Crown Castle
3530 Toringdon Way Suite 300
Charlotte NC 28277

Jerry Feathers
Tel (704) 405-6549
Fax (724) 416-6484
Email: Jerry.feathers.contractor@crowncastle.com

October 28, 2015

Melanie A. Bachman
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

RE: **T-Mobile-Exempt Modification - EM-T-MOBILE-060-150526; Crown : 876381**
T-Mobile Site ID: CT11393B
Located at: 2365 Long Hill Rd., Guilford, CT

Dear Ms. Bachman:

This letter is to confirm that all construction activity has been completed. Pursuant to the Connecticut Siting Council approval of **EM-T-MOBILE-060-150526** this letter is to satisfy item number five of the approval letter that the CSC will be notified in writing within 45 days after completion of construction. To satisfy number two of the decision letter Crown is also submitting a PMI document certified by a professional engineer stating the modifications were completed in accordance with the CD's and structural analysis. Page three of the report shows the engineers stamp.

Please contact me if you have any questions.

Sincerely,

Jerry Feathers
Property Specialist
704-405-6549

6521 Meridien Dr.
Raleigh, NC 27616
(919) 755-1012 P
(919) 755-1031 F

September 11, 2015

Dan Vadney
Project Manager
Crown Castle
3 Corporate Park Drive, Suite 101
Clifton Park, NY 12065

Subject:	Modification Inspection Report	
Crown Castle Designation:	Crown Castle BU Number: Crown Castle Site Name:	876381 Ward
Inspection Firm Designation:	FDH Velocitel Project Number:	15BVKE1500
Site Data:	2365 Long Hill Rd., Guilford, CT 06437 Latitude: 41° 20' 47.34" Longitude: -72° 43' 23.15" 176' Monopole Tower	

Velocitel, Inc.,d.b.a. FDH Velocitel, Inc. is pleased to submit this "Modification Inspection Report" (MI Report) to Crown Castle USA, Inc. for the modification/reinforcement to the subject structure. This Modification Inspection (MI) was performed in accordance with Crown Castle ENG-SOW-10007 Modification Inspection SOW, Contract Documents, and Crown Castle Purchase Order number 804336. The purpose of this MI is to confirm that the modification installation configuration and workmanship are in accordance with the contract document(s) listed in Table 2. The MI is not a review of the adequacy or effectiveness of the modification/reinforcement solution.

Table 1 – General Information

	Company	Contact
MI Inspector	FDH Velocitel	Paul Drumheller, EI 919-755-1012
Independent	~~EOR~~	~~Turnkey~~
Modification Design EOR	Tower Engineering Professionals	Graham M. Andres, PE 919-661-6351
General Contractor	MasTec Network Solutions	Neal J. Cafalone 315-432-8967
Sub to the General Contractor	NA	NA
Field CWI for the General Contractor	NA	NA
Field NDE for the General Contractor	NA	NA

Table 2 – Design Documents

Document(s)	Remarks	Source
Tower Modification Drawings	TEP Project No. 51819.31710 Dated April 24, 2015	Crown Castle CCI Doc No. 5650483

Based on our inspection, *FDH Velocitel* determines this project:

X_PASSING MI

The configuration, materials and/or workmanship of the modifications are installed in accordance with the Contract Documents and no deficiencies were found.

All observations were performed after the construction was complete and that *FDH Velocitel* was not present during the construction phase.

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

Respectfully submitted,

Dennis D. Abel, PE
Connecticut License No. 23247

Project Closeout Information - Table of Contents

MI Checklist Drawing

MI CHECKLIST

CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY EOR)	REPORT ITEM
PRE-CONSTRUCTION	
X	MI CHECKLIST DRAWING
X	EOR APPROVAL
X	FABRICATION INSPECTION
NA	FABRICATOR CERTIFIED WELD INSPECTION
X	MATERIAL TEST REPORT (MTR)
NA	FABRICATOR NDE INSPECTION
NA	NDE REPORT OF MONOPOLE BASE PLATE PER ENG-SOW-10033
X	PACKING SLIPS
ADDITIONAL TESTING AND INSPECTIONS:	
CONSTRUCTION	
X	CONSTRUCTION INSPECTIONS
NA	CONTINUOUS FOUNDATION INSPECTIONS
NA	CONCRETE COMP. STRENGTH AND SLUMP TESTS
NA	GROUT COMP. STRENGTH (ASTM C109)
NA	POST INSTALLED ANCHOR ROD VERIFICATION
NA	BASE PLATE GROUT VERIFICATION
NA	CONTRACTOR'S CERTIFIED WELD INSPECTION AND NDE REPORTS
NA	EARTHWORK: LIFT AND DENSITY
X	ON SITE COLD GALVANIZING VERIFICATION
NA	GUY WIRE TENSION REPORT
X	GC AS-BUILT DOCUMENTS
X	NON-TENSION CONTROLLED BOLT INSPECTION. SEE SHEET N-4 FOR DETAILS.
ADDITIONAL TESTING AND INSPECTIONS:	
POST-CONSTRUCTION	
X	MI INSPECTOR REDLINE OR RECORD DRAWING(S)
NA	POST INSTALLED ANCHOR ROD PULL-OUT TESTING
X	PHOTOGRAPHS
ADDITIONAL TESTING AND INSPECTIONS:	

NOTE: X DENOTES A DOCUMENT NEEDED FOR THE PMI REPORT
NA DENOTES A DOCUMENT THAT IS NOT REQUIRED FOR THE PMI 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 IS RESPONSIBLE FOR COLLECTING ALL GENERAL CONTRACTORS (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.

RECOMMENDATIONS (CONTINUED)

- 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 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 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 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/ERECTIONS 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 IN FIELD CONDITION

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

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

PLANS PREPARED FOR:

CROWN CASTLE

3530 TORINGDON WAY, SUITE 300
CHARLOTTE, NC 28277
OFFICE: (704) 877-8397

PROJECT INFORMATION:

WARD
BU #: 876381

2365 LONG HILL RD.
GUILFORD, CT 06437
(NEW HAVEN COUNTY)

PLANS PREPARED BY:

TOWER ENGINEERING PROFESSIONALS
326 TRYON ROAD
RALEIGH, NC 27603
OFFICE: (919) 661-6351
www.tepgroup.net

SEAL:

April 24, 2015

REV	DATE	ISSUED FOR:
0	04-24-15	MODIFICATION DRAWINGS

DRAWN BY: RST | CHECKED BY: AAA

SHEET TITLE:

MI CHECKLIST AND NOTES

SHEET NUMBER: **N-1**

REVISION: **0**

TEP #: 51819.31710

EOR Approved Shop Drawings

Drew Alexander

From: John Coppedge <jcoppedge@tepgroup.net>
Sent: Tuesday, September 01, 2015 2:17 PM
To: Kevin Arnett; SM
Cc: Neal Cafalone
Subject: RE: BU #876381 Ward

Neal,

The EOR review can be waived, however the CMRP fee will still be required in order to satisfy the EOR Approval item in the MI checklist. Please send over the PO for $900 as a means to satisfying this line item.

Thanks,
John

_ _ _ _ _ _ _
John S. Coppedge, E.I.
Structural Engineering Intern | Tower Engineering Professionals, Inc. (www.tepgroup.net)
6128 Brookshire Boulevard, Suite D|Charlotte, NC 28216|Office: (980) 237-2383 Extension 230|Fax: (980) 237-2390

From: Kevin Arnett
Sent: Tuesday, September 01, 2015 1:54 PM
To: SM
Cc: Neal Cafalone
Subject: FW: BU #876381 Ward
Importance: High

Neal,
I have copied our mod design group here. They can help you with this.

SM,
Neal is looking for a EOR review waiver. Can you assist? Red-lines attached.

Kevin Arnett, PE, CWI
Project Manager | Tower Engineering Professionals, Inc. (www.tepgroup.net)
326 Tryon Road|Raleigh, NC 27603|Office: (919) 661-6351 ext.3405|Fax: (919) 661-6350

From: Neal Cafalone [mailto:Neal.Cafalone@mastec.com]
Sent: Tuesday, September 01, 2015 12:46 PM
To: Kevin Arnett
Subject: BU #876381 Ward
Importance: High

Kevin – Not sure who to contact on this site, but TEP is the EOR on this one. I am looking for a EOR review waiver as I neglected to have this prior to construction…please see attached Red-Lines. This was 3 each 10-ft long, Crown Catalog Flats, everything was built per plan. Any help in getting this to the correct person would be appreciated…thanks!

Neal J Cafalone
Project Manager – Northeast Region

MasTec
Network Solutions
6323 East Molloy Road
East Syracuse, NY 13057
Mobile: (315) 480 - 8750
Office: (315) 432 - 8967
Email: neal.cafalone@mastec.com

www.mastecnetworksolutions.com

From: Charles Teal [mailto:charles.teal@fdhvelocitel.com]
Sent: Friday, August 07, 2015 2:18 PM
To: Vadney, Dan <Dan.Vadney@crowncastle.com>; Neal Cafalone <Neal.Cafalone@mastec.com>
Cc: Andrea Howe <andrea.howe@fdhvelocitel.com>; Kathleen Best <kathleen.best@fdhvelocitel.com>; Grady McCollum <grady.mccollum@fdhvelocitel.com>
Subject: RE: BU #876381 / T-Mobile / CT393/Global Guilford_MP2 / CT11393B / App #282674 / Job #322290 (Not Crown Executed NTP)

Neal,

Crown castle requires a EOR approval review on all sites. I will need an email from the EOR even if there were no changes. The approval can be waiver in those instances. If you already have that then disregard, I just want to make sure you have everything when you submit closeouts.

We will schedule the visit and I will let you know when we have a date.

Thank you,

Chase Teal, EI
Project Manager

FDH Velocitel
6521 Meridien Dr.
Raleigh, NC 27616
Office: 919-755-1012
Direct: 919-367-5264
Email: Charles.Teal@FDHVelocitel.com
Website: www.FDHVelocitel.com

FDH VELOCITEL
ENGINEERING INNOVATION

From: Vadney, Dan [mailto:Dan.Vadney@crowncastle.com]
Sent: Friday, August 07, 2015 10:49 AM
To: Neal Cafalone; Charles Teal
Subject: RE: BU #876381 / T-Mobile / CT393/Global Guilford_MP2 / CT11393B / App #282674 / Job #322290 (Not Crown Executed NTP)

Chase: Please work with Mastec to finalize MI. Please provide estimated completion.

Fabrication Inspection

EASTPOINTE
INDUSTRIES, INC.
MUSKOGEE, OK

4020 Tull Ave.
Muskogee, OK
Phone: (918) 683-2169
Fax: (918) 682-7619
www.ep-ind.com

CERTIFICATE OF CONFORMANCE

Neal Cafalone
Mastec Network Solutions NY

Site Name:	Ward, CT
Site ID:	876381
Engineering Firm:	TEP
Drawing Date:	4/24/2015
EP Job No:	5627

Neal Cafalone,
The structural steel fabrication work performed by Eastpointe Industries, Inc. on this project was completed in accordance with industry standards and the above referenced drawings.

Thank you for the opportunity to work with you on this project. Feel free to contact me with any questions or concerns.

Sincerely,
Eastpointe Industries, Inc.

John Rhodes Sr.
Operations Manager

Material Test Reports (MTRs)

Kentucky Electric Steel
PO Box 2119
Ashland, Kentucky 41105-2119

Email: www.kentuckyelectricsteel.com
Phone: (606) 929-1200 **Toll Free:** (800) 333-3012
Fax: (606) 929-1219

SHIP TO: 15050
EASTPOINTE INDUSTRIES
4020 TULL AVENUE
MUSKOGEE, OK 74403

SOLD TO: EASTPOINTE INDUSTRIES, INC
4020 TULL AVENUE
MUSKOGEE, OK 74402

METALLURGICAL TEST REPORT

We hereby certify that these Chemical and/or Test results are correct as contained in the records of Kentucky Electric Steel.

By: William L. Compton
William L. Compton, Q.C. Manager

Purchase Order No. RM2376 **Mill Order No.** 90480 **Item No.** 0002 **Invoice No.**

Size 1 X 4 1/2 S.E. **Grade** A572-GR\65 **Shipper No.** 8459 **Date:** 1/09/2015
SHIPPER SEQ 48 17:01:55

METRIC: THICKNESS 25.0000MM WIDTH 114.0000MM REDUCTION RATIO 5.838

HEAT NO.	CHEMICAL ANALYSIS																
	C	MN	P	S	SI	CU	NI	CR	MO	SN	AL	V	CB/NB	TI	B	CA	N
W18004	.14	1.17	.014	.017	.24	.26	.12	.08	.04	.012	.005	.079	.002				
HEAT NO.	BHN	BHN	BHN	DECRB			C L E A N L I N E S S										
							A		*B*		*C*		*D*				
W18004																	

HEAT NO.	Yield Point P.S.I.	Tensile Strength P.S.I.	ELONG % 2"	ELONG % 8"	R/A %	Yield Point P.S.I.	Tensile Strength P.S.I.	ELONG % 2"	ELONG % 8"	R/A %	C.E.	CHARPY V-NOTCH IMPACT RESULTS Temp.	Sample Size	Ft. Lbs	Ft. Lbs	Ft. Lbs
W18004	76200	93800	39			73800	92500	36								

END QUENCH HARDENABILITY TEST RESULTS: "J" DISTANCE IN 16THS																				
HEAT NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	20	24	28	32	GRAIN SIZE

AJAX ENGINEERED FASTENERS

Laboratory Test Certificate

DATE: 14/07/15

PAGE: 1

CUSTOMER

USA

Lab Test Code 453897

Ajax Part No.

OSB20.95B M20 X 95 ONESIDE BOLT LPS QARN: **N0007186/09**

Test / Method	Specifications			Test Results			Test Date
	Min	Max	Units	Sample A	Sample Z	Units	
Wedge Tensile Test AS/NZS4291.1	203	0	KN	232	232	KN	14/07/15
Hardness AS1815.1	23	34	HRC	30	31	HRC	14/07/15

Ajax Ref: **463736**

LPS for Lot ID N000 7455

This test certificate relates only to samples tested of the manufacturing batch NATA Accredited Laboratory No: 1202
Accredited for compliance with ISO/IEC 17025. The results of the tests, calibration and/or measurements included in this document are traceable to Australian/National standards.
This document shall not be reproduced.

Authorised Ajax Representative

Title

LABCERT

Ajax Engineered Fasteners, 88 Mills Road, Braeside. Vic 3195. Australia
Phone. 61 3 9586 6666 Fax 61 3 9586 6757

Packing Slips

SHIP LIST

Eastpointe Industries, Inc.
4020 Tull Avenue
Muskogee, OK 74403
Phone: 918.683.2169
Fax: 918.682.7618
www.ep-ind.com

ISSUE DATE	JOB #	LOCATION	SHIP LIST #
7/15/2015	5627	WARD, CT	5627.01

ISSUED BY	CUSTOMER P.O. #	SHIPPED BY	DATE
REH	62891		

ITEM	QTY	PART #	DESCRIPTION	WEIGHT	QTY SHORT	REMARKS
1			**ERECTION DRAWINGS**			
2			**MONOPOLE REINFORCEMENT MATERIALS**			
	3	SFP-04510010	BAR-4 1/2" x 1"	459		
	49	SL1	H.S. SLEEVE x 29MM"Ø x 1-1/16"	8		**(48) MIN.**
			TOTAL:	**467**		
3			**HARDWARE**			
	49		M20 x 95MM AJAX ONE-SIDED BOLT W/ M20 F436 HARDENED FLAT WASHER & F959 M20 DTI SQUIRTER ®			**(48) MIN.**
	49		1-1/16" O.D. x 13/16" I.D. x 1/8" THICK NEOPRENE WASHER			**(48) MIN.**

Construction Inspection

August 7th, 2015

MasTec Network Solutions
6323 E. Molloy Rd.
East Syracuse, NY 13057

FDH Velocitel
6521 Meridien Dr.
Raleigh, NC 27616

Ref: Crown Castle – Ward - BU# 8876381 – Construction Inspection

Attn: FDH PMI:

All materials that were provided and installed by MasTec Network Solutions during the site installation August 2015, were installed in accordance with the TEP CD's, dated 4/24/15. All workmanship was performed in accordance with industry standards.
If you have any questions or concerns, please do not hesitate to contact me at (315) 480-8750. Thank you.

Sincerely,

Neal J Cafalone

Neal J Cafalone
Project Manager

On Site Cold Galvanization Verification

August 7th, 2015

MasTec Network Solutions
6323 E. Molloy Rd.
East Syracuse, NY 13057

FDH Velocitel
6521 Meridien Dr.
Raleigh, NC 27616

Ref: Crown Castle – Ward - BU# 876381 – On Site Cold Galvanizing

Attn: FDH PMI:

All materials that were welded, cut, and/or drilled on site, were coated with ZRC Cold Galvanizing Compound by MasTec Network Solutions during the installation, in accordance with the Crown Castle provided, TEP CD's dated 4/24/15.
If you have any questions or concerns, please do not hesitate to contact me at (315) 480-8750. Thank you.

Sincerely,

Neal J Cafalone

Neal J Cafalone
Project Manager


CROWN CASTLE
www.crowncastle.com
FOR LEASE INFORMATION:
877-486-9377
FOR EMERGENCY HOUR SERVICE:
800-788-7011
ROWN BUSINESS UNIT NUMBER:
876381
SITE ADDRESS:
2365 Long Hill Rd
Guilford, CT 6437
SITE NAME:
Ward
FCC TOWER REGISTRATION NO.:
Z.R.C.
GALVANIZING COMPOUND
08 08 2015 08 15

GC As-Built Documents

STRUCTURAL DESIGN DRAWINGS

SITE NAME:

WARD

CROWN CASTLE BU NUMBER:

876381

APPLICATION NUMBER:

282674 REV. 4

SITE ADDRESS:

2365 LONG HILL RD.
GUILFORD, CT 06437
(NEW HAVEN COUNTY)
N 41° 20' 47.34", W 72° 43' 23.15"

AS-BUILTS (RED - LINES)
Date: 8/14/15
Name: Neal J. Cafalone
NEAL J. CAFALONE
MASTEC NETWORK SOLUTIONS
- BUILT PER PLAN -

MODIFICATION PROVISIONS

THE MODIFICATIONS DEPICTED ON THESE DRAWINGS ARE BASED ON THE RECOMMENDATIONS OUTLINED IN THE STRUCTURAL MODIFICATION ANALYSIS REPORT COMPLETED BY TOWER ENGINEERING PROFESSIONALS (TEP), JOB#: 51819.31710 DATED APRIL 24, 2015 (REV 0). THIS REPORT IS BASED ON A SPECIFIC ANTENNA LOADING AND COAX CONFIGURATION. SEE THE REPORT FOR THE ANTENNA AND COAX LOADING INFORMATION. ANY OTHER ANTENNA OR COAX CONFIGURATION REQUIRES REVIEW BY TEP. SATISFACTORY COMPLETION OF THE MODIFICATIONS INDICATED ON THESE DRAWINGS WILL RESULT IN THE STRUCTURE MEETING THE REQUIREMENTS OF THE SPECIFICATIONS UNDER WHICH THE STRUCTURAL WAS COMPLETED.

