LCC Deployment Services Inc.
2242 Old Marlton Pike, Marlton, NJ 08053
856-810-1658 (Ph) 856-810-1659 (Fax)

March 12, 2014

Melanie A. Bachman
Acting Executive Director
Connecticut Siting Council
New Britain, CT 06051

Re: **Notice of Exempt Modification- Structural modification**

Dear Ms. Bachman:

Crown Castle International currently maintains 190' monopole/communication tower at 240 Kensington Ave. New Britain, CT 06037.Crown Castle International intends to add structural modifications to strengthen the present tower. Included in Attachment 1 are specifications for the structural modification.

Please accept this letter as notification pursuant to R.C.S.A § 16-50j-73(b), for construction that constitutes an exempt modification pursuant to R.C.S.A § 16-50j-72(b)(2).In accordance with R.C.S.A § 16-50j-73, a copy of this letter is being sent to DENISE MCNAIR. A copy of this letter is being sent to, the owners of the property where the tower is located Town Of Berlin.

The planned modifications to the facility fall squarely within those activities explicitly provided for in R.C.S.A § 16-50j-72(b)(2).

1. The planned modifications will not result in an increase in height of the existing tower.

2. The proposed modifications will not involve any change to the ground mounted equipment and, therefore, will not require the extension of the site boundary.

3. The proposed modification will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.

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4. The operation of the modified facility will not increase the radio frequency (RF) emissions at the facility to a level at or above the Federal Communications Commission (FCC) safety standard.

5. The proposed modification will not cause a change or alteration in the physical or environmental characteristics of the site.

6. The tower and its foundation can support Crown Castle Internationals proposed modifications (see structural analysis report included in attachment 3).

For the foregoing reasons, LCC Deployment Services respectfully submits that the proposed modifications to the above –referenced telecommunications facility constitutes an exempt under R.C.S.A § 16-50j-72(b)(2).

Sincerely,

Keith A. Stackhouse

Keith A. Stackhouse

Enclosures
Copy to:
Denise Mcnair,
Town of Berlin,

TOWER MODIFICATION DRAWINGS

SITE NAME: NEWINGTON_1
BU NUMBER: 826217

SITE ADDRESS:
240 KENSINGTON ROAD,
BERLIN, CT 06037
HARTFORD COUNTY, USA

PROJECT CONTACTS:

1. CROWN TOWER STRUCTURAL ANALYST

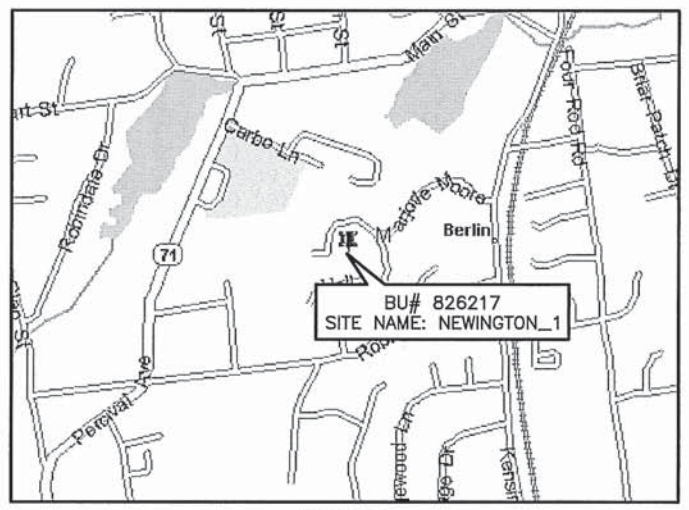
STEVE TUTTLE
(585) 899-3445
STEVE.TUTTLE@CROWNCASTLE.COM
THE PIANO WORKS 349 WEST COMMERCIAL STREET
EAST ROCHESTER, NY 14445

2. B+T GROUP PROJECT ENGINEER

KIRAN MAROJU
(918) 587-4630
KMAROJU@BTGRP.COM
1717 S BOULDER AVENUE, SUITE 300
TULSA, OKLA. 74119

3. B+T GROUP ENGINEER (EOR)

CHAD E TUTTLE, P.E.
(918) 587-4630
CTUTTLE@BTGRP.COM
1717 S BOULDER AVENUE, SUITE 300
TULSA, OKLA. 74119



MAP

DIRECTIONS

FROM RT 9 TO EXIT 22. TURN RIGHT ON TO MILL ST. RT 372 FOLLOW 3/4 MI AT SET OF LIGHTS TURN LEFT ONTO KENSINGO RD. 1/4 MI ON RIGHT WILL BE TOWN BUILDINGS COMPLEX AND ACCESS RD. FOLLOW TO TOP OF HILL. TOWER IS BEHIND TOWN HALL AND POLICE STATION.

TOWER INFORMATION

TOWER MANUFACTURER / DWG #:	PIROD INC. / 204566-B
TOWER HEIGHT / TYPE:	190' MONOPOLE
TOWER LOCATION: DATUM: (NAD 1983)	LAT. 41° 37' 34.25" LONG. -72° 46' 32.1" ELEV. 133 FT AMSL
STRUCTURAL DESIGN DRAWING REPORT:	B+T GROUP / WO. # 656208
STRUCTURAL ANALYSIS REPORT:	B+T GROUP / WO. # 603885
STRUCTURAL ANALYSIS DATE:	04/30/13
CCISITES DOCUMENT ID:	3820727

CODE COMPLIANCE

THIS REINFORCEMENT DESIGN IS BASED ON THE REQUIREMENTS OF TIA/EIA-222-F STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORTING STRUCTURES USING A FASTEST MILE WIND SPEED OF 80 MPH WITH NO ICE, 37.6 MPH WITH 1 INCH ICE THICKNESS AND 50 MPH UNDER SERVICE LOADS.

DRAWINGS INCLUDED

SHEET NUMBER	DESCRIPTION
S1	TITLE SHEET
S2	MODIFICATION INSPECTION NOTES AND CHECKLIST
S3	GENERAL NOTES, AJAX BOLT NOTES AND DETAIL
S4	TOWER ELEV., SCHEDULES & TX LINE DIST. DIAG.
S5	TOWER SECTION (0'–10.5')
S6	TOWER SECTION (20'–39.5')
S7	TOWER SECTION (40'–59.5')
S8	TOWER SECTION (60'–79.5')
S9	TOWER SECTION (80'–90.5')
S10	TOWER SECTION (100'–105.5')
S11	TOWER ELEVATION 120'
S12	FOUNDATION MODIFICATION
S13	FLAT PLATE BRIDGE STIFFENER DETAIL, SCHEDULE AND NOTES
S14	FLAT PLATE BRIDGE STIFFENER DETAIL, SCHEDULE AND NOTES
D1	DETAILS

B+T GRP
1717 S. BOULDER
SUITE 300
TULSA, OK 74119
PH: (918) 587-4630
www.btgrp.com

ISSUED FOR:

REV	DATE	DESCRIPTION
0	10/03/13	ISSUED FOR CONSTRUCTION

PROJECT NO:	87581.005.01
PROJECT ENG:	KIRAN MAROJU
DRAWN BY:	GLS
CHECKED BY:	SSC

B+T ENGINEERING, INC.

STATE OF CONNECTICUT
CHAD TUTTLE
NO. 23924
LICENSED
PROFESSIONAL ENGINEER
10/3/13

NEWINGTON_1
826217

240 KENSINGTON ROAD,
BERLIN, CT

EXISTING 190' MONOPOLE

SHEET TITLE
TITLE SHEET

SHEET NUMBER:	REVISION:
S1	0

MI CHECKLIST

REQUIRED	REPORT ITEM	BRIEF DESCRIPTION
	PRE-CONSTRUCTION	
X	MI CHECKLIST DRAWING	THIS CHECKLIST SHALL BE INCLUDED IN THE MI REPORT.
X	EOR APPROVED SHOP DRAWINGS	FABRICATION DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW. THE CONTRACTOR SHALL PROVIDE APPROVED SHOP DRAWINGS TO THE MI INSPECTOR FOR INCLUSION IN THE MI REPORT.
N/A	FABRICATION INSPECTION	A LETTER FROM THE FABRICATOR, STATING THAT THE WORK WAS PERFORMED IN ACCORDANCE WITH INDUSTRY STANDARDS AND THE CONTRACT DOCUMENTS SHALL BE PROVIDED TO THE MI INSPECTOR FOR INCLUSION IN THE MI REPORT.
N/A	FABRICATOR CERTIFIED WELD INSPECTION	A VISUAL OBSERVATION BY A CWI OF A PORTION OF WELDING ON THE PROPOSED STRUCTURAL MEMBERS IS REQUIRED AND A WRITTEN REPORT SHALL BE PROVIDED TO THE MI INSPECTOR FOR INCLUSION IN THE MI REPORT.
X	MATERIAL TEST REPORT (MTR)	MILL CERTIFICATION SHALL BE PROVIDED FOR ALL STEEL AS SPECIFIED IN THE MODIFICATION DRAWINGS AND THIS DOCUMENTATION SHALL BE PROVIDED TO THE MI INSPECTOR FOR INCLUSION IN THE MI REPORT.
N/A	FABRICATOR NDE INSPECTION	CRITICAL SHOP WELDS THAT REQUIRE TESTING (PER ENG-STD-10069) ARE NOTED ON THESE CONTRACT DRAWINGS. A CERTIFIED WELD INSPECTOR SHALL PERFORM NON-DESTRUCTIVE EXAMINATION AND A REPORT SHALL BE PROVIDED TO THE MI INSPECTOR FOR INCLUSION IN THE MI REPORT.
X	NDE REPORT OF MONOPOLE BASE PLATE	A NDE (PER ENG-SOW-10033) OF THE POLE TO BASE PLATE CONNECTION IS REQUIRED AND A WRITTEN REPORT SHALL BE PROVIDED TO THE MI INSPECTOR FOR INCLUSION IN THE MI REPORT.
X	PACKING SLIPS	THE MATERIAL SHIPPING LIST SHALL BE PROVIDED TO THE MI INSPECTOR FOR INCLUSION IN THE MI REPORT.
	CONSTRUCTION	
X	CONSTRUCTION INSPECTIONS	A LETTER FROM THE GENERAL CONTRACTOR STATING THAT THE WORKMANSHIP WAS PERFORMED IN ACCORDANCE WITH INDUSTRY STANDARDS AND THESE CONTRACT DRAWINGS SHALL BE PROVIDED TO THE MI INSPECTOR FOR INCLUSION IN THE MI REPORT.
X	FOUNDATION INSPECTIONS	A VISUAL OBSERVATION OF THE EXCAVATION AND REBAR SHALL BE PERFORMED BEFORE PLACING THE CONCRETE. A WRITTEN REPORT SHALL BE PROVIDED TO THE MI INSPECTOR FOR INCLUSION IN THE MI REPORT.
X	CONCRETE COMP. STRENGTH AND SLUMP TESTS	THE CONCRETE MIX DESIGN, SLUMP TEST, AND COMPRESSIVE STRENGTH TESTS SHALL BE PROVIDED TO THE MI INSPECTOR FOR INCLUSION IN THE MI REPORT.
X	POST INSTALLED ANCHOR ROD VERIFICATION	POST INSTALLED ANCHOR ROD VERIFICATION SHALL BE PERFORMED IN ACCORDANCE WITH CROWN REQUIREMENTS AND A REPORT SHALL BE PROVIDED TO THE MI INSPECTOR FOR INCLUSION IN THE MI REPORT.
X	BASE PLATE GROUT VERIFICATION	THE GENERAL CONTRACTOR SHALL PROVIDE DOCUMENTATION TO THE MI INSPECTOR THAT CERTIFIES THAT THE GROUT WAS INSTALLED IN ACCORDANCE WITH CROWN ENG-PRC-10012 FOR INCLUSION IN THE MI REPORT.
X	CONTRACTOR'S CERTIFIED WELD INSPECTION	A CERTIFIED WELD INSPECTOR SHALL INSPECT AND TEST AS NECESSARY ALL FIELD WELDS. CWI SHALL FOLLOW ALL THE PROCEDURES SPECIFIED IN CROWN STANDARD DOCUMENTS ENG-SOW-10066, ENG-STD-10069 AND SRV-STD-10159. A REPORT SHALL BE PROVIDED TO THE MI INSPECTOR FOR INCLUSION IN THE MI REPORT. FULL PENETRATION WELDS IN THE VICINITY OF BASE OF THE TOWER ARE REQUIRED TO BE 100% NDE INSPECTED BY UT IN ACCORDANCE WITH AWS D1.1. PARTIAL PENETRATION AND FILLET WELDS IN THE VICINITY OF BASE OF THE TOWER ARE REQUIRED TO BE 50% NDE INSPECTED BY MP IN ACCORDANCE WITH AWS D1.1.
N/A	EARTHWORK: LIFT AND DENSITY	FOUNDATION SUB-GRADES SHALL BE INSPECTED AND APPROVED BY A GEOTECHNICAL ENGINEER AND A REPORT SHALL BE PROVIDED TO THE MI INSPECTOR FOR INCLUSION IN THE MI REPORT.
X	ON SITE COLD GALVANIZING VERIFICATION	THE GENERAL CONTRACTOR SHALL PROVIDE DOCUMENTATION TO THE MI INSPECTOR VERIFYING THAT ANY ON-SITE COLD GALVANIZING WAS APPLIED IN ACCORDANCE WITH ENG-BUL-10149.
N/A	GUY WIRE TENSION REPORT	THE GENERAL CONTRACTOR SHALL PROVIDE A REPORT TO THE MI INSPECTOR INDICATING THE TEMPERATURE AND TENSION IN EVERY GUY CABLE AS PART OF PLUMB AND TENSION PROCEDURE FOR INCLUSION IN THE MI REPORT.
X	GC AS-BUILT DOCUMENTS	THE GENERAL CONTRACTOR SHALL SUBMIT A COPY OF THE CONTRACT DRAWINGS EITHER STATING "INSTALLED AS DESIGNED" OR NOTING ANY CHANGES THAT WERE REQUIRED AND APPROVED BY THE ENGINEER OF RECORD DUE TO FIELD CONDITIONS.
	POST-CONSTRUCTION	
X	MI INSPECTOR REDLINE OR RECORD DRAWING(S)	THE MI INSPECTOR SHALL OBSERVE AND REPORT ANY DISCREPANCIES BETWEEN THE CONTRACTORS REDLINE DRAWING AND THE ACTUAL COMPLETED INSTALLATION.
X	POST INSTALLED ANCHOR ROD PULL-OUT TESTING	POST-INSTALLED ANCHOR RODS SHALL BE TESTED IN ACCORDANCE WITH ENG-PRC-10119 AND A REPORT SHALL BE PROVIDED TO THE MI INSPECTOR FOR INCLUSION IN THE MI REPORT.
X	PHOTOGRAPHS	PHOTOGRAPHS SHALL BE SUBMITTED TO THE MI WHICH DOCUMENT ALL PHASES OF THE CONSTRUCTION. THE PHOTOS SHALL BE ORGANIZED IN A MANNER THAT EASILY IDENTIFIES THE EXACT LOCATION OF THE PHOTO.
ADDITIONAL TESTING AND INSPECTIONS:		

NOTE: X DENOTES A DOCUMENT NEEDED FOR THE MI REPORT
N/A DENOTES A DOCUMENT THAT IS NOT REQUIRED FOR THE MI REPORT

MODIFICATION INSPECTION NOTES:

GENERAL

THE MODIFICATION INSPECTION (MI) IS A VISUAL INSPECTION OF TOWER MODIFICATIONS AND A REVIEW OF CONSTRUCTION INSPECTIONS AND OTHER REPORTS TO ENSURE THE INSTALLATION WAS CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, NAMELY THE MODIFICATION DRAWINGS, AS DESIGNED BY THE ENGINEER OF RECORD (EOR).

THE MI IS TO CONFIRM INSTALLATION CONFIGURATION AND WORKMANSHIP ONLY AND IS NOT A REVIEW OF THE MODIFICATION DESIGN ITSELF, NOR DOES THE MI INSPECTOR TAKE OWNERSHIP OF THE MODIFICATION DESIGN. OWNERSHIP OF THE STRUCTURAL MODIFICATION DESIGN EFFECTIVENESS AND INTEGRITY RESIDES WITH THE EOR AT ALL TIMES.

ALL MI'S SHALL BE CONDUCTED BY A CROWN ENGINEERING VENDOR (AEV) OR ENGINEERING SERVICE VENDOR (AESV) THAT IS APPROVED TO PERFORM ELEVATED WORK FOR CROWN. SEE ENG-BUL-10173 LIST OF APPROVED MI VENDORS.

