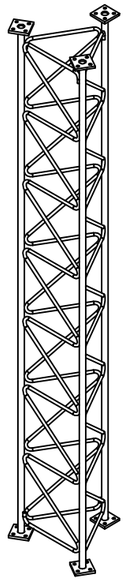
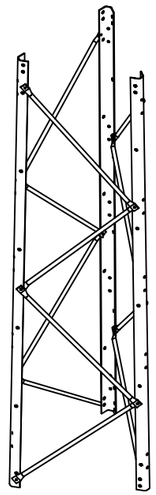
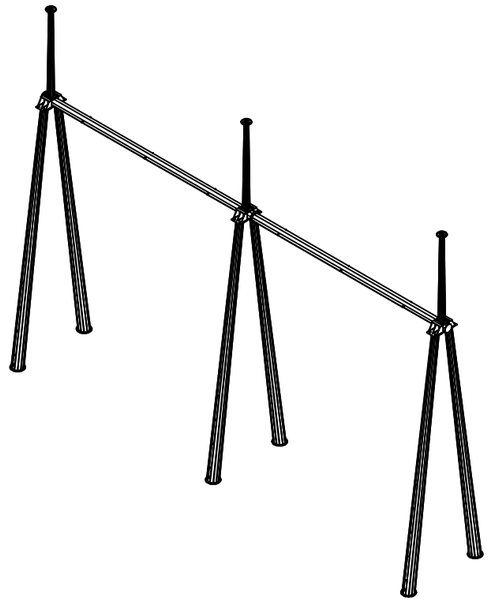
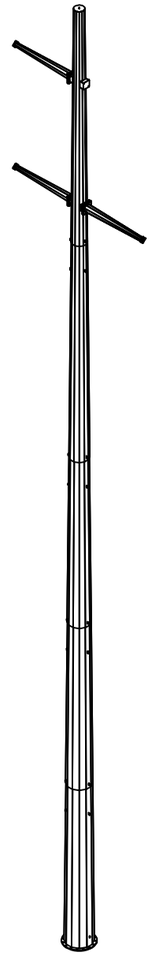
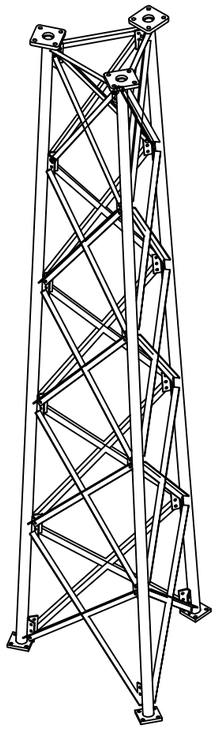


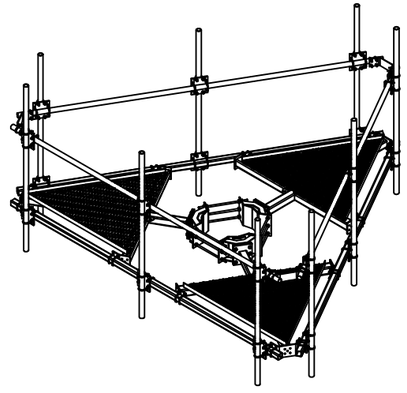








ROHN PRODUCTS LLC



FILE NO.

REVISIONS

REV.	DESCRIPTION	DWN	CHK	APP

ROHN PRODUCTS

PO BOX 5999
PEORIA, IL 61601-5999
TOLL FREE 800-727-ROHN

55G - FOLD OVER TOWER

DWN:	CHK'D:	DATE:
ZAW	JDM	06/13/12

ENG'R:	SHEET #:
JDM	1 OF 1
PRJ. ENG'R:	PRJ. MANG'R:

DRAWING NO:	REV:
55FK-CP	0

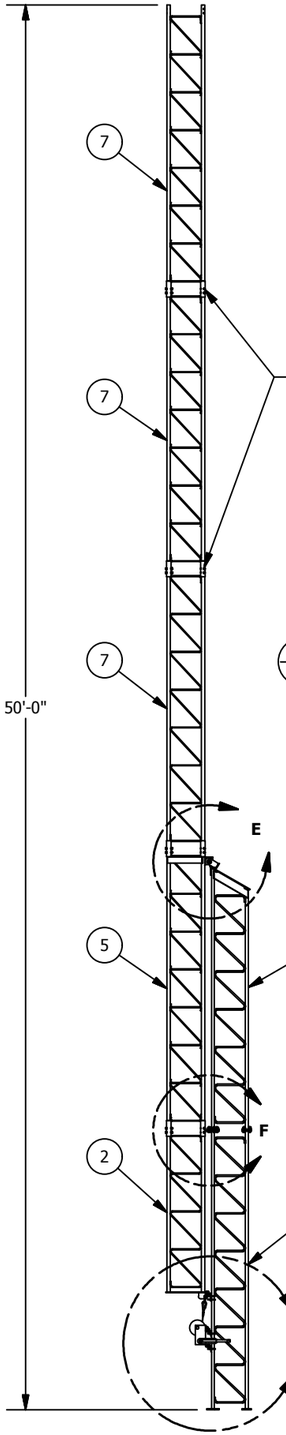
BILL OF MATERIALS

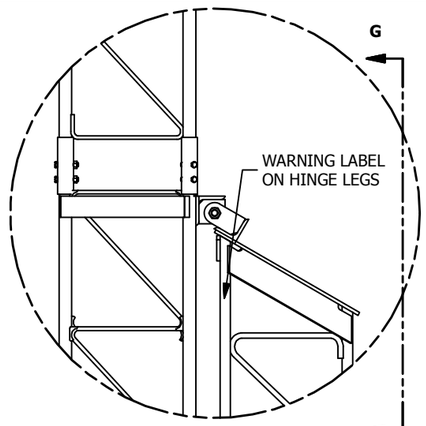
ITEM	QTY	PART NUMBER	DESCRIPTION	DWG
1	1	KFSEC001	SECTION 45GSR TOP FOLDOVER TWR	N/A
2	1	KFSEC002	55G BASE FOR FLDOVR TWR	N/A
3	1	KFANG003	ANGLE SUPPORT L3.5X2.5X1.67'	N/A
4	1	KS538X	SECTION 45GSRHB 10' 1.25"DIA	N/A
5	1	55GXFK	SECTION 55G 10' STD TOWER HDG	N/A
6	1	290040	THREADED ROD 3/4(-10)X24.00"	N/A
7	3	55G	SECTION ASSY 55G 10' STD TOWER	N/A
8	6	210016G	BOLT 7/16 X 2-1/2 HCS G5 HDG	N/A
9	12	110143	HEX NUT 1/2 (13 UNC) 2H GAL	N/A
10	12	110160	NUT 1/2 (JAM - PAL) HDG	N/A
11	12	210020G	BOLT 1/2 X 2 HSB A325 HDG	N/A
12	1	KFWINCHA	WINCH ASSY FOR FOLD OVER TWRS	KFWINCHA
13	6	230075	LOCK NUT 7/16 A563 DH HDG	N/A
14	5	JR66	U-BOLT 3/8 X 1-1/4 HDG	N/A
15	10	38CTLFG/2H	LOCK NUT 3/8 A563 DH HDG	N/A
16	4	210018GA	BOLT ASSY 1/2 X 1-1/2 HSB A325	N/A
17	1	1/2S	SHACKLE 1/2 2 TON	N/A
18	1	KFHANDSUPP	WINCH HANDLE SUPPORT	N/A
19	2	250008G	WASHER 3/8 FLAT HDG F436	N/A
20	4	230020	NUT HVY HEX 3/4 DH TO HDG	N/A
21	1	A790135	DRAWING BOLT ASSY	A790135
22	1	A810214	FOUNDATION & ANCHOR TOLERANCE	A810214
23	12	210020GA	BOLT ASSY 1/2 X 2 HSB A325	N/A

FILE NO.

