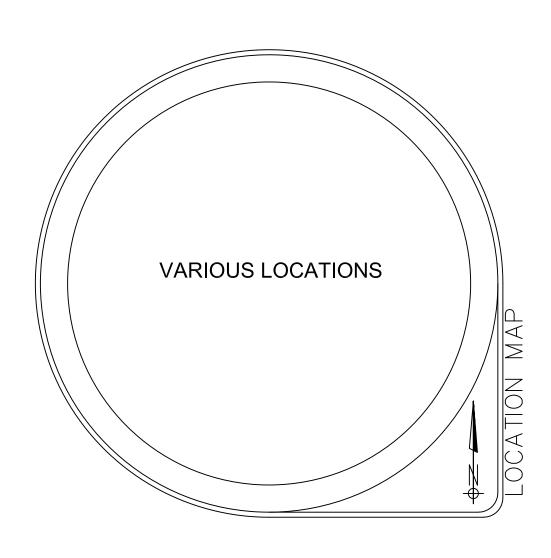
## TRAFFIC CONTROL PLANS

# FULTON FITCH PROJECT VARIOUS LOCATIONS SANTA ROSA, CA



TITLE

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CONTRACTOR



PARMETER GENERAL ENGINEERS & SERVICES INC.

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PGES (707) 695-3877 CA C31 LIC #938408

CONST. HOURS 6:00AM-7:00PM MON-FRI

	REVISIONS			
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TABLE 1

TAPER LENGTH CRITERIA AND CHANNELIZING DEVICE SPACING							
	MINIMUM TAPER LENGTH * FOR WIDTH OF OFFSET 12 FEET (W)			MAXIMUM CHANNELIZING DEVICE SPACING			
SPEED				X	Y	Z **	
(S)	MERGING L	SHIFTING L/2	SHOULDER L/3	DOWN STREAM	TAPER	TANGENT	CONFLICT
mph	ft	ft	ft	ft	ft	ft	ft
20	80	40	27	50	20	40	10
25	125	63	42	50	25	50	12
30	180	90	60	50	30	60	15
35	245	123	82	50	35	70	17
40	320	160	107	50	40	80	20
45	540	270	180	50	45	90	22
50	600	300	200	50	50	100	25
55	660	330	220	50	50	100	25
60	720	360	240	50	50	100	25
65	780	390	260	50	50	100	25
70	840	420	280	50	50	100	25
75	900	450	300	50	50	100	25

\* - FOR OTHER OFFSETS, USE THE FOLLOWING MERGING TAPER LENGTH FORMULA FOR L: FOR SPEED OF 40 MPH OR LESS, L = WS $\ddot{a}/60$  FOR SPEED OF 45 MPH OR MORE, L = WS

#### WHERE:

L = TAPER LENGTH IN FEET

W = WIDTH OF OFFSET IN FEET

- S = POSTED SPEED LIMIT, OFF-PEAK 85TH-PERCENTILE SPEED PRIOR TO WORK STARTING, OR THE ANTICIPATED OPERATING SPEED IN MPH
- \*\* USE FOR TAPER AND TANGENT SECTIONS WHERE THERE ARE NO PAVEMENT MARKINGS OR WHERE THERE IS A CONFLICT BETWEEN EXISTING PAVEMENT MARKINGS AND CHANNELIZERS (CA).

### TABLE 2

LONGITUDINAL BUFFER SPACE AND FLAGGER STATION SPACING					
		DOWNGRADE Min D ***			
SPEED *	Min D **	-3%	-6%	-9%	
mph	ft	ft	ft	ft	
20	115	116	120	126	
25	155	158	165	173	
30	200	205	215	227	
35	250	257	271	287	
40	305	315	333	354	
45	360	378	400	427	
50	425	446	474	507	
55	495	520	553	593	
60	570	598	638	686	
65	645	682	728	785	
70	730	771	825	891	
75	820	866	927	1003	

<sup>\* -</sup> SPEED IS POSTED SPEED LIMIT, OFF-PEAK 85TH-PERCENTILE SPEED PRIOR TO WORK STARTING, OR THE ANTICIPATED OPERATING SPEED IN MPH

\*\*\* - USE ON SUSTAINED DOWNGRADE STEEPER THAN -3 PERCENT AND LONGER THAN 1 MILE.

