2	37.0	17.3	12.8	
			E	-			B			D	D	D	B	B	
			~283	-			57 100			56	62	166	158	40	
		Duboce WB			Duboce EB			Valencia NB			Valencia SB			Int.	
	90		-	0.89	-		0.67	-	-	0.38	0.52	-	0.50	0.59	C  0.89
			-	27.7	-		29.0	-	-	21.3	50.0	-	23.6	54.2	
			-	C	-		C	-	-	C	D	-	C	D	
			-	167	-		214	-	-	109	48	-	156	55	

Existing: WB 101 Offramp @ Otis/Mission		
	0.90	0.55
	54.0	1.5
	D	A
	~241	0
	#417	0

PM Proposed LOS															
Proposed (north is up)	Cycle Length (sec)	V/C Ratio			V/C Ratio			V/C Ratio			V/C Ratio			LOS	
		Total Delay (sec)			Total Delay (sec)			Total Delay (sec)			Total Delay (sec)				
		LOS			LOS			LOS			LOS				
		50/95 Queuing			50/95 Queuing			50/95 Queuing			50/95 Queuing				
		L	T	R	L	T	R	L	T	R	L	T	R		
		13th WB			13th EB			Folsom NB			Folsom SB			Int.	
	90		0.79	0.11	0.75	0.63	0.17		0.84	0.22	0.20	0.60		C  0.84	
			32.0	27.8	37.2	5.2	5.7		38.7	23.0	25.1	30.3			
			C	C	D	A	A		D	C	C	C			
			260	18	99	75	15		183	47	14	165			
		13th WB			13th EB			South Van Ness NB			South Van Ness SB			Int.	
	90		0.81	0.83	0.93		1.12	0.93		0.63			0.90	0.22	D  1.12
			35.8	16.7	54		105.5	47		32.4			42.1	26.9	
			D	B	D		F	D		C			D	C	
			115	155	130		~428	245		142			227	38	
		13th WB			13th EB			Otis/Mission NB			Otis/Mission SB			Int.	
	90		1.51				0.48	0.08		0.30	0.37	1.20	0.56	0.21	F  1.51
			264.4				10.4	13.9		30.1	33.8	143.8	20.9	15.2	
			F				B	B		C	C	F	C	B	
			~753				28	6		52	57	~223	174	44	
		Duboce WB			Duboce EB			Valencia NB			Valencia SB			Int.	
	90		1.19	0.67		0.78			0.39	0.52		0.52	0.59	E  1.19	
			111.6	31.1		38.5			22.2	50.0		24.6	54.2		
			F	C		D			C	D		C	D		
			~260	56		236			111	48		159	55		

Proposed: WB 101 Offramp @ Otis/mission		
	0.65	0.55
	27.2	1.5
	C	A
	199	0
	305	0

Volumes		AM Counts											
		13th Street WESTBOUND			13th Street EASTBOUND			Side Street NORTHBOUND			Side Street SOUTHBOUND		
		L	T	R	L	T	R	L	T	R	L	T	R
Folsom Street (two-way)	13th WB			13th EB			Folsom NB			Folsom SB			
	0	693	43	145	721	9	111	604	107	11	115	68	
	13th WB			13th EB			South Van Ness NB			South Van Ness SB			
South Van Ness Avenue (two-way)	104	558	165	0	699	1380	0	575	162	111	970	80	
	13th WB			13th EB			Otis/Mission NB			Otis/Mission SB			
	0	710, 483*	566	0	1093	20	0	382	330	651	290	65	
Valencia Street (two- way)	Duboce WB			Duboce EB			Valencia NB			Valencia SB			
	89	952	145	0	727	69	7	283	191	2	256	63	

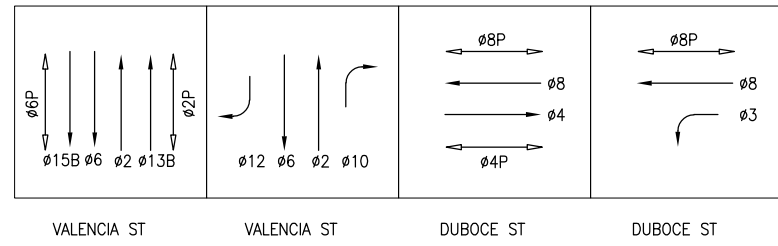
\*483 vehicles from 101 Off Ramp, 710 vehicles from westbound 13th St

Volumes		PM Counts											
		13th Street WESTBOUND			13th Street EASTBOUND			Side Street NORTHBOUND			Side Street SOUTHBOUND		
		L	T	R	L	T	R	L	T	R	L	T	R
Folsom Street (two-way)	13th WB			13th EB			Folsom NB			Folsom SB			
	0	982	40	170	632	118	134	535	116	35	206	146	
	13th WB			13th EB			South Van Ness NB			South Van Ness SB			
South Van Ness Avenue (two-way)	230	820	235	0	647	800	0	443	102	24	1140	88	
	13th WB			13th EB			Otis/Mission NB			Otis/Mission SB			
	0	443, 942**	783	0	570	31	0	301	118	620	440	137	
Valencia Street (two- way)	Duboce WB			Duboce EB			Valencia NB			Valencia SB			
	130	1238	125	0	383	42	7	245	80	3	340	91	

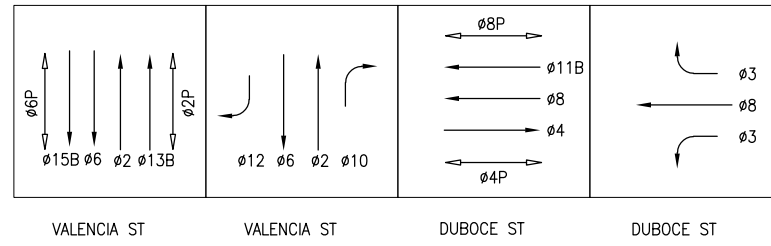
\*\*443 vehicles from 101 Off Ramp, 942 vehicles from westbound 13th St

**VALENCIA STREET**

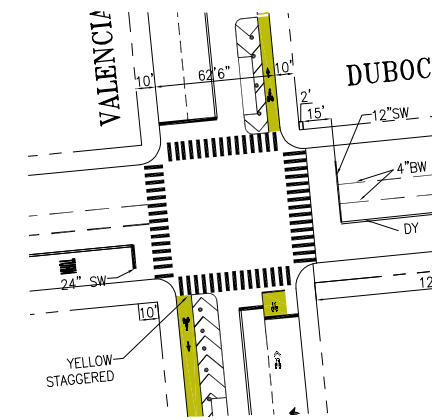
**EXISTING PHASE DIAGRAM**



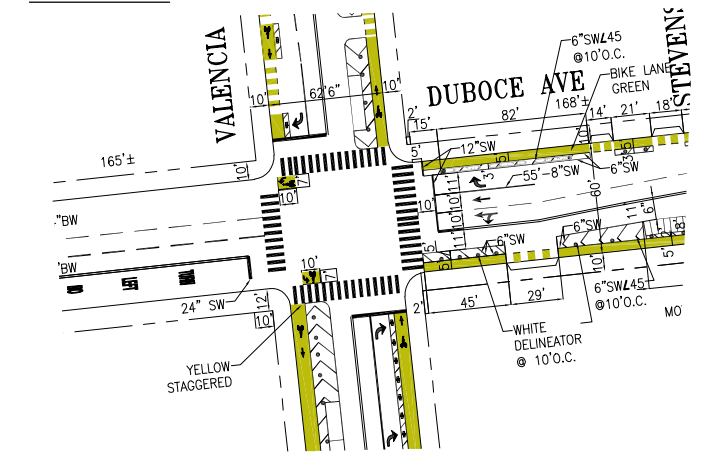
**PROPOSED PHASE DIAGRAM**



**EXISTING**

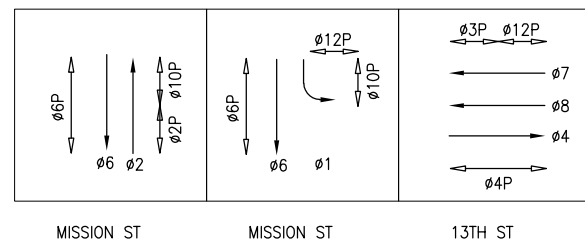


**PROPOSED**

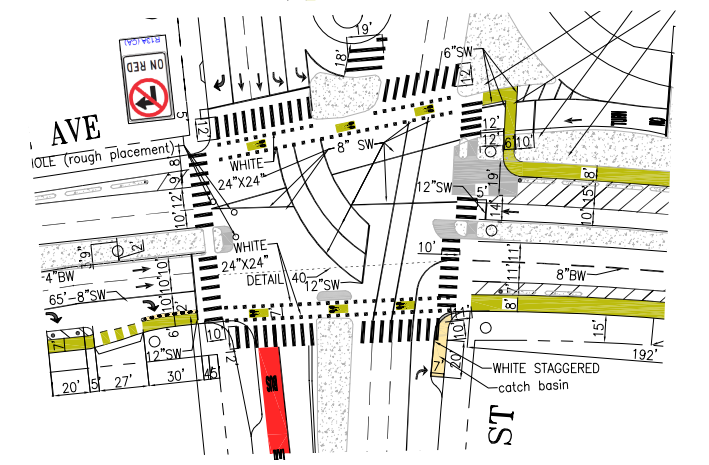
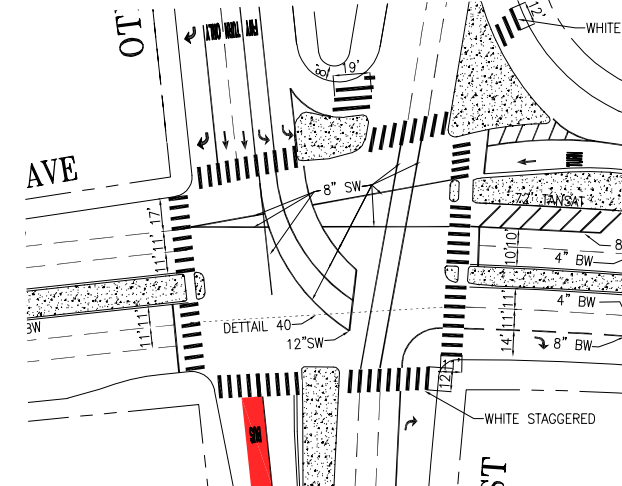
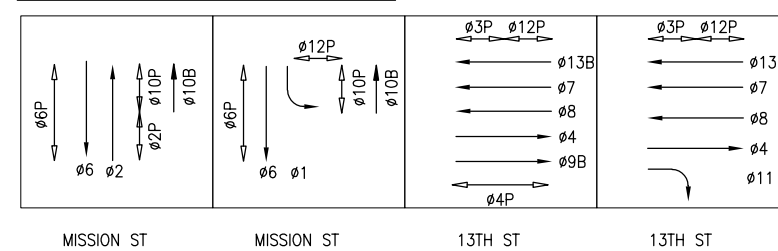


**OTIS/MISSION STREET**

**EXISTING PHASE DIAGRAM**

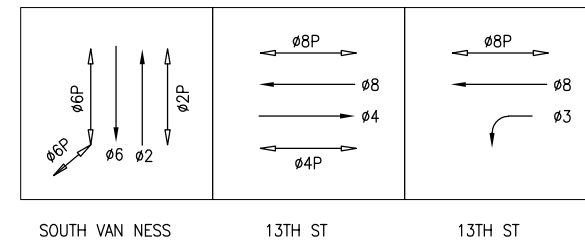


**PROPOSED PHASE DIAGRAM**

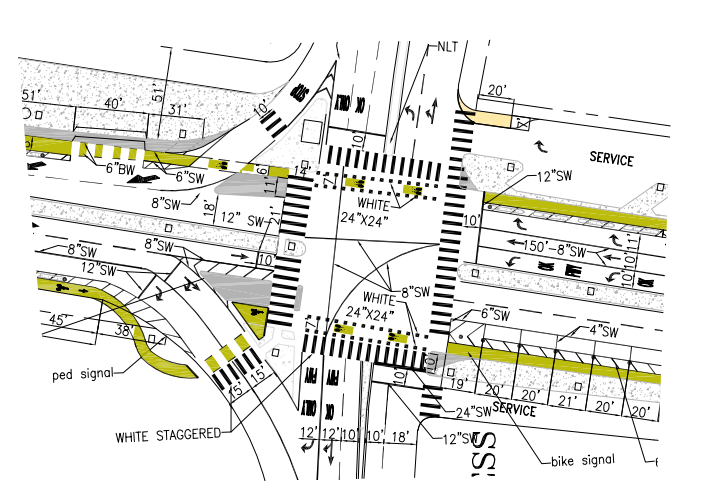
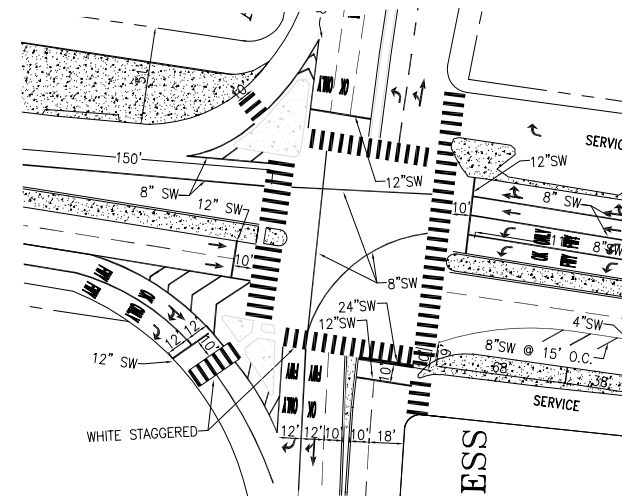
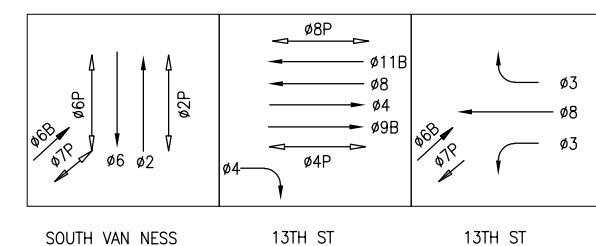


**SOUTH VAN NESS**

**EXISTING PHASE DIAGRAM**

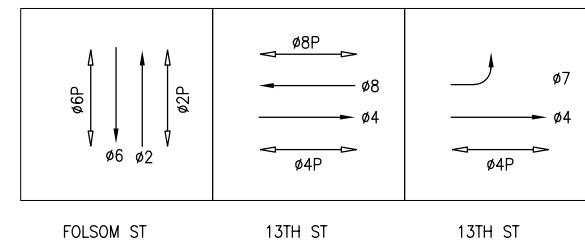


**PROPOSED PHASE DIAGRAM**

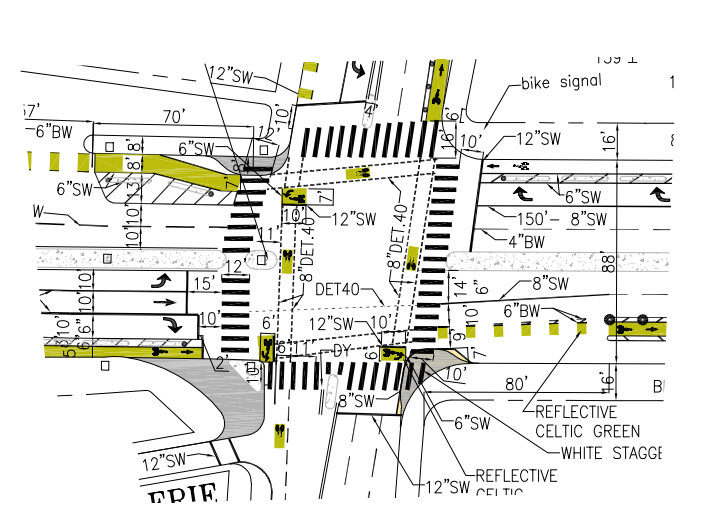
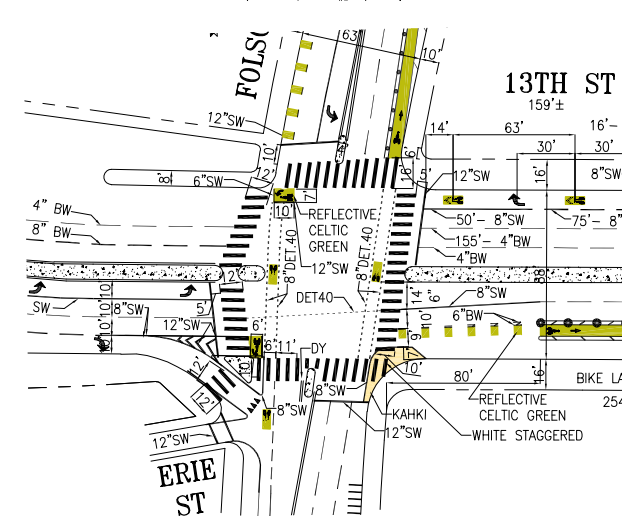
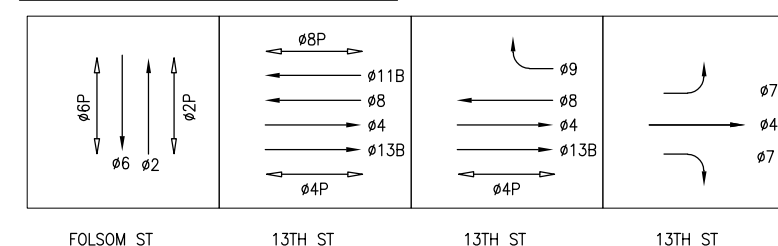


**FOLSOM STREET**

**EXISTING PHASE DIAGRAM**



**PROPOSED PHASE DIAGRAM**



Lanes, Volumes, Timings  
1: Duboce Ave & Valencia St

05/16/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↗			↖↗↘			↖	↗		↖	↗
Traffic Volume (vph)	0	727	69	89	952	145	7	283	191	0	256	63
Future Volume (vph)	0	727	69	89	952	145	7	283	191	0	256	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		85	0		100
Storage Lanes	0		0	0		0	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.988			0.982				0.850			0.850
Flt Protected					0.996			0.999				
Satd. Flow (prot)	0	1840	0	0	4974	0	0	1861	1583	0	1863	1583
Flt Permitted					0.641			0.992				
Satd. Flow (perm)	0	1840	0	0	3201	0	0	1848	1583	0	1863	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		392			179			576			376	
Travel Time (s)		8.9			4.1			13.1			8.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	790	75	97	1035	158	8	308	208	0	278	68
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	865	0	0	1290	0	0	316	208	0	278	68
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA		pm+pt	NA		Perm	NA	custom		NA	custom
Protected Phases		4		3	8			1	6		1	6
Permitted Phases				8			1					
Minimum Split (s)		33.0		4.0	43.0		30.0	30.0	10.0		30.0	10.0
Total Split (s)		39.0		4.0	43.0		47.0	47.0	21.0		47.0	21.0
Total Split (%)		43.3%		4.4%	47.8%		52.2%	52.2%	23.3%		52.2%	23.3%
Maximum Green (s)		34.0		2.0	37.0		41.5	41.5	15.5		41.5	15.5
Yellow Time (s)		4.0		2.0	4.0		4.0	4.0	4.0		4.0	4.0
All-Red Time (s)		1.0		0.0	2.0		1.5	1.5	1.5		1.5	1.5
Lost Time Adjust (s)		0.0			0.0			0.0	0.0		0.0	0.0
Total Lost Time (s)		5.0			6.0			5.5	5.5		5.5	5.5
Lead/Lag		Lead		Lag				Lag			Lag	
Lead-Lag Optimize?		Yes		Yes				Yes			Yes	
Walk Time (s)		11.0			20.0		4.5	4.5			4.5	
Flash Dont Walk (s)		17.0			17.0		16.0	16.0			16.0	
Pedestrian Calls (#/hr)		0			0		0	0			0	
Act Effct Green (s)		34.0			37.0			41.5	15.5		41.5	15.5
Actuated g/C Ratio		0.38			0.41			0.46	0.17		0.46	0.17
v/c Ratio		1.24			1.18dl			0.37	0.76		0.32	0.25

Lane Group	Ø5
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	5
Permitted Phases	
Minimum Split (s)	9.5
Total Split (s)	26.0
Total Split (%)	29%
Maximum Green (s)	21.5
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	



Lanes, Volumes, Timings  
1: Duboce Ave & Valencia St

05/16/2022

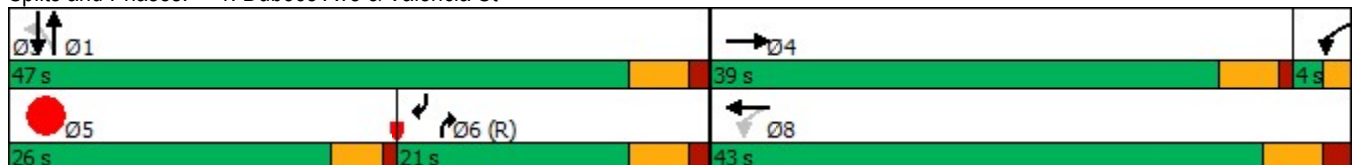


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		149.7			67.9			17.4	55.4		16.7	35.1
Queue Delay		0.0			0.0			0.0	0.0		0.0	0.0
Total Delay		149.7			67.9			17.4	55.4		16.7	35.1
LOS		F			E			B	E		B	D
Approach Delay		149.7			67.9			32.5			20.3	
Approach LOS		F			E			C			C	
Queue Length 50th (ft)		~618			273			113	114		97	34
Queue Length 95th (ft)		#844			m#323			176	#222		153	72
Internal Link Dist (ft)		312			99			496			296	
Turn Bay Length (ft)									85			100
Base Capacity (vph)		695			1315			852	272		859	272
Starvation Cap Reductn		0			0			0	0		0	0
Spillback Cap Reductn		0			0			0	0		0	0
Storage Cap Reductn		0			0			0	0		0	0
Reduced v/c Ratio		1.24			0.98			0.37	0.76		0.32	0.25

Intersection Summary

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 65 (72%), Referenced to phase 2: and 6:SBR, Start of Green  
 Natural Cycle: 80  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.24  
 Intersection Signal Delay: 79.7  
 Intersection Capacity Utilization 100.1%  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.  
 dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 1: Duboce Ave & Valencia St



---

Lane Group	Ø5
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

---

Lanes and Geometrics  
 1: Duboce Ave & Valencia St

05/16/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↗			↖↖↖			↖	↗		↖	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	100		85	0		100
Storage Lanes	0		0	0		0	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.988			0.982				0.850			0.850
Flt Protected					0.996			0.999				
Satd. Flow (prot)	0	1840	0	0	4974	0	0	1861	1583	0	1863	1583
Flt Permitted					0.641			0.992				
Satd. Flow (perm)	0	1840	0	0	3201	0	0	1848	1583	0	1863	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		392			179			576			376	
Travel Time (s)		8.9			4.1			13.1			8.5	

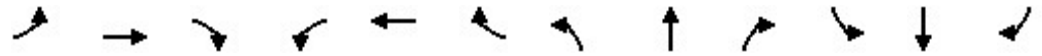
Intersection Summary

Area Type: Other

Volume

1: Duboce Ave & Valencia St

05/16/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	727	69	89	952	145	7	283	191	0	256	63
Future Volume (vph)	0	727	69	89	952	145	7	283	191	0	256	63
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	790	75	97	1035	158	8	308	208	0	278	68
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	865	0	0	1290	0	0	316	208	0	278	68
Intersection Summary												

# Timings

## 1: Duboce Ave & Valencia St

05/16/2022

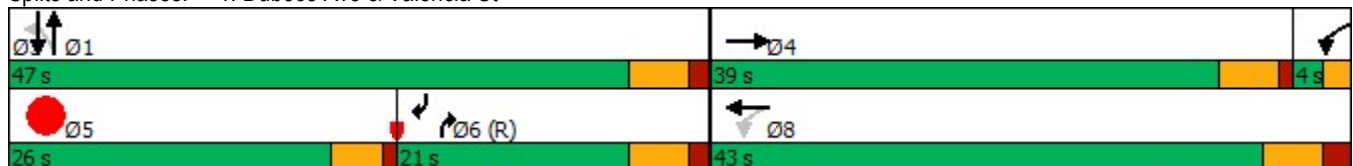


Lane Group	EBT	WBL	WBT	NBL	NBT	NBR	SBT	SBR	Ø5
Lane Configurations	↻		↻↻↻		↻	↻	↻	↻	
Traffic Volume (vph)	727	89	952	7	283	191	256	63	
Future Volume (vph)	727	89	952	7	283	191	256	63	
Turn Type	NA	pm+pt	NA	Perm	NA	custom	NA	custom	
Protected Phases	4	3	8		1	6	1	6	5
Permitted Phases		8		1					
Detector Phase	4	3	8	1	1	6	1	6	
Switch Phase									
Minimum Initial (s)	5.0	1.0	5.0	5.0	5.0	3.0	5.0	3.0	5.0
Minimum Split (s)	33.0	4.0	43.0	30.0	30.0	10.0	30.0	10.0	9.5
Total Split (s)	39.0	4.0	43.0	47.0	47.0	21.0	47.0	21.0	26.0
Total Split (%)	43.3%	4.4%	47.8%	52.2%	52.2%	23.3%	52.2%	23.3%	29%
Yellow Time (s)	4.0	2.0	4.0	4.0	4.0	4.0	4.0	4.0	3.5
All-Red Time (s)	1.0	0.0	2.0	1.5	1.5	1.5	1.5	1.5	1.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0		6.0		5.5	5.5	5.5	5.5	
Lead/Lag	Lead	Lag				Lag		Lag	Lead
Lead-Lag Optimize?	Yes	Yes				Yes		Yes	Yes
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	34.0		37.0		41.5	15.5	41.5	15.5	
Actuated g/C Ratio	0.38		0.41		0.46	0.17	0.46	0.17	
v/c Ratio	1.24		1.18dl		0.37	0.76	0.32	0.25	
Control Delay	149.7		67.9		17.4	55.4	16.7	35.1	
Queue Delay	0.0		0.0		0.0	0.0	0.0	0.0	
Total Delay	149.7		67.9		17.4	55.4	16.7	35.1	
LOS	F		E		B	E	B	D	
Approach Delay	149.7		67.9		32.5		20.3		
Approach LOS	F		E		C		C		

### Intersection Summary

Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 65 (72%), Referenced to phase 2: and 6:SBR, Start of Green  
 Natural Cycle: 80  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.24  
 Intersection Signal Delay: 79.7  
 Intersection LOS: E  
 Intersection Capacity Utilization 100.1%  
 ICU Level of Service G  
 Analysis Period (min) 15  
 dl Defacto Left Lane. Recode with 1 though lane as a left lane.

### Splits and Phases: 1: Duboce Ave & Valencia St



Phasings

1: Duboce Ave & Valencia St

05/16/2022



Lane Group	EBT	WBL	WBT	NBL	NBT	NBR	SBT	SBR	Ø5
Protected Phases	4	3	8		1	6	1	6	5
Permitted Phases		8		1					
Minimum Initial (s)	5.0	1.0	5.0	5.0	5.0	3.0	5.0	3.0	5.0
Minimum Split (s)	33.0	4.0	43.0	30.0	30.0	10.0	30.0	10.0	9.5
Total Split (s)	39.0	4.0	43.0	47.0	47.0	21.0	47.0	21.0	26.0
Total Split (%)	43.3%	4.4%	47.8%	52.2%	52.2%	23.3%	52.2%	23.3%	29%
Maximum Green (s)	34.0	2.0	37.0	41.5	41.5	15.5	41.5	15.5	21.5
Yellow Time (s)	4.0	2.0	4.0	4.0	4.0	4.0	4.0	4.0	3.5
All-Red Time (s)	1.0	0.0	2.0	1.5	1.5	1.5	1.5	1.5	1.0
Lead/Lag	Lead	Lag				Lag		Lag	Lead
Lead-Lag Optimize?	Yes	Yes				Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max	Max
Walk Time (s)	11.0		20.0	4.5	4.5		4.5		
Flash Dont Walk (s)	17.0		17.0	16.0	16.0		16.0		
Pedestrian Calls (#/hr)	0		0	0	0		0		
90th %ile Green (s)	34.0	2.0	37.0	41.5	41.5	15.5	41.5	15.5	21.5
90th %ile Term Code	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord	Coord	MaxR
70th %ile Green (s)	34.0	2.0	37.0	41.5	41.5	15.5	41.5	15.5	21.5
70th %ile Term Code	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord	Coord	MaxR
50th %ile Green (s)	34.0	2.0	37.0	41.5	41.5	15.5	41.5	15.5	21.5
50th %ile Term Code	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord	Coord	MaxR
30th %ile Green (s)	34.0	2.0	37.0	41.5	41.5	15.5	41.5	15.5	21.5
30th %ile Term Code	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord	Coord	MaxR
10th %ile Green (s)	34.0	2.0	37.0	41.5	41.5	15.5	41.5	15.5	21.5
10th %ile Term Code	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord	Coord	MaxR

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 65 (72%), Referenced to phase 2: and 6:SBR, Start of Green

Control Type: Pretimed

# Queues

## 1: Duboce Ave & Valencia St

05/16/2022



Lane Group	EBT	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	865	1290	316	208	278	68
v/c Ratio	1.24	1.18dl	0.37	0.76	0.32	0.25
Control Delay	149.7	67.9	17.4	55.4	16.7	35.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	149.7	67.9	17.4	55.4	16.7	35.1
Queue Length 50th (ft)	~618	273	113	114	97	34
Queue Length 95th (ft)	#844	m#323	176	#222	153	72
Internal Link Dist (ft)	312	99	496		296	
Turn Bay Length (ft)				85		100
Base Capacity (vph)	695	1315	852	272	859	272
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.24	0.98	0.37	0.76	0.32	0.25

### Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

# Lanes, Volumes, Timings

## 2: Mission St & 13th St & US 101 NB Off-Ramp

05/16/2022



Lane Group	EBT	EBR	WBT	NBT	NBR	SBL	SBT	SBR	SWR	SWR2	Ø9	Ø10
Lane Configurations	↑↑↑		↑↑	↑↑↑	↑	↑↑	↑↑	↑	↑	↑		
Traffic Volume (vph)	1093	20	710	382	330	740	290	65	483	566		
Future Volume (vph)	1093	20	710	382	330	740	290	65	483	566		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Storage Length (ft)		100			0	0		0	0			
Storage Lanes		0			1	2		1	2			
Taper Length (ft)						25						
Lane Util. Factor	0.91	0.91	0.95	0.91	1.00	0.97	0.95	1.00	1.00	1.00		
Frt	0.997				0.850			0.850		0.850		
Flt Protected						0.950						
Satd. Flow (prot)	4563	0	3185	4577	1425	3090	3185	1425	1676	1425		
Flt Permitted						0.950						
Satd. Flow (perm)	4563	0	3185	4577	1425	3090	3185	1425	1676	1425		
Right Turn on Red		No						No		Yes		
Satd. Flow (RTOR)										516		
Link Speed (mph)	25		25	25			25					
Link Distance (ft)	375		332	360			218					
Travel Time (s)	10.2		9.1	9.8			5.9					
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Adj. Flow (vph)	1093	20	710	382	330	740	290	65	483	566		
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1113	0	710	382	330	740	290	65	483	566		
Enter Blocked Intersection	2 veh	No	No	No	No	2 veh	No	No	No	No		
Lane Alignment	Left	Right	L NA	Left	Right	Left	Left	Right	R NA	Right		
Median Width(ft)	15		10	24			24					
Link Offset(ft)	30		-25	0			0					
Crosswalk Width(ft)	16		16	16			16					
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14		
Turning Speed (mph)		9			9	15		11	9	9		
Turn Type	NA		NA	NA	Perm	Prot	NA	Perm	Prot	Free		
Protected Phases	4		8!	2		1	6		8!		9	10
Permitted Phases					2			6		Free		
Minimum Split (s)	34.0		28.0	22.0	22.0	17.0	38.0	38.0	28.0		3.0	3.0
Total Split (s)	34.0		34.0	22.0	22.0	31.0	53.0	53.0	34.0		3.0	3.0
Total Split (%)	37.8%		37.8%	24.4%	24.4%	34.4%	58.9%	58.9%	37.8%		3%	3%
Maximum Green (s)	26.5		26.5	15.0	15.0	24.0	46.0	46.0	26.5		1.0	1.0
Yellow Time (s)	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0		2.0	2.0
All-Red Time (s)	3.5		3.5	3.0	3.0	3.0	3.0	3.0	3.5		0.0	0.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Total Lost Time (s)	7.5		7.5	7.0	7.0	7.0	7.0	7.0	7.5			
Lead/Lag				Lag	Lag						Lead	
Lead-Lag Optimize?				Yes	Yes						Yes	
Walk Time (s)	14.5			7.0	7.0		7.0	7.0				7.0
Flash Dont Walk (s)	12.0			7.0	7.0		24.0	24.0				11.0
Pedestrian Calls (#/hr)	0			0	0		0	0				0
Act Effct Green (s)	26.5		26.5	15.0	15.0	24.0	46.0	46.0	26.5	90.0		
Actuated g/C Ratio	0.29		0.29	0.17	0.17	0.27	0.51	0.51	0.29	1.00		
v/c Ratio	0.83		0.76	0.50	1.39	0.90	0.18	0.09	0.98	0.40		



Lanes, Volumes, Timings  
 2: Mission St & 13th St & US 101 NB Off-Ramp

05/16/2022

Lane Group	Ø11
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	11
Permitted Phases	
Minimum Split (s)	9.5
Total Split (s)	34.0
Total Split (%)	38%
Maximum Green (s)	29.5
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	

Lanes, Volumes, Timings  
 2: Mission St & 13th St & US 101 NB Off-Ramp

05/16/2022

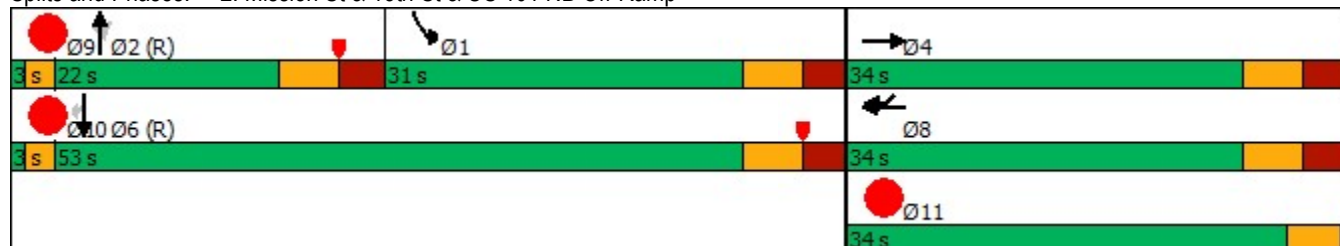


Lane Group	EBT	EBR	WBT	NBT	NBR	SBL	SBT	SBR	SWR	SWR2	Ø9	Ø10
Control Delay	18.3		35.0	36.7	232.2	47.4	12.2	11.8	69.3	0.8		
Queue Delay	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Total Delay	18.3		35.0	36.7	232.2	47.4	12.2	11.8	69.3	0.8		
LOS	B		C	D	F	D	B	B	E	A		
Approach Delay	18.3		35.0	127.3			36.0					
Approach LOS	B		C	F			D					
Queue Length 50th (ft)	140		192	73	~253	208	44	18	271	0		
Queue Length 95th (ft)	m118		258	104	#416	#313	67	39	#471	0		
Internal Link Dist (ft)	295		252	280			138					
Turn Bay Length (ft)												
Base Capacity (vph)	1343		937	762	237	824	1627	728	493	1425		
Starvation Cap Reductn	0		0	0	0	0	0	0	0	0		
Spillback Cap Reductn	0		0	0	0	0	0	0	0	0		
Storage Cap Reductn	0		0	0	0	0	0	0	0	0		
Reduced v/c Ratio	0.83		0.76	0.50	1.39	0.90	0.18	0.09	0.98	0.40		

Intersection Summary

Area Type: CBD  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 74 (82%), Referenced to phase 2:NBT and 6:SBT, Start of Red  
 Natural Cycle: 100  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.39  
 Intersection Signal Delay: 44.7 Intersection LOS: D  
 Intersection Capacity Utilization 110.9% ICU Level of Service H  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.  
 ! Phase conflict between lane groups.

Splits and Phases: 2: Mission St & 13th St & US 101 NB Off-Ramp



---

Lane Group	Ø11
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

---

Lanes and Geometrics

2: Mission St & 13th St & US 101 NB Off-Ramp

05/16/2022



Lane Group	EBT	EBR	WBT	NBT	NBR	SBL	SBT	SBR	SWR	SWR2
Lane Configurations	↑↑↑		↑↑	↑↑↑	↑	↑↑	↑↑	↑	↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12
Grade (%)	0%		0%	0%			0%			
Storage Length (ft)		100			0	0		0	0	
Storage Lanes		0			1	2		1	2	
Taper Length (ft)						25				
Lane Util. Factor	0.91	0.91	0.95	0.91	1.00	0.97	0.95	1.00	1.00	1.00
Ped Bike Factor										
Frt	0.997				0.850			0.850		0.850
Flt Protected						0.950				
Satd. Flow (prot)	4563	0	3185	4577	1425	3090	3185	1425	1676	1425
Flt Permitted						0.950				
Satd. Flow (perm)	4563	0	3185	4577	1425	3090	3185	1425	1676	1425
Right Turn on Red		No						No		Yes
Satd. Flow (RTOR)										516
Link Speed (mph)	25		25	25			25			
Link Distance (ft)	375		332	360			218			
Travel Time (s)	10.2		9.1	9.8			5.9			

Intersection Summary

Area Type: CBD

Volume

2: Mission St & 13th St & US 101 NB Off-Ramp

05/16/2022



Lane Group	EBT	EBR	WBT	NBT	NBR	SBL	SBT	SBR	SWR	SWR2
Traffic Volume (vph)	1093	20	710	382	330	740	290	65	483	566
Future Volume (vph)	1093	20	710	382	330	740	290	65	483	566
Confl. Peds. (#/hr)										
Confl. Bikes (#/hr)										
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										
Mid-Block Traffic (%)	0%		0%	0%			0%			
Adj. Flow (vph)	1093	20	710	382	330	740	290	65	483	566
Shared Lane Traffic (%)										
Lane Group Flow (vph)	1113	0	710	382	330	740	290	65	483	566
Intersection Summary										

# Timings

## 2: Mission St & 13th St & US 101 NB Off-Ramp

05/16/2022



Lane Group	EBT	WBT	NBT	NBR	SBL	SBT	SBR	SWR	SWR2	Ø9	Ø10	Ø11
Lane Configurations	↑↑↑	↑↑	↑↑↑	↗	↘	↑↑	↗	↗	↗			
Traffic Volume (vph)	1093	710	382	330	740	290	65	483	566			
Future Volume (vph)	1093	710	382	330	740	290	65	483	566			
Turn Type	NA	NA	NA	Perm	Prot	NA	Perm	Prot	Free			
Protected Phases	4	8!	2		1	6		8!		9	10	11
Permitted Phases				2			6		Free			
Detector Phase	4	8	2	2	1	6	6	8				
Switch Phase												
Minimum Initial (s)	10.0	10.0	7.0	7.0	10.0	21.0	21.0	10.0		1.0	1.0	5.0
Minimum Split (s)	34.0	28.0	22.0	22.0	17.0	38.0	38.0	28.0		3.0	3.0	9.5
Total Split (s)	34.0	34.0	22.0	22.0	31.0	53.0	53.0	34.0		3.0	3.0	34.0
Total Split (%)	37.8%	37.8%	24.4%	24.4%	34.4%	58.9%	58.9%	37.8%		3%	3%	38%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		2.0	2.0	3.5
All-Red Time (s)	3.5	3.5	3.0	3.0	3.0	3.0	3.0	3.5		0.0	0.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Total Lost Time (s)	7.5	7.5	7.0	7.0	7.0	7.0	7.0	7.5				
Lead/Lag			Lag	Lag						Lead		
Lead-Lag Optimize?			Yes	Yes						Yes		
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max		Max	Max	Max
Act Effct Green (s)	26.5	26.5	15.0	15.0	24.0	46.0	46.0	26.5	90.0			
Actuated g/C Ratio	0.29	0.29	0.17	0.17	0.27	0.51	0.51	0.29	1.00			
v/c Ratio	0.83	0.76	0.50	1.39	0.90	0.18	0.09	0.98	0.40			
Control Delay	18.3	35.0	36.7	232.2	47.4	12.2	11.8	69.3	0.8			
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Total Delay	18.3	35.0	36.7	232.2	47.4	12.2	11.8	69.3	0.8			
LOS	B	C	D	F	D	B	B	E	A			
Approach Delay	18.3	35.0	127.3			36.0						
Approach LOS	B	C	F			D						

### Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 74 (82%), Referenced to phase 2:NBT and 6:SBT, Start of Red

Natural Cycle: 100

Control Type: Pretimed

Maximum v/c Ratio: 1.39

Intersection Signal Delay: 44.7

Intersection LOS: D

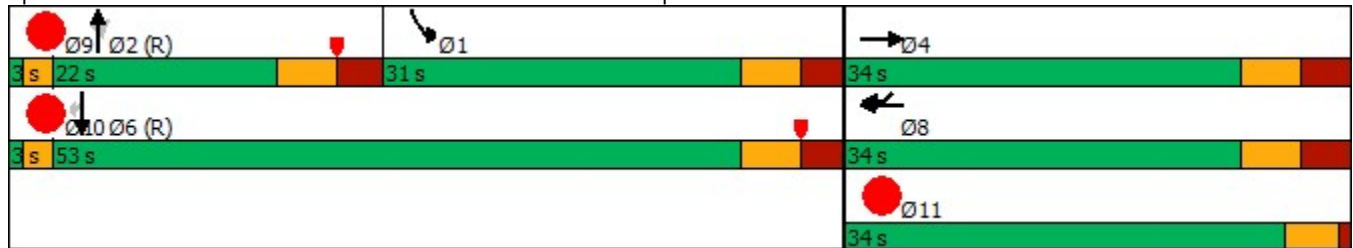
Intersection Capacity Utilization 110.9%

ICU Level of Service H

Analysis Period (min) 15

! Phase conflict between lane groups.

