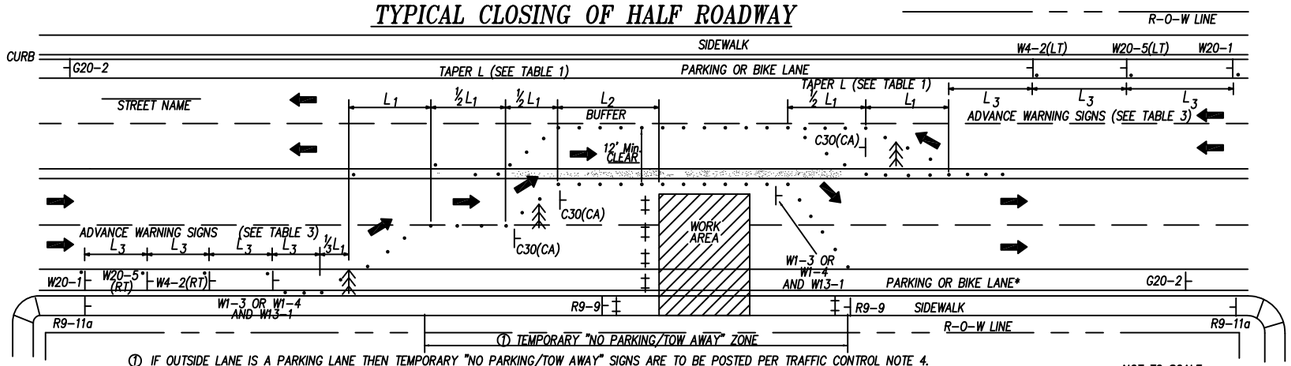
TYPICAL CLOSING OF HALF ROADWAY

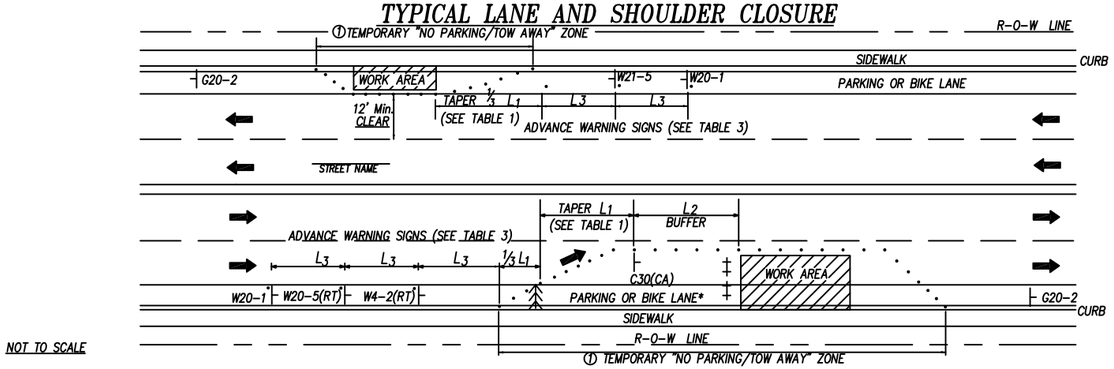


① IF OUTSIDE LANE IS A PARKING LANE THEN TEMPORARY "NO PARKING/TOW AWAY" SIGNS ARE TO BE POSTED PER TRAFFIC CONTROL NOTE 4.

* POST A W20-5(BK) AND W16-1 SIGN BETWEEN THE W20-5 AND W4-2 SIGNS, AND A C30(BK) AT THE BEGINING OF TAPER.

NOT TO SCALE

TYPICAL LANE AND SHOULDER CLOSURE

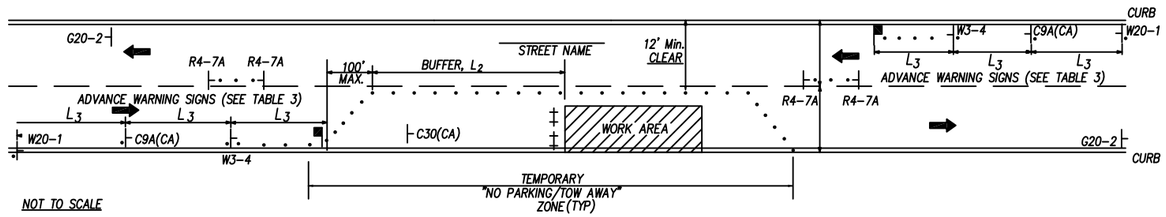


① IF OUTSIDE LANE IS A PARKING LANE THEN TEMPORARY "NO PARKING/TOW AWAY" SIGNS ARE TO BE POSTED PER TRAFFIC CONTROL NOTE 4.

