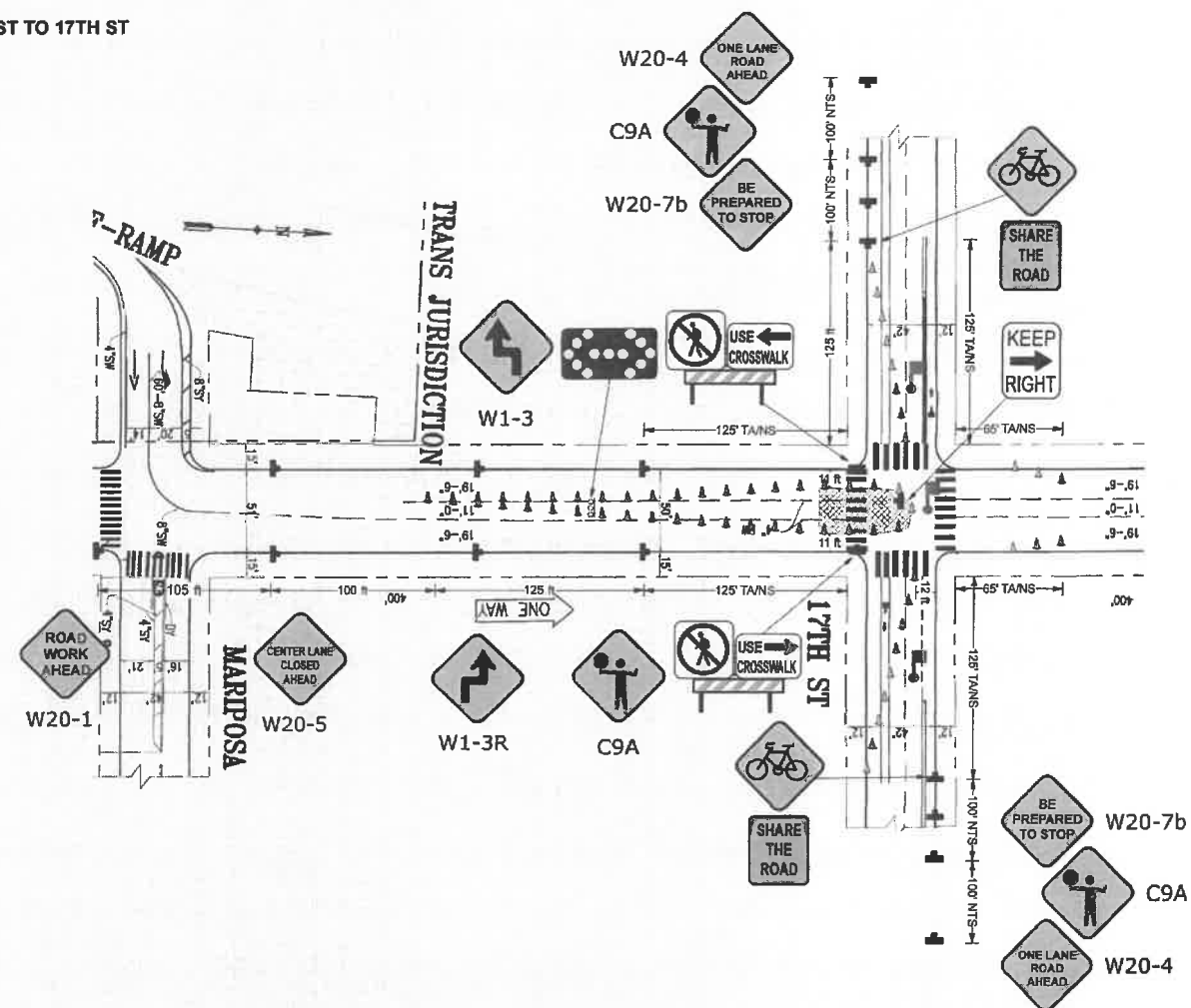
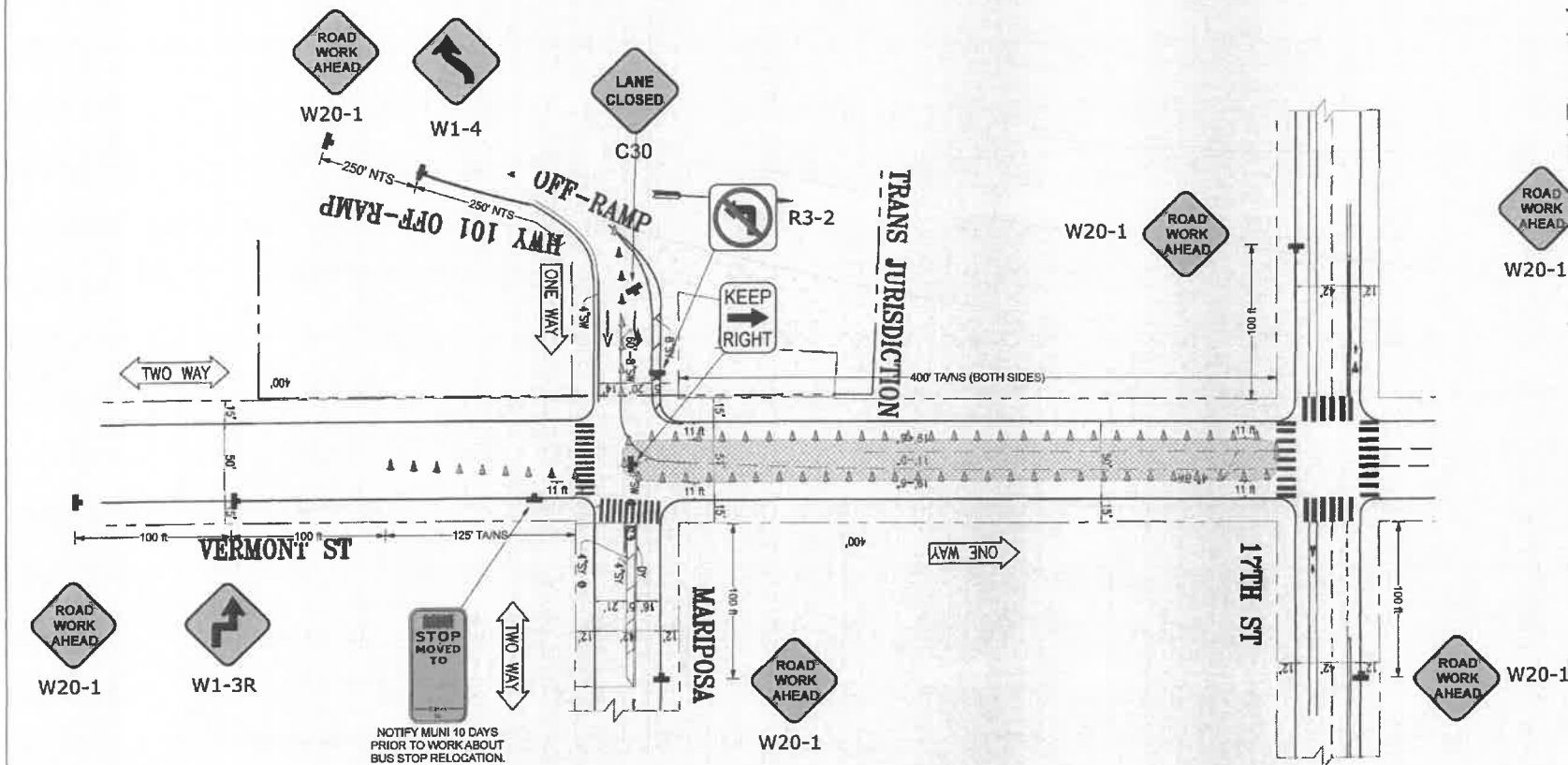