### Splits and Phases: 2: Mission St & 13th St & US 101 NB Off-Ramp



Phasings

2: Mission St & 13th St & US 101 NB Off-Ramp

05/16/2022



Lane Group	EBT	WBT	NBT	NBR	SBL	SBT	SBR	SWR	SWR2	Ø9	Ø10	Ø11
Protected Phases	4	8!	2		1	6		8!		9	10	11
Permitted Phases				2			6		Free			
Minimum Initial (s)	10.0	10.0	7.0	7.0	10.0	21.0	21.0	10.0		1.0	1.0	5.0
Minimum Split (s)	34.0	28.0	22.0	22.0	17.0	38.0	38.0	28.0		3.0	3.0	9.5
Total Split (s)	34.0	34.0	22.0	22.0	31.0	53.0	53.0	34.0		3.0	3.0	34.0
Total Split (%)	37.8%	37.8%	24.4%	24.4%	34.4%	58.9%	58.9%	37.8%		3%	3%	38%
Maximum Green (s)	26.5	26.5	15.0	15.0	24.0	46.0	46.0	26.5		1.0	1.0	29.5
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		2.0	2.0	3.5
All-Red Time (s)	3.5	3.5	3.0	3.0	3.0	3.0	3.0	3.5		0.0	0.0	1.0
Lead/Lag			Lag	Lag						Lead		
Lead-Lag Optimize?			Yes	Yes						Yes		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max		Max	Max	Max
Walk Time (s)	14.5		7.0	7.0		7.0	7.0				7.0	
Flash Dont Walk (s)	12.0		7.0	7.0		24.0	24.0				11.0	
Pedestrian Calls (#/hr)	0		0	0		0	0				0	
90th %ile Green (s)	26.5	26.5	15.0	15.0	24.0	46.0	46.0	26.5		1.0	1.0	29.5
90th %ile Term Code	MaxR	MaxR	Coord	Coord	MaxR	Coord	Coord	MaxR		MaxR	Ped	MaxR
70th %ile Green (s)	26.5	26.5	15.0	15.0	24.0	46.0	46.0	26.5		1.0	1.0	29.5
70th %ile Term Code	MaxR	MaxR	Coord	Coord	MaxR	Coord	Coord	MaxR		MaxR	Ped	MaxR
50th %ile Green (s)	26.5	26.5	15.0	15.0	24.0	46.0	46.0	26.5		1.0	1.0	29.5
50th %ile Term Code	MaxR	MaxR	Coord	Coord	MaxR	Coord	Coord	MaxR		MaxR	Ped	MaxR
30th %ile Green (s)	26.5	26.5	15.0	15.0	24.0	46.0	46.0	26.5		1.0	1.0	29.5
30th %ile Term Code	MaxR	MaxR	Coord	Coord	MaxR	Coord	Coord	MaxR		MaxR	Ped	MaxR
10th %ile Green (s)	26.5	26.5	15.0	15.0	24.0	46.0	46.0	26.5		1.0	1.0	29.5
10th %ile Term Code	MaxR	MaxR	Coord	Coord	MaxR	Coord	Coord	MaxR		MaxR	Ped	MaxR

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 74 (82%), Referenced to phase 2:NBT and 6:SBT, Start of Red

Control Type: Pretimed

! Phase conflict between lane groups.

Queues

2: Mission St & 13th St & US 101 NB Off-Ramp

05/16/2022



Lane Group	EBT	WBT	NBT	NBR	SBL	SBT	SBR	SWR	SWR2
Lane Group Flow (vph)	1113	710	382	330	740	290	65	483	566
v/c Ratio	0.83	0.76	0.50	1.39	0.90	0.18	0.09	0.98	0.40
Control Delay	18.3	35.0	36.7	232.2	47.4	12.2	11.8	69.3	0.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.3	35.0	36.7	232.2	47.4	12.2	11.8	69.3	0.8
Queue Length 50th (ft)	140	192	73	~253	208	44	18	271	0
Queue Length 95th (ft)	m118	258	104	#416	#313	67	39	#471	0
Internal Link Dist (ft)	295	252	280			138			
Turn Bay Length (ft)									
Base Capacity (vph)	1343	937	762	237	824	1627	728	493	1425
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.83	0.76	0.50	1.39	0.90	0.18	0.09	0.98	0.40

Intersection Summary

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



Lanes, Volumes, Timings  
3: South Van Ness Ave & 13th St

05/16/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑↑	↑↑	↑↑			↑↑			↑↑↑	↑
Traffic Volume (vph)	0	699	1380	104	558	165	0	575	162	111	970	80
Future Volume (vph)	0	699	1380	104	558	165	0	575	162	111	970	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		250	150		0	0		0	0		100
Storage Lanes	0		2	2		0	0		0	0		1
Taper Length (ft)	25			50			25			25		
Lane Util. Factor	1.00	0.95	0.88	0.97	0.95	0.95	1.00	0.95	0.95	0.91	0.91	1.00
Frt			0.850		0.966			0.967				0.850
Flt Protected				0.950							0.995	
Satd. Flow (prot)	0	3185	2508	3090	3077	0	0	3080	0	0	4554	1425
Flt Permitted				0.950							0.705	
Satd. Flow (perm)	0	3185	2508	3090	3077	0	0	3080	0	0	3227	1425
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		316			354			241			564	
Travel Time (s)		8.6			9.7			6.6			15.4	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	699	1380	104	558	165	0	575	162	111	970	80
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	699	1380	104	723	0	0	737	0	0	1081	80
Enter Blocked Intersection	No	No	No	No	2 veh	No	No	No	No	No	2 veh	1 veh
Lane Alignment	Left	Left	Right	Left	L NA	Right	Left	Left	Right	Left	Left	R NA
Median Width(ft)		24			24			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Turning Speed (mph)	15		15	15		12	15		9	15		15
Turn Type		NA	Prot	Prot	NA			NA		Perm	NA	Prot
Protected Phases		4	4	3	8			2			6	6
Permitted Phases										6		
Minimum Split (s)		32.0	32.0	13.0	26.0			30.0		30.0	30.0	30.0
Total Split (s)		39.0	39.0	13.0	52.0			38.0		38.0	38.0	38.0
Total Split (%)		43.3%	43.3%	14.4%	57.8%			42.2%		42.2%	42.2%	42.2%
Maximum Green (s)		33.0	33.0	7.0	46.0			32.0		32.0	32.0	32.0
Yellow Time (s)		4.0	4.0	4.0	4.0			4.0		4.0	4.0	4.0
All-Red Time (s)		2.0	2.0	2.0	2.0			2.0		2.0	2.0	2.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0			0.0		0.0	0.0	0.0
Total Lost Time (s)		6.0	6.0	6.0	6.0			6.0		6.0	6.0	6.0
Lead/Lag		Lead	Lead	Lag								
Lead-Lag Optimize?												
Walk Time (s)		5.0	5.0		5.0			6.0		6.0	6.0	6.0
Flash Dont Walk (s)		20.0	20.0		15.0			18.0		16.0	16.0	16.0
Pedestrian Calls (#/hr)		0	0		0			0		0	0	0
Act Effct Green (s)		33.0	33.0	7.0	46.0			32.0		32.0	32.0	32.0
Actuated g/C Ratio		0.37	0.37	0.08	0.51			0.36		0.36	0.36	0.36
v/c Ratio		0.60	1.50	0.43	0.46			0.67		0.94	0.16	

Lanes, Volumes, Timings  
 3: South Van Ness Ave & 13th St

05/16/2022

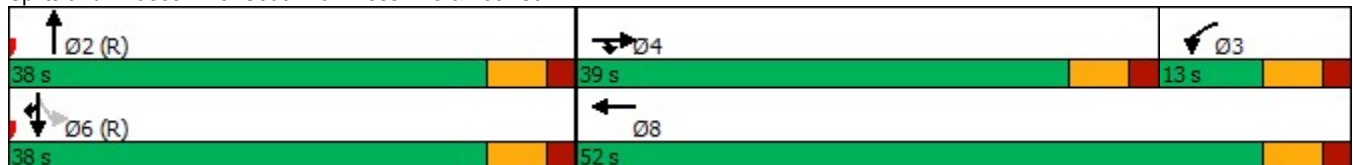


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		25.8	257.4	45.6	15.3			28.3			45.1	20.9
Queue Delay		0.0	0.0	0.0	0.0			0.0			0.0	0.0
Total Delay		25.8	257.4	45.6	15.3			28.3			45.1	20.9
LOS		C	F	D	B			C			D	C
Approach Delay		179.5			19.1			28.3			43.4	
Approach LOS		F			B			C			D	
Queue Length 50th (ft)		166	~625	29	131			184			215	31
Queue Length 95th (ft)		225	#767	55	177			248			#309	63
Internal Link Dist (ft)		236			274			161			484	
Turn Bay Length (ft)			250	150								100
Base Capacity (vph)		1167	919	240	1572			1095			1147	506
Starvation Cap Reductn		0	0	0	0			0			0	0
Spillback Cap Reductn		0	0	0	0			0			0	0
Storage Cap Reductn		0	0	0	0			0			0	0
Reduced v/c Ratio		0.60	1.50	0.43	0.46			0.67			0.94	0.16

Intersection Summary

Area Type: CBD  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green, Master Intersection  
 Natural Cycle: 150  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.50  
 Intersection Signal Delay: 95.8  
 Intersection Capacity Utilization 97.8%  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 3: South Van Ness Ave & 13th St



Lanes and Geometrics  
 3: South Van Ness Ave & 13th St

05/16/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑↑	↑↑	↑↑			↑↑			↑↑↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		250	150		0	0		0	0		100
Storage Lanes	0		2	2		0	0		0	0		1
Taper Length (ft)	25			50			25			25		
Lane Util. Factor	1.00	0.95	0.88	0.97	0.95	0.95	1.00	0.95	0.95	0.91	0.91	1.00
Ped Bike Factor												
Frt			0.850		0.966			0.967				0.850
Flt Protected				0.950							0.995	
Satd. Flow (prot)	0	3185	2508	3090	3077	0	0	3080	0	0	4554	1425
Flt Permitted				0.950							0.705	
Satd. Flow (perm)	0	3185	2508	3090	3077	0	0	3080	0	0	3227	1425
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25				25
Link Distance (ft)		316			354			241				564
Travel Time (s)		8.6			9.7			6.6				15.4

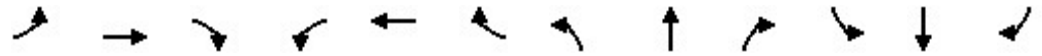
Intersection Summary

Area Type: CBD

Volume

3: South Van Ness Ave & 13th St

05/16/2022

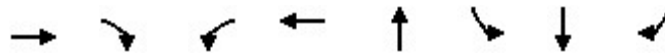


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	699	1380	104	558	165	0	575	162	111	970	80
Future Volume (vph)	0	699	1380	104	558	165	0	575	162	111	970	80
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	699	1380	104	558	165	0	575	162	111	970	80
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	699	1380	104	723	0	0	737	0	0	1081	80
Intersection Summary												

# Timings

## 3: South Van Ness Ave & 13th St

05/16/2022



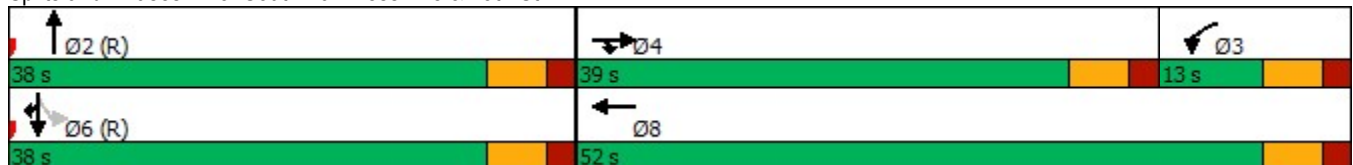
Lane Group	EBT	EBR	WBL	WBT	NBT	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑	↑↑	↑↑	↑↑		↑↑↑	↑
Traffic Volume (vph)	699	1380	104	558	575	111	970	80
Future Volume (vph)	699	1380	104	558	575	111	970	80
Turn Type	NA	Prot	Prot	NA	NA	Perm	NA	Prot
Protected Phases	4	4	3	8	2		6	6
Permitted Phases						6		
Detector Phase	4	4	3	8	2	6	6	6
Switch Phase								
Minimum Initial (s)	17.0	17.0	7.0	15.0	24.0	24.0	24.0	24.0
Minimum Split (s)	32.0	32.0	13.0	26.0	30.0	30.0	30.0	30.0
Total Split (s)	39.0	39.0	13.0	52.0	38.0	38.0	38.0	38.0
Total Split (%)	43.3%	43.3%	14.4%	57.8%	42.2%	42.2%	42.2%	42.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0		6.0	6.0
Lead/Lag	Lead	Lead	Lag					
Lead-Lag Optimize?								
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	33.0	33.0	7.0	46.0	32.0		32.0	32.0
Actuated g/C Ratio	0.37	0.37	0.08	0.51	0.36		0.36	0.36
v/c Ratio	0.60	1.50	0.43	0.46	0.67		0.94	0.16
Control Delay	25.8	257.4	45.6	15.3	28.3		45.1	20.9
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay	25.8	257.4	45.6	15.3	28.3		45.1	20.9
LOS	C	F	D	B	C		D	C
Approach Delay	179.5			19.1	28.3		43.4	
Approach LOS	F			B	C		D	

### Intersection Summary

Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green, Master Intersection  
 Natural Cycle: 150  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.50  
 Intersection Signal Delay: 95.8  
 Intersection Capacity Utilization 97.8%  
 Analysis Period (min) 15

Intersection LOS: F  
 ICU Level of Service F

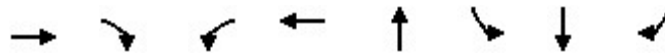
### Splits and Phases: 3: South Van Ness Ave & 13th St



Phasings

3: South Van Ness Ave & 13th St

05/16/2022



Lane Group	EBT	EBR	WBL	WBT	NBT	SBL	SBT	SBR
Protected Phases	4	4	3	8	2		6	6
Permitted Phases						6		
Minimum Initial (s)	17.0	17.0	7.0	15.0	24.0	24.0	24.0	24.0
Minimum Split (s)	32.0	32.0	13.0	26.0	30.0	30.0	30.0	30.0
Total Split (s)	39.0	39.0	13.0	52.0	38.0	38.0	38.0	38.0
Total Split (%)	43.3%	43.3%	14.4%	57.8%	42.2%	42.2%	42.2%	42.2%
Maximum Green (s)	33.0	33.0	7.0	46.0	32.0	32.0	32.0	32.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lead	Lead	Lag					
Lead-Lag Optimize?								
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max
Walk Time (s)	5.0	5.0		5.0	6.0	6.0	6.0	6.0
Flash Dont Walk (s)	20.0	20.0		15.0	18.0	16.0	16.0	16.0
Pedestrian Calls (#/hr)	0	0		0	0	0	0	0
90th %ile Green (s)	33.0	33.0	7.0	46.0	32.0	32.0	32.0	32.0
90th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
70th %ile Green (s)	33.0	33.0	7.0	46.0	32.0	32.0	32.0	32.0
70th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
50th %ile Green (s)	33.0	33.0	7.0	46.0	32.0	32.0	32.0	32.0
50th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
30th %ile Green (s)	33.0	33.0	7.0	46.0	32.0	32.0	32.0	32.0
30th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord
10th %ile Green (s)	33.0	33.0	7.0	46.0	32.0	32.0	32.0	32.0
10th %ile Term Code	MaxR	MaxR	MaxR	MaxR	Coord	Coord	Coord	Coord

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

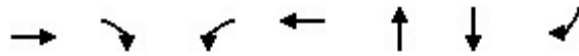
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green, Master Intersection

Control Type: Pretimed

Queues

3: South Van Ness Ave & 13th St

05/16/2022



Lane Group	EBT	EBR	WBL	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	699	1380	104	723	737	1081	80
v/c Ratio	0.60	1.50	0.43	0.46	0.67	0.94	0.16
Control Delay	25.8	257.4	45.6	15.3	28.3	45.1	20.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.8	257.4	45.6	15.3	28.3	45.1	20.9
Queue Length 50th (ft)	166	~625	29	131	184	215	31
Queue Length 95th (ft)	225	#767	55	177	248	#309	63
Internal Link Dist (ft)	236			274	161	484	
Turn Bay Length (ft)		250	150				100
Base Capacity (vph)	1167	919	240	1572	1095	1147	506
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.60	1.50	0.43	0.46	0.67	0.94	0.16

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.






















Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Lanes, Volumes, Timings  
4: 13th St & Folsom St

08/05/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	145	721	9	0	693	43	111	604	207	22	115	68
Future Volume (vph)	145	721	9	0	693	43	111	604	207	22	115	68
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		130	0		0	0		40	80		0
Storage Lanes	1		1	0		1	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850		0.944	
Flt Protected	0.950							0.992		0.950		
Satd. Flow (prot)	1770	3539	1583	0	5085	1583	0	3511	1583	1770	1758	0
Flt Permitted	0.950							0.856		0.290		
Satd. Flow (perm)	1770	3539	1583	0	5085	1583	0	3030	1583	540	1758	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		324			392			370			296	
Travel Time (s)		7.4			8.9			8.4			6.7	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	145	721	9	0	693	43	111	604	207	22	115	68
Shared Lane Traffic (%)												
Lane Group Flow (vph)	145	721	9	0	693	43	0	715	207	22	183	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm		NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases	7	4			8			2			6	
Permitted Phases			4			8	2		2	6		
Minimum Split (s)	11.0	31.0	31.0		27.0	27.0	35.5	35.5	35.5	35.5	35.5	
Total Split (s)	16.0	49.0	49.0		33.0	33.0	41.0	41.0	41.0	41.0	41.0	
Total Split (%)	17.8%	54.4%	54.4%		36.7%	36.7%	45.6%	45.6%	45.6%	45.6%	45.6%	
Maximum Green (s)	10.0	43.0	43.0		27.0	27.0	34.5	34.5	34.5	34.5	34.5	
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0	2.5	2.5	2.5	2.5	2.5	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0		6.5	6.5	6.5	6.5	
Lead/Lag	Lag				Lead	Lead						
Lead-Lag Optimize?	Yes				Yes	Yes						
Walk Time (s)		8.0	8.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Flash Dont Walk (s)		17.0	17.0		16.0	16.0	24.0	24.0	24.0	24.0	24.0	
Pedestrian Calls (#/hr)		0	0		0	0	0	0	0	0	0	
Act Effct Green (s)	10.0	43.0	43.0		27.0	27.0		34.5	34.5	34.5	34.5	
Actuated g/C Ratio	0.11	0.48	0.48		0.30	0.30		0.38	0.38	0.38	0.38	
v/c Ratio	0.74	0.43	0.01		0.45	0.09		0.62	0.34	0.11	0.27	



Lanes, Volumes, Timings  
4: 13th St & Folsom St

08/05/2022

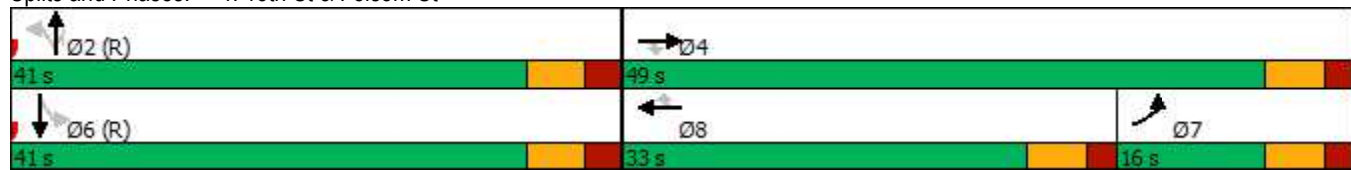


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	62.4	16.4	12.6		26.7	23.4		25.2	21.7	19.7	20.5	
Queue Delay	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay	62.4	16.4	12.6		26.7	23.4		25.2	21.7	19.7	20.5	
LOS	E	B	B		C	C		C	C	B	C	
Approach Delay		24.0			26.5			24.4			20.4	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	81	135	3		116	18		169	82	8	70	
Queue Length 95th (ft)	#173	181	11		152	42		229	139	25	120	
Internal Link Dist (ft)		244			312			290			216	
Turn Bay Length (ft)			130						40	80		
Base Capacity (vph)	196	1690	756		1525	474		1161	606	207	673	
Starvation Cap Reductn	0	0	0		0	0		0	0	0	0	
Spillback Cap Reductn	0	0	0		0	0		0	0	0	0	
Storage Cap Reductn	0	0	0		0	0		0	0	0	0	
Reduced v/c Ratio	0.74	0.43	0.01		0.45	0.09		0.62	0.34	0.11	0.27	

Intersection Summary

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 8 (9%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green  
 Natural Cycle: 75  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.74  
 Intersection Signal Delay: 24.5  
 Intersection LOS: C  
 Intersection Capacity Utilization 72.4%  
 ICU Level of Service C  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 4: 13th St & Folsom St



Lanes, Volumes, Timings  
1: Duboce Ave & Valencia St

05/30/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↗			↖	↖		↖	↖		↖	↖
Traffic Volume (vph)	0	727	69	89	952	145	7	283	191	0	256	63
Future Volume (vph)	0	727	69	89	952	145	7	283	191	0	256	63
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		80	100		150	0		100
Storage Lanes	0		0	0		1	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.988				0.850			0.850			0.850
Flt Protected					0.996			0.999				
Satd. Flow (prot)	0	1840	0	0	3525	1583	0	1861	1583	0	1863	1583
Flt Permitted					0.529			0.991				
Satd. Flow (perm)	0	1840	0	0	1872	1583	0	1846	1583	0	1863	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		392			179			576			376	
Travel Time (s)		8.9			4.1			13.1			8.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	790	75	97	1035	158	8	308	208	0	278	68
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	865	0	0	1132	158	0	316	208	0	278	68
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA		pm+pt	NA	custom	Perm	NA	custom		NA	custom
Protected Phases		4		3	8	3		1	6		1	6
Permitted Phases				8			1					
Minimum Split (s)		26.0		10.5	21.5	10.5	25.0	25.0	10.0		25.0	10.0
Total Split (s)		35.0		15.0	50.0	15.0	40.0	40.0	15.0		40.0	15.0
Total Split (%)		38.9%		16.7%	55.6%	16.7%	44.4%	44.4%	16.7%		44.4%	16.7%
Maximum Green (s)		29.5		9.5	44.0	9.5	34.5	34.5	9.5		34.5	9.5
Yellow Time (s)		4.0		4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)		1.5		1.5	2.0	1.5	1.5	1.5	1.5		1.5	1.5
Lost Time Adjust (s)		0.0			0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)		5.5			6.0	5.5		5.5	5.5		5.5	5.5
Lead/Lag		Lead		Lag		Lag		Lag			Lag	Lag
Lead-Lag Optimize?		Yes		Yes		Yes		Yes			Yes	Yes
Walk Time (s)		0.0			0.0		0.0	0.0			0.0	
Flash Dont Walk (s)		20.5			15.5		19.5	19.5			19.5	
Pedestrian Calls (#/hr)		0			0		0	0			0	
Act Effct Green (s)		29.5			44.0	9.5		34.5	9.5		34.5	9.5
Actuated g/C Ratio		0.33			0.49	0.11		0.38	0.11		0.38	0.11
v/c Ratio		1.43			1.05	0.95		0.45	1.25		0.39	0.41

Lane Group	Ø5
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	5
Permitted Phases	
Minimum Split (s)	25.0
Total Split (s)	25.0
Total Split (%)	28%
Maximum Green (s)	20.0
Yellow Time (s)	3.5
All-Red Time (s)	1.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	

Lanes, Volumes, Timings  
1: Duboce Ave & Valencia St

05/30/2022

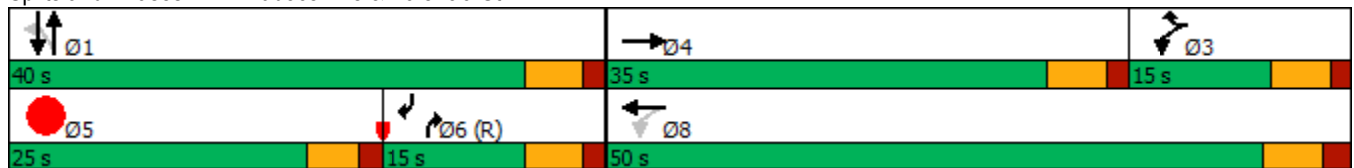


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		232.3			51.7	48.5		23.2	187.1		22.2	45.6
Queue Delay		0.0			0.0	0.0		0.0	0.0		0.0	0.0
Total Delay		232.3			51.7	48.5		23.2	187.1		22.2	45.6
LOS		F			D	D		C	F		C	D
Approach Delay		232.3			51.3			88.3			26.8	
Approach LOS		F			D			F			C	
Queue Length 50th (ft)		~673			~212	69		131	~149		112	37
Queue Length 95th (ft)		#899			m#188	m72		205	#285		178	79
Internal Link Dist (ft)		312			99			496			296	
Turn Bay Length (ft)						80			150			100
Base Capacity (vph)		603			1080	167		707	167		714	167
Starvation Cap Reductn		0			0	0		0	0		0	0
Spillback Cap Reductn		0			0	0		0	0		0	0
Storage Cap Reductn		0			0	0		0	0		0	0
Reduced v/c Ratio		1.43			1.05	0.95		0.45	1.25		0.39	0.41

Intersection Summary

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 0 (0%), Referenced to phase 2: and 6:SBR, Start of Green  
 Natural Cycle: 140  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.43  
 Intersection Signal Delay: 106.6      Intersection LOS: F  
 Intersection Capacity Utilization 106.0%      ICU Level of Service G  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Duboce Ave & Valencia St



---

Lane Group	Ø5
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

---

Lanes, Volumes, Timings

2: Mission St & 13th St & US 101 NB Off-Ramp

05/30/2022



Lane Group	EBT	EBR	WBT	NBT	NBR	SBL	SBT	SBR	SWR	SWR2	Ø11
Lane Configurations	↑↑	↑	↑	↑↑↑	↑	↑↑	↑	↑	↑	↑	
Traffic Volume (vph)	1093	20	710	382	330	651	290	65	483	566	
Future Volume (vph)	1093	20	710	382	330	651	290	65	483	566	
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Storage Length (ft)		90			0	0		0	0		
Storage Lanes		1			1	2		1	2		
Taper Length (ft)						25					
Lane Util. Factor	0.95	1.00	1.00	0.91	1.00	0.97	1.00	1.00	1.00	1.00	
Frt		0.850			0.850			0.850		0.850	
Flt Protected						0.950					
Satd. Flow (prot)	3185	1425	1676	4577	1425	3090	1676	1425	1676	1425	
Flt Permitted						0.950					
Satd. Flow (perm)	3185	1425	1676	4577	1425	3090	1676	1425	1676	1425	
Right Turn on Red		No						No		Yes	
Satd. Flow (RTOR)										516	
Link Speed (mph)	25		25	25			25				
Link Distance (ft)	375		332	360			218				
Travel Time (s)	10.2		9.1	9.8			5.9				
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	1093	20	710	382	330	651	290	65	483	566	
Shared Lane Traffic (%)											
Lane Group Flow (vph)	1093	20	710	382	330	651	290	65	483	566	
Enter Blocked Intersection	2 veh	No	No	No	No	2 veh	No	No	No	No	
Lane Alignment	Left	Right	L NA	Left	Right	Left	Left	Right	R NA	Right	
Median Width(ft)	15		10	24			24				
Link Offset(ft)	30		-25	0			0				
Crosswalk Width(ft)	16		16	16			16				
Two way Left Turn Lane											
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	
Turning Speed (mph)		9			9	15		11	9	9	
Turn Type	NA	custom	NA	NA	Perm	Prot	NA	Perm	Prot	Free	
Protected Phases	4		8!	2		1	6		8!		11
Permitted Phases		12			2			6		Free	
Minimum Split (s)	33.0	33.0	28.0	26.0	26.0	26.0	52.0	52.0	28.0		9.5
Total Split (s)	38.0	23.0	38.0	26.0	26.0	26.0	52.0	52.0	38.0		15.0
Total Split (%)	42.2%	25.6%	42.2%	28.9%	28.9%	28.9%	57.8%	57.8%	42.2%		17%
Maximum Green (s)	30.5	15.5	30.5	19.0	19.0	19.0	45.0	45.0	30.5		10.5
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		3.5
All-Red Time (s)	3.5	3.5	3.5	3.0	3.0	3.0	3.0	3.0	3.5		1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	7.5	7.5	7.5	7.0	7.0	7.0	7.0	7.0	7.5		
Lead/Lag		Lag									Lead
Lead-Lag Optimize?		Yes									Yes
Walk Time (s)	0.0		0.0	0.0	0.0		9.0	9.0	0.0		
Flash Dont Walk (s)	15.0		16.5	19.0	19.0		30.0	30.0	16.5		
Pedestrian Calls (#/hr)	0		0	0	0		0	0	0		
Act Effct Green (s)	30.5	15.5	30.5	19.0	19.0	19.0	45.0	45.0	30.5	90.0	
Actuated g/C Ratio	0.34	0.17	0.34	0.21	0.21	0.21	0.50	0.50	0.34	1.00	
v/c Ratio	1.01	0.08	1.25	0.40	1.10	1.00	0.35	0.09	0.85	0.40	

Lanes, Volumes, Timings

2: Mission St & 13th St & US 101 NB Off-Ramp

05/30/2022

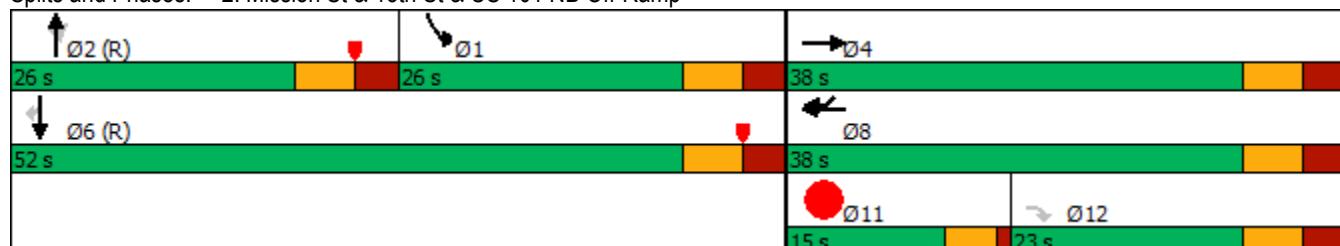


Lane Group	EBT	EBR	WBT	NBT	NBR	SBL	SBT	SBR	SWR	SWR2	Ø11
Control Delay	30.1	19.4	156.4	32.0	117.2	71.9	15.1	12.3	44.0	0.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	30.1	19.4	156.4	32.0	117.2	71.9	15.1	12.3	44.0	0.8	
LOS	C	B	F	C	F	E	B	B	D	A	
Approach Delay	29.9		156.4	71.5			51.7				
Approach LOS	C		F	E			D				
Queue Length 50th (ft)	~156	6	~509	68	~215	191	95	18	252	0	
Queue Length 95th (ft)	m115	m6	#722	98	#378	#306	152	40	#427	0	
Internal Link Dist (ft)	295		252	280			138				
Turn Bay Length (ft)		90									
Base Capacity (vph)	1079	245	567	966	300	652	838	712	567	1425	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	1.01	0.08	1.25	0.40	1.10	1.00	0.35	0.09	0.85	0.40	

Intersection Summary

Area Type: CBD  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Red  
 Natural Cycle: 135  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.25  
 Intersection Signal Delay: 58.6  
 Intersection LOS: E  
 Intersection Capacity Utilization 127.8%  
 ICU Level of Service H  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.  
 ! Phase conflict between lane groups.

Splits and Phases: 2: Mission St & 13th St & US 101 NB Off-Ramp



Lanes, Volumes, Timings  
3: South Van Ness Ave & 13th St

05/30/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↑↑	↑	↑	↑		↑↑			↑↑↑	↑
Traffic Volume (vph)	0	699	1380	104	558	165	0	575	162	0	970	80
Future Volume (vph)	0	699	1380	104	558	165	0	575	162	0	970	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		250	0		175	0		0	0		100
Storage Lanes	0		1	1		1	0		0	0		1
Taper Length (ft)	25			50			25			25		
Lane Util. Factor	1.00	1.00	0.88	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.91	1.00
Frt			0.850			0.850		0.967				0.850
Flt Protected				0.950								
Satd. Flow (prot)	0	1676	2508	1593	1676	1425	0	3080	0	0	4577	1425
Flt Permitted				0.950								
Satd. Flow (perm)	0	1676	2508	1593	1676	1425	0	3080	0	0	4577	1425
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25				25
Link Distance (ft)		316			677			241				564
Travel Time (s)		8.6			18.5			6.6				15.4
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	699	1380	104	558	165	0	575	162	0	970	80
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	699	1380	104	558	165	0	737	0	0	970	80
Enter Blocked Intersection	No	No	No	No	2 veh	No	No	No	No	No	2 veh	1 veh
Lane Alignment	Left	Left	Right	Left	L NA	Right	Left	Left	Right	Left	Left	R NA
Median Width(ft)		12			12			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Turning Speed (mph)	15		15	15		12	15		9	15		15
Turn Type		NA	Prot	Prot	NA	custom		NA			NA	Prot
Protected Phases		4	4	3	8	3		2			6	6
Permitted Phases												
Minimum Split (s)		35.5	35.5	13.0	35.5	13.0		31.0			31.0	31.0
Total Split (s)		43.0	43.0	16.0	59.0	16.0		31.0			31.0	31.0
Total Split (%)		47.8%	47.8%	17.8%	65.6%	17.8%		34.4%			34.4%	34.4%
Maximum Green (s)		37.0	37.0	10.0	53.0	10.0		24.5			24.5	24.5
Yellow Time (s)		4.0	4.0	4.0	4.0	4.0		4.0			4.0	4.0
All-Red Time (s)		2.0	2.0	2.0	2.0	2.0		2.5			2.5	2.5
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0		0.0			0.0	0.0
Total Lost Time (s)		6.0	6.0	6.0	6.0	6.0		6.5			6.5	6.5
Lead/Lag		Lead	Lead	Lag		Lag						
Lead-Lag Optimize?												
Walk Time (s)		0.0	0.0		0.0			0.0			0.0	0.0
Flash Dont Walk (s)		24.5	24.5		24.5			24.5			18.5	18.5
Pedestrian Calls (#/hr)		0	0		0			0			0	0
Act Effct Green (s)		37.0	37.0	10.0	53.0	10.0		24.5			24.5	24.5
Actuated g/C Ratio		0.41	0.41	0.11	0.59	0.11		0.27			0.27	0.27
v/c Ratio		1.01	1.34	0.59	0.57	1.04		0.88			0.78	0.21



Lanes, Volumes, Timings  
 3: South Van Ness Ave & 13th St

05/30/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		66.2	185.1	34.1	6.8	107.2		45.0			35.4	27.1
Queue Delay		0.0	0.0	0.0	0.0	0.0		0.0			0.0	0.0
Total Delay		66.2	185.1	34.1	6.8	107.2		45.0			35.4	27.1
LOS		E	F	C	A	F		D			D	C
Approach Delay		145.1			30.3			45.0			34.8	
Approach LOS		F			C			D			C	
Queue Length 50th (ft)		~402	~586	59	57	~104		211			186	35
Queue Length 95th (ft)		#636	#728	m#118	85	#232		#313			236	72
Internal Link Dist (ft)		236			597			161			484	
Turn Bay Length (ft)			250			175						100
Base Capacity (vph)		689	1031	177	986	158		838			1245	387
Starvation Cap Reductn		0	0	0	0	0		0			0	0
Spillback Cap Reductn		0	0	0	0	0		0			0	0
Storage Cap Reductn		0	0	0	0	0		0			0	0
Reduced v/c Ratio		1.01	1.34	0.59	0.57	1.04		0.88			0.78	0.21

Intersection Summary






















Area Type: CBD  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green, Master Intersection  
 Natural Cycle: 140  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.34  
 Intersection Signal Delay: 84.5  
 Intersection LOS: F  
 Intersection Capacity Utilization 96.3%  
 ICU Level of Service F  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: South Van Ness Ave & 13th St



Lanes, Volumes, Timings  
4: 13th St & Folsom St

08/05/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	145	721	9	0	693	43	111	604	107	11	115	68
Future Volume (vph)	145	721	9	0	693	43	111	604	107	11	115	68
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		110	0		0	0		40	80		0
Storage Lanes	1		1	0		1	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850		0.944	
Flt Protected	0.950							0.992		0.950		
Satd. Flow (prot)	1770	1863	1583	0	3539	1583	0	3511	1583	1770	1758	0
Flt Permitted	0.950							0.845		0.255		
Satd. Flow (perm)	1770	1863	1583	0	3539	1583	0	2991	1583	475	1758	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		677			392			370			296	
Travel Time (s)		15.4			8.9			8.4			6.7	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	145	721	9	0	693	43	111	604	107	11	115	68
Shared Lane Traffic (%)												
Lane Group Flow (vph)	145	721	9	0	693	43	0	715	107	11	183	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	custom		NA	custom	Perm	NA	Perm	Perm	NA	
Protected Phases	7	4			8			2			6	
Permitted Phases			11			9	2		2	6		
Minimum Split (s)	11.0	34.0	31.0		31.0	27.0	36.0	36.0	36.0	35.5	35.5	
Total Split (s)	17.0	54.0	44.0		37.0	27.0	36.0	36.0	36.0	36.0	36.0	
Total Split (%)	18.9%	60.0%	48.9%		41.1%	30.0%	40.0%	40.0%	40.0%	40.0%	40.0%	
Maximum Green (s)	11.5	48.5	38.5		31.5	21.5	30.0	30.0	30.0	30.0	30.0	
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.5	1.5	1.5		1.5	1.5	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5		5.5	5.5		6.0	6.0	6.0	6.0	
Lead/Lag	Lag		Lag		Lead	Lag						
Lead-Lag Optimize?	Yes		Yes		Yes	Yes						
Walk Time (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Flash Dont Walk (s)		20.5			20.5		27.0	27.0	27.0	22.0	22.0	
Pedestrian Calls (#/hr)		0			0		0	0	0	0	0	
Act Effct Green (s)	11.5	48.5	38.5		31.5	21.5		30.0	30.0	30.0	30.0	
Actuated g/C Ratio	0.13	0.54	0.43		0.35	0.24		0.33	0.33	0.33	0.33	
v/c Ratio	0.64	0.72	0.01		0.56	0.11		0.72	0.20	0.07	0.31	

Lanes, Volumes, Timings  
4: 13th St & Folsom St

08/05/2022

Lane Group	Ø10	Ø12	Ø13
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Turn Type			
Protected Phases	10	12	13
Permitted Phases			
Minimum Split (s)	22.5	22.5	9.5
Total Split (s)	10.0	10.0	17.0
Total Split (%)	11%	11%	19%
Maximum Green (s)	5.5	5.5	12.5
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lead	
Lead-Lag Optimize?	Yes	Yes	
Walk Time (s)			
Flash Dont Walk (s)			
Pedestrian Calls (#/hr)			
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			

Lanes, Volumes, Timings  
4: 13th St & Folsom St

08/05/2022

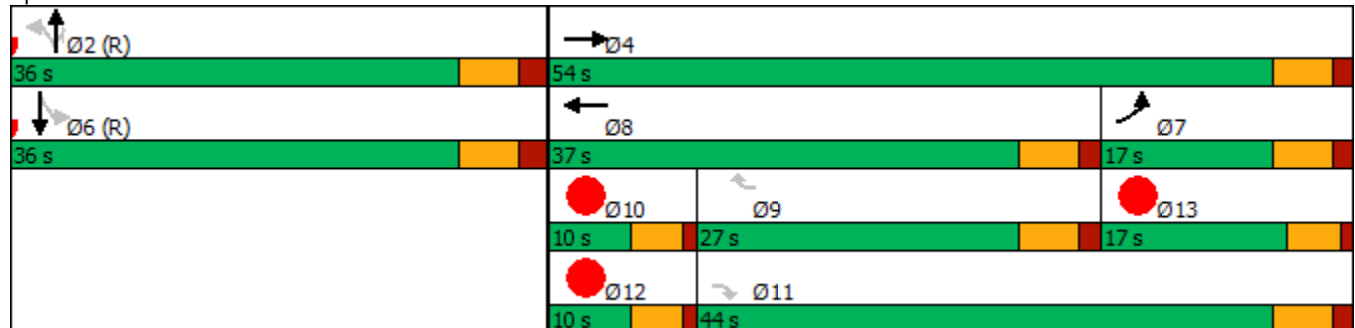


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	25.3	3.9	3.8		25.8	27.9		31.2	22.8	22.2	24.2	
Queue Delay	0.0	0.3	0.0		0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay	25.3	4.2	3.8		25.8	27.9		31.2	22.8	22.2	24.2	
LOS	C	A	A		C	C		C	C	C	C	
Approach Delay		7.7			25.9			30.1				24.1
Approach LOS		A			C			C				C
Queue Length 50th (ft)	69	84	1		165	19		185	43	4	77	
Queue Length 95th (ft)	m72	m74	m1		221	46		251	83	17	131	
Internal Link Dist (ft)		597			312			290				216
Turn Bay Length (ft)			110						40	80		
Base Capacity (vph)	226	1003	677		1238	378		997	527	158	586	
Starvation Cap Reductn	0	38	0		0	0		0	0	0	0	
Spillback Cap Reductn	0	0	0		0	0		0	0	0	0	
Storage Cap Reductn	0	0	0		0	0		0	0	0	0	
Reduced v/c Ratio	0.64	0.75	0.01		0.56	0.11		0.72	0.20	0.07	0.31	