TO ENSURE THAT THE REQUIREMENTS OF THE MI ARE MET, IT IS VITAL THAT THE GENERAL CONTRACTOR (GC) AND THE MI INSPECTOR BEGIN COMMUNICATING AND COORDINATING AS SOON AS A PO IS RECEIVED. IT IS EXPECTED THAT EACH PARTY WILL BE PROACTIVE IN REACHING OUT TO THE OTHER PARTY. IF CONTACT INFORMATION IS NOT KNOWN, CONTACT YOUR CROWN POINT OF CONTACT (POC).

REFER TO ENG-SOW-10007 : MODIFICATION INSPECTION SOW FOR FURTHER DETAILS AND REQUIREMENTS.

MI INSPECTOR

THE MI INSPECTOR IS REQUIRED TO CONTACT THE GC AS SOON AS RECEIVING A PO FOR THE MI TO, AT A MINIMUM:

- REVIEW THE REQUIREMENTS OF THE MI CHECKLIST
- WORK WITH THE GC TO DEVELOP A SCHEDULE TO CONDUCT ON-SITE INSPECTIONS, INCLUDING FOUNDATION INSPECTIONS

THE MI INSPECTOR IS RESPONSIBLE FOR COLLECTING ALL GENERAL CONTRACTOR (GC) INSPECTION AND TEST REPORTS, REVIEWING THE DOCUMENTS FOR ADHERENCE TO THE CONTRACT DOCUMENTS, CONDUCTING THE IN-FIELD INSPECTIONS, AND SUBMITTING THE MI REPORT TO CROWN.

GENERAL CONTRACTOR

THE GC IS REQUIRED TO CONTACT THE MI INSPECTOR AS SOON AS RECEIVING A PO FOR THE MODIFICATION INSTALLATION OR TURNKEY PROJECT TO, AT A MINIMUM:

- REVIEW THE REQUIREMENTS OF THE MI CHECKLIST
- WORK WITH THE MI INSPECTOR TO DEVELOP A SCHEDULE TO CONDUCT ON-SITE MI INSPECTIONS, INCLUDING FOUNDATION INSPECTIONS
- BETTER UNDERSTAND ALL INSPECTION AND TESTING REQUIREMENTS

THE GC SHALL PERFORM AND RECORD THE TEST AND INSPECTION RESULTS IN ACCORDANCE WITH THE REQUIREMENTS OF THE MI CHECKLIST AND ENG-SOW-10007.

RECOMMENDATIONS

THE FOLLOWING RECOMMENDATIONS AND SUGGESTIONS ARE OFFERED TO ENHANCE THE EFFICIENCY AND EFFECTIVENESS OF DELIVERING A MI REPORT:

- IT IS SUGGESTED THAT THE GC PROVIDE A MINIMUM OF 5 BUSINESS DAYS NOTICE, PREFERABLY 10, TO THE MI INSPECTOR AS TO WHEN THE SITE WILL BE READY FOR THE MI TO BE CONDUCTED.
- THE GC AND MI INSPECTOR COORDINATE CLOSELY THROUGHOUT THE ENTIRE PROJECT.
- WHEN POSSIBLE, IT IS PREFERRED TO HAVE THE GC AND MI INSPECTOR ON-SITE SIMULTANEOUSLY FOR ANY GUY WIRE TENSIONING OR RE-TENSIONING OPERATIONS.
- IT MAY BE BENEFICIAL TO INSTALL ALL TOWER MODIFICATIONS PRIOR TO CONDUCTING THE FOUNDATION INSPECTIONS TO ALLOW FOUNDATION AND MI INSPECTION(S) TO COMMENCE WITH ONE SITE VISIT.
- WHEN POSSIBLE, IT IS PREFERRED TO HAVE THE GC AND MI INSPECTOR ON-SITE DURING THE MI TO HAVE ANY DEFICIENCIES CORRECTED DURING THE INITIAL MI. THEREFORE, THE GC MAY CHOOSE TO COORDINATE THE MI CAREFULLY TO ENSURE ALL CONSTRUCTION FACILITIES ARE AT THEIR DISPOSAL WHEN THE MI INSPECTOR IS ON SITE.

CANCELLATION OR DELAYS IN SCHEDULED MI

IF THE GC AND MI INSPECTOR AGREE TO A DATE ON WHICH THE MI WILL BE CONDUCTED, AND EITHER PARTY CANCELS OR DELAYS, CROWN SHALL NOT BE RESPONSIBLE FOR ANY COSTS, FEES, LOSS OF DEPOSITS AND/OR OTHER PENALTIES RELATED TO THE CANCELLATION OR DELAY INCURRED BY EITHER PARTY FOR ANY TIME (E.G. TRAVEL AND LODGING, COSTS OF KEEPING EQUIPMENT ON-SITE, ETC.). IF CROWN CONTRACTS DIRECTLY FOR A THIRD PARTY MI, EXCEPTIONS MAY BE MADE IN THE EVENT THAT THE DELAY/CANCELLATION IS CAUSED BY WEATHER OR OTHER CONDITIONS THAT MAY COMPROMISE THE SAFETY OF THE PARTIES INVOLVED.

CORRECTION OF FAILING MI'S

IF THE MODIFICATION INSTALLATION WOULD FAIL THE MI ("FAILED MI"), THE GC SHALL WORK WITH CROWN TO COORDINATE A REMEDIATION PLAN IN ONE OF TWO WAYS:

- CORRECT FAILING ISSUES TO COMPLY WITH THE SPECIFICATIONS CONTAINED IN THE ORIGINAL CONTRACT DOCUMENTS AND COORDINATE A SUPPLEMENT MI.
- OR, WITH CROWN'S APPROVAL, THE GC MAY WORK WITH THE EOR TO RE-ANALYZE THE MODIFICATION/REINFORCEMENT USING THE AS-BUILT CONDITION

MI VERIFICATION INSPECTIONS

CROWN RESERVES THE RIGHT TO CONDUCT A MI VERIFICATION INSPECTION TO VERIFY THE ACCURACY AND COMPLETENESS OF PREVIOUSLY COMPLETED MI INSPECTION(S) ON TOWER MODIFICATION PROJECTS.

ALL VERIFICATION INSPECTIONS SHALL BE HELD TO THE SAME SPECIFICATIONS AND REQUIREMENTS IN THE CONTRACT DOCUMENTS AND IN ACCORDANCE WITH ENG-SOW-10007.

VERIFICATION INSPECTION MAY BE CONDUCTED BY AN INDEPENDENT AEV/AESV FIRM AFTER A MODIFICATION PROJECT IS COMPLETED, AS MARKED BY THE DATE OF AN ACCEPTED "PASSING MI" OR "PASS AS NOTED MI" REPORT FOR THE ORIGINAL PROJECT.

REQUIRED PHOTOS

BETWEEN THE GC AND THE MI INSPECTOR THE FOLLOWING PHOTOGRAPHS, AT A MINIMUM, ARE TO BE TAKEN AND INCLUDED IN THE MI REPORT:

- PRE-CONSTRUCTION GENERAL SITE CONDITION
- PHOTOGRAPHS DURING THE REINFORCEMENT MODIFICATION CONSTRUCTION/ERECTION AND INSPECTION
  - RAW MATERIALS
  - PHOTOS OF ALL CRITICAL DETAILS
  - FOUNDATION MODIFICATIONS
  - WELD PREPARATION
  - BOLT INSTALLATION AND TORQUE
  - FINAL INSTALLED CONDITION
  - SURFACE COATING REPAIR
- POST CONSTRUCTION PHOTOGRAPHS
  - FINAL INFIELD CONDITION

PHOTOS OF ELEVATED MODIFICATIONS TAKEN FROM THE GROUND SHALL BE CONSIDERED INADEQUATE.

THIS IS NOT A COMPLETE LIST OF REQUIRED PHOTOS, PLEASE REFER TO ENG-SOW-10007.

B+T GRP
1717 S. BOULDER
SUITE 300
TULSA, OK 74119
PH: (918) 587-4630
www.btgrp.com

CROWN CASTLE

ISSUED FOR:

REV	DATE	DESCRIPTION
0	10/03/13	ISSUED FOR CONSTRUCTION

PROJECT NO:	87581.005.01
PROJECT ENG:	KIRAN MAROJU
DRAWN BY:	GLS
CHECKED BY:	SSC

B+T ENGINEERING, INC.

STATE OF CONNECTICUT
CHAD S. TUTTLE
No. 23924
LICENSED PROFESSIONAL ENGINEER
10/3/13

NEWINGTON_1
826217

240 KENSINGTON ROAD,
BERLIN, CT

EXISTING 190' MONOPOLE

SHEET TITLE

MODIFICATION INSPECTION NOTES AND CHECKLIST

SHEET NUMBER:	REVISION:
S2	0

NOTES:

1. ALL STRUCTURAL BOLTS SHALL BE INSTALLED AND TIGHTENED TO THE PRE-TENSIONED CONDITION ACCORDING TO THE REQUIREMENTS OF THE AISC 'SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS', DEC. 31, 2009.

2. ALL STRUCTURAL BOLTS SHALL BE INSPECTED ACCORDING TO THE REQUIREMENTS OF THE AISC 'SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS', DEC. 31, 2009.

3. ALL AJAX M20 BOLTS WITH SHEAR SLEEVES SHALL BE PRE-TENSIONED AND TIGHTENED UNTIL THE DIRECT TENSION INDICATOR (DTI) WASHERS SHOW THAT THE PROPER BOLT TENSION HAS BEEN REACHED. SEE NOTES AND DETAIL BELOW FOR THE USE OF DIRECT TENSION INDICATOR (DTI) WASHERS WITH THE AJAX M20 BOLTS.

4. AJAX BOLTS INSTALLED USING DIRECT TENSION INDICATORS (DTI'S) AND HARDENED WASHERS. SHALL BE THE SQUIRTER® STYLE, MADE TO ASTM F959 LATEST REVISION; AND HARDENED WASHERS SHALL CONFORM TO ASTM F436 AND HAVE A HARDNESS OF RC 38 OF HIGHER.

5. AS AN ALTERNATIVE TO USING DTI WASHERS, AJAX BOLTS MAY BE PRETENSIONED PER AISC TURN-OF-NUT METHOD.

NOTES FOR AJAX M20 'ONE-SIDE' BOLTS WITH DIRECT TENSION INDICATORS (DTI'S):

DTI'S REQUIRED: DTI'S SHALL BE "SELF-INDICATING" SQUIRTER® STYLE DTI'S MADE WITH SILICONE EMBEDDED IN THEM, INSPECTED BY MEANS OF THE VISUAL EJECTION OF SILICONE AS THE DTI PROTRUSIONS COMPRESS. SQUIRTER® DTI'S SHALL BE CALIBRATED PER MANUFACTURES'S INSTRUCTIONS PRIOR TO USE.

THE DIRECT TENSION INDICATOR (DTI) WASHERS SHALL BE THE "SQUIRTER® STYLE" AS MANUFACTURED BY:

APPLIED BOLTING TECHNOLOGY PRODUCTS, INC.
1413 ROCKINGHAM ROAD
BELLOWS FALLS, VERMONT 05101, USA
PHONE 1-800-552-1999
WEBSITE: WWW.APPLIEDBOLTING.COM

DISTRIBUTORS OF SQUIRTER® DTI'S:
HTTP://WWW.APPLIEDBOLTING.COM/APPLIED-BOLTING-DISTRUBUTORS.HTML

DTI: USE DIRECT TENSION INDICATOR (DTI) WASHERS COMPATIBLE WITH 3/4" NOMINAL A325 BOLTS FOR THE AJAX M20 BOLTS. DTI'S SHALL NOT BE HOT-DIP GALVANIZED. DTI'S SHALL BE MECHANICALLY GALVANIZED (MG) BY THE COLD MECHANICAL PROCESS ONLY AS PROVIDED BY THE DTI MANUFACTURER.

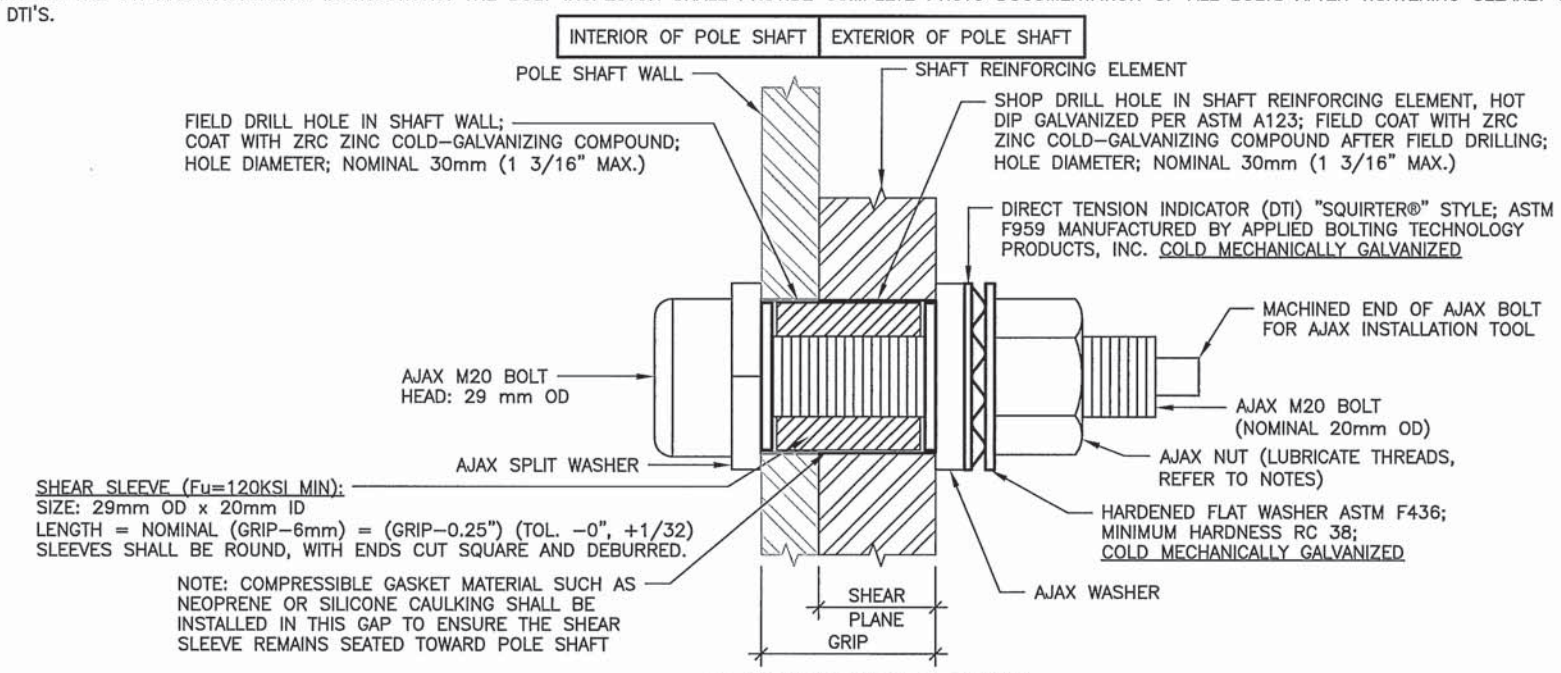
HARDENED WASHERS REQUIRED: USE A HARDENED WASHER FOR A 3/4" NOMINAL BOLT BETWEEN THE TOP OF THE DIRECT TENSION INDICATOR (DTI) WASHER AND THE NUT OF THE AJAX M20 BOLT. HARDENED WASHERS SHALL CONFORM TO ASTM F436 AND HAVE A MINIMUM HARDNESS OF RE 38 OR HIGHER. THE HARDENED WASHERS SHALL BE MECHANICALLY GALVANIZED BY THE COLD MECHANICAL PROCESS. ALTERNATIVELY, CORRECTLY MADE HOT DIP GALVANIZED HARDENED FLAT WASHERS HAVING A MINIMUM HARDNESS OF RC 38 CAN BE USED; CONTRACTOR SHALL PROVIDE DOCUMENTATION OF WASHER SPECIFICATION AND HARDNESS.

NUT LUBRICATION REQUIRED: PROPERLY LUBRICATE THE THREADS OF THE NUT OF THE AJAX BOLT SO THAT IT CAN BE PROPERLY TIGHTENED WITHOUT GALLING AND/OR LOCKING UP ON THE BOLT THREADS. CONTRACTOR SHALL FOLLOW DTI MANUFACTURER INSTRUCTIONS FOR PROPER LUBRICATION AND TIGHTENING.

