

STRUCTURAL DETAILS WITH FOUNDATION INSTALLATION

FOR A: **35' TALL, CONCEALMENT ANTENNA/LIGHT POLE**

LOCATED AT: VARIOUS NODES IN AND AROUND

PUYALLUP, WA PIERCE COUNTY







ANSI/TIA-222-H, 2018 IBC, & 2015 AASHTO LRFD-LTS-1 W/ 2017 INTERIM REVISIONS AISC 15TH EDITION ACI 318-14 ANSI/AWS D1.1.15 97 MPH (3-SECOND GUST) PER ANSI/TIA-222-H & 2018 IBC

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 (1) - NOKIA B12/B14 MICRO RRH, WT. = 77 LBS. C.L. @ 17.7' ± AGL

> 30.0 FT-KIPS 1.63 KIPS 3.37 KIPS

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 ASTM F3125 GR. A325 ASTM F1554 GR. 55 ASTM A615 GR. 60

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

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

) 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.

2) 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

THE CONTRACTOR AND ALL SUBCONTRACTORS SHALL COMPLY WITH ALL LOCAL CODES, REGULATIONS, AND ORDINANCES AS WELL AS STATE DEPARTMENT OF INDUSTRIAL REGULATIONS AND DIVISION OF INDUSTRIAL SAFETY (OSHA) REQUIREMENTS.

) THE CONTRACTOR SHALL SUPERVISE AND DIRECT ALL WORK TO THE BEST OF HIS/HER ABILITY AND SKILL. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, PROCEDURES, AND SEQUENCES, AND FOR COORDINATING

THE CONTRACTOR SHALL VERIFY, COORDINATE, AND PROVIDE ALL NECESSARY BLOCKING, BACKING, FRAMING, HANGERS, OR OTHER SUPPORTS FOR ALL ITEMS REQUIRING SAME, WHETHER SHOWN OR NOT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY BRACING, SHORING, FORMWORK, ETC., AND SHALL CONFORM TO ALL NATIONAL, STATE, AND LOCAL ORDINANCES AND CODES, IN ORDER TO SAFELY EXECUTE

6) IT IS THE INTENT OF THESE DRAWINGS TO SHOW THE COMPLETED INSTALLATION OF THE

7) CONTRACTOR ASSUMES RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES. THIS REQUIREMENT APPLIES CONTINUOUSLY, AND IS NOT LIMITED TO NORMAL WORKING HOURS.

3) CONTRACTOR TO HOLD ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT.

9) IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING UTILITIES, SHOWN OR NOT SHOWN. THE CONTRACTOR IS FINANCIALLY RESPONSIBLE FOR REPAIR OR REPLACEMENT OF UTILITIES OR OTHER PROPERTY DAMAGED IN CONJUNCTION WITH THE





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THE CONTRACTOR IS RESPONSIBLE FOR CHECKING AREA FOR UNDERGROUND

2. CONTRACTOR SHALL REFER TO SOILS REPORT (IF AVAILABLE) FOR SITE CONDITIONS

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

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

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

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. UNLESS OTHERWISE NOTED, CONTRACTOR SHALL USE 3" CONCRETE COVER OVER REBAR. TOP OF FOOTING

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

= 30.0	FT-KIPS
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- = 1.63 KIPS
- = 3.37 KIPS

	INSPECTION BY
	SOILS ENGINEER
CING ATION	SPECIAL INSPECTOR
	SPECIAL INSPECTOR

SPECIAL INSPECTOR

100 PSF/FT LATERAL ASTM A615 GR.60

MATERIAL

ASTM F1554 GR.55

fc = 4,000 PSI TYPE II CEMENT



F-1