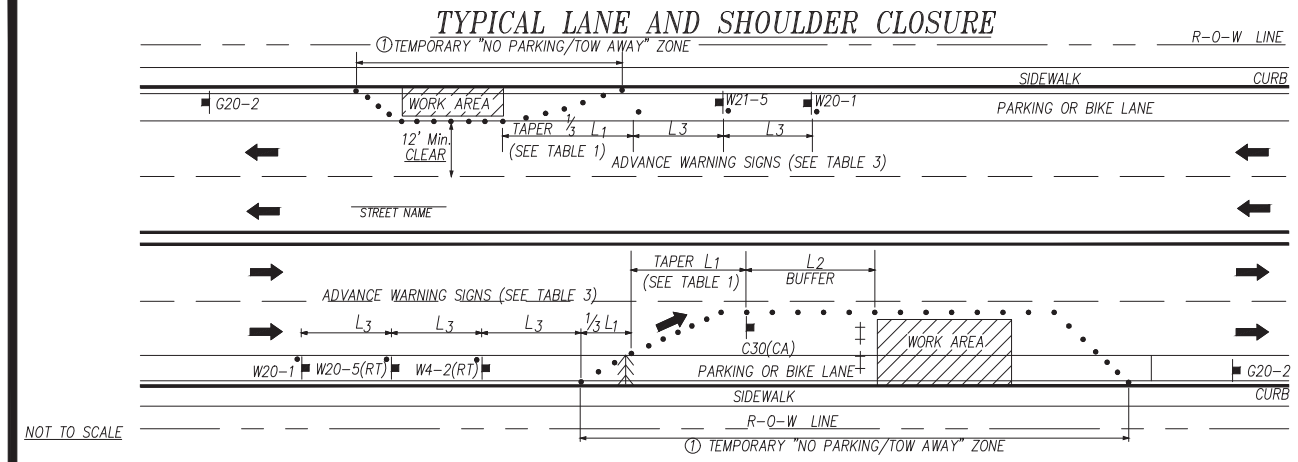
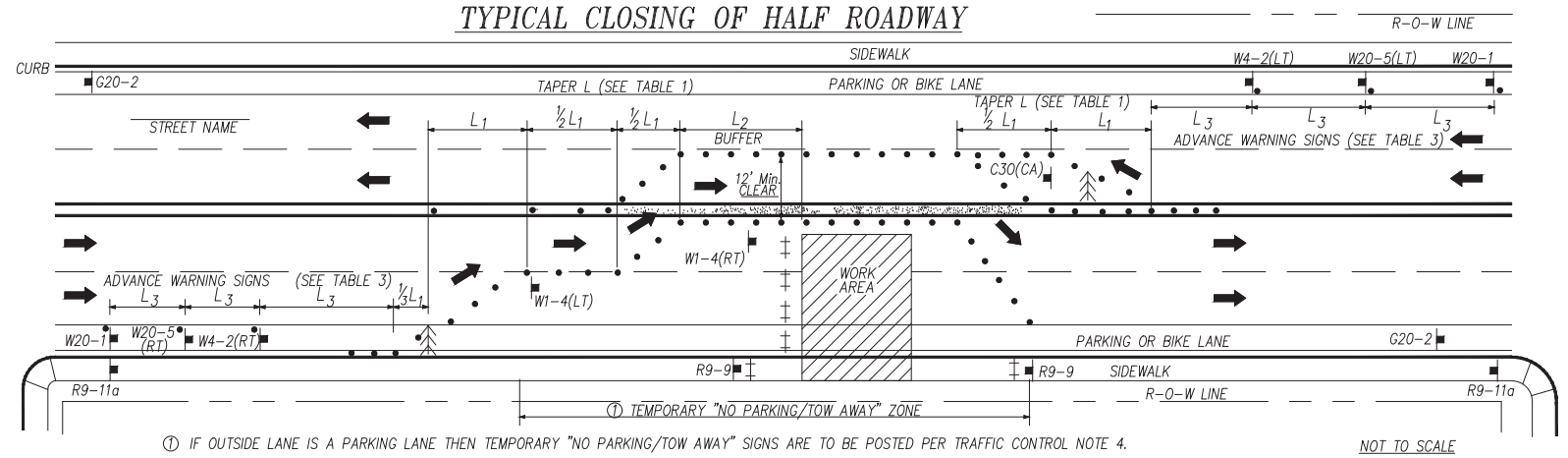
TYPICAL LANE AND SHOULDER CLOSURE