STREET	TIME	NORTHBOUND	SOUTHBOUND	EASTBOUND	WESTBOUND
During Sewer Construction					
Vermont St. south of Mariposa St. and between Alameda and Division Streets	8AM – 6PM At Other Times	1@11' Full Roadway	1@11' Full Roadway	-	-
Division Street At Vermont St.	8AM – 4PM (M – F) 8AM – 6PM (S/S) At Other Times	- - -	1@11' 1@11' Full Roadway	- Full Roadway Full Roadway	- Full Roadway Full Roadway
Vermont St., between 19 th and Mariposa Streets	8AM – 3PM (M – F) 8AM – 6PM (S/S) At Other Times	2@11' 2@11' Full Roadway	- - -	- -	-
17 th St. at Kantakes	8AM – 4PM (M – F) 8AM – 6PM (S/S) At Other Times	- - -	- -	1@12' Reversible 1@12' Reversible Full Roadway	- Full Roadway Full Roadway
19 th & 20 th Sts. at Vermont 19 th & Mariposa at Kansas St.	8AM – 6PM At Other Times	- -	- -	1@12' Reversible Full Roadway	- Full Roadway
Hey 101 NB Off-Ramp at Mariposa St. at Vermont St.	-	-	-	-	-
Per Caltrans' Encroachment Permit Requirements					

