

WORKSITE TRAFFIC CONTROL PLAN (WTCP) – GENERAL NOTES

1. PURSUANT TO THE LOS ANGELES MUNICIPAL CODE (L.A.M.C.) 80.07, THE CITY OF LOS ANGELES, DEPARTMENT OF TRANSPORTATION (LADOT) IS THE CITY'S AUTHORITY FOR ALL OFFICIAL TRAFFIC CONTROL DEVICES, INCLUDING ALL SUCH DEVICES PERTAINING TO THE WORKSITE TRAFFIC CONTROL.
2. PURSUANT TO THE CALIFORNIA VEHICLE CODE 21400, LADOT ADOPTS THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CA MUTCD LATEST EDITION AND REVISIONS), AS PRESCRIBED BY THE STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION (CALTRANS); AND THAT OF STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC/GREEN BOOK, LATEST EDITION), AS ADOPTED AND AS MODIFIED BY THE CITY'S BUREAU OF ENGINEERING (LABOE), THROUGH B-4765 (BROWN BOOK, LATEST EDITION). LADOT ALSO ADOPTS THE USE OF WORK AREA TRAFFIC CONTROL HANDBOOK (WATCH MANUAL, LATEST EDITION), PUBLISHED BY WATCH COMMITTEE OF PUBLIC WORKS STANDARDS, INC. AND PUBLISHES LADOT STANDARD DRAWING S-488.1 TO PROMULGATE THE BEST PRACTICE.
3. IN ACCORDANCE TO THE CA MUTCD SECTION 6A.01.17 IT IS THE RESPONSIBILITY OF THE CONTRACTOR OR ORGANIZATION PERFORMING WORK ON, A CITY STREET TO INSTALL AND MAINTAIN THE TRAFFIC CONTROL DEVICES WHICH ARE NECESSARY TO PROVIDE SAFE MOVEMENT OF THE TRAVELING PUBLIC (INCLUDING PEDESTRIANS AND BICYCLISTS) THROUGH OR AROUND THE WORK AREA, AS WELL AS FOR THE SAFEGUARD OF WORKERS.
4. BOARD OF PUBLIC WORKS OR THEIR DESIGNEE (BUREAU OF STREET SERVICES, BUREAU OF ENGINEERING) SHALL FORMALLY APPROVE ALL STREET AND SIDEWALK CLOSURES IN ACCORDANCE WITH L.A.M.C. 41.20(A). EXCEPTION TO THE L.A.M.C 62.61(B) (RUSH HOUR CONSTRUCTION ON ANY CITY STREETS) MUST BE APPROVED BY BUREAU OF ENGINEERING FOR ALL PEAK HOUR LANE CLOSURES ON ARTERIAL, SECONDARY, OR COLLECTOR STREETS. HALF-ROAD CLOSURES REQUIRE APPROVAL FROM DEPARTMENT OF PUBLIC WORKS. UPON COMPLETION OF EXCAVATION, CONTRACTOR SHALL RESTORE ANY PAVEMENT MARKINGS AND STRIPING THAT WERE REMOVED DURING CONSTRUCTION.
5. TRAFFIC OFFICERS SHALL HAVE THE AUTHORITY TO DIRECT TRAFFIC IN ACCORDANCE WITH L.A.M.C. 80.02 AND 80.03,
6. WORK SHALL BE RESTRICTED BETWEEN THE HOURS OF 9:00PM AND 7:00AM IN ACCORDANCE WITH THE L.A.M.C. 41.40 NOISE DUE TO CONSTRUCTION, EXCAVATION – WHEN PROHIBITED. EXCEPTION TO THIS PROVISION MUST BE APPROVED BY THE BOARD OF POLICE COMMISSIONERS THROUGH ITS EXECUTIVE DIRECTOR.
7. IMPLEMENTATION OF ALL WORK SHOWN ON THE WORKSITE TRAFFIC CONTROL PLANS, INCLUDING INSTALLATION AND REMOVAL OF TRAFFIC CONTROL DEVICES SHALL NOT BE PERFORMED DURING PEAK TRAFFIC HOURS. THE CONTRACTOR SHALL ONLY PERFORM SUCH WORK BETWEEN THE HOURS OF 9:00AM AND 3:00PM.
