



PALO ALTO WOOD POLE NODES

CROWN CASTLE TO INSTALL THE FOLLOWING:

- SMALL CELL ANTENNA AND ITS ANCILLARY EQUIPMENT ON STREET LIGHT POLE.

PROJECT SUMMARY

PROJECT MANAGER:
CROWN CASTLE
695 RIVER OAKS PARKWAY
SAN JOSE, CA 95134
JOHN GRIFFITHS
(408) 468-5524
JOHN.GRIFFITHS@CROWNCastle.COM

NODE ENGINEER:
COASTAL COMMUNICATIONS
5841 EDISON PL, STE. 200
CARLSBAD, CA 92008
TODD THREW
(760) 929-0910 ext. 101
TODD@COASTALCOMMINC.COM

PROJECT TEAM

PALO ALTO, CA

SIGNATURE BLOCK

TITLE	SIGNATURE	DATE
PROJECT MANAGER		
RF ENGINEER		
NODE ENGINEER		
CONSTRUCTION MANAGER		

SHEET NO.	DESCRIPTION
CT-1	OVERALL NODE TITLE SHEET
C-1	TITLE SHEET - 020
C-2	CONDITIONS OF APPROVAL - 020
C-3	CONDITIONS OF APPROVAL - 020
D-1	DETAILS & NOTES - 020
D-2	DETAILS & NOTES - 020
D-3	DETAILS & NOTES - 020
D-4	DETAILS & NOTES - 020
D-5	DETAILS & NOTES - 020
D-6	DETAILS & NOTES - 020
D-7	DETAILS & NOTES - 020
T1.1	SPECIAL TREE PROTECTION - 020
T1.2	SPECIAL TREE PROTECTION - 020
T1.3	SPECIAL TREE PROTECTION - 020
T1.4	SPECIAL TREE PROTECTION - 020
P-1	PHOTOS - 020
P-2	PHOTOSIM - 020
P-3	PROFILE - 020
P-4	PROFILE - 020
SP-1	SITE PLAN - 020
SP-2	ENLARGED SITE PLAN - 020
OC-1	O'CALCS - 020
T01	TRAFFIC CONTROL - 020
T02	TRAFFIC CONTROL - 020
C-1	TITLE SHEET - 021m1
C-2	CONDITIONS OF APPROVAL - 021m1
C-3	CONDITIONS OF APPROVAL - 021m1
D-1	DETAILS & NOTES - 021m1
D-2	DETAILS & NOTES - 021m1
D-3	DETAILS & NOTES - 021m1
D-4	DETAILS & NOTES - 021m1
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OC-1	O'CALCS - 021m1
T01	TRAFFIC CONTROL - 021m1
T02	TRAFFIC CONTROL - 021m1
C-1	TITLE SHEET - 022m2
C-2	CONDITIONS OF APPROVAL - 022m2
C-3	CONDITIONS OF APPROVAL - 022m2
D-1	DETAILS & NOTES - 022m2
D-2	DETAILS & NOTES - 022m2
D-3	DETAILS & NOTES - 022m2
D-4	DETAILS & NOTES - 022m2

SHEET INDEX

SHEET NO.	DESCRIPTION
D-5	DETAILS & NOTES - 022m2
D-6	DETAILS & NOTES - 022m2
D-7	DETAILS & NOTES - 022m2
T1.1	SPECIAL TREE PROTECTION - 022m2
T1.2	SPECIAL TREE PROTECTION - 022m2
T1.3	SPECIAL TREE PROTECTION - 022m2
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T1.4	SPECIAL TREE PROTECTION - 024

SHEET INDEX

SHEET NO.	DESCRIPTION
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P-2	PHOTOSIM - 024
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P-4	PROFILE - 024
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C-3	CONDITIONS OF APPROVAL - 032
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D-2	DETAILS & NOTES - 032
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T02	TRAFFIC CONTROL - 032

SHEET INDEX

PALO ALTO

CROWN CASTLE PROJECT NO.
VZW366241CA



PROPRIETARY INFORMATION
THE INFORMATION CONTAINED IN THIS SET OF DRAWINGS IS PROPRIETARY AND CONFIDENTIAL TO VERIZON. ANY USE OR DISCLOSURE OTHER THAN AS IT RELATES TO VERIZON IS STRICTLY PROHIBITED.



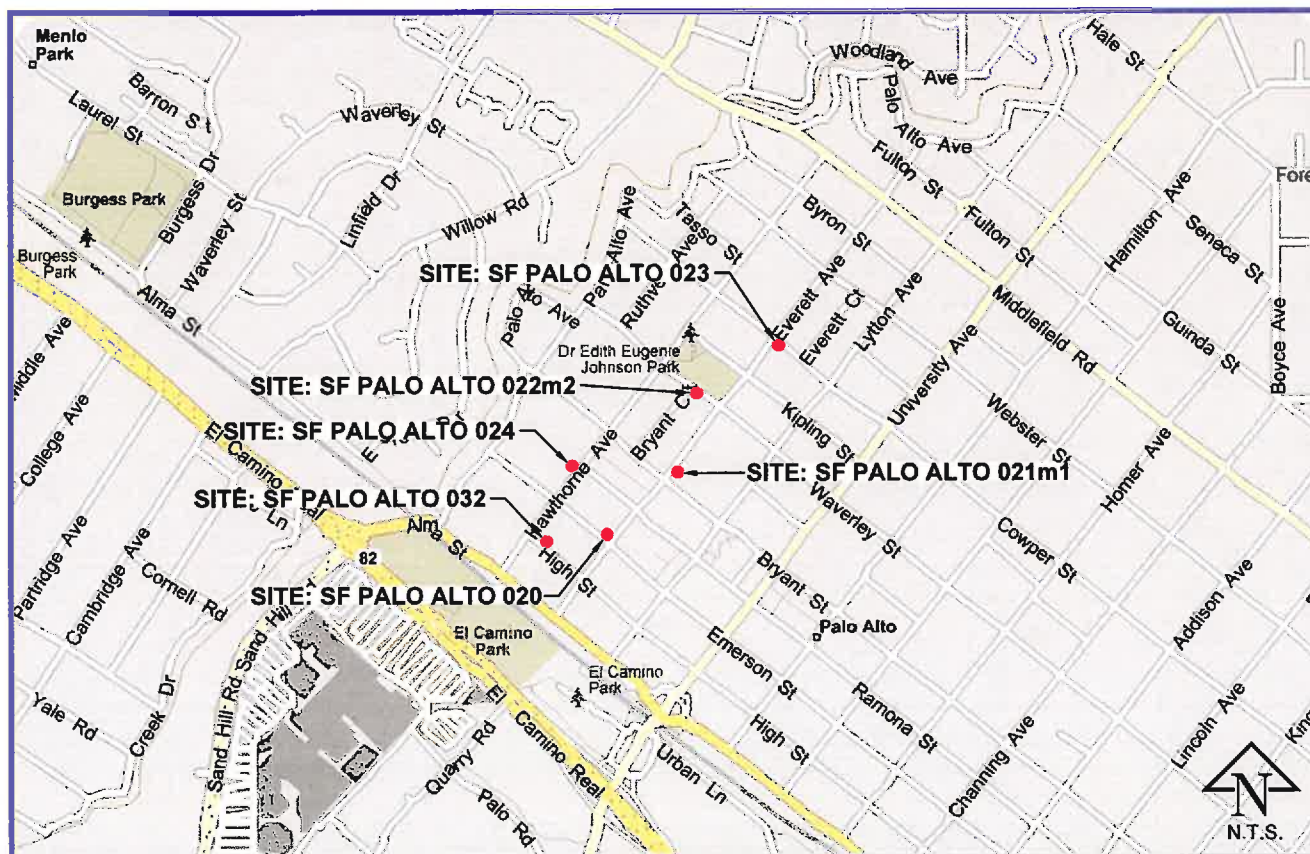
ZONING SUBMITTAL	03/03/18
ZONING COMMENTS	04/12/18
REVISION / ISSUE	DATE



SITE NAME & ADDRESS:
SF PA 020, SF PA 021m1,
SF PA 022m2, SF PA 023,
SF PA 024, SF PA 032,
(ADDRESSES VARY)
PALO ALTO, CA

TITLE SHEET

DRAWN BY: BMW	DRAFT DATE: 02/16/18	APPROVED BY: TT
SHEET NO. CT-1		



VICINITY MAP



SF PALO ALTO 020
ROW ADJACENT TO
251 EMERSON ST &
NEAR 205 EVERETT AVE
PALO ALTO, CA

DIRECTIONS FROM 695 RIVER OAKS PARKWAY, SAN JOSE CA 95124:

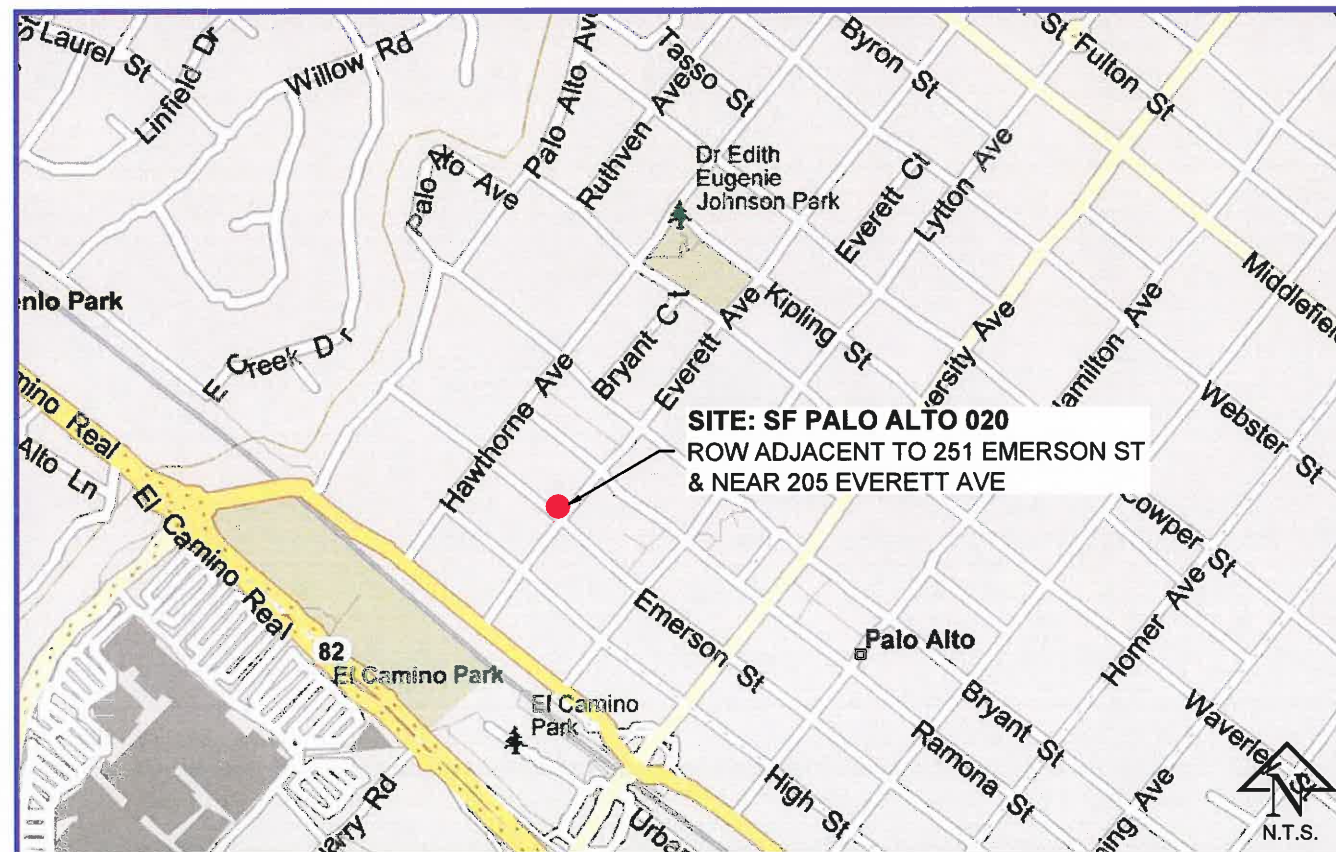
HEAD NORTHEAST ON RIVER OAKS PARKWAY TOWARD VILLAGE CENTER DR, TURN LEFT ONTO VILLAGE CENTER DR, TURN LEFT ONTO RESEARCH PL, TURN RIGHT AT THE 1ST CROSS STREET ONTO MONTAGUE EXPRESSWAY, SLIGHT RIGHT TO MERGE ONTO US-101 N TOWARD SAN FRANCISCO, MERGE ONTO US-101 N, TAKE EXIT 402 FOR EMBARCADERO RD/ OREGON EXPRESSWAY, CONTINUE ONTO OREGON EXPRESSWAY, SLIGHT RIGHT TOWARD OREGON AVE, TURN RIGHT ONTO ALMA ST, TURN RIGHT ONTO EVERETT AVE, TURN LEFT AT THE 2ND CROSS STREET ONTO EMERSON ST. STREET LIGHT NODE IS ON THE RIGHT.

DRIVING DIRECTIONS

1. STREET USE PERMIT SHALL BE OBTAINED BY CONTRACTOR PRIOR TO COMMENCING WORK.
2. ALL WORK TO BE CONDUCTED IN THE RIGHT OF WAY.
3. ALL DISTURBED LANDSCAPING SHALL BE REPLACED TO SIMILAR EXISTING CONDITION.
4. ANY SIDEWALK CLOSURE SHALL BE COORDINATED WITH THE CITY AND PROPER SIGNING WILL BE PLACED.
5. NO MATERIALS OR EQUIPMENT SHALL BE STORED ON PRIVATE PROPERTY OR BLOCK ACCESS TO PRIVATE PROPERTY.
6. CLEANUP OF SITE WILL BE COMPLETED EACH EVENING AND THE SITE WILL BE RETURNED TO EXISTING CONDITIONS AT THE COMPLETION OF CONSTRUCTION AT EACH SITE.

CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR RESPONSIBLE FOR SAME.

GENERAL CONTRACTOR NOTES



VICINITY MAP

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C-1	TITLE SHEET
C-2	CONDITIONS OF APPROVAL
C-3	CONDITIONS OF APPROVAL
D-1 - D-7	DETAILS & NOTES
T1.1	SPECIAL TREE PROTECTION INSTRUCTION SHEET
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OC-1	O'CALCS
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T02	TRAFFIC CONTROL

SHEET INDEX

CROWN CASTLE TO INSTALL THE FOLLOWING:

- INSTALL VGR.
- INSTALL NEW POWER DISCONNECT BOX ON STANDOFF BRACKET AT 8'-0" TO 8'-9".
- INSTALL NEW WTR ENCLOSURE ON STANDOFF BRACKET AT 9'-6" TO 10'-6".
- INSTALL NEW STANDOFF BRACKET KIT WITH (1) RRUS-11 AT 11'-0" TO 12'-5".
- INSTALL NEW RRUS BRACKET KIT WITH (2) RRUS-32 AT 13'-0" TO 16'-3".
- INSTALL 1" SCHEDULE 80 POWER RISER.
- INSTALL CROWN CASTLE FIBER AT 27'-2".
- INSTALL STANDOFF BRACKET (TYP.).
- INSTALL 2" SCHEDULE 80 COMM RISER.
- INSTALL 5'-6" POLE MOUNTED EXTENSION & (1) NEW 48" AMPHENOL ANTENNA MODEL #CUUT360X12F124s0 WITH CUSTOM SHROUD CONCEALMENT COVER.
- INSTALL NOTICE & CAUTION SIGNS.
- ALL EQUIPMENT SHALL BE PAINTED TO MATCH TEXTURE AND COLOR.
- NO GROUND DISTURBANCE NECESSARY.

PROJECT SUMMARY

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CROWN CASTLE
695 RIVER OAKS PARKWAY
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TODD THREW
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TODD@COASTALCOMMINC.COM

PROJECT TEAM

SF PALO ALTO 020
PALO ALTO

CROWN CASTLE PROJECT NO.
VZW366241CA

CLIENT:



PREPARED BY:



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1-800-227-2600
CALL AT
LEAST TWO
DAYS BEFORE
YOU DIG

UNDERGROUND SERVICE ALERT
TICKET #

ZONING SUBMITTAL	03/03/18
ZONING COMMENTS	04/12/18
REVISION / ISSUE	DATE



SITE NAME & ADDRESS:
ROW ADJACENT TO 251 EMERSON ST NEAR 205 EVERETT AVE
PALO ALTO, CA
37.446387/-122.165387

TITLE SHEET

DRAWN BY: BMW	DRAFT DATE: 02/08/18	APPROVED BY: TT
SHEET NO. C-1		

PENDING C.O.A .

SF PALO ALTO 020
PALO ALTO

CROWN CASTLE PROJECT NO.
VZW366241CA

CLIENT:

695 RIVER OAKS PARKWAY
SAN JOSE, CA 95134
www.crowncastle.com

PREPARED BY:

5841 EDISON PLACE, SUITE 200
CARLSBAD, CA 92008
PHONE: (760) 929-0910
FAX: (760) 929-0936
www.coastalcomminc.com

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REGISTERED PROFESSIONAL ENGINEER
JERRY L. MCFAR
No. C42590
Exp. 03-31-20
CIVIL
STATE OF CALIFORNIA

SITE NAME & ADDRESS:
ROW ADJACENT TO 251 EMERSON
ST NEAR 205 EVERETT AVE
PALO ALTO, CA
37.446387/-122.165387

CONDITIONS OF APPROVAL

DRAWN BY: BMW	DRAFT DATE: 02/08/18	APPROVED BY: TT
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SHEET NO.
C-2

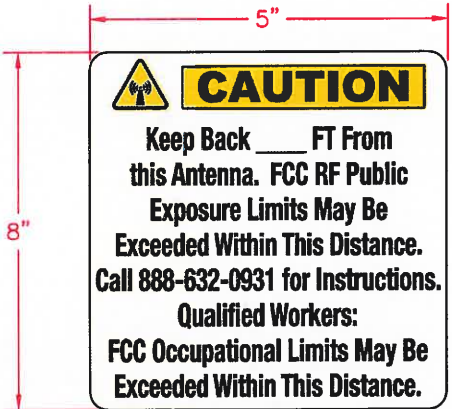
Applicant shall comply with the following comments/requirements.

1. Applicant shall install new street lighting poles with new foundations that are identical to the existing poles. New street lighting poles shall be installed as close as possible to the existing street lighting poles. Applicant shall ensure to maintain present illumination level on the streets.
2. Receptacles on street lights need to be pre-wired and mounted on the top of the street light. The receptacles shall be wired into the secondary voltage source and not the street light circuit.
3. New street lighting pole's drawing is approved. Applicant shall replace the existing street lighting poles with identical poles. If there is any deviation then it must be approved by Utilities Engineering prior to installation.
4. Locations for new street lighting poles shall be as close as possible to the existing street lighting poles. No street or location shall be left dark. After removal of existing street pole/s, new street lighting poles shall be installed and energized as soon as possible. Applicant to coordinate with Scott Yahne (650-444-8823) our Street Lighting Supervisor prior to making any electric connection/s.
5. An inner duct of adequate size shall be installed inside the street lighting poles so to keep antenna wiring separate from street lighting circuits. Power to the antenna or any other equipment mounted on the street lighting pole shall be tapped from the designated secondary electric service point and not from the street lighting circuit.
6. If the street lighting pole gets knocked down, the City shall replace the pole but the City shall not be responsible for any damages to the antenna or any other equipment mounted on the street lighting pole/s.
7. Applicant has submitted certified structural calculations pertaining to equipment loading on the new street lighting poles.

8. Utility's Engineer has reviewed applicant's proposed fiber infrastructure and confirmed acceptance as long as applicant maintains required clearances and protect our distribution lines.
9. Voltage at all the locations identified for applicant's equipment installation may not be. Applicant shall accept the voltage available at the closest location. Applicant shall be responsible for installing additional substructure per City's standards and specifications, if required.
10. Applicant shall contact Utilities Engineering (650-566-4535) prior to entering any energized box or vault.
11. Applicant shall install substructure per City's standard and specifications and maintain required clearances as shown on the City's standard drawings. The City's Underground Electric Inspector will inspect the substructure for electric utility. Applicant must contact Underground Electric Inspector at 650-496-6936 or his designated representative for scheduling an inspection prior to back filling the trench.
12. Applicant shall pot hole and locate underground facilities prior to trenching or boring. Applicant must contact USA (800-227-2600) and have underground facilities marked prior to excavation/trenching or boring.
13. At few locations, proposed trenching/boring route conflicts with our existing high voltage distribution lines, boxes/vaults etc. Extreme caution must be exercised to protect our utility lines and associated substructures.
14. Applicant shall protect existing underground utilities. Applicant has not submitted any trench profile as requested by Utilities. Hence, applicant shall bore/ trench at his/her risk. Applicant will be solely responsible for any damages caused during the construction.
15. Street opening permits shall be obtained from Public Works Engineering (PWE) Department prior to trenching or boring.
16. Traffic control plans must be submitted to Transportation Department and approval must be obtained prior to lane closures. Construction hours shall be per Transportation Department's requirements.
17. Applicant shall contact the Public Works Engineering (PWE) Department (650-566-4535) and obtain electric permit and cost estimate for each location. Any changes made to the original design or to the designated electric service point/s shall be coordinated with the PWE Department. Applicant must pay all fees/cost estimates prior to final service connections.

ANTENNA CAUTION SIGN

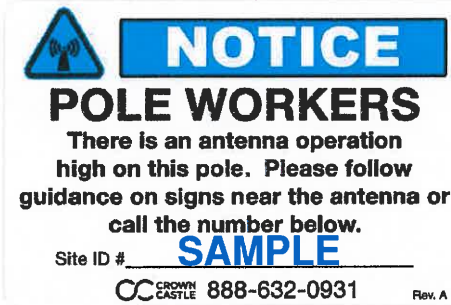
ANTENNA SIGNAGE:
ON WOOD POLES - SIGN ON ALUMINUM WITH SS SCREW TO THE POLE
ON METAL POLES - ADHESIVE VINYL OR PLACARD STRAPPED WITH SS TIES
ON CONCRETE / COMPOSITE - PLACARD STRAPPED WITH SS TIES
SIGN PLACEMENT:
AFFIX TO THE STRUCTURE ON OR JUST BELOW THE ANTENNA(S)
SIZE APPROX. 8" x 5"



A SCALE
N.T.S.

ANTENNA NOTICE SIGN

ANTENNA SIGNAGE:
ON WOOD POLES - SIGN ON ALUMINUM WITH SS SCREWS TO THE POLE
ON METAL POLES - ADHESIVE VINYL OR PLACARD STRAPPED WITH SS TIES
ON CONCRETE / COMPOSITE - PLACARD STRAPPED WITH SS TIES
SIGN PLACEMENT:
AFFIX TO THE STRUCTURE NEAR THE BOTTOM OF POLE OR ON THE SHROUD



B SCALE
N.T.S.

SF PALO ALTO 020
PALO ALTO

CROWN CASTLE PROJECT NO.
VZW366241CA

CLIENT:



PREPARED BY:



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DIGALERT



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37.446387/-122.165387

CONDITIONS OF APPROVAL

DRAWN BY: BMW	DRAFT DATE: 02/08/18	APPROVED BY: TT
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SHEET NO.

C-3

LEGEND

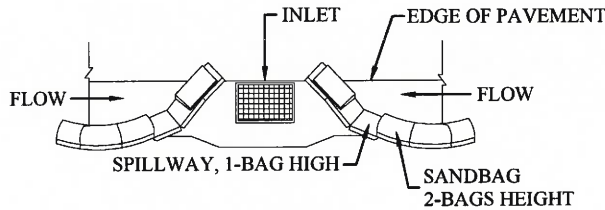
SYMBOL	DESCRIPTION
PROPOSED	
	2 X 3 VAULT
	CABINET
	PCC SIDEWALK
	TRENCH AND FIBER CONDUIT (PVT)
	DIRECTIONAL BORING
	BORE PIT
EXISTING	
	EXISTING STREET LIGHT
	EXISTING VAULT / HANDHOLE
	EXISTING MAILBOX
	EXISTING TREE
	EXISTING TREE WELL
	STATION POINTS (100' INCREMENTS)
	EXISTING CURB RAMP
	EXISTING CURB & GUTTER
	EXISTING FACE OF BUILDING
	EXISTING PARKING STRIPING
	EXISTING RIGHT OF WAY
	EXISTING CENTERLINE
	EXISTING WATER LINE
	EXISTING WATER LATERAL
	EXISTING SEWER LINE
	EXISTING SEWER LATERAL
	EXISTING GAS LINE
	EXISTING GAS LATERAL
	EXISTING STORM DRAIN LINE
	SUBJECT OF ADJACENTLY UNDER SUPPORTING

EROSION AND SEDIMENT CONTROL NOTES:

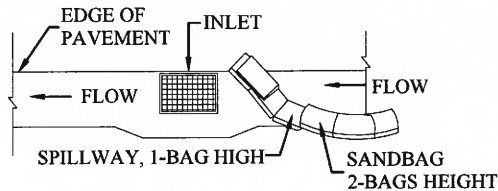
TEMPORARY EROSION/SEDIMENT CONTROL, PRIOR TO COMPLETION OF FINAL IMPROVEMENTS, SHALL BE PERFORMED BY THE CONTRACTOR OR QUALIFIED PERSON AS INDICATED BELOW:

- ALL REQUIREMENTS OF THE CITY "LAND DEVELOPMENT MANUAL, STORM WATER STANDARDS" MUST BE INCORPORATED INTO THE DESIGN AND CONSTRUCTION OF THE PROPOSED PUBLIC IMPROVEMENTS CONSISTENT WITH THE EROSION CONTROL PLAN AND/OR WATER POLLUTION CONTROL PLAN (WP/CP). IF APPLICABLE.
- FOR STORM DRAIN INLETS, PROVIDE A GRAVEL BAG SILT BASIN IMMEDIATELY UPSTREAM OF INLET AS INDICATED ON DETAILS.
- THE CONTRACTOR OR QUALIFIED PERSON SHALL BE RESPONSIBLE FOR CLEANUP OF SILT AND MUD ON ADJACENT STREET(S) AND STORM DRAIN SYSTEM DUE TO CONSTRUCTION ACTIVITY.
- THE CONTRACTOR SHALL REMOVE SILT AND DEBRIS AFTER EACH MAJOR RAINFALL.
- EQUIPMENT AND WORKERS FOR EMERGENCY WORK SHALL BE MADE AVAILABLE AT ALL TIMES DURING THE RAINY SEASON.
- THE CONTRACTOR SHALL RESTORE ALL EROSION/SEDIMENT CONTROL DEVICES TO WORKING ORDER TO THE SATISFACTION OF THE CITY ENGINEER OR RESIDENT ENGINEER AFTER EACH RUN-OFF PRODUCING RAINFALL.
- THE CONTRACTOR SHALL INSTALL ADDITIONAL EROSION/SEDIMENT CONTROL MEASURES AS MAY BE REQUIRED BY THE RESIDENT ENGINEER DUE TO UNFORESEEN CIRCUMSTANCES, WHICH MAY ARISE.
- ALL EROSION/SEDIMENT CONTROL MEASURES PROVIDED PER THE APPROVED IMPROVEMENT PLAN SHALL BE INCORPORATED HEREON. ALL EROSION/SEDIMENT CONTROL FOR INTERIM CONDITIONS SHALL BE DONE TO THE SATISFACTION OF THE RESIDENT ENGINEER.
- ALL REMOVABLE PROTECTIVE DEVICES SHOWN SHALL BE IN PLACE AT THE END OF EACH WORKING DAY WHEN RAIN IS IMMINENT.
- THE CONTRACTOR SHALL ARRANGE FOR WEEKLY MEETINGS DURING OCTOBER 1ST TO APRIL 30TH FOR PROJECT TEAM (GENERAL CONTRACTOR, QUALIFIED PERSON, EROSION CONTROL SUBCONTRACTOR IF ANY, ENGINEER OF WORK, OWNER/DEVELOPER AND THE RESIDENT ENGINEER) TO EVALUATE THE ADEQUACY OF THE EROSION/SEDIMENT CONTROL MEASURES AND OTHER RELATED CONSTRUCTION ACTIVITIES.

STORMDRAIN INLET PROTECTION



TYPICAL PROTECTION FOR INLET WITH OPPOSING FLOW DIRECTIONS



TYPICAL PROTECTION FOR INLET WITH SINGLE FLOW DIRECTION

NOTES:

- INTENDED FOR SHORT - TERM USE.
- USE TO INHIBIT NON - STORM WATER FLOW.
- ALLOW FOR PROPER MAINTENANCE AND CLEANUP.
- BAGS MUST BE REMOVED AFTER ADJACENT OPERATION IS COMPLETED.
- NOT APPLICABLE IN AREAS WITH HIGH SILTS AND CLAYS WITHOUT FILTER FABRIC.

NOTES:

- CONTRACTOR TO POTHOLE ALL UTILITY CROSSINGS.
- CONTRACTOR TO PLACE SANDBAGS AROUND ANY/ALL STORM DRAIN INLETS TO PREVENT CONTAMINATED WATER.
- SPOILS PILE WILL BE COVERED AND CONTAINED AND STREET WILL BE SWEEPED AND CLEANED AS NEEDED.
- CONTRACTOR TO REPAIR DAMAGED PUBLIC IMPROVEMENTS TO THE SATISFACTION OF THE CITY ENGINEER.
- C&G TO BE PROTECTED IN PLACE. SIDEWALK TO BE REPLACED TO THE SATISFACTION OF THE CITY ENGINEER.
- THE CONTRACTOR SHALL RESTORE THE ROADWAY BACK TO ITS ORIGINAL CONDITION SATISFACTORY TO THE CITY ENGINEER INCLUDING, BUT NOT LIMITED TO PAVING, STRIPING, BIKE LANES, PAVEMENT LEGENDS, SIGNS, AND TRAFFIC LOOP DETECTORS.
- SIDEWALK SHALL BE RESTORED/REPLACED PER CITY STANDARD DRAWINGS.
- PEDESTRIAN RAMP WILL NOT BE DISTURBED.

ROW GROUND CONSTRUCTION NOTES:

- GROUND CONSTRUCTION TO REMOVE/CLEAN ALL DEBRIS, NAILS, STAPLES, OR NON-USED VERTICALS OFF THE POLE.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH MUNICIPAL, COUNTY, STATE, FEDERAL, GO95 AND GO128 STANDARDS AND REGULATIONS.
- CALL USA 48 HOURS PRIOR TO EXCAVATING AT (800) 227-2600 OR 811.
- ALL LANDSCAPING TO BE RESTORED TO ORIGINAL CONDITION OR BETTER.
- ALL EQUIPMENT TO BE BONDED.
- METERING CABINET REQUIRES 36" CLEARANCE AT DOOR OPENING.
- CAULK CABINET BASE AT PAD.

NORMAL LOCATION OF UNDERGROUND UTILITIES NOTES:

- LOCATION AND DEPTH OF EXISTING AND PROPOSED UTILITIES MUST BE PROVIDED BY THE SUBDIVIDER AND SHOWN ON ANY PLANS SUBMITTED TO THE DEPT. OF PUBLIC WORKS FOR APPROVAL.
- CHANGES MAY BE PERMITTED BY THE DEPT. OF PUBLIC WORKS IN CASES OF CONFLICTING FACILITIES.
- CONFLICTS BETWEEN UTILITY COMPANIES FACILITIES, EXISTING AND PROPOSED, MUST BE MUTUALLY RESOLVED BY THE UTILITY COMPANIES.
- FOR COMMERCIAL SIDEWALKS, THE FIRE HYDRANT SHALL BE PLACED WITHIN THE SIDEWALK 1'-6" BEHIND FACE OF CURB.
- MAXIMUM 2" DIAMETER GAS MAINS MAY BE PLACED IN JOINT UTILITIES TRENCH SUBJECT TO APPROVAL OF CITY ENGINEER (IN TRACTS).

GENERAL CONTRACTOR NOTES:

- STREET USE PERMIT SHALL BE OBTAINED BY CONTRACTOR PRIOR TO COMMENCING WORK.
- ALL WORK TO BE CONDUCTED IN THE RIGHT OF WAY.
- ALL DISTURBED LANDSCAPING SHALL BE REPLACED TO SIMILAR EXISTING CONDITION.
- ANY SIDEWALK CLOSURE SHALL BE COORDINATED WITH THE CITY AND PROPER SIGNING WILL BE PLACED.
- NO MATERIALS OR EQUIPMENT SHALL BE STORED ON PRIVATE PROPERTY OR BLOCK ACCESS TO PRIVATE PROPERTY.
- CLEANUP OF SITE WILL BE COMPLETED EACH EVENING AND THE SITE WILL BE RETURNED TO EXISTING CONDITIONS AT THE COMPLETION OF CONSTRUCTION AT EACH SITE.

CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE, PROCEEDING WITH THE WORK OR RESPONSIBLE FOR SAME.

CALIFORNIA STATE CODE COMPLIANCE:

ALL WORK AND MATERIALS SHALL BE PREFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUCTED TO PERMIT WORK NOT CONFORMING TO THESE CODES:

- CALIFORNIA ADMINISTRATIVE CODE (INCLUDING TITLES 24 & 25) 2016
- 2016 CALIFORNIA BUILDING CODES WHICH ADOPTS THE 2016 UBC, 2016 UMC, 2016 UPC AND THE 2016 NEC.
- BUILDING OFFICIALS & CODE ADMINISTRATORS (BOCA)
- 2016 CALIFORNIA MECHANICAL CODE
- ANSI/EIA-222-F LIFE SAFETY CODE NFPA-101
- 2016 CALIFORNIA PLUMBING CODE
- 2016 CALIFORNIA ELECTRICAL CODE
- 2016 LOCAL BUILDING CODE
- CITY/COUNTY ORDINANCES

ACCESSIBILITY REQUIREMENTS:

FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAPPED ACCESS REQUIREMENTS DO NOT APPLY IN ACCORDANCE WITH THE 2010 CALIFORNIA BUILDING CODE.

FCC NOTE:

THIS WIRELESS COMMUNICATION FACILITY COMPLIES WITH FEDERAL STANDARDS FOR RADIO FREQUENCY IN ACCORDANCE WITH THE TELECOMMUNICATION ACT OF 1996 AND SUBSEQUENT AMENDMENTS AND ANY OTHER REQUIREMENTS IMPOSED BY STATE OR FEDERAL REGULATORY AGENCIES.

CITY OF PALO ALTO UTILITIES ENGINEERING NOTES:

- APPLICANT SHALL TAP ELECTRIC SERVICE TO THE SMALL CELL DISTRIBUTED ANTENNA SYSTEM FROM THE LOCATIONS JOINTLY IDENTIFIED DURING THE FIELD INVESTIGATION.
- SERVICE VOLTAGE TO ALL THE PROPOSED LOCATIONS MAY NOT BE THE SAME. APPLICANT SHALL DESIGN THEIR SYSTEM TO OPERATE AT THE AVAILABLE VOLTAGE IN THE VICINITY.
- IF BRAND NEW POLES NEED TO BE INSTALLED FOR APPLICANT'S SYSTEM THEN THE POLES MUST MATCH EXISTING POLES IN THE DOWN TOWN AREA.
- AFTER EXCAVATION IS COMPLETED ON THE PUBLIC RIGHT OF WAY, EXISTING STREETS INCLUDING SIDEWALKS/ CURB/ GUTTER OR ANY DECORATIVE PATHS MUST BE BROUGHT TO ITS ORIGINAL CONDITION AND MUST BE APPROVED BY PUBLIC WORKS ENGINEERING DEPARTMENT'S INSPECTOR. POTHOLING MUST BE DONE AND ALL THE UTILITIES MUST BE IDENTIFIED PRIOR TO COMMENCING EXCAVATION.
- EXCAVATION AND RESTORATION WORK MUST BE IN COMPLIANCE WITH PUBLIC WORKS ENGINEERING STANDARDS AND SPECIFICATIONS THAT ARE AVAILABLE ON THE FOLLOWING WEBSITE:
<http://www.cityofpaloalto.org/news/displaynews.asp?NewsID=1834&TargetID=145>
- APPLICANTS SHALL BE RESPONSIBLE FOR MAINTAINING THEIR SYSTEM INCLUDING SUBSTRUCTURE. IN CASE OF KNOCK DOWNS, THE CITY WILL RE-INSTALL ITS STREET LIGHTING POLES BUT **NOT** APPLICANT'S EQUIPMENT ON OR OFF THE POLE.
- A FIELD MEETING IS RECOMMENDED WITH UTILITIES ENGINEERING PRIOR TO COMMENCING THE WORK.
- PLANS SHALL INCLUDE A NOTE: CONTRACTOR TREE INSPECTION REQUIREMENTS: MODIFIED TYPE III TRUNK WRAPPING SHALL BE VERIFIED BY URBAN FORESTRY PRIOR TO ANY WORK IN THE VICINITY. FOR EACH TREE SITE WRAPPED FOR PROTECTION WITHIN 15' OF ANY WORK ZONE OR CONCRETE FORM SECTION, A BILLABLE TREE INSPECTION BY URBAN FORESTRY (650-496-5953, 24-HOUR ADVANCE IS REQUIRED) SHALL BE COMPLETED PRIOR TO DEMOLITION, DRILLING, EXCAVATING, FORMING OR STREET LIGHT ACTIVITY. CONTRACTOR SHALL ARRANGE PAYMENTS AT THE DEVELOPMENT CENTER, 285 HAMILTON AVE, PALO ALTO, CA.
- THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITIES DEPARTMENT 650/329-2413 OR 650/496-6982 IF THE EXISTING WATER, WASTEWATER OR GAS MAINS ARE DISTURBED OR DAMAGED. A QUALIFIED CONTRACTOR MAY PERFORM REPAIRS ON CITY WATER AND WASTEWATER MAINS UNDER THE DIRECT SUPERVISION OF THE WGW UTILITIES INSPECTOR. FOR WATER REPAIRS ALL THE DISINFECTION REQUIREMENTS OF THE WGW UTILITY STANDARDS AND THESE CONDITIONS SHALL BE ADHERED TO. ALL REPAIRS TO THE CITY GAS SYSTEM MUST BE PERFORMED BY THE CITY OF PALO ALTO UTILITIES.
- NO WATER VALVES OR OTHER FACILITIES OWNED BY UTILITIES DEPARTMENT SHALL BE OPERATED FOR ANY PURPOSE BY THE APPLICANT'S CONTRACTOR. ALL REQUIRED OPERATION WILL ONLY BE PERFORMED BY AUTHORIZED UTILITIES DEPARTMENT PERSONNEL. WATER VALVES MAY BE OPERATED BY THE CONTRACTOR UNDER THE DIRECT SUPERVISION OF THE WGW UTILITIES INSPECTOR. THE APPLICANT'S CONTRACTOR SHALL NOTIFY THE UTILITIES DEPARTMENT NOT LESS THAN FORTY-EIGHT (48) HOURS IN ADVANCE OF THE TIME THAT SUCH OPERATION IS REQUIRED.

SF PALO ALTO 020 PALO ALTO

CROWN CASTLE PROJECT NO.
VZW366241CA

CLIENT:



PREPARED BY:



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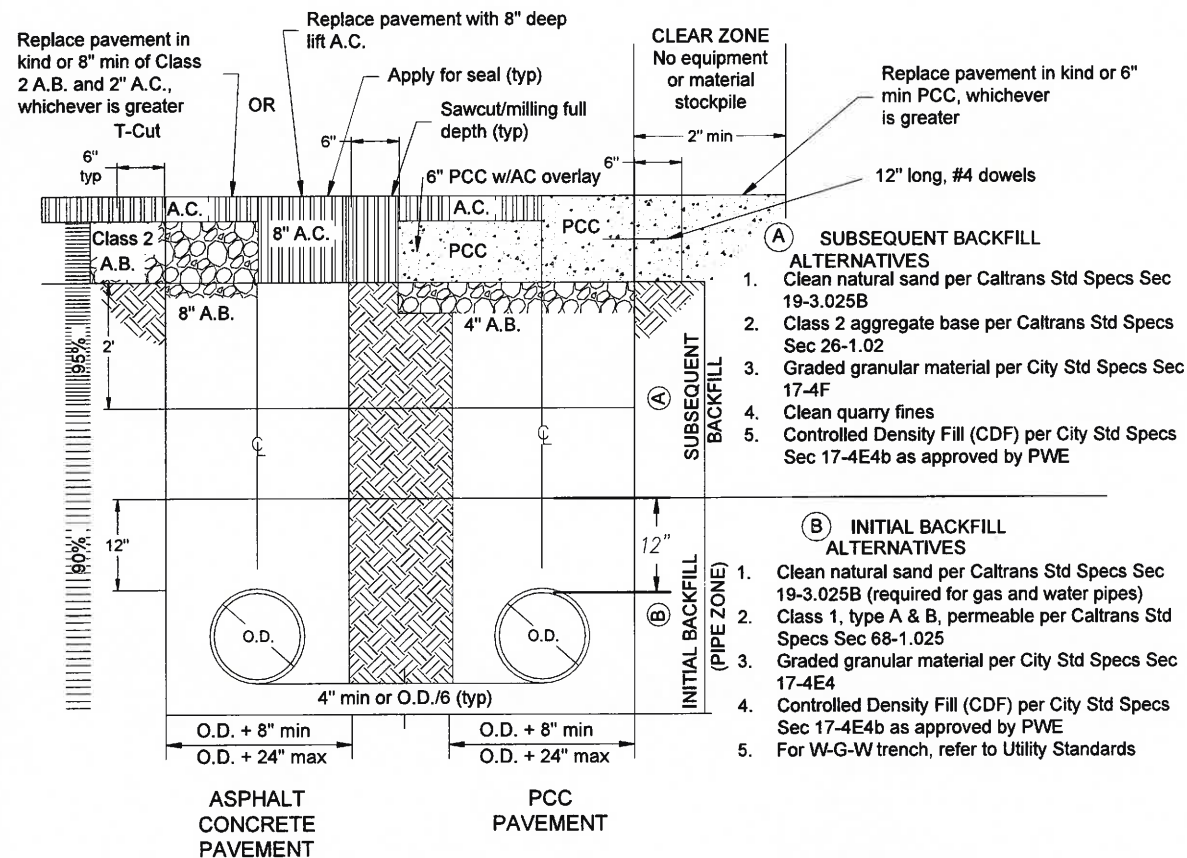
SITE NAME & ADDRESS:

ROW ADJACENT TO 251 EMERSON
ST NEAR 205 EVERETT AVE
PALO ALTO, CA
37.446387/-122.165387

DETAILS & NOTES

DRAWN BY: BMW	DRAFT DATE: 02/08/18	APPROVED BY: TT
SHEET NO. D-1		

CITY OF PALO ALTO
STANDARD
(DRAWING NO. 401)
TRENCHES
TYPICAL CROSS-SECTIONS
N.T.S.



(A) SUBSEQUENT BACKFILL

- ALTERNATIVES**
1. Clean natural sand per Caltrans Std Specs Sec 19-3.025B
 2. Class 2 aggregate base per Caltrans Std Specs Sec 26-1.02
 3. Graded granular material per City Std Specs Sec 17-4F
 4. Clean quarry fines
 5. Controlled Density Fill (CDF) per City Std Specs Sec 17-4E4b as approved by PWE

(B) INITIAL BACKFILL
ALTERNATIVES

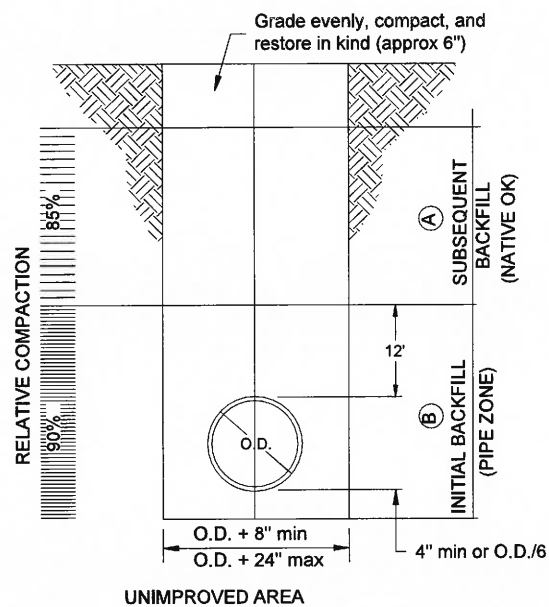
1. Clean natural sand per Caltrans Std Specs Sec 19-3.025B (required for gas and water pipes)
2. Class 1, type A & B, permeable per Caltrans Std Specs Sec 68-1.025
3. Graded granular material per City Std Specs Sec 17-4E4
4. Controlled Density Fill (CDF) per City Std Specs Sec 17-4E4b as approved by PWE
5. For W-G-W trench, refer to Utility Standards

GENERAL NOTES

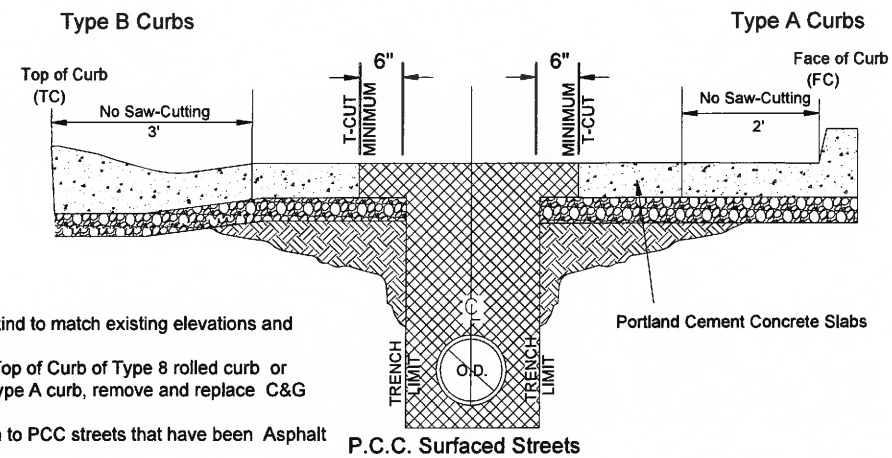
1. PCC shall contain a minimum of 6 sacks concrete with a desired 28-day strength of 3,500 PSI
2. Extend T-cut to lip of Gutter per City Std Specs 17-G
3. Refer to City Std Dwg 403 for trench limits of restoration
4. Match existing AC thickness on PCC overlays

JETTING NOTES

1. IMPROVED AREAS
 - a. INITIAL BACKFILL- jetting of sand OK
 - b. SUBSEQUENT BACKFILL- jetting of sand subject to approval of City Engineer, except for top 2 ft, which must be mechanically compacted
2. UNIMPROVED AREA: jetting of sand OK
3. WHEN JETTING IS PERMITTED:
 - a. Excess water shall be collected at low points and removed by pumping
 - b. Sand to be jetted shall be placed in lifts no thicker than 4 ft
 - c. Jetting shall be performed at intervals along the trench not to exceed 6 ft

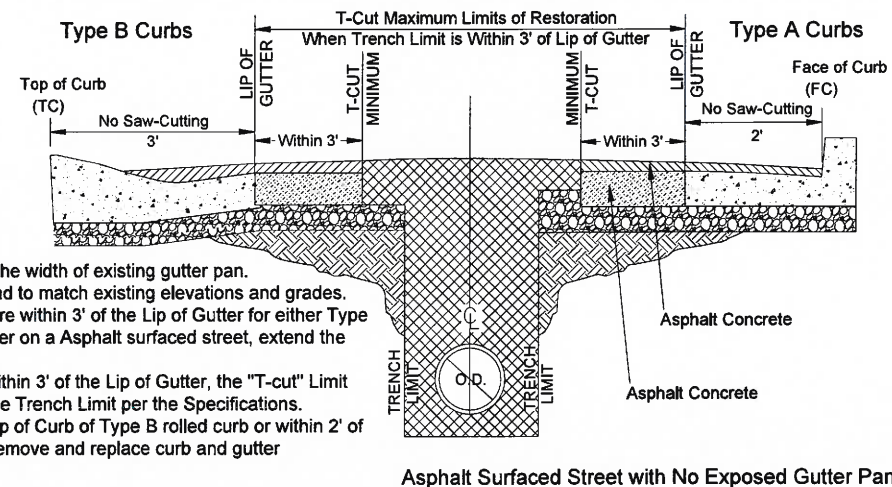


CITY OF PALO ALTO STANDARD
(DRAWING NO. 403)
TRENCHES
LIMITS OF RESTORATION
N.T.S.



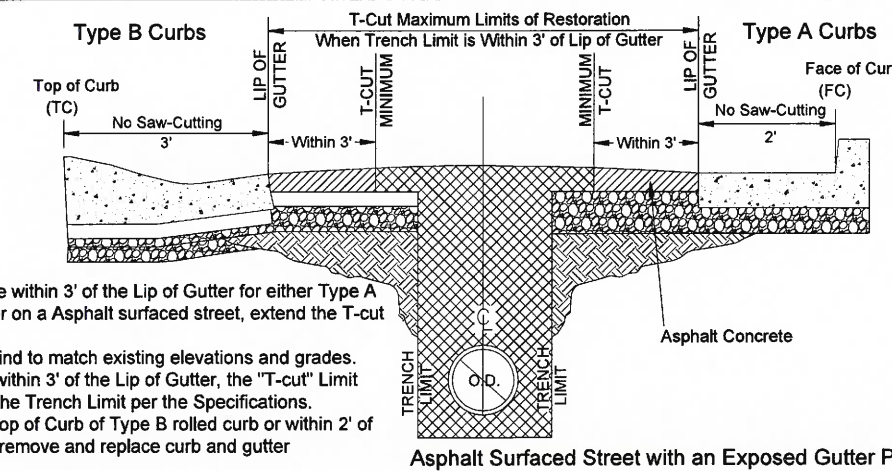
NOTES

1. Restore all materials in kind to match existing elevations and grades.
2. If Sawcut is within 3' of Top of Curb of Type 8 rolled curb or within 2' of the face of Type A curb, remove and replace C&G monolithically.
3. These notes also pertain to PCC streets that have been Asphalt overlaid.



NOTES

1. Remove asphalt to verify the width of existing gutter pan.
2. Restore all materials in kind to match existing elevations and grades.
3. When "Trench Limits" are within 3' of the Lip of Gutter for either Type A or Type B curb and gutter on a Asphalt surfaced street, extend the T-cut to the Lip of Gutter.
4. If "Trench Limit" is NOT within 3' of the Lip of Gutter, the "T-cut" Limit shall be located 6" from the Trench Limit per the Specifications.
5. If Sawcut is within 3' of Top of Curb of Type B rolled curb or within 2' of the face of Type A curb, remove and replace curb and gutter monolithically.



NOTES

1. When "Trench Limits" are within 3' of the Lip of Gutter for either Type A or Type B curb and gutter on a Asphalt surfaced street, extend the T-cut to the Lip of Gutter.
2. Restore all materials in kind to match existing elevations and grades.
3. If "Trench Limit" is NOT within 3' of the Lip of Gutter, the "T-cut" Limit shall be located 6" from the Trench Limit per the Specifications.
4. If Sawcut is within 3' of Top of Curb of Type B rolled curb or within 2' of the face of Type A curb, remove and replace curb and gutter monolithically.

SF PALO ALTO 020
PALO ALTO
CROWN CASTLE PROJECT NO.
VZW366241CA

CLIENT:

CROWN CASTLE

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SAN JOSE, CA 95134
www.crowncastle.com

PREPARED BY:

Coastal Communications
Telecommunications Engineering

5841 EDISON PLACE, SUITE 200
CARLSBAD, CA 92008
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ZONING COMMENTS	04/12/18
REVISION / ISSUE	DATE

REGISTERED PROFESSIONAL ENGINEER
JERRY L. MCCHAL
No. C42590
Exp. 03-31-20
CIVIL
STATE OF CALIFORNIA

SITE NAME & ADDRESS:

ROW ADJACENT TO 251 EMERSON
ST NEAR 205 EVERETT AVE
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37.446387/-122.165387

DETAILS & NOTES

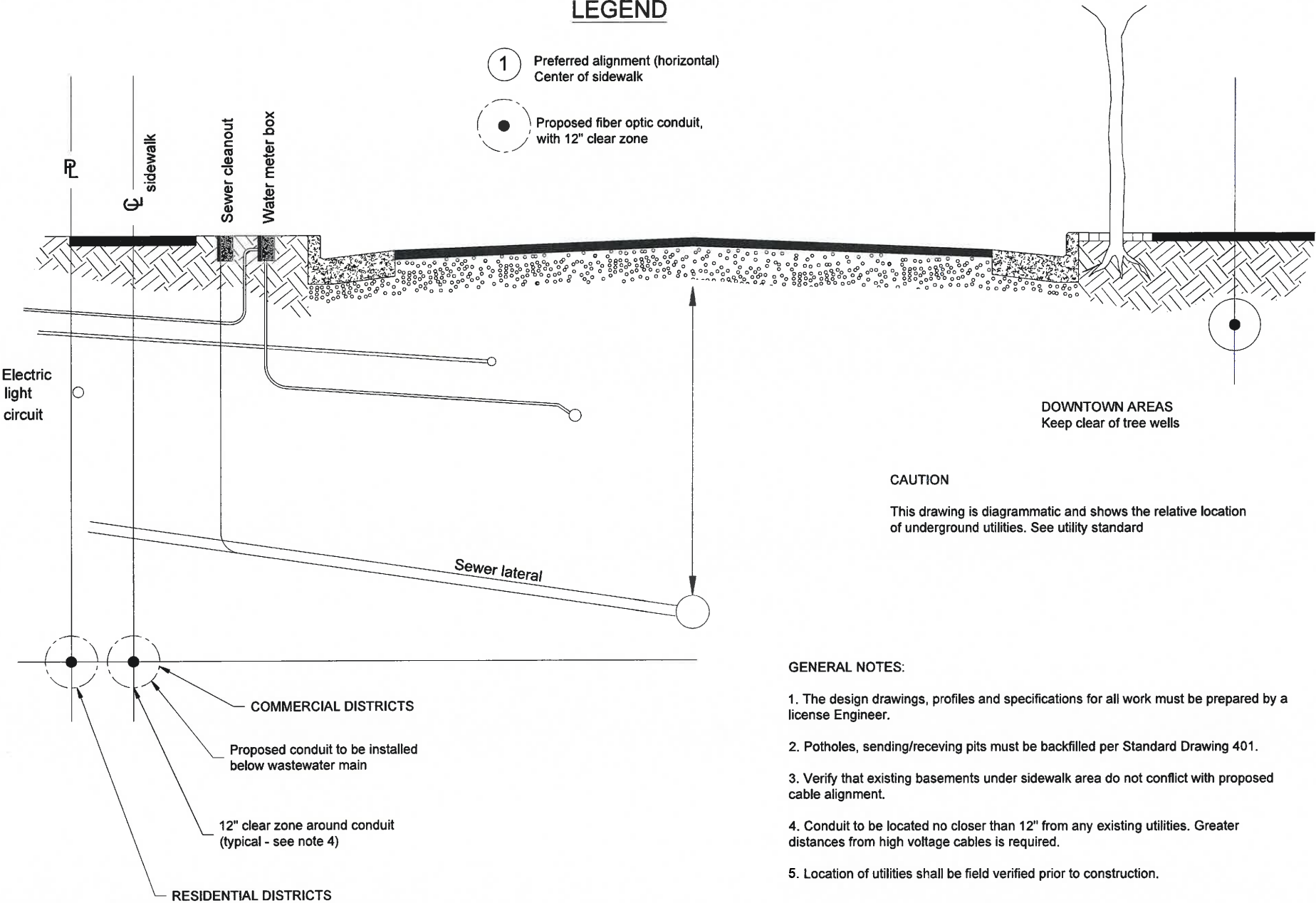
DRAWN BY:	DRAFT DATE:	APPROVED BY:
BMW	02/08/18	TT

SHEET NO.

D-2

CITY OF PALO ALTO STANDARD
(DRAWING NO. 402)
CONDUIT LOCATION DETAIL
TELECOMMUNICATIONS
N.T.S.

LEGEND



GENERAL NOTES:

1. The design drawings, profiles and specifications for all work must be prepared by a license Engineer.
2. Potholes, sending/receiving pits must be backfilled per Standard Drawing 401.
3. Verify that existing basements under sidewalk area do not conflict with proposed cable alignment.
4. Conduit to be located no closer than 12" from any existing utilities. Greater distances from high voltage cables is required.
5. Location of utilities shall be field verified prior to construction.

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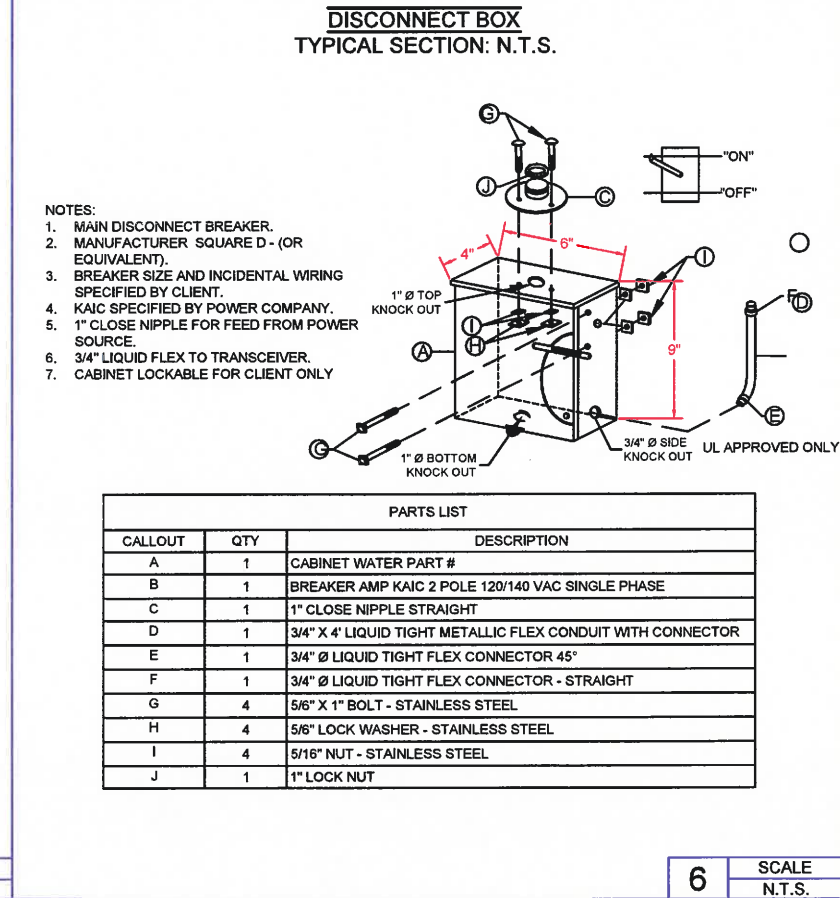
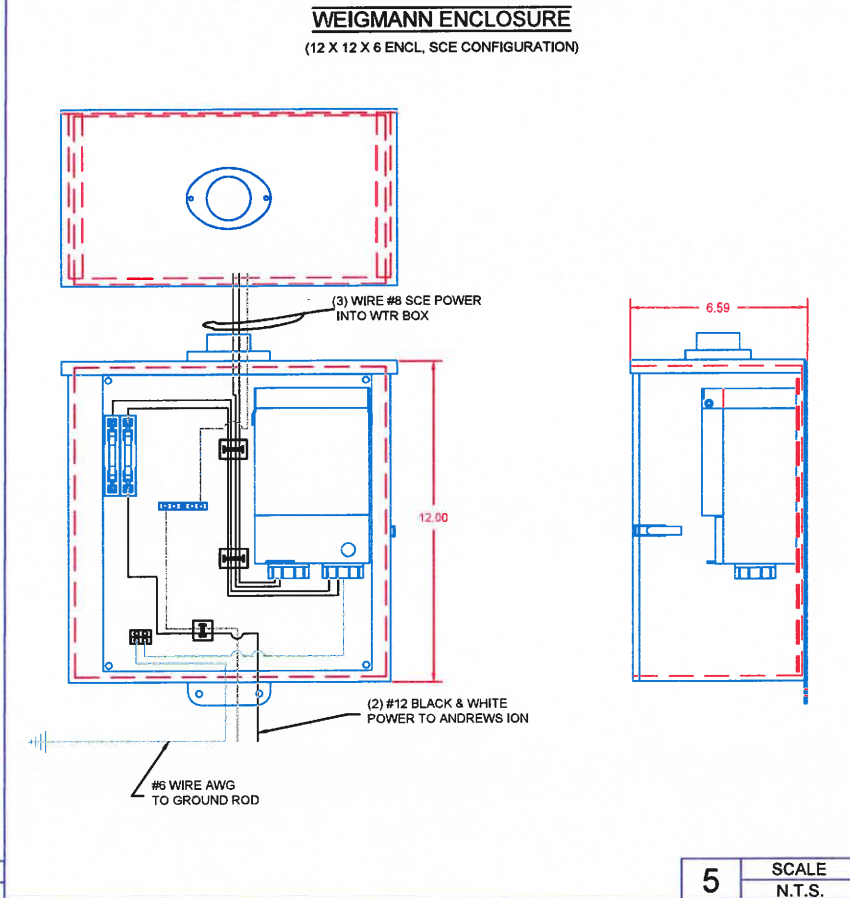
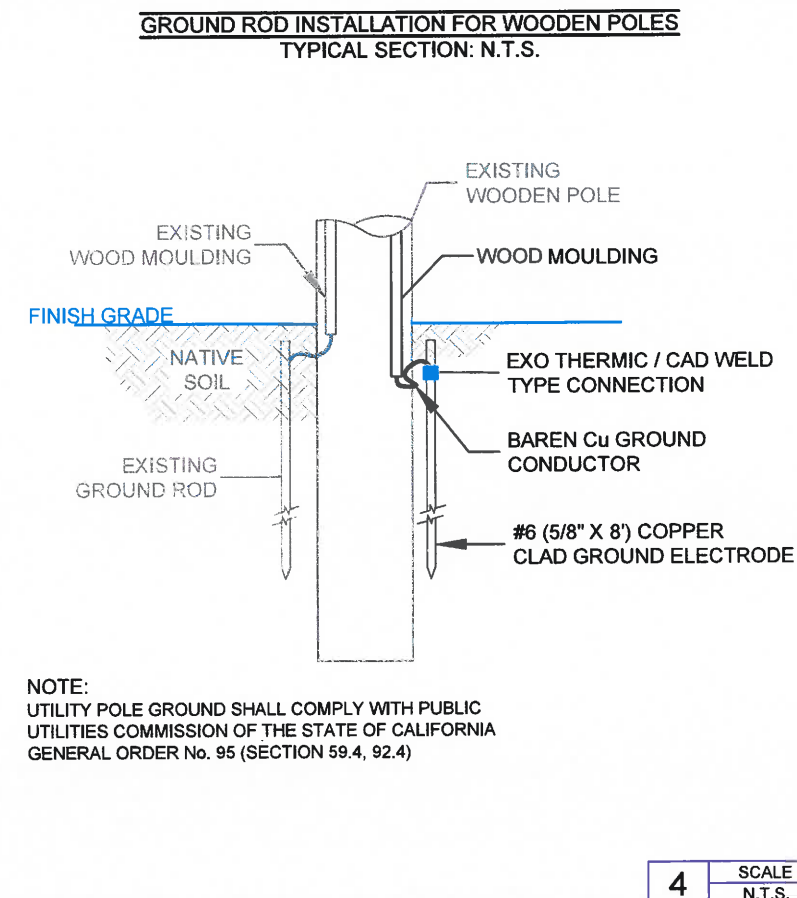
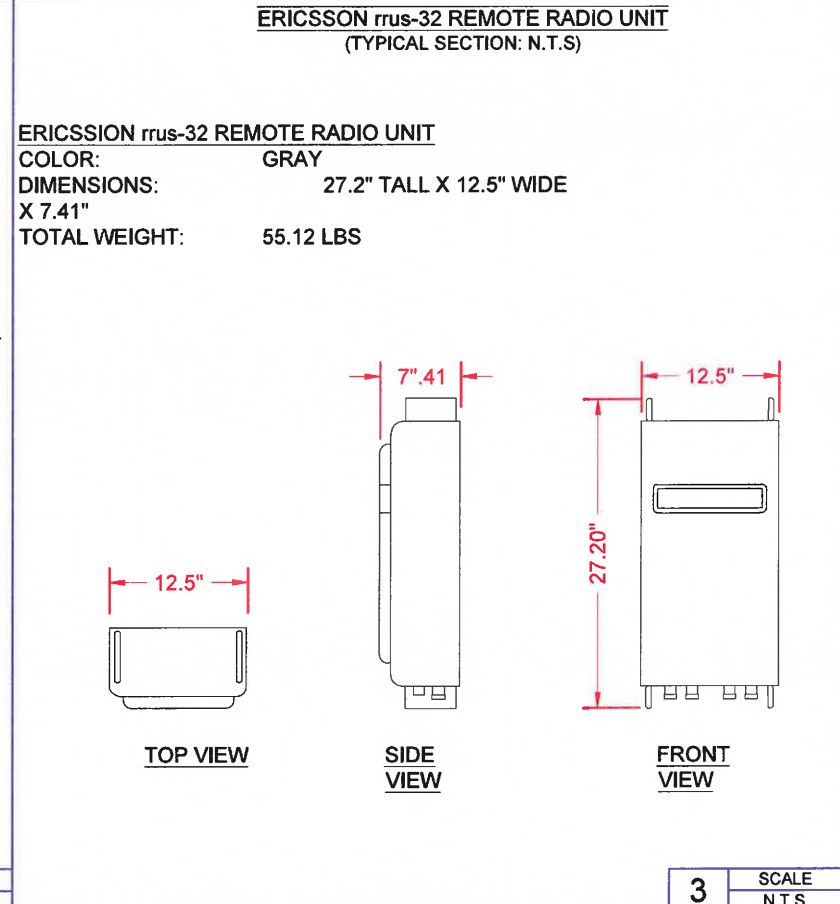
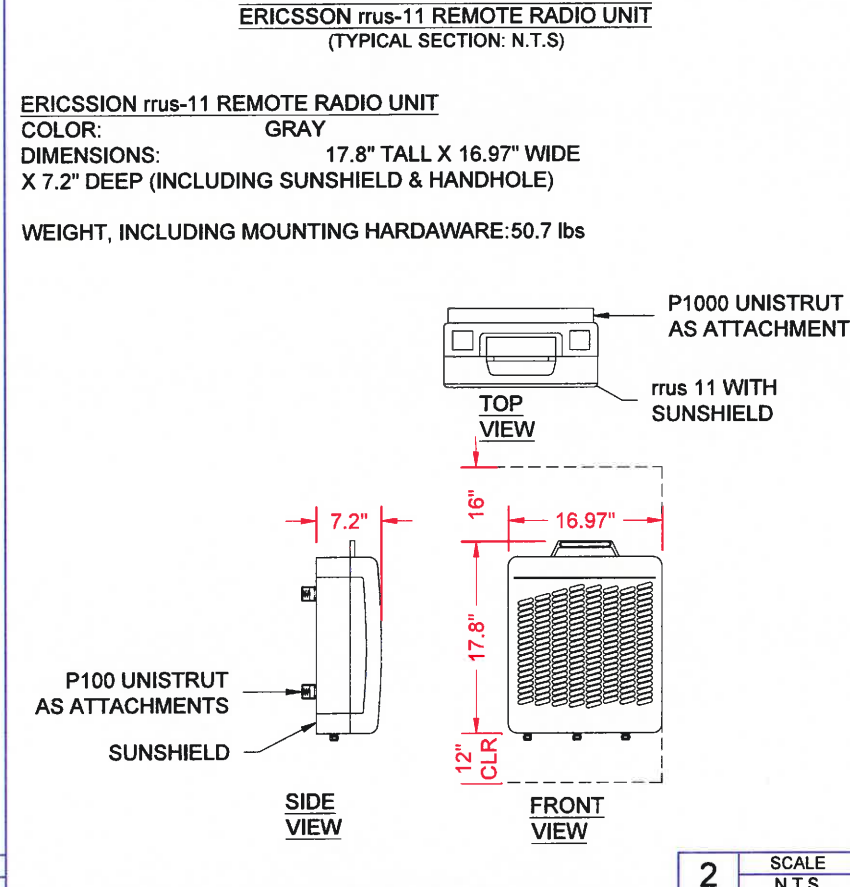
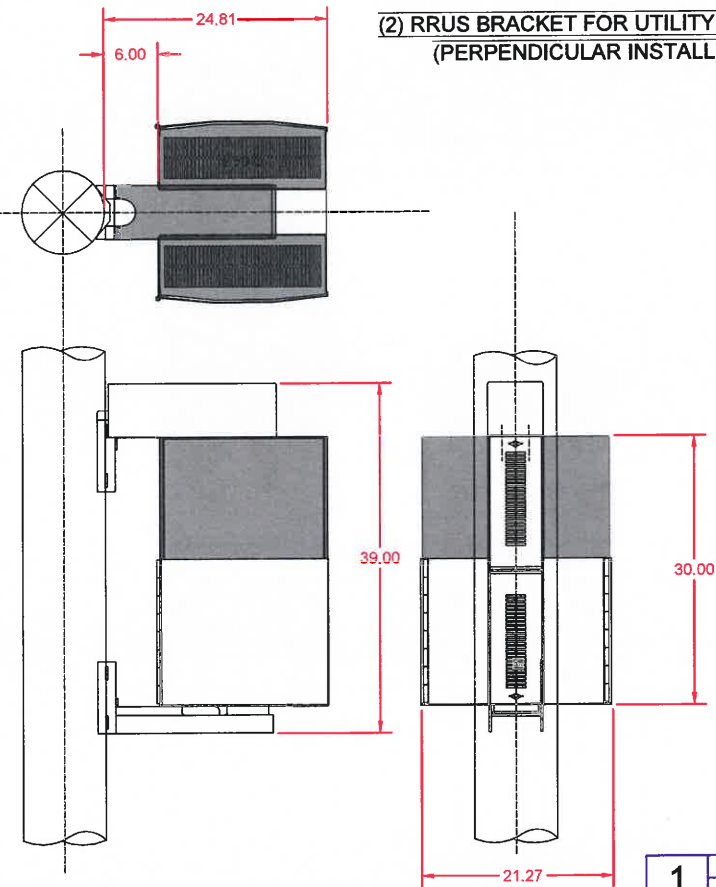


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DETAILS & NOTES

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SHEET NO.
D-3



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REGISTERED PROFESSIONAL ENGINEER
JERRY L. MICHAL
No. C42590
Exp. 03-31-20
CIVIL
STATE OF CALIFORNIA

SITE NAME & ADDRESS:
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DETAILS & NOTES

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SHEET NO.
D-4

CUUT360X12F124s0

Electrical Characteristics		Low Band		High Bands #1 and #2		
Frequency Bands (MHz)	696-960 MHz		(2x) 1695-2700 MHz			
	696-806	806-960	1695-1880	1850-1990	1920-2200	2300-2700
Polarization	±45°		(2x) ±45°			
Horizontal Beamwidth	360°	360°	360°	360°	360°	360°
Vertical Beamwidth	20°	15°	7.5°	7.0°	6.5°	6.0°
Gain	5.5 dBi	6.0 dBi	9.0 dBi	9.5 dBi	10.0 dBi	10.3 dBi
Electrical Downtilt (°)	(x) 0, 2, 4, 6, 8, 10, 12		(y) 0, 4, 8, 12			
Impedance	50Ω		50Ω			
VSWR	≤ 1.5:1		≤ 1.5:1			
Upper Sidelobe Suppression	> 15 dB		> 15 dB			
Isolation Between Ports	20 dB		25 dB			
IM3 (2x20W carrier)	< -153 dBc		< -153 dBc			
Input Power	(2x) 500 W		(4x) 300 W			
Duplexed	No					
Number of Sectors / Sector Spacing	3 Sectors / Pseudo Omni					
Lightning Protection	Direct Ground					
Mechanical Characteristics						
Antenna Dimensions (Height x Diameter)	1219 x 371 mm			48.0 x 14.6 in		
Weight without Mounting Bracket Kit	17.3 kg			38.1 lbs		
Antenna Volume	0.13 m³			4.7 ft³		
Survival Wind Speed	200 km/hr			125 mph		
Wind Area	0.47 m²			5.0 ft²		
Wind Load (160 km/hr or 100 mph)	391 N			88 lbf		



7 SCALE N.T.S.

WB3X-MKS-01

Utility Pole Mounting Kit for Cylindrical Antennas

Mounting Instructions

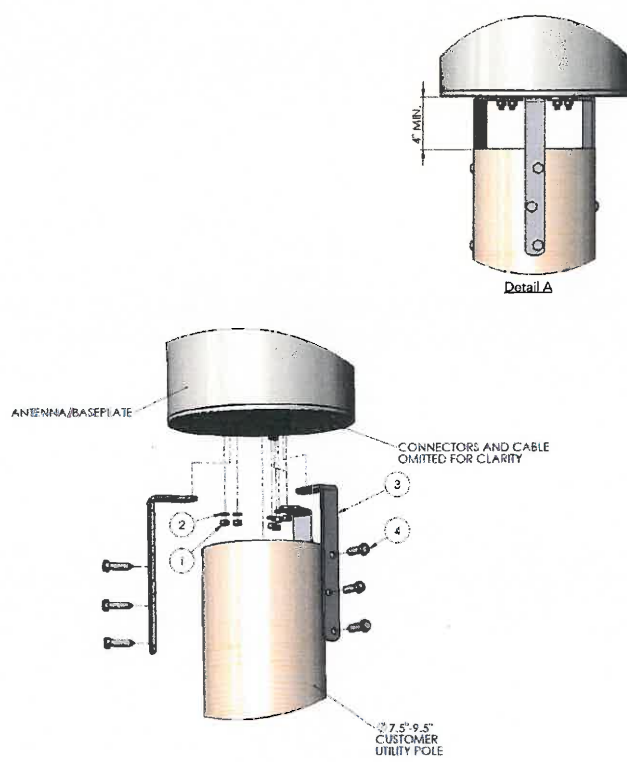
- Step 1 Attach pole mount brackets (Item 3) to antenna/base plate using fasteners (Items 1 and 2). Tighten to 15 N-m (11 ft-lb).
- Step 2 Attach pole mount brackets (Item 3)/antenna assembly to customer utility pole using lag screws (Item 4).
- Step 3 Make all electrical connections weatherproof with self-amalgamating tape.

