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 8, 2015

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

RE: Exempt Modification-EM-Crown Castle-007-140328
Crown ID-826217 AT&T app#178224

Dear Ms. Bachman:

As requested in your April 17, 2014 Decision Letter, Crown is submitting a PMI document certified by a professional engineer stating the structural modifications were completed in accordance with the CD's and structural analysis. Page 4 of the PMI report shows the engineer's stamp.

Please contact me if you have any questions.

Sincerely,

Jerry Feathers
Property Specialist
704-405-6549

January 8, 2015

Jerry Bruno
Crown Castle
500 West Cummings Park, STE 3600
Woburn, MA 01801
(781) 970-0069
Jerry Bruno.Contractor@crowncastle.com

Sinnott Gering and Schmitt Towers, INC
14301 First National Bank Pkwy, STE 100
Omaha, NE 68154
(402) 507-5170
SGS_PMI@sgstowers.com

Subject: ***Modification Inspection Report***

Crown Castle Designation:	**Crown Castle BU Number:**	826217
	Crown Castle Site Name:	Newington_1
	Crown Castle JDE Job Number:	218597
Engineering Firm Designation:	**SGS Project Number:**	130573
Site Data:	**240 Kensington Road** **Berlin, CT 06037** **N 41° 37' 34.3", W 72° 46' 32.33"** **190 Foot Monopole**	

Dear Mr. Bruno,

Sinnott Gering and Schmitt Towers, Inc. (SGS) is pleased to submit this "Modification Inspection Report" (MI Report) to Crown Castle 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 591479. 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	Dates on Site
MI Inspector	SGS	Nicholas J. Schmitt, P.E., S.E.	N/A
MI Inspector Field Representative (if applicable)	SGS	Caleb Christner	December 3, 2014
■ Independent	☐ EOR	☐ Turnkey	
Modification Design EOR	B+T Group	Chad Tuttle, P.E.	N/A
General Contractor	LCC	Keith Stackhouse	Unknown
Sub to the General Contractor	N/A	N/A	N/A
Field CWI for the General Contractor	Applied Testing Group	Lloyd Harper, C.W.I.	September 28 to December 8, 2014
Field NDE for the General Contractor			

Table 2 – Documents

Document(s)	Remarks	Source
Modification Drawings Date: 10/17/2014 EOR: Chad Tuttle, P.E. Job#: 87581.005.01 R1	Creator of Drawings: B+T Group Job #: 87581.005.01 R1 Date of Drawings: 10/17/2014	CCI Sites Drawing File: 4003976

Based on our inspection, SGS 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.

EXECUTIVE SUMMARY

MODIFICATION	CONFIGURATION	MATERIALS	WORKMANSHIP
Modify Existing Foundation.	Passing	Passing	Passing
Install Anchor Rods at Towers Base.	Passing	Passing	Passing
Note: Anchor Brackets were Welded to the Flat bar. Note: Anchor Bracket was Shifted to the Left to Avoid Existing Porthole. Note: A Thicker Washer was Used & Trimmed to Allow Anchor Nut to Tighten. Note: More Anchor Rod Stiffeners were Installed than Designed. See Section 6.3.2 for EOR Approval E-Mails.			
Install Plate Shaft Reinforcement. 0.5' to 10.5', 20.5' to 39.5', 40.5' to 59.5', 60.5' to 79.5', 80.5' to 90.5' & 100.5' to 105.5'.	Passing	Passing	Passing
Note: Flats Bar Starts at 9" to Clear the Existing Gusset. Note: Shims were used to Clear the Existing Weld Seams on the Pole. Note: Termination Bolt Configuration was Different than Designed Due to Existing Internal Gussets. Note: The Collar was Removed & Replaced at 43' 4.25". Note: Plates were Installed at a Higher Elevation than Designed. Note: Plates Installed were Not Equally Spaced. See Section 6.3.2 for EOR Approval E-Mails.			
Install Flat Plate Bridge Stiffeners. 20', 40', 60', 80', 100' & 120'.	Passing	Passing	Passing
Note: The Bottom Plate of the 60' Bridge Stiffener was Shorter than Designed. Note: Larger Flat Washers were used than Designed at the 60' Bridge Stiffener. Note: Newly Installed Bridge Stiffeners were Not Installed with Equal Spacing Between Them. See Section 6.3.2 for EOR Approval E-Mails.			

All observations were performed after the construction was complete. SGS was not present during the construction phase. The onsite PMI was performed by Caleb Christner, SGS.

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

Respectfully submitted,

Nick Schmitt, P.E., S.E.

Table of Contents

PRE-CONSTRUCTION

6.1.1 MI CHECKLIST DRAWING

MI CHECKLIST

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

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

MODIFICATION INSPECTION NOTES:

GENERAL

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

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

ALL MI'S SHALL BE CONDUCTED BY A CROWN ENGINEERING VENDOR (AESV) 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 COORDINATION AS SOON AS POSSIBLY WITH ALL PROACTIVE IN REACHING OUT TO THE OTHER PARTY. IF CONTACT INFORMATION IS NOT KNOWN, CONTACT YOUR CROWN POINT OF CONTACT (PoC).

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

MI INSPECTOR

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

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

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

GENERAL CONTRACTOR

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

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

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

RECOMMENDATIONS

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

- IT IS SUGGESTED THAT THE GC PROVIDE A MINIMUM OF 5 BUSINESS DAYS NOTICE, PREFERABLY 10, TO THE MI INSPECTOR AS TO WHEN THE SITE WILL BE READY FOR THE MI TO BE CONDUCTED.
- THE GC AND MI INSPECTOR COORDINATE CLOSELY THROUGHOUT THE ENTIRE PROJECT.
- IT MAY BE BENEFICIAL FOR ANY GUY WIRE TENSIONING OR RE-TENSIONING OPERATIONS SIMULTANEOUSLY FOR ANY GUY WIRE 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.
- 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.). 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 SHOULD 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 MODIFICATION/REINFORCEMENT USING THE AS-BUILT CONDITION
- OR, WITH CROWN'S APPROVAL, THE GC MAY WORK WITH THE EOR TO RE-ANALYZE THE MODIFICATION/REINFORCEMENT USING THE AS-BUILT CONDITION

MI VERIFICATION INSPECTIONS

IF THE MODIFICATION INSTALLATION SHOULD 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 MODIFICATION/REINFORCEMENT USING THE AS-BUILT CONDITION
- OR, WITH CROWN'S APPROVAL, THE GC MAY WORK WITH THE EOR TO RE-ANALYZE THE MODIFICATION/REINFORCEMENT USING THE AS-BUILT CONDITION

MI VERIFICATION INSPECTIONS

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

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

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

REQUIRED PHOTOS

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

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

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

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

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

CROWN CASTLE

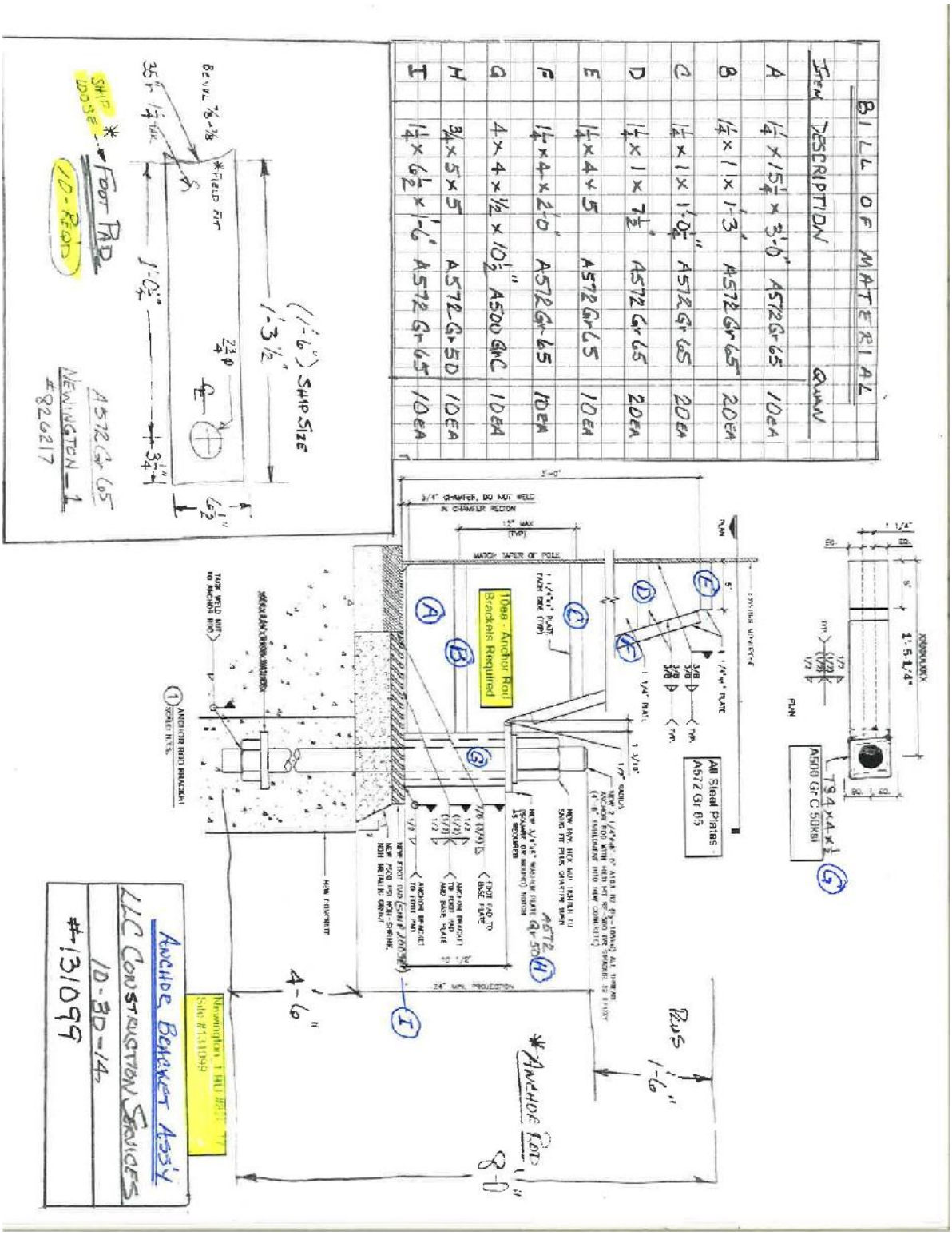
ISSUED FOR:		
REV	DATE	DESCRIPTION
0	10/23/13	ISSUED FOR CONSTRUCTION

PROJECT NO:	67581.005.01
DRAWN BY:	KIRAN MAROJU
CHECKED BY:	SSC

B+T ENGINEERING, INC.

NEWINGTON_1	
826217	
240 KENSINGTON ROAD, BERLIN, CT	
EXISTING 190' MONOPOLE	
SHEET TITLE	
MODIFICATION INSPECTION NOTES AND CHECKLIST	
SHEET NUMBER	REVISION
S2	0

6.1.2 EOR APPROVED SHOP DRAWINGS



Subject: FW: Newington 1 BU# 826217 - Revised Anchor Bracket Review
Attachments: image001.gif; Untitled attachment 00071.htm; Untitled attachment 00074.htm; Newington_1 Revised Fab Drwg for Anchor Brkt.pdf; Untitled attachment 00077.htm

From: Macy Arianpour <marianpour@btgrp.com>
Date: December 29, 2014 at 4:39:16 PM EST
To: Tom Roberts <tom_roberts@lcc.com>, Ali Abbaszadeh <AAbbaszadeh@btgrp.com>
Cc: "'Keith Stackhouse' @ ConstructionServices" <keith_stackhouse@lcc.com>, "'Dan Hughes' @ LCC Construction Services" <daniel_hughes@lcc.com>, "'Jorge Forsythe ' @ LCC Construction Services" <jorge_forsythe@lcc.com>, "'Rich Taschek' @ LCC Construction Services" <rich_taschek@lcc.com>
Subject: RE: Newington 1 BU# 826217 - Revised Anchor Bracket Review

Tom,

I just talked to Ali and he said these are already installed. As long as the inspector didn't find any deviation from the modification drawings or the change was approved by the EOR, the shop drawing requirement can be waived.
Please let us know if you need anything else.

Thanks,
Macy Arianpour, Project Engineer
1717 South Boulder Ave., Suite 300, Tulsa, Oklahoma 74119
O (918) 587-4630 + btgrp.com + marianpour@btgrp.com

6.1.3 FABRICATORS CERTIFIED WELD INSPECTION

Lockport Steel Fabricators, LLC
3051 S State Street
Lockport IL 60441
815.726.6281

To: LCC Deployment Service

Subject: Newington

Date: 3/28/14

Please accept this letter as certification that our work on LCC Job# 412245
LSF SO#-15528 - was performed in accordance with industry standards and the contractor documents.

Please contact me if you have any questions.

Thank you,

Mat Yingling
QA Manager
Lockport Steel Fabricators, LLC

James G. Whittaker
CWI
Lockport Steel Fabricators, LLC

James G Whittaker
CWI 06040341
QC1 EXP. 4/1/2015

Lockport Steel Fabricators, LLC
3051 S State Street
Lockport IL 60441
815.726.6281

Customer: LCC

Project: Newington/412245

Location: Berlin, CT

LSF SO#: 15528

Date: 3/28/14

To whom it may concern;

We have performed visual observation and monitoring during all phases of the fabrication of the referenced welded components. This includes; pre, post and in process review consisting of a visual examination by an AWS Certified Welding Inspector of all welded components to evaluate their conformance with the applicable welding code requirements. We have reviewed the scope of work to ensure that it meets or exceeds the customer contractual requirements.

During the examination of all welded components it was found that all parts were in compliance with the specified requirements of AWS D1.1 and conformed to the customer project specifications. Please refer to the attached signed inspection sheet for individual piece marks and any relevant notes.

Respectfully submitted,

Lockport Steel Fabricators, LLC.

3051 South State St.

Lockport, Illinois 60441

See Attached: Weld Inspection form and Photos

LOCKPORT STEEL FABRICATORS

Form 8.07

INSPECTION REPORT

Project No.: Newington	**Client:** LCC **P.O. No.** 412245	**Report No.:** 15528
Prepared By: MY	**Location:** Berlin, CT	**Date:** 28-Mar-14

Description: Reinf. Bars, Anchor Bracket ass'y, Washer Plates and Foot Pads

Visual	x	NDE		PT		In Progress	x
Dimensional	x	OTHER		MT		Final	x

Reference Drawing/Standard: AWS D1.1/ASME section IX

Findings: Welds were performed and inspected in accordance with the above referenced codes and standards and found to be acceptable.

NOTE: No relevant indications were noted at time of inspection .

#15	QC OK Visual and Dimensional
#16	QC OK Visual and Dimensional
#17	QC OK Visual and Dimensional
#18	QC OK Visual and Dimensional
#19	QC OK Visual and Dimensional
#20	QC OK Visual and Dimensional
AB/P1	QC OK Visual and Dimensional
WP1	QC OK Visual and Dimensional
P1	QC OK Visual and Dimensional

Sketch

Walker Manley Q.A Manager
Signature

3/28/14
Date

LOCKPORT STEEL FABRICATORS

Form 8.07

INSPECTION REPORT

Project No.: Newington	**Client:** LCC **P.O. No.** 412245	**Report No.:** 15528
Prepared By: MY	**Location:** Berlin, CT	**Date:** 28-Mar-14

Description: Reinf. Bars, Anchor Bracket ass'y, Washer Plates and Foot Pads

Visual	x	NDE		PT		In Progress	x
Dimensional	x	OTHER		MT		Final	x

Reference Drawing/Standard: AWS D1.1/ASME section IX

Findings: Welds were performed and inspected in accordance with the above referenced codes and standards and found to be acceptable.

NOTE: No relevant indications were noted at time of inspection .

#1	QC OK Visual and Dimensional
#2	QC OK Visual and Dimensional
#3	QC OK Visual and Dimensional
#6	QC OK Visual and Dimensional
#7	QC OK Visual and Dimensional
#10	QC OK Visual and Dimensional
#11	QC OK Visual and Dimensional
#12	QC OK Visual and Dimensional
#13	QC OK Visual and Dimensional
#14	QC OK Visual and Dimensional

Sketch

Q.A. Manager

Signature

3/28/14

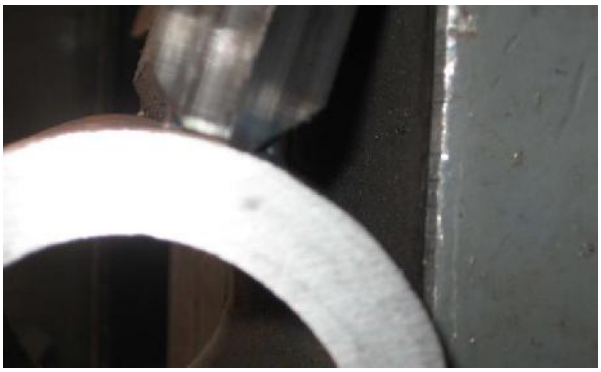
Date


15528 #1


Pl 15528


HOLD
FOR INSPECTION
PART NO. Anchor Bracket Assy Pl
DATE 3-24-14 BY MC
QTY 3pcs
15528
REWORK ☐ RETURN ☐
SCRAP ☐
Tag No. 74777


15528




Pl 15528


Pl 15528


15528
#2


15528
#4


15528
6 Pcs # 8


15528
#7

6.1.4 MATERIAL TEST REPORT (MTR)

NUCOR PLATE MILL — P.O.Box 279, Winton, NC 27986, (252) 356-3700

Mill Test Report

Page 2

NUCOR It's our Nature.

Issuing Date : 09/05/2013 B/L No. : 367869 Load No. : 370880 Our Order No. : 1132898 Cust. Order No. : TD086

Vehicle No: TTPX 804682

Specification : 0.7500" x 96.000" x 480.000" ASTM A572 Grade 50-12A .05 Max Si

Sold To : LEECO STEEL PRODUCTS, 1011 Warrenville Road, SUITE 600, LISLE,IL 60532

Ship To : LEECO STEEL PRODUCTS, 1000 E BOUNDARY ROAD, PORTAGE,IN 46368

Marking : TD086

Heat No	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al(sol)	V	Nb	Ti	N	Ca	B	Sn	Ceq	Pcm
[illegible]	0.16	1.39	0.013	[illegible]	[illegible]	0.17	0.08	[illegible]	0.01	0.035	0.067	0.044	[illegible]	0.0140	0.0015	[illegible]	0.009	0.40	0.24

Plate Serial No	Pieces	Tons	Dir.	(psi) Yield	(psi) Tensile	Elongation % in 2"	Elongation % in 8"	Dir.	(ft-lbs) 1	(%) shear	(ft-lbs) 2	(%) shear	(ft-lbs) 3	(%) shear	(ft-lbs) Avg.	(%) shear	Size	Temp (°F)	Min Avg.
3005029-05	1	4.90	T	66,900	86,500	20.5		T-L	71.0		65.1		53.3		63.1		10mm	-20	15
			T	66,000	84,100	23.7													

(Tensile Test: columns Plate Serial No through Elongation % in 8"; Charpy Impacts: columns Dir. through Min Avg.)

Plate Frequency per A673, each plate "as-rolled" ;

Manufactured to fully killed fine grain practice by Electric Arc Furnace. Welding or weld repair was not performed on this material. Mercury has not been used in the direct manufacturing of this material. Produced as continuous cast discrete plate as-rolled, unless otherwise noted in Specification.
Yield by 0.5EUL method unless otherwise specified. Ceq = C+(Mn/6)+((Cr+Mo+V)/5)+((Cu+Ni)/15)
Pcm = C+(Si/30)+(Mn/20)+(Cu/20)+(Ni/60)+(Cr/20)+(Mo/15)+(V/10)+5B
Melted and manufactured in the USA. ISO 9001:2008 certified (#008063) by SRI Quality System Registrar (#0986-09). PED 97/23/EC 7/2 Annex 1, Para. 4.3 Compliant. DIN 50049 3.1 B/EN 10204 3.1B(2004), DIN EN 10204 3.1(2005) compliant. For ABS grades only, Quality Assurance certificate 09-MMPQA-549

We hereby certify that the contents of this report are accurate and correct. All test results and operations performed by the material manufacturer are in compliance with the applicable specifications, including customer specifications.

T. A. Depretis, Metallurgist — 09/05/2013 5:41:07 PM

NUCOR
PLATE MILL
P.O.Box 279
Winton, NC 27986
(252) 356-3700

Mill Test Report

Page 1

NUCOR
[illegible]

Issuing Date : 01/08/2014 B/L No. : 377582 Load No. : 381219 Our Order No. : 1156858 Cust. Order No. : 10133

Vehicle No: NOKL 725173

Specification : 1.2500" x 96.000" x 480.000"
ASTM A572 Grade 50-13a .05 Max Si

Sold To : LEECO STEEL PRODUCTS
1011 WARRENVILLE RD STE 600
LISLE, IL 60532

Ship To : LEECO STEEL PRODUCTS-
CHATTANOOGA
2506 E 30TH ST
CHATTANOOGA, TN 37406

Marking : TD133

Heat No	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al(t)	V	Nb	Ti	N	Ca	B	Sn	CE	PCM
J508468	0.15	1.35	0.013	0.003	0.36	0.13	0.06	0.07	0.04	0.032	0.050	0.003	0.002	0.0110	0.0018	0.0002	0.008	0.42	0.23

Tensile Test								Charpy Impacts											
Plate Serial No	Where	Thk	Dir	psi Yield	psi Tensile	Elongation % in 2"	Elongation % in 8"	Dir	(ft-lbs) 1	% shear	(ft-lbs) 2	% shear	(ft-lbs) 3	% shear	(ft-lbs) AVE	% shear	Size	Temp (°F)	Min Avg
5XX8853-03	T	6.18	T	71,100	91,400	25.0		[illegible]	114.0		104.0		102.2		107.0		10 mm	-20	15
			T	65,500	86,500	29.0													

Piece Frequency per A673, each plate "as-rolled" ;

Manufactured as fully killed fine grain practice by Electric Arc Furnace. Welding or weld repair was not performed on this material. Mercury was not been used in the direct manufacturing of this material. Produced as continuous cast discrete plate as-rolled, unless otherwise noted in Specification.
Yield at 0.5% EUL method unless otherwise specified. CE = C+(Mn/6)+((Cr+Mo+V)/5)+((Cu+Ni)/15)
Pcm = C+(Si/30)+(Mn/20)+(Cu/20)+(Ni/60)+(Cr/20)+(Mo/15)+(V/10)+5B
Melted and manufactured in the USA. ISO 9001:2008 certified (#[illegible]) by SRI Quality System Registrar ([illegible]). PED 97/23/EC 7/2 Annex 1, Para. 4.3 Compliant. DIN 50049 3.1.B/EN 10204 3.1B(2004), DIN EN 10204 3.1(2004) compliant. For ABS grades only, Quality Assurance certificate [illegible].

We hereby certify that the contents of this report are accurate and correct. All test results and operations performed by the material manufacturer are in compliance with the applicable specifications including customer specifications.

T.A. Dessada, Metallurgist 01/08/2014 [illegible] AM

NUCOR PLATE MILL
P.O Box 279
Winton, NC 27986
(252) 356-3700

Mill Test Report

Page 2

NUCOR It's our Nature™

Issuing Date: 09/22/2013 B/L No.: 359098 Load No.: 372333 Our Order No.: 1137861 Cust. Order No.: TD096

Vehicle No: NOKL 725330

Specification: 1.0000" x 96.000" x 480.000"
ASTM A572 Grade 65-12A .05 Max 5

Sold To: LEECO STEEL PRODUCTS
1011 Warrenville Road
SUITE 600
LISLE, IL 60532

Ship To: LEECO STEEL PRODUCTS
1900 E BOUNDARY ROAD
PORTAGE, IN 46368

Marking: TD096

Heat No.	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Alsol	V	Nb	Ti	N	Ca	B	Sn	CEQ	PCM
3534?18	0.15	1.39	0.017	[illegible]	0.04	0.17	0.06	0.06	[illegible]	0.030	[illegible]	0.045	0.002	0.0122	0.0011	0.0001	0.006	0.42	0.24
3507011	0.15	1.41	0.015	0.002	0.03	0.17	0.06	0.08	0.01	0.029	0.059	0.045	0.002	0.0116	0.0020	0.0001	0.009	0.43	0.24

Plate Serial No.	Pieces	Tons	Dir.	(psi) Yield	(psi) Tensile	Elongation % in 2"	Elongation % in 8"	Dir.	Ft-lbs 1	% shear	Ft-lbs 2	% shear	Ft-lbs 3	% shear	Ft-lbs Avg.	% shear	Size	Temp (°F)	Min Avg.
3507010-01	4	26.13	T	70,500	86,000	22.4		H-L	45.1		60.1		92.7		69.9		10mm	-20	15
			T	72,800	90,700	36.4													
3507010-05	5	32.67	T	70,500	86,800	22.4	-	H-L	124.1		160.4		168.0		157.5		10mm	-20	15
			T	70,600	89,700	36.4													
3507011-04	1	6.53	T	67,300	86,300	29.2		H-L	65.7		37.5		26.8		43.3		10mm	-20	15
			T	67,200	85,700	27.2													

Sieve Frequency per A673, each plate "as-rolled":

Manufactured to fully killed fine grain practice by Electric Arc Furnace. Welding or weld repair was not performed on this material. Mercury has not been used in the direct manufacturing of this material. Finished as continuous cast discrete plate As-rolled unless otherwise noted in Specification.
Yield by 0.5% EUL method unless otherwise specified. Ceq = C+(Mn/6)+((Cr+Mo+V)/5)+((Cu+Ni)/15)
Pcm = C+(Si/30)+(Mn/20)+(Cu/20)+(Ni/60)+(Cr/20)+(Mo/15)+(V/10)+5B
Melted and manufactured in the USA. ISO 9001:2008 certified (#0.06003) by SRI Quality System Registrar (#0.964-07). PED 97/23/EC 7/2 Annex 1, Para. 4.3 Compliant. DIN 50049 3.1.B/EN 10204 3.1B(2004), DIN EN 10204 3.1(2004) compliant. For ABS grades only, Quality Assurance certificate 09-MMPQA-546

We hereby certify that the contents of this report are accurate and correct. All test results and operations performed by the material manufacturer are in compliance with the applicable specifications, including customer specifications.

T. R. Degrade, Metallurgist 09/23/2013 11:41:55 AM

6.1.5 NDE REPORT OF MONOPOLE BASE PLATE

See Section 6.2.6 Contractor's Certified Weld Inspection.

6.1.6 PACKING SLIPS

TCCI
a WFI company

Telecommunications Contracting Company, Inc.
7900 Westpark Drive, Suite A300
Mclean, VA 22102
Tel: (703) 873-2700

Purchase Order

PO Number
411578

Ship To: Telecommunications Contracting Company, Inc.
2242 Old Marlton Pike
Marlton, NJ 08053

Bill To: Telecommunications Contracting Company, Inc.
7900 Westpark Drive, Suite A300
Mclean, VA 22102

Vendor:
SAS Stressteel, Inc.
100 New Dutch Lane
Fairfield, NJ 07004-2515

PAYMENT TERMS	VENDOR ID	DATE OF ORDER	DATE EXPECTED
Net 30	TC-V-12155	11/18/2013	11/18/2013

SITE ID
131099 - Newington 1

ITEM	DESCRIPTION	QUANTITY	U.O.M.	UNIT PRICE	AMOUNT
A-D-Subcontractor-Equipment	(8)ea - 1-3/8"dia x 40'-0" 150 ksi - ATR Ready from SAS - 2-3 days (Stock material) TCRO0617--131099 - Newington 1	8	Each	$200.00	$1,600.00
A-D-Subcontractor-Equipment	(16)ea - 1-3/8"dia Heavy Hex nut TCRO0617--131099 - Newington 1	16	Each	$15.00	$240.00
				Total:	$ 1,840.00

SUPPLIER INSTRUCTIONS

1. Invoice must reference Purchase Order Number listed above or supplier will experience payment delays.
2. Invoice should be emailed to 'ap_team@telecomcontracting.com'
3. Process order with the above shipping method, terms, prices, and specifications.
4. Please notify TCCI's contact person immediately if you are unable to ship as specified. Upon acceptance of this purchase order seller agrees to adhere to TCCI terms and conditions located at www.telecomcontracting.com/purchasing-terms-conditions/, as amended from time to time, which are incorporated herein by this reference, with the same force and effect as if they were given in full text.

TCCI APPROVAL

Procurement Dept.
TCCI Authorized Agent

11/18/2013
Date

Bill of Lading

Re-Steel Supply Co., Inc.
2000 Eddystone Industrial Park
Eddystone, PA 19022
Phone: (610)876-8216

Bill of Lading #: ED43760
Ship Date: 8/14/2014
Customer: LCC-DS, INC.