8. ANY CHANGES TO WORK AREAS, WORK HOURS, AND/OR APPROVED PLANS SHALL BE SUBMITTED TO LABOE/LADOT/BSS FOR REVIEW AND APPROVAL.
9. THE APPLICATION OF PLANS SHOWN IN S-488.1 SHALL BE LIMITED TO 72 HRS UNLESS OTHERWISE INDICATED ON PLAN.
10. THE PLANS SHOWN HEREIN DEPICT COMMON APPLICATIONS OF TEMPORARY TRAFFIC CONTROL DEVICES. THE WORK AREAS SHOWN IN THESE TRAFFIC CONTROL PLANS ARE A SCHEMATIC AND MAY BE ADJUSTED IN LENGTH ACCORDING TO THE APPLICATION.
11. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT THE WORK AREA AND STREET CONFIGURATION MATCH THE TRAFFIC CONTROL PLAN.
12. IN THE EVENT THAT THE EXISTING CONDITIONS CANNOT ACCOMMODATE DESIGN CONDITIONS SPECIFIED IN THIS PLAN, THE PERMITTING AGENCY MAY, AT ANY TIME, DIRECT APPLICANT TO SUBMIT A SITE SPECIFIC TRAFFIC CONTROL PLAN TO LADOT FOR REVIEW AND ACCEPTANCE PRIOR TO RELEASING PERMIT.
13. THE CONTRACTOR OR ORGANIZATION PERFORMING WORK SHALL BE RESPONSIBLE FOR ADJUSTING THE PLACEMENT OF TRAFFIC CONTROL DEVICES WITH CONSIDERATION OF FIELD CONDITIONS SUCH AS EXISTING TRAFFIC CONTROLS, VISIBILITY RESTRICTIONS (VERTICAL AND HORIZONTAL SIGHT DISTANCE), AND ACCESS TO PUBLIC AND PRIVATE PROPERTY.
14. ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE REMOVED FROM CITY RIGHT OF WAY AT THE END OF EACH WORK PERIOD (DAILY UNLESS OTHERWISE PERMITTED) AND THE PERMANENT TRAFFIC CONTROL DEVICES SHALL BE RESTORED BY THE CONTRACTOR UPON COMPLETION OF THE PROJECT
15. ALL TRAFFIC CONTROL DEVICES SHALL BE KEPT IN THEIR PROPER POSITION AT ALL TIMES, AND SHALL BE REPAIRED, REPLACED, OR CLEANED AS NECESSARY TO PRESERVE THEIR APPEARANCE AND CONTINUITY.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR STRIPING (BOTH PROPOSED AND EXISTING) SHOWN ON THIS TRAFFIC CONTROL PLAN TO BE IN GOOD CONDITION AND VISIBLE. THE CONTRACTOR SHALL REPAINT ANY FADED EXISTING STRIPING.
17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACEMENT OF ANY MISSING OR DAMAGED SIGNS (DUE TO CONSTRUCTION) ACCORDING TO CA MUTCD SPECIFICATIONS. EXISTING SIGNS THAT ARE IN CONFLICT WITH THESE PLANS SHALL BE REMOVED OR COVERED BY THE CONTRACTOR AND RESTORED UPON REMOVAL OF THE TRAFFIC CONTROL PLAN.
18. THERE SHALL BE NO STORAGE OF CONSTRUCTION MATERIALS AND EQUIPMENT OUTSIDE THE DESIGNATED WORK AREA AS INDICATED ON THE TRAFFIC CONTROL PLAN. STORAGE OF CONSTRUCTION MATERIALS WITHIN THE DESIGNATED WORK AREA SHALL BE DONE IN A MANNER NOT TO CREATE VISIBILITY OBSTRUCTIONS TO THE MOTORING PUBLIC.