TABLE 3

ADVANCE WARNING SIGN SPACING					
	DISTANCE BETWEEN SIGNS *				
ROAD TYPE	А	В	С		
	ft	ft	ft		
URBAN - 25 mph OR LESS	100	100	100		
URBAN — MORE THAN 25 mph TO 40 mph	250	250	250		
URBAN — MORE THAN 40 mph	350	350	350		
RURAL	500	500	500		
EXPRESSWAY / FREEWAY	1000	1500	2640		

<sup>\* —</sup> THE DISTANCES ARE APPROXIMATE, ARE INTENDED FOR GUIDANCE PURPOSES ONLY, AND SHOULD BE APPLIED WITH ENGINEERING JUDGMENT. THESE DISTANCES SHOULD BE ADJUSTED BY THE ENGINEER FOR FIELD CONDITIONS, IF NECESSARY, BY INCREASING OR DECREASING THE RECOMMMENDED DISTANCES.

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VARIOUS LOCATIONS
SANTA ROSA, WINDSOR & HEALDSBURG, CA

PG PARMETER GENERAL ENGINEERS & SERVICES INC.

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TC-2

<sup>\*\* -</sup> LONGITUDINAL BUFFER SPACE OR FLAGGER STATION SPACING

#### **GENERAL NOTES**

- 1. NOTHING ALLOWED IN THE BUFFER AND TRANSITION AREAS AT ALL TIMES.
- 2. SIGNS ARE ONLY SHOWING TO THE PUBLIC WHEN IN USE.
- SIGNS AND CHANNELIZING DEVICES MUST BE RETROREFLECTIVE OR ILLUMINATED DURING NIGHT OPERATIONS.
- 4. SIGN PANEL SIZES: 36"X36" MIN. ON ROADS <50mph, 48"x48" ON ROADS ≥ 50mph.
- 5. SIGNS ARE SPACED PER THE CALIFORNIA MUTCD MANUAL.
- CHANNELIZING DEVICES SPACING AND TAPER LENGTHS ARE BASED ON THEIR RESPECTIVE CHARTS. (SEE CHARTS PAGE 2)
- 7. NOTIFY THE LOCAL LAW ENFORCEMENT, FIRE, AND AMBULANCE COMPANIES WITHIN 24 HOURS BEFORE CONSTRUCTION BEGINS.
- 8. CONTRACTOR TO MAKE SURE ALL TRAFFIC CONTROL EQUIPMENT MEETS ALL AGENCY REQUIREMENTS.
- 9. REMOVE ALL CONFLICTING MARKINGS FOR LONG TERM OPERATIONS (3 DAYS OR LONGER).
- 10. THE LOCATION OF THE SIGNS AS SHOWN ON THE ILLUSTRATIONS ARE GUIDELINES AND ACTUAL LOCATIONS WILL DEPEND UPON ALIGNMENT, GRADE, LOCATION OF STREET INTERSECTIONS AND 85TH %TILE POSTED SPEED LIMITS.
- 11. WHILE CROSSING INTERSECTIONS DURING MOBILE WORK, WORK MUST FOLLOW THE FLOW OF TRAFFIC AND PROCEED ON A GREEN LIGHT.
- 12. FULL COMPLIANCE IS REQUIRED WITH THE COUNTY, CITY OR TOWN.
- 13. PEDESTRIAN ACCESS BE MAINTAINED AS PER THE 2014 CA MUTCD STANDARDS AND ADA REQUIREMENTS.
- 14. C30 SIGNS ARE PERMITTED IN BUFFER AREAS.
- 15. SIGN SPACING IS PROVIDED IN THE MUTCD 2014 EDITION, PART 6. TRAFFIC SPEEDS ARE BASED UPON RADAR MEASUREMENTS OF MOTORISTS. THE MUTCD ALLOWS FOR A "RANGE" IN SIGN PLACEMENT AND WILL BE PROVIDED BY DOT. THE 85TH% TILE IS USED WHEN AVAILABLE TO PROVIDE A MORE ACCURATE REPRESENTATION OF MOTORISTS SPEEDS.
- 16. ANY WORK WITHIN 200 FT OF A SIGNALIZED INTERSECTION WILL REQUIRE CONTACT AND COORDINATION WITH THE COUNTY, CITY OR TOWN FOR ANY WORK.