CONTRACTOR SHALL FIELD VERIFY ALL: DIMENSIONS, QUANTITIES, PART NUMBERS AND COAX/ANTENNA PLACEMENTS PRIOR TO: BIDDING ORDERING MATERIALS, AND CONSTRUCTION.

INDEX OF SHEETS

NO.	SHEET TITLE	REV.
T-1	TITLE SHEET	0
N-1	GENERAL NOTES	0
N-2	PROJECT NOTES 1	0
N-3	PROJECT NOTES 2	0
N-4	AJAX BOLT INSTALLATION DETAILS	0
N-5	ANCHOR INSTALLATION DETAILS	0
S-1	TOWER ELEVATION AND MODIFICATION SCHEDULE	0
S-2	SECTION DETAILS	0
S-3	SHAFT REINFORCEMENT DETAILS	0
S-4	MP SHAFT REINFORCEMENT DETAILS	0

PROJECT TEAM

CCI MODIFICATION PROJECT MANAGER:

NAME	CROWN CASTLE
ADDRESS	3530 TORINGDON WAY, SUITE 300
CITY, STATE, ZIP	CHARLOTTE, NC 28277
CONTACT	JOHN MCGEE
PHONE	(704) 877-8397
EMAIL	JOHN.MCGEE@CROWNCASTLE.COM

ENGINEERING FIRM PROJECT MANAGER:

NAME	TOWER ENGINEERING PROFESSIONALS, INC.
ADDRESS	326 TRYON ROAD
CITY, STATE, ZIP	RALEIGH, NC 27603
CONTACT	JOHN S. COPPEDGE, E.I.
PHONE	(919) 661-6351
EMAIL	CMRP@TEPGROUP.NET

ATTENTION

ALL CONTRACTORS, ANYTIME YOU ACCESS A CROWN SITE FOR ANY REASON YOU ARE TO CALL THE CROWN NOC UPON ARRIVAL AND DEPARTURE, DAILY AT 800-788-7011.

PLANS PREPARED FOR:

CROWN CASTLE

3530 TORINGDON WAY, SUITE 300
CHARLOTTE, NC 28277
OFFICE: (704) 877-8397

PLANS PREPARED BY:

TOWER ENGINEERING PROFESSIONALS
326 TRYON ROAD
RALEIGH, NC 27603
OFFICE: (919) 661-6351
www.tepgroup.net

SEAL:

Electronic Copy April 24, 2015

REV	DATE	ISSUED FOR:
0	04-24-15	MODIFICATION DRAWINGS

DRAWN BY: RST CHECKED BY: AAA

SHEET TITLE:

TITLE SHEET

SHEET NUMBER: **T-1**

REVISION: **0**

TEP #: 51819.31710

MI CHECKLIST

CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY EOR)	REPORT ITEM
PRE-CONSTRUCTION	
X	MI CHECKLIST DRAWING
X	EOR APPROVAL
X	FABRICATION INSPECTION
NA	FABRICATOR CERTIFIED WELD INSPECTION
X	MATERIAL TEST REPORT (MTR)
NA	FABRICATOR NDE INSPECTION
NA	NDE REPORT OF MONOPOLE BASE PLATE PER ENG-SOW-10033
X	PACKING SLIPS
ADDITIONAL TESTING AND INSPECTIONS:	
CONSTRUCTION	
X	CONSTRUCTION INSPECTIONS
NA	CONTINUOUS FOUNDATION INSPECTIONS
NA	CONCRETE COMP. STRENGTH AND SLUMP TESTS
NA	GROUT COMP. STRENGTH (ASTM C109)
NA	POST INSTALLED ANCHOR ROD VERIFICATION
NA	BASE PLATE GROUT VERIFICATION
NA	CONTRACTOR'S CERTIFIED WELD INSPECTION AND NDE REPORTS
NA	EARTHWORK: LIFT AND DENSITY
X	ON SITE COLD GALVANIZING VERIFICATION
NA	GUY WIRE TENSION REPORT
X	GC AS-BUILT DOCUMENTS
X	NON-TENSION CONTROLLED BOLT INSPECTION. SEE SHEET N-4 FOR DETAILS.
ADDITIONAL TESTING AND INSPECTIONS:	
POST CONSTRUCTION	
X	MI INSPECTOR REDLINE OR RECORD DRAWING(S)
NA	POST INSTALLED ANCHOR ROD PULL-OUT TESTING
X	PHOTOGRAPHS
ADDITIONAL TESTING AND INSPECTIONS:	

NOTE: X DENOTES A DOCUMENT NEEDED FOR THE PMI REPORT
NA DENOTES A DOCUMENT THAT IS NOT REQUIRED FOR THE PMI 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 IS RESPONSIBLE FOR COLLECTING ALL GENERAL CONTRACTORS (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.

RECOMMENDATIONS (CONTINUED)

- 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 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 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 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/ERECTIONS 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 IN FIELD CONDITION

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

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

PLANS PREPARED FOR:

CROWN CASTLE

3530 TORINGDON WAY, SUITE 300
CHARLOTTE, NC 28277
OFFICE: (704) 877-8397

PROJECT INFORMATION:

WARD
BU #: 876381

2365 LONG HILL RD.
GUILFORD, CT 06437
(NEW HAVEN COUNTY)

PLANS PREPARED BY:

AS-BUILTS (RED - LINES)
Date: 8/14/15
Name: MJA
BUILT PER PLAN

TOWER ENGINEERING PROFESSIONALS
326 TRYON ROAD
RALEIGH, NC 27603
OFFICE: (919) 661-6351
www.tepgroup.net

SEAL:

STATE OF CONNECTICUT · GRAHAM M. SUDRES · 29838 · LICENSED PROFESSIONAL ENGINEER

Electronic Copy — April 24, 2015

REV	DATE	ISSUED FOR:
0	04-24-15	MODIFICATION DRAWINGS

DRAWN BY: RST | CHECKED BY: AAA

SHEET TITLE:

MI CHECKLIST AND NOTES

SHEET NUMBER: **N-1**

REVISION: 0

TEP #: 51819.31710

GENERAL NOTES:

1. ALL REFERENCES TO THE OWNER IN THESE DOCUMENTS SHALL BE CONSIDERED CROWN CASTLE OR ITS DESIGNATED REPRESENTATIVE.
2. ALL WORK PRESENTED ON THESE DRAWINGS MUST BE COMPLETED BY THE CONTRACTOR UNLESS NOTED OTHERWISE. THE CONTRACTOR MUST HAVE CONSIDERABLE EXPERIENCE IN PERFORMANCE OF WORK SIMILAR TO THAT DESCRIBED HEREIN. BY ACCEPTANCE OF THIS ASSIGNMENT, THE CONTRACTOR IS ATTESTING THAT HE DOES HAVE SUFFICIENT EXPERIENCE AND ABILITY, THAT HE IS KNOWLEDGEABLE OF THE WORK TO BE PERFORMED AND THAT HE IS PROPERLY LICENSED AND PROPERLY REGISTERED TO DO THIS WORK IN THE STATE OF CONNECTICUT.
3. WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE 2005 CONNECTICUT STATE BUILDING CODE.
4. UNLESS SHOWN OR NOTED OTHERWISE ON THE CONTRACT DRAWINGS, OR IN THE SPECIFICATIONS, THE FOLLOWING NOTES SHALL APPLY TO THE MATERIALS LISTED HEREIN, AND TO THE PROCEDURES TO BE USED ON THIS PROJECT.
5. ALL HARDWARE ASSEMBLY MANUFACTURER'S INSTRUCTIONS SHALL BE FOLLOWED EXACTLY AND SHALL SUPERSEDE ANY CONFLICTING NOTES ENCLOSED HEREIN.
6. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE TO ENSURE THE SAFETY OF THE STRUCTURE AND ITS COMPONENT PARTS DURING ERECTION AND/OR FIELD MODIFICATIONS. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF TEMPORARY BRACING, GUYS OR TIE DOWNS THAT MAY BE NECESSARY. SUCH MATERIAL SHALL BE REMOVED AND SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER THE COMPLETION OF THE PROJECT.
7. ALL DIMENSIONS, ELEVATIONS, AND EXISTING CONDITIONS SHOWN ON THE DRAWINGS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO BEGINNING ANY MATERIALS ORDERING, FABRICATION OR CONSTRUCTION WORK ON THIS PROJECT. CONTRACTOR SHALL NOT SCALE CONTRACT DRAWINGS IN LIEU OF FIELD VERIFICATIONS. ANY DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND THE OWNER'S ENGINEER. THE DISCREPANCIES MUST BE RESOLVED BEFORE THE CONTRACTOR IS TO PROCEED WITH THE WORK. THE CONTRACT DOCUMENTS DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. OBSERVATION VISITS TO THE SITE BY THE OWNER AND/OR THE ENGINEER SHALL NOT INCLUDE INSPECTION OF THE PROTECTIVE MEASURES OR THE PROCEDURES.
8. ALL MATERIALS AND EQUIPMENT FURNISHED SHALL BE NEW AND OF GOOD QUALITY, FREE FROM FAULTS AND DEFECTS AND IN CONFORMANCE WITH THE CONTRACT DOCUMENTS. ANY AND ALL SUBSTITUTIONS MUST BE PROPERLY APPROVED AND AUTHORIZED IN WRITING BY THE OWNER AND ENGINEER PRIOR TO INSTALLATION. THE CONTRACTOR SHALL FURNISH SATISFACTORY EVIDENCE AS TO THE KIND AND QUALITY OF THE MATERIALS AND EQUIPMENT BEING SUBSTITUTED.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT THIS PROJECT AND RELATED WORK COMPLIES WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL SAFETY CODES AND REGULATIONS GOVERNING THIS WORK.
10. ACCESS TO THE PROPOSED WORK SITE MAY BE RESTRICTED. THE CONTRACTOR SHALL COORDINATE INTENDED CONSTRUCTION ACTIVITY, INCLUDING WORK SCHEDULE AND MATERIALS ACCESS, WITH THE RESIDENT LEASING AGENT FOR APPROVAL.
11. ALL PERMITS THAT MUST BE OBTAINED ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR WILL BE RESPONSIBLE FOR ABIDING BY ALL CONDITIONS AND REQUIREMENTS OF THE PERMITS.
12. IF APPLICABLE, ALL CONCRETE WORK SHALL COMPLY TO LOCAL CODES AND THE ACI 318-05, "BUILDING REQUIREMENTS FOR STRUCTURAL CONCRETE".
13. 24 HOURS PRIOR TO THE BEGINNING OF ANY CONSTRUCTION, THE CONTRACTOR MUST NOTIFY THE APPLICABLE JURISDICTIONAL (STATE, COUNTY OR CITY) ENGINEER.
14. ALL MATERIALS AND WORKMANSHIP SHALL BE WARRANTED FOR ONE YEAR FROM ACCEPTANCE DATE.
15. ALL TOWER DIMENSIONS SHALL BE VERIFIED WITH THE PLANS (LATEST REVISION) PRIOR TO COMMENCING CONSTRUCTION. NOTIFY THE ENGINEER IMMEDIATELY IF ANY DISCREPANCIES ARE DISCOVERED. THE OWNER SHALL HAVE A SET OF APPROVED PLANS AVAILABLE AT THE SITE AT ALL TIMES WHILE WORK IS BEING PERFORMED. A DESIGNATED RESPONSIBLE EMPLOYEE SHALL BE AVAILABLE FOR CONTACT BY GOVERNING AGENCY INSPECTORS.
16. ALL TOWER MODIFICATION WORK SHALL BE IN ACCORDANCE WITH TIA-1019-A STANDARD FOR INSTALLATION, ALTERATION AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS.
17. THE CLIMBING FACILITIES, SAFETY CLIMB AND ALL PARTS THEREOF SHALL NOT BE IMPEDED, MODIFIED OR ALTERED WITHOUT THE EXPRESS WRITTEN APPROVAL OF THE TOWER OWNER OR ENGINEER OF RECORD.

AS-BUILTS (RED - LINES)
Date: 8/14/15
Name:
BUILT PER PLAN

PLANS PREPARED FOR:

CROWN CASTLE

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SEAL:

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Electronic Copy
April 24, 2015

REV	DATE	ISSUED FOR:
0	04-24-15	MODIFICATION DRAWINGS

DRAWN BY: RST | CHECKED BY: AAA

SHEET TITLE:

PROJECT NOTES I

SHEET NUMBER: **N-2**

REVISION: 0

TEP #: 51819.31710

STRUCTURAL STEEL NOTES:

1. THE FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE AISC SPECIFICATION FOR MANUAL OF STEEL CONSTRUCTION, ALLOWABLE STRESS DESIGN (ASD), 9TH EDITION.
2. UNLESS OTHERWISE NOTED, ALL STRUCTURAL ELEMENTS SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
   STRUCTURAL STEEL:
   - ANGLE: ASTM A36
   - PIPE/TUBE: ASTM A500-50
   - PLATE: ASTM A36 (SELF SUPPORTING AND GUYED TOWERS)
   - PLATE: ASTM A572-65 (MONOPOLE)

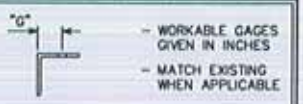
   A. ALL BOLTS, ASTM A325 TYPE I GALVANIZED HIGH STRENGTH BOLTS.
   B. ALL U-BOLTS, ASTM A193 GRADE B7
   C. ALL NUTS, ASTM A563 CARBON AND ALLOY STEEL NUTS.
   D. ALL WASHERS, ASTM F436 HARDENED STEEL WASHERS.
3. ALL CONNECTIONS NOT FULLY DETAILED ON THESE PLANS SHALL BE DETAILED BY THE STEEL FABRICATOR IN ACCORDANCE WITH AISC SPECIFICATION FOR MANUAL OF STEEL CONSTRUCTION, ASD, 9TH EDITION.
4. HOLES SHALL NOT BE FLAME CUT THRU STEEL UNLESS APPROVED BY THE ENGINEER.
5. HOT-DIP GALVANIZE ALL ITEMS UNLESS OTHERWISE NOTED, AFTER FABRICATION WHERE PRACTICABLE. GALVANIZING: ASTM A123, ASTM, A153/A153M OR ASTM A653/A653M, G90, AS APPLICABLE. ADDITIONALLY, ALL NEW STEEL SHALL BE PAINTED TO MATCH EXISTING STEEL. CONTRACTOR SHALL OBTAIN WRITTEN PERMISSION TO PROTECT STEEL BY ANY OTHER MEANS.
6. REPAIR DAMAGED SURFACES WITH GALVANIZING REPAIR METHOD AND PAINT CONFORMING TO ASTM A780 OR BY APPLICATION OF STICK OR THICK PASTED MATERIAL SPECIFICALLY DESIGNED FOR REPAIR OF GALVANIZING. CLEAN AREAS TO BE REPAIRED AND REMOVE SLAG FROM WELDS. HEAT SURFACES TO WHICH STICK OR PASTE MATERIAL IS APPLIED, WITH A TORCH TO A TEMPERATURE SUFFICIENT TO MELT THE METALLICS IN STICK OR PASTED; SPREAD MOLTEN MATERIAL UNIFORMLY OVER SURFACES TO BE COATED AND WIPE OFF EXCESS MATERIAL. AFTER REPAIR, STEEL SHALL BE REPAINTED TO MATCH EXISTING FINISH (IF APPLICABLE).
7. A NUT LOCKING DEVICE SHALL BE INSTALLED ON ALL PROPOSED AND/OR REPLACED BOLTS.
8. ALL PROPOSED AND/OR REPLACED BOLTS SHALL BE OF SUFFICIENT LENGTH TO EXCLUDE THE THREADS FROM THE SHEAR PLANE.
9. ALL PROPOSED AND/OR REPLACED BOLTS SHALL BE OF SUFFICIENT LENGTH SUCH THAT THE END OF THE BOLT BE AT LEAST FLUSH WITH THE FACE OF THE NUT. IT IS NOT PERMITTED FOR THE BOLT END TO BE BELOW THE FACE OF THE NUT AFTER TIGHTENING IS COMPLETED.
10. GALVANIZED ASTM A325 BOLTS SHALL NOT BE REUSED.

WELDING NOTES:

1. ALL WELDING SHALL BE IN ACCORDANCE WITH THE AWS D1.1/D1.1M: 2004 "STRUCTURAL WELDING CODE-STEEL".
2. ALL WELDING SHALL BE PERFORMED BY AWS CERTIFIED WELDERS.
3. CONTRACTOR SHALL RETAIN AN AWS CERTIFIED WELD INSPECTOR TO PERFORM VISUAL INSPECTIONS ON FIELD WELDS. A LETTER AND REPORT SHALL BE ISSUED TO THE CONTRACTOR. CONTRACTOR SHALL SUBMIT LETTER AND REPORT TO TOWER ENGINEERING PROFESSIONALS.
4. GRIND THE SURFACE ADJACENT TO THE WELD FOR A DISTANCE OF 2" MINIMUM ALL AROUND. GRIND THE SURFACE OF THE ROD TO BE INSTALLED FOR A DISTANCE OF 2" MINIMUM ALL AROUND THE AREA TO BE WELDED. ENSURE BOTH AREAS ARE 100% FREE OF ALL GALVANIZING. SURFACES TO BE WELDED SHALL BE FREE FROM SCALE, SLAG, RUST, MOISTURE, GREASE OR ANY OTHER FOREIGN MATERIAL THAT WOULD PREVENT PROPER WELDING.
5. DO NOT WELD IF THE TEMPERATURE OF THE STEEL IN THE VICINITY OF THE WELD AREA IS BELOW 0°F. THE MINIMUM PREHEAT AND INTERPASS TEMPERATURE REQUIREMENTS SHALL COMPLY WITH SECTION 3.5.1 AND TABLE 3.2 OF THE AWS D1.1/D1.1M:2004.
6. DO NOT WELD ON WET OR FROST-COVERED SURFACES & PROVIDE ADEQUATE PROTECTION FROM HIGH WINDS.
7. FOR ALL WELDING, USE 80 KSI LOW HYDROGEN ELECTRODES. ELECTRODES SHALL BE APPROPRIATE FOR THE WELDING POSITION REQUIRED TO MAKE THE JOINT.
8. AFTER FINAL INSPECTION, THE AREA OF THE WELDS, THE INSTALLATION AND ALL SURFACES DAMAGED BY WELDING OR GRINDING SHALL RECEIVE A COLD-GALVANIZED COATING. THIS COATING SHALL BE APPLIED BY BRUSH. THE GALVANIZING COMPOUND SHALL CONTAIN A MINIMUM OF 95% ± PURE ZINC. THE FINISHED COATING SHALL BE A MINIMUM THICKNESS OF 3 MILS.
9. FOR MONOPOLE TOWERS FULL PENETRATION WELDS IN THE VICINITY OF THE BASE OF THE TOWER ARE REQUIRED TO BE 100% NDE INSPECTED BY ULTRASONIC TESTING (UT) IN ACCORDANCE WITH AWS D1.1.
10. FOR MONOPOLE TOWERS PARTIAL PENETRATION AND FILLET WELDS IN THE VICINITY OF THE BASE OF THE TOWER ARE REQUIRED TO BE 50% NDE INSPECTED BY MAGNETIC PARTICLE (MT) IN ACCORDANCE WITH AWS D1.1.

