



TRAFFIC CONTROL

FOR ENCROACHMENT PERMIT

CITY OF ORANGE
PUBLIC WORKS DEPARTMENT

January 2019

This document provides the general guideline for traffic control plans for the purpose of encroachment permit application.

POLICY

- 1) A project-specific traffic control plan is required for all works on arterial streets and signalized intersections. Half or full street closure requires special review and approval by the City Traffic Engineer. At the discretion of the Public Works Department, full road closure may require approval of the City Council. Traffic Control requirements for projects impacting streets that are not on the City's Master Plan of Streets and Highways (MPSH), are at the discretion of the staff handling and issuing the permit.
- 2) For all projects impacting (encroaching) streets that are on the City's MPSH, Traffic Engineering Division has to be consulted for the extent/scope of traffic control plans. Traffic Engineering Division's input/ requirement will be conveyed to plan designers. Staff handling/issuing permits will not issue any permits until approval has been received from Traffic Engineering Division.
- 3) Detours extending beyond one street block or involve critical intersections must be prepared/signed by registered Traffic Engineer as required by the City Traffic Engineer.
- 4) Any project requiring a night-time (or non-working day) closure/detour activity should be conditioned to deposit an amount adequate to compensate the City for all the staff's call-back time needed for inspection.
- 5) No Encroachment Permit shall be issued for work impacting streets on the City's MPSH between the Thanksgiving holiday and January 2nd. Emergency work may be exempted from this provision subject to review and approval by the Traffic Engineering Division. Street-cut or encroachment permits impacting any street in the Old Towne are during "Street Fair" or other "Special Events" need prior approval from Traffic Engineering Division.
- 6) All non-emergency permitted work encroaching onto public streets shall be limited to 8:30 a.m. - 3:30 p.m. Any work outside these hours should be reviewed and approved by the Traffic Engineering Division. Work should be limited to Monday through Thursday except when arrangements are made for inspection on Friday's or weekends. These arrangements will be made in view of staff availability and compensation to the City for staff time.
- 7) Provision should be made to keep bike lanes and trails open in the construction zone at all times.

TRAFFIC CONTROL PLAN PREPARATION:

A traffic control plan should include, at a minimum, the following:

- 1) Cover sheet must show sheet index (or graphic index if more than two sheets in set). City or Orange Temporary Traffic Control General Notes (available on separate pages) and any required Special Conditions.
- 2) Traffic Control Plans shall be prepared and stamped by a licensed Civil or Traffic Engineer as required by the City Traffic Engineer.
- 3) Plans shall show existing street and cross street names, street widths, lane striping, lane width, existing signing and striping, and posted speed limit
- 4) Show city and other jurisdictional boundaries when applicable.
- 5) Plans should be drawn to scale as much as possible, show graphic scale, and north arrow.
- 6) Show location, dimensions, and delineate work area and, distance to nearest intersection(s). Show all driveways approaches within the work zone.

- 7) For underground construction (open trench and/or boring) show pipeline alignment for each phase of construction.
- 8) Identify and show locations and distances for all delineators and traffic control signs. Provide a sign chart and designation for all signs used. Arrow board is required for any lane closure on any arterials and local streets. Portable Changeable Message Signs (CMS) shall be provided as required by the City Traffic Engineer.
- 9) Show work hours and duration (number of working days and dates) for each phase(s) of construction.
- 10) Show all proposed temporary traffic control devices, including signs, delineators, spacing, tapers, lane widths and dimensions.
- 11) Traffic control plans on streets with bike lanes shall provide advance, bike lane closure, and share the road signs.
- 12) Plans should be reproducible and legible on 17"x11" ledger size pages. Multiple-phased traffic control plans should be drawn on separate pages.



