

FACE
WIDTH

RSL TOWER DESIGN LOADING ACCORDING TO ANSI/TIA-222-H																
3-SECOND GUST WIND SPEEDS AT 33 FT ABOVE GRADE (MPH) BASED ON DESIRED RISK CATEGORY TOPOGRAPHIC CATEGORY 1, EXPOSURE CATEGORY B & C, Z _s = 0 FT. ANSI/TIA-222-H																
TOWER HEIGHT (FT)	SECTIONS	TOWER KIT P/N	ALLOWABLE EFFECTIVE PROJECTED AREA, EPA (FT ²) 3-SECOND GUST WIND SPEED WITHOUT ICE (MPH)													
			EXPOSURE B							EXPOSURE C						
			90	100	110	115	120	130	140	90	100	110	115	120	130	140
100	R1H - R10H	RSL100H10	56	35	20	14	-	-	-	41	22	3	1	-	-	-
90	R1H - R9H	RSL90H19	61	42	28	22	17	-	-	38	23	12	7	3	-	-
	R2H - R10H	RSL90H20	76	52	35	28	21	-	-	47	28	15	9	4	-	-
80	R1H - R8H	RSL80H18	65	45	31	25	20	-	-	40	25	14	9	5	-	-
	R2H - R9H	RSL80H29	80	63	46	39	33	22	-	48	39	26	20	15	6	-
	R3H - R10H	RSL80H30	80	73	53	44	37	25	-	66	45	29	23	17	8	-
70	R1H - R7H	RSL70H17	73	52	37	30	25	16	-	46	30	15	14	9	1	-
	R2H - R8H	RSL70H28	80	67	49	42	36	26	17	60	42	29	23	19	11	4
	R3H - R9H	RSL70H39	80	80	70	61	53	39	28	80	61	43	36	30	20	11
	R4H - R10H	RSL70H40	80	80	76	66	57	43	31	80	66	47	40	33	22	13
60	R1H - R6H	RSL60H16	80	75	56	49	42	31	23	67	48	34	29	24	15	9
	R4H - R9H	RSL60H49	80	80	80	80	77	61	48	80	80	65	57	49	37	27
	R5H - R10H	RSL60H50	80	80	80	80	80	66	52	80	80	71	61	54	40	30
50	R1H - R5H	RSL50H15	80	80	76	68	60	47	37	80	66	50	43	38	28	21
	R5H - R9H	RSL50H59	80	80	80	80	80	80	74	80	80	80	80	75	60	47
	R6H - R10H	RSL50H60	80	80	80	80	80	80	80	80	80	80	80	80	65	51
40	R1H - R4H	RSL40H14	80	80	80	80	80	69	56	80	80	71	63	56	45	36
	R7H - R10H	RSL40H70	80	80	80	80	80	80	80	80	80	80	80	80	80	80
30	R1H - R3H	RSL30H13	80	80	80	80	80	80	80	80	80	80	80	80	70	58
	R8H - R10H	RSL30H80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
20	R1H - R2H	RSL20H12	80	80	80	80	80	80	80	80	80	80	80	80	80	80
	R9H - R10H	RSL20H90	80	80	80	80	80	80	80	80	80	80	80	80	80	80
(2) 1/2 INCH LINES ON A WAVEGUIDE LADDER, (1) 3/8 INCH SAFETY CABLE MAXIMUM APPURTENANCE WEIGHT: 500 LBS WITHOUT ICE AND 1,000 LBS WITH ICE TABULATED EPA VALUES INCREASED 100% FOR ICE LOADING CONDITION TABULATED EPA VALUES LIMITED TO A MAXIMUM OF 80 SQ FT k _a =1.0 FOR ALL TABULATED EPA																

ICE LOADING CRITERIA	
MAXIMUM RADIAL GLAZE ICE THICKNESS CONCURRENT WITH 40 MPH 3-SECOND GUST WIND SPEED 33 FT ABOVE GRADE TOPOGRAPHIC CATEGORY 1 EXPOSURE CATEGORY C ANSI/TIA-222-H	
RISK CATEGORY	ASCE 7-16 500-YR MRI
I	N/A*
II	0.50
III	0.43
IV	0.41

EARTHQUAKE LOADING CRITERIA			
S _s = SPECTRAL RESPONSE ACCELERATION PARAMETER AT SHORT PERIODS S ₁ = SPECTRAL RESPONSE ACCELERATION PARAMETER AT 1 SECOND PERIOD T _L = LONG PERIOD TRANSITION PERIOD SITE CLASS D ANSI/TIA-222-H			
RISK CATEGORY	MAX S _s	MAX S ₁	T _L
I	N/A*	N/A*	N/A*
II	2.50	1.00	6.00
III	2.00	0.80	6.00
IV	1.67	0.67	6.00

*ICE AND EARTHQUAKE LOADING NEED NOT BE CONSIDERED FOR RISK CATEGORY I STRUCTURES.

GENERAL NOTES

1. THE SUITABILITY OF THE TABULATED TOWER DESIGN CRITERIA FOR A SPECIFIC APPLICATION MUST BE VERIFIED PRIOR TO INSTALLATION BY THE PURCHASER BASED ON SITE-SPECIFIC DATA AND THE INTENDED USE OF THE STRUCTURE.
2. ALL USERS ARE SOLELY RESPONSIBLE FOR THE INSTALLATION, USE, MAINTENANCE, INSPECTION, CONDITION ASSESSMENTS AND OTHER WORK TO BE PERFORMED IN COMPLIANCE WITH ALL APPLICABLE INDUSTRY, LOCAL, STATE AND FEDERAL REQUIREMENTS.
3. THE TABULATED ALLOWABLE EFFECTIVE PROJECTED AREAS (EPA) REPRESENT THE SUMMATION OF THE PROJECTED AREAS OF ALL ANTENNAS, MOUNTS, AND APPURTENANCES MULTIPLIED BY APPROPRIATE DRAG FACTORS. THE ALLOWABLE PROJECTED AREAS ARE ASSUMED TO BE PLACED SYMMETRICALLY ON THE STRUCTURE. LOWER EPA VALUES MAY APPLY FOR OTHER EPA ARRANGEMENTS.
4. THE FOLLOWING MATERIAL SPECIFICATIONS APPLY TO THE TOWER DESIGN:
LEG SIZE: U 2-3/4" X 1/4" 65 KSI MINIMUM YIELD STRENGTH
BRACE SIZE: Ø1-1/4" X 16GA 50 KSI MINIMUM YIELD STRENGTH
STRUCTURAL STEEL: 50 KSI MINIMUM YIELD STRENGTH
FASTENERS: 120 KSI MINIMUM TENSILE STRENGTH
ANCHOR RODS: 125 KSI MINIMUM TENSILE STRENGTH
GALVANIZING: PER ANSI/TIA-222-H
5. TOWER FABRICATION SHALL BE BY ROHN PRODUCTS, LLC, CERTIFIED AISC FABRICATOR.
6. THE TOWER DESIGN ASSUMES INSTALLATION ON A PROPERLY DRAINED LEVEL SITE. THE TOWER DESIGN MAY REQUIRE MODIFICATIONS FOR INSTALLATIONS ON SITES WITH A SLOPING GRADE OR FOR TOWERS SUPPORTED ON OTHER STRUCTURES.
7. INSTALLATION SHALL BE IN ACCORDANCE WITH ANSI/TIA-222-H. INITIAL CONSTRUCTION INSPECTION REQUIREMENTS SHALL BE DETERMINED AND PERFORMED BY THE PURCHASER BASED ON THE LOCATION AND USE OF THE STRUCTURE.
8. SAFETY, STRENGTH AND STABILITY REQUIREMENTS FOR THE STRUCTURE FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES SHALL BE IN ACCORDANCE WITH ANSI/ASSE A10.48, "CRITERIA FOR SAFETY PRACTICES WITH THE CONSTRUCTION, DEMOLITION, MODIFICATION AND MAINTENANCE OF COMMUNICATION STRUCTURES" AND ALL APPLICABLE INDUSTRY, LOCAL, STATE AND FEDERAL REGULATIONS AND STANDARDS.
9. ALL RIGGING, SAFETY EQUIPMENT AND TEMPORARY SUPPORTS REQUIRED FOR CONSTRUCTION AND MAINTENANCE SHALL BE DETERMINED, FURNISHED AND INSTALLED BY THE CONTRACTOR BASED ON THE MEANS AND METHODS CHOSEN BY THE CONTRACTOR. ALL CONSTRUCTION AND MAINTENANCE ACTIVITIES SHALL BE PERFORMED BY COMPETENT, QUALIFIED AND TRAINED PERSONNEL.
- 10.FIELD CONNECTIONS SHALL BE BOLTED. NO FIELD WELDING SHALL BE ALLOWED.
- 11.UNLESS OTHERWISE SPECIFIED, BOLTS SHALL BE TIGHTENED TO A "SNUG TIGHT" CONDITION WITH A NUT-LOCKING DEVICE IN ACCORDANCE WITH ANSI/TIA-222-H WITH NO MINIMUM INSTALLED BOLT TENSION OR TORQUE VALUES REQUIRED.
- 12.STEP BOLTS SHALL BE INSTALLED AS A CLIMBING FACILITY IN ACCORDANCE WITH ANSI/TIA-222-H FOR CLIMBING THE ENTIRE HEIGHT OF THE STRUCTURE. CLIMBING SHALL BE RESTRICTED TO COMPETENT CLIMBERS ONLY.
- 13.A SAFETY CLIMB SYSTEM SHALL BE USED IN ACCORDANCE WITH ANSI/TIA-222-H. ALL CLIMBING FACILITIES, INCLUDING SAFETY CLIMB SYSTEMS, SHALL BE INSPECTED PRIOR TO EACH USE.
- 14.PURCHASER SHALL VERIFY THAT THE INSTALLATION IS IN CONFORMANCE WITH ALL APPLICABLE INDUSTRY, LOCAL, STATE, AND FEDERAL REQUIREMENTS FOR GROUNDING AND OBSTRUCTION MARKING.
- 15.MAINTENANCE AND CONDITION ASSESSMENTS SHALL BE PERFORMED OVER THE LIFE OF THE STRUCTURE IN ACCORDANCE WITH ANSI/TIA-222-H.
- 16.FOUNDATIONS SHALL BE DESIGNED TO SUPPORT THE TABULATED FACTORED REACTIONS FOR THE CONDITIONS EXISTING AT THE SITE.
- 17.THE PROPER DEVELOPMENT OF ANCHOR RODS FOR THE TOWER SHALL BE VERIFIED BY THE FOUNDATION ENGINEER.
- 18.THE RSL STANDARD TOP MAST IS DESIGNED TO SUPPORT A MAXIMUM EPA OF 5 SQUARE FEET WITH 100 POUNDS VERTICAL LOAD. OTHER OPTIONAL TOP MOUNTS ARE AVAILABLE UPON REQUEST. ALL OTHER LOADING IS ASSUMED TO BE MOUNTED TO THE TOWER BELOW THE TOP MAST.

FILE NO.