19. PLACE ADDITIONAL "LANE CLOSED" (C30) SIGNS ON TYPE II BARRICADES AT 150 FOOT INTERVALS THROUGHOUT EXTENDED WORK AREAS IN EACH LANE THAT IS CLOSED.
 20. INSTALL ONE (1) FLASHING ARROW BOARD/SIGN FOR EACH MOVING LANE THAT IS CLOSED.
 21. ALL CONSTRUCTION FENCE GATES SHALL BE INSTALLED TO BE OPENED INWARD AWAY FROM SIDEWALK AND STREET, AND BE SECURELY FASTENED WITH LIMITERS IN PLACE TO PREVENT ACCIDENTAL OR UNINTENTIONAL OPENING INTO SIDEWALK OR STREET. ALL GATES WIDER THAN 10 FEET SHALL BE SLIDING GATES.
 22. A FLAGGER SHALL BE STATIONED AT EACH CONSTRUCTION FENCE GATE WHILE IT IS OPEN DURING CONSTRUCTION ACTIVITY TO ASSIST THE MOVEMENT OF PEDESTRIANS, CONSTRUCTION VEHICLES AND EQUIPMENT INTO CITY STREETS. A FLAGGER SHALL USE ONLY THE APPROVED OCTAGONAL STOP/SLOW PADDLE, SHALL WEAR AN ORANGE CLASS 3 SAFETY VEST (PADDLE AND VEST MUST BE REFLECTORIZED FOR NIGHT WORK), AND HARD HAT, AS REQUIRED BY THE WATCH MANUAL. FLAGGERS MUST BE PROPERLY TRAINED BY THE CONTRACTOR IN PERFORMING THE WORK SAFELY. APPROPRIATE ADVANCE SIGNS MUST BE INSTALLED, PER THE WATCH MANUAL
 23. THE TRAFFIC SIGNAL CONTROLLER, SIGNAL STANDARDS, AND ALL OTHER ASSOCIATED SIGNAL EQUIPMENT, INCLUDING TRAFFIC SIGNAL PULL BOXES, MUST BE ACCESSIBLE AT ALL TIMES TO LADOT TRAFFIC SIGNAL REPAIR (TSR) PERSONNEL. ALL FENCES AND WALLS MUST BE INSTALLED TO PERMIT ACCESS BY TSR PERSONNEL AT ALL TIMES.
 24. CALL LADOT SIGNAL MAINTENANCE SUPERVISOR (213) 485-6665 (CENTRAL), (213) 485-6790 (WESTERN), OR (818) 779-7437 (VALLEY) AT LEAST FIVE (5) WORKING DAYS PRIOR TO ANY EXCAVATION OR CONSTRUCTION WITHIN 10 FEET OF EXISTING TRAFFIC SIGNAL DETECTOR LOOPS, CONDUIT, INTERCONNECT, OR AT SAC FIBER OPTIC CABLE.
 25. ANY DAMAGE TO TRAFFIC SIGNAL DETECTOR LOOP, CONDUITS, INTERCONNECT, OR FIBER OPTIC CABLE SHALL BE REPAIRED IMMEDIATELY BY A QUALIFIED CONTRACTOR AT THE CONTRACTOR'S OWN EXPENSE. LADOT HAS THE OPTION TO DO THE REPAIR AND BILL THE CONTRACTOR. DELAYS IN REPAIR OF INTERCONNECT OR AT SAC FIBER OPTIC CABLE WILL REQUIRE THE PAYMENT OF LIQUIDATION DAMAGES TO THE CITY OF LOS ANGELES DEPARTMENT OF TRANSPORTATION. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY LADOT SIGNAL REPAIR PERSONNEL AT (213) 485-4184 OF ANY DAMAGES
 26. IF RELOCATION OF BUS STOP(S) IS NECESSARY, THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE TRANSIT COMPANY(S) FIVE (5) WORKING DAYS PRIOR TO START OF CONSTRUCTION AND/OR INSTALLATION OF CANOPY(S).
- | TRANSIT COMPANIES | |
|---------------------------|---------------------------------------|
| LA MTA | (213) 922-4632 |
| DASH AND COMMUTER EXPRESS | (213) 485-7433 |
| AND | LADOT.TRANSIT.CONSTRUCTION@LACITY.ORG |
| ANTELOPE VALLEY | (661) 945-9445 |
| CULVER CITY | (310) 253-6500 |
| FOOTHILL | (800) 743-3463 |
| GARDENA | (310) 965-8888 |
| MONTEBELLO | (323) 558-1625 |
| ORANGE COUNTY | (714) 560-6282 |
| SANTA CLARITA | (661) 294-1287 |
| SANTA MONICA | (310) 451-5444 |
| TORRANCE | (310) 618-6266 |
27. CALL LADOT SPECIAL TRAFFIC CONTROLS OFFICE AT (213) 485-2298 FIVE (5) WORKING DAYS PRIOR TO START OF CONSTRUCTION FOR INSTALLATION OF TEMPORARY STOPPING PROHIBITION SIGNS (SPECIFY). INSTALLATION OF TEMPORARY STOPPING PROHIBITION SIGNS AT PARKING METER ZONES SHALL ALSO INCLUDE COVERING METER HEADS AND THE ASSOCIATED PARKING RESTRICTION.
 28. CALL LADOT PARKING METER GROUP AT (213) 473-8270 AT LEAST TEN (10) WORKING DAYS PRIOR TO START OF CONSTRUCTION WHENEVER PARKING METERS WILL BE AFFECTED.
 29. NOTIFY FILMLA AT EVENTINFO@FILMLA.COM AT LEAST FIVE (5) WORKING DAYS PRIOR TO CONSTRUCTION TO COORDINATE WITH FILMING ACTIVITIES.
 30. MAINTAIN ACCESS TO ALL FUNCTIONAL DRIVEWAYS AT ALL TIMES AND COORDINATE WITH RESIDENTS AND BUSINESSES FOR ANY CLOSURE OR LIMITED ACCESS RESTRICTION TO THEIR DRIVEWAYS.
 31. FOR DIRECTIONAL STREET CLOSURES, NOTIFY ALL AFFECTED RESIDENTS, LOS ANGELES POLICE DEPARTMENT, LOS ANGELES FIRE DEPARTMENT, SCHOOLS, COUNCIL OFFICES, AND BUSINESSES AT LEAST FIVE (5) WORKING DAYS PRIOR TO START OF CONSTRUCTION.
 32. CONSTRUCTION OPERATIONS SHALL BE CONDUCTED IN A MANNER AS TO CAUSE AS LITTLE INCONVENIENCE AS POSSIBLE TO ABUTTING PROPERTY OWNERS.
 33. THE CROSSWALKS ACROSS THREE LEGS (IF EXISTING) OF ANY SIGNALIZED INTERSECTION SHALL BE MAINTAINED AT ALL TIMES. NO PED CROSSING" (R9-3, R9-3bP) SIGNS SHALL BE INSTALLED WHEN A PAINTED CROSSWALK IS UNAVAILABLE FOR USE DUE TO CONSTRUCTION. PEDESTRIAN SIGNAL INDICATIONS FOR THE CLOSED CROSSWALK SHALL BE COVERED PER THE WATCH MANUAL (SECTION 6-5).
 34. ALL TEMPORARY SIGNAGE AND TRAFFIC CONTROL DEVICES INSTALLED ADJACENT TO PEDESTRIAN TRAVEL WAY MUST ALLOW FOR ADA-COMPLIANT PASSAGEWAYS.