Intersection Summary

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green  
 Natural Cycle: 95  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.72  
 Intersection Signal Delay: 21.0  
 Intersection LOS: C  
 Intersection Capacity Utilization 82.6%  
 ICU Level of Service E  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: 13th St & Folsom St



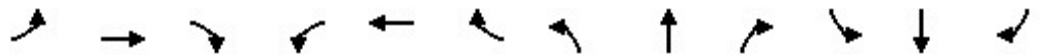
---

Lane Group	Ø10	Ø12	Ø13
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			
Intersection Summary			

---

Lanes, Volumes, Timings  
1: Duboce Ave & Valencia St

05/16/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↗			↖↗↘			↖	↗		↖	↗
Traffic Volume (vph)	0	383	42	130	1238	125	7	245	80	0	340	91
Future Volume (vph)	0	383	42	130	1238	125	7	245	80	0	340	91
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		85	0		100
Storage Lanes	0		0	0		0	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.987			0.987				0.850			0.850
Flt Protected					0.996			0.999				
Satd. Flow (prot)	0	1839	0	0	4999	0	0	1861	1583	0	1863	1583
Flt Permitted					0.735			0.988				
Satd. Flow (perm)	0	1839	0	0	3689	0	0	1840	1583	0	1863	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		392			179			576			376	
Travel Time (s)		8.9			4.1			13.1			8.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	416	46	141	1346	136	8	266	87	0	370	99
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	462	0	0	1623	0	0	274	87	0	370	99
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA		pm+pt	NA		Perm	NA	custom		NA	custom
Protected Phases		4		3	8			1	6		1	6
Permitted Phases				8			1					
Minimum Split (s)		33.0		9.5	49.0		30.0	30.0	9.5		30.0	9.5
Total Split (s)		39.0		10.0	49.0		41.0	41.0	15.0		41.0	15.0
Total Split (%)		43.3%		11.1%	54.4%		45.6%	45.6%	16.7%		45.6%	16.7%
Maximum Green (s)		34.0		5.5	43.0		35.5	35.5	9.5		35.5	9.5
Yellow Time (s)		4.0		3.5	4.0		4.0	4.0	4.0		4.0	4.0
All-Red Time (s)		1.0		1.0	2.0		1.5	1.5	1.5		1.5	1.5
Lost Time Adjust (s)		0.0			0.0			0.0	0.0		0.0	0.0
Total Lost Time (s)		5.0			6.0			5.5	5.5		5.5	5.5
Lead/Lag		Lead		Lag				Lag			Lag	
Lead-Lag Optimize?		Yes		Yes				Yes			Yes	
Walk Time (s)		11.0			26.0		4.5	4.5			4.5	
Flash Dont Walk (s)		17.0			17.0		16.0	16.0			16.0	
Pedestrian Calls (#/hr)		0			0		0	0			0	
Act Effct Green (s)		34.0			43.0			35.5	9.5		35.5	9.5
Actuated g/C Ratio		0.38			0.48			0.39	0.11		0.39	0.11
v/c Ratio		0.67			0.89			0.38	0.52		0.50	0.59

Lane Group	Ø5
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	5
Permitted Phases	
Minimum Split (s)	27.0
Total Split (s)	26.0
Total Split (%)	29%
Maximum Green (s)	21.5
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	

Lanes, Volumes, Timings  
 1: Duboce Ave & Valencia St

05/16/2022

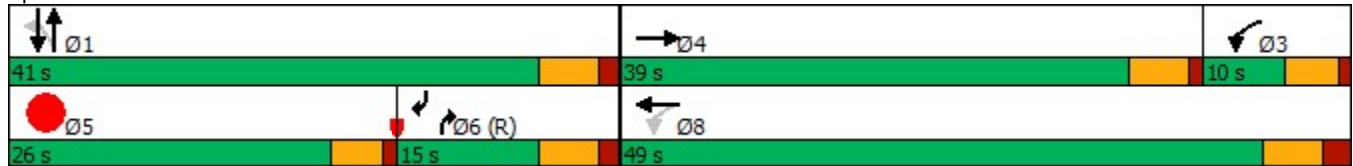


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		29.0			27.7			21.3	50.0		23.6	54.2
Queue Delay		0.0			0.0			0.0	0.0		0.0	0.0
Total Delay		29.0			27.7			21.3	50.0		23.6	54.2
LOS		C			C			C	D		C	D
Approach Delay		29.0			27.7			28.2			30.0	
Approach LOS		C			C			C			C	

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	0 (0%), Referenced to phase 2: and 6:SBR, Start of Green
Natural Cycle:	90
Control Type:	Pretimed
Maximum v/c Ratio:	0.89
Intersection Signal Delay:	28.3
Intersection Capacity Utilization	84.3%
Analysis Period (min)	15
Intersection LOS:	C
ICU Level of Service	E

Splits and Phases: 1: Duboce Ave & Valencia St





---

Lane Group	Ø5
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

---

Queues

1: Duboce Ave & Valencia St

05/16/2022



Lane Group	EBT	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	462	1623	274	87	370	99
v/c Ratio	0.67	0.89	0.38	0.52	0.50	0.59
Control Delay	29.0	27.7	21.3	50.0	23.6	54.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.0	27.7	21.3	50.0	23.6	54.2
Queue Length 50th (ft)	214	167	109	48	156	55
Queue Length 95th (ft)	322	m185	173	96	239	#119
Internal Link Dist (ft)	312	99	496		296	
Turn Bay Length (ft)				85		100
Base Capacity (vph)	694	1820	725	167	734	167
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.89	0.38	0.52	0.50	0.59

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

# Lanes, Volumes, Timings

## 2: Mission St & 13th St & US 101 NB Off-Ramp

05/16/2022



Lane Group	EBT	EBR	WBT	NBT	NBR	SBL	SBT	SBR	SWR	SWR2	Ø9	Ø10
Lane Configurations	↑↑↑		↑↑	↑↑↑	↑	↑↑	↑↑	↑	↑	↑		
Traffic Volume (vph)	570	31	942	301	118	620	440	137	443	783		
Future Volume (vph)	570	31	942	301	118	620	440	137	443	783		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Storage Length (ft)		100			0	0		0	0			
Storage Lanes		0			1	2		1	2			
Taper Length (ft)						25						
Lane Util. Factor	0.91	0.91	0.95	0.91	1.00	0.97	0.95	1.00	1.00	1.00		
Frt	0.992				0.850			0.850		0.850		
Flt Protected						0.950						
Satd. Flow (prot)	4540	0	3185	4577	1425	3090	3185	1425	1676	1425		
Flt Permitted						0.950						
Satd. Flow (perm)	4540	0	3185	4577	1425	3090	3185	1425	1676	1425		
Right Turn on Red		No						No		Yes		
Satd. Flow (RTOR)										778		
Link Speed (mph)	25		25	25			25					
Link Distance (ft)	375		332	360			218					
Travel Time (s)	10.2		9.1	9.8			5.9					
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Adj. Flow (vph)	570	31	942	301	118	620	440	137	443	783		
Shared Lane Traffic (%)												
Lane Group Flow (vph)	601	0	942	301	118	620	440	137	443	783		
Enter Blocked Intersection	2 veh	No	No	No	No	2 veh	No	No	No	No		
Lane Alignment	Left	Right	L NA	Left	Right	Left	Left	Right	R NA	Right		
Median Width(ft)	15		10	24			24					
Link Offset(ft)	30		-25	0			0					
Crosswalk Width(ft)	16		16	16			16					
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14		
Turning Speed (mph)		9			9	15		11	9	9		
Turn Type	NA		NA	NA	Perm	Prot	NA	Perm	Prot	Free		
Protected Phases	4		8!	2		1	6		8!		9	10
Permitted Phases					2			6		Free		
Minimum Split (s)	33.0		28.0	22.0	22.0	17.0	38.0	38.0	28.0		3.0	3.0
Total Split (s)	34.0		34.0	22.0	22.0	31.0	53.0	53.0	34.0		3.0	3.0
Total Split (%)	37.8%		37.8%	24.4%	24.4%	34.4%	58.9%	58.9%	37.8%		3%	3%
Maximum Green (s)	26.5		26.5	15.0	15.0	24.0	46.0	46.0	26.5		1.0	1.0
Yellow Time (s)	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0		2.0	2.0
All-Red Time (s)	3.5		3.5	3.0	3.0	3.0	3.0	3.0	3.5		0.0	0.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Total Lost Time (s)	7.5		7.5	7.0	7.0	7.0	7.0	7.0	7.5			
Lead/Lag				Lag	Lag						Lead	
Lead-Lag Optimize?				Yes	Yes						Yes	
Walk Time (s)	7.0			7.0	7.0		7.0	7.0				7.0
Flash Dont Walk (s)	12.0			7.0	7.0		24.0	24.0				11.0
Pedestrian Calls (#/hr)	0			0	0		0	0				0
Act Effct Green (s)	26.5		26.5	15.0	15.0	24.0	46.0	46.0	26.5	90.0		
Actuated g/C Ratio	0.29		0.29	0.17	0.17	0.27	0.51	0.51	0.29	1.00		
v/c Ratio	0.45		1.01	0.40	0.50	0.75	0.27	0.19	0.90	0.55		

Lanes, Volumes, Timings  
 2: Mission St & 13th St & US 101 NB Off-Ramp

05/16/2022

Lane Group	Ø11
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	11
Permitted Phases	
Minimum Split (s)	9.5
Total Split (s)	34.0
Total Split (%)	38%
Maximum Green (s)	29.5
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	

Lanes, Volumes, Timings

2: Mission St & 13th St & US 101 NB Off-Ramp

05/16/2022



Lane Group	EBT	EBR	WBT	NBT	NBR	SBL	SBT	SBR	SWR	SWR2	Ø9	Ø10
Control Delay	19.7		63.8	35.2	42.2	37.0	13.0	12.8	54.0	1.5		
Queue Delay	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Total Delay	19.7		63.8	35.2	42.2	37.0	13.0	12.8	54.0	1.5		
LOS	B		E	D	D	D	B	B	D	A		
Approach Delay	19.7		63.8	37.2			25.4					
Approach LOS	B		E	D			C					

Intersection Summary

Area Type: CBD

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 82 (91%), Referenced to phase 2:NBT and 6:SBT, Start of Red

Natural Cycle: 80

Control Type: Pretimed

Maximum v/c Ratio: 1.01

Intersection Signal Delay: 32.6

Intersection LOS: C

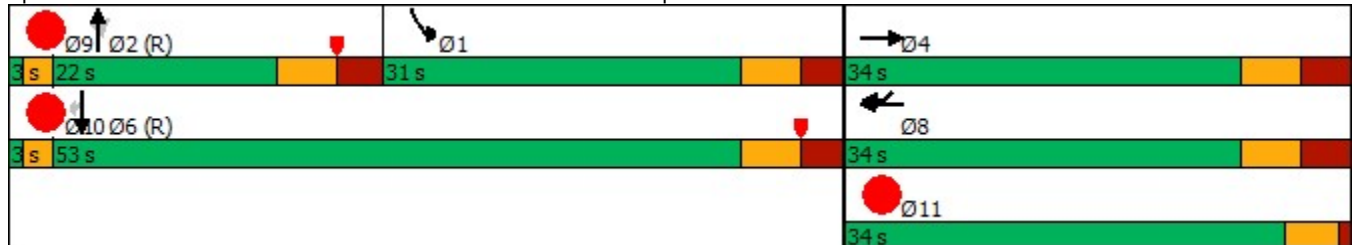
Intersection Capacity Utilization 109.7%

ICU Level of Service H

Analysis Period (min) 15

! Phase conflict between lane groups.

Splits and Phases: 2: Mission St & 13th St & US 101 NB Off-Ramp



---

Lane Group	Ø11
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

---

Queues

2: Mission St & 13th St & US 101 NB Off-Ramp

05/16/2022















Lane Group	EBT	WBT	NBT	NBR	SBL	SBT	SBR	SWR	SWR2
Lane Group Flow (vph)	601	942	301	118	620	440	137	443	783
v/c Ratio	0.45	1.01	0.40	0.50	0.75	0.27	0.19	0.90	0.55
Control Delay	19.7	63.8	35.2	42.2	37.0	13.0	12.8	54.0	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.7	63.8	35.2	42.2	37.0	13.0	12.8	54.0	1.5
Queue Length 50th (ft)	57	~283	56	62	166	71	40	241	0
Queue Length 95th (ft)	100	#418	84	117	228	101	74	#417	0
Internal Link Dist (ft)	295	252	280			138			
Turn Bay Length (ft)									
Base Capacity (vph)	1336	937	762	237	824	1627	728	493	1425
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.45	1.01	0.40	0.50	0.75	0.27	0.19	0.90	0.55

Intersection Summary

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

Lanes, Volumes, Timings  
3: South Van Ness Ave & 13th St

05/16/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑↑	↑↑	↑↑			↑↑			↑↑↑	↑
Traffic Volume (vph)	0	647	800	230	820	235	0	443	102	24	1140	88
Future Volume (vph)	0	647	800	230	820	235	0	443	102	24	1140	88
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		250	110		0	0		0	0		100
Storage Lanes	0		2	1		0	0		0	0		1
Taper Length (ft)	25			50			25			25		
Lane Util. Factor	1.00	0.95	0.88	0.97	0.95	0.95	1.00	0.95	0.95	0.91	0.91	1.00
Frt			0.850		0.967			0.972				0.850
Flt Protected				0.950							0.999	
Satd. Flow (prot)	0	3185	2508	3090	3080	0	0	3096	0	0	4572	1425
Flt Permitted				0.950							0.919	
Satd. Flow (perm)	0	3185	2508	3090	3080	0	0	3096	0	0	4206	1425
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		316			677			241			564	
Travel Time (s)		8.6			18.5			6.6			15.4	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	647	800	230	820	235	0	443	102	24	1140	88
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	647	800	230	1055	0	0	545	0	0	1164	88
Enter Blocked Intersection	No	No	No	No	2 veh	No	No	No	No	No	2 veh	1 veh
Lane Alignment	Left	Left	Right	Left	L NA	Right	Left	Left	Right	Left	Left	R NA
Median Width(ft)		24			24			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Turning Speed (mph)	15		15	15		12	15		9	15		15
Turn Type		NA	Prot	Prot	NA			NA		Perm	NA	Prot
Protected Phases		4	4	3	8			2			6	6
Permitted Phases										6		
Minimum Split (s)		32.0	32.0	13.0	26.0			30.0		30.0	30.0	30.0
Total Split (s)		36.0	36.0	14.0	50.0			40.0		40.0	40.0	40.0
Total Split (%)		40.0%	40.0%	15.6%	55.6%			44.4%		44.4%	44.4%	44.4%
Maximum Green (s)		30.0	30.0	8.0	44.0			34.0		34.0	34.0	34.0
Yellow Time (s)		4.0	4.0	4.0	4.0			4.0		4.0	4.0	4.0
All-Red Time (s)		2.0	2.0	2.0	2.0			2.0		2.0	2.0	2.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0			0.0		0.0	0.0	0.0
Total Lost Time (s)		6.0	6.0	6.0	6.0			6.0		6.0	6.0	6.0
Lead/Lag		Lead	Lead	Lag								
Lead-Lag Optimize?												
Walk Time (s)		5.0	5.0		5.0			6.0		6.0	6.0	6.0
Flash Dont Walk (s)		20.0	20.0		15.0			18.0		16.0	16.0	16.0
Pedestrian Calls (#/hr)		0	0		0			0		0	0	0
Act Effct Green (s)		30.0	30.0	8.0	44.0			34.0		34.0	34.0	34.0
Actuated g/C Ratio		0.33	0.33	0.09	0.49			0.38		0.38	0.38	0.38
v/c Ratio		0.61	0.96	0.84	0.70			0.47		0.73	0.16	



Lanes, Volumes, Timings  
 3: South Van Ness Ave & 13th St

05/16/2022

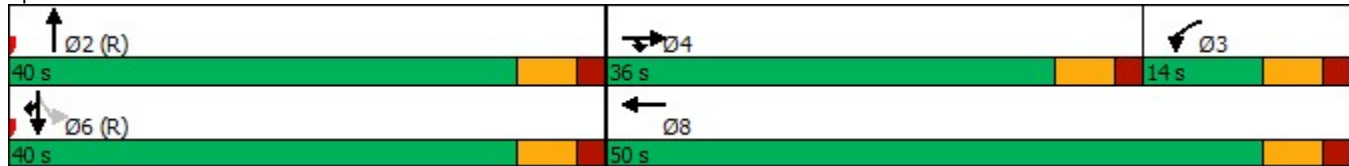


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		28.1	53.0	64.3	20.7			22.8			27.4	19.7
Queue Delay		0.0	0.0	0.0	0.0			0.0			0.0	0.0
Total Delay		28.1	53.0	64.3	20.7			22.8			27.4	19.7
LOS		C	D	E	C			C			C	B
Approach Delay		41.9			28.5			22.8			26.9	
Approach LOS		D			C			C			C	

Intersection Summary

Area Type:	CBD
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green, Master Intersection
Natural Cycle:	75
Control Type:	Pretimed
Maximum v/c Ratio:	0.96
Intersection Signal Delay:	31.6
Intersection LOS:	C
Intersection Capacity Utilization	87.0%
ICU Level of Service	E
Analysis Period (min)	15

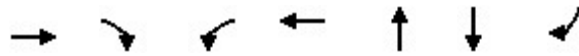
Splits and Phases: 3: South Van Ness Ave & 13th St



# Queues

## 3: South Van Ness Ave & 13th St

05/16/2022
























Lane Group	EBT	EBR	WBL	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	647	800	230	1055	545	1164	88
v/c Ratio	0.61	0.96	0.84	0.70	0.47	0.73	0.16
Control Delay	28.1	53.0	64.3	20.7	22.8	27.4	19.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.1	53.0	64.3	20.7	22.8	27.4	19.7
Queue Length 50th (ft)	160	250	74	346	121	204	33
Queue Length 95th (ft)	218	#385	#136	411	167	257	66
Internal Link Dist (ft)	236			597	161	484	
Turn Bay Length (ft)		250	110				100
Base Capacity (vph)	1061	836	274	1505	1169	1588	538
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.96	0.84	0.70	0.47	0.73	0.16

### Intersection Summary

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

Lanes, Volumes, Timings  
4: 13th St & Folsom St

08/05/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	170	632	118	0	982	40	134	535	116	35	206	146
Future Volume (vph)	170	632	118	0	982	40	134	535	116	35	206	146
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		200	0		0	0		40	80		0
Storage Lanes	1		1	0		1	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850		0.938	
Flt Protected	0.950							0.990		0.950		
Satd. Flow (prot)	1770	3539	1583	0	5085	1583	0	3504	1583	1770	1747	0
Flt Permitted	0.950							0.709		0.317		
Satd. Flow (perm)	1770	3539	1583	0	5085	1583	0	2509	1583	590	1747	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		677			392			370			296	
Travel Time (s)		15.4			8.9			8.4			6.7	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	170	632	118	0	982	40	134	535	116	35	206	146
Shared Lane Traffic (%)												
Lane Group Flow (vph)	170	632	118	0	982	40	0	669	116	35	352	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm		NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases	7	4			8			2			6	
Permitted Phases			4			8	2		2	6		
Minimum Split (s)	11.0	31.0	31.0		27.0	27.0	35.5	35.5	35.5	35.5	35.5	
Total Split (s)	16.0	49.0	49.0		33.0	33.0	41.0	41.0	41.0	41.0	41.0	
Total Split (%)	17.8%	54.4%	54.4%		36.7%	36.7%	45.6%	45.6%	45.6%	45.6%	45.6%	
Maximum Green (s)	10.0	43.0	43.0		27.0	27.0	34.5	34.5	34.5	34.5	34.5	
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0	2.5	2.5	2.5	2.5	2.5	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0		6.5	6.5	6.5	6.5	
Lead/Lag	Lag				Lead	Lead						
Lead-Lag Optimize?	Yes				Yes	Yes						
Walk Time (s)		8.0	8.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Flash Dont Walk (s)		17.0	17.0		16.0	16.0	24.0	24.0	24.0	24.0	24.0	
Pedestrian Calls (#/hr)		0	0		0	0	0	0	0	0	0	
Act Effct Green (s)	10.0	43.0	43.0		27.0	27.0		34.5	34.5	34.5	34.5	
Actuated g/C Ratio	0.11	0.48	0.48		0.30	0.30		0.38	0.38	0.38	0.38	
v/c Ratio	0.87	0.37	0.16		0.64	0.08		0.70	0.19	0.15	0.53	

Lanes, Volumes, Timings  
4: 13th St & Folsom St

08/05/2022

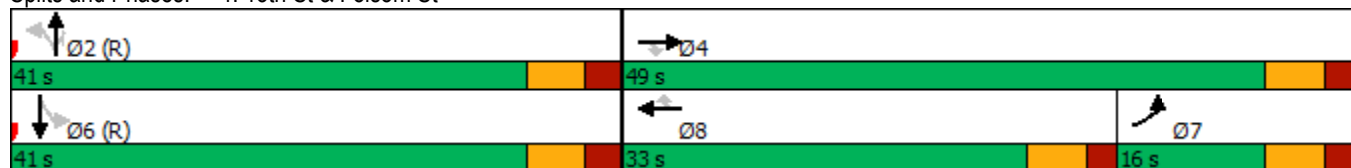


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	82.6	25.1	23.5		29.7	23.4		28.0	19.6	20.5	25.0	
Queue Delay	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay	82.6	25.1	23.5		29.7	23.4		28.0	19.6	20.5	25.0	
LOS	F	C	C		C	C		C	B	C	C	
Approach Delay		35.5			29.4			26.8				24.6
Approach LOS		D			C			C				C
Queue Length 50th (ft)	81	131	42		176	16		165	43	13	152	
Queue Length 95th (ft)	m#198	186	m79		221	40		230	81	35	236	
Internal Link Dist (ft)		597			312			290				216
Turn Bay Length (ft)	100		200						40	80		
Base Capacity (vph)	196	1690	756		1525	474		961	606	226	669	
Starvation Cap Reductn	0	0	0		0	0		0	0	0	0	
Spillback Cap Reductn	0	0	0		0	0		0	0	0	0	
Storage Cap Reductn	0	0	0		0	0		0	0	0	0	
Reduced v/c Ratio	0.87	0.37	0.16		0.64	0.08		0.70	0.19	0.15	0.53	

Intersection Summary

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 67 (74%), Referenced to phase 2:NBT and 6:SBTL, Start of Green  
 Natural Cycle: 75  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.87  
 Intersection Signal Delay: 29.9  
 Intersection LOS: C  
 Intersection Capacity Utilization 87.7%  
 ICU Level of Service E  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: 13th St & Folsom St



Lanes, Volumes, Timings  
1: Duboce Ave & Valencia St

05/30/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↗			↖	↖		↖	↖		↖	↖
Traffic Volume (vph)	0	383	42	130	1238	125	7	245	80	0	340	91
Future Volume (vph)	0	383	42	130	1238	125	7	245	80	0	340	91
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		80	100		150	0		100
Storage Lanes	0		0	0		1	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.987				0.850			0.850			0.850
Flt Protected					0.995			0.999				
Satd. Flow (prot)	0	1839	0	0	3522	1583	0	1861	1583	0	1863	1583
Flt Permitted					0.639			0.988				
Satd. Flow (perm)	0	1839	0	0	2262	1583	0	1840	1583	0	1863	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		392			179			576			376	
Travel Time (s)		8.9			4.1			13.1			8.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	416	46	141	1346	136	8	266	87	0	370	99
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	462	0	0	1487	136	0	274	87	0	370	99
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA		pm+pt	NA	custom	Perm	NA	custom		NA	custom
Protected Phases		4		3	8	3		1	6		1	6
Permitted Phases				8			1					
Minimum Split (s)		26.0		10.5	21.5	10.5	25.0	25.0	10.0		25.0	10.0
Total Split (s)		34.0		16.0	50.0	16.0	40.0	40.0	15.0		40.0	15.0
Total Split (%)		37.8%		17.8%	55.6%	17.8%	44.4%	44.4%	16.7%		44.4%	16.7%
Maximum Green (s)		29.0		11.5	44.0	11.5	34.5	34.5	9.5		34.5	9.5
Yellow Time (s)		4.0		3.5	4.0	3.5	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)		1.0		1.0	2.0	1.0	1.5	1.5	1.5		1.5	1.5
Lost Time Adjust (s)		0.0			0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)		5.0			6.0	4.5		5.5	5.5		5.5	5.5
Lead/Lag		Lead		Lag		Lag		Lag			Lag	
Lead-Lag Optimize?		Yes		Yes		Yes		Yes			Yes	
Walk Time (s)		0.0			0.0		0.0	0.0			0.0	
Flash Dont Walk (s)		20.5			15.5		19.5	19.5			19.5	
Pedestrian Calls (#/hr)		0			0		0	0			0	
Act Effct Green (s)		29.0			44.0	11.5		34.5	9.5		34.5	9.5
Actuated g/C Ratio		0.32			0.49	0.13		0.38	0.11		0.38	0.11
v/c Ratio		0.78			1.19	0.67		0.39	0.52		0.52	0.59

Lane Group	Ø5
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	5
Permitted Phases	
Minimum Split (s)	25.0
Total Split (s)	25.0
Total Split (%)	28%
Maximum Green (s)	20.5
Yellow Time (s)	3.5
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	

Lanes, Volumes, Timings  
1: Duboce Ave & Valencia St

05/30/2022

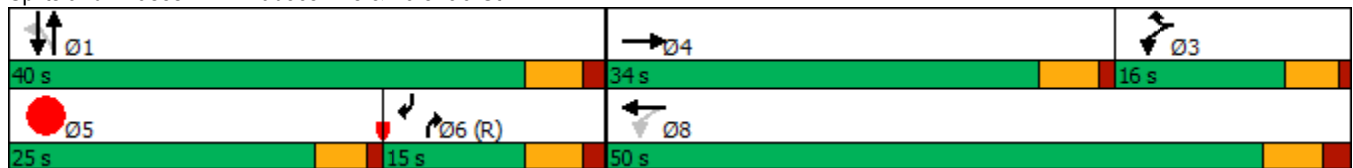


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		38.5			111.6	31.1		22.2	50.0		24.6	54.2
Queue Delay		0.0			0.0	0.0		0.0	0.0		0.0	0.0
Total Delay		38.5			111.6	31.1		22.2	50.0		24.6	54.2
LOS		D			F	C		C	D		C	D
Approach Delay		38.5			104.9			28.9			30.8	
Approach LOS		D			F			C			C	
Queue Length 50th (ft)		236			~260	56		111	48		159	55
Queue Length 95th (ft)		#383			m#189	m59		176	96		244	#119
Internal Link Dist (ft)		312			99			496			296	
Turn Bay Length (ft)						80			150			100
Base Capacity (vph)		592			1245	202		705	167		714	167
Starvation Cap Reductn		0			0	0		0	0		0	0
Spillback Cap Reductn		0			0	0		0	0		0	0
Storage Cap Reductn		0			0	0		0	0		0	0
Reduced v/c Ratio		0.78			1.19	0.67		0.39	0.52		0.52	0.59

Intersection Summary

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 0 (0%), Referenced to phase 2: and 6:SBR, Start of Green  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.19  
 Intersection Signal Delay: 73.0  
 Intersection LOS: E  
 Intersection Capacity Utilization 93.0%  
 ICU Level of Service F  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Duboce Ave & Valencia St



---

Lane Group	Ø5
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

---



Lanes, Volumes, Timings

2: Mission St & 13th St & US 101 NB Off-Ramp

05/30/2022



Lane Group	EBT	EBR	WBT	NBT	NBR	SBL	SBT	SBR	SWR	SWR2	Ø11
Lane Configurations	↑↑	↑	↑	↑↑↑	↑	↑↑	↑	↑	↑	↑	
Traffic Volume (vph)	570	31	942	301	118	620	440	137	443	783	
Future Volume (vph)	570	31	942	301	118	620	440	137	443	783	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Storage Length (ft)		90			0	0		0	0		
Storage Lanes		1			1	2		1	2		
Taper Length (ft)						25					
Lane Util. Factor	0.95	1.00	1.00	0.91	1.00	0.97	1.00	1.00	1.00	1.00	
Frt		0.850			0.850			0.850		0.850	
Flt Protected						0.950					
Satd. Flow (prot)	3185	1425	1676	4577	1425	3090	1676	1425	1676	1425	
Flt Permitted						0.950					
Satd. Flow (perm)	3185	1425	1676	4577	1425	3090	1676	1425	1676	1425	
Right Turn on Red		No						No		Yes	
Satd. Flow (RTOR)										778	
Link Speed (mph)	25		25	25			25				
Link Distance (ft)	375		332	360			218				
Travel Time (s)	10.2		9.1	9.8			5.9				
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	570	31	942	301	118	620	440	137	443	783	
Shared Lane Traffic (%)											
Lane Group Flow (vph)	570	31	942	301	118	620	440	137	443	783	
Enter Blocked Intersection	2 veh	No	No	No	No	2 veh	No	No	No	No	
Lane Alignment	Left	Right	L NA	Left	Right	Left	Left	Right	R NA	Right	
Median Width(ft)	15		10	24			24				
Link Offset(ft)	30		-25	0			0				
Crosswalk Width(ft)	16		16	16			16				
Two way Left Turn Lane											
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	
Turning Speed (mph)		9			9	15		11	9	9	
Turn Type	NA	custom	NA	NA	Perm	Prot	NA	Perm	Prot	Free	
Protected Phases	4		8!	2		1	6		8!		11
Permitted Phases		12			2			6		Free	
Minimum Split (s)	22.5	8.5	24.0	26.0	26.0	21.0	37.0	37.0	24.0		9.5
Total Split (s)	41.0	31.0	41.0	27.0	27.0	22.0	49.0	49.0	41.0		10.0
Total Split (%)	45.6%	34.4%	45.6%	30.0%	30.0%	24.4%	54.4%	54.4%	45.6%		11%
Maximum Green (s)	33.5	23.5	33.5	20.0	20.0	15.0	42.0	42.0	33.5		5.5
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		3.5
All-Red Time (s)	3.5	3.5	3.5	3.0	3.0	3.0	3.0	3.0	3.5		1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	7.5	7.5	7.5	7.0	7.0	7.0	7.0	7.0	7.5		
Lead/Lag		Lag									Lead
Lead-Lag Optimize?		Yes									Yes
Walk Time (s)	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Flash Dont Walk (s)	15.0		16.5	19.0	19.0		30.0	30.0	16.5		
Pedestrian Calls (#/hr)	0		0	0	0		0	0	0		
Act Effct Green (s)	33.5	23.5	33.5	20.0	20.0	15.0	42.0	42.0	33.5	90.0	
Actuated g/C Ratio	0.37	0.26	0.37	0.22	0.22	0.17	0.47	0.47	0.37	1.00	
v/c Ratio	0.48	0.08	1.51	0.30	0.37	1.20	0.56	0.21	0.71	0.55	

Lanes, Volumes, Timings

2: Mission St & 13th St & US 101 NB Off-Ramp

05/30/2022

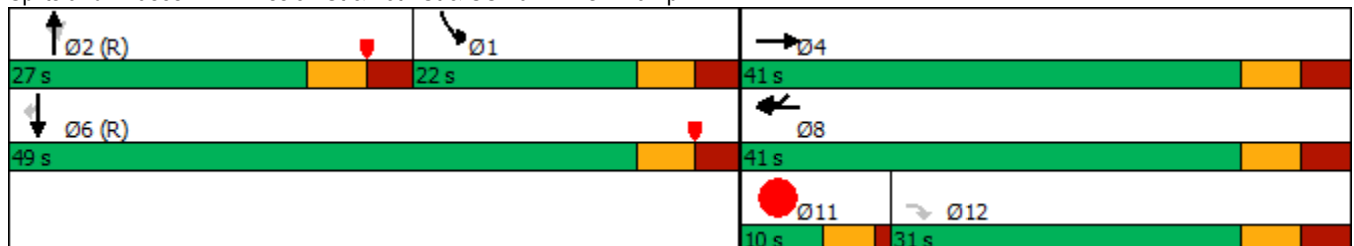


Lane Group	EBT	EBR	WBT	NBT	NBR	SBL	SBT	SBR	SWR	SWR2	Ø11
Control Delay	10.4	13.9	264.4	30.1	33.8	143.8	20.9	15.2	31.7	1.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	10.4	13.9	264.4	30.1	33.8	143.8	20.9	15.2	31.7	1.5	
LOS	B	B	F	C	C	F	C	B	C	A	
Approach Delay	10.6		264.4	31.1			83.9				
Approach LOS	B		F	C			F				
Queue Length 50th (ft)	28	6	~753	52	57	~223	174	44	211	0	
Queue Length 95th (ft)	m83	m13	#984	78	108	#328	267	81	324	0	
Internal Link Dist (ft)	295		252	280			138				
Turn Bay Length (ft)		90									
Base Capacity (vph)	1185	372	623	1017	316	515	782	665	623	1425	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.48	0.08	1.51	0.30	0.37	1.20	0.56	0.21	0.71	0.55	

Intersection Summary













Area Type: CBD  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Red  
 Natural Cycle: 150  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.51  
 Intersection Signal Delay: 87.6 Intersection LOS: F  
 Intersection Capacity Utilization 135.8% ICU Level of Service H  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.  
 ! Phase conflict between lane groups.

Splits and Phases: 2: Mission St & 13th St & US 101 NB Off-Ramp



Lanes, Volumes, Timings  
3: South Van Ness Ave & 13th St

05/30/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↑↑	↑	↑	↑		↑↑			↑↑↑	↑
Traffic Volume (vph)	0	647	800	230	820	235	0	443	102	0	1140	88
Future Volume (vph)	0	647	800	230	820	235	0	443	102	0	1140	88
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		250	0		175	0		0	0		100
Storage Lanes	0		1	1		1	0		0	0		1
Taper Length (ft)	25			50			25			25		
Lane Util. Factor	1.00	1.00	0.88	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.91	1.00
Frt			0.850			0.850		0.972				0.850
Flt Protected				0.950								
Satd. Flow (prot)	0	1676	2508	1593	1676	1425	0	3096	0	0	4577	1425
Flt Permitted				0.950								
Satd. Flow (perm)	0	1676	2508	1593	1676	1425	0	3096	0	0	4577	1425
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25				25
Link Distance (ft)		316			677			241				564
Travel Time (s)		8.6			18.5			6.6				15.4
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	647	800	230	820	235	0	443	102	0	1140	88
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	647	800	230	820	235	0	545	0	0	1140	88
Enter Blocked Intersection	No	No	No	No	2 veh	No	No	No	No	No	2 veh	1 veh
Lane Alignment	Left	Left	Right	Left	L NA	Right	Left	Left	Right	Left	Left	R NA
Median Width(ft)		12			12			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Turning Speed (mph)	15		15	15		12	15		9	15		15
Turn Type		NA	Prot	Prot	NA	custom		NA			NA	Prot
Protected Phases		4	4	3	8	3		2			6	6
Permitted Phases												
Minimum Split (s)		31.0	31.0	13.0	31.0	13.0		31.0			25.0	25.0
Total Split (s)		37.0	37.0	22.0	59.0	22.0		31.0			31.0	31.0
Total Split (%)		41.1%	41.1%	24.4%	65.6%	24.4%		34.4%			34.4%	34.4%
Maximum Green (s)		31.0	31.0	16.0	53.0	16.0		25.0			25.0	25.0
Yellow Time (s)		4.0	4.0	4.0	4.0	4.0		4.0			4.0	4.0
All-Red Time (s)		2.0	2.0	2.0	2.0	2.0		2.0			2.0	2.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0		0.0			0.0	0.0
Total Lost Time (s)		6.0	6.0	6.0	6.0	6.0		6.0			6.0	6.0
Lead/Lag		Lead	Lead	Lag		Lag						
Lead-Lag Optimize?												
Walk Time (s)		0.0	0.0		0.0			0.0			0.0	0.0
Flash Dont Walk (s)		24.5	24.5		24.5			24.5			18.5	18.5
Pedestrian Calls (#/hr)		0	0		0			0			0	0
Act Effect Green (s)		31.0	31.0	16.0	53.0	16.0		25.0			25.0	25.0
Actuated g/C Ratio		0.34	0.34	0.18	0.59	0.18		0.28			0.28	0.28
v/c Ratio		1.12	0.93	0.81	0.83	0.93		0.63			0.90	0.22

Lanes, Volumes, Timings  
 3: South Van Ness Ave & 13th St

05/30/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		105.5	47.0	35.8	16.7	54.0		32.4			42.1	26.9
Queue Delay		0.0	0.0	0.0	0.0	0.0		0.0			0.0	0.0
Total Delay		105.5	47.0	35.8	16.7	54.0		32.4			42.1	26.9
LOS		F	D	D	B	D		C			D	C
Approach Delay		73.2			26.9			32.4			41.0	
Approach LOS		E			C			C			D	
Queue Length 50th (ft)		~428	245	115	155	130		142			227	38
Queue Length 95th (ft)		#636	#375	m#184	#298	m#211		198			#309	78
Internal Link Dist (ft)		236			597			161			484	
Turn Bay Length (ft)			250			175						100
Base Capacity (vph)		577	863	283	986	253		860			1271	395
Starvation Cap Reductn		0	0	0	0	0		0			0	0
Spillback Cap Reductn		0	0	0	0	0		0			0	0
Storage Cap Reductn		0	0	0	0	0		0			0	0
Reduced v/c Ratio		1.12	0.93	0.81	0.83	0.93		0.63			0.90	0.22

Intersection Summary























Area Type: CBD  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green, Master Intersection  
 Natural Cycle: 90  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.12  
 Intersection Signal Delay: 46.3  
 Intersection LOS: D  
 Intersection Capacity Utilization 91.5%  
 ICU Level of Service F  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: South Van Ness Ave & 13th St



Lanes, Volumes, Timings  
4: 13th St & Folsom St

08/05/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	170	632	118	0	982	40	134	535	116	35	206	146
Future Volume (vph)	170	632	118	0	982	40	134	535	116	35	206	146
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		110	0		0	0		40	80		0
Storage Lanes	1		1	0		1	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850		0.938	
Flt Protected	0.950							0.990		0.950		
Satd. Flow (prot)	1770	1863	1583	0	3539	1583	0	3504	1583	1770	1747	0
Flt Permitted	0.950							0.679		0.284		
Satd. Flow (perm)	1770	1863	1583	0	3539	1583	0	2403	1583	529	1747	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		677			392			370			296	
Travel Time (s)		15.4			8.9			8.4			6.7	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	170	632	118	0	982	40	134	535	116	35	206	146
Shared Lane Traffic (%)												
Lane Group Flow (vph)	170	632	118	0	982	40	0	669	116	35	352	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	custom		NA	custom	Perm	NA	Perm	Perm	NA	
Protected Phases	7	4			8			2			6	
Permitted Phases			11			9	2		2	6		
Minimum Split (s)	11.0	26.0	31.0		26.0	27.0	33.0	33.0	33.0	28.0	28.0	
Total Split (s)	17.0	54.0	44.0		37.0	27.0	36.0	36.0	36.0	36.0	36.0	
Total Split (%)	18.9%	60.0%	48.9%		41.1%	30.0%	40.0%	40.0%	40.0%	40.0%	40.0%	
Maximum Green (s)	11.5	48.5	38.5		31.5	21.5	30.0	30.0	30.0	30.0	30.0	
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.5	1.5	1.5		1.5	1.5	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.5	5.5	5.5		5.5	5.5		6.0	6.0	6.0	6.0	
Lead/Lag	Lag		Lag		Lead	Lag						
Lead-Lag Optimize?	Yes		Yes		Yes	Yes						
Walk Time (s)		0.0			0.0		0.0	0.0	0.0	0.0	0.0	
Flash Dont Walk (s)		20.5			20.5		27.0	27.0	27.0	22.0	22.0	
Pedestrian Calls (#/hr)		0			0		0	0	0	0	0	
Act Effct Green (s)	11.5	48.5	38.5		31.5	21.5		30.0	30.0	30.0	30.0	
Actuated g/C Ratio	0.13	0.54	0.43		0.35	0.24		0.33	0.33	0.33	0.33	
v/c Ratio	0.75	0.63	0.17		0.79	0.11		0.84	0.22	0.20	0.60	

Lanes, Volumes, Timings  
4: 13th St & Folsom St

08/05/2022

Lane Group	Ø10	Ø12	Ø13
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Turn Type			
Protected Phases	10	12	13
Permitted Phases			
Minimum Split (s)	22.5	22.5	9.5
Total Split (s)	10.0	10.0	17.0
Total Split (%)	11%	11%	19%
Maximum Green (s)	5.5	5.5	12.5
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lead	
Lead-Lag Optimize?	Yes	Yes	
Walk Time (s)			
Flash Dont Walk (s)			
Pedestrian Calls (#/hr)			
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			