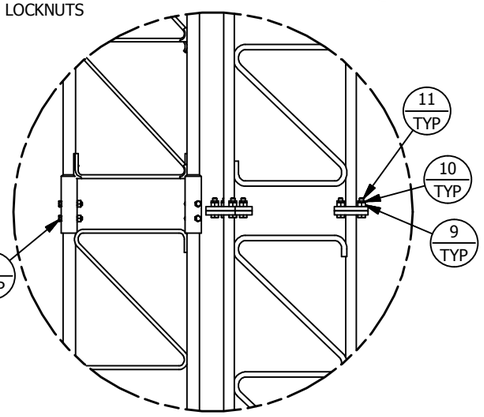
REVISION

REV.	DESCRIPTION	DWN	CHK	APP
3	UPDATED NOTES DATE: 06/11/2012	JEC	JDM	HA





DETAIL E



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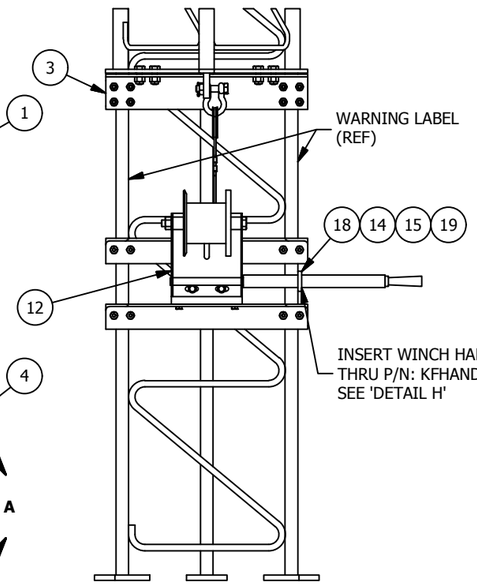
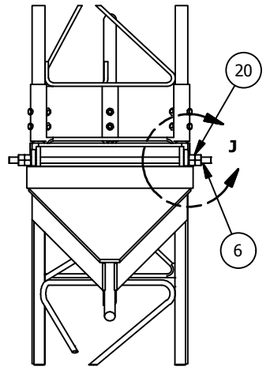
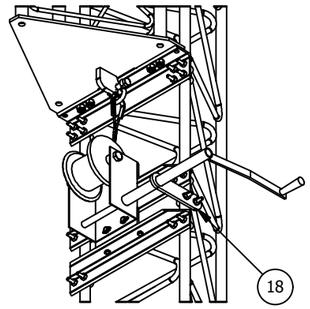


