



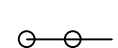
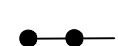


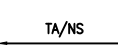










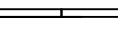
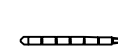
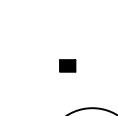

TABLE A - MAXIMUM CHANNELIZER SPACING					
APPROACH SPEED (MPH)	TAPER (FT)	TANGENT (FT)	CONFLICT (FT)	1-LANE, 2-WAY	DOWN- STREAM (FT)
15	15	30	7	20	20
20	20	40	10	20	20
25	25	50	12	20	20
30	30	60	15	20	20
35	35	70	17	20	20
40	40	80	20	20	20
45	45	90	22	20	20
50	50	100	25	20	20
55	50	100	25	20	20
60	50	100	25	20	20
65	50	100	25	20	20
70	50	100	25	20	20
75	50	100	25	20	20

<b>APPROACH SPEED (MPH)</b>	<b>MERGING L (FT)</b>	<b>SHIFTING L/2 (FT)</b>	<b>SHOULDER L/3 (FT)</b>	<b>ONE LANE, TWO-WAY (FT)*</b>	<b>DOWN-STREAM (FT)*</b>
 15	45	23	15	50	50
20	80	40	27	50	50
 25	125	63	42	50	50
30	180	90	60	50	50
35	245	123	82	50	50
40	320	160	107	50	50
45	540	270	180	50	50
50	600	300	200	50	50
55	660	330	220	50	50
60	720	360	240	50	50
65	780	390	260	50	50
70	840	420	280	50	50
75	900	450	300	50	50

\* MAXIMUM TAPER LENGTH FOR ONE-LANE TWO WAY AND DOWNSTREAM TAPERS IS 100 FT

ROAD TYPE	SIGN SPACING (FT)
URBAN 25 MPH OR LESS	100
URBAN MORE THAN 25 MPH TO 40 MPH	250
URBAN MORE THAN 40 MPH	350
RURAL	500
EXPRESSWAY / FREEWAY	1,000 (CLOSEST TO WORK ZONE) 1,500 (SECOND) 2,640 (FIRST SIGN SEEN BY PUBLIC)

### LEGEND

	WORK ZONE
	PAVEMENT MARKING
	BARRICADE (TYPE 1, 3, OR ADA AS NOTED)
	28", 10# REFLECTIVE CONE
	36" FIXED-MOUNT CHANNELIZER, ORANGE WITH WHITE RETRO-REFLECTOR, UON
	SIGN
	POST TEMP. TOW AWAY / NO STOPPING SIGN
	PLAN VIEW FLASHING ARROW SIGN (FAS) OR CHANGEABLE MESSAGE SIGN (CMS)
	FLASHING ARROW SIGN
	SPEED RADAR TRAILER
	FLAGMAN
	UNIFORMED POLICE OFFICER
	WATER-FILLED LCD OR BARRIER AS NOTED
	ADA PLASTIC PEDESTRIAN BARRICADE / LCD
	CONCRETE K-RAIL BARRIER PER CALTRANS STANDARDS
	CRASH CUSHION, TL RATING AS NOTED
	TEMP PEDESTRIAN RAMP PER CALTRANS STD DRAWINGS T33 & T34
	TEMP STRIPING DETAIL PER CALTRANS STDS
	REMOVE CONFLICTING STRIPING