# Lanes, Volumes, Timings

## 4: 13th St & Folsom St

08/05/2022

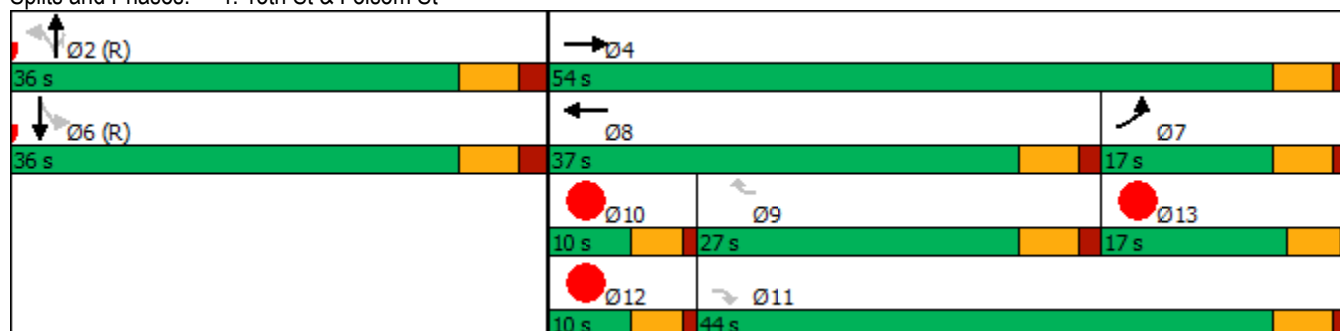


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	37.2	5.2	5.7		32.0	27.8		38.7	23.0	25.1	30.3	
Queue Delay	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay	37.2	5.2	5.7		32.0	27.8		38.7	23.0	25.1	30.3	
LOS	D	A	A		C	C		D	C	C	C	
Approach Delay		11.2			31.8			36.4				29.9
Approach LOS		B			C			D				C
Queue Length 50th (ft)	99	75	15		260	18		183	47	14	165	
Queue Length 95th (ft)	m112	m76	m18		338	44		#278	88	39	257	
Internal Link Dist (ft)		597			312			290				216
Turn Bay Length (ft)			110						40	80		
Base Capacity (vph)	226	1003	677		1238	378		801	527	176	582	
Starvation Cap Reductn	0	0	0		0	0		0	0	0	0	
Spillback Cap Reductn	0	0	0		0	0		0	0	0	0	
Storage Cap Reductn	0	0	0		0	0		0	0	0	0	
Reduced v/c Ratio	0.75	0.63	0.17		0.79	0.11		0.84	0.22	0.20	0.60	

### Intersection Summary

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green  
 Natural Cycle: 95  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.84  
 Intersection Signal Delay: 26.6  
 Intersection LOS: C  
 Intersection Capacity Utilization 94.2%  
 ICU Level of Service F  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

### Splits and Phases: 4: 13th St & Folsom St

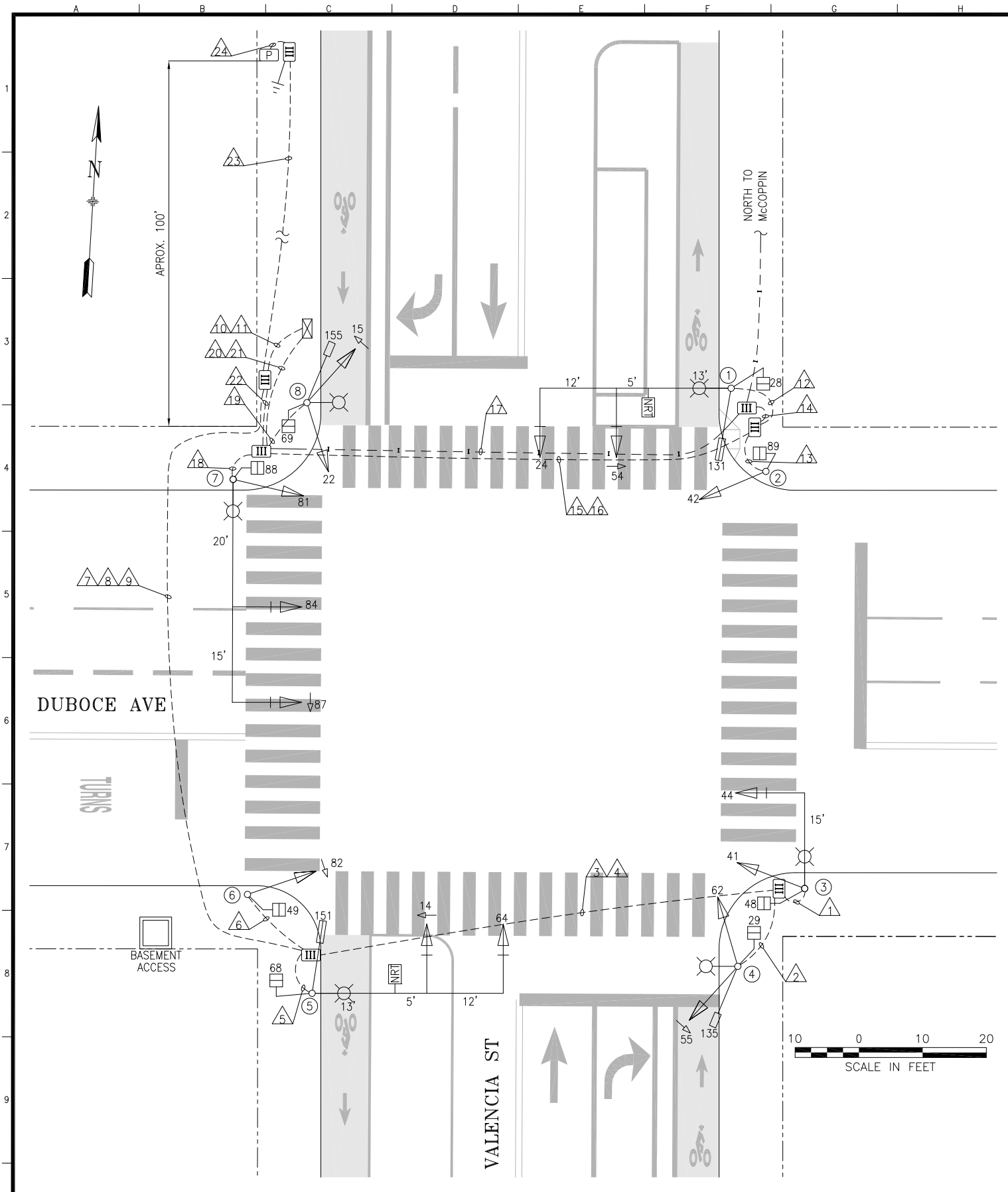


---

Lane Group	Ø10	Ø12	Ø13
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			
Intersection Summary			

---





POLE AND EQUIPMENT SCHEDULE											
POLE No.	TYPE OF POLE	LUMINAIRE VOLTAGE/WATTAGE	VEHICLE SIGNAL					PEDESTRIAN SIGNAL			REMARKS
			No.	TYPE	MOUNTING	VISORS	LOUVERS	No.	TYPE	MOUNTING	
①	24-4-100 WITH 30' MA AND 6' LA	240V/108W	131 24 54 NRT	3S12" BIKE 3S12" RA 3S12" RA IS 24"X24"	SV-1-T MAS MAS MAC	T T T		28	1S-COUNT	SP-1	BACKPLATE BACKPLATE
②	1-A (10')		42	3S12"	TV-1-T	T		89	1S-COUNT	SP-1	
③	17-2-100 WITH 15' MA AND 6' LA	240V/108W	41 44	3S12" 3S12"	SV-1-T MAS	T T		48	1S-COUNT	SP-1	BACKPLATE
④	CITY STANDARD STREET LIGHT	240V/137W	55 62 135	3S12" RA 3S12" 3S8" BIKE	SV-2-TA SV-1	T T		29	1S-COUNT	SP-1	MOUNT 55 @ 13' MOUNT 62 @ 13' MOUNT 135 @ 8' ON SS OF POLE.
⑤	24-4-100 WITH 30' MA AND 6' LA	240V/108W	151 64 14 NRT	3S12" BIKE 3S12" 3S12" RA IS 24"X24"	SV-1-T MAS MAS MAC	T T T		68	1S-COUNT	SP-1	BACKPLATE BACKPLATE
⑥	1-A (10')		82	4S12"GLA	TV-1-T	T		49	1S-COUNT	SP-1	
⑦	24-3-100 WITH 35' MA AND 6' LA	240V/108W	81 84 87	3S12" 3S12" 4S12"GLA	SV-1-T MAS MAS	T T T		88	1S-COUNT	SP-1	BACKPLATE BACKPLATE
⑧	CITY STANDARD STREET LIGHT	240V/137W	22 15 155	3S12" 3S12" RA 3S8" BIKE	SV-2-TA SV-1	T T T		69	1S-COUNT	SP-1	MOUNT 22 @ 13' MOUNT 15 @ 13' MOUNT 155 @ 8' ON NS OF POLE.

NO.	DATE	DESCRIPTION	BY	APPROVED
1	10/20/21	REPLACE NRT MOUNTINGS WITH MAC PER SRC 2021-275	J. HORNPOSTEL	G. DeLEON
0	8/9/19	UPGRADE BY 2805J; CONVERTED FROM CONTRACT PLAN	J. HORNPOSTEL	G. DeLEON

TABLE OF REVISIONS  
CHECKOUT DRAWING THROUGH THE SID CUSTODIAN FOR THE LATEST REVISION

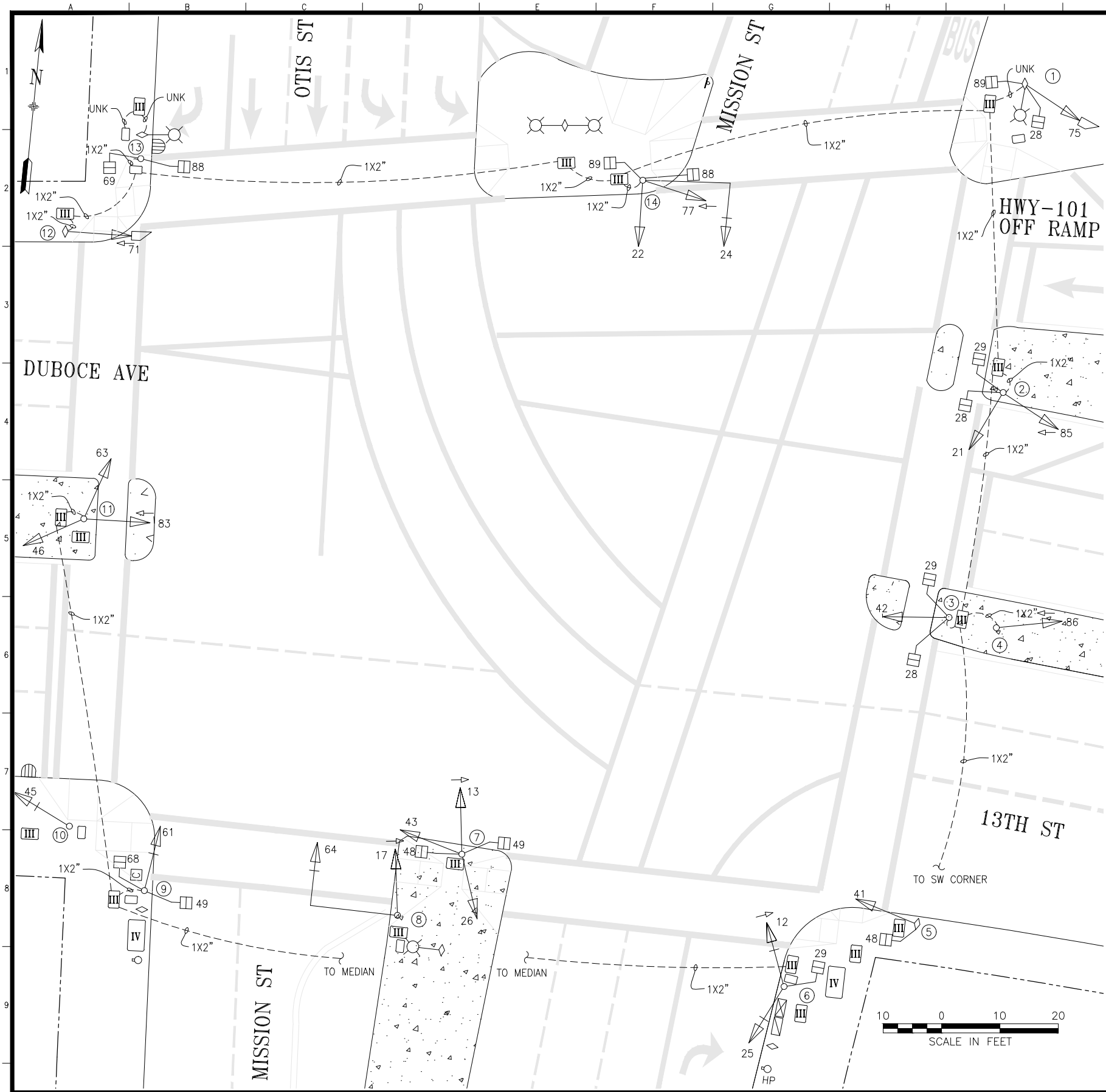


DRAWN BY: J. HORNPOSTEL	DATE: 1/2021
CHECKED BY: G. DeLEON	DATE: 1/2021

SCALE AS SHOWN
SHEET OF SHEETS 01 OF 02

TRAFFIC SIGNAL INVENTORY DIAGRAM  
DUBOCE AVENUE AND VALENCIA STREET

CNN NO:  
24403000  
REV NO:  
1



POLE AND EQUIPMENT SCHEDULE											
POLE No.	TYPE OF POLE	LUMINAIRE VOLTAGE/WATTAGE	VEHICLE SIGNAL				PEDESTRIAN SIGNAL			REMARKS	
			No.	TYPE	MOUNTING	VISORS	LOUVERS	No.	TYPE		MOUNTING
①	MUNI POLE W/ 6' LUMINAIRE ARM		75	3S12"	SV-1	LA		28	1S-COUNT	SP-2-T-SF	
			89	3S12"				89	1S-COUNT		
②	1-B (10')		21	3S12"	TV-2-T	T		28	1S-COUNT	SP-2-T	
			85	3S12"GSA				29	1S-COUNT		
③	1-B (10')		42	3S12"	TV-1-T	T		28	1S-COUNT	SP-2-T	
④	1-B (10')		86	3S12"GSA	TV-1-T	T					
⑤	TYPE 33		41	3S12"	SV-1-T	T		48	1S-COUNT	SP-1	MOUNT 41 AT 13 FEET
⑥	1-B (10')		12	3S12"LA	TV-2-T	T		29	1S-COUNT	SP-1	BACKPLATE BACKPLATE
			25	3S12"							
⑦	1-B (10')		13	3S12"LA	TV-3-TA	T		48	1S-COUNT	SP-2-T	
			43	3S12"		T		49	1S-COUNT		
			26	3S12"		T					
⑧	TYPE 33 W/ 15' MA		17	3S12"LA	SV-1-T	T					BACKPLATE FOR SIGNAL 64
⑨	1-B (10')		61	3S12"	TV-1-T	T		49	1S-COUNT	SP-2-T-SF	BACKPLATE
								68	1S-COUNT		
⑩	1-A (10')		45	3S12"	TV-1-T	T					BACKPLATE
⑪	1-B (10')		46	3S12"	TV-3-TA	T					
			63	3S12"		T					
			83	3S12"GSA		T					
⑫	TYPE 33		71	3S12"GSA	SV-1-T	LA					
⑬	1-B (7')							69	1S-COUNT	TP-2-T	
								88	1S-COUNT		
⑭	TYPE 33 W/ 15' MA		77	3S12"GSA	SV-2-TA	T		88	1S-COUNT	SP-2-T	BACKPLATE FOR SIGNAL 24
			22	3S12"		T		89	1S-COUNT		
			24	3S12"	MAS	T					

TABLE OF REVISIONS				
NO.	DATE	DESCRIPTION	BY	APP.
1	9/6/16	UPGRADE 45 TO 12", REPLACE 71&77 PV WITH 12" GSA, GIVE 71 & 77 LA VISORS, AND INSTALL SIGNAL 26 PER SRC 2015-385	AScales	MVelasco
0	10/29/03	UPGRADE ACTIVATED THRU 04-291404; CONVERTED FROM AS-BUILTS	AS	MV

CHECK WITH TRACING TO SEE IF YOU HAVE LATEST REVISION

REFERENCE INFORMATION & FILE NO. OF SURVEYS



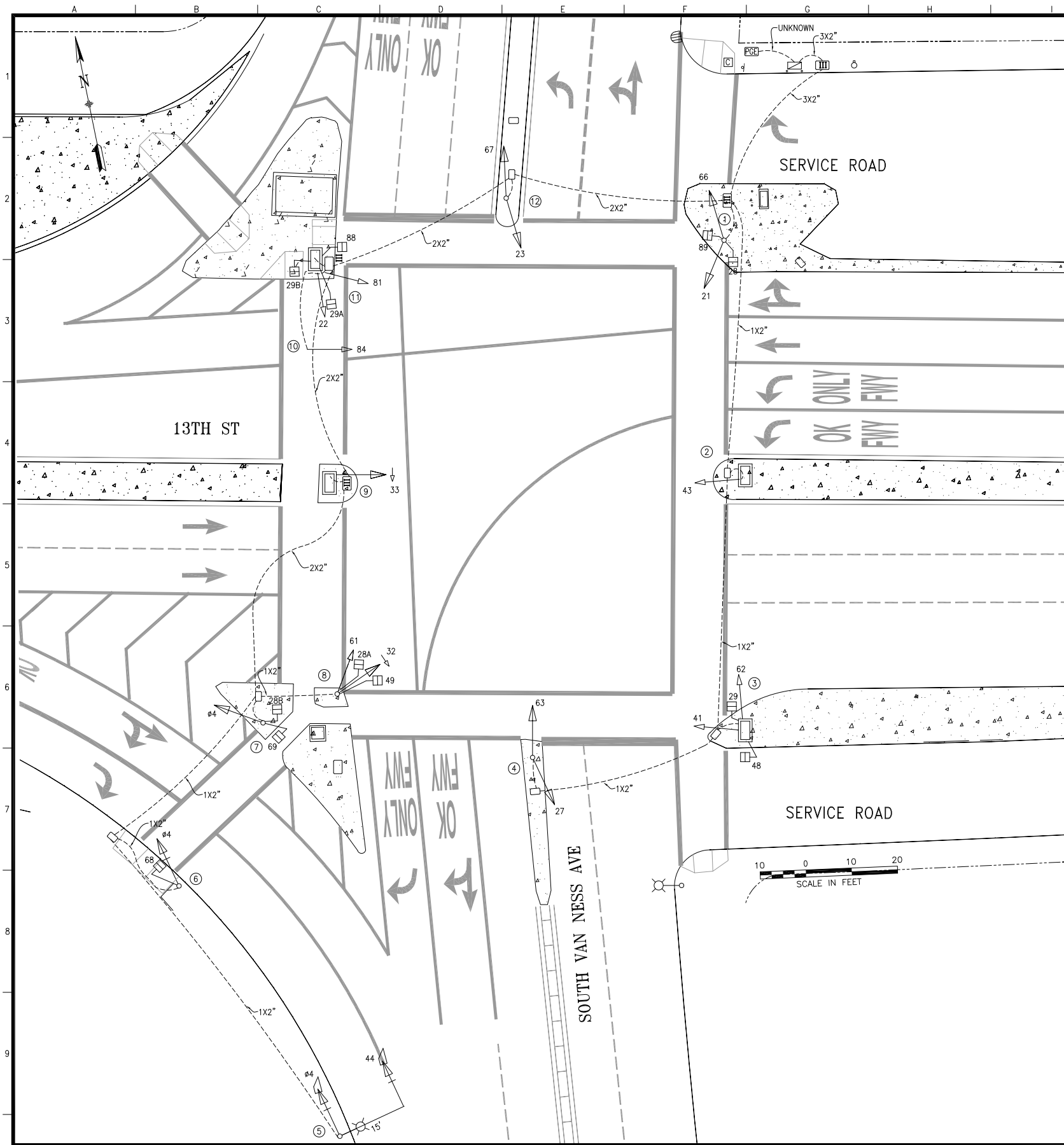
**SAN FRANCISCO MUNICIPAL TRANSPORTATION AGENCY**  
CITY AND COUNTY OF SAN FRANCISCO

DRAWN: DATE:  
AScales 10/2015  
CHECKED: DATE:  
MVelasco 10/2015

SCALE:  
AS SHOWN  
SHEET OF SHEETS  
1 OF 1

TRAFFIC SIGNAL INVENTORY DIAGRAM  
13TH STREET, DUBOCE AVENUE,  
MISSION STREET, AND OTIS STREET

CNN NO.  
33027000  
REV NO.  
1



POLE AND EQUIPMENT SCHEDULE											
POLE No.	TYPE OF POLE	LUMINAIRE VOLTAGE/WATTAGE	VEHICLE SIGNAL				PEDESTRIAN SIGNAL			REMARKS	
			No.	TYPE	MOUNTING	VISORS	LOUVERS	No.	TYPE		MOUNTING
①	1-A (10')		21 66	3S12" 3S12"	TV-2-T-SFA	T T		28 89	1S-COUNT 1S-COUNT	SP-2-T	21 RED BALL IS 12"
②	FREEWAY COLUMN		43	3S8"	SV-1 (CUSTOM)	T					EXTERNAL CONDUIT
③	FREEWAY COLUMN		41 62	3S8" 3S8"	CUSTOM	T T		29 48	1S-COUNT 1S-COUNT	CUSTOM	EXTERNAL CONDUIT
④	1-A (10')		27 63	3S12" 3S12"	TV-2-T	T T					
⑤	SIGNAL POLE W/ 15' MA & 12' LA		∅4 44	3S12" 3S12"	SV-1-T MAS	ANGLE ANGLE					BACKPLATE BACKPLATE
⑥	1-A (10')		∅4	3S12"	TV-1-T	T		68	1S-COUNT	SP-1	BACKPLATE
⑦	1-A (10')		∅4	3S12"	TV-1-T	T		69 28B	1S-COUNT 1S-COUNT	SP-1 SP-1	
⑧	1-A (10')		32 61	3S12"LA 3S8"	TV-2-T	T T		28A 49	1S-COUNT 1S-COUNT	SP-2-T	61 RED BALL IS 12"
⑨	FREEWAY COLUMN		33	3S12"LA	SV-1 (CUSTOM)	T					EXTERNAL CONDUIT
⑩	FREEWAY SUPERSTRUCTURE		84	3S8"	MAT	T					84 RED BALL IS 12" EXTERNAL CONDUIT
⑪	FREEWAY COLUMN		22 81	3S8" 3S8"	CUSTOM	T T		29A 29B 88	1S-COUNT 1S-COUNT 1S-COUNT	CUSTOM	
⑫	1-A (10')		23 67	3S12" 3S12"	TV-2-T	T T					

NO.	DATE	DESCRIPTION	BY	APP.
1	6/13/16	ADD 66. UPGRADE 21 & 67 TO 12-INCH. SRC 15-368	DYeung	CldeLeon
0	3/27/15	NEW SID PER FIELD CHECK AND CALTRANS AS-BUILTS	DYeung	WVelasco

TABLE OF REVISIONS  
CHECK WITH TRACING TO SEE IF YOU HAVE LATEST REVISION

REFERENCE INFORMATION & FILE NO. OF SURVEYS



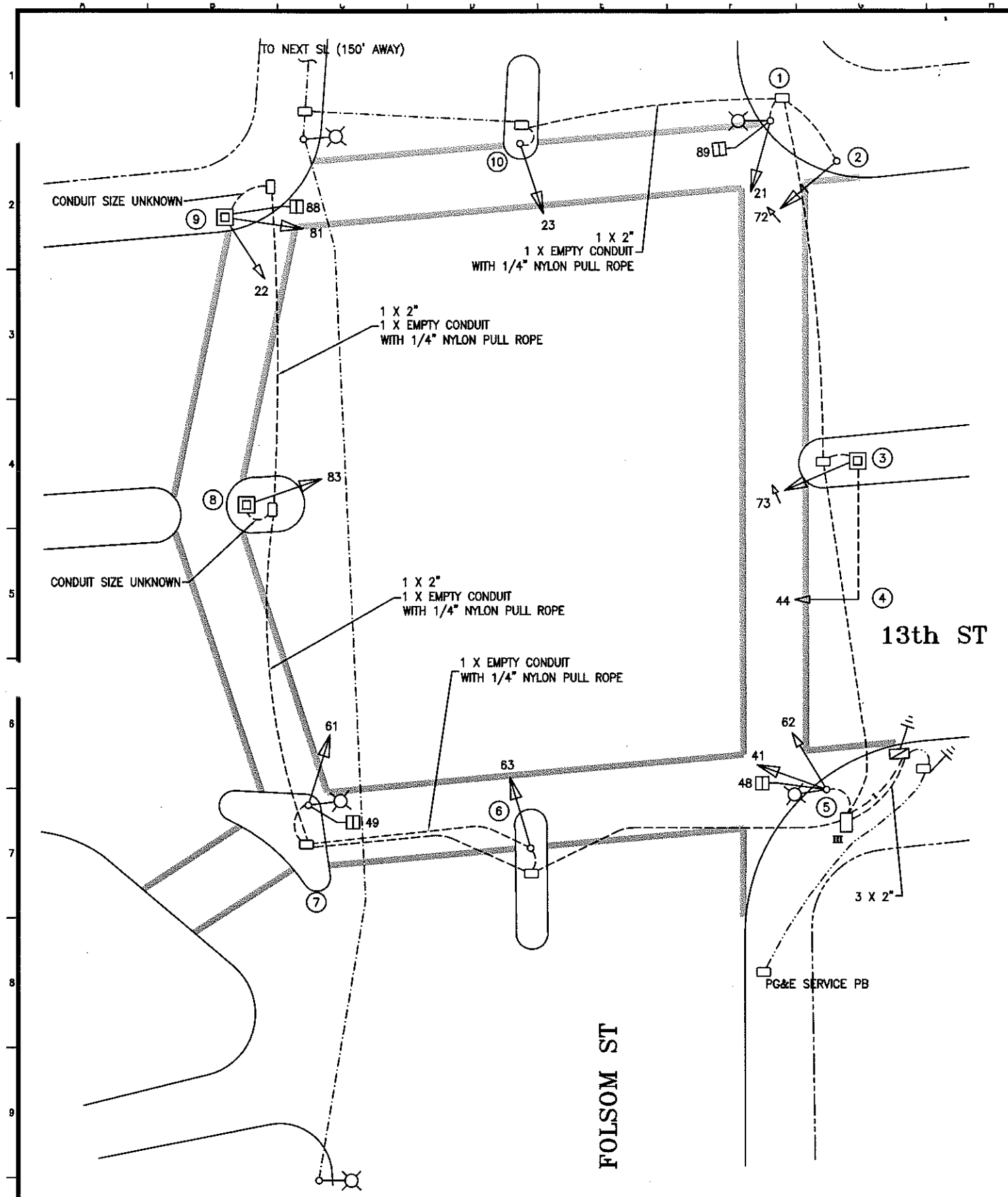
**SAN FRANCISCO MUNICIPAL TRANSPORTATION AGENCY**  
CITY AND COUNTY OF SAN FRANCISCO

DRAWN: DATE:  
DYeung 10/2015  
CHECKED: DATE:  
MVelasco 10/2015

SCALE:  
CUSTOM - AS SHOWN  
SHEET OF SHEETS  
1 OF 1

**TRAFFIC SIGNAL INVENTORY DIAGRAM**  
13TH STREET AND SOUTH VAN NESS AVENUE

CNN NO.  
24241000  
REV NO.  
1



POLE No.	TYPE OF POLE	VEHICLE SIGNAL					PEDESTRIAN SIGNAL			REMARKS
		No.	TYPE	MOUNTING	VISORS	LOUVERS	No.	TYPE	MOUNTING	
①	SL	21	3S12"	SV-1-T	T		89	1S-IN	SP-1	
②	1-A (10')	72	3S12"LA	TV-1	T					BP
③	EX FREEWAY PIER	73	3S12"	SV-1-T	T					EXTERNAL CONDUIT
④	FREEWAY STRUCTURE	44	3S12"R+8"YG	SPECIAL	T					
⑤	SL	41 62	3S12" 3S8"	SV-2-TA	T T		48	1S-IN	SP-1	
⑥	1-A (10')	63	3S12"	TV-1-T	T					
⑦	SL	61	3S12"	SV-1-T	T		49	1S-IN	SP-1	
⑧	EX FREEWAY PIER	83	3S12"	SV-1-T	T					EXTERNAL CONDUIT
⑨	EX FREEWAY PIER	22 81	3S8" 3S12"	SV-2-TA	T T		88		SPECIAL	EXTERNAL CONDUIT
⑩	1-A (10')	23	3S12"	TV-1-T	FC					

NOTE:  
CABINET FOUNDATION TYPE: STD



TABLE OF REVISIONS		
NO.	DATE	DESCRIPTION
1	02/99	FOLSOM STREET SIGNAL IMPROVEMENT CT#1302N

CHECK WITH TRACING TO SEE IF YOU HAVE LATEST REVISION



DEPARTMENT OF PARKING AND TRAFFIC  
DIVISION OF TRAFFIC ENGINEERING  
CITY AND COUNTY OF SAN FRANCISCO

DRAWN:	DATE:	SCALE:
DVC	5/1/01	1" = 20'
CHECKED:	DATE:	SHEET OF SHEETS
RO	9/10/01	1 OF 1

TRAFFIC SIGNAL INVENTORY DIAGRAM  
13TH ST AND FOLSOM ST

CNN NO.	24349000
REV. NO.	1

EXTERNAL REFERENCES: TAT, E, File (Speed) Projects & Street Use (SD) Archived: 10-16-22.dwg  
 POINTS USED: gradient ANGLE:ITR hypotenuse ROMANUS:ITR ROMANUS:ITR ROMANUS:ITR  
 SCALE FACTOR: 120  
 PLOT SCALE: 1=1  
 ORIGIN: SALES & TAX  
 FILE NAME: 13ST\_Folsom.dwg  
 DATE: Sep 08 2001 17:21

# TransBASE Internal Dashboard

Geographic Extent: DUBOCE AVE from VALENCIA ST to 13TH ST/HWY 101 NORTHBOUND RAMP/MISSION ST/OTIS ST (0.18 miles/927.58 feet)

Spatial Intersect: No Restriction (SFMTA 20ft/150ft Buffer)

Data Range: 01/01/2017 to 12/31/2021

Pull Date: 4/26/2022

## Geographic Extent



# TransBASE Internal Dashboard

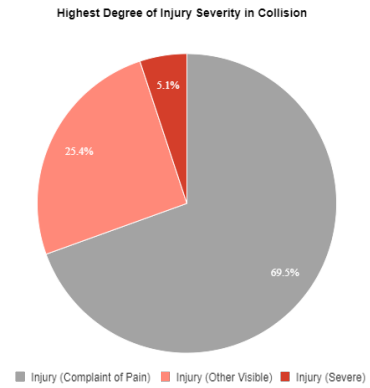
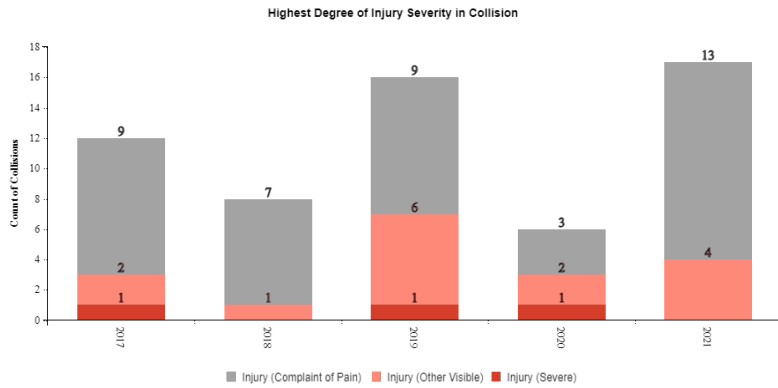
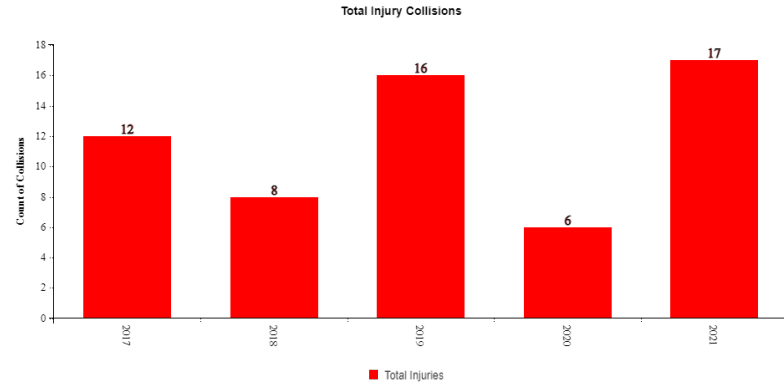
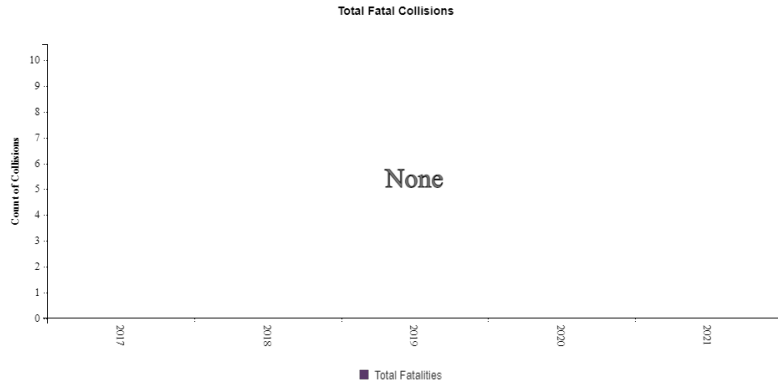
Geographic Extent: DUBOCE AVE from VALENCIA ST to 13TH ST/HWY 101 NORTHBOUND RAMP/MISSION ST/OTIS ST (0.18 miles/927.58 feet)

Spatial Intersect: No Restriction (SFMTA 20ft/150ft Buffer)

Data Range: 01/01/2017 to 12/31/2021

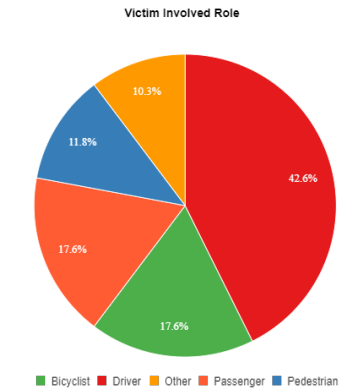
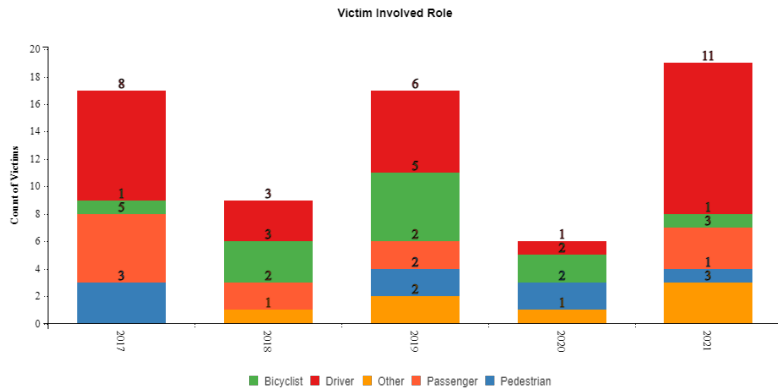
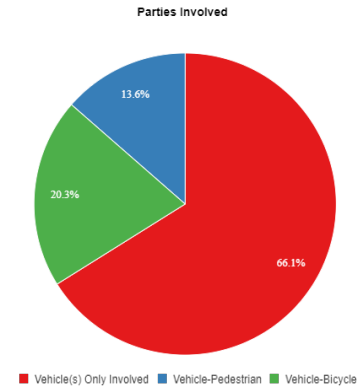
Pull Date: 4/26/2022

## Graphs and Trends



# TransBASE Internal Dashboard

Geographic Extent: DUBOCE AVE from VALENCIA ST to 13TH ST/HWY 101 NORTHBOUND RAMP/MISSION ST/OTIS ST (0.18 miles/927.58 feet)  
 Spatial Intersect: No Restriction (SFMTA 20ft/150ft Buffer)  
 Data Range: 01/01/2017 to 12/31/2021  
 Pull Date: 4/26/2022



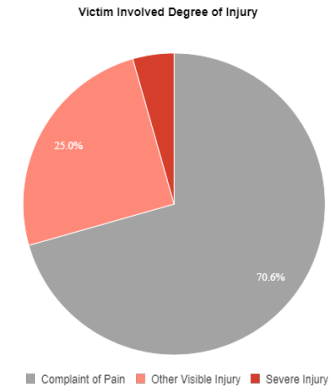
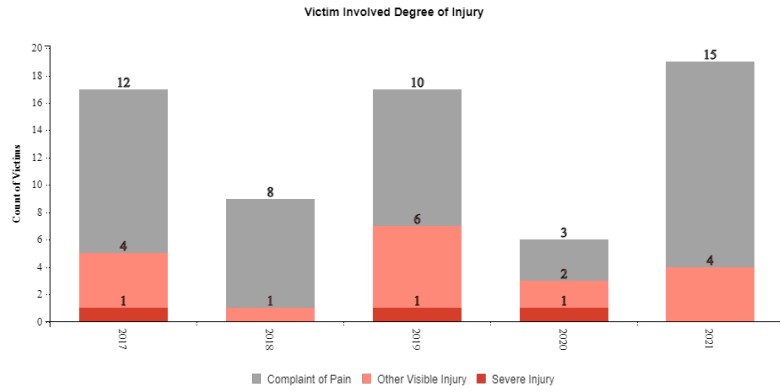
# TransBASE Internal Dashboard

Geographic Extent: DUBOCE AVE from VALENCIA ST to 13TH ST/HWY 101 NORTHBOUND RAMP/MISSION ST/OTIS ST (0.18 miles/927.58 feet)

Spatial Intersect: No Restriction (SFMTA 20ft/150ft Buffer)

Data Range: 01/01/2017 to 12/31/2021

Pull Date: 4/26/2022





# TransBASE Internal Dashboard

Geographic Extent: DUBOCE AVE from VALENCIA ST to 13TH ST/HWY 101 NORTHBOUND RAMP/MISSION ST/OTIS ST (0.18 miles/927.58 feet)

Spatial Intersect: No Restriction (SFMTA 20ft/150ft Buffer)

Data Range: 01/01/2017 to 12/31/2021

Pull Date: 4/26/2022

## Collision/Party/Victim Table

Showing 1 to 59 of 59 entries

Count of Fatal Collisions: 0

Count of Non-Fatal Injury Collisions: 59

Total Count of Fatal/Non-Fatal Injury Collisions: 59

Case ID	Collision Date	Collision Time	Day of Week	Primary Road	Secondary Road	Distance	Direction	Party 1 Type	Party 1 Direction of Travel	Party 1 Movement Preceding Crash	Party 2 Type	Party 2 Direction of Travel	Party 2 Movement Preceding Crash	Vehicle Code Violation	Highest Degree of Injury	Type of Collision	Motor Vehicle Involved With	Weather	Lighting
210810435	12/08/2021	06:24	Wednesday	MISSION ST	13TH ST	0	Not Stated	Driver	West	Proceeding Straight	Driver	North	Proceeding Straight	CVC 22350	Injury (Complaint of Pain)	Broadside	Other Motor Vehicle	Clear	Dark - Street Lights
210755546	11/16/2021	09:15	Tuesday	DUBOCE AVE	MISSION ST	0	Not Stated	Driver	West	Proceeding Straight	Driver	West	Stopped	CVC 22350	Injury (Complaint of Pain)	Rear End	Other Motor Vehicle	Clear	Daylight
210697976	10/24/2021	23:57	Sunday	VALENCIA ST	DUBOCE AVE	0	Not Stated	Driver	South	Making Left Turn	Pedestrian	East	Proceeding Straight	CVC 21950(a)	Injury (Complaint of Pain)	Vehicle/ Pedestrian	Pedestrian	Raining	Dark - Street Lights
210648327	10/05/2021	14:20	Tuesday	DUBOCE AVE	VALENCIA ST	0	Not Stated	Driver	West	Changing Lanes	Driver	West	Proceeding Straight	CVC 21658(a)	Injury (Complaint of Pain)	Sideswipe	Other Motor Vehicle	Clear	Daylight
210583751	09/10/2021	08:05	Friday	OTIS ST	13TH ST	0	Not Stated	Driver	West	Proceeding Straight	Driver	North	Proceeding Straight	CVC 22106	Injury (Complaint of Pain)	Broadside	Other Motor Vehicle	Cloudy	Daylight
210576273	09/07/2021	09:35	Tuesday	DUBOCE AVE	VALENCIA ST	0	Not Stated	Other	West	Proceeding Straight	Driver	East	Making Right Turn	CVC 21650	Injury (Other Visible)	Head-On	Other Motor Vehicle	Clear	Daylight
210561622	09/01/2021	11:36	Wednesday	DUBOCE AVE	VALENCIA ST	50	East	Driver	East	Proceeding Straight	Other	East	Proceeding Straight	CVC 22107	Injury (Other Visible)	Sideswipe	Pedestrian	Clear	Daylight
210512716	08/12/2021	07:28	Thursday	DUBOCE AVE	VALENCIA ST	182	East	Driver	East	Other	Driver	East	Proceeding Straight	CVC 21750	Injury (Complaint of Pain)	Sideswipe	Other Motor Vehicle	Clear	Daylight
210513394	08/12/2021	12:21	Thursday	DUBOCE AVE	WOODWARD ST	47	North	Driver	West	Making U Turn	Driver	West	Proceeding Straight	CVC 22102	Injury (Complaint of Pain)	Broadside	Other Motor Vehicle	Clear	Daylight
210478726	07/28/2021	21:03	Wednesday	MISSION ST	13TH ST	0	Not Stated	Other	East	Proceeding Straight	Driver	West	Proceeding Straight	CVC 21453(a)	Injury (Other Visible)	Broadside	Other Object	Clear	Dark - Street Lights
210401222	06/26/2021	21:21	Saturday	DUBOCE AVE	VALENCIA ST	0	Not Stated	Driver	South	Making Left Turn					Injury (Complaint of Pain)	Not Stated	Non-Collision	Clear	Dark - Street Lights
210386840	06/14/2021	16:03	Monday	VALENCIA ST	DUBOCE AVE	0	Not Stated	Driver	North	Making Left Turn	Bicyclist	South	Proceeding Straight	CVC 22101(d)	Injury (Complaint of Pain)	Head-On	Bicycle	Clear	Daylight
210259275	04/28/2021	07:39	Wednesday	DUBOCE AVE	VALENCIA ST	0	Not Stated	Driver	West	Not Stated	Driver	East	Not Stated	CVC 21801(a)	Injury (Complaint of Pain)	Head-On	Other Motor Vehicle	Clear	Daylight

