

MODIFICATION AND DESIGN DRAWINGS FOR AN EXISTING 195' SABRE SELF SUPPORTING TOWER

PROPOSED CARRIER: AT&T

SITE: CT01879-S-SBA / CLINTON 4 CT
COORDINATES (LATITUDE: 41.275205°, LONGITUDE: -72.497711°)

CONSTRUCTION CLASS

TES HAS DETERMINED THIS AS A
CLASS IV CONSTRUCTION PROJECT
PER ANSI/ASSE A10.48

COMPLETE FABRICATION DRAWINGS FOR ALL MATERIALS REQUIRED
FOR THIS PROJECT ARE AVAILABLE FROM TOWER ENGINEERING
SOLUTIONS (TES). PLEASE CONTACT TES FOR MORE INFORMATION.

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NOTE:

1. THE MODIFICATION DRAWINGS ARE BASED ON THE
TES PROJECT NO. 31606, DATED 03/15/17.



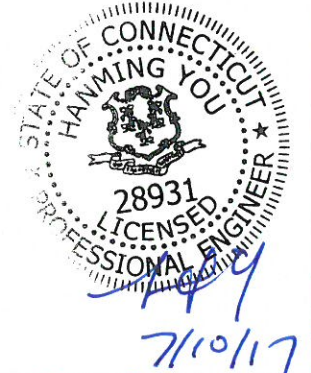
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TES JOB NO:
32039

CUSTOMER SITE NO:
CT01879-S-SBA
CUSTOMER SITE NAME:
CLINTON 4 CT
46 MEADOW ROAD
CLINTON, CT 06413



DRAWN BY: CHLE | CHECKED BY: RAM/SR

REV.	DESCRIPTION	BY	DATE
△	FIRST ISSUE	CHLE	05/12/17
△	REVISED	CHLE	07/10/17
△			
△			

SHEET TITLE:

TITLE SHEET

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SHEET NUMBER: T-1 | REV #: 1

BILL OF MATERIALS

QUANTITY REQUIRED	QUANTITY PROVIDED	PART NUMBER	DESCRIPTION	LENGTH	SHEET LIST	PIECE WEIGHT	WEIGHT (lb)	NOTES
MATERIAL & HARDWARE								
33	35	---	SPACER/SHIM FOR 3/4" DIA BOLT (3/8" THICK)	---	A-2, A-3A, A-4B	---	---	GALVANIZED
33	35	---	BOLT 3/4" X 2 1/2" A325	---	A-2, A-3A	---	---	(1) HHN & LKW-EA GALVANIZED
132	139	---	BOLT 3/4" X 2" A325 ¹	---	A-2, A-3A	---	---	(1) HHN & LKW-EA GALVANIZED
12	12	D-1	L 4" X 4" X 3/8" X 26'-0" A36	---	A-2, F-2	258.3	3100	GALVANIZED (FINAL CUT LENGTH TO BE DETERMINED IN FIELD)
6	6	AL-1	L 5" X 5" X 3/8" X 20'-0" A529-50	---	A-3, F-1	269.6	1618	GALVANIZED
36	36	D-2	L 4" X 4" X 3/8" X 23'-6" A36	---	A-3A, F-2	233.5	8406	GALVANIZED (FINAL CUT LENGTH TO BE DETERMINED IN FIELD)
6	6	AL-2	L 4" X 4" X 3/8" X 20'-0" A529-50	---	A-4, A-4A, F-1	198.7	1192	GALVANIZED (FINAL CUT LENGTH TO BE DETERMINED IN FIELD)
18	18	D-3	L 3" X 3" X 3/8" X 17'-0" A36	---	A-4B, F-2	124.1	2234	GALVANIZED (FINAL CUT LENGTH TO BE DETERMINED IN FIELD)
21	23	---	SPACER/SHIM FOR 5/8" DIA BOLT (3/8" THICK)	---	A-5, A-7	---	---	GALVANIZED
75	79	---	BOLT 5/8" X 2" A325	---	A-5, A-7	---	---	(1) HHN & LKW-EA GALVANIZED
84	89	---	BOLT 5/8" X 1 3/4" A325	---	A-5, A-6, A-7	---	---	(1) HHN & LKW-EA GALVANIZED
18	18	D-4	L 2 1/2" X 2 1/2" X 3/8" X 15'-0" A36	---	A-5, F-2	89.8	1616	GALVANIZED (FINAL CUT LENGTH TO BE DETERMINED IN FIELD)
9	10	---	BOLT 5/8" X 2 1/4" A325 W/HHN & LW	---	A-6	---	---	(1) HHN & LKW-EA GALVANIZED
18	19	MS02-625-4625-700	RU-BOLT 5/8" X 4 5/8" I.W. X 7" I.L. A36 OR EQUIV	---	A-6, RBC-1	1.6	30	(2) HHN & LKW-EA GALVANIZED
9	9	MH-18-300CP1	PL 3/8" X 3" X 2'-0 1/4" A36	---	A-6, MH-CP	7.88	71	GALVANIZED
18	18	MH-15E	L 2 1/2" X 2 1/2" X 1/4" X 7'-6" A36	---	A-6, MH-1	31.38	565	GALVANIZED
9	9	HBR425-450W	PL 1/2" X 4 3/4" X 7" A36 WELDMENT BRACKET	---	A-6, BR-1	9.96	90	GALVANIZED
24	24	D-5	L 2 1/2" X 2 1/2" X 3/8" X 11'-6" A36	---	A-7, F-2	68.8	1651	GALVANIZED
24	24	FP-1	PL 1/2" X 1'-0 1/2" X 4'-6" A572-50 ¹	---	A-8, F-2	73.9	1774	GALVANIZED
4	4	---	LANCO /HENRY 287 WHITE ACRYLIC ELASTOMERIC COATING AND SEALER (OR EQUIV) (GALLONS) ¹	---	A-1	---	---	PROVIDED BY CONTRACTOR
NOTE: ALL F SHEETS ARE NOT INCLUDED IN THIS DRAWING PACKET. CONTACT TES FOR THE F SHEETS.								
NOTE: ALL MATERIALS, WHICH WEREN'T LISTED IN THE BOM, ARE ASSUMED TO BE PROVIDED BY THE CONTRACTOR.								

TOTAL WEIGHT (lb) = 22,346

PAGE 1 OF 1



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2	REVISED	CHLE	07/10/17

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BILL OF MATERIALS

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SHEET NUMBER: REV #:

BOM

1

GENERAL NOTES

1. ALL WORK SHALL COMPLY WITH THE ANSI/TIA-222-G, ANSI/ASSE A10.48, AND 2016 CONNECTICUT STATE BUILDING CODES AND OSHA SAFETY REGULATIONS.
2. ALL WORK INDICATED ON THE DRAWINGS SHALL BE PERFORMED BY QUALIFIED CONTRACTORS EXPERIENCED IN TELECOMMUNICATIONS TOWER, POLE AND FOUNDATION CONSTRUCTION.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND FABRICATION OF ALL MISCELLANEOUS PARTS (SUCH AS SHIMS), TEMPORARY SUPPORTS, AND GUYINGS, ETC., PER TIA-1019-A, TO COMPLETE THE ASSEMBLY AS SHOWN IN THE DRAWINGS.
4. CONTRACTOR SHALL PROCEED WITH THE INSTALLATION WORK CAREFULLY SO THE WORK WILL NOT DAMAGE ANY EXISTING CABLE, EQUIPMENT OR THE STRUCTURE.
5. THE USE OF GAS TORCH OR WELDER, ARE NOT ALLOWED ON ANY TOWER STRUCTURE WITHOUT THE CONSENT OF THE TOWER OWNER.
6. GENERALLY THE CONTRACTOR IS RESPONSIBLE TO CONDUCT AN ONSITE VISIT SURVEY OF THE JOB SITE AFTER AWARD, AND REPORT ANY ISSUES WITH THE SITE TO **TES** BEFORE PROCEEDING CONSTRUCTION.

FABRICATION

1. ALL STEEL SHALL MEET OR EXCEED THE MINIMUM STRENGTH AS SPECIFIED IN THE DRAWINGS. IF YIELD STRENGTH WAS NOT NOTED IN THE DRAWINGS, CONTRACTORS SHALL CONTACT TES FOR DIRECTION.
2. ALL FIELD CUT EDGES SHALL BE GROUND SMOOTH. ALL FIELD CUT AND DRILLED SURFACES SHALL BE REPAIRED WITH A MINIMUM OF TWO COATS OF ZRC GALVILITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.

WELDING

1. ALL WELDING SHALL BE PERFORMED BY AWS CERTIFIED WELDERS AND IN ACCORDANCE WITH THE LATEST EDITION OF THE AWS WELDING CODE D1.1. ALL ELECTRODES TO BE LOW HYDROGEN, MATCHING FILLER METAL, PER AWS D1.1, UNO. (E70XX UNLESS NOTED OTHERWISE).
2. PRIOR TO FIELD WELDING GALVANIZED MATERIAL, CONTRACTOR SHALL GRIND OFF GALVANIZING APPROX. 0.5" BEYOND THE PROPOSED FIELD WELD SURFACES.
3. ALL WELDS SHALL BE INSPECTED VISUALLY. A MINIMUM OF 25% OF WELDS SHALL BE INSPECTED WITH DYE PENETRANT OR MAGNETIC PARTICLE TO MEET THE ACCEPTANCE CRITERIA OF AWS D1.1. 100% OF WELDS SHALL BE INSPECTED IF DEFECTS ARE FOUND.
4. WELD INSPECTIONS SHALL BE PERFORMED BY AN AWS CERTIFIED WELD INSPECTOR.
5. AFTER INSPECTION, ALL FIELD WELDED SURFACES SHALL BE REPAIRED WITH A MINIMUM OF TWO COATS OF ZRC GALVILITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.

BOLTED ASSEMBLIES AND TIGHTENING OF CONNECTIONS

1. ALL HIGH STRENGTH BOLTS SHALL CONFORM TO THE PROVISIONS OF THE SPECIFICATIONS FOR STRUCTURAL JOINTS USING A325 OR A490 BOLTS AS APPROVED BY THE RCSC.
2. FLANGE BOLTS SHALL BE TIGHTENED BY THE AISC "TURN-OF-THE-NUT" METHOD. THE FOLLOWING TABLE SHOULD BE USED FOR THE "TURN-OF-THE-NUT" TIGHTENING.
3. SPLICE BOLTS AND ALL OTHER BOLTS IN BEARING TYPE CONNECTIONS SHALL BE TIGHTENED TO A SNUG-TIGHT CONDITION.
4. THE SNUG-TIGHT CONDITION IS DEFINED AS THE TIGHTNESS ATTAINED BY EITHER A FEW IMPACTS OF AN IMPACT WRENCH OR THE FULL EFFORT OF AN IRONWORKER WITH AN ORDINARY SPUD WRENCH TO BRING THE CONNECTED PLIES INTO FIRM CONTACT.
5. HB HOLLO-BOLT SHALL BE INSTALLED PER ICC ESR-3330 INSTRUCTIONS.

VERIFICATION AND INSPECTION

1. IF APPLICABLE, VERIFICATION INSPECTION TO BE PERFORMED SHALL BE IN ACCORDANCE TO IBC-2012 SECTION 1705 - TABLE 1705.2.2 FOR STEEL CONSTRUCTION AND TABLE 1705.3 FOR CONCRETE CONSTRUCTION.

TABLE 8.2 NUT ROTATION FROM SNUG-TIGHT CONDITION FOR TURN-OF-NUT PRETENSIONING^{a,b}

BOLT LENGTH ^f	DISPOSITION OF OUTER FACE OF BOLTED PARTS		
	BOTH FACES NORMAL TO BOLT AXIS	ONE FACE NORMAL TO BOLT AXIS, OTHER SLOPED NOT MORE THAN 1:20 ^d	BOTH FACES SLOPED NOT MORE THAN 1:20 FROM NORMAL TO BOLT AXIS ^d
NOT MORE THAN 4d _b	1/3 TURN	1/2 TURN	2/3 TURN
MORE THAN 4d _b BUT NOT MORE THAN 8d _b	1/2 TURN	2/3 TURN	5/6 TURN
MORE THAN 8d _b BUT NOT MORE THAN 12d _b	2/3 TURN	5/6 TURN	1 TURN

^a NUT ROTATION IS RELATIVE TO BOLT REGARDLESS OF THE ELEMENT (NUT OR BOLT) BEING TURNED. FOR REQUIRED NUT ROTATIONS OF 1/2 TURN AND LESS, THE TOLERANCE IS PLUS OR MINUS 30 DEGREES; FOR REQUIRED NUT ROTATIONS OF 2/3 TURN AND MORE, THE TOLERANCE IS PLUS OR MINUS 45 DEGREES.

^b APPLICABLE ONLY TO JOINTS IN WHICH ALL MATERIAL WITHIN THE GRIP IS STEEL.

^c WHEN THE BOLT LENGTH EXCEEDS 12d_b, THE REQUIRED NUT ROTATION SHALL BE DETERMINED BY ACTUAL TESTING IN A SUITABLE TENSION CALIBRATOR THAT SIMULATES THE CONDITIONS OF SOLIDLY FITTING STEEL.

^d BEVELED WASHER NOT USED.

SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS, JUNE 30, 2004 RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS

INSTALLATION TORQUE REQUIRED FOR HOLLO BOLTS AND AJAX BOLTS:

1. HB12 HOLLO BOLT: 59 FT-LBS
2. HB16 HOLLO BOLT: 140 FT-LBS
3. HB20 HOLLO BOLT: 221 FT-LBS
4. M20 AJAX BOLT: 280 FT-LBS.