**NOTES:**

2. WORK HOURS: SEE CHARTS
3. EXPECTED DURATION: 1 SHIFT PER PHASE FOR GRINDING AND 1 SHIFT FOR PAVING
3. PROVIDE FULL ROADWAY DURING NON-WORKING HOURS, UNLESS OTHERWISE NOTED.
4. PROVIDE LOCAL ACCESS AT ALL TIMES.
5. NOTIFY RESIDENTS, BUSINESSES, AND PROPERTY OWNERS WITH DATES AND TIMES THAT THEIR ACCESS WILL BE AFFECTED 2 WEEKS PRIOR TO START OF WORK.
6. SEE CONTRACT SPECIFICATION SECTION 01 55 26 FOR ADDITIONAL NOTES
7. ALL TRAFFIC CONTROL SHALL FOLLOW THE CA MUTCD, LATEST EDITION
8. ALL TRAFFIC CONTROL DEVICES SHALL BE RETROREFLECTIVE AND CRASHWORTHY AS DEFINED IN THE CA MUTCD.
9. FLAGGER STATIONS SHALL BE ILLUMINATED DURING HOURS OF DARKNESS
10. MOUNT 2 ORANGE FLAGS ABOVE EACH SIGN. SEE SPECIFICATION SECTION 01 55 26 AND TABLE 6F-1 IN CHAPTER 6 OF THE CA MUTCD FOR SIGN SIZES. MINIMUM SIGN HEIGHT FOR TEMPORARY SIGNS IS 1' FROM THE GROUND TO THE BOTTOM OF THE SIGN. IF A SIGN WILL BE IN PLACE FOR MORE THAN 3 DAYS, MINIMUM SIGN HEIGHT IS 7'.
11. CONTRACTOR TO VERIFY ACCURACY OF EXISTING STRIPING PRIOR TO START OF WORK.
12. IF TRENCH PLATES ARE USED, PLACE A W8-24 "STEEL PLATE AHEAD" SIGN IN ADVANCE.
13. A C27 "OPEN TRENCH" SIGN SHALL BE USED IN ADVANCE OF OPEN TRENCHES IN/OR ADJACENT TO THE ROADWAY. ALL OPEN TRENCHES SHALL BE CLEARLY DELINEATED AND BARRICADED DURING WORKING HOURS AND FILLED OR PLATED DURING NON-WORKING HOURS.
14. IF A STEP OR RIDGE IN THE PAVEMENT EXCEEDS  $\frac{3}{8}$ " PARALLEL TO THE DIRECTION OF TRAVEL OR  $\frac{3}{4}$ " PERPENDICULAR TO THE DIRECTION OF TRAVEL, POST A C46(CA) "UNEVEN PAVEMENT" SIGN (OR W8-11 "UNEVEN LANE" SIGN IF ALONG A LANE LINE). IF THE STEP EXCEEDS 3", DO NOT RE-OPEN THE ROADWAY UNTIL CORRECTED.
15. PRIOR TO DIRECTING OR CHANNELIZING BICYCLES INTO AN AREA OF THE ROADWAY, CONTRACTOR SHALL VERIFY THAT ALL DRAIN INLET GRATES ARE BICYCLE-SAFE. REFER TO CALTRANS STANDARD PLAN D77B FOR EXAMPLES OF BICYCLE-SAFE GRATES.
16. WHEN DIVERTING PEDESTRIANS FROM A SIDEWALK, CONTRACTOR SHALL DELINEATE A 5' (4' MINIMUM) SAFE PATH OF TRAVEL FOR PEDESTRIANS USING PLASTIC ADA-COMPLIANT PEDESTRIAN BARRICADES WITH A DETECTABLE AND CONTINUOUS TOE-BOARD. THE BOTTOM OF THE TOE BOARD SHALL BE NO MORE THAN 2" ABOVE GRADE AND THE TOP SHALL BE AT LEAST 6" ABOVE GRADE. THE SAFE PATH OF TRAVEL SHALL CONSIST OF A HARD, SMOOTH, CONTINUOUS SURFACE WITH A MAXIMUM SLOPE OF 5% AND CROSS SLOPE OF 2%. SURFACE DISCONTINUITIES MUST NOT EXCEED  $\frac{1}{4}$ " AND VERTICAL DISCONTINUITIES BETWEEN  $\frac{1}{4}$ " AND  $\frac{3}{4}$ " MUST BE BEVELED AT A MAXIMUM OF 2:1 OR FLATTER. REFER TO THE CALTRANS TEMPORARY PEDESTRIAN ACCESS ROUTES HANDBOOK FOR ADDITIONAL DETAILS.
17. TEMPORARY CURB RAMPS MUST NOT HAVE SURFACE DISCONTINUITIES. THE LONGITUDINAL SLOPE MUST BE NO GREATER THAN 8.3%. EDGE PROTECTION MUST BE AT LEAST 2" HIGH ON EACH SIDE IF IT DOES NOT HAVE FLARES AND THE RISE IS GREATER THAN 6". A DETECTABLE WARNING SURFACE MUST BE USED. REFER TO CALTRANS STANDARD PLANS T33 AND T34 FOR ADDITIONAL DETAILS.
18. TEMPORARY PAVEMENT MARKING TAPE MAY BE USED FOR TEMPORARY STRIPING. TEMP LANE LINES SHOULD BE 4" WIDE, UON. CROSSWALKS AND LIMIT LINES SHOULD BE 12" WIDE. USE BLACK TAPE TO COVER/REMOVE EXISTING CONFLICTING STRIPING. USE OF BLACK PAINT TO COVER EXISTING STRIPING IS NOT ALLOWED. RESTORE ORIGINAL STRIPING PER T DRAWINGS WHEN TRAFFIC CONTROL IS PICKED UP. REFER TO SPECIFICATIONS FOR ADDITIONAL NOTES REGARDING TEMPORARY STRIPING.
19. GRINDING IS NOT PERMITTED ON THURSDAY OR FRIDAY UNLESS PAVING WILL BE SATISFACTORILY COMPLETED BEFORE THE END OF THE SATURDAY WORKDAY OF THE SAME WEEK.
20. THE CONTRACTOR SHALL GRIND OR PAVE THE FULL WIDTH OF THE ROADWAY WITHIN A BLOCK BY THE END OF A WORK SHIFT.
21. DURING GRINDING AND PAVING WORK, THE CROSS STREET MAY BE INTERRUPTED FOR UP TO A MAXIMUM OF TEN (10) MINUTES FOR RESIDENTIAL AREAS AND FIVE (5) MINUTES FOR COMMERCIAL AREAS, ARTERIALS, AND STREETS OF MAJOR IMPORTANCE LISTED IN THE BLUE BOOK.
22. THE CONTRACTOR SHALL INSTALL AND MAINTAIN TEMPORARY PAVEMENT MARKINGS PER SPECIFICATION SECTION 01 55 26 AFTER GRINDING (PAINT) AND AFTER PAVING (TAPE) AND PRIOR TO RE-OPENING THE ROADWAY.