# TransBASE Internal Dashboard

Geographic Extent: DUBOCE AVE from VALENCIA ST to 13TH ST/HWY 101 NORTHBOUND RAMP/MISSION ST/OTIS ST (0.18 miles/927.58 feet)

Spatial Intersect: No Restriction (SFMTA 20ft/150ft Buffer)

Data Range: 01/01/2017 to 12/31/2021

Pull Date: 4/26/2022

Case ID	Collision Date	Collision Time	Day of Week	Primary Road	Secondary Road	Distance	Direction	Party 1 Type	Party 1 Direction of Travel	Party 1 Movement Preceding Crash	Party 2 Type	Party 2 Direction of Travel	Party 2 Movement Preceding Crash	Vehicle Code Violation	Highest Degree of Injury	Type of Collision	Motor Vehicle Involved With	Weather	Lighting
210215669	04/07/2021	15:53	Wednesday	DUBOCE AVE	MISSION ST	0	Not Stated	Driver	North	Making Right Turn	Driver	West	Proceeding Straight	CVC 22101(d)	Injury (Complaint of Pain)	Broadside	Other Motor Vehicle	Clear	Daylight
210104404	02/15/2021	17:55	Monday	13TH ST	MISSION ST	50	East	Driver	East	Proceeding Straight	Other	East	Proceeding Straight	CVC 21703	Injury (Other Visible)	Rear End	Other Motor Vehicle	Clear	Dusk - Dawn
210095217	02/11/2021	15:00	Thursday	STEVENSON ST	DUBOCE AVE	0	Not Stated	Other	East	Proceeding Straight	Driver	South	Stopped	CVC 21235(g)	Injury (Complaint of Pain)	Broadside	Other Motor Vehicle	Raining	Daylight
210095273	02/11/2021	15:15	Thursday	MISSION ST	DUBOCE AVE	0	Not Stated	Driver	West	Proceeding Straight	Driver	North	Proceeding Straight	CVC 21453(a)	Injury (Complaint of Pain)	Broadside	Other Motor Vehicle	Raining	Daylight
200649103	10/27/2020	17:44	Tuesday	VALENCIA ST	DUBOCE AVE	0	Not Stated	Driver	North	Proceeding Straight	Parked Vehicle	Not Stated	Proceeding Straight	CVC 22350	Injury (Other Visible)	Broadside	Other Motor Vehicle	Clear	Daylight
200319964	05/26/2020	22:31	Tuesday	MISSION ST	13TH ST	0	Not Stated	Bicyclist	North	Proceeding Straight	Driver	West	Proceeding Straight	CVC 21453(a)	Injury (Complaint of Pain)	Broadside	Bicycle	Clear	Dark - Street Lights
200213510	03/29/2020	13:33	Sunday	13TH ST	MISSION ST	0	Not Stated	Other	North	Entering Traffic	Driver	West	Proceeding Straight	CVC 21950(b)	Injury (Complaint of Pain)	Vehicle/ Pedestrian	Other Motor Vehicle	Cloudy	Daylight
200071788	01/22/2020	18:15	Wednesday	DUBOCE AVE	VALENCIA ST	0	Not Stated	Driver	West	Parked	Bicyclist	West	Proceeding Straight	CVC 22517	Injury (Severe)	Rear End	Bicycle	Clear	Dark - Street Lights
200032821	01/13/2020	21:48	Monday	MISSION ST	13TH ST	0	Not Stated	Driver	East	Making Right Turn	Pedestrian	West	Proceeding Straight	CVC 21453(b)	Injury (Complaint of Pain)	Vehicle/ Pedestrian	Pedestrian	Raining	Dark - Street Lights
200009438	01/04/2020	15:13	Saturday	MISSION ST	DUBOCE AVE	0	Not Stated	Pedestrian	East	Proceeding Straight	Driver	South	Slowing/ Stopping	CVC 21950(b)	Injury (Other Visible)	Vehicle/ Pedestrian	Pedestrian	Clear	Daylight
190913822	12/04/2019	16:06	Wednesday	OTIS ST	DUBOCE AVE	0	Not Stated	Other	West	Proceeding Straight	Driver	South	Proceeding Straight	CVC 21453(a)	Injury (Other Visible)	Broadside	Bicycle	Clear	Daylight
190825186	10/31/2019	21:06	Thursday	DUBOCE AVE	MISSION ST	0	Not Stated	Bicyclist	East	Proceeding Straight	Driver	East	Proceeding Straight	CVC 21453(a)	Injury (Complaint of Pain)	Other	Bicycle	Clear	Dark - Street Lights
190808740	10/26/2019	09:07	Saturday	MISSION ST	DUBOCE AVE	0	Not Stated	Driver	South	Proceeding Straight	Driver	West	Proceeding Straight	CVC 21453(a)	Injury (Complaint of Pain)	Broadside	Other Motor Vehicle	Clear	Daylight
190789526	10/19/2019	20:30	Saturday	DUBOCE AVE	STEVENSON ST	0	Not Stated	Driver	West	Changing Lanes	Driver	West	Changing Lanes	CVC 22107	Injury (Complaint of Pain)	Sideswipe	Other Motor Vehicle	Clear	Dark - Street Lights
190757824	10/08/2019	16:02	Tuesday	OTIS ST	DUBOCE AVE	0	Not Stated	Pedestrian	South	Proceeding Straight	Driver	West	Proceeding Straight	CVC 21456(c)	Injury (Complaint of Pain)	Vehicle/ Pedestrian	Pedestrian	Clear	Daylight
190606099	08/17/2019	12:30	Saturday	DUBOCE AVE	WOODWARD ST	51	West	Driver	East	Parking Maneuver	Other	East	Proceeding Straight	CVC 22107	Injury (Other Visible)	Sideswipe	Other Object	Clear	Daylight

# TransBASE Internal Dashboard

Geographic Extent: DUBOCE AVE from VALENCIA ST to 13TH ST/HWY 101 NORTHBOUND RAMP/MISSION ST/OTIS ST (0.18 miles/927.58 feet)

Spatial Intersect: No Restriction (SFMTA 20ft/150ft Buffer)

Data Range: 01/01/2017 to 12/31/2021

Pull Date: 4/26/2022

Case ID	Collision Date	Collision Time	Day of Week	Primary Road	Secondary Road	Distance	Direction	Party 1 Type	Party 1 Direction of Travel	Party 1 Movement Preceding Crash	Party 2 Type	Party 2 Direction of Travel	Party 2 Movement Preceding Crash	Vehicle Code Violation	Highest Degree of Injury	Type of Collision	Motor Vehicle Involved With	Weather	Lighting
190565401	08/03/2019	06:44	Saturday	13TH ST	MISSION ST	0	Not Stated	Bicyclist	North	Proceeding Straight	Driver	West	Proceeding Straight	CVC 21453(a)	Injury (Complaint of Pain)	Broadside	Bicycle	Clear	Daylight
190508194	07/13/2019	18:45	Saturday	DUBOCE AVE	VALENCIA ST	50	East	Other	West	Other	Bicyclist	West	Other	CVC 22517	Injury (Other Visible)	Sideswipe	Bicycle	Clear	Daylight
190502914	07/11/2019		Thursday	13TH ST	MISSION ST	0	Not Stated	Driver	West	Proceeding Straight	Driver	South	Proceeding Straight	CVC 21800(b)	Injury (Other Visible)	Broadside	Other Motor Vehicle	Clear	Daylight
190474175	06/30/2019	19:05	Sunday	DUBOCE AVE	VALENCIA ST	75	West	Driver	East	Slowing/Stopping	Driver	East	Stopped	CVC 22350	Injury (Complaint of Pain)	Rear End	Other Motor Vehicle	Clear	Daylight
190411343	06/07/2019	22:40	Friday	DUBOCE AVE	MISSION ST	0	Not Stated	Driver	West	Making Right Turn	Driver	West	Proceeding Straight	CVC 22107	Injury (Complaint of Pain)	Sideswipe	Other Motor Vehicle	Clear	Dark - Street Lights
190373765	05/25/2019	07:11	Saturday	13TH ST	MISSION ST	0	Not Stated	Driver	North	Proceeding Straight	Driver	East	Proceeding Straight	CVC 21453(a)	Injury (Complaint of Pain)	Broadside	Other Motor Vehicle	Clear	Daylight
190255163	04/10/2019	16:55	Wednesday	DUBOCE AVE	WOODWARD ST	162	West	Driver	East	Making Right Turn	Bicyclist	East	Proceeding Straight	CVC 22107	Injury (Other Visible)	Broadside	Bicycle	Clear	Daylight
190255969	04/10/2019	22:00	Wednesday	MISSION ST	DUBOCE AVE	0	Not Stated	Bicyclist	North	Proceeding Straight	Driver	West	Proceeding Straight	CVC Unknown	Injury (Other Visible)	Broadside	Bicycle	Clear	Dark - Street Lights
190092761	02/06/2019	16:02	Wednesday	DUBOCE AVE	VALENCIA ST	65	West	Driver	East	Proceeding Straight	Driver	East	Stopped	CVC 22350	Injury (Severe)	Rear End	Other Motor Vehicle	Clear	Daylight
190083500	02/02/2019	21:42	Saturday	DUBOCE AVE	VALENCIA ST	0	Not Stated	Pedestrian	South	Other	Driver	East	Proceeding Straight	CVC 21456(c)	Injury (Complaint of Pain)	Vehicle/ Pedestrian	Pedestrian	Raining	Dark - Street Lights
180963122	12/22/2018	17:34	Saturday	MISSION ST	13TH ST	0	Not Stated	Driver	West	Making Right Turn	Driver	West	Proceeding Straight	CVC 21461(a)	Injury (Complaint of Pain)	Sideswipe	Other Motor Vehicle	Clear	Dark - Street Lights
180844306	11/06/2018	19:30	Tuesday	DUBOCE AVE	STEVENSON ST	103	East	Driver	West	Proceeding Straight				CVC 22350	Injury (Complaint of Pain)	Other	Not Stated	Clear	Dark - Street Lights
180840166	11/05/2018	11:07	Monday	13TH ST	MISSION ST	0	Not Stated	Bicyclist	North	Proceeding Straight	Driver	East	Making Left Turn	CVC 21800(a)	Injury (Complaint of Pain)	Vehicle/ Pedestrian	Bicycle	Clear	Daylight
180430654	06/10/2018	13:40	Sunday	MISSION ST	DUBOCE AVE	50	North	Driver	North	Proceeding Straight	Driver	South	Merging	CVC 21703	Injury (Complaint of Pain)	Rear End	Other Object	Clear	Daylight
180404126	05/31/2018	03:46	Thursday	13TH ST	MISSION ST	0	Not Stated	Driver	North	Making Right Turn	Driver	West	Proceeding Straight	CVC 22101(d)	Injury (Complaint of Pain)	Broadside	Other Motor Vehicle	Clear	Daylight
180396266	05/28/2018	07:30	Monday	13TH ST	MISSION ST	0	Not Stated	Other	North	Proceeding Straight	Driver	North	Proceeding Straight	CVC 21453(a)	Injury (Complaint of Pain)	Sideswipe	Other Object	Clear	Daylight

# TransBASE Internal Dashboard

Geographic Extent: DUBOCE AVE from VALENCIA ST to 13TH ST/HWY 101 NORTHBOUND RAMP/MISSION ST/OTIS ST (0.18 miles/927.58 feet)

Spatial Intersect: No Restriction (SFMTA 20ft/150ft Buffer)

Data Range: 01/01/2017 to 12/31/2021

Pull Date: 4/26/2022

Case ID	Collision Date	Collision Time	Day of Week	Primary Road	Secondary Road	Distance	Direction	Party 1 Type	Party 1 Direction of Travel	Party 1 Movement Preceding Crash	Party 2 Type	Party 2 Direction of Travel	Party 2 Movement Preceding Crash	Vehicle Code Violation	Highest Degree of Injury	Type of Collision	Motor Vehicle Involved With	Weather	Lighting
180171933	03/05/2018	17:00	Monday	13TH ST	MISSION ST	5	East	Bicyclist	North	Proceeding Straight	Driver	East	Making Left Turn	CVC 21453(a)	Injury (Other Visible)	Broadside	Bicycle	Clear	Daylight
180052167	01/20/2018	12:56	Saturday	MISSION ST	13TH ST	0	Not Stated	Bicyclist	West	Proceeding Straight	Driver	South	Proceeding Straight	CVC 21453(a)	Injury (Complaint of Pain)	Other	Bicycle	Clear	Daylight
171032853	12/22/2017	11:30	Friday	DUBOCE AVE	VALENCIA ST	0	Not Stated	Driver	West	Making Left Turn	Driver	East	Proceeding Straight	CVC 21801(a)	Injury (Complaint of Pain)	Sideswipe	Other Motor Vehicle	Clear	Daylight
170953735	11/23/2017	23:30	Thursday	DUBOCE AVE	VALENCIA ST	0	Not Stated	Driver	East	Making Left Turn	Pedestrian	North	Proceeding Straight	CVC 21950(a)	Injury (Complaint of Pain)	Vehicle/ Pedestrian	Pedestrian	Clear	Dark - Street Lights
170879391	10/27/2017	16:45	Friday	VALENCIA ST	DUBOCE AVE	0	Not Stated	Driver	South	Proceeding Straight	Driver	East	Proceeding Straight	CVC 21453(a)	Injury (Complaint of Pain)	Broadside	Other Motor Vehicle	Clear	Daylight
170771173	09/21/2017	11:46	Thursday	DUBOCE AVE	MISSION ST	5	East	Bicyclist	North	Proceeding Straight	Driver	East	Making Left Turn	CVC 21456(b)	Injury (Complaint of Pain)	Other	Bicycle	Clear	Daylight
170757907	09/16/2017	03:15	Saturday	13TH ST	MISSION ST	0	Not Stated	Driver	East	Proceeding Straight	Driver	East	Stopped In Road	CVC 22350	Injury (Complaint of Pain)	Rear End	Other Motor Vehicle	Clear	Dark - Street Lights
170730527	09/07/2017	11:46	Thursday	OTIS ST	DUBOCE AVE	90	North	Driver	South	Proceeding Straight	Driver	South	Stopped In Road	CVC 22350	Injury (Severe)	Rear End	Other Motor Vehicle	Cloudy	Daylight
170598240	07/23/2017	02:56	Sunday	VALENCIA ST	DUBOCE AVE	0	Not Stated	Driver	West	Proceeding Straight	Driver	South	Proceeding Straight	CVC 21453(a)	Injury (Other Visible)	Broadside	Other Motor Vehicle	Clear	Dark - Street Lights
170512886	06/23/2017	23:06	Friday	VALENCIA ST	DUBOCE AVE	0	Not Stated	Driver	North	Making Left Turn	Driver	South	Proceeding Straight	CVC 21801(a)	Injury (Complaint of Pain)	Head-On	Other Motor Vehicle	Clear	Dark - Street Lights
170445425	05/31/2017	10:15	Wednesday	13TH ST	MISSION ST	0	Not Stated	Pedestrian	North	Not Stated	Driver	East	Proceeding Straight	CVC 21950(b)	Injury (Complaint of Pain)	Vehicle/ Pedestrian	Pedestrian	Clear	Daylight
170262990	03/31/2017	09:21	Friday	DUBOCE AVE	VALENCIA ST	0	Not Stated	Driver	West	Proceeding Straight	Driver	West	Proceeding Straight	CVC 22107	Injury (Complaint of Pain)	Sideswipe	Other Motor Vehicle	Clear	Daylight
170129817	02/14/2017	22:51	Tuesday	MISSION ST	DUBOCE AVE	0	Not Stated	Pedestrian	South	Proceeding Straight	Driver	North	Proceeding Straight	CVC 21950(a)	Injury (Other Visible)	Vehicle/ Pedestrian	Pedestrian	Clear	Dark - Street Lights
170106194	02/07/2017	01:20	Tuesday	13TH ST	MISSION ST	0	Not Stated	Driver	West	Making Right Turn	Driver	West	Proceeding Straight	CVC 22101(d)	Injury (Complaint of Pain)	Broadside	Other Motor Vehicle	Raining	Dark - Street Lights

# TransBASE Internal Dashboard

Geographic Extent: 13TH ST from DUBOCE AVE/HWY 101 NORTHBOUND RAMP/MISSION ST/OTIS ST to FOLSOM ST (0.32 miles/1698.50 feet)

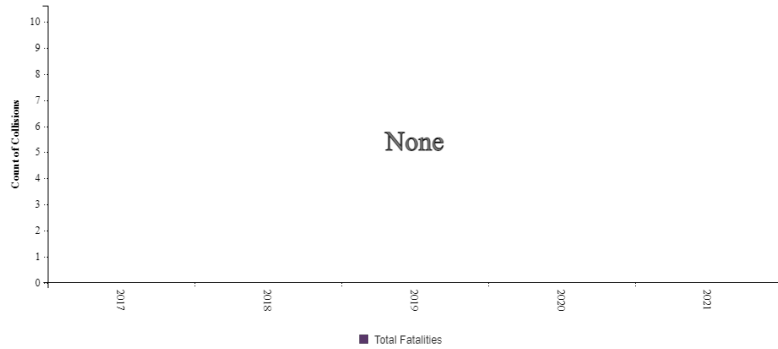
Spatial Intersect: No Restriction (SFMTA 20ft/150ft Buffer)

Data Range: 01/01/2017 to 12/31/2021

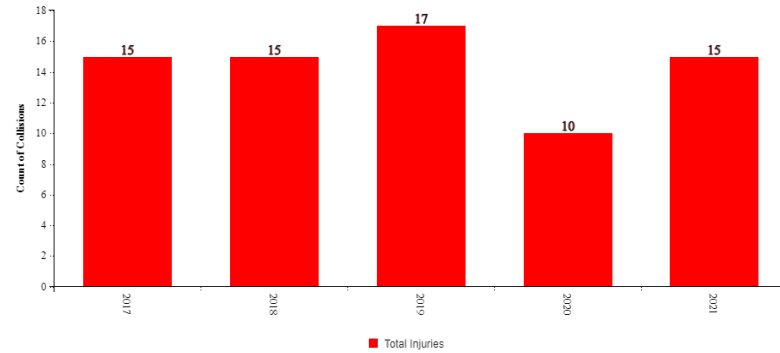
Pull Date: 4/26/2022

## Graphs and Trends

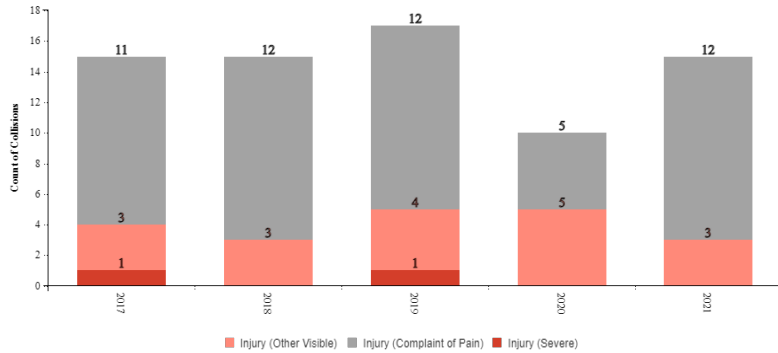
Total Fatal Collisions



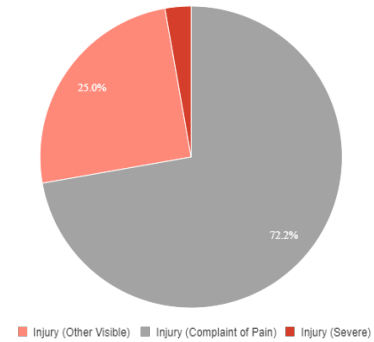
Total Injury Collisions



Highest Degree of Injury Severity in Collision



Highest Degree of Injury Severity in Collision



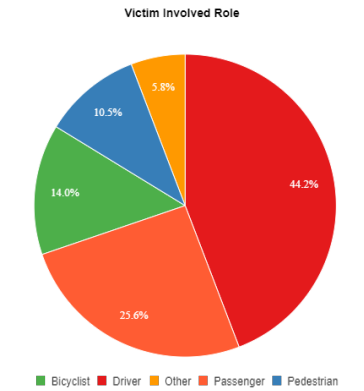
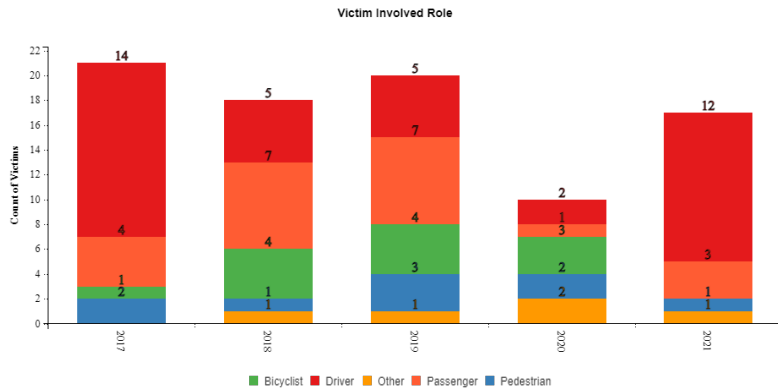
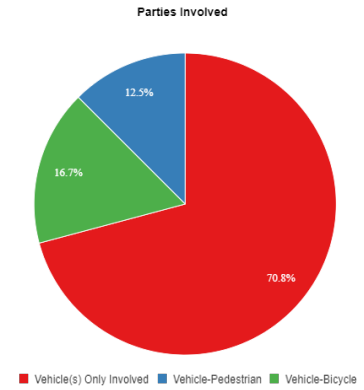
# TransBASE Internal Dashboard

Geographic Extent: 13TH ST from DUBOCE AVE/HWY 101 NORTHBOUND RAMP/MISSION ST/OTIS ST to FOLSOM ST (0.32 miles/1698.50 feet)

Spatial Intersect: No Restriction (SFMTA 20ft/150ft Buffer)

Data Range: 01/01/2017 to 12/31/2021

Pull Date: 4/26/2022



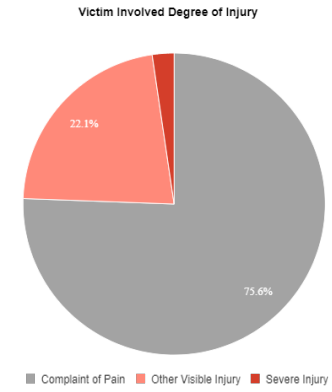
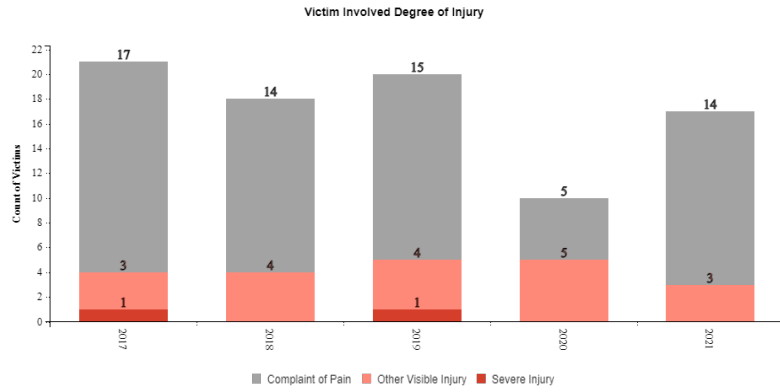
# TransBASE Internal Dashboard

Geographic Extent: 13TH ST from DUBOCE AVE/HWY 101 NORTHBOUND RAMP/MISSION ST/OTIS ST to FOLSOM ST (0.32 miles/1698.50 feet)

Spatial Intersect: No Restriction (SFMTA 20ft/150ft Buffer)

Data Range: 01/01/2017 to 12/31/2021

Pull Date: 4/26/2022



# TransBASE Internal Dashboard

Geographic Extent: 13TH ST from DUBOCE AVE/HWY 101 NORTHBOUND RAMP/MISSION ST/OTIS ST to FOLSOM ST (0.32 miles/1698.50 feet)

Spatial Intersect: No Restriction (SFMTA 20ft/150ft Buffer)

Data Range: 01/01/2017 to 12/31/2021

Pull Date: 4/26/2022

## Collision/Party/Victim Table

Showing 1 to 72 of 72 entries

Count of Fatal Collisions: 0

Count of Non-Fatal Injury Collisions: 72

Total Count of Fatal/Non-Fatal Injury Collisions: 72

Case ID	Collision Date	Collision Time	Day of Week	Primary Road	Secondary Road	Distance	Direction	Party 1 Type	Party 1 Direction of Travel	Party 1 Movement Preceding Crash	Party 2 Type	Party 2 Direction of Travel	Party 2 Movement Preceding Crash	Vehicle Code Violation	Highest Degree of Injury	Type of Collision	Motor Vehicle Involved With	Weather	Lighting
210850306	12/24/2021	15:19	Friday	FOLSOM ST	13TH ST	0	Not Stated	Driver	East	Making Left Turn	Driver	North	Proceeding Straight	CVC 21801(a)	Injury (Complaint of Pain)	Broadside	Other Motor Vehicle	Cloudy	Daylight
210839504	12/20/2021	04:22	Monday	SOUTH VAN NESS AVE	13TH ST	0	Not Stated	Driver	South	Proceeding Straight	Driver	East	Proceeding Straight	CVC 21453(a)	Injury (Other Visible)	Broadside	Other Motor Vehicle	Clear	Dark - Street Lights
210810435	12/08/2021	06:24	Wednesday	MISSION ST	13TH ST	0	Not Stated	Driver	West	Proceeding Straight	Driver	North	Proceeding Straight	CVC 22350	Injury (Complaint of Pain)	Broadside	Other Motor Vehicle	Clear	Dark - Street Lights
210762096	11/18/2021	19:55	Thursday	FOLSOM ST	13TH ST	0	Not Stated	Driver	East	Making Left Turn	Driver	North	Proceeding Straight	CVC 21801(a)	Injury (Complaint of Pain)	Head-On	Other Motor Vehicle	Clear	Dark - Street Lights
210755546	11/16/2021	09:15	Tuesday	DUBOCE AVE	MISSION ST	0	Not Stated	Driver	West	Proceeding Straight	Driver	West	Stopped	CVC 22350	Injury (Complaint of Pain)	Rear End	Other Motor Vehicle	Clear	Daylight
210583751	09/10/2021	08:05	Friday	OTIS ST	13TH ST	0	Not Stated	Driver	West	Proceeding Straight	Driver	North	Proceeding Straight	CVC 22106	Injury (Complaint of Pain)	Broadside	Other Motor Vehicle	Cloudy	Daylight
210541646	08/24/2021	07:53	Tuesday	13TH ST	SOUTH VAN NESS AVE	0	Not Stated	Driver	South	Making Left Turn	Driver	North	Proceeding Straight	CVC 22107	Injury (Complaint of Pain)	Broadside	Other Motor Vehicle	Clear	Daylight
210496869	08/05/2021	13:48	Thursday	13TH ST	SOUTH VAN NESS AVE	0	Not Stated	Driver	West	Making Left Turn	Pedestrian	South	Stopped	CVC 21461(a)	Injury (Complaint of Pain)	Head-On	Pedestrian	Clear	Daylight
210478726	07/28/2021	21:03	Wednesday	MISSION ST	13TH ST	0	Not Stated	Other	East	Proceeding Straight	Driver	West	Proceeding Straight	CVC 21453(a)	Injury (Other Visible)	Broadside	Other Object	Clear	Dark - Street Lights
210377714	06/17/2021	11:30	Thursday	13TH ST	SOUTH VAN NESS AVE	0	Not Stated	Driver	East	Making Right Turn	Driver	East	Slowing/Stopping	CVC 21703	Injury (Complaint of Pain)	Rear End	Motor Vehicle on Other Roadway	Clear	Daylight
210240763	04/19/2021	16:47	Monday	FOLSOM ST	13TH ST	0	Not Stated	Driver	North	Proceeding Straight	Driver	West	Proceeding Straight	CVC 21453(a)	Injury (Complaint of Pain)	Broadside	Other Motor Vehicle	Clear	Daylight
210215669	04/07/2021	15:53	Wednesday	DUBOCE AVE	MISSION ST	0	Not Stated	Driver	North	Making Right Turn	Driver	West	Proceeding Straight	CVC 22101(d)	Injury (Complaint of Pain)	Broadside	Other Motor Vehicle	Clear	Daylight



# TransBASE Internal Dashboard

Geographic Extent: 13TH ST from DUBOCE AVE/HWY 101 NORTHBOUND RAMP/MISSION ST/OTIS ST to FOLSOM ST (0.32 miles/1698.50 feet)

Spatial Intersect: No Restriction (SFMTA 20ft/150ft Buffer)

Data Range: 01/01/2017 to 12/31/2021

Pull Date: 4/26/2022

Case ID	Collision Date	Collision Time	Day of Week	Primary Road	Secondary Road	Distance	Direction	Party 1 Type	Party 1 Direction of Travel	Party 1 Movement Preceding Crash	Party 2 Type	Party 2 Direction of Travel	Party 2 Movement Preceding Crash	Vehicle Code Violation	Highest Degree of Injury	Type of Collision	Motor Vehicle Involved With	Weather	Lighting
210104404	02/15/2021	17:55	Monday	13TH ST	MISSION ST	50	East	Driver	East	Proceeding Straight	Other	East	Proceeding Straight	CVC 21703	Injury (Other Visible)	Rear End	Other Motor Vehicle	Clear	Dusk - Dawn
210095273	02/11/2021	15:15	Thursday	MISSION ST	DUBOCE AVE	0	Not Stated	Driver	West	Proceeding Straight	Driver	North	Proceeding Straight	CVC 21453(a)	Injury (Complaint of Pain)	Broadside	Other Motor Vehicle	Raining	Daylight
210095693	02/11/2021	18:25	Thursday	13TH ST	SOUTH VAN NESS AVE	50	East	Driver	West	Changing Lanes	Driver	West	Stopped	CVC 22107	Injury (Complaint of Pain)	Rear End	Other Motor Vehicle	Raining	Dark - Street Lights
200761274	12/18/2020	10:36	Friday	FOLSOM ST	13TH ST	0	Not Stated	Driver	South	Proceeding Straight	Driver	East	Proceeding Straight	CVC 21453(a)	Injury (Other Visible)	Broadside	Other Motor Vehicle	Clear	Daylight
200686252	11/13/2020	13:50	Friday	13TH ST	SOUTH VAN NESS AVE	0	Not Stated	Driver	West	Making Left Turn	Driver	North	Proceeding Straight	CVC 22107	Injury (Complaint of Pain)	Broadside	Other Motor Vehicle	Cloudy	Daylight
200468163	08/05/2020	11:20	Wednesday	13TH ST	SOUTH VAN NESS AVE	0	Not Stated	Bicyclist	West	Proceeding Straight	Driver	South	Proceeding Straight	CVC 21453(a)	Injury (Other Visible)	Broadside	Bicycle	Clear	Daylight
200319964	05/26/2020	22:31	Tuesday	MISSION ST	13TH ST	0	Not Stated	Bicyclist	North	Proceeding Straight	Driver	West	Proceeding Straight	CVC 21453(a)	Injury (Complaint of Pain)	Broadside	Bicycle	Clear	Dark - Street Lights
200256758	04/23/2020	21:20	Thursday	13TH ST	SOUTH VAN NESS AVE	0	Not Stated	Other	South	Proceeding Straight	Driver	West	Proceeding Straight	CVC 21657	Injury (Other Visible)	Broadside	Other Motor Vehicle	Clear	Dark - Street Lights
200213510	03/29/2020	13:33	Sunday	13TH ST	MISSION ST	0	Not Stated	Other	North	Entering Traffic	Driver	West	Proceeding Straight	CVC 21950(b)	Injury (Complaint of Pain)	Vehicle/ Pedestrian	Other Motor Vehicle	Cloudy	Daylight
200085494	02/03/2020	17:32	Monday	FOLSOM ST	13TH ST	0	Not Stated	Driver	East	Making Left Turn	Driver	North	Proceeding Straight	CVC 21801(a)	Injury (Other Visible)	Broadside	Other Motor Vehicle	Clear	Daylight
200032821	01/13/2020	21:48	Monday	MISSION ST	13TH ST	0	Not Stated	Driver	East	Making Right Turn	Pedestrian	West	Proceeding Straight	CVC 21453(b)	Injury (Complaint of Pain)	Vehicle/ Pedestrian	Pedestrian	Raining	Dark - Street Lights
200020945	01/09/2020	09:47	Thursday	13TH ST	FOLSOM ST	0	Not Stated	Driver	East	Making Right Turn	Bicyclist	North	Proceeding Straight	CVC Unknown	Injury (Complaint of Pain)	Broadside	Bicycle	Raining	Daylight
200009438	01/04/2020	15:13	Saturday	MISSION ST	DUBOCE AVE	0	Not Stated	Pedestrian	East	Proceeding Straight	Driver	South	Slowing/ Stopping	CVC 21950(b)	Injury (Other Visible)	Vehicle/ Pedestrian	Pedestrian	Clear	Daylight
190913822	12/04/2019	16:06	Wednesday	OTIS ST	DUBOCE AVE	0	Not Stated	Other	West	Proceeding Straight	Driver	South	Proceeding Straight	CVC 21453(a)	Injury (Other Visible)	Broadside	Bicycle	Clear	Daylight
190842500	11/07/2019	06:59	Thursday	13TH ST	SOUTH VAN NESS AVE	129	East	Driver	East	Proceeding Straight	Driver	East	Proceeding Straight	CVC 21755(a)	Injury (Complaint of Pain)	Rear End	Other Motor Vehicle	Clear	Daylight
190825186	10/31/2019	21:06	Thursday	DUBOCE AVE	MISSION ST	0	Not Stated	Bicyclist	East	Proceeding Straight	Driver	East	Proceeding Straight	CVC 21453(a)	Injury (Complaint of Pain)	Other	Bicycle	Clear	Dark - Street Lights

# TransBASE Internal Dashboard

Geographic Extent: 13TH ST from DUBOCE AVE/HWY 101 NORTHBOUND RAMP/MISSION ST/OTIS ST to FOLSOM ST (0.32 miles/1698.50 feet)

Spatial Intersect: No Restriction (SFMTA 20ft/150ft Buffer)

Data Range: 01/01/2017 to 12/31/2021

Pull Date: 4/26/2022

Case ID	Collision Date	Collision Time	Day of Week	Primary Road	Secondary Road	Distance	Direction	Party 1 Type	Party 1 Direction of Travel	Party 1 Movement Preceding Crash	Party 2 Type	Party 2 Direction of Travel	Party 2 Movement Preceding Crash	Vehicle Code Violation	Highest Degree of Injury	Type of Collision	Motor Vehicle Involved With	Weather	Lighting
190808740	10/26/2019	09:07	Saturday	MISSION ST	DUBOCE AVE	0	Not Stated	Driver	South	Proceeding Straight	Driver	West	Proceeding Straight	CVC 21453(a)	Injury (Complaint of Pain)	Broadside	Other Motor Vehicle	Clear	Daylight
190810397	10/26/2019	00:14	Saturday	SOUTH VAN NESS AVE	13TH ST	0	Not Stated	Driver	West	Not Stated	Pedestrian	West	Other	CVC 23104(a)	Injury (Severe)	Vehicle/Pedestrian	Pedestrian	Clear	Dark - Street Lights
190757824	10/08/2019	16:02	Tuesday	OTIS ST	DUBOCE AVE	0	Not Stated	Pedestrian	South	Proceeding Straight	Driver	West	Proceeding Straight	CVC 21456(c)	Injury (Complaint of Pain)	Vehicle/Pedestrian	Pedestrian	Clear	Daylight
190565025	08/03/2019	00:02	Saturday	13TH ST	SOUTH VAN NESS AVE	0	Not Stated	Driver	South	Proceeding Straight	Driver	South	Stopped	CVC 22350	Injury (Complaint of Pain)	Rear End	Other Motor Vehicle	Clear	Dark - Street Lights
190565401	08/03/2019	06:44	Saturday	13TH ST	MISSION ST	0	Not Stated	Bicyclist	North	Proceeding Straight	Driver	West	Proceeding Straight	CVC 21453(a)	Injury (Complaint of Pain)	Broadside	Bicycle	Clear	Daylight
190548601	07/28/2019	13:48	Sunday	FOLSOM ST	13TH ST	0	Not Stated	Driver	East	Making Left Turn	Pedestrian	North	Proceeding Straight	CVC 21950(a)	Injury (Complaint of Pain)	Vehicle/Pedestrian	Pedestrian	Clear	Daylight
190502914	07/11/2019		Thursday	13TH ST	MISSION ST	0	Not Stated	Driver	West	Proceeding Straight	Driver	South	Proceeding Straight	CVC 21800(b)	Injury (Other Visible)	Broadside	Other Motor Vehicle	Clear	Daylight
190411343	06/07/2019	22:40	Friday	DUBOCE AVE	MISSION ST	0	Not Stated	Driver	West	Making Right Turn	Driver	West	Proceeding Straight	CVC 22107	Injury (Complaint of Pain)	Sideswipe	Other Motor Vehicle	Clear	Dark - Street Lights
190373765	05/25/2019	07:11	Saturday	13TH ST	MISSION ST	0	Not Stated	Driver	North	Proceeding Straight	Driver	East	Proceeding Straight	CVC 21453(a)	Injury (Complaint of Pain)	Broadside	Other Motor Vehicle	Clear	Daylight
190325863	05/06/2019	21:35	Monday	13TH ST	FOLSOM ST	0	Not Stated	Driver	East	Making Left Turn	Driver	West	Proceeding Straight	CVC 21453(c)	Injury (Complaint of Pain)	Broadside	Other Motor Vehicle	Clear	Dark - Street Lights
190255969	04/10/2019	22:00	Wednesday	MISSION ST	DUBOCE AVE	0	Not Stated	Bicyclist	North	Proceeding Straight	Driver	West	Proceeding Straight	CVC Unknown	Injury (Other Visible)	Broadside	Bicycle	Clear	Dark - Street Lights
190197684	03/19/2019	18:34	Tuesday	13TH ST	HWY 101 SOUTHBOUND	31	West	Driver	East	Slowing/ Stopping	Driver	East	Stopped	CVC 22350	Injury (Complaint of Pain)	Rear End	Other Motor Vehicle	Clear	Dusk - Dawn
190134755	02/23/2019	00:45	Saturday	SOUTH VAN NESS AVE	13TH ST	0	Not Stated	Bicyclist	South	Proceeding Straight	Driver	North	Proceeding Straight	CVC 21650.1	Injury (Other Visible)	Head-On	Bicycle	Clear	Dark - Street Lights
190066700	01/27/2019	10:36	Sunday	13TH ST	SOUTH VAN NESS AVE	0	Not Stated	Driver	South	Proceeding Straight	Driver	West	Proceeding Straight	CVC 21453(a)	Injury (Complaint of Pain)	Broadside	Other Motor Vehicle	Clear	Daylight
180963122	12/22/2018	17:34	Saturday	MISSION ST	13TH ST	0	Not Stated	Driver	West	Making Right Turn	Driver	West	Proceeding Straight	CVC 21461(a)	Injury (Complaint of Pain)	Sideswipe	Other Motor Vehicle	Clear	Dark - Street Lights

# TransBASE Internal Dashboard

Geographic Extent: 13TH ST from DUBOCE AVE/HWY 101 NORTHBOUND RAMP/MISSION ST/OTIS ST to FOLSOM ST (0.32 miles/1698.50 feet)

Spatial Intersect: No Restriction (SFMTA 20ft/150ft Buffer)