STREET	TIME	NORTHBOUND	SOUTHBOUND	EASTBOUND	WESTBOUND
During Sewer Construction					
Vermont St. south of Mariposa St. and between Alameda and Division Streets	8AM – 6PM At Other Times	1@11' Full Roadway	1@11' Full Roadway	-	-
Division Street At Vermont St.	8AM – 4PM (M – F) 8AM – 6PM (S/S) At Other Times	- - -	1@11' 1@11' Full Roadway	- Full Roadway Full Roadway	- Full Roadway Full Roadway
Vermont St., between 19 th and Mariposa Streets	8AM – 3PM (M – F) 8AM – 6PM (S/S) At Other Times	2@11' 2@11' Full Roadway	- - -	- -	-
17 th St. at Kantakes	8AM – 4PM (M – F) 8AM – 6PM (S/S) At Other Times	- - -	- -	1@12' Reversible 1@12' Reversible Full Roadway	- -
19 th & 20 th Sts. at Vermont 19 th & Mariposa at Kansas St.	8AM – 6PM At Other Times	- -	- -	1@12' Reversible Full Roadway	- -
Hey 101 NB Off-Ramp at Mariposa St. at Vermont St.	-	-	-	-	-
Per Caltrans' Encroachment Permit Requirements					

STREET	TIME	NORTHBOUND	SOUTHBOUND	EASTBOUND	WESTBOUND
<u>During Sewer Construction</u>					
Vermont St. south of Mariposa St. and between Alameda and Division Streets	8AM – 6PM At Other Times	1@11' Full Roadway	1@11' Full Roadway	-	-
Division Street At Vermont St.	8AM – 4PM (M – F) 8AM – 6PM (S/S) At Other Times	- - -	1@11' 1@11' Full Roadway	- Full Roadway Full Roadway	- Full Roadway Full Roadway
Vermont St., between 19 th and Mariposa Streets	8AM – 3PM (M – F) 8AM – 6PM (S/S) At Other Times	2@11' 2@11' Full Roadway	- - -	- -	-
17 th St. at Kantakes	8AM – 4PM (M – F) 8AM – 6PM (S/S) At Other Times	- - -	- -	1@12' Reversible 1@12' Reversible Full Roadway	- Full Roadway Full Roadway
19 th & 20 th Sts. at Vermont 19 th & Mariposa at Kansas St.	8AM – 6PM At Other Times	- -	- -	1@12' Reversible Full Roadway	- Full Roadway
Hey 101 NB Off-Ramp at Mariposa St. at Vermont St.	-	-	-	-	-
Per Caltrans' Encroachment Permit Requirements					

[illegible]Table 4C-5(CA). Taper Length Criteria for Temporary Traffic Control Zones
(for 12 feet or less Width)

Speed ^a (mph)	Minimum "Paper Length" for Worn or Offset (12 hr/36)				Down Stress (lb/in ²)
	Marginal L/2	Shoeliner L/2	L/3		
	(in.)	(in.)	(in.)		
20	80	40	27	30	
25	126	61	42	32	
30	180	87	61	34	
35	245	113	83	36	
40	320	150	107	38	
45	540	270	180	39	
50	805	300	200	23	
55	840	330	220	23	
60	920	360	240	23	
65	780	280	260	25	
70	740	330	280	26	

^a. Posted speed limit, off-peak 60th-percentile speed prior to work starting, or the anticipated operating speed in mph.^a For other offsets use the following merging taper length formula for L:

For speeds of 40 mph or less, $L=4VS/100$
For speeds of 45 mph or more, $L=4VS$

Where: L = taper length in feet
 W = width of offset in feet

³ S = posted speed limit, on-post 50th-percentile speed prior to work starting, or the anticipated opening speed in mph.

