NOTES:

GROUNDING SYSTEM:

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GENERAL NOTES:

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1. ALL DIMENSIONS ARE SHOWN IN INCHES [AND MILLIMETERS] AND (REFERENCE)

2. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS LOCATING EXISTING CONSTRUCTION BEFORE FABRICATION OF NEW CONSTRUCTION BEGINS

3. GROUND RODS SHALL BE DRIVEN TO DEPTHS AS SHOWN BELOW PERMANENT MOISTURE LEVEL) AND GROUND SYSTEM RESISTANCE MEASURED. THE ANTENNA STRUCTURE SHALL BE CONNECTED TO A GROUNDING SYSTEM CONSISTING OF A NUMBER OF INTERCONNECTED GROUND RODS. THE SYSTEM SHALL MEET THE STANDARDS OF THE UNDERWRITERS LABORATORIES PUBLICATION No. UL96A FOR LIGHTNING PROTECTION. THE GROUND ROD SYSTEM-TO-EARTH RESISTANCE SHALL NOT EXCEED 1.0 Ohm AT ANY TIME DURING THE YEAR

4. GROUNDING SYSTEM SHOWN IS THE MINIMUM NECESSARY. LOCAL CONDITIONS WILL DICTATE GROUNDING SYSTEM DESIGN

FOUNDATIONS:

1. FOUNDATIONS HAVE BEEN DESIGNED TO REST ON UNDISTURBED STANDARD SOIL (PER EIA-411-A & RS-222-D) REFER TO TABLE 1 FOR SOIL DESIGN PARAMENTERS

2. BACKFILL SHALL BE SUITABLE EXCAVATED MATERIAL OR OTHER SUITABLE MATERIAL COMPACTED IN 6" LIFTS TO 95% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D1557

3. THIS FOUNDATION IS A TYPICAL DESIGN ONLY. CERTIFICATION OF ITS SUITABILITY FOR A PARTICULAR INSTALLTION BY A PROFESSIONAL ENGINEER IS REQUIRED PRIOR TO ITS USE FOR ACTUAL FABRICATION

4. IF THIS FOUNDATION IS TO BE LOCATED IN AN AREA WHERE THE ANNUAL FROST PENETRATION DEPTH EXCEEDS THE DEPTH SHOWN PER FOOTING THICKNESS PER TABLE 1 (SHEET 2), THE LOCAL BUILDING CODE SPECIFYING A MINIMUM REQUIRED FOUNDATION DEPTH SHOULD BE CONSULTED

CONCRETE:

1. CONCRETE & RELATED WORK SHALL BE MIXED, PLACED AND CURED IN ACCORDANCE WITH THE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" ACI 318 AND "SPECIFICATIONS FOR STRUCTURAL CONCRETE" ACI 301, PUBLICATION SP-15

2. CONCRETE SHALL DEVELOP COMPRESSIVE STRENGTH OF AT LEAST 3500 PSI [25 MPa] IN 28 DAYS WITH A MAXIMUM SLUMP OF 3" [76] AT TIME OF PLACING. CEMENT SHALL BE NORMAL PORTAND CEMENT (TYPE 10) UNLESS LOCAL SOIL CONDITIONS REQUIRE THE USE OF SULPHÁTE RESISTANT CEMENT

3. CONCRETE SUBJECTED TO FREEZE-THAW CYCLES TO BE AIR ENTRAINED TO 5%-8%

4. REINFORCING BARS SHALL CONFORM TO ASTM A615 (SI) GRADE 60 DEFORMED TYPE Fy = 60000 PSI [400 MPa]

5. UNLESS OTHERWISE NOTED, CONCRETE COVER FOR REINFORCING BARS SHALL CONFORM TO THE MINIMUM REQUIREMENTS OF ACI 318

6. FABRICATION OF REINFORCING STEEL SHALL BE IN ACCORDANCE WITH THE "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES" ACI 315

7. PROVIDE 3/4" X 45° [19 X 45°] CHAMFER ON ALL EXPOSED CONCRETE EDGES

8. A TOLERANCE OF ±1/8" [3] APPLIES TO ALL ANCHOR BOLT LAYOUT DIMENSIONS

9. LEVEL ALL PLATES FOR STRUTS INDIVIDUALLY AND TO WITHIN ±1/4" [6] OF EACH OTHER

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10. LEVEL PLATE FOR ANTENNA TO WITHIN 0.1° OF HORIZONTAL

1. THE GROUNDING SYSTEM SHOWN (SHEET 3) REPRESENTS THE MINIMUM REQUIREMENTS TO ACHIEVE SATISFACTORY GROUNDING. ACTUAL SITE CONDITIONS AND SOIL RESISTIVITY LEVELS WILL DETERMINE FINAL GROUNDING SYSTEM DESIGN TO COMPLY WITH THE FOLLOWING NOTES BELOW