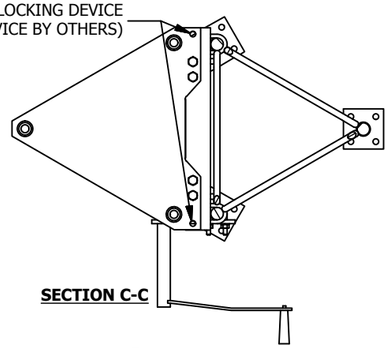
VIEW D-D



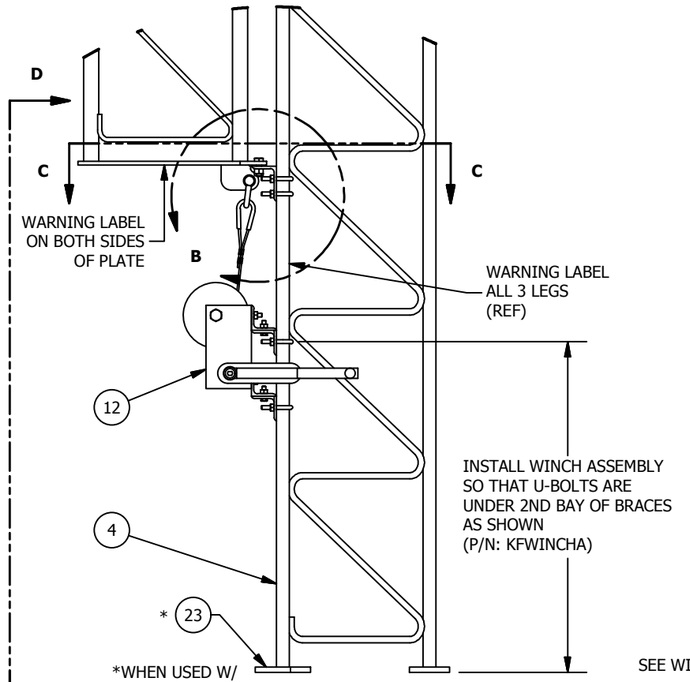
VIEW G-G



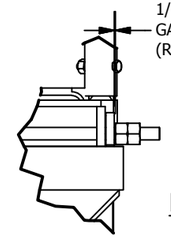
DETAIL H



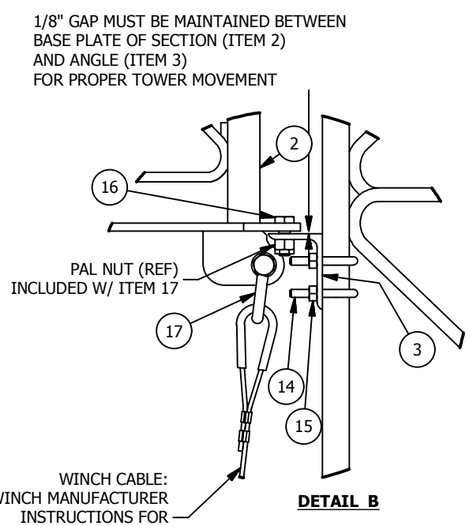
SECTION C-C



DETAIL A



DETAIL J



DETAIL B

ROHN PRODUCTS, LLC

P.O. BOX 5999

PEORIA, IL 61601-5999

TOLL FREE 800-727-ROHN

50'-55G FOLD-OVER TOWER ASSY

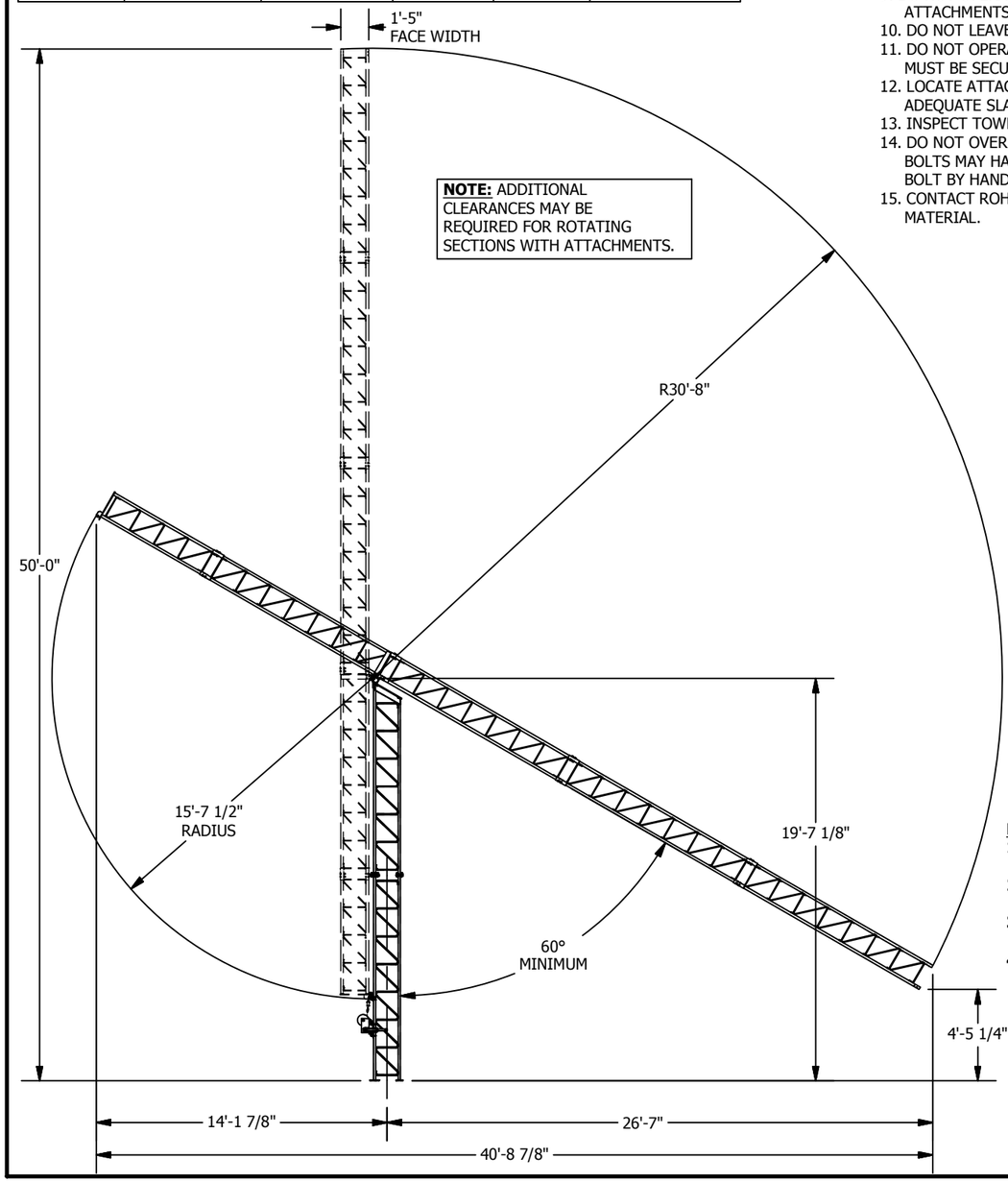
DWN:	CHK'D:	DATE:
LGC	JDM	6/15/2011
ENG'R: HA	SHEET #: SHEET 1 OF 2	
DRAWING NO: 55FK-50	REV: 3	

CAUTION: INSTALLING, DISMANTLING AND OPERATING FOLD-OVER TOWERS CAN BE DANGEROUS FOR UNQUALIFIED PERSONNAL. FAILURE TO READ AND UNDERSTAND ALL WINCH INSTRUCTIONS, WARNINGS AND GENERAL NOTES CAN RESULT IN SERIOUS INJURY OR DEATH. CONTACT ROHN PRODUCTS, LLC FOR ANY QUESTIONS OR CONCERNS.

DESIGN CRITERIA:

ANSI/TIA-222-G
90 MPH BASIC WIND SPEED (3-SECOND GUST, 50-YEAR RETURN PERIOD)
3/4 INCH ICE WITH 40 MPH BASIC WIND SPEED (STRUCTURE CLASS II)
TOPOGRAPHIC CATEGORY 1
SEISMIC COEFFICIENT Ss $\leq$ 1.0

EXPOSURE	STRUCTURE CLASS	EFFECTIVE PROJECTED AREA, SQ. FT.		WEIGHT POUNDS	MAXIMUM LINES
		WITHOUT ICE	WITH ICE		
B	I	30	N/A	160	(2) 1/2 INCH DIA
C	II	20	30	160	(2) 1/2 INCH DIA



WARNINGS:

1. RAISING OR LOWERING OF TOWER SECTIONS MUST BE PERFORMED BY EXPERIENCED AND TRAINED PERSONNEL ONLY.
2. DO NOT INSTALL, DISMANTLE OR ROTATE TOWER SECTIONS NEAR OVERHEAD POWER LINES. CONTACT WITH OVERHEAD LINES MAY CAUSE DEATH.
3. PRIOR TO INSTALLATION OR OPERATION, READ, UNDERSTAND AND FOLLOW MANUFACTURE'S INSTRUCTIONS AND WARNINGS PROVIDED WITH THE WINCH AND TOWER. CONTACT THE WINCH MANUFACTURER OR ROHN FOR MISSING WINCH INSTRUCTIONS AND WARNINGS.
4. BOLTS PREVENTING ROTATION OF THE UPPER TOWER SECTIONS MUST BE IN PLACE WHEN TOWER IS IN THE UPRIGHT POSITION AND UNATTENDED.
5. PRIOR TO OPERATION WINCH, VERIFY THAT THE PUBLISHED SUPPORTED WEIGHT LIMITS FOR THE TOWER ARE NOT EXCEEDED AND VERIFY TOWER AND ATTACHMENT CLEARANCES TO THE GROUND AND OTHER OBSTRUCTIONS. HIGHER WEIGHTS WILL SIGNIFICANTLY OVERLOAD THE TOWER AND WINCH CABLE AND MAY RESULT IN A SUDDEN COLLAPSE.
6. ENSURE WINCH CABLE IS IN GOOD CONDITION AND IS SECURELY ATTACHED PRIOR TO DISCONNECTING ROTATING SECTIONS FROM THE FIXED BASE SECTIONS AND BEFORE OPERATING WINCH.
7. STAND CLEAR OF ROTATING SECTIONS AT ALL TIMES. NEVER DETACH WINCH LINE PRIOR TO INSTALLING BOLTS CONNECTING THE ROTATING SECTIONS TO THE FIXED BASE SECTIONS.
8. DO NOT CLIMB ON ROTATING SECTIONS. BASE SECTIONS ARE INTENDED TO BE CLIMBED BY SKILLED AND COMPETENT CLIMBERS ONLY. A SAFETY CLIMB SYSTEM MUST BE INSTALLED FOR CLIMBING AND MUST BE ORDERED SEPARATELY.
9. DO NOT OPERATE TOWER WINCH WITH PERSONNEL ON THE TOWER OR WITHIN THE RADIUS OF THE ROTATING SECTIONS INCLUDING ATTACHMENTS.
10. DO NOT LEAVE TOWER UNATTENDED IN THE FOLDED POSITION.
11. DO NOT OPERATE WINCH WHEN WIND SPEED EXCEEDS 10 MPH OR WHEN ICE IS PRESENT. UNDER THESE CONDITIONS, FOLDED TOWER SECTIONS MUST BE SECURED.
12. LOCATE ATTACHMENTS AND ROUTE LINES ON TOWER SECTIONS TO AVOID DAMAGE DUE TO TOWER ROTATION. UTILIZE FLEX LINES OR PROVIDE ADEQUATE SLACK IN LINES TO AVOID CONSTRAINT DURING ROTATION.
13. INSPECT TOWER, WINCH, CABLE, HINGE AND ALL BOLTS FOR LOOSE, CORRODED OR DAMAGED PARTS PRIOR TO EACH USE.
14. DO NOT OVER TIGHTEN BOLTS THAT PREVENT ROTATION OF THE UPPER TOWER SECTIONS. INSPECT BOLTS AND NUTS AFTER EACH REMOVAL. BOLTS MAY HAVE BEEN PREVIOUSLY OVER TIGHTENED IF NUTS CAN NOT BE FREELY RUN UP AND DOWN THE ENTIRE THREADED LENGTH OF THE BOLT BY HAND. REPLACEMENT BOLTS AND NUTS MUST MEET ASTM A325 STANDARDS. INSTALL A NUT LOCKING DEVICE AFTER EACH USE.
15. CONTACT ROHN FOR ALL REPLACEMENT PARTS. DO NOT REPLACE WINCH CABLE, BOLTS OR ANY OTHER ITEM WITH A LOWER STRENGTH MATERIAL.