S NEWPORT DE
H NEWPORT DE
I
P

T
O

Job Number: S4540
Ship Via: CUSTOMER PICKUP
F.O.B.:
Customer P.O.:
Customer Job No:
Contact:
Phone:

Weight Summary

Size	Lbs
Rebar, Grade 60, Black	
4	178
7	6,345
8	481
	7,004
Total:	**7,004**
Total Weight:	**7,004**

PO#413264 FOR
NEWINGTON 1- 131099
P/U 8-14-14

Page 1 of 1
Page 2 of 2

Re-Steel Supply Co., Inc.
2000 Eddystone Industrial Park
Eddystone, PA 19022-
Phone: (610)876-8218 FAX: (610)876-9279

JOB NUMBER	RELEASE NUMBER	REQ. DELIVERY DATE	PAGE
S4540	1	8/14/2014	1 of 1

JOB NAME: NEWPORT DE
CUSTOMER: LCC-DS, INC.
CC: TZYN
BY: MDO

MATERIAL TYPE	REFERENCE	DRAWING ID	DESCRIPTION
Rebar, Grade 60, Black	EDDY		PO# 413264 NEWINGTON-1

Itm	Qty	Size	Length	Mark	Shape	Lbs	A	B	C	D	E	F/R	G	H	J	K	O	BC
1	24	8	7-06			481												0
	24.					481.												
2	12	7	8-00	701	17	196		4-00	4-00									H04
3	76	7	6-06	700	17	1010		2-00	2-06	2-00								H09
4	48	7	6-00	702	17	589		1-00	5-00									H04
5	84	7	20-00			3434												0
6	84	7	6-06			1116												0
	304.					6345.												
7	64	4	4-02	400	T3	178			3-013				1-00				1-00	C
	64.					178.												

Total Weight: 7,004 Lbs

Longest Length: 20-00

WEIGHT SUMMARY

Rebar, Grade 60, Black

SIZE	TOTAL ITEMS	TOTAL PIECES	TOTAL LBS	STRAIGHT ITEMS	STRAIGHT PIECES	STRAIGHT LBS	LIGHT BENDING ITEMS	LIGHT BENDING PIECES	LIGHT BENDING LBS	HEAVY BENDING ITEMS	HEAVY BENDING PIECES	HEAVY BENDING LBS
4	1	64	178	0	0	0	1	64	178	0	0	0
7	5	304	6345	2	168	4550	0	0	0	3	136	1795
8	1	24	481	1	24	481	0	0	0	0	0	0
	7	392	7004	3	192	5031	1	64	178	3	136	1795

Total Weight: 7,004 Lbs

Longest Length: 20-00

PO #413264 FOR
NEWINGTON-1 - 131099
P/U 8-14-14

040309

Purchase Order

PO Number
412245

LCC Deployment Services, Inc.
7900 Westpark Drive, Suite A300
Mclean, VA 22102

Ship To: Ship to site:
240 Kensington Road
Berlin, CT 06037

Vendor: Lockport Steel Fabricators, LLC
3051 State Street
PO BOX 248
Lockport, IL 60441

Bill To: LCC Deployment Services, Inc.
7900 Westpark Drive, Suite A300
Mclean, VA 22102

PAYMENT TERMS	FOB	DATE OF ORDER	FREIGHT TERMS
Net 30		02/26/2014	Prepaid
DATE EXPECTED		REFERENCE	
02/26/2014		131099	

ITEM	DESCRIPTION	QUANTITY	U.O.M.	UNIT PRICE	AMOUNT
A-D-Subcontractor-Equipment	FB 3/4" x 4" x 10'-0" cut to size, drilled, fabbed and HDG per provided sketches - A572-65 - MK1 Ready from LSF - 3-4 weeks	3	Each		
A-D-Subcontractor-Equipment	FB 1" x 6" x 19'-0" cut to size, drilled, fabbed and HDG per provided sketches - A572-65 - MK2	6	Each		
A-D-Subcontractor-Equipment	FB 1-1/4" x 6-1/2" x 19'-0" cut to size, drilled, fabbed and HDG per provided sketches - A572-65 - MK3	3	Each		
A-D-Subcontractor-Equipment	FB 1" x 4-1/2" x 10'-0" cut to size, drilled, fabbed and HDG per provided sketches - A572-65 - MK4	3	Each		
A-D-Subcontractor-Equipment	FB 3/4" x 4" x 5'-0" cut to size, drilled, fabbed and HDG per provided sketches - A572-65 - MK5	3	Each		
A-D-Subcontractor-Equipment	FB 1/2" x 6-1/2" x 6'-9" cut to size, drilled, fabbed and HDG per provided sketches - A36 - MK6	24	Each		
A-D-Subcontractor-Equipment	FB 1-1/4" x 6-1/2" x 14'-10" cut to size, drilled, fabbed and HDG per provided sketches - A572-65 - MK7	6	Each		
A-D-Subcontractor-Equipment	FB 1-1/4" x 6-1/2" x 14'-11" cut to size, drilled, fabbed and HDG per provided sketches - A572-65 - MK8	6	Each		
A-D-Subcontractor-Equipment	FB 1/2" x 8-1/2" x 5'-0" cut to size, drilled, fabbed and HDG per provided sketches - A36 - MK9	6	Each		
A-D-Subcontractor-Equipment	FB 1-1/4" x 8-1/2" x 13'-3" cut to size, drilled, fabbed and HDG per provided sketches - A572-65 - MK10	6	Each		
A-D-Subcontractor-Equipment	FB 2-1/4" x 8-1/2" x 7'-4" cut to size, drilled, fabbed and HDG per provided sketches - A36 - MK11	6	Each		
A-D-Subcontractor-Equipment	FB 1-1/4" x 8-1/2" x 12'-3" cut to size, drilled, fabbed and HDG per provided sketches - A572-65 - MK12	6	Each		

Purchase Order

PO Number
412245

LCC Deployment Services, Inc.
7900 Westpark Drive, Suite A300
Mclean, VA 22102

Ship To: Ship to site:
240 Kensington Road
Berlin, CT 06037

Vendor: Lockport Steel Fabricators, LLC
3051 State Street
PO BOX 248
Lockport, IL 60441

Bill To: LCC Deployment Services, Inc.
7900 Westpark Drive, Suite A300
Mclean, VA 22102

A-D-Subcontractor-Equipment	FB 1/2" x 6-1/2" x 4'-0" cut to size, drilled, fabbed and HDG per provided sketches - A36 - MK13	3	Each	
A-D-Subcontractor-Equipment	FB 1-1/4" x 6-1/2" x 9'-3" cut to size, drilled, fabbed and HDG per provided sketches - A572-65 - MK14	3	Each	
A-D-Subcontractor-Equipment	FB 2-1/4" x 6-1/2" x 4'-4" cut to size, drilled, fabbed and HDG per provided sketches - A36 - MK15	3	Each	
A-D-Subcontractor-Equipment	FB 1-1/4" x 6-1/2" x 8'-3" cut to size, drilled, fabbed and HDG per provided sketches - A572-65 - MK16	3	Each	
A-D-Subcontractor-Equipment	FB 1/2" x 4-1/2" x 2'-9" cut to size, drilled, fabbed and HDG per provided sketches - A36 - MK17	6	Each	
A-D-Subcontractor-Equipment	FB 1" x 4-1/2" x 6'-6" cut to size, drilled, fabbed and HDG per provided sketches - A572-65 - MK18	6	Each	
A-D-Subcontractor-Equipment	FB 2-1/2" x 4-1/2" x 2'-10" cut to size, drilled, fabbed and HDG per provided sketches - A36 - MK19	6	Each	
A-D-Subcontractor-Equipment	FB 1" x 4-1/2" x 5'-6" cut to size, drilled, fabbed and HDG per provided sketches - A572-65 - MK20	6	Each	
A-D-Subcontractor-Equipment	PL 1-1/4" x 3-1/2" x 3'-6" cut to size, fabbed and HDG per provided sketches - A572-65 - AB1	14	Each	
A-D-Subcontractor-Equipment	4" XXS (4-1/2" OD x .674w) Pipe x 10-1/2" cut to size, fabbed and HDG per provided sketches - A53-50 - AB/P1	14	Each	
A-D-Subcontractor-Equipment	PL 1-1/4" x 5" x 7" cut to size, fabbed and HDG per provided sketches - A572-50 - P1	14	Each	
A-D-Subcontractor-Equipment	PL 3/4" x 5" x 5" cut to size, fabbed and HDG per provided sketches - A572-50 - WP1	14	Each	
				Total:

ALLFASTENERS® USA

15401 Commerce Park Drive
Cleveland, OH 44142
Ph: 888 859 6060
Fax: 440 232 6062
Email: sales@allfasteners.com

69 Orchard Street
Ramsey, NJ 07446
Ph: 800 577 3171
Fax: 201 783 8840
Email: sales@allfasteners.com

5450 W. 83rd Street
Los Angeles, CA 90045
Ph: 310 410 5007
Fax: 310 410 5004
Email: sales@allfasteners.com

DELIVER

LCC Deployment Services Inc (TCCI)
Attn: Terry 609 678 8243
240 Kensington Rd
Berlin CT 06037

OFFICE COPY

Packing Slip

74666

Acc No: 6071

Order Date	Ship Date	Customer Order No.	Ordered By	Contact No.	Reference	Entered By
10.29.2014	11.13.2014	413687	Tom Roberts	856 810 1658	NEWINGTON_1 - 826217	BEC

Order Code	Description	Unit	Qty Ordered	Back Order	Supplied	BinCode
14OF425	Steel Package for Newington_1 - 826217 Includes: 10 pieces - 1-1/4 x 15-1/4 x 3ft Anchor Rod Bracket Plate Grade 65 Galvanized (Tapered & Welded to Parts Below) 20 pieces - 1-1/4 x 1 x 12-1/4in Plate Stiffener Grade 65 Galvanized (Welded to Parts Above & Below) 20 pieces - 1-1/4 x 1 x 7-1/2in Plate Stiffener Grade 65 Galvanized (Welded to Parts Above & Below) 20 pieces - 1-1/4 x 1 x 15in Plate Stiffener Grade 65 Galvanized (Welded to Parts Above & Below) 10 pieces - 1-1/4 x 4 x 5in Plate Grade 65 Galvanized (Welded to Top of Anchor Bracket Plate) 10 pieces - 1-1/4 x 4 x 2ft Plate Grade 65 Galvanized (Welded to Side of Anchor Bracket Plate) 10 pieces - 4 x 4 x 1/2 x 10-1/2in HSS Tube A500 Grade C (50ksi) Galvanized for Anchor Bracket (Welded to Plate Above) 10 pieces - 3/4 x 5 x 5 Washer Plate Galvanized with 1 Holes Grade 50 10 pieces - 1-1/4 x 6-1/2 x 1ft 6in Foot Pad Grade 65 Galvanized with 1 Holes	Each	1		1	
FREIGHTOUT	Shipping & Handling Charge		1		1	

PICKED BY	PACKED BY	CHECKED BY	DISPATCH VIA	SPECIAL MESSAGE	RECEIVED IN GOOD ORDER & CONDITION
			BEST WAY		PLEASE CHECK ALL ITEMS BEFORE SIGNING. DISCREPANCIES MUST BE REPORTED WITHIN 7 DAYS.
			SSI5589786	**TERMS** NET 30 Days	----------

WILLIAMS FORM ENGINEERING CORP.

SHIPPER

CLE

Shipper: 51127
COM Pck#: 187232
Page: 1

WILLIAMS FORM ENGR CORP.
2600 VULCAN DRIVE
LITHIA SPRINGS, GA 30122

3/20/2014
12:56:14

Sold To	Ship To
VISA/MC "CHARGE CARD ACCT"	LCC DEPLOYMENT SERVICES 2242 OLD MARLTON PIKE KLAUS HORSCH 856-810-1658 MARLTON, NJ 08503

Contact:

FOR. NEWINGTON-I 131099

Carrier:	Order#:	Cust PO#:	
BEST BESTWAY	1-CO 210168	412241	
Instructions	**Cust#**	**Request**	**Schedule**
PPD-"QUOTED"/SHIPPOINT	12150000	3/14/14	3/14/14

Part	Description	Quantity Ordered	Quantity Shipped

Warehouse: A LITHIA SPRINGS

Rec Inv on 3-27-14

R711804800RHGA150KSI ATB 2-1/4" X 4'0" RH GA — 1 EA ✓
Line#: 200 Ship Date: 3/14/14
R71 - 150 KSI All-Thread Bar 2-1/4" x 4'0" *Right Hand. *Galvanized With 1'0" of Workable Thread On Both Ends

Wind Bdl#	Control#	Heat#(Serial#)	Quantity
	618593	NF12202713 NONE	1.000
	Total Shipped ======>		**1.000**

R711811400RHGA150 KSI ATB 2-1/4" X 9'6"*RHGA — 14 EA ✓
Line#: 100 Ship Date: 3/14/14
HT#_____ * RIGHT HAND * * GALVANIZED *
R71 - 150 KSI All-Thread Bar 2-1/4" x 9'6" *Right Hand. *Galvanized With 1'0" of Workable Thread On Both Ends

Wind Bdl#	Control#	Heat#(Serial#)	Quantity
	618597	NF11202996 NONE	12.000
	618599	NF10103009 NONE	1.000
	618600	NF11102989 NONE	1.000
	Total Shipped ======>		**14.000**

R7218RH0S 150KSI COUP 2-1/4"RHOS,3.5D,9L — 1 EA ✓
Line#: 300 Ship Date: 3/14/14
R72 - All-Thread-Bar Coupling for 2-1/4" dia. 150 KSI bar. *Right Hand *Plain O.S.

Wind Bdl#	Control#	Heat#(Serial#)	Quantity
	614446	MM13105541 57K8D	1.000
	Total Shipped ======>		**1.000**

R7318RHGA 150KSI 2-1/4" HEX NUT,*RHGA — 14 EA ✓
Line#: 400 Ship Date: 3/14/14
R73 - All-Thread-Bar Hex Nut for 2-1/4" dia. 150 KSI Bar. *Right Hand

CONSTRUCTION

6.2.1 CONSTRUCTION INSPECTIONS

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

To: Crown Castle

Subject: Construction inspection

Site: **Newington 1 - 826217**

December 4, 2014

Please be advised that all work was completed per drawings dated **10/03/2013 & 10/17/2014** by B&T Group Engineering, in accordance with industry standards and contract documents including modification drawings and specifications, state and local regulations, OSHA, and engineering standards. On-site cold galvanizing was applied in accordance with Crown ENG-BUL-10149.

Please let me know if you have any questions.

Thank you,

Keith A. Stackhouse

Keith A. Stackhouse
Structural Construction Manager
LCC Deployment Services

6.2.2 FOUNDATION INSPECTIONS

IMTL
Accurate information you can rely on.

Concrete Rebar Inspection

Client:	LCC Deployment Services	Project No.:	2087
Project:	240 Kensington Road Tower	Report No.:	003
Date:	October 27, 2014	Page No.:	1 of 2
Location:	Tower Foundation Modification Slab on Grade		
Inspector:	Curt Phillips		

Percentage of Completion at Time of Inspection:

Rebar: 100% Formwork: 100%

1. Rebar sizes, spacing from each other and formwork: Rebar sizing and spacing were accurate.
   Deficiencies:
   Comments: Rebar was installed per the structural drawings and direction from the Engineer of Record. #6, 180° standard hook bars were installed as described in an email by the Engineer.
2. Rebar quality, cleanliness, rust, grease, etc.: Rebar was clean.
   Deficiencies:
   Comments:
3. Positioning of Rebar: Rebar was accurately positioned.
   Use of chairs: Rebar was supported by concrete brick.
   Comments:

   Adequacy of firm tie offs: Rebar was properly tied and secure.
   Comments:

3.1 Are dowels in place now? No: ____ Yes: ____ N/A: X
Masonry Dowels, Slab Dowels, Hair-Pins Through Piers
Comments:

3.2 Anchor Bolts: Diameter: 2-1/4" Length: 8'-0" Quantity: 10

Installed within pier ties (stirrups) & Prior to concrete placement: Yes: X No: ____
Comments:

Independent Materials Testing Laboratories, Inc.
57 N. Washington St., P.O. Box 745, Plainville, CT 06062
T 860.747.1000 F 860.747.6455
mail@imtlct.com www.imtlct.com

4. Rebar splicing: Rebar was properly lapped.
   Diameter of laps: #5: 30".
   Is wiring adequate? Yes
   Comments:

5. Construction Joint / Keyway / Expansion Joint
   Depth: _____ Width: _____ Shape: _____
   Waterstop: PVC/Bentonite:
   Comments: Waterstop was installed at the existing pier foundation per Detail No. 3/S12.

6. General condition of forms in place:
   Cleanliness: Formwork was clean.
   Oiled: Yes: _____ No: X
   Subgrade Condition Subgrade material was free of standing water/mud. IMTL did not provide density testing of the subgrade material nor was it required by the Engineer of Record.

7. Quality of formwork:
   Trueness in 36": N/A
   Plumbness in 36": Plumb
   Line Straightness: Straight
   Bracing:
   Comments:

8. Formwork inside dimensions, L, H, W.
   Measure Dimensions: Formwork dimensions were accurate.
   Comments:

9. Is a follow-up inspection necessary just prior to the concrete placement? No
   If so, for which item numbers?

10. List Discrepancies:

pc: Keith Stackhouse, LCC Deployment Services
md

IMTL
Accurate information you can rely on.

Concrete Rebar Inspection

Client: LCC Deployment Services — Project No.: 2087

Project: 240 Kensington Road Tower — Report No.: 002

Date: October 23, 2014 — Page No.: 1 of 3

Location: Tower Foundation Modifications Slab on Grade

Inspector: Curt Phillips

Percentage of Completion at Time of Inspection:

Rebar: 100% Formwork: 100%

1. Rebar sizes, spacing from each other and formwork:
   Deficiencies:
   Comments: The completed rebar installed to date was in accordance with the details on Drawing Nos. S12 and S13. General completion is needed. #6 standard hook bars are needed as directed by the Engineer of Record at 10" on center.

2. Rebar quality, cleanliness, rust, grease, etc.: Rebar was clean.
   Deficiencies:
   Comments:

3. Positioning of Rebar: Adjustments were bedded for clearances.
   Use of chairs: Concrete brick was used to support rebar.
   Comments:

   Adequacy of firm tie offs:
   Comments: N/A

3.1 Are dowels in place now? No: ____ Yes: X N/A: ____
Masonry Dowels, Slab Dowels, Hair-Pins Through Piers
Comments: Epoxied dowels were installed at the existing tower foundations. The installation of these dowels was not observed by IMTL.

3.2 Anchor Bolts: Diameter: 2-1/4" Length: 8' Quantity: 10

Installed within pier ties (stirrups) & Prior to concrete placement: Yes: X No: ____
Comments:

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4. Rebar splicing: Rebar was properly lapped.
   Diameter of laps: #5 bars at 30".
   Is wiring adequate? Yes
   Comments:

5. Construction Joint / Keyway / Expansion Joint
   Depth: _____ Width: _____ Shape: _____
   Waterstop: PVC/Bentonite:
   Comments: Water stop was installed per Detail 3/S12.

6. General condition of forms in place: Satisfactory
   Cleanliness:
   Oiled: Yes: _____ No: _____
   Subgrade Condition IMTL did not provide density testing of the subgrade material nor was it required by the Engineer of Record.

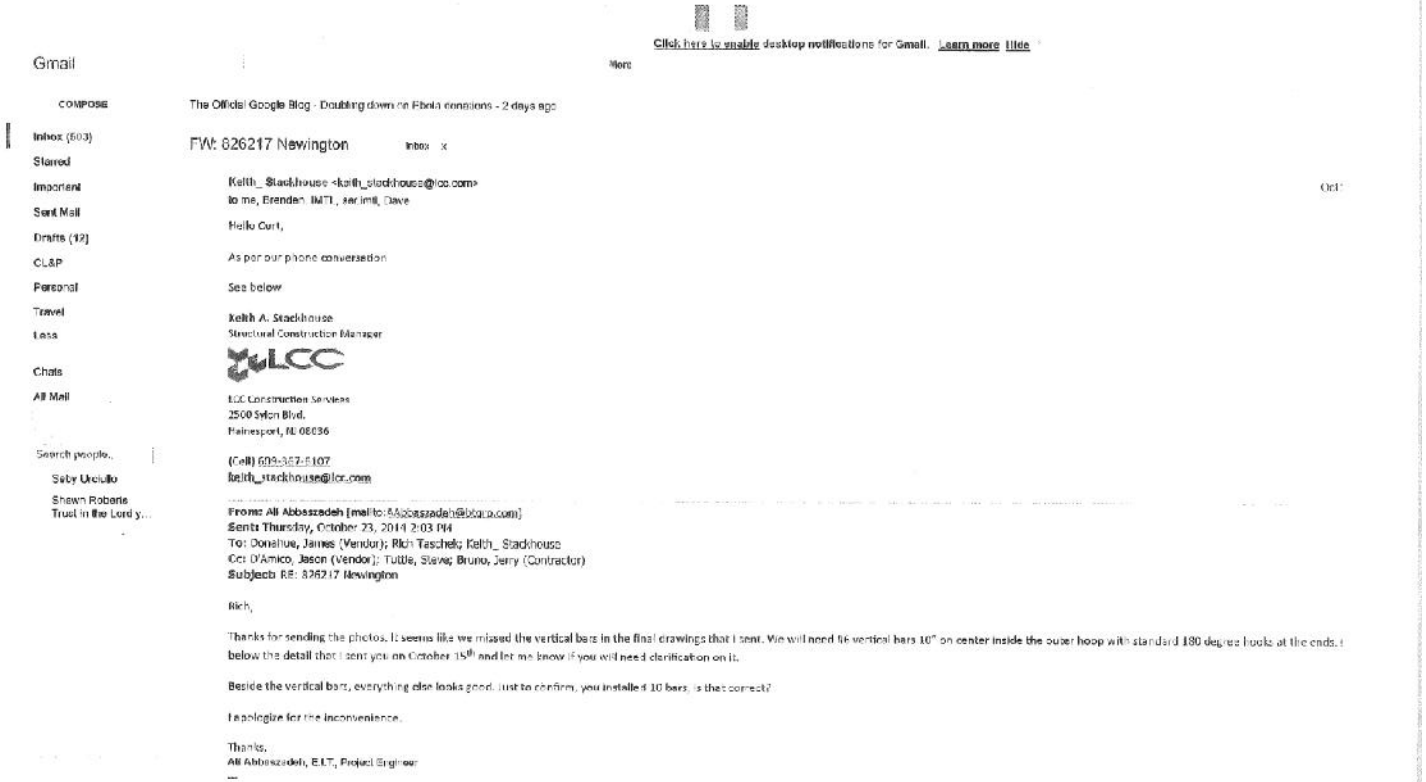
7. Quality of formwork: Perimeter formwork has yet to be installed.
   Trueness in 36":
   Plumbness in 36":
   Line Straightness:
   Bracing:
   Comments:

8. Formwork inside dimensions, L, H, W.
   Measure Dimensions:
   Comments: Formwork is incomplete.

9. Is a follow-up inspection necessary just prior to the concrete placement? Yes
   If so, for which item numbers?

10. List Discrepancies: General completion of formwork and rebar is needed.

pc: Keith Stackhouse, Brenden Foster, LCC Deployment Services
md



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Saby Ucciilo
Shawn Roberts
Trust in the Lord y...

The Official Google Blog - Doubling down on Ebola donations - 2 days ago

FW: 826217 Newington Inbox x

Keith_ Stackhouse <keith_stackhouse@lcc.com> Oct 1
to me, Brendan, IMTL, sarimtl, Dave

Hello Curt,

As per our phone conversation

See below

Keith A. Stackhouse
Structural Construction Manager

LCC Construction Services
2500 Sylon Blvd.
Hainesport, NJ 08036

(Cell) 609-367-5107
keith_stackhouse@lcc.com

From: Ali Abbaszadeh [mailto:AAbbaszadeh@bbain.com]
Sent: Thursday, October 23, 2014 2:03 PM
To: Donahue, James (Vendor); Rich Taschek; Keith_ Stackhouse
Cc: D'Amico, Jason (Vendor); Tuttle, Steve; Bruno, Jerry (Contractor)
Subject: RE: 826217 Newington

Rich,

Thanks for sending the photos. It seems like we missed the vertical bars in the final drawings that I sent. We will need 16 vertical bars 10" on center inside the outer hoop with standard 180 degree hooks at the ends. I below the detail that I sent you on October 15th and let me know if you will need clarification on it.

Beside the vertical bars, everything else looks good. Just to confirm, you installed 10 bars, is that correct?

I apologize for the inconvenience.

Thanks.
Ali Abbaszadeh, E.I.T., Project Engineer

240 Kensington Road Tower
Project No: 2087 Report No: 002
October 23, 2014 Page: 2 of 2

11/12/2014 1:39 PM

IMTL
Accurate information you can rely on.

REPORT OF CONCRETE INSPECTION

CLIENT: LCC Deployment Services
PROJECT: 240 Kensington Rd. Tower
CONTRACTOR: LCC
CONCRETE SUPPLIER: Suzio
LOCATION OF CONCRETE: Monopole Foundation

PROJECT NO. : 2087
REPORT NO. : 0004
DATE CAST : 10/27/14

DESIGN STRENGTH, PSI: 4,000
CEMENT, LBS.: 6070
FINE AGGREGATE, LBS: 14100 @ 4.2% MC
COARSE AGGREGATE, LBS: See Note 04
WATER, GALLONS: 277
ADMIXTURE: Poly997-601; AEA-35

DAYS CURED IN FIELD: 1
AMBIENT TEMPERATURE: 53
INSPECTOR: Shawn Greenlaw
SPECIMEN SIZE: Standard 6" X 12"
SPEC AREA APPROX: 28.27 sq. in.
SPECIMEN COND: Satisfactory

Test methods used if shown: ASTM C-31, C-39, C-143, C-173 or C-231, C-1064.

TRUCK NO.	TIME BATCHED	TIME START DISCHARGE	TIME END DISCHARGE	TOT TIME MINUTES	SLUMP INCHES	CUBIC YARDS	CONC. TEMP.	AIR %	SET NOTE #
0162	12:06	12:45	01:00	54	5.50	10.0	65	6.4	a.

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SET	LAB NO.	AGE, DAYS	DATE DUE	TOTAL LOAD	UNIT LOAD PSI	SLUMP, INCHES	AIR %	CONC TEMP	TYPE FRAC.	WEIGHT POUNDS
a.	270151	7	11/03/14	86,750	3,050	5.50	6.4	65	5	28.7
	270152	28	11/24/14			5.50	6.4	65		
	270153	28	11/24/14			5.50	6.4	65		
	270154	S				5.50	6.4	65		

NOTES:
01 pc: Keith Stackhouse, LCC Deployment Services / Brenden Foster
02 bh
03 Cylinder Info: Cylinders were stored in a curing box; Min/Max Temperatures: 64/71F. 11/03/14 - 28.46 square inches, 6.02"
04 3/4-23020; 1/2-27580; 3/8-32060
05 Concrete placed via chute & consolidated with a vibrator. First truck arrived at 12:45. Trucks were visually monitored for consistency throughout the entire concrete placement. Truck Ticket No. 160486; Mix No. 400080

IMTL

Accurate information you can rely on.

REPORT OF CONCRETE INSPECTION

CLIENT: LCC Deployment Services
PROJECT: 240 Kensington Rd. Tower
CONTRACTOR: LCC
CONCRETE SUPPLIER: Suzio
LOCATION OF CONCRETE: Monopole Foundation

PROJECT NO. : 2087
REPORT NO. : 0004
DATE CAST : 10/27/14

DESIGN STRENGTH, PSI: 4,000
CEMENT, LBS.: 6070
FINE AGGREGATE, LBS: 14100 @ 4.2% MC
COARSE AGGREGATE, LBS: See Note 04
WATER, GALLONS: 277
ADMIXTURE: Poly997-601; AEA-35

DAYS CURED IN FIELD: 1
AMBIENT TEMPERATURE: 53
INSPECTOR: Shawn Greenlaw
SPECIMEN SIZE: Standard 6" X 12"
SPEC AREA APPROX: 28.27 sq. in.
SPECIMEN COND: Satisfactory

Test methods used if shown: ASTM C-31, C-39, C-143, C-173 or C-231, C-1064.

TRUCK NO.	TIME BATCHED	TIME START DISCHARGE	TIME END DISCHARGE	TOT TIME MINUTES	SLUMP INCHES	CUBIC YARDS	CONC. TEMP.	AIR %	SET #	NOTE
0162	12:06	12:45	01:00	54	5.50	10.0	65	6.4		a.