- 17. QUALITY STANDARD TO MEET REQUIREMENTS OF SECTION 1A-2 OF THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- 18. ALL TRAFFIC CONTROL DEVICES INCLUDING: SIGNS, BARRICADES, VERTICAL PANELS, DRUMS, WARNING LIGHTS, ARROWBOARDS, CHANGEABLE MESSAGE SIGNS, CONES AND TUBULAR MARKERS THAT MEET THE REQUIREMENTS OF AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION (ATSSA). "CA MUTCD 2014" SHALL BE USED ON THIS PROJECT/THIS WORK.
- 19. THE NCHRP REPORT 476 PROVIDES GUIDELINES FOR DESIGN AND OPERATION OF NIGHTTIME TRAFFIC CONTROL FOR HIGHWAY MAINTENANCE AND CONSTRUCTION. SEE TYPICAL APPLICATIONS NWTA-1 THROUGH NWTA-7. COMPLY WITH ANSI 107-2004 FOR APPAREL. HIGHWAY CONSTRUCTION WORK LIGHTING SHALL BE PER CONSTRUCTION SAFETY ORDER 1523 (CALIFORNIA CODE OF REGULATIONS TITLE 8, DIVISION1, CHAPTER 4, SUBCHAPTER 4, ARTICLE 3, SECTION 1523 -ILLUMINATIONS).
- SIDEWALKS AT THE CONSTRUCTION LOCATION MAY BE CLOSED WITH ADEQUATE DETOURS. SIDEWALKS MAY ONLY BE CLOSED TO THROUGH TRAFFIC AND SHALL NOT PREVENT LOCAL PEDESTRIANS ACCESS. DETOURS SHALL NOT INCREASE THE PATH OF TRAVEL BY MORE THAN 500FT. DETOUR ROUTES SHALL BE LIMITED TO EXISTING SIDEWALKS, PRIVATE PROPERTIES (SEE BELOW REQUIREMENTS) AND CROSSINGS AT ROADWAY INTERSECTIONS. TO THE MAXIMUM EXTENT FEASIBLE, THE ALTERNATE CIRCULATION PATH SHALL BE PROVIDED ON THE SAME SIDE OF THE STREET AS THE DISRUPTED ROUTE. WHERE IT IS FEASIBLE TO PROVIDE A SAME-SIDE ALTERNATE CIRCULATION PATH AND PEDESTRIANS WILL BE DETOURED. SECTION 6D.02 OF THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS 2014 EDITION (MUTCD)APPROVED FOR CALIFORNIA, SPECIFIES THAT THE ALTERNATE PATH PROVIDE A SIMILAR LEVEL OF ACCESSIBILITY TO THAT OF THE EXISTING DISRUPTED ROUTE. THIS MAY INCLUDE THE INCORPORATION OF ACCESSIBLE PEDESTRIAN SIGNALS (APS), CURB RAMPS, OR OTHER ACCESSIBILITY FEATURES.
- 21. PEDESTRIANS MAY BE DETOURED ONTO PRIVATE PROPERTY ONLY IF WRITTEN PERMISSION FROM THE PROPERTY OWNER IS OBTAINED ALONG WITH DOCUMENTATION INDICATING THAT THE CITY WOULD NOT BE LIABLE (HOLD HARMLESS) IN THE EVENT OF AN ACCIDENT.
- DURING WORK HOURS, AT LEAST ONE WORKER SHALL BE ASSIGNED WITH THE RESPONSIBILITY TO ESCORT ELDERLY, DISABLED OR ANY OTHER PEDESTRIANS IN NEED OF ASSISTANCE THROUGH THE CONSTRUCTION SITE. A WORKER ASSIGNED WITH THIS RESPONSIBILITY MAY ALSO PARTICIPATE IN OTHER CONSTRUCTION ACTIVITIES; HOWEVER, THE ASSIGNED WORKER SHALL BE AWARE OF HIS OR HER RESPONSIBILITIES FOR PROVIDING THIS ASSISTANCE. MEASURES THAT SIMPLY CLOSE THE SIDEWALK, WITH THE EXCEPTION THAT PEDESTRIANS WILL CROSS SOMEWHERE ELSE DOES NOT ADEQUATELY SATISFY PEDESTRIAN ACCESS. PEDESTRIANS SHOULD NEVER BE DIRECTED/ EXPECTED TO CROSS A MULTI-LANE ROADWAY AT ANY LOCATION OTHER THAN AT A SIGNAL (OR ALL-WAY STOP).