NOTE: COMPLETELY COMPRESSED DTI'S SHOWING NO VISIBLE REMAINING GAP ARE ACCEPTABLE. DTI WASHERS SHALL BE PLACED DIRECTLY AGAINST THE OUTER AJAX WASHER WITH THE DTI BUMPS FACING AWAY FROM THE AJAX WASHER. PLACE A HARDENED WASHER BETWEEN THE DTI AND AJAX NUT. THE DTI BUMPS SHALL BEAR AGAINST THE UNDERSIDE OF A HARDENED FLAT WASHER, NEVER DIRECTLY AGAINST THE NUT.

CONTRACTOR SHALL FOLLOW DTI MANUFACTURES'S INSTRUCTIONS FOR INSTALLATION, LUBRICATION, TIGHTENING AND INSPECTION.

INSPECTION REQUIRED: ALL AJAX BOLTS SHALL BE INSPECTED ACCORDING TO THE REQUIREMENTS OF THE AISC "SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS', DEC. 32, 2009, BY A QUALIFIED BOLT INSPECTOR. DURING INSTALLATION, THE BOLT INSPECTOR SHALL VERIFY AND DOCUMENT THE SHOP-DRILLED AND FIELD-DRILLED HOE SIZES; THE INSTALLATION OF THE AJAX BOLT ASSEMBLY, INCLUDING THE SHEAR SLEEVE PLACEMENT AND NUT LUBRICATION AND THE CONTRACTOR'S TENSIONING PROCEDURE. IN ADDITION, ALL AJAX BOLTS AND DTI'S SHALL BE VISUALLY INSPECTED ACCORDING TO THE DTI MANUFACTURER'S INSTRUCTIONS. THE BOLT INSPECTOR SHALL PROVIDE COMPLETE PHOTO DOCUMENTATION OF ALL BOLTS AFTER TIGHTENING CLEARLY SHOWING THE CONDITION OF THE DTI'S.



1 TYPICAL AJAX BOLT DETAIL
SCALE: N.T.S.

GENERAL NOTES

1.1 ALL WORK SHALL COMPLY WITH THE TIA/EIA-222-F STANDARD AS WELL AS ANY OTHER GOVERNING BUILDING CODES.
1.2 FIELD WORK WILL BE DONE AROUND EXISTING COAXIAL CABLE AND EQUIPMENT. ALL WORK SHALL BE DONE IN A MANNER SUCH THAT NO DAMAGE OCCURS TO THE EXISTING EQUIPMENT OR THE STRUCTURE.
1.3 A MINIMUM OF TWO COATS OF ZINGA COLD GALVANIZING COMPOUND (OR APPROVED EQUIVALENT) SHALL BE APPLIED TO ANY FIELD CUTS OR FIELD DRILLED HOLES.
1.4 THE USE OF A GAS TORCH OR WELDER WILL NOT BE PERMITTED ON THE TOWER WITHOUT THE CONSENT OF THE OWNER.
1.5 IN LIEU OF TEMPORARY BRACING CONTRACTOR MAY HAVE A STABILITY ANALYSIS PERFORMED BY AN ENGINEER LICENSED IN THE STATE THE TOWER IS LOCATED. THE ANALYSIS SHALL USE A MINIMUM WIND SPEED OF 45 mph (3-SEC) PER TIA-1019.

FABRICATION

2.1 ALL WORK SHALL BE DONE IN ACCORDANCE WITH A.I.S.C. "SPECIFICATIONS FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS.
2.2 STRUCTURAL STEEL SHALL MEET THE FOLLOWING SPECIFICATIONS:

	YIELD	ASTM SPECS
A. STEEL SHAPES AND PLATES, U.N.O.	65ksi	A572
B. STEEL PIPE	50ksi	A53-B

2.3 ALL NEW MATERIAL INCLUDING STRUCTURAL STEEL AND FASTENERS SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 AND A153.
2.4 WELDING SHALL MEET ANSI/AWS D1.1 STRUCTURAL WELDING CODE (LATEST REVISION). ELECTRODES SHALL BE E80 SERIES.
2.5 CONTRACTOR SHALL PROVIDE SHOP FABRICATION DRAWINGS TO B+T GROUP 2 WEEKS PRIOR TO FABRICATION.

KEY NOTES

(#) TOWER MODIFICATION I.D.

B+T GRP
1717 S. BOULDER
SUITE 300
TULSA, OK 74119
PH: (918) 587-4630
www.btgrp.com

CROWN CASTLE

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0	10/03/13	ISSUED FOR CONSTRUCTION

PROJECT NO:	87581.005.01
PROJECT ENG:	KIRAN MAROJU
DRAWN BY:	GLS
CHECKED BY:	SSC

B+T ENGINEERING, INC.

STATE OF CONNECTICUT * CHARLES GILLE * No. 23924 LICENSED PROFESSIONAL ENGINEER *

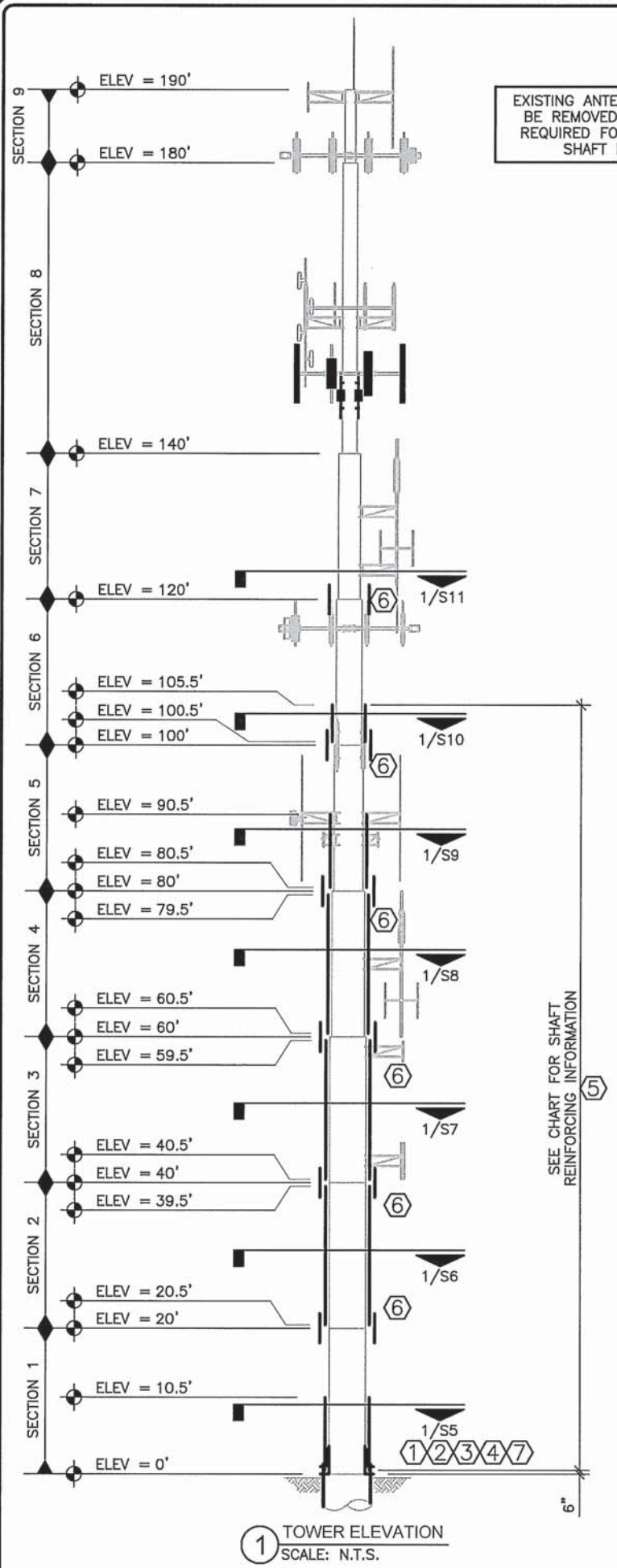
NEWINGTON_1
826217

240 KENSINGTON ROAD,
BERLIN, CT

EXISTING 190' MONOPOLE

SHEET TITLE
GENERAL NOTES,
AJAX BOLT NOTES
AND DETAILS

SHEET NUMBER: S3
REVISION: 0



1 TOWER ELEVATION
SCALE: N.T.S.

EXISTING ANTENNA MOUNTS SHALL BE REMOVED AND MODIFIED AS REQUIRED FOR INSTALLATION OF SHAFT REINFORCIING.

CCI: FLAT PLATE-BILL OF MATERIALS (65ksi)

BOTTOM ELEVATION	TOP ELEVATION	FLAT PLATE DESIGNATION	FLAT PLATE LENGTH	FLAT PLATE QUANTITY	AJAX BOLTS PER PLATE	TOTAL AJAX BOLT QTY	TERMINATION BOLTS (BOTTOM)	TERMINATION BOLTS (TOP)	MAXIMUM INTERMEDIATE BOLT SPACING	TOTAL STEEL WEIGHT	
0.5'	10.5'	CCI–65FP–040075	10'–0"	3	16	48	6	6	16"	321	LBS.
20.5'	39.5'	CCI–65FP–060100	19'–0"	3	26	78	8	8	16"	1220	LBS.
40.5'	59.5'	CCI–65FP–065125	19'–0"	3	30	90	11	11	19"	1651	LBS.
60.5'	79.'5	CCI–65FP–060100	19'–0"	3	26	78	8	8	16"	1220	LBS.
80.5'	90.5'	CCI–65FP–045100	10'–0"	3	15	45	6	6	20"	481	LBS.
100.5'	105.5'	CCI–65FP–040075	5'–0"	3	13	39	6	6	16"	160	LBS.
						378				5053	LBS.

NOTES:
1. AJAX BOLTS ARE TO BE 20mm DIAMETER WITH CORRESPONDING 29mm DIAMETER SLEEVE WITH MATCHING STEEL GRADE.
2. ALL STEEL SHALL BE HOT–DIP GALVANIZED AFTER FABRICATOR IN ACCORDANCE WITH ASTM A123. ALTERNATIVELY, ALL NEW STIFFENER PLATE STEEL REINFORCING MAY BE COLD GALVANIZED AS FOLLOWS: APPLY A MINIMUM OF TWO COATS OF ZRC–BRAND ZINC–RICH COLD GALVANIZING COMPOUND. FILM THICKNESS. 1–800–831–3275 FOR PRODUCT INFORMATION.
3. ALL SHIMS SHALL BE ASTM A36.
4. HOLES FOR AJAX BOLTS AND SHEAR SLEEVES ARE 30mm UNLESS NOTED OTHERWISE.
5. SHOP WELDS ARE ASSUMED E80XX OR GREATER, PER STANDARD SPLICE DETAIL.
6. IF SCOPE OF MODIFICATION REQUIRES REMOVAL OF TOWER ID TAG, IT MUST BE REPLACED.
7. THE CLIMBING FACILITIES, SAFETY CLIMB AND ALL PARTS THEREOF SHALL NOT BE IMPEDED, MODIFIED OR ALTERED WITHOUT THE EXPRESS APPROVAL OF THE ENGINEER OF RECORD OR TOWER OWNER.

NEW CCI FLAT PLATE (65ksi) REINFORCING ELEMENTS

START ELEVATION	END ELEVATION	QTY	FLAT #	FLAT PLATE
0.5'	10.5'	3	---	CCI–65FP–040075
20.5'	39.5'	3	---	CCI–65FP–060100
40.5'	59.5'	3	---	CCI–65FP–065125
60.5'	79.'5	3	---	CCI–65FP–060100
80.5'	90.5'	3	---	CCI–65FP–045100
100.5'	105.5'	3	---	CCI–65FP–040075

ALL BOLTS SHALL BE AJAX M20 BOLTS WITH HIGH STRENGTH SHEAR SLEEVES (ASTM A519 WITH MIN. Fu=120 KSI). CONTACT SUPPLIER FOR MATERIAL (PLATE AND BOLTS) AND INSTALLATION PROCEDURES.

EXISTING MEMBER SCHEDULE

SECTION	DIAMETER
1	60"Øx5/8" PIPE
2	60"Øx1/2" PIPE
3	60"Øx3/8" PIPE
4	54"Øx3/8" PIPE
5	48"Øx3/8" PIPE
6	42"Øx3/8" PIPE
7	36"Øx3/8" PIPE
8	24"Øx3/8" PIPE
9	18"Øx3/8" PIPE

NEW AEROSOLUTIONS MP3 REINFORCING ELEMENTS

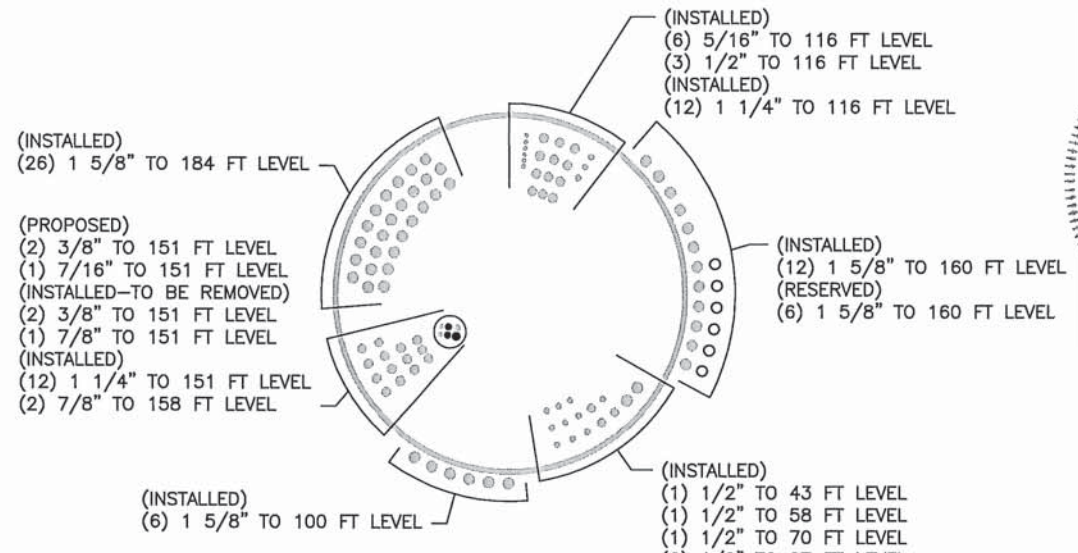
START ELEVATION	END ELEVATION	QTY	FLAT #	MP3
0.5'	10.5'	3	---	MP303
20.5'	39.5'	3	---	MP305
40.5'	59.5'	3	---	MP306
60.5'	79.'5	3	---	MP305
80.5'	90.5'	3	---	MP304
100.5'	105.5'	3	---	MP303

ALL BOLTS SHALL BE AJAX M20 BOLTS WITH HIGH STRENGTH SHEAR SLEEVES (ASTM A519 WITH MIN. Fu=120 KSI). CONTACT SUPPLIER FOR MATERIAL (PLATE AND BOLTS) AND INSTALLATION PROCEDURES. LOCATION OF OVERLAPS AND SPLICES TO BE DETERMINED BY AEROSOLUTIONS.

TOWER MODIFICATIONS:

1. CONTRACTOR SHALL BUDGET A SITE VISIT TO CHECK CRITICAL DIMENSIONS AND VERIFY UNKNOWN CONDITIONS PRIOR TO STEEL FABRICATION.
2. THE NEW AND EXISTING TRANSMISSION LINES MUST BE DISTRIBUTED AS SHOWN IN THE TX LINE DIST. DIAGRAM RE: DETAIL 2/S4.
3. MODIFY EXISTING FOUNDATION RE: SHEET S11.
4. INSTALL NEW ANCHOR ROD AND ANCHOR ROD BRACKETS RE: SHEET S5.
5. INSTALL NEW REINFORCING ELEMENTS RE: SHEET S5 THRU S10.
6. INSTALL NEW FLAT PLATE BRIDGE STIFFENERS RE: SHEET S6 THRU S11.
7. RELOCATE EQUIPMENT AND PAD AS REQUIRED TO FOUNDATION MODIFICATION RE: DETAIL 1/S12.

* CONTRACTOR SHALL PROVIDE TEMPORARY BRACING FOR ALL REMOVE AND REPLACE PROCEDURES.
** MODIFICATIONS SHALL BE COMPLETED PRIOR TO ADDING THE PROPOSED APPURTENANCES.