FIELD HOT WORK PLAN NOTES:

FOLLOWING GUIDELINES SHALL BE COMPLIED WITH:

1. CONTRACTOR'S RESPONSIBILITY TO COMPLETE A HOT WORK PLAN IF AWARDED PER CUSTOMER SPECIFICATIONS GUIDELINES FOR WELDING, CUTTING & SPARK PRODUCING WORK.
2. HAVE A FIRE PLAN APPROVED BY THE CUSTOMER AND THEIR SAFETY MANAGEMENT DEPT.
3. CONTRACTOR MUST OBTAIN THE CONTACT INFO OF THE LOCAL FIRE DEPARTMENT AND THE 911 ADDRESS OF THE TOWER SITE BEFORE CONSTRUCTION.
4. CONTRACTOR SHALL MAKE SURE THAT CELL PHONE COVERAGE IS AVAILABLE IN THE TOWER SITE. IF CELL COVERAGE IS NOT AVAILABLE, AN IMMEDIATE AVAILABLE MEANS OF DIRECT COMMUNICATION WITH THE FIRE DEPARTMENT SHALL BE DETERMINED PRIOR TO CONSTRUCTION START.
5. ALL CONSTRUCTION SHALL BE PERFORMED UNDER WIND SPEED LESS THAN 10 MPH ON THE GROUND LEVEL. IF WIND SPEED INCREASE, CONTRACTOR MUST DETERMINE IF CONSTRUCTION SHALL BE DISCONTINUED.
6. FIRE SUPPRESSION EQUIPMENT MUST BE MADE AVAILABLE ON SITE AND READY TO USE.
7. CONTRACTOR SHALL ASSIGN A FIRE WATCHER TO PERFORM FIRE-FIGHTING DUTIES.
8. ALL WELDERS SHALL BE AWS OR STATE CERTIFIED. THEY MUST ALSO BE EXPERIENCED IN WELDING ON GALVANIZED MATERIALS.
9. IF IT IS POSSIBLE, ALL EXISTING COAX NEAR WELDING AREA SHALL BE TEMPORARILY MOVED AWAY FROM THE WELDING AREA BEFORE WELDING THE PLATES.
10. PLEASE REPORT ANY FIELD ISSUE TO TES @ 972-483-0607.



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GENERAL NOTES

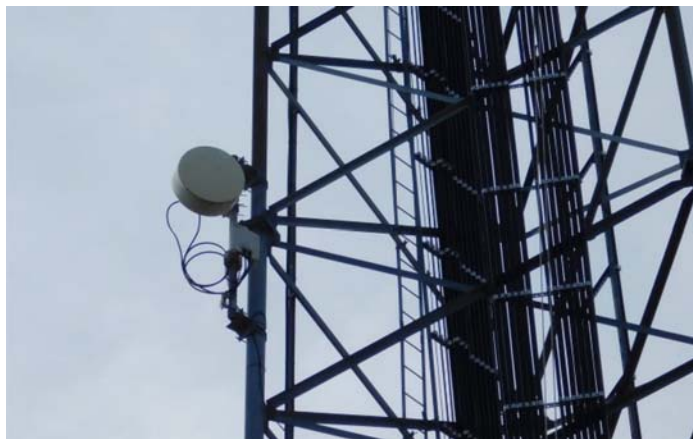
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SHEET NUMBER: | REV #:

GN-1 | 0

NOTES:

1. TEMPORARILY RELOCATE ANY EXISTING COAX ATTACHED TO THE LEGS AND/OR ANY OTHER MEMBERS WHERE OBSTRUCTION WITH THE PROPOSED MODIFICATION MAY OCCUR.
2. TEMPORARILY RELOCATE EXISTING EQUIPMENT AROUND FOUNDATION MAY BE REQUIRED DURING THE CONSTRUCTION
3. TEMPORARY BRACING SHALL BE PROVIDED WHILE REPLACING MEMBERS. ONLY ONE MEMBER CAN BE REMOVED AT A TIME.
4. SEE SHEET GN-1 FOR HOT WORK PLAN NOTES.



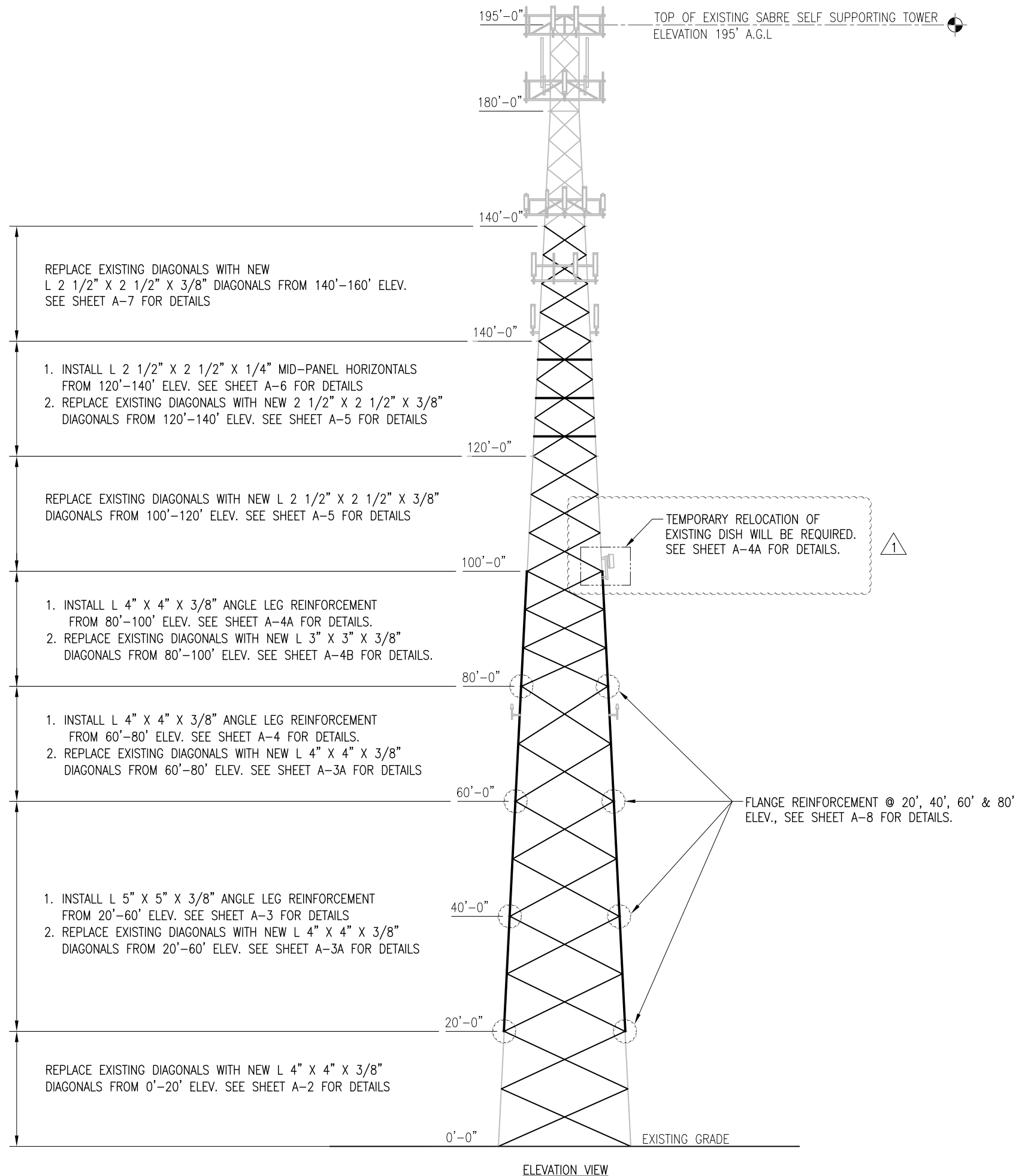
DISH PHOTO @ ±102' ELEV.



TOWER BASE/FOUNDATION PHOTO

SELF-SUPPORT FOUNDATION COATING NOTES:

FOR CONCRETE FOUNDATIONS GC TO APPLY PROTECTIVE SEALANT (LANCO/HENRY 287 WHITE ACRYLIC ELASTOMERIC COATING AND SEALER OR EQUIV). FOLLOW ALL COATING MANUFACTURER RECOMMENDATIONS PRIOR TO AND DURING THE APPLICATION OF THE COATING.



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TOWER PROFILE

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A-1

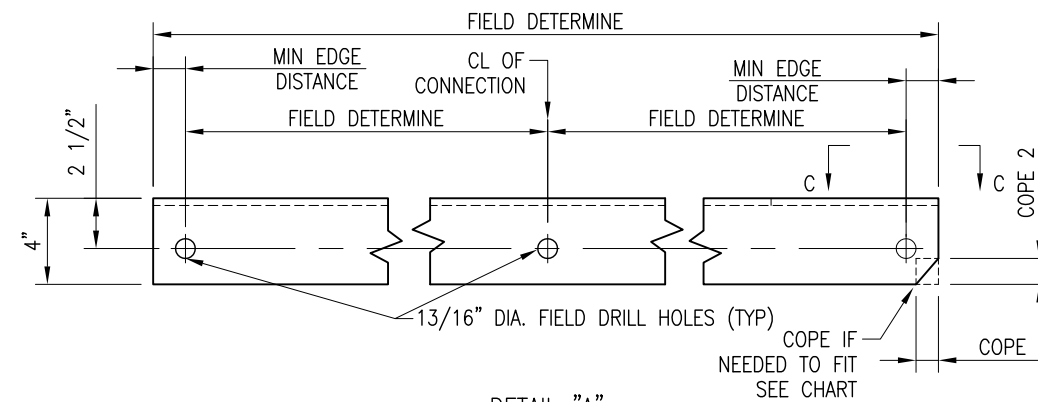
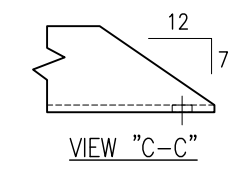
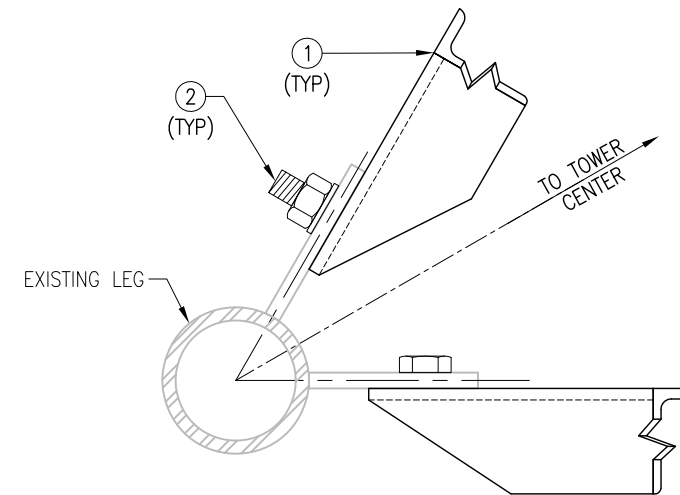
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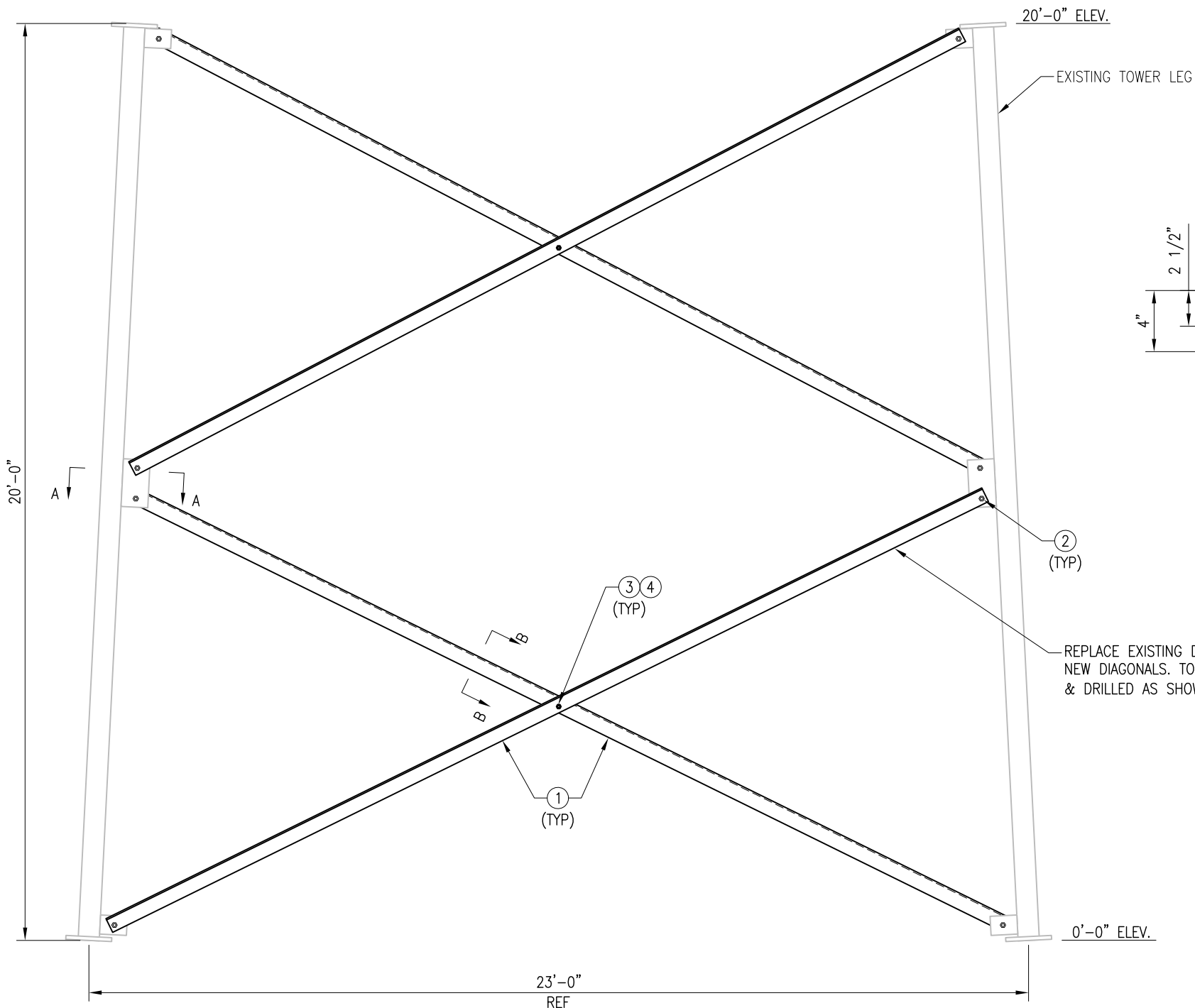
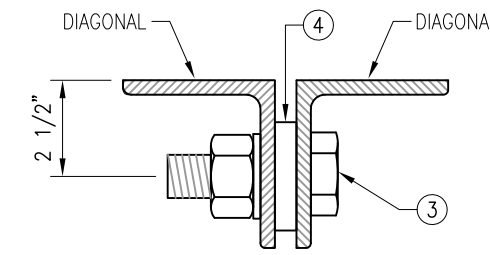
1. SEE SHEET A-1 FOR LOCATION OF REQUIRED SECTION MODIFICATIONS.
2. TEMPORARILY RELOCATE ANY EXISTING COAX ATTACHED TO THE LEGS AND/OR ANY OTHER MEMBERS WHERE OBSTRUCTION WITH THE PROPOSED MODIFICATION MAY OCCUR.
3. WHEN FIELD CUTTING AND DRILLING ANGLES, USE SAME GAGE LINES AND EDGE DISTANCES AS INDICATED ON SHOP CUT AND DRILLED ENDS,
4. APPLY (2) COATS OF ZINC RICH GALVANIZING COMPOUND AS PER THE MANUFACTURER'S SPECIFICATIONS TO ALL FIELD CUT AND DRILLED AREAS.
5. TEMPORARY BRACING SHALL BE PROVIDED WHILE REPLACING MEMBERS. ONLY ONE MEMBER CAN BE REMOVED AT A TIME..