  ACCOMMODATIONS SHOULD BE MADE ON THE SAME SIDE OF ROADWAY AS WORK.

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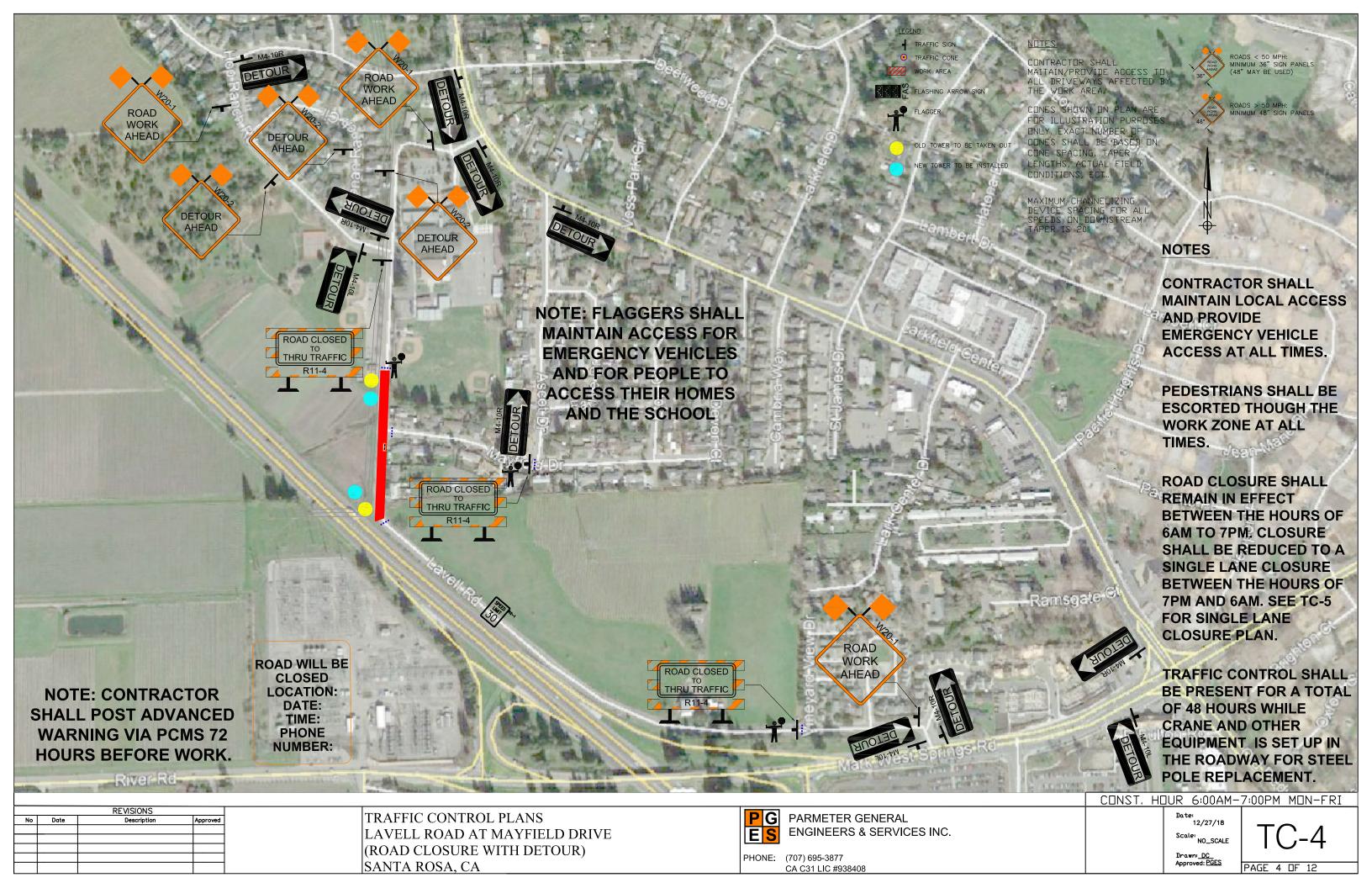
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