REVISIONS

REV	DESCRIPTION	DWN	CHK	APP

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PRODUCTS LLC

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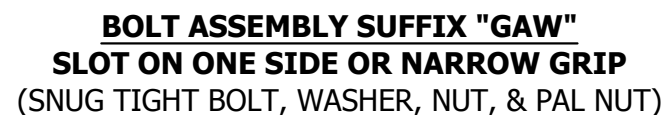
RSL TOWER
HEAVY TUBE BRACING

DWN: SWG	CHK'D: JHY	DATE: 06/09/2022
ENG'R: SY	SHEET #: 1 OF 1	
PRJ. ENG'R: GKG	PRJ. MANG'R:	
DRAWING NO: RSL-D-H		REV: 0

<u>PRE-INSTALLATION INSPECTION</u> THANK YOU FOR THE PURCHASE OF YOUR ROHN PRODUCT. WE ARE EXCITED THAT YOU CHOOSE ROHN TO SUPPLY YOU WITH A QUALITY PRODUCT. IN ORDER TO COMMUNICATE EFFECTIVELY, ELIMINATE ERRORS AND PROVIDE A SMOOTH INSTALLATION EXPERIENCE, IT IS IMPORTANT FOR THE INSTALLER TO PERFORM A PRE-INSTALLATION INSPECTION OF ALL COMPONENTS/PARTS ASSOCIATED WITH YOUR ORDER. PRIOR TO THE INSTALLATION, THE FOLLOWING INSPECTIONS ARE REQUIRED: • UPON RECEIPT OF SHIPMENT, ALL PARTS/MATERIALS MUST BE INVENTORIED. THIS INCLUDES ALL TOWERS, MONOPOLES, GUYED MASTS, ANCHOR RODS & TEMPLATES, MOUNTS OR OTHER PRODUCTS THAT ARE DELIVERED TO A CONTRACTOR'S OFFICE, JOB SITE OR SOME OTHER AGREED UPON DESTINATION. • IF PART SHORTAGES OR DAMAGED MATERIAL ARE FOUND, ROHN MUST BE NOTIFIED IMMEDIATELY TO ALLOW ROHN TIME TO REPAIR OR EXPEDITE NEW PARTS/MATERIALS TO THE JOB SITE. • IF THERE ARE PARTS THAT ARE FABRICATED INCORRECTLY AND THE PARTS WERE NOT EASILY DETECTABLE DURING THE PRE-INSTALLATION INSPECTION, ROHN MUST BE NOTIFIED IMMEDIATELY UPON IDENTIFICATION OF THE PARTS. IN ADDITION, PICTURES MUST BE TAKEN OF THE ISSUES AND SENT TO ROHN IMMEDIATELY. • IT IS IMPORTANT TO VERIFY THE ASSEMBLY DRAWINGS AND ANCHOR ROD LAYOUT DRAWINGS ARE RECEIVED WITH THE DELIVERY, WHEN ANCHOR RODS ARE TO BE INSTALLED. IN ADDITION, IT IS IMPORTANT TO VERIFY THE ANCHOR ROD TEMPLATE PART NUMBERS MATCH THE DESIGNATED PART NUMBERS ON THE ANCHOR ROD LAYOUT DRAWING. IF THERE ARE DISCREPANCIES, NOTIFY ROHN IMMEDIATELY. ROHN WILL NOT BE RESPONSIBLE FOR CHARGES ASSOCIATED WITH INSTALLING THE WRONG SIZE ANCHOR RODS, THE WRONG NUMBER OF ANCHOR RODS OR THE INCORRECT ANCHOR ROD ORIENTATION. • ROHN WILL NOT BE RESPONSIBLE FOR EXCESS CHARGES INCLUDING CRANE CHARGES, DRILLING RIG CHARGES, EQUIPMENT CHARGES, CREW CHARGES AND MOBILIZATION CHARGES. • IF YOU HAVE ANY QUESTIONS, PLEASE CONTACT THE APPROPRIATE ROHN SALES REP/MANAGER AT (309) 566-3000.	FILE NO.	ROHN																																
	REVISIONS																																	
	REV.	DESCRIPTION	DWN	CHK	APP																													
 PRODUCTS LLC PO BOX 5999 PEORIA, IL 61601-5999 TOLL FREE 800-727-ROHN THIS DRAWING IS THE PROPERTY OF ROHN. IT IS NOT TO BE REPRODUCED, COPIED OR TRACED IN WHOLE OR IN PART WITHOUT OUR WRITTEN CONSENT. PRE-INSTALLATION INSPECTION FORM NUMBER: FM060 <table><tr><td>DWN:</td><td>JHY</td><td>CHK'D:</td><td>JDM</td><td>DATE:</td><td>09/03/2019</td></tr><tr><td>ENG'R:</td><td colspan="2">HA</td><td colspan="3">SHEET #: 1 OF 1</td></tr><tr><td>PRJ. ENG'R:</td><td colspan="2"></td><td colspan="3">PRJ. MANG'R:</td></tr><tr><td colspan="4">DRAWING NO:</td><td colspan="2">REV:</td></tr><tr><td colspan="4">FM060</td><td colspan="2">0</td></tr></table>					DWN:	JHY	CHK'D:	JDM	DATE:	09/03/2019	ENG'R:	HA		SHEET #: 1 OF 1			PRJ. ENG'R:			PRJ. MANG'R:			DRAWING NO:				REV:		FM060				0	
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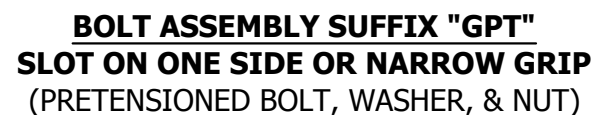
REFER TO SHEET 2 FOR
NUT-LOCKING DEVICE OPTIONS



SNUG TIGHT BOLT PAL NUT



SHORTAGES OF NUT-LOCKING
DEVICES MAY OCCUR IF USED
ON PRETENSIONED BOLT
ASSEMBLIES.

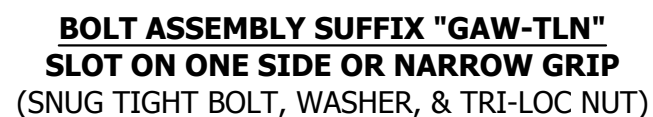


PRETENSIONED BOLT

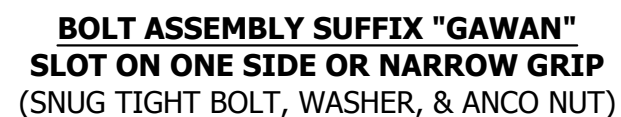
12. PRETENSIONED BOLT ASSEMBLIES, UNLESS OTHERWISE NOTED, SHALL BE TIGHTENED IN ACCORDANCE WITH THE AISC TURN-OF-NUT PRETENSIONING METHOD USING THE FOLLOWING NUT ROTATIONS FROM THE SNUG TIGHT CONDITION: 1/3 TURN FOR BOLT LENGTHS UP TO 4 TIMES THEIR DIAMETER AND 1/2 TURN FOR LONGER BOLTS.

13. LOCK WASHERS SHALL NOT BE USED WITH PRETENSIONED BOLT ASSEMBLIES.

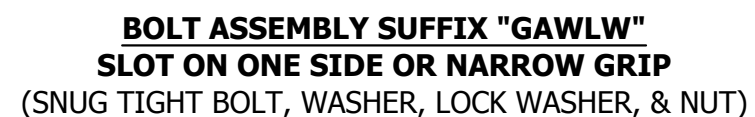
FILE NO.				
REVISIONS				
REV	DESCRIPTION	DWN	CHK	APP
9	ADDED BOLT ASSEMBLY VIEWS DATE: 11/11/2019	JHY	JDM	HA
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ROHN STANDARD BOLT ASSEMBLY INSTALLATIONS				
DWN:		CHK'D:	DATE:	
OH		GHB	07/05/1979	
ENG'R:		SHEET #:		
TWS		1 OF 2		
PRJ. ENG'R:		PRJ. MANG'R:		
DRAWING NO:				REV:
A790135				9



SNUG TIGHT BOLT TRI-LOC NUT

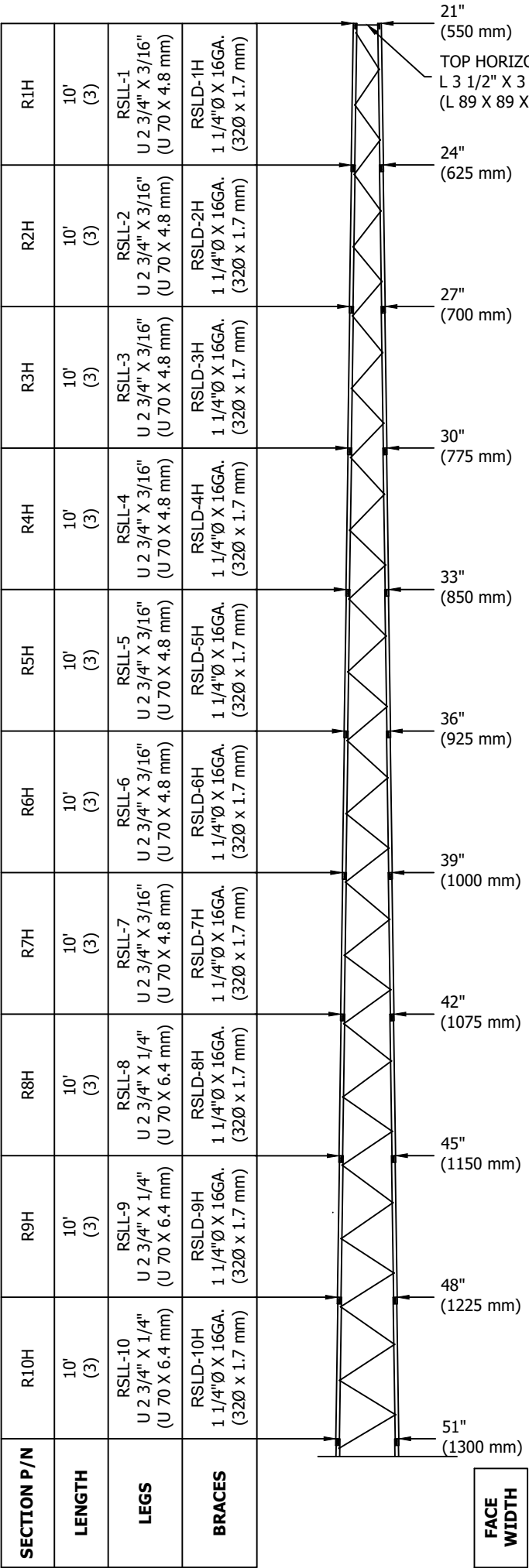


SNUG TIGHT BOLT ANCO NUT



SNUG TIGHT BOLT LOCK WASHER

FILE NO.				
REVISIONS				
REV.	DESCRIPTION	DWN	CHK	APP
9	ADDED BOLT ASSEMBLY VIEWS DATE: 11/11/2019	JHY	JDM	HA
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ROHN STANDARD BOLT ASSEMBLY INSTALLATIONS				
DWN: OH		CHK'D: GHB	DATE: 07/05/1979	
ENG'R: TWS		SHEET #: 2 OF 2		
PRJ. ENG'R:		PRJ. MANG'R:		
DRAWING NO: A790135				REV: 9