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2. ALL GROUND RING, GROUND ROD AND ANTENNA STRUCTURE CONNECTIONS TO BE ERICOO PRODUCTS INC. CALWELDO EXOTHERMIC TYPE WELDED ELECTRICAL CONNECTIONS OR EQUIVALENT

3. GROUND RODS SHALL BE DRIVEN TO A DEPTH BELOW PERMANENT FROST LEVEL (MINIMUM DEPTH SHOWN) AS DICTATED BY GEOGRAPHICAL LOCATION

4. THE ANTENNA STRUCTURE SHALL BE CONNECTED TO A GROUNDING ELECTRODE SYSTEM CONSISTING OF A NUMBER OF INTERCONNECTED GROUND RODS. THE SYSTEM SHALL MEET THE REQUIREMENTS OF THE UNDERWRITERS' LABORATORIES PUBLICATION NO. UL96A FOR LIGHTNING PROTECTION

5. THE GROUNDING ELECTRODE SYSTEM TO EARTH RESISTANCE SHALL NOT EXCEED 1.0 Ohms, MEASURED WITH A BIDDLE 3 TERMINAL DEVICE OR EQUIVALENT. THE GROUNDED CONDUCTOR (NEUTRAL) SUPPLIED TO ALL AC EQUIPMENT ON THE ANTENNA STRUCTURE SHOULD BE DISCONNECTED BEFORE TAKING MEASUREMENT

6. ACTUAL SITE CONDITIONS MAY REQUIRE LONGER GROUND RODS, ADDITIONAL GROUND RODS AND/OR LAND FILL ADDITIVES TO REDUCE SOIL RESISTIVITY LEVELS

7. AVOID SHARP BENDS WHEN ROUTING GROUNDING WIRE. GROUNDING WIRES TO ANTENNA STRUCTURE TO BE RUN AS SHORT AND AS STRAIGHT AS POSSIBLE

8. FINAL GRADE DIRECTLY ABOVE GROUNDING ELECTRODE SYSTEM TO BE WATER PERMEABLE

CONDUIT:

1. PRIME POWER STUB-UPS FOR C1 & C2 TO INCLUDE A 50-INCH [1270mm] PIG TAIL TO PERMIT THE FEEDER WIRE CONNECTION TO THE ANTENNA LOCATED LOAD CENTERS

2. CONDUITS C2 & C3 TO INCLUDE PULL ROPES FROM CUSTOMER BUILDING TO THE 8.1m ANTENNA FOUNDATION LOCATION

3. ALL CONDUITS TO STUB-UP 6-INCHES [152.4mm] ABOVE THE TOP OF THE ANTENNA FOUNDATION

4. ALL CONDUITS TO HAVE CAPS INSTALLED AFTER INSTALLATION TO PREVENT THEM FROM FILLING UP WITH WATER

5. INTERFACILITY CONDUIT BETWEEN THE CUSTOMER BUILDING AND THE 8.1m ANTENNA FOUNDATION TO INCLUDE SWEPT BENDS, NOT RIGHT ANGLES

6. INTERFACILITY CONDUIT BETWEEN THE CUSTOMER BUILDING AND THE 8.1m ANTENNA FOUNDATION TO INCLUDE PULL BOXES AS REQUIRED

CONDUIT SCHEDULE								
CONDUIT	PURPOSE	FROM	TO	SIZE INCH [MM]	NOTES			
C1	UTILITY PWR	CUSTOMER LOAD CENTER	8.1M ANTENNA FOUNDATION	4 [101.6] 6 [152.4]	WITHOUT DE-ICE WITH DF-ICF			
C2	TECHNICAL POWER	CUSTOMER LOAD CENTER	8.1M ANTENNA FOUNDATION	4 [101.6]	ALL 8.1M ANTENNA SITES			
C3	SIGNAL/M&C	8.1M ANTENNA FOUNDATION	CUSTOMER BUILDING	4 [101.6]	ALL 8.1M ANTENNA SITES			
C4	SIGNAL/M&C	8.1M ANTENNA FOUNDATION	CUSTOMER BUILDING	4 [101.6]	ALL 8.1M ANTENNA SITES			

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M. N/	aterial A	UNLESS C	UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INTERPRET PER ASME Y14.5M-1994							
		TOLERA	NCES	H	OLE TO	DLERANCES	1	THIRD ANGLE		
		1 PLACE .X ±	0.1	0 - 0.125	2	+.003/001		<u>م</u>		
FIN	VISH	2 PLACE .XX ±	0.03	0.126 - 0	.250:	+.004/001		Ψ		
N/	/A	3 PLACE .XXX ±	0.005	0.251 - 0	.500:	+.006/001	DRAWN	BY MOORE		
		ANGLES ±	0.1°	0.501 - 1	.000:	+.008/001	eco C	0000508		
		All surfaces 🗸 63					MASS:			
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PEO	PER ASME Y14.5	nsions are in 1 5M-1994	INCHES		K		
<u>H</u>		THIRD ANGLE PI	ROJECTION	+	INSTAL	L,FOUNDATION,8.1M	
0.125 26 - 0	.250: +.003/001	⊕	\ominus				
51 - C 01 - 1	.500: +.006/001	DRAWN BY MOORE	05JUN0	, SIZE D	CAGE CODE	DOCUMENT NO. 7579312	