2 TX LINE DISTRIBUTION DIAGRAM
SCALE: N.T.S.

B+T GRP
1717 S. BOULDER
SUITE 300
TULSA, OK 74119
PH: (918) 587-4630
www.btgrp.com

CROWN CASTLE

ISSUED FOR:

REV	DATE	DESCRIPTION
0	10/03/13	ISSUED FOR CONSTRUCTION

PROJECT NO:	87581.005.01
PROJECT ENG:	KIRAN MAROJU
DRAWN BY:	GLS
CHECKED BY:	SSC

B+T ENGINEERING, INC.

STATE OF CONNECTICUT
CHAD S. TYLER
No. 23924
LICENSED PROFESSIONAL ENGINEER
10/3/13

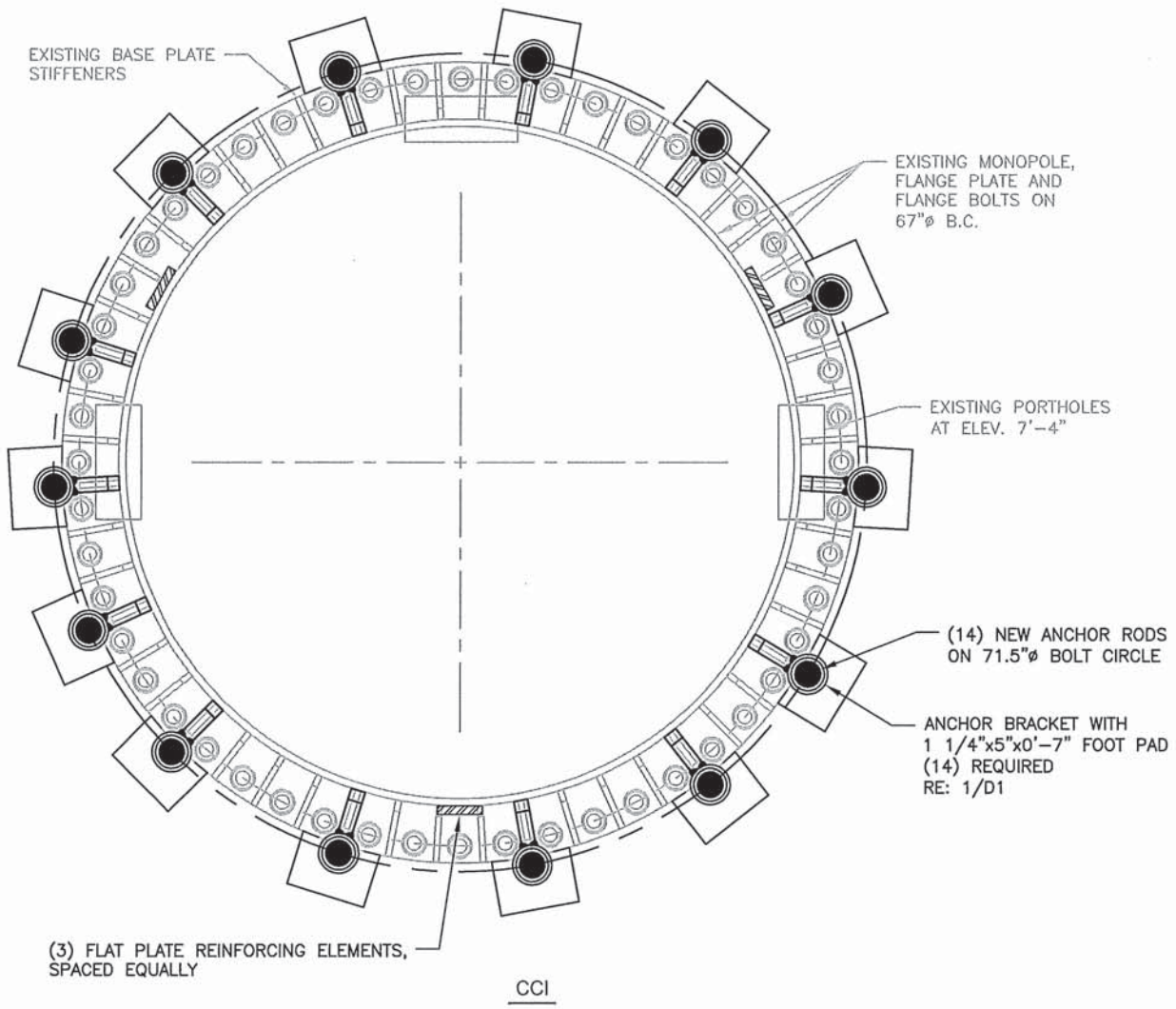
NEWINGTON_1
826217

240 KENSINGTON ROAD,
BERLIN, CT

EXISTING 190' MONOPOLE

SHEET TITLE
TOWER ELEV., SCHEDULES AND TX LINE DIST. DIAGRAM

SHEET NUMBER:	REVISION:
S4	0



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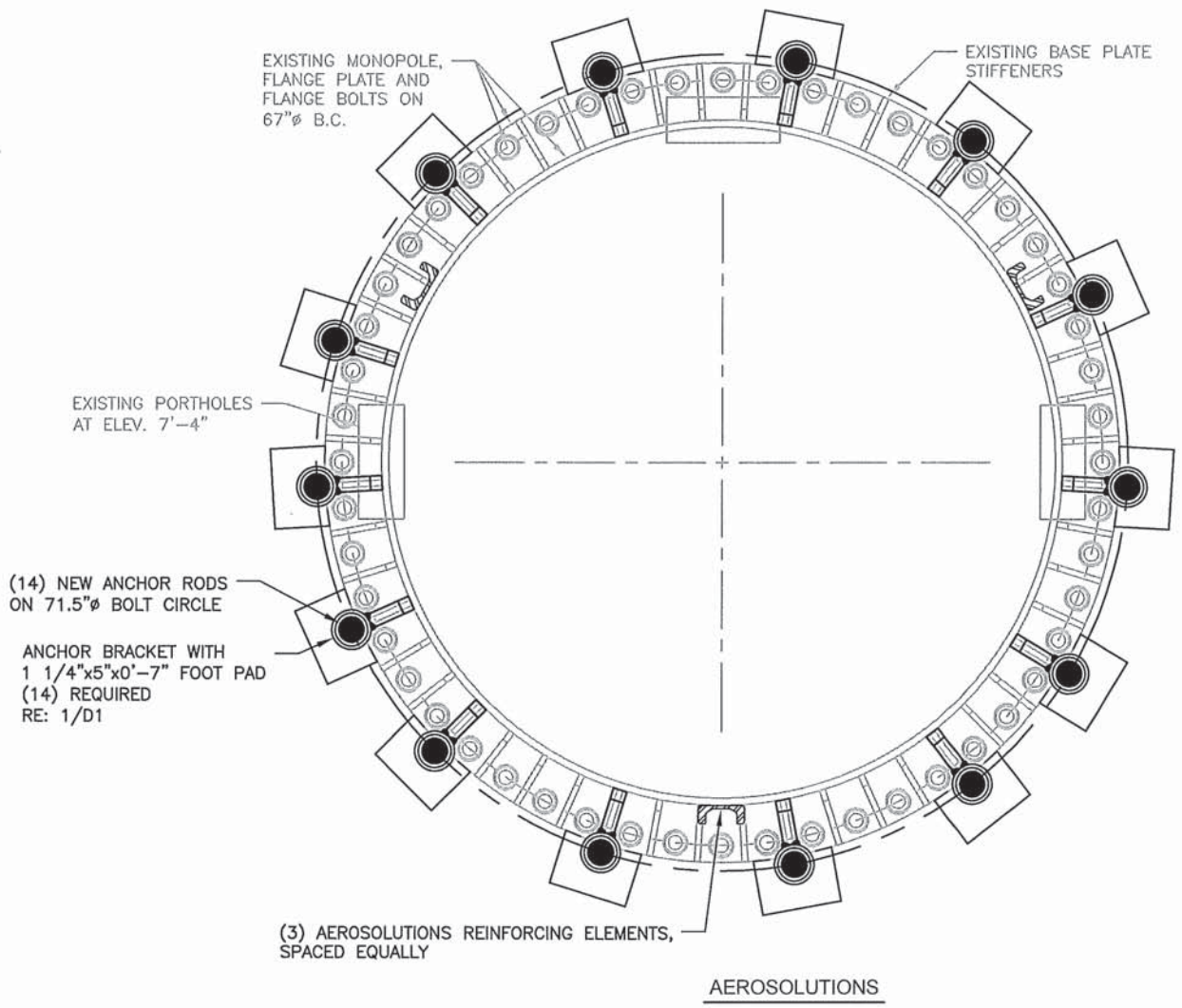

AEROSOLUTIONS

1 TOWER SECTION (0'-10.5')
SCALE: N.T.S.

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STATE OF CONNECTICUT
CHAD G. TYLE
No. 23924
LICENSED
PROFESSIONAL ENGINEER
10/3/13

NEWINGTON_1
826217

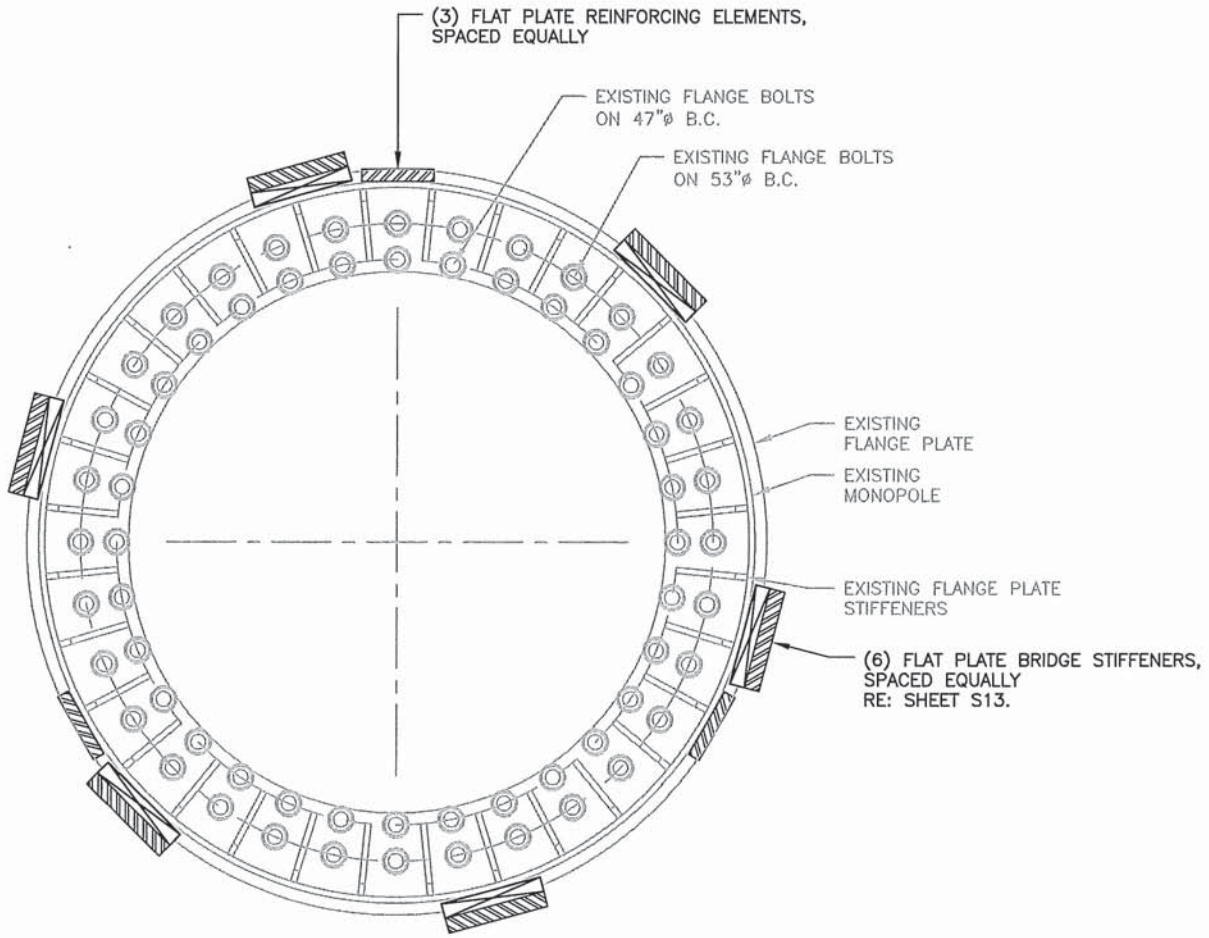
240 KENSINGTON ROAD,
BERLIN, CT

EXISTING 190' MONOPOLE

SHEET TITLE

TOWER SECTION
0'-10.5'

SHEET NUMBER:	REVISION:
S5	0



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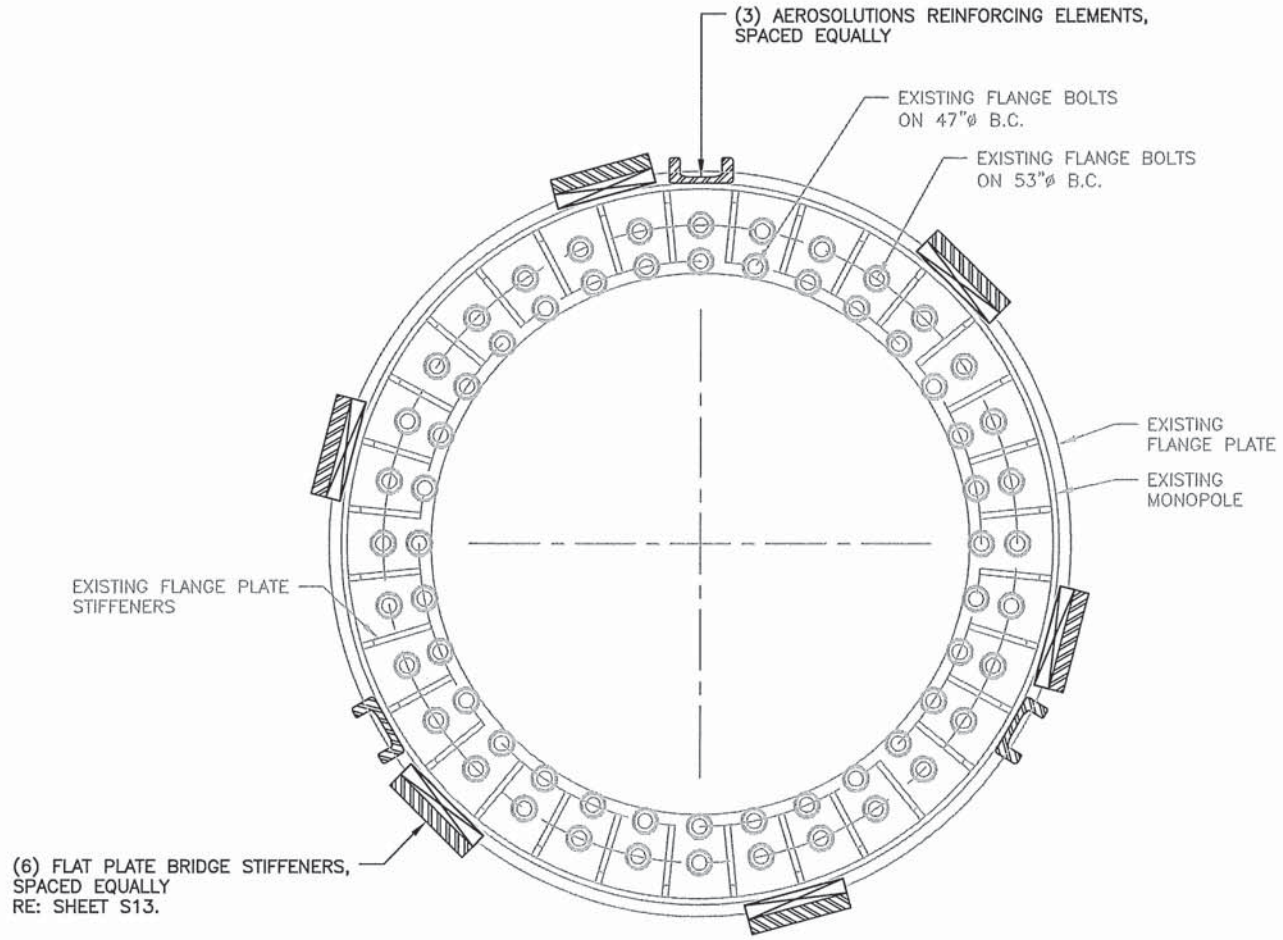

AEROSOLUTIONS

1 TOWER SECTION (20'-39.5')
SCALE: N.T.S.

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CROWN CASTLE

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PROJECT ENG:	KIRAN MAROJU
DRAWN BY:	GLS
CHECKED BY:	SSC

B+T ENGINEERING, INC.