Parts List	Description	Quantity
Item 1	Nut Hex, 3/8-16 HDG	6
Item 2	Lock Washer 3/8 HDG	6
Item 3	Pole Mount Bracket	3
Item 4	Galvanized Hex Lag Screw (1/2 x 2" Long)	9

Mechanical Characteristics

Weight 2.7 kg (6 lbs)

ANTENNA MOUNT
TYPICAL SECTION: N.T.S.



8 SCALE N.T.S.

NOTES

1. THE UNIT MEETS G.O. 95 REQUIREMENTS FOR STRENGTH IN CLASS 3 THROUGH 6 POLES AND THEREFORE MAY BE USED TO SUPPORT EQUIPMENT ON THESE CLASS POLES. IT MAY BE USED ON LARGER CLASS POLES, BUT MAY NOT SUPPORT EQUIPMENT ON THEM.
2. THE UNIT MAY BE GUYED.
3. THE BRACKET IS MADE TO FIT POLES WITH DIAMETERS OF 8" TO 11". THEREFORE, DEPENDING UPON ACTUAL POLE DIAMETER, TO FIT POLES OF CLASS AND SMALLER, A BRACKET ADAPTER MAY BE REQUIRED.
4. UNITS ARE SUPPLIED WITH THE WOOD BAYONET ASSEMBLED.
5. A POLE STEP KIT IS REQUIRED.

FIGURE 2
BRACKET ASSEMBLY AND BRACKET ADAPTER

TABLE 1	BILL OF MATERIALS
DESCRIPTION	
5' EXTENSION ASSEMBLY	180219
6' EXTENSION ASSEMBLY	180220
7' EXTENSION ASSEMBLY	180221
BRACKET ADAPTER	180222
3/4" X 10" MACHINE BOLTS	192412
POLE STEP KIT (2 UPPER, 2 LOWER)	180011

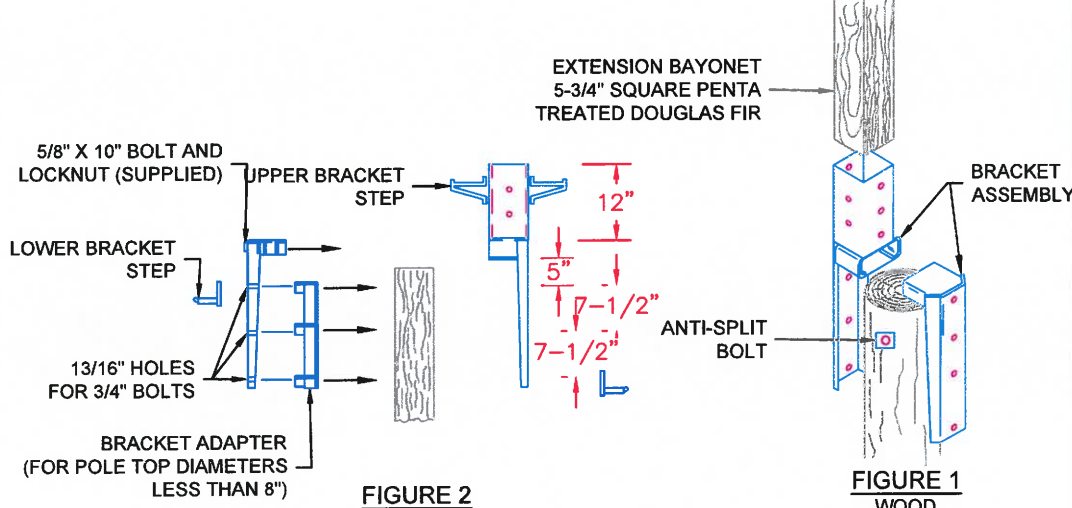


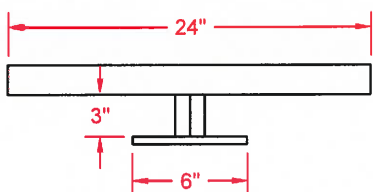
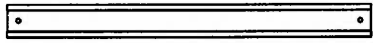
FIGURE 2

FIGURE 1
WOOD
EXTENSION
ASSEMBLY

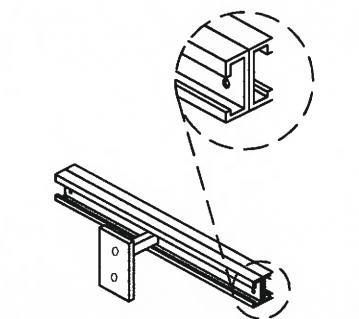
9 SCALE N.T.S.

STANDOFF BRACKET

FRONT VIEW OF STAND OFF BRACKET:



TOP VIEW STAND OFF BRACKET:



3D VIEW OF STAND OFF BRACKET:

10 SCALE N.T.S.

SF PALO ALTO 020
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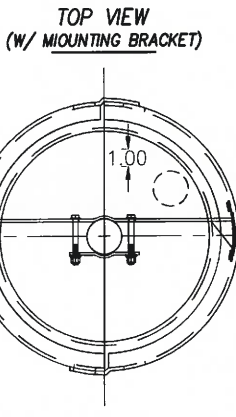
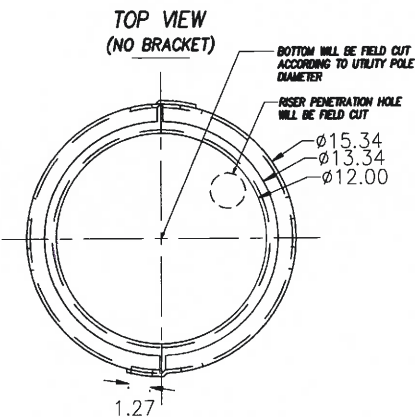
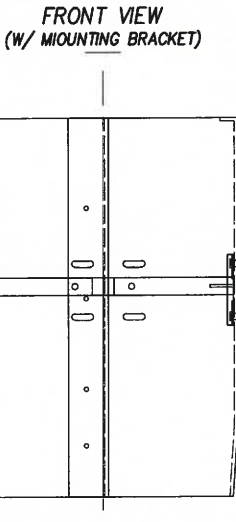
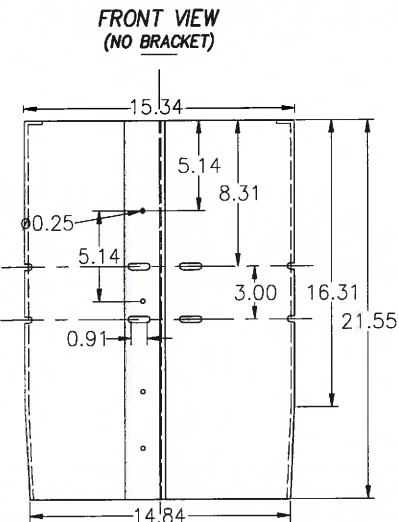
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Exp. 03-31-20
CIVIL
STATE OF CALIFORNIA

SITE NAME & ADDRESS:
ROW ADJACENT TO 251 EMERSON
ST NEAR 205 EVERETT AVE
PALO ALTO, CA
37.446387/-122.165387

DETAILS & NOTES

DRAWN BY: BMW	DRAFT DATE: 02/08/18	APPROVED BY: TT
SHEET NO. D-5		

CONCEALMENT COVER
TYPICAL SECTION: N.T.S.



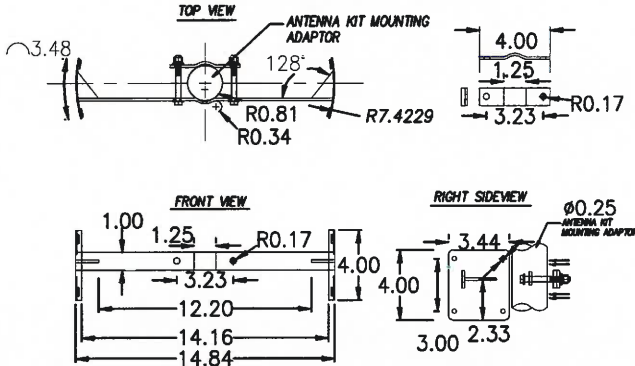
CYLINDER ANTENNA

MICROLAB 2-WAY SPLITTER

SPLITTER BRACKET

CUSTOM SHROUD TO FULLY ENCASE EQUIPMENT & MOUNTS
MINUS ANY CONNECTION POINT TO THE WOOD POLE

RADOME MOUNTING COMPONENTS



MOUNTING BRACKET

(DIA. POLE VARIES)

UTILITY POLE

NOTE: PAINT ANTENNA AND
CUSTOM CONCEALMENT
SHROUD TO MATCH POLE.

- NOTE:
1. CONCEALMENT COVER CAN BE ADJUSTED IN LENGTH TO PASS GROUND INSPECTION.
 2. SHROUD SHALL BE CONSTRUCTED OF 1/4" ABS PLASTIC.
 3. ALL MEASUREMENTS ARE IN INCHES.
 4. THE RISERS DO NOT CONNECT OR GO INTO THE ANTENNA SHROUD.
 5. THERE WILL BE A GAP (UP TO 6") FROM THE TOP OF THE RISER TO THE BOTTOM OF THE SHROUD.

SF PALO ALTO 020
PALO ALTO

CROWN CASTLE PROJECT NO.
VZW366241CA

CLIENT:

CROWN CASTLE
695 RIVER OAKS PARKWAY
SAN JOSE, CA 95134
www.crowncastle.com

PREPARED BY:

Coastal Communications
Telecommunications Engineering
5841 EDISON PLACE, SUITE 200
CARLSBAD, CA 92008
PHONE: (760) 929-0910
FAX: (760) 929-0936
www.coastalcommc.com

PROPRIETARY INFORMATION

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TICKET #

ZONING SUBMITTAL	03/03/18
ZONING COMMENTS	04/12/18
REVISION / ISSUE	DATE



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DETAILS & NOTES

DRAWN BY: BMW	DRAFT DATE: 02/08/18	APPROVED BY: TT
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SHEET NO.
D-6

The diagram illustrates the following components and connections:

- WTR Unit:** A large rectangular box at the top labeled "WTR".
- NEW WTR:** An arrow pointing to the left side of the WTR box.
- (N) 3 WIRE:** Three wires entering the WTR box from the left.
- LOAD:** A wire connecting the WTR box to a terminal block.
- NEUTRAL:** A wire connecting the WTR box to a terminal block.
- (N)(2) #12 AWG:** Two wires connected to the terminal block.
- TERMINAL BLOCK SPLICE/CONNECTION:** A box containing two circular terminals where wires are spliced.
- (N) BREAKER:** A switch symbol connected to the terminal block.
- (E) BREAKER BOX/LOAD CENTER:** A central hub containing multiple breakers.
- (N) BREAKER:** Two individual breaker symbols within the breaker box.
- (N)(8) #12 AWG / (N)(4) #10 AWG GND:** Grounding wires connecting the breaker box to a common ground bus.
- #2 ROUND WIRE TO GROUND ROD:** A vertical wire leading down to a ground rod symbol.
- (N) RADIO #1, #2, #3:** Three separate boxes representing radios, each receiving power and ground connections from the main system.
- GROUND:** Multiple points where neutral and load wires connect to a common ground bus.
- LOAD #6 NEUTRAL #6:** Labels on the bottom-most vertical wire bundle.

1. DO NOT INSTALL COAX GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
2. GROUNDING KIT SHALL BE TYPE AND PARK NUMBER AS SUPPLIED OR RECOMMENDED BY COAX MANUFACTURER.
3. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT, COLD SHRINK SHALL NOT BE USED.

				
<u>TYPE HS</u>	<u>TYPE 2-YA-2</u>	<u>TYPE XA</u>	<u>TYPE YA-2</u>	<u>TYPE GT</u>
				
<u>TYPE TA</u>	<u>TYPE VN</u>	<u>TYPE NC</u>	<u>TYPE SS</u>	<u>TYPE G</u>
				
<u>TYPE W</u>	<u>TYPE VS</u>	<u>TYPE VB</u>	<u>TYPE PT</u>	<u>TYPE GR</u>

ERICO EXOTHERMIC "MOLD TYPES" SHOWN HERE ARE
EXAMPLES. CONSULT WITH PROJECT MANAGER FOR
SPECIFIC MOLDS TO BE USED FOR THIS PROJECT.

Diagram illustrating the grounding assembly components and connections:

- GROUNDING CONDUCTOR**: The main cable being connected.
- HEAT SHRINK**: Applied to the conductor for insulation.
- 2 HOLE LONG BARREL DBL CRIMP LUG**: The terminal used to connect the conductor to the terminal block.
- APPLY AN ANTIOXIDE BEFORE CRIMPING (SEE NOTE 3 BELOW)**: Instruction for the crimping process.
- #6 CU GROUND KIT WITH 2 HOLE LONG BARREL GROUNDING LUG (SEE DETAIL)**: The kit used for the connection.
- Terminal Block**: A component with multiple terminals, labeled with callouts A, B, C, D, E, and F.
- Busbar**: A metal bar with a grid of holes, labeled with callout A.
- Dimensions**:
 - $\phi 7/16"$: Diameter of the busbar.
 - $3/4"$: Thickness of the busbar.
 - $3/4"$: Spacing between the terminals on the busbar.

1. CRIMP (COMPRESSION) TYPE TWO HOLE BOLTED TONGUE CONNECTORS SHALL BE USED TO TERMINATE STRANDED GROUNDING CONDUCTORS. THE CONNECTORS SHALL BE TIN PLATED COPPER, LONG BARREL LUG, AND SHALL BE LISTED FOR THEIR INTENDED USE BY AN NRTL.
2. CRIMP TYPE CONNECTORS USED ON SOLID CONDUCTORS MUST BE LISTED BY AN NRTL FOR USE ON SOLID CONDUCTORS, AND MUST BE CRIMPED WITH THE DIES SPECIFIED BY THE MANUFACTURER OF THE CONNECTOR. USE A HYDRAULIC CRIMPING TOOL.
3. WIRES SHALL BE INSERTED THE ENTIRE LENGTH OF THE LUG. ENSURE COAX OUTER INSULATION IS SNUG TO LUG BARREL. PROVIDE AN ANTIOXIDE COMPOUND ON THE CONDUCTOR BEFORE CRIMPING (NO OX). INSTALL A TRANSPARENT HEAT SHRINK INSULATING TUBING ALONG THE ENTIRE LENGTH OF THE CRIMP.
4. USE #6 AWG STRANDED-THOMAS & BETTS 455578 OR EQUIVALENT.

D-7

CITY OF PALO ALTO
TREE PROTECTION - IT'S PART OF THE PLAN!
Make sure your crews and subs do the job right!

Fenced enclosures around trees are essential to protect them by keeping the foliage canopy and branching structure clear from contact by equipment, materials and activities, preserving roots and soil conditions in an intact and non-compacted state, and identifying the Tree Protection Zone (TPZ) in which no soil disturbance is permitted and activities are restricted, unless otherwise approved. An approved tree protection report must be added to this sheet when project activity occurs within the TPZ of a regulated tree. For detailed information on Palo Alto's regulated trees and protection during development, review the City Tree Technical Manual (TTM) found at www.cityofpaloalto.org/trees/.



TREE DISCLOSURE STATEMENT

CITY OF PALO ALTO
Planning Division, 250 Hamilton Avenue
Palo Alto, CA 94301
(650) 329-2441
<http://www.cityofpaloalto.org>

Palo Alto Municipal Code, Chapter 8.10.040, requires disclosure and protection of certain trees located on private and public property, and that they be shown on submitted and approved site plans. A completed *tree disclosure statement* must accompany all permit applications that include exterior work, all demolition or grading permit applications, or other development activity.

PROPERTY ADDRESS: Right of way adjacent to 251 Emerson St Near 205 Everett Ave, Palo Alto, CA

Are there Regulated¹ trees on or adjacent to the property? ☒ YES ☐ NO (If no, proceed to Section 4)

[Sections 1- 4 MUST be completed by the applicant. Please circle and/or check where applicable.]

1. Where are the trees? Check those that apply. (Plans must be submitted showing all trees over 4" diameter)

- ☐ On the property
☐ On adjacent property overhanging the project site
☒ In the City planter strip or right-of-way easement within 30' of property line (Street Trees)*

*Street trees¹ require special protection by a fenced enclosure, per the attached instructions. Prior to receiving any permit, you must provide an authorized Street Tree Protection Verification form. Contact Public Works Operations at (650) 496-5953 for inspection of type I, II or III fencing (see attached Detail #605) required for all street trees.

2. Are there any Protected¹ or Designated¹ Trees? YES (Check where applicable) ☒ NO

- ☐ Protected Tree (s)
☐ Designated Tree (s)
☐ On or overhanging the property

3. Is there activity or grading within the dripline? (radius 10 times the trunk diameter) of these trees? YES ☐ NO ☒
If Yes, a *Tree Preservation Report* must be prepared by an ISA certified arborist and submitted for staff review (see TTM², Section 6.25). Attach this report to Sheet T-1, *Tree Protection, its Part of the Plan!*, per Site Plan Requirements.

4. Are the Site Plan Requirements** completed? ☒ YES ☐ NO

**Plans. Protection of Regulated trees during development require the following: (1) Plans must show the measured trunk diameter and canopy dripline; (2) Plans must denote, as a bold dashed line, a fenced enclosure area out to the dripline, per Sheet T-1 and Detail #605 -

<http://www.cityofpaloalto.org/trees/forms.htm> (See also TTM², Section 2.15 for area to be fenced)

I, the undersigned, agree to the conditions of this disclosure. I understand that knowingly or negligently providing false or misleading information in response to this disclosure requirement constitutes a violation of the Palo Alto Municipal Code Section 8.10.040, which can lead to criminal and/or civil legal action.

Signature: [Signature]
(Prop. Owner or Agent)

Print: Rochele Swanson

Date: 11/29/17

FOR STAFF USE:

Protective Fencing

Sections 5-6 must be completed by staff for the issuance of any development permit (demolition, grading or building permit).

5. Protected Trees. The specified tree fencing is in place. A written statement is attached verifying that protective fencing is correctly in place around protected and/or designated trees. YES NO
(N/A if there are no protected trees, check here ☐)

6. Street Trees. A signed Public Works Street Tree Protection Verification form is attached. YES NO
(N/A if there are no street trees, check here ☐)

¹ Regulated Trees - a) Street trees - trees on public property; b) Protected trees - Coast Live Oaks or Valley Oaks which are 11.5" in diameter or larger, Coast Redwoods which are 18" in diameter or larger, when measured 54" above natural grade; and Heritage trees are trees designated by City Council; and c) Designated Trees - commercial or non-residential property trees, which are part of an approved landscape plan.

² Palo Alto Tree Technical Manual (TTM) contains instructions for all requirements on this form, available at www.cityofpaloalto.org/trees/technical-manual.html

Tree technical Manual

To purchase the tree Technical Manual

June, 2001 First Edition

View by section:

- o Table of Contents (PDF, 87KB)
- o Intent and Purpose (PDF, 1.05MB)
- o Introduction - Use of Manual (PDF, 1.05MB)
- o Section 1.0 - Definitions (PDF, 96KB)
- o Section 2.0 - Protection of Trees During Construction (PDF, 259KB)
- o Section 3.0 - Removal, Replacement & Planting of Trees (PDF, 117KB)
- o Section 4.0 - Hazardous Trees (PDF, 105KB)
- o Section 5.0 - Tree Maintenance Guidelines (PDF, 110KB)
- o Section 6.0 - Tree Reports (PDF, 84KB)

View ALL sections:

- o Tree Technical Manual - Full (PDF, 1.84MB)

APPENDICES

- A. Palo Alto Municipal Code Chapter 8.10, Tree Preservation & Management Regulations
B: Tree City - USA
C: ISA Hazard Evaluation Form
D: List of Inherent Failure Patterns for Selected Species (Reference source) E: ISA Tree Pruning Guidelines (PDF, 1.85MB)
F: Tree Care Safety Standards, ANSI Z133.1-1994 (Reference source)
G: Pruning Performance Standards, ANSI A300-1995 (Reference source) H: Tree Planting Details, Diagram 504 & 505 I: Tree Disclosure Statement
J: Palo Alto Standard Tree Protection Instructions

SF PALO ALTO 020
PALO ALTO
CROWN CASTLE PROJECT NO.
VZW366241CA

CLIENT:

695 RIVER OAKS PARKWAY
SAN JOSE, CA 95134
www.crowncastle.com

PREPARED BY:

5841 EDISON PLACE, SUITE 200
CARLSBAD, CA 92008
PHONE: (760) 929-0910
FAX: (760) 929-0936
www.coastalcomminc.com

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SITE NAME & ADDRESS:
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ST NEAR 205 EVERETT AVE
PALO ALTO, CA
37.446387/-122.165387

SPECIAL TREE PROTECTION
INSTRUCTION SHEET

DRAWN BY: BMW DRAFT DATE: 02/08/18 APPROVED BY: TT

SHEET NO.
T1.1

CITY OF PALO ALTO
TREE PROTECTION - IT'S PART OF THE PLAN!
Make sure your crews and subs do the job right!

Fenced enclosures around trees are essential to protect them by keeping the foliage canopy and branching structure clear from contact by equipment, materials and activities, preserving roots and soil conditions in an intact and non-compacted state, and identifying the Tree Protection Zone (TPZ) in which no soil disturbance is permitted and activities are restricted, unless otherwise approved. An approved tree protection report must be added to this sheet when project activity occurs within the TPZ of a regulated tree. For detailed information on Palo Alto's regulated trees and protection during development, review the City Tree Technical Manual (TTM) found at www.cityofpaloalto.org/trees/.

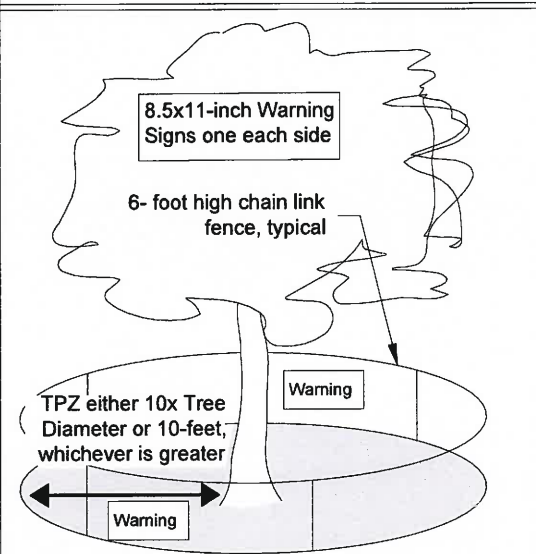


For written specifications associated with illustrations below, see Public Works Specifications Section 31

Detailed specifications are found in the Palo Alto Tree Technical Manual (TTM) (www.cityofpaloalto.org/trees/)

Tree Protection (TPZ) shown in gray (radius of TPZ equals 10-times the diameter of the tree or 10-feet, whichever is greater).

- Restricted activity area -- see Tree Technical Manual Sec 2.15(E).
- Restricted trenching area -- see Tree Technical Manual Sec 2.20(C-D), any proposed trench or form work within TPZ of a protected tree requires approval from Public Works Operations. Call 650-496-5953.



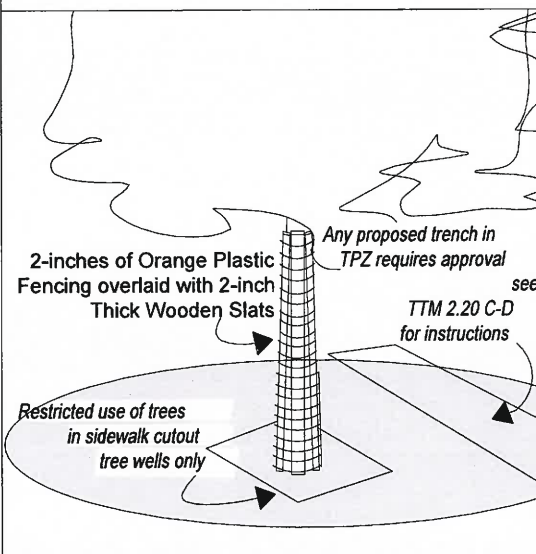
Type I Tree Protection

For all Ordinance Protected & Designated trees, as detailed in the site specific tree preservation report (TPR) prepared by the applicant's project arborist as diagramed on the plans.

Note: Ordinance Protected & Designated Trees. Issuance of a permit requires applicant's project arborist written verification Type I is installed correctly according to the plans and Tree Preservation Report

Any inadvertent sidewalk or curb replacement or trenching requires approval

Type II Tree Protection



Note: Street Trees. Issuance of a permit requires Public Works Operations inspection and signed approval on the Street Tree Verification (STV) form provided.

Type III Tree Protection

(to be used only with approval of Public Works Operations)

Tree fencing is required and shall be erected before demolition, grading or construction begins.



PALO ALTO STREET TREE PROTECTION INSTRUCTIONS --SECTION 31--

- Tree protection has three primary functions, 1) to keep the foliage canopy and branching structure clear from contact by equipment, materials and activities; 2) to preserve roots and soil conditions in an intact and non-compacted state and 3) to identify the Tree Protection Zone (TPZ) in which no soil disturbance is permitted and activities are restricted, unless otherwise approved.
- The Tree Protection Zone (TPZ) is a restricted area around the base of the tree with a radius of ten-times the diameter of the tree's trunk or ten feet; whichever is greater, enclosed by fencing.

31-2 Reference Documents

- Detail 605- illustration of situations described below.
- Tree Technical Manual (TTM) Forms (<http://www.cityofpaloalto.org/trees/>)
- Trenching Restriction Zones (TTM, Section 2.20(C))
- Arborist Reporting Protocol (TTM, Section 6.30)
- Site Plan Requirements (TTM, Section 6.35)
- Tree Disclosure Statement (TTM, Appendix J)
- Street Tree Verification (STV) Form (<http://www.cityofpaloalto.org/trees/forms>)

31-3 Execution

- Type I Tree Protection: The fence shall enclose the entire TPZ of the tree(s) to be protected throughout the life of the construction project. In some parking areas, if fencing is located on paving or concrete that will not be demolished, then the posts may be supported by an appropriate grade level concrete base, if approved by Public Works Operations.
- Type II Tree Protection: For trees situated within a planting strip, only the planting strip and yard side of the TPZ shall be enclosed with the required chain link protective fencing in order to keep the sidewalk and street open for public use.
- Type III Tree Protection: To be used only with approval of Public Works Operations. Trees situated in a tree well or sidewalk planter pit, shall be wrapped with 2-inches of orange plastic fencing from the ground to the first branch and overlaid with 2-inch thick wooden slats bound securely (slats shall not be allowed to dig into the bark). During installation of the plastic fencing, caution shall be used to avoid damaging any branches. Major limbs may also require plastic fencing as directed by the City Arborist.
- Size, type and area to be fenced. All trees to be preserved shall be protected with six (6') foot high chain link fences. Fences are to be mounted on two-inch diameter galvanized iron posts, driven into the ground to a depth of at least 2-feet at no more than 10-foot spacing. Fencing shall extend to the outer branching, unless specifically approved on the STV Form.
- 'Warning' signs. A warning sign shall be weather proof and prominently displayed on each fence at 20-foot intervals. The sign shall be minimum 8.5-inches x 11-inches and clearly state in half inch tall letters: "WARNING - Tree Protection Zone - This fence shall not be removed and is subject to a fine according to PAMC Section 8.10.110."
- Duration. Tree fencing shall be erected before demolition; grading or construction begins and remain in place until final inspection of the project, except for work specifically allowed in the TPZ. Work or soil disturbance in the TPZ requires approval by the project arborist or City Arborist (in the case of work around Street Trees). Excavations within the public right of way require a Street Work Permit from Public Works.
- During construction
 - All neighbors' trees that overhang the project site shall be protected from impact of any kind.
 - The applicant shall be responsible for the repair or replacement plus penalty of any publicly owned trees that are damaged during the course of construction, pursuant to Section 8.04.070 of the Palo Alto Municipal Code.
 - The following tree preservation measures apply to all trees to be retained:
 - No storage of material, topsoil, vehicles or equipment shall be permitted within the TPZ.
 - The ground under and around the tree canopy area shall not be altered.
 - Trees to be retained shall be irrigated, aerated and maintained as necessary to ensure survival.

END OF SECTION

City of Palo Alto 2004 Standard Drawings and Specifications
Street Tree Verification of Protection, PWE, Section 31

Revised 08/06

SF PALO ALTO 020
PALO ALTO
CROWN CASTLE PROJECT NO.
VZW366241CA

CLIENT:

CROWN
CASTLE
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PREPARED BY:

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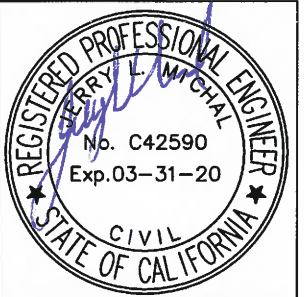


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SPECIAL TREE PROTECTION INSTRUCTION SHEET

DRAWN BY: BMW	DRAFT DATE: 02/08/18	APPROVED BY: TT
------------------	-------------------------	--------------------

SHEET NO.

T1.2

CITY OF PALO ALTO
TREE PROTECTION - IT'S PART OF THE PLAN!
Make sure your crews and subs do the job right!

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Table 2-2 Palo Alto Tree Technical Manual
ARBORIST INSPECTION SCHEDULE

All Checked Items Apply to this project:

- ☒ Inspection of Protective Tree Fencing. The Street Tree Verification Form shall be signed by the City Arborist. For other Protected Trees, the project arborist shall provide a written statement with a photograph verifying that he has conducted a field inspection of the trees and that the protective tree fencing is in place prior to issuance of a demolition, grading, or building permit. (see Verification of Tree Protection, Section 1.39).
- ☒ Pre-Construction Meeting. Prior to commencement of construction, the applicant or contractor shall conduct a pre-construction meeting to discuss tree protection with the job site superintendent, grading equipment operators, project arborist, City Arborist, and, if a city maintained irrigation system exists, the Parks Manager (Contact 650-496-6962).
- ☐ Inspection of Rough Grading. The project arborist shall perform an inspection during the course of rough grading ACROSS FROM the TPZ to ensure trees will not be injured by compaction, cut or fill, drainage and trenching, and if required, inspect aeration systems, tree wells, drains and special paving. The contractor shall provide the project arborist at least 48 hours advance notice of such activity.
- ☐ Monthly Inspections. The project arborist shall perform a monthly activity inspection to monitor and advise for conditions and tree health. The City Arborist shall be in receipt of the activity report during the first week of each calendar month or, immediately if there are any revisions to the approved plans or protection measures. Fax to (650) 329-2154. (see Monthly Inspection Report, Section 1.17).
- ☐ Special activity within the Tree Protection Zone. Work in this area (TPZ - described in #7 below) requires the direct onsite supervision of the project arborist (see Trenching, Excavation and Equipment, Section 2.20 C).
- ☐ Landscape Architect Inspection. For discretionary development projects, prior to temporary or final occupancy the applicant or contractor shall arrange for the Landscape Architect to perform an on site inspection of all plant stock, quality of the materials and planting (see Quality, Section 5.20.1 A) and that the irrigation is functioning consistent with the approved construction plans. The City shall be in receipt of written verification of Landscape Architect approval prior to scheduling the final inspection, unless otherwise approved.
- ☐ Other (please describe) _____



City of Palo Alto
Tree Department
Public Works Operations
PO Box 10250 Palo Alto, CA 94303
6501496-5953 FAX: 6501852-9289
treeprotection@CityofPaloAlto.org

Verification of
Street Tree Protection

Applicant Instruction: Complete upper portion of this form. Mail or FAX this form along with the signed tree Disclosure Statement to Public Works Dept. Public Works Tree Staff will inspect and notify applicant.

APPLICATION DATE:	
ADDRESS/LOCATION OF STREET TREES TO BE PROTECTED:	
APPLICANT'S NAME:	
APPLICANT'S ADDRESS:	
APPLICANT'S TELEPHONE & FAX NUMBERS:	

This section to be filled out by City Tree Staff

1. The Street Trees at the above address(es) are adequately protected. The type of protection used is:	YES NO *If NO, go to #2 below
Inspected by:	
Date of Inspection:	

2. The Street Trees at the above address are NOT adequately protected. The following modifications are required:	
Indicate how the required modifications were communicated to the applicant.	

Subsequent Inspection

Street trees at above address were found to be adequately protected: inspected by:	YES NO *If NO, indicate in "Notes" below the disposition of case.
Date of Inspection:	

Notes: List City street trees by species, site, condition and type of tree protection installed. Also note if pictures were taken. Use back of sheet if necessary.	
--	--

Return approved sheet to Applicant for demolition or building permit issuance.
S:PWD/OPS/Tree/DS/St TreeProtect

5/1706

SF PALO ALTO 020
PALO ALTO

CROWN CASTLE PROJECT NO.
VZW366241CA

CLIENT:



PREPARED BY:



PROPRIETARY INFORMATION

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SPECIAL TREE PROTECTION
INSTRUCTION SHEET

DRAWN BY: BMW DRAFT DATE: 02/08/18 APPROVED BY: TT

SHEET NO. T1.3

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Arborist Firm Data
Here

City of Palo Alto Tree
Technical Manual

ADDENDUM 11

email:
RCA/ISA Certified Arborist #WE-000
Conact Cell #:

Monthly Tree Activity Report- Construction Site			
Inspection Date:	Site Address:	Contractor- Main Site Contact Information	#1: Job site superintendent Company: Email: Job site: Office: Cell: Mail:
Inspection #	Palo Alto, CA	Also present:	• •
Distribution:	1. City of Palo Alto 2. Others	Attn: Dave Dockter	Dave.dockter@cityofpaloalto.org 650-329-2440

Provide the requested minimum information with each report, customize as necessary. To be completed by project site arborist. Send monthly to city arborist at above address until project completion. Use additional sheets as needed.

- Assignment Activity (Demolition/grading/sewer/trenching/foundation/list relevant visits)
 - Pre-construction meeting requirement with sub-contractors
 - Inspect to verify that tree protection measures are in place
 - Determine if field adjustments, watering or plan revisions may be needed
- Field Observations (general site-wide and list by individual tree number)
 - Tree Protection Fences (TPF) are...
 - Trenching has/will occur
- Action Items (list site-wide, by tree number and date to be satisfied) and Date Due
 - Tree Protection Fence (TPF) needs adjusting (tree # x, x, x)
 - Root zone buffer material (wood chips) can be installed next
 - Schedule sewer trench, foundation dig with...
- Photographs (use often)
- Tree location Map (mandatory 8.5 x 11 sheet)
- Recommendations, notes or monitor items for projects/staff/schedule
- Past visits (list carry-over items satisfied/still outstanding)

Respectfully submitted,

Project site arborist
Consultant contact information (Include email, cell #, and mailing)

Enter date CPA Monthly Tree activity Report: Type site address here

---WARNING---
Tree Protection Zone

This fencing shall not be removed
without City Arborist approval
(650-496-5953)

Removal without permission is
subject to a \$500 fine per day*

*Palo Alto Municipal Code Section 8.10.110

City of Palo Alto Tree Protection Instructions are located at
<http://www.cithofpalo-alto.ca.us/trees/technical-manual.html>

SPECIAL INSTRUCTIONS

PLANNING DEPARTMENT

TREE PROTECTION INSPECTIONS MANDATORY

PAMC 8.10 PROTECTED TREES. CONTRACTOR SHALL ENSURE PROJECT SITE ARBORIST IS PERFORMING REQUIRED TREE INSPECTION AND SITE MONITORING. PROVIDE WRITTEN MONTHLY TREE ACTIVITY REPORTS TO THE PLANNING DEPARTMENT LANDSCAPE REVIEW STAFF BEGINNING 14 DAYS AFTER BUILDING PERMIT ISSUANCE.

BUILDING PERMIT DATE: _____

DATE OF 1ST TREE ACTIVITY REPORT: _____

CITY STAFF: _____

REPORTING DETAILS OF THE MONTHLY TREE ACTIVITY REPORT SHALL CONFORM TO SHEET T-1 FORMAT, VERIFY THAT ALL TREE PROTECTION MEASURES ARE IMPLEMENTED AND WILL INCLUDE ALL CONTRACTOR ACTIVITY, SCHEDULED OR UNSCHEDULED, WITHIN A TREE A TREE PROTECTION ROOT ZONE. NON-COMPLIANCE IS SUBJECT TO VIOLATION OF PAMC 8.10.080. REFERENCE: PALO ALTO TREE TECHNICAL MANUAL, SECTION 2.00 AND ADDENDUM 11.

ALL OTHER TREE-RELATED REPORTS SHALL BE ADDED USING
ADDITIONAL "T" SHEETS AS NEEDED.

SF PALO ALTO 020
PALO ALTO

CROWN CASTLE PROJECT NO.
VZW366241CA

CLIENT:



PREPARED BY:



PROPRIETARY INFORMATION

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UNDERGROUND SERVICE ALERT
TICKET #

ZONING SUBMITTAL	03/03/18
ZONING COMMENTS	04/12/18
REVISION / ISSUE	DATE

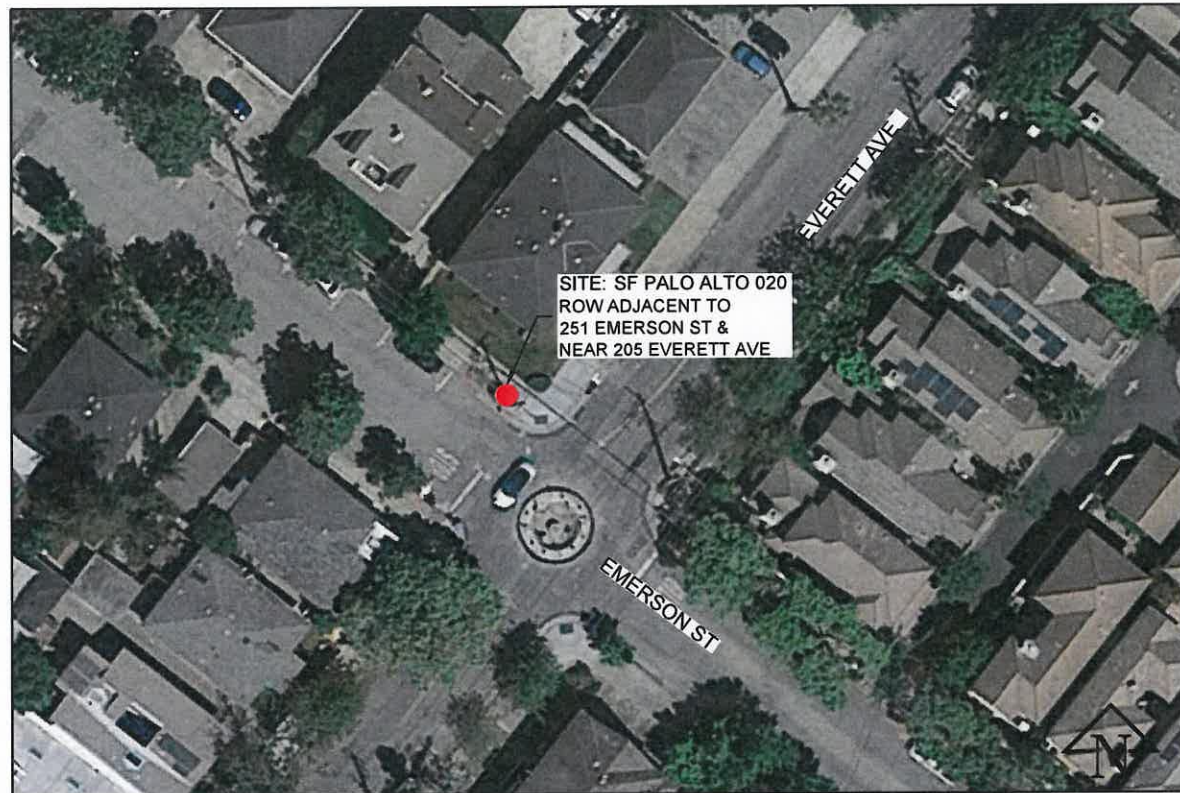


SITE NAME & ADDRESS:
ROW ADJACENT TO 251 EMERSON
ST NEAR 205 EVERETT AVE
PALO ALTO, CA
37.446387/-122.165387

SPECIAL TREE PROTECTION
INSTRUCTION SHEET

DRAWN BY: BMW DRAFT DATE: 02/08/18 APPROVED BY: TT

SHEET NO. T1.4



A KEY MAP



B 9 O'CLOCK VIEW



C 12 O'CLOCK VIEW



D 3 O'CLOCK VIEW

**SF PALO ALTO 020
PALO ALTO**

CROWN CASTLE PROJECT NO.
VZW366241CA

CLIENT:

**CROWN
CASTLE**
695 RIVER OAKS PARKWAY
SAN JOSE, CA 95134
www.crowncastle.com

PREPARED BY:

Coastal Communications
Telecommunications Engineering
5841 EDISON PLACE, SUITE 200
CARLSBAD, CA 92008
PHONE: (760) 929-0910
FAX: (760) 929-0956
www.coastalcomminc.com

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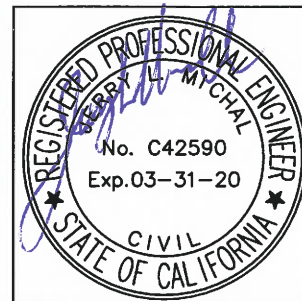
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SITE NAME & ADDRESS:
ROW ADJACENT TO 251 EMERSON
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37.446387/-122.165387

PHOTOS

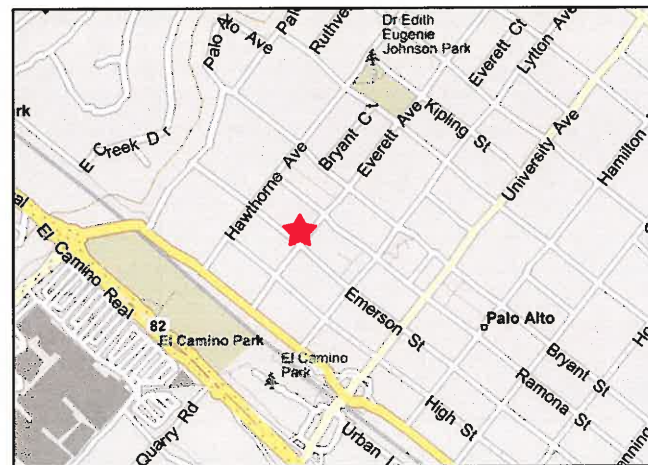
DRAWN BY: BMW	DRAFT DATE: 02/08/18	APPROVED BY: TT
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SHEET NO.
P-1



Existing Site

**SF PALO ALTO 020
ROW ADJACENT TO
251 EMERSON ST &
NEAR 205 EVERETT AVE
PALO ALTO, CA**



Vicinity Map



Proposed Site

**SF PALO ALTO 020
PALO ALTO**

CROWN CASTLE PROJECT NO.
VZW366241CA

CLIENT:



PREPARED BY:



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37.446387/-122.165387

PHOTOSIM

DRAWN BY: BMW	DRAFT DATE: 02/08/18	APPROVED BY: TT
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SHEET NO.
P-2

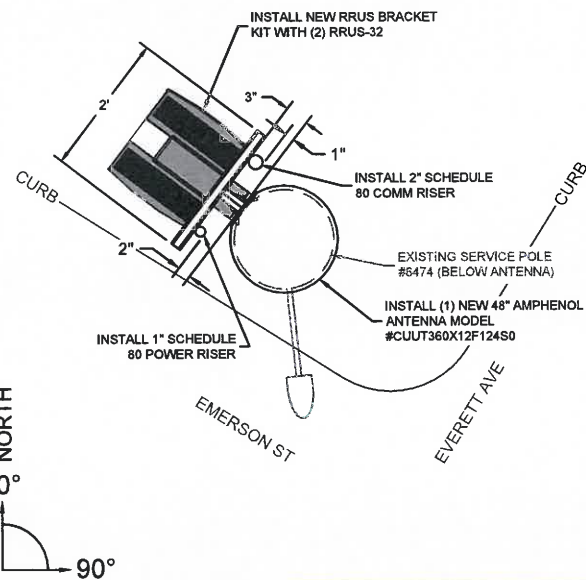
POLE # 6474
TOP OF EXISTING POLE: 34'-4" AGL (40' POLE)
TOP OF ANTENNA(S): 45' - 8"
RAD CENTER: 43' - 8"
AZIMUTH(S): OMNI
PROFILE VIEW: 9 O' CLOCK ELEVATION

A NOTES

CROWN CASTLE TO INSTALL THE FOLLOWING:

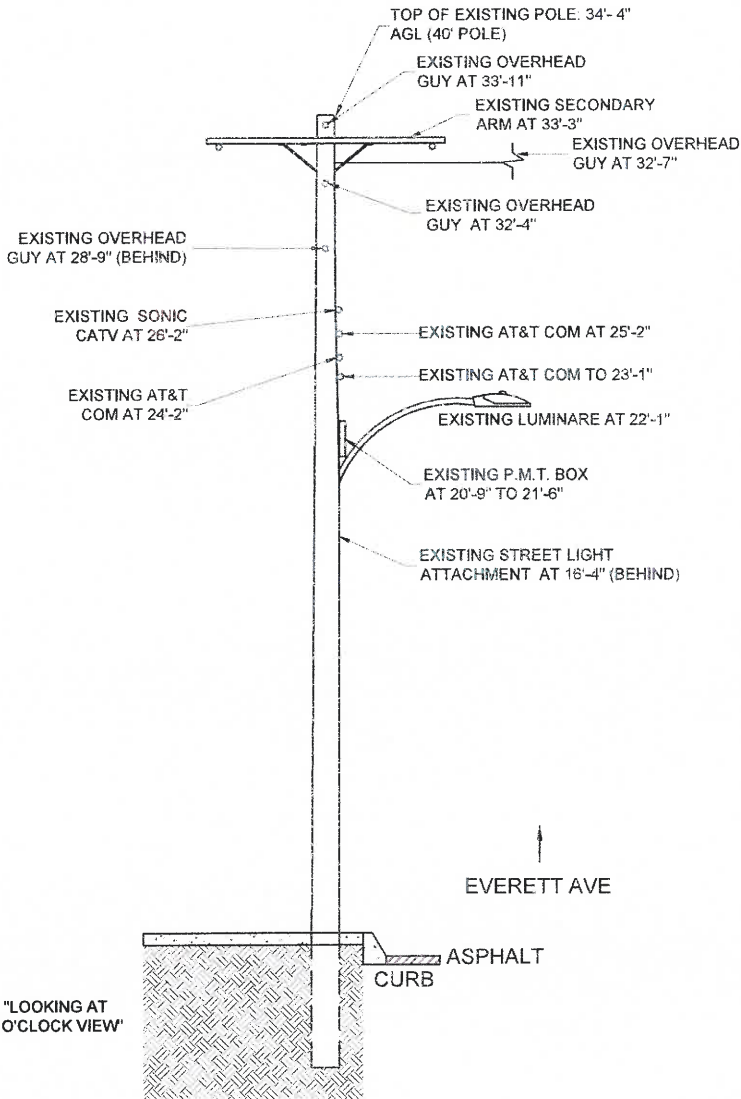
- INSTALL VGR.
- INSTALL NEW POWER DISCONNECT BOX ON STANDOFF BRACKET AT 8'-0" TO 8'-9".
- INSTALL NEW WTR ENCLOSURE ON STANDOFF BRACKET AT 9'-6" TO 10'-6".
- INSTALL NEW STANDOFF BRACKET KIT WITH (1) RRUS-11 AT 11'-0" TO 12'-5".
- INSTALL NEW RRUS BRACKET KIT WITH (2) RRUS-32 AT 13'-0" TO 16'-3".
- INSTALL 1" SCHEDULE 80 POWER RISER.
- INSTALL CROWN CASTLE FIBER AT 27'-2".
- INSTALL STANDOFF BRACKET (TYP.).
- INSTALL 2" SCHEDULE 80 COMM RISER.
- INSTALL 5'-6" POLE MOUNTED EXTENSION & (1) NEW 48" AMPHENOL ANTENNA MODEL #CUUT360X12F124S0 WITH CUSTOM SHROUD CONCEALMENT COVER.
- INSTALL NOTICE & CAUTION SIGNS.
- ALL EQUIPMENT SHALL BE PAINTED TO MATCH TEXTURE AND COLOR.
- NO GROUND DISTURBANCE NECESSARY.

B CONSTRUCTION NOTES



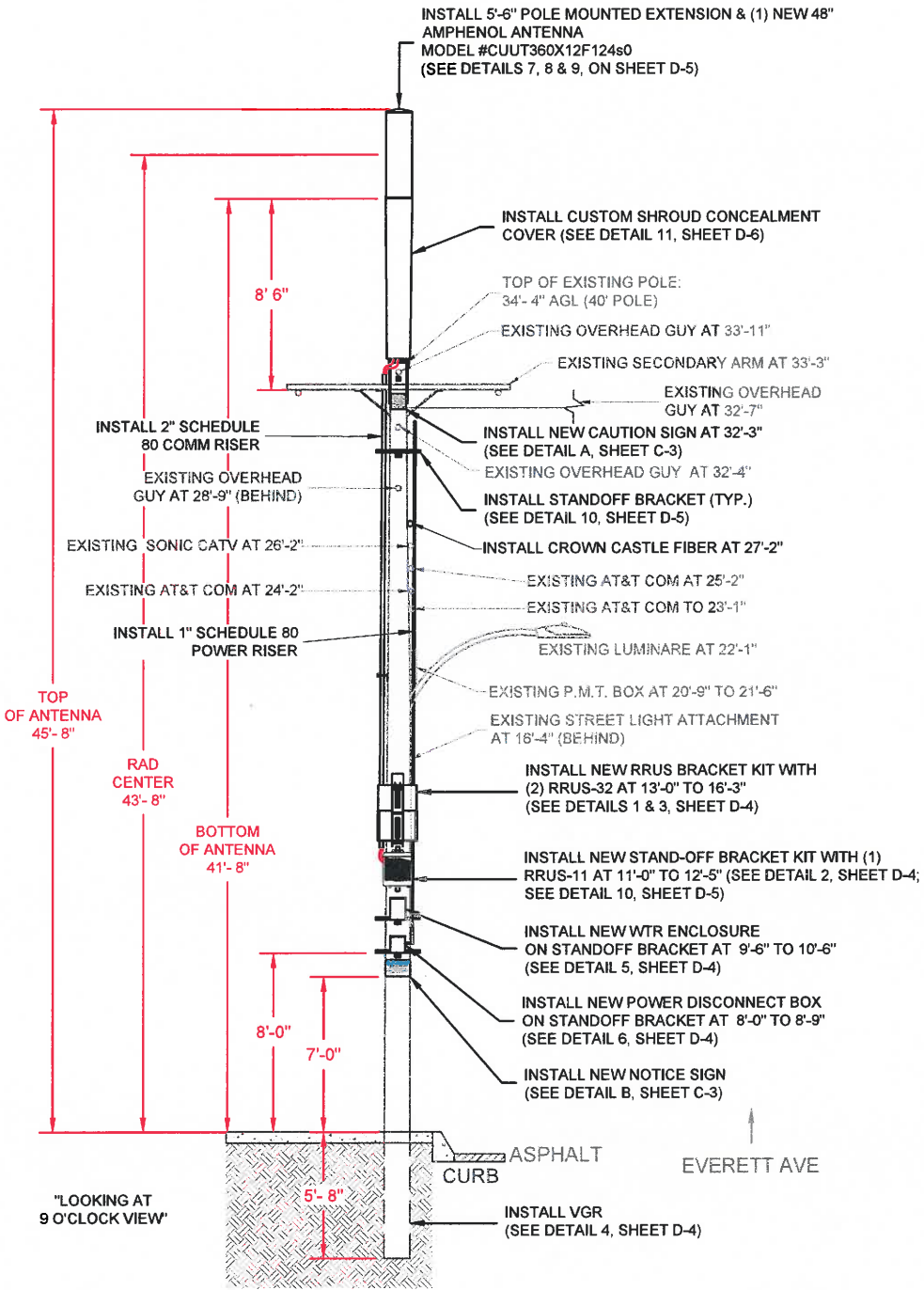
C TOP VIEW

N.T.S.



D EXISTING - 9 O'CLOCK ELEVATION

11"x17" SCALE: 1/8" = 1'-0"
24"x36" SCALE: 1/4" = 1'-0"



E PROPOSED - 9 O'CLOCK ELEVATION

11"x17" SCALE: 1/8" = 1'-0"
24"x36" SCALE: 1/4" = 1'-0"

**SF PALO ALTO 020
PALO ALTO**

CROWN CASTLE PROJECT NO.
VZW366241CA

CLIENT:



PREPARED BY:



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REVISION / ISSUE	DATE



SITE NAME & ADDRESS:
ROW ADJACENT TO 251 EMERSON
ST NEAR 205 EVERETT AVE
PALO ALTO, CA
37.446387/-122.165387

PROFILE

DRAWN BY: BMW	DRAFT DATE: 02/08/18	APPROVED BY: TT
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SHEET NO.

P-3

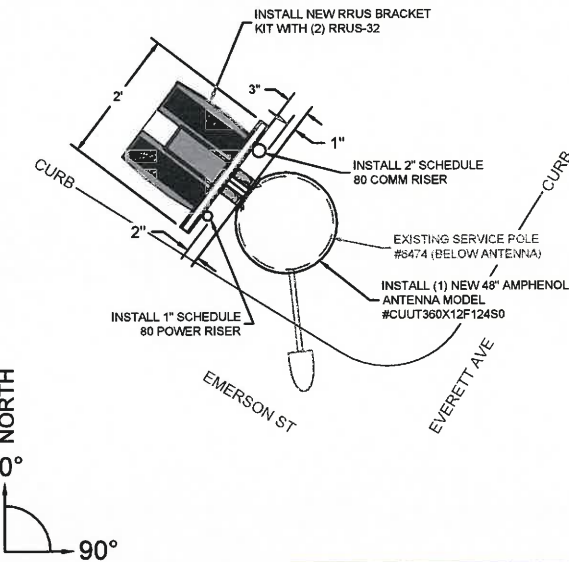
POLE # 6474
TOP OF EXISTING POLE: 34'-4" AGL (40' POLE)
TOP OF ANTENNA(S): 45' - 8"
RAD CENTER: 43' - 8"
AZIMUTH(S): OMNI
PROFILE VIEW: 12 O' CLOCK ELEVATION

F NOTES

CROWN CASTLE TO INSTALL THE FOLLOWING:

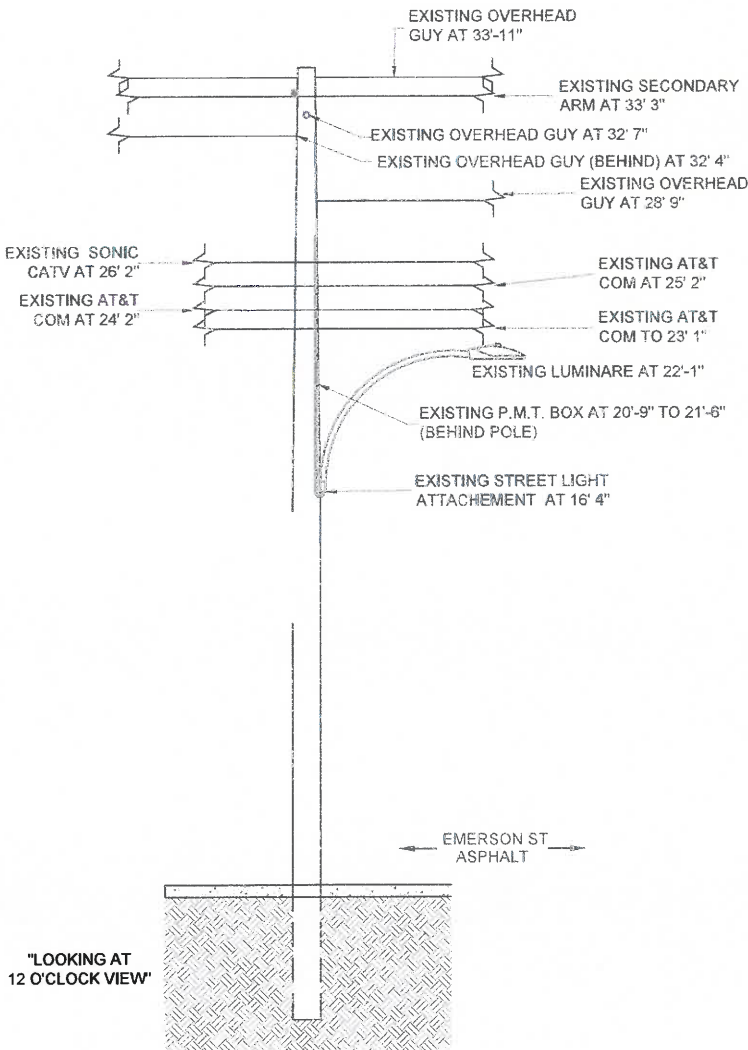
- INSTALL VGR.
- INSTALL NEW POWER DISCONNECT BOX ON STANDOFF BRACKET AT 8'-0" TO 8'-9".
- INSTALL NEW WTR ENCLOSURE ON STANDOFF BRACKET AT 9'-6" TO 10'-6".
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- INSTALL NOTICE & CAUTION SIGNS.
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G CONSTRUCTION NOTES



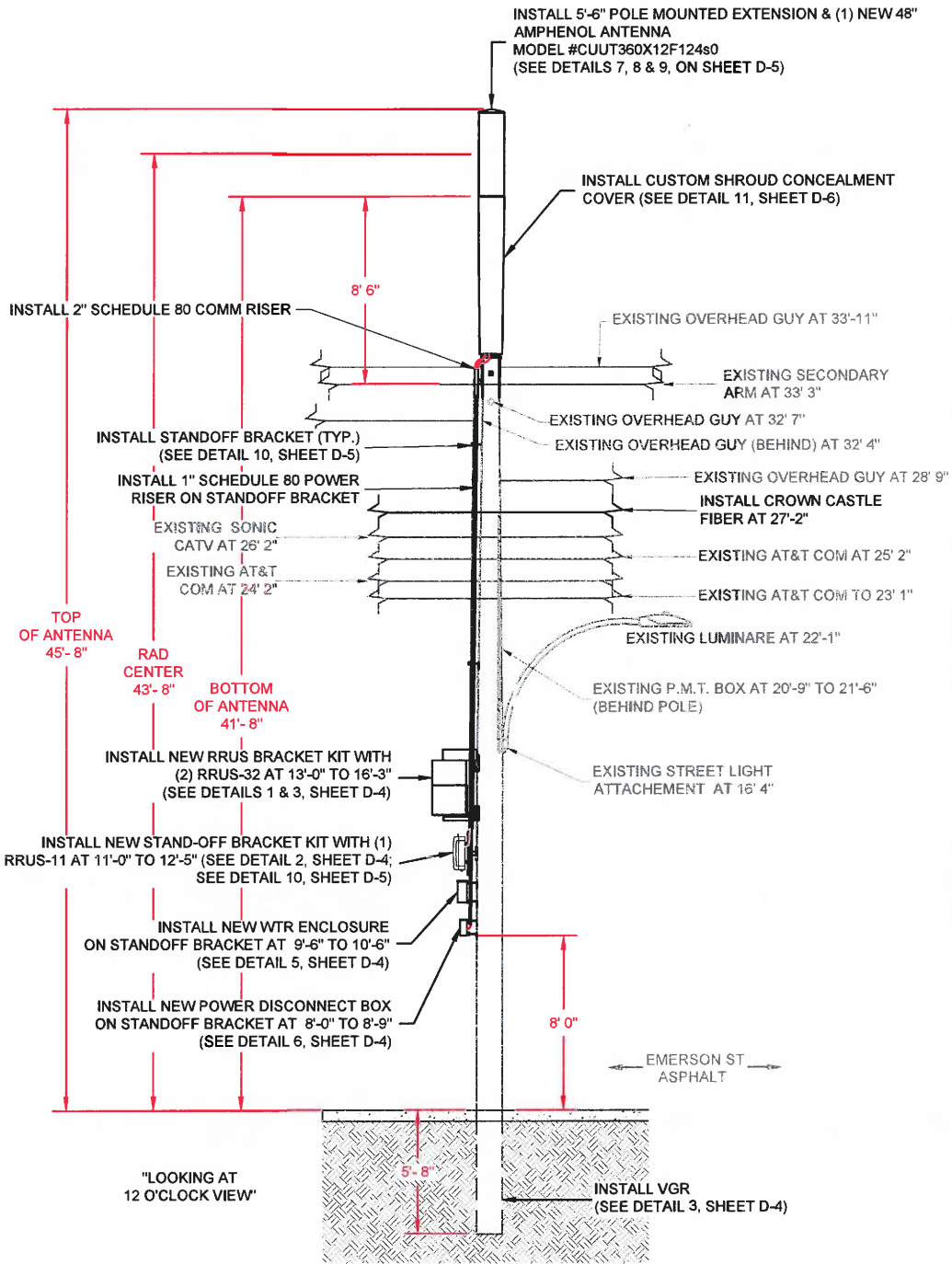
H TOP VIEW

N.T.S.