GENERAL NOTES:

1. THE SUITABILITY OF THE FOLD-OVER TOWER AND THE REFERENCED STANDARD FOUNDATIONS FOR A SPECIFIC APPLICATION MUST BE VERIFIED PRIOR TO INSTALLATION BY THE PURCHASER BASED ON SITE-SPECIFIC DATA. ALL USERS ARE SOLELY RESPONSIBLE FOR THE INSTALLATION, OPERATION, MAINTENANCE, INSPECTION AND OTHER WORK AND THE COMPLIANCE WITH ALL LOCAL, STATE AND FEDERAL REQUIREMENTS.
2. INSTALLATION, OPERATION AND DISMANTLING MUST BE PREFORMED BY EXPERIENCED AND TRAINED PERSONNEL ONLY.
3. THE WEIGHT AND EFFECTIVE PROJECTED AREA OF ALL ATTACHMENTS AND LINES MUST NOT EXCEED THE DESIGN VALUES TABULATED BELOW.
4. DESIGN ASSEMES LEVEL GRADE AT TOWER SITE. LOWER EFFECTIVE PROJECTED AREAS THAN SPECIFIED BELOW APPLY FOR ROOF MOUNTED TOWERS OR FOR SITES LOCATED ON UNUSUAL TERRAIN. CONTACT ROHN FOR SITE-SPECIFIC DESIGN LIMITATIONS.
5. THE FOLD-OVER TOWER IS NOT INTENDED TO BE USED AS A CRANE OR LIFTING DEVICE FOR CONSTRUCTION. ALL LOADS MUST BE PERMANENTLY ATTACHED TO THE TOWER BEFORE RAISING OR LOWERING.
6. ALL FIELD CONNECTIONS ARE BOLTED. A NUT LOCKING DEVICE OR SELF-LOCKING NUT IS PROVIDED FOR ALL BOLTS.
7. TOLERANCE ON TOWER STEEL HEIGHT IS EQUAL TO PLUS 1% OR MINUS 1/2%.
8. PURCHASER MUST VERIFY THAT THE INSTALLATION IS IN COMFORMANCE WITH LOCAL, STATE AND FEDERAL REQUIREMENTS FOR OBSTRUCTION MARKING AND LIGHTING.
9. TOWER MEMBER DESIGN DOES NOT INCLUDE STRESSES DUE TO ERECTION SINCE ERECTION EQUIPMENT AND CONDITIONS ARE UNKNOWN. DESIGN ASSUMES COMPETENT AND QUALIFIED PERSONNEL WILL ERECT THE TOWER.
10. DESIGN ASSUMES THAT, AS A MINIMUM, MAINTENANCE AND INSPECTION WILL BE PERFORMED OVER THE LIFE OF THE STRUCTURE IN ACCORDANCE WITH ANSI/TIA-222-G.
11. INSTALLATION MUST BE GROUNDED IN ACCORDANCE WITH LOCAL AND NATIONAL CODES. RESISTANCE TO GROUND MUST NOT EXCEED 10 OHMS. GROUNDING MATERIAL MUST BE ORDERED SEPARATELY.
12. ALL TOWER ACCESSORIES AND/OR MOUNTS MUST BE ORDERED SEPARATELY.
13. TOWER ORIENTATION TO BE DETERMINED BY THE PURCHASER.
14. FOUNDATIONS MUST BE DESIGNED TO SUPPORT THE REACTIONS SHOWN FOR THE CONDITIONS EXISTING AT THE SITE.
15. INSTALL WARNING SIGN PROVIDED WITH TOWER (P/N ACWS) AT BASE OF THE TOWER IN A VISIBLE LOCATION.
16. WARNING LABELS ARE APPLIED AT THE FACTORY AT THE LOCATIONS INDICATED ON THE SECTION ASSEMBLY DRAWINGS. CONTACT ROHN FOR REPLACEMENT OF DAMAGED OR MISSING WARNING LABELS.
17. INSTALL LOCKING DEVICE IN HOLES PROVIDED AT THE BASE OF THE ROTATING SECTIONS TO PREVENT UNAUTHORIZED USE OF THE TOWER (LOCKING DEVICE TO BE PROVIDED BY OTHERS).

NOTES:

1. THE SUM OF THE EFFECTIVE PROJECTED AREA (E.P.A) AND WEIGHTS OF DISCRETE APPURTENANCES (INCLUDING MOUNTING PLATES, BRACKETS AND ALL OTHER ATTACHMENTS) MUST NOT EXCEED THE VALUES TABULATED.
2. DISTRIBUTED APPURTENANCES MUST NOT EXCEED THE E.P.A. AND WEIGHT EQUIVALENT TO THE NUMBER AND SIZE OF LINES INDICATED.
3. ALL LOADS MUST BE MOUNTED SYMMETRICALLY ON THE TOWER. MOUNTING ARRANGEMENT THAT SUBJECT THE TOWER TO TORSION WILL SIGNIFICANTLY REDUCE THE TABULATED E.P.A. AND WEIGHT VALUES.
4. WHEN THE TOWER IS IN THE FOLDED CONFIGURATION, THE DESIGN WIND SPEED IS CONSIDERED TO BE 10 MPH WITHOUT ICE.

TOTAL FACTORED REACTIONS

AXIAL LOAD: = 1.7 KIPS
SHEAR: = 1.9 KIPS
OVERTURNING MOMENT: = 54.8 FT-KIPS

STANDARD FOUNDATION OPTIONS

P/N	DESCRIPTION	DWG #
55FK-FDNMAT	FOUNDATION DETAIL (MAT)	55FK-FDNMAT
55FK-FDNDP	FOUNDATION DETAIL (PIER)	55FK-FDNDP
55FK-FDNPRECAST	FOUNDATION DETAIL (PRE-CAST)	55FK-FDNPRECAST

FILE NO.

REVISION

REV.	DESCRIPTION	DWN	CHK	APP
3	UPDATED NOTES DATE: 06/11/2012	JEC	JDM	HA

ROHN PRODUCTS, LLC
P.O. BOX 5999
PEORIA, IL 61601-5999
TOLL FREE 800-727-ROHN

50'-55G FOLD-OVER TOWER ASSY

DWN:	CHK'D:	DATE:
LGC	JDM	6/15/2011

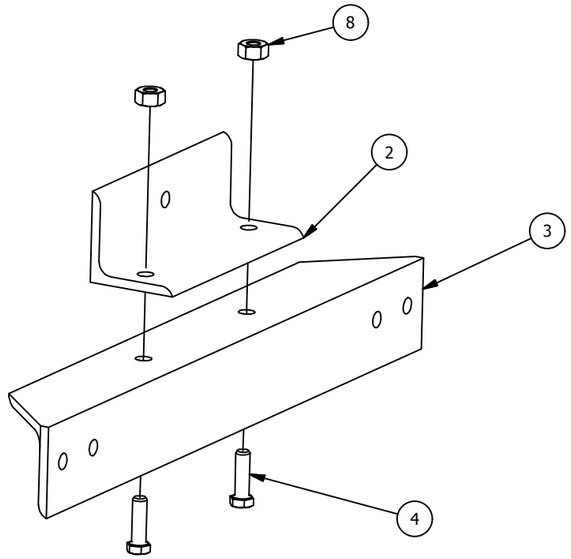
ENG'R:	SHEET #:
HA	SHEET 2 OF 2

DRAWING NO:	REV:
55FK-50	3

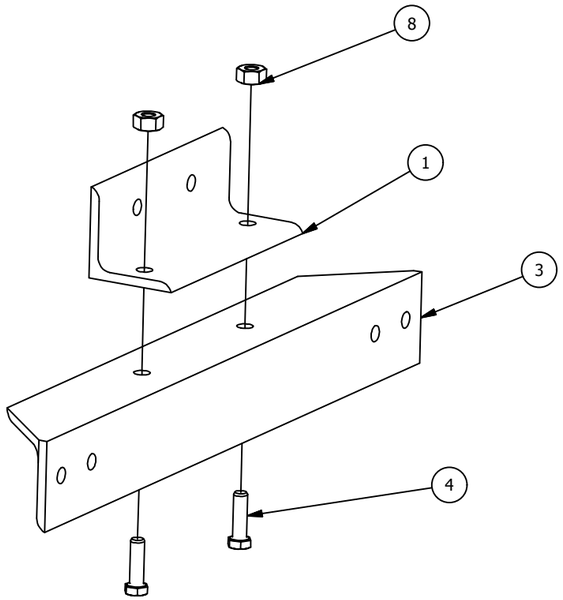
NOTES:

*1) FOLLOW WINCH INSTRUCTIONS AND WARNINGS PROVIDED BY WINCH MANUFACTURER FOR CABLE & HANDLE INSTALLATION. ITEMS 7 & 10 ARE NOT SHOWN FOR CLARITY.
2) ASSEMBLE UPPER AND LOWER BRACKETS FIRST.

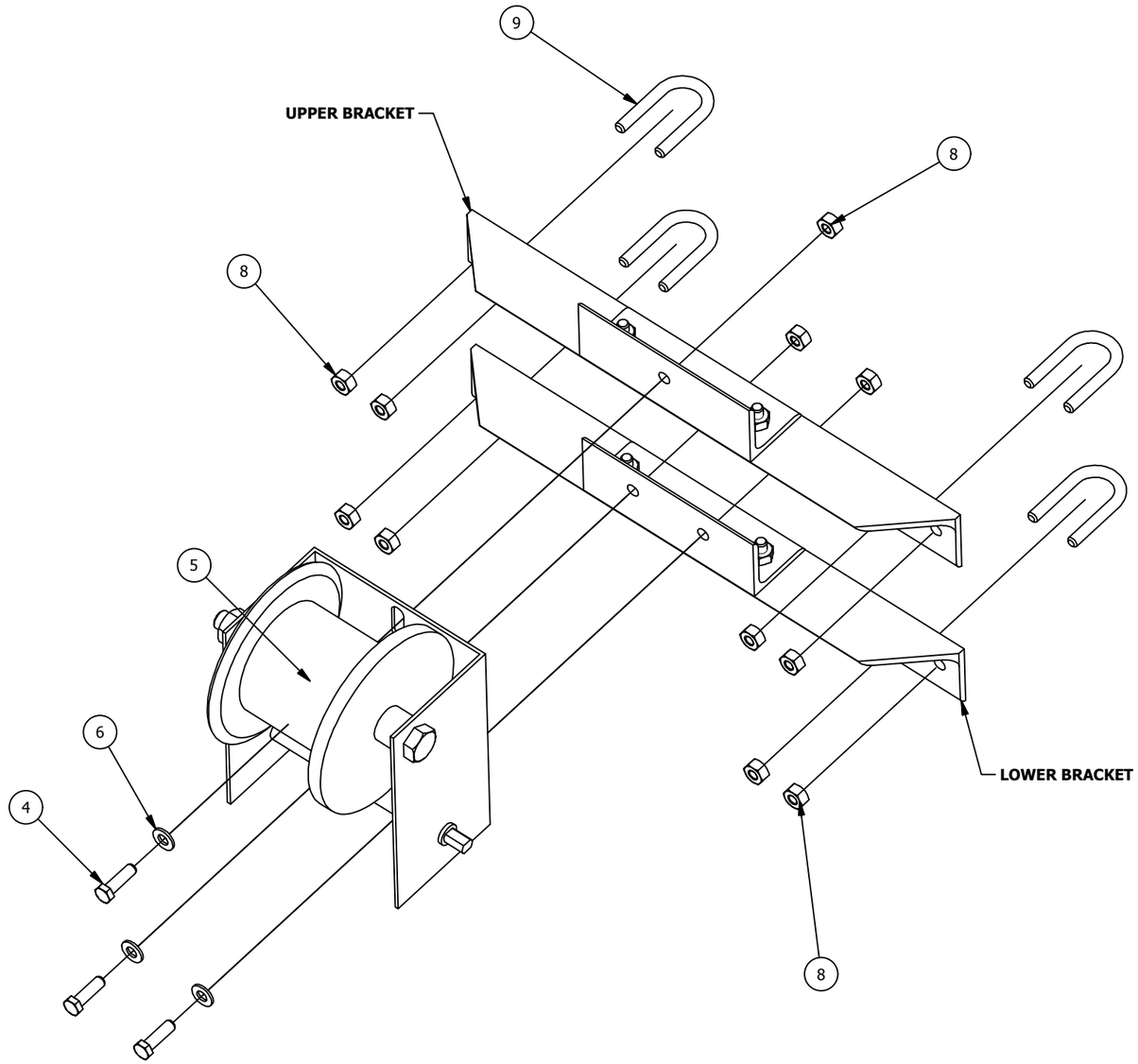
	BILL OF MATERIALS - ASSY P/N: KFWINCHA			
	ITE	QT	PART NUMBER	DESCRIPTION
	1	1	KFANG008	ANGLE SUPP L2.5X2.5X.25X7.00"
	2	1	KFANG006	ANGLE SUPP L2.5X2.5X.25X7.00"
	3	2	KFANG005	ANGEL SUPP L2.5X2.5X.25X1.67'
	4	7	210005G	BOLT 3/8 X 1-1/4 HCS G5 HDG
	5	1	KFWINCH	WINCH BOX ASSEMBLY
	6	3	250008G	WASHER 3/8 FLAT HDG F436
*	7	1	WINCHCABLE	WINCHCABLE
	8	15	38CTLFG/2H	LOCK NUT 3/8 A563 DH HDG
	9	4	JR66	U-BOLT 3/8 X 1-1/4 HDG
*	10	1	WINCHHANDLE	ROTATING HANDLE FOR WINCH



UPPER BRACKET



LOWER BRACKET



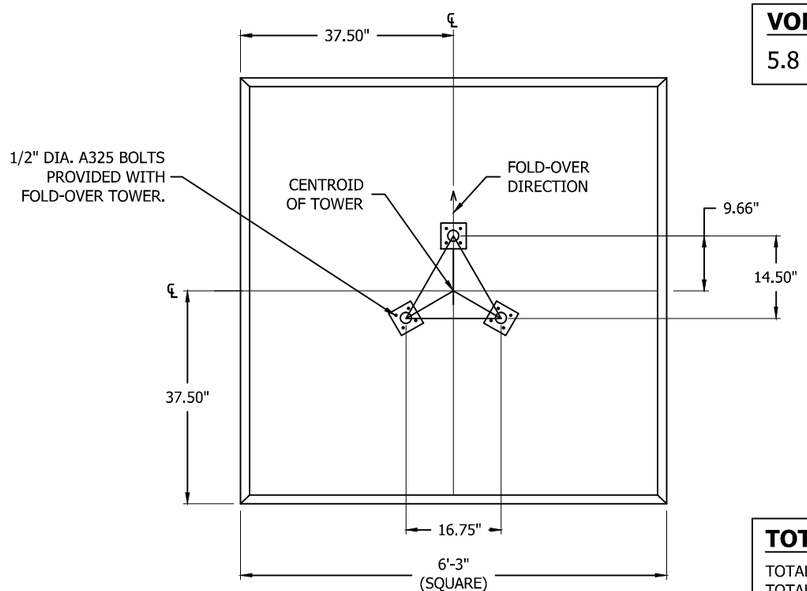
FILE NO.