STATE OF CONNECTICUT CHAD L. SMITH No. 23924 LICENSED PROFESSIONAL ENGINEER
10/3/13

NEWINGTON_1
826217

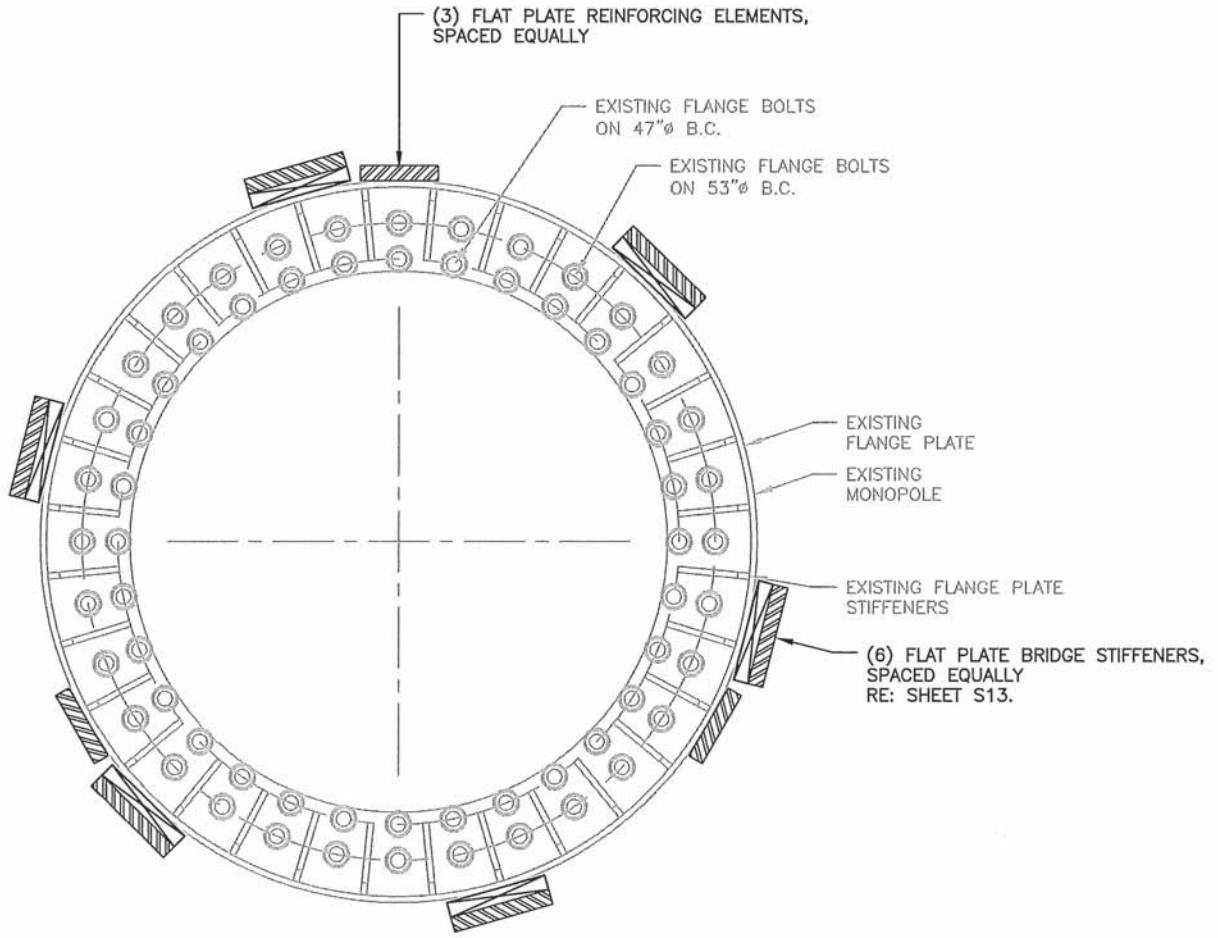
240 KENSINGTON ROAD,
BERLIN, CT

EXISTING 190' MONOPOLE

SHEET TITLE
TOWER SECTION
20'-39.5'

SHEET NUMBER: S6

REVISION: 0



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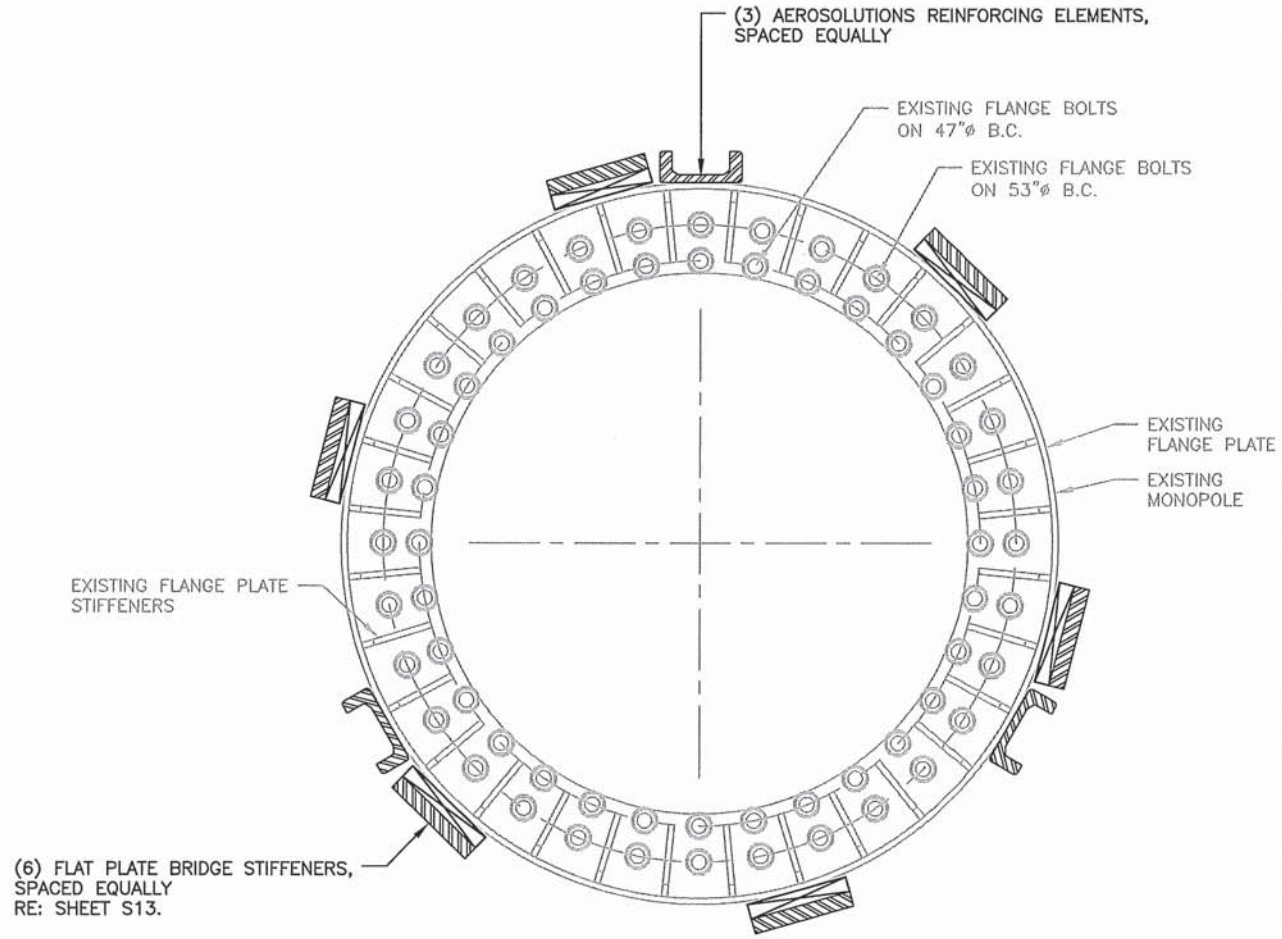

AEROSOLUTIONS

1 TOWER SECTION (40'-59.5')
SCALE: N.T.S.

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LICENSED PROFESSIONAL ENGINEER
10/3/13

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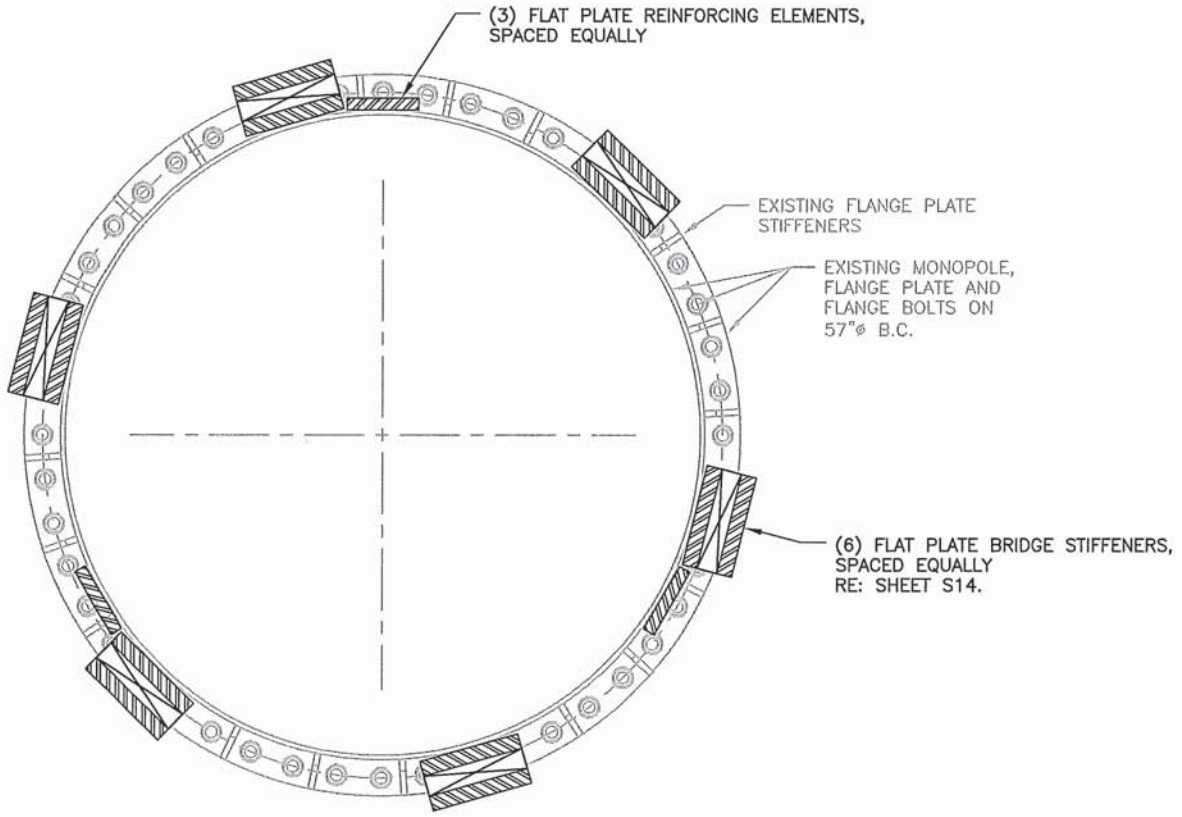
826217

240 KENSINGTON ROAD,
BERLIN, CT

EXISTING 190' MONOPOLE

SHEET TITLE
TOWER SECTION
40'-59.5'

SHEET NUMBER: S7
REVISION: 0



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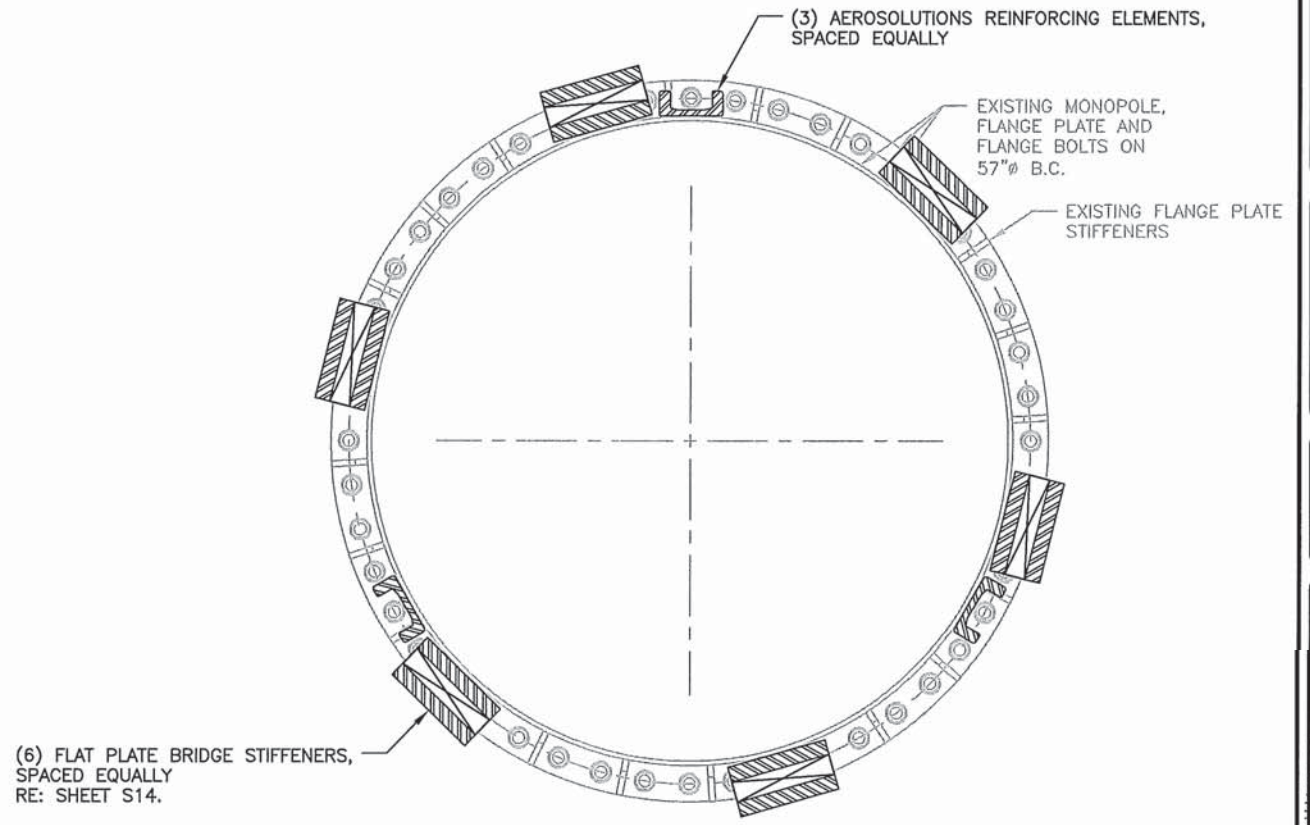