WORKABLE GAGES

LEG	4	3½	3	2½	2	1¾
G	2	1¾	1½	1¼	1	⅞



- WORKABLE GAGES GIVEN IN INCHES
- MATCH EXISTING WHEN APPLICABLE

BOLT TIGHTENING PROCEDURE:

1. TIGHTEN CONNECTION BOLTS BY AISC - "TURN OF THE NUT" METHOD, USING THE CHART BELOW.

BOLT LENGTHS UP TO AND INCLUDING FOUR DIA.

½"	BOLTS UP TO AND INCLUDING 2.0 INCH LENGTH	+⅓ TURN BEYOND SNUG TIGHT
⅝"	BOLTS UP TO AND INCLUDING 2.5 INCH LENGTH	+⅓ TURN BEYOND SNUG TIGHT
¾"	BOLTS UP TO AND INCLUDING 3.0 INCH LENGTH	+⅓ TURN BEYOND SNUG TIGHT
⅞"	BOLTS UP TO AND INCLUDING 3.5 INCH LENGTH	+⅓ TURN BEYOND SNUG TIGHT
1"	BOLTS UP TO AND INCLUDING 4.0 INCH LENGTH	+⅓ TURN BEYOND SNUG TIGHT

BOLT LENGTHS OVER FOUR DIA. BUT NOT EXCEEDING EIGHT DIA.

½"	BOLTS 2.25 TO 4.0 INCH LENGTH	+½ TURN BEYOND SNUG TIGHT
⅝"	BOLTS 2.75 TO 5.0 INCH LENGTH	+½ TURN BEYOND SNUG TIGHT
¾"	BOLTS 3.25 TO 6.0 INCH LENGTH	+½ TURN BEYOND SNUG TIGHT
⅞"	BOLTS 3.75 TO 7.0 INCH LENGTH	+½ TURN BEYOND SNUG TIGHT
1"	BOLTS 4.25 TO 8.0 INCH LENGTH	+½ TURN BEYOND SNUG TIGHT

2. CONNECTION BOLTS SUBJECT TO DIRECT TENSION SHALL BE INSTALLED AND TIGHTENED AS PER SECTION 8.2.1 OF THE AISC SPECIFICATION FOR STRUCTURAL JOINTS USING A325 OR A490 BOLTS, LOCATED IN THE AISC MANUAL OF STEEL CONSTRUCTION. THE INSTALLATION PROCEDURE IS PARAPHRASED AS FOLLOWS:
3. FASTENERS SHALL BE INSTALLED IN PROPERLY ALIGNED HOLES AND TIGHTENED BY ONE OF THE METHODS DESCRIBED IN SUBSECTION 8.2.1 THROUGH 8.2.4.

8.2.1 TURN-OF-THE-NUT TIGHTENING

BOLTS SHALL BE INSTALLED IN ALL HOLES OF THE CONNECTION AND BROUGHT TO A SNUG TIGHT CONDITION AS DEFINED IN SECTION 8.1, UNTIL ALL THE BOLTS ARE SIMULTANEOUSLY SNUG TIGHT AND THE CONNECTION IS FULLY COMPACTED. FOLLOWING THIS INITIAL OPERATION ALL BOLTS IN THE CONNECTION SHALL BE TIGHTENED FURTHER BY THE APPLICABLE AMOUNT OF ROTATION SPECIFIED ABOVE. DURING THE TIGHTENING OPERATION THERE SHALL BE NO ROTATION OF THE PART NOT TURNED BY THE WRENCH. TIGHTENING SHALL PROGRESS SYSTEMATICALLY FROM THE MOST RIGID PART OF THE JOINT IN A MANNER THAT WILL MINIMIZE RELAXATION OF PREVIOUSLY PRETENSIONED BOLTS.

4. ALL OTHER BOLTED CONNECTIONS SHALL BE BROUGHT TO A SNUG TIGHT CONDITION AS DEFINED IN SECTION 8.1 OF THE SPECIFICATION.

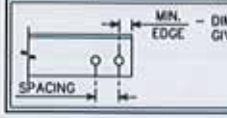
NOMINAL HOLE DIMENSIONS

BOLT DIAMETER	STANDARD HOLE	SHORT SLOT
½	9/16	9/16 x 11/16
⅝	11/16	11/16 x 7/8
¾	13/16	13/16 x 1
⅞	15/16	15/16 x 1 1/8
1	1 1/16	1 1/16 x 1 5/16

- DIMENSIONS GIVEN IN INCHES

BOLT EDGE AND SPACING

BOLT DIAMETER	MIN EDGE	SPACING
½	⅞	1½
⅝	1	1¾
¾	1¼	2¼
⅞	1½	2¾
1	1¾	3

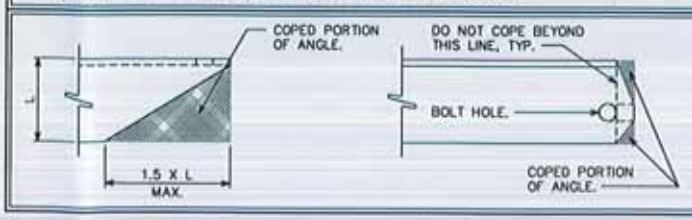


- DIMENSIONS GIVEN IN INCHES

AS-BUILTS (RED - LINES)
Date: 8/14/15
Name:

BUILT PER PLAN

ALLOWABLE ANGLE COPE



PLANS PREPARED FOR:

CROWN CASTLE

3530 TORINGDON WAY, SUITE 300
CHARLOTTE, NC 28277
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PROJECT INFORMATION:

WARD
BU #: 876381

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SEAL:

Electronic Copy April 24, 2015

REV	DATE	ISSUED FOR:
0	04-24-15	MODIFICATION DRAWINGS

DRAWN BY: XXX | CHECKED BY: XXX

SHEET TITLE:

PROJECT NOTES II

SHEET NUMBER: **N-3**

REVISION: 0

TEP #: 51819.31710

BOLTS AND COMPONENTS SPECIFICATIONS:

BOLT:
AJAX M20 "ONE SIDE" BLIND BOLT

SHEAR SLEEVE:
Fu = 120 KSI (MINIMUM)
29mm O.D. X 20 mm I.D.
LENGTH = NOMINAL [GRIP-6mm] = [GRIP - 0.25"] (TOLERANCE: -0", +1/32")
SLEEVE SHALL BE ROUND, WITH ENDS CUT SQUARE AND DEBURRED.

SPECIAL WASHER:
ASTM F959 SQUIRTER® DTI M20 (EQUIVALENT TO A325 BOLT)
MANUFACTURER:
APPLIED BOLTING TECHNOLOGY PRODUCTS, INC.
1413 ROCKINGHAM ROAD BELLOW FALLS, VERMONT, USA 05101
PHONE: (800) 552-1999
WEBSITE: WWW.APPLIEDBOLTING.COM

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

WASHER:
ASTM F436 HARDENED FLAT WASHER M20

BOLT ASSEMBLY FINISHING:
SHEAR SLEEVE: COLD GALVANIZED AS PER CROWN ENG-BUL-10149 OR CADMIUM PLATED
ALL OTHER PARTS: HOT DIP GALVANIZED

BOLT INSTALLATION ASSEMBLY:
AS SHOWN ON THE DRAWING

INSTALLATION NOTES:
DTI WASHERS MUST BE PLACED DIRECTLY AGAINST THE OUTER AJAX WASHER WITH THE BUMPS FACING AWAY FROM THE AJAX WASHER. PLACE A HARDENED WASHER BETWEEN THE DTI AND THE AJAX NUT. THE DTI BUMPS SHALL BEAR AGAINST THE UNDERSIDE OF A HARDENED FLAT WASHER, NEVER DIRECTLY AGAINST THE NUT.

TIGHTEN THE BOLT ASSEMBLY UNTIL THE ORANGE SILICONE APPEARS FROM UNDER THE DTI'S SQUIRT LOCATIONS, THEN STOP TIGHTENING.

FOLLOW DTI MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION, LUBRICATION, TIGHTENING, AND INSPECTION.

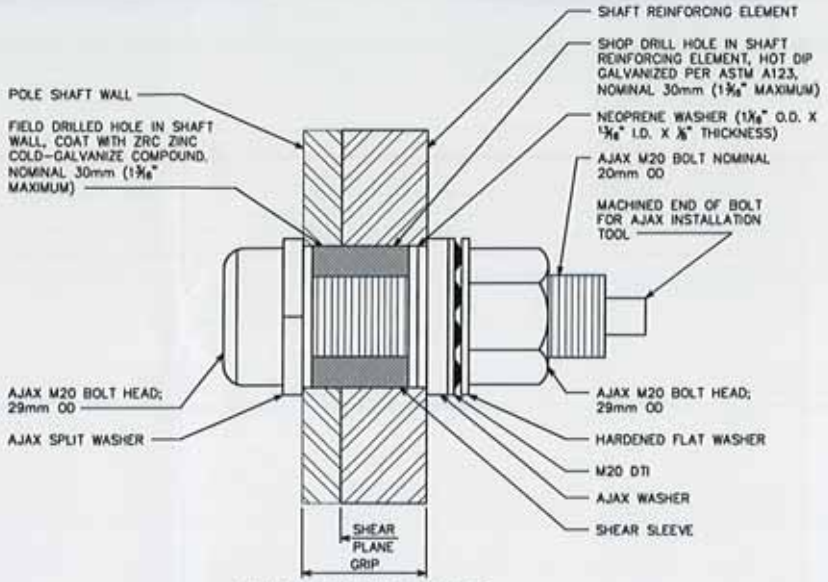
AS AN ALTERNATIVE TO USING THE DTI WASHER THE BOLTS MAY BE PRETENSIONED USING THE TURN-OF-NUT METHOD AS SPECIFIED IN SECTION 8.2.1 TURN-OF-NUT PRETENSIONING OF THE RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS. ALL FASTENERS SHALL BE INSPECTED PER SECTION 9.2.1 OF THE RCSC SPECIFICATION. THE BOLTS SHALL BE MATCH MARKED WITH A PERMANENT MARKER TO FACILITATE THE INSPECTION.

INSPECTION:
ALL AJAX BOLTS WITH DTI'S SHALL BE VISUALLY INSPECTED ACCORDING TO THE DTI MANUFACTUER'S INSTRUCTIONS BOLT INSPECTOR SHALL PROVIDE PHOTO DOCUMENTATION OF BOLTS AFTER TIGHTENING CLEARLY SHOWING THE CONDITION OF THE DTI'S.

INSPECTION PROCEDURES:
- REVIEW MODIFICATION DESIGN DRAWINGS.
- ENSURE AISC PRE-TENSION REQUIREMENTS ARE INCLUDED.
- PHOTO (PREFERABLY VIDEO) OF THE FOLLOWING:
  - NOTE THE PRESENCE OF ANY LUBRICANT
  - NOTE THE PRESENCE OF ANY NUT/BOLT MARKINGS USED TO APPLY THE AISC "TURN OF THE NUT" METHOD PRIOR TO APPLYING NEW MARKINGS
  - BE SURE THAT ANY NEW MARKINGS MADE BY THE MI INSPECTOR ARE DISTINGUISHABLE (DIFFERENT COLOR) TO ANY ORIGINAL MARKINGS
  - MARK THE BOLT AND NUT WITH MARKER TO DOCUMENT POSITION UPON ARRIVAL. RUN THE MARK ONTO THE POLE AS WELL.
  - USE YOUR HAND TO FIRST ASSURE THE NUT IS TIGHT, TRYING TO TURN THE NUT IN ANY DIRECTION.
  - BOLT TYPES:
  - FOR AJAX, USING AJAX TOOL TO HOLD THE BOLT AND A SPUD WRENCH (OR SIMILAR) ON THE NUT, APPLY FIRM FORCE TO THE NUT IN THE CLOCKWISE DIRECTION (THIS IS NOT THE FULL EFFORT OF THE PERSON).
  - FOR OTHER STRUCTURAL BOLTS, ENSURE THE BOLT CAN BE HELD WHILECHECKING THE TIGHTNESS OF THE ASSEMBLY.
  - DOCUMENT BOLTS TESTED AND RESULTS, USE THE NUMBER CONVENTION BELOW AND WRITE ON THE POLE AND PHOTOGRAPH:
  - A THREE DIGIT CONVENTION SHALL BE USED (1, 3, 15)
  - THE FIRST DIGIT - THE FLAT NUMBER. ON ROUND POLES, THIS FIRST DIGIT SHALL BE REPLACED WITH THE HEADING (N, NE, E, SE, S, SW, W, N, NW)
  - THE SECOND DIGIT - THE NUMBER OF REINFORCING BARS ON THAT FLAT, STARTING WITH THE LOWEST BAR AS 1
  - THE THIRD DIGIT - THE NUMBER OF BOLTS ON THAT BAR STARTING WITH THE LOWEST BOLT AS 1
  - FLATS AND ROUND POLES ARE TO BE LABELED IN ACCORDANCE WITH THE MONOPOLE FLAT NUMBER PROCEDURE

INTERIOR OF POLE SHAFT

EXTERIOR OF POLE SHAFT



AJAX BOLT DETAILS

AS-BUILTS (RED - LINES)
Date: 8/14/15
Name:
BUILT PER PLAN

PLANS PREPARED FOR:

CROWN CASTLE

3530 TORINGDON WAY, SUITE 300
CHARLOTTE, NC 28277
OFFICE: (704) 877-8397

PROJECT INFORMATION:

WARD
BU #: 876381

2365 LONG HILL RD.
GUILFORD, CT 06437
(NEW HAVEN COUNTY)

PLANS PREPARED BY:

TOWER ENGINEERING PROFESSIONALS
326 TRYON ROAD
RALEIGH, NC 27603
OFFICE: (919) 661-6351
www.tepgroup.net

SEAL:

STATE OF CONNECTICUT
GRAHAM W. ANDRES
29538
LICENSED
PROFESSIONAL ENGINEER

Electronic Copy April 24, 2015

REV	DATE	ISSUED FOR:
0	04-24-15	MODIFICATION DRAWINGS

DRAWN BY: RST | CHECKED BY: AAA

SHEET TITLE:

AJAX BOLT INSTALLATION DETAILS

SHEET NUMBER: **N-4**

REVISION: 0

TEP #: 518193170

NOTES:

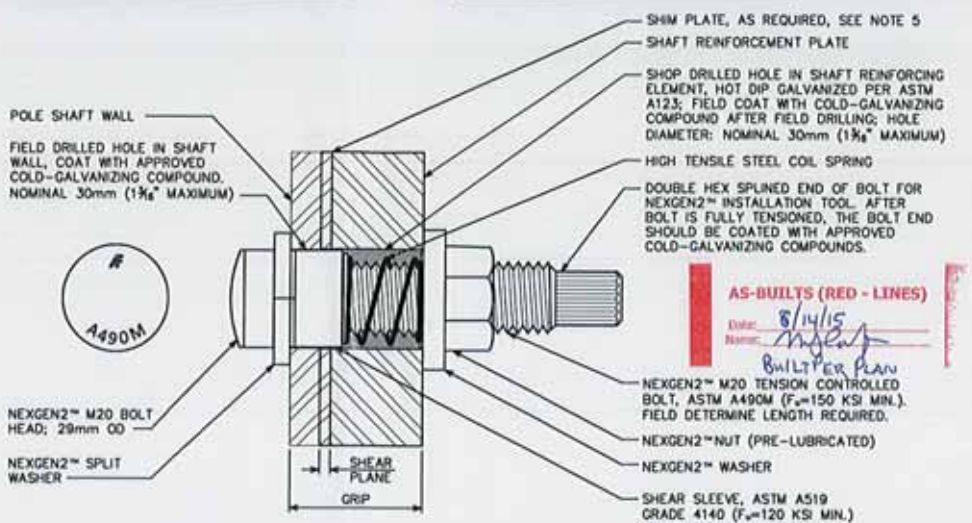
1. ALL SHOP AND FIELD DRILLED HOLES SHALL BE NOMINAL 30mm DIAMETER. THE MAXIMUM HOLE DIAMETER PERMITTED IS 1-3/16".
2. THE NEXTGEN2™ SHALL BE MAGNI 363 COATED PER ASTM F2833 AS APPROPRIATE.
3. INSTALL PER MANUFACTURER'S INSTRUCTIONS.
4. SHEAR SLEEVE MUST EXTEND BEYOND THE SHEAR PLANE.
5. SHIMS FOR MONOPOLE REINFORCEMENT MEMBER SHALL BE REQUIRED WHERE GAPS BETWEEN THE POLE SHAFT AND REINFORCING MEMBER EXIST AT FASTENER LOCATIONS. FOR INTERMEDIATE CONNECTIONS, THE MINIMUM SHIM LENGTH AND WIDTH SHALL BE THE WIDTH OF THE REINFORCING MEMBER. FOR TERMINATION CONNECTIONS, A CONTINUOUS SHIM PLATE (PREFERRED) OR EQUIVALENT INDIVIDUAL SHIM PLATES THE WIDTH OF THE REINFORCING MEMBER MAY BE USED. ADJACENT SHIM PLATE THICKNESSES MAY TAPER IN INCREMENTS OF 1/8" AND SHALL BE NO LESS THAN 1/8". STACKING OF SHIMS IS PERMITTED. SHIMS GREATER THAN 1/4" IN THICKNESS LOCATED WITHIN THE TERMINATION LENGTH OF THE SHAFT REINFORCEMENT PLATE SHALL BE WELDED TO THE SHAFT REINFORCEMENT PLATE.

INSPECTION NOTES AND PROCEDURES:

1. REVIEW STRUCTURAL DESIGN DRAWINGS.
2. VISUALLY INSPECT SHEARED BOLT ENDS TO ENSURE CORRECT TENSION WAS ACHEIVED.
3. VERIFY BOLT ENDS ARE SUFFICIENTLY COATED WITH APPROVED COLD-GALVANIZING COMPOUNDS.