35. PROVIDE REFLECTORIZED CONES AT ALL TYPE III BARRICADE SUPPORTS TO ALERT PEDESTRIANS TO THE BARRICADE SUPPORTS.
36. FLASHING YELLOW BEACONS, TYPE "B", SHALL BE USED ON ALL W20-1 SIGNS AND ON ALL TYPE III BARRICADES GUARDING THE WORK AREA OVERNIGHT.
37. ALL EXCAVATIONS SHALL BE BACKFILLED OR TRENCH PLATED AT THE END OF EACH WORK DAY ACCORDING TO BUREAU OF ENGINEERING (BOE) GUIDELINES. CONTRACTOR SHALL MONITOR TRENCH PLATES DURING NON-WORKING HOURS TO ENSURE THAT THEY DO NOT BECOME DISLODGED.
38. PLACE CMS "A" AT NEXT MAJOR OR SECONDARY IN ADVANCE OF WORK AREA IF TRAFFIC IS REDUCED TO A SINGLE LANE DURING PEAK HOURS (M-F 7A-9A & 3P-7P)
39. PLACE CMS "B" IN NEXT MAJOR OR SECONDARY IN ADVANCE OF WORK AREA IF BIKE LANE IS CLOSED ON HIGH SPEED (GREATER THAN 40MPH) STREETS.



