:MasTec

STRUCTURAL DETAILS WITH FOUNDATION INSTALLATION

FOR A

35' TALL, CONCEALMENT ANTENNA/LIGHT POLE

LOCATED AT:

VARIOUS NODES
IN AND AROUND

Pierce [Plans; Sht T-1]

PUYALLUP, WA



SALEM, OR 97304 h: 503-587-0101 Fx: 503-316-18 WesternUtilityTelecom.com

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35' TALL, CONCEALMENT
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LOCATION —

VARIOUS NODES IN AND AROUND

PUYALLUP, WA KING COUNTY

— ISSUED FOR

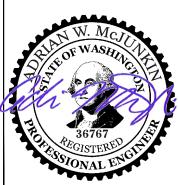
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REVISIONS

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TITLE SHEET

UT PROJECT NUMBER -

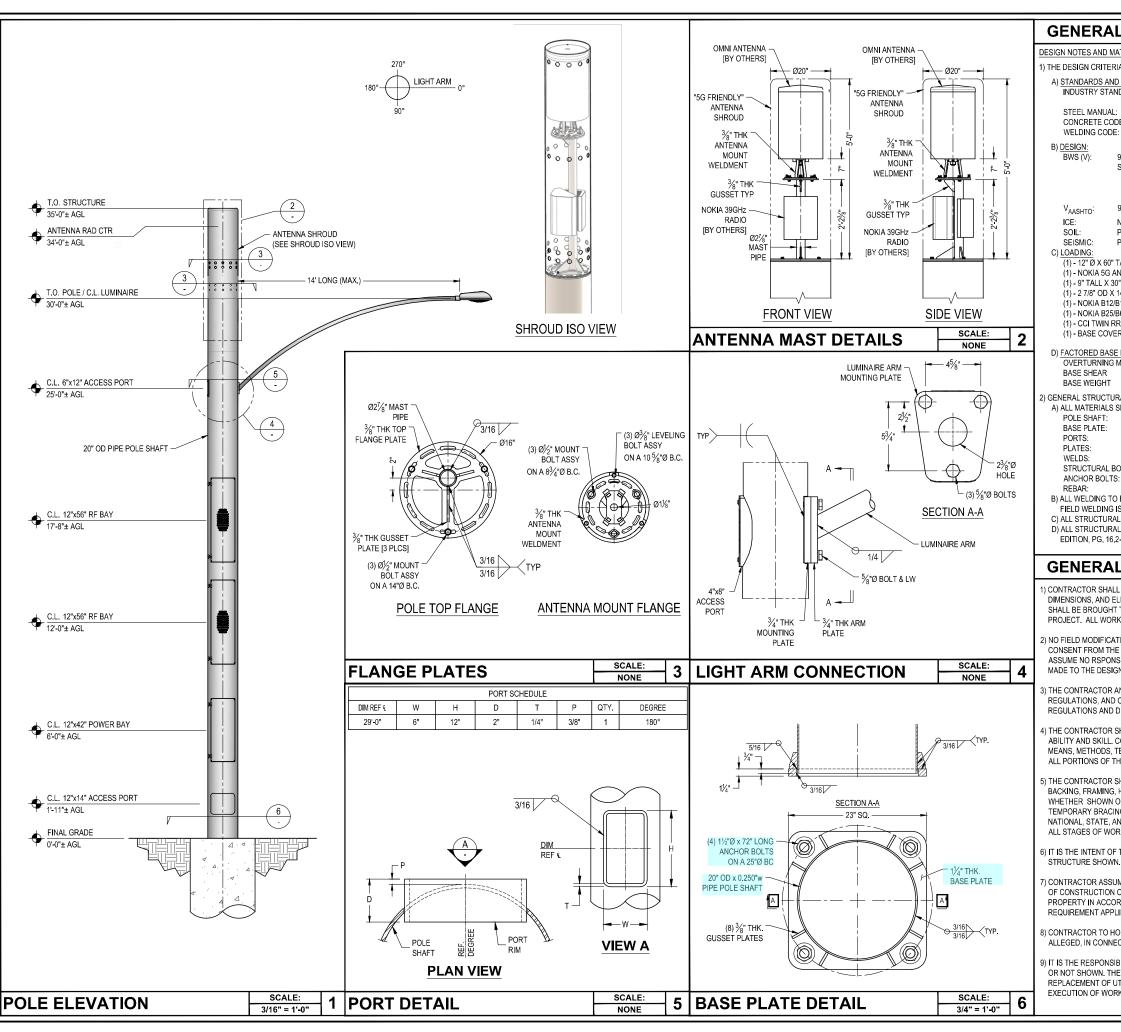
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- DRAWING NUMBER