SAFETY NOTES:

REMOVAL OF EXISTING DIAGONALS MUST BE DONE CAREFULLY WITH SAFETY IN MIND. DIAGONAL MEMBERS CAN ONLY BE REMOVED ONE AT A TIME AND IMMEDIATELY REPLACED WITH THE NEW MEMBER. NO MORE THEN ONE MEMBER SHOULD BE REMOVED AT ANY TIME. IF REQUIRED TEMPORARY BRACING SHALL BE INSTALLED FOR SAFETY. REPLACEMENT OF THE DIAGONALS SHALL BE PERFORMED AT A TIME WHEN THE WIND VELOCITY IS LESS THAN 10 MPH AT GROUND LEVEL AND WITH NO ICE ON THE STRUCTURE.



BOLT DIA	MIN EDGE DISTANCE	COPE LENGTH 1	COPE LENGTH 2
1/2"	7/8"	5/8"	1 1/4"
5/8"	1 1/8"	13/16"	1 3/16"
3/4"	1 3/8"	1"	1 1/8"
7/8"	1 1/2"	1 1/16"	1 1/16"
1"	1 3/4"	1 1/4"	1"



REPLACE EXISTING DIAGONALS WITH NEW DIAGONALS. TO BE FIELD CUT & DRILLED AS SHOWN IN DETAIL "A" (TYP).

NOTE: TOWER SHOWN IS ONLY REPRESENTATIVE.

ELEVATION VIEW

ITEM NO.	QTY.	PART NO.	DESCRIPTION
4	6	---	SPACER/SHIM FOR 3/4" DIA BOLT (3/8" THICK)
3	6	---	BOLT 3/4" X 2 1/2" A325
2	24	---	BOLT 3/4" X 2" A325
1	12	D-1	L 4" X 4" X 3/8" X 26'-0" A36

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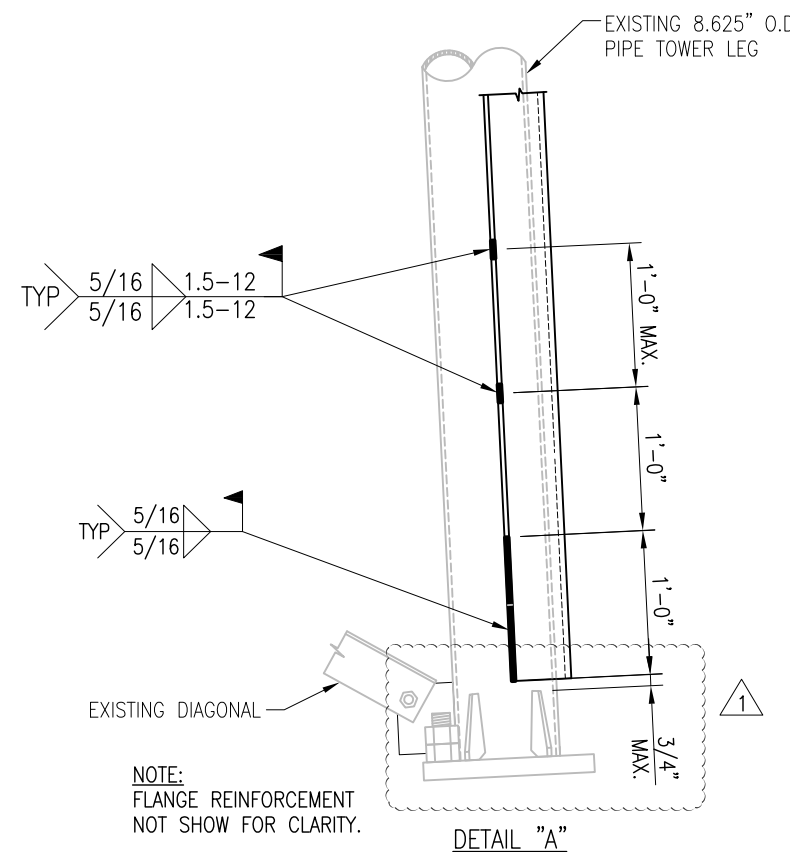
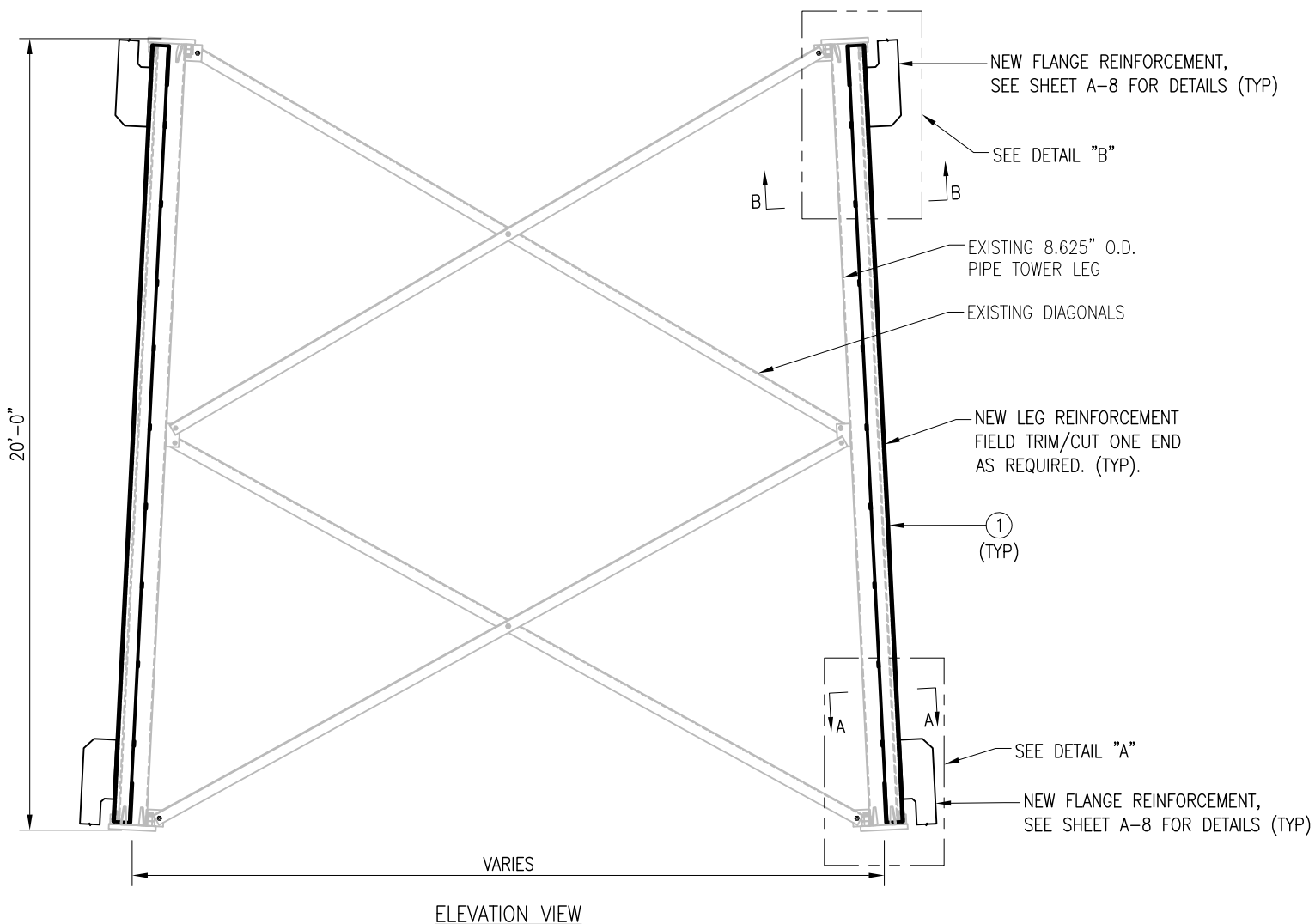
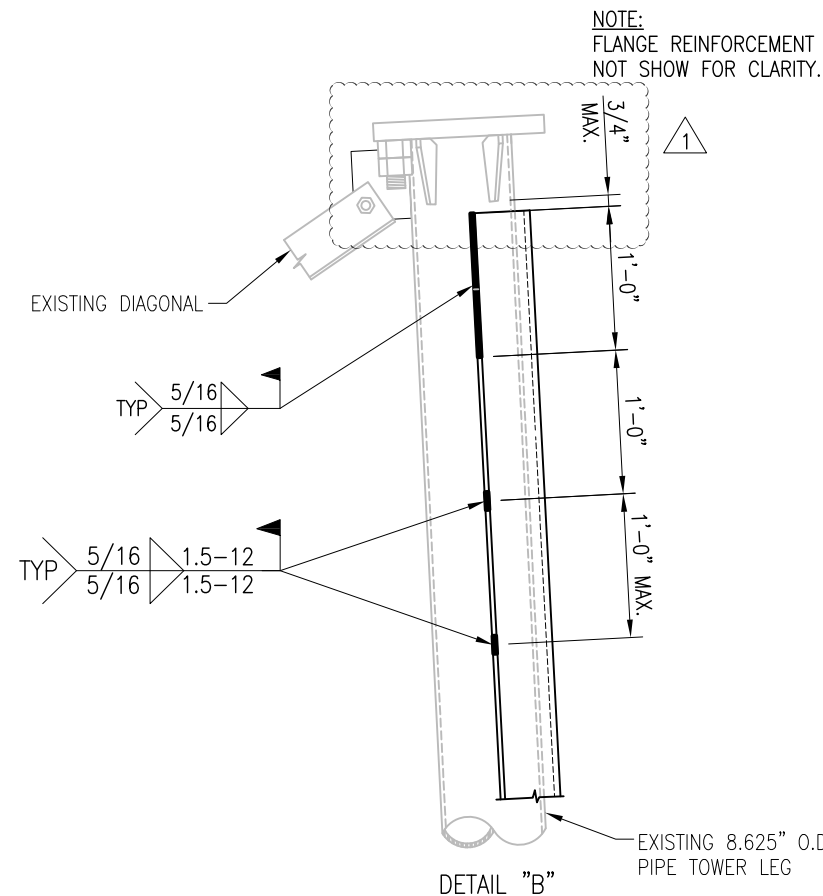
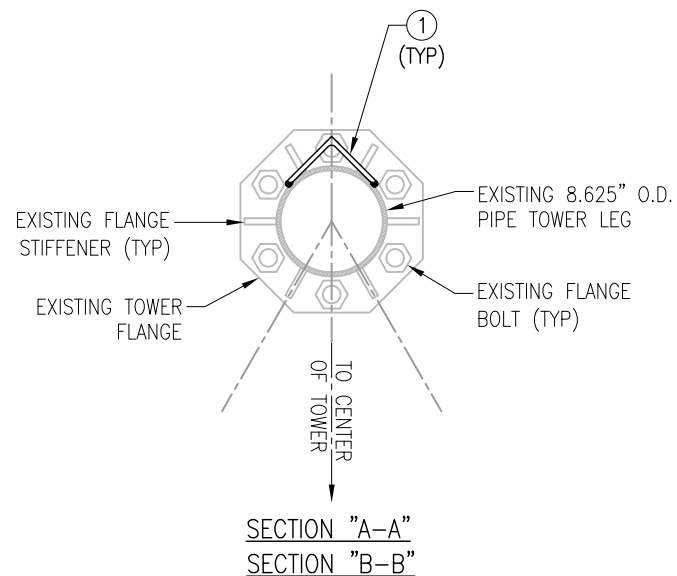
DIAGONAL REPLACEMENT DETAILS

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SHEET NUMBER: **A-2** REV #: **1**

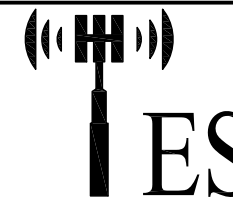
NOTES:

1. SEE SHEET A-1 FOR LOCATION OF REQUIRED SECTION MODIFICATIONS.
2. TEMPORARILY RELOCATE ANY EXISTING COAX ATTACHED TO THE LEGS AND/OR ANY OTHER MEMBERS WHERE OBSTRUCTION WITH THE PROPOSED MODIFICATION MAY OCCUR.
3. APPLY (2) COATS OF ZINC RICH GALVANIZING COMPOUND AS PER THE MANUFACTURER'S SPECIFICATIONS TO ALL FIELD CUT AND DRILLED AREAS.
4. CONTRACTOR TO VERIFY PROPER FITMENT OF LEG AND FLANGE REINFORCEMENTS PRIOR TO INSTALLATION OF MODIFICATIONS.
5. SEE SHEET GN-1 FOR "FIELD HOT WORK PLAN NOTES".