Table 6F-131 ICAI Maximum Spacing of Channelizing Devices

Speed (mph)	Maximum Channeling Device Spacing		
	Taper (ft)	Tangent (ft)	Corridor (ft)
20	20	40	16
25	25	50	12
30	30	60	15
35	35	70	17
40	40	80	20
45	45	80	22
50	50	100	25
55	55	110	27
60	60	120	30
65	65	130	32
70	70	140	35

* Minimum channelizing device spacing for all speeds on one-lane/two-way tapes is 20 feet.

Maximum channelizing device spacing for all speeds on downstream taper is 20 feet.
All other tapers are as shown.

* Use on intermediate and short-term projects for larger and larger sections where there are no permanent markings or where there is a conflict between existing

pavement, meetings and centralization (CA)

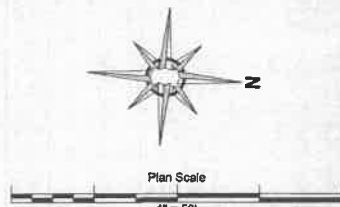


Table 6C-1. Recommended Advance Warning Sign Minimum Spacing

Road Type	Distance Between Signs		
	A	B	C
Urban (one-way) - 25 mph or less	100 feet	120 feet	100 feet
Urban (two-way) - 25 mph or less	100 feet	120 feet	100 feet
Urban (one-way) - more than 25 mph to 40 mph	165 feet	230 feet	160 feet
Urban (two-way) - more than 25 mph to 40 mph	165 feet	230 feet	160 feet
Urban (one-way) - more than 40 mph	300 feet	360 feet	300 feet
Urban (two-way) - more than 40 mph	300 feet	360 feet	300 feet
Rural	600 feet	600 feet	600 feet
Expressway / Freeway	1,000 feet	1,000 feet	2,000 feet










6. *What is the purpose of the study?*










²² The subject handprint A, B, and C are the dimensions shown in Figures 624-1 through 624-46. The A dimension is the distance from the location or point of reflection to the first sign. The B dimension is the distance between the first and second signs. The C dimension is the distance between the

second and third signs. (The "first sign" is the sign at a three-sign series that is closest to the TTC sign. The "third sign" is the sign that is furthest upstream from the TTC sign.)



Legend

	Channelizer
	28" Traffic Cone
	Work Area
	Sign and Stand
	Type III Barricade (Plain View)
	ADA Pedestrian Barricades
NTS	Not To Scale
TAWS	Tow-Away/No Stopping
	Crash Cushion
	Flagger
	Water Filled Barrier

- | | |
|---|---------------------------------|
|  | Channelizer |
|  | 28" Traffic Cone |
|  | Work Area |
|  | Sign and Stand |
|  | Type III Barricade (Plain View) |
|  | ADA Pedestrian Barricades |
| NTS | Not To Scale |
| T/A/NS | Tow-Away/No Stopping |
|  | Crash Cushion |
|  | Flagger |
|  | Water Filled Barrier |



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LICENSE NO 792059
CLASS A, 31, C21
WBE/SBE/LBE/DBE CERTIFIED
WWW.CMCTRAFFIC.COM

Date: 1/10/2019 Author: KR/DD Project: 2782J
CLIENT: PRECISION Owner: SFDPW Location: SAN FRANCISCO
TCP: 031 CMC Job #: 1812 REV: 0

Comments:

- 1) WORK HOURS: 8AM - 6PM
- 2) CONTRACTOR TO VERIFY EXISTING STRIPING IS ACCURATE PRIOR TO START OF WORK.
- 3) ALL TRAFFIC CONTROL SHALL CONFORM TO THE LATEST EDITION OF CA MUTCD.
- 4) ALL TRAFFIC CONTROL DEVICES SHALL BE RETROREFLECTIVE IF SETUP DURING HOURS OF DARKNESS.
- 5) SEWER RELATED WORK IS ALLOWED UP TO ONE (1) BLOCK AND ONE (1) ADJACENT INTERSECTION AT A TIME.
- 6) CONTRACTOR CAN CLOSE ONE (1) CROSSWALK AT ANY ONE TIME AS LONG AS ONE (1) FLAGPERSON IS PROVIDED.
- 7) SEWER LINING AND MORTARING IS ALLOWED UP TO ONE (1) BLOCK AND THE TWO (2) ADJACENT INTERSECTIONS.