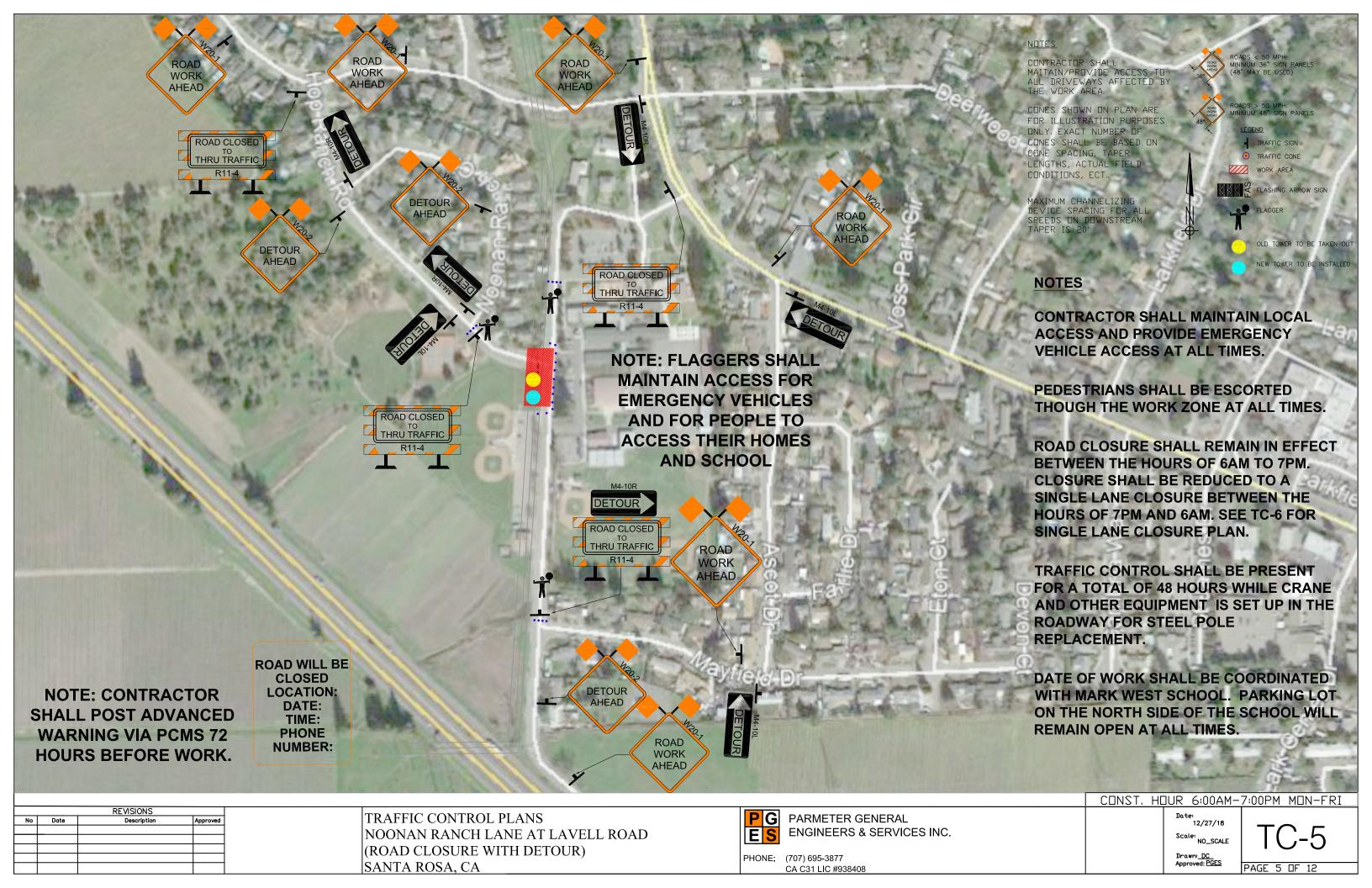
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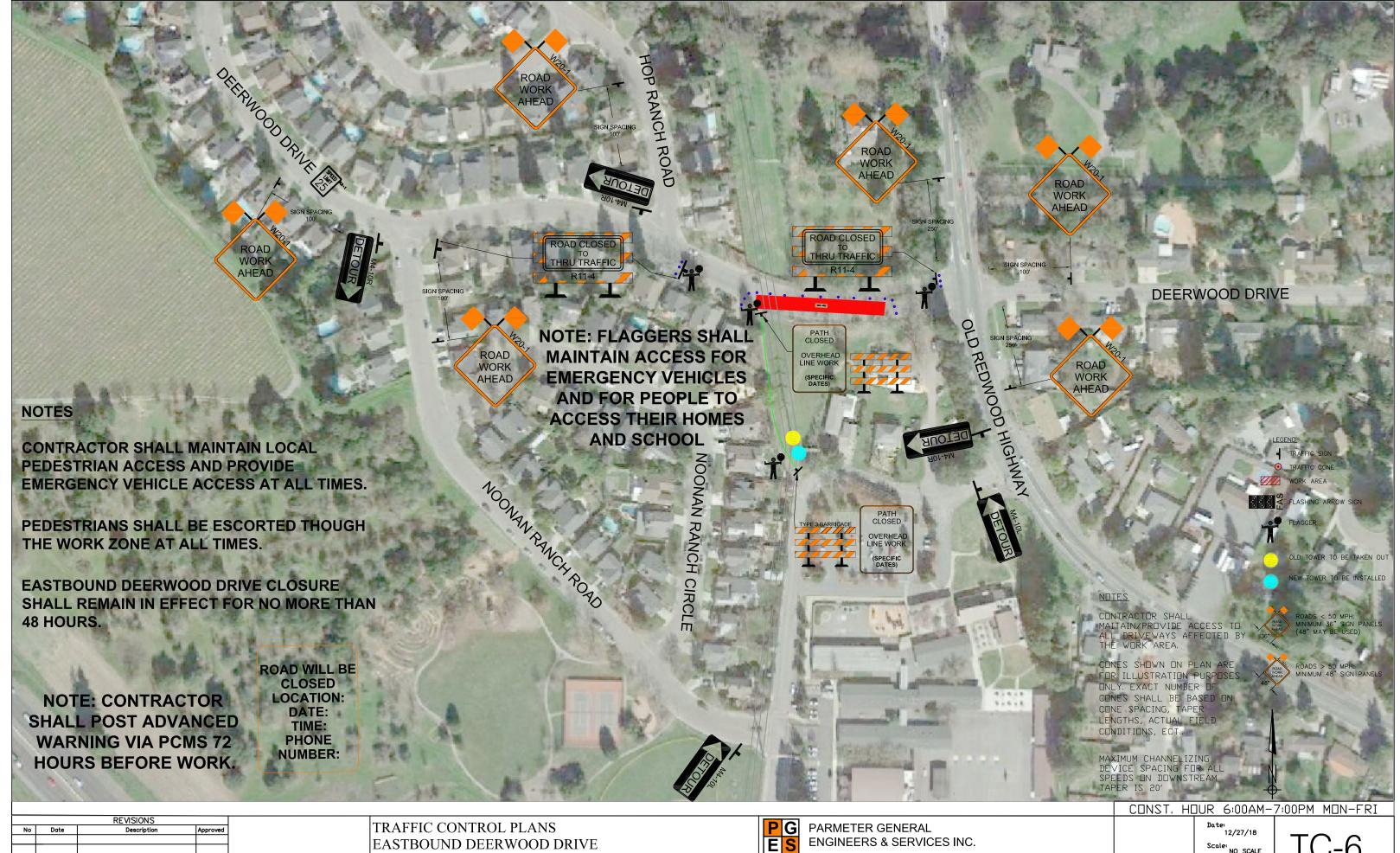