I EXISTING - 12 O'CLOCK ELEVATION

11"x17" SCALE: 1/8" = 1'-0"
24"x36" SCALE: 1/4" = 1'-0"



J PROPOSED - 12 O'CLOCK ELEVATION

11"x17" SCALE: 1/8" = 1'-0"
24"x36" SCALE: 1/4" = 1'-0"

NOTE: ALL EQUIPMENT SHALL BE PAINTED TO MATCH EXISTING POLE.

**SF PALO ALTO 020
PALO ALTO**

CROWN CASTLE PROJECT NO.
VZW366241CA

CLIENT:



PREPARED BY:



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REVISION / ISSUE	DATE



SITE NAME & ADDRESS:
ROW ADJACENT TO 251 EMERSON
ST NEAR 205 EVERETT AVE
PALO ALTO, CA
37.446387/-122.165387

PROFILE

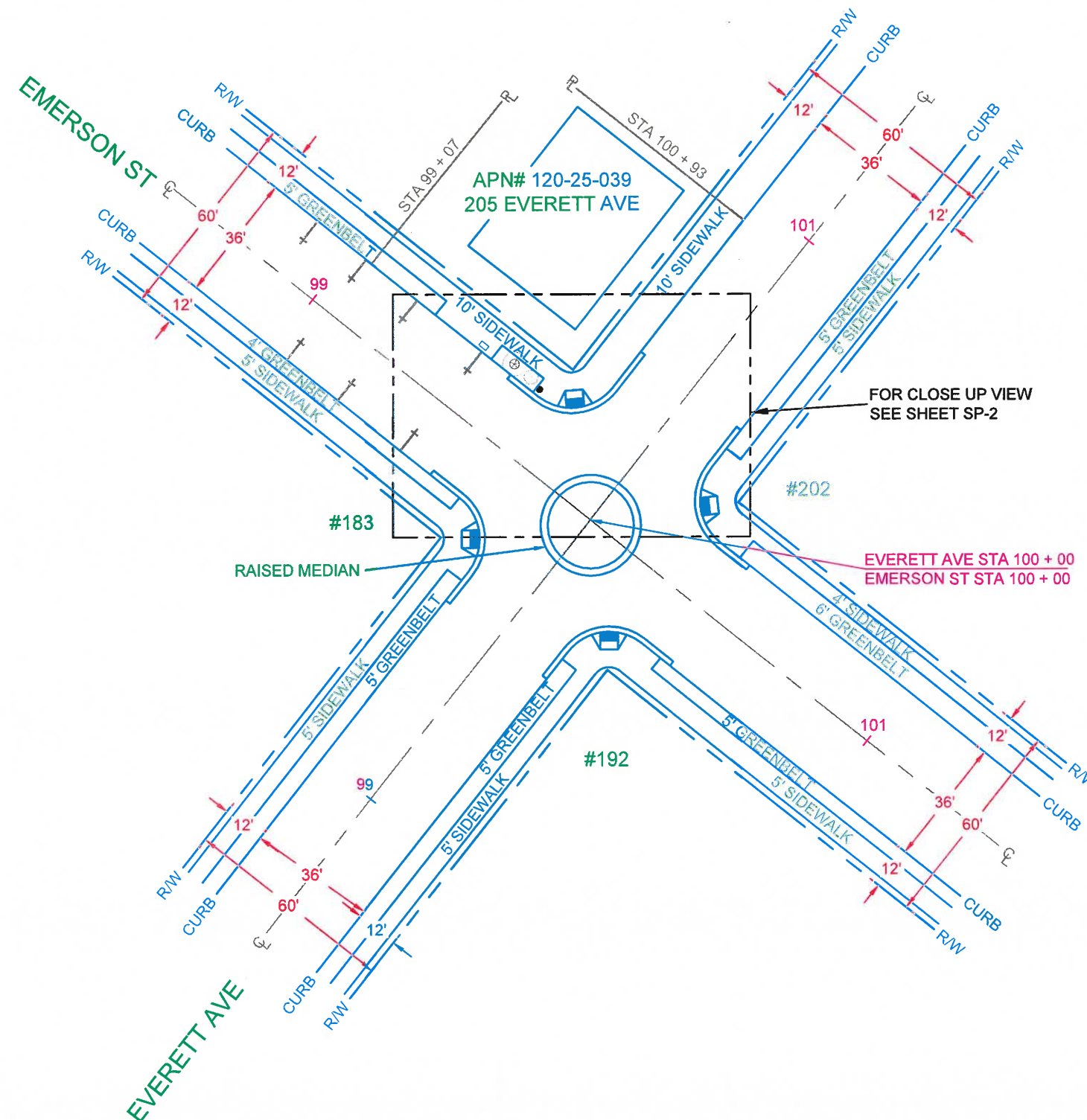
DRAWN BY: BMW	DRAFT DATE: 02/08/18	APPROVED BY: TT
------------------	-------------------------	--------------------

SHEET NO.
P-4

NO GROUND DISTURBANCE
NECESSARY

TREE PROTECTION IS REQUIRED
AND SHALL BE ERECTED
AROUND ANY TREE WITHIN 15' OF
IMPROVEMENTS OR WORK ZONE
BEFORE CONSTRUCTION BEGINS.
REFER TO SHEETS T1.1 - T1.4.

IN CASE OF ENCOUNTERING
MASSIVE / EXTENSIVE TREE
ROOTS AROUND WORK AREA
DURING CONSTRUCTION,
CONTACT CITY OF PALO ALTO
ARBORIST AT (650) 496-5953 FOR
FURTHER GUIDANCE &
SUPERVISION



NORTH



11"x17" SCALE: 1" = 40'
24"x36" SCALE: 1" = 20'

SF PALO ALTO 020
PALO ALTO

CROWN CASTLE PROJECT NO.
VZW366241CA

CLIENT:



695 RIVER OAKS PARKWAY
SAN JOSE, CA 95134
www.crowncastle.com

PREPARED BY:



5841 EDISON PLACE, SUITE 200
CARLSBAD, CA 92008
PHONE: (760) 929-0910
FAX: (760) 929-0936
www.coastalcommc.com

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SITE NAME & ADDRESS:
ROW ADJACENT TO 251 EMERSON
ST NEAR 205 EVERETT AVE
PALO ALTO, CA
37.446387/-122.165387

SITE PLAN

DRAWN BY: BMW	DRAFT DATE: 02/08/18	APPROVED BY: TT
------------------	-------------------------	--------------------

SHEET NO.
SP-1

EXISTING TREE TABLE							
PALO ALTO TREE #	SPECIES:	COMMON NAME:	GROW SPACE:	TRUNK DIA. AT BREAST HT.:	PROTECTION LINE:	DISTANCE TO CONST.	PROTECTION MEASURES REQUIRED
1	FRAXINUS AMERICANA	AUTUMN PURPLE ASH	PLANTER	4 INCHES	.333x10= 3'- 4"	7'-0"	NO

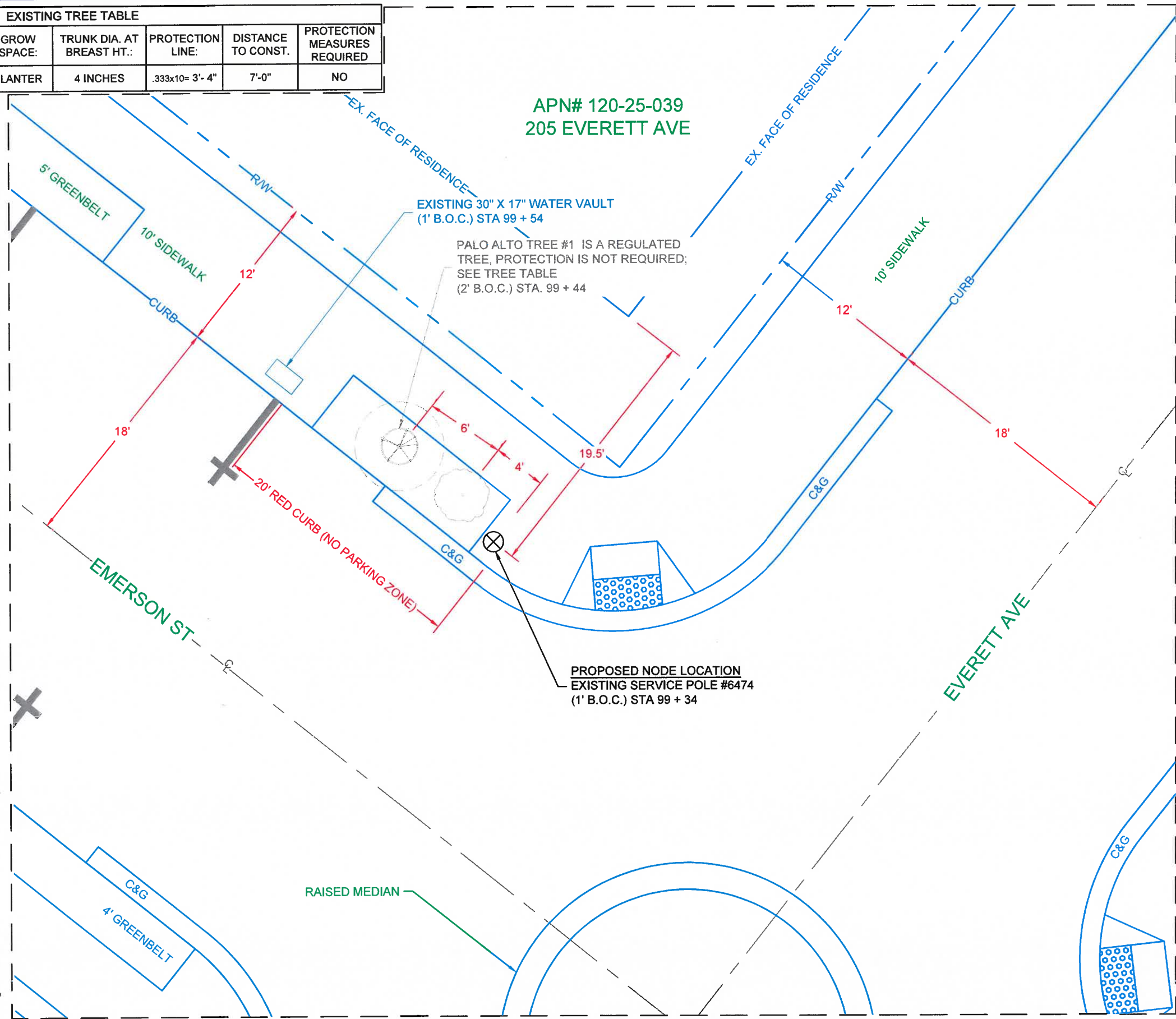
NODE COORDINATES	
LATITUDE:	37.446387
LONGITUDE:	-122.165387

NO GROUND DISTURBANCE NECESSARY

TREE PROTECTION IS REQUIRED AND SHALL BE ERECTED AROUND ANY TREE WITHIN 15' OF IMPROVEMENTS OR WORK ZONE BEFORE CONSTRUCTION BEGINS. REFER TO SHEETS T1.1 - T1.4.

IN CASE OF ENCOUNTERING MASSIVE / EXTENSIVE TREE ROOTS AROUND WORK AREA DURING CONSTRUCTION, CONTACT CITY OF PALO ALTO ARBORIST AT (650) 496-5953 FOR FURTHER GUIDANCE & SUPERVISION

ALL EQUIPMENT SHALL BE PAINTED TO MATCH EXISTING POLE



SF PALO ALTO 020
PALO ALTO

CROWN CASTLE PROJECT NO.
VZW366241CA

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CROWN CASTLE

695 RIVER OAKS PARKWAY
SAN JOSE, CA 95134
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PREPARED BY:

Coastal Communications

Telecommunications Engineering

5841 EDISON PLACE, SUITE 200
CARLSBAD, CA 92008
PHONE: (760) 929-0910
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ZONING SUBMITTAL	03/03/18
ZONING COMMENTS	04/12/18
REVISION / ISSUE	DATE

REGISTERED PROFESSIONAL ENGINEER
JERRY L. MICHAL
No. C42590
Exp. 03-31-20
CIVIL
STATE OF CALIFORNIA

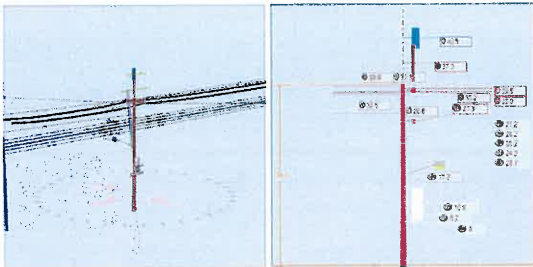
SITE NAME & ADDRESS:
ROW ADJACENT TO 251 EMERSON ST NEAR 205 EVERETT AVE
PALO ALTO, CA
37.446387/-122.165387

ENLARGED PLAN

DRAWN BY: BMW	DRAFT DATE: 02/08/18	APPROVED BY: TT
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SHEET NO.
SP-2

Pole Num:	6474	Pole Length / Class:	40 / 3	Code:	GO 95	Structure Type:	Guyed Tangent
Aux Data 1	SFPA020-SFO	Species:	DOUGLAS FIR	GO 95 Rule:	At Replace (Existing)	Pole Strength Factor:	0.38
Aux Data 2	Unset	Setting Depth (ft):	5.66	Construction Grade:	A	Transverse Wind LF:	1.00
Aux Data 3	Unset	G/L Circumference (in):	36.13	Loading District:	Light	Wire Tension LF:	1.00
Aux Data 4	Unset	G/L Fiber Stress (psi):	8,000	Ice Thickness (in):	0.00	Vertical LF:	1.00
Aux Data 5	Unset	Allowable Stress (psi):	2,879	Wind Speed (mph):	55.90	Bending Factor of Safety:	3.30
Aux Data 6	Unset	Fiber Stress Ht. Reduc:	No	Wind Pressure (psf):	8.00	Vertical Factor of Safety:	121.21
Latitude:	0.000000 Deg		Longitude:	0.000000 Deg		Elevation:	0 Feet



Pole Capacity Utilization (%)	Height (ft)	Wind Angle (deg)
Crossarm allowance 300 lbs		
Maximum	50.8	270.0
Groundline	50.8	270.0
Vertical	2.2	60.0

Pole Moments (ft-lb)	Load Angle (deg)	Wind Angle (deg)
Crossarm allowance 300 lbs		
Max Cap Util	28,694	270.0
Groundline	28,694	270.0
GL Allowable	35,833	

Guy System Component Summary				Load From Worst Wind Angle on Pole		Individual Maximum Load	
Description	Lead Length (ft)	Lead Angle (deg)	Height (ft)	Nominal Capacity (%)	Wind Angle (deg)	Max Load Capacity (%)	Wind Angle (deg)
Guy Pole	98.0	0.0		0.0	270.0	0.8	130.0
EHS 1/4 (Span/Head)			33.9	0.0	270.0	0.8	130.0
EHS 1/4 (Span/Head)			32.3	0.0	270.0	1.8	130.0
Guy Pole	54.0	180.0		2.9	270.0	5.1	0.0
EHS 1/4 (Span/Head)			33.9	6.1	270.0	10.5	0.0
EHS 1/4 (Span/Head)			28.8	2.5	270.0	4.9	0.0
Guy Pole	137.0	240.0		0.0	270.0	5.2	90.0
EHS 1/4 (Span/Head)			32.6	0.0	270.0	15.7	90.0
System Capacity Summary:				Adequate		Adequate	

Groundline Load Summary - Reporting Angle Mode: Load - Reporting Angle: 269.6°										
	Shear Load* (lbs)	Applied Load (%)	Bending Moment (ft-lb)	Applied Moment (%)	Pole Capacity (%)	Bending Stress (+/- psi)	Vertical Load (lbs)	Vertical Stress (psi)	Total Stress (psi)	Pole Capacity (%)
Powers	250	22.4	8,193	30.5	22.9	658	378	4	662	23.0
Comms	351	31.5	8,983	33.4	25.1	722	316	3	725	25.2
GuyBraces	32	2.8	1,027	3.8	2.9	83	19	0	83	2.9
GenericEquipments	186	16.7	2,788	10.4	7.8	224	379	4	228	7.9
Pole	215	19.3	3,425	12.7	9.6	275	1,012	10	285	9.9
Crossarms	52	4.6	1,736	6.5	4.8	140	116	1	141	4.9
Streetlights	29	2.6	680	2.5	1.9	55	45	0	55	1.9
Insulators	1	0.1	45	0.2	0.1	4	28	0	4	0.1
Pole Load	1,116	100.0	26,877	100.0	75.0	2,160	2,292	22	2,182	75.8
Pole Reserve Capacity			8,956		25.0	720			698	24.2

Load Summary by Owner - Reporting Angle Mode: Load - Reporting Angle: 269.6°										
	Shear Load* (lbs)	Applied Load (%)	Bending Moment (ft-lb)	Applied Moment (%)	Pole Capacity (%)	Bending Stress (+/- psi)	Vertical Load (lbs)	Vertical Stress (psi)	Total Stress (psi)	Pole Capacity (%)
<Undefined>	291	26.0	8,986	33.4	25.1	722	495	5	727	25.2
CC	230	20.6	4,359	16.2	12.2	350	394	4	354	12.3
Catv	56	5.0	1,478	5.5	4.1	119	48	0	119	4.1
ATT	117	10.5	2,863	10.7	8.0	230	39	0	230	8.0
Telco	117	10.5	2,955	11.0	8.3	238	213	2	240	8.3
Power	53	4.8	1,865	6.9	5.2	150	41	0	150	5.2
PWR	37	3.3	945	3.5	2.6	76	51	0	76	2.7
Pole	215	19.3	3,425	12.7	9.6	275	1,012	10	285	9.9
Totals:	1,116	100.0	26,877	100.0	75.0	2,160	2,292	22	2,182	75.8

Detailed Load Components:													
Power	Owner	Height (ft)	Horiz. Offset (in)	Cable Diameter (in)	Sag at Max Temp (ft)	Cable Weight (lbs/ft)	Lead/Span Length (ft)	Span Angle (deg)	Wire Length (ft)	Tension (lbs)	Tension Moment* (ft-lb)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)
Secondary	2 Alum	33.49	22.46	0.3730	1.14	0.084	98.0	0.0	98.0	402	-83	7	408
Secondary	1/0 Aerial Cable	32.83	48.33	2.3700	0.73	2.460	54.0	180.0	54.1	3,200	645	265	1,396
Secondary	1/0 Aerial Cable	32.83	48.33	2.3700	1.55	2.460	98.0	0.0	98.0	3,200	-645	482	2,534
Secondary	1/0 Aerial Cable	32.83	48.33	2.3700	1.55	2.460	98.0	0.0	98.0	3,200	-645	-482	2,534
Secondary	1/0 Aerial Cable	32.83	48.33	2.3700	0.73	2.460	54.0	180.0	54.1	3,200	645	-265	1,396
Totals:										-83	6	8,270	8,193

Comm	Owner	Height (ft)	Horiz. Offset (in)	Cable Diameter (in)	Sag at Max Temp (ft)	Cable Weight (lbs/ft)	Lead/Span Length (ft)	Span Angle (deg)	Wire Length (ft)	Tension (lbs)	Tension Moment* (ft-lb)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)
Overlashed Bundle	1/4" Strand	CC	27.16	6.60	0.2500	0.47	0.121	98.0	0.0	98.0	1,500	-251	3	541
Telco	216-320 Count fiber	CC	27.11	6.60	1.0000		0.350	98.0	0.0	98.0			9	541
Overlashed Bundle	1/4" Strand	CC	27.16	6.60	0.2500	0.15	0.121	54.0	180.0	54.0	1,500	251	2	298
Telco	216-320 Count fiber	CC	27.11	6.60	1.0000		0.350	54.0	180.0	54.0			5	298
Overlashed Bundle	1/4" Strand	Catv	26.16	6.66	0.2500	0.57	0.121	98.0	0.0	98.0	1,500	-241	3	234
CATV	500 COAX	Catv	26.14	6.90	0.5000		0.150	98.0	0.0	98.0			4	234
CATV	500 COAX	Catv	26.14	6.42	0.5000		0.150	98.0	0.0	98.0			4	234
CATV	500 COAX	Catv	26.10	6.66	0.5000		0.150	98.0	0.0	98.0			4	234
Overlashed Bundle	1/4" Strand	Catv	26.16	6.66	0.2500	0.18	0.121	54.0	180.0	54.0	1,500	241	2	129
CATV	500 COAX	Catv	26.14	6.90	0.5000		0.150	54.0	180.0	54.0			2	129
CATV	500 COAX	Catv	26.14	6.42	0.5000		0.150	54.0	180.0	54.0			2	129
CATV	500 COAX	Catv	26.10	6.66	0.5000		0.150	54.0	180.0	54.0			2	129
Overlashed Bundle	5/16" Strand	ATT	25.16	6.72	0.3130	1.97	0.104	98.0	0.0	98.0	1,500	-232	3	831
Telco	TELE 2.0	Telco	25.11	6.72	2.0000		2.000	98.0	0.0	98.0			55	829
Overlashed Bundle	5/16" Strand	ATT	25.16	6.72	0.3130	0.66	0.104	54.0	180.0	54.0	1,500	232	2	458
Telco	TELE 2.0	Telco	25.11	6.72	2.0000		2.000	54.0	180.0	54.0			30	457
Overlashed Bundle	5/16" Strand	ATT	24.16	6.78	0.3130	0.58	0.104	98.0	0.0	98.0	1,500	-223	3	512
Telco	TELE 1.0	Telco	24.11	6.78	1.0000		0.400	98.0	0.0	98.0			11	511
Overlashed Bundle	5/16" Strand	ATT	24.16	6.78	0.3130	0.18	0.104	54.0	180.0	54.0	1,500	223	2	282
Telco	TELE 1.0	Telco	24.11	6.78	1.0000		0.400	54.0	180.0	54.0			6	281
Overlashed Bundle	5/16" Strand	ATT	23.08	6.85	0.3130	0.58	0.104	98.0	0.0	98.0	1,500	-213	3	489
Telco	TELE 1.0	Telco	23.03	6.85	1.0000		0.400	98.0	0.0	98.0			11	488
Overlashed Bundle	5/16" Strand	ATT	23.08	6.85	0.3130	0.18	0.104	54.0	180.0	54.0	1,500	213	2	269
Telco	TELE 1.0	Telco	23.03	6.85	1.0000		0.400	54.0	180.0	54.0			6	269
Totals:										0	177	8,806	8,983	

GenericEquipment	Owner	Height (ft)	Horiz. Offset (in)	Offset Angle (deg)	Rotate Angle (deg)	Unit Weight (lbs)	Unit Height (in)	Unit Depth (in)	Unit Diameter (in)	Unit Length (in)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)
Cylinder	CUUT360X12Fxyz0	CC	42.50	0.46	90.0	0.0	38.10	48.00	--	14.60	--	-1	1,655
Box	MUSH-41	CC	10.75	14.74	90.0	0.0	315.00	72.00	13.29	--	20.24	-387	1,006
Box	WTR		9.25	14.19	90.0	0.0	15.00	12.00	12.00	--	12.00	-18	118
Box	Disconnect		8.00	10.26	90.0	0.0	11.00	9.00	4.00	--	6.00	-9	38
Totals:											-416	3,204	2,788

Crossarm	Owner	Height (ft)	Horiz. Offset (in)	Offset Angle (deg)	Rotate Angle (deg)	Unit Weight (lbs)	Unit Height (in)	Unit Depth (in)	Unit Length (in)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)
Pole Extension	Pole Top Bayonet Extension	Power	37.34	0.35	90.0	90.0	28.00	84.00	5.75	3.96	-1	1,104
Normal	CROSS ARM 3.75 x 5.75		33.25	5.00	0.0	0.0	58.00	5.75	120.00	0	84	84
Normal	4" Guard Arm		27.33	5.56	270.0	270.0	30.00	4.75	3.75	48.00	15	554
Totals:										14	1,722	1,736

Streetlight	Owner	Height (ft)	Horiz. Offset (in)	Offset Angle (deg)	Rotate Angle (deg)	Unit Weight (lbs)	Unit Height (in)	Unit Depth (in)	Unit Diameter (in)	Unit Length (in)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)
General	Street Light with 6' Mast Arm	PWR	17.16	4.71	240.0	240.0	45.00	30.00	20.00	3.00	72.00	188	680
Totals:											188	492	680

Insulator	Owner	Height (ft)	Horiz. Offset (in)	Offset Angle (deg)	Rotate Angle (deg)	Unit Weight (lbs)	Unit Height (in)	Unit Diameter (in)	Unit Length (in)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)
Spool	Spool Insulator - 20 kV		33.49	-24.00	283.1	0.0	1.00	2.50	2.12	2	10	12
Underhung	Spool Insulator - 20 kV		33.01	-48.00	276.7	0.0	1.00	2.50	2.12	4	10	14
Underhung	Spool Insulator - 20 kV		33.01	48.00	83.3	0.0	1.00	2.50	2.12	-4	10	6
Bolt	Three Bolt Clamp	CC	27.16	0.00	270.0	180.0	5.00	3.00	0.00	3	0	3
Bolt	Three Bolt Clamp	Catv	26.16	0.00	270.0	180.0	5.00	3.00	0.00	3	0	3
Bolt	Three Bolt Clamp	ATT	25.16	0.00	270.0	180.0	5.00	3.00	0.00	3	0	3
Bolt	Three Bolt Clamp	ATT	24.16	0.00	270.0	180.0	5.00	3.00	0.00	3	0	3
Bolt	Three Bolt Clamp	ATT	23.08	0.00	270.0	180.0	5.00	3.00	0.00	3	0	3
Totals:										16	29	45

Guy Wire and Brace		Owner	Attach Height (ft)	End Height (ft)	Lead/Span Length (ft)	Wire Diameter (in)	Percent Solid (%)	Lead Angle (deg)	Incline Angle (deg)	Wire Weight (lbs/ft)	Rest Length (ft)	Stretch Length (in)
EHS 1/4	Span/Head	Power	33.91	34.91	98.00	0.25	75.00	0.0	-0.6	0.121	95.20	0.00
EHS 1/4	Span/Head	PWR	32.33	22.33	98.00	0.25	75.00	0.0	5.8	0.121	95.70	0.00
EHS 1/4	Span/Head	Power	33.91	34.91	54.00	0.25	75.00	180.0	-1.1	0.121	51.20	0.22
EHS 1/4	Span/Head	Power	28.75	29.75	54.00	0.25	75.00	180.0	-1.1	0.121	51.18	0.09
EHS 1/4	Span/Head	Power	32.58	33.58	137.00	0.25	75.00	240.0	-0.4	0.121	134.19	0.00

TRAFFIC CONTROL PLAN GENERAL 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 POLICE DISPATCH 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 INSPECTOR.
7. STRIPING WILL 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. CONTACT PUBLIC WORKS DEPARTMENT 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/HER 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 (MUTCD) 2014 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 ENGINEER OR HIS/HER REPRESENTATIVE HAS THE AUTHORITY TO INITIATE FIELD CHANGES TO INSURE PUBLIC SAFETY.
16. ALL WORK AFFECTING BUS STOPS SHALL BE COORDINATED WITH CITY'S TRANSIT DISTRICT. CONTRACTOR SHALL CALL TRANSIT DISTRICT 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 CA MUTCD 2014 EDITION. SILENT TYPE SHALL BE USED IN RESIDENTIAL AREAS.
7. THE MAXIMUM SPACING BETWEEN CONES SHALL BE THE WORK AREA'S SPEED LIMIT.
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. ALL REQUIRED SIGNS THAT ARE TO BE LEFT IN PLACE OVER A WEEKEND OR HOLIDAY SHALL BE POST MOUNTED.
10. CONSTRUCTION AREA TRAFFIC CONTROL DEVICES SHALL MEET THE PROVISIONS OF 2014 CALIFORNIA MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

SIGN LEGEND

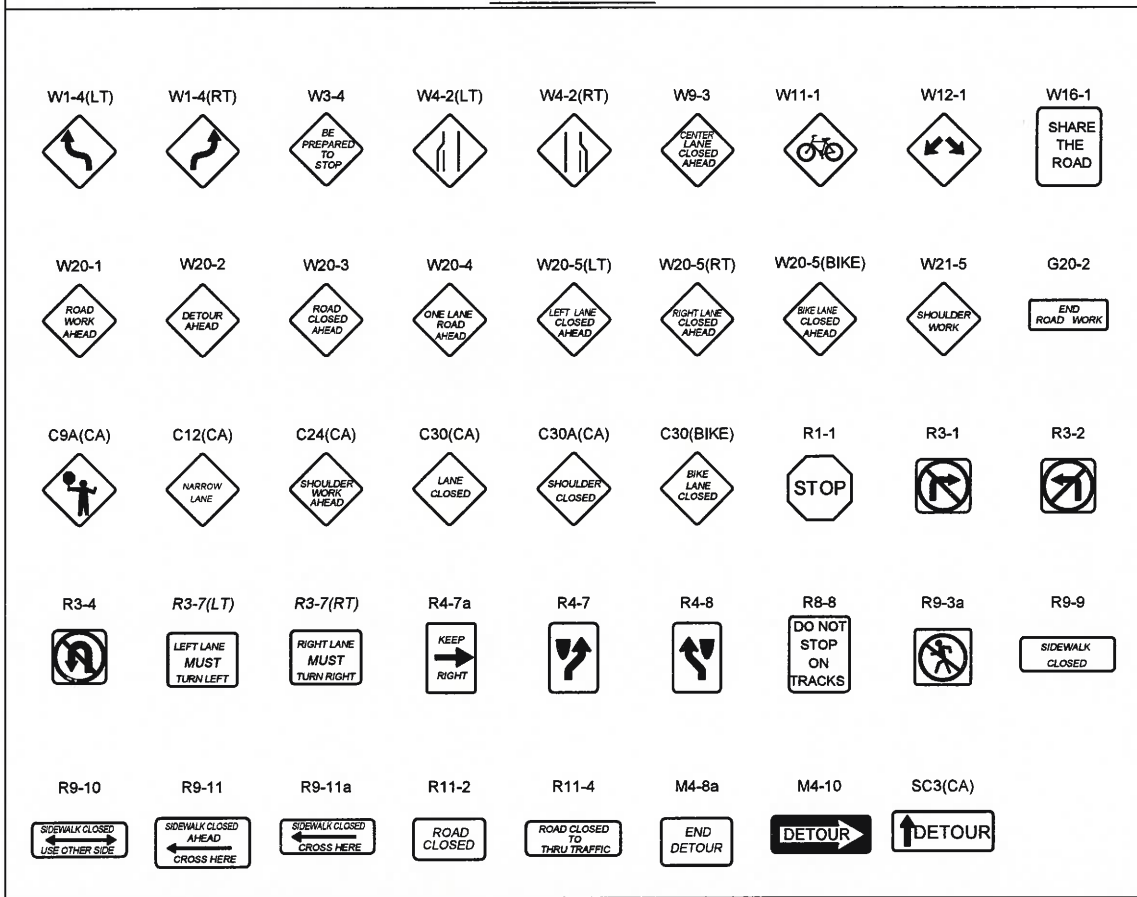


Table 6C-1. Recommended Advance Warning Sign Minimum Spacing

Road Type	Distance Between Signs*		
	A	B	C
Urban (low speed) – 25 mph or less	100 ft	100 ft	100 ft
Urban (high speed) – more than 25 mph to 40 mph	250 ft	250 ft	250 ft
Urban (high speed) – more than 40 mph	350 ft	350 ft	350 ft
Rural	500 ft	500 ft	500 ft
Expressway / Freeway	1,000 ft	1,000 ft	1,000 ft

* Speed category to be determined by the highway agency.

** The column headings A,B, and C are the dimensions shown in Figures 6H-1 through 6H-46. The A dimension is the distance from the transition or point of restriction to the first sign. The B dimension is the distance between the first and second signs. The C dimension is the distance between the second and third signs. (The "first sign" is the sign in a three-sign series that is closest to the TTC zone. The "third sign" is the sign that is furthest upstream from the TTC zone.)

LEGEND

	DIRECTION OF TRAVEL		FLAG TREE
	PAVEMENT ARROW		FLASHING ARROW BOARD
	PORTABLE SIGN		TRAFFIC SIGNAL
	TRAFFIC CONE / DELINEATOR		K-RAIL (TYPE 50 CONCRETE BARRIER)
	TYPE II BARRICADE		CHANGEABLE MESSAGE SIGN
	TYPE III BARRICADE		FLAGGER
	WORK AREA		DRIVEWAY

Table 6C-2. Stopping Sight Distance as a Function of Speed on Level Roads.
(Used as suggested longitudinal buffer space length or location for flagger station)

Speed*	Distance
20 mph	115 feet
25 mph	155 feet
30 mph	200 feet
35 mph	250 feet
40 mph	305 feet
45 mph	360 feet
50 mph	425 feet
55 mph	495 feet
60 mph	570 feet
65 mph	645 feet
70 mph	730 feet
75 mph	820 feet

* Posted speed, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph.

Table 6C-3 (CA). Taper Length Criteria for Temporary Traffic Control Zones (for 12 feet Offset Width)

Speed* S (mph)	Minimum Taper Length** for Width of Offset 12 feet (w)			
	Merging L (feet)	Shifting L/2 (feet)	Shoulder L/3 (feet)	Down Stream (feet)**
20	80	40	27	50
25	125	63	42	50
30	180	90	60	50
35	245	123	82	50
40	320	160	107	50
45	540	270	180	50
50	600	300	200	50
55	660	330	220	50
60	720	360	240	50
65	780	390	260	50
70	840	420	280	50

* – Posted speed limit, off peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph.

** – For other offsets use the following merging taper length formula for L:
For speeds of 40 mph or less, $L=WS^2/60$

For speeds 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.

*** – Maximum downstream taper length is 100 feet. See Section 6C.08.



Jerry L. Michal
R.C.E. NO. C 42590
EXP. 03-31-20

10-23-18
DATE

OWNER / DEVELOPER:
CROWN CASTLE
685 RIVER OAKS PARKWAY
SAN JOSE, CA 95134
www.crowncastle.com

PLANS PREPARED BY:
Coastal Communications
Traffic Management Engineering
5401 BISHOP PLACE, STE. 200
CHALSBAD, CA 92009
PH: (760) 929-0010
FX: (760) 929-0036

DCA/PR
1-800-227-2600
CALL AT LEAST TWO WEEKS
BEFORE THE WORK
UNDERGROUND SERVICE ALERT
TICKET #

CITY OF:
PALO ALTO

JOHN GRIFFITHS
PROJECT MANAGER

VZW366241CA-SFPA020-SFO TC
FILE NAME

251 EMERSON ST & NEAR 205 EVERETT AVE

PROJECT NUMBER:

VZW366241CA-SFPA020

PAGE GRID:

11/10/17

DATE:

CHECK BY:

GO

DRAWN BY:

VY

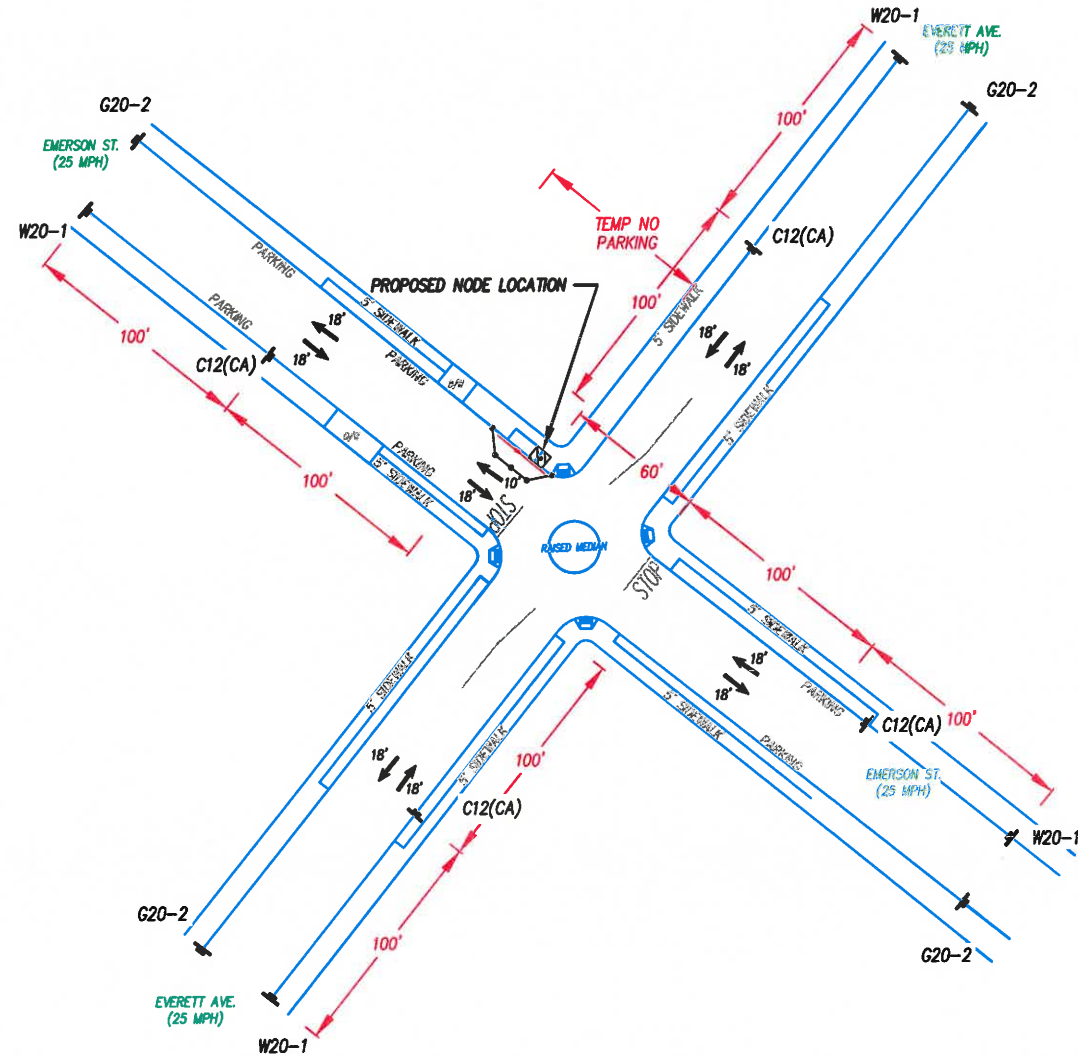
SHEET NO.:

T01 OF T02

NOTES:

1. CONTRACTOR TO MAINTAIN ACCESS TO ALL DRIVEWAYS AT ALL TIMES.
2. W20-1 & G20-2 SHALL BE PLACED ON AFFECTED CROSS STREETS ACCORDING TO THE SPEED LIMIT OF THE CROSS STREET.
3. FLAGGER SHALL ASSIST PEDESTRIANS THROUGH WORK AREA.

PHASE 1



Jerry L. Michal
JERRY L. MICHAL R.C.E. NO. C 42590 EXP. 03-31-20



10-23-18
DATE

OWNER / DEVELOPER: CROWN CASTLE 685 RIVER OAKS PARKWAY SAN JOSE, CA 95134 www.crowncastle.com	
PLANS PREPARED BY: Coastal Communications Telecommunications Engineering 3941 EDISON PLACE, STE. 200 CHALSBAL, CA 92008 PH: (760) 929-0910 FX: (760) 929-0936	
DCAUPT 1-800-227-2600 CALL AT LEAST TWO HOURS BEFORE THE JOB UNDERGROUND SERVICE ALERT TICKET #	
CITY OF:	PALO ALTO
PROJECT MANAGER:	JOHN GRIFFITHS
FILE NAME:	VZW366241CA-SFPA020-SFO.TC
251 EMERSON ST & NEAR 205 EVERETT AVE	
SHEET NO.:	T02 OF T02
DRAWN BY:	VY
CHECK BY:	GD
PAGE GRID:	
DATE:	11/10/17
PROJECT NUMBER:	VZW366241CA-SFPA020



SF PALO ALTO 021m1
ROW ACROSS FROM 311 EVERETT AVE
& ADJACENT TO 301 BRYANT ST
PALO ALTO, CA

DIRECTIONS FROM 695 RIVER OAKS PARKWAY, SAN JOSE CA 95124:

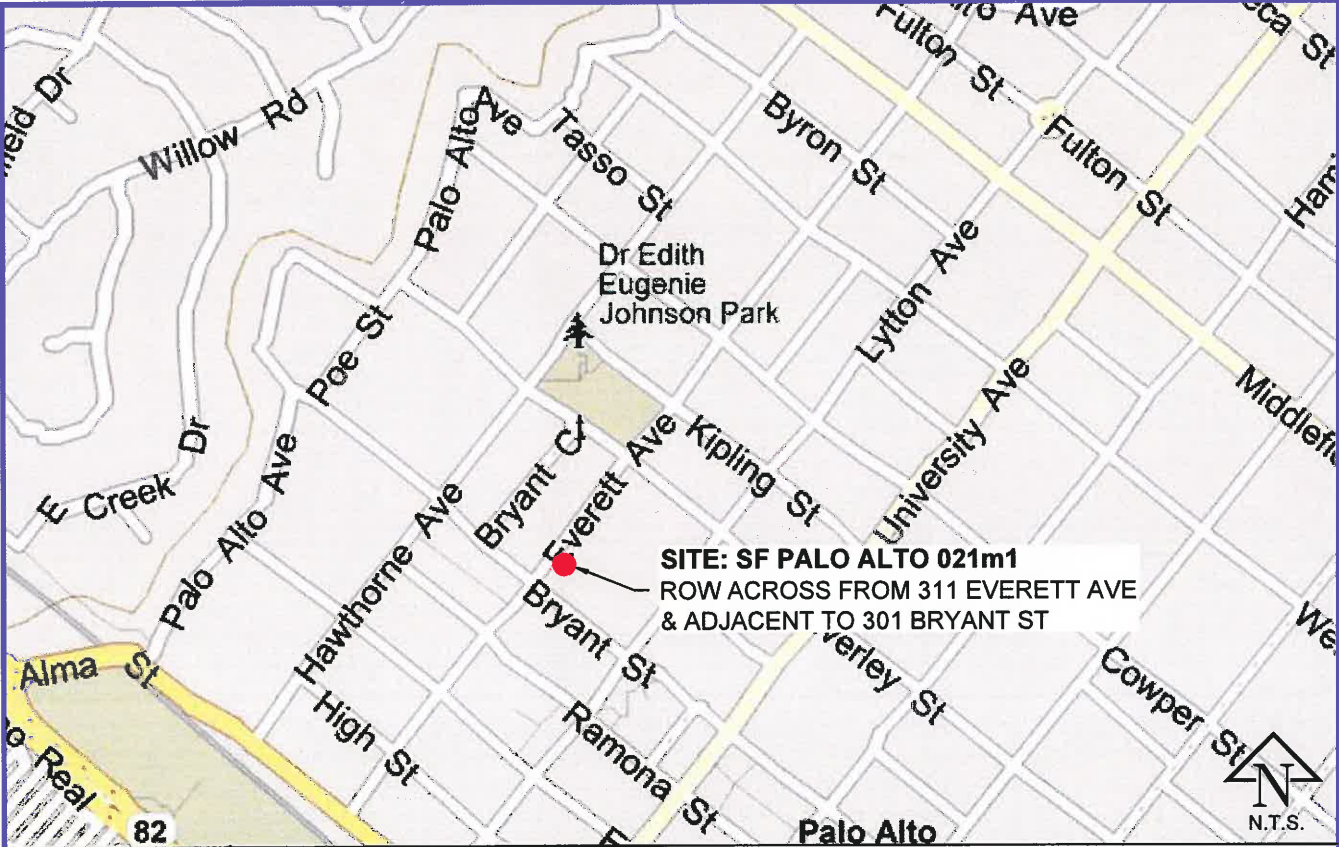
HEAD NORTHEAST ON RIVER OAKS PARKWAY TOWARD VILLAGE CENTER DR, TURN LEFT ONTO VILLAGE CENTER DR, TURN LEFT ONTO RESEARCH PL, TURN RIGHT AT THE 1ST CROSS STREET ONTO MONTAGUE EXPRESSWAY, SLIGHT RIGHT TO MERGE ONTO US-101 N TOWARD SAN FRANCISCO, MERGE ONTO US-101 N, USE 2ND FROM THE RIGHT LANE TO TAKE EXIT 403 TO MERGE ONTO UNIVERSITY AVE, MERGE ONTO UNIVERSITY AVE, TURN RIGHT ONTO MIDDLEFIELD RD. TURN LEFT AT THE 2ND CROSS STREET ONTO EVERETT AVE. WOOD POLE NODE IS ON THE LEFT.

DRIVING DIRECTIONS

1. STREET USE PERMIT SHALL BE OBTAINED BY CONTRACTOR PRIOR TO COMMENCING WORK.
2. ALL WORK TO BE CONDUCTED IN THE RIGHT OF WAY.
3. ALL DISTURBED LANDSCAPING SHALL BE REPLACED TO SIMILAR EXISTING CONDITION.
4. ANY SIDEWALK CLOSURE SHALL BE COORDINATED WITH THE CITY AND PROPER SIGNING WILL BE PLACED.
5. NO MATERIALS OR EQUIPMENT SHALL BE STORED ON PRIVATE PROPERTY OR BLOCK ACCESS TO PRIVATE PROPERTY.
6. CLEANUP OF SITE WILL BE COMPLETED EACH EVENING AND THE SITE WILL BE RETURNED TO EXISTING CONDITIONS AT THE COMPLETION OF CONSTRUCTION AT EACH SITE.

CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR RESPONSIBLE FOR SAME.

GENERAL CONTRACTOR NOTES



VICINITY MAP

SHEET NUMBER:	DESCRIPTION
C-1	TITLE SHEET
C-2	CONDITIONS OF APPROVAL
C-3	CONDITIONS OF APPROVAL
D-1	DETAILS & NOTES
D-2	DETAILS & NOTES
D-3	DETAILS & NOTES
D-4	DETAILS & NOTES
D-5	DETAILS & NOTES
D-6	DETAILS & NOTES
D-7	DETAILS & NOTES
T1.1	SPECIAL TREE PROTECTION INSTRUCTION SHEET
T1.2	SPECIAL TREE PROTECTION INSTRUCTION SHEET
T1.3	SPECIAL TREE PROTECTION INSTRUCTION SHEET
T1.4	SPECIAL TREE PROTECTION INSTRUCTION SHEET
P-1	PHOTOS
P-2	PHOTOSIM
P-3	PROFILE
P-4	PROFILE
SP-1	SITE PLAN
SP-2	ENLARGED SITE PLAN
OC-1	O'CALCS
T01	TRAFFIC CONTROL
T02	TRAFFIC CONTROL

SHEET INDEX

CROWN CASTLE TO INSTALL THE FOLLOWING:

- INSTALL NEW VGR.
- INSTALL NEW POWER DISCONNECT BOX ON STANDOFF BRACKET AT 8'-0" TO 8'-9".
- INSTALL NEW WTR ENCLOSURE ON STANDOFF BRACKET AT 9'-6" TO 10'-6".
- INSTALL NEW RRUS-11 AT 11'-0" TO 12'-5".
- INSTALL NEW RRUS-32 BRACKET KIT WITH (2) RRUS-32 AT 13'-0" TO 16'-3".
- INSTALL STANDOFF BRACKET (TYP.).
- RAISE EXISTING OHG TO 21'-9"; EXISTING HEIGHT AT 14'-6".
- LOWER CATV TO 23'-3"; EXISTING HEIGHT AT 24'-3".
- LOWER COMM TO 24'-3"; EXISTING HEIGHT AT 25'-10".
- LOWER COMM TO 25'-3"; EXISTING HEIGHT AT 26'-10".
- INSTALL CROWN CASTLE FIBER AT 26'-3".
- INSTALL DOUBLE CROSSARM AT 27'-2".
- INSTALL 2" SCHEDULE 80 COMM RISER.
- INSTALL 1" SCHEDULE 80 POWER RISER.
- INSTALL 5'-7" POLE MOUNTED EXTENSION & (1) NEW 48" AMPHENOL ANTENNA MODEL #CUUT360X12F12460 WITH CUSTOM SHROUD CONCEALMENT COVER.
- INSTALL NOTICE & CAUTION SIGNS.
- ALL EQUIPMENT SHALL BE PAINTED TO MATCH TEXTURE AND COLOR.
- NO GROUND DISTURBANCE NECESSARY.

PROJECT SUMMARY

PROJECT MANAGER:

CROWN CASTLE
695 RIVER OAKS PARKWAY
SAN JOSE, CA 95134
JOHN GRIFFITHS
(408) 468-5524
JOHN.GRIFFITHS@CROWNCastle.COM

NODE ENGINEER:

COASTAL COMMUNICATIONS
5841 EDISON PL, STE. 200
CARLSBAD, CA 92008
TODD THREW
(760) 929-0910 ext. 101
TODD@COASTALCOMMINC.COM

PROJECT TEAM

SF PALO ALTO 021m1
PALO ALTO

CROWN CASTLE PROJECT NO.
VZW366241CA

CLIENT:



PREPARED BY:



PROPRIETARY INFORMATION

THE INFORMATION CONTAINED IN THIS SET OF DRAWINGS IS PROPRIETARY AND CONFIDENTIAL TO VERIZON. ANY USE OR DISCLOSURE OTHER THAN AS IT RELATES TO VERIZON IS STRICTLY PROHIBITED.

DIGALERT



1-800-227-2600
CALL AT
LEAST TWO
DAYS BEFORE
YOU DIG

UNDERGROUND SERVICE ALERT
TICKET #

ZONING SUBMITTAL	03/03/18
ZONING COMMENTS	04/18/18
REVISION / ISSUE	DATE



SITE NAME & ADDRESS:

ROW ACROSS FROM 311 EVERETT
AVE & ADJACENT TO 301 BRYANT ST
PALO ALTO, CA
37.447667/-122.163882

TITLE SHEET

DRAWN BY: BW	DRAFT DATE: 02/12/18	APPROVED BY: TT
-----------------	-------------------------	--------------------

SHEET NO.

C-1

PENDING C.O.A .

SF PALO ALTO 021m1
PALO ALTO

CROWN CASTLE PROJECT NO.
VZW366241CA

CLIENT:



**CROWN
CASTLE**

695 RIVER OAKS PARKWAY
SAN JOSE, CA 95134
www.crowncastle.com

PREPARED BY:



Coastal Communications
Telecommunications Engineering

5841 EDISON PLACE, SUITE 200
CARLSBAD, CA 92008
PHONE: (760) 929-0910
FAX: (760) 929-0936
www.coastalcomminc.com

PROPRIETARY INFORMATION

THE INFORMATION CONTAINED IN THIS SET OF DRAWINGS IS PROPRIETARY AND CONFIDENTIAL TO VERIZON. ANY USE OR DISCLOSURE OTHER THAN AS IT RELATES TO VERIZON IS STRICTLY PROHIBITED.



DIGALERT

1-800-227-2600
CALL AT
LEAST TWO
DAYS BEFORE
YOU DIG

UNDERGROUND SERVICE ALERT
TICKET # _____

ZONING SUBMITTAL	03/03/18
ZONING COMMENTS	04/16/18
REVISION / ISSUE	DATE



SITE NAME & ADDRESS:
ROW ACROSS FROM 311 EVERETT
AVE & ADJACENT TO 301 BRYANT ST
PALO ALTO, CA
37.447667/-122.163882

**CONDITIONS OF
APPROVAL**

DRAWN BY: BW	DRAFT DATE: 02/12/18	APPROVED BY: TT
SHEET NO. C-2		

Applicant shall comply with the following comments/requirements.

1. Applicant shall install new street lighting poles with new foundations that are identical to the existing poles. New street lighting poles shall be installed as close as possible to the existing street lighting poles. Applicant shall ensure to maintain present illumination level on the streets.

2. Receptacles on street lights need to be pre-wired and mounted on the top of the street light. The receptacles shall be wired into the secondary voltage source and not the street light circuit.

3. New street lighting pole's drawing is approved. Applicant shall replace the existing street lighting poles with identical poles. If there is any deviation then it must be approved by Utilities Engineering prior to installation.

4. Locations for new street lighting poles shall be as close as possible to the existing street lighting poles. No street or location shall be left dark. After removal of existing street pole/s, new street lighting poles shall be installed and energized as soon as possible. Applicant to coordinate with Scott Yahne (650-444-8823) our Street Lighting Supervisor prior to making any electric connection/s.

5. An inner duct of adequate size shall be installed inside the street lighting poles so to keep antenna wiring separate from street lighting circuits. Power to the antenna or any other equipment mounted on the street lighting pole shall be tapped from the designated secondary electric service point and not from the street lighting circuit.

6. If the street lighting pole gets knocked down, the City shall replace the pole but the City shall not be responsible for any damages to the antenna or any other equipment mounted on the street lighting pole/s.

7. Applicant has submitted certified structural calculations pertaining to equipment loading on the new street lighting poles.

8. Utility's Engineer has reviewed applicant's proposed fiber infrastructure and confirmed acceptance as long as applicant maintains required clearances and protect our distribution lines.

9. Voltage at all the locations identified for applicant's equipment installation may not be Applicant shall accept the voltage available at the closest location. Applicant shall be responsible for installing additional substructure per City's standards and specifications, if required.

10. Applicant shall contact Utilities Engineering (650-566-4535) prior to entering any energized box or vault.

11. Applicant shall install substructure per City's standard and specifications and maintain required clearances as shown on the City's standard drawings. The City's Underground Electric Inspector will inspect the substructure for electric utility. Applicant must contact Underground Electric Inspector at 650-496-6936 or his designated representative for scheduling an inspection prior to back filling the trench.

12. Applicant shall pot hole and locate underground facilities prior to trenching or boring. Applicant must contact USA (800-227-2600) and have underground facilities marked prior to excavation/trenching or boring.

13. At few locations, proposed trenching/boring route conflicts with our existing high voltage distribution lines, boxes/vaults etc. Extreme caution must be exercised to protect our utility lines and associated substructures.

14. Applicant shall protect existing underground utilities. Applicant has not submitted any trench profile as requested by Utilities. Hence, applicant shall bore/ trench at his/her risk. Applicant will be solely responsible for any damages caused during the construction.

15. Street opening permits shall be obtained from Public Works Engineering (PWE) Department prior to trenching or boring.

16. Traffic control plans must be submitted to Transportation Department and approval must be obtained prior to lane closures. Construction hours shall be per Transportation Department's requirements.

17. Applicant shall contact the Public Works Engineering (PWE) Department (650-566-4535) and obtain electric permit and cost estimate for each location. Any changes made to the original design or to the designated electric service point/s shall be coordinated with the PWE Department. Applicant must pay all fees/cost estimates prior to final service connections.

ANTENNA CAUTION SIGN

ANTENNA SIGNAGE:
ON WOOD POLES - SIGN ON ALUMINUM WITH SS SCREW TO THE POLE
ON METAL POLES - ADHESIVE VINYL OR PLACARD STRAPPED WITH SS TIES
ON CONCRETE / COMPOSITE - PLACARD STRAPPED WITH SS TIES
SIGN PLACEMENT:
AFFIX TO THE STRUCTURE ON OR JUST BELOW THE ANTENNA(S)
SIZE APPROX. 8" x 5"



A SCALE N.T.S.

ANTENNA NOTICE SIGN

ANTENNA SIGNAGE:
ON WOOD POLES - SIGN ON ALUMINUM WITH SS SCREWS TO THE POLE
ON METAL POLES - ADHESIVE VINYL OR PLACARD STRAPPED WITH SS TIES
ON CONCRETE / COMPOSITE - PLACARD STRAPPED WITH SS TIES
SIGN PLACEMENT:
AFFIX TO THE STRUCTURE NEAR THE BOTTOM OF POLE OR ON THE SHROUD



B SCALE N.T.S.

SF PALO ALTO 021m1
PALO ALTO

CROWN CASTLE PROJECT NO.
VZW366241CA

CLIENT:

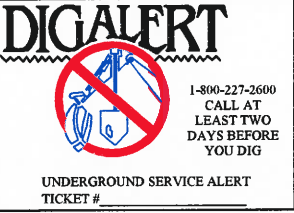
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PREPARED BY:

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ZONING SUBMITTAL	03/03/18
ZONING COMMENTS	04/18/18
REVISION / ISSUE	DATE



SITE NAME & ADDRESS:
ROW ACROSS FROM 311 EVERETT AVE & ADJACENT TO 301 BRYANT ST
PALO ALTO, CA
37.447667/-122.163882

CONDITIONS OF APPROVAL

DRAWN BY: BW	DRAFT DATE: 02/12/18	APPROVED BY: TT
SHEET NO. C-3		

SYMBOL	DESCRIPTION
PROPOSED	
	2 X 3' VAULT
	CABINET
	POC SIDEWALK
	TRENCH AND FIBER CONDUIT (PVT)
	DIRECTIONAL BORING
	BORE PIT
EXISTING	
	EXISTING STREET LIGHT
	EXISTING VAULT - HANDHOLE
	EXISTING MAIL BOX
	EXISTING TREE
	EXISTING TREE WITH
	STATION POINTS (10' INCREMENTS)
	EXISTING CURB RAMP
	C&G EXISTING CURB & GUTTER
	EXISTING FACE OF BUILDING
	EXISTING PARKING STRIPING
	R/W EXISTING RIGHT OF WAY
	W EXISTING WATER LINE
	W EXISTING WATER LATERAL
	S EXISTING S&WER LINE
	S EXISTING SEWER LATERAL
	G EXISTING GAS LINE
	G EXISTING GAS LATERAL
	SD EXISTING STORM DRAIN LINE
	STREET CURB CUTTY UNDER SIGN SYMBOL

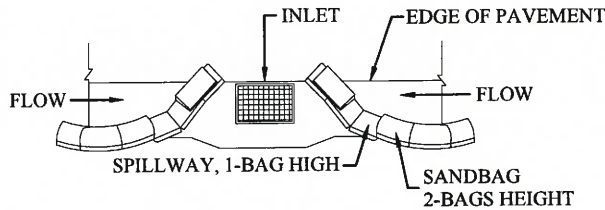
ABBREVIATIONS	
A/C	ASPHALT CURB
B.O.C.	BACK OF CURB
B/EOP	BACK OF EDGE OF PAVEMENT
C&G	CURB & GUTTER
CL	CENTERLINE
EX.	EXISTING
EOP	EDGE OF PAVEMENT
F.O.C.	FACE OF CURB
F/EOP	FACE OF EDGE OF PAVEMENT
PL	PROPERTY LINE
R/W	RIGHT OF WAY
S/B	SUBDIVISION BOUNDARY

EROSION AND SEDIMENT CONTROL NOTES:

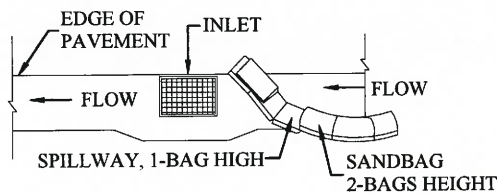
TEMPORARY EROSION/SEDIMENT CONTROL, PRIOR TO COMPLETION OF FINAL IMPROVEMENTS, SHALL BE PERFORMED BY THE CONTRACTOR OR QUALIFIED PERSON AS INDICATED BELOW:

- ALL REQUIREMENTS OF THE CITY "LAND DEVELOPMENT MANUAL, STORM WATER STANDARDS" MUST BE INCORPORATED INTO THE DESIGN AND CONSTRUCTION OF THE PROPOSED PUBLIC IMPROVEMENTS CONSISTENT WITH THE EROSION CONTROL PLAN AND/OR WATER POLLUTION CONTROL PLAN (WPCP), IF APPLICABLE.
- FOR STORM DRAIN INLETS, PROVIDE A GRAVEL BAG SILT BASIN IMMEDIATELY UPSTREAM OF INLET AS INDICATED ON DETAILS.
- THE CONTRACTOR OR QUALIFIED PERSON SHALL BE RESPONSIBLE FOR CLEANUP OF SILT AND MUD ON ADJACENT STREET(S) AND STORM DRAIN SYSTEM DUE TO CONSTRUCTION ACTIVITY.
- THE CONTRACTOR SHALL REMOVE SILT AND DEBRIS AFTER EACH MAJOR RAINFALL.
- EQUIPMENT AND WORKERS FOR EMERGENCY WORK SHALL BE MADE AVAILABLE AT ALL TIMES DURING THE RAINY SEASON.
- THE CONTRACTOR SHALL RESTORE ALL EROSION/SEDIMENT CONTROL DEVICES TO WORKING ORDER TO THE SATISFACTION OF THE CITY ENGINEER OR RESIDENT ENGINEER AFTER EACH RUN-OFF PRODUCING RAINFALL.
- THE CONTRACTOR SHALL INSTALL ADDITIONAL EROSION/SEDIMENT CONTROL MEASURES AS MAY BE REQUIRED BY THE RESIDENT ENGINEER DUE TO UNFORESEEN CIRCUMSTANCES, WHICH MAY ARISE.
- ALL EROSION/SEDIMENT CONTROL MEASURES PROVIDED PER THE APPROVED IMPROVEMENT PLAN SHALL BE INCORPORATED HEREON. ALL EROSION/SEDIMENT CONTROL FOR INTERIM CONDITIONS SHALL BE DONE TO THE SATISFACTION OF THE RESIDENT ENGINEER.
- ALL REMOVABLE PROTECTIVE DEVICES SHOWN SHALL BE IN PLACE AT THE END OF EACH WORKING DAY WHEN RAIN IS IMMINENT.
- THE CONTRACTOR SHALL ARRANGE FOR WEEKLY MEETINGS DURING OCTOBER 1ST TO APRIL 30TH FOR PROJECT TEAM (GENERAL CONTRACTOR, QUALIFIED PERSON, EROSION CONTROL SUBCONTRACTOR IF ANY, ENGINEER OF WORK, OWNER/DEVELOPER AND THE RESIDENT ENGINEER) TO EVALUATE THE ADEQUACY OF THE EROSION/SEDIMENT CONTROL MEASURES AND OTHER RELATED CONSTRUCTION ACTIVITIES.

STORMDRAIN INLET PROTECTION



TYPICAL PROTECTION FOR INLET WITH OPPOSING FLOW DIRECTIONS



TYPICAL PROTECTION FOR INLET WITH SINGLE FLOW DIRECTION

- NOTES:**
- INTENDED FOR SHORT - TERM USE.
 - USE TO INHIBIT NON - STORM WATER FLOW.
 - ALLOW FOR PROPER MAINTENANCE AND CLEANUP.
 - BAGS MUST BE REMOVED AFTER ADJACENT OPERATION IS COMPLETED.
 - NOT APPLICABLE IN AREAS WITH HIGH SILTS AND CLAYS WITHOUT FILTER FABRIC.

NOTES:

- CONTRACTOR TO POTHOLE ALL UTILITY CROSSINGS.
- CONTRACTOR TO PLACE SANDBAGS AROUND ANY/ALL STORM DRAIN INLETS TO PREVENT CONTAMINATED WATER.
- SPOILS PILE WILL BE COVERED AND CONTAINED AND STREET WILL BE SWEEPED AND CLEANED AS NEEDED.
- CONTRACTOR TO REPAIR DAMAGED PUBLIC IMPROVEMENTS TO THE SATISFACTION OF THE CITY ENGINEER.
- C&G TO BE PROTECTED IN PLACE. SIDEWALK TO BE REPLACED TO THE SATISFACTION OF THE CITY ENGINEER.
- THE CONTRACTOR SHALL RESTORE THE ROADWAY BACK TO ITS ORIGINAL CONDITION SATISFACTORY TO THE CITY ENGINEER INCLUDING, BUT NOT LIMITED TO PAVING, STRIPING, BIKE LANES, PAVEMENT LEGENDS, SIGNS, AND TRAFFIC LOOP DETECTORS.
- SIDEWALK SHALL BE RESTORED/REPLACED PER CITY STANDARD DRAWINGS.
- PEDESTRIAN RAMP WILL NOT BE DISTURBED.

ROW GROUND CONSTRUCTION NOTES:

- GROUND CONSTRUCTION TO REMOVE/CLEAN ALL DEBRIS, NAILS, STAPLES, OR NON-USED VERTICALS OFF THE POLE.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH MUNICIPAL, COUNTY, STATE, FEDERAL, GO95 AND GO128 STANDARDS AND REGULATIONS.
- CALL USA 48 HOURS PRIOR TO EXCAVATING AT (800) 227-2600 OR 811.
- ALL LANDSCAPING TO BE RESTORED TO ORIGINAL CONDITION OR BETTER.
- ALL EQUIPMENT TO BE BONDED.
- METERING CABINET REQUIRES 36" CLEARANCE AT DOOR OPENING.
- CAULK CABINET BASE AT PAD.

NORMAL LOCATION OF UNDERGROUND UTILITIES NOTES:

- LOCATION AND DEPTH OF EXISTING AND PROPOSED UTILITIES MUST BE PROVIDED BY THE SUBDIVIDER AND SHOWN ON ANY PLANS SUBMITTED TO THE DEPT. OF PUBLIC WORKS FOR APPROVAL.
- CHANGES MAY BE PERMITTED BY THE DEPT. OF PUBLIC WORKS IN CASES OF CONFLICTING FACILITIES.
- CONFLICTS BETWEEN UTILITY COMPANIES FACILITIES, EXISTING AND PROPOSED, MUST BE MUTUALLY RESOLVED BY THE UTILITY COMPANIES.
- FOR COMMERCIAL SIDEWALKS, THE FIRE HYDRANT SHALL BE PLACED WITHIN THE SIDEWALK 1'-6" BEHIND FACE OF CURB.
- MAXIMUM 2" DIAMETER GAS MAINS MAY BE PLACED IN JOINT UTILITIES TRENCH SUBJECT TO APPROVAL OF CITY ENGINEER (IN TRACTS).

GENERAL CONTRACTOR NOTES:

- STREET USE PERMIT SHALL BE OBTAINED BY CONTRACTOR PRIOR TO COMMENCING WORK.
- ALL WORK TO BE CONDUCTED IN THE RIGHT OF WAY.
- ALL DISTURBED LANDSCAPING SHALL BE REPLACED TO SIMILAR EXISTING CONDITION.
- ANY SIDEWALK CLOSURE SHALL BE COORDINATED WITH THE CITY AND PROPER SIGNING WILL BE PLACED.
- NO MATERIALS OR EQUIPMENT SHALL BE STORED ON PRIVATE PROPERTY OR BLOCK ACCESS TO PRIVATE PROPERTY.
- CLEANUP OF SITE WILL BE COMPLETED EACH EVENING AND THE SITE WILL BE RETURNED TO EXISTING CONDITIONS AT THE COMPLETION OF CONSTRUCTION AT EACH SITE.

CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE, PROCEEDING WITH THE WORK OR RESPONSIBLE FOR SAME.

CALIFORNIA STATE CODE COMPLIANCE:

ALL WORK AND MATERIALS SHALL BE PREFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUCTED TO PERMIT WORK NOT CONFORMING TO THESE CODES:

- CALIFORNIA ADMINISTRATIVE CODE (INCLUDING TITLES 24 & 25) 2016
- 2016 CALIFORNIA BUILDING CODES WHICH ADOPTS THE 2016 UBC, 2016 UMC, 2016 UPC AND THE 2016 NEC.
- BUILDING OFFICIALS & CODE ADMINISTRATORS (BOCA)
- 2016 CALIFORNIA MECHANICAL CODE
- ANSI/EIA-222-F LIFE SAFETY CODE NFPA-101
- 2016 CALIFORNIA PLUMBING CODE
- 2016 CALIFORNIA ELECTRICAL CODE
- 2016 LOCAL BUILDING CODE
- CITY/COUNTY ORDINANCES

ACCESSIBILITY REQUIREMENTS:
FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAPPED ACCESS REQUIREMENTS DO NOT APPLY IN ACCORDANCE WITH THE 2010 CALIFORNIA BUILDING CODE.

FCC NOTE:
THIS WIRELESS COMMUNICATION FACILITY COMPLIES WITH FEDERAL STANDARDS FOR RADIO FREQUENCY IN ACCORDANCE WITH THE TELECOMMUNICATION ACT OF 1996 AND SUBSEQUENT AMENDMENTS AND ANY OTHER REQUIREMENTS IMPOSED BY STATE OR FEDERAL REGULATORY AGENCIES.

CITY OF PALO ALTO UTILITIES ENGINEERING NOTES:

- APPLICANT SHALL TAP ELECTRIC SERVICE TO THE SMALL CELL DISTRIBUTED ANTENNA SYSTEM FROM THE LOCATIONS JOINTLY IDENTIFIED DURING THE FIELD INVESTIGATION.
- SERVICE VOLTAGE TO ALL THE PROPOSED LOCATIONS MAY NOT BE THE SAME. APPLICANT SHALL DESIGN THEIR SYSTEM TO OPERATE AT THE AVAILABLE VOLTAGE IN THE VICINITY.
- IF BRAND NEW POLES NEED TO BE INSTALLED FOR APPLICANT'S SYSTEM THEN THE POLES MUST MATCH EXISTING POLES IN THE DOWN TOWN AREA.
- AFTER EXCAVATION IS COMPLETED ON THE PUBLIC RIGHT OF WAY, EXISTING STREETS INCLUDING SIDEWALKS/ CURB/ GUTTER OR ANY DECORATIVE PATHS MUST BE BROUGHT TO ITS ORIGINAL CONDITION AND MUST BE APPROVED BY PUBLIC WORKS ENGINEERING DEPARTMENT'S INSPECTOR. POTHOLING MUST BE DONE AND ALL THE UTILITIES MUST BE IDENTIFIED PRIOR TO COMMENCING EXCAVATION.
- EXCAVATION AND RESTORATION WORK MUST BE IN COMPLIANCE WITH PUBLIC WORKS ENGINEERING STANDARDS AND SPECIFICATIONS THAT ARE AVAILABLE ON THE FOLLOWING WEBSITE:
<http://www.cityofpaloalto.org/news/displaynews.asp?NewsID=1834&TargetD=145>
- APPLICANTS SHALL BE RESPONSIBLE FOR MAINTAINING THEIR SYSTEM INCLUDING SUBSTRUCTURE. IN CASE OF KNOCK DOWNS, THE CITY WILL RE-INSTALL ITS STREET LIGHTING POLES BUT **NOT** APPLICANT'S EQUIPMENT ON OR OFF THE POLE.
- A FIELD MEETING IS RECOMMENDED WITH UTILITIES ENGINEERING PRIOR TO COMMENCING THE WORK.
- PLANS SHALL INCLUDE A NOTE: **CONTRACTOR TREE INSPECTION REQUIREMENTS:** MODIFIED TYPE III TRUNK WRAPPING SHALL BE VERIFIED BY URBAN FORESTRY PRIOR TO ANY WORK IN THE VICINITY. FOR EACH TREE SITE WRAPPED FOR PROTECTION WITHIN 15' OF ANY WORK ZONE OR CONCRETE FORM SECTION, A BILLABLE TREE INSPECTION BY URBAN FORESTRY (650-496-5953, 24-HOUR ADVANCE IS REQUIRED) SHALL BE COMPLETED PRIOR TO DEMOLITION, DRILLING, EXCAVATING, FORMING OR STREET LIGHT ACTIVITY. CONTRACTOR SHALL ARRANGE PAYMENTS AT THE DEVELOPMENT CENTER, 285 HAMILTON AVE, PALO ALTO, CA.
- THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITIES DEPARTMENT 650/329-2413 OR 650/496-6982 IF THE EXISTING WATER, WASTEWATER OR GAS MAINS ARE DISTURBED OR DAMAGED. A QUALIFIED CONTRACTOR MAY PERFORM REPAIRS ON CITY WATER AND WASTEWATER MAINS UNDER THE DIRECT SUPERVISION OF THE WGW UTILITIES INSPECTOR. FOR WATER REPAIRS ALL THE DISINFECTION REQUIREMENTS OF THE WGW UTILITY STANDARDS AND THESE CONDITIONS SHALL BE ADHERED TO. ALL REPAIRS TO THE CITY GAS SYSTEM MUST BE PERFORMED BY THE CITY OF PALO ALTO UTILITIES.
- NO WATER VALVES OR OTHER FACILITIES OWNED BY UTILITIES DEPARTMENT SHALL BE OPERATED FOR ANY PURPOSE BY THE APPLICANT'S CONTRACTOR. ALL REQUIRED OPERATION WILL ONLY BE PERFORMED BY AUTHORIZED UTILITIES DEPARTMENT PERSONNEL. WATER VALVES MAY BE OPERATED BY THE CONTRACTOR UNDER THE DIRECT SUPERVISION OF THE WGW UTILITIES INSPECTOR. THE APPLICANT'S CONTRACTOR SHALL NOTIFY THE UTILITIES DEPARTMENT NOT LESS THAN FORTY-EIGHT (48) HOURS IN ADVANCE OF THE TIME THAT SUCH OPERATION IS REQUIRED.

SF PALO ALTO 021m1
PALO ALTO
CROWN CASTLE PROJECT NO.
VZW366241CA

CLIENT:

695 RIVER OAKS PARKWAY
SAN JOSE, CA 95134
www.crowncastle.com

PREPARED BY:

5841 EDISON PLACE, SUITE 200
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ZONING SUBMITTAL	03/03/18
ZONING COMMENTS	04/16/18
REVISION / ISSUE	DATE

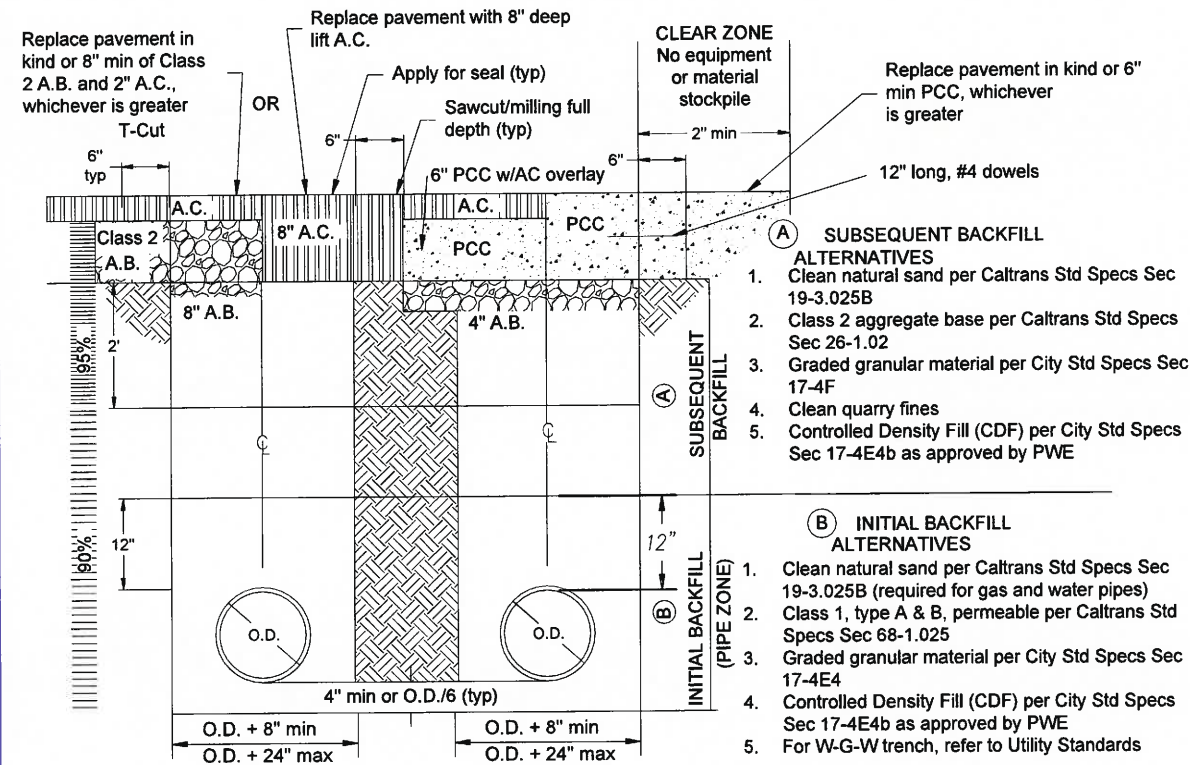


SITE NAME & ADDRESS:
ROW ACROSS FROM 311 EVERETT
AVE & ADJACENT TO 301 BRYANT ST
PALO ALTO, CA
37.447667/-122.163882

DETAILS & NOTES

DRAWN BY: BW	DRAFT DATE: 02/12/18	APPROVED BY: TT
SHEET NO. D-1		

CITY OF PALO ALTO
STANDARD
(DRAWING NO. 401)
TRENCHES
TYPICAL CROSS-SECTIONS
N.T.S.

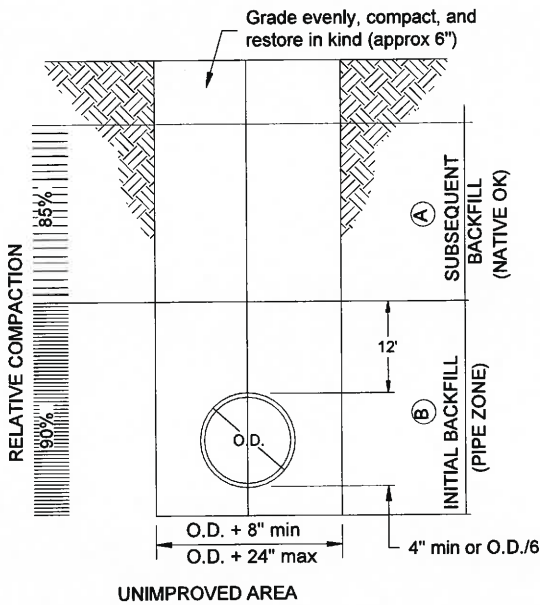


GENERAL NOTES

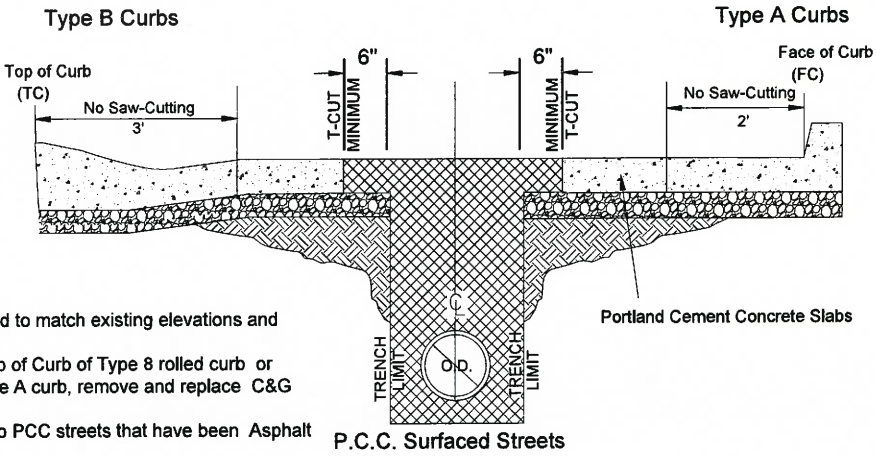
- PCC shall contain a minimum of 6 sacks concrete with a desired 28-day strength of 3,500 PSI
- Extend T-cut to lip of Gutter per City Std Specs 17-G
- Refer to City Std Dwg 403 for trench limits of restoration
- Match existing AC thickness on PCC overlays

JETTING NOTES

- IMPROVED AREAS
 - INITIAL BACKFILL-jetting of sand OK
 - SUBSEQUENT BACKFILL-jetting of sand subject to approval of City Engineer, except for top 2 ft, which must be mechanically compacted
- UNIMPROVED AREA: jetting of sand OK
- WHEN JETTING IS PERMITTED:
 - Excess water shall be collected at low points and removed by pumping
 - Sand to be jetted shall be placed in lifts no thicker than 4 ft
 - Jetting shall be performed at intervals along the trench not to exceed 6 ft

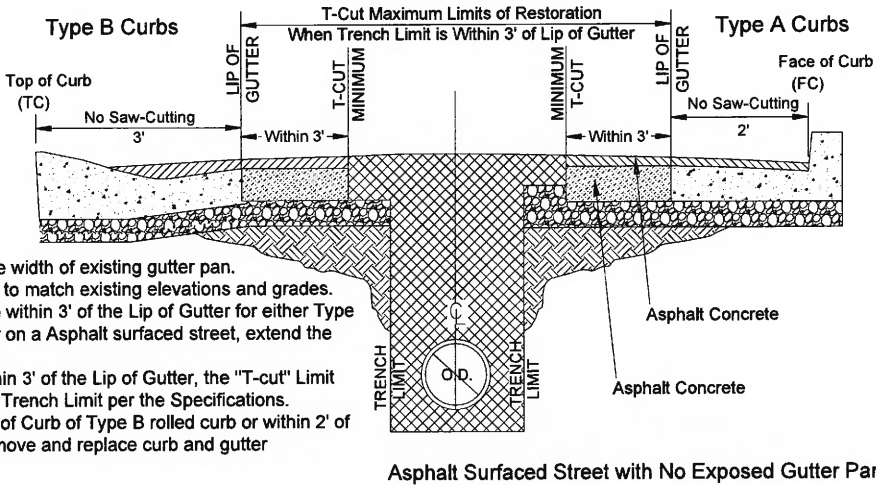


CITY OF PALO ALTO STANDARD
(DRAWING NO. 403)
TRENCHES
LIMITS OF RESTORATION
N.T.S.



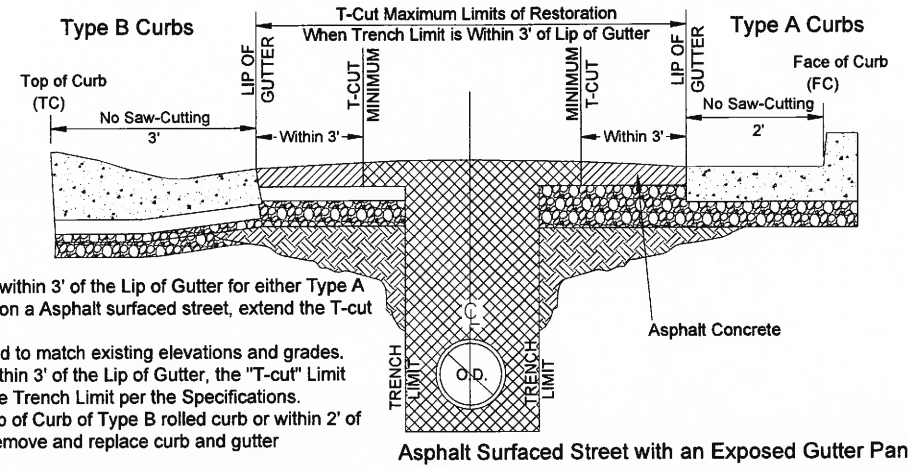
NOTES

- Restore all materials in kind to match existing elevations and grades.
- If Sawcut is within 3' of Top of Curb of Type 8 rolled curb or within 2' of the face of Type A curb, remove and replace C&G monolithically.
- These notes also pertain to PCC streets that have been Asphalt overlaid.



NOTES

- Remove asphalt to verify the width of existing gutter pan.
- Restore all materials in kind to match existing elevations and grades.
- When "Trench Limits" is within 3' of the Lip of Gutter for either Type A or Type B curb and gutter on a Asphalt surfaced street, extend the T-cut to the Lip of Gutter.
- If "Trench Limit" is NOT within 3' of the Lip of Gutter, the "T-cut" Limit shall be located 6" from the Trench Limit per the Specifications.
- If Sawcut is within 3' of Top of Curb of Type B rolled curb or within 2' of the face of Type A curb, remove and replace curb and gutter monolithically.



NOTES

- When "Trench Limits" are within 3' of the Lip of Gutter for either Type A or Type B curb and gutter on a Asphalt surfaced street, extend the T-cut to the Lip of Gutter.
- Restore all materials in kind to match existing elevations and grades.
- If "Trench Limit" is NOT within 3' of the Lip of Gutter, the "T-cut" Limit shall be located 6" from the Trench Limit per the Specifications.
- If Sawcut is within 3' of Top of Curb of Type B rolled curb or within 2' of the face of Type A curb, remove and replace curb and gutter monolithically.

SF PALO ALTO 021m1
PALO ALTO
CROWN CASTLE PROJECT NO.
VZW366241CA

CLIENT:

CROWN
CASTLE
695 RIVER OAKS PARKWAY
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www.crowncastle.com

PREPARED BY:

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Telecommunications Engineering
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DETAILS & NOTES

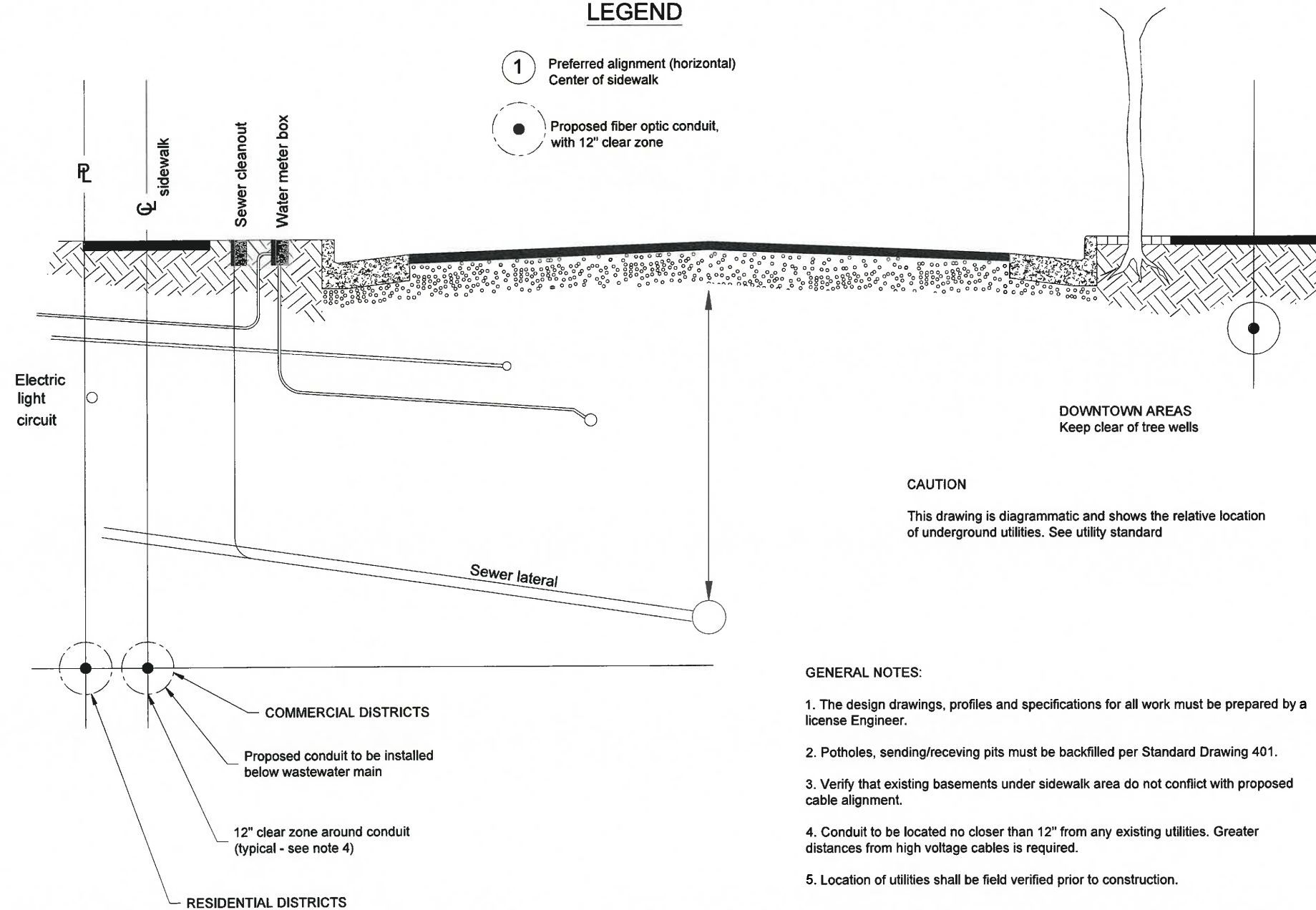
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SHEET NO.
D-2

CITY OF PALO ALTO STANDARD
(DRAWING NO. 402)
CONDUIT LOCATION DETAIL
TELECOMMUNICATIONS
N.T.S.

LEGEND

- 1 Preferred alignment (horizontal)
Center of sidewalk
- Proposed fiber optic conduit,
with 12" clear zone



GENERAL NOTES:

1. The design drawings, profiles and specifications for all work must be prepared by a license Engineer.
2. Potholes, sending/receiving pits must be backfilled per Standard Drawing 401.
3. Verify that existing basements under sidewalk area do not conflict with proposed cable alignment.
4. Conduit to be located no closer than 12" from any existing utilities. Greater distances from high voltage cables is required.
5. Location of utilities shall be field verified prior to construction.

SF PALO ALTO 021m1
PALO ALTO

CROWN CASTLE PROJECT NO.
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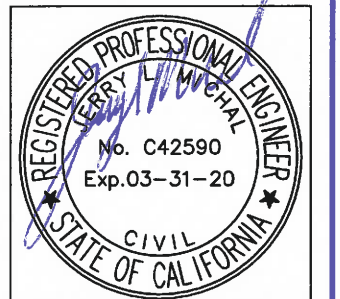
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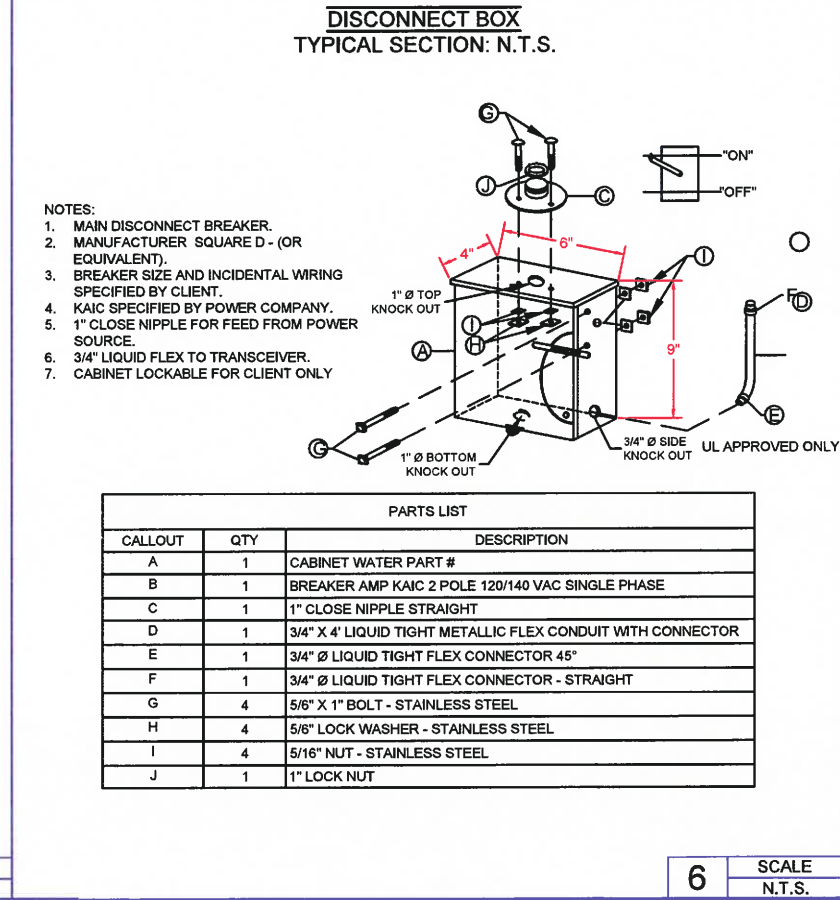
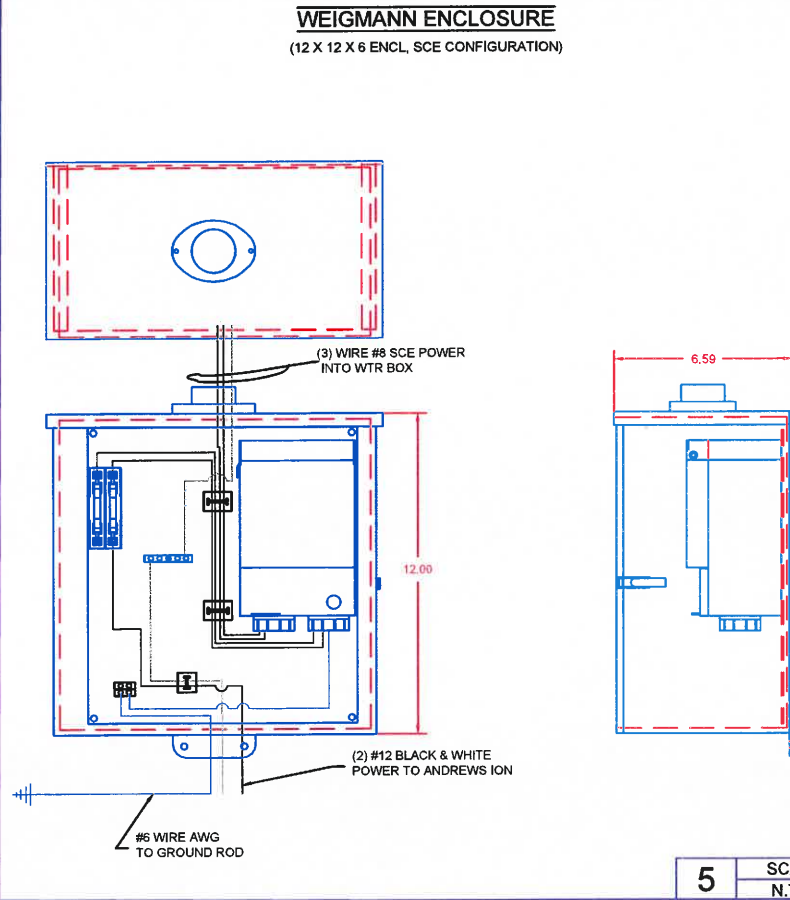
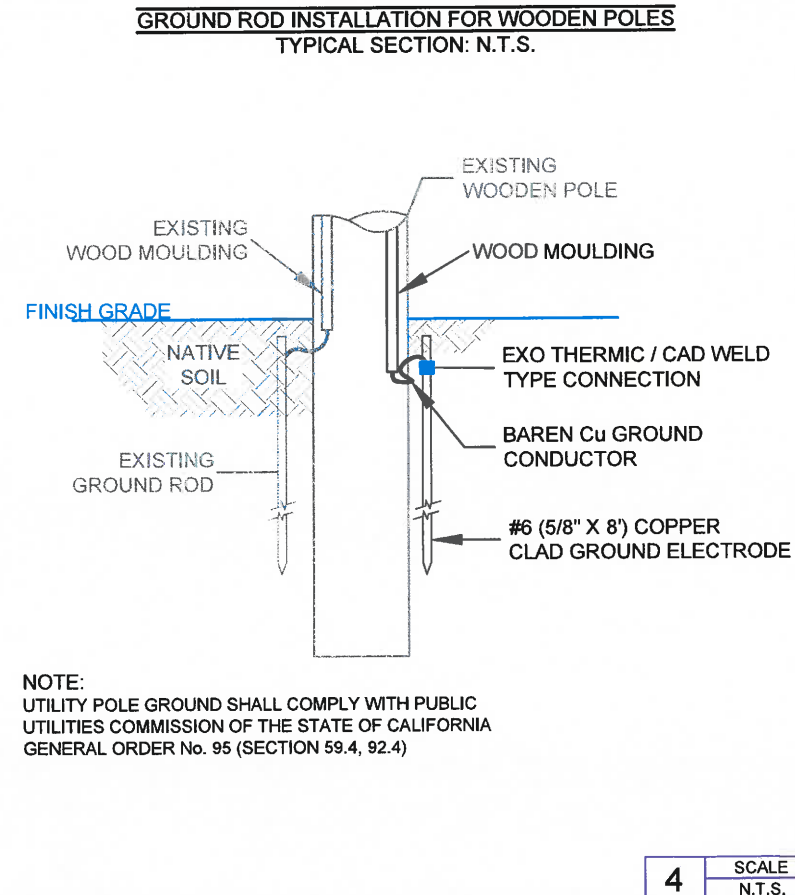
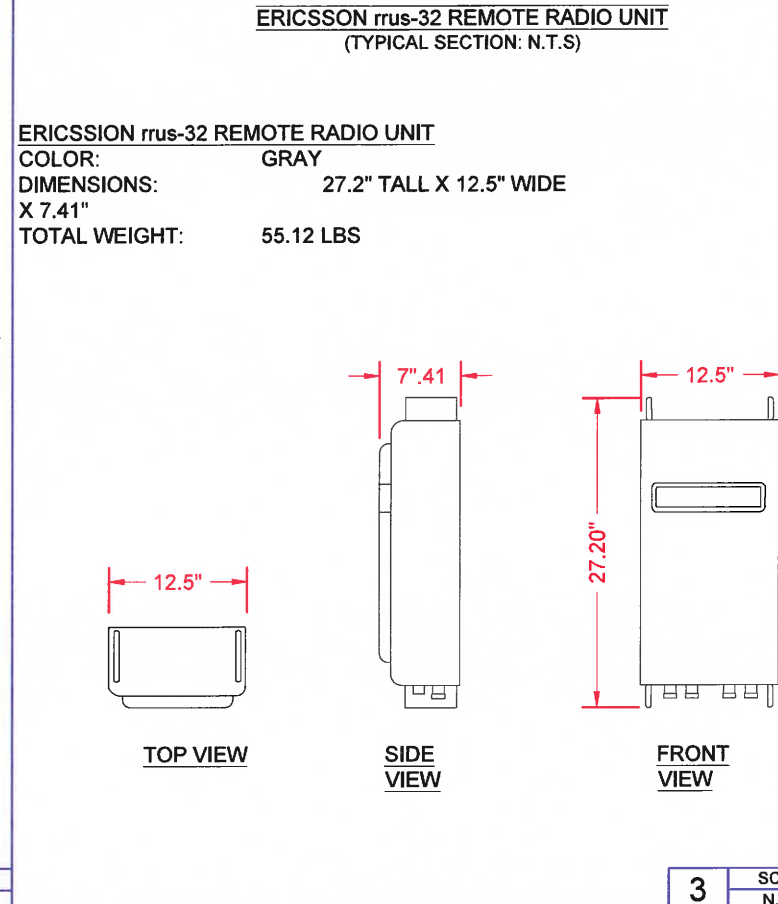
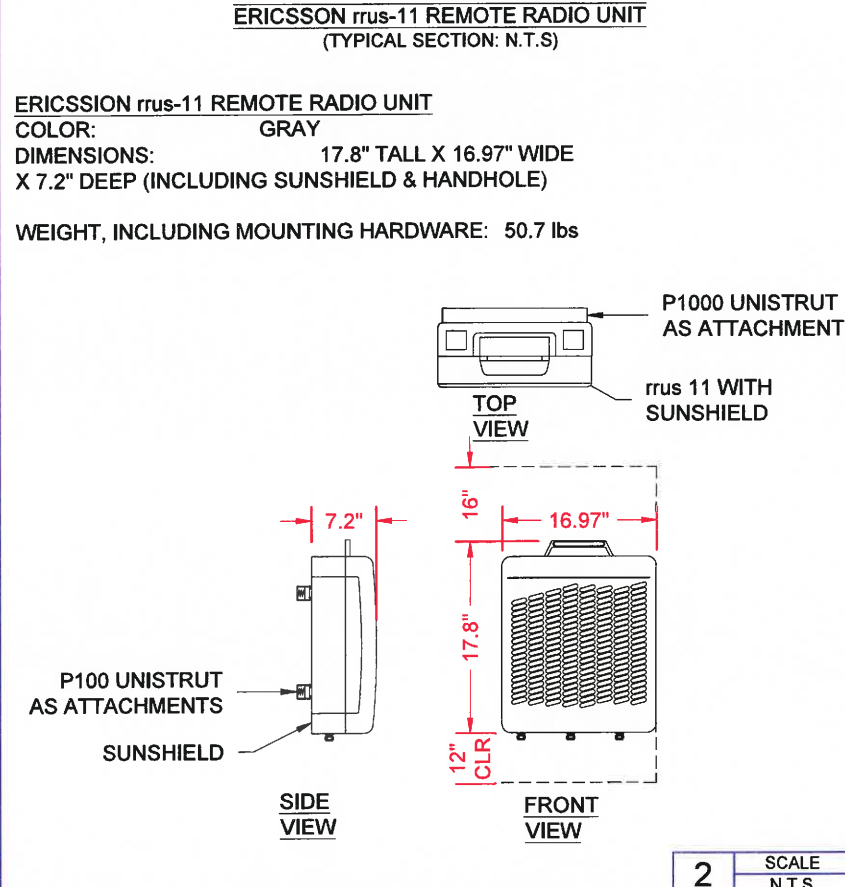
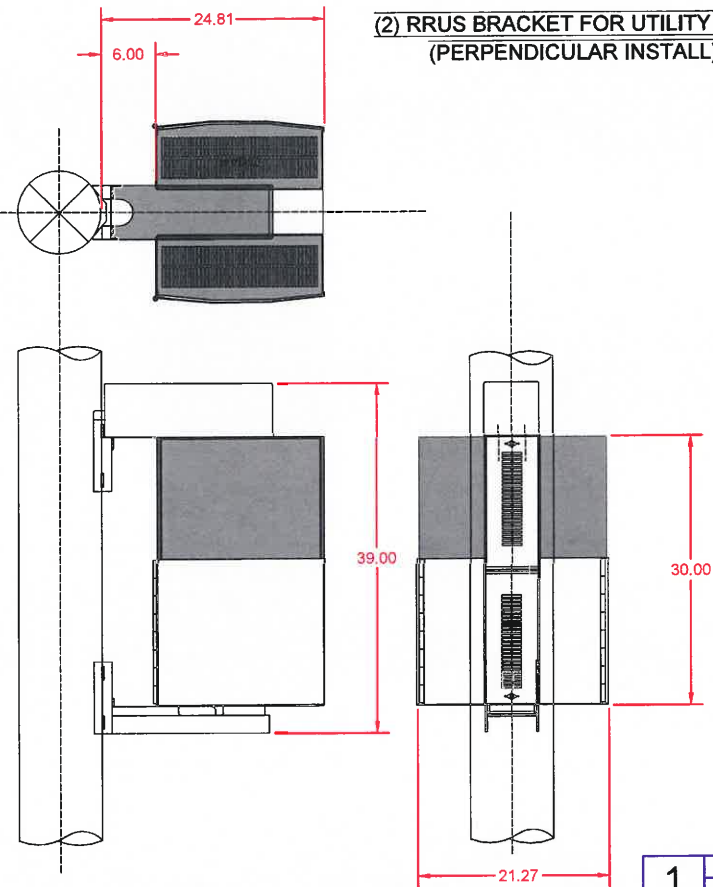
ZONING SUBMITTAL	03/03/18
ZONING COMMENTS	04/16/18
REVISION / ISSUE	DATE



SITE NAME & ADDRESS:
ROW ACROSS FROM 311 EVERETT
AVE & ADJACENT TO 301 BRYANT ST
PALO ALTO, CA
37.447667/-122.163882

DETAILS & NOTES

DRAWN BY: BW	DRAFT DATE: 02/12/18	APPROVED BY: TT
SHEET NO. D-3		



**SF PALO ALTO 021m1
PALO ALTO**
CROWN CASTLE PROJECT NO.
VZW366241CA

CLIENT:
CROWN CASTLE
695 RIVER OAKS PARKWAY
SAN JOSE, CA 95134
www.crowncastle.com

PREPARED BY:
Coastal Communications
Telecommunications Engineering
5841 EDISON PLACE, SUITE 200
CARLSBAD, CA 92008
PHONE: (760) 929-0910
FAX: (760) 929-0936
www.coastalcomminc.com

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REGISTERED PROFESSIONAL ENGINEER
JERRY L. MICHAL
No. C42590
Exp. 03-31-20
CIVIL
STATE OF CALIFORNIA

SITE NAME & ADDRESS:
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DETAILS & NOTES

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BW	02/12/18	TT

SHEET NO.
D-4

CUUT360X12F124s0

Electrical Characteristics	Low Band		High Bands #1 and #2			
	696 960 MHz		(2x) 1695 2700 MHz			
Frequency Bands (MHz)	696-806	806-960	1695-1880	1850-1990	1920-2200	2300-2700
Polarization	±45°		(2x) ±45°			
Horizontal Beamwidth	360°	360°	360°	360°	360°	360°
Vertical Beamwidth	20°	15°	7.5°	7.0°	6.5°	6.0°
Gain	5.5 dBi	6.0 dBi	9.0 dBi	9.5 dBi	10.0 dBi	10.3 dBi
Electrical Downtilt (°)	(x) 0, 2, 4, 6, 8, 10, 12		(y) 0, 4, 8, 12			
Impedance	50Ω		50Ω			
VSWR	≤ 1.5:1		≤ 1.5:1			
Upper Sidelobe Suppression	> 15 dB		> 15 dB			
Isolation Between Ports	20 dB		25 dB			
IM3 (2x20W carrier)	< -153 dBc		< -153 dBc			
Input Power	(2x) 500 W		(4x) 300 W			
Diplexed	No					
Number of Sectors / Sector Spacing	3 Sectors / Pseudo Omni					
Lightning Protection	Direct Ground					

Mechanical Characteristics	
Antenna Dimensions (Height x Diameter)	1219 x 371 mm 48.0 x 14.6 in
Weight without Mounting Bracket Kit	17.3 kg 38.1 lbs
Antenna Volume	0.13 m³ 4.7 ft³
Survival Wind Speed	200 km/hr 125 mph
Wind Area	0.47 m² 5.0 ft²
Wind Load (160 km/hr or 100 mph)	391 N 88 lbf



WB3X-MKS-01

Utility Pole Mounting Kit for Cylindrical Antennas

Mounting Instructions

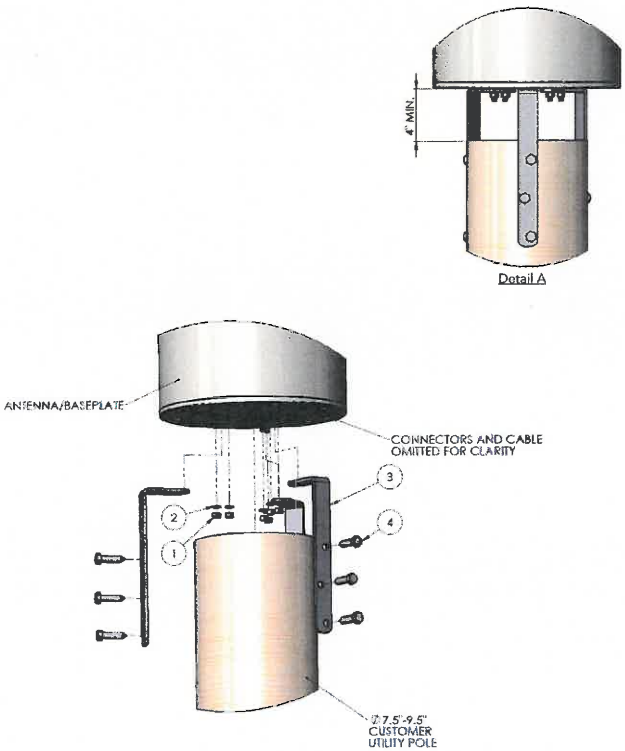
- Step 1 Attach pole mount brackets (Item 3) to antenna/base plate using fasteners (Items 1 and 2). Tighten to 15 N-m (11 ft-lb).
- Step 2 Attach pole mount brackets (Item 3)/antenna assembly to customer utility pole using lag screws (Item 4).
- Step 3 Make all electrical connections weatherproof with self-amalgamating tape.

Parts List	Description	Quantity
Item 1	Nut Hex, 3/8-16 HDG	6
Item 2	Lock Washer 3/8 HDG	6
Item 3	Pole Mount Bracket	3
Item 4	Galvanized Hex Lag Screw (1/2 x 2" Long)	9

Mechanical Characteristics

Weight 2.7 kg (6 lbs)

ANTENNA MOUNT
TYPICAL SECTION: N.T.S.



7 SCALE
N.T.S.

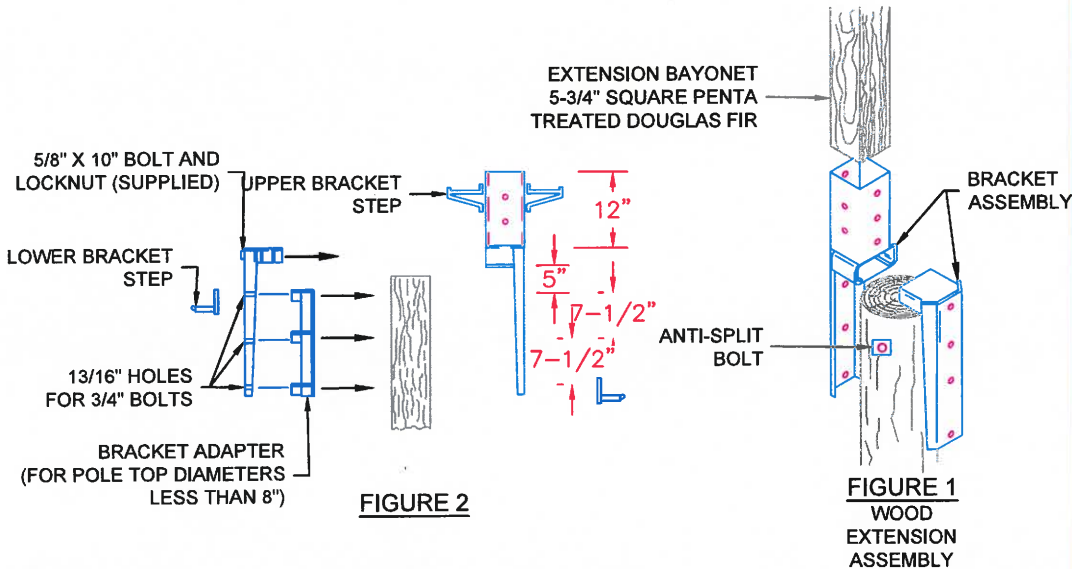
8 SCALE
N.T.S.

NOTES

1. THE UNIT MEETS G.O. 95 REQUIREMENTS FOR STRENGTH IN CLASS 3 THROUGH 6 POLES AND THEREFORE MAY BE USED TO SUPPORT EQUIPMENT ON THESE CLASS POLES. IT MAY BE USED ON LARGER CLASS POLES, BUT MAY NOT SUPPORT EQUIPMENT ON THEM.
2. THE UNIT MAY BE GUYED.
3. THE BRACKET IS MADE TO FIT POLES WITH DIAMETERS OF 8" TO 11". THEREFORE, DEPENDING UPON ACTUAL POLE DIAMETER, TO FIT POLES OF CLASS AND SMALLER, A BRACKET ADAPTER MAY BE REQUIRED.
4. UNITS ARE SUPPLIED WITH THE WOOD BAYONET ASSEMBLED.
5. A POLE STEP KIT IS REQUIRED.

FIGURE 2
BRACKET ASSEMBLY AND BRACKET ADAPTER

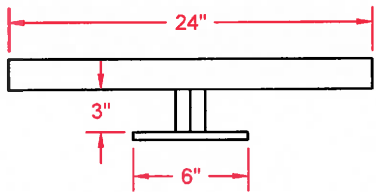
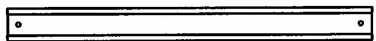
TABLE 1	BILL OF MATERIALS
DESCRIPTION	
5' EXTENSION ASSEMBLY	180219
6' EXTENSION ASSEMBLY	180220
7' EXTENSION ASSEMBLY	180221
BRACKET ADAPTER	180222
3/4" X 10" MACHINE BOLTS	192412
POLE STEP KIT (2 UPPER, 2 LOWER)	180011



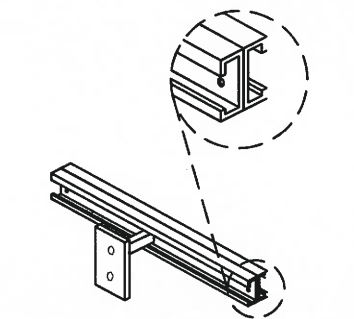
9 SCALE
N.T.S.

STANDOFF BRACKET

FRONT VIEW OF STAND OFF BRACKET:



TOP VIEW STAND OFF BRACKET:



3D VIEW OF STAND OFF BRACKET:

10 SCALE
N.T.S.

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PALO ALTO

CROWN CASTLE PROJECT NO.
VZW366241CA

CLIENT:



PREPARED BY:



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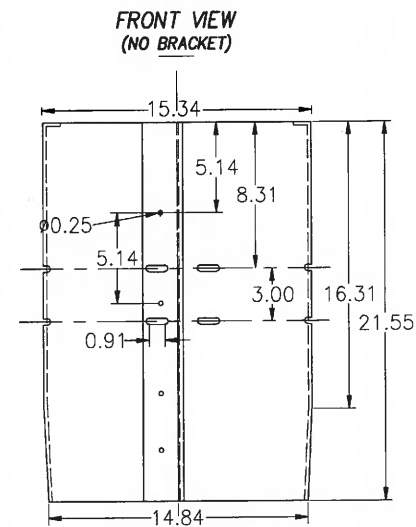


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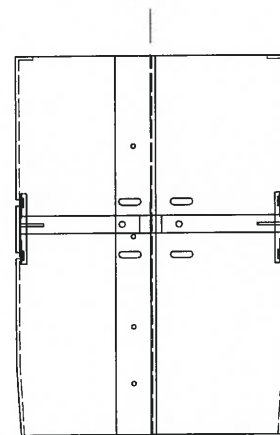
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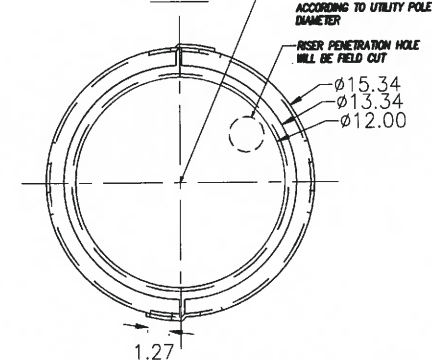
SHEET NO.
D-5



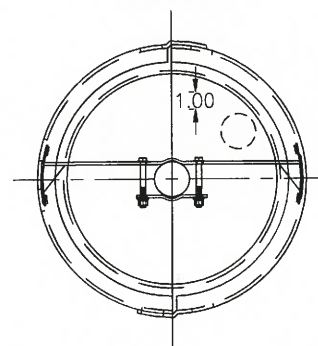
FRONT VIEW
(W/ MOUNTING BRACKET)



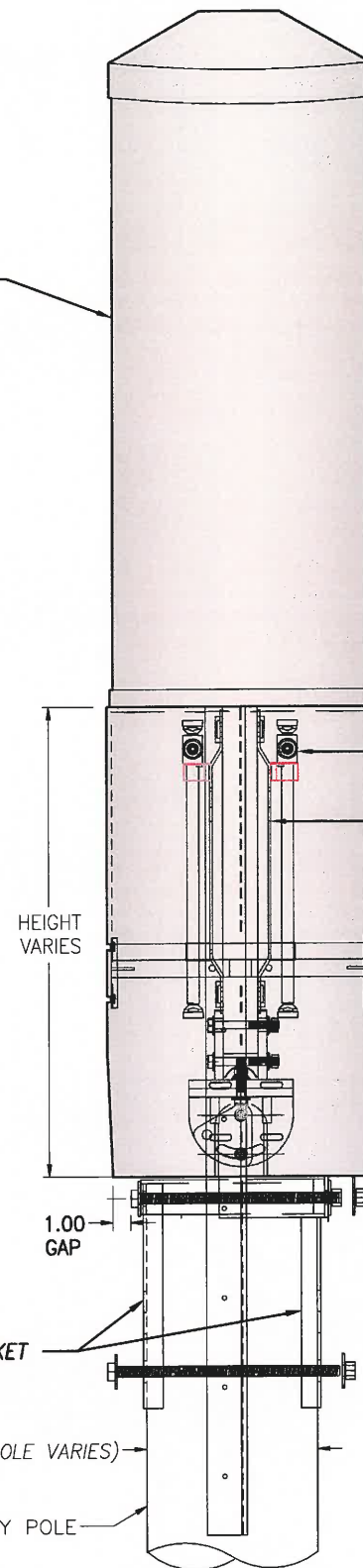
TOP VIEW
(NO BRACKET)



TOP VIEW
(W/ MOUNTING BRACKET)



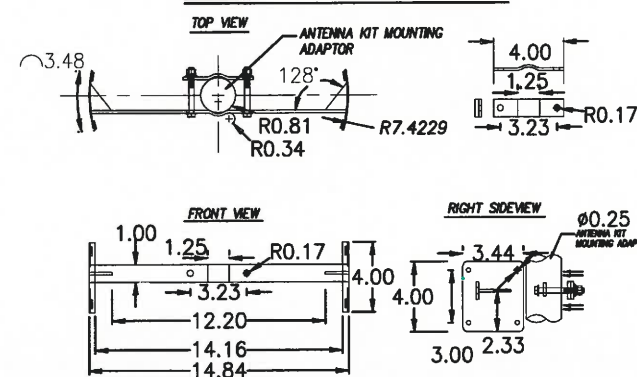
CYLINDER ANTENNA



CONCEALMENT COVER
TYPICAL SECTION: N.T.S.

NOTE: PAINT ANTENNA AND
CUSTOM CONCEALMENT
SHROUD TO MATCH POLE.

RADOME MOUNTING COMPONENTS



- NOTE:
1. CONCEALMENT COVER CAN BE ADJUSTED IN LENGTH TO PASS GROUND INSPECTION.
 2. SHROUD SHALL BE CONSTRUCTED OF 1/4" ABS PLASTIC.
 3. ALL MEASUREMENTS ARE IN INCHES.
 4. THE RISERS DO NOT CONNECT OR GO INTO THE ANTENNA SHROUD.
 5. THERE WILL BE A GAP (UP TO 6") FROM THE TOP OF THE RISER TO THE BOTTOM OF THE SHROUD.

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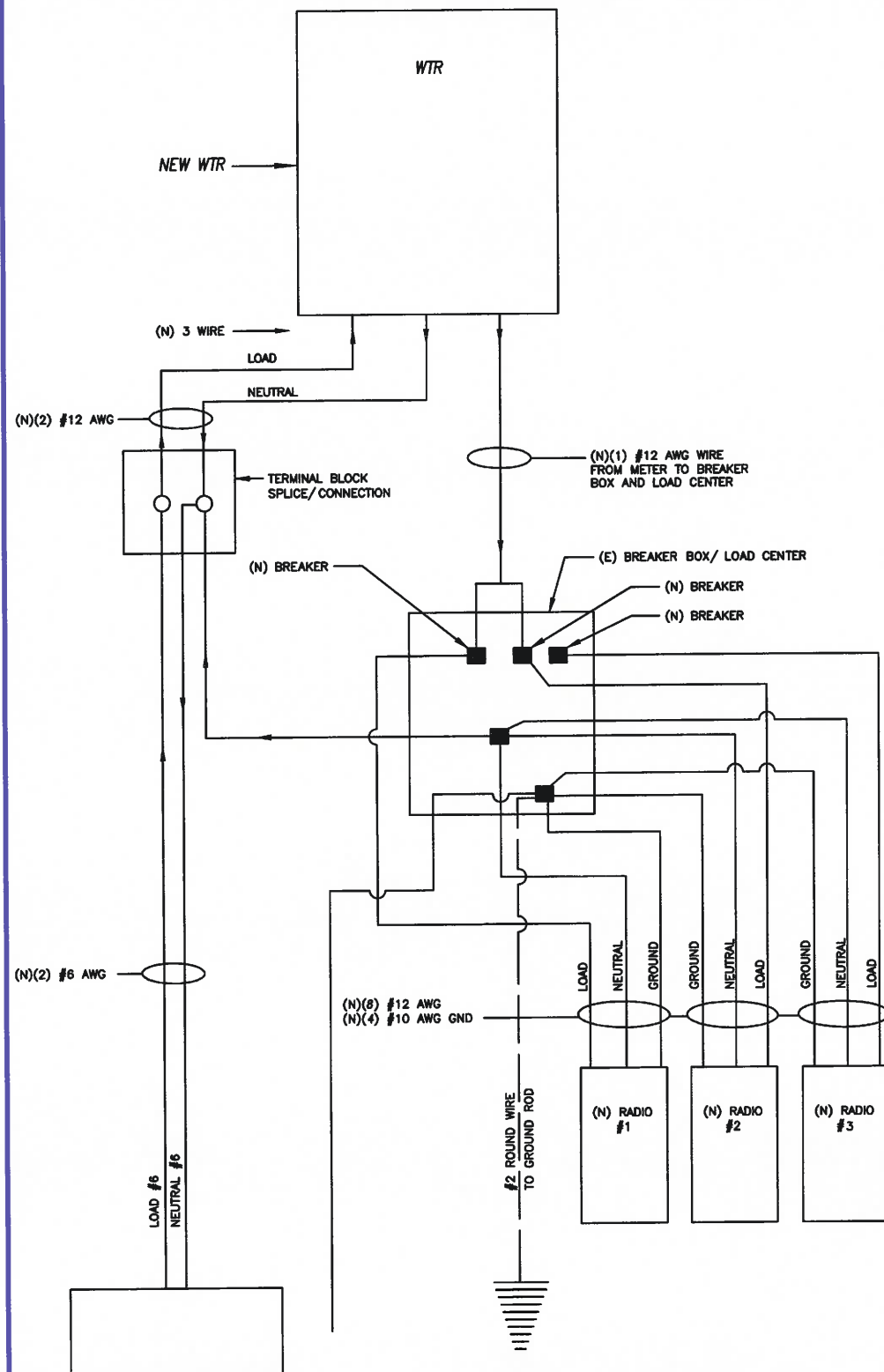
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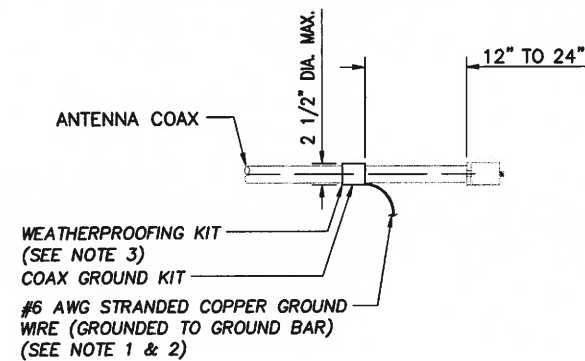
SHEET NO.
D-6

SINGLE LINE DIAGRAM



12 SCALE
N.T.S.

CONNECTION OF COAX GROUND KIT TO ANTENNA COAX

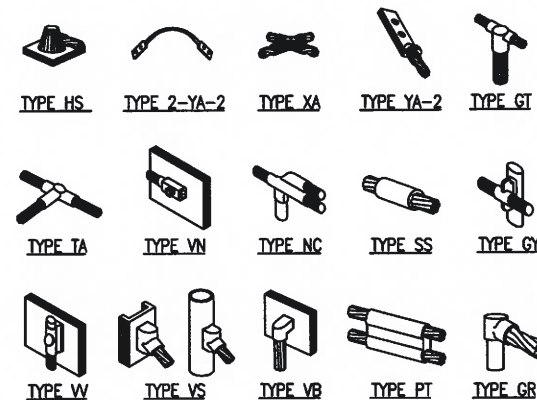


NOTES:

- DO NOT INSTALL COAX GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
- GROUNDING KIT SHALL BE TYPE AND PARK NUMBER AS SUPPLIED OR RECOMMENDED BY COAX MANUFACTURER.
- WEATHER PROOFING SHALL BE TWO-PART TAPE KIT, COLD SHRINK SHALL NOT BE USED.

13 SCALE
N.T.S.

WELD CONNECTION DETAILS

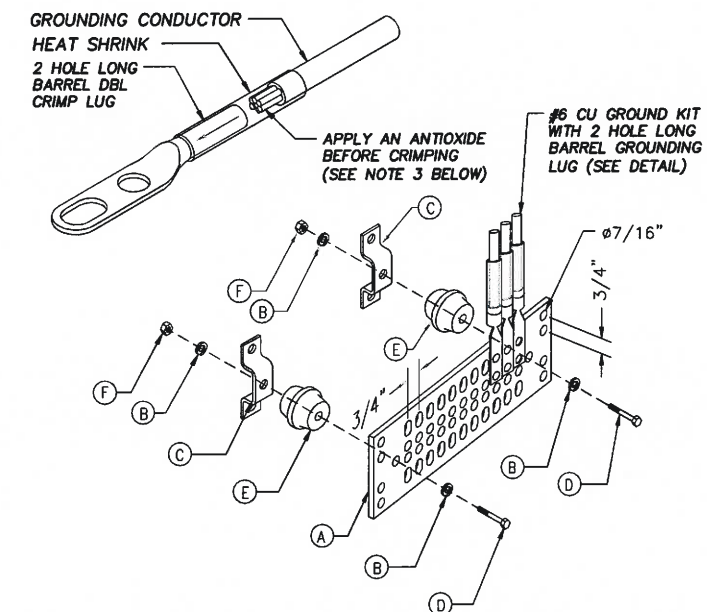


NOTE:

ERICO EXOTHERMIC "MOLD TYPES" SHOWN HERE ARE EXAMPLES. CONSULT WITH PROJECT MANAGER FOR SPECIFIC MOLDS TO BE USED FOR THIS PROJECT.

14 SCALE
N.T.S.

TYPICAL GROUND BAR



NOTES:

- CRIMP (COMPRESSION) TYPE TWO HOLE BOLTED TONGUE CONNECTORS SHALL BE USED TO TERMINATE STRANDED GROUNDING CONDUCTORS. THE CONNECTORS SHALL BE TIN PLATED COPPER, LONG BARREL LUG, AND SHALL BE LISTED FOR THEIR INTENDED USE BY AN NRTL.
- CRIMP TYPE CONNECTORS USED ON SOLID CONDUCTORS MUST BE LISTED BY AN NRTL FOR USE ON SOLID CONDUCTORS, AND MUST BE CRIMPED WITH THE DIES SPECIFIED BY THE MANUFACTURER OF THE CONNECTOR. USE A HYDRAULIC CRIMPING TOOL.
- WIRES SHALL BE INSERTED THE ENTIRE LENGTH OF THE LUG. ENSURE COAX OUTER INSULATION IS SNUG TO LUG BARREL. PROVIDE AN ANTIOXIDE COMPOUND ON THE CONDUCTOR BEFORE CRIMPING (NO OX). INSTALL A TRANSPARENT HEAT SHRINK INSULATING TUBING ALONG THE ENTIRE LENGTH OF THE CRIMP.
- USE #6 AWG STRANDED-THOMAS & BETTS 455578 OR EQUIVALENT.

PARTS LIST		PARTS LIST	
A	COPPER GROUND BAR, USE STYLE "T" GTI TELECOM, INC. OR EQUAL (ACTUAL GROUND BAR SIZE WILL VARY BASED ON NUMBER OF GROUND CONNECTIONS)	C	WALL MOUNTING BRACKET, NEWTON INSTRUMENT CO. CAT. NO. A-6056 OR EQUAL
	5/8" LOCK WASHERS, NEWTON INSTRUMENT CO. CAT. NO. 3015-8 OR EQUAL	D	5/8-11 X 1" HHCS BOLTS, NEWTON INSTRUMENT CO. CAT. NO. A-6056 OR EQUAL
B	5/8" LOCK WASHERS, NEWTON INSTRUMENT CO. CAT. NO. 3015-8 OR EQUAL	E	INSULATORS SHALL BE INSTALLED
		F	5/8-11 NUT

15 SCALE
N.T.S.

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CROWN CASTLE PROJECT NO.
VZW366241CA

CLIENT:



PREPARED BY:



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SITE NAME & ADDRESS:
ROW ACROSS FROM 311 EVERETT
AVE & ADJACENT TO 301 BRYANT ST
PALO ALTO, CA
37.447667/-122.163882

DETAILS & NOTES

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CITY OF PALO ALTO
TREE PROTECTION - IT'S PART OF THE PLAN!
Make sure your crews and subs do the job right!

Fenced enclosures around trees are essential to protect them by keeping the foliage canopy and branching structure clear from contact by equipment, materials and activities, preserving roots and soil conditions in an intact and non-compacted state, and identifying the Tree Protection Zone (TPZ) in which no soil disturbance is permitted and activities are restricted, unless otherwise approved. An approved tree protection report must be added to this sheet when project activity occurs within the TPZ of a regulated tree. For detailed information on Palo Alto's regulated trees and protection during development, review the City Tree Technical Manual (TTM) found at www.cityofpaloalto.org/trees/.



TREE DISCLOSURE STATEMENT

CITY OF PALO ALTO
Planning Division, 250 Hamilton Avenue
Palo Alto, CA 94301
(650) 329-2441
<http://www.cityofpaloalto.org>

Palo Alto Municipal Code, Chapter 8.10.040, requires disclosure and protection of certain trees located on private and public property, and that they be shown on submitted and approved site plans. A completed *tree disclosure statement* must accompany all permit applications that include exterior work, all demolition or grading permit applications, or other development activity.

PROPERTY ADDRESS: Right of way across from 311 Everett St & adjacent to 301 Bryant St, Palo Alto, CA

Are there Regulated¹ trees on or adjacent to the property? ☒ YES ☐ NO (If no, proceed to Section 4)

[Sections 1- 4 MUST be completed by the applicant. Please circle and/or check where applicable.]

1. Where are the trees? Check those that apply. (Plans must be submitted showing all trees over 4" diameter)

- ☐ On the property
☐ On adjacent property overhanging the project site
☒ In the City planter strip or right-of-way easement within 30' of property line (Street Trees)*

*Street trees¹ require special protection by a fenced enclosure, per the attached instructions. Prior to receiving any permit, you must provide an authorized Street Tree Protection Verification form. Contact Public Works Operations at (650) 496-5953 for inspection of type I, II or III fencing (see attached Detail #605) required for all street trees.

2. Are there any Protected¹ or Designated¹ Trees? YES (Check where applicable) ☒ NO

- ☐ Protected Tree (s)
☐ Designated Tree (s)
☐ On or overhanging the property

3. Is there activity or grading within the dripline? (radius 10 times the trunk diameter) of these trees? YES ☒ NO

If Yes, a **Tree Preservation Report** must be prepared by an ISA certified arborist and submitted for staff review (see TTM², Section 6.25). Attach this report to Sheet T-1, "Tree Protection, its Part of the Plan!", per Site Plan Requirements.

4. Are the Site Plan Requirements** completed? ☒ YES ☐ NO

**Plans. Protection of Regulated trees during development require the following: (1) Plans must show the measured trunk diameter and canopy dripline; (2) Plans must denote, as a bold dashed line, a fenced enclosure area out to the dripline, per Sheet T-1 and Detail #605 - <http://www.cityofpaloalto.org/trees/forms.htm> (See also TTM², Section 2.15 for area to be fenced)

I, the undersigned, agree to the conditions of this disclosure. I understand that knowingly or negligently providing false or misleading information in response to this disclosure requirement constitutes a violation of the Palo Alto Municipal Code Section 8.10.040, which can lead to criminal and/or civil legal action.

Signature: [Signature] Print: Rochelle Swanson Date: 11/24/2017
(Prop. Owner or Agent)

FOR STAFF USE:

Protective Fencing
Sections 5-6 must be completed by staff for the issuance of any development permit (demolition, grading or building permit).

5. **Protected Trees.** The specified tree fencing is in place. A written statement is attached verifying that protective fencing is correctly in place around protected and/or designated trees. YES ☐ NO ☐
(N/A if there are no protected trees, check here ☐)

6. **Street Trees.** A signed Public Works Street Tree Protection Verification form is attached. YES ☐ NO ☐
(N/A if there are no street trees, check here ☐)

¹ Regulated Trees – a) Street trees – trees on public property; b) Protected trees – Coast Live Oaks or Valley Oaks which are 11.5" in diameter or larger, Coast Redwoods which are 18" in diameter or larger, when measured 54" above natural grade; and Heritage trees are trees designated by City Council; and c) Designated Trees – commercial or non-residential property trees, which are part of an approved landscape plan.