RSL GENERAL NOTES

- DIMENSIONS INDICATED FOR HEIGHTS, FACE WIDTHS AND MEMBER LENGTHS ARE NOMINAL AND MAY VARY WITH THE BASE AND TOP MOUNT OPTIONS SELECTED. ACTUAL DIMENSIONS FOR SPECIFIC CONFIGURATIONS ARE AVAILABLE UPON REQUEST.
- ALL DIMENSIONS IN PARENTHESES ARE IN METERS, UNLESS OTHERWISE NOTED.
- MATERIAL SPECIFICATIONS: LEGS, 65 KSI [450 MPa]; 1" [25 mm] DIA. BRACES, 30 KSI [210 MPa]; 1-1/4" [32 mm] DIA. BRACES, 50 KSI [350 MPa]; ANGLES, 50 KSI [350 MPa]; BASE PLATES, 50 KSI [350 MPa]; 3/8" [10 mm] DIA. BRACE BOLTS, GR5; 5/8" [16 mm] DIA. LEG SPLICE BOLTS, A325. ALL MATERIAL GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ANSI/TIA-222-G/H.
- DESIGNS ASSUME MAINTENANCE AND INSPECTION WILL BE PERFORMED OVER THE LIFE OF THE STRUCTURE IN ACCORDANCE WITH ANSI/TIA-222-G/H. ALL TOWERS SHOULD BE THOROUGHLY INSPECTED BY QUALIFIED PERSONNEL AND RE-MARKED AS REQUIRED WITH APPROPRIATE DANGER AND ANTI-CLIMB LABELS AT LEAST TWICE A YEAR TO ENSURE SAFETY AND PROPER PERFORMANCE.
- STANDARD RSL TOWERS ARE INTENDED TO BE CLIMBED BY SKILLED AND COMPETENT CLIMBERS ONLY. THE STANDARD RSL TOWER KITS CONFORM TO BOTH CLASS A AND CLASS B ANSI/TIA-222-G/H CLIMBING FACILITIES WHEN STEP BOLTS ARE PROVIDED WITH A SAFETY CLIMB DEVICE.
- FOUNDATIONS MUST BE DESIGNED FOR THE CONDITIONS EXISTING AT A SITE. THE ADEQUACY OF STANDARD FOUNDATIONS MUST BE DETERMINED PRIOR TO INSTALLATION.

RSL ASSEMBLY NOTES

- INSTALLATION AND DISMANTLING MUST BE PERFORMED BY QUALIFIED AND EXPERIENCED PERSONNEL AND BE IN CONFORMANCE WITH ANSI/TIA-222-G/H.
- DO NOT INSTALL OR DISMANTLE STRUCTURES WITHIN FALLING DISTANCE OF ELECTRICAL AND/OR TELEPHONE LINES WITHOUT TAKING SPECIAL PRECAUTIONS IN ACCORDANCE WITH THE APPROPRIATE UTILITY.
- ALL MEMBERS ARE STAMPED WITH A PART NUMBER. ALL LEGS MUST BE INSTALLED WITH THE LEG PART NUMBER AT THE BOTTOM OF THE SECTION FOR PROPER FIT UP. LEG SPLICE HARDWARE IS INCLUDED IN THE SECTION KIT FOR THE UPPER SECTION AT A SPLICE. ALL BRACES FOR A GIVEN SECTION ARE OF THE SAME LENGTH.
- ALL BOLTED CONNECTIONS AND ANCHOR BOLTS (WHEN UTILIZED) MUST BE TIGHTENED TO A SNUG TIGHT CONDITION AS A MINIMUM (MEMBERS IN FIRM CONTACT) AND MUST INCLUDE A NUT LOCKING DEVICE OR SELF-LOCKING NUT (INCLUDED WITH TOWER KIT). NO MINIMUM BOLT TENSION OR TORQUE VALUES ARE REQUIRED. NO FIELD WELDING IS REQUIRED. WHEN LOCK WASHERS ARE USED AS A NUT LOCKING DEVICE, REPLACE ANY DAMAGED WASHERS DUE TO OVER TIGHTENING.
- INSTALLATION MUST BE GROUNDED IN ACCORDANCE WITH LOCAL AND NATIONAL CODES. ANSI/TIA-222-G/H REQUIRES THAT THE RESISTANCE TO GROUND MUST NOT EXCEED 10 OHMS. ADDITIONAL GROUNDING MAY BE REQUIRED IN ADDITION TO THE ROHN STANDARD GROUNDING KIT AVAILABLE AS AN OPTION FOR THE RSL TOWER DEPENDING ON THE SOIL CONDITIONS AT A SITE.
- INSTALLATION MUST BE IN CONFORMANCE WITH LOCAL, STATE AND FEDERAL REQUIREMENTS FOR OBSTRUCTION MARKING AND LIGHTING.
- WARNING PLATE PART NUMBER AWCS PROVIDED WITH AN RSL TOWER KIT MUST BE INSTALLED IN A HIGHLY VISIBLE LOCATION AT THE BASE OF THE TOWER.

RSL ORDERING INFORMATION

- FOUNDATION BASES MUST BE ORDERED SEPARATELY.
- ALL ACCESSORIES MUST BE ORDERED SEPARATELY INCLUDING STEP BOLT KITS, SAFETY CLIMB SYSTEMS, CLIMBING HARNESS WITH SLIDER, GROUNDING KITS, LIGHTNING RODS, TOP PLATE, TOP MAST, MOUNTING KITS, W/G BRACKETS, ANTI-CLIMB ASSEMBLIES, ETC.
- ROHN STANDARD RSL TOWER KITS ARE SUPPLIED WITH LOCK WASHERS AS NUT LOCKING DEVICES. PAL NUTS (P), ANCO NUTS (A) AND TRI-LOC NUTS (T) ARE ALTERNATIVE NUT LOCKING DEVICES THAT MAY BE OBTAINED BY ADDING THE INDICATED SUFFIX TO THE STANDARD RSL TOWER KIT PART NUMBER. (NOTE: NUT LOCKING DEVICES ARE REQUIRED IN ACCORDANCE WITH ANSI/TIA-222-G/H.)
- ALL THREE TOWER LEGS IN EACH SECTION HAVE PROVISION TO INSTALL STEP BOLTS AND A SAFETY CLIMB SYSTEM. WHEN STEP BOLTS ARE DESIRED, ONE STEP BOLT KIT MUST BE ORDERED FOR EACH SECTION OF THE TOWER. INCREASE THE NUMBER OF STEP BOLT KITS ACCORDINGLY WHEN STEP BOLTS ARE DESIRED ON MORE THAN ONE TOWER LEG OF A SECTION.

RSL TOWER KITS			
HEIGHT	KIT #	SECTIONS	TOP HORZ BRACE
100' (30)	RSL100H10	R1H-10H	RSLH1A
90' (27)	RSL90H19	R1H-R9H	RSLH1A
	RSL90H20	R2H-R10H	RSLH2A
80' (24)	RSL80H18	R1H-R8H	RSLH1A
	RSL80H29	R2H-R9H	RSLH2A
	RSL80H30	R3H-R10H	RSLH3A
70' (21)	RSL70H17	R1H-R7H	RSLH1A
	RSL70H28	R2H-R8H	RSLH2A
	RSL70H39	R3H-R9H	RSLH3A
	RSL70H40	R4H-R10H	RSLH4A
60' (18)	RSL60H16	R1H-R6H	RSLH1A
	RSL60H49	R4H-R9H	RSLH4A
	RSL60H50	R5H-R10H	RSLH5A
50' (15)	RSL50H15	R1H-R5H	RSLH1A
	RSL50H59	R5H-R9H	RSLH5A
	RSL50H60	R6H-R10H	RSLH6A
40' (12)	RSL40H14	R1H-R4H	RSLH1A
	RSL40H70	R7H-R10H	RSLH7A
30' (9)	RSL30H13	R1H-R3H	RSLH1A
	RSL30H80	R8H-R10H	RSLH8A
20' (6)	RSL20H12	R1H-R2H	RSLH1A
	RSL20H90	R9H-R10H	RSLH9A

FILE NO.