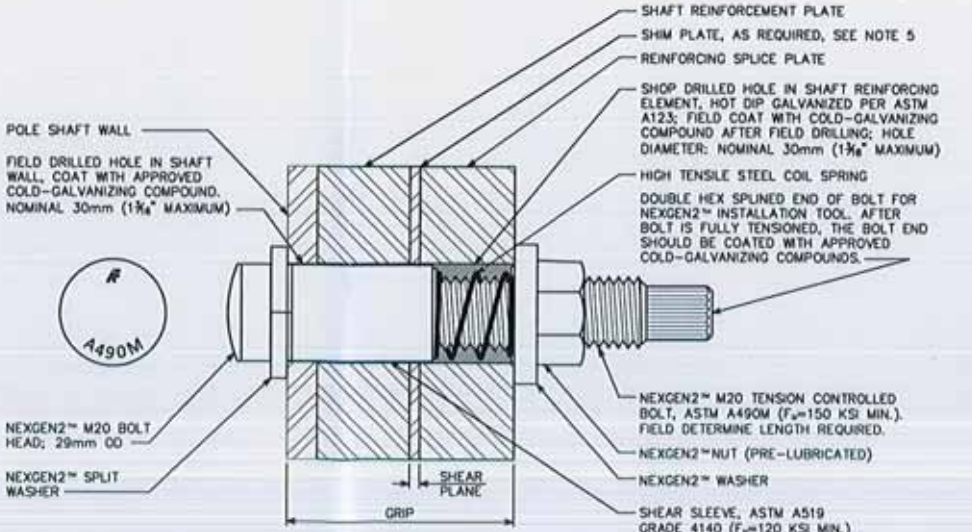
INTERIOR OF POLE SHAFT

EXTERIOR OF POLE SHAFT



AS-BUILTS (RED - LINES)
Date: 8/14/15
Name: BUILTPER PLAN

NEXGEN2 BOLT DETAILS



NEXGEN2 BOLT DETAILS

PLANS PREPARED FOR:

CROWN CASTLE

3530 TORINGDON WAY, SUITE 300
CHARLOTTE, NC 28277
OFFICE: (704) 877-8397

PROJECT INFORMATION:

WARD
BU #: 876381

2365 LONG HILL RD.
GUILFORD, CT 06437
(NEW HAVEN COUNTY)

PLANS PREPARED BY:

TOWER ENGINEERING PROFESSIONALS
326 TRYON ROAD
RALEIGH, NC 27603
OFFICE: (919) 661-6351
www.tepgroup.net

SEAL:

STATE OF CONNECTICUT · GRAHAM W. ANDRES · 29538 · LICENSED PROFESSIONAL ENGINEER

Electronic Copy — April 24, 2015

REV	DATE	ISSUED FOR:
0	04-24-15	MODIFICATION DRAWINGS

DRAWN BY: RST | CHECKED BY: AAA

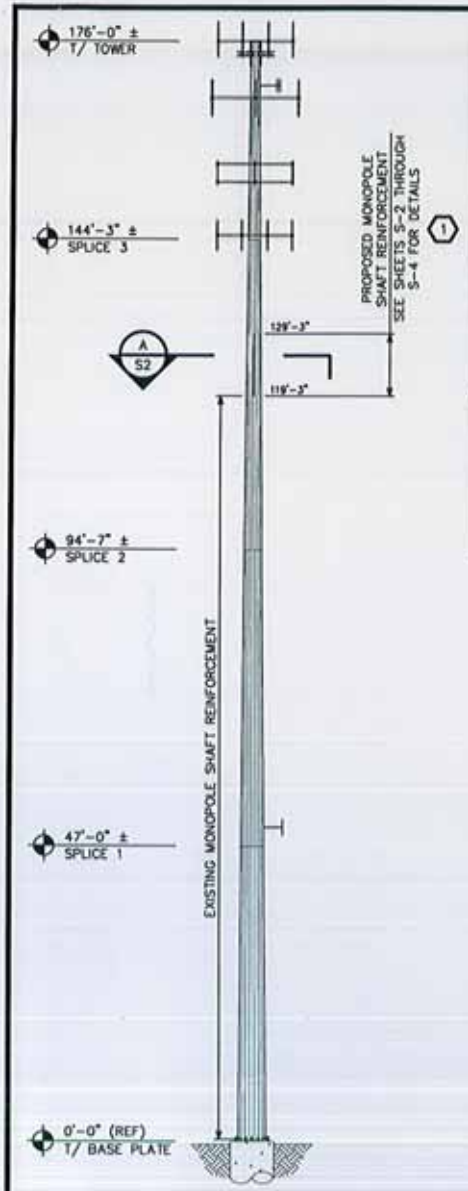
SHEET TITLE:

NEXGEN2 INSTALLATION DETAILS

SHEET NUMBER: **N-5**

REVISION: 0

TEP #: 51819.31710



POLE SPECIFICATIONS

POLE SHAPE TYPE:	18 SIDED TAPERED
POLE SHAFT GRADE:	ASTM A572-65
BASE PLATE GRADE:	ASTM A572-50
ANCHOR BOLT GRADE:	ASTM A615-75

SHAFT SECTION	SECTION LENGTH (FT.)	SHAFT THICKNESS (IN.)	LAP SPLICE (FT.)	OUTER DIAMETER (IN.)	
				TOP	BOTTOM
1	51.75	0.188	4.58	16.000	23.650
2	53.17	0.313	4.83	22.487	34.330
3	52.40	0.375	9.00	32.029	44.300
4	53.04	0.375	–	42.197	54.000

ATTENTION

NO DETAILED INFORMATION REGARDING INTERFERENCES WAS PROVIDED. THEREFORE, CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSION BEFORE FABRICATING MATERIALS AND PROCEEDING WITH THE WORK. REPORT ANY AND ALL DISCREPANCIES TO TOWER ENGINEERING PROFESSIONALS, INC., AND CROWN CASTLE CONSTRUCTION MANAGER IMMEDIATELY.

MODIFICATION SCHEDULE

NO.	MODIFICATION DESCRIPTION	ELEVATION (FT.)
1	INSTALL PROPOSED MONOPOLE SHAFT REINFORCEMENT. SEE SHEETS S-2 THROUGH S-4 FOR DETAILS.	119.25 – 129.25
A	CROWN CASTLE WILL CONTRACT WITH A THIRD PARTY VENDOR TO PERFORM THE MODIFICATION INSPECTION. THE CONTRACTOR SHALL COORDINATE THE INSPECTION WITH THE MODIFICATION INSPECTOR AND CROWN CASTLE PROJECT MANAGER. SEE SHEET NO. 1 FOR DETAILS.	

NOTES:

1. ANTENNAS AND OTHER APPURTENANCES MAY NEED TO BE TEMPORARILY REMOVED OR MOVED DURING THE INSTALLATION OF THE MODIFICATIONS SHOWN ABOVE.
2. CONTRACTOR SHALL ORDER AND INSTALL A NEW TOWER TAG IF THE EXISTING TOWER TAG IS MOVED OR DAMAGED DUE TO THE INSTALLATION OF THE MODIFICATION SHOWN ABOVE.
3. THE CLIMBING FACILITIES, SAFETY CLIMB AND ALL PARTS THEREOF SHALL NOT BE IMPEDED, MODIFIED OR ALTERED WITHOUT THE EXPRESS WRITTEN APPROVAL OF THE TOWER OWNER OR ENGINEER OF RECORD.

AS-BUILTS (RED - LINES)
Date: 8/14/15
Name:
BUILT PER PLAN

TOWER ELEVATION

SCALE: 1" = 20'-0"

0 20 40
SCALE IN FEET

PLANS PREPARED FOR:

CROWN CASTLE

3530 TORINGDON WAY, SUITE 300
CHARLOTTE, NC 28277
OFFICE: (704) 877-8397

PROJECT INFORMATION:

WARD
BU #: 876381

2365 LONG HILL RD.
GUILFORD, CT 06437
(NEW HAVEN COUNTY)

PLANS PREPARED BY:

TOWER ENGINEERING PROFESSIONALS
326 TRYON ROAD
RALEIGH, NC 27603
OFFICE: (919) 661-6351
www.tepgroup.net

SEAL:

STATE OF CONNECTICUT
GRAHAM L. ANDRES
20638
LICENSED
PROFESSIONAL ENGINEER
Electronic Copy
April 24, 2013

REV	DATE	ISSUED FOR:
0	04-24-15	MODIFICATION DRAWINGS

DRAWN BY: RST | CHECKED BY: AAA

SHEET TITLE:

TOWER ELEVATION AND MODIFICATION SCHEDULE

SHEET NUMBER: **S-1**

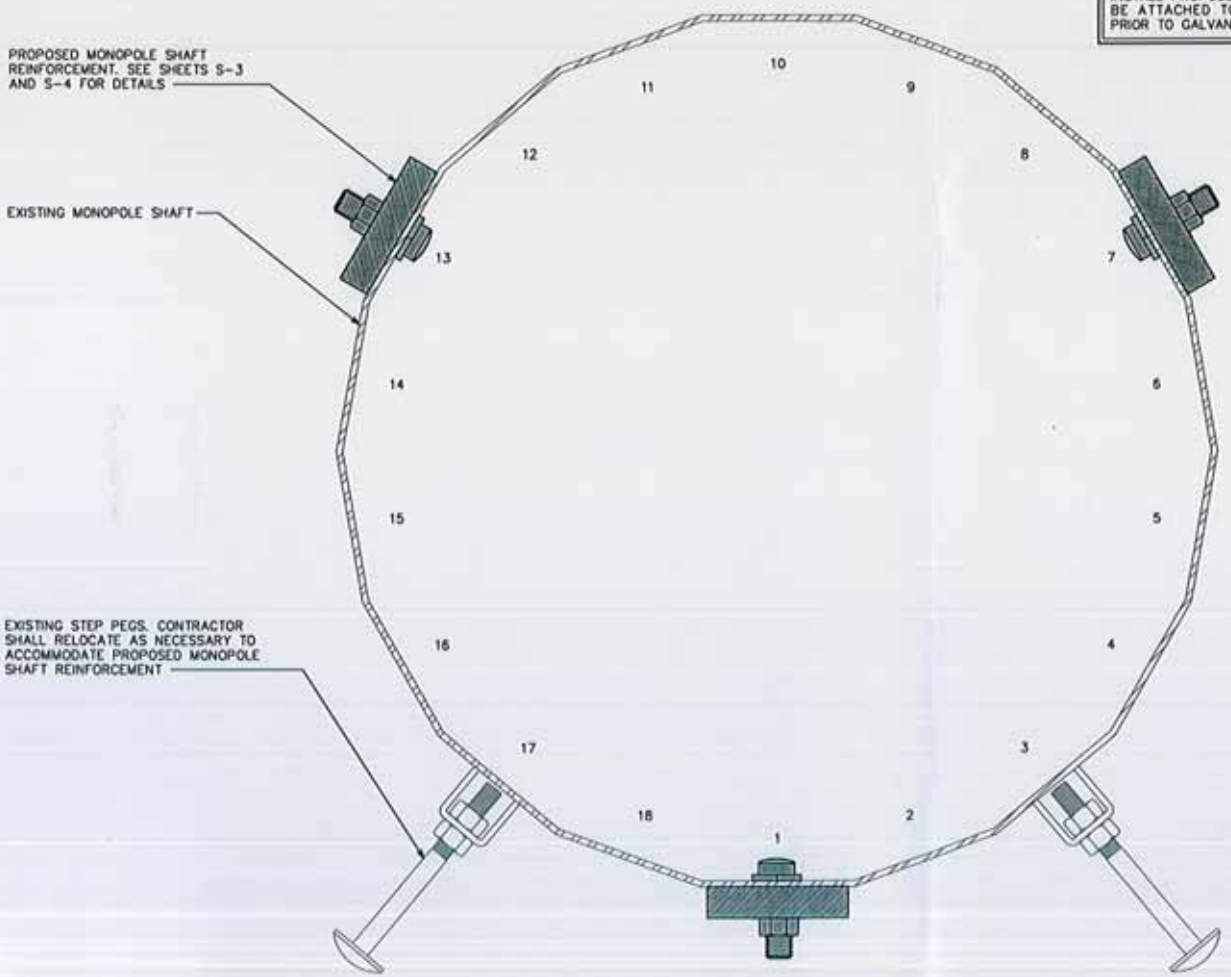
REVISION: 0

TEP #: 51619.31710

ATTENTION

THE TOWER SAFETY CLIMB WAS ASSUMED TO BE LOCATED OFF FLAT 1. FIELD VERIFY SAFETY CLIMB AND STEP PEG LOCATION PRIOR TO INSTALLATION. CONTACT TOWER OWNER AND ENGINEER OF RECORD SHOULD ANY DISCREPANCIES ARISE. CONTRACTOR TO REMOVE AND RE-ATTACH SAFETY CLIMB AND STEP PEGS AS NECESSARY TO INSTALL PROPOSED REINFORCEMENT. IF STEP PEGS ARE REQUIRED TO BE ATTACHED TO PROPOSED REINFORCEMENT, IT SHALL BE DONE PRIOR TO GALVANIZATION.

AS-BUILTS (RED - LINES)
Date: 8/14/15
Name:
BUILT PER PLAN



SECTION (A)
SCALE: 3" = 1'-0"

0 3" 6" 9" 12"
SCALE IN INCHES

PLANS PREPARED FOR:

CROWN CASTLE

3530 TORINGDON WAY, SUITE 300
CHARLOTTE, NC 28277
OFFICE: (704) 877-8397

PROJECT INFORMATION:

WARD
BU #: 876381

2365 LONG HILL RD.
GUILFORD, CT 06437
(NEW HAVEN COUNTY)

PLANS PREPARED BY:

TOWER ENGINEERING PROFESSIONALS
326 TRYON ROAD
RALEIGH, NC 27603
OFFICE: (919) 661-6351
www.tepgroup.net

SEAL:

STATE OF CONNECTICUT
GRAHAM C. ANDRES
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LICENSED
PROFESSIONAL ENGINEER
Electronic Copy
April 24, 2015

REV	DATE	ISSUED FOR:
0	04-24-15	MODIFICATION DRAWINGS

DRAWN BY: RST | CHECKED BY: AAA

SHEET TITLE:

SECTION DETAILS

SHEET NUMBER: **S-2**

REVISION: 0

TEP # 51819.31710

CROWN CASTLE 65KSI FLAT PLATE REINFORCEMENT SCHEDULE

PART NUMBER	FLATS / ANGLES	BOTTOM ELEVATION (FT)	TOP ELEVATION (FT)	FLAT PLATE LENGTH (FT)	FLAT PLATE QUANTITY	TERMINATION BOLTS (BOT.)	TERMINATION BOLTS (TOP)	MAXIMUM INTERMEDIATE BOLT SPACING (IN)	TOTAL BOLT QUANTITY	TOTAL STEEL WEIGHT (LB)	TERMINATION DETAIL (BOT.)	TERMINATION DETAIL (TOP)
CCI-SFP-04510010	17 13	119.25	129.25	10.00	3	6	6	20.00	48	459.4	4	3A
								TOTALS:	48	459.4		

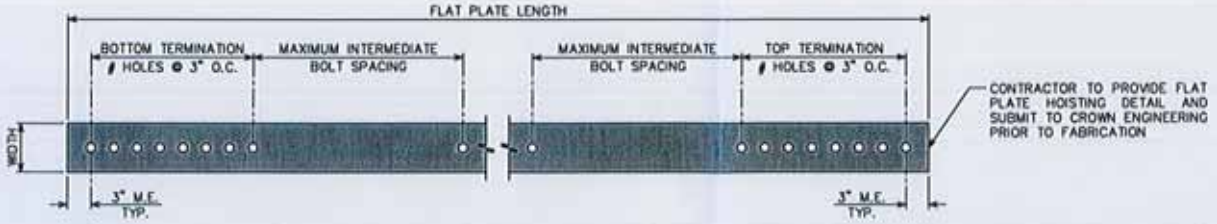
NOTES:

1. REFER TO SHEETS N-4 AND N-5 FOR BOLT INSTALLATION DETAILS.
2. SEE SHEET S-4 FOR TERMINATION DETAILS.
3. ELEVATIONS ARE NOMINAL. REFERENCE STANDARD DETAILS FOR VARIATIONS IN TOP AND BOTTOM ELEVATIONS
4. SHIMS FOR MONOPOLE REINFORCEMENT MEMBER SHALL BE REQUIRED WHERE GAPS BETWEEN THE POLE SHAFT AND REINFORCING MEMBER EXIST AT FASTENER LOCATIONS. FOR INTERMEDIATE CONNECTIONS, THE MINIMUM SHIM LENGTH AND WIDTH SHALL BE THE WIDTH OF THE REINFORCING MEMBER. FOR TERMINATION CONNECTIONS, A CONTINUOUS SHIM PLATE (PREFERRED) OR EQUIVALENT INDIVIDUAL SHIM PLATES THE WIDTH OF THE REINFORCING MEMBER MAY BE USED. ADJACENT SHIMS PLATE THICKNESSES MAY TAPER IN INCREMENTS OF $\frac{1}{16}$" AND SHALL BE NO LESS THAN $\frac{1}{16}$". STACKING OF SHIMS IS PERMITTED. SHIMS GREATER THAN $\frac{1}{4}$" IN THICKNESS LOCATED WITHIN THE TERMINATION LENGTH OF THE SHAFT REINFORCEMENT PLATE SHALL BE WELDED TO THE SHAFT REINFORCEMENT PLATE.
5. FASTENER WEIGHT, SHIM PLATE WEIGHT, AND REINFORCING SPLICE PLATE WEIGHT NOT TABULATED IN THE TOTAL STEEL WEIGHTS.
6. ALL MATERIAL QUANTITIES ARE APPROXIMATE AND SHALL BE FIELD VERIFIED

CCI PART NUMBER FORMAT: CCI-[XXX]-[XXX][XXX][XX]

FLAT PLATE STANDARD NOMENCLATURE		NOTES
CCI-SFP	STANDARD FLAT PLATE	SEE CMRP 65 KSI PARTS CATALOG - 2ND EDITION AND THIS SHEET FOR DETAILS
CCI-WSFP	WELDABLE STANDARD FLAT PLATE	
CCI-AFP	AUXILIARY FLAT PLATE	
CCI-WAFP	WELDABLE AUXILIARY FLAT PLATE	
CCI-CFP	CUSTOM FLAT PLATE	SEE THIS SHEET FOR DETAILS
CCI-WCFP	WELDABLE CUSTOM FLAT PLATE	

AS-BUILTS (RED - LINES)
Date: 8/14/15
Name:
BUILT PER PLAN



TYPICAL FLAT PLATE REINFORCEMENT DETAIL

SCALE: N.T.S.