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mail@imtlct.com www.imtlct.com

SET	LAB NO.	AGE, DAYS	DATE DUE	TOTAL LOAD	UNIT LOAD PSI	SLUMP, INCHES	AIR %	CONC TEMP	TYPE FRAC.	WEIGHT POUNDS
a.	270151	7	11/03/14	86,750	3,050	5.50	6.4	65	5	28.7
	270152	28	11/24/14	114,500	4,040	5.50	6.4	65	5	
	270153	28	11/24/14	115,000	4,060	5.50	6.4	65	5	
	270154	S				5.50	6.4	65		

NOTES:
01 pc: Keith Stackhouse, LCC Deployment Services / Brenden Foster
02 bh
03 Cylinder Info: Cylinders were stored in a curing box; Min/Max Temperatures: 64/71F. 11/03/14 - 28.46 square inches, 6.02"
04 3/4-23020; 1/2-27580; 3/8-32060
05 Concrete placed via chute & consolidated with a vibrator. First truck arrived at 12:45. Trucks were visually monitored for consistency throughout the entire concrete placement. Truck Ticket No. 160486; Mix No. 400080

IMTL

Accurate information you can rely on.

Concrete Curing Report

Client:	LCC Deployment Services	Project No.:	2087
Project:	240 Kensington Road Tower	Report No:	004-CC
Inspector:	Shawn Greenlaw	Today's Date:	10/28/14
Concrete Location:	Monopole Foundation	Date Cast:	10/27/14

Current Weather Conditions Today: Fair, 65°F

Concrete Curing References:

____	Job Specifications	X	ACI 308
____	ACI 306 Cold	____	Approved Contractor Submittal
____	ACI 305 Hot		

Curing Used, Check Appropriate Method:

X	None Observed	☐	Brand Name
☐	Wet Curing	☐	Plastic
☐	Blankets	☐	Heated Area

Comments: The writer spoke with Keith Stackhouse regarding curing and suggested the placement be covered with poly.

STATE OF CONNECTICUT RICHARD WHITE 10/28/14 No. 10036 REGISTERED PROFESSIONAL ENGINEER

pc: Keith Stackhouse, LCC Deployment Services
md

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66 67 68 69 70 71 72 73 74 75 76 77 78 79


57 58 59 61 62 63 65 66

From: Ali Abbaszadeh <AAbbaszadeh@btgrp.com>
Sent: Friday, December 12, 2014 5:09 PM
To: Keith_ Stackhouse
Cc: ModInspections; Bruno, Jerry (Contractor); Donahue, James (Vendor); SGS PMI; lccmods
Subject: RE: Newington 1 - 826217 - project#87581.005.01 - EOR approvals

Keith,

If the inspector confirms that all installations were according to the drawings and have no problem with the installation, we don't have an issue either. I am not sure what we can approve if we haven't seen anything here. This is honestly on the inspector and not us, as we are not part of the inspection. We will only come into the picture if there is any deviation from the design and we can look into approving the changes. Otherwise, inspector is the one to give you final approval here.

Thanks,
Ali Abbaszadeh, E.I.T., Project Engineer

1717 South Boulder Ave., Suite 300, Tulsa, Oklahoma 74119
O (918) 587-4630 x 169 + btgrp.com + aabbaszadeh@btgrp.com

From: Keith_ Stackhouse [mailto:keith_stackhouse@lcc.com]
Sent: Friday, December 12, 2014 3:36 PM
To: Ali Abbaszadeh
Cc: ModInspections; Bruno, Jerry (Contractor); Donahue, James (Vendor); SGS PMI; lccmods
Subject: RE: Newington 1 - 826217 - project#87581.005.01 - EOR approvals

Hello Ali,

The inspector was on site during the placement of the concrete; I need a waiver for not having pictures of the concrete going in the hole; for the MI inspector to accept the foundation report.

Thanks,

Keith A. Stackhouse

6.2.3 CONCRETE COMP. STRENGTH AND SLUMP TESTS

See Section 6.2.2 Foundation Inspection.

6.2.4 POST INSTALLED ANCHOR ROD VERIFICATION

6.2.5 BASE PLATE GROUT VERIFICATION

6.2.6 CONTRACTOR'S CERTIFIED WELD INSPECTION

Applied Testing Group, LLC
Quality Nondestructive Testing Solutions

11017 Mt. Charron Rd., NW
Huntsville, AL 35810

Phone: (256) 425-8975
daniel.irons11@att.net

December 10, 2014

Mr. Keith Stackhouse
LCC Deployment Services, Inc.
2500 Sylon Boulevard
Hainesport, New Jersey 08036

Subject: ATG Project No. 072-14, Final Examination Report, Monopole Reinforcement and Retrofit Project, Newington_1, BU# 826217, 240 Kensington Road, Berlin, Connecticut 06037

Dear Mr. Stackhouse:

We are pleased to submit two copies of our Final Examination Report for the above referenced project. These services were provided in accordance with our Master Subcontract Agreement dated June 20, 2014. We proceeded with our services based on both your purchase order and email authorization.

SCOPE OF SERVICES

We have reviewed or observed the pre, during, and post welding operations, and accomplished a 100% ultrasonic (UT) examination of the available base plate-to-pole shaft circumferential weld, a 100% visual (VT) and 50% magnetic particle (MT) examination of the ten new anchor bracket assembly and base plate extension welds, a 100% VT and 100% MT of the ten fabricated anchor bracket tube-to-plate welds, and a 100% VT and 50% MT test of the existing base plate welded connections, to evaluate their conformance with the applicable code requirements, project plans, and specifications.

The following services have not been provided by our firm: surveying for line and grade, cost estimates, review of design and contract documents, tests of material other than structural steel, and professional services not discussed herein.

WELDING, VISUAL MAGNETIC PARTICLE, AND ULTRASONIC OBSERVATIONS

AWS/Certified Welding Inspector and NDE II/III Technician personnel from our office reviewed or observed the pre, during, and post welding operations. We also accomplished a UT examination of the available base plate-to-pole shaft circumferential weld, a VT and MT examination of the ten new anchor bracket assembly and base plate extension welds, a VT and MT of the ten fabricated anchor bracket tube-to-plate welds, and a VT and MT test of the existing base plate welded connections, at the site between September 28, 2014 and December 08, 2014. The plans used were those prepared by the B & t Group, dated October 03 2013, and last updated on December 1, 2014.

WELDING, VISUAL, MAGNETIC PARTICLE, AND ULTRASONIC OBSERVATION RESULTS

The pre, during, and post welding operations, and the UT examination of the available base plate-to-pole shaft circumferential weld, the VT and MT examination of the ten new anchor bracket assembly and base

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Nondestructive Testing
Qualification and Certification Record

This is to certify that:

Name: Daniel Irons **Social Security Number:** 6010

Fully meets the requirements of ATG-NDE-QC-PQ-1 and is hereby certified in the method and the qualification level shown below:

NDT Method: PT

Certification Level : III **Date of Certification:** 03/15/2011

Certification Expiration Date: 03/14/2016

Test Scores:

Test	Grade	Administered By	Remarks
Basic:	90.0	T. Munson, P.E.	
Method:	88.0	T. Munson, P.E.	
Specific:	92.0	T. Munson, P.E.	
Practical	92.0	T. Munson, P.E.	
Composite:	90.5		

Limitations: Visible Solvent Dye, Visible & Fluorescent Water Washable, Visible & Fluorescent Solvent Dye

Recommended for certification by: Thomas S Munson, P.E. **Date:** 03/15/2011

Corporate Professional ASNT NDT Level III
ASNT File Number 9295

Certified by : Thomas S Munson P.E. **Date:** 03/15/2011

Corporate Professional ASNT NDT Level III
ASNT File Number 9295

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Nondestructive Testing
Qualification and Certification Record

This is to certify that:

Name: Daniel Irons **Social Security Number:** 6010

Fully meets the requirements of ATG-NDE-QC-PQ-1 and is hereby certified in the method and the qualification level shown below:

NDT Method: RT

Certification Level : III **Date of Certification:** 03/15/2011

Certification Expiration Date: 03/14/2016

Test Scores:

Test	Grade	Administered By	Remarks
Basic:	90.0	T. Munson, P.E.	
Method:	90.0	T. Munson, P.E.	
Specific:	94.0	T. Munson, P.E.	
Practical	96.0	T. Munson, P.E.	
Composite:	92.5		

Limitations: Conventional Film, Digital, Computed, Neutron

Recommended for certification by: Thomas B Munson, P.E. **Date:** 03/15/2011
Corporate Professional ASNT NDT Level III
ASNT File Number 9295

Certified by : Thomas B Munson, P.E. **Date:** 03/15/2011
Corporate Professional ASNT NDT Level III
ASNT File Number 9295

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PH: (256) 425-8975

Nondestructive Testing
Qualification and Certification Record

This is to certify that:

Name: Daniel Irons **Social Security Number:** 6010

Fully meets the requirements of ATG-NDE-QC-PQ-1 and is hereby certified in the method and the qualification level shown below:

NDT Method: MT

Certification Level : III **Date of Certification:** 03/14/2011

Certification Expiration Date: 03/13/2011

Test Scores:

Test	Grade	Administered By	Remarks
Basic:	90.0	T. Munson, P.E.	
Method:	88.0	T. Munson, P.E.	
Specific:	96.0	T. Munson, P.E.	
Practical	90.0	T. Munson, P.E.	
Composite:	91.0		

Limitations: Visible Dry, Fluorescent Wet

Recommended for certification by: Thomas J Munson, P.E. **Date:** 03/14/2011
Corporate Professional ASNT NDT Level III
ASNT File Number 9295

Certified by : Thomas J Munson, P.E. **Date:** 03/14/2011
Corporate Professional ASNT NDT Level III
ASNT File Number 9295

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PH: (256) 425-8975

Nondestructive Testing
Qualification and Certification Record

This is to certify that:

Name: Daniel Irons **Social Security Number:** 6010

Fully meets the requirements of ATG-NDE-QC-PQ-1 and is hereby certified in the method and the qualification level shown below:

NDT Method: BT

Certification Level : III **Date of Certification:** 03/17/2011

Certification Expiration Date: 03/16/2016

Test Scores:

Test	Grade	Administered By	Remarks
Basic:	90.0	T. Munson, P.E.	
Method:	96.0	T. Munson, P.E.	
Specific:	96.0	T. Munson, P.E.	
Practical	92.0	T. Munson, P.E.	
Composite:	93.5		

Limitations: Bubble Leak

Recommended for certification by: Thomas B Munson, P.E. **Date:** 03/17/2011

Corporate Professional ASNT NDT Level III
ASNT File Number 9295

Certified by : Thomas B Munson, P.E. **Date:** 03/17/2011

Corporate Professional ASNT NDT Level III
ASNT File Number 9295

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Nondestructive Testing
Qualification and Certification Record

This is to certify that:

Name: Daniel Irons **Social Security Number:** 6010

Fully meets the requirements of ATG-NDE-QC-PQ-1 and is hereby certified in the method and the qualification level shown below:

NDT Method: UT

Certification Level : III **Date of Certification:** 03/14/2011

Certification Expiration Date: 03/13/2016

Test Scores:

Test	Grade	Administered By	Remarks
Basic:	90.0	T. Munson, P.E.	
Method:	92.0	T. Munson, P.E.	
Specific:	96.0	T. Munson, P.E.	
Practical	92.0	T. Munson, P.E.	
Composite:	92.5		

Limitations: Contact, Immersion, Air Coupled

Recommended for certification by: Thomas S Munson, P.E. **Date:** 03/14/2011
Corporate Professional ASNT NDT Level III
ASNT File Number 9295

Certified by : Thomas S Munson, P.E. **Date:** 03/14/2011
Corporate Professional ASNT NDT Level III
ASNT File Number 9295

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HUNTSVILLE, ALABAMA 35810
PH: (256) 426-8975

VISUAL ACUITY RECORD

NAME : Daniel Irons **Social Security Number:** 6010

NEAR VISION: Required ☒ Not Required: ☐

	LEFT		RIGHT	
	Jaeger #	Distance	Jaeger #	Distance
UNCORRECTED				
CORRECTED	J-2	12"	J-2	12"

FAR VISION: Required: ☒ Not Required: ☐

	LEFT	RIGHT
UNCORRECTED		
CORRECTED	20/20	20/20

COLOR CONTRAST DIFFERENTIATION: **REQUIRED** ☒ **NOT REQUIRED** ☐

PSEUDO ISOCHROMATIC PLATES: **PASS** ☒**FAIL** ☐

BRIGHTNESS DISCRIMINATION: **PASS** ☒ **FAIL** ☐

Restrictions: Far Vision

Corrective Lenses Required: Yes ☒ No: ☐

Examiner: Thomas J Munroe Date: September 14, 2013

Expiration date of visual acuity examination: **Date:** **SEPTEMBER 14, 2014**

Applied Testing Group, LLC

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Huntsville, AL 35810
Phone: (256) 425-8975

Personnel Testing
Education, Training and Experience Record

WORK EXPERIENCE

Test Method	Level	Company	Total Months Exp.
Visual Testing	II	Applied Testing Group, LLC	41
	II	Mistras Services, Inc.	36
	II	Schnabel Engineering	44
	CWI	American Welding Society	181
Magnetic Particle	II	Applied Testing Group, LLC	42
	II	Mistras Services, Inc.	24
	II	Schnabel Engineering	22
Liquid Penetrant	II	Applied Testing Group, LLC	34
	II	Mistras Services, Inc.	24
	II	Schnabel Engineering	40
	II		
Radiographic	II	Mistras Services, Inc.	9
	II	Schnabel Engineering	14

Applied Testing Group, LLC
Quality Nondestructive Testing Solutions

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Huntsville, AL 35810
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Personnel Testing
Education, Training and Experience Record

Name: Lloyd J. Harper Signature:* L. J. Harper

Date of Birth: 06/10/1956 Date of Employment: 11/24/03

Training and Experience Through: July 1, 2014

- The information provided is accurate and true to the best of my knowledge.

EDUCATION

School	Location	Date Graduated	Degree/Major
Varina High School	Varina, VA	1984	Diploma/General Studies

CLASSROOM TRAINING

Subject	Training Hours	Dates Completed	Source/ Company
Liquid Penetrant Level I & II	40	2003	Schnabel
Magnetic Particle Level I & II	40	2002	Schnabel
Radiation Safety/Level I	49	2002	E. I. Dupont
Visual Testing – AWS	40	1993	AWS
Fundamental of Weld Engineering	40	1994	Ohio State U.
Liquid Penetrant Level I	12	1996	ASNT

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Phone: (256) 425-8975

Nondestructive Testing
Qualification and Certification Record

This is to certify that:

Name: Lloyd J. Harper **Social Security Number:** 9716

fully meets the requirements of NDE-QC-PQ-1 and is hereby certified in the method and the qualification level shown below:

NDT Method: Visual

Certification Level : II **Date of Certification:** 01/12/14

Certification Expiration Date: 02/26/2017

Test Scores:

Test	Grade	Administered By	Remarks
General:	95.0	T. Munson	
Specific:	100.0	T. Munson	
Practical	100.0	T. Munson	AWS-CWI
Composite:	98.3		

Recommended for certification by: Thomas B Munson **Date:** 01/10/14

Corporate Professional ASNT NDT Level III
ASNT File Number 9295

Certified by : Daniel Lyons **Date:** 01/12/14

NDE Manager

Applied Testing Group, LLC

11017 Mt. Charron Rd., NW
Huntsville, AL 35810
Phone: (256) 425-8975

Nondestructive Testing
Qualification and Certification Record

This is to certify that:

Name: Lloyd J. Harper **Social Security Number:** 9716

fully meets the requirements of NDE-QC-PQ-1 and is hereby certified in the method and the qualification level shown below:

NDT Method: Liquid Penetrant

Certification Level : II **Date of Certification:** 06/21/2014

Certification Expiration Date: 06/21/2017

Test Scores:

Test	Grade	Administered By	Remarks
General:	90.0	T. Munson	
Specific:	95.0	T. Munson	
Practical	95.0	T. Munson	
Composite:	96.3		

Recommended for certification by: Thomas J Munson **Date:** 06/20/2014

Corporate Professional ASNT NDT Level III
ASNT File Number 9295

Certified by : David Lowe **Date:** 06/21/2014

NDE Manager

Applied Testing Group, LLC
Quality Nondestructive Testing Solutions

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Huntsville, AL 35810
Phone: (256) 425-8975

Nondestructive Testing
Qualification and Certification Record

This is to certify that:

Name: Lloyd J. Harper **Social Security Number:** 9716

fully meets the requirements of NDE-QC-PQ-1 and is hereby certified in the method and the qualification level shown below:

NDT Method: Magnetic Particle

Certification Level : II **Date of Certification:** 06/28/14

Certification Expiration Date: 06/28/2017

Test Scores:

Test	Grade	Administered By	Remarks
General:	85.0	T. Munson	
Specific:	95.0	T. Munson	
Practical	95.0	T. Munson	
Composite:	91.6		

Limitations: None

Recommended for certification by: Thomas J Munson **Date:** 06/28/14

Corporate Professional ASNT NDT Level III
ASNT File Number 9295

Certified by : David Lions **Date:** 06/28/14

NDE Manager

Applied Testing Group, LLC

11017 Mt. Charron Rd., NW
Huntsville, AL 35810
Phone: (256) 425-8975

VISUAL ACUITY RECORD

NAME : Llyod J. Harper **Social Security Number:** 9716

NEAR VISION : Required ☒ Not Required: ☐

	LEFT		RIGHT	
	Jaeger #	Distance	Jaeger #	Distance
UNCORRECTED				
CORRECTED	J-2	12"	J-2	12"

FAR VISION: Required: ☐ Not Required: ☒

	LEFT	RIGHT
UNCORRECTED		
CORRECTED	20/20	20/20

COLOR CONTRAST DIFFERENTIATION: **REQUIRED** ☒ **NOT REQUIRED** ☐

PSEUDO ISOCHROMATIC PLATES: **PASS** ☒ **FAIL** ☐

BRIGHTNESS DISCRIMINATION: **PASS** ☒ **FAIL** ☐

Restrictions: None

Corrective Lenses Required: Yes ☒ No: ☐

Examiner: Thomas J Munson Date: November 4, 2013

Expiration date of visual acuity examination: **Date:** **NOVEMBER 4, 2014**

Certification QuikCheck

AWS's Free Online Certification Verification Service

Please enter a Certification number below, along with the last name of the inspector. This number can be found on a wallet card or wall certificate produced by the inspector. The search will return the certification number, a name, and an expiration date for that individual.

Certification was found

Cert. No.	Name	Expiration	Cert. Description
04030761	Lloyd J Harper	March 1, 2016	Certified Welding Inspector

Certification number 04030761

Last name harper

Go

Alternatively, you may search using the individual's information to view all certifications *(all fields are required)*:

Last Name

First Name or First Initial

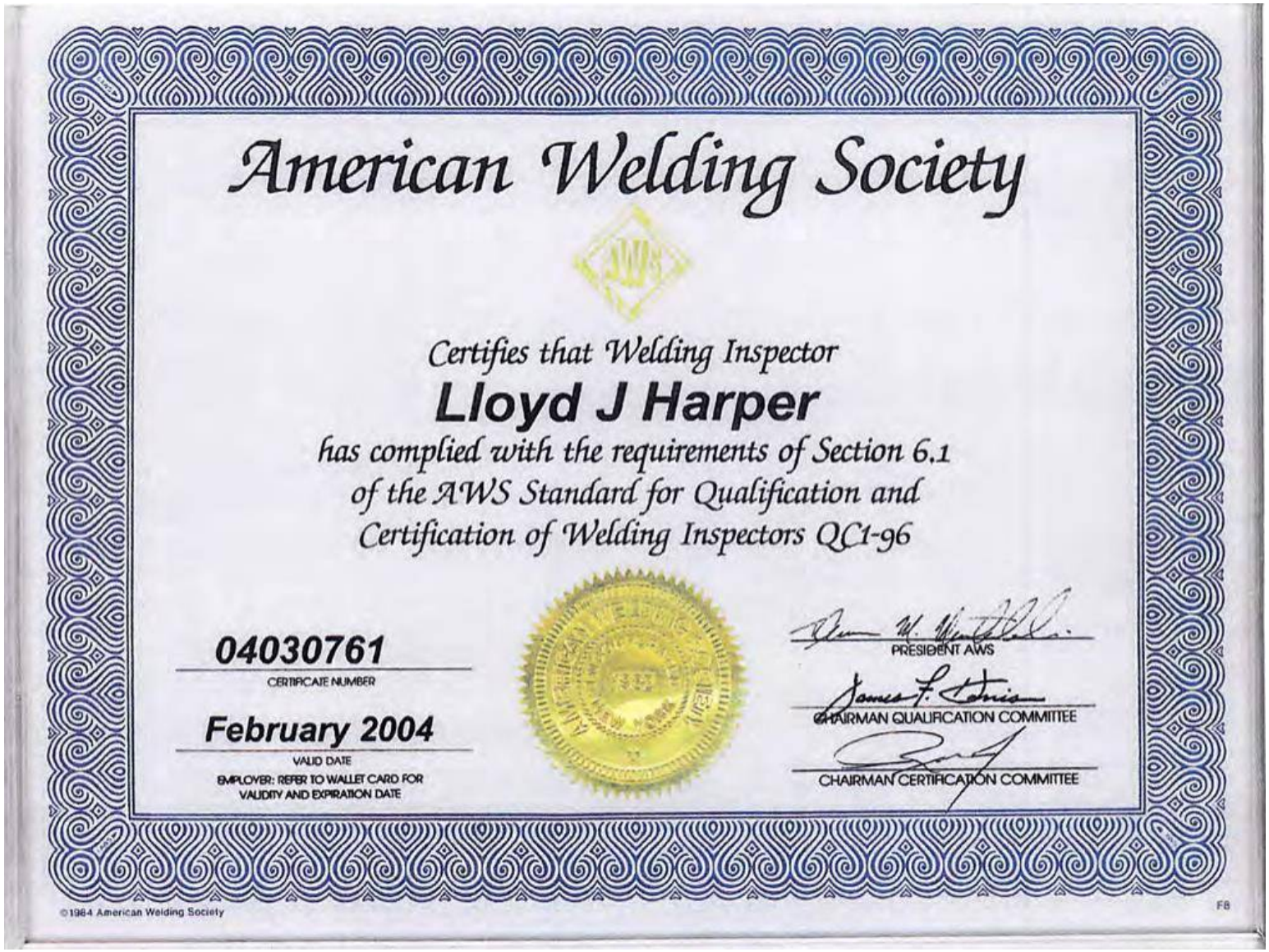
Birth Month / Day –select birth month– / –select birth day–

Search

AWS strongly suggests that the certification identity be verified with a government issued photo identification card, such as a driver's license.

How to interpret the Certification number to determine the level of certification:

Key
1 = CWI
2 = CAWI eligible for upgrade*
3 = cwi by upgrade*
4 = CAWI
5 = CWI through CWSIP
7 = CWI through Reciprocity
8 = SCWI
E = CWE
G = CWENG



American Welding Society

Certifies that Welding Inspector

Lloyd J Harper

has complied with the requirements of Section 6.1 of the AWS Standard for Qualification and Certification of Welding Inspectors QC1-96

04030761
CERTIFICATE NUMBER

February 2004
VALID DATE

EMPLOYER: REFER TO WALLET CARD FOR VALIDITY AND EXPIRATION DATE

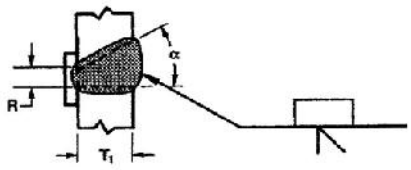
PRESIDENT AWS

CHAIRMAN QUALIFICATION COMMITTEE

CHAIRMAN CERTIFICATION COMMITTEE

F8

Single-bevel-groove weld (4)
Butt joint (B)



Tolerances	
As Detailed (see 3.13.1)	As Fit-Up (see 3.13.1)
R = +1/16, −0	+1/4, −1/16
α = +10°, −0°	+10°, −5°

Welding Process	Joint Designation	Base Metal Thickness (U = unlimited)		Groove Preparation		Permitted Welding Positions	Gas Shielding for FCAW
		T_1	T_2	Root Opening	Groove Angle		
SMAW	B-U4a	U	—	R = 1/4	α = 45°	All	—
				R = 3/8	α = 30°	All	—

MEMO

1. Paint will be abated by others prior to welding.
2. All welds will be welded vertically.
3. Welds to be cleaned free of slag.
4. All welds after cleaning will be brushed with (2) coats of ZRC Galvilite primer.
5. Finish coat to match existing.

Telecommunications Contracting Co., Inc.

Welding Procedure Specification

WPS No. 010 TCCI - D1.1 - BU4a Revision 0 Date 11/12/09 By Michael whelan

Authorized By Tom Roberts Date 11/13/09 Prequalified ☒

Welding Process(es) SMAW Type: Manual ☒ Machine ☐ Semi-Auto ☐ Auto ☐

Supporting PQR(s) N/A ProQualified

JOINT

Type B-U4a Single Bevel Groove

Backing Yes ☒ No ☐ Single Weld ☒ Double Weld ☐

Backing Material A572

Root Opening 1/4" Root Face Dimension 0

Groove Angle 45 Radius (J-U) N/A

Back Gouge Yes ☒ No ☒

Method

Prequalifed Joint Parameters:

See Page 2

BASE METALS

Material Spec. A572 to A572

Type or Grade 50 to 50

Thickness: Groove (in) 1" -

Fillet (in) -

Diameter (Pipe, in) N/A -

FILLER METALS

AWS Specification AWS A5.5

AWS Classification E8018-C3

SHIELDING

Flux N/A

Electrode-Flux (Class) N/A

Gas -

Composition -

Flow Rate -

Gas Cup Size -

PREHEAT

Preheat Temp., Min. 150 F Per AWS Table 3.2 Category C

Thickness Up to 3/4" Temperature

Over 3/4" to 1-1/2" 150 F

Over 1-1/2" to 2-1/2"

Over 2-1/2"

Interpass Temp., Min. 150 F Max. 300 F

POSITION

Position of Groove Horizontal Fillet Horizontal

Vertical Progression: ☒ Up ☐ Down

ELECTRICAL CHARACTERISTICS

Transfer Mode (GMAW):

Short-Circuiting ☐ Globular ☐ Spray ☐

Current: AC ☐ DCEP ☒ DCEN ☐ Pulsed ☐

Other

Tungsten Electrode (GTAW):

Size N/A Type N/A

TECHNIQUE

Stringer or Weave Bead Stringer

Multi-pass or Single Pass (per side) Multi-pass

Number of Electrodes 1

Electrode Spacing: Longitudinal N/A

Lateral N/A

Angle N/A

Contact Tube to Work Distance N/A

Peening None

Interpass Cleaning Wire Brush, Chip, or Grind

POSTWELD HEAT TREATMENT PWHT Required ☐

Temp. N/A Time N/A

WELDING PROCEDURE

Layer/Pass	Process	Filler Metal Class	Diameter	Cur. Type	Amps or WFS	Volts	Travel Speed	Other Notes
1 - 2	SMAW	E8018	1/8"	DCEP	110 - 140		6 -10 ipm	
3 - n	SMAW	E8018	5/32"	DCEP	150 - 187		8 -11 ipm	

Telecommunications Contracting Co., Inc.