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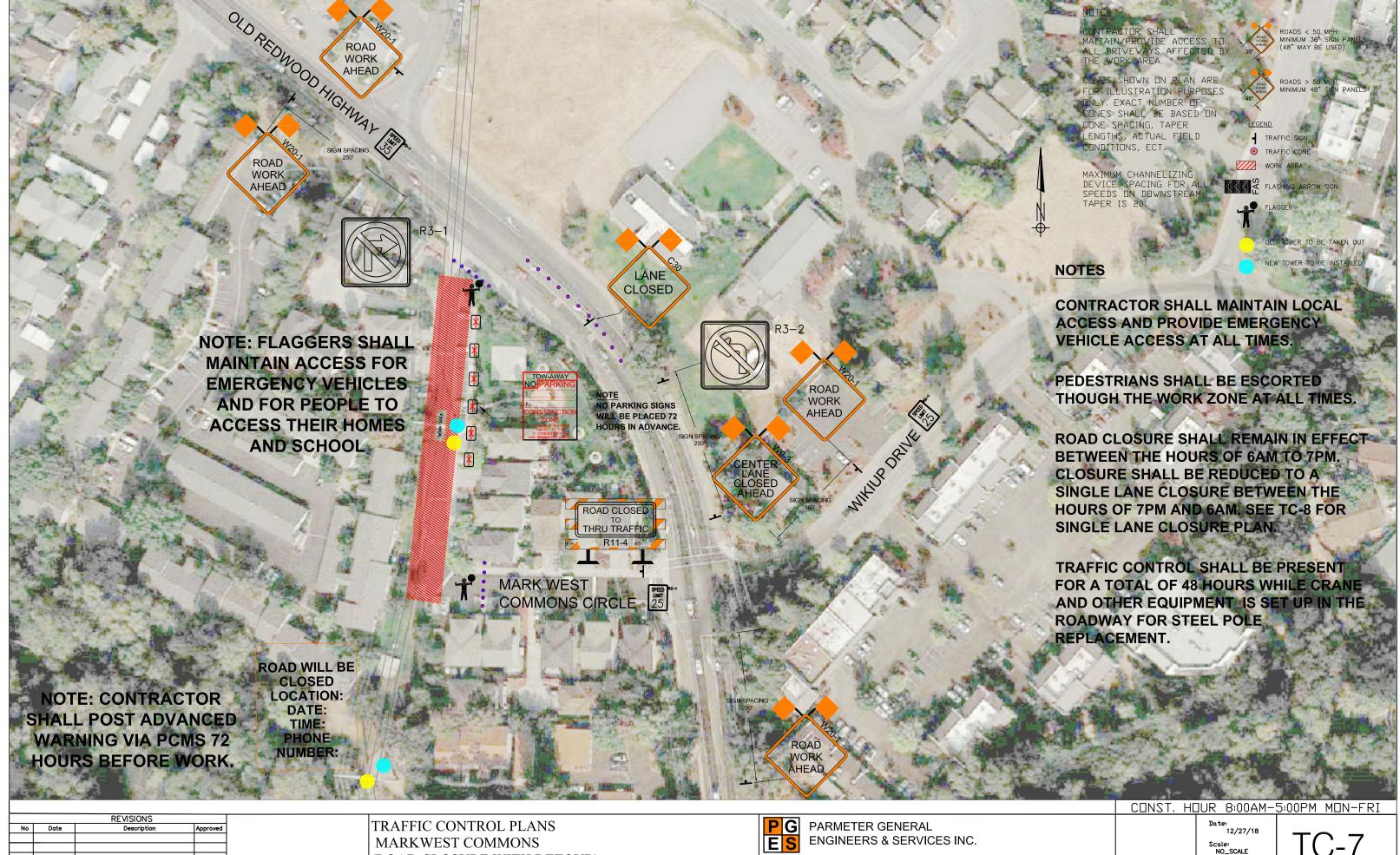