* POST A W20-5(BK) AND W16-1 SIGN BETWEEN THE W20-5 AND W4-2 SIGNS, AND A C30(BK) AT THE BEGINING OF TAPER.

NOT TO SCALE

TYPICAL LANE CLOSURE WITH REVERSIBLE CONTROL

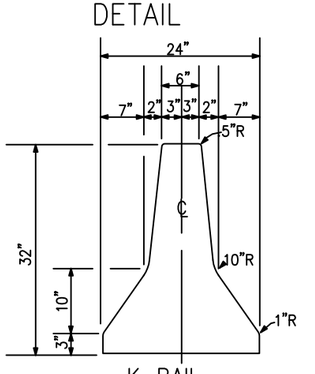


NOT TO SCALE

LEGEND

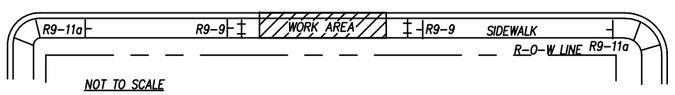
- DIRECTION OF TRAVEL
- PORTABLE SIGN
- TRAFFIC CONE/DELINEATOR
- TYPE II BARRICADE
- FLAGGER
- FLAG TREE
- FLASHING ARROW SIGN
- PORTABLE FLASHING BEACON (SEE SIGNAGE NOTE #3)
- K-RAIL (TYPE 50 CONCRETE BARRIER)
- CMS CHANGEABLE MESSAGE SIGN

DETAIL



K-RAIL
(CONCRETE BARRIER TYPE 50)

TYPICAL SIDEWALK CLOSURE



NOT TO SCALE

TABLE 1: TAPER LENGTHS, L_1

APPROACH SPEED (M.P.H.)	MINIMUM TAPER LENGTH L_1 *	MINIMUM NUMBER OF CONES FOR TAPER *	MAXIMUM SPACING OF CONES ALONG TAPER (FEET) ±	MAXIMUM SPACING OF CONES ALONG TANGENT (FEET) ±
25	125	6	25	50
30	180	7	30	60
35	245	8	35	70
40	320	9	40	80
45	540	13	45	90
50	600	13	50	100
55	660	13	55	110
60	720	13	60	120

* BASED ON 12 FOOT WIDE LANE. THIS COLUMN IS ALSO APPROPRIATE FOR LANE WIDTHS LESS THAN 12 FEET.

TABLE 2: BUFFER SPACE, L_2

APPROACH SPEED (M.P.H.)	LONGITUDINAL BUFFER SPACE L_2 (FEET)±*
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570

* SEE MUTCD TABLE 6E-101 FOR SUSTAINED DOWNGRADES STEEPER THAN 3% AND LONGER THAN 1 MILE.

TABLE 3: SIGN SPACING, L_3

APPROACH SPEED (M.P.H.)	MINIMUM DISTANCE IN FEET L_3	
	BETWEEN SIGNS *	FROM LAST * SIGN TO TAPER
25	150' – 200'	150' – 200'
30	200' – 300'	200' – 300'
35	250' – 400'	250' – 400'
40	350' – 500'	350' – 500'
45	500' – 750'	500' – 750'
50	500' – 1000'	500' – 1000'
55	500' – 1500'	500' – 1500'