Welding Procedure Specification

WPS No. 6 TCCI - D1.1 - All Fillets Revision 0 Date _____ By _____

Authorized By Tom Roberts Date 11/10/09 Prequalified ☒

Welding Process(es) SMAW Type: Manual ☒ Machine ☐ Semi-Auto ☐ Auto ☐

Supporting PQR(s) N/A ProQualified

JOINT

Type Lapped/Inside Corner 1/8" to 5/8" Fillet Welds

Backing Yes ☒ No ☒ Single Weld ☒ Double Weld ☐

Backing Material A572

Root Opening 0 Root Face Dimension 0

Groove Angle 0 Radius (J-U) 0

Back Gouge Yes ☒ No ☒

Method N/A

Prequalifed Joint Parameters:

See Page 2

BASE METALS

Material Spec. A572 to Per Table 3.1

Type or Grade Any Group II to Any Group II or III

Thickness: Groove (in) N/A -

Fillet (in) Various -

Diameter (Pipe, in) N/A -

FILLER METALS

AWS Specification AWS A5.1

AWS Classification E7018

SHIELDING

Flux N/A

Electrode-Flux (Class) N/A

Gas -

Composition -

Flow Rate -

Gas Cup Size -

PREHEAT

Preheat Temp., Min. Per AWS Table 3.2 Category B

Thickness	Temperature
Up to 3/4"	< 32 F - 70 F
Over 3/4" to 1-1/2"	50 F
Over 1-1/2" to 2-1/2"	150 F
Over 2-1/2"	225 F

Interpass Temp., Min. _____ Max. _____

POSITION

Position of Groove N/A Fillet Vertical Up

Vertical Progression: ☒ Up ☐ Down

ELECTRICAL CHARACTERISTICS

Transfer Mode (GMAW):

Short-Circuiting ☐ Globular ☐ Spray ☐

Current: AC ☐ DCEP ☒ DCEN ☐ Pulsed ☐

Other

Tungsten Electrode (GTAW):

Size N/A Type -

TECHNIQUE

Stringer or Weave Bead Stringer

Multi-pass or Single Pass (per side) Multi-pass

Number of Electrodes 1

Electrode Spacing: Longitudinal N/A

Lateral N/A

Angle N/A

Contact Tube to Work Distance N/A

Peening None

Interpass Cleaning Wire Brush, Chip, or Grind

POSTWELD HEAT TREATMENT PWHT Required ☐

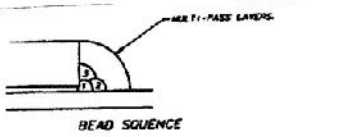
Temp. N/A Time N/A

WELDING PROCEDURE

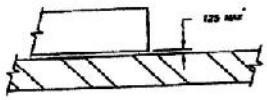
Layer/Pass	Process	Filler Metal Class	Diameter	Cur. Type	Amps or WFS	Volts	Travel Speed	Other Notes
1-n	SMAW	E7018	1/8"	DCEP	75 - 130	18-26	6 - 10 ipm	

Sketch A

Sketch B



Sketch C



MEMO

1. Paint will be abated by others prior to welding.
2. All welds will be welded vertically.
3. Welds to be cleaned free of slag.
4. All welds after cleaning will be brushed with (2) coats of ZRC Galvilite primer.
5. Finish coat to match existing.

WELDER, WELDING OPERATOR OR TACK WELDER QUALIFICATION TEST RECORD

Type of Process SMAW
Name Turner, Tarry Identification No. 3245
Welding Procedure Specification No. 031 Rev 0 Date 11/16/2013

Variable	Record Actual Values Used in Qualification	Qualification Range
Process/Type	SMAW	
Electrode (single or multiple)	Single	
Current/Polarity	DCEP	
Position	4-G	
Weld Progression	N/A	
Backing (YES or NO)	Yes ASTM A-148-73	
Material/Spec.	ASTM A-148-73 to ASTM A-148-73	
Base Metal Thickness: (Plate)	1"	1/8" To Unlimited
Groove		
Fillet	N/A	
Thickness: (Pipe/tube)	N/A	
Groove		
Fillet	N/A	
Diameter: (Pipe)	N/A	
Groove		
Fillet		
Filler Metal Spec. No.	ANSI/AWS A5-1	
Class	E11018	
F-No.	F-4	
Gas/Flux Type	N/A	
Other		

AWS QC 1 MARVIN L TYLER 94070891 CWI

Marvin L. Tyler

VISUAL INSPECTION
Acceptable YES or NO YES

Guided Bend Test Results

Type	Result	Type	Result
Side Bend (2)	Satisfactory		

FILLET TEST RESULTS

Appearance N/A Fillet Size N/A
Fracture Test Root Penetration N/A Macroetch N/A
(Describe the location, nature, and size of any crack or tearing of the specimen)

Inspected by Marvin L. Tyler (AWS-CWI) #94070891 Test Number 019
Organization TYLER ASSOCIATES, INC. Date 11/16/2013

RADIOGRAPHIC TEST RESULTS

Film Identification Number	Result	Remarks	Film Identification Number	Result	Remarks
RADIOGRAPHIC TEST N/A					

Interpreted by Test Number
Organization Date

We, the undersigned, certify that the statements in this record are correct and that the test welds were prepared, welded, and tested in accordance with the requirements of section 4, Part C of ANSI/AWS D1.1 Structural Welding Code-Steel 2010 Ed.

Manufacturer or contractor: Tyler Welding Lab, 110 Fairchild Downs Place, Cary, NC 27513 (919) 367-8872 tyweld@junc.com
Authorized by: Marvin Tyler (Welding Engineer & AWS QC-1 CWI) Certified Welding Inspector
Date 11/16/2013

WELDER, WELDING OPERATOR OR TACK WELDER QUALIFICATION TEST RECORD

Type of Process SMAW
Name Turner, Tarry Identification No 3241
Welding Procedure Specification No. 031 Rev 0 Date 11/16/2013

Variable	Record Actual Values Used in Qualification	Qualification Range
Process/Type	SMAW	
Electrode (single or multiple)	Single	
Current/Polarity	DCEP	
Position	3-G	
Weld Progression	Vertical-Up	
Backing (YES or NO)	Yes ASTM A-148-73	
Material/Spec.	ASTM A-148-73 to ASTM A-148-73	
Base Metal		
Thickness: (Plate)	1"	1/8" To Unlimited
Groove		
Fillet		
Thickness: (Pipe/tube)		
Groove	N/A	
Fillet	N/A	
Diameter: (Pipe)		
Groove	N/A	
Fillet	N/A	
Filler Metal		
Spec. No.	ANSI/AWS A5-1	
Class	E11018	
F-No.	F-4	
Gas/Flux Type	N/A	
Other		

AWS QC 1 MARVIN L. TYLER 94070891 CWI

Marvin L. Tyler

VISUAL INSPECTION
Acceptable YES or NO YES

Guided Bend Test Results

Type	Result	Type	Result
Side Bend (2)	Satisfactory		

FILLET TEST RESULTS

Appearance N/A Fillet Size N/A
Fracture Test Root Penetration N/A Macroetch N/A
(Describe the location, nature, and size of any crack or tearing of the specimen)

Inspected by Marvin L. Tyler (AWS-CWI) #94070891 Test Number 014
Organization TYLER ASSOCIATES, INC. Date 11/16/2013

RADIOGRAPHIC TEST RESULTS

Film Identification Number	Result	Remarks	Film Identification Number	Result	Remarks
RADIOGRAPHIC TEST N/A					

Interpreted by Test Number
Organization Date

We, the undersigned, certify that the statements in this record are correct and that the test welds were prepared, welded, and tested in accordance with the requirements of section 4, Part C of ANSI/AWS D1.1 Structural Welding Code-Steel 2010 Ed.

Manufacturer or contractor: Tyler Welding Lab. 110 Fairchild Downs Place, Cary, NC 27518 (919) 367-8872 tyweld@juno.com
Authorized by: Marvin Tyler (Welding Engineer & AWS QC-1 CWI) Certified Welding Inspector
Date 11/16/2013

RAMBALL TESTLAB, INC.
1703 INDUSTRIAL HIGHWAY - UNIT 3
CINNAMINSON, NJ 08077-2546
PHONE: (856) 786-8880 FAX: (856) 786-3144

LABORATORY REPORT

11/2/2012

Submitted to:
Telecommunications Contracting
2242 Old Marlton Pike
Marlton NJ 08053
ATTN:

P.O. Number: Verbal Tom
Lab Number: 332321
Page 1 of 1

Item: ¾" Thick Weld Test Plate
Material: Grade B
Material Specification: ASTM A514
Filler Material: E11018-M, AWS A5.5
Position: 4G Overhead
Process: SMAW
Welder: Erv Moore
PQR Number: 25.PQR.TecI.D.1-A5.5

WELD PROCEDURE QUALIFICATION TEST

IAW AWS D1.1

TRANSVERSE TENSILE TEST

Required Stress, ksi: 110-130 minimum/maximum

	SPECIMEN #1	SPECIMEN #2
WIDTH (inches):	0.752	0.749
THICKNESS (inches):	0.920	0.850
AREA (sq. inches):	0.692	0.637
ULTIMATE LOAD (lbs):	77,723	70,678
ULTIMATE STRESS (ksi):	112	111
LOCATION OF FRACTURE:	Weld	Weld
CHARACTER OF FAILURE:	Ductile	Ductile
DISPOSITION:	Acceptable	Acceptable

GUIDED BEND TEST

Bend Diameter: 2-1/2" Bend Angle: 180 Degrees

	SPECIMEN #1	SPECIMEN #2	SPECIMEN #3	SPECIMEN #4
TYPE:	Side	Side	Side	Side
DEFECTS:	Absent	Absent	Absent	Absent
DISPOSITION:	Acceptable	Acceptable	Acceptable	Acceptable

Joel Muzik
Quality Manager

RAMBALL TESTLAB, INC.
1703 INDUSTRIAL HIGHWAY - UNIT 3
CINNAMINSON, NJ 08077-2546
PHONE: (856) 786-8880 FAX: (856) 786-3144

LABORATORY REPORT

Submitted to:
Telecommunications Contracting
2242 Old Marlton Pike
Marlton NJ 08053
ATTN:

11/2/2012

P.O. Number: Verbal Tom Roberts
Lab Number: 332320
Page 1 of 1

Item: 1" Thick Weld Test Plate
Material: Grade B
Material Specification: ASTM A514
Filler Material: E11018-M, AWS A5.5
Position: 4G
Process: SMAW
Welder: Erv Moore
PQR Number: 25.PQR.TccI.D.1-A5.5
Note: Visual Inspection Required. State Visual acceptance per AWS D1.1

VISUAL INSPECTION

Test Specification: AWS D1.1

Disposition: Acceptable

RADIOGRAPHIC INSPECTION

Test Specification: AWS D1.1

QUANTITY TESTED	QUANTITY ACCEPTED	QUANTITY REJECTED
1	1	0

Disposition: Acceptable

Tested By: Donahue, B. Level II

Joel Muzik
Quality Manager

RAMBALL TESTLAB, INC.
1703 INDUSTRIAL HIGHWAY - UNIT 3
CINNAMINSON, NJ 08077-2546
PHONE: (856) 786-8880 FAX: (856) 786-3144

LABORATORY REPORT

Submitted to:
Telecommunications Contracting
2242 Old Marlton Pike
Marlton NJ 08053
ATTN:

11/2/2012

P.O. Number: Verbal Tom
Lab Number: 332319
Page 1 of 1

Item: 1" Thick Weld Test Plate
Material: Grade B
Material Specification: ASTM A514
Filler Material: E11018-M, AWS A5.5
Position: 3G Vertical
Process: SMAW
Welder: Erv Moore
PQR Number: 25.PQR.TecI.D.1-A5.5

WELD PROCEDURE QUALIFICATION TEST

IAW AWS D1.1

TRANSVERSE TENSILE TEST

Required Stress, ksi: 110-130 minimum/maximum

	SPECIMEN #1	SPECIMEN #2
WIDTH (inches):	0.754	0.755
THICKNESS (inches):	0.930	0.975
AREA (sq. inches):	0.701	0.736
ULTIMATE LOAD (lbs):	79,816	82,757
ULTIMATE STRESS (ksi):	114	112
LOCATION OF FRACTURE:	Weld	Weld
CHARACTER OF FAILURE:	Ductile	Ductile
DISPOSITION:	Acceptable	Acceptable

GUIDED BEND TEST

Bend Diameter: 2-1/2" Bend Angle: 180 Degrees

	SPECIMEN #1	SPECIMEN #2	SPECIMEN #3	SPECIMEN #4
TYPE:	Side	Side	Side	Side
DEFECTS:	Absent	Absent	Absent	Absent
DISPOSITION:	Acceptable	Acceptable	Acceptable	Acceptable

Joel Muzik
Quality Manager

We certify that the above results are correct as contained in the records of this company. This report shall not be reproduced, except in full, without the permission of Ramball Testlab, Inc. Testing is performed in accordance with the appropriate method identified in the above listed product or material specification. The method of testing is performed in accordance with the current revision at the time of test, unless otherwise specified. The recording of false, fictitious or fraudulent statements or entries on this document may be punishable under federal statutes including Federal Law, Title 18, Chapter 47. We are an ISO 17025 Accredited Laboratory, by multiple agencies. Testing and or inspections were performed in accordance with Ramball Testlab Quality Manual Rev. 12. A2LA Certificate Number: 142.01. During test and inspections this product did not come in direct contact with mercury or any of its compounds, nor with any mercury-containing device employing a single boundary of containment.

RAMBALL TESTLAB, INC.
1703 INDUSTRIAL HIGHWAY - UNIT 3
CINNAMINSON, NJ 08077-2546
PHONE: (856) 786-8880 FAX: (856) 786-3144

LABORATORY REPORT

Submitted to:
Telecommunications Contracting
2242 Old Marlton Pike
Marlton NJ 08053
ATTN:

11/2/2012

P.O. Number: Verbal Tom Roberts
Lab Number: 332318
Page 1 of 1

Item: 1" Thick Weld Test Plate
Material: Grade B
Material Specification: ASTM A514
Filler Material: E11018-M, AWS A5.5
Position: 3G Vertical
Process: SMAW
Welder: Erv Moore
PQR Number: 25.PQR.TecI.D.1-A5.5
Note: Visual Inspection Required. State Visual acceptance per AWS D1.1

VISUAL INSPECTION

Test Specification: AWS D1.1
Disposition: Acceptable

RADIOGRAPHIC INSPECTION

Test Specification: AWS D1.1

QUANTITY TESTED	QUANTITY ACCEPTED	QUANTITY REJECTED
1	1	0

Disposition: Acceptable

Tested By: Donahue, B. Level II

Joel Muzik
Quality Manager

RAMBALL TESTLAB, INC.

1703 INDUSTRIAL HIGHWAY - UNIT 3
CINNAMINSON, NJ 08077-2546
PHONE: (856) 786-8880 FAX: (856) 786-3144

LABORATORY REPORT

Submitted to:
Telecommunications Contracting
2242 Old Marlton Pike
Marlton NJ 08053
ATTN: Tom Roberts

1/7/2013

P.O. Number: Verbal T. Roberts
Lab Number: 333151
Page 1 of 1

Item: 1" Thick Weld Test Plate
Material: A514 to A572 Gr.65
Heat Number: 88778 to 88776
Welder: Erv Moore
Filler Metal: E8018
Weld Process: SMAW
Weld Position: 3G
PQR: 25.PQR.TccI.D.1-A5.5

VISUAL INSPECTION

Test Specification: AWS D1.1
Disposition: Acceptable

RADIOGRAPHIC INSPECTION

Acceptance Specification: AWS D1.1

QUANTITY TESTED	QUANTITY ACCEPTED	QUANTITY REJECTED
1	1	0

Tested By: Donahue, B. Level II

Joel Muzik
Quality Manager

RAMBALL TESTLAB, INC.

1703 INDUSTRIAL HIGHWAY - UNIT 3
CINNAMINSON, NJ 08077-2546
PHONE: (856) 786-8880 FAX: (856) 786-3144

LABORATORY REPORT

Submitted to:
Telecommunications Contracting
2242 Old Marlton Pike
Marlton NJ 08053
ATTN: Tom Roberts

1/7/2013

P.O. Number: Verbal T. Roberts
Lab Number: 333149
Page 1 of 1

Item: 1" Thick Weld Test Plate
Material: A514 to A572 Gr.65
Heat Number: 88778 to 88776
Welder: Erv Moore
Filler Metal: E8018
Weld Process: SMAW
Weld Position: 4G
PQR: 25.PQR.TccI.D.1-A5.5

VISUAL INSPECTION

Test Specification: AWS D1.1
Disposition: Acceptable

RADIOGRAPHIC INSPECTION

Acceptance Specification: AWS D1.1

QUANTITY TESTED	QUANTITY ACCEPTED	QUANTITY REJECTED
1	1	0

Tested By: Donahue, B. Level II

Joel Muzik
Quality Manager

AWS
Welder and Welding Operator Qualification Test Record

Welder or operator's name Ervin Moore Identification no. 231-72-5884
Welding process SMAW Manual X Semiautomatic Machine
Position F3 Vertical Up
(flat, horizontal, overhead or vertical--if vertical, state whether upward or downward)
In accordance with procedure specification AWS D1.1 Pre qualified Telcom-SM1
Material specification ASTM A36
Diameter and wall thickness (if pipe) - otherwise, joint thickness 1/2"in. Plate
Thickness range this qualifies 1/8- Unlimited.

FILLER METAL

Specification no. AWS 5.1 Classification E7018 F no. F4
Describe filler metal (if not covered by AWS specification)
Is backing strip used? N/A
Filler metal diameter and trade name 1/8"Lincoln Flux for submerged arc or gas for gas metal arc or flux cored arc welding N/A

VISUAL INSPECTION (9.25.1)

Appearance Good Undercut None Piping porosity None

Guided Bent Test Results

Type	Result	Type	Result

Test conducted by laboratory test no
per Test date

Fillet Test Results

Appearance Acceptable Fillet size 5/16" inch
Fracture test root penetration Acceptable Marcoeth Acceptable
(describe the location, nature, and size of any crack or tearing of the specimen.)
Test conducted by D. Preston CWI Laboratory test no. 5884
per AWS D1.1 2000 4.25 Test date 5/9/07

RADIOGRAPHIC TEST RESULTS

Film identification	Results	Remarks	Film identification	Results	Remarks

Test witnessed by Test no.
per
We, the undersigned, certify that the statements in this record are correct and that the welds were prepared and tested in accordance with the requirements of 5C or D of AWS D1.1 (2000) Structural Welding Code.
year

Dale Preston AWS CWI

AWS QC 1 DALE W. PRESTON 85011051 CWI

Manufacturer or Contractor Telecommunications Contracting Co.
Authorized by T. Roberts.
Date 5/9/07

AWS
Welder and Welding Operator Qualification Test Record

Welder or operator's name Ervin Moore Identification no. 231-72-5884
Welding process SMAW Manual X Semiautomatic Machine
Position F4 Overhead
(flat, horizontal, overhead or vertical--if vertical, state whether upward or downward)
In accordance with procedure specification AWS D1.1 Pre qualified Telcom-SM1
Material specification ASTM A36
Diameter and wall thickness (if pipe) - otherwise, joint thickness 1/2"in. Plate
Thickness range this qualifies 1/8- Unlimited.

FILLER METAL

Specification no. AWS 5.1 Classification E7018 F no. F4
Describe filler metal (if not covered by AWS specification)
Is backing strip used? N/A
Filler metal diameter and trade name 1/8"Lincoln Flux for submerged arc or gas for gas metal arc or flux cored arc welding N/A

VISUAL INSPECTION (9.25.1)

Appearance Good Undercut None Piping porosity None

Guided Bent Test Results

Type	Result	Type	Result

Test conducted by laboratory test no
per Test date

Fillet Test Results

Appearance Acceptable Fillet size 5/16" inch
Fracture test root penetration Acceptable Marcoeth .Acceptable
(describe the location, nature, and size of any crack or tearing of the specimen.)
Test conducted by D. Preston CWI Laboratory test no. 5884 - oh
per AWS D1.1 2000 4.25 Test date 5/9/07

RADIOGRAPHIC TEST RESULTS

Film identification	Results	Remarks	Film identification	Results	Remarks

Test witnessed by Test no.
per

We, the undersigned, certify that the statements in this record are correct and that the welds were prepared and tested in accordance with the requirements of 5C or D of AWS D1.1 (2000) Structural Welding Code.
year

Dale Preston AWS CWI

AWS QC 1 DALE W. PRESTON 05041051 CWI

Manufacturer or Contractor Telecommunications Contracting Co.
Authorized by T. Roberts.
Date 5/9/07

Applied Testing Group, LLC
Quality Nondestructive Testing Solutions

11017 Mt. Charron Rd., NW
Huntsville, AL 35810
Phone: (256) 425-8975

Project: Newington_1	Site #: 826217	Job No: ATG-072-14	Date: 12-08-14
REMARKS AND/OR DISCREPANCIES:			

Notes:

On December 08, 2013, Applied Testing Group LLC, performed a visual examination of the installation ten new anchor bracket assembly-to-pole shaft and base plate extension, fabrication of ten new anchor bracket tube-to-plate, and installation of the existing base plate welded connections, located at 240 Kensington Road, Berlin, CT. The pre, during, and post welding operations were noted to be acceptable in accordance with the applicable requirements delineated in ANSI/AWS D1.1:2010.

The following were examined:

1) Installation of ten new anchor bracket assembly-to-pole shaft and base plate connections at the base elevation.
2) Fabrication of ten new anchor bracket tube-to-plate welded connections.
3) Installation of existing base plate welded connections at the base elevation.

The welds were acceptable in accordance with ANSI/AWS D1.1:2010 and the project plans/specifications. Cold galvanizing paint has been acceptably applied to all exterior locations.

PLANS USED:

Title(s): B & T Group	Date: 10-03-13	As-Built Date:	12-01-14
Drawing No(s): S1 to S14, D1			
Visit Requested by: Keith Stackhouse	Title: Project Manager – : LCC Deployment Services, Inc.		

Examined By: L. John Harper, AWS/CWI-NDE Level II	**Date:** December 08, 2014
Reviewed By: Daniel Irons, NDE Level III D. Irons	**Date:** December 08, 2014

NOTE: We, the above signed, have evaluated the above referenced welded connections, and to the best of our knowledge, state that the information in this record is accurate. This examination report reflects the actual NDE procedure that was conducted by Applied Testing Group, LLC. Submission of this report is for informational purposes and does not reflect any guarantee of the part, inspection procedures, or standards, and is subject to the limitations of each test method.

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VISUAL OBSERVATION REPORT

Client: : LCC Deployment Services, Inc.		**Project:** Newington_1	**Site#:** 826217
Project Location: 240 Kensington Road, Berlin, CT		**ATG Technician:** L. Harper	**Date:** 12-08-14
Time In: 7:30 a.m.	**Time Out**: 3:30 p.m.	**Job No:** ATG-072-14	**B&T Ref. #:** 87581.005.01

FIELD OBSERVATIONS

☒	**New Anchor Bracket Connections:**	Location	Acceptable
	Installation of ten new anchor bracket assembly-to-pole shaft and base plate	Plate Size	Acceptable
	extension welded connections at the base elevation.	Welds Correct Size	Acceptable
		Welds Correct Length	Acceptable
	☒ Acceptable ☐Unacceptable ☒ See note: 1		
☒	**Fabricated Anchor Bracket Connections:**	Location	Acceptable
	Fabrication of ten new anchor bracket tube-to-plate welded connections.	Plate Size	Acceptable
		Welds Correct Size	Acceptable
		Welds Correct Length	Acceptable
	☒ Acceptable ☐Unacceptable ☒ See note: 2		
☐	**Base Plate-to-Pole Shaft Circumferential Welded Connections:**	Beams Correct Size	
		Locations / Orientation	
		Welds Correct Size	
		Welds Correct Length	
	☐ Acceptable ☐Unacceptable ☐ See note:		
☐	**Bridge Stiffener Welded Connections:**	Location	
		Plate Size	
		Welds Correct Size	
		Welds Correct Length	
	☐ Acceptable ☐Unacceptable ☐ See note:		
☒	**Existing Base Plate Welded Connections:**	Location	Acceptable
	Installation of existing base plate welded connections at the base elevation.	Plate Size	Acceptable
		Welds Correct Size	Acceptable
		Welds Correct Length	Acceptable
	☒ Acceptable ☐Unacceptable ☒ See note: 3		
☐	**New Reinforcing Plate-to-Pole Shaft Welded Connections:**	Location	
		Plate Size	
		Welds Correct Size	
		Welds Correct Length	
	☐ Acceptable ☐Unacceptable ☐ See note:		
☒	**Other:**		
	The pre, during, and post welding operations were observed to be acceptable in accordance with the applicable		
	requirements delineated in ANSI/AWS D1.1:2010.		
	☒ Acceptable ☐Unacceptable		

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ULTRASONIC CALIBRATION REPORT

Client: LCC Deployment Services, Inc.			**Project**: Newington_1			**BU#**: 826217
Location/Area: 240 Kensington Road, Berlin, CT			**Component(s)**: Tower-to-Base Plate Weld			
Time In: 7:50 a.m.	**Time Out**: 12:50 p.m.		**Job No.**: ATG-072-14	**B & T Reference #**: 87581.005.01		
ITEM:	☒ Weld(s)	☐ Structural	☐ Casting(s)	☐ Pipe(s)	☒ Plate(s)	
	☐ Machinery	☐ Machined Part	☒ Other: Tower-to-Base Plate Weld			
Material:	**Size**	**No. of Pieces**	**Base Metal**	**Process/Filler Metal**	**Weld Condition:**	
Carbon Steel	0.625"	(1)	A572 Gr. 65	E 8018	☒As Welded ☐Ground	
Acceptance Standard: ANSI/AWS D1.1: 2010 Edition			**Procedure:** AWS-UT-1, Rev. 1			
Type of Inspection Method	☒ Soundness	☐Thickness	**UT Equipment Name/Model/Serial No.:** KrautKramer Branson / USK-7 / SER# 27276-3260			
	☒Angle Beam	☐ Bond	**Straight Beam:** **Transducer**: GE Gamma RPH **Size**: .500" Diameter **Frequency**: 2.25 MHz **Serial No.** 022L3D	**Angle Beam:** **Transducer**: GE Gamma **Size**: .375" Diameter **Frequency**: 2.25 MHz **Serial No.** 00P1CV		
	☐ Other:		**Transducer Type:** ☒ Single ☐ Dual ☐ Delay	**Wedge Angle(s):** ☒ 60 Degree S/N W-300 ☒ 70 Degree S/N W-223		
Reference Block : ☒ DSC ☐ IIW ☐ Other :	**Reference Block No.:** 97-8116	**Material:** Carbon Steel	**Calibration Block Type:** DSC **Diameter:** N/A	**Calibration Block No.:** 97-8116	**Material:** C/S - 1.0"	
Screen Size: ☐ 2.5" ☒ 5" ☐ 10" ☐ Other:	**Reference Gain:** 42.0 dB – 60 Degree 46.0 dB – 70Degree	**Scanning Gain:** ☐ +6db ☒ Other: 14dB	**Initial Calibration Time:** 7:50 a.m.	**Calibration Rechecks:** 1) 12:50 pm 2) 3) 4)	**Couplant:** Ultragel II, Batch # 25-004/10125E	

EXAMINATION SUMMARY:

Acceptable. See "notes" on UTR-001 for details.

Examined By: Daniel Irons, Level III D. Irons	**Date:** September 28, 2014
Reviewed By: L.J. Harper, CWI/Level II 9/2014	**Date:** September 28, 2014

Cal. Sheet No. : UTC - 001
Indication Report No(s). : UTR – 001

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REPORT OF ULTRASONIC TESTING OF WELDS

Client: : LCC Deployment Services, Inc.	**Project:** Newington_1	**Job No.:** ATG-072-14	**BU#:** 826217
Location: 240 Kensington Road, Berlin, CT	**Area:** Tower-to-Base Plate Weld	**Report No:** UTR-001	

WELD IDENTIFICATION:	Full Penetration Tower-to-Base Plate Circumferential Weld
MATERIAL THICKNESS:	0.625"
WELD JOINT AWS:	T/C
WELDING PROCESS:	SMAW
QUALITY REQUIREMENTS	ANSI/ AWS D1.1: 2010
REMARKS:	All dimensions are expressed in inches.
NOTES:	100% of available surface areas examined

FLAT NO./ LOCATION	INDICATION NUMBER	TRANSDUCER ANGLE	FROM FACE / SURFACE	LEG*	DECIBELS				DISCONTINUITY					ACCEPTABLE	REJECTABLE	REMARKS
					INDICATION LEVEL	REFERENCE LEVEL	ATTENUATION FACTOR	INDICATION RATING	LENGTH	ANGULAR DISTANCE (SOUND PATH)	DEPTH FROM SURFACE "A"	DISTANCE				
					A	B	C	D				FROM X	FROM Y			
100% of available surface area scanned	-	60/ 70	A	-	-	42 46	-	-	-	-	-	-	-	X		ACCEPTABLE

NOTE:

An ultrasonic examination of 100% of the available existing full penetration tower-to-base plate circumferential welded connection was conducted. The subject weld proved to be acceptable in accordance with the applicable acceptance criteria as set forth in ANSI/AWS D1.1: 2010- *Structural Welding Code – Steel,* and the project plans and specifications, as we understand them.

Examined By: Daniel Irons, Level III D. Irons	**Date:** September 28, 2014
Reviewed By: L.J. Harper, CWI/Level II	**Date:** September 28, 2014

LLOYD J. HARPER
04050761
CWI

NOTE: We, the above signed, have evaluated the above referenced welded connections, and to the best of our knowledge, state that the information in this record is accurate. This examination report reflects the actual NDE procedure that was conducted by Applied Testing Group, LLC. Submission of this report is for informational purposes and does not reflect any guarantee of the part, inspection procedures, or standards, and is subject to the limitations of each test method.