PLANS PREPARED FOR:

CROWN CASTLE

3530 TORINGDON WAY, SUITE 300
CHARLOTTE, NC 28277
OFFICE: (704) 877-8397

PROJECT INFORMATION:

WARD
BU #: 876381

2365 LONG HILL RD.
GUILFORD, CT 06437
(NEW HAVEN COUNTY)

PLANS PREPARED BY:

TOWER ENGINEERING PROFESSIONALS
326 TRYON ROAD
RALEIGH, NC 27603
OFFICE: (919) 661-6351
www.tepgroup.net

SEAL:

STATE OF CONNECTICUT · GRAHAM C. HARDRES · 29538 · LICENSED PROFESSIONAL ENGINEER

Electronic Copy April 24, 2015

REV	DATE	ISSUED FOR:
0	04-24-15	MODIFICATION DRAWINGS

DRAWN BY: RST | CHECKED BY: AAA

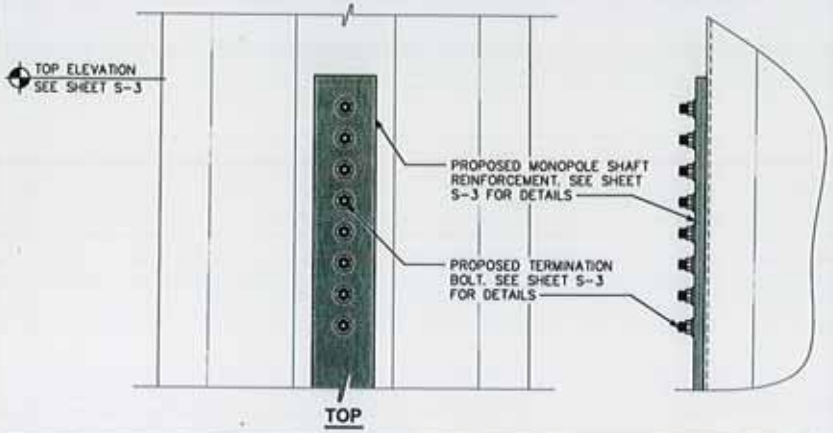
SHEET TITLE:

SHAFT REINFORCEMENT DETAILS

SHEET NUMBER: **S-3**

REVISION: **0**

TEP #: 5181931710

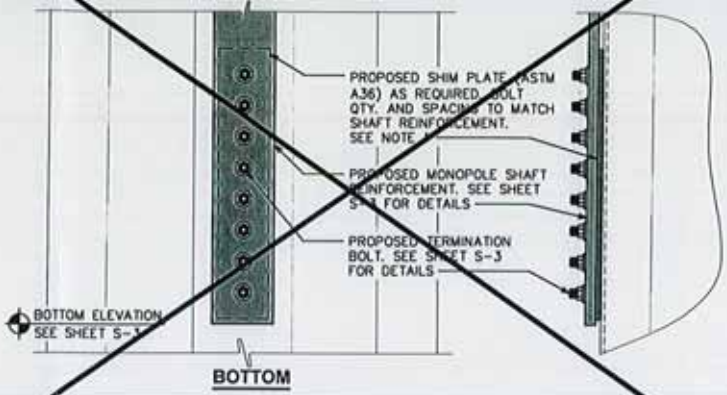


TOP TERMINATION DETAILS (3A)

SCALE: N.T.S.

NOTE:

1. SHIMS GREATER THAN ¼" IN THICKNESS LOCATED WITHIN THE TERMINATION LENGTH OF THE SHAFT REINFORCEMENT PLATE SHALL BE WELDED TO THE SHAFT REINFORCEMENT PLATE.



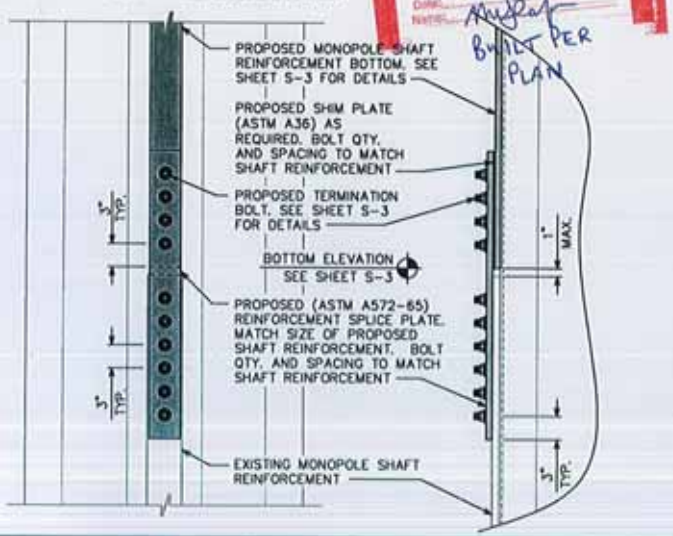
BOTTOM TERMINATION DETAILS (3B)

SCALE: N.T.S.

NOTE:

1. SHIMS GREATER THAN ¼" IN THICKNESS LOCATED BETWEEN THE SHAFT REINFORCEMENT PLATE AND THE REINFORCEMENT SPLICE PLATE SHALL BE WELDED TO THE SHAFT REINFORCEMENT PLATE.

AS-BUILTS (RED - LINES)
DATE: 8/14/15
NAME: BUILT PER PLAN

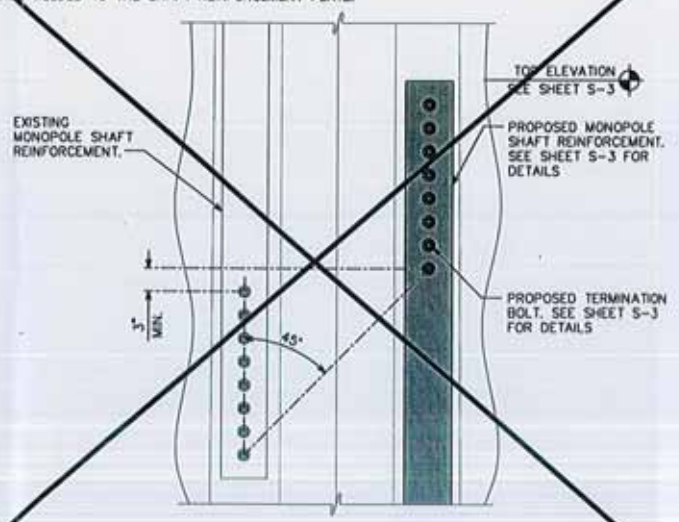


REINFORCEMENT SPLICE DETAILS (4)

SCALE: N.T.S.

NOTE:

1. SHIMS GREATER THAN ¼" IN THICKNESS LOCATED WITHIN THE TERMINATION LENGTH OF THE SHAFT REINFORCEMENT PLATE SHALL BE WELDED TO THE SHAFT REINFORCEMENT PLATE.



OVERLAP SPLICE DETAILS (5)

SCALE: N.T.S.

PLANS PREPARED FOR:

CROWN CASTLE

3530 TORINGDON WAY, SUITE 300
CHARLOTTE, NC 28277
OFFICE: (704) 877-8397

PROJECT INFORMATION:

WARD
BU #: 876381

2365 LONG HILL RD.
GUILFORD, CT 06437
(NEW HAVEN COUNTY)

PLANS PREPARED BY:

TOWER ENGINEERING PROFESSIONALS
326 TRYON ROAD
RALEIGH, NC 27603
OFFICE: (919) 661-6351
www.tepgroup.net

SEAL:

Electronic Copy — April 24, 2015

REV	DATE	ISSUED FOR:
0	04-24-15	MODIFICATION DRAWINGS

DRAWN BY: RST | CHECKED BY: AAA

SHEET TITLE:

TYP. SHAFT REINFORCEMENT DETAILS

SHEET NUMBER:	REVISION:
S-4	0

TEP #: 51819.31710

Non-Tension Controlled Bolt Inspection

September 10th, 2015

MasTec Network Solutions
6323 E. Molloy Rd.
East Syracuse, NY 13057

FDH Velocitel
6521 Meridien Dr.
Raleigh, NC 27616

Ref: Crown Castle – Ward - BU# 8876381 – Non-Tension Controlled Bolt Inspection

Attn: FDH PMI:

The AJAX M20 x 95mm bolts with DTI squirter washers, installed by MasTec Network Solutions during the site installation August 2015, were installed in accordance with the TEP CD's, dated 4/24/15, and per manufacturers instructions.
If you have any questions or concerns, please do not hesitate to contact me at (315) 480-8750. Thank you.

Sincerely,

Neal J Cafalone

Neal J Cafalone
Project Manager

MI Inspector Redlines

STRUCTURAL DESIGN DRAWINGS

SITE NAME:

WARD

CROWN CASTLE BU NUMBER:

876381

APPLICATION NUMBER:

282674 REV. 4

SITE ADDRESS:

2365 LONG HILL RD.
GUILFORD, CT 06437
(NEW HAVEN COUNTY)
N 41° 20' 47.34", W 72° 43' 23.15"

MODIFICATION PROVISIONS

THE MODIFICATIONS DEPICTED ON THESE DRAWINGS ARE BASED ON THE RECOMMENDATIONS OUTLINED IN THE STRUCTURAL MODIFICATION ANALYSIS REPORT COMPLETED BY TOWER ENGINEERING PROFESSIONALS (TEP), JOB#: 51819.31710 DATED APRIL 24, 2015 (REV 0). THIS REPORT IS BASED ON A SPECIFIC ANTENNA LOADING AND COAX CONFIGURATION. SEE THE REPORT FOR THE ANTENNA AND COAX LOADING INFORMATION. ANY OTHER ANTENNA OR COAX CONFIGURATION REQUIRES REVIEW BY TEP. SATISFACTORY COMPLETION OF THE MODIFICATIONS INDICATED ON THESE DRAWINGS WILL RESULT IN THE STRUCTURE MEETING THE REQUIREMENTS OF THE SPECIFICATIONS UNDER WHICH THE STRUCTURAL WAS COMPLETED.

CONTRACTOR SHALL FIELD VERIFY ALL: DIMENSIONS, QUANTITIES, PART NUMBERS AND COAX/ANTENNA PLACEMENTS PRIOR TO: BIDDING ORDERING MATERIALS, AND CONSTRUCTION.

INDEX OF SHEETS

PROJECT TEAM

CCI MODIFICATION PROJECT MANAGER:

NAME	CROWN CASTLE
ADDRESS	3530 TORINGDON WAY, SUITE 300
CITY, STATE, ZIP	CHARLOTTE, NC 28277
CONTACT	JOHN MCGEE
PHONE	(704) 877-8397
EMAIL	JOHN.MCGEE@CROWNCASTLE.COM

ENGINEERING FIRM PROJECT MANAGER:

NAME	TOWER ENGINEERING PROFESSIONALS, INC.
ADDRESS	326 TRYON ROAD
CITY, STATE, ZIP	RALEIGH, NC 27603
CONTACT	JOHN S. COPPEDGE, E.I.
PHONE	(919) 661-6351
EMAIL	CMRP@TEPGROUP.NET

ATTENTION

ALL CONTRACTORS, ANYTIME YOU ACCESS A CROWN SITE FOR ANY REASON YOU ARE TO CALL THE CROWN NOC UPON ARRIVAL AND DEPARTURE, DAILY AT 800-788-7011.

PLANS PREPARED FOR:

CROWN CASTLE

3530 TORINGDON WAY, SUITE 300
CHARLOTTE, NC 28277
OFFICE: (704) 877-8397

PLANS PREPARED BY:

TOWER ENGINEERING PROFESSIONALS
326 TRYON ROAD
RALEIGH, NC 27603
OFFICE: (919) 661-6351
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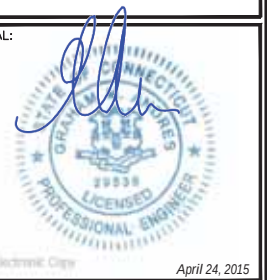
SEAL:



April 24, 2015

REV	DATE	ISSUED FOR:
0	04-24-15	MODIFICATION DRAWINGS

DRAWN BY: RST | CHECKED BY: AAA

SHEET TITLE:

TITLE SHEET

SHEET NUMBER: **T-1**

REVISION: **0**

TEP #: 51819.31710

MI CHECKLIST

CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY EOR)	REPORT ITEM
PRE-CONSTRUCTION	
X	MI CHECKLIST DRAWING
X	EOR APPROVAL
X	FABRICATION INSPECTION
NA	FABRICATOR CERTIFIED WELD INSPECTION
X	MATERIAL TEST REPORT (MTR)
NA	FABRICATOR NDE INSPECTION
NA	NDE REPORT OF MONOPOLE BASE PLATE PER ENG-SOW-10033
X	PACKING SLIPS
ADDITIONAL TESTING AND INSPECTIONS:	
CONSTRUCTION	
X	CONSTRUCTION INSPECTIONS
NA	CONTINUOUS FOUNDATION INSPECTIONS
NA	CONCRETE COMP. STRENGTH AND SLUMP TESTS
NA	GROUT COMP. STRENGTH (ASTM C109)
NA	POST INSTALLED ANCHOR ROD VERIFICATION
NA	BASE PLATE GROUT VERIFICATION
NA	CONTRACTOR'S CERTIFIED WELD INSPECTION AND NDE REPORTS
NA	EARTHWORK: LIFT AND DENSITY
X	ON SITE COLD GALVANIZING VERIFICATION
NA	GUY WIRE TENSION REPORT
X	GC AS-BUILT DOCUMENTS
X	NON-TENSION CONTROLLED BOLT INSPECTION. SEE SHEET N-4 FOR DETAILS.
ADDITIONAL TESTING AND INSPECTIONS:	
POST-CONSTRUCTION	
X	MI INSPECTOR REDLINE OR RECORD DRAWING(S)
NA	POST INSTALLED ANCHOR ROD PULL-OUT TESTING
X	PHOTOGRAPHS
ADDITIONAL TESTING AND INSPECTIONS:	

NOTE: X DENOTES A DOCUMENT NEEDED FOR THE PMI REPORT
NA DENOTES A DOCUMENT THAT IS NOT REQUIRED FOR THE PMI 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 IS RESPONSIBLE FOR COLLECTING ALL GENERAL CONTRACTORS (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.

RECOMMENDATIONS (CONTINUED)

- 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 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 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 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/ERECTIONS 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 IN FIELD CONDITION

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

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

PLANS PREPARED FOR:

CROWN CASTLE

3530 TORINGDON WAY, SUITE 300
CHARLOTTE, NC 28277
OFFICE: (704) 877-8397

PROJECT INFORMATION:

WARD
BU #: 876381

2365 LONG HILL RD.
GUILFORD, CT 06437
(NEW HAVEN COUNTY)

PLANS PREPARED BY:

TOWER ENGINEERING PROFESSIONALS
326 TRYON ROAD
RALEIGH, NC 27603
OFFICE: (919) 661-6351
www.tepgroup.net

SEAL:

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MI CHECKLIST AND NOTES

SHEET NUMBER: **N-1**

REVISION: **0**

TEP #: 51819.31710

GENERAL NOTES:

1. ALL REFERENCES TO THE OWNER IN THESE DOCUMENTS SHALL BE CONSIDERED CROWN CASTLE OR ITS DESIGNATED REPRESENTATIVE.
2. ALL WORK PRESENTED ON THESE DRAWINGS MUST BE COMPLETED BY THE CONTRACTOR UNLESS NOTED OTHERWISE. THE CONTRACTOR MUST HAVE CONSIDERABLE EXPERIENCE IN PERFORMANCE OF WORK SIMILAR TO THAT DESCRIBED HEREIN. BY ACCEPTANCE OF THIS ASSIGNMENT, THE CONTRACTOR IS ATTESTING THAT HE DOES HAVE SUFFICIENT EXPERIENCE AND ABILITY, THAT HE IS KNOWLEDGEABLE OF THE WORK TO BE PERFORMED AND THAT HE IS PROPERLY LICENSED AND PROPERLY REGISTERED TO DO THIS WORK IN THE STATE OF CONNECTICUT.
3. WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE 2005 CONNECTICUT STATE BUILDING CODE.
4. UNLESS SHOWN OR NOTED OTHERWISE ON THE CONTRACT DRAWINGS, OR IN THE SPECIFICATIONS, THE FOLLOWING NOTES SHALL APPLY TO THE MATERIALS LISTED HEREIN, AND TO THE PROCEDURES TO BE USED ON THIS PROJECT.
5. ALL HARDWARE ASSEMBLY MANUFACTURER'S INSTRUCTIONS SHALL BE FOLLOWED EXACTLY AND SHALL SUPERSEDE ANY CONFLICTING NOTES ENCLOSED HEREIN.
6. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE TO ENSURE THE SAFETY OF THE STRUCTURE AND ITS COMPONENT PARTS DURING ERECTION AND/OR FIELD MODIFICATIONS. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF TEMPORARY BRACING, GUYS OR TIE DOWNS THAT MAY BE NECESSARY. SUCH MATERIAL SHALL BE REMOVED AND SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER THE COMPLETION OF THE PROJECT.
7. ALL DIMENSIONS, ELEVATIONS, AND EXISTING CONDITIONS SHOWN ON THE DRAWINGS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO BEGINNING ANY MATERIALS ORDERING, FABRICATION OR CONSTRUCTION WORK ON THIS PROJECT. CONTRACTOR SHALL NOT SCALE CONTRACT DRAWINGS IN LIEU OF FIELD VERIFICATIONS. ANY DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND THE OWNER'S ENGINEER. THE DISCREPANCIES MUST BE RESOLVED BEFORE THE CONTRACTOR IS TO PROCEED WITH THE WORK. THE CONTRACT DOCUMENTS DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. OBSERVATION VISITS TO THE SITE BY THE OWNER AND/OR THE ENGINEER SHALL NOT INCLUDE INSPECTION OF THE PROTECTIVE MEASURES OR THE PROCEDURES.
8. ALL MATERIALS AND EQUIPMENT FURNISHED SHALL BE NEW AND OF GOOD QUALITY, FREE FROM FAULTS AND DEFECTS AND IN CONFORMANCE WITH THE CONTRACT DOCUMENTS. ANY AND ALL SUBSTITUTIONS MUST BE PROPERLY APPROVED AND AUTHORIZED IN WRITING BY THE OWNER AND ENGINEER PRIOR TO INSTALLATION. THE CONTRACTOR SHALL FURNISH SATISFACTORY EVIDENCE AS TO THE KIND AND QUALITY OF THE MATERIALS AND EQUIPMENT BEING SUBSTITUTED.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT THIS PROJECT AND RELATED WORK COMPLIES WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL SAFETY CODES AND REGULATIONS GOVERNING THIS WORK.
10. ACCESS TO THE PROPOSED WORK SITE MAY BE RESTRICTED. THE CONTRACTOR SHALL COORDINATE INTENDED CONSTRUCTION ACTIVITY, INCLUDING WORK SCHEDULE AND MATERIALS ACCESS, WITH THE RESIDENT LEASING AGENT FOR APPROVAL.
11. ALL PERMITS THAT MUST BE OBTAINED ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR WILL BE RESPONSIBLE FOR ABIDING BY ALL CONDITIONS AND REQUIREMENTS OF THE PERMITS.
12. IF APPLICABLE, ALL CONCRETE WORK SHALL COMPLY TO LOCAL CODES AND THE ACI 318-05, "BUILDING REQUIREMENTS FOR STRUCTURAL CONCRETE".
13. 24 HOURS PRIOR TO THE BEGINNING OF ANY CONSTRUCTION, THE CONTRACTOR MUST NOTIFY THE APPLICABLE JURISDICTIONAL (STATE, COUNTY OR CITY) ENGINEER.
14. ALL MATERIALS AND WORKMANSHIP SHALL BE WARRANTED FOR ONE YEAR FROM ACCEPTANCE DATE.
15. ALL TOWER DIMENSIONS SHALL BE VERIFIED WITH THE PLANS (LATEST REVISION) PRIOR TO COMMENCING CONSTRUCTION. NOTIFY THE ENGINEER IMMEDIATELY IF ANY DISCREPANCIES ARE DISCOVERED. THE OWNER SHALL HAVE A SET OF APPROVED PLANS AVAILABLE AT THE SITE AT ALL TIMES WHILE WORK IS BEING PERFORMED. A DESIGNATED RESPONSIBLE EMPLOYEE SHALL BE AVAILABLE FOR CONTACT BY GOVERNING AGENCY INSPECTORS.
16. ALL TOWER MODIFICATION WORK SHALL BE IN ACCORDANCE WITH TIA-1019-A STANDARD FOR INSTALLATION, ALTERATION AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS.
17. THE CLIMBING FACILITIES, SAFETY CLIMB AND ALL PARTS THEREOF SHALL NOT BE IMPEDED, MODIFIED OR ALTERED WITHOUT THE EXPRESS WRITTEN APPROVAL OF THE TOWER OWNER OR ENGINEER OF RECORD.