REVISIONS

REV	DESCRIPTION	DWN	CHK	APP
1	ADDED RSL100H10 DATE: 06/28/2022	CEJ	JEC	SWG

ROHN

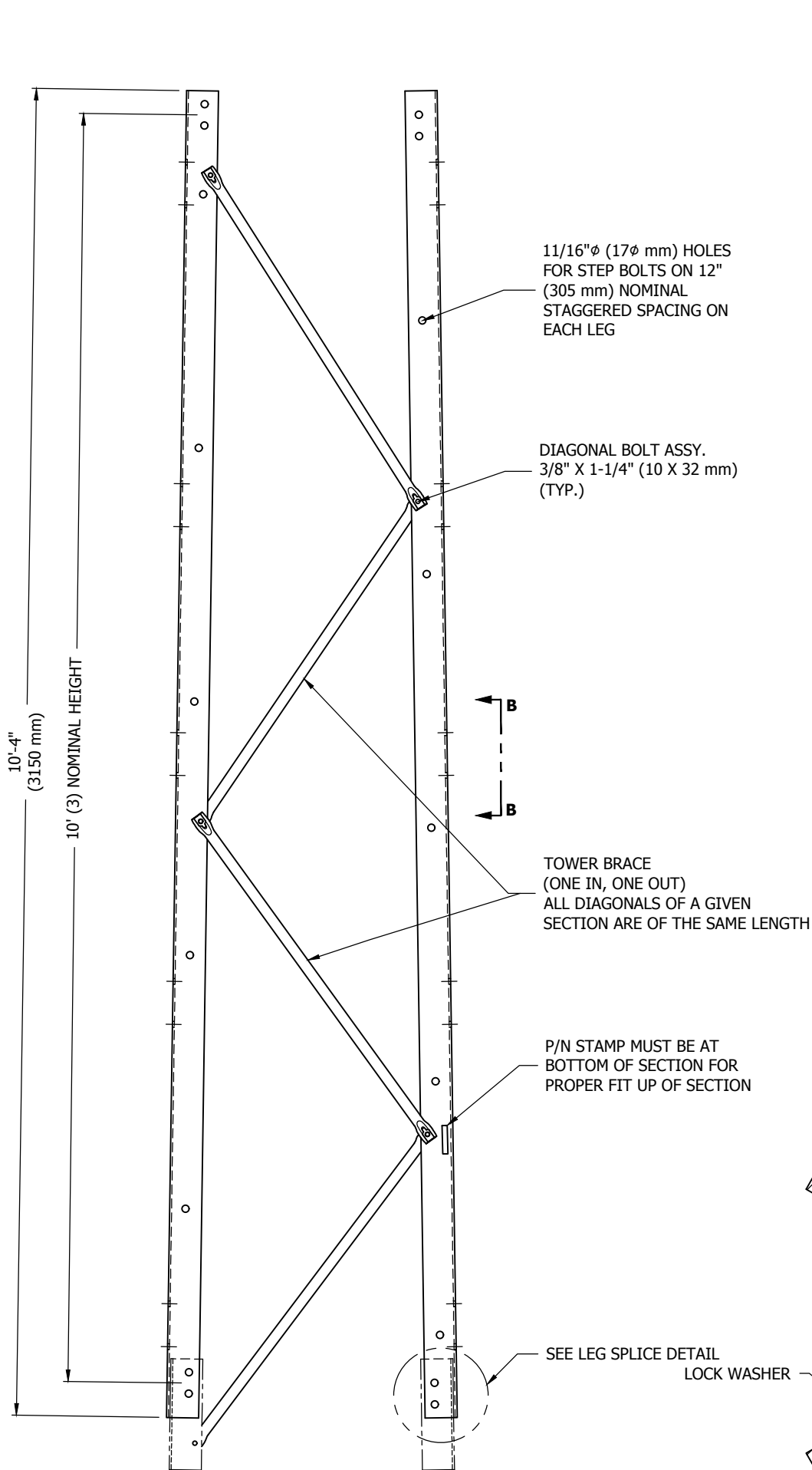
PRODUCTS

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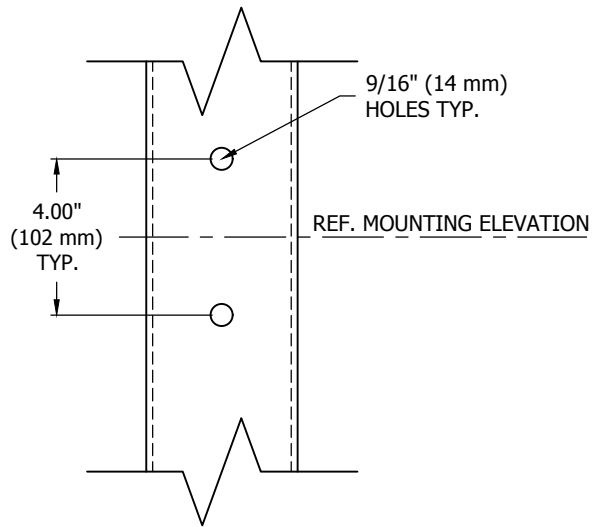
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RSL TOWER
ASSEMBLY DRAWING
HEAVY TUBE BRACING

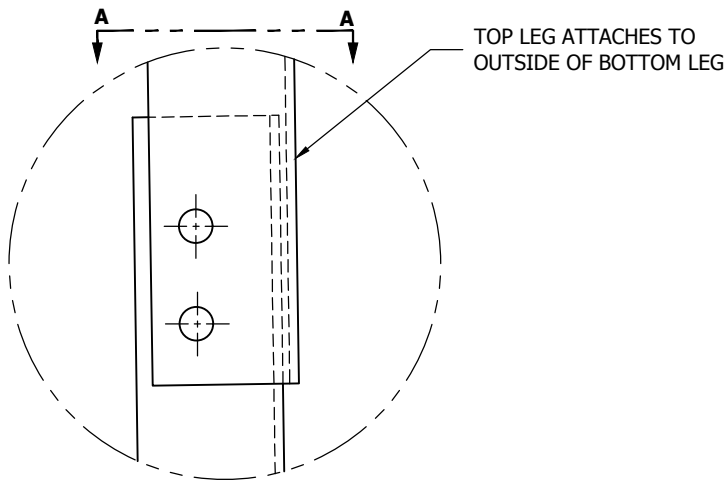
DWN: ZAW	CHK'D: JDM	DATE: 10/13/12
ENGR: HA	SHEET #: 1 OF 1	
PRJ. ENGR: OH	PRJ. MANG'R:	
DRAWING NO: RSLTH-01-A1		REV: 1



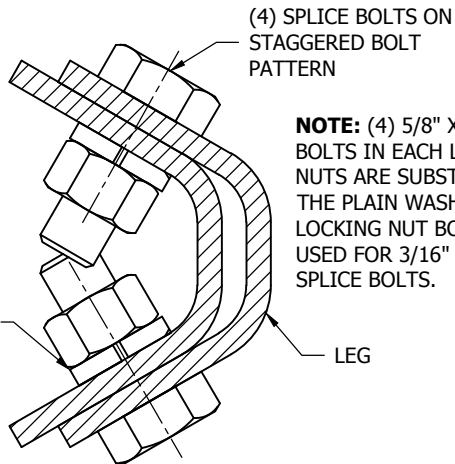
ELEVATION VIEW



VIEW B-B
ACCESSORY MOUNTING HOLES IN EACH LEG ARE LOCATED FOR NOMINAL MOUNTING ELEVATIONS AT 6" (150 mm), 3' (910 mm), 5' (1520 mm), 7' (2130 mm), AND 9'-6" (2900mm) FROM THE BOTTOM OF EACH SECTION.

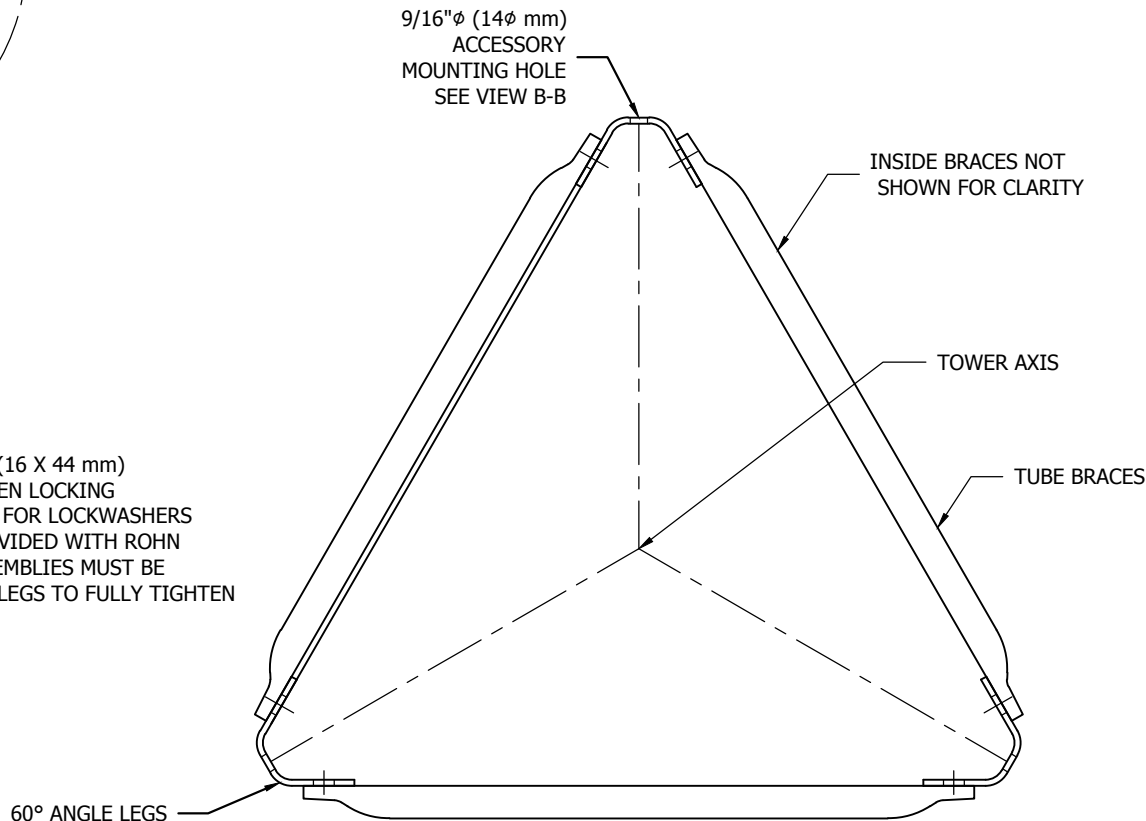


LEG SPLICE DETAIL



NOTE: (4) 5/8" X 1-3/4" (16 X 44 mm) BOLTS IN EACH LEG. WHEN LOCKING NUTS ARE SUBSTITUTED FOR LOCKWASHERS THE PLAIN WASHER PROVIDED WITH ROHN LOCKING NUT BOLT ASSEMBLIES MUST BE USED FOR 3/16" (5 mm) LEGS TO FULLY TIGHTEN SPLICE BOLTS.

VIEW A-A



CROSS SECTION

SECTION	NOMINAL BRACE LENGTH
R1H	38" (965 mm)
R2H	40" (1016 mm)
R3H	42" (1067 mm)
R4H	44" (1118 mm)
R5H	46" (1168 mm)
R6H	48" (1219 mm)
R7H	50" (1270 mm)
R8H	52" (1321mm)
R9H	55" (1397 mm)
R10H	57" (1448 mm)

REFER TO SHEET 2 FOR SECTION BILL OF MATERIALS

NOTE:
1. NOMINAL METRIC EQUIVALENTS ARE GIVEN FOR REFERENCE ONLY AND SHALL NOT BE SUBSTITUTED FOR THE DESCRIBED SIZES UNLESS OTHERWISE APPROVED BY ROHN PRODUCTS.
2. ALL DIMENSIONS IN PARENTHESES ARE IN METERS, UNLESS OTHERWISE NOTED.

FILE NO.

REVISIONS

REV.	DESCRIPTION	DWN	CHK	APP

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RSL TOWER
SECTION DETAILS
HEAVY TUBE BRACING

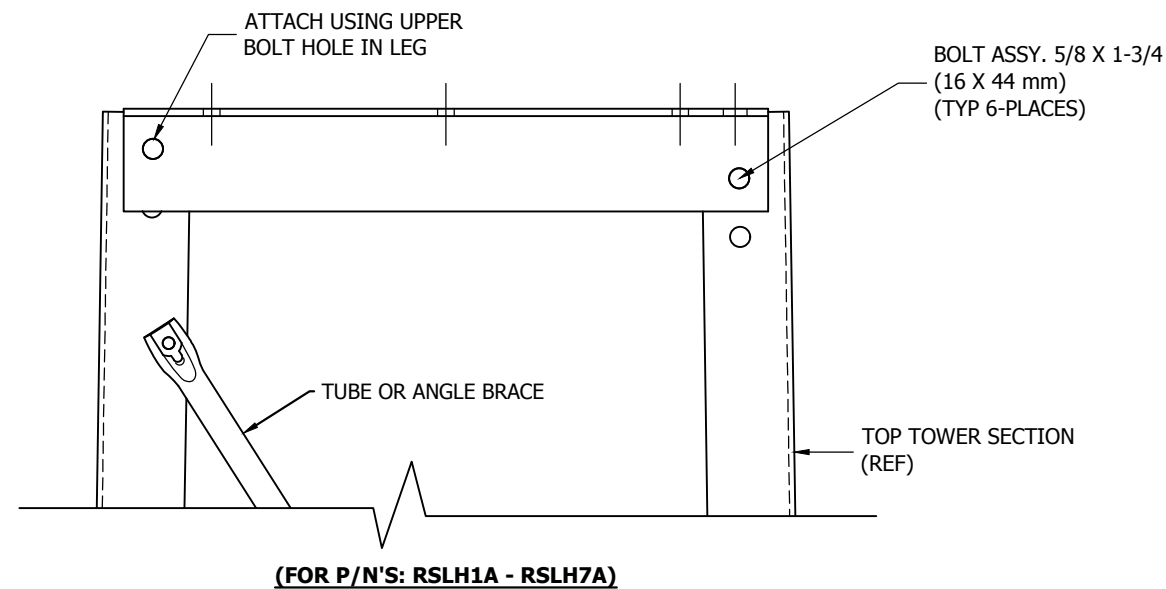
DWN:	CHK'D:	DATE:
ZAW	JDM	10/13/2012

ENG'R:	SHEET #:
HA	1 OF 2

PRJ. ENG'R:	PRJ. MANG'R:
OH	

DRAWING NO:	REV:
RSLTH-01-A2	0

1. BOLT ASSY'S IN B.O.M. ABOVE CONSIST OF BOLT & TRI-LOC NUT.
2. ADD SUFFIX A, P, OR T TO SECTION PART NUMBER FOR ANCO, PAL OR TRILOC NUT LOCKING DEVICE.
EXAMPLE: RSLH1A-A FOR ANCO
3. NOMINAL METRIC EQUIVALENTS ARE GIVEN FOR REFERENCE ONLY AND SHALL NOT BE SUBSTITUTED FOR THE DESCRIBED SIZES UNLESS OTHERWISE APPROVED BY ROHN PRODUCTS.
4. ALL DIMENSIONS IN PARENTHESES ARE IN METERS, UNLESS OTHERWISE NOTED.