REVISION				
REV.	DESCRIPTION	DWN	CHK	APP
1	ADDED CALL OUTS FOR UPPER AND LOWER BRACKETS DATE: 02/14/2012	LGC	JDM	HA

ROHN PRODUCTS, LLC
P.O. BOX 5999
PEORIA, IL 61601-5999
TOLL FREE 800-727-ROHN

WINCH ASSEMBLY
FOR FOLD OVER TOWERS

DWN:	CHK'D:	DATE:
LGC	JDM	5/17/2011
ENG'R: HA		
DRAWING NO: KFWINCHA		REV: 1



PLAN

VOLUME OF CONCRETE

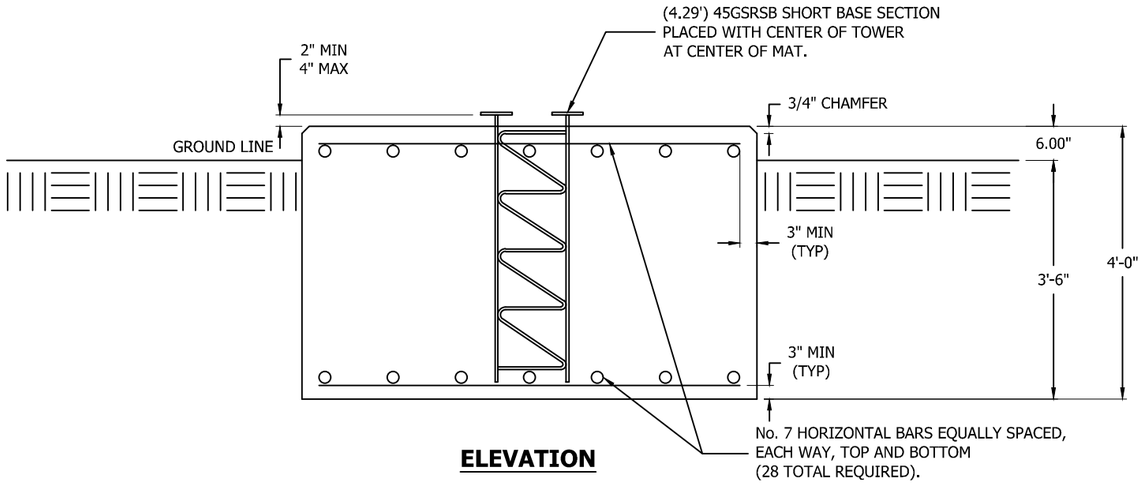
5.8 Cu. Yds.

ASSEMBLY BILL OF MATERIAL P/N: 55FK-FDNMAT

QTY	PART NUMBER	DESCRIPTION
1	45GSRSB	BASE SHORT 4.29' 45GSR CONC.

TOTAL FACTORED REACTIONS

TOTAL O.T.M. = 54.8 FT.-KIPS
TOTAL SHEAR = 1.9 KIPS
TOTAL AXIAL = 1.7 KIPS



ELEVATION

SEE DWG. NUMBER B090548 FOR GENERAL FOUNDATION NOTES.

FILE NO.
STANDARD-45GSR

REVISIONS

REV.	DESCRIPTION	DWN	CHK	APP
1	UPDATE NOTES DATE: 5/14/2012	JEC	JDM	HA

ROHN PRODUCTS
PO BOX 5999
PEORIA, IL 61601-5999
TOLL FREE 800-727-ROHN

STANDARD REV. G
MAT FOUNDATION
55G FOLD-OVER TOWER

DWN:	CHK'D:	DATE:
CJ	LGC	5/04/2011

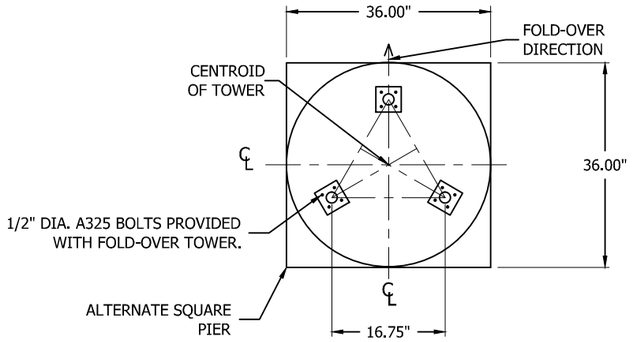
ENG'R:	SHEET #:
HS	1 OF 1

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

DRAWING NO:	REV:
55FK-FDNMAT	1

ASSEMBLY BILL OF MATERIAL P/N: 55FK-FDNDP

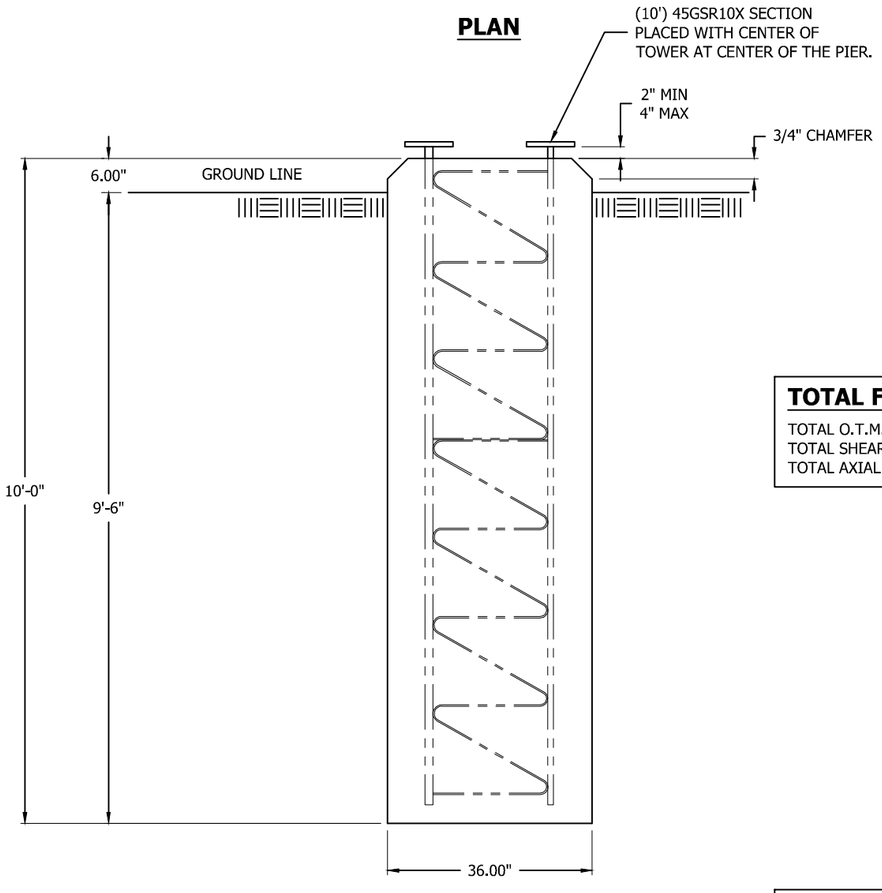
QTY	PART NUMBER	DESCRIPTION
1	45GSR10X	SECTION 45GSR 10' 1.25"D S-BR



PLAN

VOLUME OF CONCRETE

2.6 CU. YDS (ROUND PIER)
3.3 CU. YDS (SQUARE PIER
[NO REINFORCING REQUIRED IN PIER]



ELEVATION

TOTAL FACTORED REACTIONS

TOTAL O.T.M. = 54.8 FT.-KIPS
TOTAL SHEAR = 1.9 KIPS
TOTAL AXIAL = 1.7 KIPS

SEE DWG. NUMBER B090548 FOR GENERAL FOUNDATION NOTES.