NOTE:
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1	3	AL-1	L 5" X 5" X 3/8" X 20'-0" A529-50
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TES JOB NO:
32039

CUSTOMER SITE NO:
CT01879-S-SBA
CUSTOMER SITE NAME:
CLINTON 4 CT
46 MEADOW ROAD
CLINTON, CT 06413

DRAWN BY: CHLE | CHECKED BY: RAM/SR

REV.	DESCRIPTION	BY	DATE
△1	FIRST ISSUE	CHLE	05/12/17
△2	REVISED	CHLE	07/10/17
△3			
△4			

SHEET TITLE:
L 5" X 5" X 3/8"
ANGLE LEG
REINFORCEMENT

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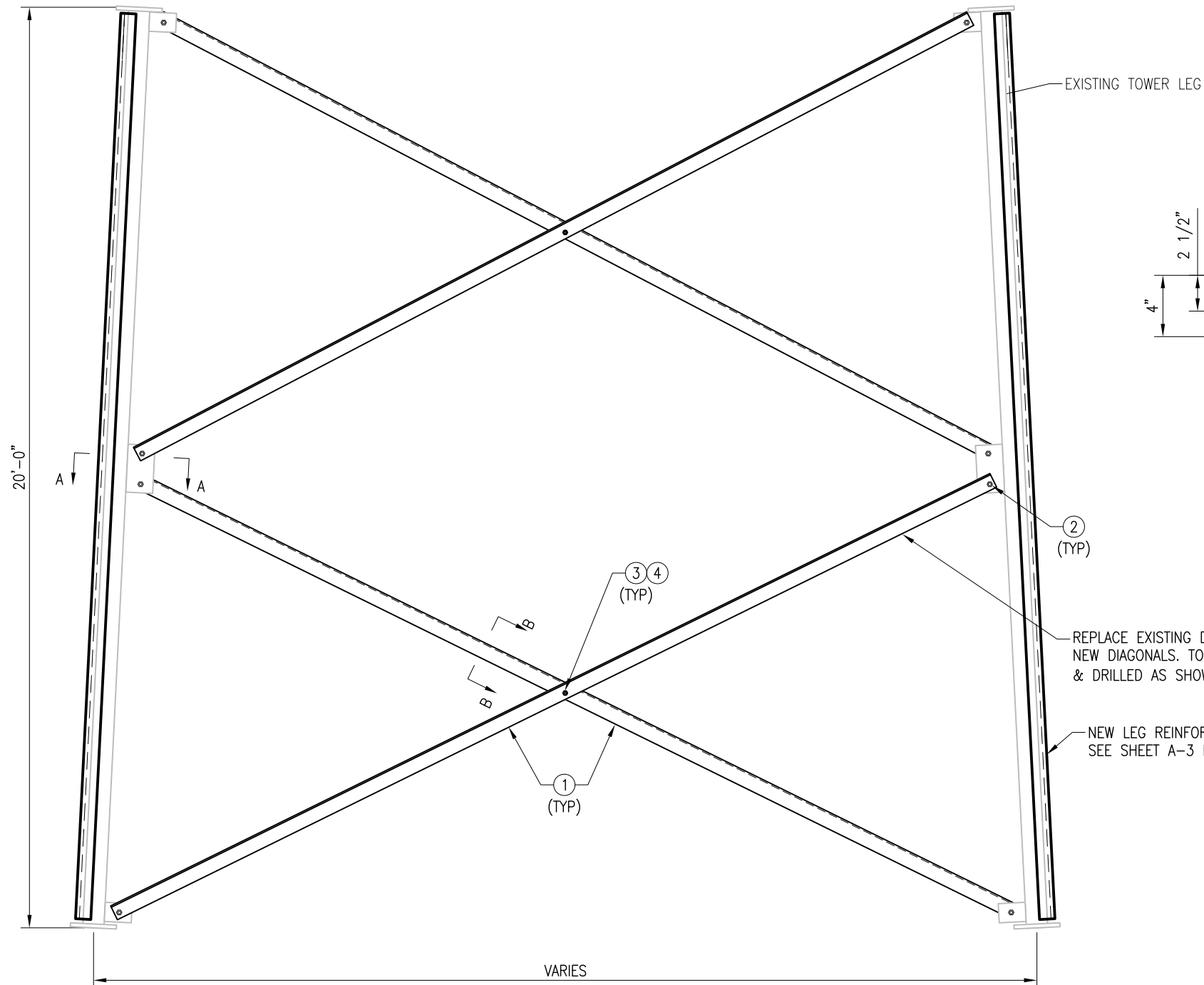
SHEET NUMBER:
A-3 | REV #:
1

NOTES:

1. SEE SHEET A-1 FOR LOCATION OF REQUIRED SECTION MODIFICATIONS.
2. TEMPORARILY RELOCATE ANY EXISTING COAX ATTACHED TO THE LEGS AND/OR ANY OTHER MEMBERS WHERE OBSTRUCTION WITH THE PROPOSED MODIFICATION MAY OCCUR.
3. WHEN FIELD CUTTING AND DRILLING ANGLES, USE SAME GAGE LINES AND EDGE DISTANCES AS INDICATED ON SHOP CUT AND DRILLED ENDS,
4. APPLY (2) COATS OF ZINC RICH GALVANIZING COMPOUND AS PER THE MANUFACTURER'S SPECIFICATIONS TO ALL FIELD CUT AND DRILLED AREAS.
5. TEMPORARY BRACING SHALL BE PROVIDED WHILE REPLACING MEMBERS. ONLY ONE MEMBER CAN BE REMOVED AT A TIME..

SAFETY NOTES:

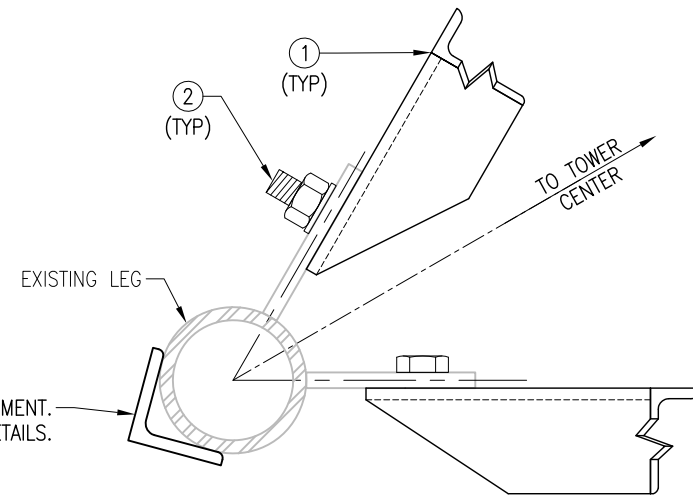
REMOVAL OF EXISTING DIAGONALS MUST BE DONE CAREFULLY WITH SAFETY IN MIND. DIAGONAL MEMBERS CAN ONLY BE REMOVED ONE AT A TIME AND IMMEDIATELY REPLACED WITH THE NEW MEMBER. NO MORE THEN ONE MEMBER SHOULD BE REMOVED AT ANY TIME. IF REQUIRED TEMPORARY BRACING SHALL BE INSTALLED FOR SAFETY. REPLACEMENT OF THE DIAGONALS SHALL BE PERFORMED AT A TIME WHEN THE WIND VELOCITY IS LESS THAN 10 MPH AT GROUND LEVEL AND WITH NO ICE ON THE STRUCTURE.



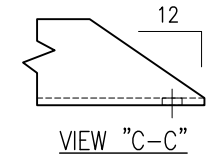
NOTE:
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ELEVATION VIEW

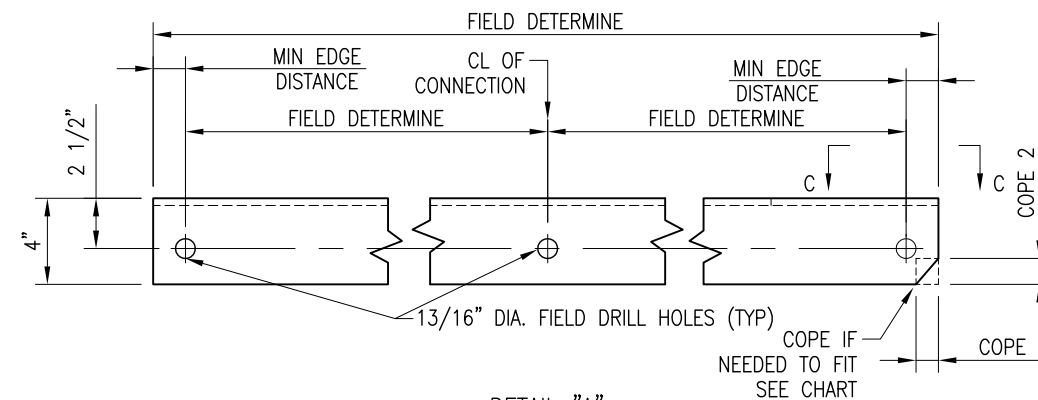
NEW LEG REINFORCEMENT.
SEE SHEET A-3 FOR DETAILS.



SECTION "A-A"

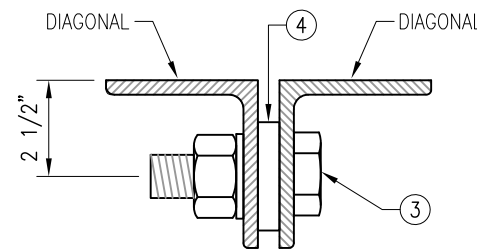


VIEW "C-C"



DETAIL "A"

BOLT DIA	MIN EDGE DISTANCE	COPE LENGTH 1	COPE LENGTH 2
1/2"	7/8"	5/8"	1 1/4"
5/8"	1 1/8"	13/16"	1 3/16"
3/4"	1 3/8"	1"	1 1/8"
7/8"	1 1/2"	1 1/16"	1 1/16"
1"	1 3/4"	1 1/4"	1"



SECTION "B-B"

ITEM NO.	QTY.	PART NO.	DESCRIPTION
4	6	---	SPACER/SHIM FOR 3/4" DIA BOLT (3/8" THICK)
3	6	---	BOLT 3/4" X 2 1/2" A325
2	24	---	BOLT 3/4" X 2" A325
1	12	D-2	L 4" X 4" X 3/8" X 23'-6" A36



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(800)-487-SITE

TES JOB NO:
32039

CUSTOMER SITE NO:
CT01879-S-SBA
CUSTOMER SITE NAME:
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46 MEADOW ROAD
CLINTON, CT 06413

DRAWN BY: CHLE CHECKED BY: RAM/SR

REV. DESCRIPTION BY DATE
△ FIRST ISSUE CHLE 05/12/17

SHEET TITLE:

DIAGONAL REPLACEMENT DETAILS

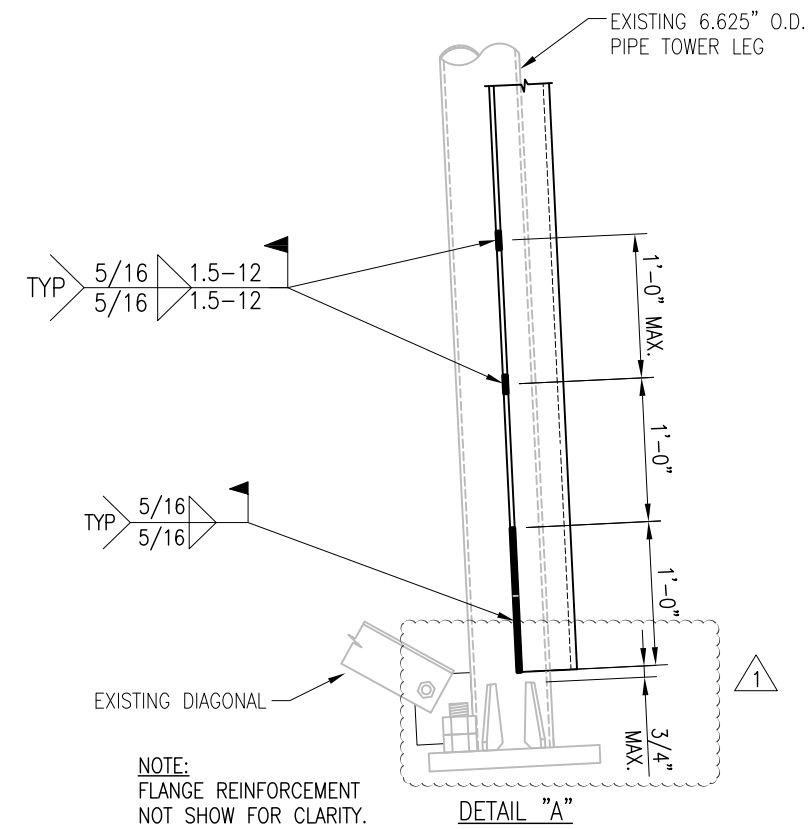
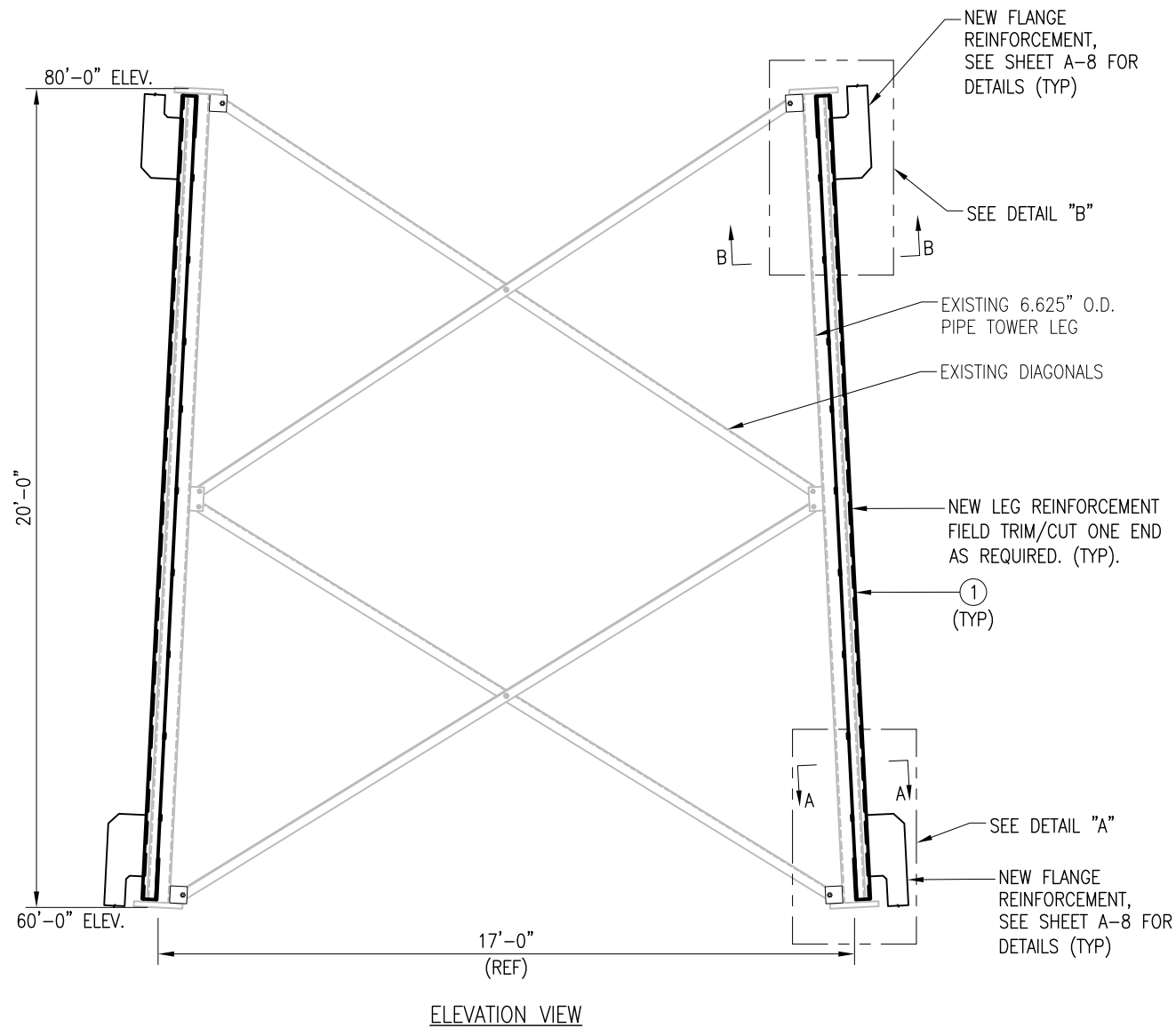
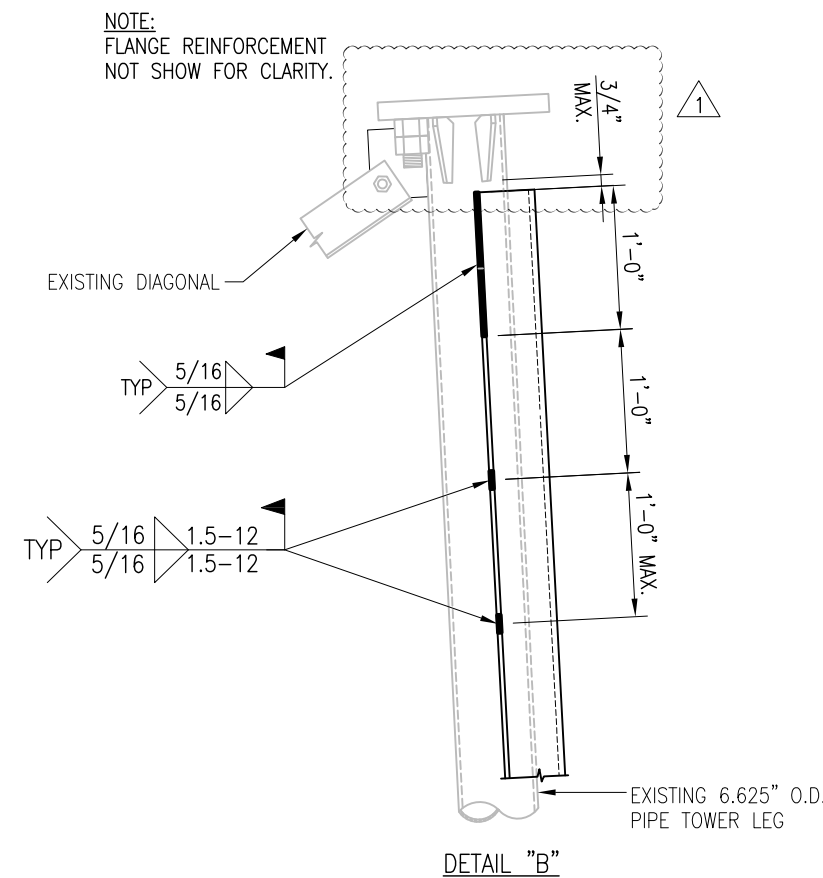
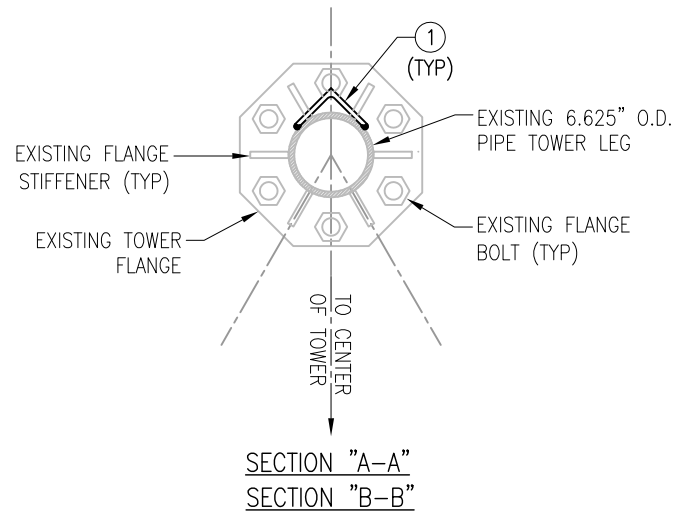
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SHEET NUMBER: REV #:

A-3A 0

NOTES:

1. SEE SHEET A-1 FOR LOCATION OF REQUIRED SECTION MODIFICATIONS.
2. TEMPORARILY RELOCATE ANY EXISTING COAX ATTACHED TO THE LEGS AND/OR ANY OTHER MEMBERS WHERE OBSTRUCTION WITH THE PROPOSED MODIFICATION MAY OCCUR.
3. APPLY (2) COATS OF ZINC RICH GALVANIZING COMPOUND AS PER THE MANUFACTURER'S SPECIFICATIONS TO ALL FIELD CUT AND DRILLED AREAS.
4. CONTRACTOR TO VERIFY PROPER FITMENT OF LEG AND FLANGE REINFORCEMENTS PRIOR TO INSTALLATION OF MODIFICATIONS.
5. SEE SHEET GN-1 FOR "FIELD HOT WORK PLAN NOTES".



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	3	AL-2	L 4" X 4" X 3/8" X 20'-0" A529-50



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REV.	DESCRIPTION	BY	DATE
1	FIRST ISSUE	CHLE	05/12/17
2	REVISED	CHLE	07/10/17
3			
4			

SHEET TITLE:
L 4" X 4" X 3/8"
ANGLE LEG
REINFORCEMENT

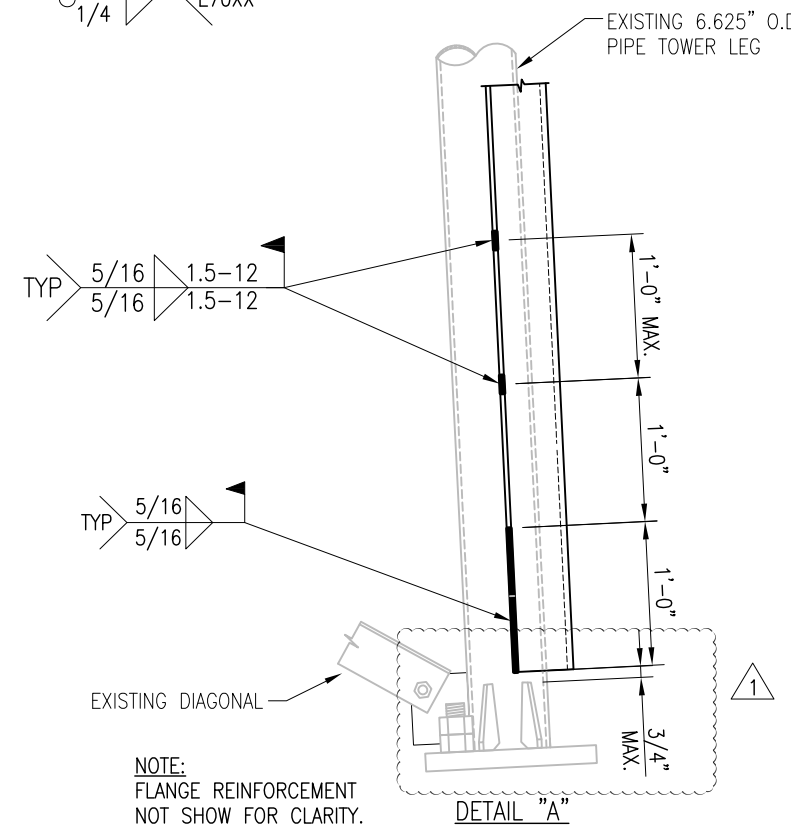
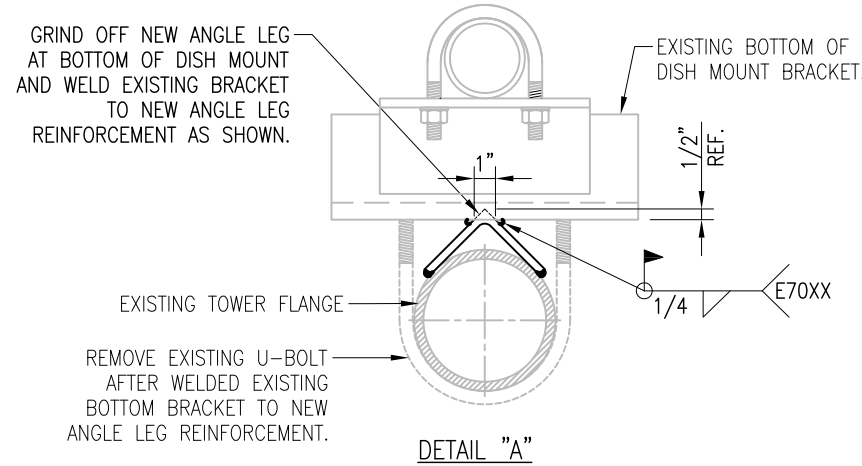
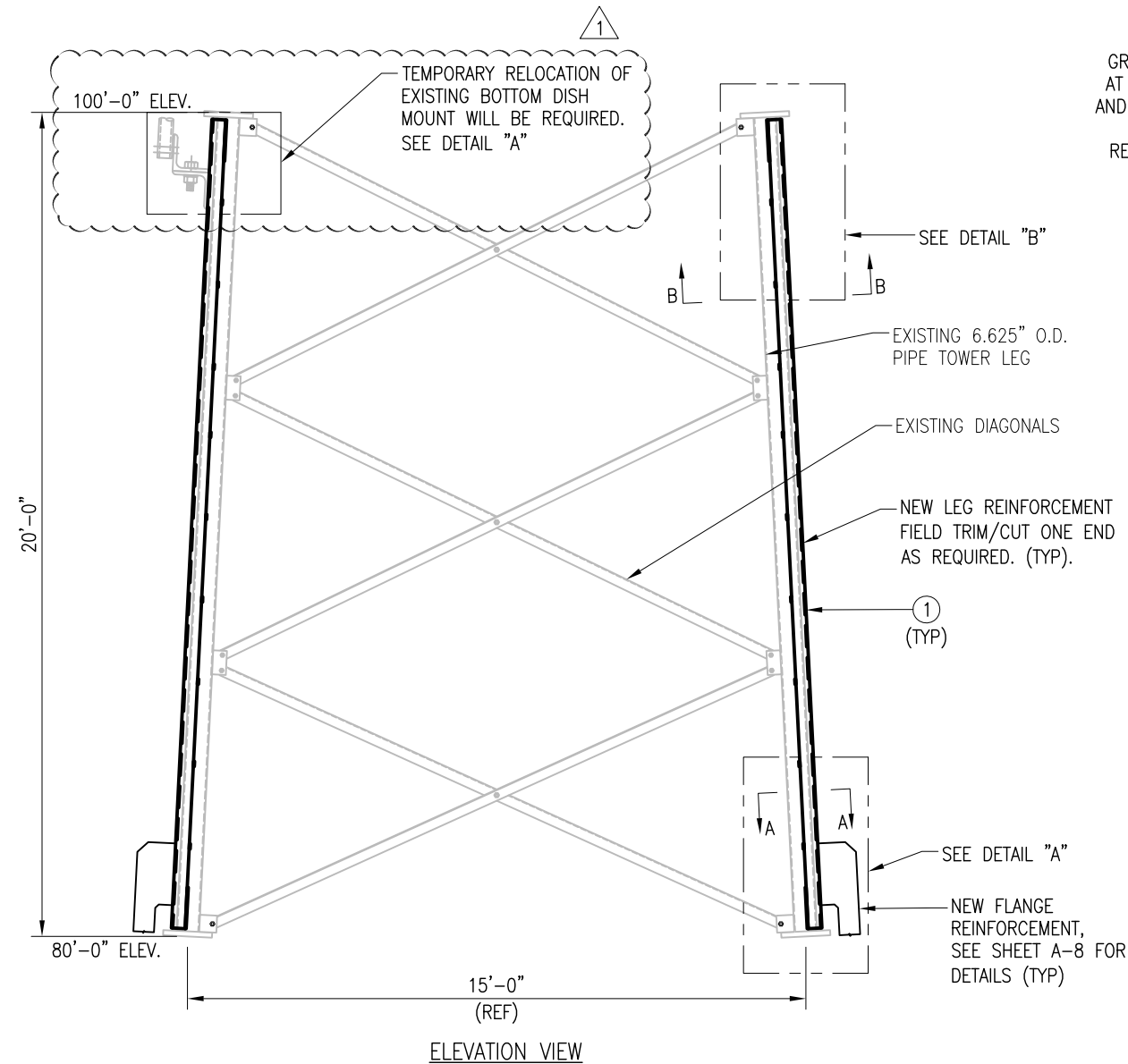
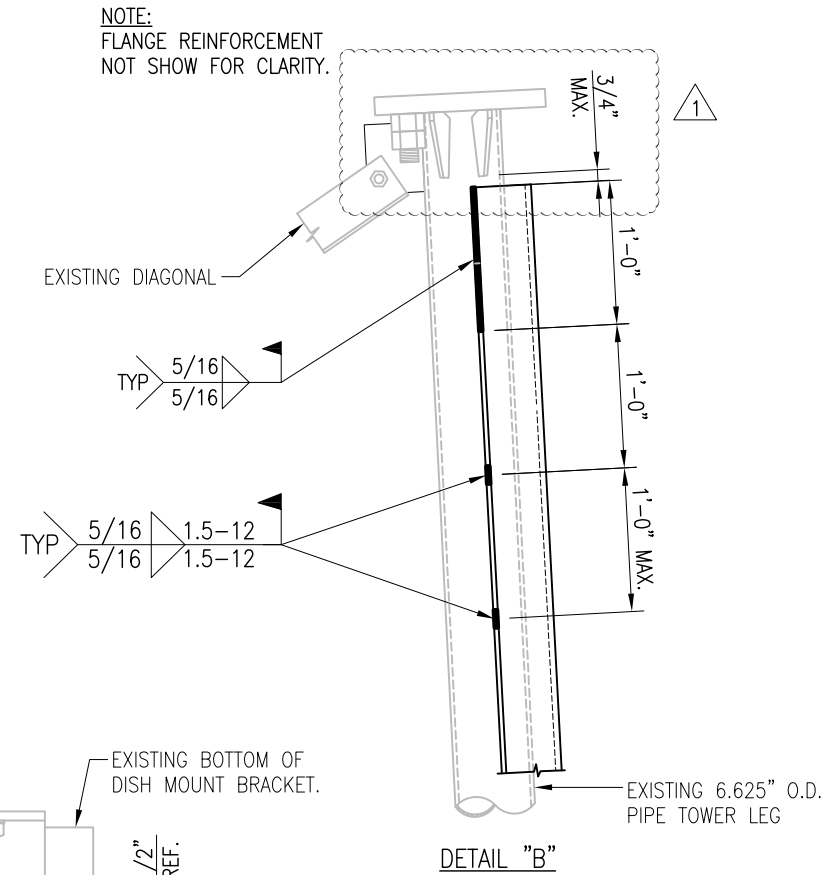
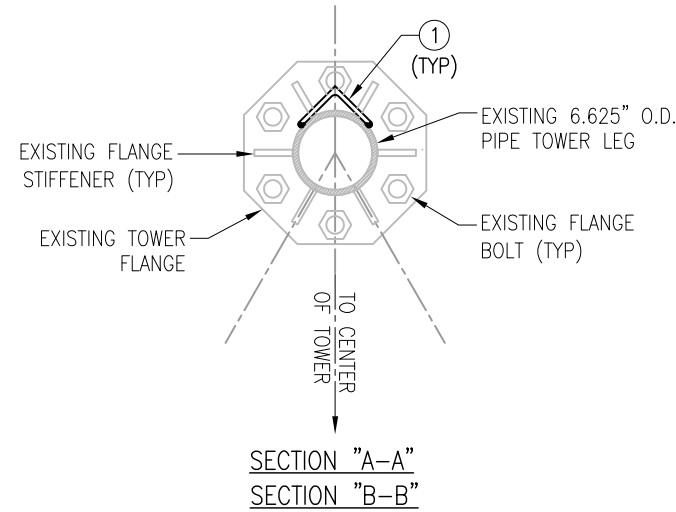
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A-4

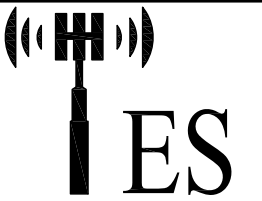
REV #:
1

NOTES:

1. SEE SHEET A-1 FOR LOCATION OF REQUIRED SECTION MODIFICATIONS.
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4. CONTRACTOR TO VERIFY PROPER FITMENT OF LEG AND FLANGE REINFORCEMENTS PRIOR TO INSTALLATION OF MODIFICATIONS.
5. SEE SHEET GN-1 FOR "FIELD HOT WORK PLAN NOTES".