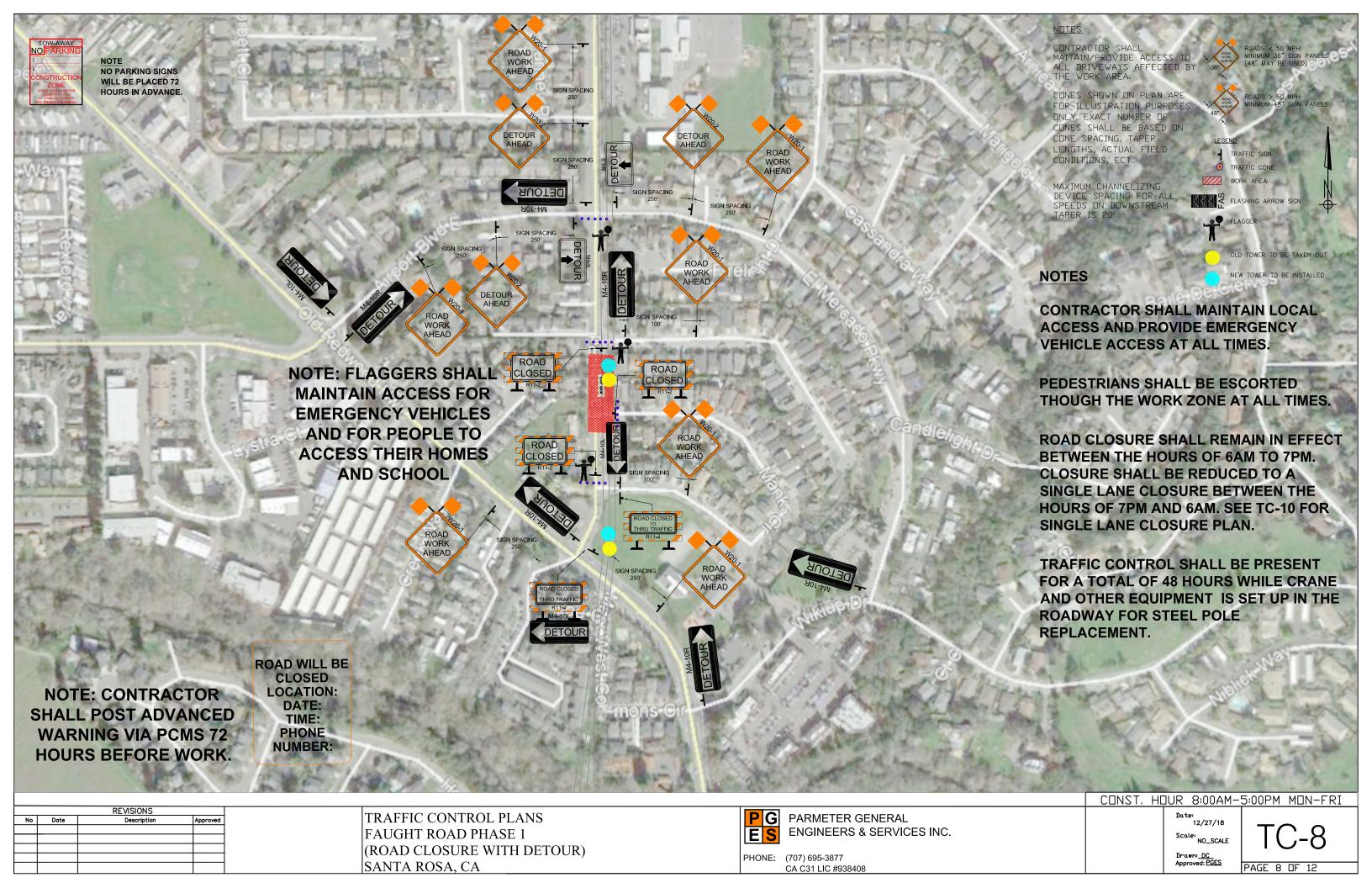
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