AEROSOLUTIONS

1 TOWER SECTION (60'-79.5')
SCALE: N.T.S.

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CROWN CASTLE

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10/3/13

NEWINGTON_1
826217

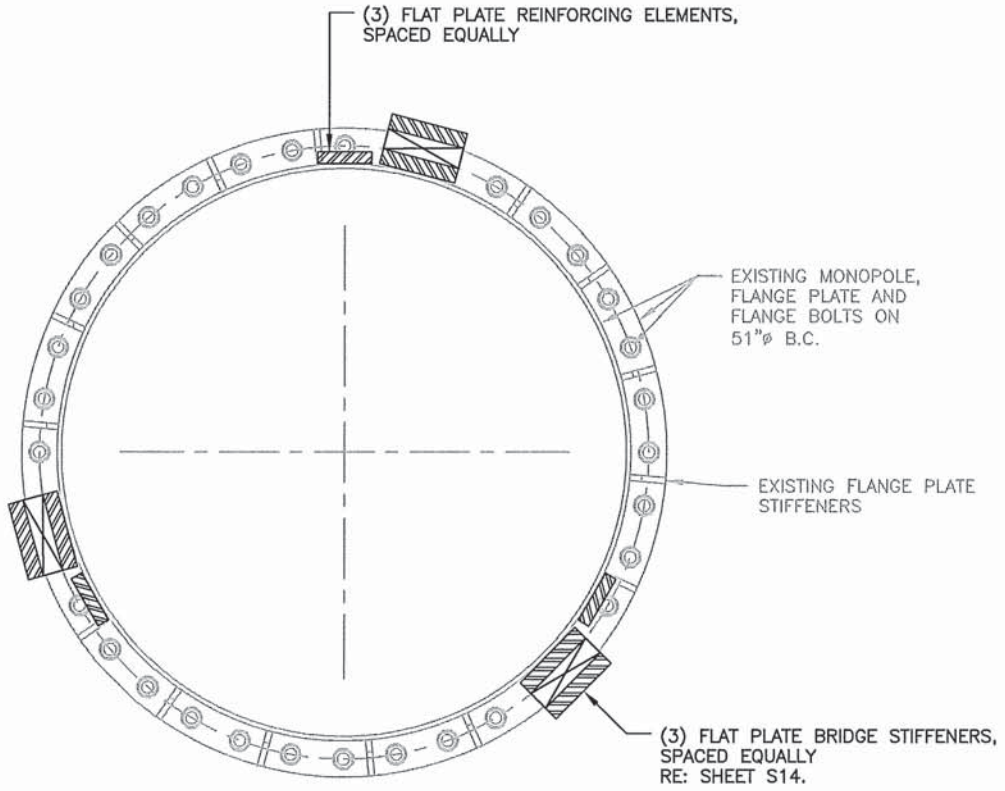
240 KENSINGTON ROAD,
BERLIN, CT

EXISTING 190' MONOPOLE

SHEET TITLE

TOWER SECTION
60'-79.5'

SHEET NUMBER:	REVISION:
S8	0



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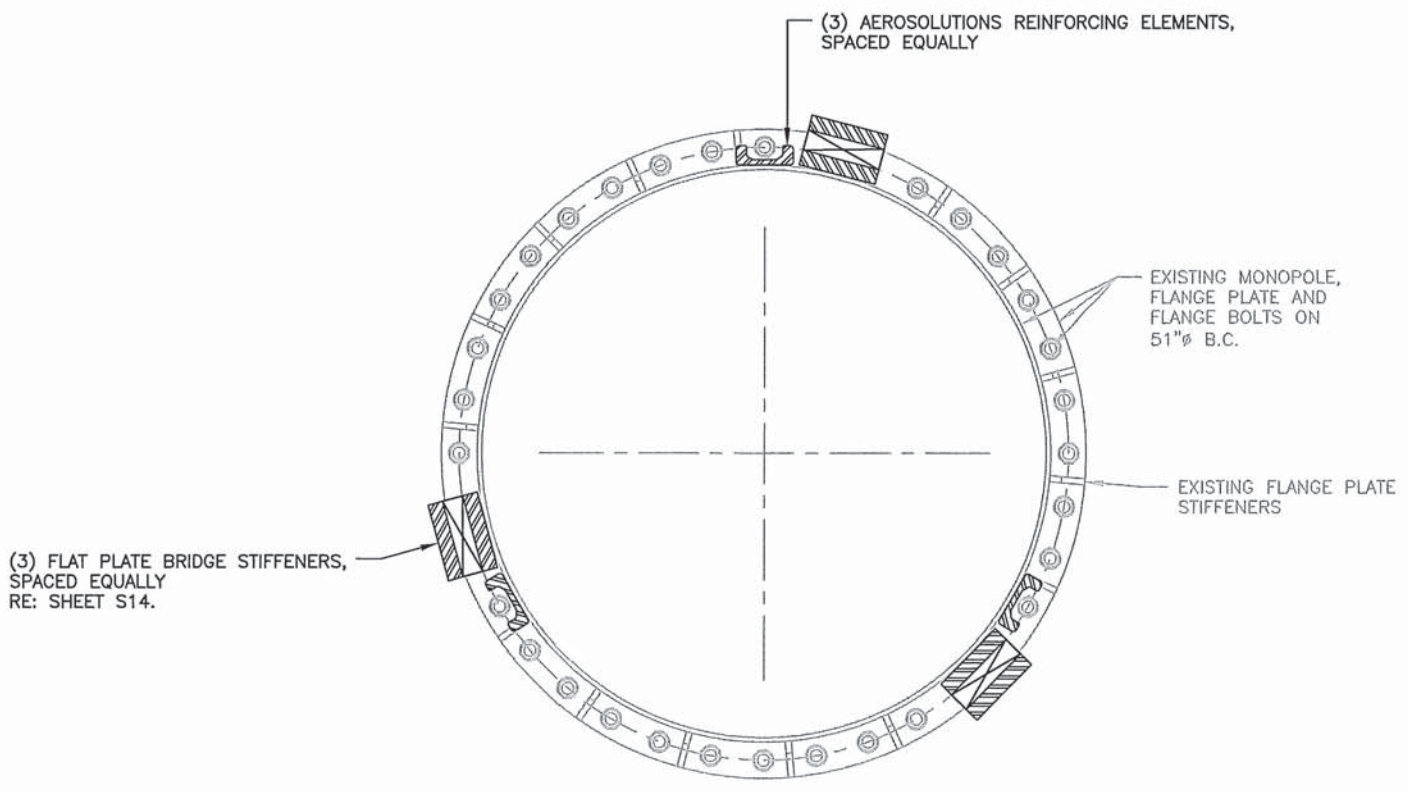

AEROSOLUTIONS

1 TOWER SECTION (80'-90.5')
SCALE: N.T.S.

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CROWN CASTLE

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10/3/13

NEWINGTON_1
826217

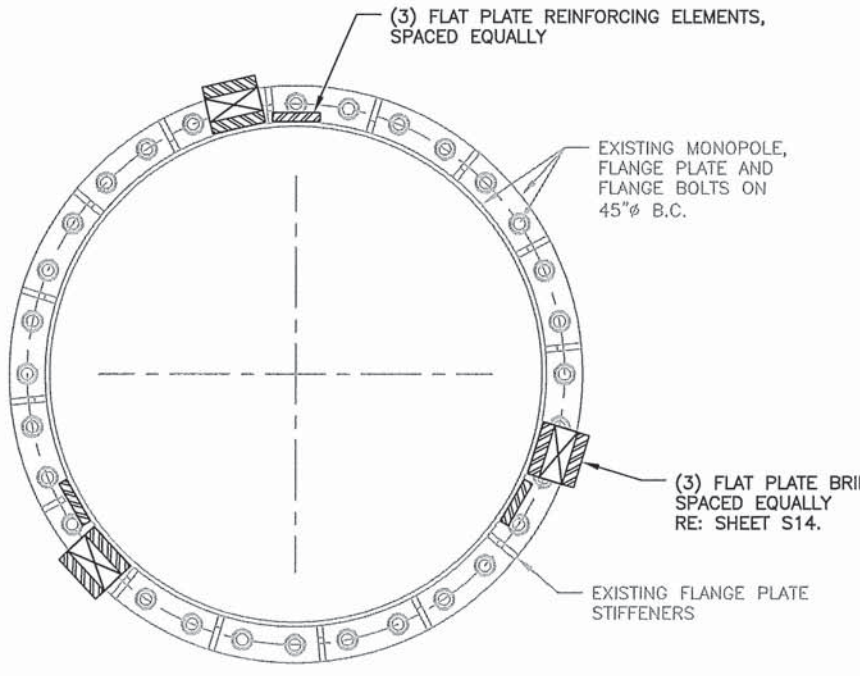
240 KENSINGTON ROAD,
BERLIN, CT

EXISTING 190' MONOPOLE

SHEET TITLE
TOWER SECTION
80'-90.5'

SHEET NUMBER: S9

REVISION: 0



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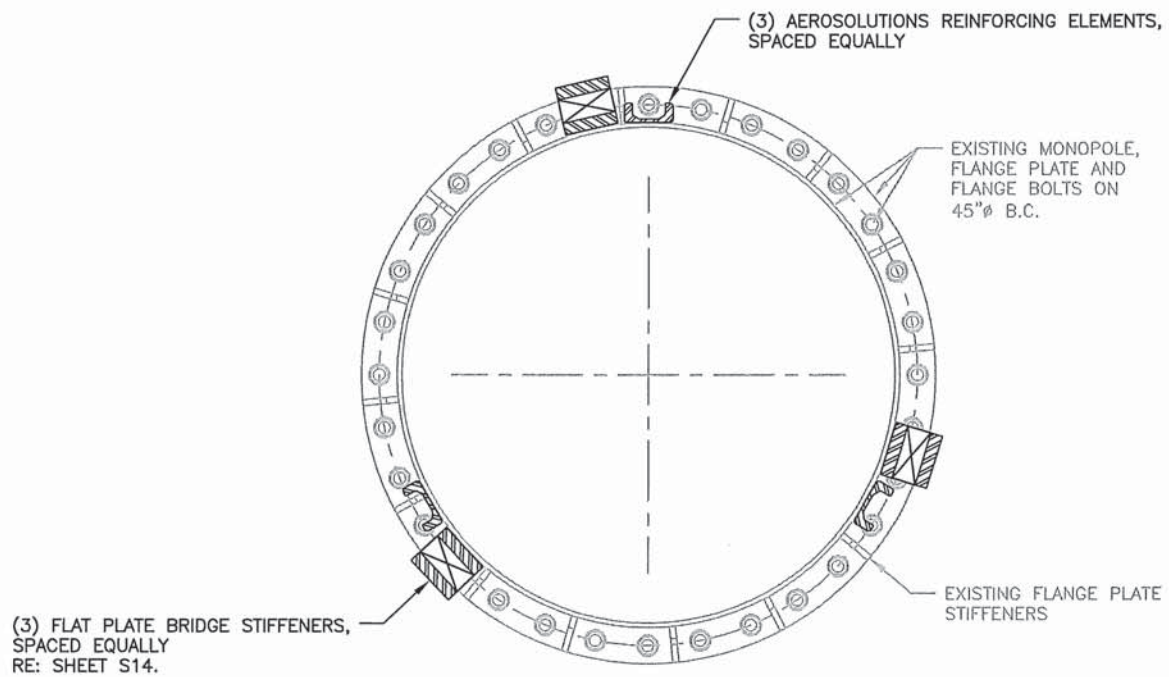

AEROSOLUTIONS

1 TOWER SECTION (100'-105.5')
SCALE: N.T.S.

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CROWN CASTLE

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DRAWN BY:	GLS
CHECKED BY:	SSC

B+T ENGINEERING, INC.

STATE OF CONNECTICUT
CHAD TITLE
No. 23924
LICENSED
PROFESSIONAL ENGINEER
10/3/13

NEWINGTON_1
826217

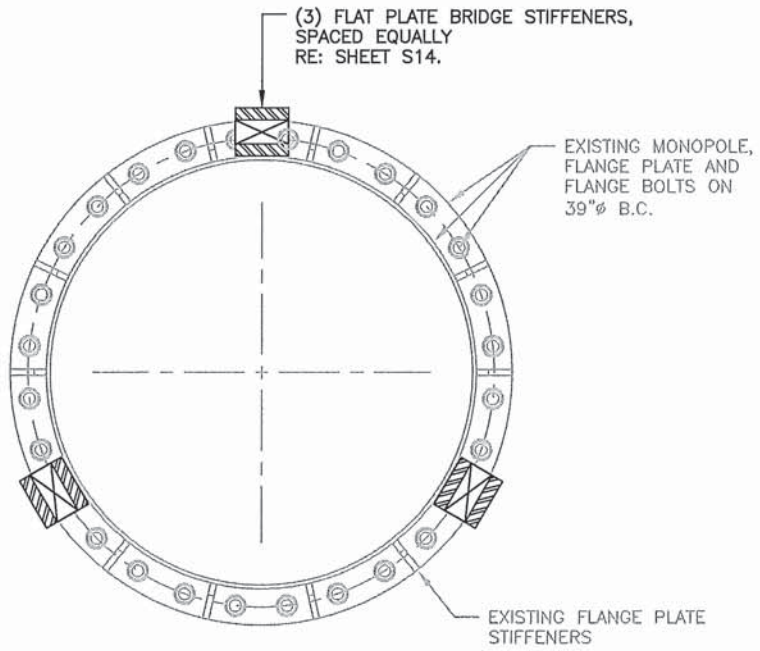
240 KENSINGTON ROAD,
BERLIN, CT

EXISTING 190' MONOPOLE

SHEET TITLE
TOWER SECTION
100'-105.5'

SHEET NUMBER: S10

REVISION: 0



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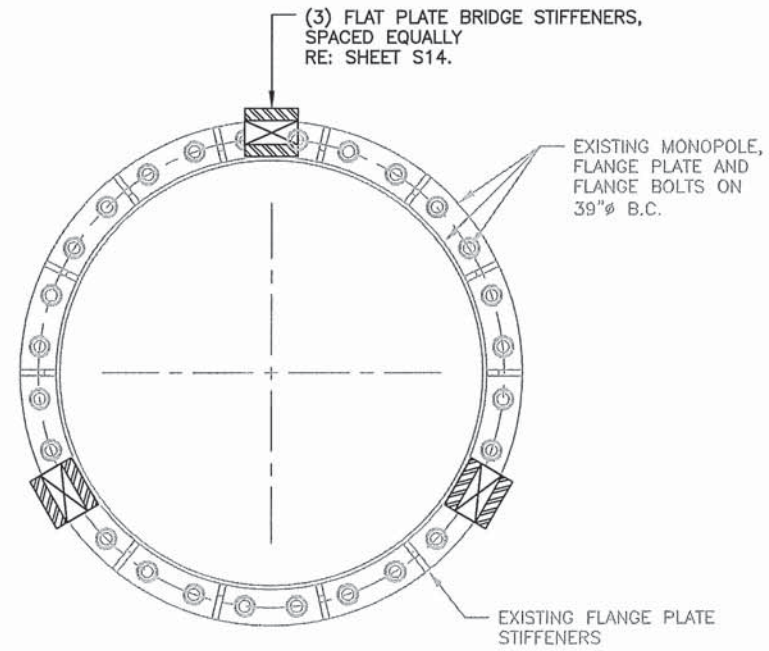

AEROSOLUTIONS

1 TOWER SECTION (ELEV. 120')
SCALE: N.T.S.

B+T GRP
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10/3/13

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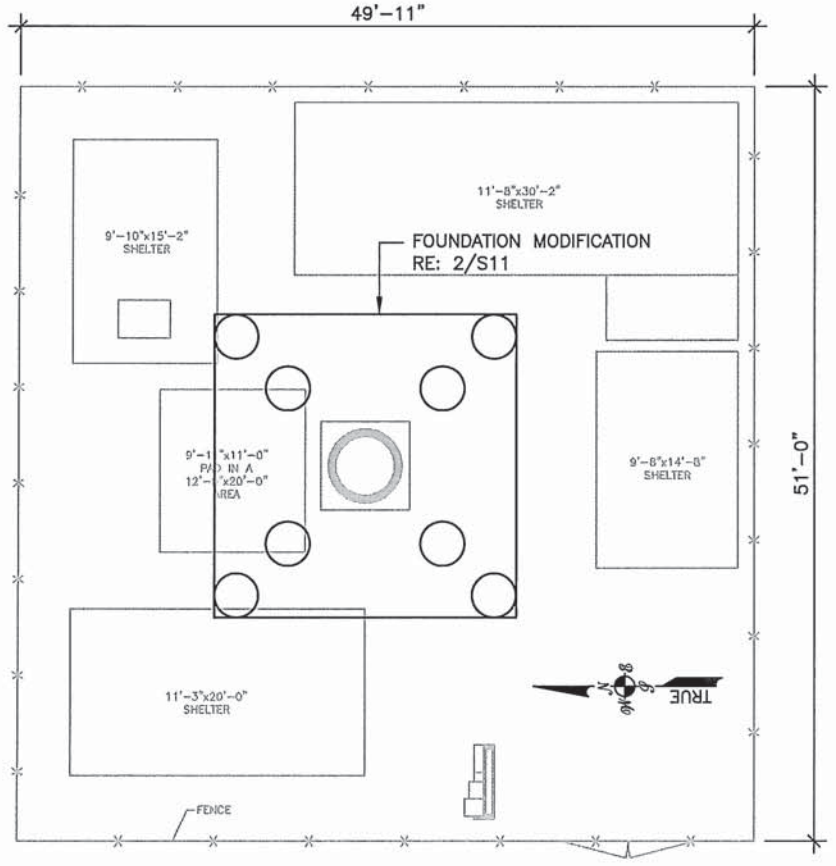
240 KENSINGTON ROAD,
BERLIN, CT