Applied Testing Group, LLC
Quality Nondestructive Testing Solutions

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MAGNETIC-PARTICLE EXMAINATION REPORT

Client: LCC Deployment Services, Inc. **Project:** Newington_1 **ATG No:** 072-14
Location: 240 Kensington Road, Berlin, CT **Area:** Various Welds (see below) **BU/Site#:** 826217

WELD LOCATION AND IDENTIFICATION SKETCH

Component/Weld Identification	Area Examined		Interpretation		Repairs		Remarks
	Entire	Specific	Accept	Reject	Accept	Reject	
Existing base plate welds - 50%		X	X		N/A	N/A	ACCEPTABLE
Ten fabricated anchor bracket tube-to-plate welds – 100%	X		X		N/A	N/A	ACCEPTABLE
Ten new anchor bracket assembly welds – 50%		X	X		N/A	N/A	ACCEPTABLE

PRE-EXAMINATION:
Surface Preparation: Wire Brush

EQUIPMENT:
Instrument Make: Parker Research Corp. **Model:** DA-400 **Serial No:** 13018
Powder Manufacturer: Parker Research Corp. **Description:** RP6 Red Powder **Batch No:** 17209

METHOD OF INSPECTION:

☒Dry ☐Wet ☒Visible ☐Fluorescent

How Media Applied: Manual Dusting, Magnetic Powder Blower

☐Residual ☒Continuous ☐True-Continuous
☐AC ☒DC ☐Half-Wave
☐Prods ☒Yoke ☐Cable Wrap ☐Other: _____

Direction for Field: ☒ Longitudinal ☐ Circular ☐ Other: _____

Strength of Field: Verified with pie gauge, varying intensity

POST EXAMINATION:
Demagnetizing Technique (if required): N/A
Cleaning (if required): Wipe **Coating Method :** Manual, CRC Zinc

We, the undersigned, certify that the statements in this record are correct, and that the test welds were prepared and tested in accordance with the requirements of ANSI/AWS D1.1 2010.

Inspector / Level: L. John Harper, CWI/NDE Level II Date: 12/08/2014

Reviewed by: Daniel Irons, NDE Level III Date: 12/08/2014

QC I
LLOYD J. HARPER
04050761
CWI

NOTICE: THIS EXAMINATION REPORT REFLECTS THE ACTUAL NDE PROCEDURE THAT WAS CONDUCTED BY APPLIED TESTING GROUP, LLC PERSONNEL. SUBMISSION OF THIS REPORT IS FOR INFORMATIONAL PURPOSES AND DOES NOT REFLECT ANY GUARANTEE OF THE PART, INSPECTION PROCEDURES, OR STANDARDS AND IS SUBJECT TO THE LIMITATIONS OF EACH TEST METHOD

plate extension welds, the VT and MT of the ten fabricated anchor bracket tube-to-plate welds, and the VT and MT test of the existing base plate welded connections, were in conformance with the applicable requirements delineated in ANSI/AWS D 1.1:2010-*Stuctural Steel Code*, and the project plans and specifications, as we understand them. Refer to the appended Visual Observation Reports, Welder Certifications, Ultrasonic Calibration Report, Ultrasonic Testing of Welds Report, Magnetic Particle Observation Report, Welding Procedure Specifications, CWI/NDE Certifications, and supporting photographs for particulars.

Discrepancies noted between the plans and specifications or code requirements, and the as-built construction observed in the conduct of the welding and structural steel observations were brought to the attention of the contractor. According to our records, all of the noted discrepancies have been corrected in the field in accordance with the project plans and specifications.

We have endeavored to complete the services identified herein in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality and under similar conditions as this project. No other representation, express or implied, is included or intended, and no warranty or guarantee is included or intended in this agreement, or any report, opinion, document, or other instrument of service.

We are pleased to be of service to you on this project. If you have any questions concerning this report, do not hesitate to contact either of the undersigned.

Very truly yours,

APPLIED TESTING GROUP, LLC.

L. John Harper, CWI/NDE Level II
Senior Staff Technologist

Daniel Irons, NDE Level III
Principal

Appended: Visual Observation Reports (1)
Magnetic Particle Observation Report (1)
Ultrasonic Calibration Reports (1)
Ultrasonic Testing of Welds Report (1)
Welding Procedures (2)
Welder Certifications (2)
CWI/NDE Certifications (2)
Photographs (31)

DI:lb

Applied Testing Group, LLC
Quality Nondestructive Testing Services

11017 MT. CHARRON RD., NW
HUNTSVILLE, ALABAMA 35810
PH: (256) 425-8975

Nondestructive Testing
Qualification and Certification Record

This is to certify that:

Name: Daniel Irons **Social Security Number:** 6010

Fully meets the requirements of ATG-NDE-QC-PQ-1 and is hereby certified in the method and the qualification level shown below:

NDT Method: MT

Certification Level : III **Date of Certification:** 03/14/2011

Certification Expiration Date: 03/13/2011

Test Scores:

Test	Grade	Administered By	Remarks
Basic:	90.0	T. Munson, P.E.	
Method:	88.0	T. Munson, P.E.	
Specific:	96.0	T. Munson, P.E.	
Practical	90.0	T. Munson, P.E.	
Composite:	91.0		

Limitations: Visible Dry, Fluorescent Wet

Recommended for certification by: Thomas J Munson, P.E. **Date:** 03/14/2011
Corporate Professional ASNT NDT Level III
ASNT File Number 9295

Certified by : Thomas J Munson, P.E. **Date:** 03/14/2011
Corporate Professional ASNT NDT Level III
ASNT File Number 9295