FILE NO.
STANDARD-45GSR

REVISIONS

REV.	DESCRIPTION	DWN	CHK	APP
1	UPDATE NOTES DATE: 5/14/2012	JEC	JDM	HA

ROHN PRODUCTS
PO BOX 5999
PEORIA, IL 61601-5999
TOLL FREE 800-727-ROHN

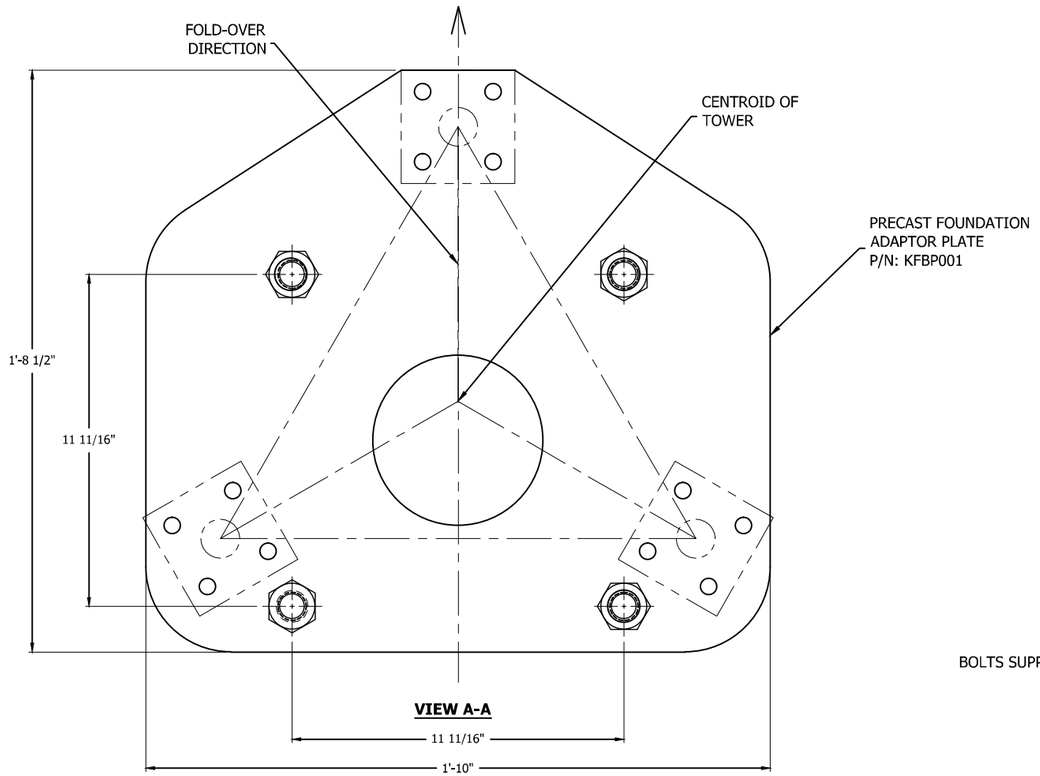
STANDARD REV. G
PIER FOUNDATION
55G FOLD-OVER TOWER

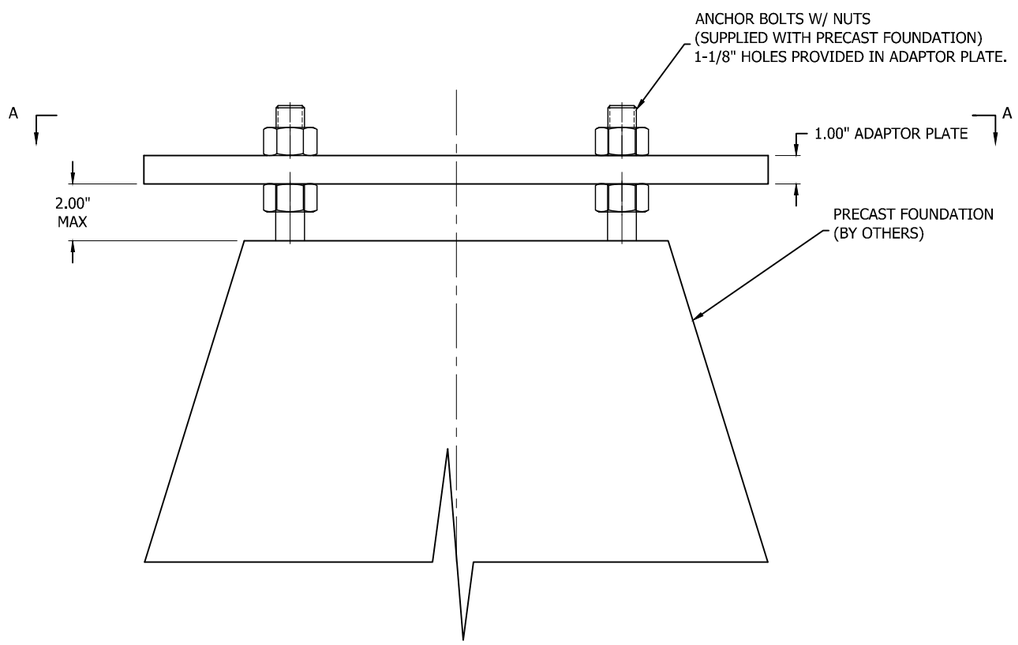
DWN:	CHK'D:	DATE:
CJ	LGC	5/04/2011

ENG'R:	SHEET #:
HA	1 OF 1

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

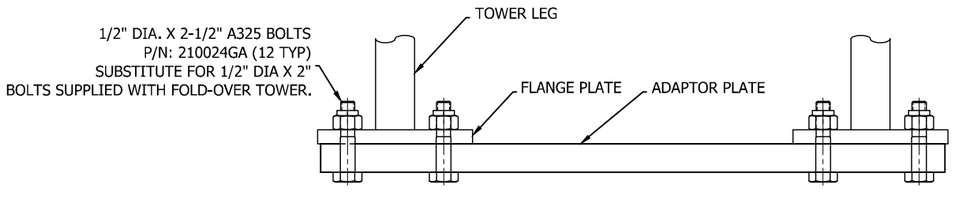
DRAWING NO:	REV:
55FK-FDNDP	1





PRECAST FOUNDATION

ASSEMBLY BILL OF MATERIAL P/N: 55FK-FDNPRECAST		
QTY	PART NUMBER	DESCRIPTION
1	KFBP001	ADAPTOR PLATE 1.00X1.71'X1.83'
12	210024GA	BOLT ASSY 1/2 X 2-1/2 A325



TOWER ATTACHMENT DETAIL

GENERAL NOTES:

1. ADAPTOR PLATE PROVIDED FOR MOUNTING A ROHN 55G FOLD-OVER TOWER TO A PRECAST FOUNDATION.
2. ADAPTOR PLATE P/N: KFBP001 FITS DIXIE PRECAST, INC. FOUNDATION TF-2A 4x4, OTHER ANCHOR BOLT MOUNTING HOLE ARRANGEMENTS ARE AVAILABLE UPON REQUEST. RESPONSIBILITY FOR FIT UP OF AN ADAPTOR PLATE TO A PRECAST FOUNDATION IS BY OTHERS.
3. PRECAST FOUNDATION DESIGN AND SUPPLY ARE BY OTHERS.
4. FOUNDATION DESIGN MUST BE DESIGNED TO SUPPORT THE REACTIONS SHOWN ON TOWER ASSEMBLY DRAWING FOR THE CONDITIONS EXISTING AT THE SITE.

FILE NO.