THE UNDERSIGNED APPLICANT/CONTRACTOR CERTIFIES THAT:

WILL OBSERVE ALL REQUIREMENTS OF THE MUNICIPAL CODE OF THE CITY OF LOS ANGELES AND THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (GREEN BOOK) INCLUDING ADDITIONS AND AMENDMENTS THROUGH B-4765 (BROWN BOOK)

WILL BE RESPONSIBLE FOR THE PLACEMENT AND MAINTENANCE OF THE WORKSITE TRAFFIC CONTROL ASSOCIATED WITH THE PERMIT(S) LISTED BELOW.

CONTRACTOR HOLDS A VALID C 31 LICENSE OR SELF-CERTIFIES TO BE EQUIVALENT IN COMPETENCY AND KNOWLEDGE OF PREPARING AND REMOVING WORKSITE TRAFFIC CONTROL

APPLICANT HOLDS A VALID LOS ANGELES CITY BUSINESS LICENSE AND CERTIFICATE OF WORKERS' COMPENSATION INSURANCE.

APPLICANT/CONTRACTOR RESPONSIBLE	PRIMARY STREET
PRINTED NAME	STREET DESIGNATION (BOULEVARD I/II, AVENUE, I/II/III, ETC.) SPEED LIMIT
SIGNATURE	SECONDARY STREET
BOE/BSS REFERENCE NUMBER	STREET DESIGNATION (BOULEVARD I/II, AVENUE, I/II/III, ETC.) SPEED LIMIT

WORK HOURS:
MON-FRI (9AM-3:30PM)
SAT (8AM-6PM)

WORK OUTSIDE OF THESE HOURS
REQUIRES AN EXEMPTION BY THE
PERMITTING AGENCY OR POLICE
COMMISSION.