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DigiRod II


Miller
Trailblazer 3
ON







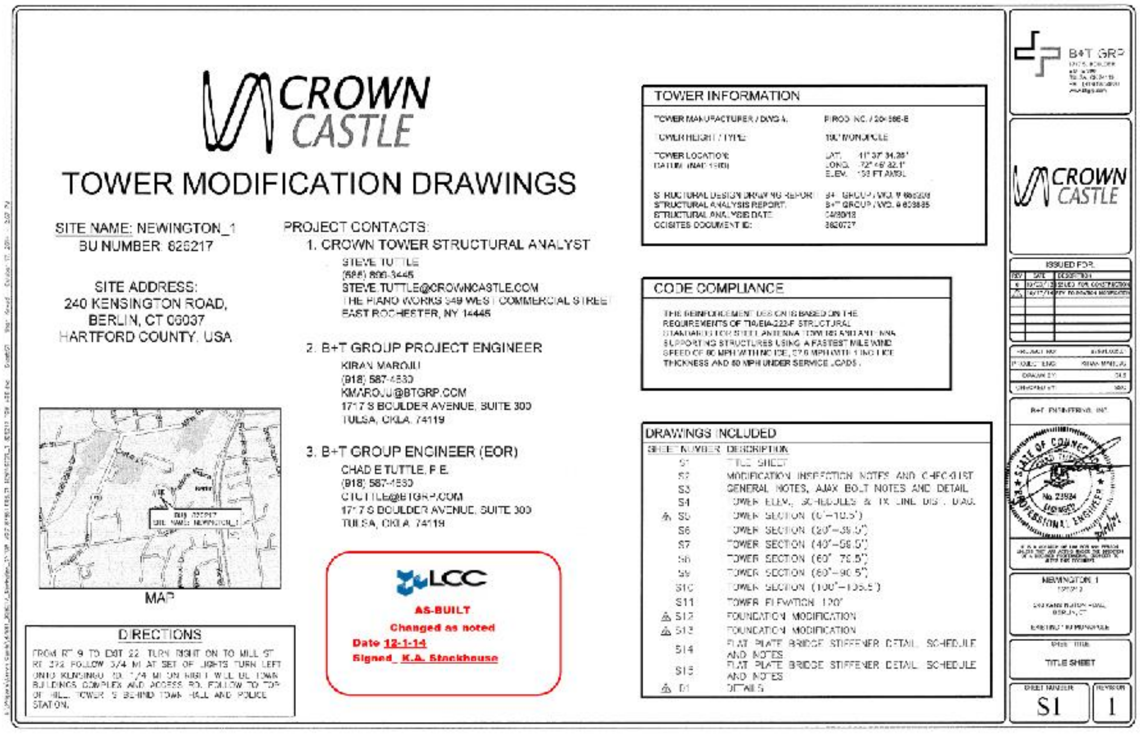
b

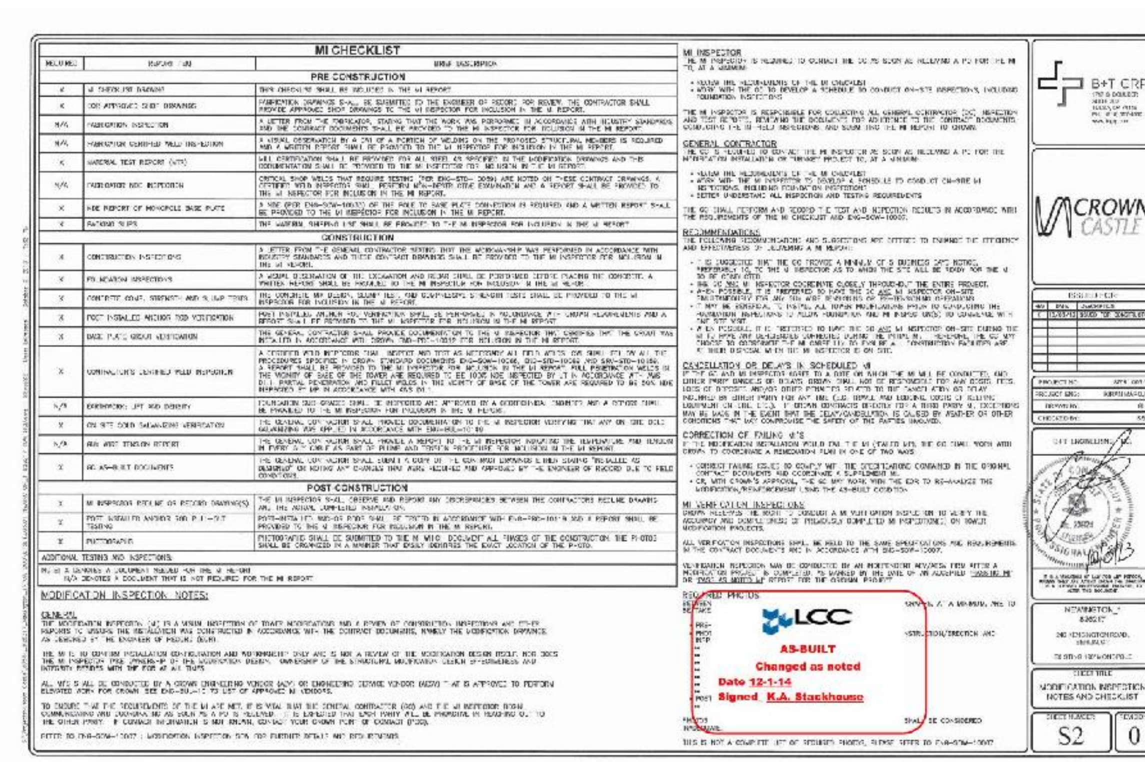

a

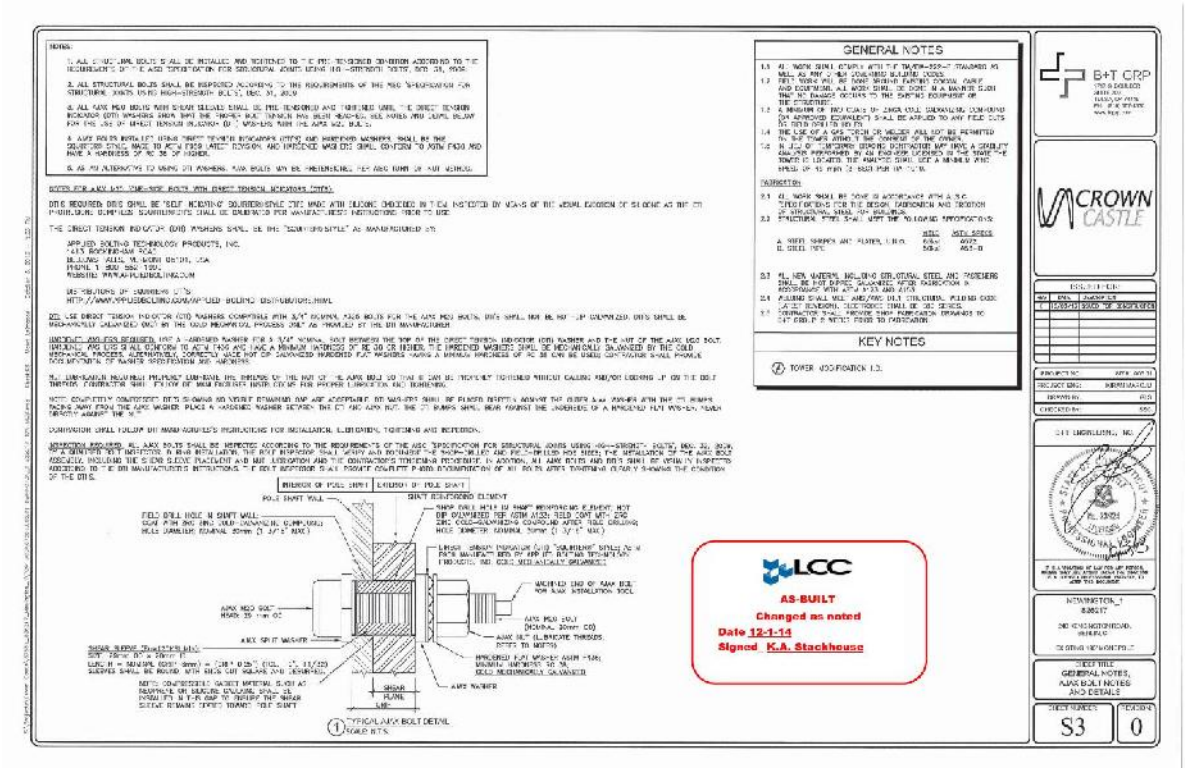

12

6.2.7 ON SITE COLD GALVANIZING VERIFICATION

6.2.8 GC AS-BUILT DOCUMENTS



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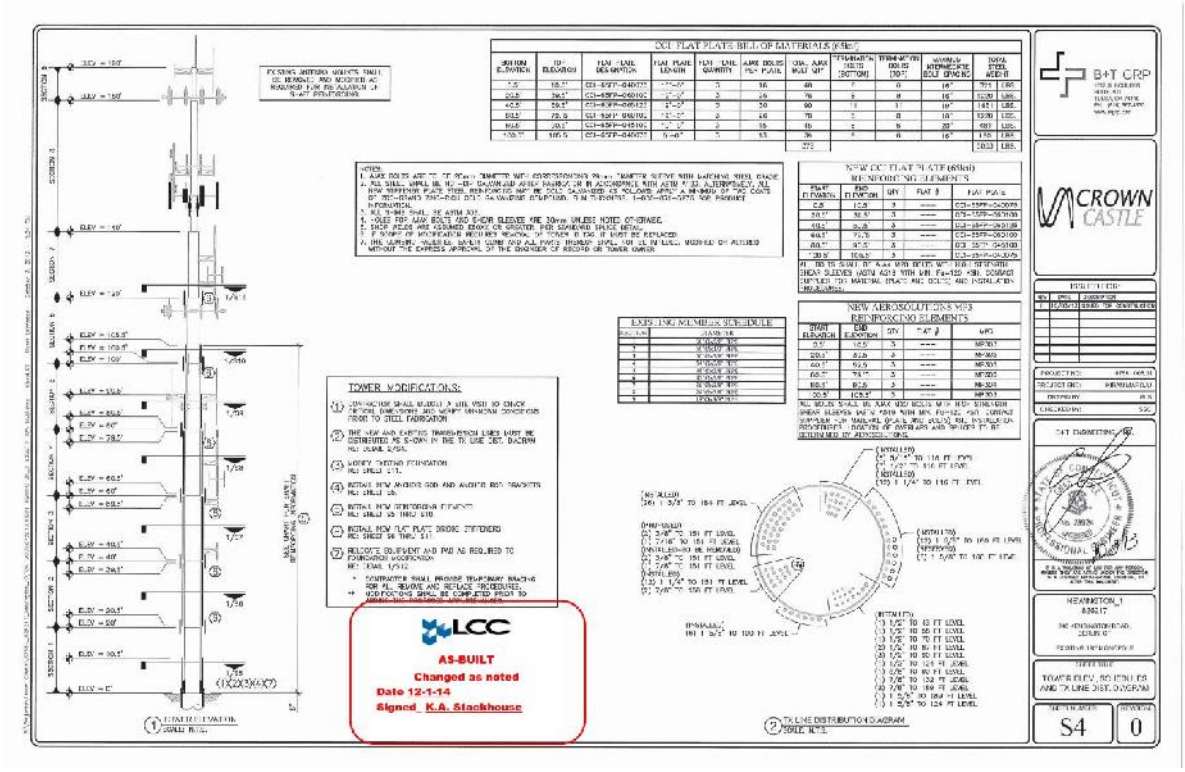
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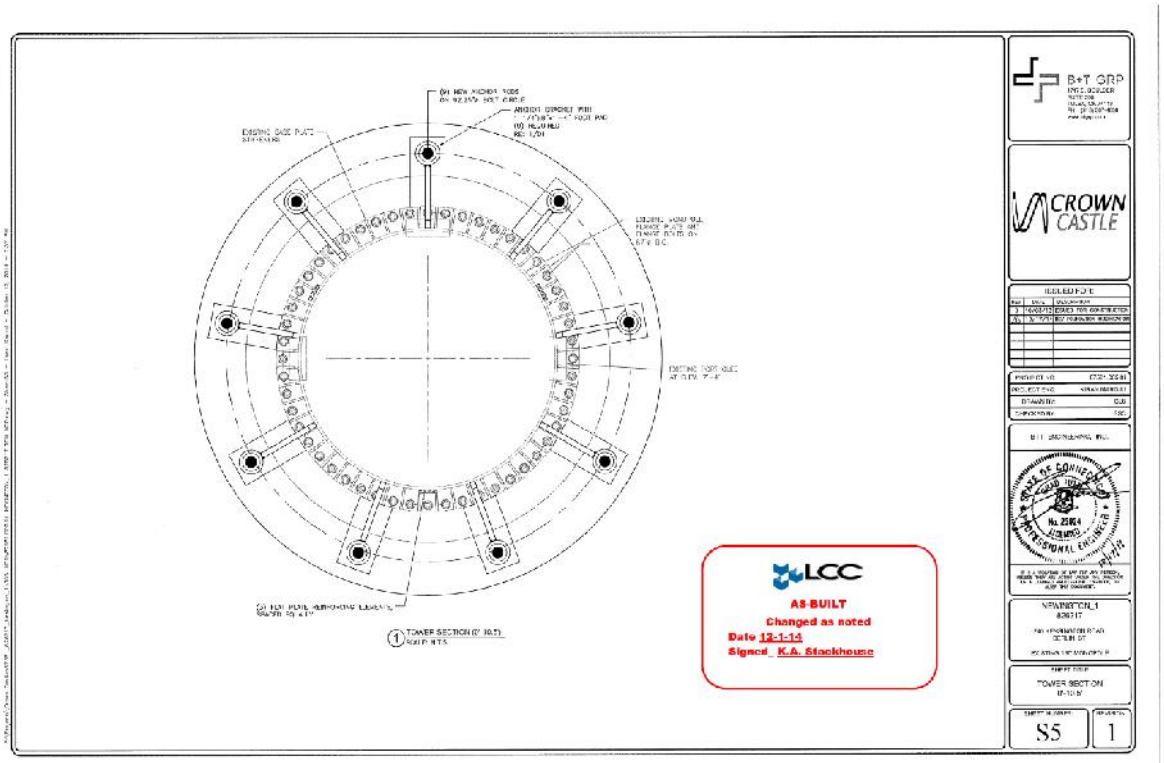
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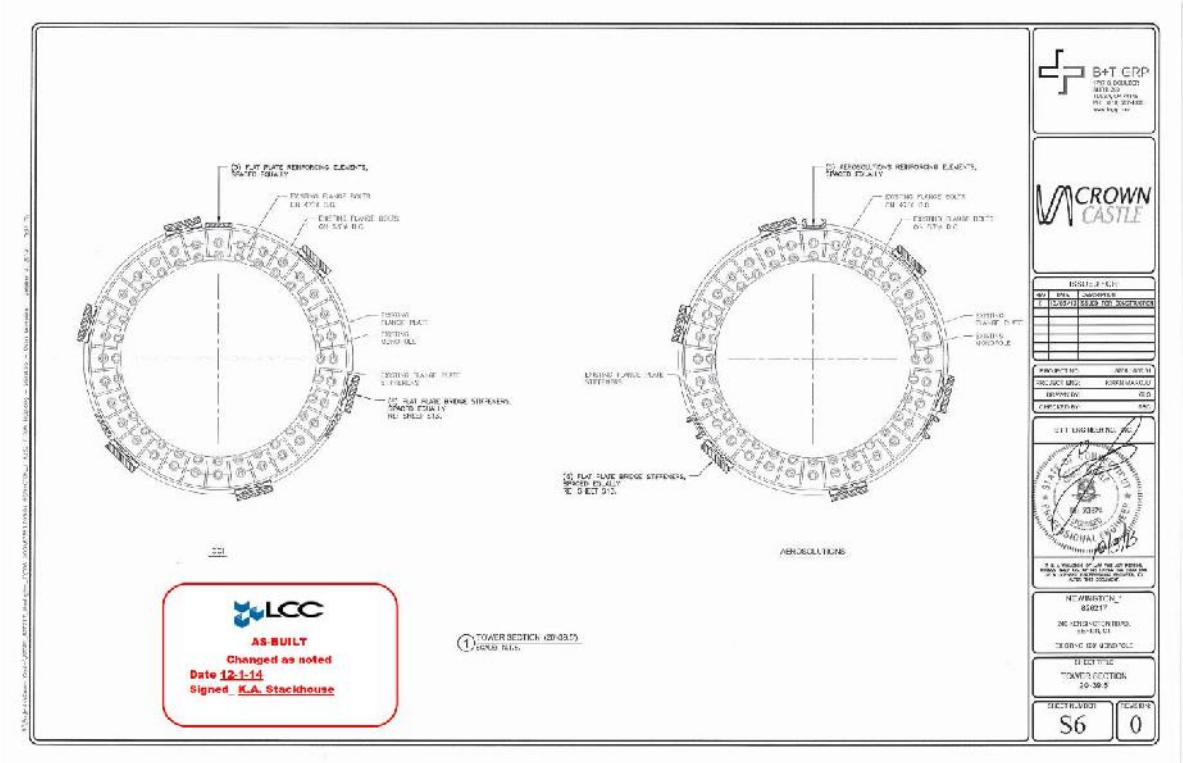
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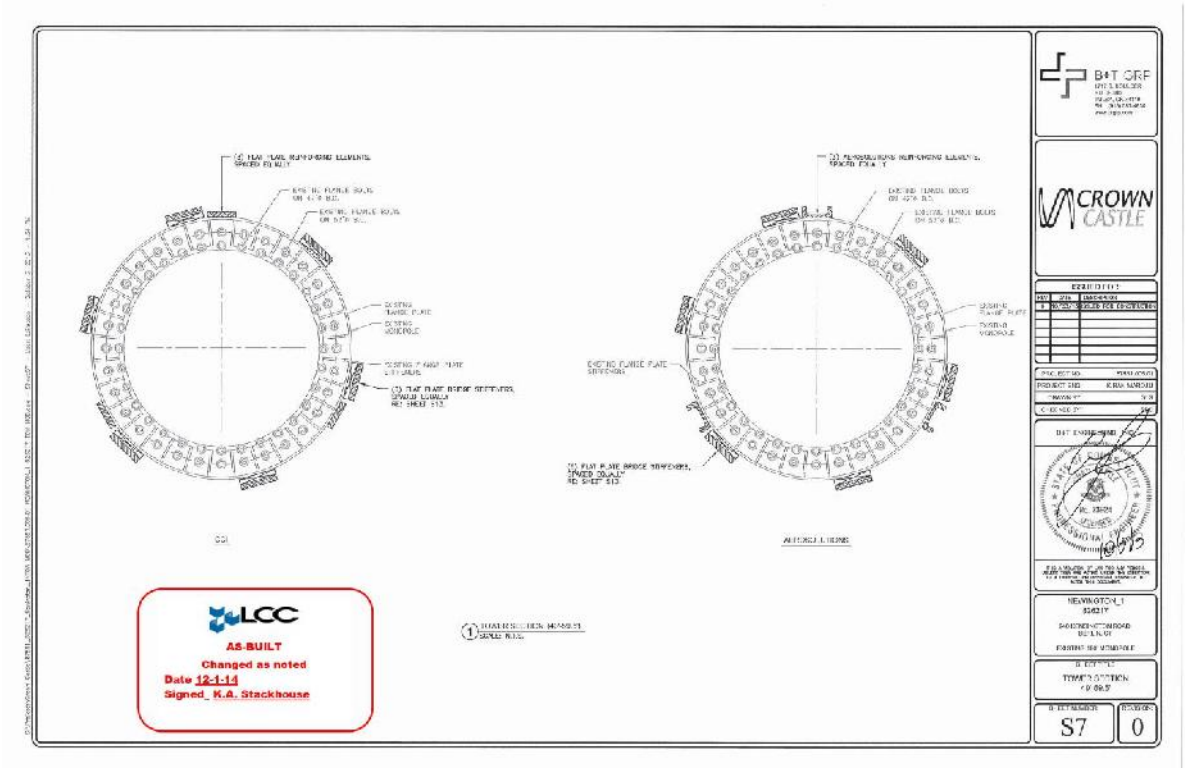
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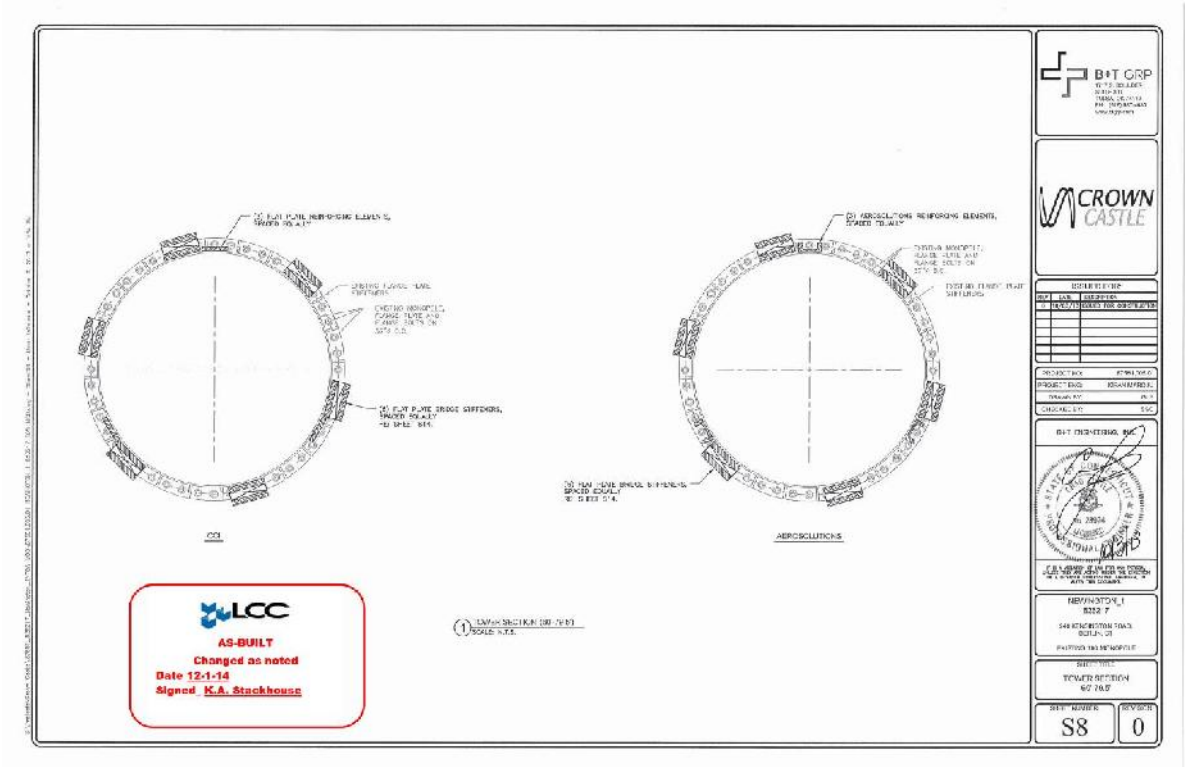
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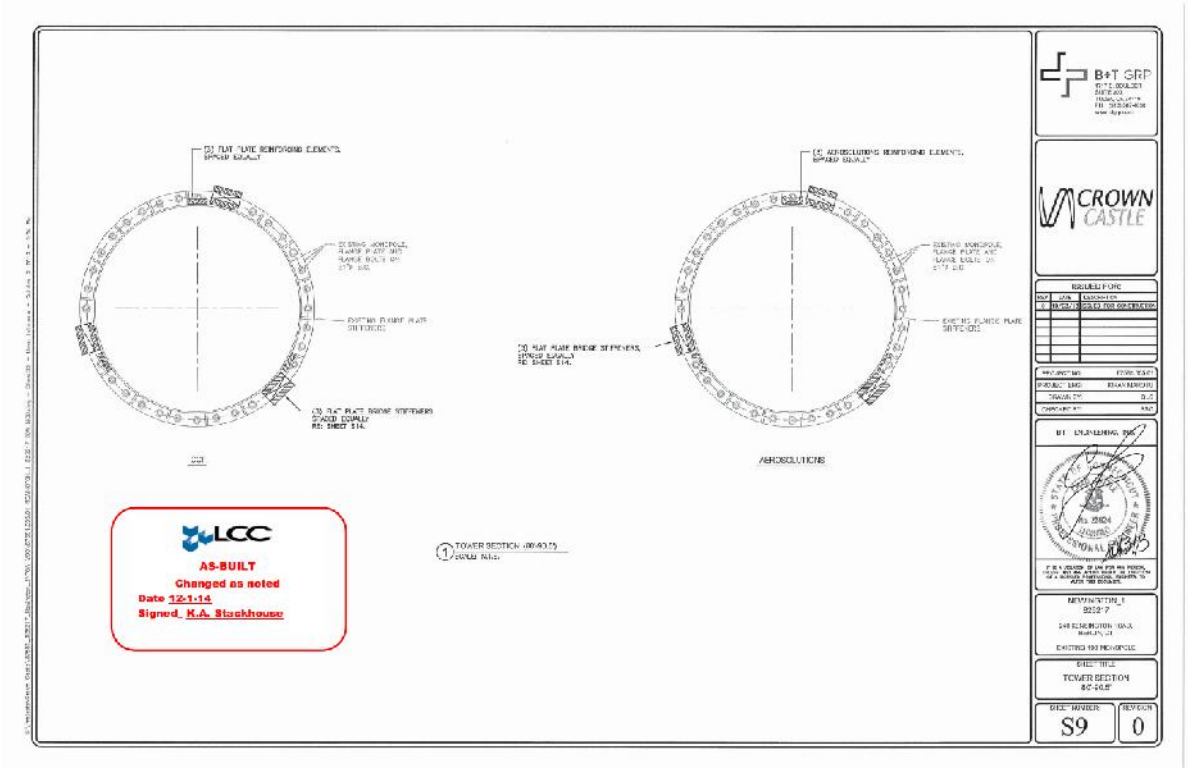
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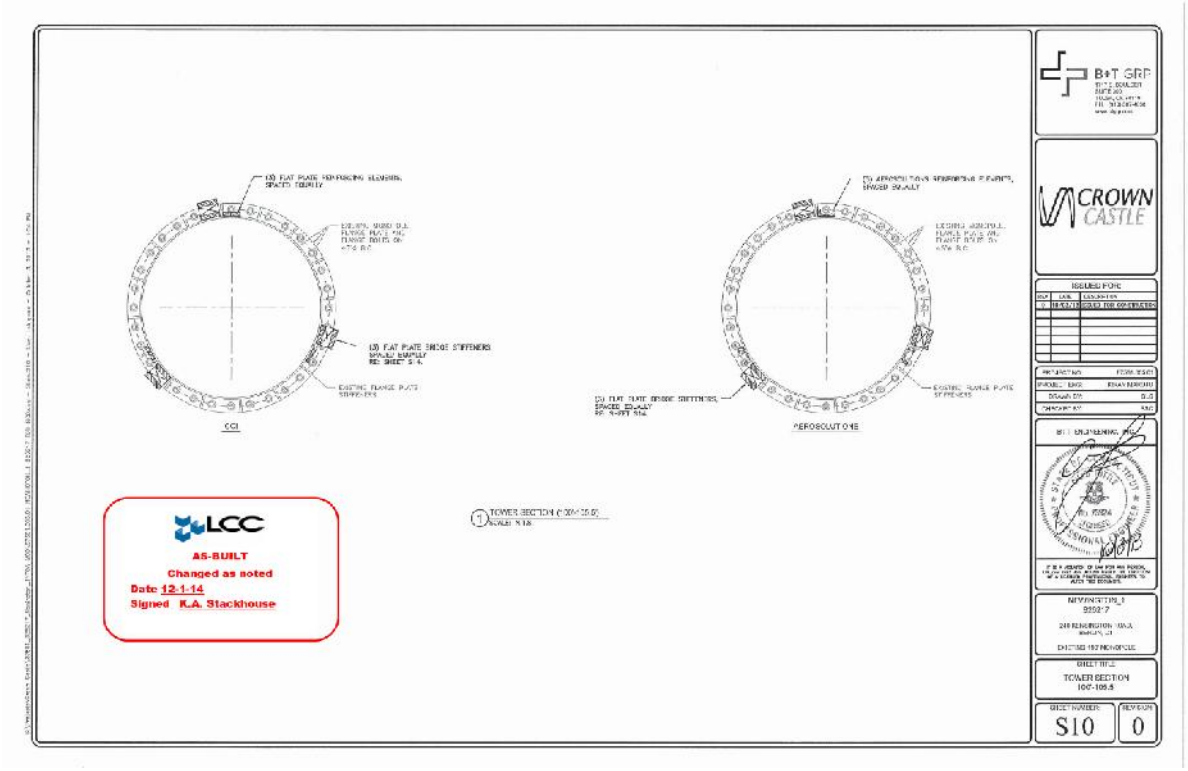
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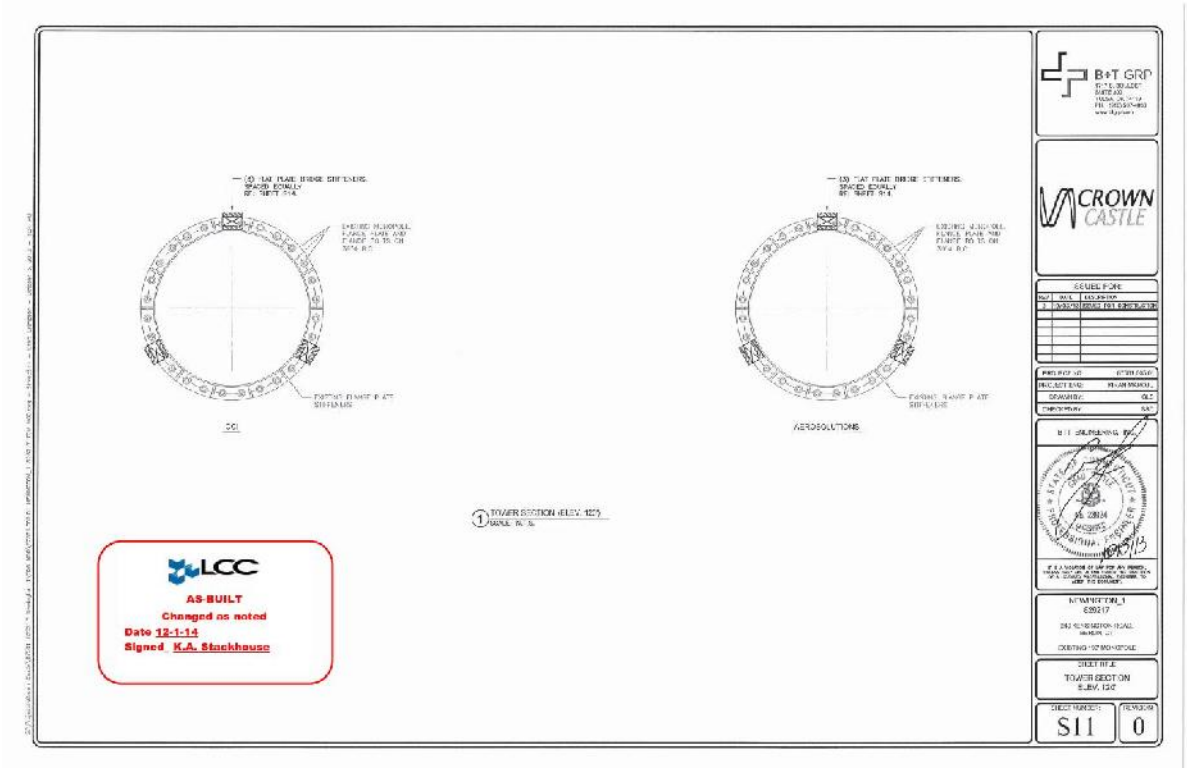
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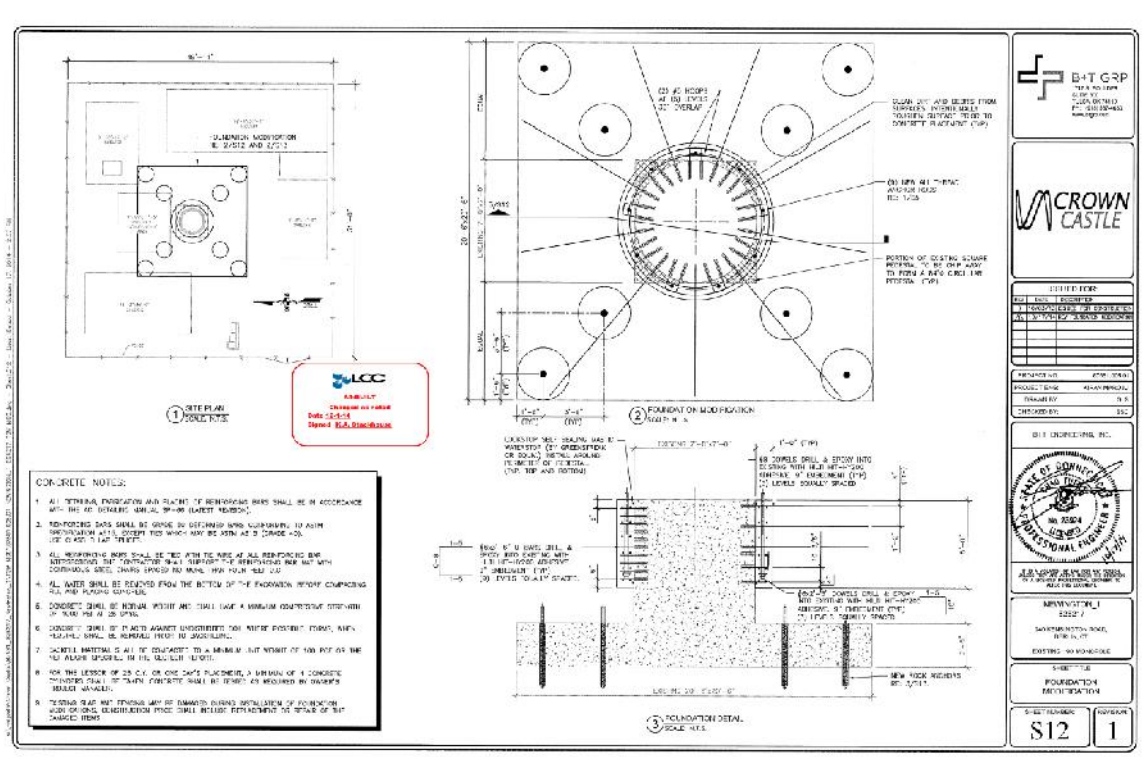
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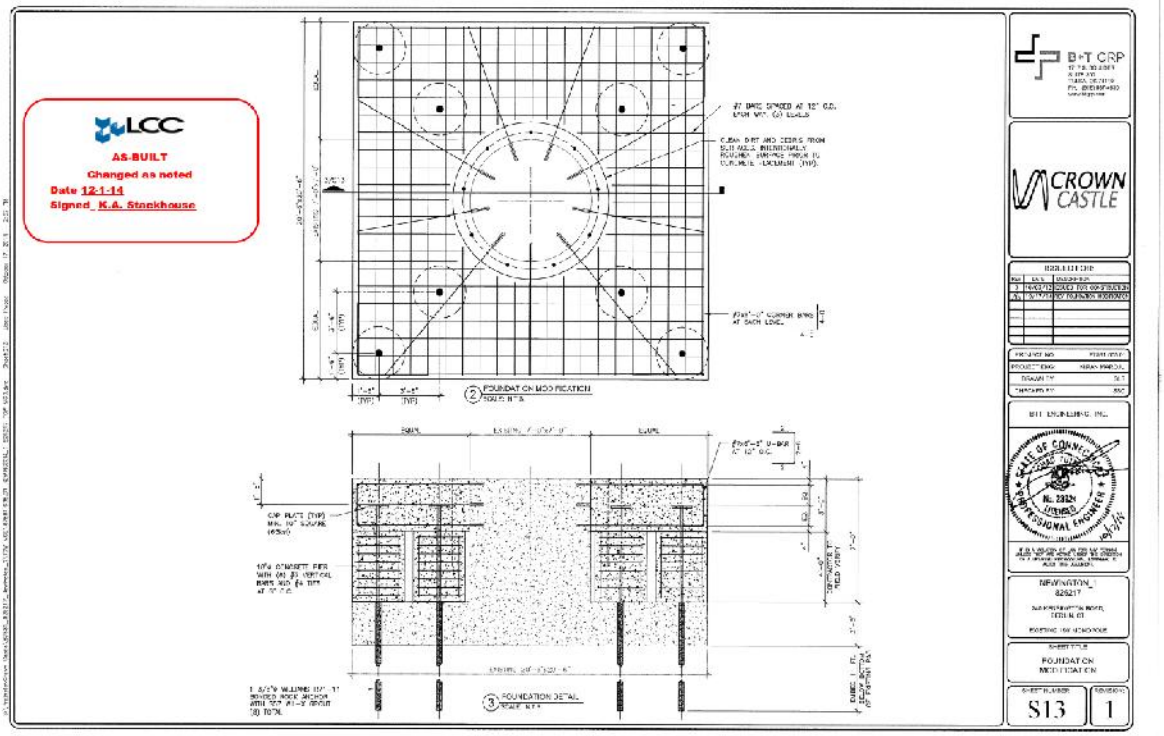
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Date 12-1-14
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NEWINGTON_1
826217
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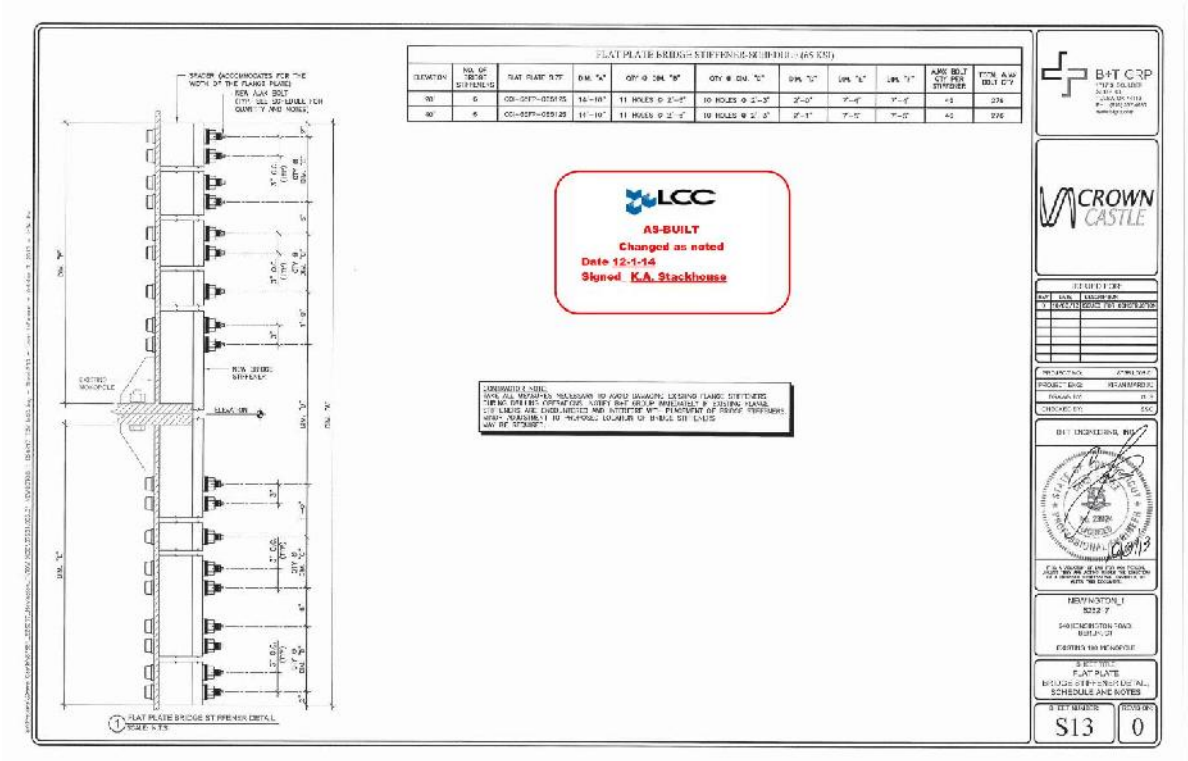
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Date 12-1-14
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B+T CRP
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826217
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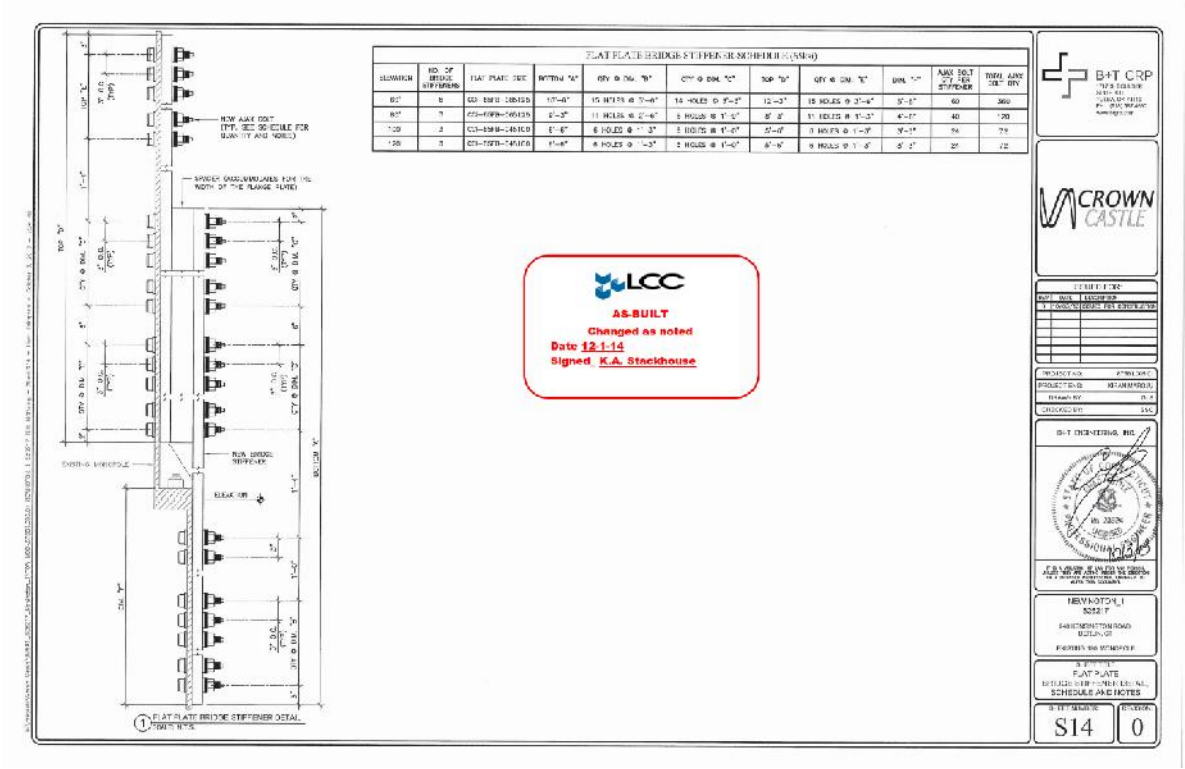
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Date 12-1-14
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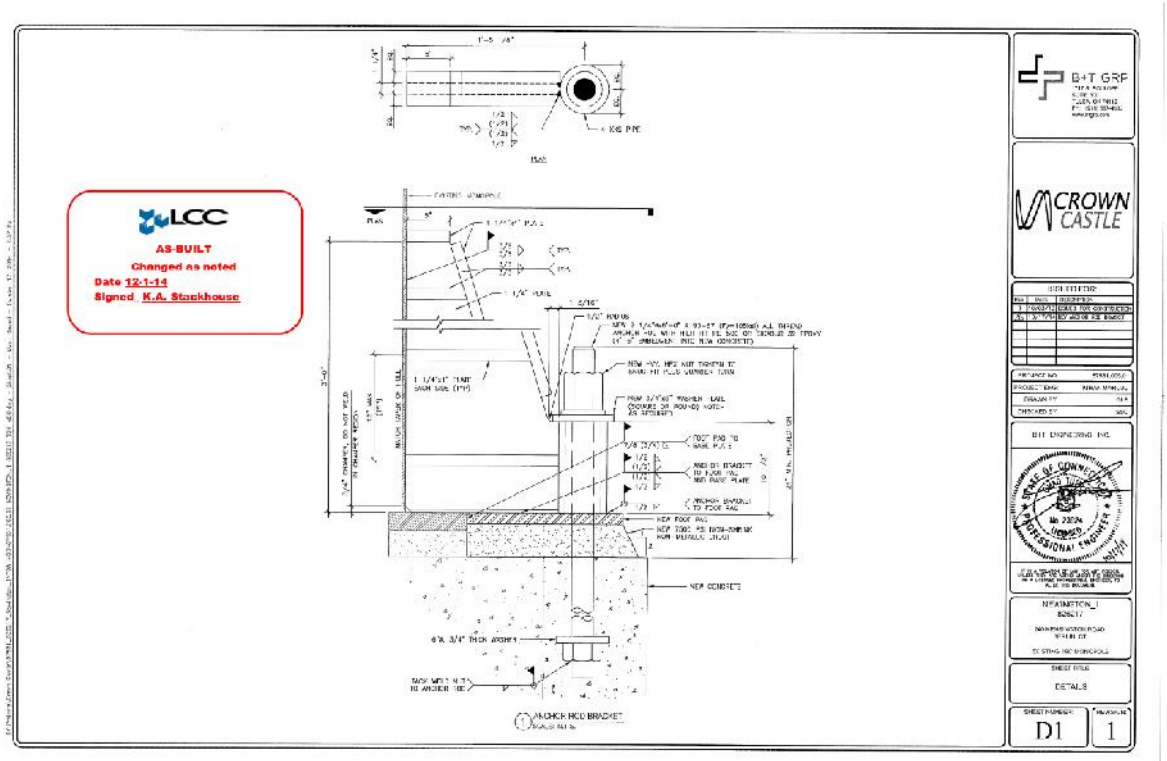
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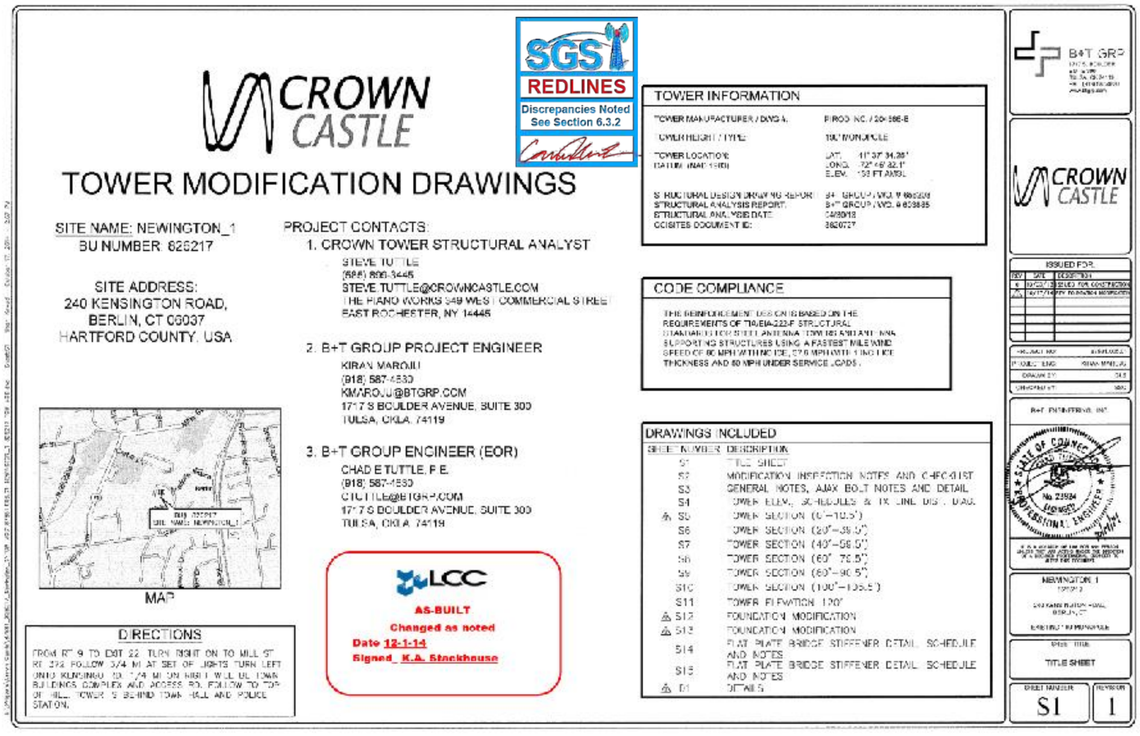
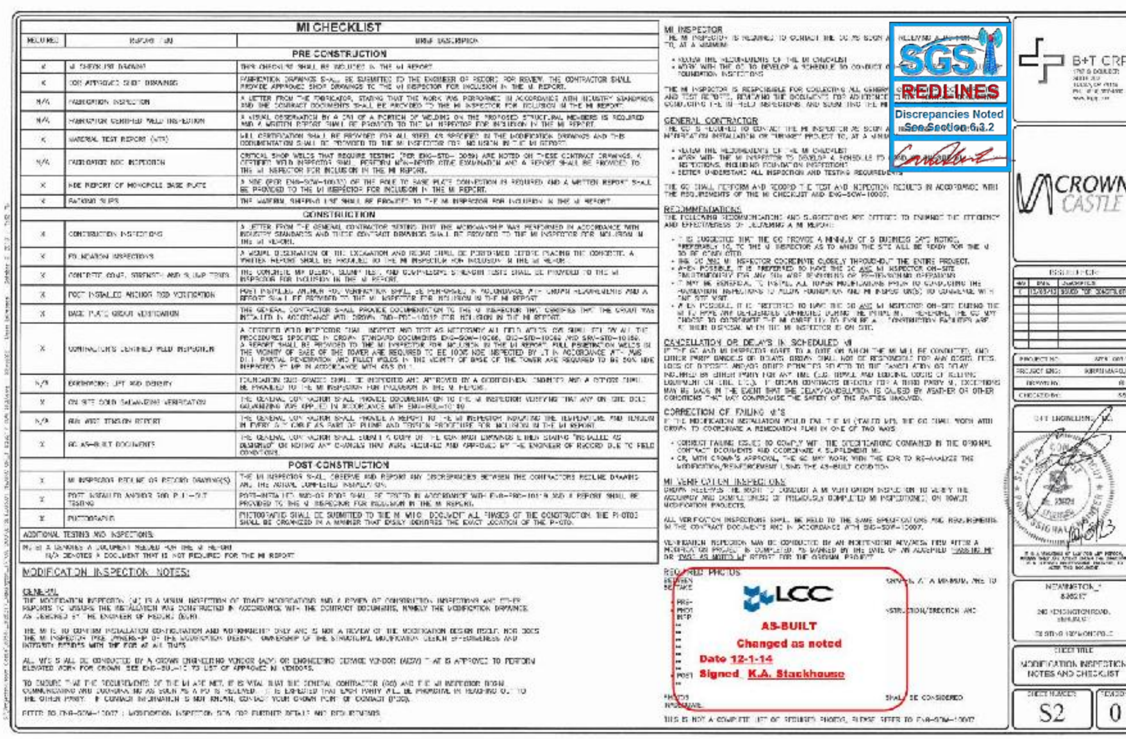
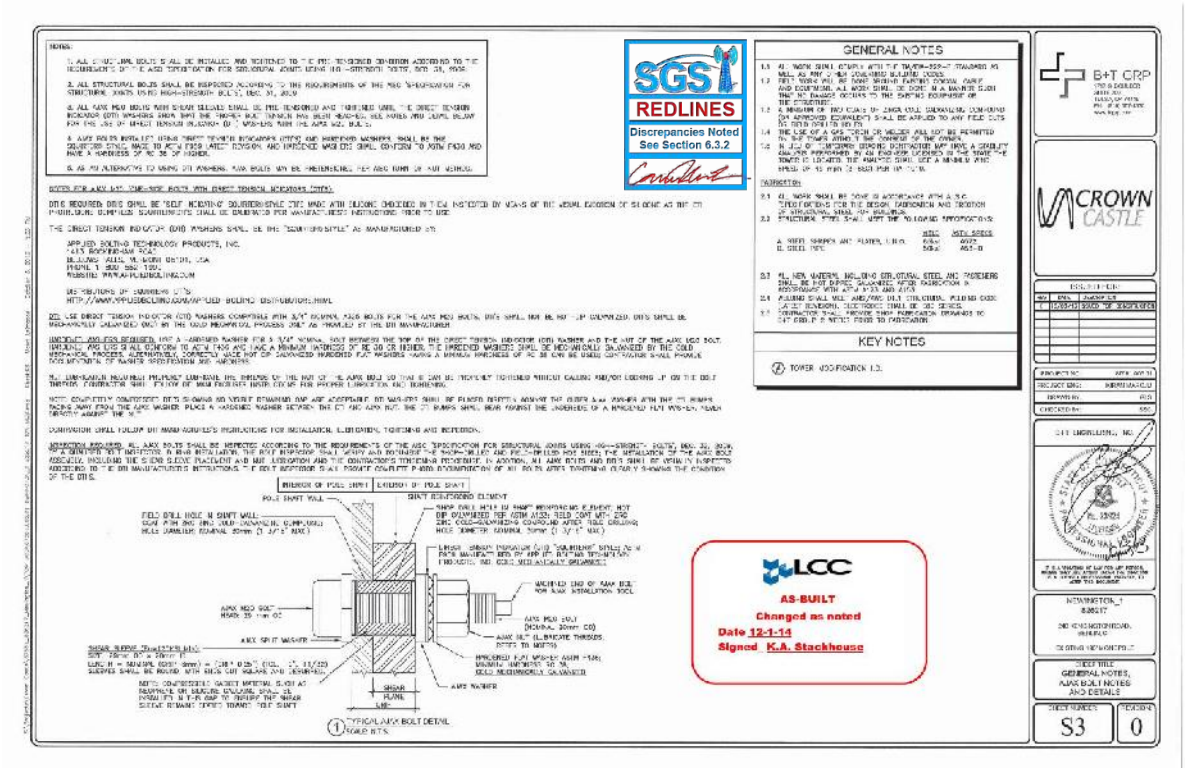
Changed as noted
Date 12-1-14
Signed K.A. Stackhouse
B+T GRP
CROWN CASTLE
DETAILS
D1
1