ATTACH USING LOWER
BOLT HOLE IN LEG

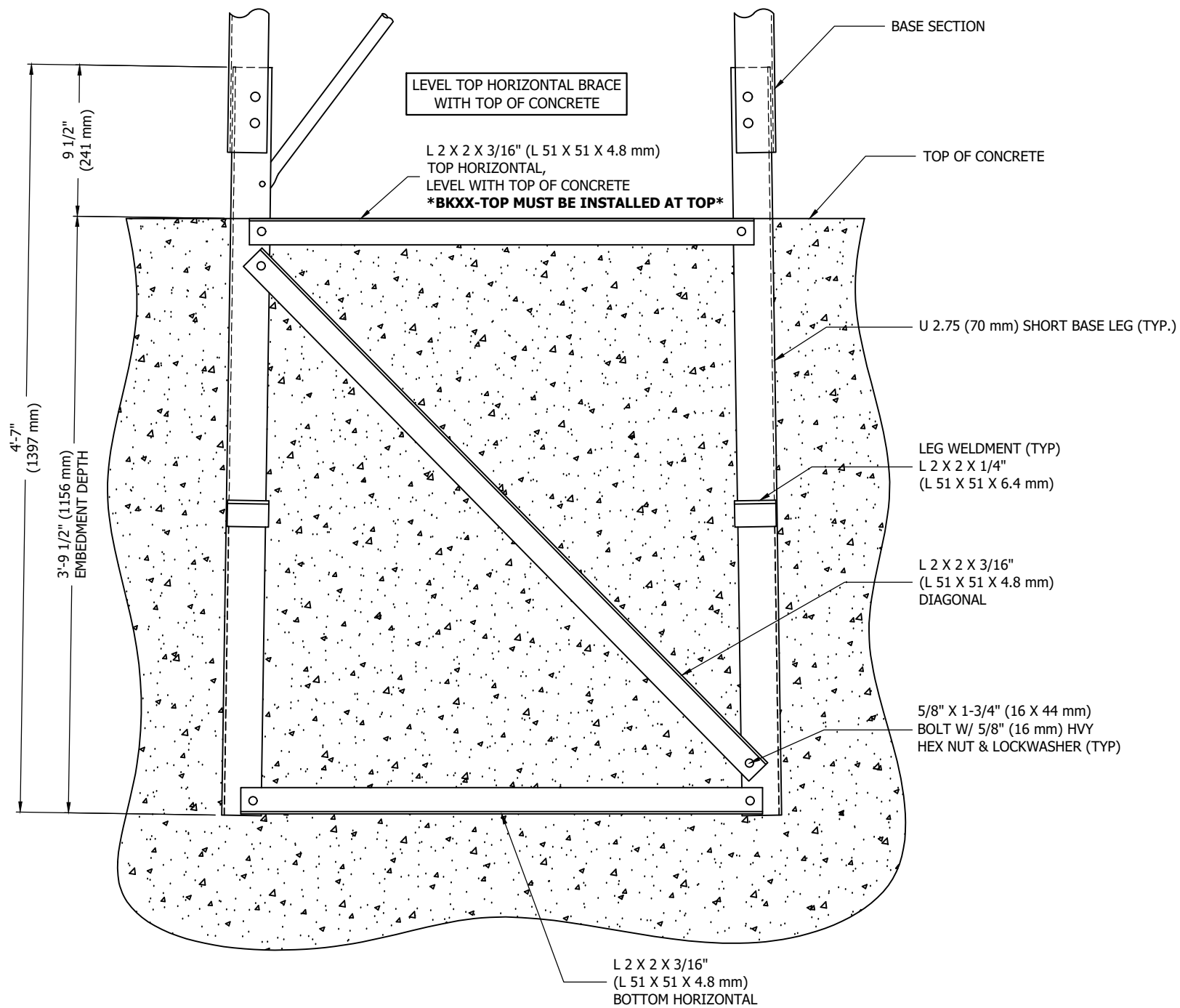
BOLT ASSY. 5/8 X 1-3/4
(16 X 44 mm)
(TYP 6-PLACES)

TUBE OR ANGLE BRACE

TOP TOWER SECTION
(REF)

(FOR P/N'S: RSLH8A - RSLH9A)

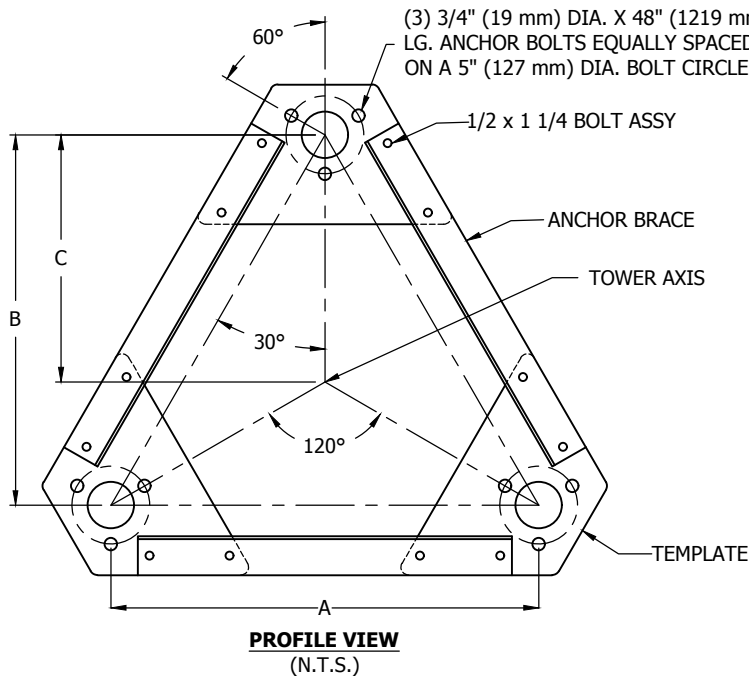
FILE NO.				
REVISIONS				
REV.	DESCRIPTION	DWN	CHK	APP
2	REVISED 9/16" HOLES TO 5/8" HOLES DATE: 11/19/12	ZAW	JDM	HA
 PO BOX 5999 PEORIA, IL 61601-5999 TOLL FREE 800-727-ROHN				
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RSL TOWER TOP HORIZONTAL BRACE KITS				
DWN: ZAW		CHK'D: JDM	DATE: 08/07/12	
ENG'R: HA		SHEET #: 1 OF 1		
PRJ. ENG'R: OH		PRJ. MANG'R:		
DRAWING NO: RSLHRZ			REV: 2	



TOWER SHORT BASE FOUNDATION KIT DETAILS

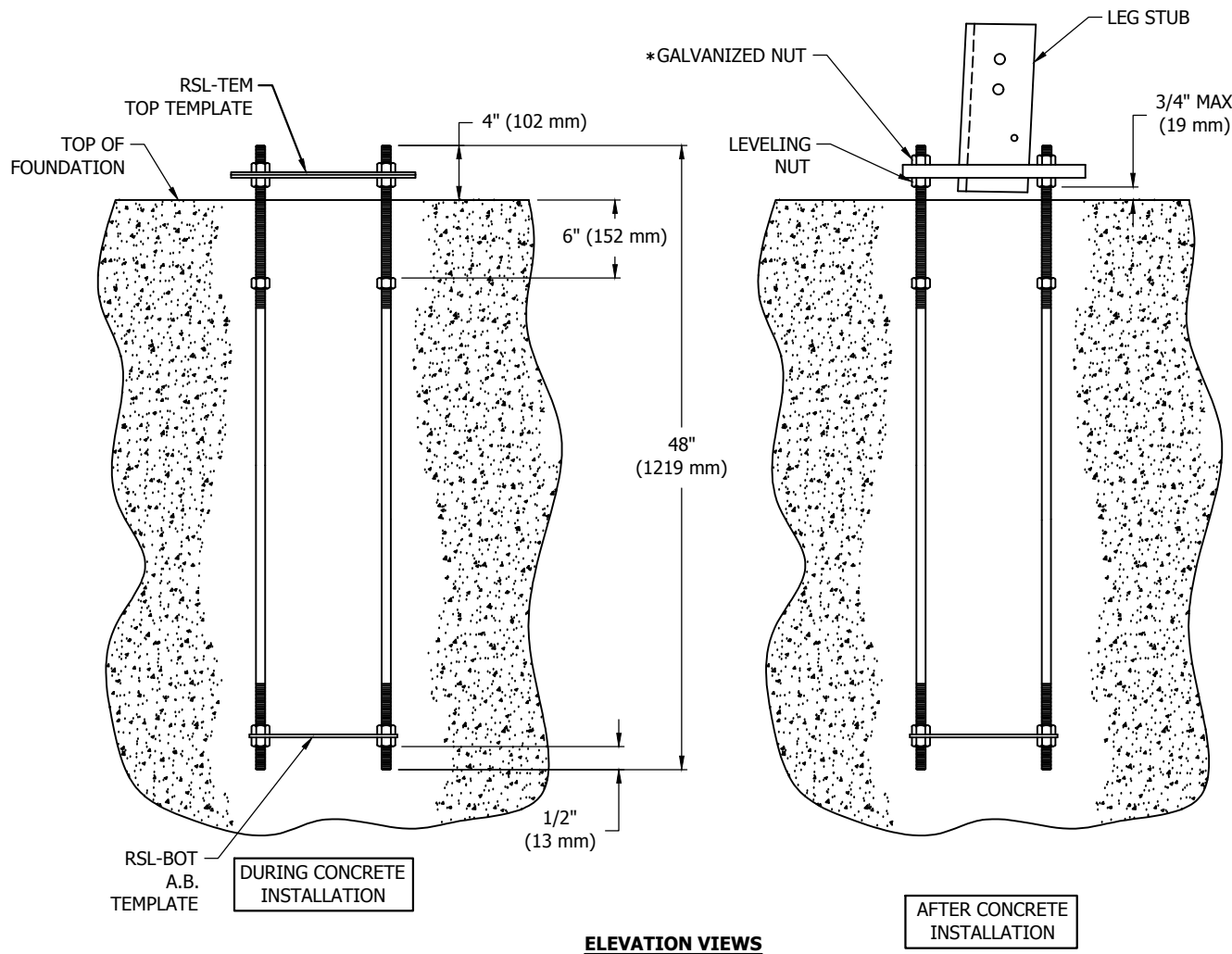
- NOTES:**
- 1. MAT REINFORCING BARS NOT SHOWN FOR CLARITY.
 - 2. BOLT ASSY'S IN B.O.M. CONSIST OF BOLT, SPRING LOCK WASHER, & NUT.
 - 3. NOMINAL METRIC EQUIVALENTS ARE GIVEN FOR REFERENCE ONLY AND SHALL NOT BE SUBSTITUTED FOR THE DESCRIBED SIZES UNLESS OTHERWISE APPROVED BY ROHN PRODUCTS.
 - 4. ALL DIMENSIONS IN PARENTHESES ARE IN METERS, UNLESS OTHERWISE NOTED.