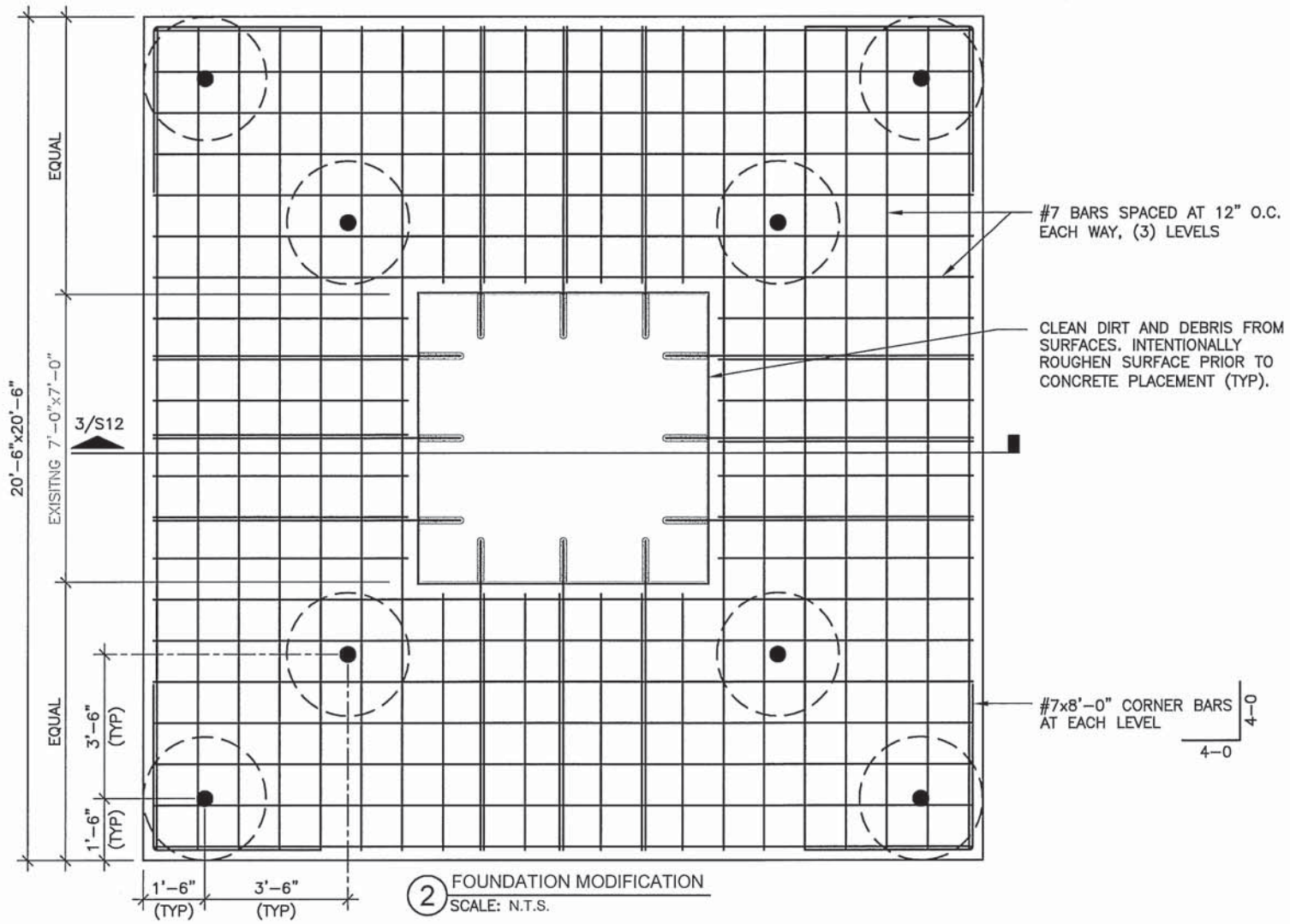
EXISTING 190' MONOPOLE

SHEET TITLE
TOWER SECTION
ELEV. 120'

SHEET NUMBER:	REVISION:
S11	0



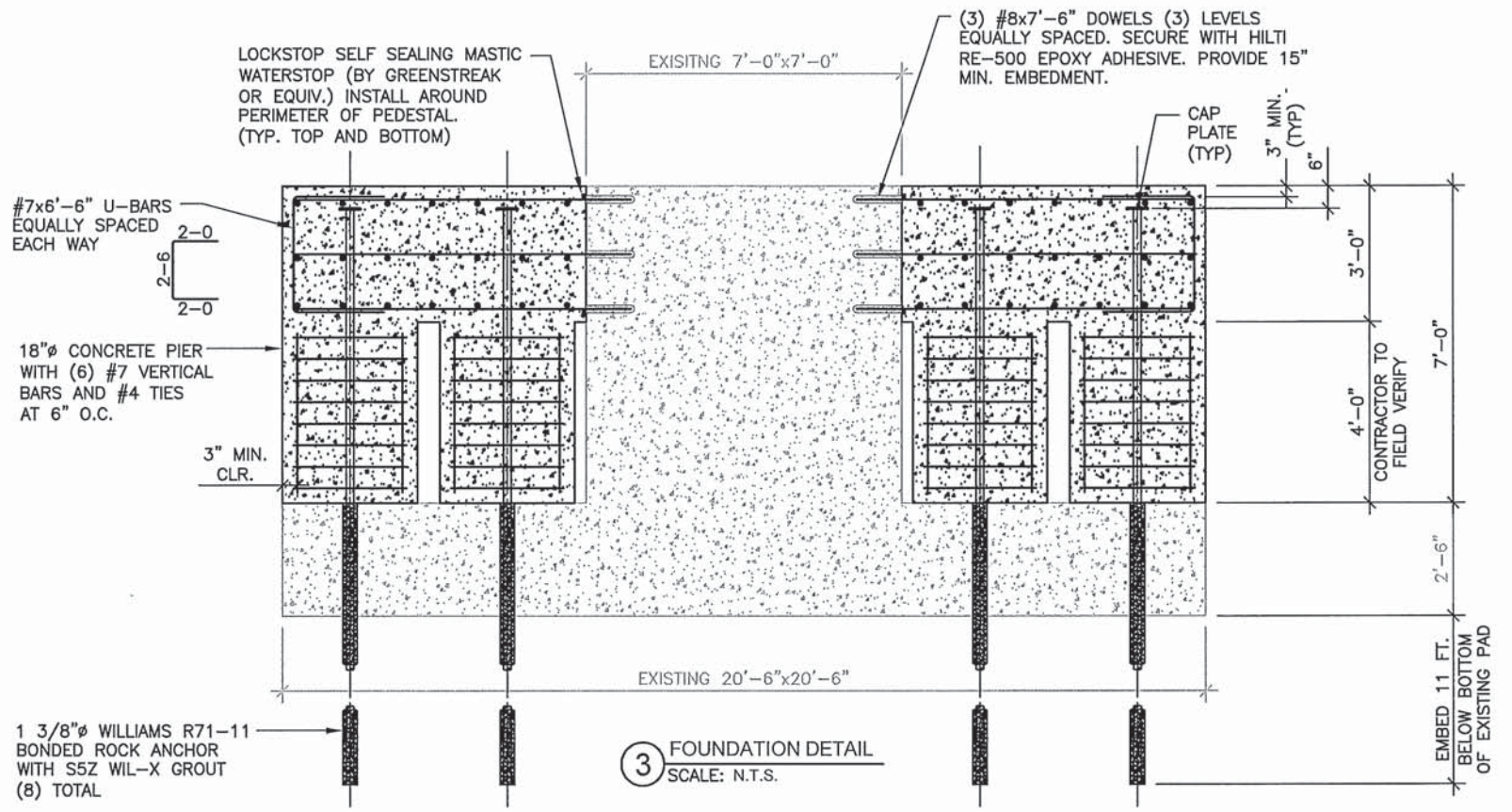
1 SITE PLAN
SCALE: N.T.S.



2 FOUNDATION MODIFICATION
SCALE: N.T.S.

CONCRETE NOTES:

1. ALL DETAILING, FABRICATION AND PLACING OF REINFORCING BARS SHALL BE IN ACCORDANCE WITH THE ACI DETAILING MANUAL SP-66 (LATEST REVISION).
2. REINFORCING BARS SHALL BE GRADE 60 DEFORMED BARS CONFORMING TO ASTM SPECIFICATION A615, EXCEPT TIES WHICH MAY BE ASTM A615 (GRADE 40). USE CLASS B LAP SPLICES.
3. ALL REINFORCING BARS SHALL BE TIED WITH TIE WIRE AT ALL REINFORCING BAR INTERSECTIONS. THE CONTRACTOR SHALL SUPPORT THE REINFORCING BAR MAT WITH CONTINUOUS STEEL CHAIRS SPACED NO MORE THAN FOUR FEET O.C.
4. ALL WATER SHALL BE REMOVED FROM THE BOTTOM OF THE EXCAVATION BEFORE COMPACTING FILL AND PLACING CONCRETE.
5. CONCRETE SHALL BE NORMAL WEIGHT AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS.
6. CONCRETE SHALL BE PLACED AGAINST UNDISTURBED SOIL WHERE POSSIBLE. FORMS, WHEN REQUIRED SHALL BE REMOVED PRIOR TO BACKFILLING.
7. BACKFILL MATERIAL SHALL BE COMPACTED TO A MINIMUM UNIT WEIGHT OF 100 PCF OR THE NET WEIGHT SPECIFIED IN THE GEOTECH REPORT.
8. FOR THE LESSOR OF 26 C.Y. OR ONE DAY'S PLACEMENT, A MINIMUM OF 4 CONCRETE CYLINDERS SHALL BE TAKEN. CONCRETE SHALL BE TESTED AS REQUIRED BY OWNER'S PROJECT MANAGER.
9. EXISTING SLAB AND FENCING MAY BE DAMAGED DURING INSTALLATION OF FOUNDATION MODIFICATIONS, CONSTRUCTION PRICE SHALL INCLUDE REPLACEMENT OR REPAIR OF THE DAMAGED ITEMS.



3 FOUNDATION DETAIL
SCALE: N.T.S.

B+T GRP
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SUITE 300
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CROWN CASTLE

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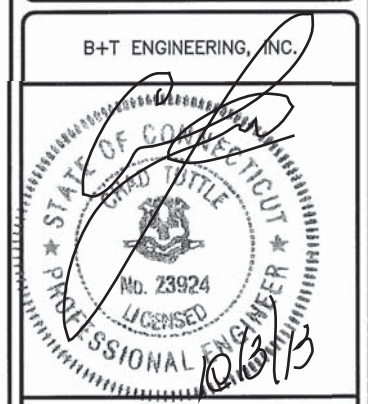


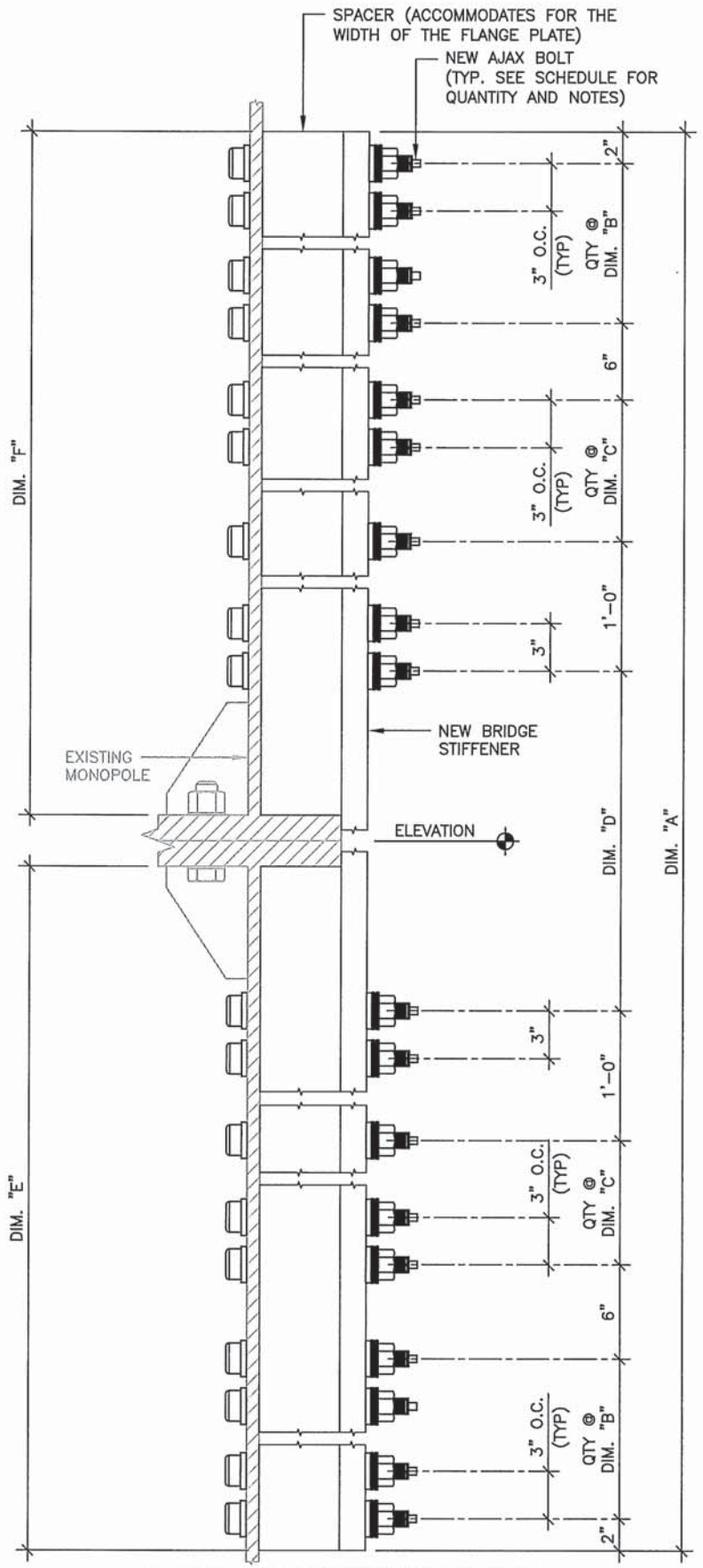
NEWINGTON_1
826217

240 KENSINGTON ROAD,
BERLIN, CT

EXISTING 190' MONOPOLE

SHEET TITLE
FOUNDATION MODIFICATION

SHEET NUMBER:	REVISION:
S12	0



1 FLAT PLATE BRIDGE STIFFENER DETAIL
SCALE: N.T.S.

FLAT PLATE BRIDGE STIFFENER-SCHEDULE (65 KSI)

ELEVATION	NO. OF BRIDGE STIFFENERS	FLAT PLATE SIZE	DIM. "A"	QTY @ DIM. "B"	QTY @ DIM. "C"	DIM. "D"	DIM. "E"	DIM. "F"	AJAX BOLT QTY PER STIFFENER	TOTAL AJAX BOLT QTY
20'	6	CCI-65FP-065125	14'-10"	11 HOLES @ 2'-6"	10 HOLES @ 2'-3"	2'-0"	7'-4"	7'-4"	46	276
40'	6	CCI-65FP-065125	14'-10"	11 HOLES @ 2'-6"	10 HOLES @ 2'-3"	2'-1"	7'-5"	7'-5"	46	276

CONTRACTOR NOTE:
TAKE ALL MEASURES NECESSARY TO AVOID DAMAGING EXISTING FLANGE STIFFENERS DURING DRILLING OPERATIONS. NOTIFY B+T GROUP IMMEDIATELY IF EXISTING FLANGE STIFFENERS ARE ENCOUNTERED AND INTERFERE WITH PLACEMENT OF BRIDGE STIFFENERS. MINOR ADJUSTMENT TO PROPOSED LOCATION OF BRIDGE STIFFENERS MAY BE REQUIRED.

B+T GRP
1717 S. BOULDER
SUITE 300
TULSA, OK 74119
PH: (918) 587-4630
www.btgrp.com

CROWN CASTLE

ISSUED FOR:

REV	DATE	DESCRIPTION
0	10/03/13	ISSUED FOR CONSTRUCTION

PROJECT NO:	87581.005.01
PROJECT ENG:	KIRAN MAROJU
DRAWN BY:	GLS
CHECKED BY:	SSC

B+T ENGINEERING, INC.