² Palo Alto Tree Technical Manual (TTM) contains instructions for all requirements on this form, available at www.cityofpaloalto.org/trees/technical-manual.html

Tree technical Manual

To purchase the tree Technical Manual

June, 2001 First Edition

View by section:

- o Table of Contents (PDF, 87KB)
- o Intent and Purpose (PDF, 1.05MB)
- o Introduction - Use of Manual (PDF, 1.05MB)
- o Section 1.0 - Definitions (PDF, 96KB)
- o Section 2.0 - Protection of Trees During Construction (PDF, 259KB)
- o Section 3.0 - Removal, Replacement & Planting of Trees (PDF, 117KB)
- o Section 4.0 - Hazardous Trees (PDF, 105KB)
- o Section 5.0 - Tree Maintenance Guidelines (PDF, 110KB)
- o Section 6.0 - Tree Reports (PDF, 84KB)

View ALL sections:

- o Tree Technical Manual - Full (PDF, 1.84MB)

APPENDICES

- A. Palo Alto Municipal Code Chapter 8.10, Tree Preservation & Management Regulations
B: Tree City - USA
C: ISA Hazard Evaluation Form
D: List of Inherent Failure Patterns for Selected Species (Reference source) E: ISA Tree Pruning Guidelines (PDF, 1.85MB)
F: Tree Care Safety Standards, ANSI Z133.1-1994 (Reference source)
G: Pruning Performance Standards, ANSI A300-1995 (Reference source) H: Tree Planting Details, Diagram 504 & 505 I: Tree Disclosure Statement
J: Palo Alto Standard Tree Protection Instructions

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CROWN CASTLE PROJECT NO.
VZW366241CA

CLIENT:

CROWN CASTLE
695 RIVER OAKS PARKWAY
SAN JOSE, CA 95134
www.crowncastle.com

PREPARED BY:

Coastal Communications
Telecommunications Engineering
5841 EDISON PLACE, SUITE 200
CARLSBAD, CA 92008
PHONE: (760) 929-0910
FAX: (760) 929-0936
www.coastalcommline.com

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SITE NAME & ADDRESS:

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SPECIAL TREE PROTECTION
INSTRUCTION SHEET

DRAWN BY: BW	DRAFT DATE: 02/12/18	APPROVED BY: TT
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SHEET NO.

T1.1

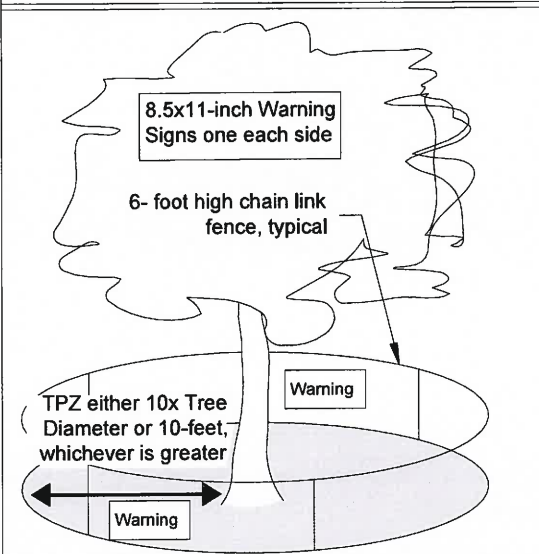
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Make sure your crews and subs do the job right!

Fenced enclosures around trees are essential to protect them by keeping the foliage canopy and branching structure clear from contact by equipment, materials and activities, preserving roots and soil conditions in an intact and non-compacted state, and identifying the Tree Protection Zone (TPZ) in which no soil disturbance is permitted and activities are restricted, unless otherwise approved. An approved tree protection report must be added to this sheet when project activity occurs within the TPZ of a regulated tree. For detailed information on Palo Alto's regulated trees and protection during development, review the City Tree Technical Manual (TTM) found at www.cityofpaloalto.org/trees/.

For written specifications associated with illustrations below, see Public Works Specifications Section 31
Detailed specifications are found in the Palo Alto Tree Technical Manual (TTM) (www.cityofpaloalto.org/trees/)

Tree Protection (TPZ) shown in gray (radius of TPZ equals 10-times the diameter of the tree or 10-feet, whichever is greater).

- Restricted activity area – see Tree Technical Manual Sec 2.15(E).
- Restricted trenching area – see Tree Technical Manual Sec 2.20(C-D), any proposed trench or form work within TPZ of a protected tree requires approval from Public Works Operations. Call 650-496-5953.



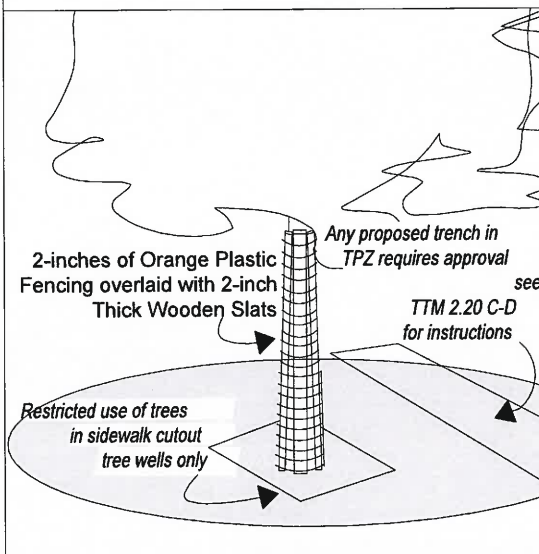
Type I Tree Protection

For all Ordinance Protected & Designated trees, as detailed in the site specific tree preservation report (TPR) prepared by the applicant's project arborist as diagramed on the plans.

Note: Ordinance Protected & Designated Trees. Issuance of a permit requires applicant's project arborist written verification Type I is installed correctly according to the plans and Tree Preservation Report

Any inadvertent sidewalk or curb replacement or trenching requires approval

Type II Tree Protection



Note: Street Trees. Issuance of a permit requires Public Works Operations inspection and signed approval on the Street Tree Verification (STV) form provided.

Type III Tree Protection

(to be used only with approval of Public Works Operations)

Tree fencing is required and shall be erected before demolition, grading or construction begins.



PALO ALTO STREET TREE PROTECTION INSTRUCTIONS --SECTION 31--

- Tree protection has three primary functions, 1) to keep the foliage canopy and branching structure clear from contact by equipment, materials and activities; 2) to preserve roots and soil conditions in an intact and non-compacted state and 3) to identify the Tree Protection Zone (TPZ) in which no soil disturbance is permitted and activities are restricted, unless otherwise approved.
- The Tree Protection Zone (TPZ) is a restricted area around the base of the tree with a radius of ten-times the diameter of the tree's trunk or ten feet; whichever is greater, enclosed by fencing.

31-2 Reference Documents

- Detail 605- illustration of situations described below.
- Tree Technical Manual (TTM) Forms (<http://www.cityofpaloalto.org/trees/>)
- Trenching Restriction Zones (TTM, Section 2.20(C))
- Arborist Reporting Protocol (TTM, Section 6.30)
- Site Plan Requirements (TTM, Section 6.35)
- Tree Disclosure Statement (TTM, Appendix J)
- Street Tree Verification (STV) Form (<http://www.cityofpaloalto.org/trees/forms>)

31-3 Execution

- Type I Tree Protection: The fence shall enclose the entire TPZ of the tree(s) to be protected throughout the life of the construction project. In some parking areas, if fencing is located on paving or concrete that will not be demolished, then the posts may be supported by an appropriate grade level concrete base, if approved by Public Works Operations.
- Type II Tree Protection: For trees situated within a planting strip, only the planting strip and yard side of the TPZ shall be enclosed with the required chain link protective fencing in order to keep the sidewalk and street open for public use.
- Type III Tree Protection: To be used only with approval of Public Works Operations. Trees situated in a tree well or sidewalk planter pit, shall be wrapped with 2-inches of orange plastic fencing from the ground to the first branch and overlaid with 2-inch thick wooden slats bound securely (slats shall not be allowed to dig into the bark). During installation of the plastic fencing, caution shall be used to avoid damaging any branches. Major limbs may also require plastic fencing as directed by the City Arborist.
- Size, type and area to be fenced. All trees to be preserved shall be protected with six (6') foot high chain link fences. Fences are to be mounted on two-inch diameter galvanized iron posts, driven into the ground to a depth of at least 2-feet at no more than 10-foot spacing. Fencing shall extend to the outer branching, unless specifically approved on the STV Form.
- 'Warning' signs. A warning sign shall be weather proof and prominently displayed on each fence at 20-foot intervals. The sign shall be minimum 8.5-inches x 11-inches and clearly state in half inch tall letters: "WARNING - Tree Protection Zone - This fence shall not be removed and is subject to a fine according to PAMC Section 8.10.110."
- Duration. Tree fencing shall be erected before demolition; grading or construction begins and remain in place until final inspection of the project, except for work specifically allowed in the TPZ. Work or soil disturbance in the TPZ requires approval by the project arborist or City Arborist (in the case of work around Street Trees). Excavations within the public right of way require a Street Work Permit from Public Works.
- During construction
 - All neighbors' trees that overhang the project site shall be protected from impact of any kind.
 - The applicant shall be responsible for the repair or replacement plus penalty of any publicly owned trees that are damaged during the course of construction, pursuant to Section 8.04.070 of the Palo Alto Municipal Code.
 - The following tree preservation measures apply to all trees to be retained:
 - No storage of material, topsoil, vehicles or equipment shall be permitted within the TPZ.
 - The ground under and around the tree canopy area shall not be altered.
 - Trees to be retained shall be irrigated, aerated and maintained as necessary to ensure survival.

END OF SECTION

City of Palo Alto 2004 Standard Drawings and Specifications
Street Tree Verification of Protection, PWE, Section 31

Revised 08/06

SF PALO ALTO 021m1
PALO ALTO
CROWN CASTLE PROJECT NO.
VZW366241CA

CLIENT:
CROWN CASTLE
695 RIVER OAKS PARKWAY
SAN JOSE, CA 95134
www.crowncastle.com

PREPARED BY:
Coastal Communications
Telecommunications Engineering
5841 EDISON PLACE, SUITE 200
CARLSBAD, CA 92008
PHONE: (760) 929-0910
FAX: (760) 929-0936
www.coastalcommunc.com

PROPRIETARY INFORMATION
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ZONING SUBMITTAL	03/03/18
ZONING COMMENTS	04/16/18
REVISION / ISSUE	DATE



SITE NAME & ADDRESS:
ROW ACROSS FROM 311 EVERETT
AVE & ADJACENT TO 301 BRYANT ST
PALO ALTO, CA
37.447667/-122.163882

SPECIAL TREE PROTECTION
INSTRUCTION SHEET

DRAWN BY: BW	DRAFT DATE: 02/12/18	APPROVED BY: TT
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SHEET NO.
T1.2

CITY OF PALO ALTO
TREE PROTECTION - IT'S PART OF THE PLAN!
Make sure your crews and subs do the job right!

Fenced enclosures around trees are essential to protect them by keeping the foliage canopy and branching structure clear from contact by equipment, materials and activities, preserving roots and soil conditions in an intact and non-compacted state, and identifying the Tree Protection Zone (TPZ) in which no soil disturbance is permitted and activities are restricted, unless otherwise approved. An approved tree protection report must be added to this sheet when project activity occurs within the TPZ of a regulated tree. For detailed information on Palo Alto's regulated trees and protection during development, review the City Tree Technical Manual (TTM) found at www.cityofpaloalto.org/trees/.

Table 2-2 Palo Alto Tree Technical Manual
ARBORIST INSPECTION SCHEDULE

All Checked Items Apply to this project:

- ☒ Inspection of Protective Tree Fencing. The Street Tree Verification Form shall be signed by the City Arborist. For other Protected Trees, the project arborist shall provide a written statement with a photograph verifying that he has conducted a field inspection of the trees and that the protective tree fencing is in place prior to issuance of a demolition, grading, or building permit. (see Verification of Tree Protection, Section 1.39).
- ☒ Pre-Construction Meeting. Prior to commencement of construction, the applicant or contractor shall conduct a pre-construction meeting to discuss tree protection with the job site superintendent, grading equipment operators, project arborist, City Arborist, and, if a city maintained irrigation system exists, the Parks Manager (Contact 650-496-6962).
- ☐ Inspection of Rough Grading. The project arborist shall perform an inspection during the course of rough grading ACROSS FROM the TPZ to ensure trees will not be injured by compaction, cut or fill, drainage and trenching, and if required, inspect aeration systems, tree wells, drains and special paving. The contractor shall provide the project arborist at least 48 hours advance notice of such activity.
- ☐ Monthly Inspections. The project arborist shall perform a monthly activity inspection to monitor and advise for conditions and tree health. The City Arborist shall be in receipt of the activity report during the first week of each calendar month or, immediately if there are any revisions to the approved plans or protection measures. Fax to (650) 329-2154. (see Monthly Inspection Report, Section 1.17).
- ☐ Special activity within the Tree Protection Zone. Work in this area (TPZ - described in #7 below) requires the direct onsite supervision of the project arborist (see Trenching, Excavation and Equipment, Section 2.20 C).
- ☐ Landscape Architect Inspection. For discretionary development projects, prior to temporary or final occupancy the applicant or contractor shall arrange for the Landscape Architect to perform an on site inspection of all plant stock, quality of the materials and planting (see Quality, Section 5.20.1 A) and that the irrigation is functioning consistent with the approved construction plans. The City shall be in receipt of written verification of Landscape Architect approval prior to scheduling the final inspection, unless otherwise approved.
- ☐ Other (please describe) _____



City of Palo Alto
Tree Department
Public Works Operations
PO Box 10250 Palo Alto, CA 94303
6501496-5953 FAX: 6501852-9289
treeprotection@CityofPaloAlto.org

Verification of
Street Tree Protection

Applicant Instruction: Complete upper portion of this form. Mail or FAX this form along with the signed tree Disclosure Statement to Public Works Dept. Public Works Tree Staff will inspect and notify applicant.

APPLICATION DATE:	
ADDRESS/LOCATION OF STREET TREES TO BE PROTECTED:	
APPLICANT'S NAME:	
APPLICANT'S ADDRESS:	
APPLICANT'S TELEPHONE & FAX NUMBERS:	

This section to be filled out by City Tree Staff

1. The Street Trees at the above address(es) are adequately protected. The type of protection used is:	YES NO *If NO, go to #2 below
Inspected by:	
Date of Inspection:	

2. The Street Trees at the above address are NOT adequately protected. The following modifications are required:	
Indicate how the required modifications were communicated to the applicant.	

Subsequent Inspection

Street trees at above address were found to be adequately protected: inspected by:	YES NO *If NO, indicate in "Notes" below the disposition of case.
Date of Inspection:	

Notes: List City street trees by species, site, condition and type of tree protection installed. Also note if pictures were taken. Use back of sheet if necessary.	
--	--

Return approved sheet to Applicant for demolition or building permit issuance.
S:PWD/OPS/Tree/DS/St TreeProtect

5/1706

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PALO ALTO
CROWN CASTLE PROJECT NO.
VZW366241CA

CLIENT:

695 RIVER OAKS PARKWAY
SAN JOSE, CA 95134
www.crowncastle.com

PREPARED BY:

5841 EDISON PLACE, SUITE 200
CARLSBAD, CA 92008
PHONE: (760) 929-0910
FAX: (760) 929-0936
www.coastalcommunc.com

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1-800-227-2600
CALL AT
LEAST TWO
DAYS BEFORE
YOU DIG
UNDERGROUND SERVICE ALERT
TICKET #

ZONING SUBMITTAL	03/03/18
ZONING COMMENTS	04/16/18
REVISION / ISSUE	DATE



SITE NAME & ADDRESS:
ROW ACROSS FROM 311 EVERETT
AVE & ADJACENT TO 301 BRYANT ST
PALO ALTO, CA
37.447667/-122.163882

SPECIAL TREE PROTECTION
INSTRUCTION SHEET

DRAWN BY: BW	DRAFT DATE: 02/12/18	APPROVED BY: TT
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SHEET NO.
T1.3

CITY OF PALO ALTO
TREE PROTECTION - IT'S PART OF THE PLAN!
Make sure your crews and subs do the job right!

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ADDENDUM 11

Arborist Firm Data
Here

City of Palo Alto Tree
Technical Manual

email:
RCA/ISA Certified Arborist #WE-000
Contact Cell #:

Monthly Tree Activity Report- Construction Site

Inspection Date:	Site Address:	Contractor- Main Site Contact Information	#1: Job site superintendent Company: Email: Job site: Office: Cell: Mail:
Inspection #	Palo Alto, CA	Also present:	• •
Distribution:	1. City of Palo Alto 2. Others	Attn: Dave Dockter	Dave.dockter@cityofpaloalto.org 650-329-2440

Provide the requested minimum information with each report, customize as necessary. To be completed by project site arborist. Send monthly to city arborist at above address until project completion. Use additional sheets as needed.

- Assignment Activity (Demolition/grading/sewer/trenching/foundation/list relevant visits)
 - Pre-construction meeting requirement with sub-contractors
 - Inspect to verify that tree protection measures are in place
 - Determine if field adjustments, watering or plan revisions may be needed
- Field Observations (general site-wide and list by individual tree number)
 - Tree Protection Fences (TPF) are...
 - Trenching has/will occur
- Action Items (list site-wide, by tree number and date to be satisfied) and Date Due
 - Tree Protection Fence (TPF) needs adjusting (tree # x, x, x)
 - Root zone buffer material (wood chips) can be installed next
 - Schedule sewer trench, foundation dig with...
- Photographs (use often)
- Tree location Map (mandatory 8.5 x 11 sheet)
- Recommendations, notes or monitor items for projects/staff/schedule
- Past visits (list carry-over items satisfied/still outstanding)

Respectfully submitted,

Project site arborist
Consultant contact information (Include email, cell #, and mailing)

Enter date CPA Monthly Tree activity Report: Type site address here

---WARNING---
Tree Protection Zone

This fencing shall not be removed
without City Arborist approval
(650-496-5953)

Removal without permission is
subject to a \$500 fine per day*

*Palo Alto Municipal Code Section 8.10.110

City of Palo Alto Tree Protection Instructions are located at
<http://www.cityofpaloalto.ca.us/trees/technical-manual.html>

SPECIAL INSTRUCTIONS

PLANNING DEPARTMENT

TREE PROTECTION INSPECTIONS MANDATORY

PAMC 8.10 PROTECTED TREES. CONTRACTOR SHALL ENSURE PROJECT SITE ARBORIST IS PERFORMING REQUIRED TREE INSPECTION AND SITE MONITORING. PROVIDE WRITTEN MONTHLY TREE ACTIVITY REPORTS TO THE PLANNING DEPARTMENT LANDSCAPE REVIEW STAFF BEGINNING 14 DAYS AFTER BUILDING PERMIT ISSUANCE.

BUILDING PERMIT DATE: _____

DATE OF 1ST TREE ACTIVITY REPORT: _____

CITY STAFF: _____

REPORTING DETAILS OF THE MONTHLY TREE ACTIVITY REPORT SHALL CONFORM TO SHEET T-1 FORMAT, VERIFY THAT ALL TREE PROTECTION MEASURES ARE IMPLEMENTED AND WILL INCLUDE ALL CONTRACTOR ACTIVITY, SCHEDULED OR UNSCHEDULED, WITHIN A TREE A TREE PROTECTION ROOT ZONE. NON-COMPLIANCE IS SUBJECT TO VIOLATION OF PAMC 8.10.080. REFERENCE: PALO ALTO TREE TECHNICAL MANUAL, SECTION 2.00 AND ADDENDUM 11.

ALL OTHER TREE-RELATED REPORTS SHALL BE ADDED USING
ADDITIONAL "T" SHEETS AS NEEDED.

SF PALO ALTO 021m1
PALO ALTO

CROWN CASTLE PROJECT NO.
VZW366241CA

CLIENT:



PREPARED BY:



PROPRIETARY INFORMATION

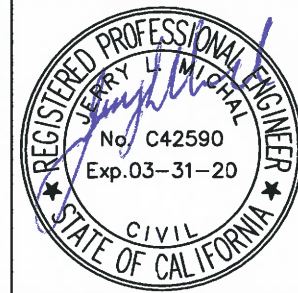
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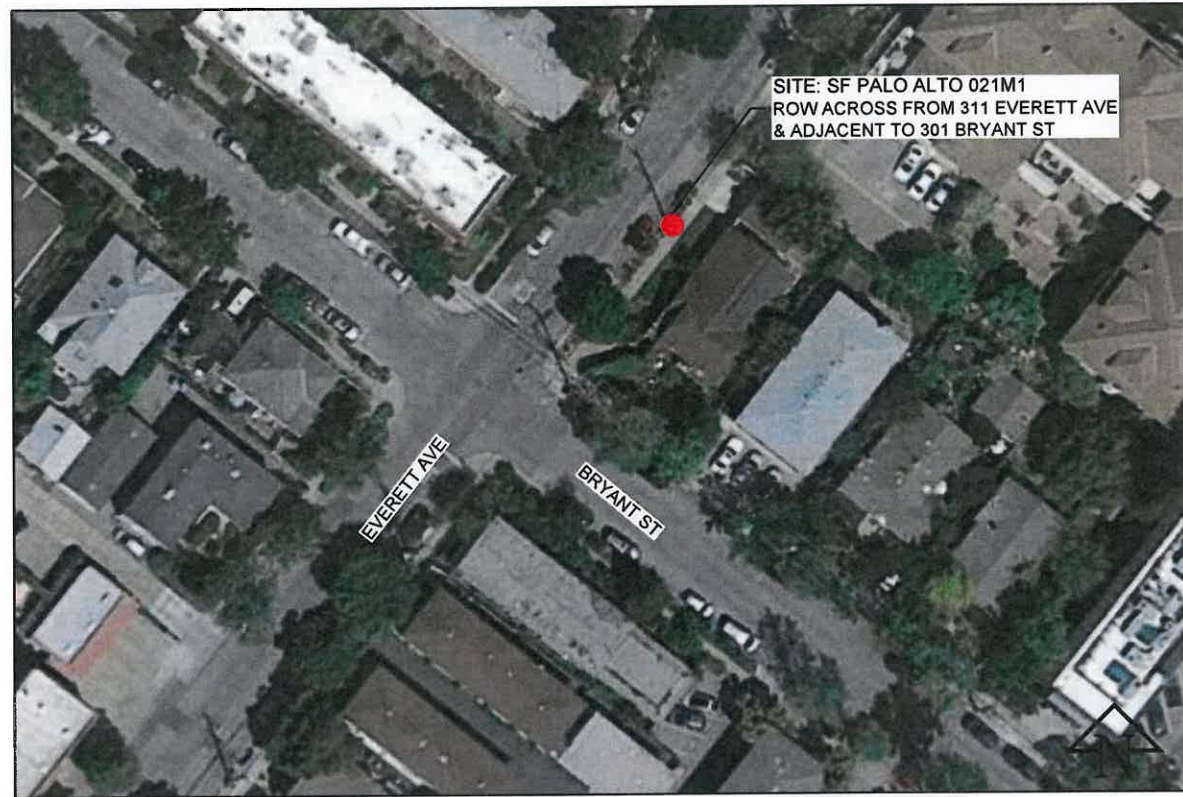


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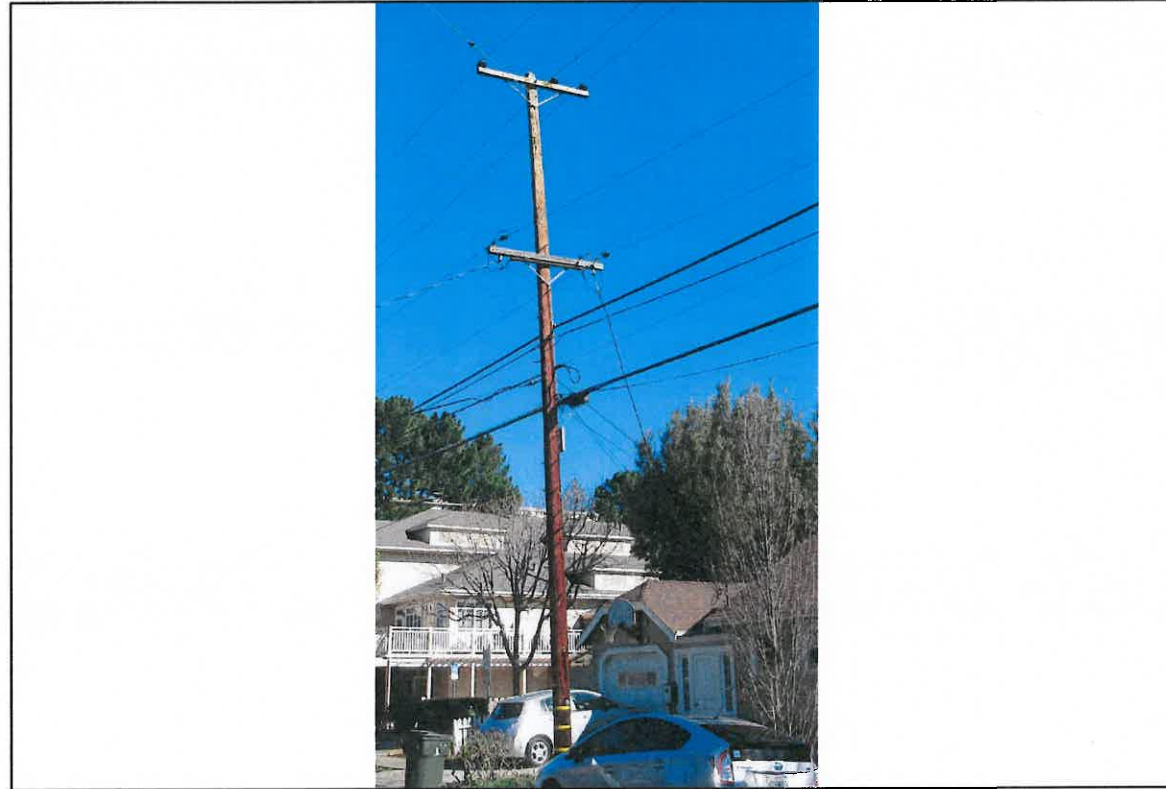
SPECIAL TREE PROTECTION
INSTRUCTION SHEET

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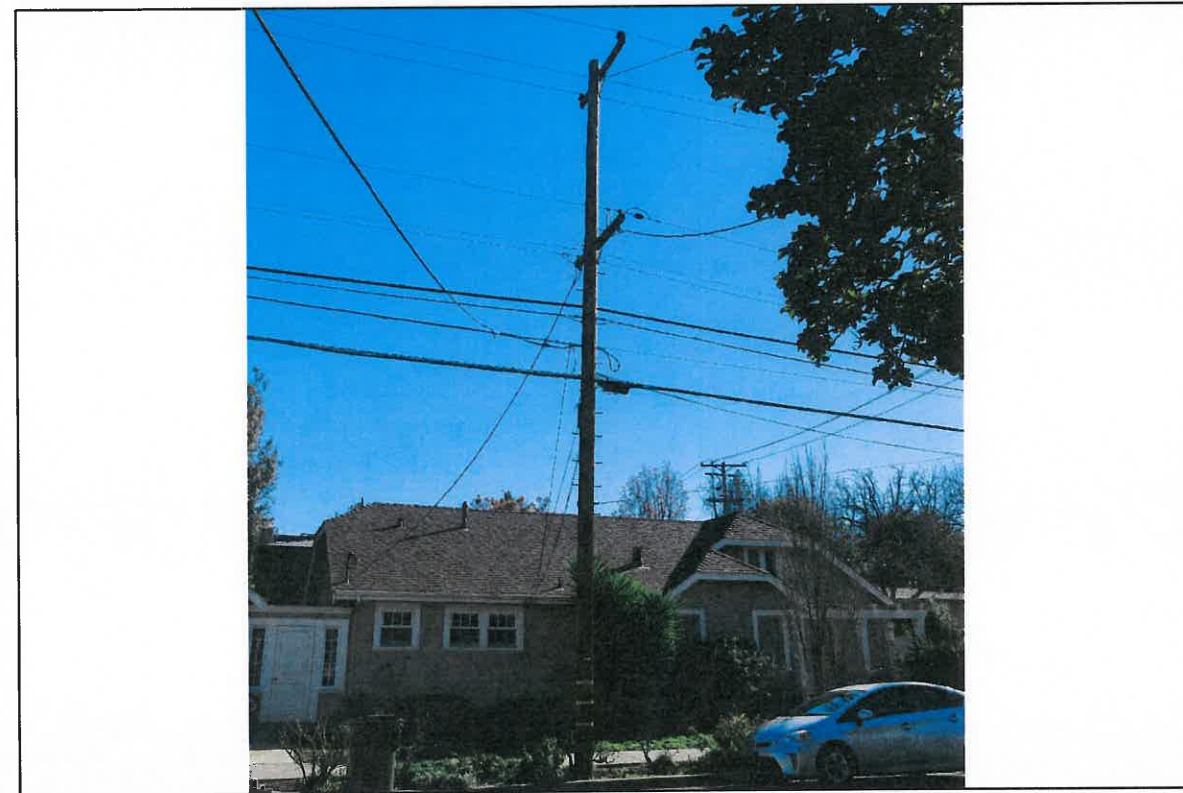
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T1.4



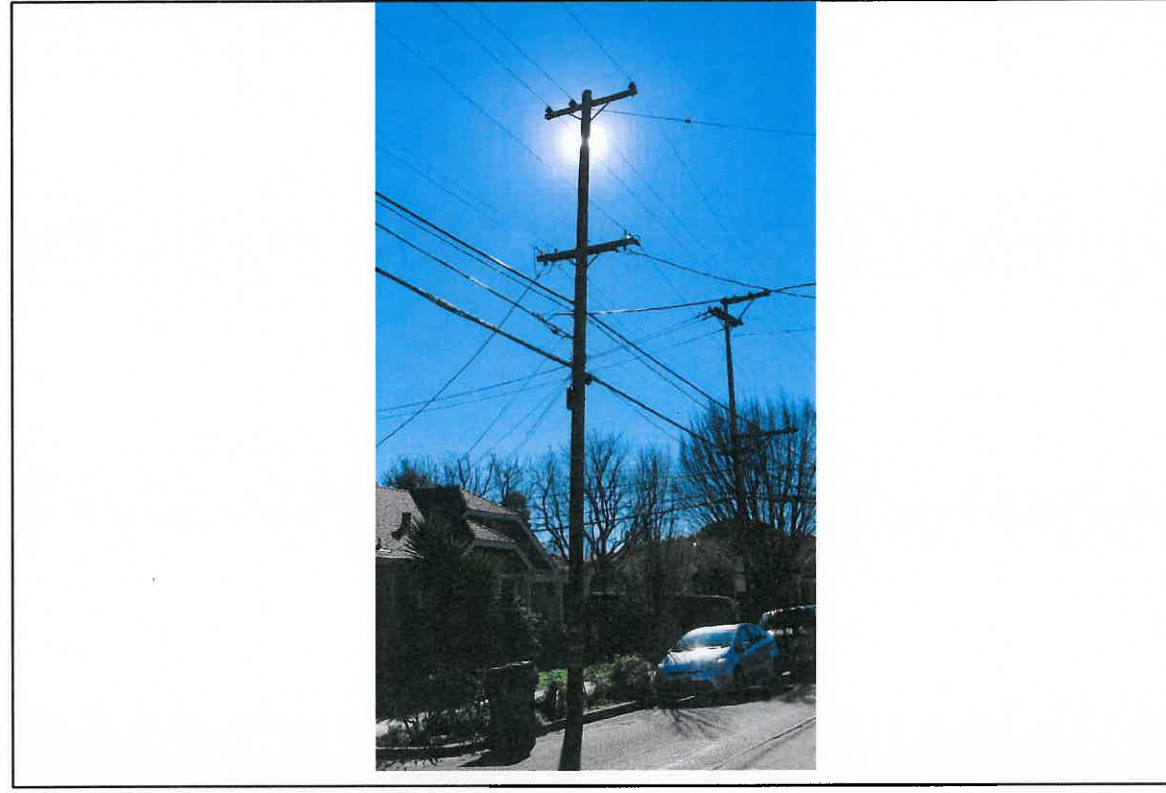
A KEY MAP



B 10 O'CLOCK VIEW



C 12 O'CLOCK VIEW



D 2 O'CLOCK VIEW

**SF PALO ALTO 021m1
PALO ALTO**

CROWN CASTLE PROJECT NO.
VZW366241CA

CLIENT:



PREPARED BY:



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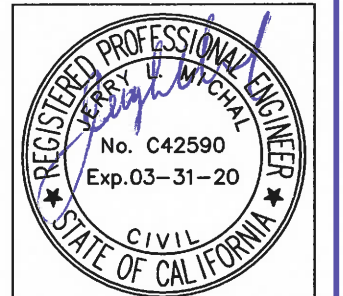
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SITE NAME & ADDRESS:
ROW ACROSS FROM 311 EVERETT
AVE & ADJACENT TO 301 BRYANT ST
PALO ALTO, CA
37.447667/-122.163882

PHOTOS

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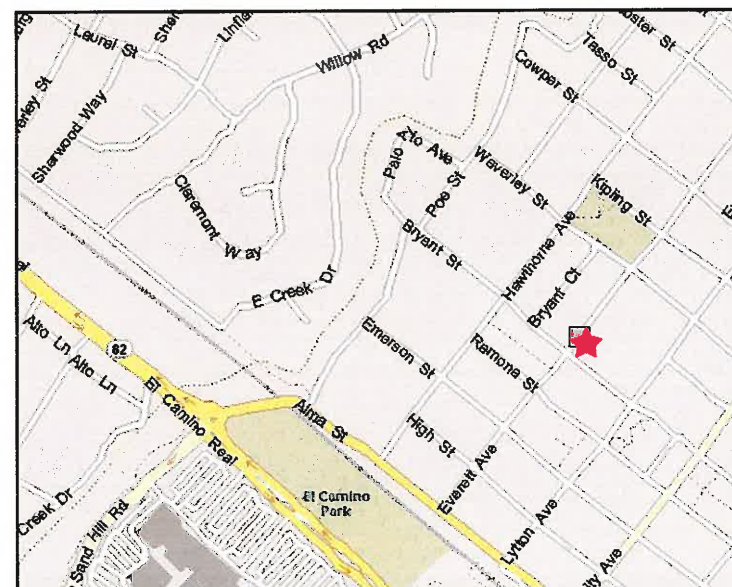
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P-1

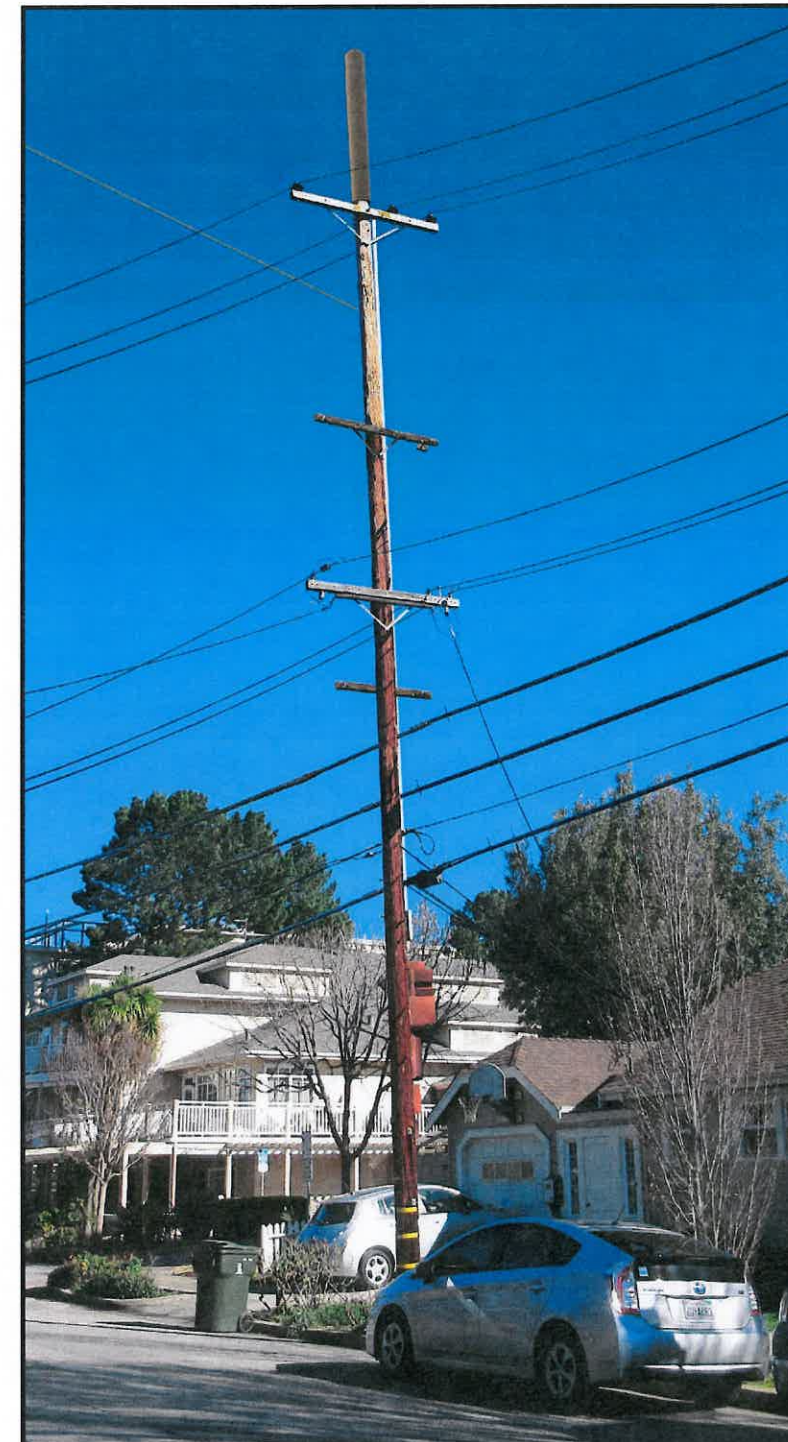


Existing Site

SF PALO ALTO 021m1
ROW ACROSS FROM
311 EVERETT AVE &
ADJACENT TO
301 BRYANT STREET
PALO ALTO, CA



Vicinity Map



Proposed Site

SF PALO ALTO 021m1
PALO ALTO

CROWN CASTLE PROJECT NO.
VZW366241CA

CLIENT:

 695 RIVER OAKS PARKWAY
 SAN JOSE, CA 95134
 www.crowncastle.com

PREPARED BY:

 5841 EDISON PLACE, SUITE 200
 CARLSBAD, CA 92008
 PHONE: (760) 929-0910
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 PALO ALTO, CA
 37.447667/-122.163882

PHOTOSIM

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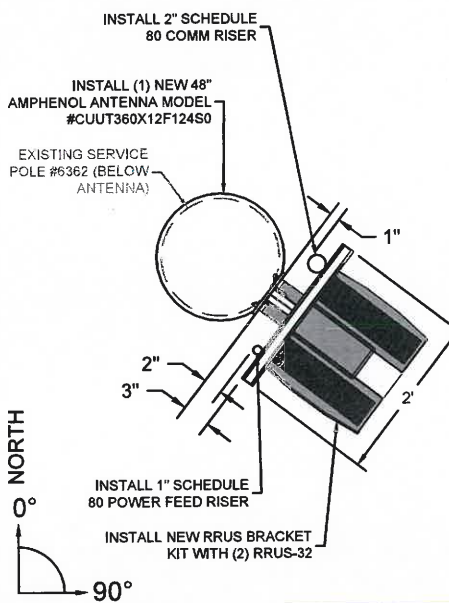
SHEET NO.
P-2

POLE #6362
TOP OF EXISTING POLE: 43' 9"
TOP OF ANTENNA(S): 55'-1"
RAD CENTER: 53'-1"
AZIMUTH(S): OMNI
PROFILE VIEW: 3 O' CLOCK

A NOTES

- INSTALL NEW VGR.
- INSTALL NEW POWER DISCONNECT BOX ON STANDOFF BRACKET AT 8'-0" TO 8'-9".
- INSTALL NEW WTR ENCLOSURE ON STANDOFF BRACKET AT 9'-6" TO 10'-6".
- INSTALL NEW RRUS-11 AT 11'-0" TO 12'-5".
- INSTALL NEW RRUS-32 BRACKET KIT WITH (2) RRUS-32 AT 13'-0" TO 16'-3".
- INSTALL STANDOFF BRACKET (TYP.).
- RAISE EXISTING OHG TO 21'-9"; EXISTING HEIGHT AT 14'-6".
- LOWER CATV TO 23'-3"; EXISTING HEIGHT AT 24'-3".
- LOWER COMM TO 24'-3"; EXISTING HEIGHT AT 25'-10".
- LOWER COMM TO 25'-3"; EXISTING HEIGHT AT 26'-10".
- INSTALL CROWN CASTLE FIBER AT 26'-3".
- INSTALL DOUBLE CROSSARM AT 27'-2".
- INSTALL 2" SCHEDULE 80 COMM RISER.
- INSTALL 1" SCHEDULE 80 POWER RISER (BEHIND COMM RISER).
- INSTALL 5'-7" POLE MOUNTED EXTENSION & (1) NEW 48" AMPHENOL ANTENNA MODEL #CUUT360X12F124S0 WITH CUSTOM SHROUD CONCEALMENT COVER.
- ALL EQUIPMENT SHALL BE PAINTED TO MATCH TEXTURE AND COLOR.
- NO GROUND DISTURBANCE NECESSARY.

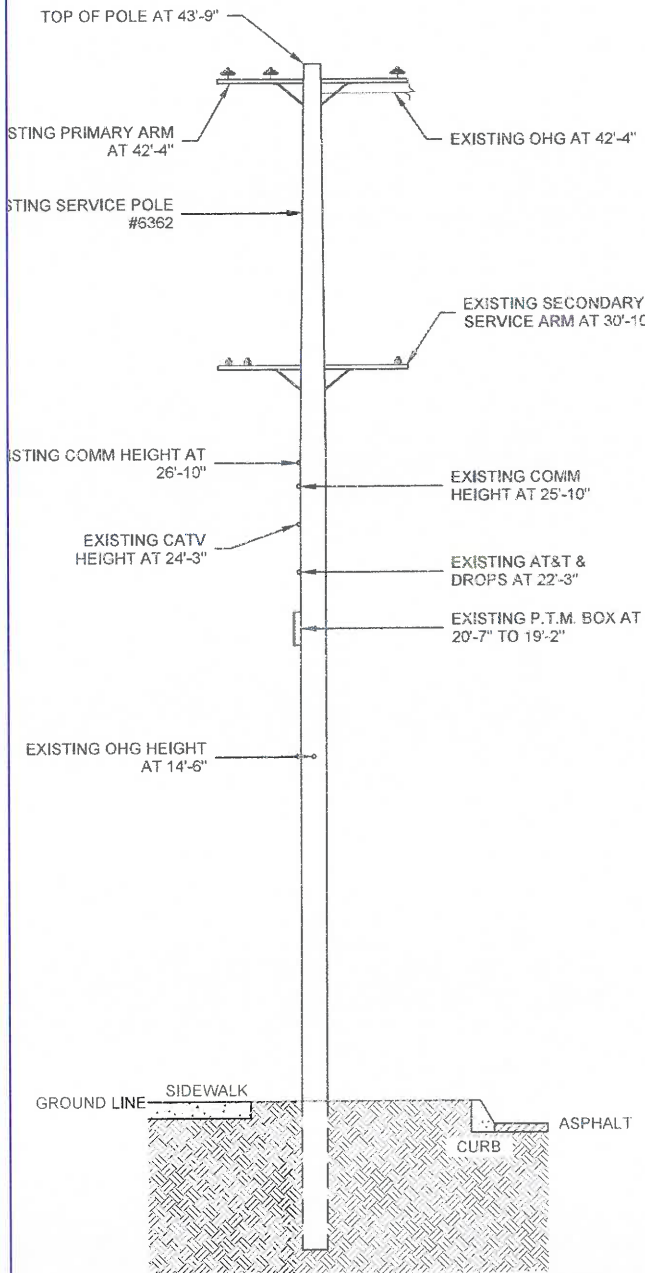
B CONSTRUCTION NOTES



C TOP VIEW

N.T.S.

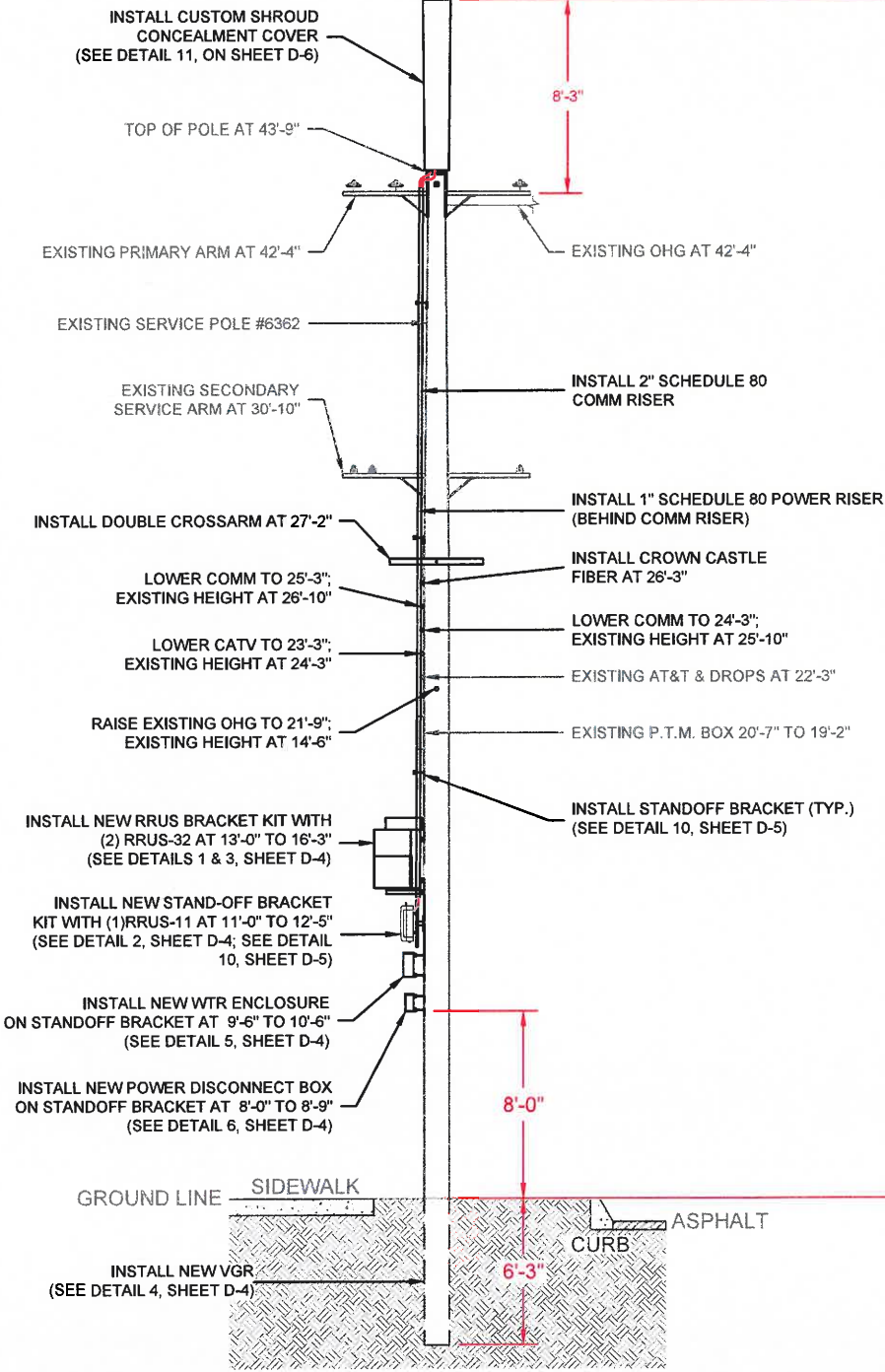
NOTE: ANY REARRANGMENT OF EXISTING EQUIPMENT PER G095



D EXISTING - 3 O'CLOCK ELEVATION

11"x17" SCALE: 1/8" = 1'-0"
24"x36" SCALE: 1/4" = 1'-0"

INSTALL 5'-7" POLE MOUNTED EXTENSION & (1) NEW 48" AMPHENOL ANTENNA MODEL #CUUT360X12F124S0 (SEE DETAILS 7, 8 & 9, ON SHEET D-5)



E PROPOSED - 3 O'CLOCK ELEVATION

NOTE: ALL EQUIPMENT SHALL BE PAINTED TO MATCH EXISTING POLE.

11"x17" SCALE: 1/8" = 1'-0"
24"x36" SCALE: 1/4" = 1'-0"

**SF PALO ALTO 021m1
PALO ALTO**

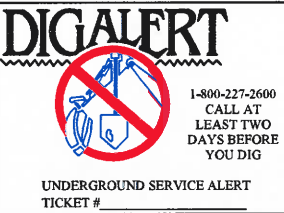
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ZONING COMMENTS	04/18/18
REVISION / ISSUE	DATE



SITE NAME & ADDRESS:
ROW ACROSS FROM 311 EVERETT AVE & ADJACENT TO 301 BRYANT ST PALO ALTO, CA
37.447667/-122.163882

PROFILE

DRAWN BY: BW	DRAFT DATE: 02/12/18	APPROVED BY: TT
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SHEET NO.

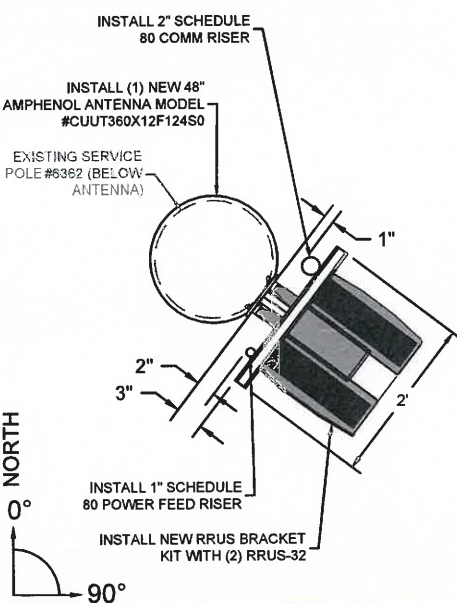
P-3

POLE #6362
TOP OF EXISTING POLE: 43'-9"
TOP OF ANTENNA(S): 55'-1"
RAD CENTER: 53'-1"
AZIMUTH(S): OMNI
PROFILE VIEW: 6 O' CLOCK

A NOTES

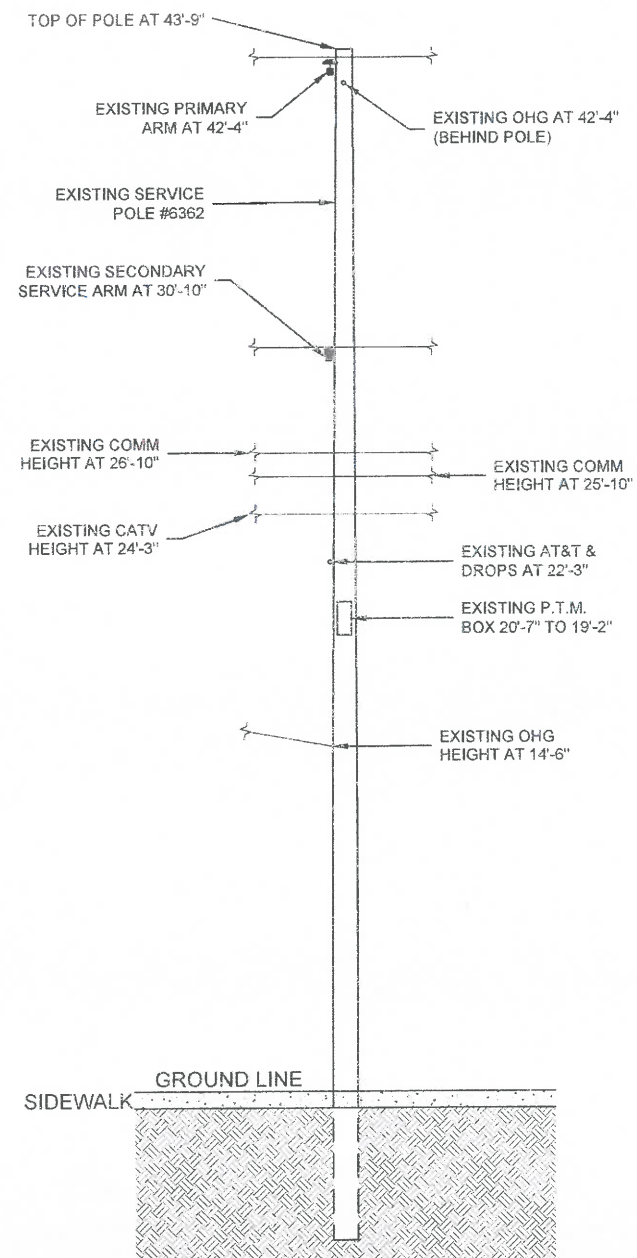
- INSTALL NEW VGR.
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- INSTALL 1" SCHEDULE 80 POWER RISER.
- INSTALL 5'-7" POLE MOUNTED EXTENSION & (1) NEW 48" AMPHENOL ANTENNA MODEL #CUUT360X12F124S0 WITH CUSTOM SHROUD CONCEALMENT COVER.
- INSTALL NOTICE & CAUTION SIGNS.
- ALL EQUIPMENT SHALL BE PAINTED TO MATCH TEXTURE AND COLOR.
- NO GROUND DISTURBANCE NECESSARY.

B CONSTRUCTION NOTES

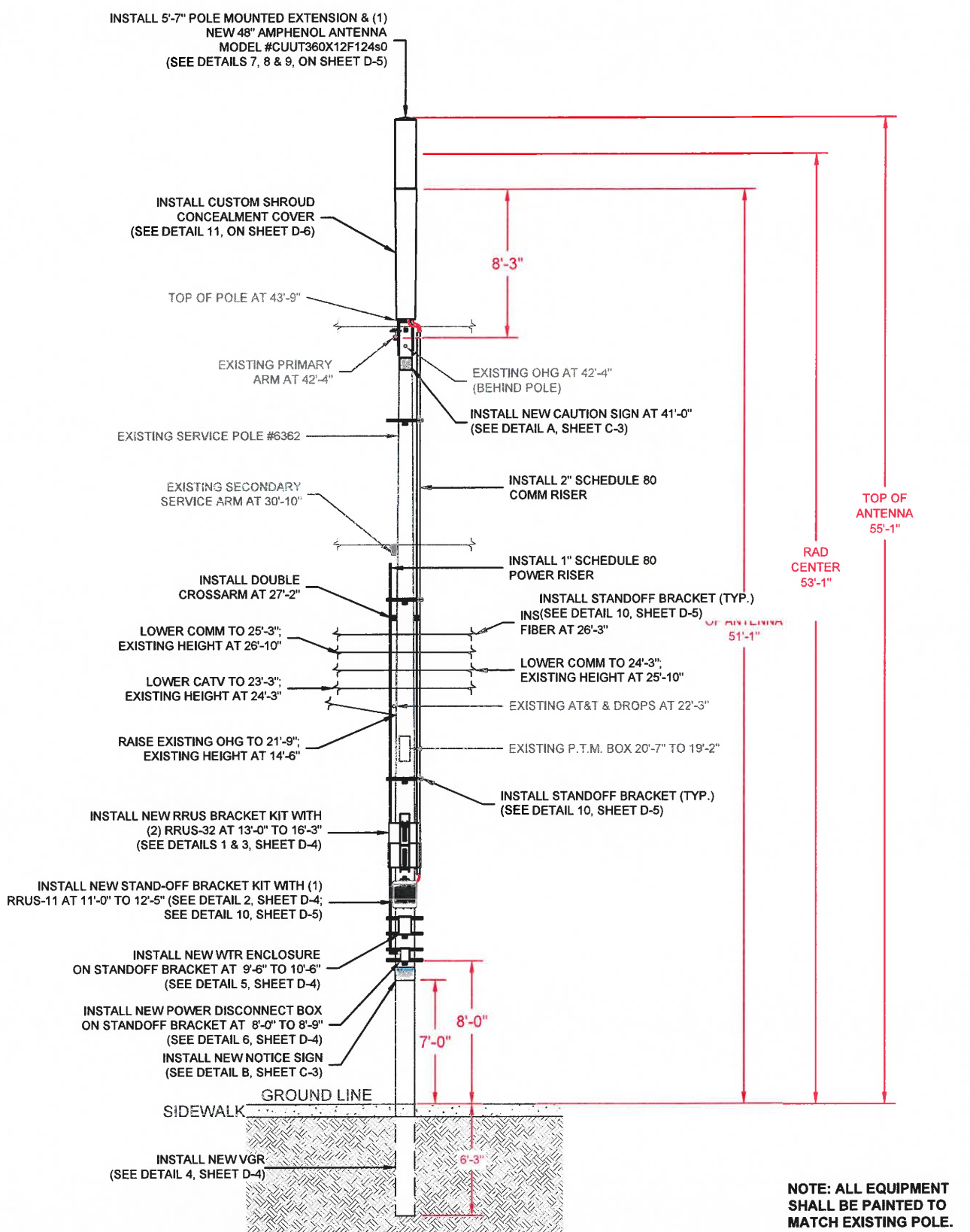


C TOP VIEW N.T.S.

NOTE: ANY REARRANGMENT OF EXISTING EQUIPMENT PER G095



D EXISTING - 6 O'CLOCK ELEVATION 11"x17" SCALE: 1/8" = 1'-0" 24"x36" SCALE: 1/4" = 1'-0"



E PROPOSED - 6 O'CLOCK ELEVATION 11"x17" SCALE: 1/8" = 1'-0" 24"x36" SCALE: 1/4" = 1'-0"

NOTE: ALL EQUIPMENT SHALL BE PAINTED TO MATCH EXISTING POLE.

SF PALO ALTO 021m1
PALO ALTO
CROWN CASTLE PROJECT NO.
VZW366241CA

CLIENT:
CROWN CASTLE
695 RIVER OAKS PARKWAY
SAN JOSE, CA 95134
www.crowncastle.com

PREPARED BY:
Coastal Communications
Telecommunications Engineering
5841 EDISON PLACE, SUITE 200
CARLSBAD, CA 92008
PHONE: (760) 929-0910
FAX: (760) 929-0956
www.coastalcomm.com

PROPRIETARY INFORMATION
THE INFORMATION CONTAINED IN THIS SET OF DRAWINGS IS PROPRIETARY AND CONFIDENTIAL TO VERIZON. ANY USE OR DISCLOSURE OTHER THAN AS IT RELATES TO VERIZON IS STRICTLY PROHIBITED.

DIGALERT
1-800-227-2600
CALL AT LEAST TWO DAYS BEFORE YOU DIG
UNDERGROUND SERVICE ALERT
TICKET #

ZONING SUBMITTAL	03/03/18
ZONING COMMENTS	04/16/18
REVISION / ISSUE	DATE

REGISTERED PROFESSIONAL ENGINEER
No. C42590
Exp. 03-31-20
CIVIL
STATE OF CALIFORNIA

SITE NAME & ADDRESS:
ROW ACROSS FROM 311 EVERETT AVE & ADJACENT TO 301 BRYANT ST
PALO ALTO, CA
37.447667/-122.163882

PROFILE

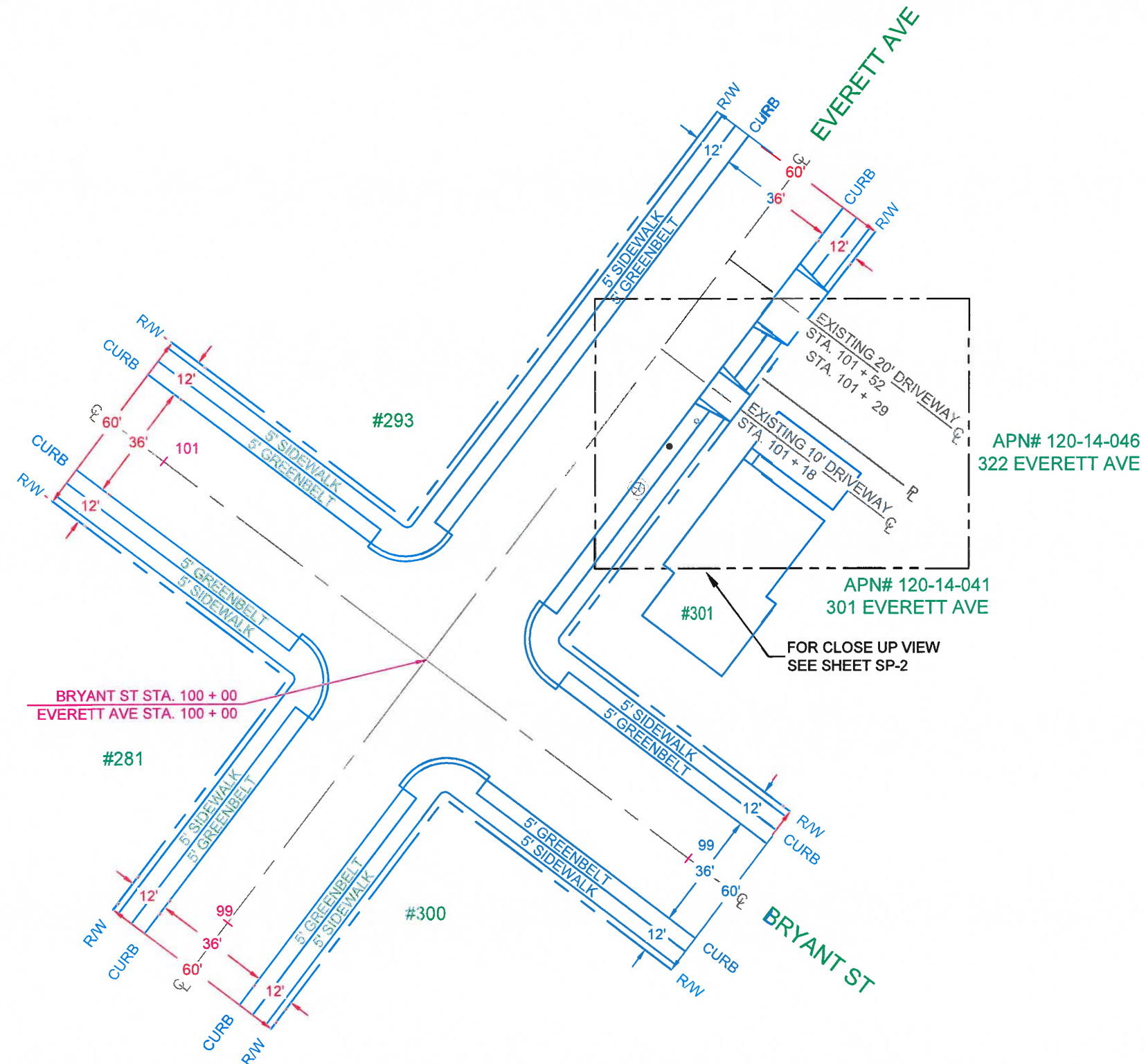
DRAWN BY:	DRAFT DATE:	APPROVED BY:
BW	02/12/18	TT

SHEET NO.
P-4

NO GROUND DISTURBANCE
NECESSARY

TREE PROTECTION IS REQUIRED
AND SHALL BE ERECTED
AROUND ANY TREE WITHIN 15' OF
IMPROVEMENTS OR WORK ZONE
BEFORE CONSTRUCTION BEGINS.
REFER TO SHEETS T1.1 - T1.4.

IN CASE OF ENCOUNTERING
MASSIVE / EXTENSIVE TREE
ROOTS AROUND WORK AREA
DURING CONSTRUCTION,
CONTACT CITY OF PALO ALTO
ARBORIST AT (650) 496-5953 FOR
FURTHER GUIDANCE &
SUPERVISION



NORTH



11"x17" SCALE: 1" = 40'
24"x36" SCALE: 1" = 20'

SF PALO ALTO 021m1
PALO ALTO

CROWN CASTLE PROJECT NO.
VZW366241CA

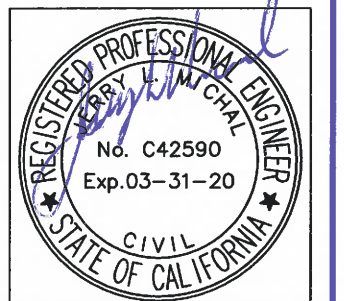
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SITE NAME & ADDRESS:
ROW ACROSS FROM 311 EVERETT
AVE & ADJACENT TO 301 BRYANT ST
PALO ALTO, CA
37.447667/-122.163882

SITE PLAN

DRAWN BY: BW	DRAFT DATE: 02/12/18	APPROVED BY: TT
SHEET NO. SP-1		

EXISTING TREE TABLE							
PALO ALTO TREE #	SPECIES:	COMMON NAME:	GROW SPACE:	TRUNK DIA. AT BREAST HT.:	PROTECTION LINE:	DISTANCE TO CONST.	PROTECTION MEASURES REQUIRED
1	ZELKOVA SERRATA	ZELKOVA	GREENBELT	5 INCHES	5'x10= 3'-2"	12'-0"	NO

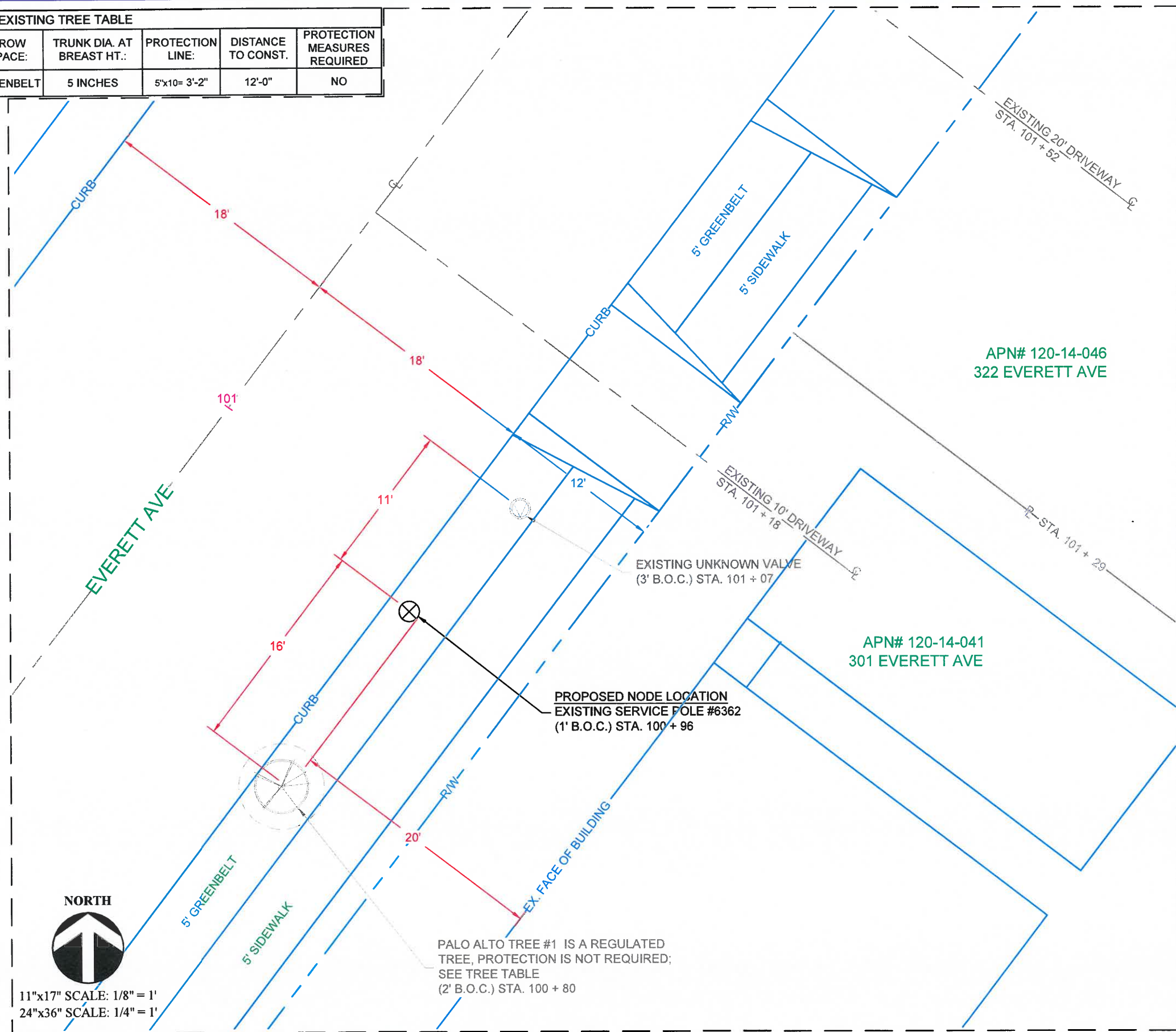
NODE COORDINATES	
LATITUDE:	37.447667
LONGITUDE:	-122.163882

NO GROUND DISTURBANCE NECESSARY

TREE PROTECTION IS REQUIRED AND SHALL BE ERECTED AROUND ANY TREE WITHIN 15' OF IMPROVEMENTS OR WORK ZONE BEFORE CONSTRUCTION BEGINS. REFER TO SHEETS T1.1 - T1.4.