KIT NO.	PART NO.	QTY.	DESCRIPTION	FILE NO.						
RSB02 (FOR NO. 2 RSL TOWER SECTION)	RSLF-BW	3	LEG BASE U2.74"X.19"X4.58' HDG	REVISIONS						
	* BK2-TOP	3	TOP HORZ L2X2X.19X2.34' HDG							
	BK2-MID	3	DIAG L2X2X.19X3.92' HDG	REV.	DESCRIPTION	DWN	CHK	APP		
	BK2-BOT	3	BOT HORZ L2X2X.19X2.44' HDG	5	ADDED "BKXX-TOP" NOTE DATE: 09/15/2020	JHY	JDM	JDM		
	210030GALW	18	BOLT ASSY 5/8 X 1-3/4 HSB A325							
RSB03 (FOR NO. 3 RSL TOWER SECTION)	RSLF-BW	3	LEG BASE U2.74"X.19"X4.58' HDG							
	* BK3-TOP	3	TOP HORZ L2X2X.19X2.58' HDG							
	BK3-MID	3	DIAG L2X2X.19X4.07' HDG							
	BK3-BOT	3	BOT HORZ L2X2X.19X2.69' HDG							
	210030GALW	18	BOLT ASSY 5/8 X 1-3/4 HSB A325							
RSB04 (FOR NO. 4 RSL TOWER SECTION)	RSLF-BW	3	LEG BASE U2.74"X.19"X4.58' HDG							
	* BK4-TOP	3	TOP HORZ L2X2X.19X2.82' HDG							
	BK4-MID	3	DIAG L2X2X.19X4.23' HDG							
	BK4-BOT	3	BOT HORZ L2X2X.19X2.93' HDG							
	210030GALW	18	BOLT ASSY 5/8 X 1-3/4 HSB A325							
RSB05 (FOR NO. 5 RSL TOWER SECTION)	RSLF-BW	3	LEG BASE U2.74"X.19"X4.58' HDG							
	* BK5-TOP	3	TOP HORZ L2X2X.19X3.07' HDG							
	BK5-MID	3	DIAG L2X2X.19X4.40' HDG							
	BK5-BOT	3	BOT HORZ L2X2X.19X3.18' HDG							
	210030GALW	18	BOLT ASSY 5/8 X 1-3/4 HSB A325							
RSB06 (FOR NO. 6 RSL TOWER SECTION)	RSLF-BW	3	LEG BASE U2.74"X.19"X4.58' HDG							
	* BK6-TOP	3	TOP HORZ L2X2X.19X3.31' HDG							
	BK6-MID	3	DIAG L2X2X.19X4.57' HDG							
	BK6-BOT	3	BOT HORZ L2X2X.19X3.42' HDG							
	210030GALW	18	BOLT ASSY 5/8 X 1-3/4 HSB A325							
RSB07 (FOR NO. 7 RSL TOWER SECTION)	RSLF-AW	3	LEG BASE U2.77"X.25"X4.58' HDG							
	* BK7-TOP	3	TOP HORZ L2X2X.19X3.56' HDG							
	BK7-MID	3	DIAG L2X2X.19X4.75' HDG							
	BK7-BOT	3	BOT HORZ L2X2X.19X3.66' HDG							
	210030GALW	18	BOLT ASSY 5/8 X 1-3/4 HSB A325							
RSB08 (FOR NO. 8 RSL TOWER SECTION)	RSLF-AW	3	LEG BASE U2.77"X.25"X4.58' HDG	 PO BOX 5999 PEORIA, IL 61601-5999 TOLL FREE 800-727-ROHN						
	* BK8-TOP	3	TOP HORZ L2X2X.19X3.78' HDG							
	BK8-MID	3	DIAG L2X2X.19X4.92' HDG							
	BK8-BOT	3	BOT HORZ L2X2X.19X3.89' HDG							
	210030GALW	18	BOLT ASSY 5/8 X 1-3/4 HSB A325							
RSB09 (FOR NO. 9 RSL TOWER SECTION)	RSLF-AW	3	LEG BASE U2.77"X.25"X4.58' HDG	THIS DRAWING IS THE PROPERTY OF ROHN. IT IS NOT TO BE REPRODUCED, COPIED OR TRACED IN WHOLE OR IN PART WITHOUT OUR WRITTEN CONSENT.						
	* BK9-TOP	3	TOP HORZ L2X2X.19X4.01' HDG							
	BK9-MID	3	DIAG L2X2X.19X5.10' HDG							
	BK9-BOT	3	BOT HORZ L2X2X.19X4.12' HDG							
	210030GALW	18	BOLT ASSY 5/8 X 1-3/4 HSB A325							
RSB10 (FOR NO. 10 RSL TOWER SECTION)	RSLF-AW	3	LEG BASE U2.77"X.25"X4.58' HDG	RSL TOWER SHORT BASE SECTION KITS						
	* BK10-TOP	3	TOP HORZ L2X2X.19X4.23' HDG							
	BK10-MID	3	DIAG L2X2X.19X5.28' HDG							
	BK10-BOT	3	BOT HORZ L2X2X.19X4.34' HDG							
	210030GALW	18	BOLT ASSY 5/8 X 1-3/4 HSB A325							
				DWN: CEJ		CHK'D: JDM		DATE: 05/21/2012		
				ENG'R: HA		SHEET #: 1 OF 1				
				PRJ. ENG'R: OH		PRJ. MANG'R:				
				DRAWING NO: RLSLBK					REV: 5	



NOTES

1. ALL ANCHOR BOLTS MUST MEET OR EXCEED REQUIREMENTS OF A.S.T.M. F1554-S2, S5 GRADE 105.
2. SPECIAL CARE MUST BE TAKEN WHEN LIFTING ANCHOR BOLT CLUSTER, IN ORDER TO PREVENT ANCHOR BOLT TEMPLATE DISTORTION.
3. ANCHOR BOLT ASSEMBLY MUST BE ADEQUATELY SUPPORTED AND RESTRAINED TO PREVENT MOVEMENT OF THE CLUSTER DURING CONCRETE INSTALLATION.
4. IT IS THE RESPONSIBILITY OF THE FOUNDATION CONTRACTOR TO VERIFY THAT THE CORRECT ANCHOR BOLT TEMPLATE AND FOUNDATION ARE BEING USED.
5. IT IS THE RESPONSIBILITY OF THE FOUNDATION DESIGN ENGINEER TO INSURE THAT THE ANCHORAGES PROVIDED ARE COMPATIBLE WITH THE PROPOSED FOUNDATION DESIGN AND THAT THE CAPACITIES OF THE ANCHORAGES ARE NOT LIMITED BY THE STRENGTH OF THE FOUNDATION.
6. AFTER ANCHOR BOLTS ARE INSTALLED AND CONCRETE HAS TAKEN ITS INITIAL SET, ANCHOR BOLTS MUST NOT BE MOVED, BENT OR REALIGNED IN ANY MANNER. A NUT LOCKING DEVICE MUST BE INSTALLED ON ALL ANCHOR BOLTS.
7. ALL DIMENSIONS IN PARENTHESES ARE IN METERS, UNLESS OTHERWISE NOTED.
8. NOMINAL METRIC EQUIVALENTS ARE GIVEN FOR REFERENCE ONLY AND SHALL NOT BE SUBSTITUTED FOR THE DESCRIBED SIZE UNLESS OTHERWISE APPROVED BY ROHN PRODUCTS.
- *9. ANCHOR BOLT NUTS SHALL BE ROTATED 1/3 TURN FROM SNUG TIGHT CONDITION WITH BOTTOM LEVELING NUT HELD IN PLACE.



KIT NO.	PART NO.	QTY.	A	B	C	DESCRIPTION
RAL02 (FOR NO. 2 RSL TOWER SECTION)	RSL-TEM	3	2'-3 9/16" (0.700)	1'-11 7/8" (0.606)	1'-3 15/16" (0.405)	PL .19X9.00X16.30
	RSL2-ANG	3				ANCHOR BRACE L2.5X.19X24.09
	RSL2-6W	3				LEG STUB R2-6 HDG
	RSL-BOT	3				TEMPLATE .25X7.00"OD BLK
	260093G	9				ANCHOR BOLT 3/4X48 F1554-S5
	210017GA	12	2'-6 1/2" (0.775)	2'-2 3/8" (0.670)	1'-5 5/8" (0.448)	BOLT ASSY 1/2X1-1/4 A325 HDG
	RSL-TEM	3				PL .19X9.00X16.30
	RSL3-ANG	3				ANCHOR BRACE L2.5X.19X27.02
	RSL2-6W	3				LEG STUB R2-6 HDG
	RSL-BOT	3				TEMPLATE .25X7.00"OD BLK
	260093G	9				ANCHOR BOLT 3/4X48 F1554-S5
	210017GA	12				BOLT ASSY 1/2X1-1/4 A325 HDG
RAL04 (FOR NO. 4 RSL TOWER SECTION)	RSL-TEM	3	2'-9 3/8" (0.848)	2'-4 15/16" (0.735)	1'-7 5/16" (0.491)	PL .19X9.00X16.30
	RSL4-ANG	3				ANCHOR BRACE L2.5X.19X29.94
	RSL2-6W	3				LEG STUB R2-6 HDG
	RSL-BOT	3				TEMPLATE .25X7.00"OD BLK
	260093G	9				ANCHOR BOLT 3/4X48 F1554-S5
	210017GA	12				BOLT ASSY 1/2X1-1/4 A325 HDG
RAL05 (FOR NO. 5 RSL TOWER SECTION)	RSL-TEM	3	3'-0 5/16" (0.922)	2'-7 7/16" (0.799)	1'-9" (0.533)	PL .19X9.00X16.30
	RSL5-ANG	3				ANCHOR BRACE L2.5X.19X32.87
	RSL2-6W	3				LEG STUB R2-6 HDG
	RSL-BOT	3				TEMPLATE .25X7.00"OD BLK
	260093G	9				ANCHOR BOLT 3/4X48 F1554-S5
	210017GA	12				BOLT ASSY 1/2X1-1/4 A325 HDG
RAL06 (FOR NO. 6 RSL TOWER SECTION)	RSL-TEM	3	3'-3 1/4" (0.997)	2'-10" (0.864)	1'-10 11/16" (0.576)	PL .19X9.00X16.30
	RSL6-ANG	3				ANCHOR BRACE L2.5X.19X35.80
	RSL2-6W	3				LEG STUB R2-6 HDG
	RSL-BOT	3				TEMPLATE .25X7.00"OD BLK
	260093G	9				ANCHOR BOLT 3/4X48 F1554-S5
	210017GA	12				BOLT ASSY 1/2X1-1/4 A325 HDG
RAL07 (FOR NO. 7 RSL TOWER SECTION)	RSL-TEM	3	3'-6" (1.067)	3'-0 3/8" (0.924)	2'-0 1/4" (0.616)	PL .19X9.00X16.30
	RSL7-ANG	3				ANCHOR BRACE L2.5X.19X38.52
	RSL7-10W	3				LEG STUB R7-10 HDG
	RSL-BOT	3				TEMPLATE .25X7.00"OD BLK
	260093G	9				ANCHOR BOLT 3/4X48 F1554-S5
	210017GA	12				BOLT ASSY 1/2X1-1/4 A325 HDG
RAL08 (FOR NO. 8 RSL TOWER SECTION)	RSL-TEM	3	3'-8 11/16" (1.135)	3'-2 11/16" (0.983)	2'-1 13/16" (0.656)	PL .19X9.00X16.30
	RSL8-ANG	3				ANCHOR BRACE L2.5X.19X41.23
	RSL7-10W	3				LEG STUB R7-10 HDG
	RSL-BOT	3				TEMPLATE .25X7.00"OD BLK
	260093G	9				ANCHOR BOLT 3/4X48 F1554-S5
	210017GA	12				BOLT ASSY 1/2X1-1/4 A325 HDG
RAL09 (FOR NO. 9 RSL TOWER SECTION)	RSL-TEM	3	3'-11 3/8" (1.203)	3'-5 1/16" (1.043)	2'-3 3/8" (0.695)	PL .19X9.00X16.30
	RSL9-ANG	3				ANCHOR BRACE L2.5X.19X43.95
	RSL7-10W	3				LEG STUB R7-10 HDG
	RSL-BOT	3				TEMPLATE .25X7.00"OD BLK
	260093G	9				ANCHOR BOLT 3/4X48 F1554-S5
	210017GA	12				BOLT ASSY 1/2X1-1/4 A325 HDG
RAL10 (FOR NO. 10 RSL TOWER SECTION)	RSL-TEM	3	4'-2 1/8" (1.273)	3'-7 3/8" (1.102)	2'-4 15/16" (0.735)	PL .19X9.00X16.30
	RSL10-ANG	3				ANCHOR BRACE L2.5X2.5X3/16
	RSL7-10W	3				LEG STUB R7-10 HDG
	RSL-BOT	3				TEMPLATE .25X7.00"OD BLK
	260093G	9				ANCHOR BOLT 3/4X48 F1554-S5
	210017GA	12				BOLT ASSY 1/2X1-1/4 A325 HDG