REVISIONS

REV.	DESCRIPTION	DWN	CHK	APP
1	UPDATED NOTES DATE: 6/8/2012	JEC	JDM	HA

ROHN PRODUCTS
PO BOX 5999
PEORIA, IL 61601-5999
TOLL FREE 800-727-ROHN

PRECAST FOUNDATION
ADAPTOR PLATE
55G FOLD-OVER TOWER

DWN:	CHK'D:	DATE:
LGC	JDM	6/17/2011
ENG'R: HA	SHEET #: 1 OF 1	
DRAWING NO: 55FK-FDNPRECAST		REV: 1

STANDARD FOUNDATION NOTES
ANSI/TIA-222-G

1. STANDARD FOUNDATION DESIGNS ARE IN ACCORDANCE WITH ANSI/TIA-222-G, "STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORTING STRUCTURES", SECTION 9 AND ANNEX F 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

2. THE PURCHASER MUST VERIFY THAT ACTUAL SITE SOIL PARAMETERS MEET OR EXCEED ANSI/TIA-222-G PRESUMPTIVE CLAY SOIL DESIGN PARAMETERS AND THAT THE 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.
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 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 CHAPTER 4 SHALL BE SATISFIED BASED ON THE CONDITIONS EXPECTED AT THE SITE. AS A MINIMUM, CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI (27.6 MPa) IN 28 DAYS.
8. MAXIMUM SIZE OF AGGREGATE SHALL NOT EXCEED SIZE SUITABLE FOR INSTALLATION METHOD UTILIZED OR 1/3 CLEAR DISTANCE BEHIND OR BETWEEN REINFORCING. MAXIMUM SIZE MAY BE INCREASED TO 2/3 CLEAR DISTANCE PROVIDED WORKABILITY AND METHODS OF CONSOLIDATION SUCH AS VIBRATING WILL 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 100 POUNDS PER CUBIC FOOT (16 kN/m3).
15. FOUNDATION DESIGNS ASSUME LEVEL GRADE AT THE 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. FOR FOUNDATION AND ANCHOR TOLERANCES SEE DRAWING A810214.
18. LOOSE MATERIAL SHALL BE REMOVED FROM BOTTOM OF EXCAVATION PRIOR TO CONCRETE PLACEMENT. SIDES OF EXCAVATION SHALL BE ROUGH AND FREE OF LOOSE CUTTINGS.
19. 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.
20. FREE FALL CONCRETE MAY BE USED PROVIDED FALL IS VERTICAL DOWN WITHOUT HITTING SIDES OF EXCAVATION, FORMWORK, REINFORCING BARS, FORM TIES, CAGE BRACING OR OTHER OBSTRUCTIONS. UNDER NO CIRCUMSTANCES SHALL CONCRETE FALL THROUGH WATER.
21. CONCRETE SHALL BE PLACED AGAINST UNDISTURBED SOIL EXCEPT FOR PIERS OR PIER AND PAD FOUNDATIONS. FORMS FOR PIERS SHALL BE REMOVED PRIOR TO PLACING STRUCTURAL BACKFILL.
22. CONSTRUCTION JOINTS, IF REQUIRED IN PIER MUST 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.
23. 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.
24. 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.
25. FOR ANCHOR BLOCK TYPE FOUNDATIONS, FOR GUYED TOWERS, 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 MUST BE IMPLEMENTED BASED ON OBSERVED SITE-SPECIFIC CONDITIONS.

FILE NO.

REVISIONS

REV.	DESCRIPTION	DWN	CHK	APP
1	REVISED NOTES AND DESCRIPTION DATE: 6/8/2012	JEC	JDM	HA

ROHN PRODUCTS
PO BOX 5999
PEORIA, IL 61601-5999
TOLL FREE 800-727-ROHN

ANSI/TIA-222-G
STANDARD FOUNDATION NOTES

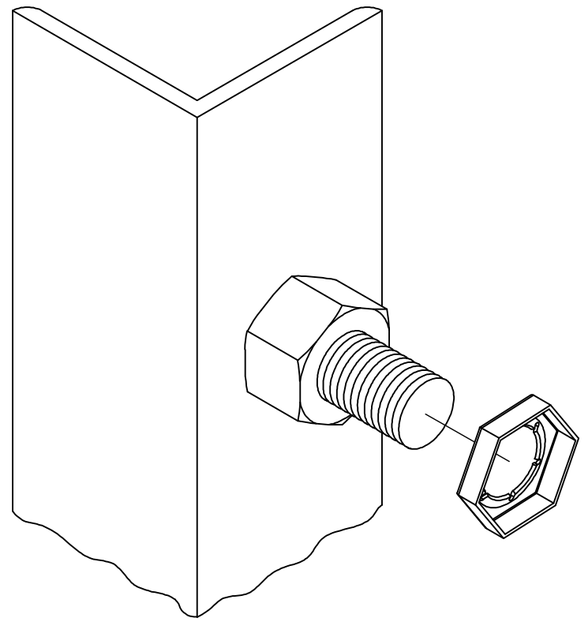
DWN:	CHK'D:	DATE:
FAD	HA	Nov/20/2009
ENG'R: HA	SHEET #: 1 OF 1	
PRJ. ENG'R:	PRJ. MANG'R:	
DRAWING NO: B090548		REV: 1

ASSEMBLY BOLT INSTALLATION

1. UNLESS OTHERWISE SPECIFIED, ASSEMBLY BOLTS AND ANCHOR BOLTS ARE TO BE TIGHTENED TO A SNUG TIGHT CONDITION (MEMBERS IN FIRM CONTACT) AND MUST INCLUDE A NUT LOCKING DEVICE. NO MINIMUM BOLT TENSION OR TORQUE VALUES ARE REQUIRED. WHEN LOCK WASHERS ARE PROVIDED AS A NUT LOCKING DEVICE, REPLACE ANY DAMAGED WASHERS DUE TO OVER TIGHTENING.
2. WASHERS ARE TO BE INSTALLED OVER SLOTTED HOLES.

PAL NUT INSTALLATION

1. PAL NUTS ARE TO BE INSTALLED AFTER NUTS ARE TIGHT AND WITH EDGE LIP OUT (SEE PICTURE). PAL NUTS ARE NOT REQUIRED WHEN SELF-LOCKING NUTS OR LOCK WASHERS ARE PROVIDED.



FILE NO.

REVISIONS

REV.	DESCRIPTION	DWN	CHK	APP
7	CHANGE NOTATION. DATE: 01/11/12	JEC	JDM	HA

ROHN PRODUCTS
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PEORIA, IL 61601-5999
TOLL FREE 800-727-ROHN

BOLT ASSEMBLY INSTALLATION

DWN:	CHK'D:	DATE:
OH		07/05/79

ENG'R:	SHEET #:
TWS	1 OF 1

DRAWING NO:	REV:
A790135	7

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 DEGREE.
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 DEGREE.

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 DEGREE.
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 DEGREE.
16. ANCHOR ROD SLOPE - PLUS OR MINUS 1.0 DEGREE.
17. ANCHOR ROD ALIGNMENT WITH GUY RADIUS PLUS OR MINUS 1.0 DEGREE.
18. ANCHOR HEAD OUT OF PLUMB - 1.0 DEGREE.
19. GUY INITIAL TENSION - PLUS OR MINUS 10% OF TENSION SPECIFIED.

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

WARNING!!!

AFTER ANCHOR BOLTS ARE INSTALLED IN 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.

Jan/14/2008 3:23:22 PM

\Erection\

FILE NO.
Standard-SSV

REVISIONS

REV.	DESCRIPTION	DWN	CHK	APP
8	REDRAWN TO AUTOCAD DATE: Jul/17/2006	JDA	JDM	H.A

DWG REFERENCE

ROHN PRODUCTS
6718 WEST PLANK ROAD
PEORIA, IL 61604
TOLL FREE 800-727-ROHN

FOUNDATION & ANCHOR TOLERANCE

DWN:	CHK'D:	DATE:
CSR	KTL	Sep/25/1987

ENG'R: XK

DRAWING NO: A810214

REV: 8