IN CASE OF ENCOUNTERING MASSIVE / EXTENSIVE TREE ROOTS AROUND WORK AREA DURING CONSTRUCTION, CONTACT CITY OF PALO ALTO ARBORIST AT (650) 496-5953 FOR FURTHER GUIDANCE & SUPERVISION

ALL EQUIPMENT SHALL BE PAINTED TO MATCH EXISTING POLE



NORTH

 11"x17" SCALE: 1/8" = 1'
 24"x36" SCALE: 1/4" = 1'

PALO ALTO TREE #1 IS A REGULATED TREE, PROTECTION IS NOT REQUIRED; SEE TREE TABLE (2' B.O.C.) STA. 100 + 80

SF PALO ALTO 021m1
 PALO ALTO
 CROWN CASTLE PROJECT NO.
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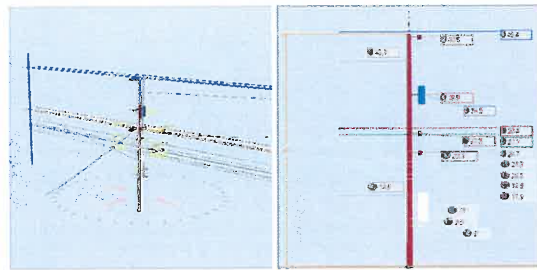
REGISTERED PROFESSIONAL ENGINEER
 JERRY L. MICHAEL
 No. C42590
 Exp. 03-31-20
 CIVIL
 STATE OF CALIFORNIA

SITE NAME & ADDRESS:
 ROW ACROSS FROM 311 EVERETT AVE & ADJACENT TO 301 BRYANT ST
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ENLARGED PLAN

DRAWN BY: BW	DRAFT DATE: 02/12/18	APPROVED BY: TT
SHEET NO. SP-2		

Pole Num:	6362	Pole Length / Class:	55 / 3	Code:	GO 95	Structure Type:	Guyed Tangent
Aux Data 1	SFPA021	Species:	DOUGLAS FIR	GO 95 Rule:	At Replace (Existing)	Pole Strength Factor:	0.38
Aux Data 2	Unset	Setting Depth (ft):	7.00	Construction Grade:	A	Transverse Wind LF:	1.00
Aux Data 3	Unset	G/L Circumference (in):	40.14	Loading District:	Light	Wire Tension LF:	1.00
Aux Data 4	Unset	G/L Fiber Stress (psi):	8,000	Ice Thickness (in):	0.00	Vertical LF:	1.00
Aux Data 5	Unset	Allowable Stress (psi):	2,912	Wind Speed (mph):	55.90	Bending Factor of Safety:	5.47
Aux Data 6	Unset	Fiber Stress Ht. Reduc:	No	Wind Pressure (psf):	8.00	Vertical Factor of Safety:	166.67
Latitude:	0.000000 Deg		Longitude:	0.000000 Deg		Elevation:	0 Feet



Pole Capacity Utilization (%)	Height (ft)	Wind Angle (deg)
Crossarm allowance 300 lbs		
Maximum	48.3	0.0
Groundline	48.3	0.0
Vertical	1.8	22.1
		135.0

Pole Moments (ft-lb)	Load Angle (deg)	Wind Angle (deg)
Crossarm allowance 300 lbs		
Max Cap Util	23,879	0.5
Groundline	23,879	0.5
GL Allowable	49,705	0.0

Guy System Component Summary				Load From Worst Wind Angle on Pole		Individual Maximum Load	
Description	Lead Length (ft)	Lead Angle (deg)	Height (ft)	Nominal Capacity (%)	Wind Angle (deg)	Max Load Capacity (%)	Wind Angle (deg)
Guy Pole	145.0	0.0		6.0	0.0	2.4	180.0
EHS 1/4 (Span/Head)			42.3	9.0	0.0	7.1	180.0
Guy Pole	76.0	270.0		0.1	0.0	4.8	90.0
EHS 1/4 (Span/Head)			14.5	0.4	0.0	14.5	90.0
System Capacity Summary:				Adequate		Adequate	

Groundline Load Summary - Reporting Angle Mode: Load - Reporting Angle: 0.5°										
	Shear Load* (lbs)	Applied Load (%)	Bending Moment (ft-lb)	Applied Moment (%)	Pole Capacity (%)	Bending Stress (+/- psi)	Vertical Load (lbs)	Vertical Stress (psi)	Total Stress (psi)	Pole Capacity (%)
Powers	107	10.3	4,260	18.2	8.6	250	98	1	250	8.6
Comms	398	38.2	7,837	33.5	15.8	459	331	3	462	15.9
Guy Braces	7	0.7	132	0.6	0.3	8	11	0	8	0.3
Generic Equipments	186	17.9	3,462	14.8	7.0	203	379	3	206	7.1
Pole	322	30.9	7,019	30.0	14.1	411	1,625	13	424	14.6
Crossarms	7	0.7	230	1.0	0.5	14	186	1	15	0.5
Insulators	13	1.3	445	1.9	0.9	26	74	1	27	0.9
Pole Load	1,040	100.0	23,385	100.0	47.1	1,370	2,704	21	1,391	47.8
Pole Reserve Capacity			26,320		53.0	1,542			1,521	52.2

Load Summary by Owner - Reporting Angle Mode: Load - Reporting Angle: 0.5°										
	Shear Load* (lbs)	Applied Load (%)	Bending Moment (ft-lb)	Applied Moment (%)	Pole Capacity (%)	Bending Stress (+/- psi)	Vertical Load (lbs)	Vertical Stress (psi)	Total Stress (psi)	Pole Capacity (%)
<Undefined>	123	11.8	4,851	20.7	9.8	284	273	2	286	9.8
Power	10	1.0	204	0.9	0.4	12	35	0	12	0.4
CC	316	30.4	6,296	26.9	12.7	369	494	4	373	12.8
Comm	164	15.7	3,144	13.4	6.3	184	199	2	186	6.4
Catv	37	3.6	678	2.9	1.4	40	33	0	40	1.4
ATT	34	3.3	603	2.6	1.2	35	13	0	35	1.2
Telco	34	3.3	589	2.5	1.2	35	32	0	35	1.2
Pole	322	30.9	7,019	30.0	14.1	411	1,625	13	424	14.6
Totals:	1,040	100.0	23,385	100.0	47.1	1,370	2,704	21	1,391	47.8

Detailed Load Components:													
Power	Owner	Height (ft)	Horiz. Offset (in)	Cable Diameter (in)	Sag at Max Temp (ft)	Cable Weight (lb/ft)	Lead/Span Length (ft)	Span Angle (deg)	Wire Length (ft)	Tension (lbs)	Tension Moment* (ft-lb)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)
Primary	1/0 ACSR	48.45	48.32	0.3980	0.13	0.146	76.0	270.0	76.0	1,415	-514	22	489
Primary	1/0 ACSR	48.45	48.32	0.3980	0.16	0.146	82.0	90.0	82.0	1,415	614	24	527
Primary	1/0 ACSR	48.45	48.32	0.3980	0.13	0.146	76.0	270.0	76.0	1,415	-514	-22	489
Primary	1/0 ACSR	48.45	48.32	0.3980	0.16	0.146	82.0	90.0	82.0	1,415	614	-24	527
Primary	1/0 ACSR	48.45	24.64	0.3980	0.13	0.146	76.0	270.0	76.0	1,415	-514	-11	489
Primary	1/0 ACSR	48.45	24.64	0.3980	0.16	0.146	82.0	90.0	82.0	1,415	614	-12	527
Secondary	#2 CU	28.45	48.47	0.2920	0.17	0.205	76.0	270.0	76.0	1,162	-296	31	211
Secondary	#2 CU	28.45	48.47	0.2920	0.20	0.205	82.0	90.0	82.0	1,162	296	34	227
Secondary	#2 CU	28.45	48.47	0.2920	0.17	0.205	76.0	270.0	76.0	1,162	-296	-31	211
Secondary	#2 CU	28.45	48.47	0.2920	0.20	0.205	82.0	90.0	82.0	1,162	296	-34	227
Secondary	#6 CU	28.45	24.92	0.2010	0.18	0.083	62.0	270.0	62.0	482	-123	-6	145
Secondary	#6 CU	28.45	24.92	0.2010	0.21	0.083	62.0	90.0	62.0	482	123	-7	156
Service	TRIPLEX 6 AWG	27.08	36.62	0.5800	1.88	0.113	80.0	10.0	80.2	50	1,320	34	12
Service	TRIPLEX 6 AWG	27.08	36.62	0.5800	0.94	0.113	56.0	165.0	56.1	50	-1,275	-39	20
Totals:										45	-42	4,256	4,280

Comm		Owner	Height (ft)	Horiz. Offset (in)	Cable Diameter (in)	Sag at Max Temp (ft)	Cable Weight (lbs/ft)	Lead/Spn Length (ft)	Span Angle (deg)	Wire Length (ft)	Tension (lbs)	Tension Moment* (ft-lb)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)
Overlashed Bundle	1/4" Strand	CC	21.50	7.67	0.2500	0.33	0.121	82.0	90.0	82.0	1,500	289	-3	359	644
Telco	216-320 Count fiber	CC	21.45	7.67	1.0000		0.350	82.0	90.0	82.0			-9	358	349
Overlashed Bundle	1/4" Strand	CC	21.50	7.67	0.2500	0.29	0.121	76.0	270.0	76.0	1,500	-269	-3	332	41
Telco	216-320 Count fiber	CC	21.45	7.67	1.0000		0.350	76.0	270.0	76.0			-6	332	323
Overlashed Bundle	1/4" Strand	Comm	20.50	7.72	0.2500	1.37	0.121	82.0	90.0	82.0	1,500	275	-3	619	891
Telco	TELE 2.0	Comm	20.41	7.72	2.0000		2.000	82.0	90.0	82.0			-53	616	563
Overlashed Bundle	1/4" Strand	Comm	20.50	7.72	0.2500	1.19	0.121	76.0	270.0	76.0	1,500	-275	-3	573	295
Telco	TELE 2.0	Comm	20.41	7.72	2.0000		2.000	76.0	270.0	76.0			-49	571	522
Overlashed Bundle	1/4" Strand	Comm	18.91	7.81	0.2500	0.19	0.121	82.0	90.0	82.0	1,500	254	-3	232	403
Telco	500 COAX	Comm	18.87	7.81	0.5000		0.150	82.0	90.0	82.0			-4	232	226
Overlashed Bundle	1/4" Strand	Comm	18.91	7.81	0.2500	0.17	0.121	76.0	270.0	76.0	1,500	-254	-3	215	41
Telco	500 COAX	Comm	18.87	7.81	0.5000		0.150	76.0	270.0	76.0			-4	215	211
Overlashed Bundle	1/4" Strand	Catv	16.91	7.81	0.2500	0.40	0.121	82.0	90.0	82.0	1,500	254	-3	142	392
CATV	500 COAX	Catv	16.89	7.92	0.5000		0.150	82.0	90.0	82.0			-4	141	137
CATV	500 COAX	Catv	16.89	7.72	0.5000		0.150	82.0	90.0	82.0			-4	141	137
CATV	500 COAX	Catv	16.85	7.81	0.5000		0.150	82.0	90.0	82.0			-4	141	137
Overlashed Bundle	1/4" Strand	Catv	16.91	7.81	0.2500	0.07	0.121	76.0	270.0	76.0	1,500	-254	-3	134	-123
Overlashed Bundle	5/16" Strand	ATT	17.91	7.87	0.3130	0.41	0.104	82.0	90.0	82.0	1,500	240	-3	318	555
Telco	TELE 1.0	Telco	17.86	7.87	1.0000		0.400	82.0	90.0	82.0			-11	317	306
Overlashed Bundle	5/16" Strand	ATT	17.91	7.87	0.3130	0.35	0.104	76.0	270.0	76.0	1,500	-240	-3	294	51
Telco	TELE 1.0	Telco	17.86	7.87	1.0000		0.400	76.0	270.0	76.0			-10	293	263
Overlashed Bundle	1/4" Strand	CC	23.70	23.54	0.2500	0.33	0.121	82.0	90.0	82.0	1,500	318	-9	395	704
Telco	216-320 Count fiber	CC	23.65	23.54	1.0000		0.350	82.0	90.0	82.0			-27	395	368
Overlashed Bundle	1/4" Strand	CC	23.70	23.54	0.2500	0.29	0.121	76.0	270.0	76.0	1,500	-318	-9	366	40
Telco	216-320 Count fiber	CC	23.65	23.54	1.0000		0.350	76.0	270.0	76.0			-25	366	341
Totals:											0	-259	8,097	7,837	

Generic Equipment		Owner	Height (ft)	Horiz. Offset (in)	Offset Angle (deg)	Rotate Angle (deg)	Unit Weight (lbs)	Unit Height (in)	Unit Depth (in)	Unit Diameter (in)	Unit Length (in)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)
Box	MUSH-41	CC	11.00	15.41	0.0	0.0	315.00	72.00	13.28	--	20.24	404	1,425	1,829
Box	WTR	CC	9.50	14.85	0.0	0.0	15.00	12.00	12.00	--	12.00	19	122	140
Box	Disconnect	CC	8.00	10.93	0.0	0.0	11.00	9.00	4.00	--	6.00	10	38	48
Cylinder	CUUT360X12Fxyz0	CC	34.50	31.73	0.0	0.0	38.10	48.00	--	14.60	--	101	1,343	1,444
Totals:												534	2,828	3,462

Crossarm		Owner	Height (ft)	Horiz. Offset (in)	Offset Angle (deg)	Rotate Angle (deg)	Unit Weight (lbs)	Unit Height (in)	Unit Depth (in)	Unit Length (in)	Offset Moment* (ft-lb)	Wind Moment*	Moment at GL* (ft-lb)
Normal	CROSS ARM 3.75 x 5.75		47.50	5.56	270.0	270.0	58.00	5.75	3.75	120.00	0	91	91
Normal	CROSSARM 3-1/2 X 4-1/2 X 6		35.50	6.12	270.0	270.0	40.00	4.50	3.50	72.00	0	50	50
Normal	CROSS ARM 3.75 x 5.75		27.50	6.70	270.0	270.0	58.00	5.75	3.75	120.00	0	53	52
Normal	4" Communication Extension Arm	CC	23.50	6.93	90.0	90.0	30.00	4.75	3.75	48.00	0	37	37
Totals:											-1	231	230

Insulator		Owner	Height (ft)	Horiz. Offset (in)	Offset Angle (deg)	Rotate Angle (deg)	Unit Weight (lbs)	Unit Diameter (in)	Unit Length (in)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)
Pin	Pin Insulator - 10 kV		47.74	48.00	353.4	0.0	7.00	4.50	8.50	28	102	130
Pin	Pin Insulator - 10 kV		47.74	-48.00	186.6	0.0	7.00	4.50	8.50	-28	102	74
Pin	Pin Insulator - 10 kV		47.74	-24.00	193.1	0.0	7.00	4.50	8.50	-14	102	38
Pin	Pin Insulator - 10 kV		27.74	48.00	352.1	0.0	7.00	4.50	8.50	28	59	87
Pin	Pin Insulator - 10 kV		27.74	-48.00	187.9	0.0	7.00	4.50	8.50	-28	59	31
Pin	Pin Insulator - 10 kV		27.74	-24.00	195.6	0.0	7.00	4.50	8.50	-14	59	45
Underhung	Spool Insulator - 20 kV		27.26	38.00	349.5	0.0	1.00	2.50	2.12	3	8	11
Underhung	Spool Insulator - 20 kV		27.26	-38.00	190.5	0.0	1.00	2.50	2.12	-3	8	5
Bolt	Three Bolt Clamp	CC	21.50	0.00	180.0	90.0	5.00	3.00	0.00	-3	0	-3
Bolt	Three Bolt Clamp	Conn	20.50	0.00	180.0	90.0	5.00	3.00	0.00	-3	0	-3
Bolt	Three Bolt Clamp	Conn	16.81	0.00	180.0	90.0	5.00	3.00	0.00	-3	0	-3
Bolt	Three Bolt Clamp	Catv	16.81	0.00	180.0	90.0	5.00	3.00	0.00	-3	0	-3
Bolt	Three Bolt Clamp	ATT	17.91	0.00	180.0	90.0	5.00	3.00	0.00	-3	0	-3
Bolt	Three Bolt Clamp	CC	23.70	20.00	160.9	0.0	5.00	3.00	0.00	-9	499	445
Totals:										-54	499	-48

TRAFFIC CONTROL PLAN GENERAL 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 POLICE DISPATCH 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 INSPECTOR.
7. STRIPING WILL 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. CONTACT PUBLIC WORKS DEPARTMENT 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/HER 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 (MUTCD) 2014 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 ENGINEER OR HIS/HER REPRESENTATIVE HAS THE AUTHORITY TO INITIATE FIELD CHANGES TO INSURE PUBLIC SAFETY.
16. ALL WORK AFFECTING BUS STOPS SHALL BE COORDINATED WITH CITY'S TRANSIT DISTRICT. CONTRACTOR SHALL CALL TRANSIT DISTRICT 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 CA MUTCD 2014 EDITION. SILENT TYPE SHALL BE USED IN RESIDENTIAL AREAS.
7. THE MAXIMUM SPACING BETWEEN CONES SHALL BE THE WORK AREA'S SPEED LIMIT.
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. ALL REQUIRED SIGNS THAT ARE TO BE LEFT IN PLACE OVER A WEEKEND OR HOLIDAY SHALL BE POST MOUNTED.
10. CONSTRUCTION AREA TRAFFIC CONTROL DEVICES SHALL MEET THE PROVISIONS OF 2014 CALIFORNIA MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

SIGN LEGEND

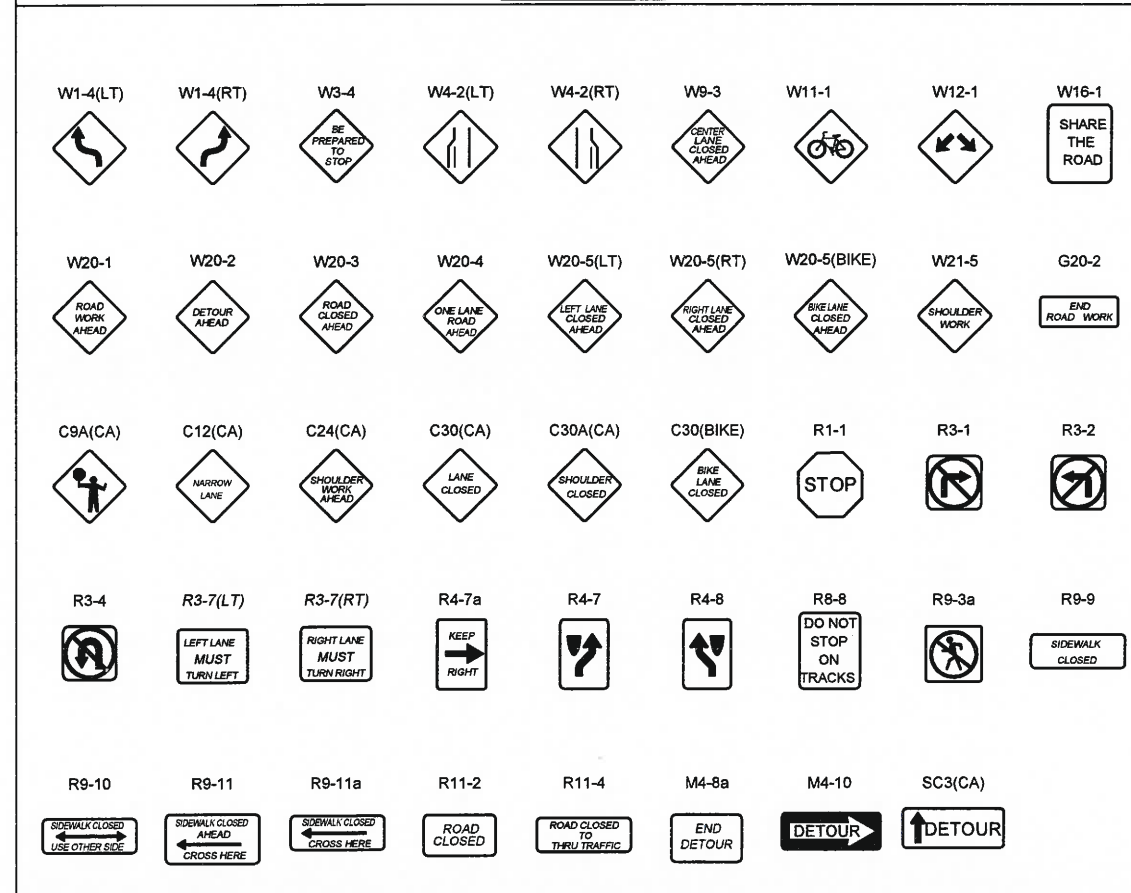


Table 6C-1. Recommended Advance Warning Sign Minimum Spacing

Road Type	Distance Between Signs*		
	A	B	C
Urban (low speed) – 25 mph or less	100 ft	100 ft	100 ft
Urban (high speed) – more than 25 mph to 40 mph	250 ft	250 ft	250 ft
Urban (high speed) – more than 40 mph	350 ft	350 ft	350 ft
Rural	500 ft	500 ft	500 ft
Expressway / Freeway	1,000 ft	1,000 ft	1,000 ft

* Speed category to be determined by the highway agency.

** The column headings A, B, and C are the dimensions shown in Figures 6H-1 through 6H-46. The A dimension is the distance from the transition or point of restriction to the first sign. The B dimension is the distance between the first and second signs. The C dimension is the distance between the second and third signs. (The "first sign" is the sign in a three-sign series that is closest to the TTC zone. The "third sign" is the sign that is furthest upstream from the TTC zone.)

LEGEND

	DIRECTION OF TRAVEL		FLAG TREE
	PAVEMENT ARROW		FLASHING ARROW BOARD
	PORTABLE SIGN		TRAFFIC SIGNAL
	TRAFFIC CONE / DELINEATOR		K-RAIL (TYPE 50 CONCRETE BARRIER)
	TYPE II BARRICADE		CHANGEABLE MESSAGE SIGN
	TYPE III BARRICADE		FLAGGER
	WORK AREA		DRIVEAWAY

Table 6C-2. Stopping Sight Distance as a Function of Speed on Level Roads.
(Used as suggested longitudinal buffer space length or location for flagger station)

Speed*	Distance
20 mph	115 feet
25 mph	155 feet
30 mph	200 feet
35 mph	250 feet
40 mph	305 feet
45 mph	360 feet
50 mph	425 feet
55 mph	495 feet
60 mph	570 feet
65 mph	645 feet
70 mph	730 feet
75 mph	820 feet

* Posted speed, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph.

Table 6C-3 (CA). Taper Length Criteria for Temporary Traffic Control Zones (for 12 feet Offset Width)

Speed* S (mph)	Minimum Taper Length** for Width of Offset 12 feet (w)			
	Merging L (feet)	Shifting L/2 (feet)	Shoulder L/3 (feet)	Down Stream (feet)**
20	80	40	27	50
25	125	63	42	50
30	180	90	60	50
35	245	123	82	50
40	320	160	107	50
45	540	270	180	50
50	600	300	200	50
55	660	330	220	50
60	720	360	240	50
65	780	390	260	50
70	840	420	280	50

* - Posted speed limit, off peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph.

** - For other offsets use the following merging taper length formula for L:

For speeds of 40 mph or less, $L = WS^2/60$

For speeds 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.

*** - Maximum downstream taper length is 100 feet. See Section 6C.08.



Jerry L. Michal
R.C.E. NO. C 42590
EXP. 03-31-20

10-23-18
DATE

OWNER / DEVELOPER:

CROWN CASTLE

665 RIVER OAKS PARKWAY
SAN JOSE, CA 95134
www.crowncastle.com

PLANS PREPARED BY:

Coastal Communications

Telecommunications Engineering
5401 DIXON PLACE, STE. 200
CALIFORNIA, CA 92008
PH: (760) 929-0870
FX: (760) 929-0836

CITY OF:

PALO ALTO

JOHN GRIFFITHS
PROJECT MANAGER

VZW366241CA-SFP021m1-SFO_TC
FILE NAME

311 EVERETT AVE

PROJECT NUMBER:
VZW366241CA-SFP021m1

PAGE GRID:
1/23/17

CHECK BY:
GD

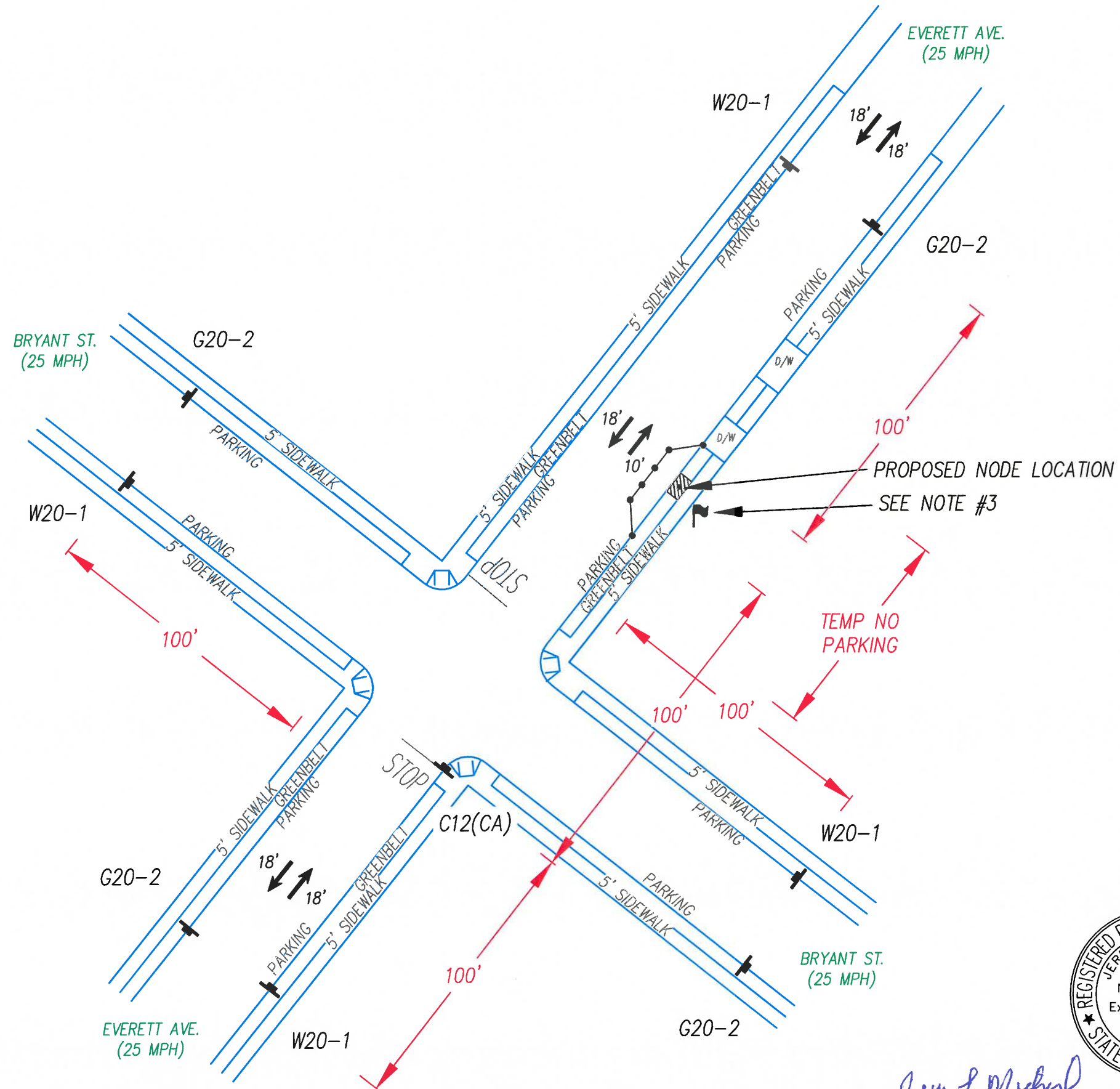
DRAWN BY:
VY

SHEET NO.:
T01 OF T02

NOTES:

1. CONTRACTOR TO MAINTAIN ACCESS TO ALL DRIVEWAYS AT ALL TIMES.
2. W20-1 & G20-2 SHALL BE PLACED ON AFFECTED CROSS STREETS ACCORDING TO THE SPEED LIMIT OF THE CROSS STREET.
3. FLAGGER SHALL ASSIST PEDESTRIANS THROUGH WORK AREA.

PHASE 1



Jerry L. Michal
JERRY L. MICHAL R.C.E. NO. C 42590 EXP. 03-31-20

10-23-18
DATE

OWNER / DEVELOPER: CROWN CASTLE 685 RIVER OAKS PARKWAY SAN JOSE, CA 95134 www.crowncastle.com	
PLANS PREPARED BY: Communications Telecommunications Engineering 5841 EASON PLACE, STE. 200 CARLSBAD, CA 92008 PH: (760) 929-0910 FX: (760) 929-0936	
DIGIFIT 1-800-227-2600 CALIFORNIA ONLY UNDERGROUND SERVICE ALERT TICKET #	
CITY OF: PALO ALTO	PROJECT MANAGER: JOHN GRIFFITHS
FILE NAME: VZW366241CA-SFPA021m1-SFO_TC	
311 EVERETT AVE	
PROJECT NUMBER: VZW366241CA-SFPA021m1	DATE: 1/23/17
CHECK BY: GD	DRAWN BY: VY
SHEET NO.: T02 OF T02	



SF PALO ALTO 022m2
ROW ADJACENT TO
258 WAVERLEY ST AT CORNER OF BRYANT CT
PALO ALTO, CA

DIRECTIONS FROM 695 RIVER OAKS PARKWAY, SAN JOSE CA 95124:

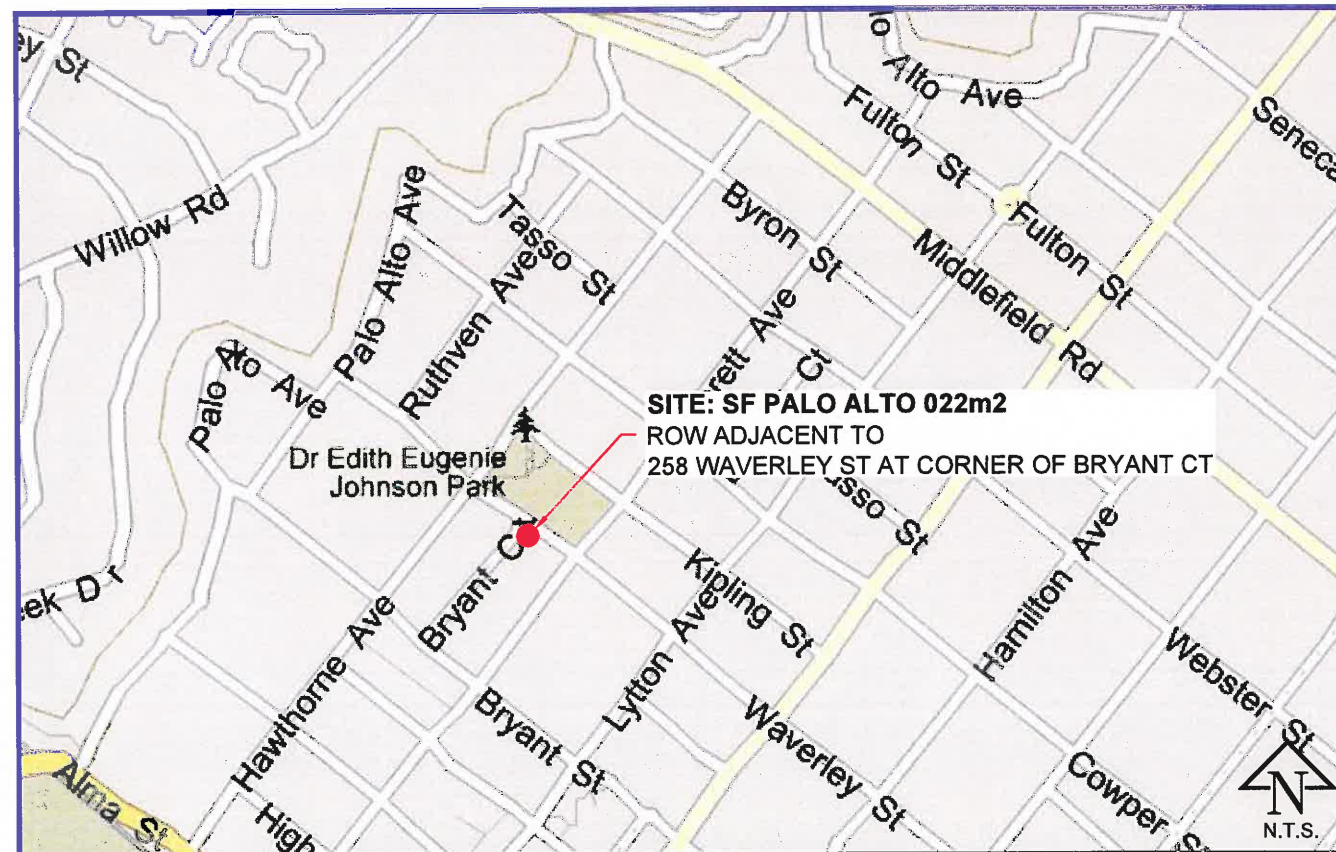
HEAD NORTHEAST ON RIVER OAKS PARKWAY TOWARD VILLAGE CENTER DR, TURN LEFT ONTO VILLAGE CENTER DR, TURN LEFT ONTO RESEARCH PL, TURN RIGHT AT THE 1ST CROSS STREET ONTO MONTAGUE EXPRESSWAY, SLIGHT RIGHT TO MERGE ONTO US-101 N TOWARD SAN FRANCISCO, MERGE ONTO US-101 N, USE 2ND FROM THE RIGHT LANE TO TAKE EXIT 403 TO MERGE ONTO UNIVERSITY AVE, MERGE ONTO UNIVERSITY AVE, TURN RIGHT ONTO MIDDLEFIELD RD. TURN LEFT AT THE 2ND CROSS STREET ONTO EVERETT AVE. WOOD POLE NODE IS ON THE LEFT ON THE CORNER OF EVERETT AVE & WAVERLEY ST.

DRIVING DIRECTIONS

1. STREET USE PERMIT SHALL BE OBTAINED BY CONTRACTOR PRIOR TO COMMENCING WORK.
2. ALL WORK TO BE CONDUCTED IN THE RIGHT OF WAY.
3. ALL DISTURBED LANDSCAPING SHALL BE REPLACED TO SIMILAR EXISTING CONDITION.
4. ANY SIDEWALK CLOSURE SHALL BE COORDINATED WITH THE CITY AND PROPER SIGNING WILL BE PLACED.
5. NO MATERIALS OR EQUIPMENT SHALL BE STORED ON PRIVATE PROPERTY OR BLOCK ACCESS TO PRIVATE PROPERTY.
6. CLEANUP OF SITE WILL BE COMPLETED EACH EVENING AND THE SITE WILL BE RETURNED TO EXISTING CONDITIONS AT THE COMPLETION OF CONSTRUCTION AT EACH SITE.

CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR RESPONSIBLE FOR SAME.

GENERAL CONTRACTOR NOTES



VICINITY MAP

SHEET NUMBER:	DESCRIPTION
C-1	TITLE SHEET
C-2	CONDITIONS OF APPROVAL
C-3	CONDITIONS OF APPROVAL
D-1	DETAILS & NOTES
D-2	DETAILS & NOTES
D-3	DETAILS & NOTES
D-4	DETAILS & NOTES
D-5	DETAILS & NOTES
D-6	DETAILS & NOTES
D-7	DETAILS & NOTES
T1.1	SPECIAL TREE PROTECTION INSTRUCTION SHEET
T1.2	SPECIAL TREE PROTECTION INSTRUCTION SHEET
T1.3	SPECIAL TREE PROTECTION INSTRUCTION SHEET
T1.4	SPECIAL TREE PROTECTION INSTRUCTION SHEET
P-1	PHOTOS
P-2	PHOTOSIM
P-3	PROFILE
P-4	PROFILE
SP-1	SITE PLAN
SP-2	ENLARGED SITE PLAN
OC-1	O'CALCS
T01	TRAFFIC CONTROL
T02	TRAFFIC CONTROL

SHEET INDEX

CROWN CASTLE TO INSTALL THE FOLLOWING:

- INSTALL NEW VGR.
- INSTALL NEW POWER DISCONNECT BOX ON STANDOFF BRACKET AT 8'-0" TO 8'-9".
- INSTALL NEW WTR ENCLOSURE ON STANDOFF BRACKET AT 9'-6" TO 10'-6".
- INSTALL NEW STANDOFF BRACKET KIT WITH (1) RRUS-11 AT 11'-0" TO 12'-5".
- INSTALL NEW RRUS BRACKET KIT WITH (2) RRUS-32 AT 13'-0" TO 16'-3".
- INSTALL NEW CROWN CASTLE FIBER AT 26'-0".
- INSTALL STANDOFF BRACKET (TYP.).
- INSTALL 2" SCHEDULE 80 COMM RISER.
- INSTALL 1" SCHEDULE 80 POWER RISER.
- INSTALL 3'-6" POLE MOUNTED EXTENSION & (1) NEW 48" AMPHENOL ANTENNA MODEL # CUUB070X12F124s0 WITH CUSTOM SHROUD CONCEALMENT COVER.
- INSTALL NOTICE & CAUTION SIGNS.
- ALL EQUIPMENT SHALL BE PAINTED TO MATCH TEXTURE AND COLOR.
- NO GROUND DISTURBANCE NECESSARY.

PROJECT SUMMARY

PROJECT MANAGER:

CROWN CASTLE
695 RIVER OAKS PARKWAY
SAN JOSE, CA 95134
JOHN GRIFFITHS
(408) 468-5524
JOHN.GRIFFITHS@CROWNCastle.COM

NODE ENGINEER:

COASTAL COMMUNICATIONS
5841 EDISON PL, STE. 200
CARLSBAD, CA 92008
TODD THREW
(760) 929-0910 ext. 101
TODD@COASTALCOMMINC.COM

PROJECT TEAM

SF PALO ALTO 022m2
PALO ALTO

CROWN CASTLE PROJECT NO.
VZW366241CA

CLIENT:



PREPARED BY:



PROPRIETARY INFORMATION

THE INFORMATION CONTAINED IN THIS SET OF DRAWINGS IS PROPRIETARY AND CONFIDENTIAL TO VERIZON. ANY USE OR DISCLOSURE OTHER THAN AS IT RELATES TO VERIZON IS STRICTLY PROHIBITED.



1-800-227-2600
CALL AT
LEAST TWO
DAYS BEFORE
YOU DIG

UNDERGROUND SERVICE ALERT
TICKET #

REVISION / ISSUE	DATE



SITE NAME & ADDRESS:
ROW ADJACENT TO
258 WAVERLEY ST AT CORNER OF
BRYANT CT
PALO ALTO, CA
37.449027 / -122.163579

TITLE SHEET

DRAWN BY: BMW	DRAFT DATE: 2/08/18	APPROVED BY: TT
------------------	------------------------	--------------------

SHEET NO.
C-1

PENDING C.O.A .

SF PALO ALTO 022m2
PALO ALTO

CROWN CASTLE PROJECT NO.
VZW366241CA

CLIENT:



**CROWN
CASTLE**

695 RIVER OAKS PARKWAY
SAN JOSE, CA 95134
www.crowncastle.com

PREPARED BY:



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Telecommunications Engineering

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DIGALERT

1-800-227-2600
CALL AT
LEAST TWO
DAYS BEFORE
YOU DIG

UNDERGROUND SERVICE ALERT
TICKET # _____

REVISION / ISSUE	DATE



SITE NAME & ADDRESS:
ROW ADJACENT TO
258 WAVERLEY ST AT CORNER OF
BRYANT CT
PALO ALTO, CA
37.449027 / -122.163579

**CONDITIONS OF
APPROVAL**

DRAWN BY: BMW	DRAFT DATE: 2/08/18	APPROVED BY: TT
SHEET NO. C-2		

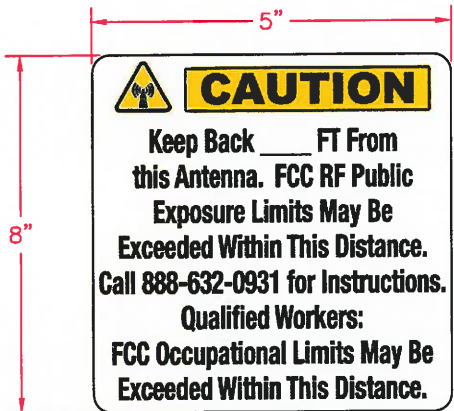
Applicant shall comply with the following comments/requirements.

1. Applicant shall install new street lighting poles with new foundations that are identical to the existing poles. New street lighting poles shall be installed as close as possible to the existing street lighting poles. Applicant shall ensure to maintain present illumination level on the streets.
2. Receptacles on street lights need to be pre-wired and mounted on the top of the street light. The receptacles shall be wired into the secondary voltage source and not the street light circuit.
3. New street lighting pole's drawing is approved. Applicant shall replace the existing street lighting poles with identical poles. If there is any deviation then it must be approved by Utilities Engineering prior to installation.
4. Locations for new street lighting poles shall be as close as possible to the existing street lighting poles. No street or location shall be left dark. After removal of existing street pole/s, new street lighting poles shall be installed and energized as soon as possible. Applicant to coordinate with Scott Yahne (650-444-8823) our Street Lighting Supervisor prior to making any electric connection/s.
5. An inner duct of adequate size shall be installed inside the street lighting poles so to keep antenna wiring separate from street lighting circuits. Power to the antenna or any other equipment mounted on the street lighting pole shall be tapped from the designated secondary electric service point and not from the street lighting circuit.
6. If the street lighting pole gets knocked down, the City shall replace the pole but the City shall not be responsible for any damages to the antenna or any other equipment mounted on the street lighting pole/s.
7. Applicant has submitted certified structural calculations pertaining to equipment loading on the new street lighting poles.

8. Utility's Engineer has reviewed applicant's proposed fiber infrastructure and confirmed acceptance as long as applicant maintains required clearances and protect our distribution lines.
9. Voltage at all the locations identified for applicant's equipment installation may not be. Applicant shall accept the voltage available at the closest location. Applicant shall be responsible for installing additional substructure per City's standards and specifications, if required.
10. Applicant shall contact Utilities Engineering (650-566-4535) prior to entering any energized box or vault.
11. Applicant shall install substructure per City's standard and specifications and maintain required clearances as shown on the City's standard drawings. The City's Underground Electric Inspector will inspect the substructure for electric utility. Applicant must contact Underground Electric Inspector at 650-496-6936 or his designated representative for scheduling an inspection prior to back filling the trench.
12. Applicant shall pot hole and locate underground facilities prior to trenching or boring. Applicant must contact USA (800-227-2600) and have underground facilities marked prior to excavation/trenching or boring.
13. At few locations, proposed trenching/boring route conflicts with our existing high voltage distribution lines, boxes/vaults etc. Extreme caution must be exercised to protect our utility lines and associated substructures.
14. Applicant shall protect existing underground utilities. Applicant has not submitted any trench profile as requested by Utilities. Hence, applicant shall bore/ trench at his/her risk. Applicant will be solely responsible for any damages caused during the construction.
15. Street opening permits shall be obtained from Public Works Engineering (PWE) Department prior to trenching or boring.
16. Traffic control plans must be submitted to Transportation Department and approval must be obtained prior to lane closures. Construction hours shall be per Transportation Department's requirements.
17. Applicant shall contact the Public Works Engineering (PWE) Department (650-566-4535) and obtain electric permit and cost estimate for each location. Any changes made to the original design or to the designated electric service point/s shall be coordinated with the PWE Department. Applicant must pay all fees/cost estimates prior to final service connections.

ANTENNA CAUTION SIGN

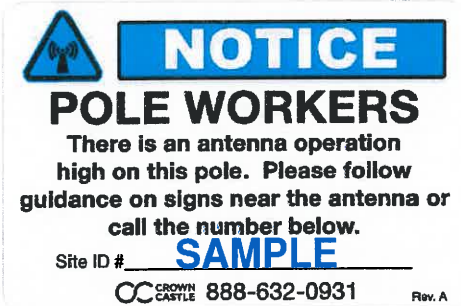
ANTENNA SIGNAGE:
ON WOOD POLES - SIGN ON ALUMINUM WITH SS SCREW TO THE POLE
ON METAL POLES - ADHESIVE VINYL OR PLACARD STRAPPED WITH SS TIES
ON CONCRETE / COMPOSITE - PLACARD STRAPPED WITH SS TIES
SIGN PLACEMENT:
AFFIX TO THE STRUCTURE ON OR JUST BELOW THE ANTENNA(S)
SIZE APPROX. 8" x 5"



A SCALE
N.T.S.

ANTENNA NOTICE SIGN

ANTENNA SIGNAGE:
ON WOOD POLES - SIGN ON ALUMINUM WITH SS SCREWS TO THE POLE
ON METAL POLES - ADHESIVE VINYL OR PLACARD STRAPPED WITH SS TIES
ON CONCRETE / COMPOSITE - PLACARD STRAPPED WITH SS TIES
SIGN PLACEMENT:
AFFIX TO THE STRUCTURE NEAR THE BOTTOM OF POLE OR ON THE SHROUD



B SCALE
N.T.S.

SF PALO ALTO 022m2
PALO ALTO
CROWN CASTLE PROJECT NO.
VZW366241CA

CLIENT:
CROWN CASTLE
695 RIVER OAKS PARKWAY
SAN JOSE, CA 95134
www.crownncastle.com

PREPARED BY:
Coastal Communications
Telecommunications Engineering
5841 EDISON PLACE, SUITE 200
CARLSBAD, CA 92008
PHONE: (760) 929-0910
FAX: (760) 929-0936
www.coastalcommunc.com

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REVISION / ISSUE	DATE



SITE NAME & ADDRESS:
ROW ADJACENT TO
258 WAVERLEY ST AT CORNER OF
BRYANT CT
PALO ALTO, CA
37.449027 / -122.163579

CONDITIONS OF APPROVAL

DRAWN BY: BMW DRAFT DATE: 2/08/18 APPROVED BY: TT
SHEET NO.

C-3

SYMBOL	DESCRIPTION
PROPOSED	
	2 X 3' VAULT
	CABINET
	PCC SIDEWALK
	TRENCH AND FIBER CONDUIT (PVT)
	DIRECTIONAL BORING
	BORE PIT
EXISTING	
	EXISTING STREET LIGHT
	EXISTING VAULT - HANDHOLE
	EXISTING MAILBOX
	EXISTING TREE
	EXISTING TREE WELL
	STATION POINTS (100' INCREMENTS)
	EXISTING CURB RAMP
	C&G EXISTING CURB & GUTTER
	EXISTING FACE OF BUILDING
	EXISTING PARKING STRIPES
	EXISTING RIGHT OF WAY
	EXISTING CENTER LINE
	EXISTING WATER LINE
	EXISTING WATER LATERAL
	EXISTING SEWER LINE
	EXISTING SEWER LATERAL
	EXISTING GAS LINE
	EXISTING GAS LATERAL
	EXISTING STORM DRAIN LINE
	STREET CURRENTLY UNDER CONSTRUCTION

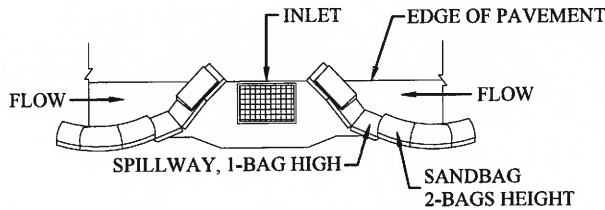
ABBREVIATIONS	
A/C	ASPHALT CURB
B.O.C.	BACK OF CURB
B/EOP	BACK OF EDGE OF PAVEMENT
C&G	CURB & GUTTER
CL	CENTERLINE
EX	EXISTING
EOP	EDGE OF PAVEMENT
F.O.C.	FACE OF CURB
F/EOP	FACE OF EDGE OF PAVEMENT
PL	PROPERTY LINE
R/W	RIGHT OF WAY
S/B	SUBDIVISION BOUNDARY

EROSION AND SEDIMENT CONTROL NOTES:

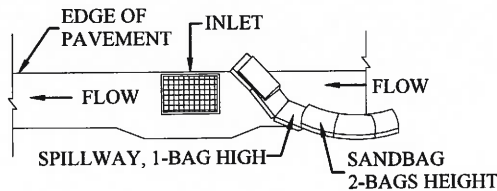
TEMPORARY EROSION/SEDIMENT CONTROL, PRIOR TO COMPLETION OF FINAL IMPROVEMENTS, SHALL BE PERFORMED BY THE CONTRACTOR OR QUALIFIED PERSON AS INDICATED BELOW:

- ALL REQUIREMENTS OF THE CITY "LAND DEVELOPMENT MANUAL, STORM WATER STANDARDS" MUST BE INCORPORATED INTO THE DESIGN AND CONSTRUCTION OF THE PROPOSED PUBLIC IMPROVEMENTS CONSISTENT WITH THE EROSION CONTROL PLAN AND/OR WATER POLLUTION CONTROL PLAN (WPCP), IF APPLICABLE.
- FOR STORM DRAIN INLETS, PROVIDE A GRAVEL BAG SILT BASIN IMMEDIATELY UPSTREAM OF INLET AS INDICATED ON DETAILS.
- THE CONTRACTOR OR QUALIFIED PERSON SHALL BE RESPONSIBLE FOR CLEANUP OF SILT AND MUD ON ADJACENT STREET(S) AND STORM DRAIN SYSTEM DUE TO CONSTRUCTION ACTIVITY.
- THE CONTRACTOR SHALL REMOVE SILT AND DEBRIS AFTER EACH MAJOR RAINFALL.
- EQUIPMENT AND WORKERS FOR EMERGENCY WORK SHALL BE MADE AVAILABLE AT ALL TIMES DURING THE RAINY SEASON.
- THE CONTRACTOR SHALL RESTORE ALL EROSION/SEDIMENT CONTROL DEVICES TO WORKING ORDER TO THE SATISFACTION OF THE CITY ENGINEER OR RESIDENT ENGINEER AFTER EACH RUN-OFF PRODUCING RAINFALL.
- THE CONTRACTOR SHALL INSTALL ADDITIONAL EROSION/SEDIMENT CONTROL MEASURES AS MAY BE REQUIRED BY THE RESIDENT ENGINEER DUE TO UNFORESEEN CIRCUMSTANCES, WHICH MAY ARISE.
- ALL EROSION/SEDIMENT CONTROL MEASURES PROVIDED PER THE APPROVED IMPROVEMENT PLAN SHALL BE INCORPORATED HEREON. ALL EROSION/SEDIMENT CONTROL FOR INTERIM CONDITIONS SHALL BE DONE TO THE SATISFACTION OF THE RESIDENT ENGINEER.
- ALL REMOVABLE PROTECTIVE DEVICES SHOWN SHALL BE IN PLACE AT THE END OF EACH WORKING DAY WHEN RAIN IS IMMINENT.
- THE CONTRACTOR SHALL ARRANGE FOR WEEKLY MEETINGS DURING OCTOBER 1ST TO APRIL 30TH FOR PROJECT TEAM (GENERAL CONTRACTOR, QUALIFIED PERSON, EROSION CONTROL SUBCONTRACTOR IF ANY, ENGINEER OF WORK, OWNER/DEVELOPER AND THE RESIDENT ENGINEER) TO EVALUATE THE ADEQUACY OF THE EROSION/SEDIMENT CONTROL MEASURES AND OTHER RELATED CONSTRUCTION ACTIVITIES.

STORMDRAIN INLET PROTECTION



TYPICAL PROTECTION FOR INLET WITH OPPOSING FLOW DIRECTIONS



TYPICAL PROTECTION FOR INLET WITH SINGLE FLOW DIRECTION

NOTES:

- INTENDED FOR SHORT - TERM USE.
- USE TO INHIBIT NON - STORM WATER FLOW.
- ALLOW FOR PROPER MAINTENANCE AND CLEANUP.
- BAGS MUST BE REMOVED AFTER ADJACENT OPERATION IS COMPLETED.
- NOT APPLICABLE IN AREAS WITH HIGH SILTS AND CLAYS WITHOUT FILTER FABRIC.

NOTES:

- CONTRACTOR TO POTHOLE ALL UTILITY CROSSINGS.
- CONTRACTOR TO PLACE SANDBAGS AROUND ANY/ALL STORM DRAIN INLETS TO PREVENT CONTAMINATED WATER.
- SPOILS PILE WILL BE COVERED AND CONTAINED AND STREET WILL BE SWEEPED AND CLEANED AS NEEDED.
- CONTRACTOR TO REPAIR DAMAGED PUBLIC IMPROVEMENTS TO THE SATISFACTION OF THE CITY ENGINEER.
- C&G TO BE PROTECTED IN PLACE. SIDEWALK TO BE REPLACED TO THE SATISFACTION OF THE CITY ENGINEER.
- THE CONTRACTOR SHALL RESTORE THE ROADWAY BACK TO ITS ORIGINAL CONDITION SATISFACTORY TO THE CITY ENGINEER INCLUDING, BUT NOT LIMITED TO PAVING, STRIPING, BIKE LANES, PAVEMENT LEGENDS, SIGNS, AND TRAFFIC LOOP DETECTORS.
- SIDEWALK SHALL BE RESTORED/REPLACED PER CITY STANDARD DRAWINGS.
- PEDESTRIAN RAMP WILL NOT BE DISTURBED.

ROW GROUND CONSTRUCTION NOTES:

- GROUND CONSTRUCTION TO REMOVE/CLEAN ALL DEBRIS, NAILS, STAPLES, OR NON-USED VERTICALS OFF THE POLE.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH MUNICIPAL, COUNTY, STATE, FEDERAL, GO95 AND GO128 STANDARDS AND REGULATIONS.
- CALL USA 48 HOURS PRIOR TO EXCAVATING AT (800) 227-2600 OR 811.
- ALL LANDSCAPING TO BE RESTORED TO ORIGINAL CONDITION OR BETTER.
- ALL EQUIPMENT TO BE BONDED.
- METERING CABINET REQUIRES 36" CLEARANCE AT DOOR OPENING.
- CAULK CABINET BASE AT PAD.

NORMAL LOCATION OF UNDERGROUND UTILITIES NOTES:

- LOCATION AND DEPTH OF EXISTING AND PROPOSED UTILITIES MUST BE PROVIDED BY THE SUBDIVIDER AND SHOWN ON ANY PLANS SUBMITTED TO THE DEPT. OF PUBLIC WORKS FOR APPROVAL.
- CHANGES MAY BE PERMITTED BY THE DEPT. OF PUBLIC WORKS IN CASES OF CONFLICTING FACILITIES.
- CONFLICTS BETWEEN UTILITY COMPANIES FACILITIES, EXISTING AND PROPOSED, MUST BE MUTUALLY RESOLVED BY THE UTILITY COMPANIES.
- FOR COMMERCIAL SIDEWALKS, THE FIRE HYDRANT SHALL BE PLACED WITHIN THE SIDEWALK 1'-6" BEHIND FACE OF CURB.
- MAXIMUM 2" DIAMETER GAS MAINS MAY BE PLACED IN JOINT UTILITIES TRENCH SUBJECT TO APPROVAL OF CITY ENGINEER (IN TRACTS).

GENERAL CONTRACTOR NOTES:

- STREET USE PERMIT SHALL BE OBTAINED BY CONTRACTOR PRIOR TO COMMENCING WORK.
- ALL WORK TO BE CONDUCTED IN THE RIGHT OF WAY.
- ALL DISTURBED LANDSCAPING SHALL BE REPLACED TO SIMILAR EXISTING CONDITION.
- ANY SIDEWALK CLOSURE SHALL BE COORDINATED WITH THE CITY AND PROPER SIGNING WILL BE PLACED.
- NO MATERIALS OR EQUIPMENT SHALL BE STORED ON PRIVATE PROPERTY OR BLOCK ACCESS TO PRIVATE PROPERTY.
- CLEANUP OF SITE WILL BE COMPLETED EACH EVENING AND THE SITE WILL BE RETURNED TO EXISTING CONDITIONS AT THE COMPLETION OF CONSTRUCTION AT EACH SITE.

CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE, PROCEEDING WITH THE WORK OR RESPONSIBLE FOR SAME.

CALIFORNIA STATE CODE COMPLIANCE:

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUCTED TO PERMIT WORK NOT CONFORMING TO THESE CODES:

- CALIFORNIA ADMINISTRATIVE CODE (INCLUDING TITLES 24 & 25) 2016
- 2016 CALIFORNIA BUILDING CODES WHICH ADOPTS THE 2016 UBC, 2016 UMC, 2016 UPC AND THE 2016 NEC.
- BUILDING OFFICIALS & CODE ADMINISTRATORS (BOCA)
- 2016 CALIFORNIA MECHANICAL CODE
- ANSI/EIA-222-F LIFE SAFETY CODE NFPA-101
- 2016 CALIFORNIA PLUMBING CODE
- 2016 CALIFORNIA ELECTRICAL CODE
- 2016 LOCAL BUILDING CODE
- CITY/COUNTY ORDINANCES

ACCESSIBILITY REQUIREMENTS:

FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAPPED ACCESS REQUIREMENTS DO NOT APPLY IN ACCORDANCE WITH THE 2010 CALIFORNIA BUILDING CODE.

FCC NOTE:

THIS WIRELESS COMMUNICATION FACILITY COMPLIES WITH FEDERAL STANDARDS FOR RADIO FREQUENCY IN ACCORDANCE WITH THE TELECOMMUNICATION ACT OF 1996 AND SUBSEQUENT AMENDMENTS AND ANY OTHER REQUIREMENTS IMPOSED BY STATE OR FEDERAL REGULATORY AGENCIES.

CITY OF PALO ALTO UTILITIES ENGINEERING NOTES:

- APPLICANT SHALL TAP ELECTRIC SERVICE TO THE SMALL CELL DISTRIBUTED ANTENNA SYSTEM FROM THE LOCATIONS JOINTLY IDENTIFIED DURING THE FIELD INVESTIGATION.
- SERVICE VOLTAGE TO ALL THE PROPOSED LOCATIONS MAY NOT BE THE SAME. APPLICANT SHALL DESIGN THEIR SYSTEM TO OPERATE AT THE AVAILABLE VOLTAGE IN THE VICINITY.
- IF BRAND NEW POLES NEED TO BE INSTALLED FOR APPLICANT'S SYSTEM THEN THE POLES MUST MATCH EXISTING POLES IN THE DOWN TOWN AREA.
- AFTER EXCAVATION IS COMPLETED ON THE PUBLIC RIGHT OF WAY, EXISTING STREETS INCLUDING SIDEWALKS/ CURB/ GUTTER OR ANY DECORATIVE PATHS MUST BE BROUGHT TO ITS ORIGINAL CONDITION AND MUST BE APPROVED BY PUBLIC WORKS ENGINEERING DEPARTMENT'S INSPECTOR. POTHOLING MUST BE DONE AND ALL THE UTILITIES MUST BE IDENTIFIED PRIOR TO COMMENCING EXCAVATION.
- EXCAVATION AND RESTORATION WORK MUST BE IN COMPLIANCE WITH PUBLIC WORKS ENGINEERING STANDARDS AND SPECIFICATIONS THAT ARE AVAILABLE ON THE FOLLOWING WEBSITE:
<http://www.cityofpaloalto.org/news/displaynews.asp?NewsID=1834&TargetID=145>
- APPLICANTS SHALL BE RESPONSIBLE FOR MAINTAINING THEIR SYSTEM INCLUDING SUBSTRUCTURE. IN CASE OF KNOCK DOWNS, THE CITY WILL RE-INSTALL ITS STREET LIGHTING POLES BUT **NOT** APPLICANT'S EQUIPMENT ON OR OFF THE POLE.
- A FIELD MEETING IS RECOMMENDED WITH UTILITIES ENGINEERING PRIOR TO COMMENCING THE WORK.
- PLANS SHALL INCLUDE A NOTE: **CONTRACTOR TREE INSPECTION REQUIREMENTS:** MODIFIED TYPE III TRUNK WRAPPING SHALL BE VERIFIED BY URBAN FORESTRY PRIOR TO ANY WORK IN THE VICINITY. FOR EACH TREE SITE WRAPPED FOR PROTECTION WITHIN 15' OF ANY WORK ZONE OR CONCRETE FORM SECTION, A BILLABLE TREE INSPECTION BY URBAN FORESTRY (650-496-5953, 24-HOUR ADVANCE IS REQUIRED) SHALL BE COMPLETED PRIOR TO DEMOLITION, DRILLING, EXCAVATING, FORMING OR STREET LIGHT ACTIVITY. CONTRACTOR SHALL ARRANGE PAYMENTS AT THE DEVELOPMENT CENTER, 285 HAMILTON AVE, PALO ALTO, CA.
- THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITIES DEPARTMENT 650/329-2413 OR 650/496-6982 IF THE EXISTING WATER, WASTEWATER OR GAS MAINS ARE DISTURBED OR DAMAGED. A QUALIFIED CONTRACTOR MAY PERFORM REPAIRS ON CITY WATER AND WASTEWATER MAINS UNDER THE DIRECT SUPERVISION OF THE WGW UTILITIES INSPECTOR. FOR WATER REPAIRS ALL THE DISINFECTION REQUIREMENTS OF THE WGW UTILITY STANDARDS AND THESE CONDITIONS SHALL BE ADHERED TO. ALL REPAIRS TO THE CITY GAS SYSTEM MUST BE PERFORMED BY THE CITY OF PALO ALTO UTILITIES.
- NO WATER VALVES OR OTHER FACILITIES OWNED BY UTILITIES DEPARTMENT SHALL BE OPERATED FOR ANY PURPOSE BY THE APPLICANT'S CONTRACTOR. ALL REQUIRED OPERATION WILL ONLY BE PERFORMED BY AUTHORIZED UTILITIES DEPARTMENT PERSONNEL. WATER VALVES MAY BE OPERATED BY THE CONTRACTOR UNDER THE DIRECT SUPERVISION OF THE WGW UTILITIES INSPECTOR. THE APPLICANT'S CONTRACTOR SHALL NOTIFY THE UTILITIES DEPARTMENT NOT LESS THAN FORTY- EIGHT (48) HOURS IN ADVANCE OF THE TIME THAT SUCH OPERATION IS REQUIRED.

SF PALO ALTO 022m2
PALO ALTO
CROWN CASTLE PROJECT NO.
VZW366241CA

CLIENT:

695 RIVER OAKS PARKWAY
SAN JOSE, CA 95134
www.crowncastle.com

PREPARED BY:

5841 EDISON PLACE, SUITE 200
CARLSBAD, CA 92008
PHONE: (760) 929-0910
FAX: (760) 929-0936
www.coastalcommc.com

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REVISION / ISSUE	DATE

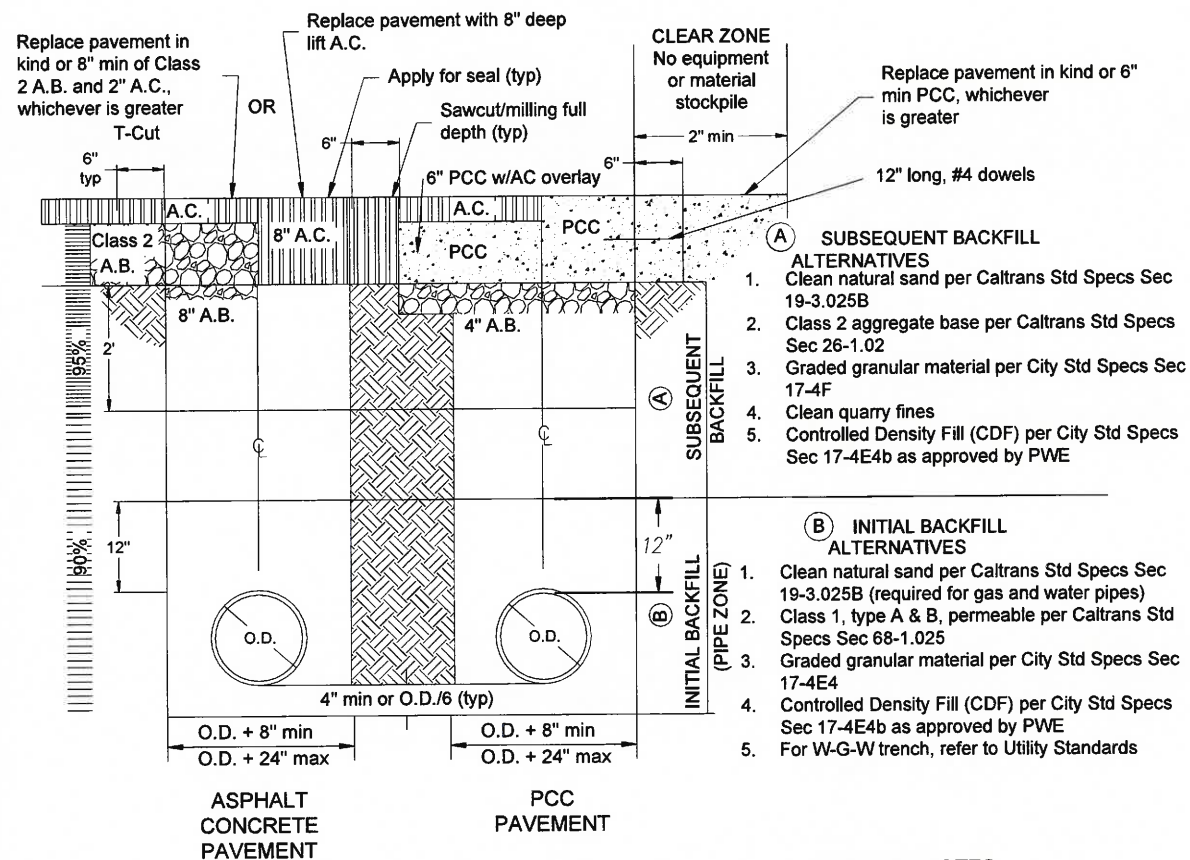


SITE NAME & ADDRESS:
ROW ADJACENT TO
258 WAVERLEY ST AT CORNER OF
BRYANT CT
PALO ALTO, CA
37.449027 / -122.163579

DETAILS & NOTES

DRAWN BY: BMW	DRAFT DATE: 2/08/18	APPROVED BY: TT
SHEET NO. D-1		

CITY OF PALO ALTO
STANDARD
(DRAWING NO. 401)
TRENCHES
TYPICAL CROSS-SECTIONS
N.T.S.