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RELEASED TO PRODUCTION 28JUL21

DATE REVISION

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	Foun	dation Loads (on axis)	<u>)</u>															
		Wind speed =	125 mph																
		l oade		0° ele	evation			30° el	evation			60° el	evation			90° ele	evation		Max
		Loaus	0°wind	60°wind	120°wind	180°wind	0°wind	60°wind	120°wind	180°wind	0°wind	60°wind	120°wind	180°wind	0°wind	60°wind	120°wind	180°wind	Loads
		Fx (Lbs)	49	-915	1806	56	64	694	-1953	-33	1	-816	-4292	1	17	-4980	-4996	-15	- 4996
	5	Fy (Lbs)	-6710	-7570	-13949	-15745	-22770	-20031	-10874	-9847	-33721	-20127	-9160	-9020	-7325	-8107	-9685	-10480	- 33721
	mr	Fz (Lbs)	2005	1013	-3724	-4855	-3132	-1776	-4777	-7143	-5923	-304	-4550	-9696	7374	3780	-3441	-7067	- 9696
	olt Ba	Mx (Lbs-in)	59712	52171	-22078	-44918	40252	32827	-20750	-35049	12165	9088	-14193	-26902	13993	6846	-7792	-15281	+ 59712
	Ŭ Î	My (Lbs-in)	-82	1080	-2180	-61	30	572	-1679	-37	-23	-164	-841	-18	17	2	-14	-15	- 2180
		Mz (Lbs-in)	791	-9596	20383	1295	-792	-8741	25297	679	242	4833	24555	186	-62	19890	20029	216	+ 25297
		Fx (Lbs)	-7284	-6609	4021	6309	-4341	-4106	4875	5087	-405	-216	4599	4198	-1309	1526	3854	2620	- 7284
	-	Fy (Lbs)	9597	8672	-5798	-8918	5575	5265	-6976	-7261	211	-33	-6608	-6057	1536	-2407	-5594	-3905	+ 9597
	d ,	Fz (Lbs)	-6555	-5934	3591	5678	-3908	-3691	4367	4576	-366	-196	4130	3776	-1941	1375	3470	2357	- 6555
	Le	Mx (Lbs-in)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	+ (
		My (Lbs-in)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	+ (
_		Mz (Lbs-in)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	+ (
		Fx (Lbs)	7938	6749	-2133	-5405	5579	4322	-1515	-4538	2244	2076	-363	-3737	2533	2898	611	-2040	+ 7938
	~	Fy (Lbs)	-13987	-11885	3261	8993	-9910	-7719	2208	7510	-4165	-3905	255	6141	-4700	-5343	-1386	3211	- 1398
	g ;	Fz (Lbs)	-10921	-9263	2889	7438	-7678	-5936	2045	6241	-3090	-2862	476	5140	-3484	-3992	-847	2805	- 10921
	Le	Mx (Lbs-in)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	+ (
		My (Lbs-in)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	+ (
		Mz (Lbs-in)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	+ (
		Fx (Lbs)	-7851	-7097	3044	5487	-5650	-5074	3676	4576	-2246	-1523	3244	3735	-2543	101	2397	2048	- 785
	ŝ	Fy (Lbs)	-13834	-12587	5027	9141	-10038	-9080	6115	7579	-4170	-2929	5341	6139	-4719	-131	3842	3227	- 1383
	g ;	Fz (Lbs)	-10802	-9791	4233	7551	-7777	-6996	5096	6296	-3093	-2092	4484	5139	-3498	145	3303	2817	- 1080
	Гe	Mx (Lbs-in)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	+ (
		My (Lbs-in)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	+ (
		Mz (Lbs-in)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	+ (
		Fx (Lbs)	7414	6087	-2647	-6175	4228	2932	-1486	-5024	406	1098	-27	-4197	2021	3272	959	-2605	+ 7414
	4	Fy (Lbs)	9771	7970	-3938	-8737	5423	3658	-2347	-7173	212	1173	-352	-6057	2447	4159	994	-3883	+ 977
	d ,	Fz (Lbs)	-6671	-5494	2409	5558	-3808	-2646	1358	4520	-366	-986	33	3776	-1817	-2944	-864	2343	- 667
	Le	Mx (Lbs-in)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	+ (
	-	My (Lbs-in)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	+
		Mz (Lbs-in)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	+ (
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