Data Range: 01/01/2017 to 12/31/2021

Pull Date: 4/26/2022

Case ID	Collision Date	Collision Time	Day of Week	Primary Road	Secondary Road	Distance	Direction	Party 1 Type	Party 1 Direction of Travel	Party 1 Movement Preceding Crash	Party 2 Type	Party 2 Direction of Travel	Party 2 Movement Preceding Crash	Vehicle Code Violation	Highest Degree of Injury	Type of Collision	Motor Vehicle Involved With	Weather	Lighting
180928477	12/09/2018	17:00	Sunday	SOUTH VAN NESS AVE	13TH ST	0	Not Stated	Driver	South	Making Left Turn	Driver	North	Proceeding Straight	CVC 21801(a)	Injury (Complaint of Pain)	Broadside	Other Motor Vehicle	Cloudy	Dusk - Dawn
180840166	11/05/2018	11:07	Monday	13TH ST	MISSION ST	0	Not Stated	Bicyclist	North	Proceeding Straight	Driver	East	Making Left Turn	CVC 21800(a)	Injury (Complaint of Pain)	Vehicle/Pedestrian	Bicycle	Clear	Daylight
180722326	09/23/2018	15:55	Sunday	SOUTH VAN NESS AVE	13TH ST	0	Not Stated	Pedestrian	East	Proceeding Straight	Driver	South	Proceeding Straight	CVC 21950(b)	Injury (Other Visible)	Vehicle/Pedestrian	Pedestrian	Clear	Daylight
180610715	08/14/2018	18:18	Tuesday	FOLSOM ST	13TH ST	0	Not Stated	Driver	West	Making Left Turn	Bicyclist	South	Proceeding Straight	CVC 21801(a)	Injury (Complaint of Pain)	Broadside	Bicycle	Clear	Daylight
180585986	08/06/2018	01:15	Monday	SOUTH VAN NESS AVE	13TH ST	0	Not Stated	Driver	South	Proceeding Straight				CVC 22350	Injury (Other Visible)	Head-On	Fixed Object	Clear	Dark - No Street Lights
180569946	07/31/2018	13:31	Tuesday	SOUTH VAN NESS AVE	13TH ST	0	Not Stated	Driver	South	Making Left Turn	Driver	North	Proceeding Straight	CVC 21801(a)	Injury (Complaint of Pain)	Head-On	Other Motor Vehicle	Clear	Daylight
180430654	06/10/2018	13:40	Sunday	MISSION ST	DUBOCE AVE	50	North	Driver	North	Proceeding Straight	Driver	South	Merging	CVC 21703	Injury (Complaint of Pain)	Rear End	Other Object	Clear	Daylight
180423079	06/07/2018	11:35	Thursday	13TH ST	SOUTH VAN NESS AVE	0	Not Stated	Driver	West	Making Left Turn	Driver	West	Making Left Turn	CVC 21658(a)	Injury (Complaint of Pain)	Sideswipe	Other Motor Vehicle	Clear	Daylight
180404126	05/31/2018	03:46	Thursday	13TH ST	MISSION ST	0	Not Stated	Driver	North	Making Right Turn	Driver	West	Proceeding Straight	CVC 22101(d)	Injury (Complaint of Pain)	Broadside	Other Motor Vehicle	Clear	Daylight
180396266	05/28/2018	07:30	Monday	13TH ST	MISSION ST	0	Not Stated	Other	North	Proceeding Straight	Driver	North	Proceeding Straight	CVC 21453(a)	Injury (Complaint of Pain)	Sideswipe	Other Object	Clear	Daylight
180366554	05/16/2018	23:15	Wednesday	SOUTH VAN NESS AVE	13TH ST	0	Not Stated	Driver	South	Proceeding Straight	Driver	East	Proceeding Straight	CVC Unknown	Injury (Complaint of Pain)	Broadside	Other Motor Vehicle	Clear	Dark - Street Lights
180171933	03/05/2018	17:00	Monday	13TH ST	MISSION ST	5	East	Bicyclist	North	Proceeding Straight	Driver	East	Making Left Turn	CVC 21453(a)	Injury (Other Visible)	Broadside	Bicycle	Clear	Daylight
180101548	02/07/2018	12:18	Wednesday	SOUTH VAN NESS AVE	13TH ST	0	Not Stated	Driver	South	Making Right Turn	Driver	South	Making Right Turn	CVC Unknown	Injury (Complaint of Pain)	Sideswipe	Other Motor Vehicle	Clear	Daylight
180052167	01/20/2018	12:56	Saturday	MISSION ST	13TH ST	0	Not Stated	Bicyclist	West	Proceeding Straight	Driver	South	Proceeding Straight	CVC 21453(a)	Injury (Complaint of Pain)	Other	Bicycle	Clear	Daylight

# TransBASE Internal Dashboard

Geographic Extent: 13TH ST from DUBOCE AVE/HWY 101 NORTHBOUND RAMP/MISSION ST/OTIS ST to FOLSOM ST (0.32 miles/1698.50 feet)

Spatial Intersect: No Restriction (SFMTA 20ft/150ft Buffer)

Data Range: 01/01/2017 to 12/31/2021

Pull Date: 4/26/2022

Case ID	Collision Date	Collision Time	Day of Week	Primary Road	Secondary Road	Distance	Direction	Party 1 Type	Party 1 Direction of Travel	Party 1 Movement Preceding Crash	Party 2 Type	Party 2 Direction of Travel	Party 2 Movement Preceding Crash	Vehicle Code Violation	Highest Degree of Injury	Type of Collision	Motor Vehicle Involved With	Weather	Lighting
171040884	12/26/2017	01:53	Tuesday	13TH ST	VAN NESS AVE	0	Not Stated	Driver	East	Proceeding Straight	Driver	South	Proceeding Straight	CVC 21453(a)	Injury (Complaint of Pain)	Overtuned	Other Motor Vehicle	Clear	Dark - Street Lights
170994682	12/08/2017	20:53	Friday	13TH ST	VAN NESS AVE	0	Not Stated	Driver	West	Proceeding Straight	Driver	North	Making Left Turn	CVC 21453(a)	Injury (Complaint of Pain)	Head-On	Other Motor Vehicle	Clear	Dark - Street Lights
170883847	10/29/2017	11:05	Sunday	13TH ST	MISSION ST	24	East	Driver	East	Making Right Turn	Driver	East	Making Left Turn	CVC 21658(a)	Injury (Other Visible)	Sideswipe	Other Motor Vehicle	Cloudy	Daylight
170771173	09/21/2017	11:46	Thursday	DUBOCE AVE	MISSION ST	5	East	Bicyclist	North	Proceeding Straight	Driver	East	Making Left Turn	CVC 21456(b)	Injury (Complaint of Pain)	Other	Bicycle	Clear	Daylight
170757907	09/16/2017	03:15	Saturday	13TH ST	MISSION ST	0	Not Stated	Driver	East	Proceeding Straight	Driver	East	Stopped In Road	CVC 22350	Injury (Complaint of Pain)	Rear End	Other Motor Vehicle	Clear	Dark - Street Lights
170730527	09/07/2017	11:46	Thursday	OTIS ST	DUBOCE AVE	90	North	Driver	South	Proceeding Straight	Driver	South	Stopped In Road	CVC 22350	Injury (Severe)	Rear End	Other Motor Vehicle	Cloudy	Daylight
170595707	07/22/2017	06:55	Saturday	13TH ST	VAN NESS AVE	0	Not Stated	Driver	East	Proceeding Straight	Driver	West	Making Left Turn	CVC 21453(a)	Injury (Complaint of Pain)	Broadside	Other Motor Vehicle	Clear	Daylight
170445425	05/31/2017	10:15	Wednesday	13TH ST	MISSION ST	0	Not Stated	Pedestrian	North	Not Stated	Driver	East	Proceeding Straight	CVC 21950(b)	Injury (Complaint of Pain)	Vehicle/ Pedestrian	Pedestrian	Clear	Daylight
170383916	05/10/2017	15:14	Wednesday	VAN NESS AVE	13TH ST	0	Not Stated	Driver	East	Proceeding Straight	Driver	North	Proceeding Straight	CVC 22350	Injury (Complaint of Pain)	Broadside	Other Motor Vehicle	Clear	Daylight
170129817	02/14/2017	22:51	Tuesday	MISSION ST	DUBOCE AVE	0	Not Stated	Pedestrian	South	Proceeding Straight	Driver	North	Proceeding Straight	CVC 21950(a)	Injury (Other Visible)	Vehicle/ Pedestrian	Pedestrian	Clear	Dark - Street Lights
170106194	02/07/2017	01:20	Tuesday	13TH ST	MISSION ST	0	Not Stated	Driver	West	Making Right Turn	Driver	West	Proceeding Straight	CVC 22101(d)	Injury (Complaint of Pain)	Broadside	Other Motor Vehicle	Raining	Dark - Street Lights
170073725	01/27/2017	06:00	Friday	13TH ST	FOLSOM ST	0	Not Stated	Driver	East	Proceeding Straight	Driver	East	Stopped In Road	CVC Unknown	Injury (Complaint of Pain)	Rear End	Other Motor Vehicle	Clear	Dark - Street Lights
170042695	01/16/2017	09:38	Monday	FOLSOM ST	13TH ST	0	Not Stated	Driver	North	Not Stated	Driver	South	Not Stated	CVC 21801(a)	Injury (Complaint of Pain)	Not Stated	Not Stated	Not Stated	Not Stated
170015727	01/06/2017	15:30	Friday	FOLSOM ST	13TH ST	0	Not Stated	Driver	South	Making Left Turn	Driver	North	Proceeding Straight	CVC 21801(a)	Injury (Other Visible)	Broadside	Other Motor Vehicle	Cloudy	Daylight
170016189	01/06/2017	18:13	Friday	13TH ST	VAN NESS AVE	0	Not Stated	Driver	East	Proceeding Straight	Driver	Not Stated	Making Left Turn	CVC 21453(a)	Injury (Complaint of Pain)	Sideswipe	Other Motor Vehicle	Cloudy	Dark - Street Lights

# TransBASE Internal Dashboard

Geographic Extent: 13TH ST from DUBOCE AVE/HWY 101 NORTHBOUND RAMP/MISSION ST/OTIS ST to FOLSOM ST (0.32 miles/1698.50 feet)

Spatial Intersect: No Restriction (SFMTA 20ft/150ft Buffer)

Data Range: 01/01/2017 to 12/31/2021

Pull Date: 4/26/2022

## Metadata Information

### Collision Filters

Database Source: TransBASESF.org  
Database Pull Date: 4/26/2022  
Collision Level: Injury Collisions  
Boundary: 13TH ST from DUBOCE AVE/HWY 101 NORTHBOUND RAMP/MISSION ST/OTIS ST to FOLSOM ST (0.32 miles/1698.50 feet)  
Collision Dates: 01/01/2017 to 12/31/2021  
Collision Month Filter(s): No Restrictions  
Collision Distance: Any Distance  
Collision Severity Filter(s): No Restrictions  
Primary Collision Factor Filter(s): No Restrictions  
Collision Type Filter(s): No Restrictions  
Intersection/Midblock: No Restriction (SFMTA 20ft/150ft Buffer)

### Party Filters

Party Involved Type: No Restrictions  
Party Involved Gender: No Restrictions  
Party Involved at Fault: No Restrictions  
Party Involved Age: No Restriction  
Party Involved Sobriety: No Restrictions  
Party Involved Condition: No Restrictions  
Party Involved Direction of Travel: No Restrictions  
Party Involved Safety Equipment 1: No Restrictions  
Party Involved Safety Equipment 2: No Restrictions  
Party Involved Insurance: No Restrictions  
Party Involved Other Associated Factors : No Restrictions  
Party Involved Movement Preceding Collision: No Restrictions  
Party Involved Vehicle Type: No Restrictions  
Party Involved Race: No Restrictions  
Party Involved Special Info: No Restrictions

### Victim Filters

Victim Involved Role: No Restrictions  
Victim Involved Degree of Injury: No Restrictions  
Victim Involved Age: No Restriction  
Victim Involved Seating Position: No Restrictions  
Victim Involved Safety Equipment: No Restrictions  
Victim Involved Ejected: No Restrictions

### Environmental Filters

Nearest Traffic Control: No Restriction  
Intersecting Speed Limit: No Restriction  
Intersecting Network: No Restriction  
Intersecting Street Class: No Restriction  
Weather Description: No Restrictions  
Lighting Description: No Restrictions

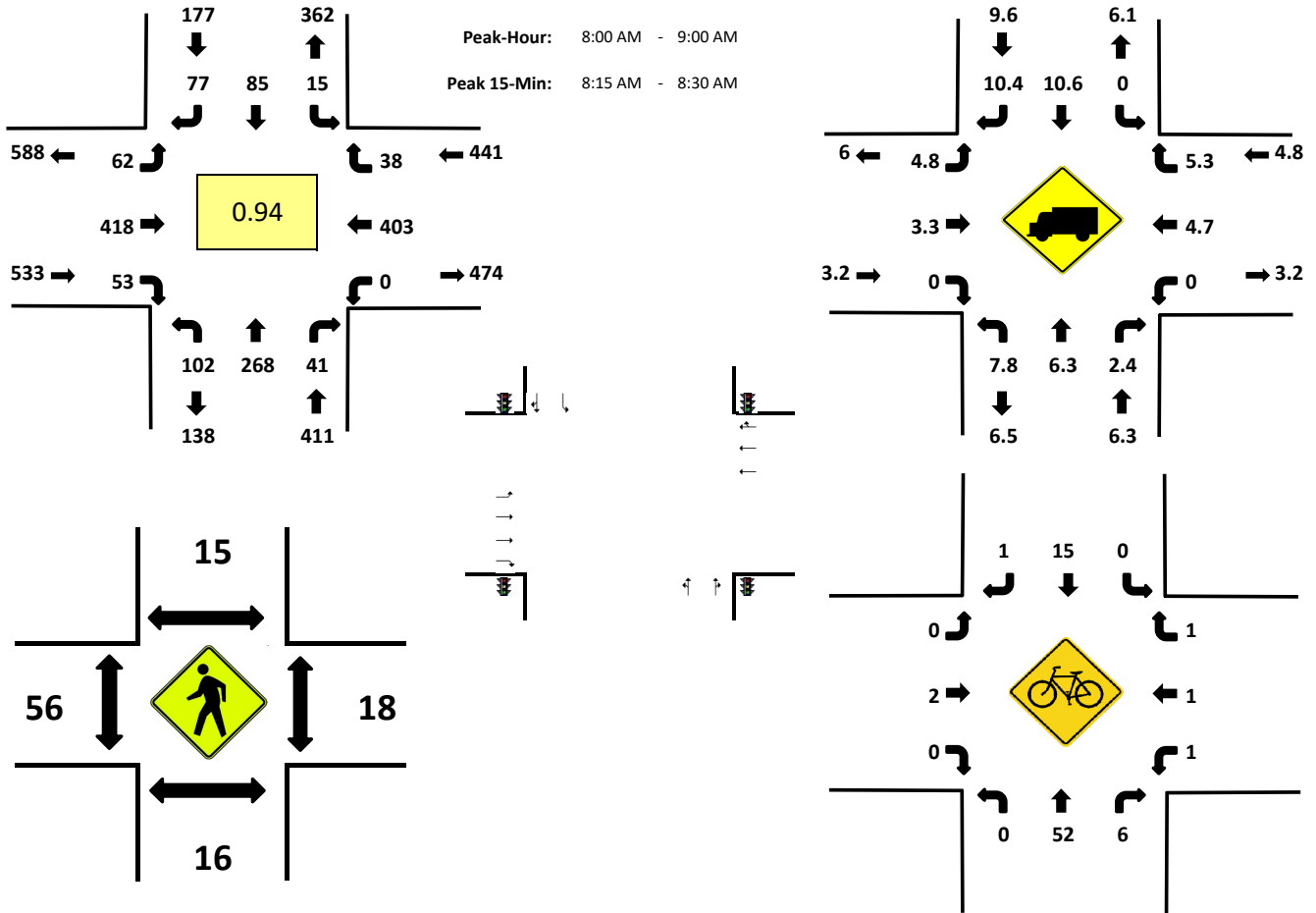
LOCATION: Folsom St & 13th St

QC JOB #: 15371501

CITY/STATE: San Francisco, CA



DATE: 3/24/2021



Count Period	Folsom St Northbound				Folsom St Southbound				13th St Eastbound				13th St Westbound				Total	Hourly Totals
	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	U		
7:00 AM	5	4	1	0	0	3	5	0	1	19	2	3	0	18	3	0	64	
7:05 AM	4	9	1	0	1	0	1	0	0	20	7	0	0	14	1	0	58	
7:10 AM	8	15	4	0	1	3	3	0	0	10	4	0	0	14	1	0	63	
7:15 AM	9	10	2	0	0	3	1	0	3	26	4	1	0	19	2	0	80	
7:20 AM	4	14	2	0	0	5	2	0	2	15	1	0	0	12	1	0	58	
7:25 AM	4	9	3	0	1	1	1	0	3	21	7	1	0	12	3	0	66	
7:30 AM	4	11	2	0	0	3	1	0	3	20	0	0	0	32	1	0	77	
7:35 AM	8	17	4	0	1	5	1	0	1	21	4	0	0	30	1	0	93	
7:40 AM	8	14	4	0	1	5	3	0	0	14	5	1	0	19	0	0	74	
7:45 AM	6	20	1	0	0	4	0	0	5	34	3	2	0	35	0	0	110	
7:50 AM	5	17	2	0	2	7	6	0	8	25	3	1	0	32	1	0	109	
7:55 AM	10	15	4	0	0	4	5	0	4	30	7	0	0	33	2	0	114	966
8:00 AM	4	21	4	0	1	2	8	0	5	33	5	0	0	37	3	0	123	1025
8:05 AM	8	29	0	0	0	10	6	0	6	23	4	0	0	35	1	0	122	1089
8:10 AM	8	24	4	0	0	6	3	0	3	28	3	0	0	29	1	0	109	1135
8:15 AM	5	26	2	0	1	8	4	0	8	38	4	0	0	49	2	0	147	1202
8:20 AM	8	23	5	0	1	9	9	0	3	32	6	0	0	32	3	0	131	1275
8:25 AM	10	22	2	0	2	9	7	0	10	34	5	1	0	35	2	0	139	1348
8:30 AM	9	19	3	0	0	4	6	0	2	46	4	2	0	36	5	0	136	1407
8:35 AM	7	21	6	0	1	6	8	0	6	29	3	1	0	33	4	0	125	1439
8:40 AM	13	24	3	0	4	6	7	0	2	37	6	1	0	25	4	0	132	1497
8:45 AM	11	21	5	0	2	9	2	0	5	44	2	0	0	29	6	0	136	1523
8:50 AM	9	20	3	0	2	11	10	0	6	34	5	1	0	35	5	0	141	1555
8:55 AM	10	18	4	0	1	5	7	0	0	40	6	0	0	28	2	0	121	1562
Peak 15-Min Flowrates	NB				SB				EB				WB				Total	
All Vehicles	92	284	36	0	16	104	80	0	84	416	60	4	0	464	28	0		1668
Heavies	0	12	0		0	8	0		0	12	0		0	16	0		48	
Peds		4				12				56				32			104	
2HR Bikes	0	76	10		0	23	2		0	2	0		1	2	1		117	

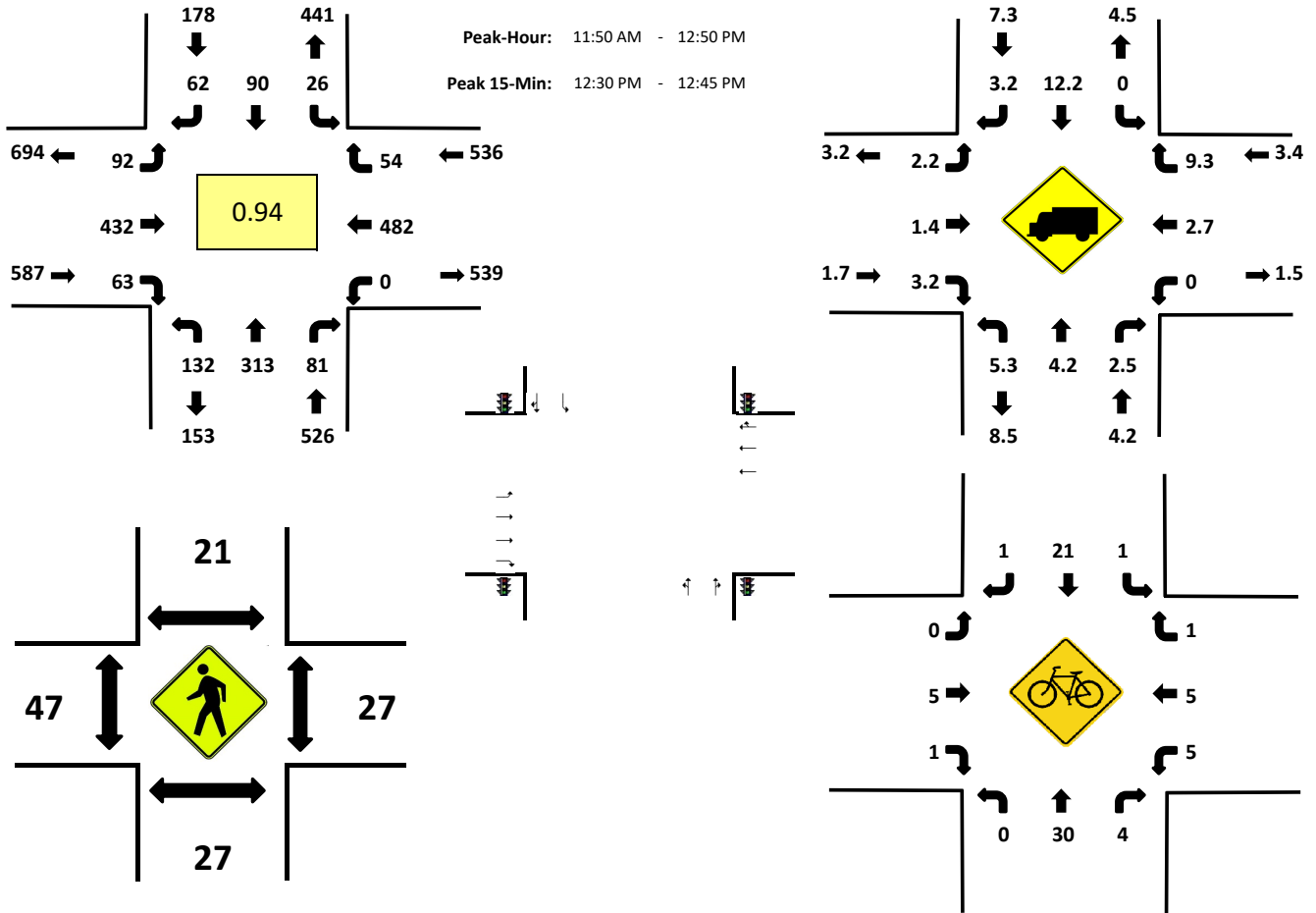
LOCATION: Folsom St & 13th St

QC JOB #: 15371502

CITY/STATE: San Francisco, CA



DATE: 3/24/2021



Count Period	Folsom St Northbound				Folsom St Southbound				13th St Eastbound				13th St Westbound				Total	Hourly Totals
	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	U		
11:00 AM	7	21	6	1	2	5	4	0	6	42	7	0	0	30	3	0	134	
11:05 AM	7	20	10	0	2	9	6	1	9	29	7	0	0	38	2	0	140	
11:10 AM	7	21	6	0	8	4	4	0	4	40	4	2	0	55	6	0	161	
11:15 AM	12	23	12	0	6	12	4	0	5	20	1	0	0	44	2	0	141	
11:20 AM	10	21	4	0	0	13	6	0	1	37	4	2	0	36	2	0	136	
11:25 AM	15	19	9	0	2	4	5	0	4	29	3	0	0	34	6	0	130	
11:30 AM	10	22	4	0	4	5	9	0	7	34	5	2	0	31	2	0	135	
11:35 AM	8	24	8	0	3	8	7	0	1	34	4	0	0	23	3	0	123	
11:40 AM	9	22	7	0	0	4	4	0	4	32	4	1	0	36	2	0	125	
11:45 AM	12	24	9	0	1	11	4	0	5	30	3	0	0	29	5	0	133	
11:50 AM	20	27	8	0	2	7	5	0	5	26	10	0	0	43	5	0	158	
11:55 AM	9	23	8	0	0	10	8	0	6	47	5	3	0	47	3	0	169	1685
12:00 PM	3	25	5	0	2	11	6	0	12	30	3	1	0	38	4	0	140	1691
12:05 PM	15	28	9	0	2	5	3	0	5	28	7	1	0	43	3	0	149	1700
12:10 PM	15	23	5	0	2	6	3	0	6	42	0	1	0	48	9	0	160	1699
12:15 PM	9	29	5	0	0	13	3	0	3	28	0	3	0	29	5	0	127	1685
12:20 PM	15	24	10	0	3	9	3	0	8	32	3	1	0	35	1	0	144	1693
12:25 PM	8	23	5	0	3	0	6	0	4	38	8	1	0	49	3	0	148	1711
12:30 PM	5	26	8	0	2	8	11	0	12	38	7	3	0	23	8	0	151	1727
12:35 PM	13	23	4	0	4	8	3	0	5	43	10	0	0	43	3	0	159	1763
12:40 PM	5	34	4	0	4	10	8	0	3	45	5	2	0	49	6	0	175	1813
12:45 PM	15	28	10	0	2	3	3	0	5	35	5	2	0	35	4	0	147	1827
12:50 PM	7	21	9	0	3	12	2	0	11	42	3	0	0	39	3	0	152	1821
12:55 PM	12	27	6	0	1	6	6	0	4	48	4	0	0	50	7	0	171	1823
Peak 15-Min Flowrates	NB				SB				EB				WB				Total	
	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	U		
All Vehicles	92	332	64	0	40	104	88	0	80	504	88	20	0	460	68	0	1940	
Heavies	0	20	0		0	20	4		0	16	0		0	12	8		80	
Peds		40				36				68				32			176	
2HR Bikes	2	58	8		2	39	2		0	8	1		5	6	1		132	

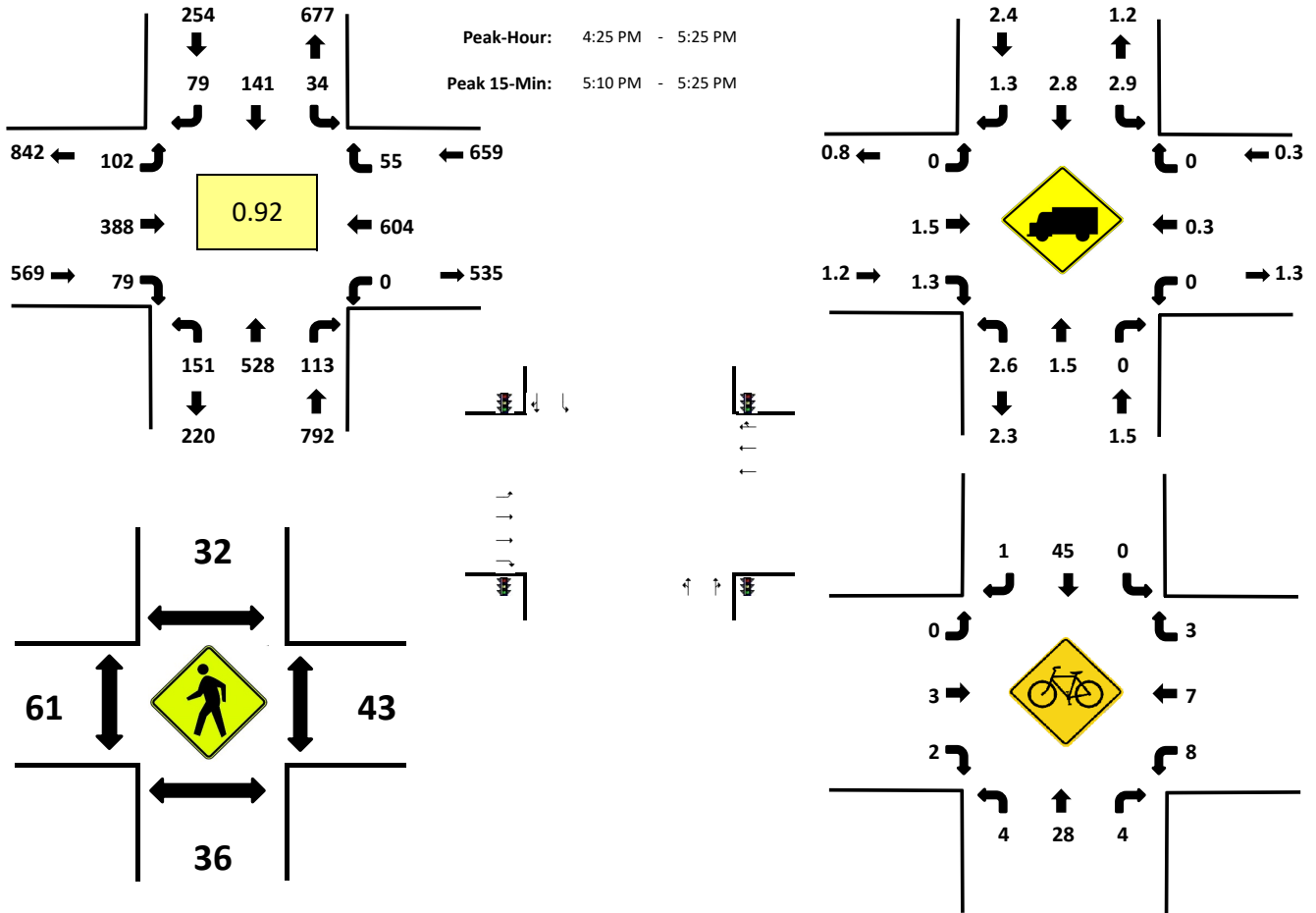
LOCATION: Folsom St & 13th St

QC JOB #: 15371503

CITY/STATE: San Francisco, CA



DATE: 3/24/2021



Count Period	Folsom St Northbound				Folsom St Southbound				13th St Eastbound				13th St Westbound				Total	Hourly Totals
	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	U		
4:00 PM	12	47	9	0	3	7	6	0	8	31	7	0	0	31	2	0	163	
4:05 PM	12	49	7	0	2	10	9	0	6	26	9	0	0	52	4	0	186	
4:10 PM	15	31	6	0	4	14	7	0	7	41	6	1	0	75	2	0	209	
4:15 PM	15	27	10	0	2	15	11	0	4	39	1	1	0	41	8	0	174	
4:20 PM	15	32	10	0	6	15	10	0	5	31	8	1	0	59	5	0	197	
4:25 PM	8	36	10	0	3	13	5	0	10	43	5	2	0	64	6	0	205	
4:30 PM	10	42	16	0	5	8	6	0	6	27	4	0	0	34	4	0	162	
4:35 PM	9	42	7	0	7	14	6	0	7	25	6	1	0	51	5	0	180	
4:40 PM	8	43	11	0	3	13	4	0	6	43	6	0	0	56	7	0	200	
4:45 PM	18	57	7	0	0	10	8	0	9	25	8	2	0	37	6	0	187	
4:50 PM	13	35	8	0	3	8	6	0	4	31	6	0	0	39	3	0	156	
4:55 PM	11	35	12	0	3	13	7	0	13	34	7	0	0	64	2	0	201	2220
5:00 PM	11	51	8	0	2	18	10	0	13	21	3	0	0	43	4	0	184	2241
5:05 PM	16	47	9	0	2	8	4	0	5	22	7	2	0	53	3	0	178	2233
5:10 PM	14	41	6	0	4	9	8	0	11	47	6	1	0	61	5	0	213	2237
5:15 PM	16	42	11	0	1	16	9	0	5	29	12	0	0	43	5	0	189	2252
5:20 PM	17	57	8	0	1	11	6	0	5	41	9	0	0	59	5	0	219	2274
5:25 PM	6	38	7	0	1	12	5	0	5	44	6	0	0	41	7	0	172	2241
5:30 PM	12	29	11	0	4	14	9	0	10	35	5	0	0	41	4	0	174	2253
5:35 PM	15	25	3	0	6	4	7	0	3	36	6	0	0	49	7	0	161	2234
5:40 PM	11	29	7	0	4	4	5	0	7	34	2	1	0	52	5	0	161	2195
5:45 PM	14	44	9	0	0	7	4	0	13	29	5	1	0	41	5	0	172	2180
5:50 PM	13	31	6	0	5	9	9	0	7	30	5	0	0	48	2	0	165	2189
5:55 PM	11	27	8	0	1	9	7	0	1	43	8	2	0	33	5	0	155	2143
Peak 15-Min Flowrates	NB				SB				EB				WB				Total	
All Vehicles	188	560	100	0	24	144	92	0	84	468	108	4	0	652	60	0		2484
Heavies	4	4	0		0	0	0		0	4	0		0	4	0		16	
Peds		24				32				44				52			152	
2HR Bikes	5	61	9		0	79	2		2	4	3		13	13	3		194	





Location: Otis St/Mission St & 13th St

Date: 3/24/2021

Site Code: 15371507

Start Time	Otis St Southbound					Central Fwy Off-Ramp Southwestbound					13th St Westbound					Mission St Northbound					13th St Eastbound				
	Right	Thru	Left	Hard Left	U-Turn	Hard Right to Otis St	Bear Right to 13th St	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	U-Turn	Right	Bear Right	Thru	Left	U-Turn	Right	Thru	Bear Left	Left	U-Turn
07:00 AM	12	26	62	0	17	199	125	0	0	0	0	0	50	0	0	47	0	33	0	0	3	61	0	0	0
07:15 AM	17	26	73	0	16	215	132	0	0	0	0	0	57	0	0	48	0	33	0	0	9	59	0	0	0
07:30 AM	23	39	93	0	16	171	122	0	0	0	0	0	90	0	1	66	0	45	0	0	10	74	0	0	0
07:45 AM	22	47	104	0	21	241	126	0	0	0	0	0	112	0	0	45	0	48	0	0	8	96	0	0	0
08:00 AM	19	55	108	0	24	223	123	0	0	0	0	0	122	0	0	61	0	51	0	0	4	110	0	0	0
08:15 AM	31	72	138	0	23	221	122	0	0	0	0	0	135	0	0	77	0	56	1	0	9	104	0	0	0
08:30 AM	30	56	133	0	31	203	123	0	0	0	0	0	129	0	0	70	0	57	0	0	6	114	0	0	0
08:45 AM	26	63	127	0	37	155	117	0	0	0	0	1	138	0	0	66	0	64	0	0	7	97	0	0	0
<b>Total</b>	<b>180</b>	<b>384</b>	<b>838</b>	<b>0</b>	<b>185</b>	<b>1628</b>	<b>990</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>833</b>	<b>0</b>	<b>1</b>	<b>480</b>	<b>0</b>	<b>387</b>	<b>1</b>	<b>0</b>	<b>56</b>	<b>715</b>	<b>0</b>	<b>0</b>	<b>0</b>

Peak Hour: 8:00 AM - 9:00 AM

Peak 15: 8:15 AM - 8:30 AM

PHF: 0.945147



Location: Otis St/Mission St & 13th St  
 Date: 3/24/2021  
 Site Code: 15371507

Start Time	Otis St Southbound					Central Fwy Off-Ramp Southwestbound					13th St Westbound					Mission St Northbound					13th St Eastbound				
	Right	Thru	Left	Hard Left	U-Turn	Hard Right to Otis St	Bear Right to 13th St	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	U-Turn	Right	Bear Right	Thru	Left	U-Turn	Right	Thru	Bear Left	Left	U-Turn
07:00 AM	12	20	61	0	17	192	117	0	0	0	0	0	44	0	0	46	0	28	0	0	3	57	0	0	0
07:15 AM	16	19	70	0	16	209	123	0	0	0	0	0	55	0	0	46	0	24	0	0	9	58	0	0	0
07:30 AM	21	31	88	0	16	165	120	0	0	0	0	0	84	0	1	65	0	37	0	0	9	71	0	0	0
07:45 AM	21	38	103	0	21	233	122	0	0	0	0	0	110	0	0	43	0	39	0	0	8	93	0	0	0
08:00 AM	19	46	105	0	24	217	121	0	0	0	0	0	115	0	0	59	0	43	0	0	4	108	0	0	0
08:15 AM	29	62	134	0	23	212	117	0	0	0	0	0	131	0	0	76	0	43	1	0	9	101	0	0	0
08:30 AM	28	44	129	0	31	201	113	0	0	0	0	0	121	0	0	63	0	51	0	0	6	110	0	0	0
08:45 AM	25	53	124	0	37	148	109	0	0	0	0	1	132	0	0	65	0	55	0	0	7	92	0	0	0
<b>Total</b>	<b>171</b>	<b>313</b>	<b>814</b>	<b>0</b>	<b>185</b>	<b>1577</b>	<b>942</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>792</b>	<b>0</b>	<b>1</b>	<b>463</b>	<b>0</b>	<b>320</b>	<b>1</b>	<b>0</b>	<b>55</b>	<b>690</b>	<b>0</b>	<b>0</b>	<b>0</b>



Location: Otis St/Mission St & 13th St

Date: 3/24/2021

Site Code: 15371507

Start Time	Otis St Southbound				Central Fwy Off-Ramp Southwestbound				13th St Westbound				Mission St Northbound				13th St Eastbound			
	Right	Thru	Left	Hard Left	Hard Right to Otis St	Bear Right to 13th St	Bear Left	Hard Left	Hard Right	Right	Thru	Left	Right	Bear Right	Thru	Left	Right	Thru	Bear Left	Left
07:00 AM	0	6	1	0	7	8	0	0	0	0	6	0	1	0	5	0	0	4	0	0
07:15 AM	1	7	3	0	6	9	0	0	0	0	2	0	2	0	9	0	0	1	0	0
07:30 AM	2	8	5	0	6	2	0	0	0	0	6	0	1	0	8	0	1	3	0	0
07:45 AM	1	9	1	0	8	4	0	0	0	0	2	0	2	0	9	0	0	3	0	0
08:00 AM	0	9	3	0	6	2	0	0	0	0	7	0	2	0	8	0	0	2	0	0
08:15 AM	2	10	4	0	9	5	0	0	0	0	4	0	1	0	13	0	0	3	0	0
08:30 AM	2	12	4	0	2	10	0	0	0	0	8	0	7	0	6	0	0	4	0	0
08:45 AM	1	10	3	0	7	8	0	0	0	0	6	0	1	0	9	0	0	5	0	0
<b>Total</b>	<b>9</b>	<b>71</b>	<b>24</b>	<b>0</b>	<b>51</b>	<b>48</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>41</b>	<b>0</b>	<b>17</b>	<b>0</b>	<b>67</b>	<b>0</b>	<b>1</b>	<b>25</b>	<b>0</b>	<b>0</b>



Location: Otis St/Mission St & 13th St

Date: 3/24/2021

Site Code: 15371507

Start Time	Otis St Southbound					Central Fwy Off-Ramp Southwestbound					13th St Westbound					Mission St Northbound					13th St Eastbound						
	Right	Thru	Left	Hard Left	Peds	Hard Right to Otis St	Bear Right to 13th St	Bear Left	Hard Left	Peds	Hard Right	Right	Thru	Left	Peds	Right	Bear Right	Thru	Left	Peds	Right	Thru	Bear Left	Left	Peds		
07:00 AM	0	0	0	0	4	0	0	0	0	9	0	0	0	0	9	0	0	0	0	1	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	6	0	0	0	0	4	0	0	0	0	4	0	0	0	0	3	0	0	0	0	0	1	
07:30 AM	0	0	0	0	10	0	0	0	0	11	0	0	0	0	11	0	0	2	0	7	0	0	0	0	0	0	
07:45 AM	0	2	0	0	21	0	0	0	0	9	0	0	0	0	9	0	0	1	0	7	0	0	0	0	0	0	
08:00 AM	0	0	1	0	13	0	0	0	0	8	0	0	0	0	8	1	0	1	0	5	0	1	0	0	0	0	
08:15 AM	0	1	0	0	19	0	0	0	0	7	0	0	0	0	7	0	0	0	0	3	0	0	0	0	0	0	
08:30 AM	0	0	1	0	14	0	0	0	0	13	0	0	0	0	13	0	0	1	0	5	0	0	0	0	0	0	
08:45 AM	0	1	0	0	11	0	0	0	0	13	0	0	0	0	13	0	0	4	0	3	0	0	0	0	0	0	
<b>Total</b>	<b>0</b>	<b>4</b>	<b>2</b>	<b>0</b>	<b>98</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>74</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>74</b>	<b>1</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>34</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>91</b>	



Location: Otis St/Mission St & 13th St

Date: 3/24/2021

Site Code: 15371508

Start Time	Otis St Southbound					Central Fwy Off-Ramp Southwestbound					13th St Westbound					Mission St Northbound					13th St Eastbound				
	Right	Thru	Left	Hard Left	U-Turn	Hard Right to Otis St	Bear Right to 13th St	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	U-Turn	Right	Bear Right	Thru	Left	U-Turn	Right	Thru	Bear Left	Left	U-Turn
11:00 AM	30	72	137	0	29	158	127	0	0	0	0	0	150	0	0	65	0	54	0	0	11	100	0	0	0
11:15 AM	36	76	150	0	31	154	129	0	0	0	0	1	155	0	0	53	0	48	0	0	10	102	0	0	0
11:30 AM	31	74	136	0	45	97	107	0	0	0	0	1	119	0	0	63	0	62	2	0	7	99	0	0	0
11:45 AM	31	80	132	0	38	98	91	0	0	0	0	1	146	0	0	65	0	63	0	0	8	109	0	0	0
12:00 PM	31	88	147	0	33	126	105	0	0	0	0	0	150	2	0	59	0	61	0	0	16	130	0	0	0
12:15 PM	39	82	144	0	33	162	116	0	0	0	0	0	130	0	0	58	0	64	0	0	7	112	0	0	0
12:30 PM	41	80	161	0	33	168	124	0	0	0	0	0	148	0	0	65	0	55	0	0	11	112	0	1	0
12:45 PM	31	87	128	0	19	150	114	0	0	0	0	1	138	1	0	63	0	73	0	0	5	135	0	0	0
<b>Total</b>	<b>270</b>	<b>639</b>	<b>1135</b>	<b>0</b>	<b>261</b>	<b>1113</b>	<b>913</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>1136</b>	<b>3</b>	<b>0</b>	<b>491</b>	<b>0</b>	<b>480</b>	<b>2</b>	<b>0</b>	<b>75</b>	<b>899</b>	<b>0</b>	<b>1</b>	<b>0</b>