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

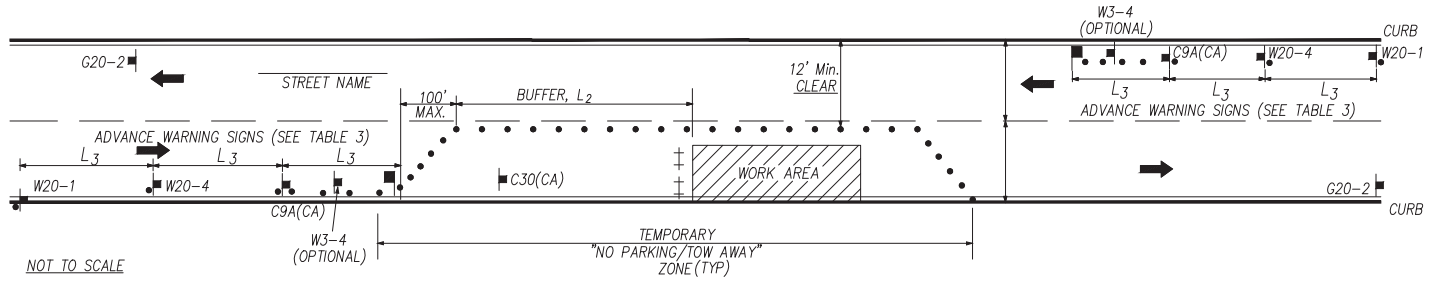
TYPICAL CLOSING OF HALF ROADWAY



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

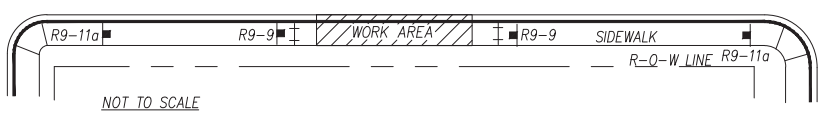
NOT TO SCALE

TYPICAL LANE CLOSURE ON TWO-LANE ROAD USING FLAGGERS



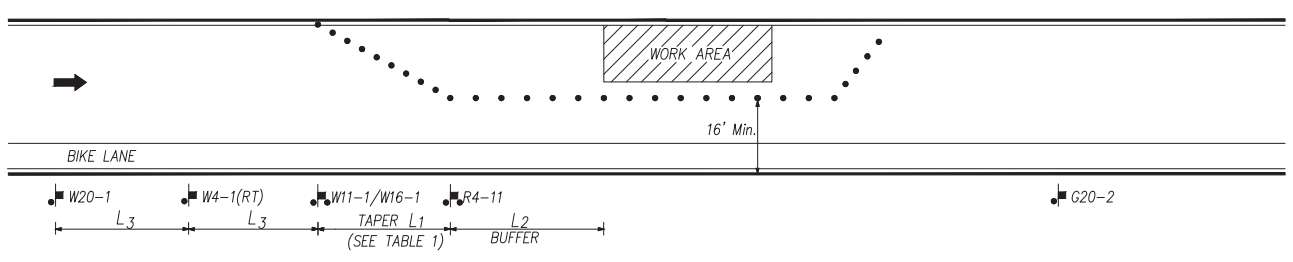
NOT TO SCALE

TYPICAL SIDEWALK CLOSURE

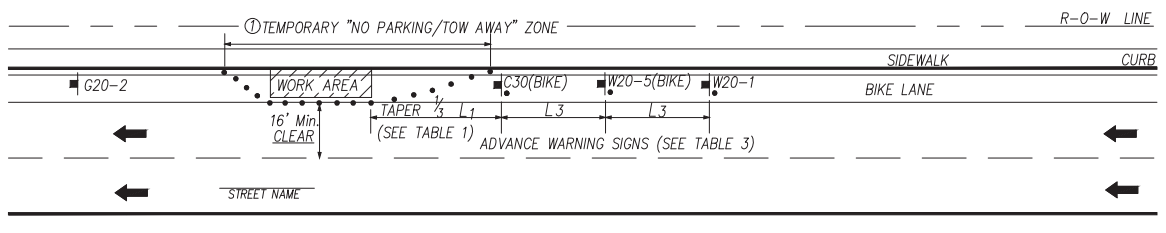


NOT TO SCALE

TYPICAL LANE SHIFT INTO BIKE LANE



TYPICAL BIKE LANE CLOSURE



TRAFFIC CONTROL NOTES

1. WORK HOURS TO BE RESTRICTED TO_____TO_____UNLESS APPROVED OTHERWISE.
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 72 HOURS PRIOR TO COMMENCING WORK. CALL CARLSBAD POLICE DISPATCH AT (760)931-2197 TO VALIDATE POSTING.
5. ACCESS WILL BE MAINTAINED TO ALL DRIVEWAYS UNLESS OTHER ARRANGEMENTS ARE MADE.
6. TRENCHES MUST BE BACKFILLED OR PLATED DURING NON-WORKING HOURS UNLESS K-RAIL BARRIERS ARE PROVIDED. K-RAIL IS APPROVED ONLY WHEN SPECIFICALLY SHOWN ON THE APPROVED TRAFFIC CONTROL PLAN. PLATES SHALL HAVE CLEATS AND COLD MIX AT THE EDGES AS APPROVED BY THE CITY INSPECTOR.
7. EXISTING STRIPING, CROSSWALKS, LEGENDS AND/OR PAVEMENT MARKERS SHALL BE REPLACED BY THE CONTRACTOR WITHIN 24 HOURS, IF REMOVED OR DAMAGED.
8. WORK THAT DISTURBS NORMAL TRAFFIC SIGNAL TIMING OPERATIONS SHALL BE COORDINATED WITH THE CITY OF CARLSBAD, 72 HOURS PRIOR TO COMMENCING WORK.
9. TRAFFIC SIGNALS SHALL REMAIN FULLY ACTUATED AT ALL TIMES, UNLESS OTHERWISE APPROVED BY THE CITY TRAFFIC ENGINEER OR HIS REPRESENTATIVE. IF TRAFFIC SIGNAL LOOP DETECTORS ARE RENDERED INOPERATIVE BY THE PROPOSED WORK, VIDEO DETECTION SHALL BE USED TO PROVIDE ACTUATION.
10. FLAGGERS SHALL BE EQUIPPED WITH A WHITE HARD HAT, AN ORANGE VEST, AND A "STOP/SLOW" PADDLE ON A 5 FOOT STAFF.
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 (CALIFORNIA MUTCD, LATEST EDITION).
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 TRAFFIC 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) 967-2828 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.