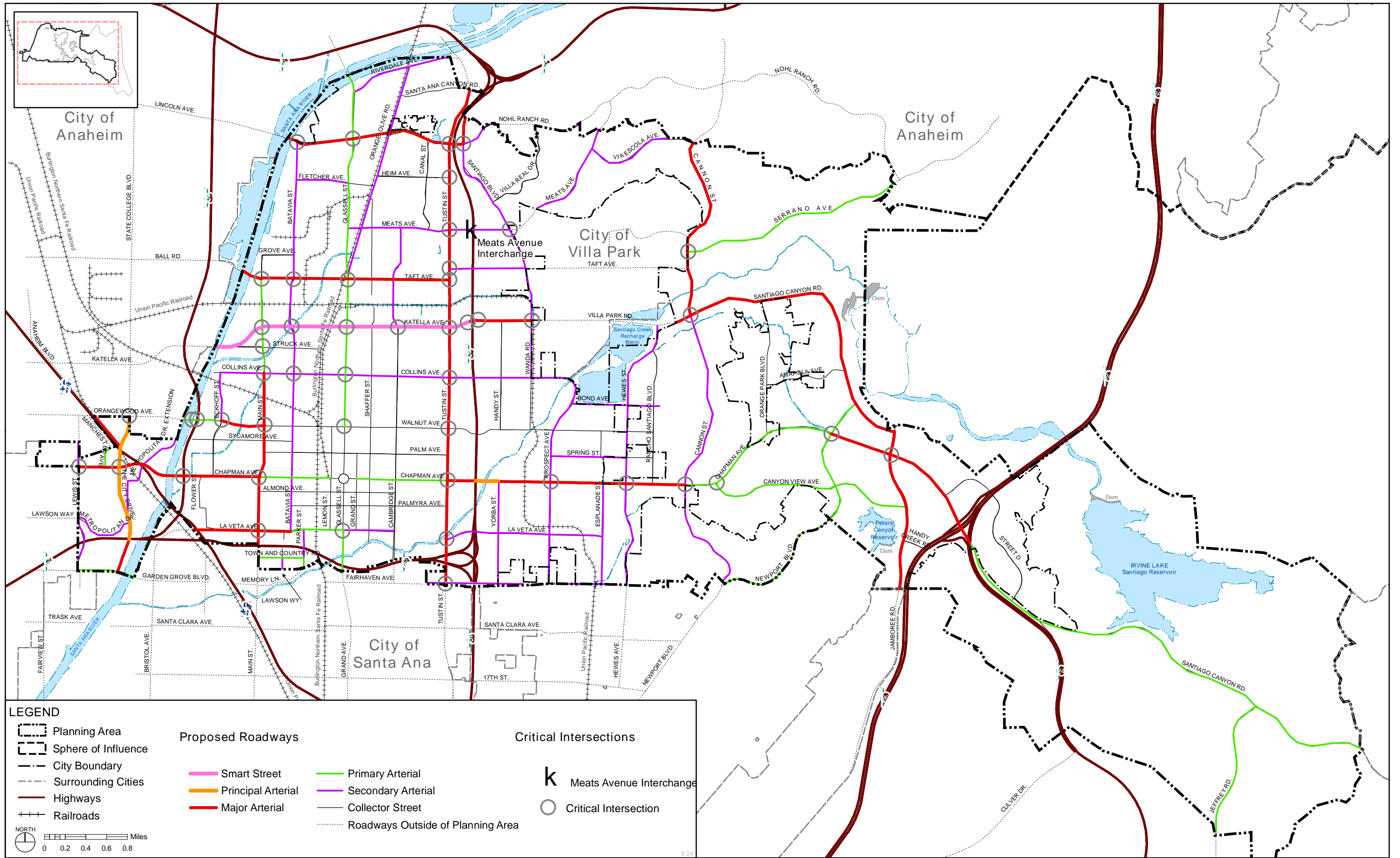
TEMPORARY TRAFFIC CONTROL GENERAL NOTES

CITY OF ORANGE
PUBLIC WORKS DEPARTMENT

January 2019

- 1) All work, materials, and equipment for temporary traffic control shall comply with "California Manual on Uniform Traffic Control Devices (CAMUTCD)" and Work Area Traffic Control Handbook (WATCH), latest editions.
- 2) Normal daytime work hours are from 8:30 am to 3:30 pm, and nighttime work hours are from 8:30 pm to 5:30 am. Work hours outside normal work hours may be requested subject to approval of the City Traffic Engineer. Temporary traffic control devices shall be removed by the end of the work day. Traffic and travel lanes shall be restored to normal conditions during non-working hours.
- 3) The Contractor shall have all signs, channelizers, barricades, changeable message signs, arrow boards, and other devices properly installed prior to commencing construction. Arrow boards and changeable message signs shall be solar/battery powered.
- 4) All temporary striping and markings shall conform to the Caltrans Standard Plans and Caltrans Specifications, latest editions. Raised pavement markers shall not be used. Striping damaged by construction shall be repaired in kind to the satisfaction of the City Traffic Engineer.
- 5) Flashing yellow lights, type "B", shall be used on all advance warning signs and on all type II and III barricades guarding the work area overnight. Type II barricades with warning lights (Type C or Type D steady burn) may be used, in lieu of or in addition to channelizers, at the discretion of the contractor, when intended to provide delineation and additional emphasis in areas where workers are present.
- 6) All channelizers on arterials shall be 36" minimum portable, reflectorized rubber guide posts, orange in color, with double weighted base rings and 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. Channelizers used for two-way travel, and/or left edge delineation shall have yellow retroreflective band or sleeve.
- 7) All signs shall be retroreflectorized and standard size unless shown otherwise.
- 8) Construction operations shall be conducted in such a manner as to cause as little inconvenience as possible to adjacent property owners.
- 9) The Contractor shall maintain on a 24-hour basis, all signs, channelizers, barricades, other devices to ensure proper flow and safety of traffic.
- 10) Pressure sensitive traffic marking tape and/or striping paint may be used to supplement the channelizing devices, delineators, retroreflectorized signs, and barricades.
- 11) All conflicting stripes, pavement markings, and legends shall be completely removed by wet sandblasting, or other method approved by the City Traffic Engineer prior to any change in the traffic pattern.
- 12) When WORK ZONE SPEED LIMIT (R2-1, G20-5Ap) signs are used, the Contractor shall cover all existing speed limit signs within the temporary traffic control zone during work hours.
- 13) The Contractor shall notify City Traffic Operations (714) 744-5525, three (3) working days prior to starting work at signalized intersections or when vehicle detection areas are affected by construction for disposition of signal operations. Vehicle detectors affected by construction shall be replaced immediately by the Contractor.
- 14) At signalized intersections two signal heads shall be visible to approaching traffic at all times. The Contractor shall be responsible for all signal modifications during detour construction. Signal work shall be performed by a licensed traffic signal contractor.