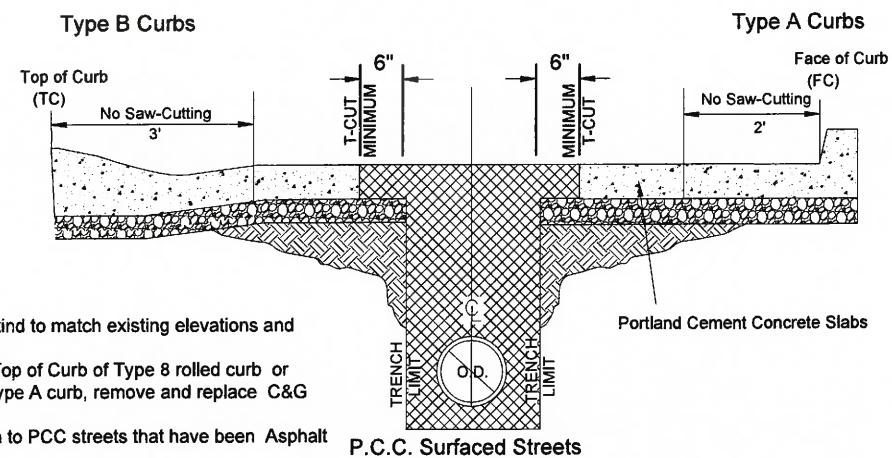
GENERAL NOTES

- PCC shall contain a minimum of 6 sacks concrete with a desired 28-day strength of 3,500 PSI
- Extend T-cut to lip of Gutter per City Std Specs 17-G
- Refer to City Std Dwg 403 for trench limits of restoration
- Match existing AC thickness on PCC overlays

JETTING NOTES

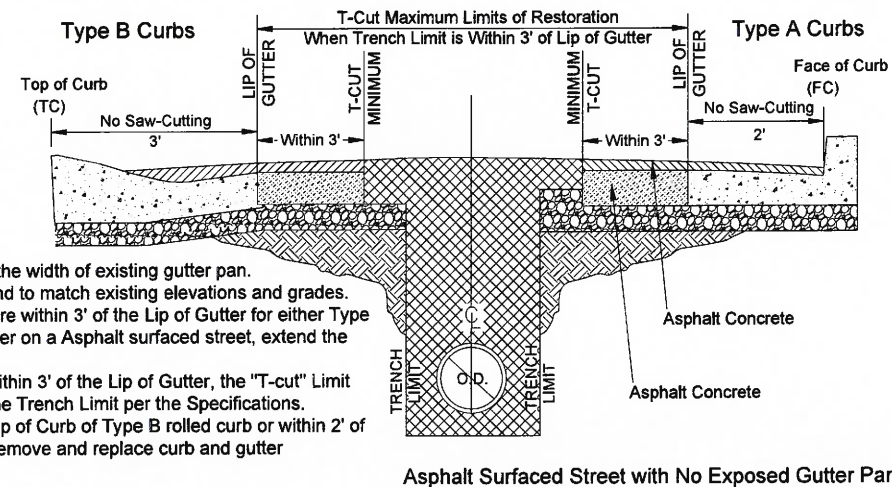
- IMPROVED AREAS
 - INITIAL BACKFILL- jetting of sand OK
 - SUBSEQUENT BACKFILL- jetting of sand subject to approval of City Engineer, except for top 2 ft, which must be mechanically compacted
- UNIMPROVED AREA: jetting of sand OK
- WHEN JETTING IS PERMITTED:
 - Excess water shall be collected at low points and removed by pumping
 - Sand to be jetted shall be placed in lifts no thicker than 4 ft
 - Jetting shall be performed at intervals along the trench not to exceed 6 ft

CITY OF PALO ALTO STANDARD
(DRAWING NO. 403)
TRENCHES
LIMITS OF RESTORATION
N.T.S.



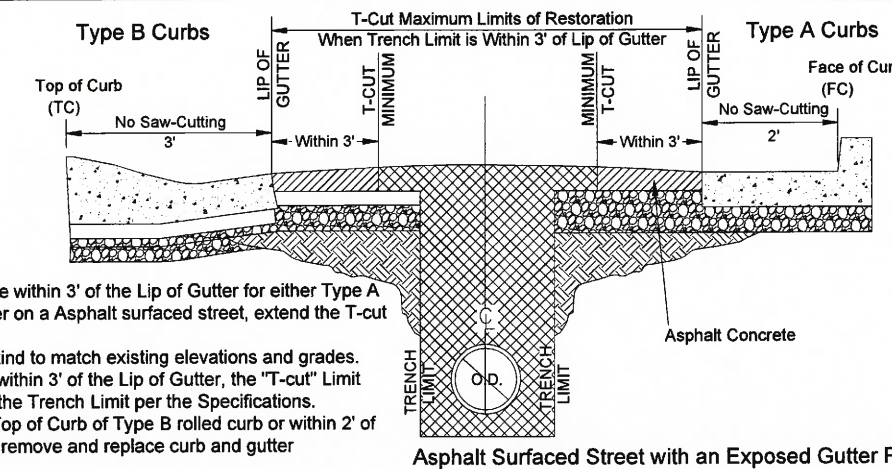
NOTES

- Restore all materials in kind to match existing elevations and grades.
- If Sawcut is within 3' of Top of Curb of Type 8 rolled curb or within 2' of the face of Type A curb, remove and replace C&G monolithically.
- These notes also pertain to PCC streets that have been Asphalt overlaid.



NOTES

- Remove asphalt to verify the width of existing gutter pan.
- Restore all materials in kind to match existing elevations and grades.
- When "Trench Limits" is within 3' of the Lip of Gutter for either Type A or Type B curb and gutter on a Asphalt surfaced street, extend the T-cut to the Lip of Gutter.
- If "Trench Limit" is NOT within 3' of the Lip of Gutter, the "T-cut" Limit shall be located 6" from the Trench Limit per the Specifications.
- If Sawcut is within 3' of Top of Curb of Type B rolled curb or within 2' of the face of Type A curb, remove and replace curb and gutter monolithically.



NOTES

- When "Trench Limits" are within 3' of the Lip of Gutter for either Type A or Type B curb and gutter on a Asphalt surfaced street, extend the T-cut to the Lip of Gutter.
- Restore all materials in kind to match existing elevations and grades.
- If "Trench Limit" is NOT within 3' of the Lip of Gutter, the "T-cut" Limit shall be located 6" from the Trench Limit per the Specifications.
- If Sawcut is within 3' of Top of Curb of Type B rolled curb or within 2' of the face of Type A curb, remove and replace curb and gutter monolithically.

SF PALO ALTO 022m2
PALO ALTO
CROWN CASTLE PROJECT NO.
VZW366241CA

CLIENT:
CROWN CASTLE
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www.crowncastle.com

PREPARED BY:
Coastal Communications
Telecommunications Engineering
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CARLSBAD, CA 92008
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REVISION / ISSUE	DATE

REGISTERED PROFESSIONAL ENGINEER
JERRY MICHAEL
No. C42590
Exp. 03-31-20
CIVIL
STATE OF CALIFORNIA

SITE NAME & ADDRESS:
ROW ADJACENT TO
258 WAVERLEY ST AT CORNER OF
BRYANT CT
PALO ALTO, CA
37.449027 / -122.163579

DETAILS & NOTES

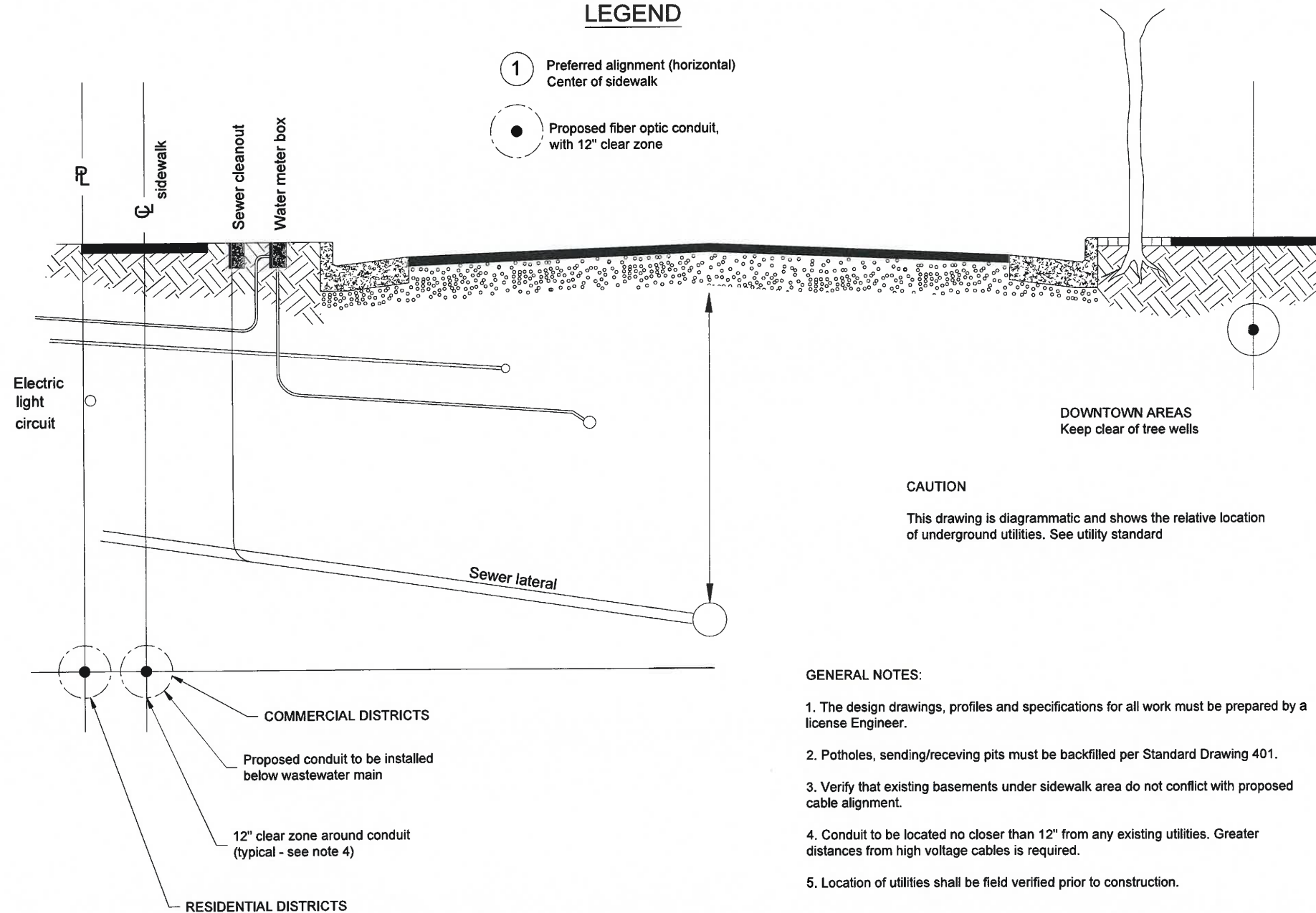
DRAWN BY: BMW	DRAFT DATE: 2/08/18	APPROVED BY: TT
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SHEET NO.
D-2

CITY OF PALO ALTO STANDARD
(DRAWING NO. 402)
CONDUIT LOCATION DETAIL
TELECOMMUNICATIONS
N.T.S.

LEGEND

- 1 Preferred alignment (horizontal)
Center of sidewalk
- Proposed fiber optic conduit,
with 12" clear zone



GENERAL NOTES:

1. The design drawings, profiles and specifications for all work must be prepared by a license Engineer.
2. Potholes, sending/receiving pits must be backfilled per Standard Drawing 401.
3. Verify that existing basements under sidewalk area do not conflict with proposed cable alignment.
4. Conduit to be located no closer than 12" from any existing utilities. Greater distances from high voltage cables is required.
5. Location of utilities shall be field verified prior to construction.

SF PALO ALTO 022m2
PALO ALTO

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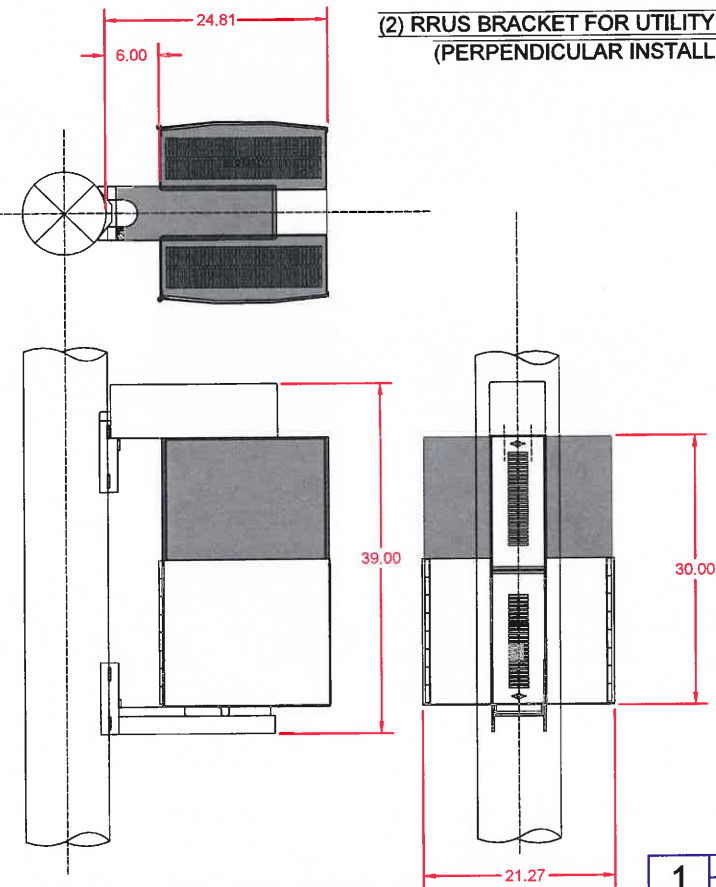


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DETAILS & NOTES

DRAWN BY: BMW DRAFT DATE: 2/08/18 APPROVED BY: TT

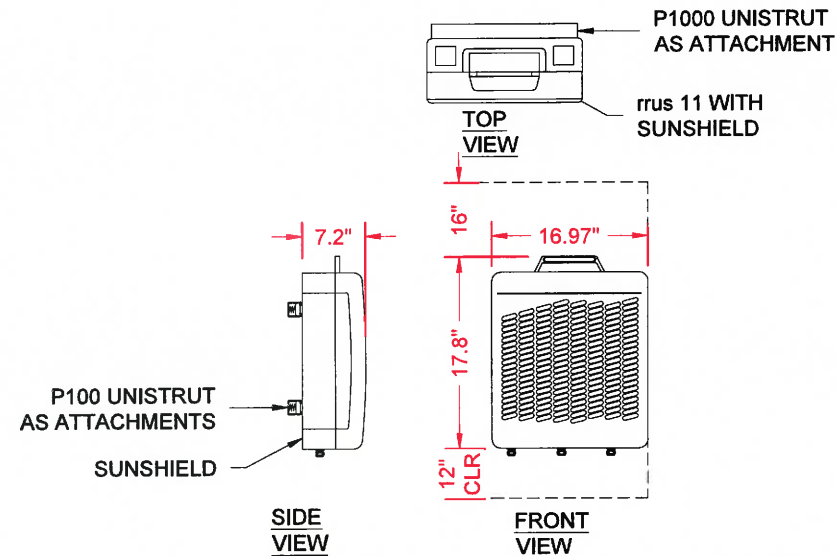
SHEET NO. D-3



ERICSSON rrus-11 REMOTE RADIO UNIT
(TYPICAL SECTION: N.T.S.)

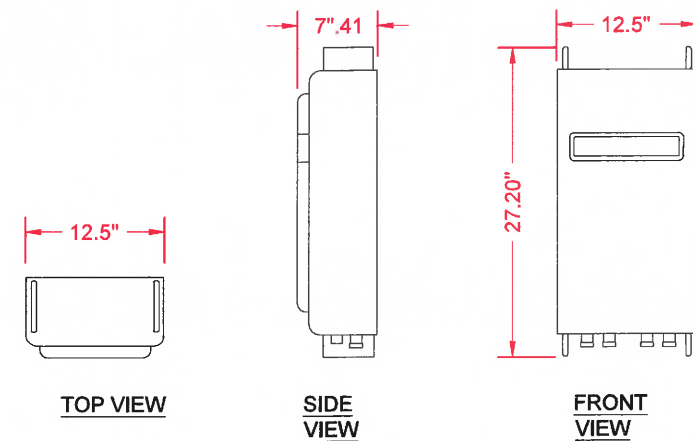
ERICSSON rrus-11 REMOTE RADIO UNIT
COLOR: GRAY
DIMENSIONS: 17.8" TALL X 16.97" WIDE
X 7.2" DEEP (INCLUDING SUNSHIELD & HANDHOLE)

WEIGHT, INCLUDING MOUNTING HARDWARE: 50.7 lbs

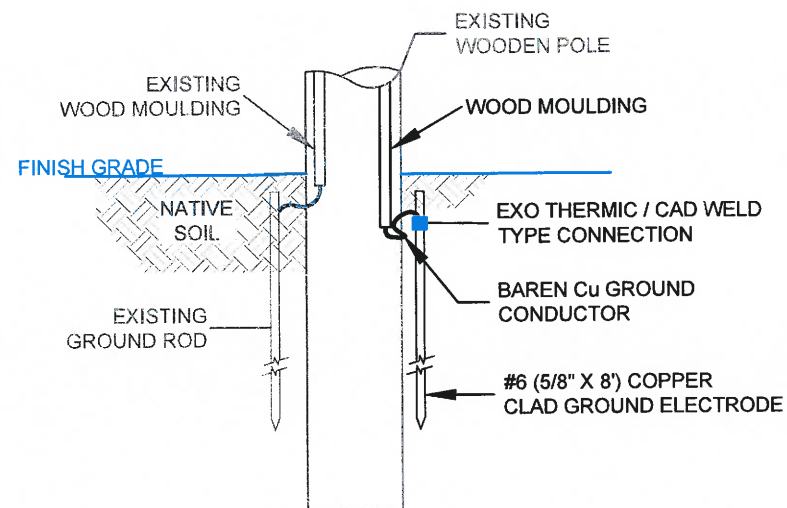


ERICSSON rrus-32 REMOTE RADIO UNIT
(TYPICAL SECTION: N.T.S.)

ERICSSON rrus-32 REMOTE RADIO UNIT
COLOR: GRAY
DIMENSIONS: 27.2" TALL X 12.5" WIDE
X 7.41" DEEP
TOTAL WEIGHT: 55.12 LBS



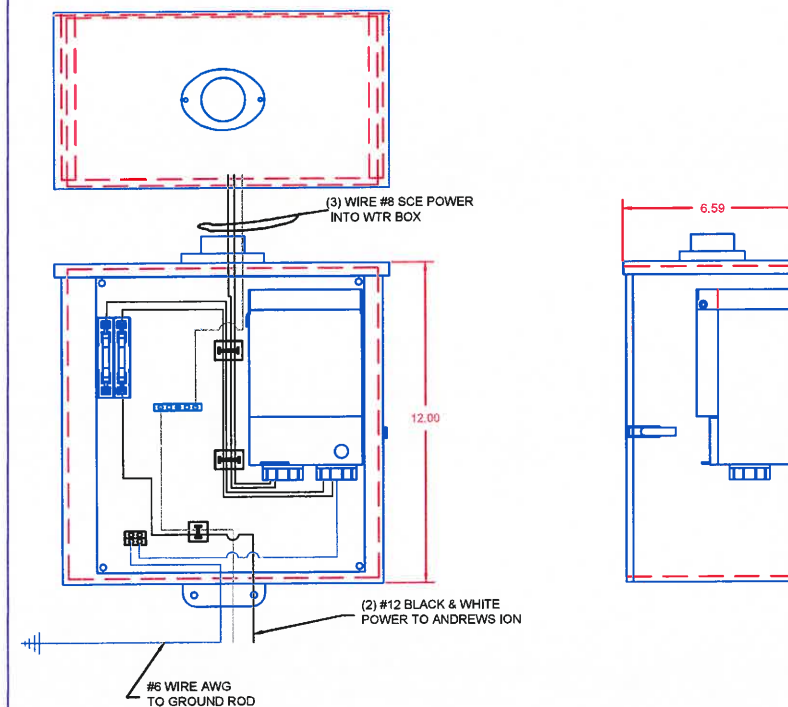
GROUND ROD INSTALLATION FOR WOODEN POLES
TYPICAL SECTION: N.T.S.



NOTE:
UTILITY POLE GROUND SHALL COMPLY WITH PUBLIC
UTILITIES COMMISSION OF THE STATE OF CALIFORNIA
GENERAL ORDER No. 95 (SECTION 59.4, 92.4)

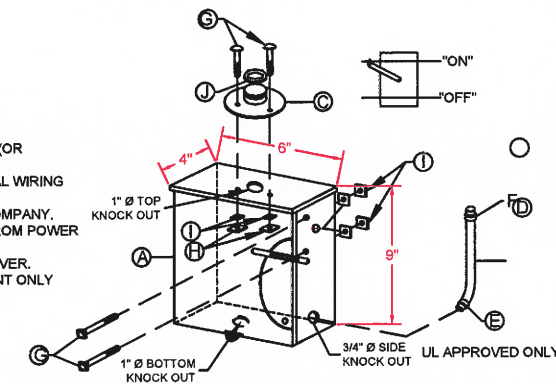
4 SCALE
N.T.S.

WEIGMANN ENCLOSURE
(12 X 12 X 6 ENCL, SCE CONFIGURATION)



DISCONNECT BOX
TYPICAL SECTION: N.T.S.

- NOTES:
1. MAIN DISCONNECT BREAKER.
 2. MANUFACTURER SQUARE D - (OR EQUIVALENT).
 3. BREAKER SIZE AND INCIDENTAL WIRING SPECIFIED BY CLIENT.
 4. KAIC SPECIFIED BY POWER COMPANY.
 5. 1" CLOSE NIPPLE FOR FEED FROM POWER SOURCE.
 6. 3/4" LIQUID FLEX TO TRANSCEIVER.
 7. CABINET LOCKABLE FOR CLIENT ONLY



PARTS LIST		
CALLOUT	QTY	DESCRIPTION
A	1	CABINET WATER PART #
B	1	BREAKER AMP KAIC 2 POLE 120/140 VAC SINGLE PHASE
C	1	1" CLOSE NIPPLE STRAIGHT
D	1	3/4" X 4' LIQUID TIGHT METALLIC FLEX CONDUIT WITH CONNECTOR
E	1	3/4" LIQUID TIGHT FLEX CONNECTOR 45°
F	1	3/4" LIQUID TIGHT FLEX CONNECTOR - STRAIGHT
G	4	5/8" X 1" BOLT - STAINLESS STEEL
H	4	5/16" LOCK WASHER - STAINLESS STEEL
I	4	5/16" NUT - STAINLESS STEEL
J	1	1" LOCK NUT

6 SCALE
N.T.S.

SF PALO ALTO 022m2
PALO ALTO

CROWN CASTLE PROJECT NO.
VZW366241CA

CLIENT:

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REGISTERED PROFESSIONAL ENGINEER
JERRY MICHAEL
No. C42590
Exp. 03-31-20
CIVIL
STATE OF CALIFORNIA

SITE NAME & ADDRESS:
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PALO ALTO, CA
37.449027 / -122.163579

DETAILS & NOTES

DRAWN BY: BMW DRAFT DATE: 2/08/18 APPROVED BY: TT

SHEET NO. D-4

CUUB070X12F124s0

Connector Description

The antenna has 12 connectors located at the bottom, each marked with a colored ring.

Low Band	696-960 MHz	Red Rings	(4x) 4.1/9.5 or 4.3/10 or 7/16-DIN Female
High Band #1	1695-2700 MHz	Yellow Rings	(4x) 4.1/9.5 or 4.3/10 or 7/16-DIN Female
High Band #2	1695-2700 MHz	Orange Rings	(4x) 4.1/9.5 or 4.3/10 or 7/16-DIN Female
Electrical Characteristics			
Frequency Bands (MHz)	Low Band		High Bands #1 and #2
	696-960 MHz		(2x) 1695-2700 MHz
	696-906	906-960	1695-1680 1850-1990 1920-2200 2300-2700
Polarization	(2x) ±45°		
Horizontal Beamwidth	70°	45°	70° 68° 65° 63°
Vertical Beamwidth	20°	15°	7.5° 7.0° 6.5° 6.0°
Gain	12.0 dBi	13.0 dBi	16.0 dBi 16.5 dBi 17.0 dBi 17.3 dBi
Electrical Down tilt (°)	(0) 0, 2, 4, 6, 8, 10, 12		
Impedance	50Ω		
VSWR	≤ 1.5:1		
Upper Sideband Suppression	> 15 dB		
Front-to-Back Ratio	> 25 dB		
Isolation Between Ports	20 dB		
IM3 (2x20W carrier)	< -153 dBc		
Input Power	(4x) 500 W		
Diplexed	No		
Number of Sectors / Sector Spacing	2 Sectors / 180° Spacing		
Lightning Protection	Direct Ground		
Mechanical Characteristics			
Antenna Dimensions (Height x Diameter)	1219 x 371 mm		48.0 x 14.6 in
Weight without Mounting Bracket Kit	18.2 kg		40.1 lbs
Survival Wind Speed	200 km/hr		125 mph
Wind Area	0.46 m²		4.9 ft²
Wind Load (160 km/hr or 100 mph)	383 N		86 lbf



7

SCALE
N.T.S.

WB3X-MKS-01

Utility Pole Mounting Kit for Cylindrical Antennas

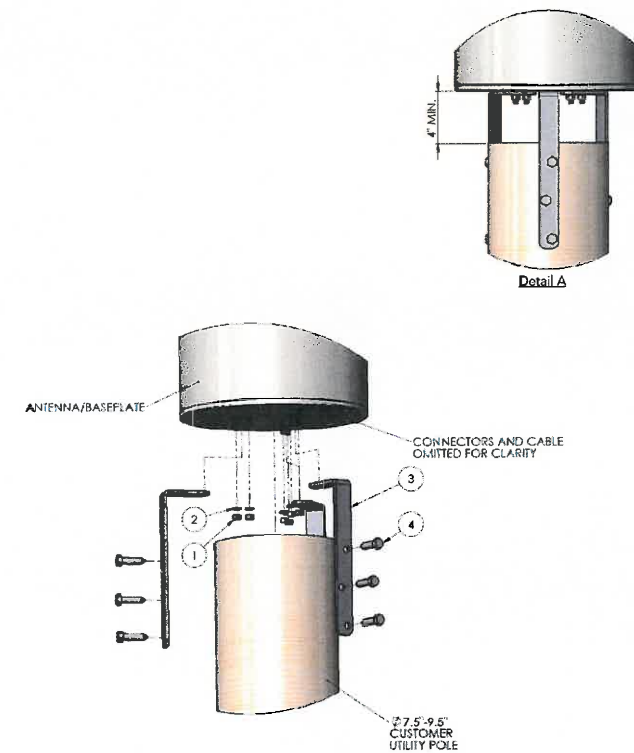
Mounting Instructions

- Step 1 Attach pole mount brackets (Item 3) to antenna/base plate using fasteners (Items 1 and 2). Tighten to 15 N-m (11 ft-lb).
- Step 2 Attach pole mount brackets (Item 3)/antenna assembly to customer utility pole using lag screws (Item 4).
- Step 3 Make all electrical connections weatherproof with self-amalgamating tape.

Parts List	Description	Quantity
Item 1	Nut Hex, 3/8-16 HDG	6
Item 2	Lock Washer 3/8 HDG	6
Item 3	Pole Mount Bracket	3
Item 4	Galvanized Hex Lag Screw (1/2 x 2" Long)	9

Mechanical Characteristics

Weight 2.7 kg (6 lbs)

ANTENNA MOUNT
TYPICAL SECTION: N.T.S.

8

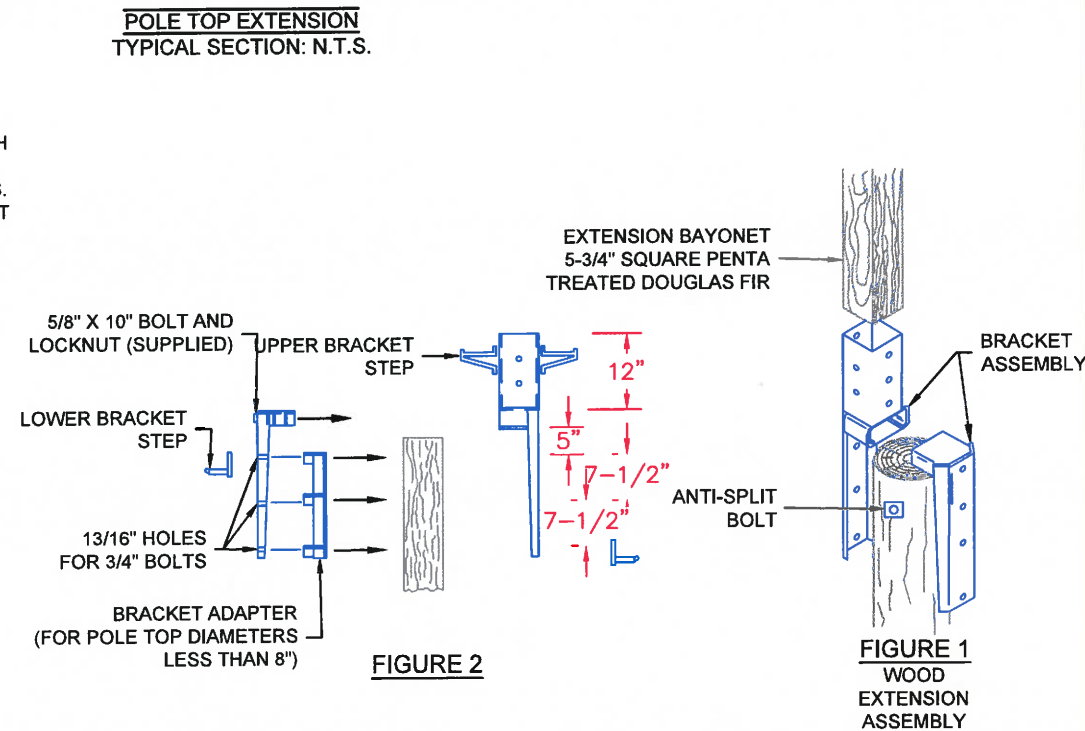
SCALE
N.T.S.

NOTES

- THE UNIT MEETS G.O. 95 REQUIREMENTS FOR STRENGTH IN CLASS 3 THROUGH 6 POLES AND THEREFORE MAY BE USED TO SUPPORT EQUIPMENT ON THESE CLASS POLES. IT MAY BE USED ON LARGER CLASS POLES, BUT MAY NOT SUPPORT EQUIPMENT ON THEM.
- THE UNIT MAY BE GUYED.
- THE BRACKET IS MADE TO FIT POLES WITH DIAMETERS OF 8" TO 11". THEREFORE, DEPENDING UPON ACTUAL POLE DIAMETER, TO FIT POLES OF CLASS AND SMALLER, A BRACKET ADAPTER MAY BE REQUIRED.
- UNITS ARE SUPPLIED WITH THE WOOD BAYONET ASSEMBLED.
- A POLE STEP KIT IS REQUIRED.

FIGURE 2
BRACKET ASSEMBLY AND BRACKET ADAPTERTABLE 1 BILL OF MATERIALS
DESCRIPTION

5' EXTENSION ASSEMBLY	180219
6' EXTENSION ASSEMBLY	180220
7' EXTENSION ASSEMBLY	180221
BRACKET ADAPTER	180222
3/4" X 10" MACHINE BOLTS	192412
POLE STEP KIT (2 UPPER, 2 LOWER)	180011

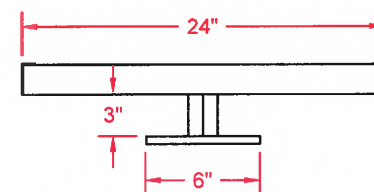
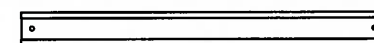


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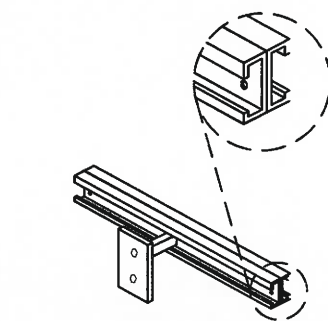
SCALE
N.T.S.

STANDOFF BRACKET

FRONT VIEW OF STAND OFF BRACKET:



TOP VIEW STAND OFF BRACKET:



3D VIEW OF STAND OFF BRACKET:

10

SCALE
N.T.S.SF PALO ALTO 022m2
PALO ALTOCROWN CASTLE PROJECT NO.
VZW366241CA

CLIENT:



PREPARED BY:



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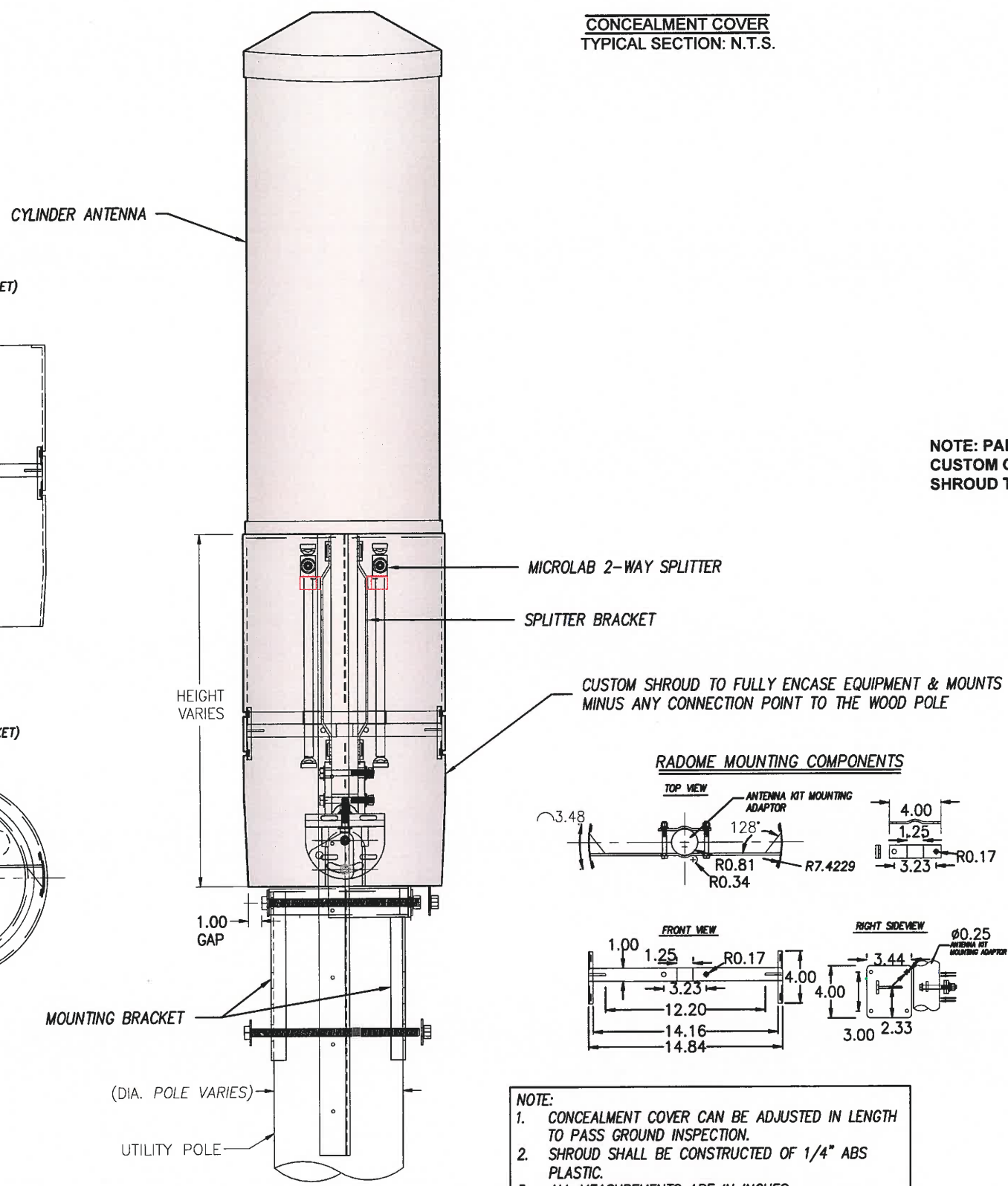
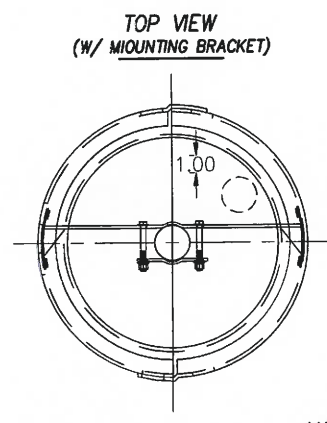
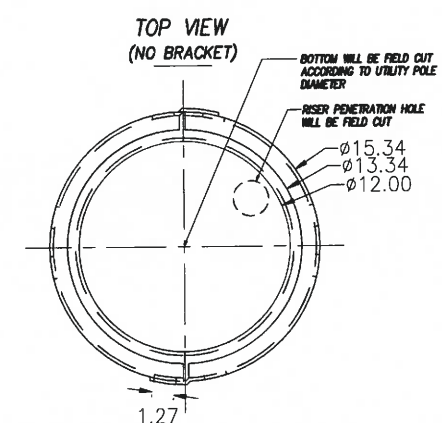
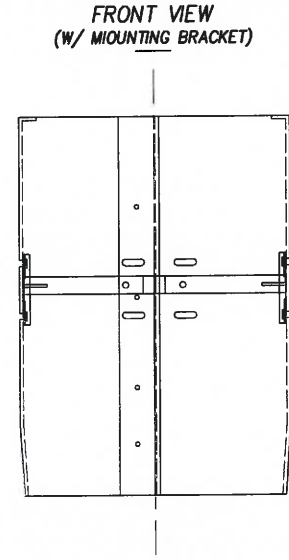
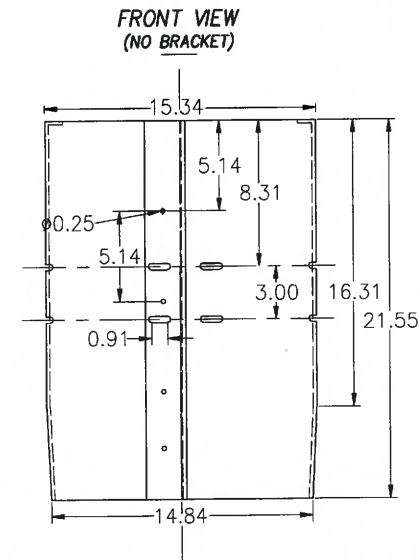
SITE NAME & ADDRESS:
ROW ADJACENT TO
258 WAVERLEY ST AT CORNER OF
BRYANT CT
PALO ALTO, CA
37.449027 / -122.163579

DETAILS & NOTES

DRAWN BY: BMW	DRAFT DATE: 2/08/18	APPROVED BY: TT
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SHEET NO.

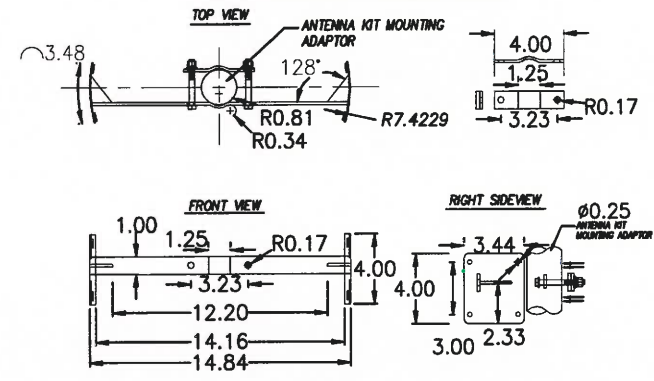
D-5



CONCEALMENT COVER
TYPICAL SECTION: N.T.S.

**NOTE: PAINT ANTENNA AND
CUSTOM CONCEALMENT
SHROUD TO MATCH POLE.**

RADOME MOUNTING COMPONENTS



- NOTE:**
1. CONCEALMENT COVER CAN BE ADJUSTED IN LENGTH TO PASS GROUND INSPECTION.
 2. SHROUD SHALL BE CONSTRUCTED OF 1/4" ABS PLASTIC.
 3. ALL MEASUREMENTS ARE IN INCHES.
 4. THE RISERS DO NOT CONNECT OR GO INTO THE ANTENNA SHROUD.
 5. THERE WILL BE A GAP (UP TO 6") FROM THE TOP OF THE RISER TO THE BOTTOM OF THE SHROUD.

**SF PALO ALTO 022m2
PALO ALTO**
CROWN CASTLE PROJECT NO.
VZW366241CA

CLIENT:
CROWN CASTLE
695 RIVER OAKS PARKWAY
SAN JOSE, CA 95134
www.crowncastle.com

PREPARED BY:
Coastal Communications
Telecommunications Engineering
5841 EDISON PLACE, SUITE 200
CARLSBAD, CA 92008
PHONE: (760) 929-4910
FAX: (760) 929-0936
www.coastalcomminc.com

PROPRIETARY INFORMATION
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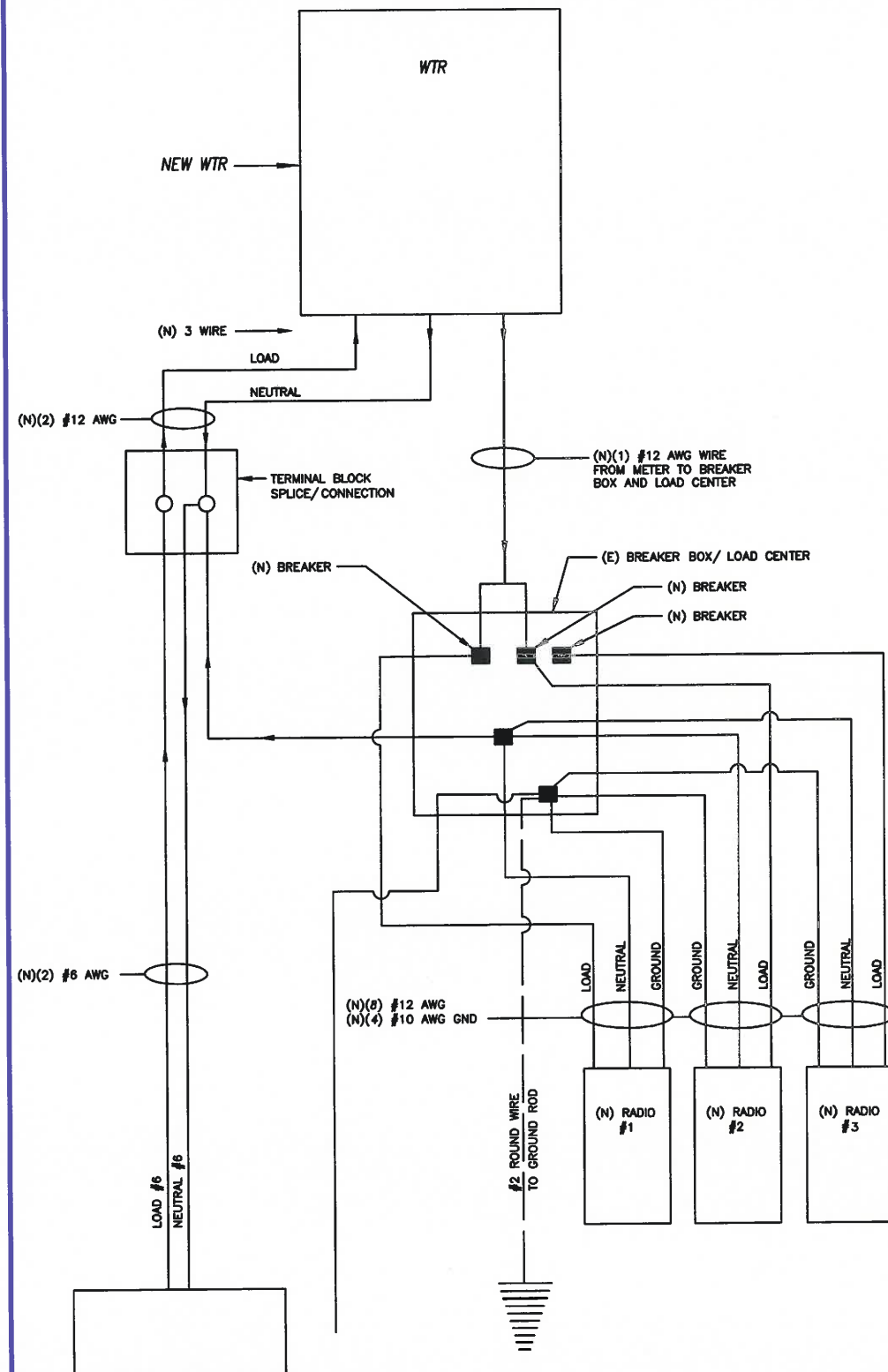


SITE NAME & ADDRESS:
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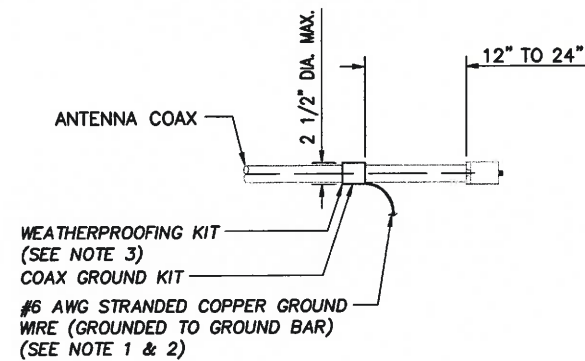
DETAILS & NOTES

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SHEET NO. D-6		

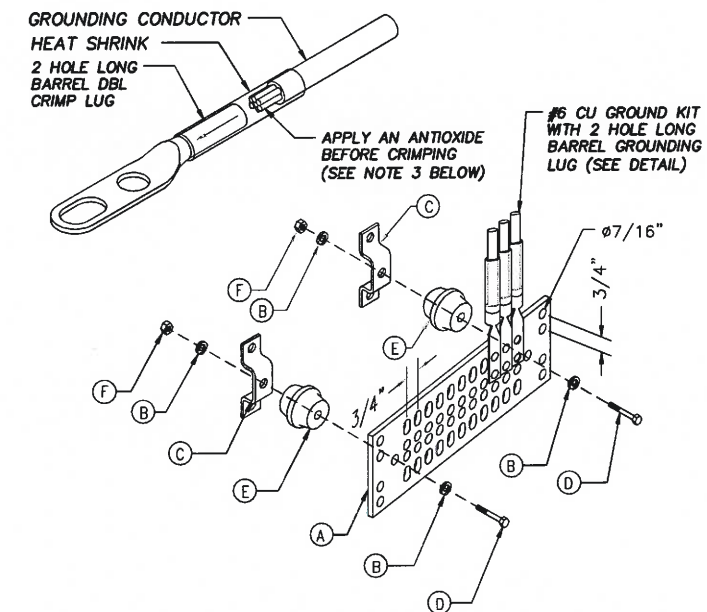
SINGLE LINE DIAGRAM



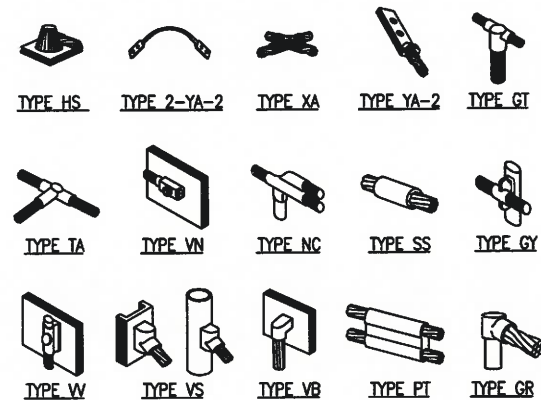
CONNECTION OF COAX GROUND KIT TO ANTENNA COAX



TYPICAL GROUND BAR



WELD CONNECTION DETAILS



NOTES:

1. CRIMP (COMPRESSION) TYPE TWO HOLE BOLTED TONGUE CONNECTORS SHALL BE USED TO TERMINATE STRANDED GROUNDING CONDUCTORS. THE CONNECTORS SHALL BE TIN PLATED COPPER, LONG BARREL LUG, AND SHALL BE LISTED FOR THEIR INTENDED USE BY AN NRTL.
2. CRIMP TYPE CONNECTORS USED ON SOLID CONDUCTORS MUST BE LISTED BY AN NRTL FOR USE ON SOLID CONDUCTORS, AND MUST BE CRIMPED WITH THE DIES SPECIFIED BY THE MANUFACTURER OF THE CONNECTOR. USE A HYDRAULIC CRIMPING TOOL.
3. WIRES SHALL BE INSERTED THE ENTIRE LENGTH OF THE LUG. ENSURE COAX OUTER INSULATION IS SNUG TO LUG BARREL. PROVIDE AN ANTIOXIDE COMPOUND ON THE CONDUCTOR BEFORE CRIMPING (NO OX). INSTALL A TRANSPARENT HEAT SHRINK INSULATING TUBING ALONG THE ENTIRE LENGTH OF THE CRIMP.
4. USE #6 AWG STRANDED-THOMAS & BETTS 455578 OR EQUIVALENT.

PARTS LIST

A	COPPER GROUND BAR, USE STYLE "I" GTI TELECOM, INC. OR EQUAL (ACTUAL GROUND BAR SIZE WILL VARY BASED ON NUMBER OF GROUND CONNECTIONS)	C	WALL MOUNTING BRACKET, NEWTON INSTRUMENT CO. CAT. NO. A-6051 OR EQUAL
		D	5/8-11 x 1" HHCS BOLTS, NEWTON INSTRUMENT CO. CAT. NO. A-6051 OR EQUAL
B	5/8" LOCK WASHERS, NEWTON INSTRUMENT CO. CAT. NO. 3015-8 OR EQUAL	E	INSULATORS SHALL BE INSTALLED
		F	5/8-11 NUT

PARTS LIST

C	WALL MOUNTING BRACKET, NEWTON INSTRUMENT CO. CAT. NO. A-6056 OR EQUAL
D	5/8-11 X 1" HHCS BOLTS, NEWTON INSTRUMENT CO. CAT. NO. A-6056 OR EQUAL
E	INSULATORS SHALL BE INSTALLED
F	5/8-11 NUT

SF PALO ALTO 022m2
PALO ALTO

CROWN CASTLE PROJECT NO.
VZW366241CA

CLIENT:



PREPARED BY:



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TICKET # _____

REVISION / ISSUE	DATE



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ROW ADJACENT TO
258 WAVERLEY ST AT CORNER OF
BRYANT CT
PALO ALTO, CA

37.449027 / -122.163579

DETAILS & NOTES

DRAWN BY: BMW	DRAFT DATE: 2/08/18	APPROVED BY: TT
SHEET NO.		

D-7

12	SCALE
	N.T.S.

14	SCALE
	N.T.S.

15	SCALE
	N.T.S.

CITY OF PALO ALTO
TREE PROTECTION - IT'S PART OF THE PLAN!
Make sure your crews and subs do the job right!

Fenced enclosures around trees are essential to protect them by keeping the foliage canopy and branching structure clear from contact by equipment, materials and activities, preserving roots and soil conditions in an intact and non-compacted state, and identifying the Tree Protection Zone (TPZ) in which no soil disturbance is permitted and activities are restricted, unless otherwise approved. An approved tree protection report must be added to this sheet when project activity occurs within the TPZ of a regulated tree. For detailed information on Palo Alto's regulated trees and protection during development, review the City Tree Technical Manual (TTM) found at www.cityofpaloalto.org/trees/.



TREE DISCLOSURE STATEMENT

CITY OF PALO ALTO
Planning Division, 250 Hamilton Avenue
Palo Alto, CA 94301
(650) 329-2441
<http://www.cityofpaloalto.org>

Palo Alto Municipal Code, Chapter 8.10.040, requires disclosure and protection of certain trees located on private and public property, and that they be shown on submitted and approved site plans. A completed *tree disclosure statement* must accompany all permit applications that include exterior work, all demolition or grading permit applications, or other development activity.

PROPERTY ADDRESS: Right of way adjacent to 258 Waverley St. at corner of Bryant Ct. Palo Alto, CA

Are there Regulated¹ trees on or adjacent to the property? ☒ YES NO (If no, proceed to Section 4)

[Sections 1- 4 MUST be completed by the applicant. Please circle and/or check where applicable.]

1. Where are the trees? Check those that apply. (Plans must be submitted showing all trees over 4" diameter)

- ☐ On the property
☐ On adjacent property overhanging the project site
☒ In the City planter strip or right-of-way easement within 30' of property line (Street Trees)*

*Street trees¹ require special protection by a fenced enclosure, per the attached instructions. Prior to receiving any permit, you must provide an authorized Street Tree Protection Verification form. Contact Public Works Operations at (650) 496-5953 for inspection of type I, II or III fencing (see attached Detail #605) required for all street trees.

2. Are there any Protected¹ or Designated² Trees? YES (Check where applicable) ☒ NO

- ☐ Protected Tree (s)
☐ Designated Tree (s)
☐ On or overhanging the property

3. Is there activity or grading within the dripline? (radius 10 times the trunk diameter) of these trees? YES ☒ NO
If Yes, a Tree Preservation Report must be prepared by an ISA certified arborist and submitted for staff review (see TTM, Section 6.25). Attach this report to Sheet T-1, Tree Protection, its Part of the Plan!*, per Site Plan Requirements.

4. Are the Site Plan Requirements** completed? ☒ YES NO

**Plans. Protection of Regulated trees during development require the following: (1) Plans must show the measured trunk diameter and canopy dripline; (2) Plans must denote, as a bold dashed line, a fenced enclosure area out to the dripline, per Sheet T-1 and Detail #605 - <http://www.cityofpaloalto.org/trees/forms.htm> (See also TTM, Section 2.15 for area to be fenced)

I, the undersigned, agree to the conditions of this disclosure. I understand that knowingly or negligently providing false or misleading information in response to this disclosure requirement constitutes a violation of the Palo Alto Municipal Code Section 8.10.040, which can lead to criminal and/or civil legal action.

Signature: [Signature] Print: BEN WILLIS Date: 2/27/18
(Prop. Owner or Agent)

FOR STAFF USE:

Protective Fencing
Sections 5-6 must be completed by staff for the issuance of any development permit (demolition, grading or building permit).

5. Protected Trees. The specified tree fencing is in place. A written statement is attached verifying that protective fencing is correctly in place around protected and/or designated trees. YES NO
(N/A if there are no protected trees, check here ☐)

6. Street Trees. A signed Public Works Street Tree Protection Verification form is attached. YES NO
(N/A if there are no street trees, check here ☐)

¹ Regulated Trees – a) Street trees – trees on public property; b) Protected trees – Coast Live Oaks or Valley Oaks which are 11.5" in diameter or larger, Coast Redwoods which are 18" in diameter or larger, when measured 54" above natural grade; and Heritage trees are trees designated by City Council; and c) Designated Trees – commercial or non-residential property trees, which are part of an approved landscape plan.

² Palo Alto Tree Technical Manual (TTM) contains instructions for all requirements on this form, available at www.cityofpaloalto.org/trees/technical-manual.html

Tree technical Manual

To purchase the tree Technical Manual

June, 2001 First Edition

View by section:

- o Table of Contents (PDF, 87KB)
- o Intent and Purpose (PDF, 1.05MB)
- o Introduction - Use of Manual (PDF, 1.05MB)
- o Section 1.0 - Definitions (PDF, 96KB)
- o Section 2.0 - Protection of Trees During Construction (PDF, 259KB)
- o Section 3.0 - Removal, Replacement & Planting of Trees (PDF, 117KB)
- o Section 4.0 - Hazardous Trees (PDF, 105KB)
- o Section 5.0 - Tree Maintenance Guidelines (PDF, 110KB)
- o Section 6.0 - Tree Reports (PDF, 84KB)

View ALL sections:

- o Tree Technical Manual - Full (PDF, 1.84MB)

APPENDICES

- A. Palo Alto Municipal Code Chapter 8.10, Tree Preservation & Management Regulations
B: Tree City - USA
C: ISA Hazard Evaluation Form
D: List of Inherent Failure Patterns for Selected Species (Reference source) E: ISA Tree Pruning Guidelines (PDF, 1.85MB)
F: Tree Care Safety Standards, ANSI Z133.1-1994 (Reference source)
G: Pruning Performance Standards, ANSI A300-1995 (Reference source) H: Tree Planting Details, Diagram 504 & 505 I: Tree Disclosure Statement
J: Palo Alto Standard Tree Protection Instructions

SF PALO ALTO 022m2
PALO ALTO

CROWN CASTLE PROJECT NO.
VZW366241CA

CLIENT:

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www.crowncastle.com

PREPARED BY:

Coastal Communications
Telecommunications Engineering
5841 EDISON PLACE, SUITE 200
CARLSBAD, CA 92008
PHONE: (760) 929-0910
FAX: (760) 929-0936
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SITE NAME & ADDRESS:
ROW ADJACENT TO
258 WAVERLEY ST AT CORNER OF
BRYANT CT
PALO ALTO, CA
37.449027 / -122.163579

SPECIAL TREE PROTECTION
INSTRUCTION SHEET

DRAWN BY: BMW DRAFT DATE: 2/08/18 APPROVED BY: TT

SHEET NO.
T1.1

CITY OF PALO ALTO
TREE PROTECTION - IT'S PART OF THE PLAN!
Make sure your crews and subs do the job right!

Fenced enclosures around trees are essential to protect them by keeping the foliage canopy and branching structure clear from contact by equipment, materials and activities, preserving roots and soil conditions in an intact and non-compacted state, and identifying the Tree Protection Zone (TPZ) in which no soil disturbance is permitted and activities are restricted, unless otherwise approved. An approved tree protection report must be added to this sheet when project activity occurs within the TPZ of a regulated tree. For detailed information on Palo Alto's regulated trees and protection during development, review the City Tree Technical Manual (TTM) found at www.cityofpaloalto.org/trees/.

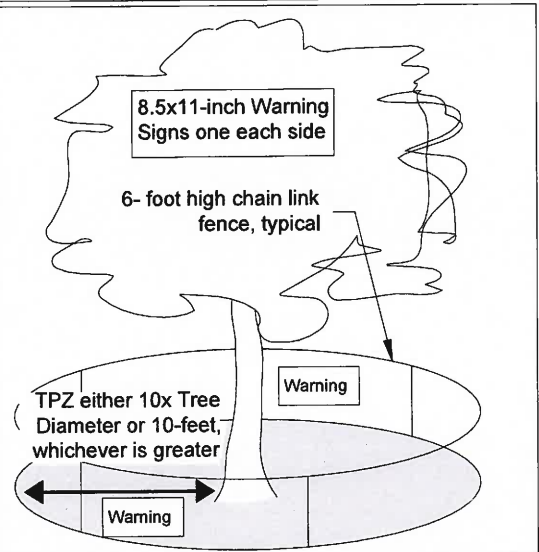


For written specifications associated with illustrations below, see Public Works Specifications Section 31

Detailed specifications are found in the Palo Alto Tree Technical Manual (TTM) (www.cityofpaloalto.org/trees/)

Tree Protection (TPZ) shown in gray (radius of TPZ equals 10-times the diameter of the tree or 10-feet, whichever is greater).

- Restricted activity area – see Tree Technical Manual Sec 2.15(E).
- Restricted trenching area – see Tree Technical Manual Sec 2.20(C-D), any proposed trench or form work within TPZ of a protected tree requires approval from Public Works Operations. Call 650-496-5953.



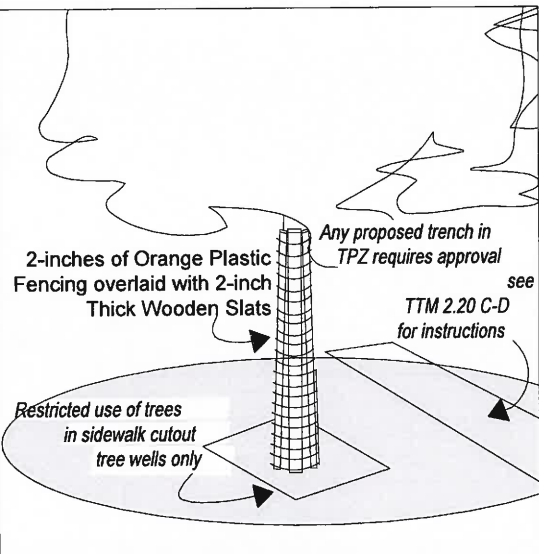
Type I Tree Protection

For all Ordinance Protected & Designated trees, as detailed in the site specific tree preservation report (TPR) prepared by the applicant's project arborist as diagramed on the plans.

Note: Ordinance Protected & Designated Trees. Issuance of a permit requires applicant's project arborist written verification Type I is installed correctly according to the plans and Tree Preservation Report

Any inadvertent sidewalk or curb replacement or trenching requires approval

Type II Tree Protection



Note: Street Trees. Issuance of a permit requires Public Works Operations inspection and signed approval on the Street Tree Verification (STV) form provided.

Type III Tree Protection

(to be used only with approval of Public Works Operations)

Tree fencing is required and shall be erected before demolition, grading or construction begins.



**PALO ALTO
STREET TREE PROTECTION INSTRUCTIONS
-SECTION 31-**

- a. Tree protection has three primary functions, 1) to keep the foliage canopy and branching structure clear from contact by equipment, materials and activities; 2) to preserve roots and soil conditions in an intact and non-compacted state and 3) to identify the Tree Protection Zone (TPZ) in which no soil disturbance is permitted and activities are restricted, unless otherwise approved.
- b. The Tree Protection Zone (TPZ) is a restricted area around the base of the tree with a radius of ten-times the diameter of the tree's trunk or ten feet; whichever is greater, enclosed by fencing.

31-2 Reference Documents

- a. Detail 605- illustration of situations described below.
- b. Tree Technical Manual (TTM) Forms (<http://www.cityofpaloalto.org/trees/>)
1. Trenching Restriction Zones (TTM, Section 2.20(C))
2. Arborist Reporting Protocol (TTM, Section 6.30)
3. Site Plan Requirements (TTM, Section 6.35)
4. Tree Disclosure Statement (TTM, Appendix J)
- c. Street Tree Verification (STV) Form (<http://www.cityofpaloalto.org/trees/forms>)

31-3 Execution

- a. Type I Tree Protection: The fence shall enclose the entire TPZ of the tree(s) to be protected throughout the life of the construction project. In some parking areas, if fencing is located on paving or concrete that will not be demolished, then the posts may be supported by an appropriate grade level concrete base, if approved by Public Works Operations.
- b. Type II Tree Protection: For trees situated within a planting strip, only the planting strip and yard side of the TPZ shall be enclosed with the required chain link protective fencing in order to keep the sidewalk and street open for public use.
- c. Type III Tree Protection: To be used only with approval of Public Works Operations. Trees situated in a tree well or sidewalk planter pit, shall be wrapped with 2-inches of orange plastic fencing from the ground to the first branch and overlaid with 2-inch thick wooden slats bound securely (slats shall not be allowed to dig into the bark). During installation of the plastic fencing, caution shall be used to avoid damaging any branches. Major limbs may also require plastic fencing as directed by the City Arborist.
- d. Size, type and area to be fenced. All trees to be preserved shall be protected with six (6') foot high chain link fences. Fences are to be mounted on two-inch diameter galvanized iron posts, driven into the ground to a depth of at least 2-feet at no more than 10-foot spacing. Fencing shall extend to the outer branching, unless specifically approved on the STV Form.
- e. "Warning" signs. A warning sign shall be weather proof and prominently displayed on each fence at 20-foot intervals. The sign shall be minimum 8.5-inches x 11-inches and clearly state in half inch tall letters: "WARNING - Tree Protection Zone - This fence shall not be removed and is subject to a fine according to PAMC Section 8.10.110."
- f. Duration. Tree fencing shall be erected before demolition; grading or construction begins and remain in place until final inspection of the project, except for work specifically allowed in the TPZ. Work or soil disturbance in the TPZ requires approval by the project arborist or City Arborist (in the case of work around Street Trees). Excavations within the public right of way require a Street Work Permit from Public Works.
- g. During construction
 1. All neighbors' trees that overhang the project site shall be protected from impact of any kind.
 2. The applicant shall be responsible for the repair or replacement plus penalty of any publicly owned trees that are damaged during the course of construction, pursuant to Section 8.04.070 of the Palo Alto Municipal Code.
 3. The following tree preservation measures apply to all trees to be retained:
 - a. No storage of material, topsoil, vehicles or equipment shall be permitted within the TPZ.
 - b. The ground under and around the tree canopy area shall not be altered.
 - c. Trees to be retained shall be irrigated, aerated and maintained as necessary to ensure survival.

END OF SECTION

City of Palo Alto 2004 Standard Drawings and Specifications
Street Tree Verification of Protection, PWE, Section 31

Revised 08/06

**SF PALO ALTO 022m2
PALO ALTO**

CROWN CASTLE PROJECT NO.
VZW366241CA

CLIENT:



PREPARED BY:



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37.449027 / -122.163579

**SPECIAL TREE PROTECTION
INSTRUCTION SHEET**

DRAWN BY: BMW	DRAFT DATE: 2/08/18	APPROVED BY: TT
------------------	------------------------	--------------------

SHEET NO.
T1.2

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Table 2-2 Palo Alto Tree Technical Manual
ARBORIST INSPECTION SCHEDULE

All Checked Items Apply to this project:

- ☒ Inspection of Protective Tree Fencing. The Street Tree Verification Form shall be signed by the City Arborist. For other Protected Trees, the project arborist shall provide a written statement with a photograph verifying that he has conducted a field inspection of the trees and that the protective tree fencing is in place prior to issuance of a demolition, grading, or building permit. (see Verification of Tree Protection, Section 1.39).
- ☒ Pre-Construction Meeting. Prior to commencement of construction, the applicant or contractor shall conduct a pre-construction meeting to discuss tree protection with the job site superintendent, grading equipment operators, project arborist, City Arborist, and, if a city maintained irrigation system exists, the Parks Manager (Contact 650-496-6962).
- ☐ Inspection of Rough Grading. The project arborist shall perform an inspection during the course of rough grading ACROSS FROM the TPZ to ensure trees will not be injured by compaction, cut or fill, drainage and trenching, and if required, inspect aeration systems, tree wells, drains and special paving. The contractor shall provide the project arborist at least 48 hours advance notice of such activity.
- ☐ Monthly Inspections. The project arborist shall perform a monthly activity inspection to monitor and advise for conditions and tree health. The City Arborist shall be in receipt of the activity report during the first week of each calendar month or, immediately if there are any revisions to the approved plans or protection measures. Fax to (650) 329-2154. (see Monthly Inspection Report, Section 1.17).
- ☐ Special activity within the Tree Protection Zone. Work in this area (TPZ - described in #7 below) requires the direct onsite supervision of the project arborist (see Trenching, Excavation and Equipment, Section 2.20 C).
- ☐ Landscape Architect Inspection. For discretionary development projects, prior to temporary or final occupancy the applicant or contractor shall arrange for the Landscape Architect to perform an on site inspection of all plant stock, quality of the materials and planting (see Quality, Section 5.20.1 A) and that the irrigation is functioning consistent with the approved construction plans. The City shall be in receipt of written verification of Landscape Architect approval prior to scheduling the final inspection, unless otherwise approved.
- ☐ Other (please describe) _____



City of Palo Alto
Tree Department
Public Works Operations
PO Box 10250 Palo Alto, CA 94303
6501496-5953 FAX: 6501852-9289
treeprotection@CityofPaloAlto.org

Verification of
Street Tree Protection

Applicant Instruction: Complete upper portion of this form. Mail or FAX this form along with the signed tree Disclosure Statement to Public Works Dept. Public Works Tree Staff will inspect and notify applicant.