Peak Hour: 12:00 PM - 1:00 PM

Peak 15: 12:30 PM - 12:45 PM

PHF: 0.960711



Location: Otis St/Mission St & 13th St

Date: 3/24/2021

Site Code: 15371509

Start Time	Otis St Southbound					Central Fwy Off-Ramp Southwestbound					13th St Westbound					Mission St Northbound					13th St Eastbound					
	Right	Thru	Left	Hard Left	U-Turn	Hard Right to Otis St	Bear Right to 13th St	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	U-Turn	Right	Bear Right	Thru	Left	U-Turn	Right	Thru	Bear Left	Left	U-Turn	
04:00 PM	44	86	150	0	25	62	88	0	0	0	0	0	186	0	0	62	62	0	65	0	0	7	127	0	0	0
04:15 PM	49	86	139	0	21	69	101	0	0	0	0	0	177	0	0	71	0	61	0	0	12	101	0	0	0	0
04:30 PM	40	97	142	0	21	85	99	0	0	0	0	1	161	0	0	60	0	74	0	0	7	116	0	0	0	0
04:45 PM	55	79	141	0	18	99	114	0	0	0	0	0	160	0	0	61	0	47	0	0	9	121	0	0	0	0
05:00 PM	43	84	152	0	20	77	113	0	0	0	0	0	195	1	0	42	0	63	0	0	9	108	0	0	0	0
05:15 PM	49	84	153	0	16	77	99	0	0	0	0	0	176	0	0	46	0	68	0	0	11	120	0	0	0	1
05:30 PM	34	93	131	0	19	98	100	0	0	0	0	0	166	0	0	48	0	50	1	0	13	109	0	0	0	0
05:45 PM	36	93	132	0	15	91	110	0	0	0	0	0	150	0	0	50	0	46	0	0	10	101	0	0	0	0
<b>Total</b>	<b>350</b>	<b>702</b>	<b>1140</b>	<b>0</b>	<b>155</b>	<b>658</b>	<b>824</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1371</b>	<b>1</b>	<b>0</b>	<b>440</b>	<b>0</b>	<b>474</b>	<b>1</b>	<b>0</b>	<b>78</b>	<b>903</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>

Peak Hour: 4:30 PM - 5:30 PM

Peak 15: 5:00 PM - 5:15 PM

PHF: 0.996141

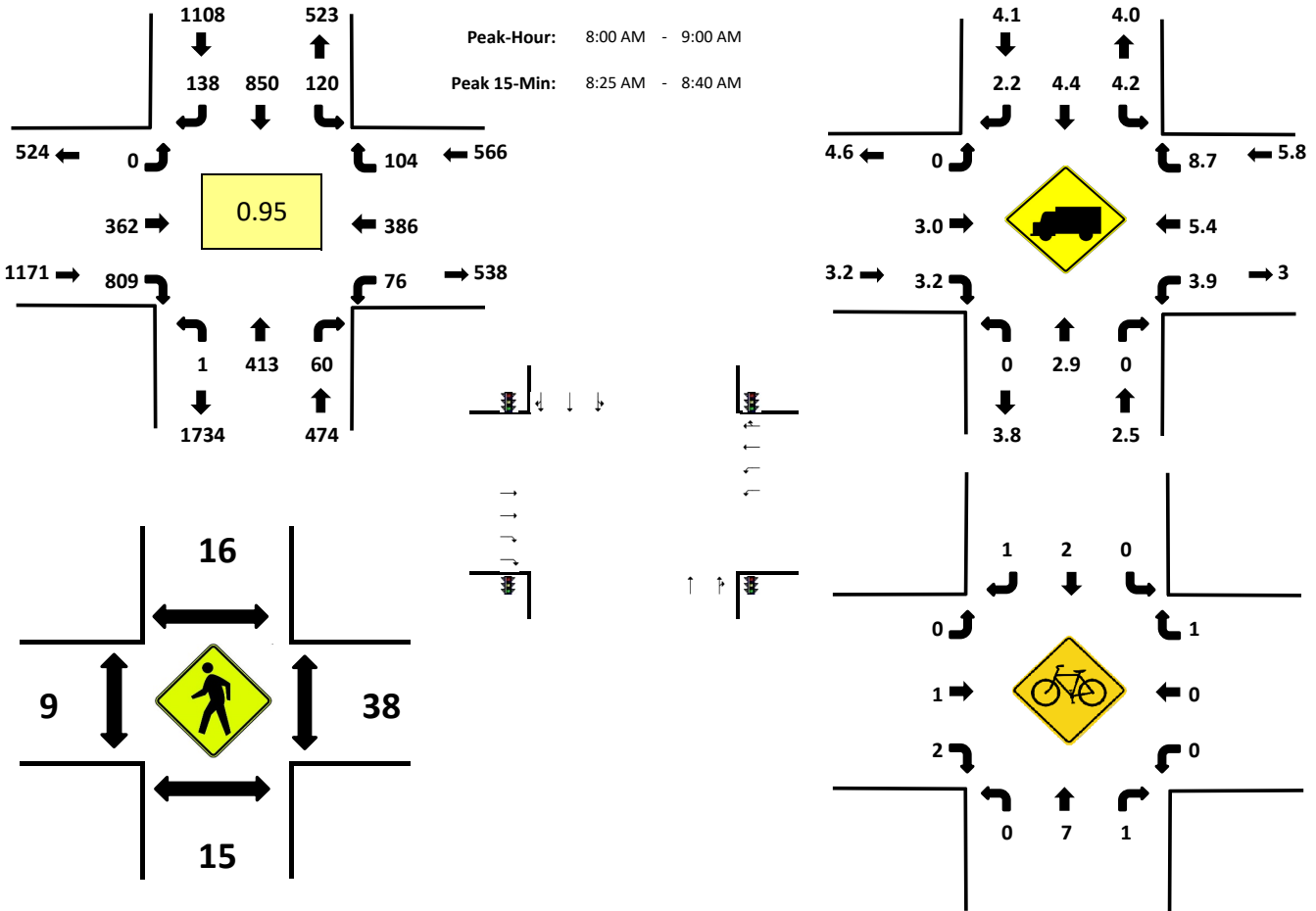
LOCATION: S Van Ness Ave & 13th St

QC JOB #: 15371504

CITY/STATE: San Francisco, CA



DATE: 3/24/2021



Count Period	S Van Ness Ave Northbound				S Van Ness Ave Southbound				13th St Eastbound				13th St Westbound				Total	Hourly Totals
	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	U		
7:00 AM	1	9	3	0	9	38	3	0	0	8	34	0	9	13	6	0	133	
7:05 AM	0	15	3	0	12	65	2	0	0	15	41	0	4	8	3	0	168	
7:10 AM	0	20	1	0	5	40	4	0	0	21	50	0	8	18	3	0	170	
7:15 AM	0	21	0	0	8	41	6	0	0	11	42	0	7	17	3	1	157	
7:20 AM	0	19	4	0	3	60	6	0	0	12	31	0	4	9	5	0	153	
7:25 AM	0	16	2	0	4	45	9	0	0	29	52	0	3	12	1	0	173	
7:30 AM	0	13	1	0	4	54	8	0	0	13	55	0	8	18	5	0	179	
7:35 AM	0	23	3	0	8	84	12	0	0	16	40	0	2	18	6	0	212	
7:40 AM	0	31	0	0	2	69	4	0	0	26	68	0	2	34	12	0	248	
7:45 AM	0	26	3	0	5	65	8	0	0	29	49	0	5	28	7	0	225	
7:50 AM	0	29	2	0	6	78	5	0	0	28	61	0	3	26	6	0	244	
7:55 AM	0	27	1	0	8	69	12	0	0	36	55	0	2	36	15	0	261	2323
8:00 AM	0	37	2	0	10	76	10	1	0	29	58	0	4	25	12	0	264	2454
8:05 AM	0	35	1	0	14	89	15	1	0	17	57	0	2	21	8	0	260	2546
8:10 AM	0	35	6	0	5	53	14	0	0	27	72	0	3	39	9	1	264	2640
8:15 AM	0	35	4	0	7	63	10	1	0	29	78	0	11	35	4	0	277	2760
8:20 AM	0	34	6	0	11	86	9	0	0	28	65	0	7	33	6	0	285	2892
8:25 AM	0	40	6	0	9	66	9	0	0	45	75	0	8	35	13	0	306	3025
8:30 AM	0	37	9	0	8	71	11	0	0	31	66	0	9	29	7	0	278	3124
8:35 AM	0	45	2	1	8	86	16	0	0	27	64	0	6	25	11	0	291	3203
8:40 AM	0	20	4	0	7	65	8	0	0	41	78	0	8	42	8	1	282	3237
8:45 AM	0	32	7	0	4	58	12	0	0	31	70	0	7	27	5	0	253	3265
8:50 AM	0	38	8	0	13	70	14	1	0	26	62	0	4	29	9	0	274	3295
8:55 AM	0	25	5	0	18	67	10	2	0	31	64	0	5	46	12	0	285	3319
Peak 15-Min Flowrates	NB				SB				EB				WB				Total	
	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	U		
All Vehicles	0	488	68	4	100	892	144	0	0	412	820	0	92	356	124	0	3500	
Heavies	0	0	0		4	28	8		0	20	24		0	16	16		116	
Peds		12				12				8				80			112	
2HR Bikes	0	10	1		0	6	2		0	1	3		0	0	2		25	

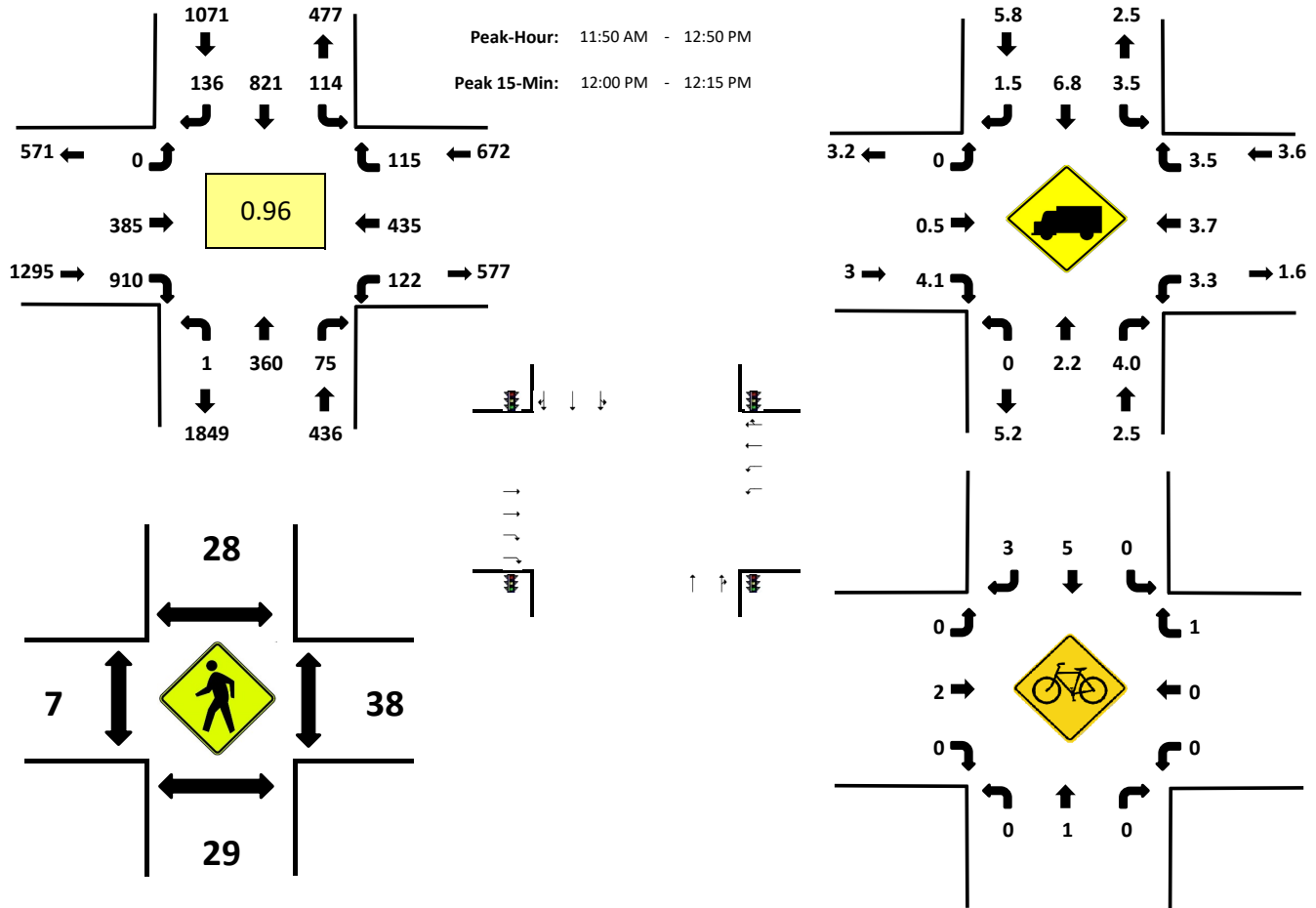
LOCATION: S Van Ness Ave & 13th St

QC JOB #: 15371505

CITY/STATE: San Francisco, CA



DATE: 3/24/2021



Count Period	S Van Ness Ave Northbound				S Van Ness Ave Southbound				13th St Eastbound				13th St Westbound				Total	Hourly Totals
	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	U		
11:00 AM	0	19	6	0	13	78	11	1	0	35	50	0	10	25	2	1	251	
11:05 AM	1	23	7	0	2	46	18	0	0	39	64	0	7	35	11	0	253	
11:10 AM	0	31	3	0	5	57	11	0	0	36	81	0	9	49	11	0	293	
11:15 AM	0	37	6	0	3	87	15	0	0	15	58	0	9	43	10	0	283	
11:20 AM	0	25	2	0	9	69	13	0	0	36	73	0	10	35	11	2	285	
11:25 AM	0	23	2	0	6	62	14	0	0	25	84	0	10	34	13	0	273	
11:30 AM	0	35	9	0	11	73	5	0	0	29	66	0	8	29	5	0	270	
11:35 AM	0	19	4	0	11	67	14	0	0	29	71	0	11	29	7	0	262	
11:40 AM	0	17	4	0	9	59	6	0	0	20	84	0	9	30	11	0	249	
11:45 AM	0	30	5	0	11	64	10	0	0	22	68	0	12	28	5	2	257	
11:50 AM	0	35	4	0	9	80	18	0	0	36	72	0	8	43	11	0	316	
11:55 AM	0	33	8	0	11	60	6	0	0	29	74	0	13	39	10	1	284	3276
12:00 PM	0	29	3	0	11	85	9	0	0	32	76	0	8	36	8	0	297	3322
12:05 PM	0	28	4	0	8	69	6	0	0	34	81	0	7	45	8	1	291	3360
12:10 PM	0	24	2	0	9	76	16	1	0	32	83	0	18	37	15	0	313	3380
12:15 PM	0	40	5	1	2	81	10	0	0	24	63	0	7	29	8	1	271	3368
12:20 PM	0	28	11	0	10	62	9	0	0	32	70	0	10	34	10	2	278	3361
12:25 PM	0	21	5	0	10	45	10	1	0	33	87	0	12	31	14	0	269	3357
12:30 PM	0	30	10	0	11	63	10	0	0	34	73	0	8	23	3	0	265	3352
12:35 PM	0	28	8	0	13	69	16	0	0	41	83	0	7	41	10	0	316	3406
12:40 PM	0	21	8	0	9	57	14	0	0	25	77	0	11	40	12	0	274	3431
12:45 PM	0	43	7	0	9	74	12	0	0	33	71	0	8	37	6	0	300	3474
12:50 PM	0	26	12	0	7	66	10	0	0	36	85	0	3	41	9	2	297	3455
12:55 PM	0	14	8	0	3	50	6	1	0	34	64	0	12	29	8	1	230	3401
Peak 15-Min Flowrates	NB				SB				EB				WB				Total	
All Vehicles	0	324	36	0	112	920	124	4	0	392	960	0	132	472	124	4		3604
Heavies	0	4	0		8	52	8		0	0	24		4	24	0		124	
Peds		16				44				0				32			92	
2HR Bikes	0	3	0		0	8	4		0	3	0		0	2	1		21	



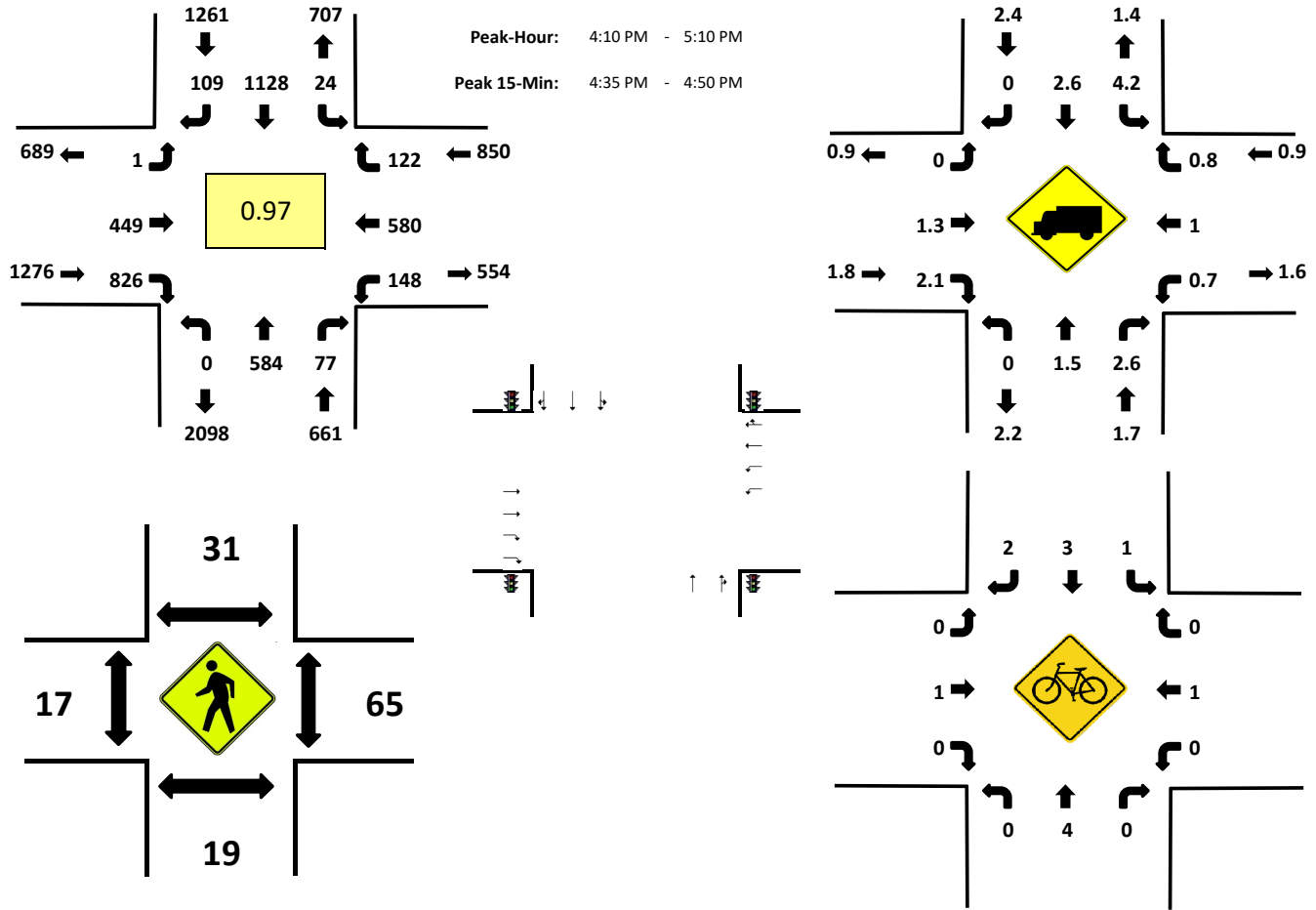
LOCATION: S Van Ness Ave & 13th St

QC JOB #: 15371506

CITY/STATE: San Francisco, CA



DATE: 3/24/2021



Count Period	S Van Ness Ave Northbound				S Van Ness Ave Southbound				13th St Eastbound				13th St Westbound				Total	Hourly Totals
	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	U		
4:00 PM	0	55	7	1	1	105	5	0	0	32	67	0	9	35	6	1	324	
4:05 PM	0	48	10	0	1	82	12	0	0	40	71	0	8	51	11	0	334	
4:10 PM	0	42	5	0	2	82	10	0	0	36	79	0	13	65	14	1	349	
4:15 PM	0	61	6	0	1	110	7	0	0	37	50	0	13	50	11	1	347	
4:20 PM	0	52	8	0	1	83	8	0	0	44	70	0	15	57	8	1	347	
4:25 PM	0	47	6	0	2	75	9	0	0	46	72	0	20	42	11	0	330	
4:30 PM	0	62	5	0	3	109	11	0	0	24	56	0	9	38	7	0	324	
4:35 PM	0	52	6	0	2	87	11	0	1	38	79	0	12	44	11	0	343	
4:40 PM	0	49	7	0	3	84	11	0	0	41	81	0	11	40	10	1	338	
4:45 PM	0	54	5	0	2	128	8	0	0	36	65	0	5	54	10	0	367	
4:50 PM	0	37	8	0	5	84	9	0	0	44	77	0	9	35	10	0	318	
4:55 PM	0	35	8	0	1	84	9	0	0	36	68	0	17	45	8	0	311	4032
5:00 PM	0	40	6	0	1	106	6	0	0	30	59	0	9	50	9	0	316	4024
5:05 PM	0	53	7	0	1	96	10	0	0	37	70	0	11	60	13	0	358	4048
5:10 PM	0	46	11	0	1	93	7	0	0	44	63	0	12	56	7	0	340	4039
5:15 PM	0	51	7	0	0	106	14	0	0	37	53	0	11	60	6	1	346	4038
5:20 PM	0	38	3	0	1	80	6	0	0	53	53	0	8	51	16	0	309	4000
5:25 PM	0	34	3	0	1	90	7	0	0	49	62	0	8	33	6	0	293	3963
5:30 PM	0	41	4	0	2	109	6	0	0	40	61	0	10	47	4	0	324	3963
5:35 PM	0	49	9	0	0	73	7	0	0	40	66	0	6	51	16	0	317	3937
5:40 PM	0	36	2	0	3	74	9	0	0	39	45	0	5	47	10	0	270	3869
5:45 PM	0	53	9	0	3	92	4	0	0	30	45	0	10	44	11	1	302	3804
5:50 PM	0	36	5	0	2	89	8	0	0	37	75	0	6	52	7	0	317	3803
5:55 PM	0	35	6	0	5	90	6	0	0	37	58	0	9	39	8	1	294	3786
Peak 15-Min Flowrates	NB				SB				EB				WB				Total	
	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	U		
All Vehicles	0	620	72	0	28	1196	120	0	4	460	900	0	112	552	124	4	4192	
Heavies	0	8	0		4	16	0		0	12	4		0	4	4		52	
Peds		28				20				12				64			124	
2HR Bikes	0	8	0		2	3	2		1	2	0		0	4	0		22	

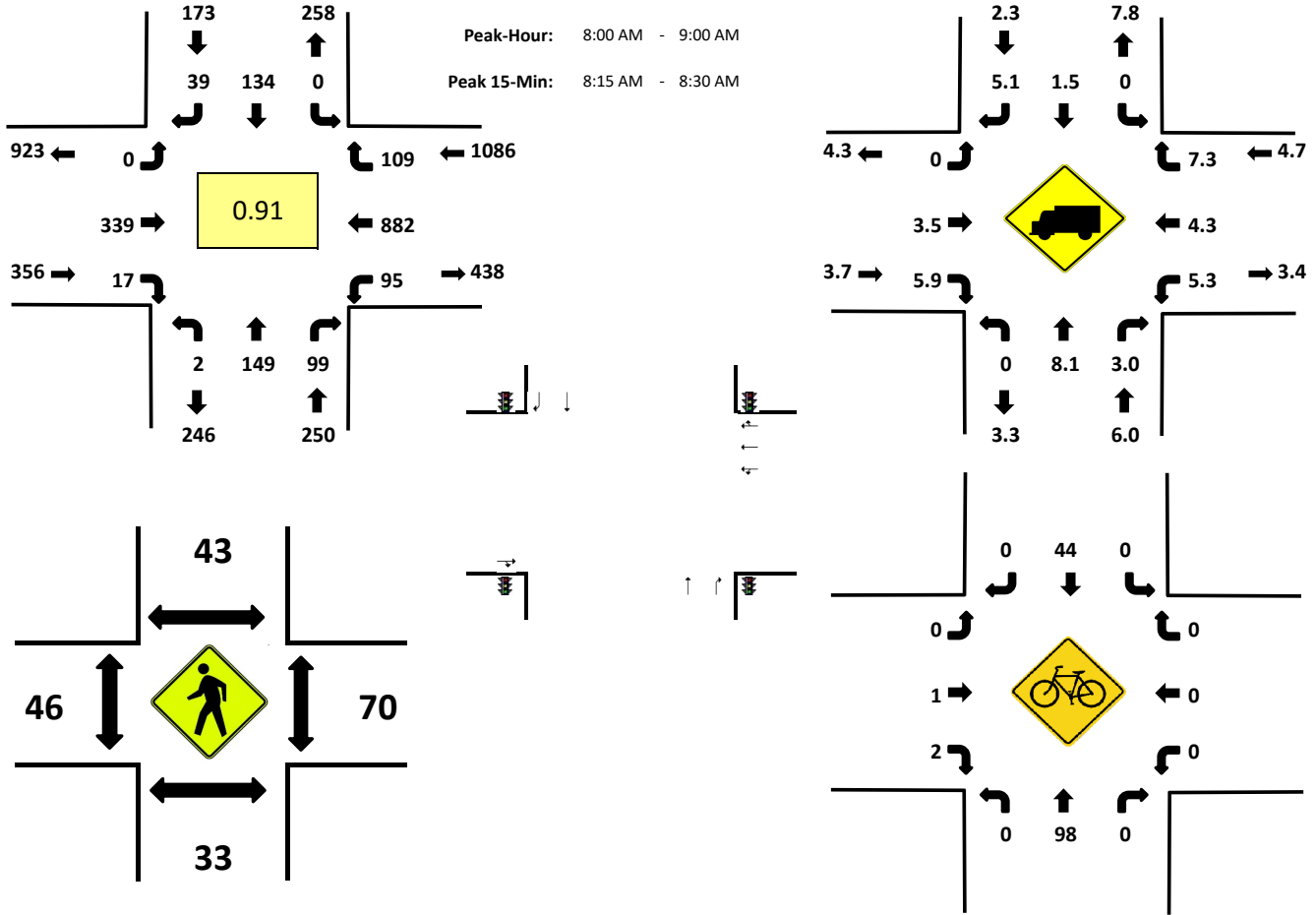
LOCATION: Valencia St & Duboce Ave

QC JOB #: 15371510

CITY/STATE: San Francisco, CA



DATE: 3/24/2021



Count Period	Valencia St Northbound				Valencia St Southbound				Duboce Ave Eastbound				Duboce Ave Westbound				Total	Hourly Totals
	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	U		
7:00 AM	0	9	3	0	0	6	3	0	0	14	0	0	10	32	5	0	82	
7:05 AM	1	3	3	0	0	7	2	0	0	23	0	0	4	42	6	0	91	
7:10 AM	0	9	3	0	0	7	0	0	0	15	2	0	11	43	6	0	96	
7:15 AM	0	10	1	0	0	4	0	0	0	12	1	0	7	45	8	0	88	
7:20 AM	0	12	4	0	0	4	4	0	0	15	0	1	6	59	8	0	113	
7:25 AM	0	9	3	0	1	8	3	0	0	30	1	0	6	50	10	0	121	
7:30 AM	0	18	4	0	0	11	4	0	0	14	0	0	5	47	4	0	107	
7:35 AM	0	15	4	0	0	6	1	0	0	25	2	0	11	63	9	0	136	
7:40 AM	0	16	1	0	0	5	1	0	0	27	1	0	11	72	3	0	137	
7:45 AM	0	13	6	0	0	8	4	0	0	30	0	0	7	62	9	0	139	
7:50 AM	2	12	4	0	0	10	2	0	0	30	2	0	7	68	3	0	140	
7:55 AM	0	13	5	0	0	9	2	0	0	24	0	0	14	73	6	0	146	1396
8:00 AM	0	8	11	0	0	7	1	0	0	25	2	0	4	66	2	0	126	1440
8:05 AM	0	5	12	0	0	7	4	0	0	26	1	0	8	77	6	0	146	1495
8:10 AM	0	14	11	0	0	7	4	0	0	24	3	0	6	78	13	0	160	1559
8:15 AM	1	25	14	0	0	17	6	0	0	28	1	0	5	63	11	0	171	1642
8:20 AM	0	13	7	0	0	12	5	0	0	40	3	0	8	79	12	0	179	1708
8:25 AM	1	14	5	0	0	12	3	0	0	18	2	0	9	87	10	0	161	1748
8:30 AM	0	13	8	0	0	15	2	0	0	24	0	0	7	54	10	0	133	1774
8:35 AM	0	14	6	0	0	17	0	0	0	28	0	0	10	78	14	0	167	1805
8:40 AM	0	11	3	0	0	6	2	0	0	41	1	0	16	80	6	0	166	1834
8:45 AM	0	8	10	0	0	13	3	0	0	29	0	0	7	65	7	0	142	1837
8:50 AM	0	12	6	0	0	10	4	0	0	29	1	0	6	80	10	0	158	1855
8:55 AM	0	12	6	0	0	11	5	0	0	27	3	0	9	75	8	0	156	1865
Peak 15-Min Flowrates	NB				SB				EB				WB				Total	
All Vehicles	8	208	104	0	0	164	56	0	0	344	24	0	88	916	132	0		2044
Heavies	0	12	4	0	0	0	0	0	0	8	4	0	4	24	8	0	64	
Peds		44				40				28				76			188	
2HR Bikes	1	174	0	0	0	66	0	0	0	1	5	0	0	0	0	0	247	

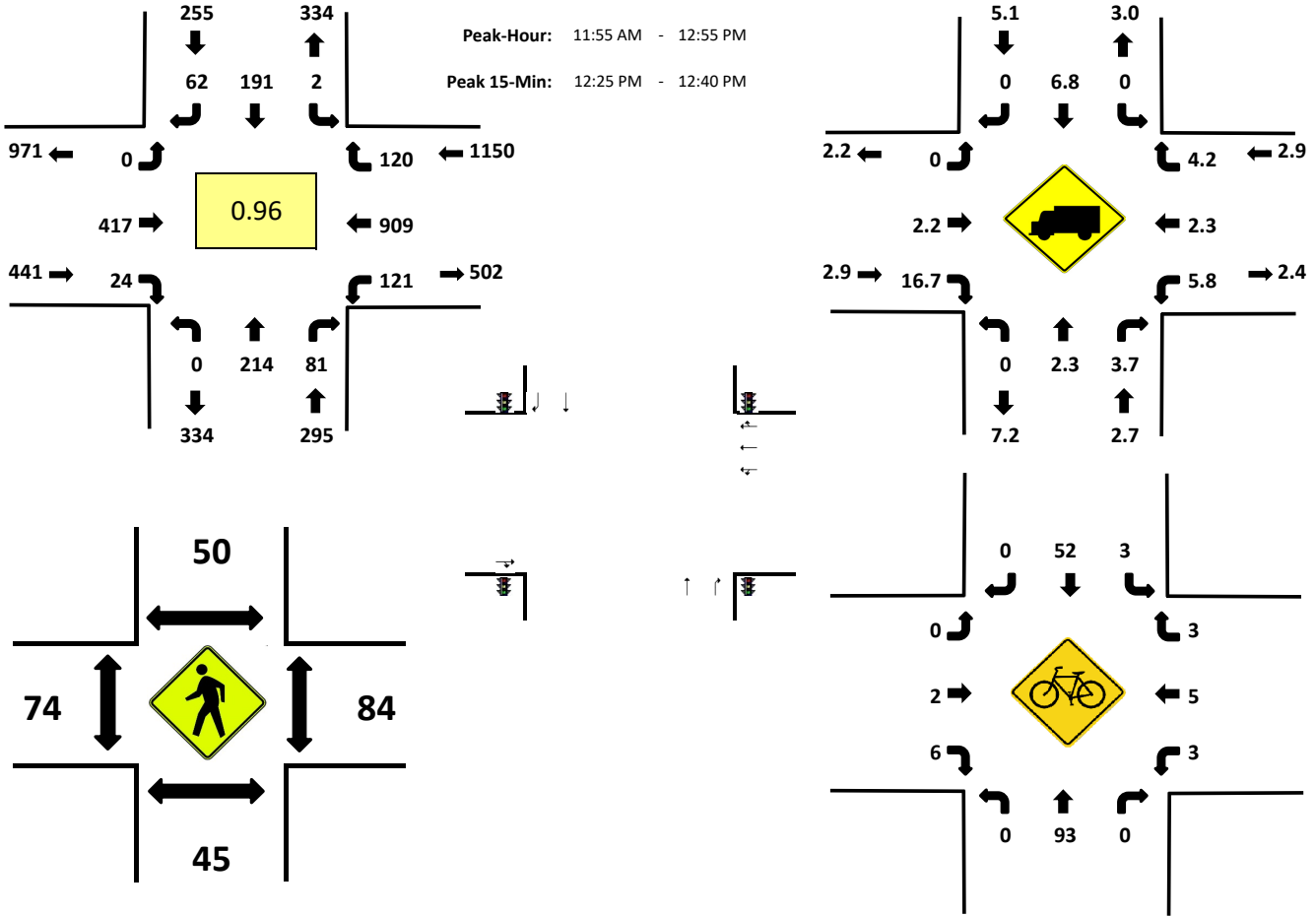
LOCATION: Valencia St & Duboce Ave

QC JOB #: 15371511

CITY/STATE: San Francisco, CA



DATE: 3/24/2021



Count Period	Valencia St Northbound				Valencia St Southbound				Duboce Ave Eastbound				Duboce Ave Westbound				Total	Hourly Totals
	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	U		
11:00 AM	0	13	7	0	0	10	2	0	0	22	3	0	18	75	6	0	156	
11:05 AM	0	11	9	0	0	18	7	0	0	23	2	0	11	71	7	0	159	
11:10 AM	0	14	5	0	0	9	4	0	0	34	2	0	12	94	11	0	185	
11:15 AM	0	18	10	0	0	8	5	0	0	29	1	0	13	84	13	0	181	
11:20 AM	0	14	9	0	0	22	7	0	0	23	1	0	12	69	13	0	170	
11:25 AM	0	14	6	0	0	13	4	0	0	28	2	0	9	83	14	0	173	
11:30 AM	0	9	3	0	0	14	8	0	0	32	0	0	10	72	13	0	161	
11:35 AM	0	13	7	0	0	11	1	0	0	25	2	0	12	60	10	0	141	
11:40 AM	0	14	4	0	0	12	3	0	0	36	2	0	4	76	6	0	157	
11:45 AM	0	20	6	0	0	10	1	0	0	28	1	0	14	68	8	0	156	
11:50 AM	0	21	6	0	0	19	4	0	0	27	1	0	9	58	3	0	148	
11:55 AM	0	20	8	0	0	15	4	0	0	37	3	0	9	86	14	1	197	1984
12:00 PM	0	14	10	0	0	17	9	0	0	34	2	0	12	62	14	0	174	2002
12:05 PM	0	20	7	0	0	21	4	0	0	38	1	0	10	61	9	0	171	2014
12:10 PM	0	14	8	0	0	15	4	0	0	39	3	0	11	84	7	0	185	2014
12:15 PM	0	18	11	0	0	10	4	0	0	23	1	0	16	61	11	0	155	1988
12:20 PM	0	22	7	0	0	11	6	0	0	28	1	0	7	66	15	0	163	1981
12:25 PM	0	16	5	0	0	17	9	0	0	43	5	0	5	85	10	0	195	2003
12:30 PM	0	17	4	0	0	26	1	0	0	41	3	0	11	91	3	0	197	2039
12:35 PM	0	19	6	0	0	11	6	0	0	28	0	0	4	83	7	0	164	2062
12:40 PM	0	19	4	0	0	14	6	0	0	38	2	0	12	79	14	1	189	2094
12:45 PM	0	18	8	0	1	13	4	0	0	33	2	0	10	80	11	0	180	2118
12:50 PM	0	17	3	0	1	21	5	0	0	35	1	0	12	71	5	0	171	2141
12:55 PM	0	12	10	0	0	12	1	0	0	43	3	0	6	86	9	0	182	2126
Peak 15-Min Flowrates	NB				SB				EB				WB				Total	
	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	U		
All Vehicles	0	208	60	0	0	216	64	0	0	448	32	0	80	1036	80	0	2224	
Heavies	0	4	4	0	0	12	0	0	0	16	0	0	0	28	0	0	64	
Peds		36				28				92				80			236	
2HR Bikes	0	151	0		3	88	2		1	2	10		3	7	3		270	

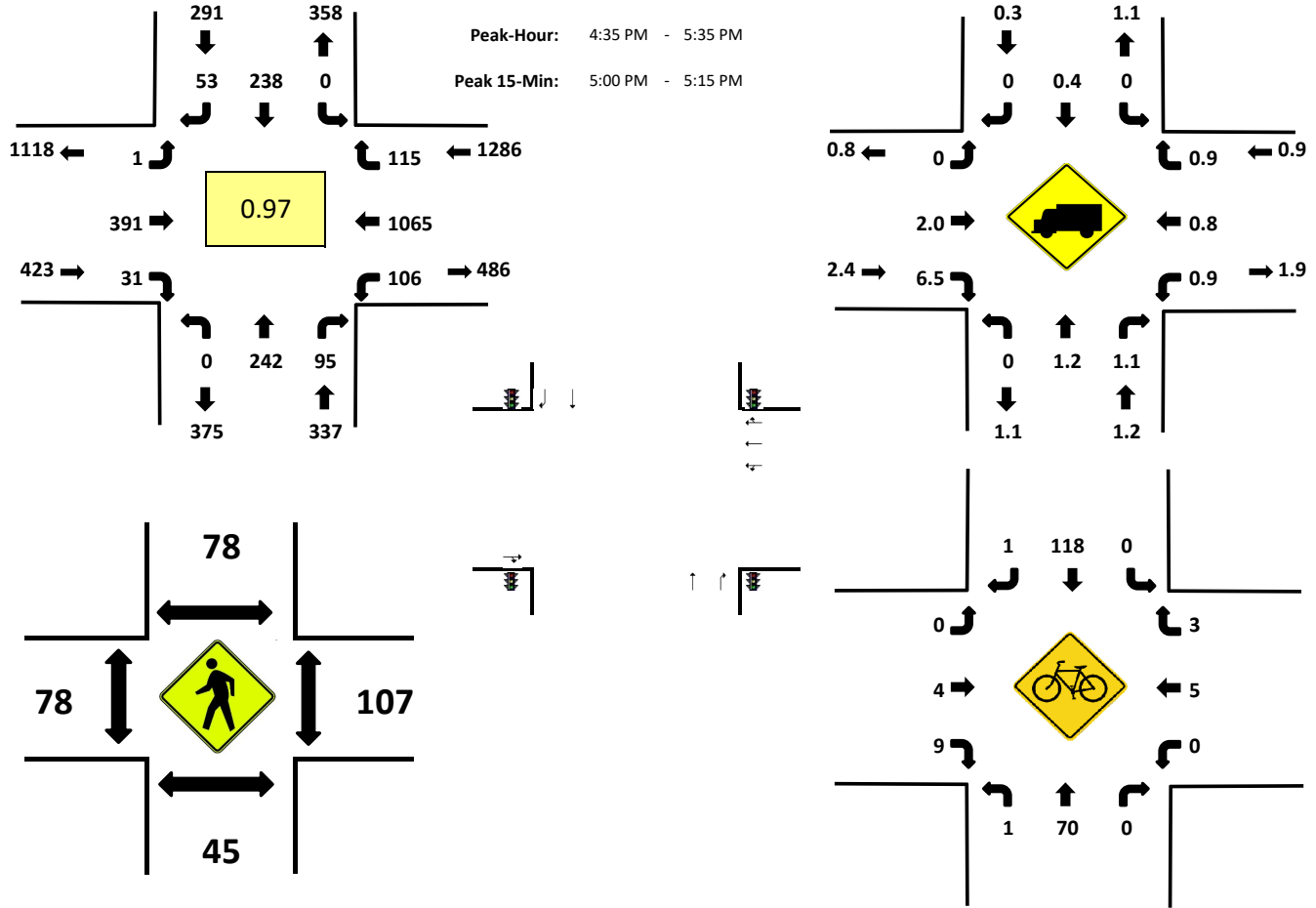
LOCATION: Valencia St & Duboce Ave

QC JOB #: 15371512

CITY/STATE: San Francisco, CA



DATE: 3/24/2021



Count Period	Valencia St Northbound				Valencia St Southbound				Duboce Ave Eastbound				Duboce Ave Westbound				Total	Hourly Totals
	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	U		
4:00 PM	0	27	7	0	0	15	1	0	0	30	8	0	10	72	12	0	182	
4:05 PM	1	24	10	0	0	22	6	0	0	29	1	0	4	77	14	0	188	
4:10 PM	0	18	3	0	0	19	3	0	0	44	1	0	8	93	15	0	204	
4:15 PM	0	19	5	0	0	14	3	0	0	28	2	0	23	81	4	0	179	
4:20 PM	0	18	9	0	0	27	4	0	0	21	4	0	7	92	4	0	186	
4:25 PM	0	17	7	0	0	12	2	0	0	34	4	0	16	90	9	1	192	
4:30 PM	0	10	3	0	0	16	5	0	0	30	1	0	10	64	11	0	150	
4:35 PM	0	28	11	0	0	20	7	0	0	28	3	0	7	82	8	0	194	
4:40 PM	0	19	6	0	0	16	5	0	0	44	2	0	8	80	12	0	192	
4:45 PM	0	16	6	0	0	24	3	0	0	31	1	0	9	104	11	0	205	
4:50 PM	0	26	5	0	0	21	3	0	0	34	0	0	7	74	3	0	173	
4:55 PM	0	18	9	0	0	17	6	0	0	33	6	0	8	100	5	0	202	2247
5:00 PM	0	21	9	0	0	18	2	0	1	29	3	0	4	98	15	0	200	2265
5:05 PM	0	18	4	0	0	22	8	0	0	24	2	0	17	79	11	0	185	2262
5:10 PM	0	19	10	0	0	16	6	0	0	35	4	0	12	105	8	0	215	2273
5:15 PM	0	16	8	0	0	27	2	0	0	37	2	0	7	96	4	0	199	2293
5:20 PM	0	20	9	0	0	20	3	0	0	26	2	0	8	80	17	0	185	2292
5:25 PM	0	20	10	0	0	19	4	0	0	36	3	0	12	93	13	0	210	2310
5:30 PM	0	21	8	0	0	18	4	0	0	34	3	0	7	74	8	0	177	2337
5:35 PM	0	22	6	0	0	22	5	0	0	23	0	0	7	65	14	0	164	2307
5:40 PM	0	16	5	0	0	14	9	0	0	28	2	0	13	100	10	0	197	2312
5:45 PM	2	14	7	1	2	18	3	0	0	21	3	0	12	71	7	0	161	2268
5:50 PM	0	26	9	0	1	19	6	0	0	22	7	0	8	83	8	0	189	2284
5:55 PM	1	17	12	0	0	20	2	0	0	41	3	0	8	92	8	0	204	2286
Peak 15-Min Flowrates	NB				SB				EB				WB				Total	
All Vehicles	0	232	92	0	0	224	64	0	4	352	36	0	132	1128	136	0		2400
Heavies	0	4	0	0	0	4	0	0	0	8	4	0	0	8	0	0	28	
Peds		44				84				104				156			388	
2HR Bikes	1	151	0		0	221	3		1	5	15		3	8	4		412	