POST-CONSTRUCTION

6.3.1 MI INSPECTOR REDLINE OR RECORD DRAWING(S)






GENERAL NOTES
KEY NOTES
SGS
REDLINES
Discrepancies Noted
See Section 6.3.2
LCC
AS-BUILT
Changed as noted
Date 12-1-14
Signed K.A. Stackhouse
B+T GRP
CROWN CASTLE
S3
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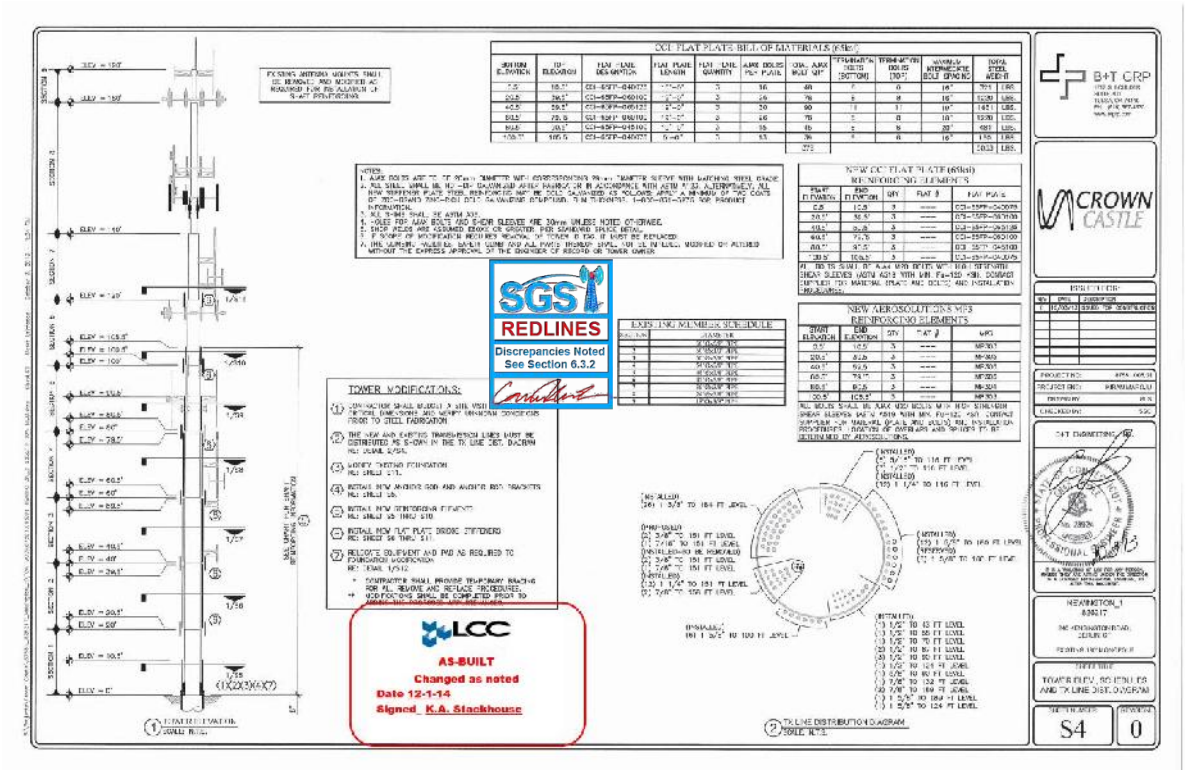
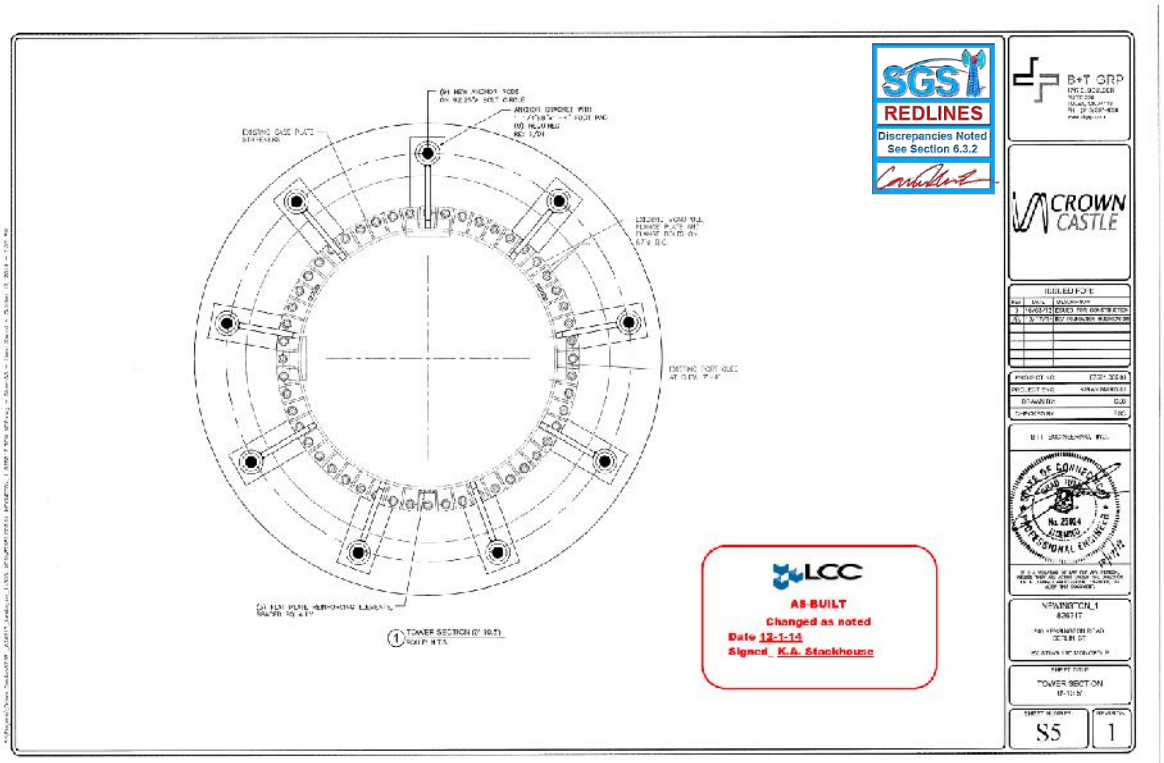
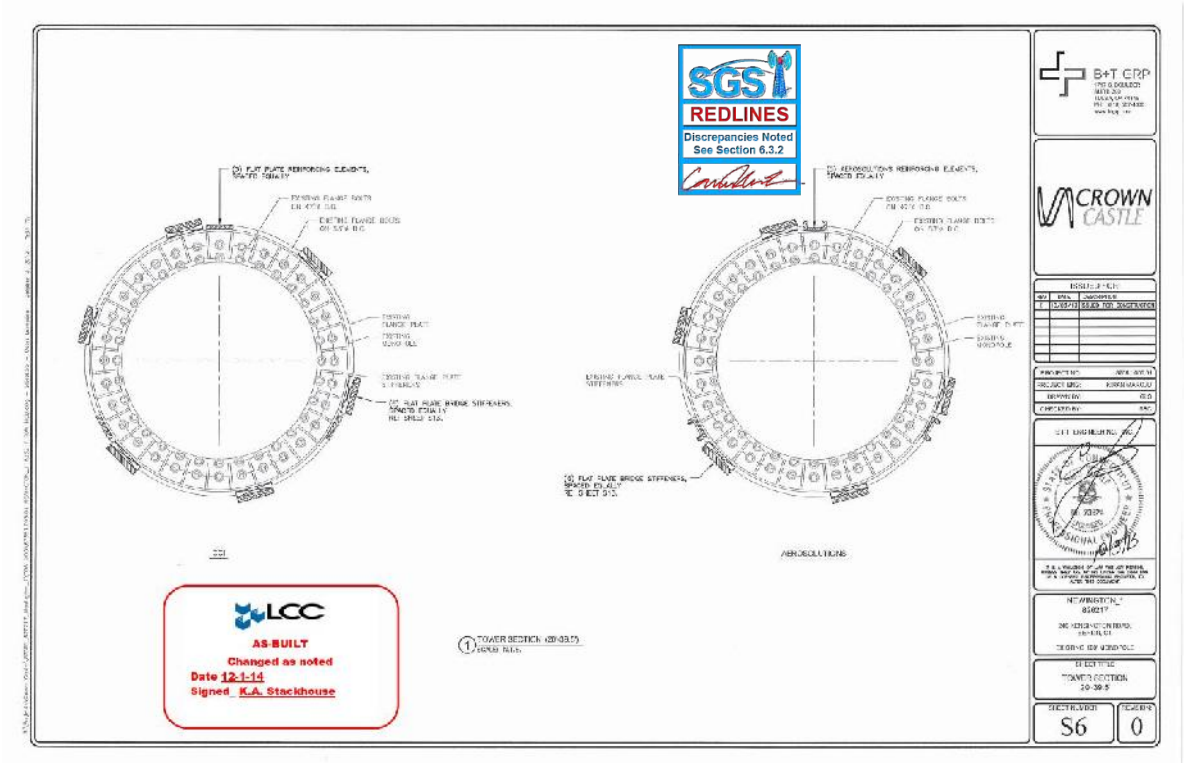

SGS
REDLINES
Discrepancies Noted
See Section 6.3.2
LCC
AS-BUILT
Changed as noted
Date 12-1-14
Signed K.A. Stackhouse
B+T GRP
CROWN CASTLE
S4
0


SGS
REDLINES
Discrepancies Noted
See Section 6.3.2
B+T GRP
CROWN CASTLE
LCC
AS-BUILT
Changed as noted
Date 12-1-14
Signed K.A. Stackhouse
S5
1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Discrepancies Noted
See Section 6.3.2
B+T GRP
CROWN CASTLE
LCC
AS-BUILT
Changed as noted
Date 12-1-14
Signed K.A. Stackhouse
S6
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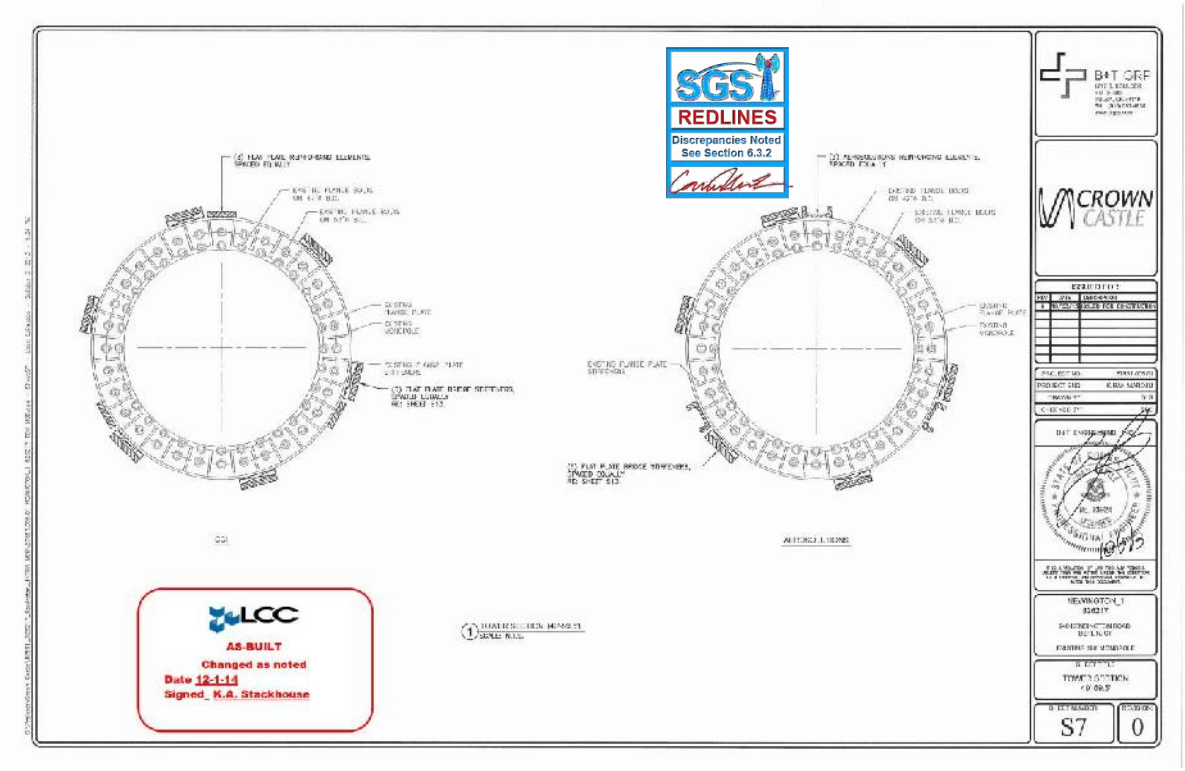
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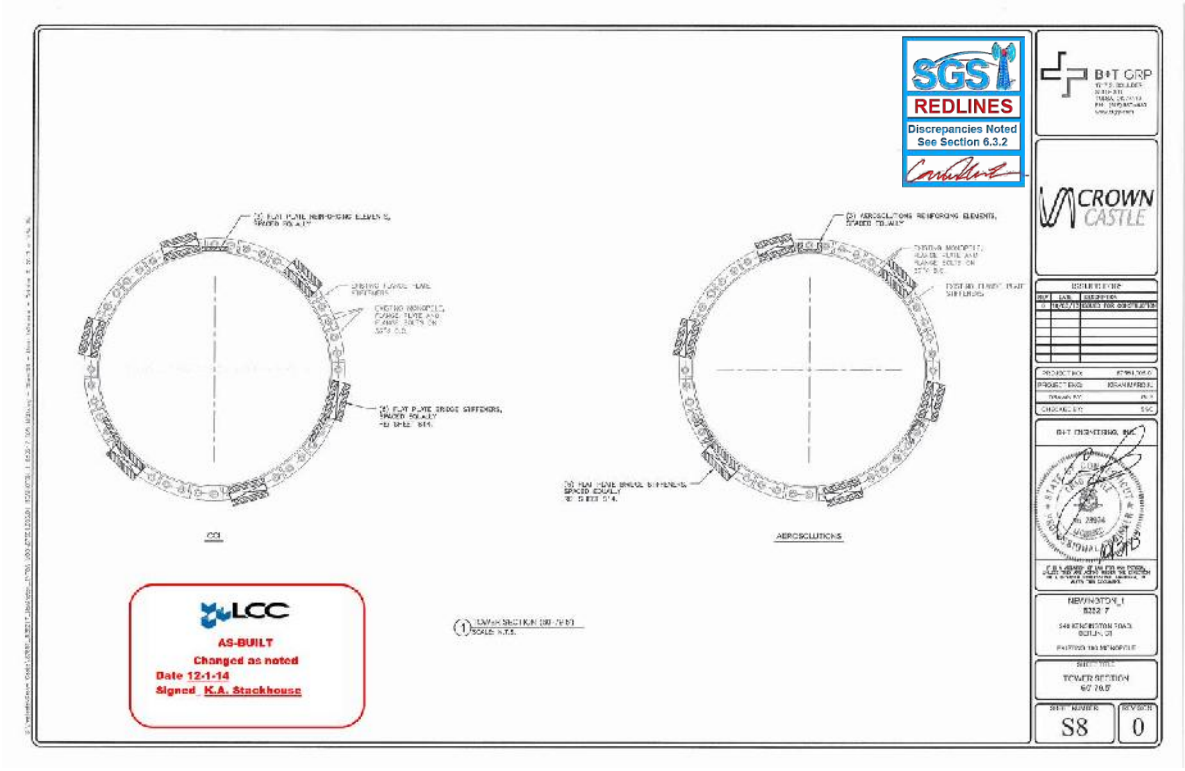
Discrepancies Noted
See Section 6.3.2
LCC
AS-BUILT
Changed as noted
Date 12-1-14
Signed K.A. Stackhouse
CROWN CASTLE
B&T GRP
S7
0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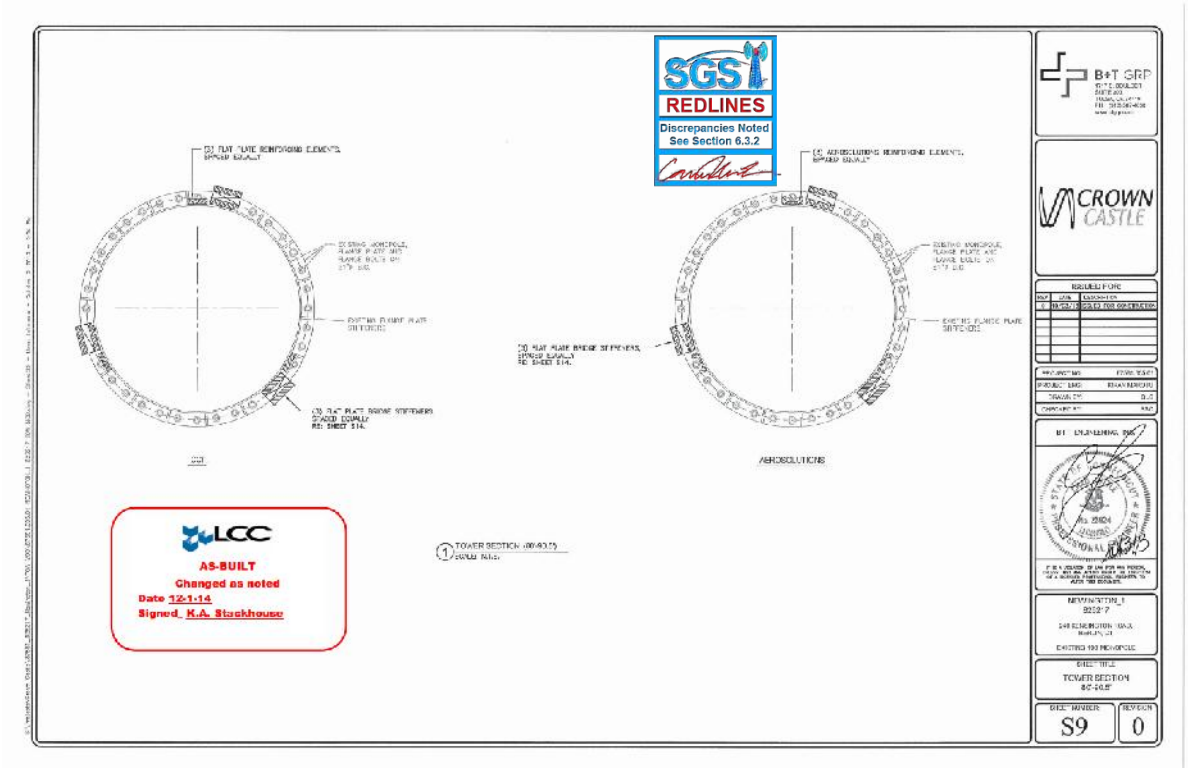
Discrepancies Noted
See Section 6.3.2
LCC
AS-BUILT
Changed as noted
Date 12-1-14
Signed K.A. Stackhouse
CROWN CASTLE
B&T GRP
S8
0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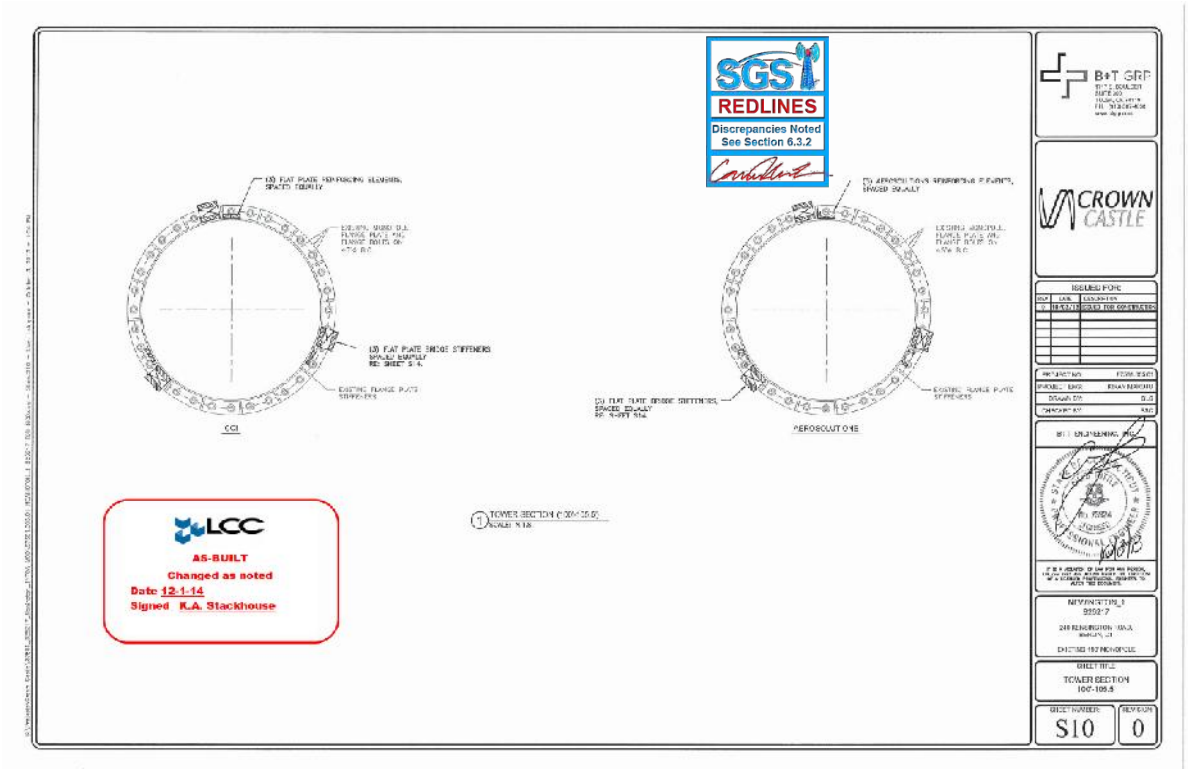
REDLINES
Discrepancies Noted
See Section 6.3.2
LCC
AS-BUILT
Changed as noted
Date 12-1-14
Signed K.A. Stackhouse
B+T GRP
CROWN CASTLE
TOWER SECTION
S9
0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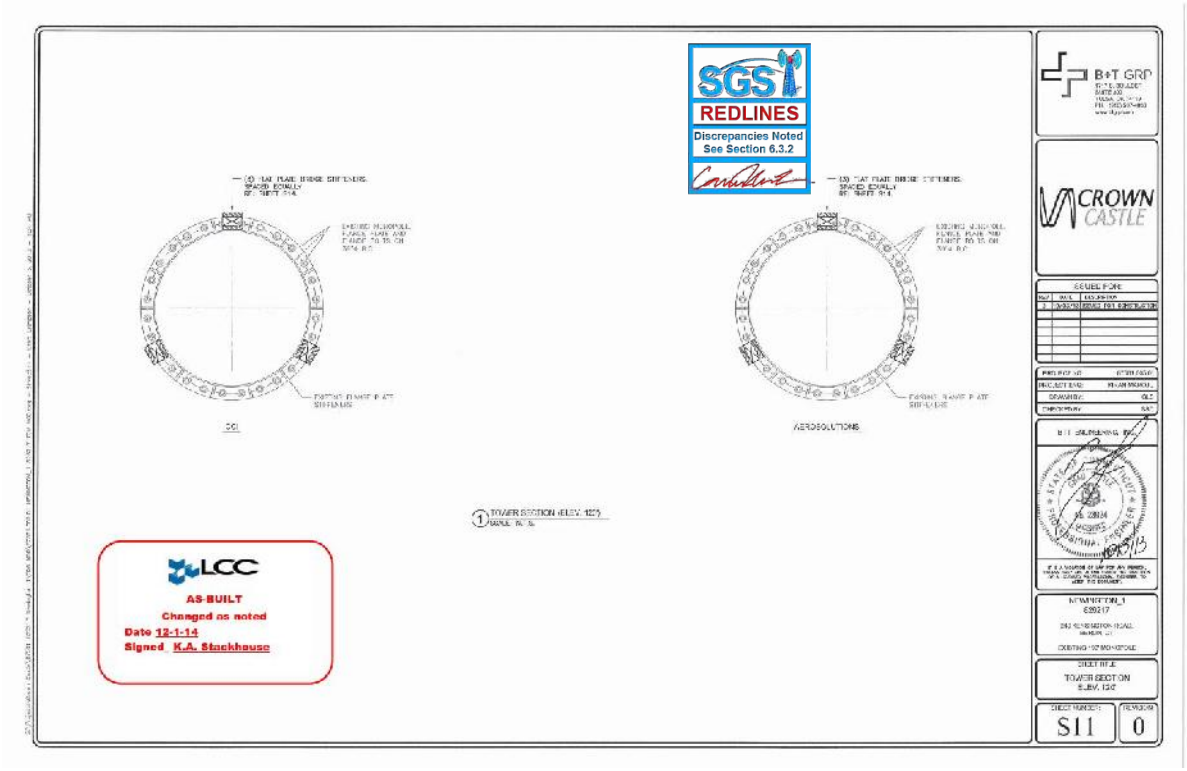
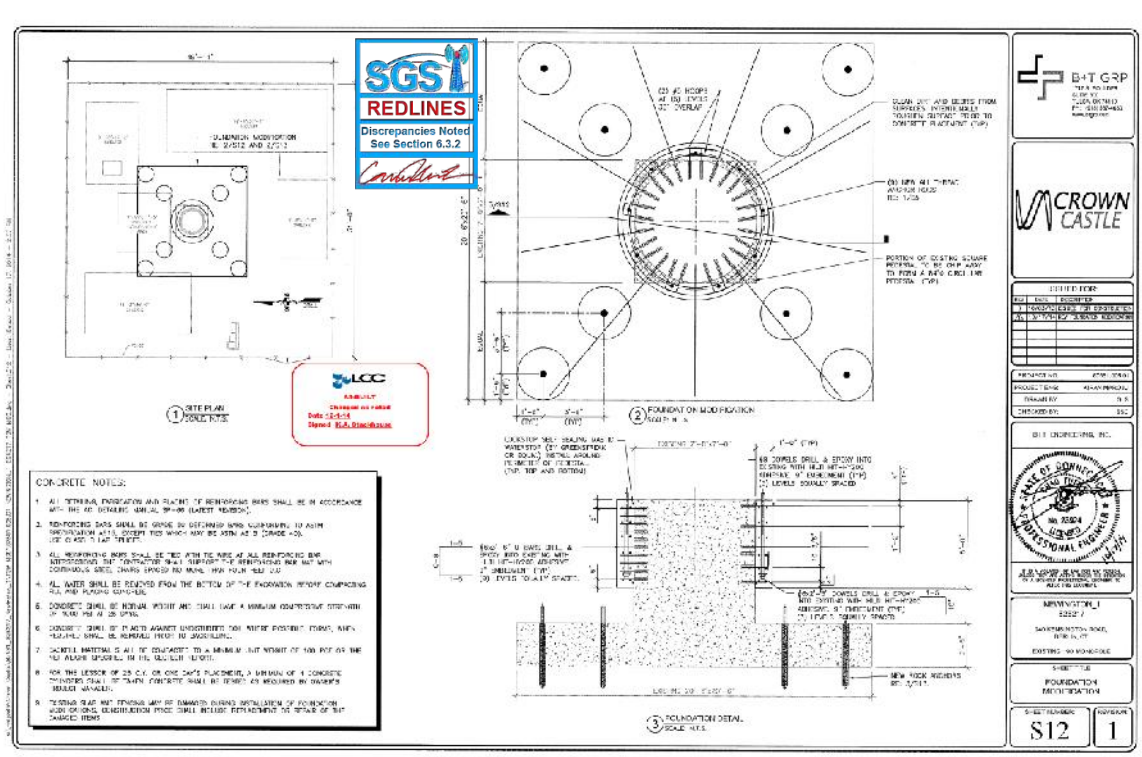
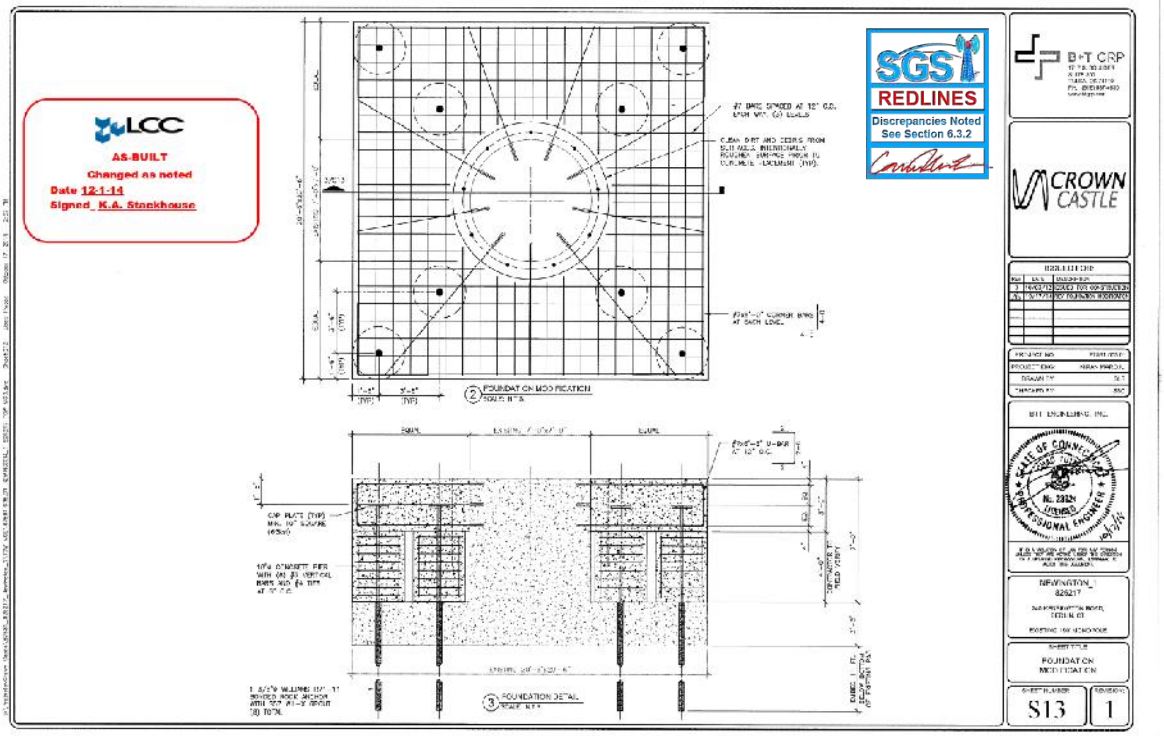
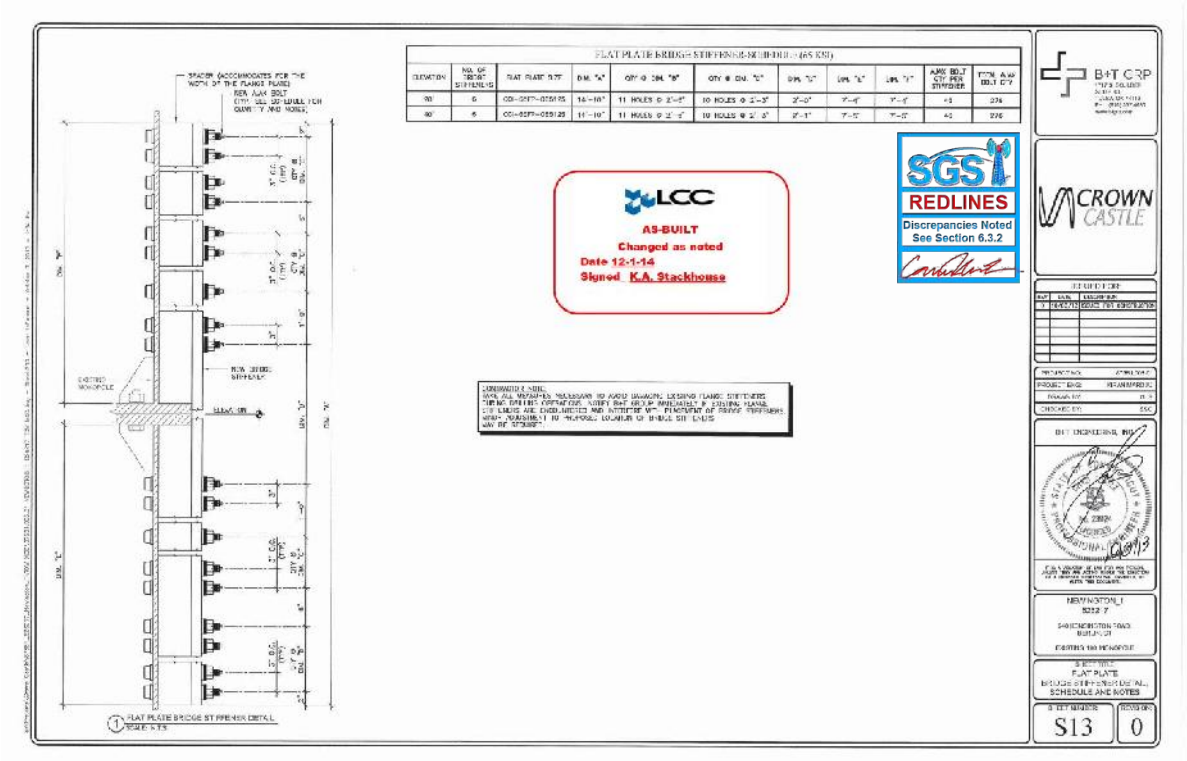
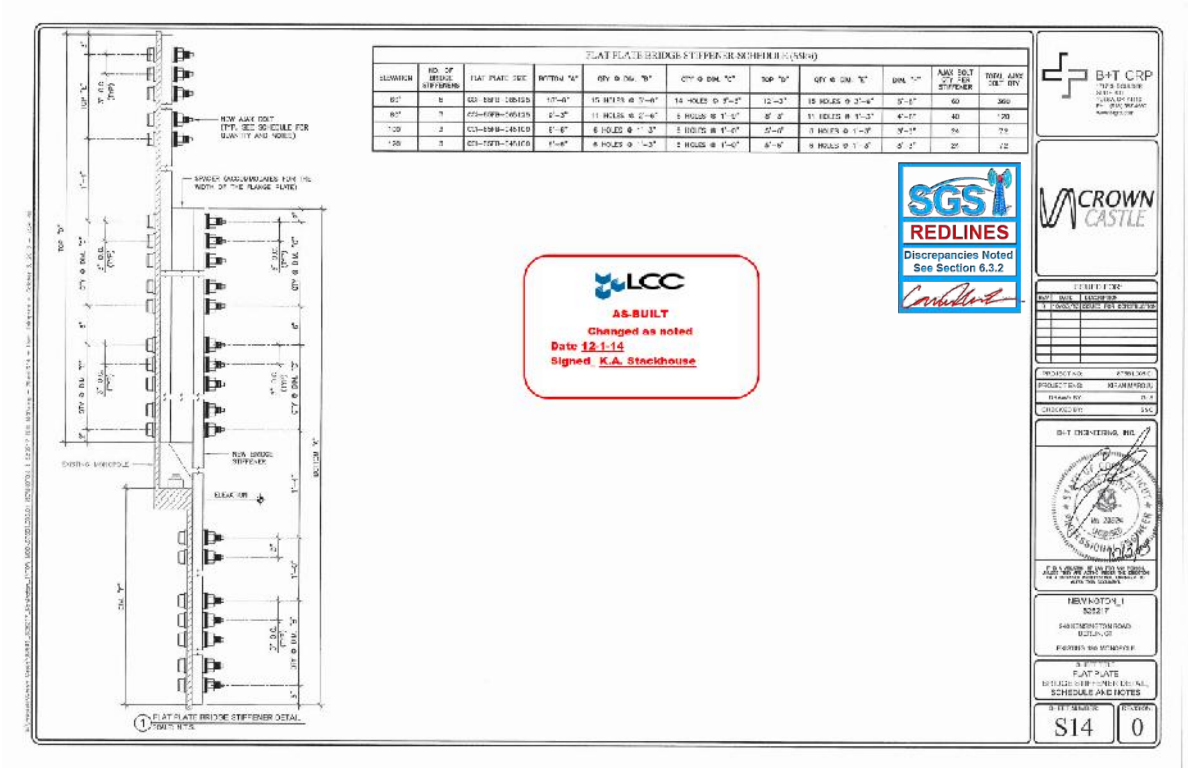
REDLINES
Discrepancies Noted
See Section 6.3.2
LCC
AS-BUILT
Changed as noted
Date 12-1-14
Signed K.A. Stackhouse
B+T GRP
CROWN CASTLE
TOWER SECTION
S10
0