STATE OF CONNECTICUT * CHAD TUTTLE * No. 23924 LICENSED PROFESSIONAL ENGINEER * 10/3/13

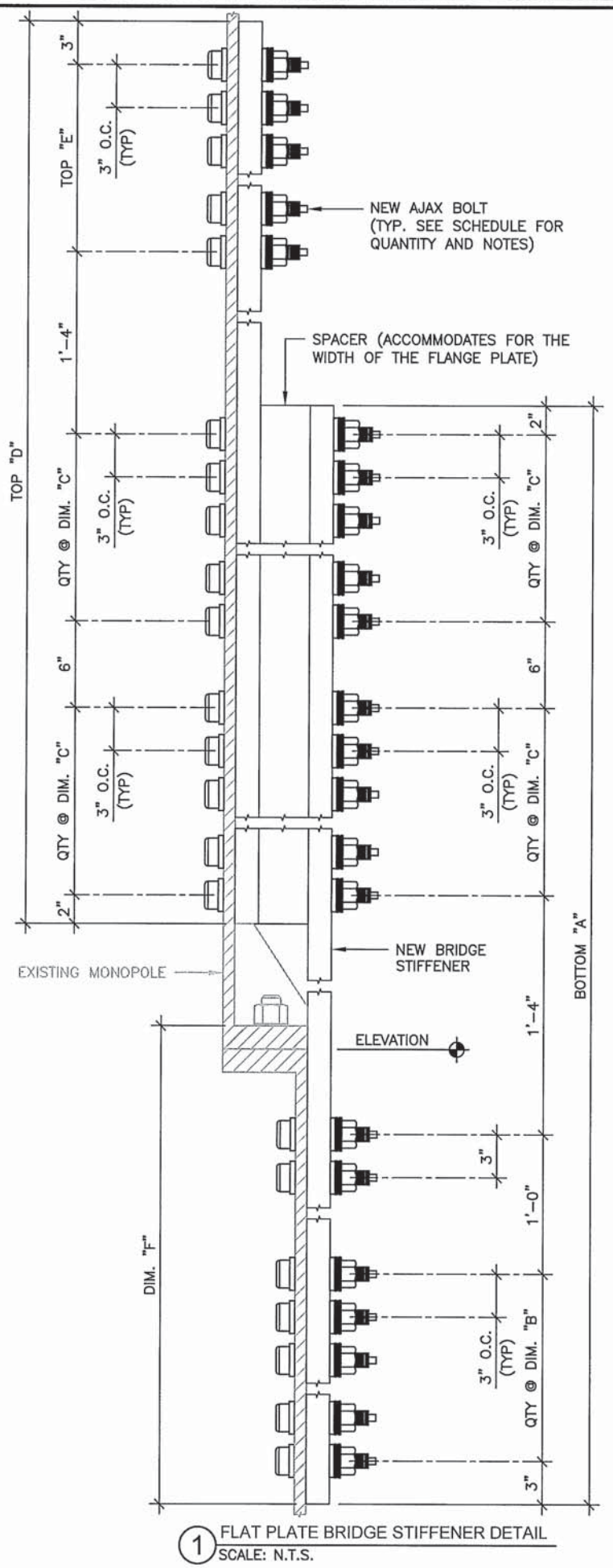
NEWINGTON_1
826217

240 KENSINGTON ROAD,
BERLIN, CT

EXISTING 190' MONOPOLE

SHEET TITLE
FLAT PLATE
BRIDGE STIFFENER DETAIL,
SCHEDULE AND NOTES

SHEET NUMBER:	REVISION:
S13	0



1 FLAT PLATE BRIDGE STIFFENER DETAIL
SCALE: N.T.S.

FLAT PLATE BRIDGE STIFFENER-SCHEDULE (65ksi)

ELEVATION	NO. OF BRIDGE STIFFENERS	FLAT PLATE SIZE	BOTTOM "A"	QTY @ DIM. "B"	QTY @ DIM. "C"	TOP "D"	QTY @ DIM. "E"	DIM. "F"	AJAX BOLT QTY PER STIFFENER	TOTAL AJAX BOLT QTY
60'	6	CCI-65FB-085125	18'-6"	15 HOLES @ 3'-6"	14 HOLES @ 3'-3"	12'-3"	15 HOLES @ 3'-6"	5'-5"	60	360
80'	3	CCI-65FB-065125	9'-3"	11 HOLES @ 2'-6"	8 HOLES @ 1'-9"	8'-3"	11 HOLES @ 1'-3"	4'-6"	40	120
100'	3	CCI-65FB-045100	6'-6"	6 HOLES @ 1'-3"	5 HOLES @ 1'-0"	5'-6"	6 HOLES @ 1'-3"	3'-3"	24	72
120'	3	CCI-65FB-045100	6'-6"	6 HOLES @ 1'-3"	5 HOLES @ 1'-0"	5'-6"	6 HOLES @ 1'-3"	3'-3"	24	72

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CROWN CASTLE

ISSUED FOR:

REV	DATE	DESCRIPTION
0	10/03/13	ISSUED FOR CONSTRUCTION

PROJECT NO:	87581.005.01
PROJECT ENG:	KIRAN MAROJU
DRAWN BY:	GLS
CHECKED BY:	SSC

B+T ENGINEERING, INC.

STATE OF CONNECTICUT
CHAD S. SMITH
No. 23924
LICENSED
PROFESSIONAL ENGINEER
10/3/13

NEWINGTON_1
826217

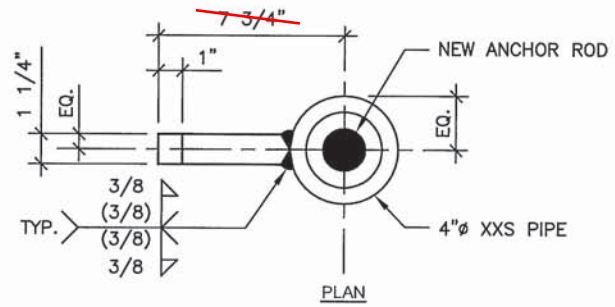
240 KENSINGTON ROAD,
BERLIN, CT

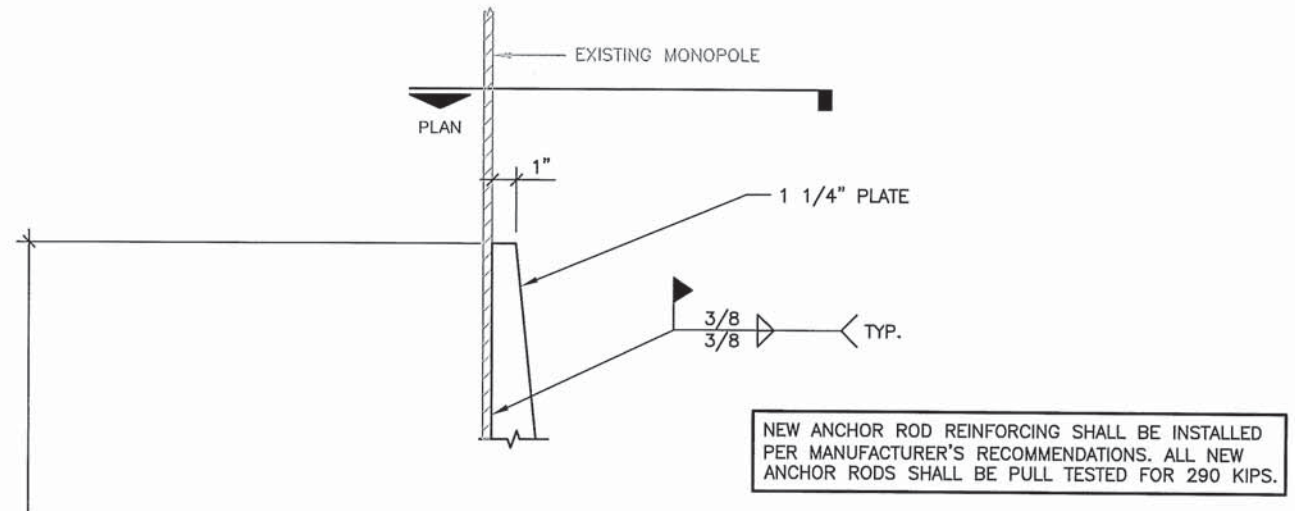
EXISTING 190' MONOPOLE

SHEET TITLE
FLAT PLATE
BRIDGE STIFFENER DETAIL,
SCHEDULE AND NOTES

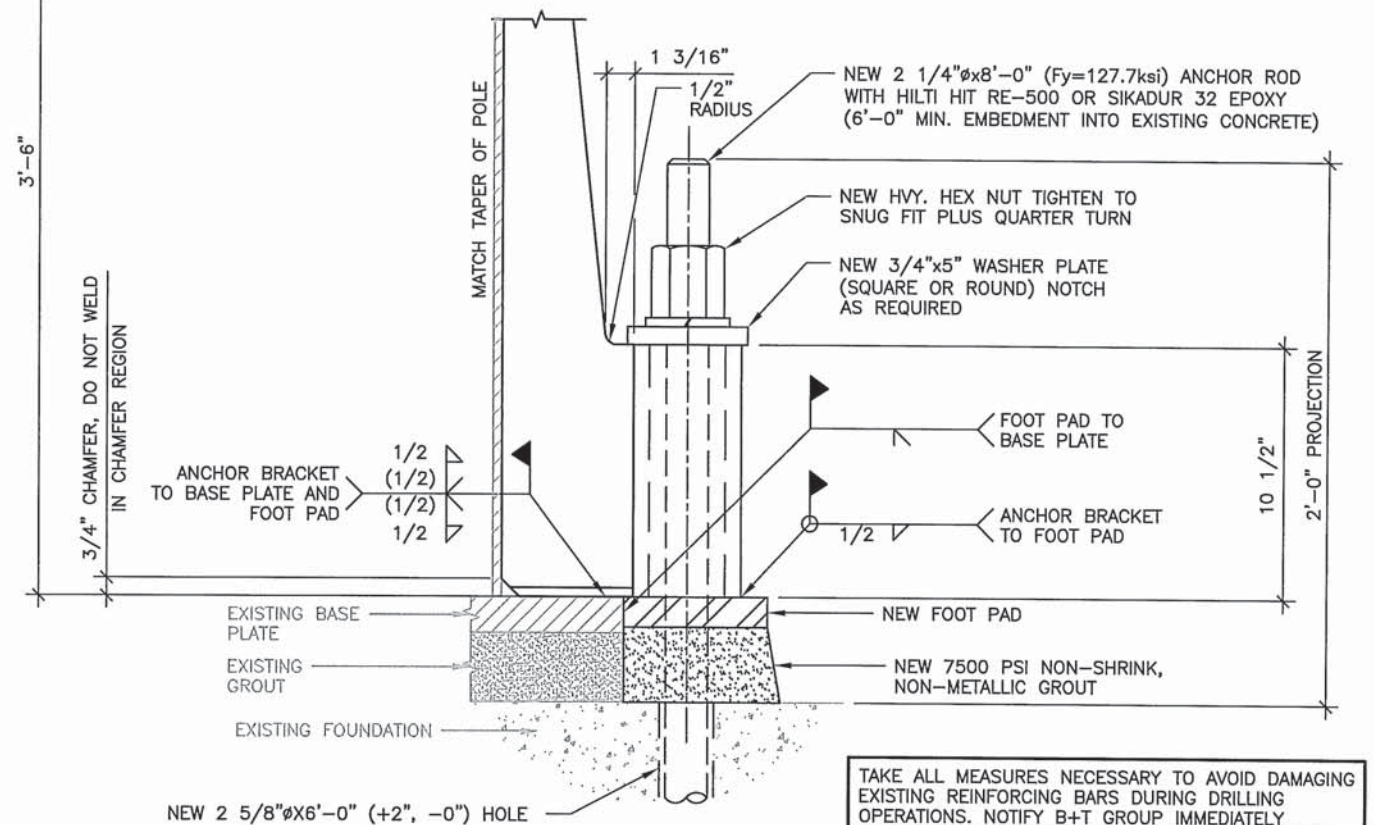
SHEET NUMBER:	REVISION:
S14	0

5-3/4"
KH 12/2





NEW ANCHOR ROD REINFORCING SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. ALL NEW ANCHOR RODS SHALL BE PULL TESTED FOR 290 KIPS.



TAKE ALL MEASURES NECESSARY TO AVOID DAMAGING EXISTING REINFORCING BARS DURING DRILLING OPERATIONS. NOTIFY B+T GROUP IMMEDIATELY IF EXISTING REINFORCING BARS ARE ENCOUNTERED AND INTERFERE WITH PLACEMENT OF NEW ANCHORS. MINOR ADJUSTMENT TO PROPOSED LOCATION OF NEW ANCHORS MAY BE REQUIRED.

(2) ANCHOR ROD BRACKET
SCALE: N.T.S.

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1717 S. BOULDER
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CROWN CASTLE

ISSUED FOR:

REV	DATE	DESCRIPTION
0	10/03/13	ISSUED FOR CONSTRUCTION

PROJECT NO:	87581.005.01
PROJECT ENG:	KIRAN MAROJU
DRAWN BY:	GLS
CHECKED BY:	SSC

B+T ENGINEERING, INC.

STATE OF CONNECTICUT
CHARLES LE
No. 23924
LICENSED
PROFESSIONAL ENGINEER
10/3/13

NEWINGTON_1
826217

240 KENSINGTON ROAD,
BERLIN, CT

EXISTING 190' MONOPOLE

SHEET TITLE

DETAILS

SHEET NUMBER:	REVISION:
D1	0

October 3, 2013

Mr. Steve Tuttle
Crown Castle
349 West Commercial Street, Suite 2630
East Rochester, NY 14445
(585) 899-3445

B+T Group
1717 S. Boulder, Suite 300
Tulsa, OK 74119
(918) 587-4630
ctuttle@btgrp.com

Subject:	**Structural Modification Report**	
Carrier Designation:	***AT&T Mobility* Co-Locate**	
	Carrier Site Number:	CT1019
	Carrier Site Name:	CT1019
Crown Castle Designation:	**Crown Castle BU Number:**	826217
	Crown Castle Site Name:	Newington_1
	Crown Castle JDE Job Number:	228234
	Crown Castle Work Order Number:	656208
	Crown Castle Application Number:	178224 Rev. 10
Engineering Firm Designation:	**B+T Group Project Number:**	87581.005.01
Site Data:	**240 Kensington Road, Berlin, CT, Hartford County** **Latitude *41° 37' 34.25"*, Longitude *-72° 46' 32.1"*** **190 Foot - Monopole**	

Dear Mr. Tuttle,

B+T Group is pleased to submit this **"Structural Modification Report"** to determine the structural integrity of the above mentioned tower. This analysis has been performed in accordance with the Crown Castle Structural 'Statement of Work' and the terms of Crown Castle Purchase Order Number 581786, in accordance with application 178224, revision 10.

The purpose of the analysis is to determine acceptability of the tower stress level. Based on our analysis we have determined the tower stress level for the structure and foundation, under the following load case, to be:

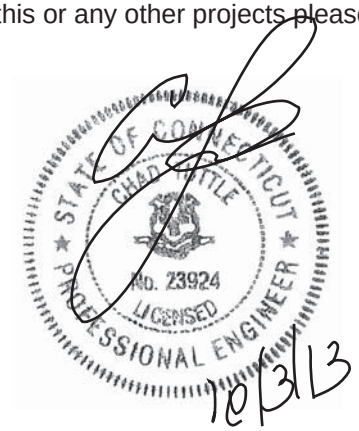
LC4.7: TSA specified load case with proposed modifications **Sufficient Capacity**
Note: See Table 1 and Table 2 for the proposed and existing/reserved loading, respectively.

The analysis has been performed in accordance with the TIA/EIA-222-F standard and the 2005 CT State Building Code based upon a wind speed of 80 mph fastest mile.

All modifications and equipment proposed in this report shall be installed in accordance with the attached drawings for the determined available structural capacity to be effective.

We at *B+T Group* appreciate the opportunity of providing our continuing professional services to you and Crown Castle. If you have any questions or need further assistance on this or any other projects please give us a call.

Respectfully submitted by:
B+T Engineering, Inc.



Kiran Maroju, E.I.
Project Engineer

Chad E. Tuttle, P.E.
President