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DRAWN BY: CHLE CHECKED BY: RAM/SR

REV.	DESCRIPTION	BY	DATE
1	FIRST ISSUE	CHLE	05/12/17
2	REVISED	CHLE	07/10/17

SHEET TITLE:
L 4" X 4" X 3/8"
ANGLE LEG
REINFORCEMENT

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SHEET NUMBER:
A-4A
REV #:
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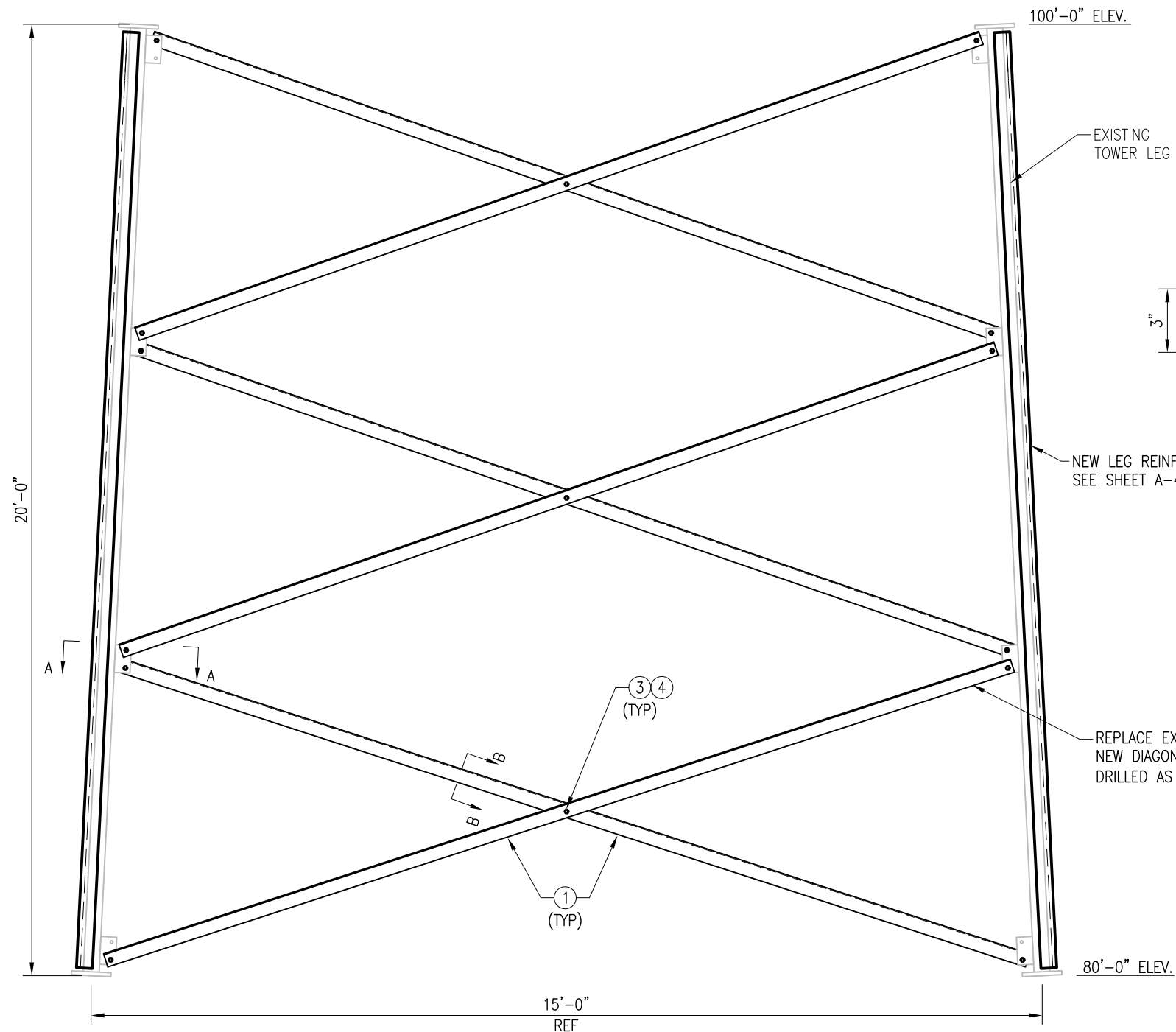
ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	3	AL-2	L 4" X 4" X 3/8" X 20'-0" A529-50

NOTES:

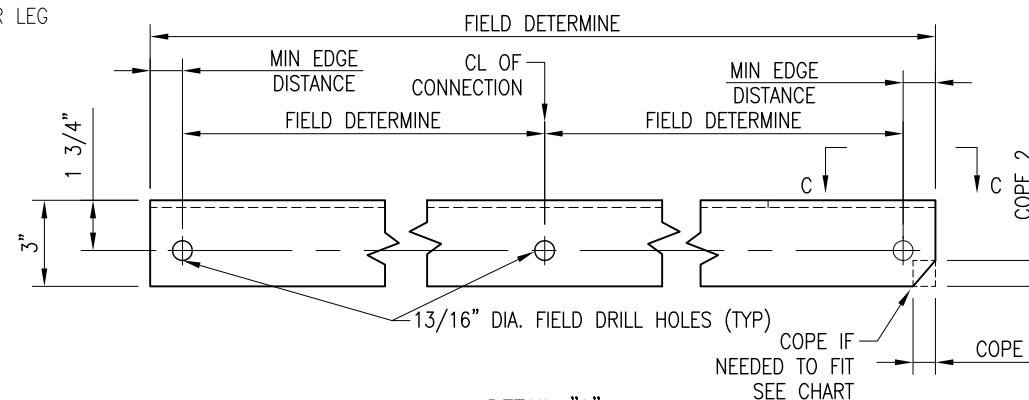
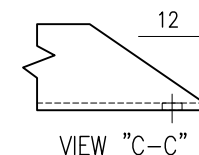
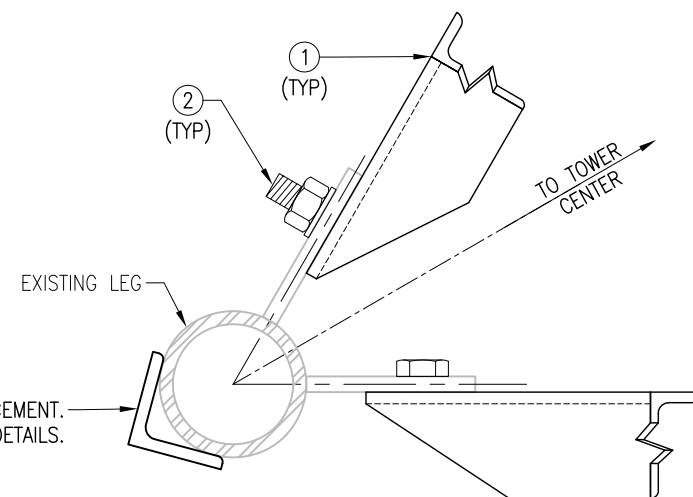
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5. TEMPORARY BRACING SHALL BE PROVIDED WHILE REPLACING MEMBERS. ONLY ONE MEMBER CAN BE REMOVED AT A TIME..

SAFETY NOTES:

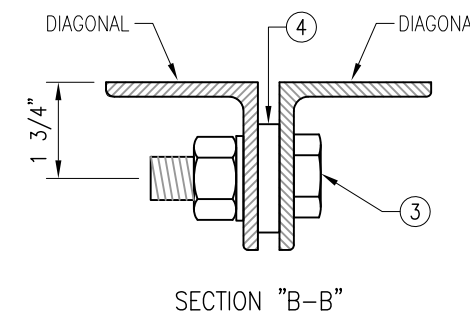
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NEW LEG REINFORCEMENT. SEE SHEET A-4 FOR DETAILS.



BOLT DIA	MIN EDGE DISTANCE	COPE LENGTH 1	COPE LENGTH 2
1/2"	7/8"	5/8"	1"
5/8"	1 1/8"	13/16"	15/16"
3/4"	1 3/8"	1"	7/8"
7/8"	1 1/2"	1 1/16"	13/16"
1"	1 3/4"	1 1/4"	3/4"



ITEM NO.	QTY.	PART NO.	DESCRIPTION
4	9	---	SPACER/SHIM FOR 3/4" DIA BOLT (3/8" THICK)
3	9	---	BOLT 3/4" X 2 1/2" A325
2	36	---	BOLT 3/4" X 2" A325
1	18	D-3	L 3" X 3" X 3/8" X 17'-0" A36

NOTE: TOWER SHOWN IS ONLY REPRESENTATIVE.

ELEVATION VIEW



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TES JOB NO:
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 CLINTON, CT 06413

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REV.	DESCRIPTION	BY	DATE
1	FIRST ISSUE	CHLE	05/12/17

SHEET TITLE:

DIAGONAL REPLACEMENT DETAILS

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SHEET NUMBER:

A-4B

REV #:

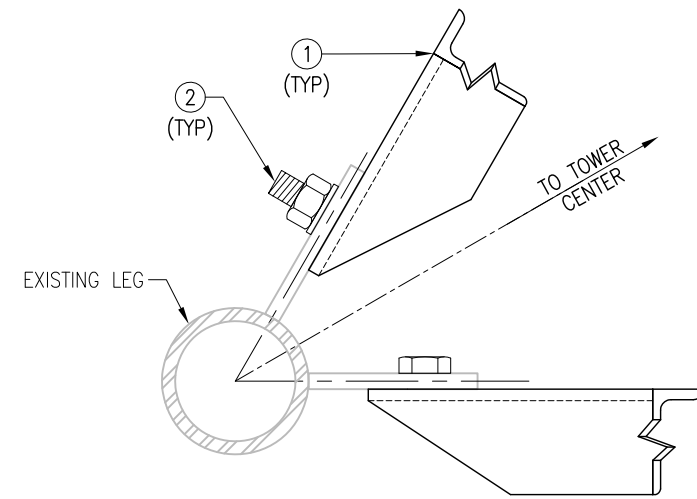
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NOTES:

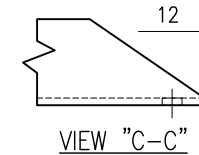
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SAFETY NOTES:

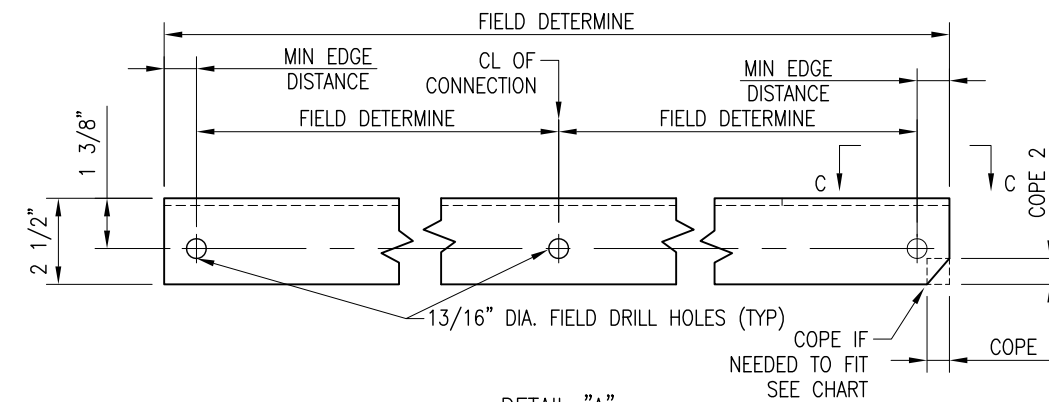
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SECTION "A-A"

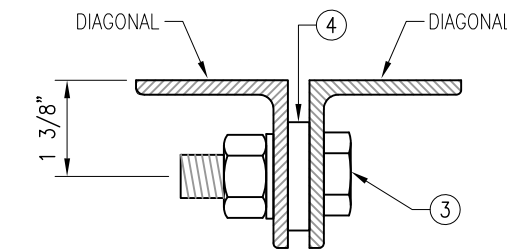


VIEW "C-C"