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 THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CALIFORNIA MUTCD, LATEST EDITION). 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 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 USING SQUARE PERFORATED STEEL TUBING WITH BREAKAWAY BASE PER SDRSD M-45.
11. CONSTRUCTION AREA TRAFFIC CONTROL DEVICES SHALL MEET THE PROVISIONS OF SECTION 12 OF THE MOST RECENT EDITION OF THE CALTRANS STANDARD SPECIFICATIONS.

SIGNS

DETOUR AHEAD	W20-2		W1-3(LT)
RIGHT LANE CLOSED AHEAD	W20-5(RT)		C9A(CA)
LEFT LANE CLOSED AHEAD	W20-5(LT)	LANE CLOSED	C30(CA)
BIKE LANE CLOSED AHEAD	W20-5(BIKE)	SHOULDER CLOSED	C30A(CA)
ROAD WORK AHEAD	W20-1	BIKE LANE CLOSED	C30(BIKE)
ONE LANE ROAD AHEAD	W20-4		W11-1
SHOULDER WORK	W21-5		W1-4(LT)
BE PREPARED TO STOP	W3-4		W1-4(RT)
	W4-2(RT)	SIDEWALK CLOSED USE OTHER SIDE	R9-10
END ROAD WORK	G20-2	XX M.P.H.	W13-1
SIDEWALK CLOSED	R9-9	MAY USE FULL LANE	R4-11
SIDEWALK CLOSED CROSS HERE	R9-11a	KEEP RIGHT	R4-7a
		SHARE THE ROAD	W16-1

TABLE 3: SIGN SPACING, L_3

APPROACH SPEED (M.P.H.)	MINIMUM DISTANCE IN FEET L_3	
	BETWEEN SIGNS *	FROM LAST * SIGN TO TAPER
LESS THAN 25	100'	100'
25 TO 40	350'	350'
GREATER THAN 40	500'	500'

* EXACT SPACING MAY VARY DUE TO FIELD CONDITIONS

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

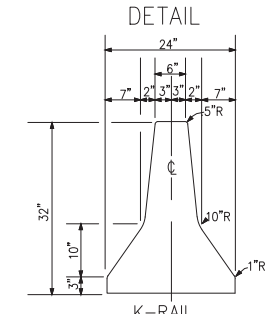
APPROACH SPEED (M.P.H.)	LONGITUDINAL BUFFER SPACE L_2 (FEET)±*
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570

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

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)

ENGINEERS SEAL

DRAWN BY:
DATE:
RCE. EXP.

SHEET | CITY OF CARLSBAD ENGINEERING DEPARTMENT | SHEETS

TRAFFIC CONTROL PLAN FOR:

NOTES AND DETAILS

APPROVED: ROBERT T. JOHNSON JR.

CITY ENGINEER PE 28515 EXPIRES 6/30/10 DATE

DWN BY:
CHKD BY:
RVWD BY:

PROJECT NO. | DRAWING NO.

CITY OF CARLSBAD
APPROVED

For TRAFFIC ENGINEER DATE