FILE NO.

RSL-TOWER

REV.

DESCRIPTION

DWN

CHK

APP

8

UPDATED MODEL AND TABLE

CEJ

JDM

JDM

DATE: 12/14/18

ROHN

PRODUCTS

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RSL TOWER
LEG STUBS & ANCHOR KITS

DWN:
ZAW

CHK'D:
JDM

DATE:
06/14/2012

ENG'R:
DWG

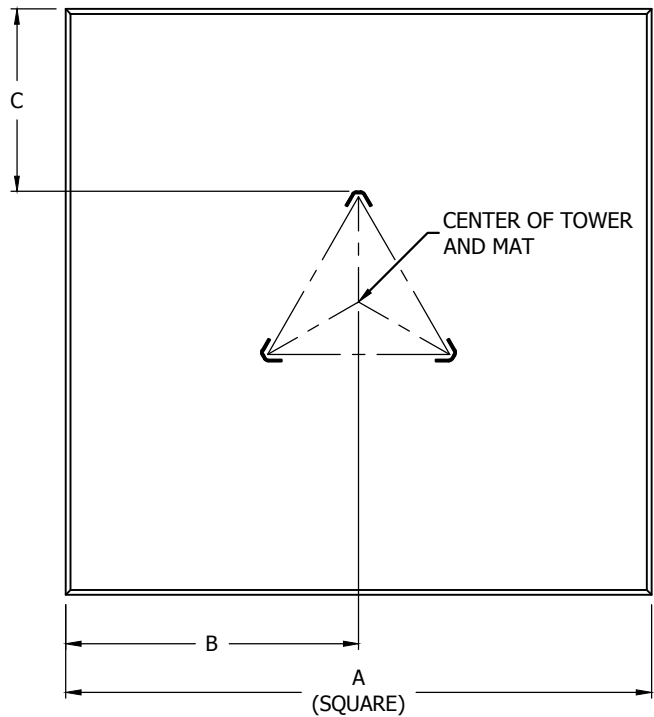
SHEET #:
1 OF 1

PRJ. ENG'R:
OH

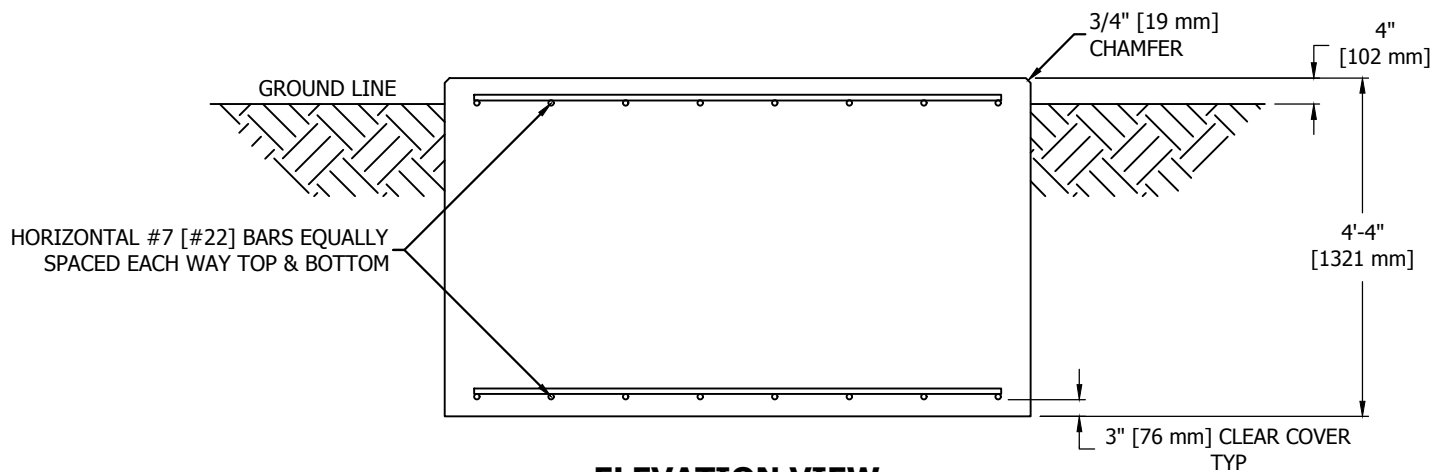
PRJ. MANG'R:

DRAWING NO:
RSLABL

REV:
8



PLAN VIEW



ELEVATION VIEW

RSL TOWER STANDARD MAT FOUNDATIONS						
BASE SECTION REFERENCE	NOMINAL FACE WIDTH	FOUNDATION DIMENSIONS			CONCRETE	TOTAL #7 [#22] BARS
		A	B	C		
2	2'-3" [0.70 m]	7'-6" [2.29 m]	3'-9" [1.14 m]	2'-4" [0.71 m]	9.0 yd ³ [6.9 m ³]	32
3	2'-6" [0.78 m]	7'-9" [2.36 m]	3'-10 1/2" [1.18 m]	2'-4" [0.71 m]	9.6 yd ³ [7.3 m ³]	40
4	2'-9" [0.85 m]	8'-0" [2.44 m]	4'-0" [1.22 m]	2'-4" [0.71 m]	10.3 yd ³ [7.9 m ³]	40
5	3'-0" [0.93 m]	8'-3" [2.51 m]	4'-1 1/2" [1.26 m]	2'-4" [0.71 m]	10.9 yd ³ [8.3 m ³]	40
6	3'-3" [1.00 m]	8'-6" [2.59 m]	4'-3" [1.30 m]	2'-3" [0.69 m]	11.6 yd ³ [8.9 m ³]	40
7	3'-6" [1.08 m]	8'-6" [2.59 m]	4'-3" [1.30 m]	2'-2" [0.66 m]	11.6 yd ³ [8.9 m ³]	40
8	3'-9" [1.15 m]	9'-6" [2.90 m]	4'-9" [1.45 m]	2'-6" [0.76 m]	14.5 yd ³ [11.1 m ³]	40
9	4'-0" [1.23 m]	9'-9" [2.97 m]	4'-10 1/2" [1.49 m]	2'-6" [0.76 m]	15.3 yd ³ [11.7 m ³]	48
10	4'-3" [1.30 m]	10'-0" [3.05 m]	5'-0" [1.52 m]	2'-6" [0.76 m]	16.0 yd ³ [12.2 m ³]	48

NOTE: SEE DRAWING NO. B090548 FOR STANDARD FOUNDATION NOTES.

FILE NO.				
RSL TOWER				
REVISIONS				
REV.	DESCRIPTION	DWN	CHK	APP
3	ADDED 4'-4"	JHY	JDM	HA
DATE: 06/04/2015				

STANDARD FOUNDATION NOTES
ANSI/TIA-222-G/H

1. STANDARD FOUNDATION DESIGNS ARE IN ACCORDANCE WITH ANSI/TIA-222-G/H, "STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORTING STRUCTURES" FOR THE FOLLOWING PRESUMPTIVE CLAY SOIL PARAMETERS:

N (blows/ft) [blows/m]	Φ (deg)	Y (lb/ft3) [kN/m3]	C (psf) [kPa]	Ultimate Bearing (psf) [kPa]		Ultimate Skin Friction (psf) [kPa]	k (pci) [kN/m3]	ϵ_{50}
				Shallow Fnds.	Deep Fnds.			
8 [26]	0	110 [17]	1000 [48]	5000 [240]	9000 [431]	500 [24]	150 [41,000]	0.01
GROUND WATER TABLE IS AT OR BELOW FOUNDATION DEPTH MAXIMUM FROST PENETRATION DEPTH LESS THAN FOUNDATION DEPTH								