* EXACT SPACING MAY VARY DUE TO FIELD CONDITIONS

TRAFFIC CONTROL NOTES

1. WORK HOURS SHALL BE RESTRICTED TO 8:00 AM – 4:00 PM UNLESS APPROVED OTHERWISE (HIGH VOLUME STREETS 9:00 AM – 3:00 PM). ARTERIAL STREETS MAY REQUIRE NIGHT WORK. ALL NIGHT WORK WILL REQUIRE WRITTEN APPROVAL FROM THE TRANSPORTATION DIVISION. LANE CLOSURES, ROAD CLOSURES, AND TRAFFIC SIGNAL MODIFICATIONS ASSOCIATED WITH OVERNIGHT CONSTRUCTION ACTIVITIES WILL REQUIRE WARNING SIGNS TO BE PLACED AT LEAST ONE WEEK IN ADVANCE OF STARTING CONSTRUCTION.
2. PEDESTRIAN CONTROLS WILL BE PROVIDED AS SHOWN.
3. PEDESTRIANS SHALL BE PROTECTED FROM ENTERING THE EXCAVATION BY PHYSICAL BARRIERS DESIGNED, INSTALLED, AND MAINTAINED TO THE SATISFACTION OF THE CITY ENGINEER.
4. TEMPORARY "NO PARKING/TOW AWAY" SIGNS STATING THE DATE AND TIME OF PROHIBITION WILL BE POSTED 48 HOURS PRIOR TO COMMENCING WORK. CALL PARKING ENFORCEMENT AT (760) 435-5195 TO VALIDATE POSTING.
5. ACCESS WILL BE MAINTAINED TO ALL DRIVEWAYS UNLESS OTHER ARRANGEMENTS ARE MADE.
6. TRENCHES ARE TO BE BACKFILLED OR PLATED DURING NON-WORKING HOURS. TRENCH PLATES SHALL BE NON-SKID SURFACE AND ARE TO LAP TRENCH BY 12" ON EACH SIDE. THE CONTRACTOR MUST PROVIDE ASPHALT RAMP AND SIGNAGE DENOTING "TRENCH PLATE AHEAD" FOR ONCOMING TRAFFIC.
7. STRIPING WILL BE REPLACED BY THE CONTRACTOR WITHIN 24 HOURS, IF REMOVED OR DAMAGED (OR REPLACED WITH TEMPORARY TAPE).
8. WORK THAT DISTURBS NORMAL TRAFFIC SIGNAL TIMING OPERATIONS SHALL BE COORDINATED WITH THE CITY OF OCEANSIDE. CONTACT STEPHEN ELLIOT AT (760) 435-5192 72 HOURS PRIOR TO COMMENCING WORK.
9. TRAFFIC SIGNALS SHALL REMAIN FULLY ACTUATED AT ALL TIMES, UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER OR HIS REPRESENTATIVE. IF TRAFFIC SIGNAL LOOP DETECTORS ARE RENDERED INOPERATIVE BY THE PROPOSED WORK FOR MORE THAN FIVE (5) DAYS, VIDEO DETECTION SHALL BE USED TO PROVIDE ACTUATION.
10. FLAGGERS SHALL BE EQUIPPED WITH A WHITE HARD HAT, A REFLECTIVE VEST, AND A "STOP/SLOW" PADDLE ON A 5 FOOT STAFF AND SHALL BE TRAINED IN THE PROPER FUNDAMENTALS OF FLAGGING TRAFFIC.
11. ALL TRAFFIC CONTROL DEVICES MUST BE MAINTAINED 24 HOURS A DAY, 7 DAYS PER WEEK, BY THE CONTRACTOR.
12. ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CA MUTCD).
13. TRAFFIC CONTROL PLAN SUBMITTALS ARE REQUIRED FOR EACH PHASE OF THE WORK IN THE DETAIL, FORMAT, AND QUALITY ILLUSTRATED ON THIS SHEET.
14. ALL TRAFFIC CONTROL DEVICES SHALL BE REMOVED FROM VIEW OR COVERED WHEN NOT IN USE.
15. THE CITY ENGINEER OR HIS REPRESENTATIVE HAS THE AUTHORITY TO INITIATE FIELD CHANGES TO INSURE PUBLIC SAFETY.
16. ALL WORK AFFECTING BUS STOPS SHALL BE COORDINATED WITH NORTH COUNTY TRANSIT DISTRICT. CONTRACTOR SHALL CALL NCTD AT (760) 966-6500 (ASK FOR MR. KRUGER) AT LEAST 72 HOURS IN ADVANCE OF STARTING WORK.
17. CHANGEABLE MESSAGE SIGNS SHALL BE USED IN ADVANCE OF TRAFFIC CONTROL ON MAJOR AND PRIME ARTERIALS, UNLESS OTHERWISE APPROVED. THESE SIGNS SHALL BE SHOWN ON THE TRAFFIC CONTROL PLAN.
18. A MINIMUM OF (12) FOOT TRAVEL LANES MUST BE MAINTAINED (AN EXTRA 2 FEET IF BIKE LANE REMOVED) UNLESS OTHERWISE APPROVED BY THE TRANSPORTATION DIVISION.
19. A FLASHING ARROW BOARD SHALL BE REQUIRED ON ALL STREET LANE CLOSURES.
20. BIKE LANES SHALL REMAIN OPEN WHENEVER POSSIBLE. VEHICLES SHALL NOT PARK IN THE BIKE LANE WITHOUT PROPER TRAFFIC CONTROL