PD-002173

PAGE NUMBER

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GENERAL DESIGN NOTES:

DESIGN NOTES AND MATERIAL REQUIREMENTS

) THE DESIGN CRITERIA FOR THIS STRUCTURE IS AS FOLLOWS:

A) STANDARDS AND DESIGN CODES

ANSI/TIA-222-H, 2018 IBC, & 2015 AASHTO LRFD-LTS-1

W/ 2017 INTERIM REVISIONS

AISC 15TH EDITION CONCRETE CODE ACI 318-14 ANSI/AWS D1.1.15

97 MPH (3-SECOND GUST) PER ANSI/TIA-222-H & 2018 IBC

SECTION 1609.1.1, EXC. 5 RISK CATEGORY

EXPOSURE CATEGORY TOPOGRAPHIC CATEGORY:

97 MPH (3-SECOND GUST) PER 2015 AASHTO LRFD LTS-1 W/ 2017 INTERIMS

NOT REQ'D FOR THIS STRUCTURE PER ANNEX B PER 2018 IBC, TABLE 1806.2, CLASS 5 MAT'L

PER 2018 IBC SECTION 1613, ASCE 7-16, SECTIONS 15.1.3 & 12.8

(1) - 12" Ø X 60" TALL ANTENNA/RADIO SHROUD, WT. = 165 LBS., C.L. @ 32.5' ± AGL (1) - NOKIA 5G ANTENNAS/RRHS IN TOP SHROUD, WT. = 35 LBS,. C.L. @ 31.7' ± AGL

(1) - 9" TALL X 30" LONG COBRA HEAD LUMINAIRE, WT. = 45 LBS., C.L. @ 30' ± AGL (1) - 2 7/8" OD X 14' (MAX.) LONG LUMINAIRE ARM, WT. = 85 LBS. C.L. @ 27.5' ± AGL

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(1) - BASE COVER, WT. = 66 LBS. C.L. @ 0.33' ± AGL

OVERTURNING MOMENT 30.0 FT-KIPS 1.63 KIPS 3.37 KIPS

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A) ALL MATERIALS SHALL CONFORM TO THE FOLLOWING STANDARDS:

ASTM A53/A500 Gr.B/API 5L Gr.B (MIN. Fy = 35 ksi) ASTM A36

ASTM A500 GR B (RECT. TUBE) ASTM A36 E70XX ELECTRODES

STRUCTURAL BOLTS: ASTM F3125 GR. A325 ANCHOR BOLTS: ASTM F1554 GR. 55 ASTM A615 GR. 60

B) ALL WELDING TO BE PERFORMED BY WELDERS CERTIFIED IN ACCORDANCE WITH AWS D1. FIELD WELDING IS PROHIBITED.

C) ALL STRUCTURAL STEEL SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A123. D) ALL STRUCTURAL BOLTS SHALL BE TIGHTENED TO SNUG-TIGHT AS DEFINED BY AISC 15TH

EDITION, PG. 16.2-51 PARAGRAPH 8.1

GENERAL NOTES:

-) CONTRACTOR SHALL FIELD VERIFY SITE OR LAYOUT RESTRICTIONS, SITE CONDITIONS DIMENSIONS, AND ELEVATIONS BEFORE START OF CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF WESTERN UT, INC. PRIOR TO BEGINNING PROJECT. ALL WORK SHALL BE PERFORMED USING ACCEPTED CONSTRUCTION PRACTICES.
- P) NO FIELD MODIFICATIONS MAY BE MADE TO MONOPOLE WITHOUT THE EXPRESS WRITTEN. CONSENT FROM THE ENGINEER OF RECORD, WESTERN UT, INC. AND ENGINEER OF RECORD ASSUME NO RSPONSIBILITY FOR THE STRUCTURE IF ALTERATIONS AND/OR ADDITIONS ARE MADE TO THE DESIGN AS SHOWN IN THESE DRAWINGS.
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UTILITY / TELECOM, INC