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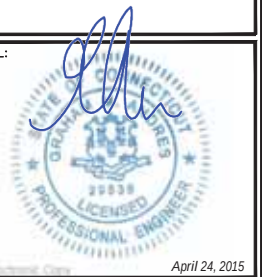

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SHEET TITLE:

PROJECT NOTES I

SHEET NUMBER: **N-2**

REVISION: **0**

TEP #: 51819.31710

STRUCTURAL STEEL NOTES:

1. THE FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE AISC SPECIFICATION FOR MANUAL OF STEEL CONSTRUCTION, ALLOWABLE STRESS DESIGN (ASD), 9TH EDITION.
2. UNLESS OTHERWISE NOTED, ALL STRUCTURAL ELEMENTS SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
   STRUCTURAL STEEL:
   - ANGLE: ASTM A36
   - PIPE/TUBE: ASTM A500-50
   - PLATE: ASTM A36 (SELF SUPPORTING AND GUYED TOWERS)
   - PLATE: ASTM A572-65 (MONOPOLE)

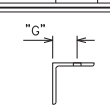
   A. ALL BOLTS, ASTM A325 TYPE I GALVANIZED HIGH STRENGTH BOLTS.
   B. ALL U-BOLTS, ASTM A193 GRADE B7
   C. ALL NUTS, ASTM A563 CARBON AND ALLOY STEEL NUTS.
   D. ALL WASHERS, ASTM F436 HARDENED STEEL WASHERS.
3. ALL CONNECTIONS NOT FULLY DETAILED ON THESE PLANS SHALL BE DETAILED BY THE STEEL FABRICATOR IN ACCORDANCE WITH AISC SPECIFICATION FOR MANUAL OF STEEL CONSTRUCTION, ASD, 9TH EDITION.
4. HOLES SHALL NOT BE FLAME CUT THRU STEEL UNLESS APPROVED BY THE ENGINEER.
5. HOT-DIP GALVANIZE ALL ITEMS UNLESS OTHERWISE NOTED, AFTER FABRICATION WHERE PRACTICABLE. GALVANIZING: ASTM A123, ASTM, A153/A153M OR ASTM A653/A653M, G90, AS APPLICABLE. ADDITIONALLY, ALL NEW STEEL SHALL BE PAINTED TO MATCH EXISTING STEEL. CONTRACTOR SHALL OBTAIN WRITTEN PERMISSION TO PROTECT STEEL BY ANY OTHER MEANS.
6. REPAIR DAMAGED SURFACES WITH GALVANIZING REPAIR METHOD AND PAINT CONFORMING TO ASTM A780 OR BY APPLICATION OF STICK OR THICK PASTED MATERIAL SPECIFICALLY DESIGNED FOR REPAIR OF GALVANIZING. CLEAN AREAS TO BE REPAIRED AND REMOVE SLAG FROM WELDS. HEAT SURFACES TO WHICH STICK OR PASTE MATERIAL IS APPLIED, WITH A TORCH TO A TEMPERATURE SUFFICIENT TO MELT THE METALLICS IN STICK OR PASTED; SPREAD MOLTEN MATERIAL UNIFORMLY OVER SURFACES TO BE COATED AND WIPE OFF EXCESS MATERIAL. AFTER REPAIR, STEEL SHALL BE REPAINTED TO MATCH EXISTING FINISH (IF APPLICABLE).
7. A NUT LOCKING DEVICE SHALL BE INSTALLED ON ALL PROPOSED AND/OR REPLACED BOLTS.
8. ALL PROPOSED AND/OR REPLACED BOLTS SHALL BE OF SUFFICIENT LENGTH TO EXCLUDE THE THREADS FROM THE SHEAR PLANE.
9. ALL PROPOSED AND/OR REPLACED BOLTS SHALL BE OF SUFFICIENT LENGTH SUCH THAT THE END OF THE BOLT BE AT LEAST FLUSH WITH THE FACE OF THE NUT. IT IS NOT PERMITTED FOR THE BOLT END TO BE BELOW THE FACE OF THE NUT AFTER TIGHTENING IS COMPLETED.
10. GALVANIZED ASTM A325 BOLTS SHALL NOT BE REUSED.

WELDING NOTES:

1. ALL WELDING SHALL BE IN ACCORDANCE WITH THE AWS D1.1/D1.1M: 2004 "STRUCTURAL WELDING CODE-STEEL".
2. ALL WELDING SHALL BE PERFORMED BY AWS CERTIFIED WELDERS.
3. CONTRACTOR SHALL RETAIN AN AWS CERTIFIED WELD INSPECTOR TO PERFORM VISUAL INSPECTIONS ON FIELD WELDS. A LETTER AND REPORT SHALL BE ISSUED TO THE CONTRACTOR. CONTRACTOR SHALL SUBMIT LETTER AND REPORT TO TOWER ENGINEERING PROFESSIONALS.
4. GRIND THE SURFACE ADJACENT TO THE WELD FOR A DISTANCE OF 2" MINIMUM ALL AROUND. GRIND THE SURFACE OF THE ROD TO BE INSTALLED FOR A DISTANCE OF 2" MINIMUM ALL AROUND THE AREA TO BE WELDED. ENSURE BOTH AREAS ARE 100% FREE OF ALL GALVANIZING. SURFACES TO BE WELDED SHALL BE FREE FROM SCALE, SLAG, RUST, MOISTURE, GREASE OR ANY OTHER FOREIGN MATERIAL THAT WOULD PREVENT PROPER WELDING.
5. DO NOT WELD IF THE TEMPERATURE OF THE STEEL IN THE VICINITY OF THE WELD AREA IS BELOW 0°F. THE MINIMUM PREHEAT AND INTERPASS TEMPERATURE REQUIREMENTS SHALL COMPLY WITH SECTION 3.5.1 AND TABLE 3.2 OF THE AWS D1.1/D1.1M:2004.
6. DO NOT WELD ON WET OR FROST-COVERED SURFACES & PROVIDE ADEQUATE PROTECTION FROM HIGH WINDS.
7. FOR ALL WELDING, USE 80 KSI LOW HYDROGEN ELECTRODES. ELECTRODES SHALL BE APPROPRIATE FOR THE WELDING POSITION REQUIRED TO MAKE THE JOINT.
8. AFTER FINAL INSPECTION, THE AREA OF THE WELDS, THE INSTALLATION AND ALL SURFACES DAMAGED BY WELDING OR GRINDING SHALL RECEIVE A COLD-GALVANIZED COATING. THIS COATING SHALL BE APPLIED BY BRUSH. THE GALVANIZING COMPOUND SHALL CONTAIN A MINIMUM OF 95% ± PURE ZINC. THE FINISHED COATING SHALL BE A MINIMUM THICKNESS OF 3 MILS.
9. FOR MONOPOLE TOWERS FULL PENETRATION WELDS IN THE VICINITY OF THE BASE OF THE TOWER ARE REQUIRED TO BE 100% NDE INSPECTED BY ULTRASONIC TESTING (UT) IN ACCORDANCE WITH AWS D1.1.
10. FOR MONOPOLE TOWERS PARTIAL PENETRATION AND FILLET WELDS IN THE VICINITY OF THE BASE OF THE TOWER ARE REQUIRED TO BE 50% NDE INSPECTED BY MAGNETIC PARTICLE (MT) IN ACCORDANCE WITH AWS D1.1.

WORKABLE GAGES

LEG	4	3½	3	2½	2	1¾
G	2	1¾	1½	1¼	1	⅞



- WORKABLE GAGES GIVEN IN INCHES
- MATCH EXISTING WHEN APPLICABLE

BOLT TIGHTENING PROCEDURE:

1. TIGHTEN CONNECTION BOLTS BY AISC - "TURN OF THE NUT" METHOD, USING THE CHART BELOW.

BOLT LENGTHS UP TO AND INCLUDING FOUR DIA.

½"	BOLTS UP TO AND INCLUDING 2.0 INCH LENGTH	+⅓ TURN BEYOND SNUG TIGHT
⅝"	BOLTS UP TO AND INCLUDING 2.5 INCH LENGTH	+⅓ TURN BEYOND SNUG TIGHT
¾"	BOLTS UP TO AND INCLUDING 3.0 INCH LENGTH	+⅓ TURN BEYOND SNUG TIGHT
⅞"	BOLTS UP TO AND INCLUDING 3.5 INCH LENGTH	+⅓ TURN BEYOND SNUG TIGHT
1"	BOLTS UP TO AND INCLUDING 4.0 INCH LENGTH	+⅓ TURN BEYOND SNUG TIGHT

BOLT LENGTHS OVER FOUR DIA. BUT NOT EXCEEDING EIGHT DIA.

½"	BOLTS 2.25 TO 4.0 INCH LENGTH	+½ TURN BEYOND SNUG TIGHT
⅝"	BOLTS 2.75 TO 5.0 INCH LENGTH	+½ TURN BEYOND SNUG TIGHT
¾"	BOLTS 3.25 TO 6.0 INCH LENGTH	+½ TURN BEYOND SNUG TIGHT
⅞"	BOLTS 3.75 TO 7.0 INCH LENGTH	+½ TURN BEYOND SNUG TIGHT
1"	BOLTS 4.25 TO 8.0 INCH LENGTH	+½ TURN BEYOND SNUG TIGHT

2. CONNECTION BOLTS SUBJECT TO DIRECT TENSION SHALL BE INSTALLED AND TIGHTENED AS PER SECTION 8.2.1 OF THE AISC SPECIFICATION FOR STRUCTURAL JOINTS USING A325 OR A490 BOLTS, LOCATED IN THE AISC MANUAL OF STEEL CONSTRUCTION. THE INSTALLATION PROCEDURE IS PARAPHRASED AS FOLLOWS:
3. FASTENERS SHALL BE INSTALLED IN PROPERLY ALIGNED HOLES AND TIGHTENED BY ONE OF THE METHODS DESCRIBED IN SUBSECTION 8.2.1 THROUGH 8.2.4.

8.2.1 TURN-OF-THE-NUT TIGHTENING

BOLTS SHALL BE INSTALLED IN ALL HOLES OF THE CONNECTION AND BROUGHT TO A SNUG TIGHT CONDITION AS DEFINED IN SECTION 8.1, UNTIL ALL THE BOLTS ARE SIMULTANEOUSLY SNUG TIGHT AND THE CONNECTION IS FULLY COMPACTED. FOLLOWING THIS INITIAL OPERATION ALL BOLTS IN THE CONNECTION SHALL BE TIGHTENED FURTHER BY THE APPLICABLE AMOUNT OF ROTATION SPECIFIED ABOVE. DURING THE TIGHTENING OPERATION THERE SHALL BE NO ROTATION OF THE PART NOT TURNED BY THE WRENCH. TIGHTENING SHALL PROGRESS SYSTEMATICALLY FROM THE MOST RIGID PART OF THE JOINT IN A MANNER THAT WILL MINIMIZE RELAXATION OF PREVIOUSLY PRETENSIONED BOLTS.

4. ALL OTHER BOLTED CONNECTIONS SHALL BE BROUGHT TO A SNUG TIGHT CONDITION AS DEFINED IN SECTION 8.1 OF THE SPECIFICATION.

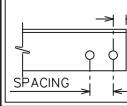
NOMINAL HOLE DIMENSIONS

BOLT DIAMETER	STANDARD HOLE	SHORT SLOT
½	9/16	9/16 X 1 1/16
⅝	11/16	11/16 X ⅞
¾	13/16	13/16 X 1
⅞	15/16	15/16 X 1⅛
1	1 1/16	1 1/16 X 1 5/16

- DIMENSIONS GIVEN IN INCHES

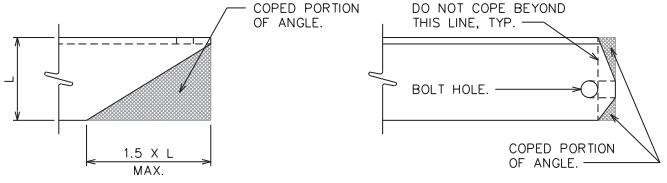
BOLT EDGE AND SPACING

BOLT DIAMETER	MIN. EDGE	SPACING
½	⅞	1½
⅝	1⅛	1⅞
¾	1¼	2¼
⅞	1½	2⅝
1	1¾	3



- DIMENSIONS GIVEN IN INCHES

ALLOWABLE ANGLE COPE



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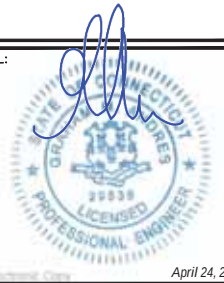
SEAL:



April 24, 2015

REV	DATE	ISSUED FOR:
0	04-24-15	MODIFICATION DRAWINGS

DRAWN BY: XXX | CHECKED BY: XXX

SHEET TITLE:

PROJECT NOTES II

SHEET NUMBER: **N-3**

REVISION: **0**

TEP #: 51819.31710

BOLTS AND COMPONENTS SPECIFICATIONS:

BOLT:
AJAX M20 "ONE SIDE" BLIND BOLT

SHEAR SLEEVE:
Fu = 120 KSI (MINIMUM)
29mm O.D. X 20 mm I.D.
LENGTH = NOMINAL [GRIP-6mm] = [GRIP - 0.25"] (TOLERANCE: -0", +1/32")
SLEEVE SHALL BE ROUND, WITH ENDS CUT SQUARE AND DEBURRED.

SPECIAL WASHER:
ASTM F959 SQUIRTER® DTI M20 (EQUIVALENT TO A325 BOLT)
MANUFACTURER:
APPLIED BOLTING TECHNOLOGY PRODUCTS, INC.
1413 ROCKINGHAM ROAD BELLOW FALLS, VERMONT, USA 05101
PHONE: (800) 552-1999
WEBSITE: WWW.APPLIEDBOLTING.COM

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

WASHER:
ASTM F436 HARDENED FLAT WASHER M20

BOLT ASSEMBLY FINISHING:
SHEAR SLEEVE: COLD GALVANIZED AS PER CROWN ENG-BUL-10149 OR CADMIUM PLATED
ALL OTHER PARTS: HOT DIP GALVANIZED

BOLT INSTALLATION ASSEMBLY:
AS SHOWN ON THE DRAWING

INSTALLATION NOTES:
DTI WASHERS MUST BE PLACED DIRECTLY AGAINST THE OUTER AJAX WASHER WITH THE BUMPS FACING AWAY FROM THE AJAX WASHER. PLACE A HARDENED WASHER BETWEEN THE DTI AND THE AJAX NUT. THE DTI BUMPS SHALL BEAR AGAINST THE UNDERSIDE OF A HARDENED FLAT WASHER, NEVER DIRECTLY AGAINST THE NUT.

TIGHTEN THE BOLT ASSEMBLY UNTIL THE ORANGE SILICONE APPEARS FROM UNDER THE DTI'S SQUIRT LOCATIONS, THEN STOP TIGHTENING.

FOLLOW DTI MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION, LUBRICATION, TIGHTENING, AND INSPECTION.

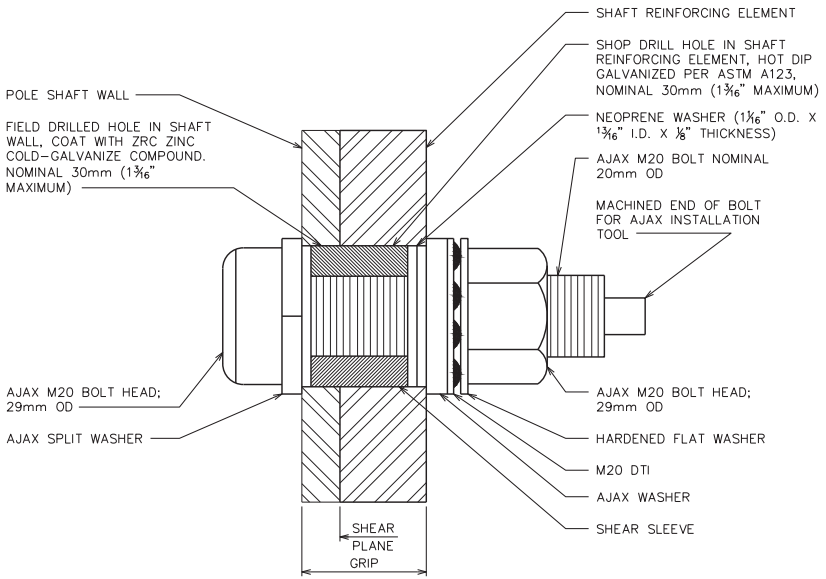
AS AN ALTERNATIVE TO USING THE DTI WASHER THE BOLTS MAY BE PRETENSIONED USING THE TURN-OF-NUT METHOD AS SPECIFIED IN SECTION 8.2.1 TURN-OF-NUT PRETENSIONING OF THE RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS. ALL FASTENERS SHALL BE INSPECTED PER SECTION 9.2.1 OF THE RCSC SPECIFICATION. THE BOLTS SHALL BE MATCH MARKED WITH A PERMANENT MARKER TO FACILITATE THE INSPECTION.

INSPECTION:
ALL AJAX BOLTS WITH DTI'S SHALL BE VISUALLY INSPECTED ACCORDING TO THE DTI MANUFACTUER'S INSTRUCTIONS BOLT INSPECTOR SHALL PROVIDE PHOTO DOCUMENTATION OF BOLTS AFTER TIGHTENING CLEARLY SHOWING THE CONDITION OF THE DTI'S.