APPROVED February 5, 2020

For SELETA J. REYNOLDS, GENERAL MANAGER

CITY OF LOS ANGELES
DEPARTMENT OF TRANSPORTATION

WORKSITE TRAFFIC CONTROL PLAN
GENERAL NOTES

CKD.	SR. T.E. RT	PR. T.E. BS	
DWN. CD	T.E. DAS		S-488.1

REVISIONS		
SHEET 1	OF 2	

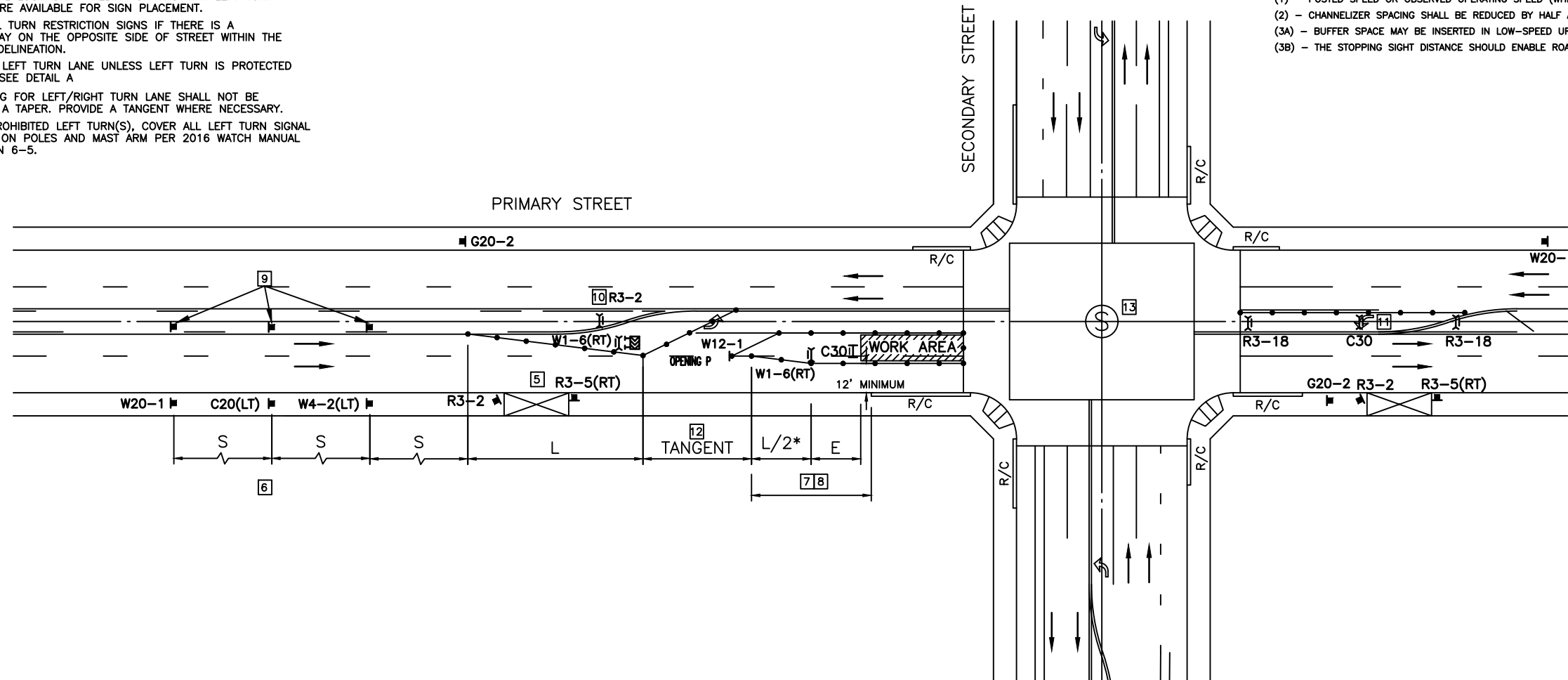
NOTES

1. SEE WTCP SHEET 1 FOR GENERAL NOTES.
2. ADD NOTES AS REQUIRED FOR SITE DETOUR.
3. NIGHT AND SUNDAY WORK REQUIRE APPROVAL FROM THE POLICE COMMISSION.
4. CONTACT METRO AT (213) 922-4632 OR ANY OTHER AFFECTED TRANSIT SERVICES AT LEAST FIVE (5) WORKING DAYS PRIOR TO CONSTRUCTION.
5. MAINTAIN ACCESS TO DRIVEWAYS AT ALL TIMES UNLESS ARRANGEMENTS HAVE BEEN MADE WITH PROPERTY OWNER
6. SIGNS MAY EXTEND ACROSS INTERSECTIONS
7. CALL LADOT AT (213) 485-2298 FIVE (5) WORKING DAYS PRIOR TO START OF WORK FOR INSTALLATION OF TEMPORARY STOPPING PROHIBITION SIGNS (SPECIFY)
8. CALL LADOT PARKING METER GROUP AT (213) 473-8270 FIVE (5) WORKING DAYS PRIOR TO START OF WORK FOR COVERING OR REMOVAL OF PARKING METER HEADS
9. OPTIONAL LOCATION IF MEDIAN OR TWO-WAY LEFT TURN LANE ARE AVAILABLE FOR SIGN PLACEMENT.
10. INSTALL TURN RESTRICTION SIGNS IF THERE IS A DRIVEWAY ON THE OPPOSITE SIDE OF STREET WITHIN THE CONE DELINEATION.
11. CLOSE LEFT TURN LANE UNLESS LEFT TURN IS PROTECTED ONLY. SEE DETAIL A
12. OPENING FOR LEFT/RIGHT TURN LANE SHALL NOT BE WITHIN A TAPER. PROVIDE A TANGENT WHERE NECESSARY.
13. FOR PROHIBITED LEFT TURN(S), COVER ALL LEFT TURN SIGNAL HEADS ON POLES AND MAST ARM PER 2016 WATCH MANUAL SECTION 6-5.