Location/Site: 15371513 - 13th St btwn Folsom St and S Van Ness Ave

Data Collector (Name): Quality Counts

**ADT Volume and Speed Summary**

Site Characteristics	
FOR DATA COLLECTOR TO COMPLETE	
Location (primary street name)	13th St
Between (minor street name)	Folsom St
And (minor street name)	S Van Ness Ave
Direction 1	Westbound
Direction 2	Eastbound
CNN of Location & Direction 1	
CNN of Location & Direction 2	
Time Period(s)	48 hrs
Date Range (incl. days of week)	
Date Day 1 (date)	3/16/2021 Tuesday
Date Day 2 (date)	3/17/2021 Wednesday
Date Day 3 (date)	3/18/2021 Thursday

Distance Measurements	
Latitude / Longitude Location of Tube	37.7696800000 -122.4166200000
Speed Classification Data Available	Y   N

Analyze By	
Time Group:	Total Day
Xth Percentile:	25

**Traffic Direction - N/W**

ADT Volume and Speed Data											
Time Period		Vehicle Counts					Vehicle Speed				
Traffic Direction (N or W)	Date	ADT	% count w/out Speed	Exceed 20 mph	Exceed 30 mph	Exceed 40 mph	Mean	1 STDev	Median Speed	85th Percentile	25 th Percentile
Westbound	3/16/2021	2193	2.8%	85.7%	20.2%	0.8%	25.1	6.0	25	31	Tinkering
Westbound	3/17/2021	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#N/A	#N/A	Tinkering
Westbound	3/18/2021	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#N/A	#N/A	Tinkering
Summary (Average over # of days)											

**Traffic Direction - S/E**

ADT Volume and Speed Data											
Time Period		Vehicle Counts					Vehicle Speed				
Traffic Direction (N or W)	Date	ADT	% count w/out Speed	Exceed 20 mph	Exceed 30 mph	Exceed 40 mph	Mean Speed	1 STDev	Median Speed	85th Percentile	25 th Percentile
Eastbound	3/16/2021	1816	2.8%	81.9%	17.5%	0.5%	24.5	5.8	25	30	Tinkering
Eastbound	3/17/2021	0	2.8%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#N/A	#N/A	Tinkering
Eastbound	3/18/2021	0	2.8%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#N/A	#N/A	Tinkering
Summary (Average over # of days)											

Location/Site: 15371514 - 13th St btwn Mission St/Otis St and S Van Ness Ave

Data Collector (Name): Quality Counts

**ADT Volume and Speed Summary**

Site Characteristics	
FOR DATA COLLECTOR TO COMPLETE	
Location (primary street name)	13th St
Between (minor street name)	Mission St/Otis St
And (minor street name)	S Van Ness Ave
Direction 1	Westbound
Direction 2	Eastbound
CNN of Location & Direction 1	
CNN of Location & Direction 2	
Time Period(s)	48 hrs
Date Range (incl. days of week)	
Date Day 1 (date)	3/16/2021 Tuesday
Date Day 2 (date)	3/17/2021 Wednesday
Date Day 3 (date)	3/18/2021 Thursday

Distance Measurements	
Latitude / Longitude Location of Tube	37.7699700000 -122.4188400000
Speed Classification Data Available	Y   N

Analyze By	
Time Group:	Total Day
Xth Percentile:	25

**Traffic Direction - N/W**

ADT Volume and Speed Data											
Time Period		Vehicle Counts					Vehicle Speed				
Traffic Direction (N or W)	Date	ADT	% count w/out Speed	Exceed 20 mph	Exceed 30 mph	Exceed 40 mph	Mean	1 STDev	Median Speed	85th Percentile	25 th Percentile
Westbound	3/16/2021	870	4.4%	65.4%	9.5%	0.5%	21.8	6.3	22	28	Tinkering
Westbound	3/17/2021	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#N/A	#N/A	Tinkering
Westbound	3/18/2021	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#N/A	#N/A	Tinkering
Summary (Average over # of days)											

**Traffic Direction - S/E**

ADT Volume and Speed Data											
Time Period		Vehicle Counts					Vehicle Speed				
Traffic Direction (N or W)	Date	ADT	% count w/out Speed	Exceed 20 mph	Exceed 30 mph	Exceed 40 mph	Mean Speed	1 STDev	Median Speed	85th Percentile	25 th Percentile
Eastbound	3/16/2021	1365	7.8%	76.6%	21.2%	1.0%	24.2	7.0	25	31	Tinkering
Eastbound	3/17/2021	0	7.8%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#N/A	#N/A	Tinkering
Eastbound	3/18/2021	0	7.8%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#N/A	#N/A	Tinkering
Summary (Average over # of days)											



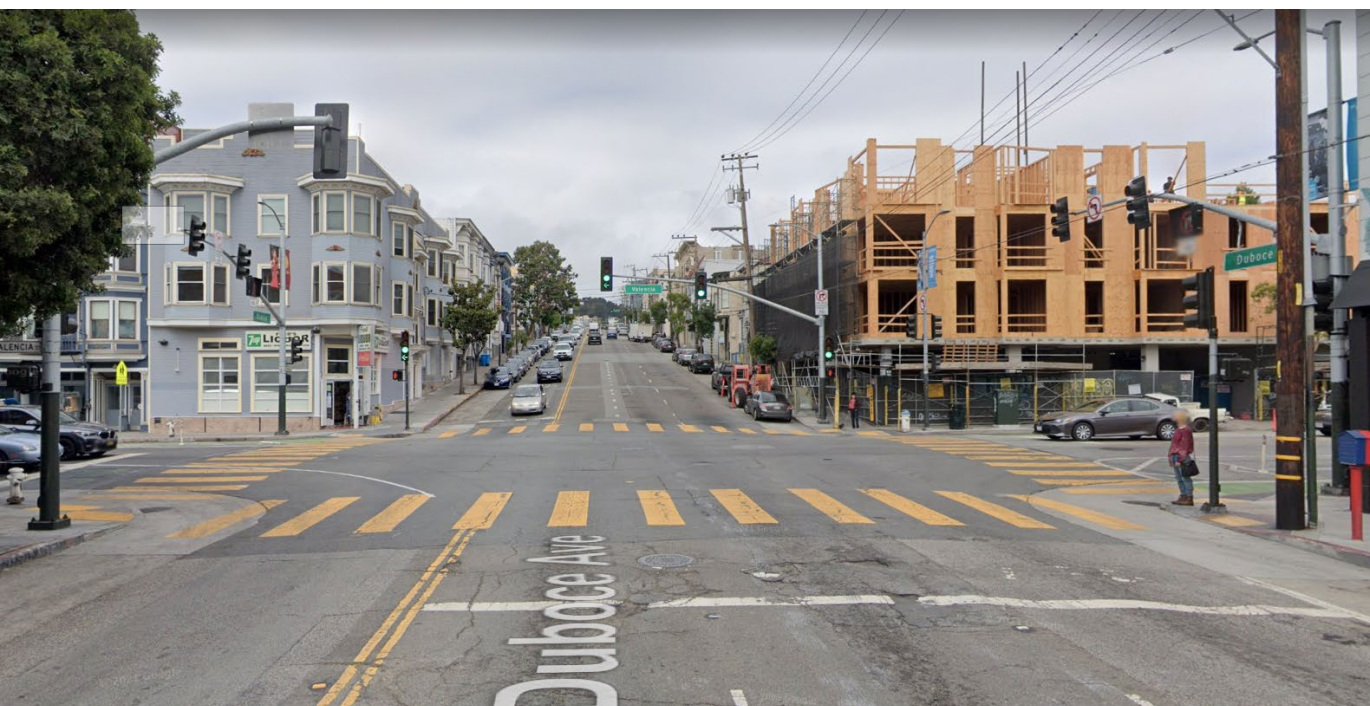
**Duboce Avenue at Valencia Street,  
facing north**



**Duboce Avenue at Valencia Street,  
facing south**



Duboce Avenue at Valencia Street, facing east



Duboce Avenue at Valencia Street, facing west



Duboce Avenue at Stevenson Street, facing east



Duboce Avenue at Stevenson Street, facing west





**13<sup>th</sup> Street at Otis  
Street/Mission Street, facing  
north**



**13<sup>th</sup> Street at Otis Street/Mission  
Street, facing south**



**13<sup>th</sup> Street at Otis Street/Mission Street,  
facing east**



**13<sup>th</sup> Street at Mission Street/101 Off-Ramp,  
facing northeast**

**13<sup>th</sup> Street at Otis Street/Mission Street, facing west**



**13<sup>th</sup> Street between Otis Street/Mission Street and South Van Ness Avenue, facing east**





**13<sup>th</sup> Street between Otis Street/Mission Street and South Van Ness Avenue, facing west**



**13<sup>th</sup> Street at South Van Ness Avenue, facing north**



**13<sup>th</sup> Street at South Van Ness Avenue, facing south**



**13<sup>th</sup> Street at South Van Ness Avenue, facing east**



**13<sup>th</sup> Street at South Van Ness Avenue, facing west**



**13<sup>th</sup> Street between South Van Ness Avenue and Folsom Street, facing east**



**13<sup>th</sup> Street between South Van Ness Avenue and Folsom Street, facing west**



**13<sup>th</sup> Street at Folsom Street, facing north**





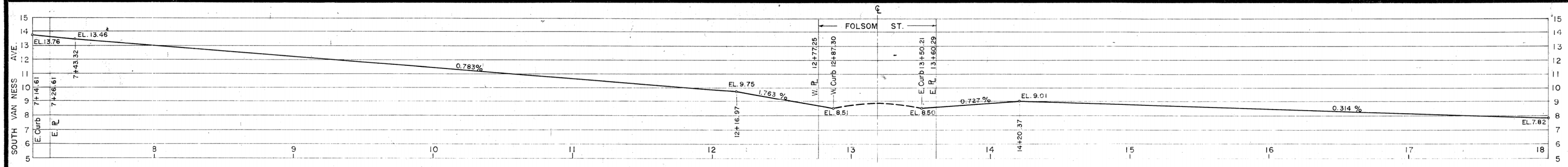
**13<sup>th</sup> Street at Folsom Street, facing south**



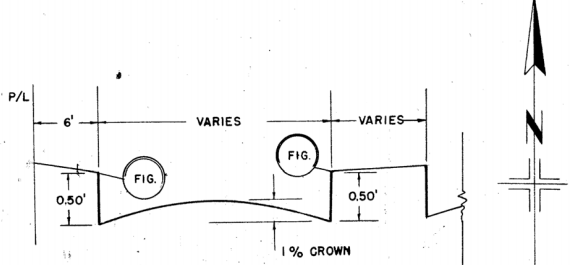
**13<sup>th</sup> Street at Folsom Street, facing east**

13<sup>th</sup> Street at Folsom Street, facing west





CURVES DATA			
Curve No.	Radius	Δ	A
1	1"	153 49' 10"	2.68'
2	4"	91 55' 24"	6.42'
3	1497.37'	0 18' 06"	7.88'
4	4"	71 39' 26"	5.00'
5	33.50'	82 00' 19"	19.32'

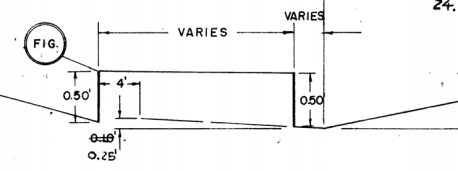
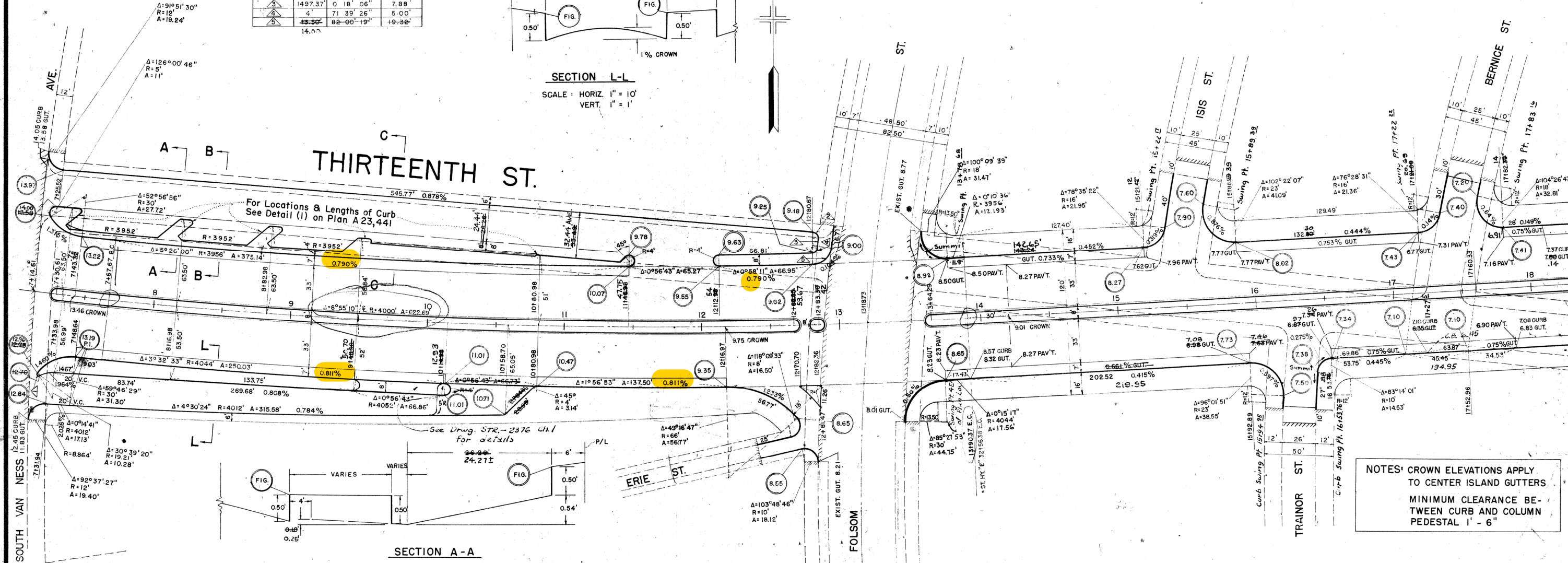


**PROFILE**

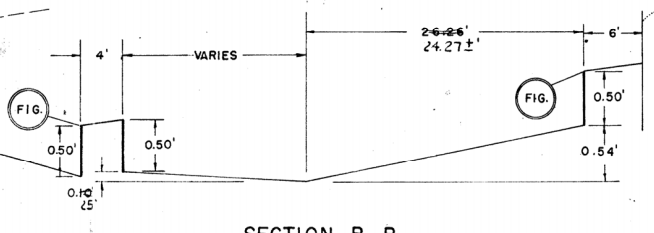
SCALE: HORIZ. 1" = 40'  
VERT. 1" = 4'

**SECTION L-L**

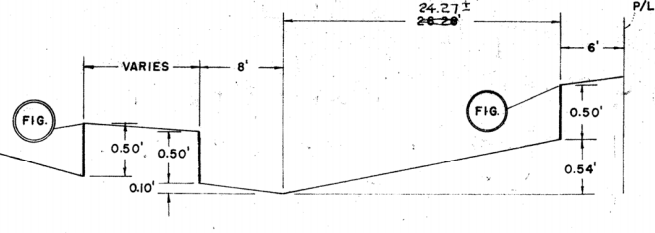
SCALE: HORIZ. 1" = 10'  
VERT. 1" = 1'



**SECTION A-A**  
SCALE: HORIZ. 1" = 10' VERT. 1" = 1'



**SECTION B-B**  
SCALE: HORIZ. 1" = 10' VERT. 1" = 1'



**SECTION C-C**  
SCALE: HORIZ. 1" = 10' VERT. 1" = 1'

NOTES: CROWN ELEVATIONS APPLY TO CENTER ISLAND GUTTERS  
MINIMUM CLEARANCE BETWEEN CURB AND COLUMN PEDESTAL 1' - 6"

- LEGEND**
- (FIG) CALCULATED OFFICIAL GRADE
  - (FIG) PROPOSED GRADE
  - //// CONFORM JOINT

REFERENCES INSERT FILE NO'S OF SURVEYS, PLANS, ETC., USED		CITY AND COUNTY OF SAN FRANCISCO DEPARTMENT OF PUBLIC WORKS BUREAU OF ENGINEERING	
SURVEY NOTES 3501 PLAN W-10-11		<b>THIRTEENTH STREET                  WIDENING AND EXTENSION                  SOUTH VAN NESS AVE. TO BRYANT ST.</b>	
DESIGNED BY: D.P.C. DRAWN BY: D.P.C. J.H.D. TRACED BY: J.H.D. CHECKED BY: L.T.T.		ALIGNMENT AND GRADES SOUTH VAN NESS AVE. TO BERNICE ST.	
DATE: FEB 1951		SCALE: 1" = 40' & As Shown	
APPROVED: [Signature] SECTION ENG. N.F.N. Apr. 1955 DIVISION ENG.		SHEET OF SHEETS FILE: A-23,437 CHANGE:	

NO.	DATE	DESCRIPTION	BY
1	4-12-55	Inspector Changes	V.V.J.

TABLE OF CHANGES  
CAUTION: CHECK WITH TRACING TO SEE IF YOU HAVE LATEST REVISION

Q-1-873 Q-1-87

Revised: May, 1967, S. J.  
Checked: May, 1967, W. E. C.  
These Maps Reproduced From 100 Scale Map

Revised - Checked  
March 1976 G. C. April 1976 W. E. C.  
Sept 1996 T.T.C.





RESOLUTION ADOPTING THE SOMA FREEWAY RAMP INTERSECTION SAFETY STUDY PHASE 2 FINAL REPORT

WHEREAS, The purpose of the second phase of the SoMa Freeway Ramp Intersection Safety Study was to develop proposed improvements at ten freeway ramp intersections in the South of Market (SoMa) neighborhood with the goals of improving safety and access for all users, especially for the most vulnerable users; and

WHEREAS, All ten study intersections are located on San Francisco's Vision Zero High Injury Network, representing streets with disproportionately high rates of traffic injuries and fatalities; and

WHEREAS, The study recommends both near-term safety improvements and capital improvements that require more extensive reconstruction at each of the ten intersections; and

WHEREAS, The study recommendations are based on an analysis of collision histories at the study intersections, a toolbox of best practice design treatments, and input from community stakeholders; and

WHEREAS, The final report includes recommended implementation plans and potential funding sources to implement the proposed improvements as soon as possible; and

WHEREAS, At its June 26, 2019 meeting, the Citizens Advisory Committee considered and unanimously adopted a motion of support for the staff recommendation; now, therefore, be it

RESOLVED, That the Transportation Authority hereby adopts the enclosed SoMa Freeway Ramp Intersection Safety Study Phase 2 Final Report; and be it further

RESOLVED, That the Executive Director is hereby authorized to prepare the document for final publication and distribute the document to all relevant agencies and interested parties.

Enclosure:

1. SoMa Freeway Ramp Intersection Safety Study Phase 2 Final Report



# Memorandum

**Date:** June 28, 2019  
**To:** Transportation Authority Board  
**From:** Eric Cordoba – Deputy Director for Capital Projects  
**Subject:** 07/09/2019 Board Meeting: Adopt the SoMa Freeway Ramp Intersection Safety Study Phase 2 Final Report

<p><b>RECOMMENDATION</b>    <input type="checkbox"/> Information    <input checked="" type="checkbox"/> Action</p> <p>Adopt the SoMa Freeway Ramp Intersection Safety Study Phase 2 Final Report</p> <p><b>SUMMARY</b></p> <p>The second phase of the SoMa Freeway Ramp Intersection Safety Study addresses safety issues at ten intersections in the South of Market (SoMa) neighborhood where freeway ramps meet city streets. The project team studied collision patterns and recommended near-term and capital improvements at ten ramp intersections in SoMa such as curb bulb-outs, traffic signal upgrades, lane reconfigurations, and new crosswalks. Public outreach to gather input on the designs included a multilingual survey, an open house, tabling, social media, and stakeholder meetings. Draft recommendations were also shared with the CAC in September 2018 and the Vision Zero Committee of the Board in October 2018. The Transportation Authority has since completed traffic analysis and worked with the San Francisco Municipal Transportation Agency (SFMTA) to develop cost estimates and identify funding and implementation next steps. Recommended improvement concepts for all ten intersections are shown in Attachment 1. The final report is included as an enclosure to this memorandum.</p>	<p><input type="checkbox"/> Fund Allocation</p> <p><input type="checkbox"/> Fund Programming</p> <p><input type="checkbox"/> Policy/Legislation</p> <p><input checked="" type="checkbox"/> Plan/Study</p> <p><input type="checkbox"/> Capital Project Oversight/Delivery</p> <p><input type="checkbox"/> Budget/Finance</p> <p><input type="checkbox"/> Contract/Agreement</p> <p><input type="checkbox"/> Procurement</p> <p><input type="checkbox"/> Other:</p> <hr/>
---	---

**DISCUSSION**

**Background.**

To improve safety at intersections in the SoMa neighborhood where freeway ramps meet city streets, the Transportation Authority has worked closely with SFMTA to recommend improvements at these intersections that would help meet the city’s Vision Zero traffic safety goal. The first phase of this effort, funded by the Prop K Neighborhood Transportation Improvement Program (NTIP) and completed in early 2018, recommended upgrades to five study intersections. SFMTA then included implementation of those improvements in its Capital Improvement Program for Fiscal Years 2019 to 2023. This second phase recommends safety and accessibility improvements at ten additional freeway ramp intersections in SoMa.

### **Study Goals and Methodology.**

The primary goals of this study are to improve safety and access for all users, especially for the most vulnerable users, including pedestrians, bicyclists, and people with disabilities. Secondary goals include improving transportation circulation, accommodating planned neighborhood growth, supporting other planned transportation projects, and developing recommendations that are feasible to implement within as short a timeframe as possible.

The project team, comprised of Transportation Authority and SFMTA staff, selected ten freeway ramp intersections in SoMa to study based on an analysis of traffic collisions from 2012 to 2016, coordination to determine which intersections were already slated for improvements, and a determination of whether improvements could potentially improve conditions.

The selected ten intersections are:

- Mission, Otis, Duboce, & 13th streets (U.S. 101 NB off-ramp)
- South Van Ness Avenue & 13th Street (U.S. 101 SB on-ramp)
- 8th Street midblock between Bryant & Harrison streets (I-80 WB off-ramp)
- 8th Street & Bryant Street (I-80 WB off-ramp)
- 7th Street & Harrison Street (I-80 WB on-ramp)
- 7th Street midblock between Bryant & Harrison streets (I-80 EB off-ramp)
- 7th Street & Bryant Street (I-80 EB off-ramp)
- 6th Street & Brannan Street (I-280 NB off-ramp, I-280 SB on-ramp)
- Fremont Street midblock between Howard & Folsom streets (I-80 WB off-ramp)
- Essex Street and Harrison Street (I-80 EB on-ramp)

All ten intersections are on the City's Vision Zero High Injury Network. At each selected intersection, the project team analyzed collision reports to identify collision causes and patterns to inform potential design treatments.

### **Recommended Improvements.**

The project team recommended a set of improvements at each intersection based on the collision analysis, opportunities to improve accessibility, traffic analysis, cost estimates, implementation timelines, and feedback received from public outreach. The recommended improvement concepts, shown for each intersection in Attachment 1, include:

- Sidewalk extensions (bulb-outs) to reduce turning speeds and shorten pedestrian crossings;
- Signal upgrades to improve visibility, add exclusive turn phases where needed, add flashing beacon signs at unsignalized crosswalks, and add leading pedestrian intervals;
- New crosswalks where they are currently missing;
- New wayfinding signage to reduce confusion and weaving;
- Improved lighting, particularly under freeway viaducts;

## Agenda Item 8

- New protected bicycle lanes on key routes; and
- Reduction in the number of traffic lanes at select locations to calm traffic and provide space for other safety treatments.

The recommendations identified select near-term safety treatments at each intersection, such as pavement markings, signal timing changes, and signage upgrades, that could be implemented in two years or less depending on approvals needed. The remaining recommendations include capital improvements that involve more extensive reconstruction (i.e. concrete work or signal upgrades) and would require additional time to obtain approvals and funding to implement.

### **Public Outreach.**

The project team conducted two major rounds of outreach during the study. The purpose of the first round, conducted in spring 2018, was to learn about users' experiences at the study intersections and their ideas to improve them before proposals were developed. During the second round in summer 2018, the project team shared draft design proposals to solicit feedback. In total, the project team contacted over 70 neighborhood groups, advocacy organizations, partner agencies, and employers. Outreach methods included a mailer to addresses near the intersections, an open house in July 2018, tabling at intersections and Sunday Streets, posters on the street, emails, a social media campaign, and meetings with stakeholder groups. The project team also solicited input through individual stakeholder meetings and a survey, which received over 800 responses. The survey, mailer, posters, handouts, and social media ads were provided in English, Chinese, Filipino, and Spanish and translation services were provided at the open house.

Stakeholders identified a range of safety and accessibility challenges at the intersections including traffic signal visibility, pedestrian and bicycle conditions, vehicle weaving, high-speed turning movements, and a lack of pedestrian crosswalks at some intersections. The design proposals received mostly positive feedback and the project team incorporated a number of stakeholder suggestions into the final recommendations.

### **Next Steps: Funding and Implementation.**

The planning-level cost estimate for design, obtaining approvals, and construction of the improvements at all 10 intersections is approximately \$10.7 million. Of this, approximately \$250,000 represents the cost of the identified near-term improvements. The remaining costs are for capital improvements that involve more extensive reconstruction (i.e. concrete work or signal upgrades), which will take several years to implement.

SFMTA will lead the design and construction of the recommended improvements in coordination with San Francisco Public Works and Caltrans, which will need to approve many of the recommended treatments. SFMTA has committed to implement the recommended near-term improvements within two years, with the exception of improvements that require a longer Caltrans approval process. The Transportation Authority Board will consider final approval of a \$160,000 allocation of District 6 Neighborhood Transportation Improvement Program (NTIP) funds to implement the improvements at the first several intersections. For the remainder of the improvements, the project team identified multiple potential funding sources including but not limited to Prop K sales tax, Prop AA vehicle registration fee, Prop A and Prop B general funds, Interagency Plan Implementation Committee impact fees, Caltrans funds, the Highway Safety Improvement Program, the Active Transportation Program, One Bay Area Grant funds, and potential Transportation Network Company Tax revenue (pending approval).



Agenda Item 8

**FINANCIAL IMPACT**

The recommended action does not have an impact on the proposed Fiscal Year 2019/20 budget.

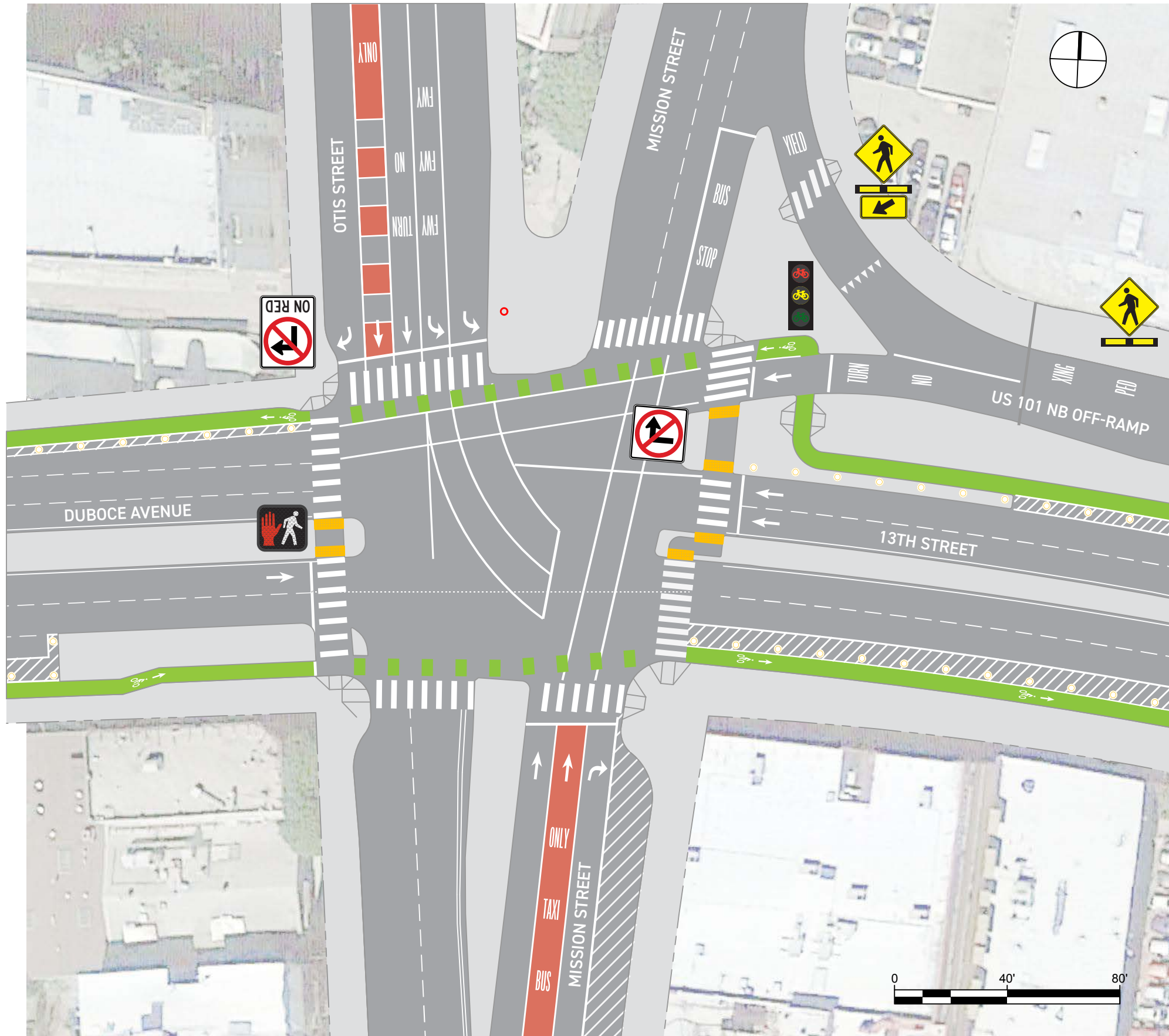
**CAC POSITION**

The CAC considered this item at its June 26, 2019 meeting and unanimously adopted a motion of support for the staff recommendation.

**SUPPLEMENTAL MATERIALS**

Attachment 1- Recommended Improvement Concept Plans

Enclosure – SoMa Freeway Ramp Intersection Safety Study (Phase 2) Final Report



## MISSION STREET / 13TH STREET / US 101 NB OFF-RAMP

### Alternative One-Way Otis Street

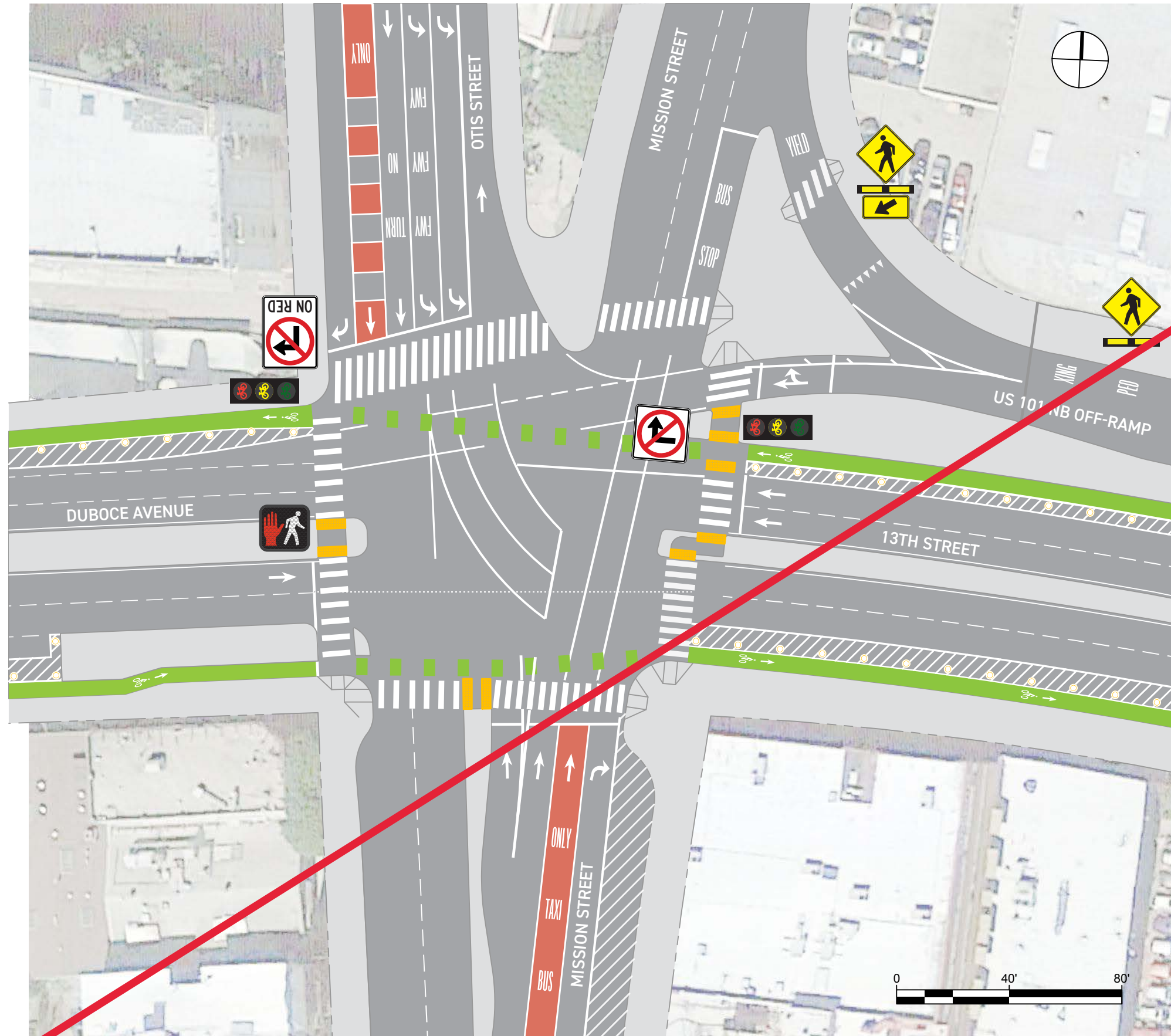
#### NOTES

##### Market Street Hub Project Improvements

- Protected cycle track on 13th and Duboce Avenue, channelize westbound bicycle lane and realign US 101 ramp to increase bicyclist visibility and reduce conflicts
- Remove U-turn from Otis St. to Mission St. to reduce number of traffic movements and conflicts

##### SoMa Freeway Ramp Intersection Safety Study Proposals

- Bulb-outs and curb ramps
- Median refuge islands for people crossing Duboce and 13th Street
- Pedestrian and traffic signal upgrades
- Brighter lighting under the bridge
- Accessible Pedestrian Signal (APS) for all crosswalks
- Crosswalk flashing beacons and signage on un-signalized off-ramp to Mission Street
- New crosswalk striping
- Bus-only lanes on Mission St. approaching the intersection
- Additional signal heads and signs for improved visibility



## MISSION STREET / 13TH STREET / US 101 NB OFF-RAMP

### Alternative Two-Way Otis Street

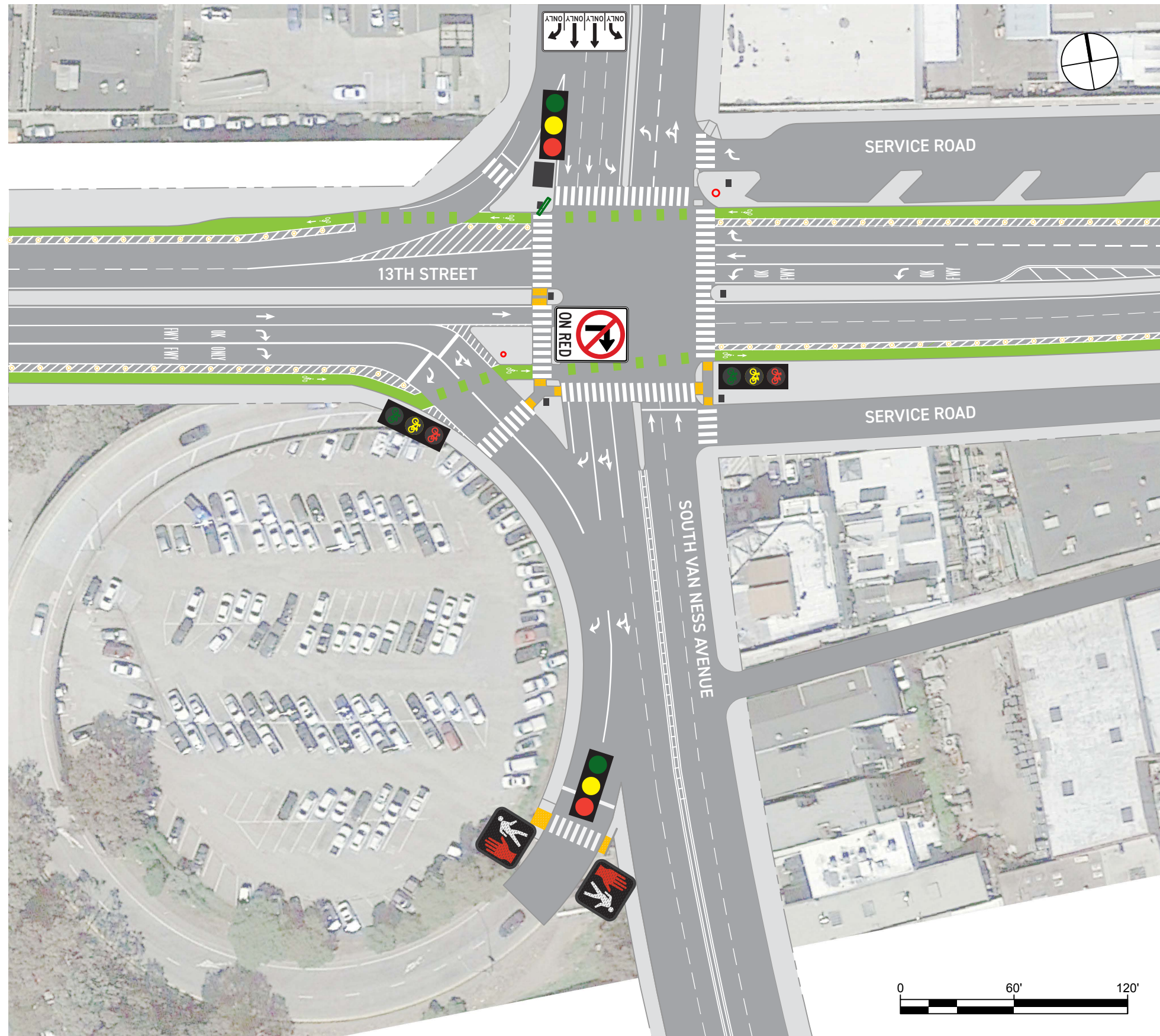
#### NOTES

##### Market Street Hub Project Improvements

- Protected cycle track on 13th and Duboce Avenue
- Two-way Otis Street. Modify Mission St. median and remove U-turn from Otis St. to Mission St. to accommodate traffic to Otis St.

##### SoMa Freeway Ramp Intersection Safety Study Proposals

- Bulb-outs and curb ramps
- Median refuge islands for people crossing Duboce and 13th Street
- Pedestrian and traffic signal upgrades
- Brighter lighting under the bridge
- Accessible Pedestrian Signal (APS) for all crosswalks
- Crosswalk flashing beacons and signage on un-signalized off-ramp to Mission Street
- New crosswalk striping
- Bus-only lanes on Mission St. approaching the intersection



# SOUTH VAN NESS AVE / 13TH ST / US 101 SB ON-RAMP

## NOTES

### Market Street Hub Project Improvements

- Protected cycle track on 13th Street

### SoMa Freeway Ramp Intersection Safety Study Proposals

- Bulb-outs and curb ramps
- Median refuge islands across 13th Street
- Pedestrian and traffic signal upgrades
- Brighter lighting under the bridge
- Protected left-turn from S Van Ness Ave. to 13th Street
- New sidewalk on west side of S Van Ness Ave.
- New traffic signal and pedestrian crosswalk at the US 101 freeway southbound on-ramp