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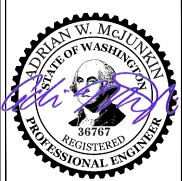
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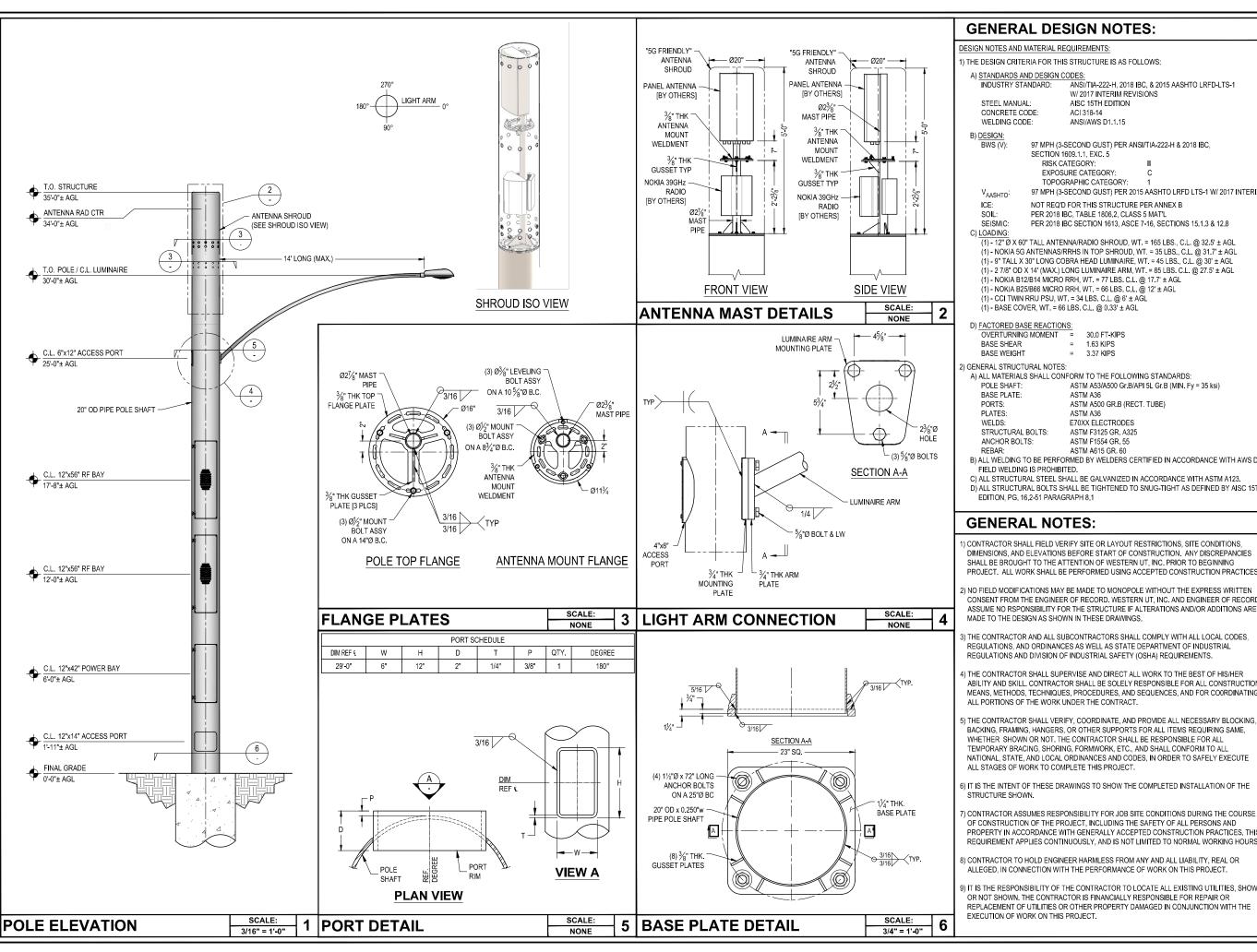
ELEVATION VIEW & STRUCTURAL DETAILS