APPLICATION DATE:	
ADDRESS/LOCATION OF STREET TREES TO BE PROTECTED:	
APPLICANT'S NAME:	
APPLICANT'S ADDRESS:	
APPLICANT'S TELEPHONE & FAX NUMBERS:	

This section to be filled out by City Tree Staff

1. The Street Trees at the above address(es) are adequately protected. The type of protection used is:	YES NO *If NO, go to #2 below
Inspected by:	
Date of Inspection:	

2. The Street Trees at the above address are NOT adequately protected. The following modifications are required:	
Indicate how the required modifications were communicated to the applicant.	

Subsequent Inspection

Street trees at above address were found to be adequately protected: inspected by:	YES NO *If NO, indicate in "Notes" below the disposition of case.
Date of Inspection:	

Notes: List City street trees by species, site, condition and type of tree protection installed. Also note if pictures were taken. Use back of sheet if necessary.	
--	--

Return approved sheet to Applicant for demolition or building permit issuance.
S:PWD/OPS/Tree/DS/St TreeProtect

5/1706

SF PALO ALTO 022m2
PALO ALTO
CROWN CASTLE PROJECT NO.
VZW366241CA

CLIENT:

695 RIVER OAKS PARKWAY
SAN JOSE, CA 95134
www.crowncastle.com

PREPARED BY:

5841 EDISON PLACE, SUITE 200
CARLSBAD, CA 92008
PHONE: (760) 929-0910
FAX: (760) 929-0936
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SPECIAL TREE PROTECTION
INSTRUCTION SHEET

DRAWN BY: BMW DRAFT DATE: 2/08/18 APPROVED BY: TT

SHEET NO. T1.3

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Arborist Firm Data
Here

City of Palo Alto Tree
Technical Manual

ADDENDUM 11

email:
RCA/ISA Certified Arborist #WE-000
Conact Cell #:

Monthly Tree Activity Report- Construction Site			
Inspection Date:	Site Address:	Contractor- Main Site Contact Information	#1: Job site superintendent Company: Email: Job site: Office: Cell: Mail:
Inspection # _____	Palo Alto, CA		
		Also present:	• _____ • _____
Distribution:	1. City of Palo Alto 2. Others	Attn: Dave Dockter	Dave.dockter@cityofpaloalto.org 650-329-2440

Provide the requested minimum information with each report, customize as necessary. To be completed by project site arborist. Send monthly to city arborist at above address until project completion. Use additional sheets as needed.

- Assignment Activity (Demolition/grading/sewer/trenching/foundation/list relevant visits)
 - Pre-construction meeting requirement with sub-contractors
 - Inspect to verify that tree protection measures are in place
 - Determine if field adjustments, watering or plan revisions may be needed
- Field Observations (general site-wide and list by individual tree number)
 - Tree Protection Fences (TPF) are...
 - Trenching has/will occur
- Action Items (list site-wide, by tree number and date to be satisfied) and Date Due
 - Tree Protection Fence (TPF) needs adjusting (tree # x, x, x)
 - Root zone buffer material (wood chips) can be installed next
 - Schedule sewer trench, foundation dig with...
- Photographs (use often)
- Tree location Map (mandatory 8.5 x 11 sheet)
- Recommendations, notes or monitor items for projects/staff/schedule
- Past visits (list carry-over items satisfied/still outstanding)

Respectfully submitted,

Project site arborist
Consultant contact information (Include email, cell #, and mailing)

Enter date CPA Monthly Tree activity Report: Type site address here

---WARNING---
Tree Protection Zone

This fencing shall not be removed
without City Arborist approval
(650-496-5953)

Removal without permission is
subject to a \$500 fine per day*

*Palo Alto Municipal Code Section 8.10.110

City of Palo Alto Tree Protection Instructions are located at
<http://www.cityofpaloalto.org/trees/technical-manual.html>

SPECIAL INSTRUCTIONS

PLANNING DEPARTMENT

TREE PROTECTION INSPECTIONS MANDATORY

PAMC 8.10 PROTECTED TREES. CONTRACTOR SHALL ENSURE PROJECT SITE ARBORIST IS PERFORMING REQUIRED TREE INSPECTION AND SITE MONITORING. PROVIDE WRITTEN MONTHLY TREE ACTIVITY REPORTS TO THE PLANNING DEPARTMENT LANDSCAPE REVIEW STAFF BEGINNING 14 DAYS AFTER BUILDING PERMIT ISSUANCE.

BUILDING PERMIT DATE: _____

DATE OF 1ST TREE ACTIVITY REPORT: _____

CITY STAFF: _____

REPORTING DETAILS OF THE MONTHLY TREE ACTIVITY REPORT SHALL CONFORM TO SHEET T-1 FORMAT, VERIFY THAT ALL TREE PROTECTION MEASURES ARE IMPLEMENTED AND WILL INCLUDE ALL CONTRACTOR ACTIVITY, SCHEDULED OR UNSCHEDULED, WITHIN A TREE A TREE PROTECTION ROOT ZONE. NON-COMPLIANCE IS SUBJECT TO VIOLATION OF PAMC 8.10.080. REFERENCE: PALO ALTO TREE TECHNICAL MANUAL, SECTION 2.00 AND ADDENDUM 11.

ALL OTHER TREE-RELATED REPORTS SHALL BE ADDED USING
ADDITIONAL "T" SHEETS AS NEEDED.

SF PALO ALTO 022m2
PALO ALTO
CROWN CASTLE PROJECT NO.
VZW366241CA

CLIENT:

695 RIVER OAKS PARKWAY
SAN JOSE, CA 95134
www.crowncastle.com

PREPARED BY:

5841 EDISON PLACE, SUITE 200
CARLSBAD, CA 92008
PHONE: (760) 929-0910
FAX: (760) 929-0936
www.coastalcomminc.com

PROPRIETARY INFORMATION
THE INFORMATION CONTAINED IN THIS SET OF DRAWINGS IS PROPRIETARY AND CONFIDENTIAL TO VERIZON. ANY USE OR DISCLOSURE OTHER THAN AS IT RELATES TO VERIZON IS STRICTLY PROHIBITED.


1-800-227-2600
CALL AT
LEAST TWO
DAYS BEFORE
YOU DIG
UNDERGROUND SERVICE ALERT
TICKET # _____

REVISION / ISSUE	DATE


REGISTERED PROFESSIONAL ENGINEER
No. C42590
Exp. 03-31-20
CIVIL
STATE OF CALIFORNIA

SITE NAME & ADDRESS:
ROW ADJACENT TO
258 WAVERLEY ST AT CORNER OF
BRYANT CT
PALO ALTO, CA
37.449027 / -122.163579

SPECIAL TREE PROTECTION
INSTRUCTION SHEET

DRAWN BY:	DRAFT DATE:	APPROVED BY:
BMW	2/08/18	TT

SHEET NO.
T1.4



A KEY MAP



B 9 O'CLOCK VIEW



C 12 O'CLOCK VIEW



D 8 O'CLOCK VIEW

**SF PALO ALTO 022m2
PALO ALTO**

CROWN CASTLE PROJECT NO.
VZW366241CA

CLIENT:



PREPARED BY:



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REVISION / ISSUE	DATE



SITE NAME & ADDRESS:
ROW ADJACENT TO
258 WAVERLEY ST AT CORNER OF
BRYANT CT
PALO ALTO, CA
37.449027 / -122.163579

PHOTOS

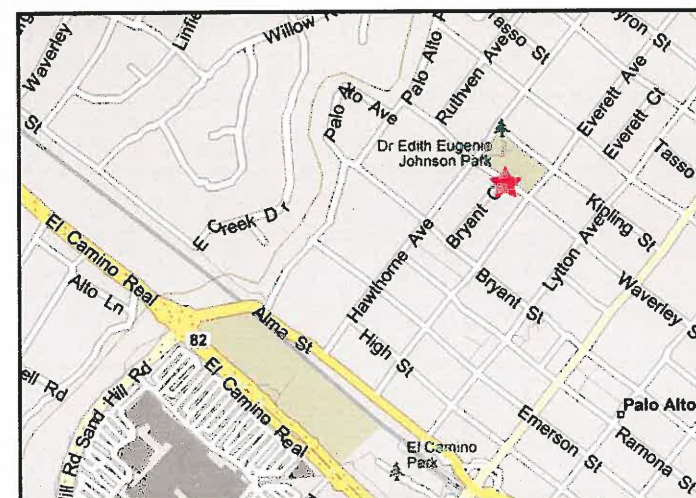
DRAWN BY: BMW	DRAFT DATE: 2/08/18	APPROVED BY: TT
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SHEET NO.
P-1

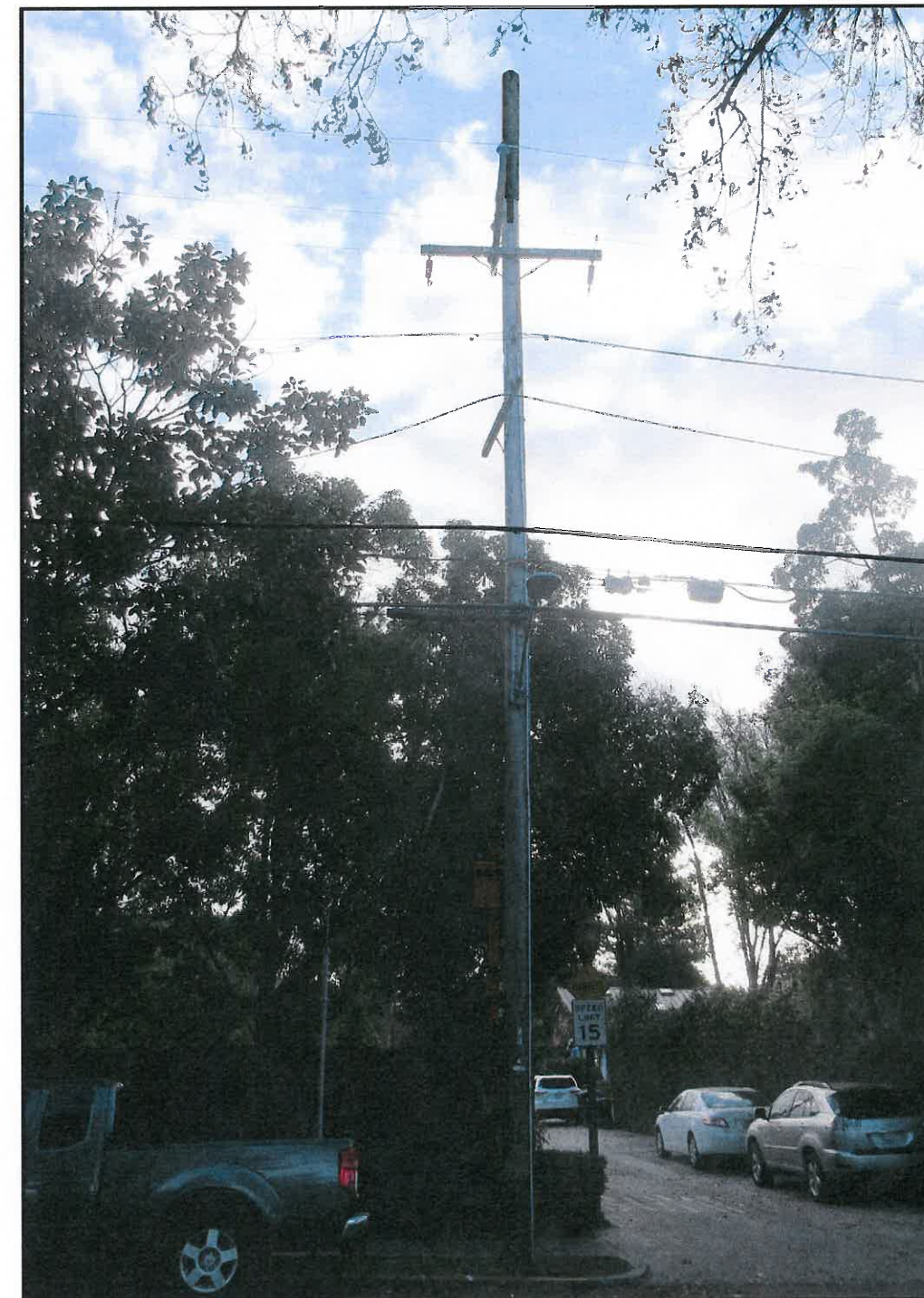


Existing Site

SF PALO ALTO 022m2
ROW ADJACENT TO
258 WAVERLEY ST AT
CORNER OF BRYANT CT



Vicinity Map



Proposed Site

SF PALO ALTO 022m2
PALO ALTO
CROWN CASTLE PROJECT NO.
VZW366241CA

CLIENT:

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SITE NAME & ADDRESS:
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258 WAVERLEY ST AT CORNER OF
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PALO ALTO, CA
37.449027 / -122.163579

PHOTOSIM

DRAWN BY: BMW	DRAFT DATE: 2/08/18	APPROVED BY: TT
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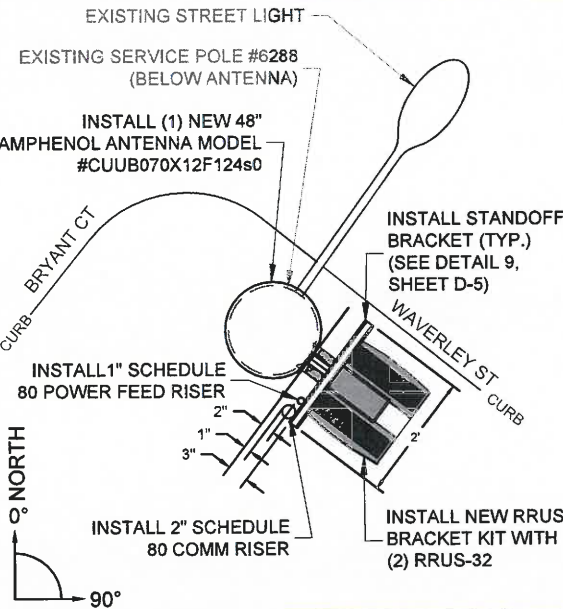
SHEET NO.
P-2

POLE #6288
TOP OF EXISTING POLE: 43'-6"
TOP OF ANTENNA(S): 52'-11"
RAD CENTER: 50'-11"
AZIMUTH(S): 130° & 310°
PROFILE VIEW: 12 O' CLOCK ELEVATION

A NOTES

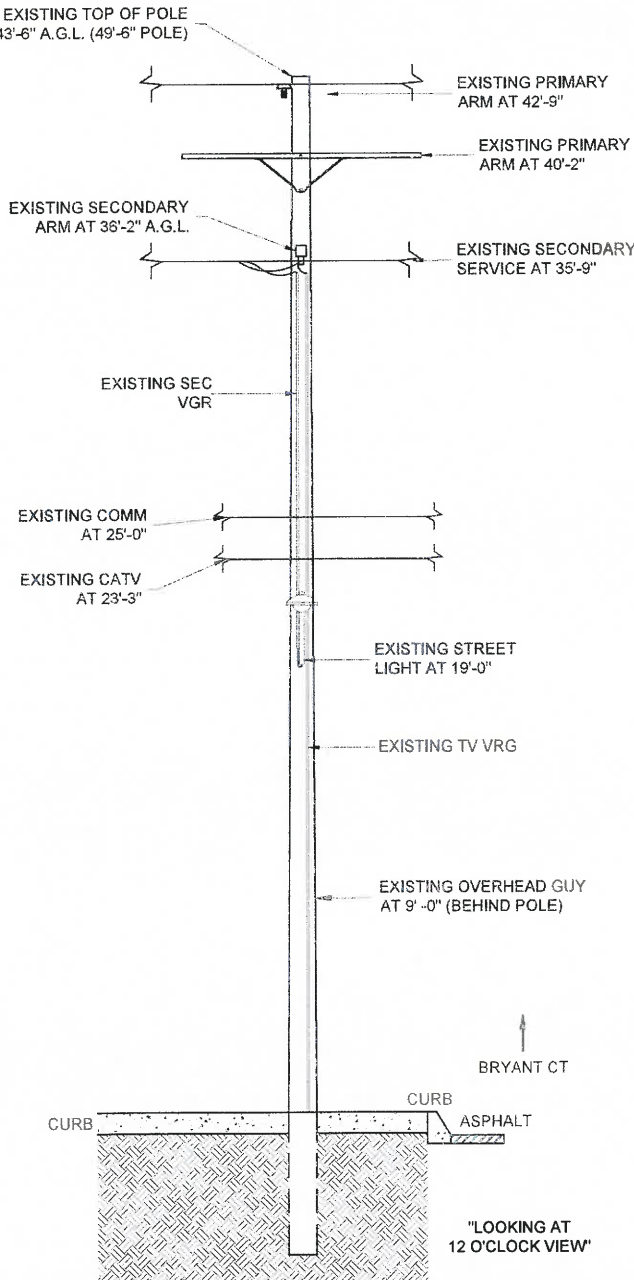
- INSTALL NEW VGR.
- INSTALL NEW POWER DISCONNECT BOX ON STANDOFF BRACKET AT 8'-0" TO 8'-9".
- INSTALL NEW WTR ENCLOSURE ON STANDOFF BRACKET AT 9'-6" TO 10'-6".
- INSTALL NEW STANDOFF BRACKET KIT WITH (1) RRUS-11 AT 11'-0" TO 12'-5".
- INSTALL NEW RRUS BRACKET KIT WITH (2) RRUS-32 AT 13'-0" TO 16'-3".
- INSTALL NEW CROWN CASTLE FIBER AT 26'-0".
- INSTALL STANDOFF BRACKET (TYP.).
- INSTALL 2" SCHEDULE 80 COMM RISER (BEHIND POLE).
- INSTALL 1" SCHEDULE 80 POWER RISER (BEHIND POLE).
- INSTALL 3'-6" POLE MOUNTED EXTENSION & (1) NEW 48" AMPHENOL ANTENNA MODEL # CUUB070X12F124s0 WITH CUSTOM SHROUD CONCEALMENT COVER.
- ALL EQUIPMENT SHALL BE PAINTED TO MATCH TEXTURE AND COLOR.
- NO GROUND DISTURBANCE NECESSARY.

B CONSTRUCTION NOTES



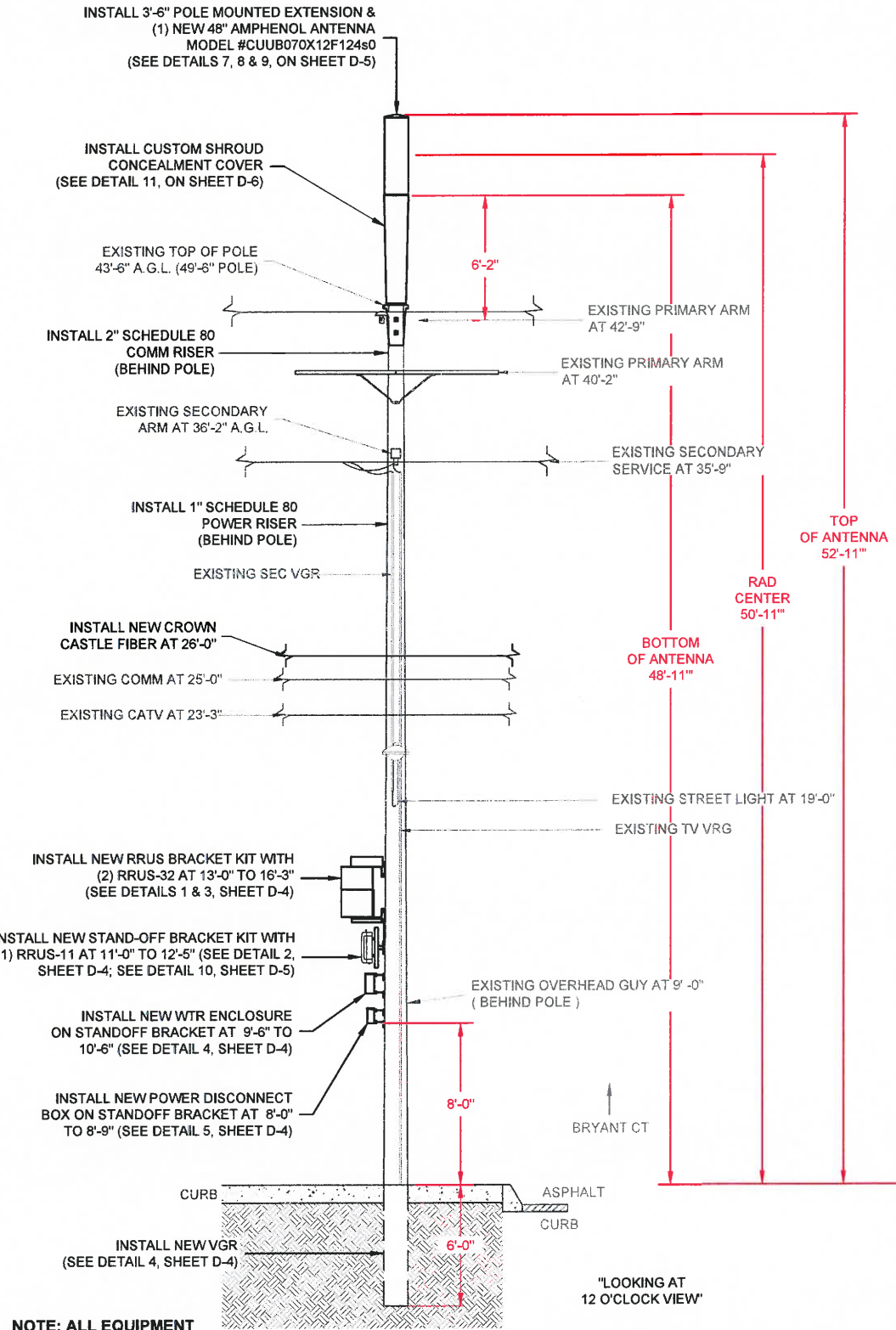
C TOP VIEW

N.T.S.



D EXISTING - 12 O'CLOCK ELEVATION

11"x17" SCALE: 1/8" = 1'-0"
24"x36" SCALE: 1/4" = 1'-0"



NOTE: ALL EQUIPMENT SHALL BE PAINTED TO MATCH EXISTING POLE.

E PROPOSED - 12 O'CLOCK ELEVATION

11"x17" SCALE: 1/8" = 1'-0"
24"x36" SCALE: 1/4" = 1'-0"

SF PALO ALTO 022m2
PALO ALTO

CROWN CASTLE PROJECT NO.
VZW366241CA

CLIENT:
CROWN CASTLE
695 RIVER OAKS PARKWAY
SAN JOSE, CA 95134
www.crowncastle.com

PREPARED BY:
Coastal Communications
Telecommunications Engineering
5841 EDISON PLACE, SUITE 200
CARLSBAD, CA 92008
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UNDERGROUND SERVICE ALERT
TICKET #

REVISION / ISSUE	DATE



SITE NAME & ADDRESS:
ROW ADJACENT TO
258 WAVERLEY ST AT CORNER OF
BRYANT CT
PALO ALTO, CA
37.449027 / -122.163579

PROFILE

DRAWN BY: BMW	DRAFT DATE: 2/08/18	APPROVED BY: TT
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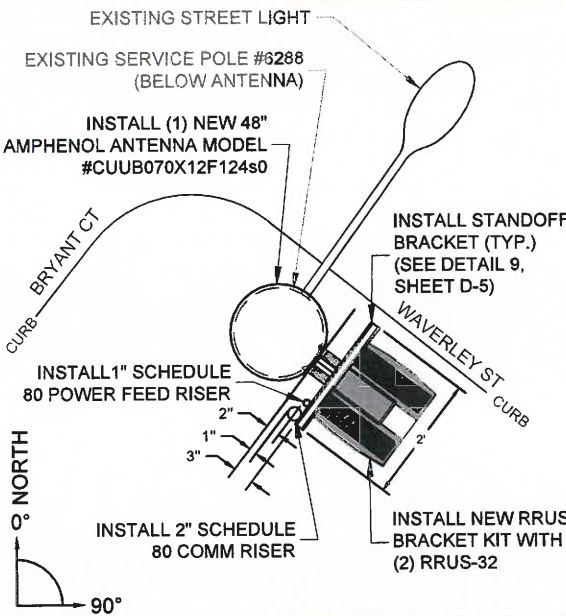
SHEET NO.
P-3

POLE #6288
TOP OF EXISTING POLE: 43'-6"
TOP OF ANTENNA(S): 52'-11"
RAD CENTER: 50'-11"
AZIMUTH(S): 130° & 310°
PROFILE VIEW: 3 O' CLOCK ELEVATION

F NOTES

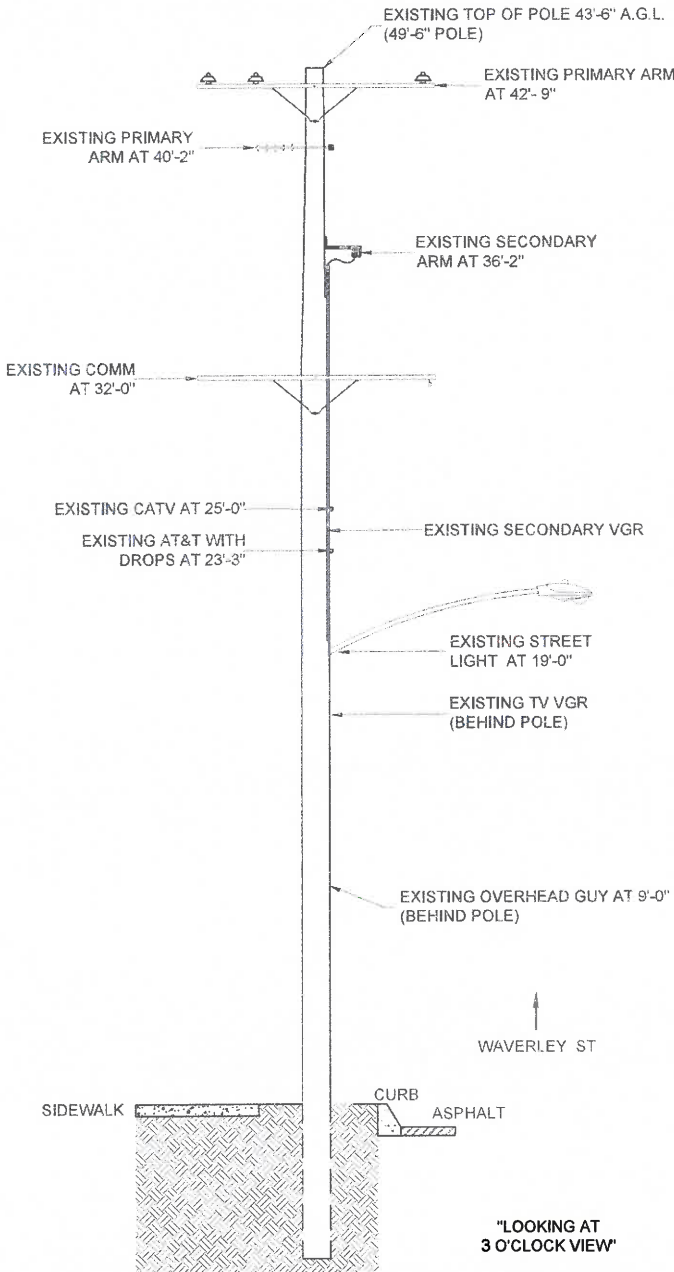
- INSTALL NEW VGR.
- INSTALL NEW POWER DISCONNECT BOX ON STANDOFF BRACKET AT 8'-0" TO 8'-9".
- INSTALL NEW WTR ENCLOSURE ON STANDOFF BRACKET AT 9'-6" TO 10'-6".
- INSTALL NEW STANDOFF BRACKET KIT WITH (1) RRUS-11 AT 11'-0" TO 12'-5".
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- INSTALL NEW CROWN CASTLE FIBER AT 26'-0".
- INSTALL STANDOFF BRACKET (TYP.).
- INSTALL 2" SCHEDULE 80 COMM RISER.
- INSTALL 1" SCHEDULE 80 POWER RISER.
- INSTALL 3'-6" POLE MOUNTED EXTENSION & (1) NEW 48" AMPHENOL ANTENNA MODEL # CUUB070X12F124s0 WITH CUSTOM SHROUD CONCEALMENT COVER.
- INSTALL NOTICE & CAUTION SIGNS.
- ALL EQUIPMENT SHALL BE PAINTED TO MATCH TEXTURE AND COLOR.
- NO GROUND DISTURBANCE NECESSARY.

G CONSTRUCTION NOTES



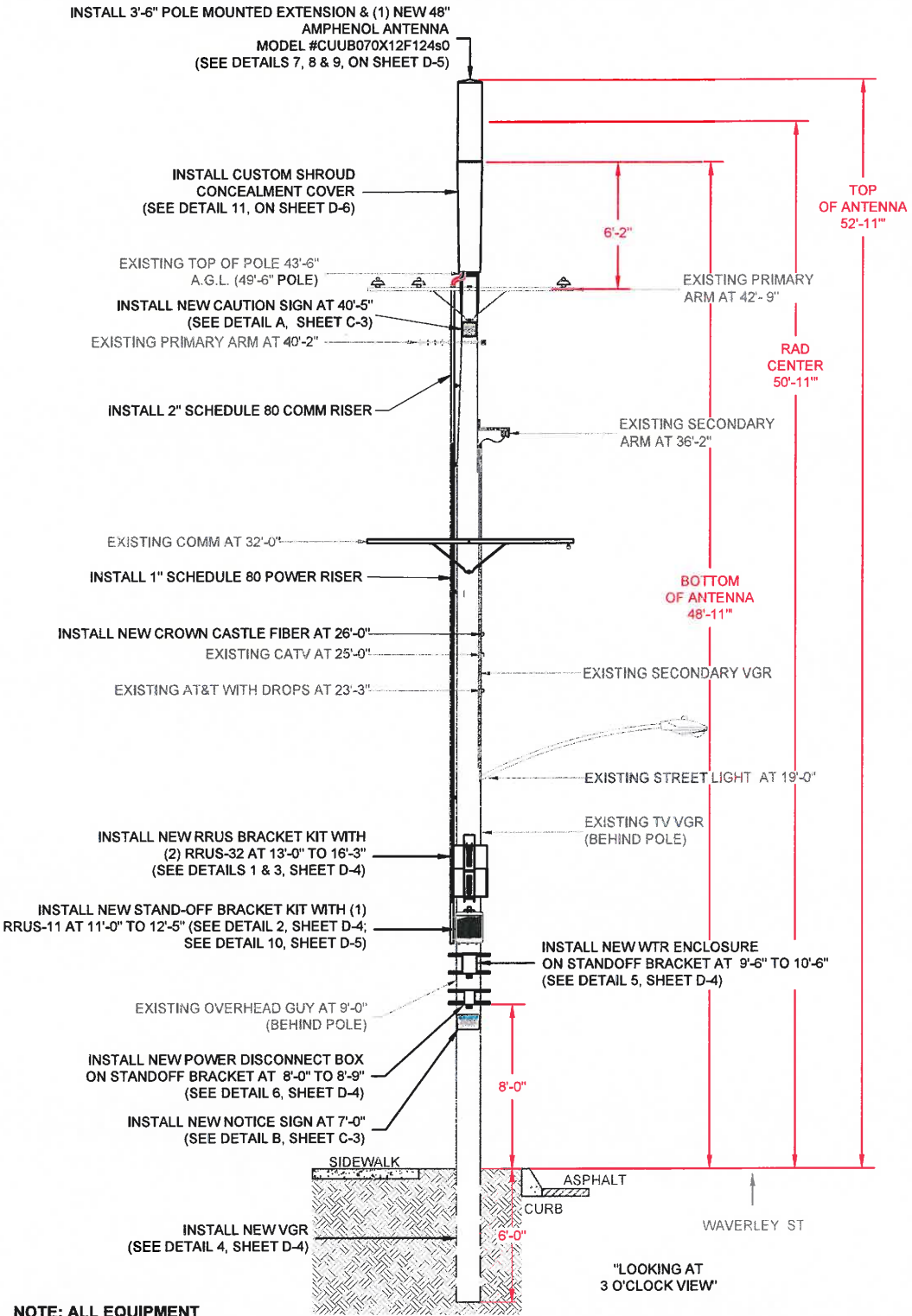
H TOP VIEW

N.T.S.



I EXISTING - 3 O'CLOCK ELEVATION

11"x17" SCALE: 1/8" = 1'-0"
24"x36" SCALE: 1/4" = 1'-0"



NOTE: ALL EQUIPMENT
SHALL BE PAINTED TO
MATCH EXISTING POLE.

J PROPOSED - 3 O'CLOCK ELEVATION

11"x17" SCALE: 1/8" = 1'-0"
24"x36" SCALE: 1/4" = 1'-0"

SF PALO ALTO 022m2
PALO ALTO

CROWN CASTLE PROJECT NO.
VZW366241CA

CLIENT:
CROWN CASTLE
695 RIVER OAKS PARKWAY
SAN JOSE, CA 95134
www.crowncastle.com

PREPARED BY:
Coastal Communications
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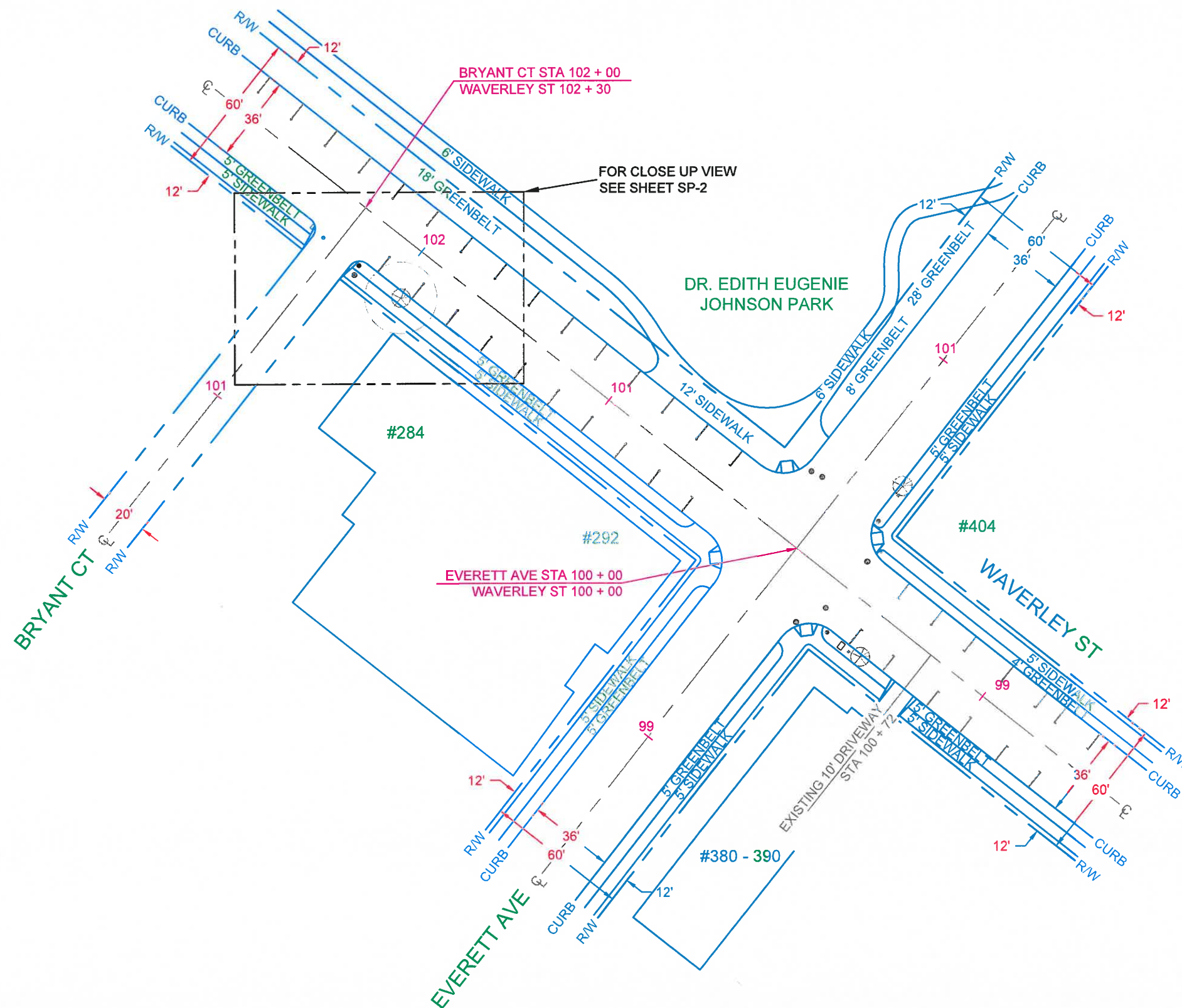
SITE NAME & ADDRESS:
ROW ADJACENT TO
258 WAVERLEY ST AT CORNER OF
BRYANT CT
PALO ALTO, CA
37.449027 / -122.163579

PROFILE

DRAWN BY: BMW	DRAFT DATE: 2/08/18	APPROVED BY: TT
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SHEET NO.
P-4

**IN CASE OF ENCOUNTERING
MASSIVE / EXTENSIVE TREE
ROOTS AROUND WORK AREA
DURING CONSTRUCTION,
CONTACT CITY OF PALO ALTO
ARBORIST AT (650) 496-5953 FOR
FURTHER GUIDANCE &
SUPERVISION**



11"x17" SCALE: 1" = 50'
24"x36" SCALE: 1" = 25'

SF PALO ALTO 022m2
PALO ALTO

CROWN CASTLE PROJECT NO.
VZW366241CA

CLIENT:



695 RIVER OAKS PARKWAY
SAN JOSE, CA 95134
www.crowncastle.com

PREPARED BY:



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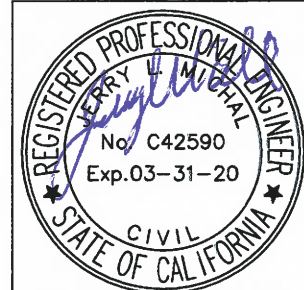
DIGALERT



1-800-227-2600
CALL AT
LEAST TWO
DAYS BEFORE
YOU DIG

UNDERGROUND SERVICE ALERT
TICKET #

REVISION / ISSUE	DATE



SITE NAME & ADDRESS:
ROW ADJACENT TO
258 WAVERLEY ST AT CORNER OF
BRYANT CT
PALO ALTO, CA

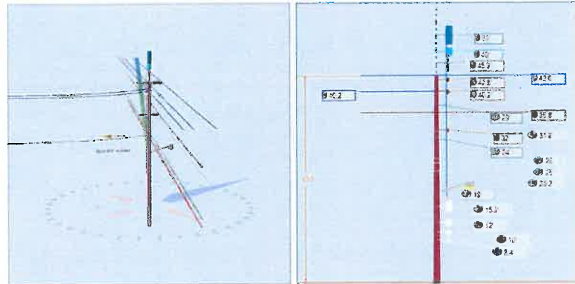
SITE PLAN

DRAWN BY: BMW	DRAFT DATE: 2/08/18	APPROVED BY: TT
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SHEET NO. SP-1

**ALL EQUIPMENT SHALL
BE PAINTED TO MATCH
EXISTING POLE**

Pole Num:	6288	Pole Length / Class:	50 / 2	Code:	GO 95	Structure Type:	Unguyed Tangent
CLIENT	SPPA022	Species:	DOUGLAS FIR	GO 95 Rule:	At Installation (New)	Pole Strength Factor:	0.25
PROJECT	Unset	Setting Depth (ft):	6.50	Construction Grade:	A	Transverse Wind LF:	1.00
HUB	Unset	G/L Circumference (in):	43.00	Loading District:	Light	Wire Tension LF:	1.00
APP/GRID	Unset	G/L Fiber Stress (psi):	8,000	Ice Thickness (in):	0.00	Vertical LF:	1.00
SITE	Unset	Allowable Stress (psi):	1,943	Wind Speed (mph):	55.90	Pole Factor of Safety:	4.14
Aux Data 6	Unset	Fiber Stress Ht. Reduc:	No	Wind Pressure (psf):	8.00	Vertical Factor of Safety:	24.69
Latitude:	0.000000 Deg	Longitude:	0.000000 Deg	Elevation:	0 Feet	Bending Factor of Safety:	4.18



Pole Capacity Utilization (%)	Height (ft)	Wind Angle (deg)
Crossarm allowance 300 lbs		
Maximum	96.7	0.0
Groundline	96.7	0.0
Vertical	16.2	23.7

Pole Moments (ft-lb)	Load Angle (deg)	Wind Angle (deg)
Crossarm allowance 300 lbs		
Max Cap Util	39,042	218.3
Groundline	39,042	218.3
GL Allowable	40,757	

Groundline Load Summary - Reporting Angle Mode: Load - Reporting Angle: 218.3°

	Shear Load* (lbs)	Applied Load (%)	Bending Moment (ft-lb)	Applied Moment (%)	Pole Capacity (%)	Bending Stress (+/- psi)	Vertical Load (lbs)	Vertical Stress (psi)	Total Stress (psi)	Pole Capacity (%)
Powers	186	13.7	7,871	20.2	19.3	359	95	1	360	18.5
Comms	584	43.0	15,084	38.6	37.0	688	256	2	690	35.5
Generic Equipments	170	12.5	5,551	14.2	13.6	253	118	1	254	13.1
Pole	314	23.1	7,017	18.0	17.2	320	1,706	12	332	17.1
Crossarms	66	4.8	2,829	7.3	6.9	129	188	1	130	6.7
Streetlights	29	2.1	264	0.7	0.7	12	60	0	12	0.6
Insulators	10	0.7	425	1.1	1.0	19	50	0	20	1.0
Pole Load	1,358	100.0	39,042	100.0	95.8	1,781	2,473	17	1,798	92.5
Pole Reserve Capacity			1,715		4.2	162			145	7.5

Load Summary by Owner - Reporting Angle Mode: Load - Reporting Angle: 218.3°

	Shear Load* (lbs)	Applied Load (%)	Bending Moment (ft-lb)	Applied Moment (%)	Pole Capacity (%)	Bending Stress (+/- psi)	Vertical Load (lbs)	Vertical Stress (psi)	Total Stress (psi)	Pole Capacity (%)
POWER	658	48.4	21,285	54.5	52.2	971	2,076	14	985	50.7
PCOMM	37	2.7	1,134	2.9	2.8	52	72	0	52	2.7
PROP CC	184	13.6	4,510	11.6	11.1	206	110	1	206	10.6
CATV	324	23.8	8,427	21.6	20.7	384	75	1	385	19.8
TELCO	156	11.5	3,685	9.4	9.0	168	140	1	169	8.7
Totals:	1,358	100.0	39,042	100.0	95.8	1,781	2,473	17	1,798	92.5

Detailed Load Components:

Power	Owner	Height (ft)	Horiz. Offset (in)	Cable Diameter (in)	Sag at Max Temp (ft)	Cable Weight (lb/ft)	Lead/Spun Length (ft)	Span Angle (deg)	Wire Length (ft)	Tension (lbs)	Tension Moment* (ft-lb)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)
Primary #2 CU	POWER	43.57	40.43	0.2920	0.00	0.205	97.0	129.0	97.0	1,162	653	33	411	1,097
Primary #2 CU	POWER	43.57	40.43	0.2920	0.00	0.205	110.0	309.0	110.0	1,162	-653	38	467	-149
Primary #2 CU	POWER	43.57	16.12	0.2920	0.00	0.205	97.0	129.0	97.0	1,162	653	12	411	1,077
Primary #2 CU	POWER	43.57	16.12	0.2920	0.00	0.205	110.0	309.0	110.0	1,162	-653	14	467	-172
Primary #6 CU	POWER	43.57	40.43	0.2010	0.10	0.083	97.0	129.0	97.0	1,459	820	-13	283	1,090
Primary #6 CU	POWER	43.57	40.43	0.2010	0.09	0.083	110.0	309.0	110.0	1,459	-820	-15	321	-914
Primary #6 CU	POWER	40.17	40.59	0.2010	1.93	0.083	76.0	219.0	76.1	1,945	0	0	1,946	0
Primary #6 CU	POWER	40.17	40.59	0.2010	1.93	0.083	76.0	219.0	76.1	1,945	0	0	1,946	0
Secondary 1/0 CU WP	POWER	35.75	6.74	0.4990	0.57	0.367	97.0	129.0	97.0	2,030	935	-10	577	1,502

User:rbms COASTALCOMMING
OCP:5.03

Includes Load Factor(s)

Page 2 of 5

*Worst Wind Per Guy Wire

*Wind At 218.6°

Secondary	1/0 CU WP	POWER	35.75	6.74	0.4990	0.72	0.367	110.0	309.0	110.0	2,027	-934	-11	654	-291
Totals: 3,882 48 3,991 7,552															

Comm		Owner	Height (ft)	Horiz. Offset (in)	Cable Diameter (in)	Sag at Max Temp (ft)	Cable Weight (lb/ft)	Lead/Spun Length (ft)	Span Angle (deg)	Wire Length (ft)	Tension (lbs)	Tension Moment* (ft-lb)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)
Fiber	SS FIBER (0.51)	PCOMM	31.81	30.69	0.5100	0.70	0.260	97.0	129.0	97.0	1,808	741	-31	524	1,234
Fiber	SS FIBER (0.51)	PCOMM	31.81	30.69	0.5100	0.85	0.260	110.0	309.0	110.0	1,808	-740	-36	594	-181
Overlashed Bundle	6.6M Strand	PROP CC	26.00	7.47	0.2500	0.68	0.104	97.0	129.0	97.0	1,500	503	-3	423	923
Fiber	BELOPTIX AT288 - 288 FIBERS - ARMORED (1.05)	PROP CC	25.96	7.47	0.7710	0.177	97.0	129.0	97.0				-5	423	417
Overlashed Bundle	6.6M Strand	PROP CC	26.00	7.47	0.2500	0.88	0.104	110.0	309.0	110.0	1,500	-503	-4	480	-26
Fiber	BELOPTIX AT288 - 288 FIBERS - ARMORED (1.05)	PROP CC	25.96	7.47	0.7710	0.177	110.0	309.0	110.0				-6	479	473
Overlashed Bundle	6.6M Strand	CATV	25.00	7.53	0.2500	0.98	0.104	97.0	129.0	97.0	1,500	483	-3	293	774
CATV	P3-500JCA	CATV	24.98	7.28	0.5600	0.093	97.0	129.0	97.0				-3	293	290
CATV	P3-750JCA	CATV	24.97	7.88	0.8200	0.197	97.0	129.0	97.0				-6	293	287
Fiber	BELOPTIX DT096 - 72 FIBERS - DIELECTRIC (0.516)	CATV	24.93	7.51	0.5160	0.097	97.0	129.0	97.0				-3	293	290
Overlashed Bundle	6.6M Strand	CATV	25.00	7.53	0.2500	1.21	0.104	110.0	309.0	110.0	1,500	-483	-4	333	-154
CATV	P3-500JCA	CATV	24.98	7.28	0.5600	0.093	110.0	309.0	110.0				-3	332	329
CATV	P3-750JCA	CATV	24.97	7.88	0.8200	0.197	110.0	309.0	110.0				-7	332	325
Fiber	BELOPTIX DT096 - 72 FIBERS - DIELECTRIC (0.516)	CATV	24.93	7.51	0.5160	0.097	110.0	309.0	110.0				-3	332	328
Overlashed Bundle	6.6M Strand	CATV	25.00	7.70	0.2500	2.15	0.104	97.0	219.0	97.1	223	5,585	3	0	5,589
CATV	P3-500JCA	CATV	24.98	7.94	0.5600	0.093	97.0	219.0	97.1				3	0	3
CATV	P3-500JCA	CATV	24.98	7.45	0.5600	0.093	97.0	219.0	97.1				3	0	3
Overlashed Bundle	6M	TELCO	23.25	7.63	0.2420	0.69	0.104	97.0	129.0	97.0	3,600	1,079	-3	424	1,500
Telco	TELE 5	TELCO	23.23	7.40	0.5000	0.200	97.0	129.0	97.0				-6	424	418
Telco	TELE 1.0	TELCO	23.22	8.06	1.0000	0.400	97.0	129.0	97.0				-13	424	411
Telco	TELE 1.25	TELCO	23.14	7.58	1.2500	0.600	97.0	129.0	97.0				-18	422	404
Overlashed Bundle	6M	TELCO	23.25	7.63	0.2420	0.89	0.104	110.0	309.0	110.0	3,600	-1,079	-4	481	-601
Telco	TELE 5	TELCO	23.23	7.40	0.5000	0.200	110.0	309.0	110.0				-7	481	474
Telco	TELE 1.0	TELCO	23.22	8.06	1.0000	0.400	110.0	309.0	110.0				-15	481	466
Telco	TELE 1.25	TELCO	23.14	7.58	1.2500	0.600	110.0	309.0	110.0				-21	479	458
Totals:												5,587	-195	9,042	14,434

Generic Equipment	Owner	Height (ft)	Horiz. Offset (in)	Offset Angle (deg)	Rotate Angle (deg)	Unit Weight (lbs)	Unit Height (in)	Unit Depth (in)	Unit Diameter (in)	Unit Length (in)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)
Cylinder	ANTENNA MOUNT	POWER	51.00	1.27	39.0	0.0	41.00	48.00	14.50	4	1,372	1,678	
User:rbms COASTALCOMMING													
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Page 3 of 5

*Worst Wind Per Guy Wire

*Wind At 218.6°

Cylinder	CONCEALMENT COVER	POWER	48.00	1.32	39.0	0.0	1.00	21.55	--	14.00	--	0	805	805
Cylinder	Riser	PROP CC	29.00	9.93	219.0	0.0	10.00	400.00	--	2.00	--	8	1,289	1,287
Cylinder	Riser	PROP CC	24.00	10.26	199.0	0.0	10.00	290.00	--	2.00	--	8	773	781
Box	RUS 32	PROP CC	15.17	11.05	129.0	0.0	15.00	27.20	4.41	--	13.00	0	162	162
Box	RUS 11	PROP CC	12.80	12.84	129.0	0.0	15.00	17.87	7.17	--	12.00	0	136	136
Box	WTR	PROP CC	10.00	15.19	129.0	0.0	15.00	12.00	12.00	--	12.00	0	128	128
Box	Disconnect	PROP CC	8.42	11.29	129.0	0.0	11.00	9.00	4.00	--	6.00	0	27	27
Totals:			22	5,290	5,312									

Crossarm		Owner	Height (ft)	Horiz. Offset (in)	Offset Angle (deg)	Rotate Angle (deg)	Unit Weight (lbs)	Unit Height (in)	Unit Depth (in)	Unit Length (in)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)
Pole Extension	Pole Top Bayonet Extension	POWER	45.33	-0.21	129.0	129.0	23.00	43.00	5.75	3.96	0	996	996
Normal	CROSSARM 3-3/4 X 4-3/4 X 6	POWER	42.75	5.90	129.0	129.0	60.00	4.75	3.75	96.00	0	68	68
Normal	CROSSARM 3-3/4 X 4-3/4 X 6	POWER	40.17	6.07	39.0	39.0	60.00	4.75	3.75	96.00	-30	1,628	1,588
Normal	CROSSARM 3-1/2 X 4-1/2 X 6	PCOMM	32.00	6.49	129.0	129.0	40.00	4.50	3.50	72.00	0	45	45
Totals:											-30	2,737	2,707

Streetlight		Owner	Height (ft)	Horiz. Offset (in)	Offset Angle (deg)	Rotate Angle (deg)	Unit Weight (lbs)	Unit Height (in)	Unit Depth (in)	Unit Diameter (in)	Unit Length (in)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)
General	Streetlights - 6 ft. Arm	POWER	19.00	5.59	30.0	39.0	60.00	24.00	20.00	3.00	72.00	-292	545	253
Totals:												-292	545	253

Insulator		Owner	Height (ft)	Horiz. Offset (in)	Offset Angle (deg)	Rotate Angle (deg)	Unit Weight (lbs)	Unit Diameter (in)	Unit Length (in)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)
Pin	Pin 7.5	POWER	42.95	40.00	210.6	0.0	6.00	3.50	7.50	20	83	83
Pin	Pin 7.5	POWER	42.95	15.00	197.5	0.0	6.00	3.50	7.50	6	83	70
Pin	Pin 7.5	POWER	42.95	-40.00	47.4	0.0	6.00	3.50	7.50	-20	83	43
Deadend	Deadend Insulator - 15 kV	POWER	40.17	-40.00	317.8	180.0	3.00	3.80	12.75	2	108	110
Deadend	Deadend Insulator - 20 kV	POWER	40.17	40.00	120.4	180.0	3.00	3.80	12.75	2	110	108
Special	Special Insulator - 15 kV	POWER	40.17	0.00	39.0	270.0	2.12	3.00	0.00	0	11	10
Underhung	Three Bolt	PCOMM	31.81	-30.00	51.2	0.0	5.00	3.00	0.00	-12	0	-12
Bolt	Three Bolt Clamp	PROP CC	26.00	0.00	39.0	270.0	5.00	3.00	0.00	-3	0	-3
Bolt	Three Bolt Clamp	CATV	25.00	0.00	39.0	270.0	5.00	3.00	0.00	-3	0	-3
Bolt	Three Bolt Clamp	CATV	25.00	0.00	219.0	270.0	6.00	3.00	0.00	-3	0	-3
Bolt	Three Bolt Clamp	TELCO	23.25	0.00	39.0	270.0	5.00	3.00	0.00	-3	0	-3
Totals:										-8	415	407

TRAFFIC CONTROL PLAN GENERAL 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 POLICE DISPATCH 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 INSPECTOR.
7. STRIPING WILL 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. CONTACT PUBLIC WORKS DEPARTMENT 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/HER 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 (MUTCD) 2014 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 ENGINEER OR HIS/HER REPRESENTATIVE HAS THE AUTHORITY TO INITIATE FIELD CHANGES TO INSURE PUBLIC SAFETY.
16. ALL WORK AFFECTING BUS STOPS SHALL BE COORDINATED WITH CITY'S TRANSIT DISTRICT. CONTRACTOR SHALL CALL TRANSIT DISTRICT 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 CA MUTCD 2014 EDITION. SILENT TYPE SHALL BE USED IN RESIDENTIAL AREAS.
7. THE MAXIMUM SPACING BETWEEN CONES SHALL BE THE WORK AREA'S SPEED LIMIT.
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. ALL REQUIRED SIGNS THAT ARE TO BE LEFT IN PLACE OVER A WEEKEND OR HOLIDAY SHALL BE POST MOUNTED.
10. CONSTRUCTION AREA TRAFFIC CONTROL DEVICES SHALL MEET THE PROVISIONS OF 2014 CALIFORNIA MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

SIGN LEGEND

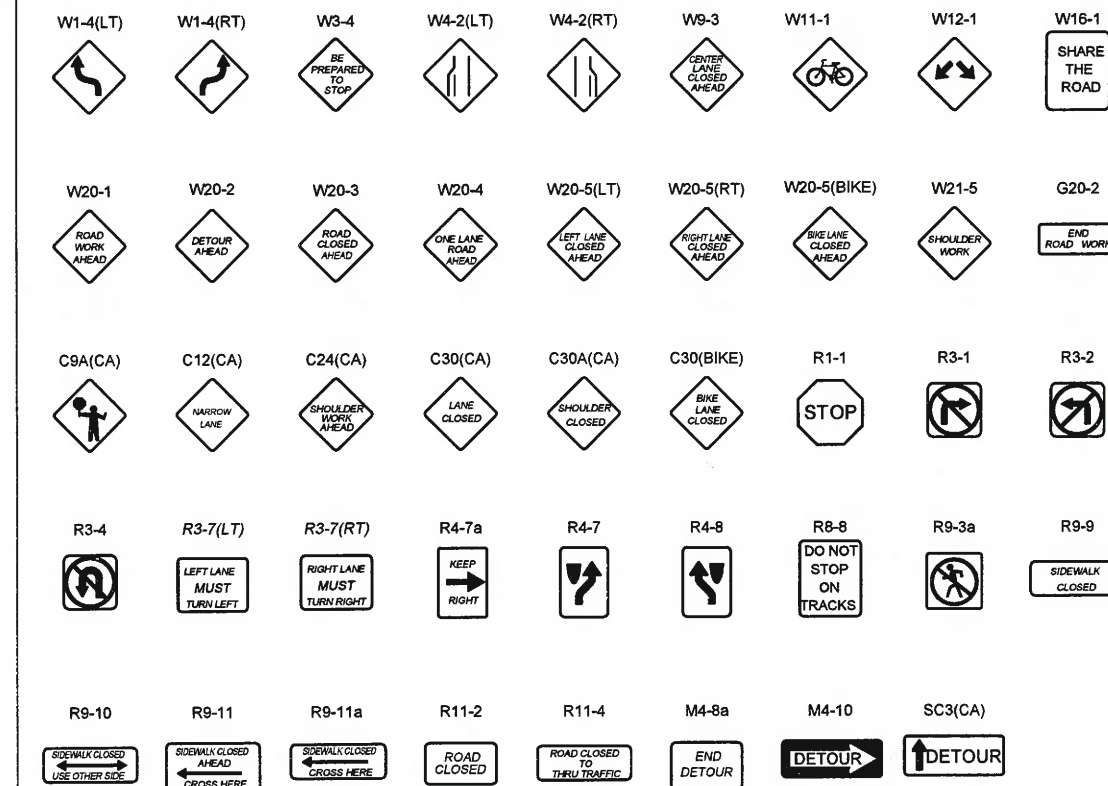


Table 6C-1. Recommended Advance Warning Sign Minimum Spacing

Road Type	Distance Between Signs*		
	A	B	C
Urban (low speed) - 25 mph or less	100 ft	100 ft	100 ft
Urban (high speed) - more than 25 mph to 40 mph	250 ft	250 ft	250 ft
Urban (high speed) - more than 40 mph	350 ft	350 ft	350 ft
Rural	500 ft	500 ft	500 ft
Expressway / Freeway	1,000 ft	1,000 ft	1,000 ft

- * Speed category to be determined by the highway agency.
 ** The column headings A, B, and C are the dimensions shown in Figures 6H-1 through 6H-46. The A dimension is the distance from the transition or point of restriction to the first sign. The B dimension is the distance between the first and second signs. The C dimension is the distance between the second and third signs. (The "first sign" is the sign in a three-sign series that is closest to the TTC zone. The "third sign" is the sign that is furthest upstream from the TTC zone.)

LEGEND			
	DIRECTION OF TRAVEL		FLAG TREE
	PAVEMENT ARROW		FLASHING ARROW BOARD
	PORTABLE SIGN		TRAFFIC SIGNAL
	TRAFFIC CONE / DELINEATOR		K-RAIL (TYPE 50 CONCRETE BARRIER)
	TYPE II BARRICADE		CHANGEABLE MESSAGE SIGN
	TYPE III BARRICADE		FLAGGER
	WORK AREA		DRIVEWAY

Table 6C-2. Stopping Sight Distance as a Function of Speed on Level Roads.
(Used as suggested longitudinal buffer space length or location for flagger station)

Speed*	Distance
20 mph	115 feet
25 mph	155 feet
30 mph	200 feet
35 mph	250 feet
40 mph	305 feet
45 mph	360 feet
50 mph	425 feet
55 mph	495 feet
60 mph	570 feet
65 mph	645 feet
70 mph	730 feet
75 mph	820 feet

- * Posted speed, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph.

Table 6C-3 (CA). Taper Length Criteria for Temporary Traffic Control Zones (for 12 feet Offset Width)

Speed* S (mph)	Minimum Taper Length** for Width of Offset 12 feet (w)			
	Merging L (feet)	Shifting L/2 (feet)	Shoulder L/3 (feet)	Down Stream (feet)**
20	80	40	27	50
25	125	63	42	50
30	180	90	60	50
35	245	123	82	50
40	320	160	107	50
45	540	270	180	50
50	600	300	200	50
55	660	330	220	50
60	720	360	240	50
65	780	390	260	50
70	840	420	280	50

- * - Posted speed limit, off peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph.
 ** - For other offsets use the following merging taper length formula for L:
 For speeds of 40 mph or less, $L = WS^2/60$
 For speeds 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.
 *** - Maximum downstream taper length is 100 feet. See Section 6C.08.



Jerry L. Michal
 JERRY L. MICHAL R.C.E. NO. C 42590 EXP. 03-31-20

10-23-18
 DATE

OWNER / DEVELOPER:

CROWN CASTLE

605 RIVER DANCE PARKWAY
 SAN JOSE, CA 95134
 www.crown-castle.com

PLANS PREPARED BY:

Coastal Communications
 Telecommunications Engineering
 2941 ENSLOW PLACE, STE. 200
 CARLSBAD, CA 92008
 PH: (760) 929-0910
 FX: (760) 929-0836

CITY OF:

PALO ALTO

JOHN GRIFFITHS
 PROJECT MANAGER

VZM366241CA-SFPA022-SFO TC
 FILE NAME

ROW ADJACENT TO 258 WAVERLEY ST AT CORNER OF BRYANT CT

PROJECT NUMBER: VZM366241CA-SFPA022m2

PAGE GRID: 02/08/18

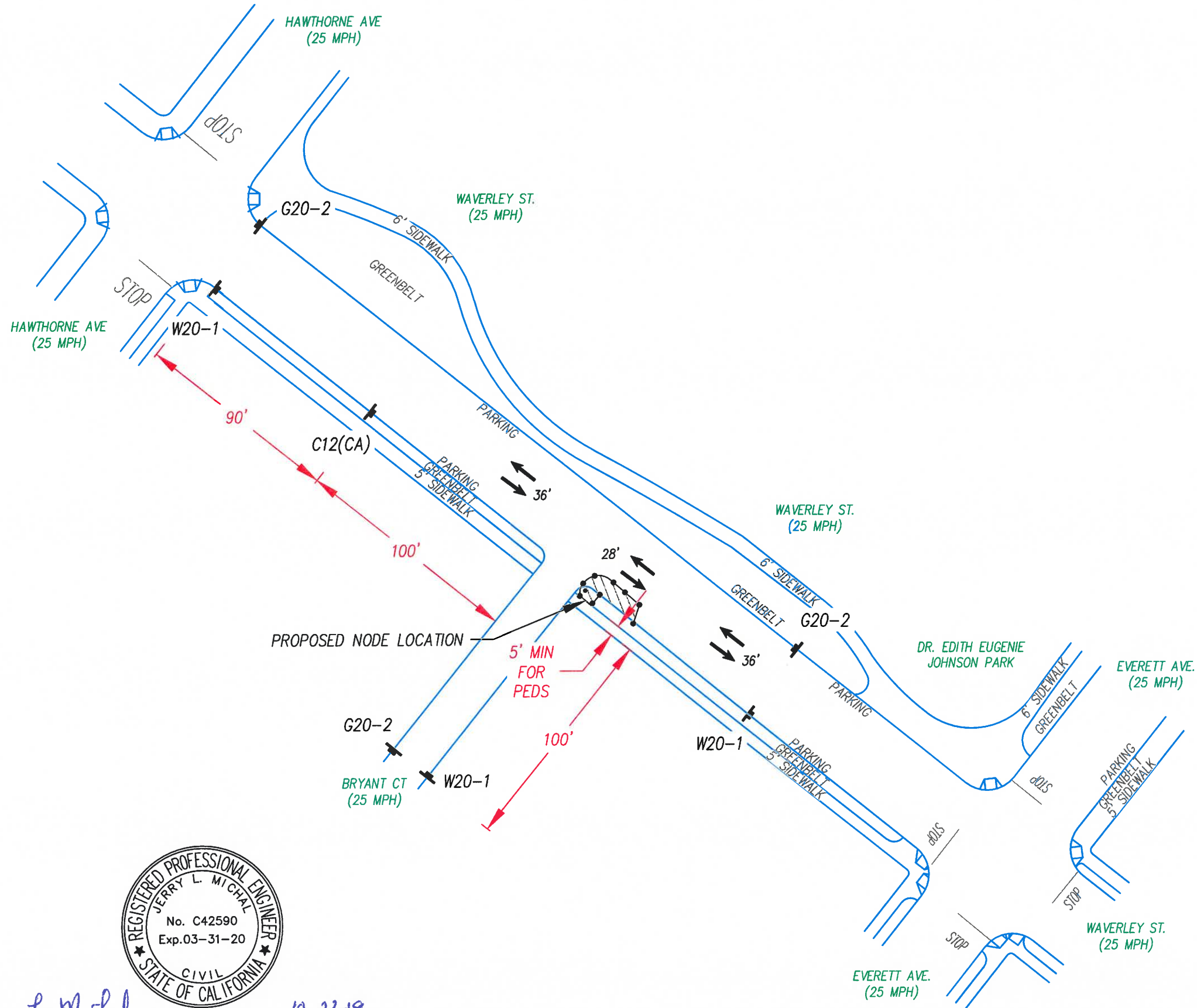
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SHEET NO.: T01 OF T02

NOTES:

1. CONTRACTOR TO MAINTAIN ACCESS TO ALL DRIVEWAYS AT ALL TIMES.
2. W20-1 & G20-2 SHALL BE PLACED ON AFFECTED CROSS STREETS ACCORDING TO THE SPEED LIMIT OF THE CROSS STREET.
3. CONTRACTOR SHALL ASSIST PEDESTRIANS THROUGH WORK AREA.



Jerry L. Michal
JERRY L. MICHAL R.C.E. NO. C 42590 EXP. 03-31-20

10-23-18
DATE

OWNER / DEVELOPER:		CROWN CASTLE 605 RIVER OAKS PARKWAY SAN JOSE, CA 95134 www.crown-castle.com	
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CITY OF:		PALO ALTO	
PROJECT MANAGER:		JOHN GRIFFITHS	
PROJECT NUMBER:		VZW366241CA-SFP0022-SF0 IC	
PAGE GRID:		VZW366241CA-SFP022m2	
DATE:		02/08/18	
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SHEET NO.:		T02 OF T02	
ROW ADJACENT TO 258 WAVERLEY ST AT CORNER OF BRYANT CT			