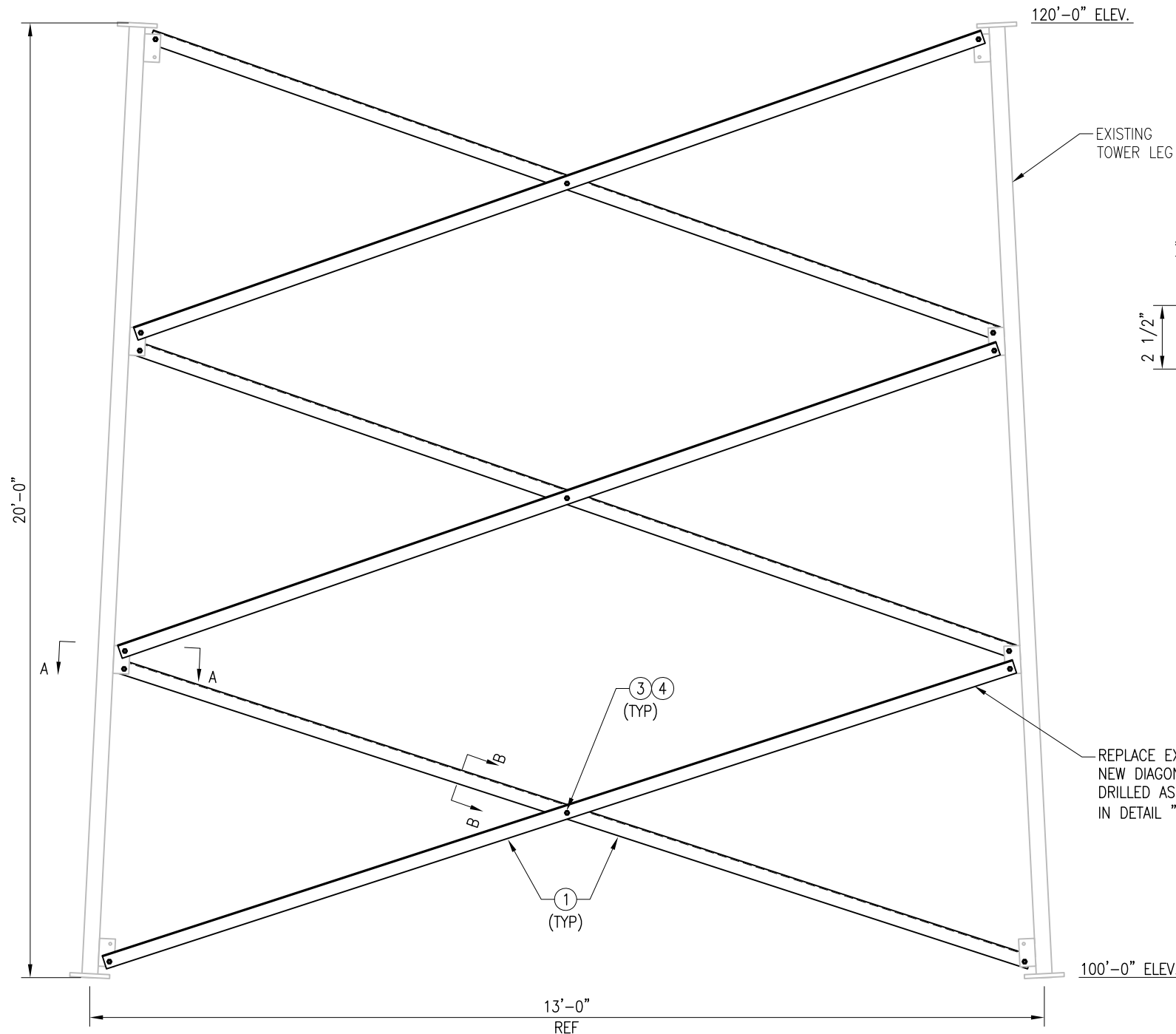
DETAIL "A"

BOLT DIA	MIN EDGE DISTANCE	COPE LENGTH 1	COPE LENGTH 2
1/2"	7/8"	5/8"	7/8"
5/8"	1 1/8"	13/16"	13/16"
3/4"	1 3/8"	1"	3/4"
7/8"	1 1/2"	1 1/16"	11/16"
1"	1 3/4"	1 1/4"	5/8"



SECTION "B-B"

ITEM NO.	QTY.	PART NO.	DESCRIPTION
4	9	---	SPACER/SHIM FOR 5/8" DIA BOLT (3/8" THICK)
3	9	---	BOLT 5/8" X 2" A325
2	36	---	BOLT 5/8" X 1 3/4" A325
1	18	D-4	L 2 1/2" X 2 1/2" X 3/8" X 15'-0" A36



ELEVATION VIEW

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REV.	DESCRIPTION	BY	DATE
1	FIRST ISSUE	CHLE	05/12/17

SHEET TITLE:

DIAGONAL REPLACEMENT DETAILS

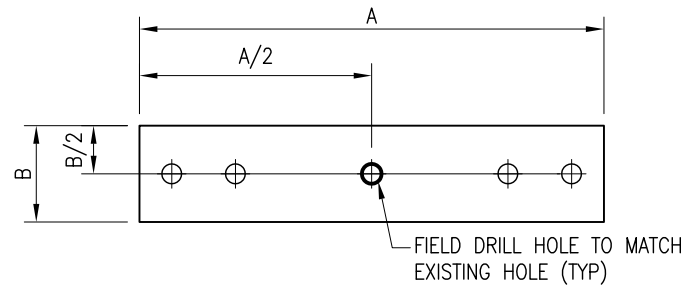
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SHEET NUMBER: REV #:

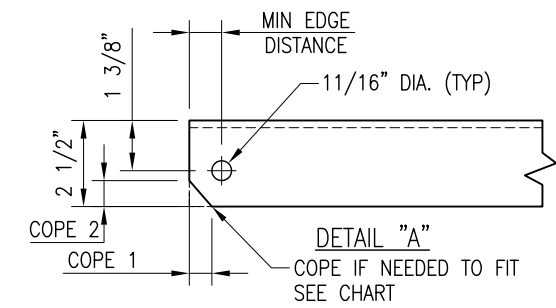
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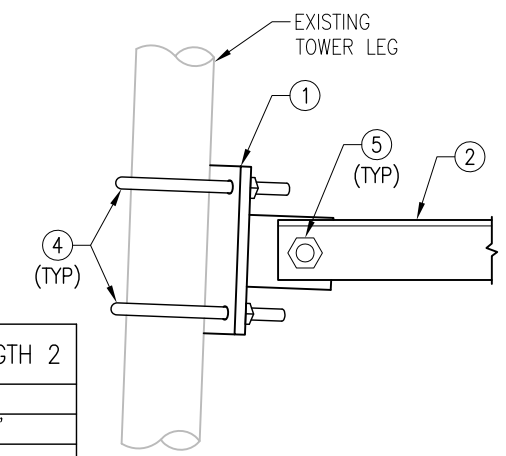
1. SEE SHEET A-1 FOR LOCATION OF REQUIRED SECTION MODIFICATIONS.
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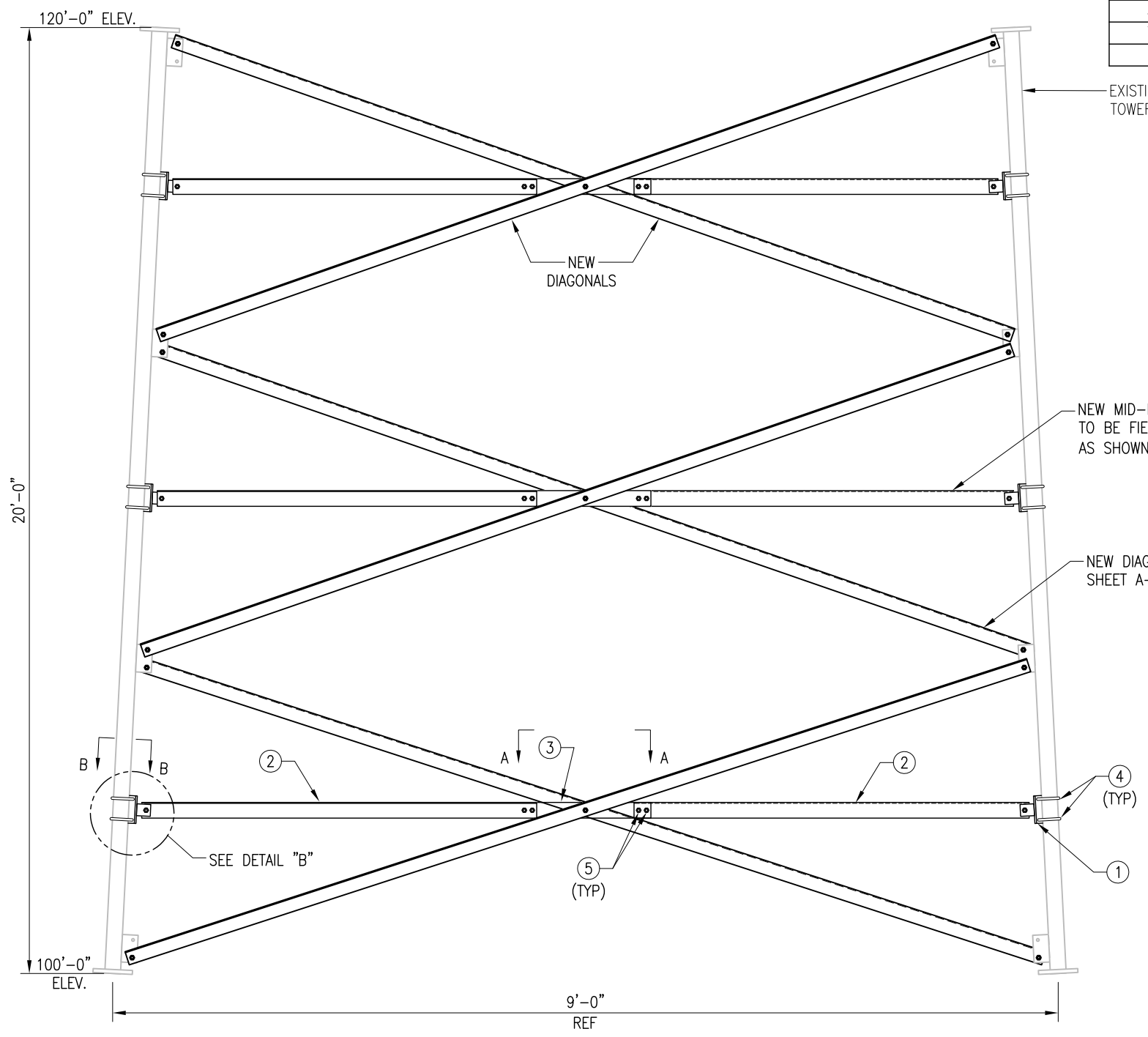
CONNECTION PLATE DETAIL



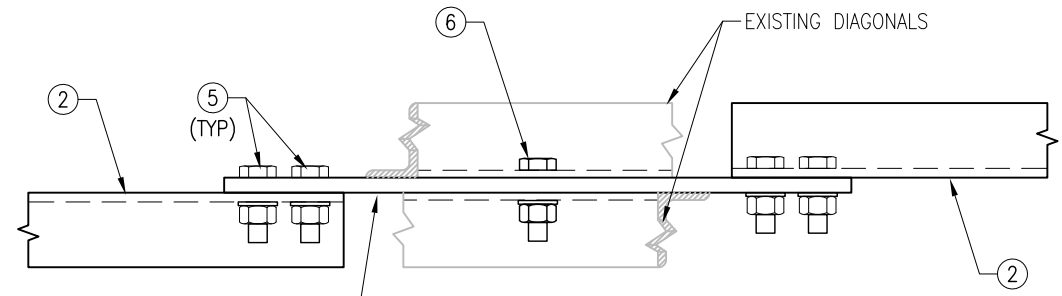
BOLT DIA	MIN EDGE DISTANCE	COPE LENGTH 1	COPE LENGTH 2
1/2"	7/8"	5/8"	7/8"
5/8"	1 1/8"	13/16"	13/16"
3/4"	1 3/8"	1"	3/4"
7/8"	1 1/2"	1 1/16"	11/16"
1"	1 3/4"	1 1/4"	5/8"



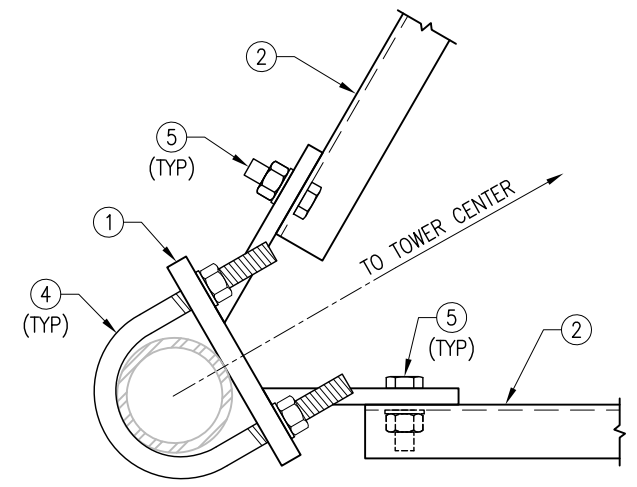
DETAIL "B"



ELEVATION VIEW



SECTION A-A



SECTION "B-B"

ITEM NO.	QTY.	PART NO.	DESCRIPTION
6	9	---	BOLT 5/8" X 2 1/4" A325 W/HHN & LW
5	54	---	BOLT 5/8" X 2" A325 W/HHN & LW
4	18	MS02-625-4625-700	RU-BOLT 5/8" X 4 5/8" I.W. X 7" I.L. A36 OR EQUIV
3	9	MH-18-300CP1	PL 3/8" X 3" X 2'-0 1/4" A36
2	18	MH-15E	L 2 1/2" X 2 1/2" X 1/4" X 7'-6" A36
1	9	HBR425-450W	PL 1/2" X 4 3/4" X 7" A36 WELDMENT BRACKET

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CLINTON, CT 06413

REV.	DESCRIPTION	BY	DATE
1	FIRST ISSUE	CHLE	05/12/17

SHEET TITLE:
MID-BAY HORIZONTAL ASSEMBLY- 3 BAYS (4.50" O.D PIPE LEG)