**ABBREVIATIONS:**

ADA	AMERICAN WITH DISABILITIES ACT
ADAAG	ADA ACCESSIBILITY GUIDELINES
AFAD	AUTOMATED FLAGGER ASSISTANCE DEVICE
AVE	AVENUE
BW	BROKEN YELLOW (STRIPE)
BY	BROKEN WHITE (STRIPE)
CAL/OSHA	CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
CA MUTCD	CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS
CALTRANS	CALIFORNIA DEPARTMENT OF TRANSPORTATION
CHP	CALIFORNIA HIGHWAY PATROL
CMS	CHANGEABLE MESSAGE SIGN
COZEEP	CONSTRUCTION ZONE ENHANCED ENFORCEMENT PROGRAM
CVC	CALIFORNIA VEHICLE CODE
DDOT	DEPARTMENT OF TRANSPORTATION
DY	DOUBLE YELLOW (STRIPE)
E	EAST
E	EXISTING
EB	EAST-BOUND
EP	EDGE OF PAVEMENT
ES	EDGE OF SHOULDER
ETW	EDGE OF TRAVELED WAY
EXP	EXPRESSWAY
FAS	FLASHING ARROW SIGN
FHWA	FEDERAL HIGHWAY ADMINISTRATION
FS	FAR SIDE
FWY	FREEWAY
LCD	LONGITUDINAL CHANNELIZING DEVICE
LF	LINEAR FOOT
LL	LIMIT LINE (12" SW)
LN	LANE
LOS	LEVEL OF SERVICE
MAX	MAXIMUM
MH	MAN-HOLE
MPH	MILES PER HOUR
MUTCD	MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES
N	NEW
N	NORTH
NB	NORTH-BOUND
NCHRP	NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM
NS	NEAR SIDE
NTS	NOT TO SCALE
OH	OVERHEAD
OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN
PE	PROFESSIONAL ENGINEER
PED	PEDESTRIAN
PM	POST MILE OR AFTERNOON
RD	ROAD
ROW	RIGHT OF WAY
RR	RAILROAD
RTE	ROUTE
RW	ROADWAY
R/W	RIGHT OF WAY
S	SOUTH
SB	SOUTH-BOUND
SR	STATE ROUTE
ST	STREET
STD	STANDARD
SW	SIDEWALK
SW	SOLID WHITE (STRIPE)
SY	SOLID YELLOW (STRIPE)
T/ANS	TOW AWAY / NO STOPPING
TC	TRAFFIC CONTROL
TCP	TRAFFIC CONTROL PLAN
TEMP	TEMPORARY
TS	TRAFFIC SIGNAL
TTC	TEMPORARY TRAFFIC CONTROL
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
W	WEST
WB	WEST-BOUND

[illegible]

IF THIS SHEET IS NOT 24"x36" , IT IS  
A REDUCED PRINT - SCALE ACCORDINGLY

0 50 100 150  
1" = 50' GRAPHIC SCALE

Revisions				
No.	Revisions	By	Date	Appr.



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Key Plan

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Engineer Of Record:  
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DESIGN DOCUMENTS  
TEMPORARY TRAFFIC CONTROL

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Project  
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RENOVATION AND SEWER REPLACEMENT  
SAN FRANCISCO, CA  
SOURCING ID NO. 0000003758

Sheet Title  
TCP FOR GRIND & PAVE - NOTES, CHARTS,  
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