INSPECTION PROCEDURES:
- REVIEW MODIFICATION DESIGN DRAWINGS.
- ENSURE AISC PRE-TENSION REQUIREMENTS ARE INCLUDED.
- PHOTO (PREFERABLY VIDEO) OF THE FOLLOWING:
  - NOTE THE PRESENCE OF ANY LUBRICANT
  - NOTE THE PRESENCE OF ANY NUT/BOLT MARKINGS USED TO APPLY THE AISC "TURN OF THE NUT" METHOD PRIOR TO APPLYING NEW MARKINGS
  - BE SURE THAT ANY NEW MARKINGS MADE BY THE MI INSPECTOR ARE DISTINGUISHABLE (DIFFERENT COLOR) TO ANY ORIGINAL MARKINGS
  - MARK THE BOLT AND NUT WITH MARKER TO DOCUMENT POSITION UPON ARRIVAL. RUN THE MARK ONTO THE POLE AS WELL.
  - USE YOUR HAND TO FIRST ASSURE THE NUT IS TIGHT, TRYING TO TURN THE NUT IN ANY DIRECTION.
  - BOLT TYPES:
  - FOR AJAX, USING AJAX TOOL TO HOLD THE BOLT AND A SPUD WRENCH (OR SIMILAR) ON THE NUT. APPLY FIRM FORCE TO THE NUT IN THE CLOCKWISE DIRECTION (THIS IS NOT THE FULL EFFORT OF THE PERSON).
  - FOR OTHER STRUCTURAL BOLTS, ENSURE THE BOLT CAN BE HELD WHILECHECKING THE TIGHTNESS OF THE ASSEMBLY.
  - DOCUMENT BOLTS TESTED AND RESULTS, USE THE NUMBER CONVENTION BELOW AND WRITE ON THE POLE AND PHOTOGRAPH:
  - A THREE DIGIT CONVENTION SHALL BE USED (1, 3, 15)
  - THE FIRST DIGIT - THE FLAT NUMBER. ON ROUND POLES, THIS FIRST DIGIT SHALL BE REPLACED WITH THE HEADING (N, NE, E, SE, S, SW, W, N, NW)
  - THE SECOND DIGIT - THE NUMBER OF REINFORCING BARS ON THAT FLAT, STARTING WITH THE LOWEST BAR AS 1
  - THE THIRD DIGIT - THE NUMBER OF BOLTS ON THAT BAR STARTING WITH THE LOWEST BOLT AS 1
  - FLATS AND ROUND POLES ARE TO BE LABELED IN ACCORDANCE WITH THE MONOPOLE FLAT NUMBER PROCEDURE

INTERIOR OF POLE SHAFT

EXTERIOR OF POLE SHAFT



AJAX BOLT DETAILS

PLANS PREPARED FOR:

CROWN CASTLE

3530 TORINGDON WAY, SUITE 300
CHARLOTTE, NC 28277
OFFICE: (704) 877-8397

PROJECT INFORMATION:

WARD
BU #: 876381

2365 LONG HILL RD.
GUILFORD, CT 06437
(NEW HAVEN COUNTY)

PLANS PREPARED BY:

TOWER ENGINEERING PROFESSIONALS
326 TRYON ROAD
RALEIGH, NC 27603
OFFICE: (919) 661-6351
www.tepgroup.net

SEAL:

April 24, 2015

REV	DATE	ISSUED FOR:
0	04-24-15	MODIFICATION DRAWINGS

DRAWN BY: RST | CHECKED BY: AAA

SHEET TITLE:

AJAX BOLT INSTALLATION DETAILS

SHEET NUMBER: **N-4**

REVISION: **0**

TEP #: 51819.31710

NOTES:

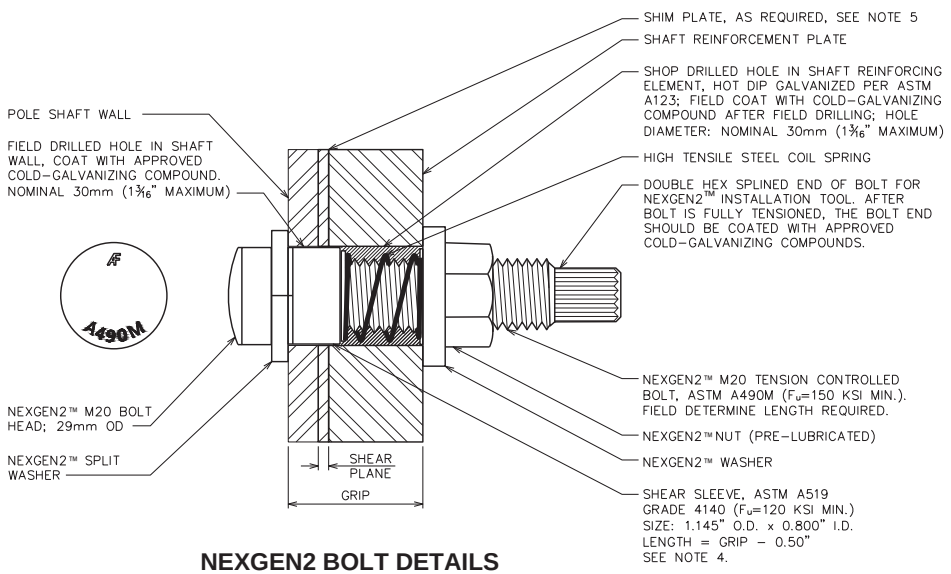
1. ALL SHOP AND FIELD DRILLED HOLES SHALL BE NOMINAL 30mm DIAMETER. THE MAXIMUM HOLE DIAMETER PERMITTED IS 1–3/16".
2. THE NEXTGEN2™ SHALL BE MAGNI 363 COATED PER ASTM F2833 AS APPROPRIATE.
3. INSTALL PER MANUFACTURER'S INSTRUCTIONS.
4. SHEAR SLEEVE MUST EXTEND BEYOND THE SHEAR PLANE.
5. SHIMS FOR MONOPOLE REINFORCEMENT MEMBER SHALL BE REQUIRED WHERE GAPS BETWEEN THE POLE SHAFT AND REINFORCING MEMBER EXIST AT FASTENER LOCATIONS. FOR INTERMEDIATE CONNECTIONS, THE MINIMUM SHIM LENGTH AND WIDTH SHALL BE THE WIDTH OF THE REINFORCING MEMBER. FOR TERMINATION CONNECTIONS, A CONTINUOUS SHIM PLATE (PREFERRED) OR EQUIVALENT INDIVIDUAL SHIM PLATES THE WIDTH OF THE REINFORCING MEMBER MAY BE USED. ADJACENT SHIM PLATE THICKNESSES MAY TAPER IN INCREMENTS OF 1/16" AND SHALL BE NO LESS THAN 1/16". STACKING OF SHIMS IS PERMITTED. SHIMS GREATER THAN 1/4" IN THICKNESS LOCATED WITHIN THE TERMINATION LENGTH OF THE SHAFT REINFORCEMENT PLATE SHALL BE WELDED TO THE SHAFT REINFORCEMENT PLATE.

INSPECTION NOTES AND PROCEDURES:

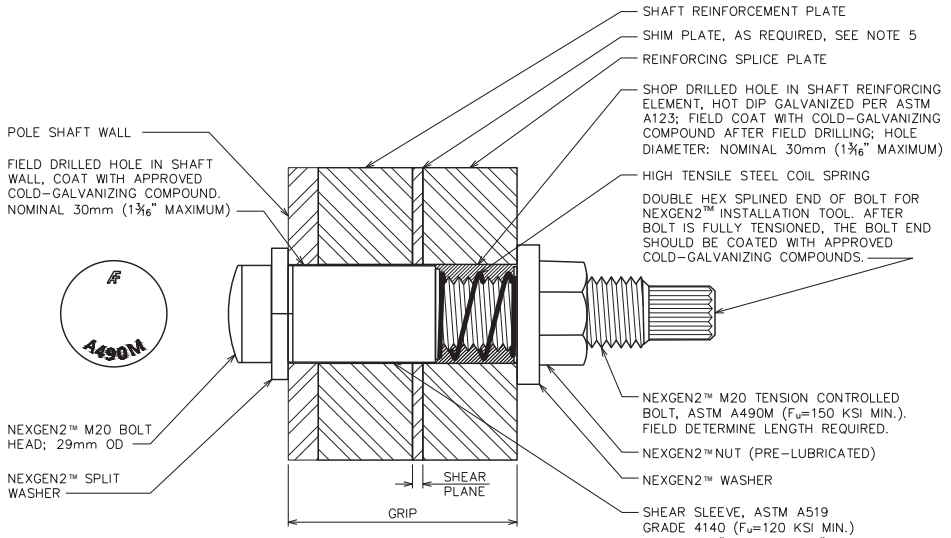
1. REVIEW STRUCTURAL DESIGN DRAWINGS.
2. VISUALLY INSPECT SHEARED BOLT ENDS TO ENSURE CORRECT TENSION WAS ACHEIVED.
3. VERIFY BOLT ENDS ARE SUFFICIENTLY COATED WITH APPROVED COLD–GALVANIZING COMPOUNDS.

INTERIOR OF POLE SHAFT

EXTERIOR OF POLE SHAFT



NEXGEN2 BOLT DETAILS



NEXGEN2 BOLT DETAILS

PLANS PREPARED FOR:

CROWN CASTLE

3530 TORINGDON WAY, SUITE 300
CHARLOTTE, NC 28277
OFFICE: (704) 877–8397

PROJECT INFORMATION:

WARD
BU #: 876381

2365 LONG HILL RD.
GUILFORD, CT 06437
(NEW HAVEN COUNTY)

PLANS PREPARED BY:

TOWER ENGINEERING PROFESSIONALS
326 TRYON ROAD
RALEIGH, NC 27603
OFFICE: (919) 661–6351
www.tepgroup.net

SEAL:

April 24, 2015

REV	DATE	ISSUED FOR:
0	04-24-15	MODIFICATION DRAWINGS

DRAWN BY: RST | CHECKED BY: AAA

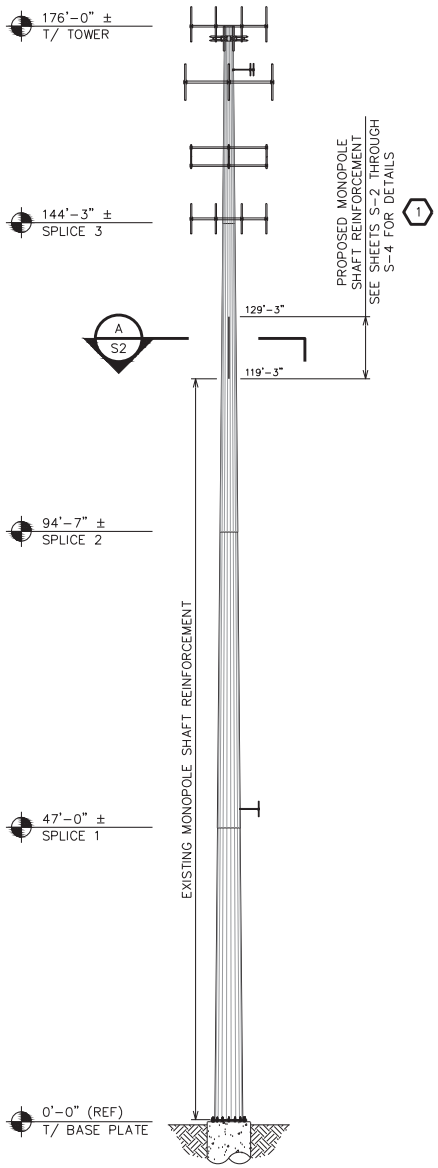
SHEET TITLE:

NEXGEN2 INSTALLATION DETAILS

SHEET NUMBER: **N-5**

REVISION: **0**

TEP #: 51819.31710



POLE SPECIFICATIONS

POLE SHAPE TYPE:	18-SIDED POLYGON
POLE SHAFT GRADE:	ASTM A572-65
BASE PLATE GRADE:	ASTM A572-60
ANCHOR BOLT GRADE:	ASTM A615-75

SHAFT SECTION	SECTION LENGTH (FT.)	SHAFT THICKNESS (IN.)	LAP SPLICE (FT.)	OUTER DIAMETER (IN.)	
				TOP	BOTTOM
1	31.75	0.188	3.50	16.500	23.650
2	53.17	0.313	4.83	22.487	34.330
3	52.46	0.375	6.08	32.629	44.300
4	53.04	0.375	–	42.197	54.000

ATTENTION

NO DETAILED INFORMATION REGARDING INTERFERENCES WAS PROVIDED. THEREFORE, CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSION BEFORE FABRICATING MATERIALS AND PROCEEDING WITH THE WORK. REPORT ANY AND ALL DISCREPANCIES TO TOWER ENGINEERING PROFESSIONALS, INC., AND CROWN CASTLE CONSTRUCTION MANAGER IMMEDIATELY.

MODIFICATION SCHEDULE

NO.	MODIFICATION DESCRIPTION	ELEVATION (FT.)
1	INSTALL PROPOSED MONOPOLE SHAFT REINFORCEMENT. SEE SHEETS S-2 THROUGH S-4 FOR DETAILS.	119.25 – 129.25
2	CROWN CASTLE WILL CONTRACT WITH A THIRD PARTY VENDOR TO PERFORM THE MODIFICATION INSPECTION. THE CONTRACTOR SHALL COORDINATE THE INSPECTION WITH THE MODIFICATION INSPECTOR AND CROWN CASTLE PROJECT MANAGER. SEE SHEET N-1 FOR DETAILS.	–

NOTES:

1. ANTENNAS AND OTHER APPURTENANCES MAY NEED TO BE TEMPORARILY REMOVED OR MOVED DURING THE INSTALLATION OF THE MODIFICATIONS SHOWN ABOVE.
2. CONTRACTOR SHALL ORDER AND INSTALL A NEW TOWER TAG IF THE EXISTING TOWER TAG IS MOVED OR DAMAGED DUE TO THE INSTALLATION OF THE MODIFICATION SHOWN ABOVE.
3. THE CLIMBING FACILITIES, SAFETY CLIMB AND ALL PARTS THEREOF SHALL NOT BE IMPEDED, MODIFIED OR ALTERED WITHOUT THE EXPRESS WRITTEN APPROVAL OF THE TOWER OWNER OR ENGINEER OF RECORD.

TOWER ELEVATION

SCALE: 1" = 20'-0"

0 20 40

SCALE IN FEET

PLANS PREPARED FOR:

CROWN CASTLE

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CHARLOTTE, NC 28277
OFFICE: (704) 877-8397

PROJECT INFORMATION:

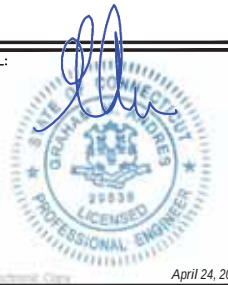
WARD
BU #: 876381

2365 LONG HILL RD.
GUILFORD, CT 06437
(NEW HAVEN COUNTY)

PLANS PREPARED BY:

TOWER ENGINEERING PROFESSIONALS
326 TRYON ROAD
RALEIGH, NC 27603
OFFICE: (919) 661-6351
www.tepgroup.net

SEAL:



April 24, 2015

REV	DATE	ISSUED FOR:
0	04-24-15	MODIFICATION DRAWINGS

DRAWN BY: RST CHECKED BY: AAA

SHEET TITLE:

TOWER ELEVATION AND MODIFICATION SCHEDULE

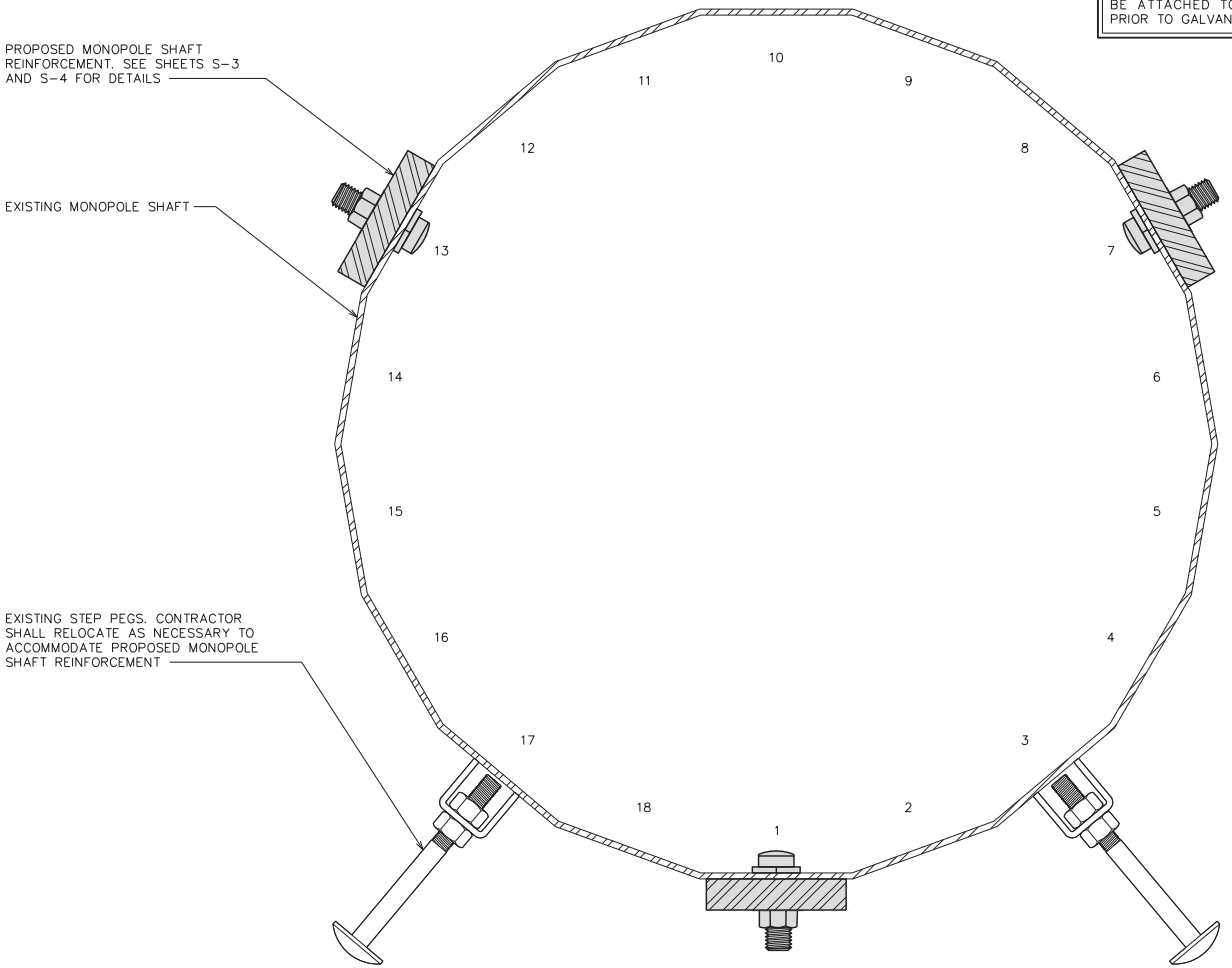
SHEET NUMBER: **S-1**

REVISION: **0**

TEP #: 51819.31710

ATTENTION

THE TOWER SAFETY CLIMB WAS ASSUMED TO BE LOCATED OFF FLAT 1. FIELD VERIFY SAFETY CLIMB AND STEP PEG LOCATION PRIOR TO INSTALLATION. CONTACT TOWER OWNER AND ENGINEER OF RECORD SHOULD ANY DISCREPANCIES ARISE. CONTRACTOR TO REMOVE AND RE-ATTACH SAFETY CLIMB AND STEP PEGS AS NECESSARY TO INSTALL PROPOSED REINFORCEMENT. IF STEP PEGS ARE REQUIRED TO BE ATTACHED TO PROPOSED REINFORCEMENT, IT SHALL BE DONE PRIOR TO GALVANIZATION.