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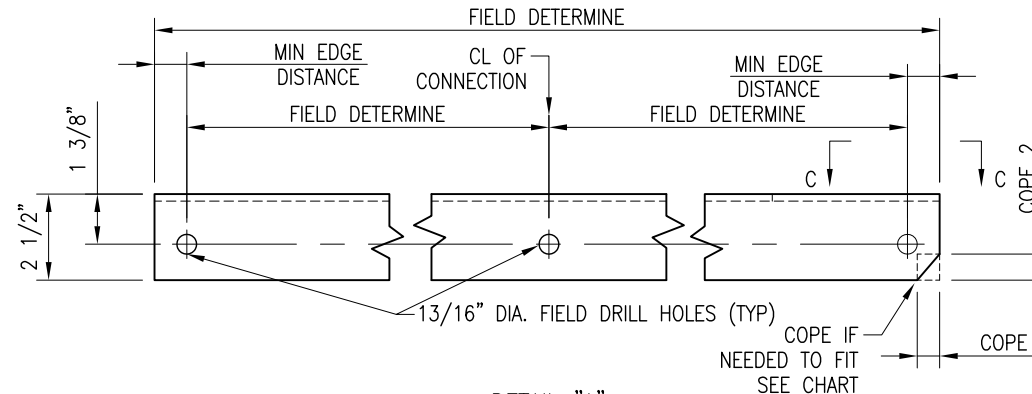
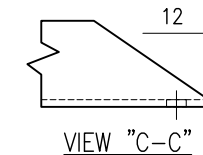
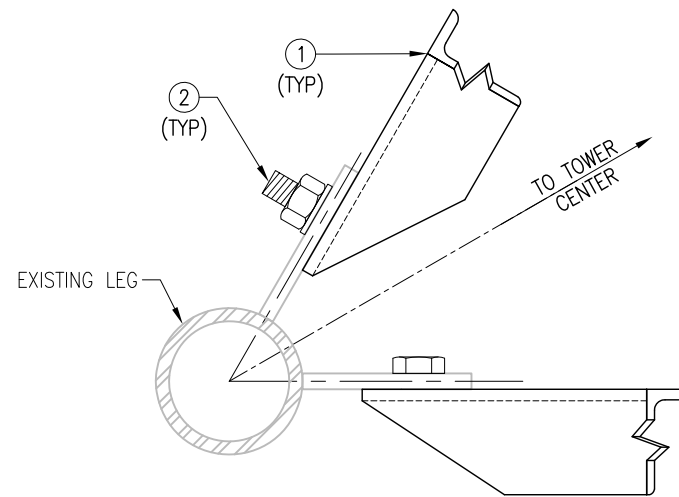
SHEET NUMBER: **A-6** REV #: **0**

NOTES:

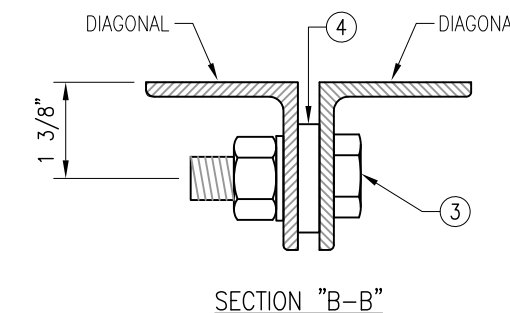
1. SEE SHEET A-1 FOR LOCATION OF REQUIRED SECTION MODIFICATIONS.
2. TEMPORARILY RELOCATE ANY EXISTING COAX ATTACHED TO THE LEGS AND/OR ANY OTHER MEMBERS WHERE OBSTRUCTION WITH THE PROPOSED MODIFICATION MAY OCCUR.
3. WHEN FIELD CUTTING AND DRILLING ANGLES, USE SAME GAGE LINES AND EDGE DISTANCES AS INDICATED ON SHOP CUT AND DRILLED ENDS,
4. APPLY (2) COATS OF ZINC RICH GALVANIZING COMPOUND AS PER THE MANUFACTURER'S SPECIFICATIONS TO ALL FIELD CUT AND DRILLED AREAS.
5. TEMPORARY BRACING SHALL BE PROVIDED WHILE REPLACING MEMBERS. ONLY ONE MEMBER CAN BE REMOVED AT A TIME..

SAFETY NOTES:

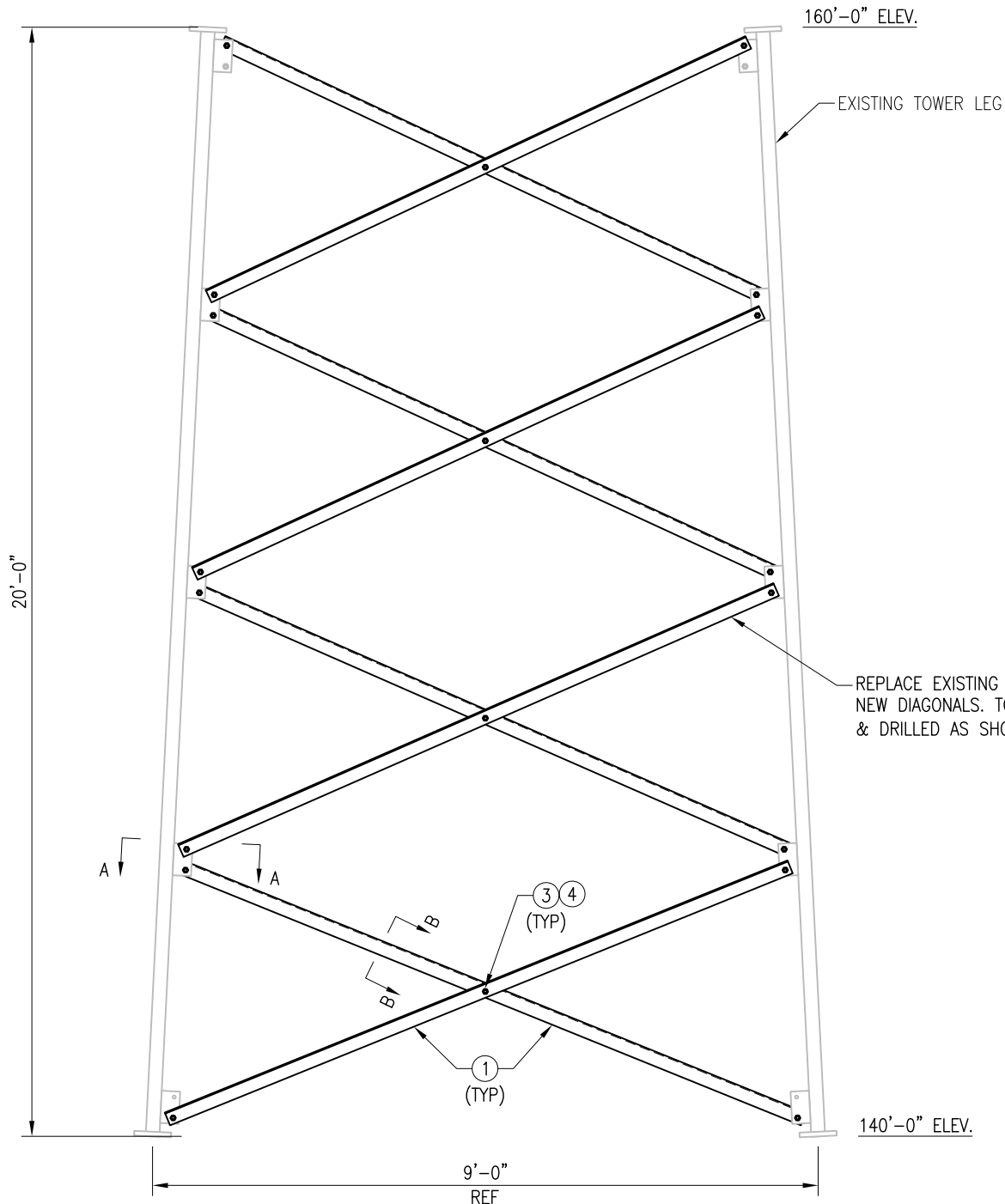
REMOVAL OF EXISTING DIAGONALS MUST BE DONE CAREFULLY WITH SAFETY IN MIND. DIAGONAL MEMBERS CAN ONLY BE REMOVED ONE AT A TIME AND IMMEDIATELY REPLACED WITH THE NEW MEMBER. NO MORE THEN ONE MEMBER SHOULD BE REMOVED AT ANY TIME. IF REQUIRED TEMPORARY BRACING SHOULD BE INSTALLED FOR SAFETY. REPLACEMENT OF THE DIAGONALS SHALL BE PERFORMED AT A TIME WHEN THE WIND VELOCITY IS LESS THAN 10 MPH AT GROUND LEVEL AND WITH NO ICE ON THE STRUCTURE.



BOLT DIA	MIN EDGE DISTANCE	COPE LENGTH 1	COPE LENGTH 2
1/2"	7/8"	5/8"	7/8"
5/8"	1 1/8"	13/16"	13/16"
3/4"	1 3/8"	1"	3/4"
7/8"	1 1/2"	1 1/16"	11/16"
1"	1 3/4"	1 1/4"	5/8"



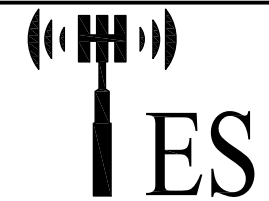
ITEM NO.	QTY.	PART NO.	DESCRIPTION
4	12	---	SPACER/SHIM FOR 5/8" DIA BOLT (3/8" THICK)
3	12	---	BOLT 5/8" X 2" A325
2	48	---	BOLT 5/8" X 1 3/4" A325
1	24	D-5	L 2 1/2" X 2 1/2" X 3/8" X 11'-6" A36



ELEVATION VIEW

NOTE:
TOWER SHOWN IS ONLY REPRESENTATIVE.

REPLACE EXISTING DIAGONALS WITH NEW DIAGONALS. TO BE FIELD CUT & DRILLED AS SHOWN IN DETAIL "A" (TYP).



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IRVING, TX 75063
PH: (972) 483-0607



5900 BROKEN SOUND PARKWAY, NW
BOCA RATON, FL 33487
(800)-487-SITE

TES JOB NO:
32039

CUSTOMER SITE NO:
CT01879-S-SBA
CUSTOMER SITE NAME:
CLINTON 4 CT
46 MEADOW ROAD
CLINTON, CT 06413

DRAWN BY: CHLE | CHECKED BY: RAM/SR

REV.	DESCRIPTION	BY	DATE
1	FIRST ISSUE	CHLE	05/12/17

SHEET TITLE:

DIAGONAL REPLACEMENT DETAILS

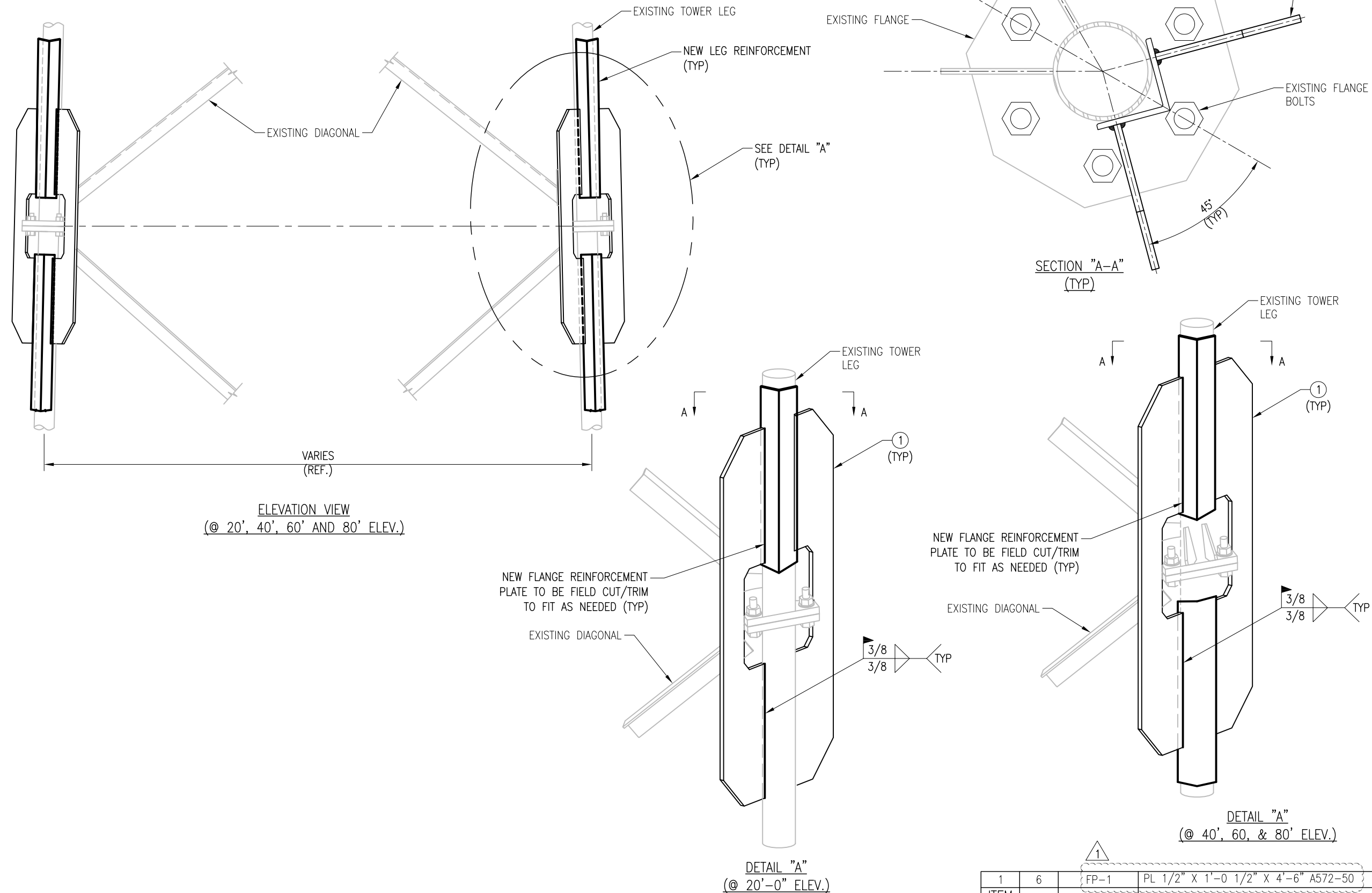
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SHEET NUMBER: | REV #:

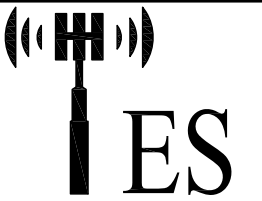
A-7 | 0

INSTALLATION NOTES:

1. SEE SHEET A-1 FOR LOCATION OF REQUIRED SECTION MODIFICATION.
2. APPLY (2) COATS OF ZINC RICH GALVANIZING COMPOUND PER MANUFACTURER'S SPECIFICATIONS TO ALL FIELD CUT, WELDED AND EXPOSED AREAS.
3. WELD TYPE: E70XX



1	6	FP-1	PL 1/2" X 1'-0 1/2" X 4'-6" A572-50
ITEM NO.	QTY.	PART NO.	DESCRIPTION (PER ELEVATION ABOVE)



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REV.	DESCRIPTION	BY	DATE
1	FIRST ISSUE	CHLE	05/12/17
2	REVISED	CHLE	07/07/17

SHEET TITLE:

FLANGE REINFORCEMENT ASSEMBLY

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SHEET NUMBER: **A-8** | REV #: **1**