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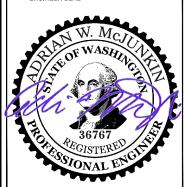
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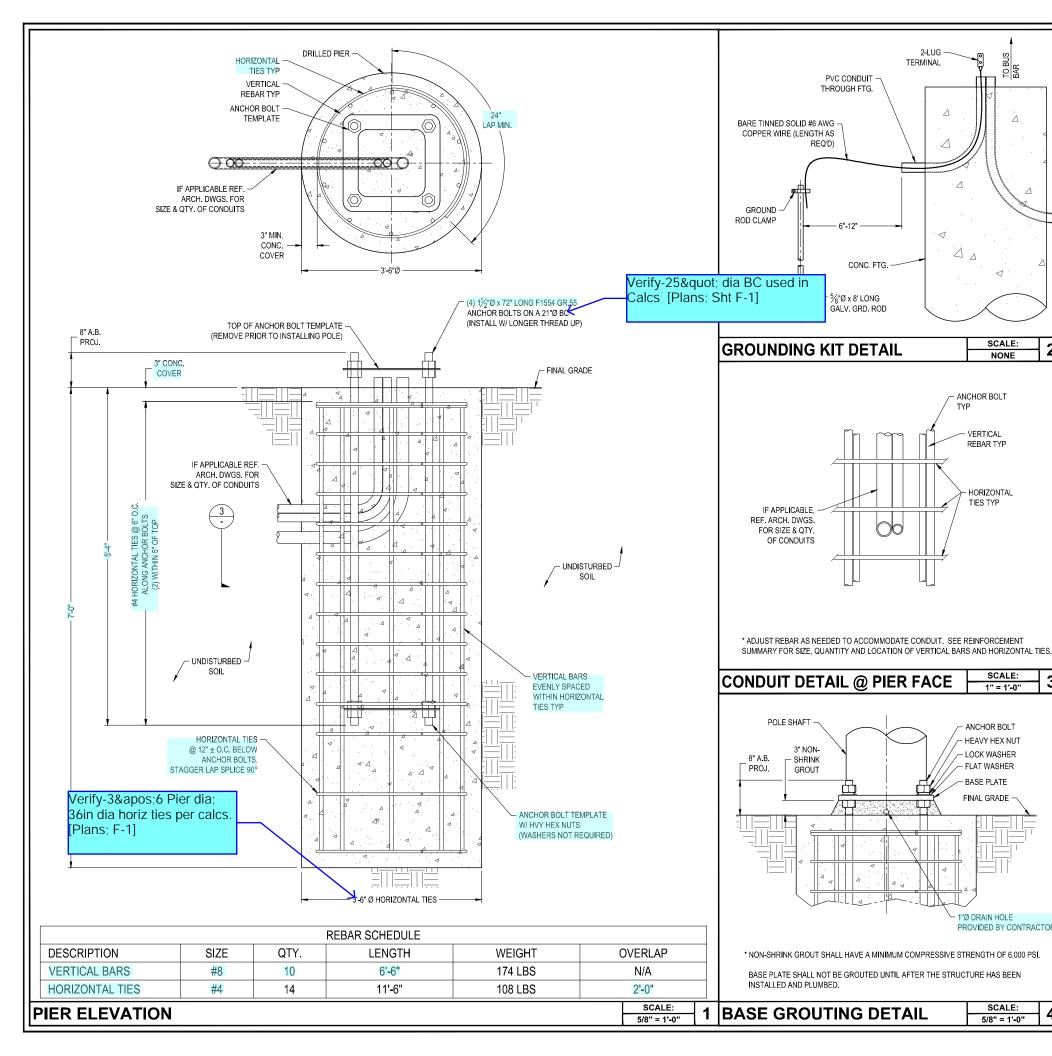
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GENERAL NOTES

2-LUG

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A A

SCALE:

NONE

ANCHOR BOLT

VERTICAL

REBAR TYP

HORIZONTAL

TERMINAL

PVC CONDUIT

THROUGH FTG.

CONC. FTG.