2. THE PURCHASER SHALL VERIFY THAT ACTUAL SITE SOIL PARAMETERS MEET OR EXCEED ANSI/TIA-222-G/H PRESUMPTIVE CLAY SOIL DESIGN PARAMETERS AND THAT THE DEPTH OF STANDARD FOUNDATIONS ARE ADEQUATE BASED ON THE FROST PENETRATION AND/OR ZONE OF SEASONAL MOISTURE VARIATION AT THE SITE. FOUNDATION DESIGN MODIFICATIONS MAY BE REQUIRED IN THE EVENT PRESUMPTIVE CLAY SOIL PARAMETERS ARE NOT APPLICABLE FOR THE ACTUAL SUBSURFACE CONDITIONS ENCOUNTERED.
3. A SITE-SPECIFIC INVESTIGATION IS REQUIRED FOR CLASS III STRUCTURES IN ACCORDANCE WITH ANSI/TIA-222-G/H.
4. FOUNDATION DESIGNS ASSUME FIELD INSPECTIONS WILL BE PERFORMED BY THE PURCHASER'S REPRESENTATIVE TO VERIFY THAT CONSTRUCTION MATERIALS, INSTALLATION METHODS AND ASSUMED DESIGN PARAMETERS ARE ACCEPTABLE BASED ON THE CONDITIONS EXISTING AT THE SITE.
5. WORK SHALL BE IN ACCORDANCE WITH THE PROJECT CONSTRUCTION DOCUMENTS, LOCAL CODES, SAFETY REGULATIONS AND UNLESS OTHERWISE NOTED, THE LATEST REVISION OF ACI 318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE". PROCEDURES FOR THE PROTECTION OF EXCAVATIONS, EXISTING CONSTRUCTION AND UTILITIES SHALL BE ESTABLISHED PRIOR TO FOUNDATION INSTALLATION.
6. CONCRETE MATERIALS SHALL CONFORM TO THE APPROPRIATE STATE REQUIREMENTS FOR EXPOSED STRUCTURAL CONCRETE.
7. PROPORTIONS OF CONCRETE MATERIALS SHALL BE SUITABLE FOR THE INSTALLATION METHOD UTILIZED AND SHALL RESULT IN DURABLE CONCRETE FOR RESISTANCE TO LOCAL ANTICIPATED AGGRESSIVE ACTIONS. THE DURABILITY REQUIREMENT OF ACI 318 SHALL BE SATISFIED BASED ON THE CONDITIONS EXPECTED AT THE SITE. AS A MINIMUM, CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 4500 PSI (31.0 MPa) IN 28 DAYS.
8. MAXIMUM SIZE OF AGGREGATE SHALL NOT EXCEED SIZE SUITABLE FOR INSTALLATION METHOD UTILIZED OR 3/4 CLEAR DISTANCE BEHIND OR BETWEEN REINFORCING. WORKABILITY AND METHODS OF CONSOLIDATION SUCH AS VIBRATING SHALL BE UTILIZED TO PREVENT HONEYCOMBS OR VOIDS.
9. REINFORCEMENT SHALL BE DEFORMED AND CONFORM TO THE REQUIREMENTS OF ASTM A615 GRADE 60 UNLESS OTHERWISE NOTED. SPLICES IN REINFORCEMENT SHALL NOT BE ALLOWED UNLESS OTHERWISE INDICATED.
10. REINFORCING CAGES SHALL BE BRACED TO RETAIN PROPER DIMENSIONS DURING HANDLING, THROUGHOUT PLACEMENT OF CONCRETE AND DURING EXTRACTION OF TEMPORARY CASING.
11. WELDING IS PROHIBITED ON REINFORCING STEEL AND EMBEDMENTS.
12. MINIMUM CONCRETE COVER FOR REINFORCEMENT SHALL BE 3 INCHES (76 mm) UNLESS OTHERWISE NOTED. APPROVED SPACERS SHALL BE USED TO INSURE A 3 INCH (76 mm) MINIMUM COVER ON REINFORCEMENT. CONCRETE COVER FROM TOP OF FOUNDATION TO ENDS OF VERTICAL REINFORCEMENT SHALL NOT EXCEED 3 INCHES (76 mm) NOR BE LESS THAN 2 INCHES (51 mm).

13. SPACERS SHALL BE ATTACHED INTERMITTENTLY THROUGHOUT THE ENTIRE LENGTH OF VERTICAL REINFORCING CAGES TO INSURE CONCENTRIC PLACEMENT OF CAGES IN EXCAVATIONS.
14. FOUNDATION DESIGNS ASSUME STRUCTURAL BACKFILL TO BE COMPACTED IN 8 INCH (200 mm) MAXIMUM LAYERS TO 95% OF MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D698. ADDITIONALLY, STRUCTURAL BACKFILL MUST HAVE A MINIMUM COMPACTED UNIT WEIGHT OF 110 POUNDS PER CUBIC FOOT (17 kN/m3).
15. FOUNDATION DESIGNS ASSUME AN INSTALLATION ON A PROPERLY DRAINED LEVEL SITE.
16. FOUNDATION INSTALLATION SHALL BE SUPERVISED BY PERSONNEL KNOWLEDGEABLE AND EXPERIENCED WITH THE PROPOSED FOUNDATION TYPE. CONSTRUCTION SHALL BE IN ACCORDANCE WITH GENERALLY ACCEPTED INSTALLATION PRACTICES.
17. ALL CONSTRUCTION AND SAFETY EQUIPMENT AND TEMPORARY SUPPORTS REQUIRED FOR CONSTRUCTION SHALL BE DETERMINED, FURNISHED AND INSTALLED BY THE CONTRACTOR BASED ON THE MEANS AND METHODS CHOSEN BY THE CONTRACTOR. ALL CONSTRUCTION ACTIVITIES SHALL BE PREFORMED BY COMPETENT, QUALIFIED AND TRAINED PERSONNEL.
18. FOR FOUNDATION AND ANCHOR TOLERANCES SEE ANCHOR ROD LAYOUT DRAWING.
19. LOOSE MATERIAL SHALL BE REMOVED FROM BOTTOM OF EXCAVATION PRIOR TO CONCRETE PLACEMENT. SIDES OF EXCAVATION SHALL BE ROUGH AND FREE OF LOOSE CUTTINGS.
20. CONCRETE SHALL BE PLACED IN A MANNER THAT WILL PREVENT SEGREGATION OF CONCRETE MATERIALS, INFILTRATION OF WATER OR SOIL AND OTHER OCCURRENCES WHICH MAY DECREASE THE STRENGTH OR DURABILITY OF THE FOUNDATION.
21. FREE FALL CONCRETE MAY BE USED PROVIDED FALL IS VERTICAL DOWN WITHOUT HITTING SIDES OF EXCAVATION, FORMWORK, REINFORCING BARS, ANCHORAGES, FORM TIES, CAGE BRACING OR OTHER OBSTRUCTIONS. UNDER NO CIRCUMSTANCES SHALL CONCRETE FALL THROUGH WATER.
22. CONCRETE SHALL BE PLACED AGAINST UNDISTURBED SOIL EXCEPT FOR PIERS SUPPORTED ON SPREAD FOUNDATIONS. FORMS FOR PIERS SHALL BE REMOVED PRIOR TO PLACING STRUCTURAL BACKFILL.
23. CONSTRUCTION JOINTS, IF REQUIRED IN DRILLED PIER OR CAISSON FOUNDATIONS, SHALL BE AT LEAST 12 INCHES (305 mm) BELOW BOTTOM OF EMBEDMENTS AND MUST BE INTENTIONALLY ROUGHENED TO A FULL AMPLITUDE OF 1/4 INCH (6 mm). FOUNDATION DESIGN ASSUMES NO OTHER CONSTRUCTION JOINTS.
24. CONSTRUCTION JOINTS, IF REQUIRED AT THE BASE OF PIERS SUPPORTED ON SPREAD FOUNDATIONS, SHALL BE INTENTIONALLY ROUGHENED TO A FULL AMPLITUDE OF 1/4 INCH (6 mm). FOUNDATION DESIGN ASSUMES NO OTHER CONSTRUCTION JOINTS.
25. CASING, IF USED, SHALL NOT BE LEFT IN PLACE. EQUIPMENT, PROCEDURES, AND PROPORTIONS OF CONCRETE MATERIALS SHALL INSURE CONCRETE WILL NOT BE ADVERSELY DISTURBED UPON CASING REMOVAL. DRILLING FLUID, IF USED, SHALL BE FULLY DISPLACED BY CONCRETE AND SHALL NOT BE DETRIMENTAL TO CONCRETE OR SURROUNDING SOIL. CONTAMINATED CONCRETE SHALL BE REMOVED FROM TOP OF FOUNDATION AND REPLACED WITH FRESH CONCRETE.
26. TOP OF FOUNDATION SHALL BE SLOPED TO DRAIN WITH A FLOATED FINISHED. EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 3/4" X 3/4" (19 mm X 19 mm) MINIMUM.
27. FOR ANCHOR BLOCK TYPE FOUNDATIONS, FOR GUYED MASTS, ADDITIONAL CORROSION PROTECTION MAY BE REQUIRED FOR STEEL GUY ANCHORS IN DIRECT CONTACT WITH SOIL. DESIGN ASSUMES PERIODIC INSPECTIONS WILL BE PERFORMED OVER THE LIFE OF THE STRUCTURE TO DETERMINE IF ADDITIONAL ANCHOR CORROSION PROTECTION MEASURES SHALL BE IMPLEMENTED BASED ON OBSERVED SITE-SPECIFIC CONDITIONS.

FILE NO.

REVISIONS

REV.	DESCRIPTION	DWN	CHK	APP
6	REVISED TO ANSI/TIA-222-G/H DATE: 1/28/2020	SWG		

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ANSI/TIA-222-G/H
STANDARD FOUNDATION DESIGN NOTES

DWN:	CHK'D:	DATE:
FAD	HA	11/20/2009
ENG'R:	SHEET #:	
HA	1 OF 1	
PRJ. ENG'R:	PRJ. MANG'R:	
DRAWING NO:		REV:
B090548		6

FOUNDATION AND ANCHOR TOLERANCES

ALL FOUNDATIONS

1. CONCRETE DIMENSIONS: PLUS OR MINUS 1" (25mm)
2. DEPTH OF FOUNDATION: PLUS 3" (76mm) OR MINUS 0"
3. DRILLED FOUNDATIONS OUT OF PLUMB: 1.0°
4. REINFORCING STEEL PLACEMENT: PER A.C.I. 301
5. PROJECTION OF EMBEDMENTS: PLUS OR MINUS 1/8" (3mm)
6. VERTICAL EMBEDMENTS OUT OF PLUMB: 0.5°

ANCHOR BOLTS

7. MAXIMUM DISTANCE FROM CENTERLINE OF ANCHOR BOLTS TO CENTERLINE OF FOUNDATION: 1/24 OF PIER DIAMETER UP TO A MAXIMUM OF 2" (51mm)
8. ANCHOR BOLT SPACING: 1/16" (2mm)
9. ANCHOR BOLT CIRCLE ORIENTATION: 0.25°
10. ANCHOR BOLT CIRCLE DIAMETER: PLUS OR MINUS 1/16" (2mm)

SELF-SUPPORTING TOWERS

11. FACE SPREAD DIMENSION CENTER TO CENTER OF ANCHOR BOLT CIRCLES: PLUS OR MINUS 1/16" (2mm) OR 1/16" (2mm) PER 20 FT. (6m) OF FACE SPREAD
12. MAXIMUM DIFFERENCE BETWEEN ANY TWO FOUNDATION ELEVATIONS: 1/2" (13mm)

GUYED TOWERS

13. GUY RADIUS: PLUS OR MINUS 5% OF DISTANCE SPECIFIED
14. ANCHOR ELEVATION: PLUS OR MINUS 5% OF GUY RADIUS
15. ANCHOR ALIGNMENT (PERPENDICULAR TO GUY RADIUS): 1.0°
16. ANCHOR ROD SLOPE: PLUS OR MINUS 1.0°
17. ANCHOR ROD ALIGNMENT WITH GUY RADIUS: PLUS OR MINUS 1.0°
18. ANCHOR HEAD OUT OF PLUMB: 1.0°
19. GUY INITIAL TENSION: PLUS OR MINUS 10% OF TENSION SPECIFIED

NOTE: TOLERANCES IN NOTES 13 AND 14 CAN NOT OCCUR SIMULTANEOUSLY.

[illegible]