SECTION
SCALE: 3" = 1'-0" (A)

0 3" 6" 9" 12"
SCALE IN INCHES

PLANS PREPARED FOR:

CROWN CASTLE

3530 TORINGDON WAY, SUITE 300
CHARLOTTE, NC 28277
OFFICE: (704) 877-8397

PROJECT INFORMATION:

WARD
BU #: 876381

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GUILFORD, CT 06437
(NEW HAVEN COUNTY)

PLANS PREPARED BY:

TOWER ENGINEERING PROFESSIONALS
326 TRYON ROAD
RALEIGH, NC 27603
OFFICE: (919) 661-6351
www.tepgroup.net

SEAL:

GRAHAM C. CONNECTICUT MOORES 29838 LICENSED PROFESSIONAL ENGINEER

April 24, 2015

REV	DATE	ISSUED FOR:
0	04-24-15	MODIFICATION DRAWINGS

DRAWN BY: RST | CHECKED BY: AAA

SHEET TITLE:

SECTION DETAILS

SHEET NUMBER: **S-2**

REVISION: **0**

TEP #: 51819.31710

CROWN CASTLE 65KSI FLAT PLATE REINFORCEMENT SCHEDULE

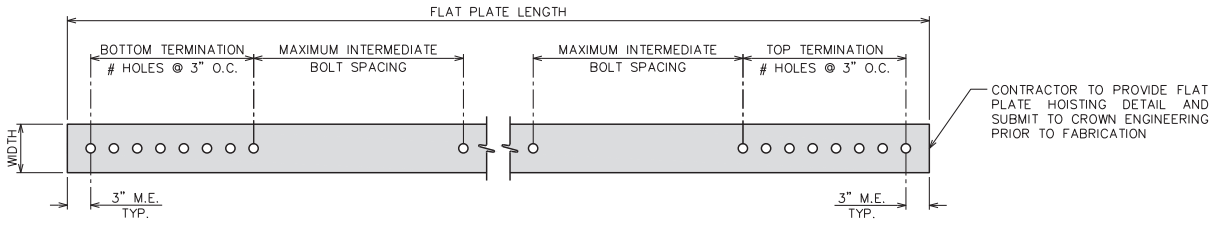
PART NUMBER	FLATS / ANGLES	BOTTOM ELEVATION (FT)	TOP ELEVATION (FT)	FLAT PLATE LENGTH (FT)	FLAT PLATE QUANTITY	TERMINATION BOLTS		MAXIMUM INTERMEDIATE BOLT SPACING (IN)	TOTAL BOLT QUANTITY	TOTAL STEEL WEIGHT (LB)	TERMINATION DETAIL	
						(BOT.)	(TOP)				(BOT.)	(TOP)
CCI-SFP-04510010	1 7 13	119.25	129.25	10.00	3	6	6	20.00	48	459.4	4	3A
								TOTALS:	48	459.4		

NOTES:

1. REFER TO SHEETS N-4 AND N-5 FOR BOLT INSTALLATION DETAILS.
2. SEE SHEET S-4 FOR TERMINATION DETAILS.
3. ELEVATIONS ARE NOMINAL. REFERENCE STANDARD DETAILS FOR VARIATIONS IN TOP AND BOTTOM ELEVATIONS
4. SHIMS FOR MONOPOLE REINFORCEMENT MEMBER SHALL BE REQUIRED WHERE GAPS BETWEEN THE POLE SHAFT AND REINFORCING MEMBER EXIST AT FASTENER LOCATIONS. FOR INTERMEDIATE CONNECTIONS, THE MINIMUM SHIM LENGTH AND WIDTH SHALL BE THE WIDTH OF THE REINFORCING MEMBER. FOR TERMINATION CONNECTIONS, A CONTINUOUS SHIM PLATE (PREFERRED) OR EQUIVALENT INDIVIDUAL SHIM PLATES THE WIDTH OF THE REINFORCING MEMBER MAY BE USED. ADJACENT SHIMS PLATE THICKNESSES MAY TAPER IN INCREMENTS OF $\frac{1}{16}$" AND SHALL BE NO LESS THAN $\frac{1}{16}$". STACKING OF SHIMS IS PERMITTED. SHIMS GREATER THAN $\frac{1}{4}$" IN THICKNESS LOCATED WITHIN THE TERMINATION LENGTH OF THE SHAFT REINFORCEMENT PLATE SHALL BE WELDED TO THE SHAFT REINFORCEMENT PLATE.
5. FASTENER WEIGHT, SHIM PLATE WEIGHT, AND REINFORCING SPLICE PLATE WEIGHT NOT TABULATED IN THE TOTAL STEEL WEIGHTS.
6. ALL MATERIAL QUANTITIES ARE APPROXIMATE AND SHALL BE FIELD VERIFIED

CCI PART NUMBER FORMAT: CCI-|XXX|-|XXX|XXX|XX|
(SEE CHART, WIDTH, THICKNESS, LENGTH)

FLAT PLATE STANDARD NOMENCLATURE		NOTES
CCI-SFP	STANDARD FLAT PLATE	SEE CMRP 65 KSI PARTS CATALOG - 2ND EDITION AND THIS SHEET FOR DETAILS
CCI-WSFP	WELDABLE STANDARD FLAT PLATE	
CCI-AFP	AUXILIARY FLAT PLATE	
CCI-WAFP	WELDABLE AUXILIARY FLAT PLATE	
CCI-CFP	CUSTOM FLAT PLATE	SEE THIS SHEET FOR DETAILS
CCI-WCFP	WELDABLE CUSTOM FLAT PLATE	



TYPICAL FLAT PLATE REINFORCEMENT DETAIL

SCALE: N.T.S.

PLANS PREPARED FOR:

CROWN CASTLE

3530 TORINGDON WAY, SUITE 300
CHARLOTTE, NC 28277
OFFICE: (704) 877-8397

PROJECT INFORMATION:

WARD
BU #: 876381

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(NEW HAVEN COUNTY)

PLANS PREPARED BY:

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326 TRYON ROAD
RALEIGH, NC 27603
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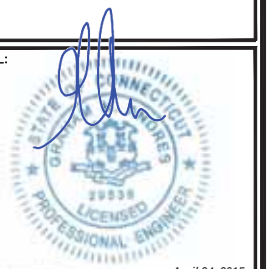
SEAL:



April 24, 2015

REV	DATE	ISSUED FOR:
0	04-24-15	MODIFICATION DRAWINGS

DRAWN BY: RST | CHECKED BY: AAA

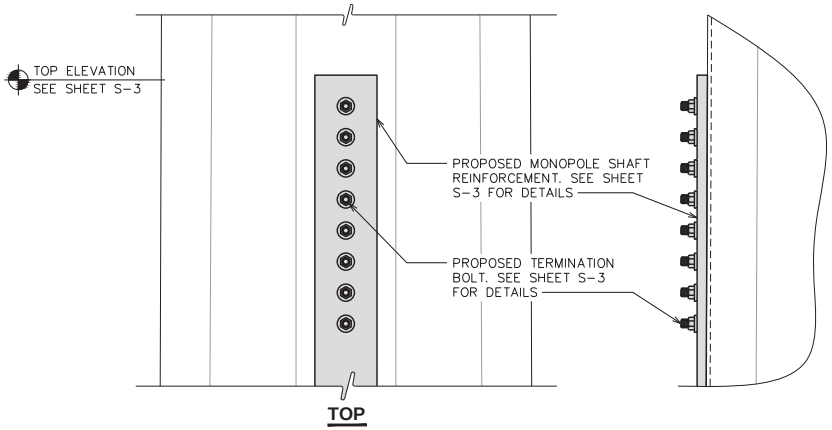
SHEET TITLE:

SHAFT REINFORCEMENT DETAILS

SHEET NUMBER: **S-3**

REVISION: **0**

TEP #: 51819.31710

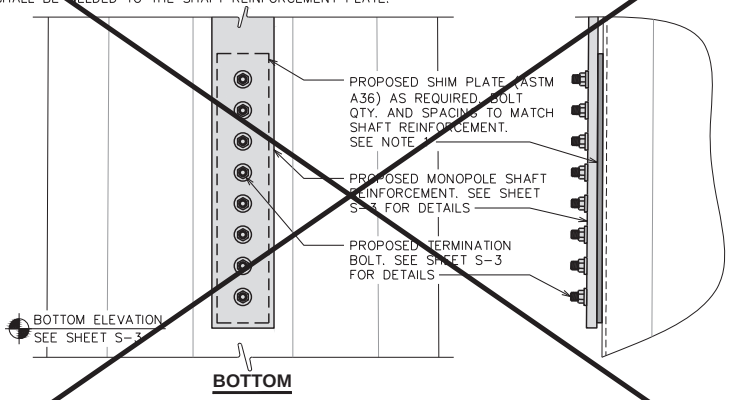


TOP TERMINATION DETAILS (3A)

SCALE: N.T.S.

NOTE:

1. SHIMS GREATER THAN ¼" IN THICKNESS LOCATED WITHIN THE TERMINATION LENGTH OF THE SHAFT REINFORCEMENT PLATE SHALL BE WELDED TO THE SHAFT REINFORCEMENT PLATE.

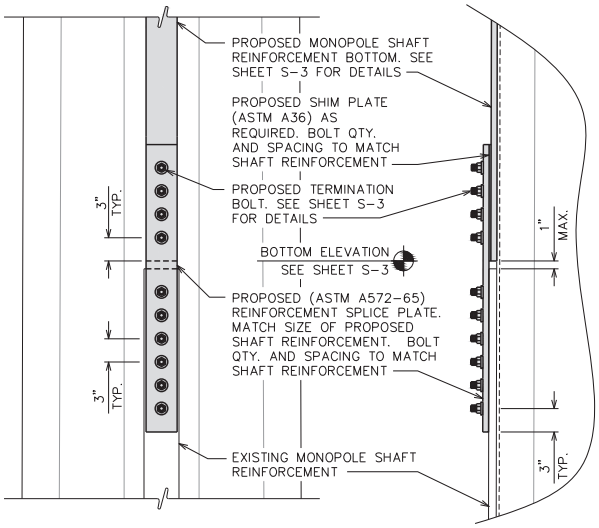


BOTTOM TERMINATION DETAILS (3B)

SCALE: N.T.S.

NOTE:

1. SHIMS GREATER THAN ¼" IN THICKNESS LOCATED BETWEEN THE SHAFT REINFORCEMENT PLATE AND THE REINFORCEMENT SPLICE PLATE SHALL BE WELDED TO THE SHAFT REINFORCEMENT PLATE.

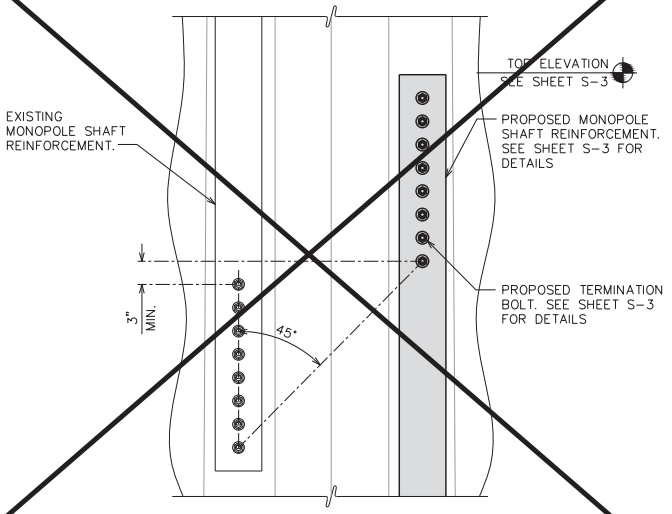


REINFORCEMENT SPLICE DETAILS (4)

SCALE: N.T.S.

NOTE:

1. SHIMS GREATER THAN ¼" IN THICKNESS LOCATED WITHIN THE TERMINATION LENGTH OF THE SHAFT REINFORCEMENT PLATE SHALL BE WELDED TO THE SHAFT REINFORCEMENT PLATE.



OVERLAP SPLICE DETAILS (5)

SCALE: N.T.S.

PLANS PREPARED FOR:

CROWN CASTLE

3530 TORINGDON WAY, SUITE 300
CHARLOTTE, NC 28277
OFFICE: (704) 877-8397

PROJECT INFORMATION:

WARD
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GUILFORD, CT 06437
(NEW HAVEN COUNTY)

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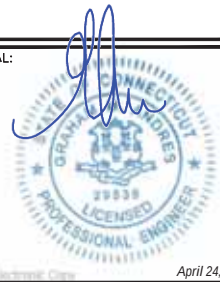
SEAL:



April 24, 2015

REV	DATE	ISSUED FOR:
0	04-24-15	MODIFICATION DRAWINGS

DRAWN BY: RST | CHECKED BY: AAA

SHEET TITLE:

TYP. SHAFT REINFORCEMENT DETAILS

SHEET NUMBER: **S-4**

REVISION: **0**

TEP #: 51819.31710

Photographs

Table 3.0 – On-Site Inspection Photographs

PH#01 Site Sign –
Modification Inspection

PH#02 Installation of Modification –
176’ Monopole Tower Profile

PH#03 Installation of Modification –
Installed Flat Plate Reinforcement (119.25’-129.25’)

PH#04 Installation of Modification –
Blind Bolt Diameter (119.25’-129.25’)

Table 3.1 – On-Site Inspection Photographs

PH#05 Installation of Modification – Flat Plate Width (119.25'-129.25')	PH#06 Installation of Modification – Flat Plate Thickness (119.25'-129.25')
	
PH#07 Installation of Modification – Flat Plate Edge Distance and Bolt Spacing (119.25'-129.25')	PH#08 Installation of Modification – Maximum Intermediate Bolt Spacing (119.25'-129.25')
	

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051
Phone: (860) 827-2935 Fax: (860) 827-2950
E-Mail: siting.council@ct.gov
www.ct.gov/csc

June 15, 2015

Jerry Feathers
Real Estate Specialist
Crown Castle
3530 Toringdon Way, Suite 300
Charlotte, NC 28277

RE: **EM-T-MOBILE-060-150526 -** T-Mobile notice of intent to modify an existing telecommunications facility located at 2365 Long Hill Road, Guilford, Connecticut.

Dear Mr. Feathers:

The Connecticut Siting Council (Council) hereby acknowledges your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies with the following conditions:

- Perform structural modifications in accordance with the structural analysis prepared by Tower Engineering Professionals stamped/dated April 24, 2015 by Graham Andres;
- Within 45 days following completion of the equipment installation, T-Mobile shall provide documentation certified by a Professional Engineer that its installation complied with the recommendations of the Structural Analysis Report;
- Any deviation from the proposed modification as specified in this notice and supporting materials with the Council shall render this acknowledgement invalid;
- Any material changes to this modification as proposed shall require the filing of a new notice with the Council;
- Within 45 days after completion of construction, the Council shall be notified in writing that construction has been completed;
- Any nonfunctioning antenna and associated antenna mounting equipment on this facility owned and operated by T-Mobile shall be removed within 60 days of the date the antenna ceased to function;
- The validity of this action shall expire one year from the date of this letter; and
- The applicant may file a request for an extension of time beyond the one year deadline provided that such request is submitted to the Council not less than 60 days prior to the expiration.

The proposed modifications including the placement of all necessary equipment and shelters within the tower compound are to be implemented as specified here and in your notice dated May 26, 2015. The modifications are in compliance with the exception criteria in Section 16-50j-72 (b) of the Regulations of Connecticut State Agencies as changes to an existing facility site that would not increase tower height, extend the boundaries of the tower site by any dimension, increase noise levels at the tower site boundary by six decibels or more, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundary to or above the standards adopted by the Federal Communications Commission pursuant to Section 704 of the Telecommunications Act of 1996 and by the state Department of Energy and Environmental Protection pursuant to Connecticut General Statutes § 22a-162. This facility has also been carefully modeled to ensure that radio frequency emissions are conservatively below state and federal standards applicable to the frequencies now used on this tower.

This decision is under the exclusive jurisdiction of the Council. Please be advised that the validity of this action shall expire one year from the date of this letter. Any additional change to this facility will require explicit notice to this agency pursuant to Regulations of Connecticut State Agencies Section 16-50j-73. Such notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65. Thank you for your attention and cooperation.

Very truly yours,

Melanie A. Bachman
Acting Executive Director

MAB/FOC/lm

c: The Honorable Joseph S. Mazza, First Selectman, Town of Guilford
George Kral, Town Planner, Town of Guilford
Regina Reid, Zoning Enforcement Officer, Town of Guilford
Janice M. Ward Family Trust, Property Owner

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051
Phone: (860) 827-2935 Fax: (860) 827-2950
E-Mail: siting.council@ct.gov
www.ct.gov/csc

June 15, 2015

Jerry Feathers
Real Estate Specialist
Crown Castle
3530 Toringdon Way, Suite 300
Charlotte, NC 28277

RE: **EM-T-MOBILE-060-150526 -** T-Mobile notice of intent to modify an existing telecommunications facility located at 2365 Long Hill Road, Guilford, Connecticut.

Dear Mr. Feathers:

The Connecticut Siting Council (Council) hereby acknowledges your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies with the following conditions:

- Perform structural modifications in accordance with the structural analysis prepared by Tower Engineering Professionals stamped/dated April 24, 2015 by Graham Andres;
- Within 45 days following completion of the equipment installation, T-Mobile shall provide documentation certified by a Professional Engineer that its installation complied with the recommendations of the Structural Analysis Report;
- Any deviation from the proposed modification as specified in this notice and supporting materials with the Council shall render this acknowledgement invalid;
- Any material changes to this modification as proposed shall require the filing of a new notice with the Council;
- Within 45 days after completion of construction, the Council shall be notified in writing that construction has been completed;
- Any nonfunctioning antenna and associated antenna mounting equipment on this facility owned and operated by T-Mobile shall be removed within 60 days of the date the antenna ceased to function;
- The validity of this action shall expire one year from the date of this letter; and
- The applicant may file a request for an extension of time beyond the one year deadline provided that such request is submitted to the Council not less than 60 days prior to the expiration.

The proposed modifications including the placement of all necessary equipment and shelters within the tower compound are to be implemented as specified here and in your notice dated May 26, 2015. The modifications are in compliance with the exception criteria in Section 16-50j-72 (b) of the Regulations of Connecticut State Agencies as changes to an existing facility site that would not increase tower height, extend the boundaries of the tower site by any dimension, increase noise levels at the tower site boundary by six decibels or more, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundary to or above the standards adopted by the Federal Communications Commission pursuant to Section 704 of the Telecommunications Act of 1996 and by the state Department of Energy and Environmental Protection pursuant to Connecticut General Statutes § 22a-162. This facility has also been carefully modeled to ensure that radio frequency emissions are conservatively below state and federal standards applicable to the frequencies now used on this tower.

This decision is under the exclusive jurisdiction of the Council. Please be advised that the validity of this action shall expire one year from the date of this letter. Any additional change to this facility will require explicit notice to this agency pursuant to Regulations of Connecticut State Agencies Section 16-50j-73. Such notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65. Thank you for your attention and cooperation.

Very truly yours,

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