- 5⁄8"Ø x 8' LONG GALV. GRD. ROD

- THE CONTRACTOR IS RESPONSIBLE FOR CHECKING AREA FOR UNDERGROUND FACILITIES PRIOR TO EXCAVATING ANY MATERIALS.
- 2. CONTRACTOR SHALL REFER TO SOILS REPORT (IF AVAILABLE) FOR SITE CONDITIONS AND FURTHER CONSTRUCTION INFORMATION.
- 3. CONTRACTOR SHALL INSPECT AND REMOVE ALL DEBRIS FROM BOTTOM OF
- 4. CONTRACTOR SHALL VERIFY ANCHOR BOLT LAYOUT PRIOR TO, AND IMMEDIATELY AFTER PLACING CONCRETE. ANCHOR BOLT LAYOUT IS CRITICAL FOR MONOPOLE
- CONTRACTOR SHALL USE AND PROVIDE DEFORMED REINFORCING BARS CONFORMING TO A615 GR.60 (60,000 PSI MIN. YIELD). CONTRACTOR SHALL USE STEEL WIRE TO HOLD REINFORCING BARS TOGETHER. IF WELDING REBAR IS PREFERRED, SUBSTITUTE USING A706 GR. 60 DEFORMED BARS.
- CONTRACTOR SHALL USE AND PROVIDE CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI. CONCRETE SHALL USE 1" MAXIMUM STONE AGGREGATE, MIX DESIGN: 61/2 SACKS OF CEMENT MINIMUM PER CUBIC YARD. 5" MINIMUM AND 7"
- CONCRETE SHALL BE CONSOLIDATED USING VIBRATORY METHODS THROUGHOUT DEPTH OF FOUNDATION. VIBRATING LOWER DEPTHS MAY BE ACCOMPLISHED BY TOUCHING REBAR CAGE WITH VIBRATOR.
- CONTRACTOR SHOULD ANTICIPATE THE USE OF A FULL-LENGTH TEMPORARY CASING TO STABILIZE THE EXCAVATION. THE CASING SHALL BE WITHDRAWN DURING THE PLACEMENT OF CONCRETE IN THE EXCAVATED HOLE. CONCRETE SHALL BE PLACED USING CONVENTIONAL METHODS TO MINIMIZE SEGREGATION OF CONCRETE AND AGGREGATE. CONCRETE SHALL NOT FREE FALL MORE THAN 5 FT. CONCRETE MAY BE PLACED BELOW WATER USING TREMIE METHODS.
- CONCRETE SHALL BE PLACED TO THE DEPTH INDICATED, AND THE ABOVE GRADE PORTION SHALL BE FORMED. THE REBAR CAGE, ANCHOR BOLTS, AND CONCRETE SHALL BE PLACED WITHIN 24 HOURS OF COMPLETING THE EXCAVATION. COLD JOINTS
- 10. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ADEQUATE CONCRETE COVERAGE OVER REINFORCING BARS TO MINIMIZE CORROSION POTENTIAL. LINEESS OTHERWISE NOTED, CONTRACTOR SHALL USE 3" CONCRETE COVER OVER REBAR. TOP OF FOOTING SHALL BE TOWELED LEVEL AND SMOOTH.
- 11. DRILLED PIER FOUNDATION DESIGN PER 2018 IBC, TABLE 1806.2, CLASS 5 MATERIAL.
- 12. TOTAL VOLUME OF CONCRETE REQUIRED FOR THIS FOUNDATION IS APPROXIMATELY 2.5 CU. YDS.

FACTORED BASE REACTIONS

= 30.0 FT-KIPS MOMENT SHEAR = 1,63 KIPS $= 3.37 \, \text{KIPS}$ VERTICAL

SPECIAL INSPECTIONS

3

1" = 1'-0"

ANCHOR BOLT - HEAVY HEX NUT

- LOCK WASHER

- FLAT WASHER

- BASE PLATE

FINAL GRADE -

1"Ø DRAIN HOLE PROVIDED BY CONTRACTOR

SCALE:

5/8" = 1'-0"

ITEM	DESCRIPTION	INSPECTION BY	MATERIAL
1	ALLOWABLE PIER EXCAVATION LATERAL BEARING	SOILS ENGINEER	100 PSF/FT LATERAL
2	PIER CONSTRUCTION REINFORCING STEEL BAR SIZES AND INSTALLATION	SPECIAL INSPECTOR	ASTM A615 GR.60
3	ANCHOR BOLTS BOLT SIZE AND LENGTHS INSTALLATION	SPECIAL INSPECTOR	ASTM F1554 GR.

= 4,000 PSI TYPE II CEMENT UTILITY / TELECOM, INC

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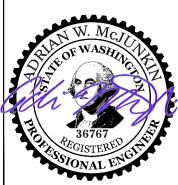
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PIER FOUNDATION INSTALLATION

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SPECIAL INSPECTION: THE FOLLOWING ELEMENTS OF CONSTRUCTION SHALL REQUIRE SPECIAL INSPECTION PER 2018 IBC,

I I E IVI	DESCRIPTION	INSPECTION BT	<u>IV</u>
1	ALLOWABLE PIER EXCAVATION LATERAL BEARING	SOILS ENGINEER	10 L
2	PIER CONSTRUCTION REINFORCING STEEL BAR SIZES AND INSTALLATION	SPECIAL INSPECTOR	А
3	ANCHOR BOLTS BOLT SIZE AND LENGTHS INSTALLATION	SPECIAL INSPECTOR	ASTM
4	CONCRETE TEST SPECIMENS	SPECIAL INSPECTOR	fc :