SIGNAGE NOTES

1. AT LEAST ONE PERSON SHALL BE ASSIGNED TO FULL TIME MAINTENANCE OF TRAFFIC CONTROL DEVICES ON ALL NIGHT LANE CLOSURES.
2. ALL WARNING SIGNS FOR NIGHT LANE CLOSURES SHALL BE ILLUMINATED OR REFLECTORIZED AS SPECIFIED IN THE SPECIFICATIONS.
3. ALL ADVANCE WARNING SIGN INSTALLATIONS SHALL BE EQUIPPED WITH FLAGS FOR DAYTIME CLOSURES OF ALL MAJOR AND PRIME ARTERIALS. FLASHING BEACONS SHALL BE USED DURING NIGHT LANE CLOSURES.
4. A G20-2 "END ROAD WORK' SIGN SHALL BE PLACED AT THE END OF THE LANE CLOSURE UNLESS THE END OF THE WORK AREA IS OBVIOUS, OR ENDS WITHIN A LARGER PROJECT LIMITS.
5. ALL CONES USED FOR NIGHT LANE CLOSURES SHALL BE ILLUMINATED TRAFFIC CONES OR FITTED WITH 13" REFLECTIVE SLEEVES.
6. FLASHING ARROW SIGNS SHALL BE USED PER CA MUTCD. SILENT TYPE SHALL BE USED IN RESIDENTIAL AREAS.
7. THE MAXIMUM SPACING BETWEEN CONES IN A TAPER OR A TANGENT SHALL BE APPROXIMATELY AS SHOWN IN TABLE 1.
8. ADDITIONAL ADVANCE FLAGGERS SHALL BE REQUIRED WHEN TRAFFIC QUEUES DEVELOP. FLAGGER STATIONS FOR WORK AT NIGHT SHALL BE ILLUMINATED AS NOTED IN SECTION 6G.20 OF THE CA MUTCD.
9. PLACE C30 (CA) "LANE CLOSED" SIGN AT 500'-1000' INTERVALS THROUGHOUT EXTENDED WORK AREAS.
10. ALL REQUIRED SIGNS THAT ARE TO BE LEFT IN PLACE OVER A WEEKEND OR HOLIDAY SHALL BE POST MOUNTED.
11. CONSTRUCTION AREA TRAFFIC CONTROL DEVICES SHALL MEET THE PROVISIONS OF SECTION 12 OF THE MOST RECENT EDITION OF THE CALTRANS STANDARD SPECIFICATIONS, THE CA MUTCD, AND THE SAN DIEGO REGIONAL STANDARD FOR TRAFFIC CONTROL PLANS (LAST UPDATED IN 2006).

CHECK LIST

- ▫ INDICATE NORTH ARROW AND SCALE OR "NOT TO SCALE" (NTS).
- ▫ SHOW EXISTING TRAFFIC SIGNALS, SIGNS AS APPLICABLE, BIKE LANES, PAVEMENT MARKINGS, CROSSWALKS, DRIVEWAYS, CURBS, STRIPING, ROADWAY WIDTHS, ETC.
- ▫ INDICATE POSTED SPEED LIMIT AND CRITICAL SPEED LIMIT.
- ▫ INDICATE LOCATIONS OF CONSTRUCTION SIGNS, LABEL TAPERS LENGTHS DISTANCES BETWEEN SIGNS AND CONES, AND BUFFER DISTANCES.
- ▫ SHOW ALL PARKING RESTRICTION ZONES AND SIGNS, AS APPROPRIATE. DISTANCES BETWEEN SIGNS AND CONES, AND BUFFER DISTANCES.
- ▫ ROAD CLOSURES ARE TO BE CONSIDERED ONLY AS A LAST RESORT, AND WILL REQUIRE APPROVAL FROM THE TRANSPORTATION ENGINEER.
- ▫ SIGNS AND BARRICADES WILL BE REQUIRED TO DIRECT PEDESTRIANS THROUGH OR AROUND THE CONSTRUCTION WORK ZONE.

SIGNS

ROAD WORK AHEAD	W20-1		W1-4(RT)	SIDEWALK CLOSED CROSS HERE	R9-11a	ONE LANE ROAD AHEAD	W20-4	LANE CLOSED	C30(CA)
RIGHT LANE CLOSED AHEAD	W20-5(RT)		W1-3(LT)	SIDEWALK CLOSED USE OTHER SIDE	R9-10	SHOULDER WORK	W21-5	XX M.P.H.	W13-1
DETOUR AHEAD	W20-2		C9A(CA)	KEEP RIGHT	R4-7a	NARROW LANE	C12(CA)	END ROAD WORK	G20-2
	W4-2(RT)	BE PREPARED TO STOP	W3-4	BIKE LANE CLOSED	C30(BK)	ROAD CLOSED	R11-2	SIDEWALK CLOSED	R9-9
				BIKE LANE CLOSED AHEAD	W20-5(BK)	ROAD CLOSED TO THRU TRAFFIC	R11-2	DETOUR	M14-10
				SHARE THE ROAD	W16-1				

SHEET 1	CITY OF OCEANSIDE ENGINEERING DEPARTMENT	SHEET 1

TRAFFIC CONTROL GUIDELINES

DATE 11/13/07