CHART A
TEMPORARY TRAFFIC CONTROL PLAN DIMENSION GUIDELINES

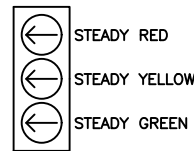
SPEED LIMIT (1)	DIMENSION S ADVANCE WARNING SIGN SPACING FT.	DIMENSION L MERGING TAPER EACH 10' LANE FT.	DIMENSION L/2 SHIFTING TAPER EACH 10' LANE FT.	DIMENSION L/3 MINIMUM SHOULDER TAPER EACH 10' LANE FT.	DIMENSION E BUFFER SPACE (3A) AND FLAGGER STATION STOPPING SIGHT DISTANCE (3B)			MAXIMUM CHANNELIZER SPACING			DIMENSION P MINIMUM POCKET OPENING FT.
					0%	-3%	-6%	TAPER (2)	TANGENT (2)	CONFLICT	
25	100	125	65	45	155	160	165	25	50	12	50
30	250	180	90	60	200	205	215	30	60	15	60
35	250	245	125	85	250	260	275	35	70	17	70
40	250	320	160	110	305	315	335	40	80	20	80
45	350	540	270	180	360	380	400	45	90	22	90
50	350	600	300	200	425	450	475	50	100	25	100
55	500	660	330	220	495	520	555	50	100	25	100

- (1) - POSTED SPEED OR OBSERVED OPERATING SPEED (WHICHEVER IS GREATER)
 (2) - CHANNELIZER SPACING SHALL BE REDUCED BY HALF AT AREAS WHERE WORK IS TAKING PLACE ON CURVES OR AREAS OF HEAD-ON CONFLICT
 (3A) - BUFFER SPACE MAY BE INSERTED IN LOW-SPEED URBAN AREAS AND SHOULD BE INSERTED IN HIGH-SPEED URBAN AND RURAL AREAS
 (3B) - THE STOPPING SIGHT DISTANCE SHOULD ENABLE ROAD USERS TO SEE THE PRIMARY FLAGGER STATION AND SAFELY STOP

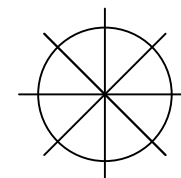


LEGEND

- TYPE III BARRICADE W/SIGN
- TYPE II BARRICADE W/SIGN
- 28" TRAFFIC CONES W/13" REFLECTIVE SLEEVE FOR DAY/NIGHT USE OR DELINEATORS IF DAY USE ONLY
- TRAFFIC CONE WITH CLIP ON SIGN
- PROPOSED SIGN ON TEMPORARY SIGN STAND
- EXISTING SIGN AND POST
- SIGNALIZED INTERSECTION
- FLASHING ARROW SIGN
- STEADY STATE ARROW SIGN
- DIAMOND CAUTION SIGN
- FLAGGER
- TANSAT TOW AWAY NO STOPPING ANY TIME
- WORK ZONE LIMITS
- DIRECTION OF TRAFFIC
- RED CURB



DETAIL A
(PROTECTED ONLY LEFT TURN SIGNAL HEAD)



INDICATE NORTH
(NOT TO SCALE)

2016 WATCH PAGE 44 & 47
2014 CAMUTCD TA-25A(CA)

APPROVED February 5, 2020

Signature

For SELETA J. REYNOLDS, GENERAL MANAGER

CITY OF LOS ANGELES
DEPARTMENT OF TRANSPORTATION

WORKSITE TRAFFIC CONTROL PLAN
NEAR SIDE LEFT LANE CLOSURE
NO BIKE LANE

REVISIONS	

CKD.	SR. T.E. RT	PR. T.E. BS
DWN. CD	T.E. DAS	S-488.1

C9A	C12	C20	C30	C30A	SC11	SC11(BIKE)	R4-11	R9-3	R9-3bP	R10-15	ON RED	R13A	R60B	G20-2	
R3-1	R3-2	R3-4	R3-5(RT)	R3-5a	R3-6(RT)	R3-7(LT)	R3-7(RT)	R3-18	R4-7	R4-7a	R4-8	R6-1(RT)	R9-9	R11-2	R11-4
W1-3	W1-4	W1-6(LT)	W1-6(RT)	W1-7	W4-2(LT)	W4-2(RT)	W4-7	W6-3	W6-4	W12-1	W20-1	W20-2	W20-3	W20-4	W24-1(LT)