- 15) The Contractor's traffic control plans shall indicate vehicular traffic control in work area during construction activity. Additional traffic controls, traffic signs, or barricades may be required in the field. The Contractor shall be responsible for the placement of any additional devices necessary to assure safety to the public at all times during construction.
- 16) The City Traffic Engineer reserves the right to make any changes necessary as field conditions warrant. Any changes shall supersede these plans and be done solely at the contractor's expense.
- 17) The Contractor shall notify the City Traffic Engineer or representative at least five (5) working days in advance of initiating any construction detour. The Contractor shall provide additional traffic detour plans for work at signalized intersections for approval of the City Traffic Engineer.
- 18) The Contractor shall notify all local businesses 14 days prior to detour construction for all night time construction. For daytime construction, the Contractor shall notify the local businesses 7 days in advance of work to be done.
- 19) All traffic lanes shall have a minimum of 5 feet clearance from open excavations and a minimum of 2 feet from vertical obstructions.
- 20) Contractor shall provide portable construction message signs (CMS), and/or flaggers as shown on the plans or deemed necessary by the City Traffic Engineer.
- 21) Contractor shall install additional "LANE CLOSED (C30)" signs on Type III barricades at 150-foot intervals throughout extended work areas per lane closed. Install "OPEN TRENCH (C27)" signs whenever an open excavation area exists adjacent to travel way.
- 22) All temporary traffic control devices shall be removed following completion of each construction stage and the permanent traffic control devices shall be restored by the Contractor upon completion of construction.
- 23) Contractor shall comply with the requirement of the federal and state American Disability Act (ADA) Accessibility Guidelines relating to pedestrian access and shall maintain pedestrian access at all times per ADA requirements and CAMUTCD. When crosswalk or sidewalks are to be closed, R96 signs and barricades shall be installed. Temporary pedestrian facility shall have a smooth, hard surface compliant to ADA.
- 24) When the pedestrian path of travel is rerouted to street level, temporary traffic barriers with crash cushion end treatment shall be provided.
- 25) Contractor shall install signs for "uneven lanes", "steel plates ahead", or "bump" for pavement disruptions of ½" and greater. Pavement disruptions of 1" and greater shall have beveled edge of four (4) horizontal to one (1) vertical.
- 26) Contractor shall install "CAUTION STEEL PLATES AHEAD" and/or "ROUGH ROAD" signs in advance of steel plate bridging. All steel plates installation shall be recessed.
- 27) All driveways and adjacent streets shall be kept open at all times except when construction takes place directly in front of the driveway/adjacent street.
- 28) Contractor shall notify Orange County Transportation Authority (OCTA) at (714) 265-4330 and any other affected transit services at least five working days prior to construction.
- 29) Contractor shall notify Orange Police Department Traffic Bureau (rwinick@orangepd.org), and Orange Fire Department (abrooks@cityoforange.org), three (3) working days prior to any half or full street closure or detours.



Amended Figure CM-2 City Master Plan of Streets and Highways (July 2013)