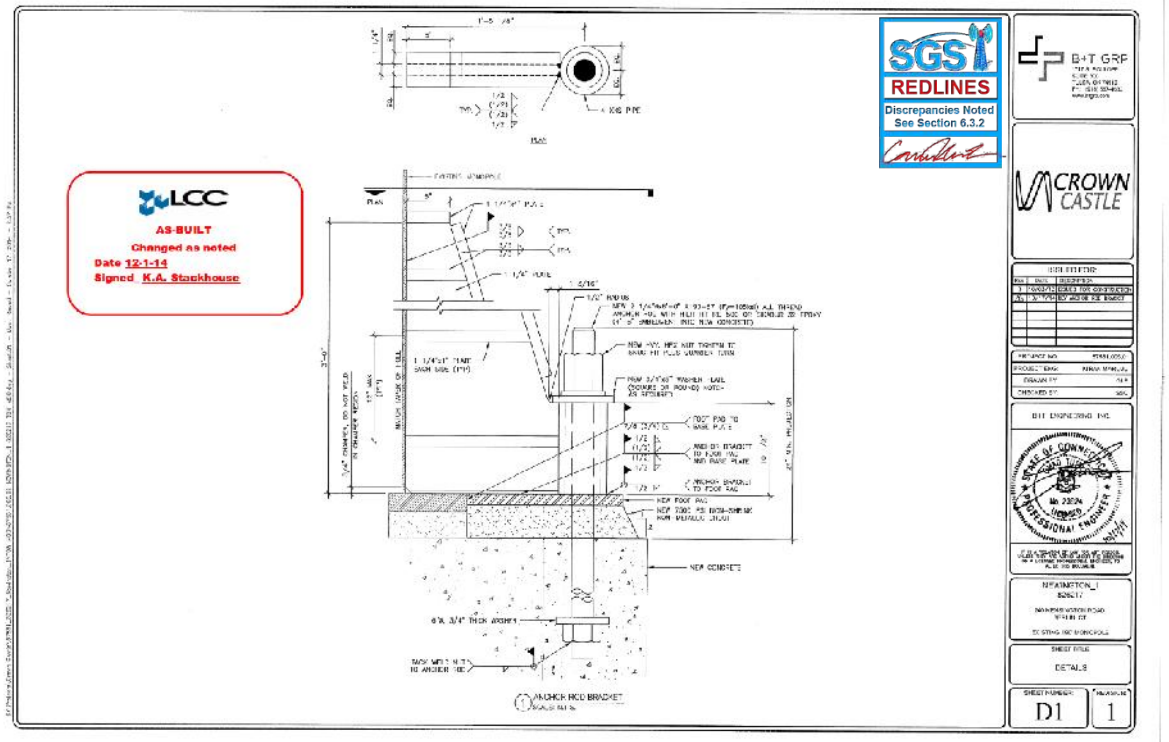

SGS
REDLINES
Discrepancies Noted
See Section 6.3.2
LCC
AS-BUILT
Changed as noted
Date 12-1-14
Signed K.A. Stackhouse
B+T GRP
CROWN CASTLE
TOWER SECTION
ELEV. 122'
S11
0


SGS
REDLINES
Discrepancies Noted
See Section 6.3.2
LCC
AS-BUILT
Changed as noted
Date 12-1-14
Signed K.A. Stackhouse
B+T GRP
CROWN CASTLE
CONCRETE NOTES:
FOUNDATION MODIFICATION
S12
1


LCC
AS-BUILT
Changed as noted
Date 12-1-14
Signed K.A. Stackhouse
SGS
REDLINES
Discrepancies Noted
See Section 6.3.2
B+T GRP
CROWN CASTLE
FOUNDATION MODIFICATION
FOUNDATION DETAIL
S13
1


FLAT PLATE BRIDGE STIFFENER SCHEDULE (A615 GR)
LCC
AS-BUILT
Changed as noted
Date 12-1-14
Signed K.A. Stackhouse
SGS
REDLINES
Discrepancies Noted
See Section 6.3.2
B+T GRP
CROWN CASTLE
FLAT PLATE BRIDGE STIFFENER DETAIL
S13
0


FLAT PLATE BRIDGE STIFFENER SCHEDULE (SEE 6)
SGS
REDLINES
Discrepancies Noted
See Section 6.3.2
LCC
AS-BUILT
Changed as noted
Date 12-1-14
Signed K.A. Stackhouse
B+T GRP
CROWN CASTLE
S14
0


SGS
REDLINES
Discrepancies Noted
See Section 6.3.2
LCC
AS-BUILT
Changed as noted
Date 12-1-14
Signed K.A. Stackhouse
B+T GRP
CROWN CASTLE
DETAILS
D1
1

6.3.2 ENGINEER OF RECORD EMAIL

From: Ali Abbaszadeh
Sent: Monday, November 24, 2014 11:10 AM
To: Keith_ Stackhouse
Cc: SGS MIs; ModInspections; Jorge Forsythe; Bruno, Jerry (Contractor); Matthew_ Novak; Rich Taschek; Brenden Foster; Tarry Turner
Subject: RE: Newington 1 - 826217 - Existing anchor bolts cause conflicts with A/B

Keith,

For the first issue, you can use a thick washer with a clip on one corner to avoid the weld. Let me know if you need more clarification on this.
For the second item, your proposed fix is acceptable.

Thanks,
Ali Abbaszadeh, E.I.T., Project Engineer

1717 South Boulder Ave., Suite 300, Tulsa, Oklahoma 74119
O (918) 587-4630 x 169 + btgrp.com + aabbaszadeh@btgrp.com

B+T GRP

From: Keith_ Stackhouse [mailto:keith_stackhouse@lcc.com]
Sent: Monday, November 24, 2014 9:59 AM
To: Ali Abbaszadeh
Cc: SGS MIs; ModInspections; Jorge Forsythe; Bruno, Jerry (Contractor); Matthew_ Novak; Rich Taschek; Brenden Foster; Tarry Turner
Subject: Newington 1 - 826217 - Existing anchor bolts cause conflicts with A/B

Hello Ali,

The foreman reported two issues at the abovementioned project, the first issue seems relatively easy; the weld is going to prevent the nut from seating properly.(See snippet) Would it be acceptable to use a washer plate to get the nut above the weld.

The other problem is more complicated, there is a flat bar in the approximate location of one of the A/B; because of this condition. The A/B is pushed up against the existing anchor rod. Would it acceptable to remove portion of the flat bar and add termination bolts above the A/B.(See snippet)

Thanks,

Keith A. Stackhouse
Structural Construction Manager

LCC Construction Services
2500 Sylon Blvd.
Hainesport, NJ 08036

(Cell) 609-367-6107
keith_stackhouse@lcc.com

Keith,

Please go ahead. Please let me know if you have more questions or need further assistance.

Regards,

Hari Rotithor, E.I., Project Engineer

1717 South Boulder Ave., Suite 300, Tulsa, Oklahoma 74119
Office (918) 587-4630 + btrp.com

B+T GRP

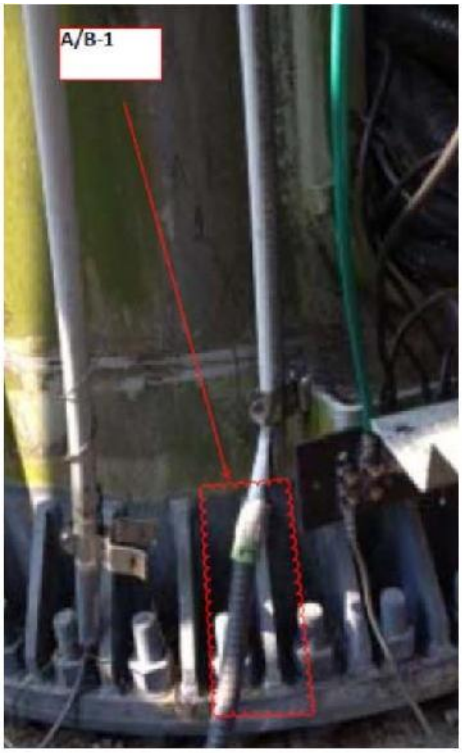
From: Keith_ Stackhouse [mailto:keith_stackhouse@lcc.com]
Sent: Wednesday, July 23, 2014 4:00 PM
To: Hari Rotithor; Jorge Forsythe; Stephen Teti; Klaus Horsch
Cc: Robbie Frazier; Santhosha Shanbhogue; Brenden Foster
Subject: RE: Newington 1 - 826217 - project#87581.005.01

Hello Hari,

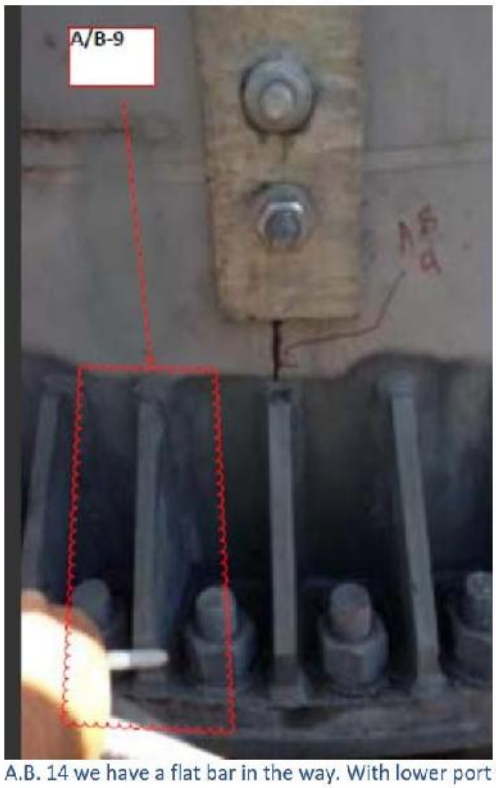
As per our phone conversation,

If possible, can the anchor bracket be welded to the flat bar?
Another possibility, can the anchor bracket be cut down to fit under the lower port, this option may cause an issue core drilling the hole with the coax being in the vicinity .

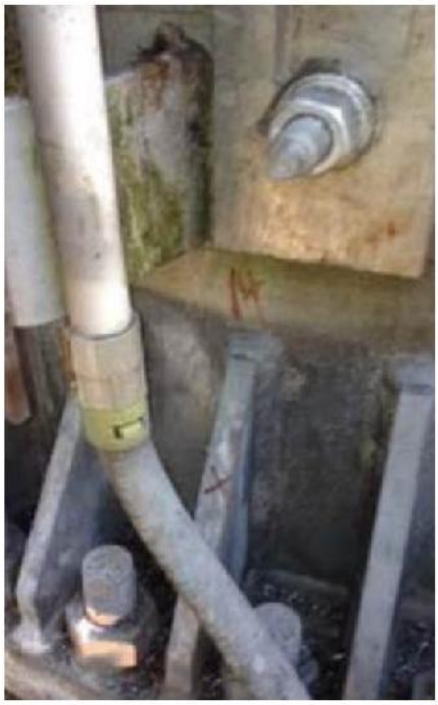
A.B. 1 we had to shift to the left to miss the port.



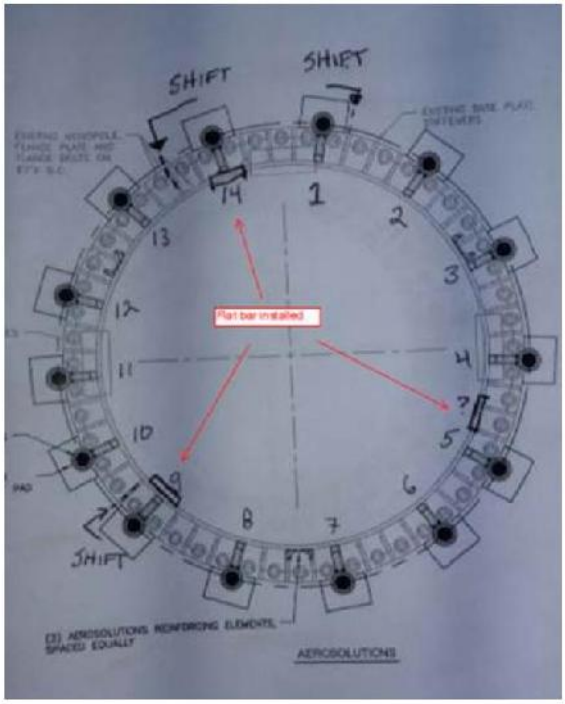
A.B. 9 we have a flat bar in the way.



A.B. 14 we have a flat bar in the way. With lower port to the left



Field sketch from the foreman.



Thanks,

Keith A. Stackhouse
Structural Construction Manager

LCC Deployment Services
2242 Old Marlton Pike
Marlton, NJ 08053

(Cell) 609-367-6107
keith_stackhouse@lcc.com

From: Hari Rotithor [mailto:hrotithor@btgrp.com]
Sent: Friday, July 18, 2014 11:40 AM
To: keith_stackhouse@lcc.com; Jorge Forsythe (jforsythe@telecomcontracting.com); Stephen Teti (stephen_teti@lcc.com); Klaus Horsch (klaus_horsch@LCC.com)
Cc: Robbie Frazier; Santhosha Shanbhogue
Subject: RE: Newington 1 - 826217 - project#87581.005.01

Keith,

Please find my response in italics below. Please let me know if you have more questions or need further assistance.

Regards,

Hari Rotithor, E.I., Project Engineer

1717 South Boulder Ave., Suite 300, Tulsa, Oklahoma 74119
Office (918) 587-4630 + btgrp.com

B+T GRP

From: Keith_ Stackhouse [mailto:keith_stackhouse@lcc.com]
Sent: Tuesday, July 15, 2014 5:38 PM
To: Robbie Frazier
Cc: Jorge Forsythe; Stephen Teti; Klaus Horsch; Brenden Foster
Subject: Newington 1 - 826217 - project#87581.005.01

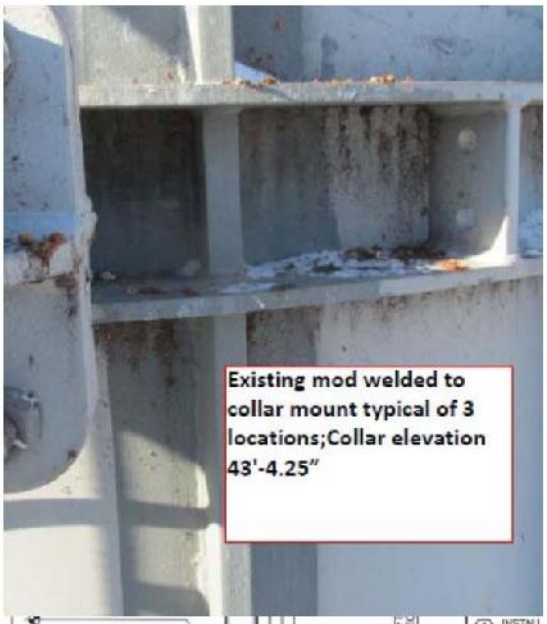
Hello Robbie,

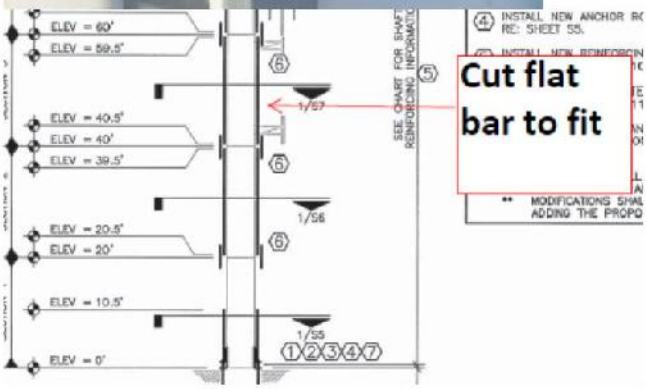
As per our phone conversation,

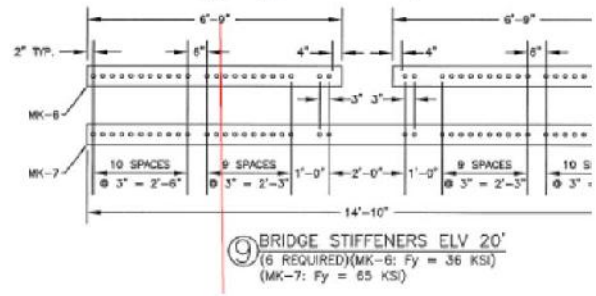
1. Because of the existing gussets at the monopole base, we need to start the bar at 9" to clear the gusset.
: This is approved.

2. At approximately 10'-2" there is weld seem on the pole shaft, the weld protrudes out a ¼"; placing shims at 3 hole below the weld seam and termination shim were the bar ends. Would you agree this to a viable solution? *: Please use the shims in the denomination of 1/16" as discussed to clear the weld protrusion.*

3. At 43'-4.25" there is a collar mount that has an existing modification welded to the collar mount, since it is welded; we cannot remove the collar to place the new flat bar mod and bridge stiffeners.(The collar mount is constructed of ½" metal) Would it be acceptable to cut the flat bar to fit, along with the bolt on bridge stiffeners, If we cut the bolt on bridge stiffener, we would have to cut at least 4.5' off(possibly less) and install the cut off above the collar. Would this be a viable solution, as discussed; how much weld would have to be added to the flat bar and how many bolts would have to be added to achieve the structural integrity ? *: You informed me that you are going for removal of existing collar and installing new collar which would go on top of new reinforcement. It sounds like a workable plan, however, please don't hesitate to give me a call if you need further assistance.*


Existing mod welded to collar mount typical of 3 locations;Collar elevation 43'-4.25"


ELEV = 60'
ELEV = 59.5'
ELEV = 40.5'
ELEV = 40'
ELEV = 39.5'
ELEV = 20.5'
ELEV = 20'
ELEV = 10.5'
ELEV = 0'
Cut flat bar to fit


6"-9"
6"-9"
2" TYP.
MK-6
MK-7
10 SPACES @ 3" = 2'-6"
9 SPACES @ 3" = 2'-3"
1'-0"
2'-0"
1'-0"
9 SPACES @ 3" = 2'-3"
14'-10"
⑨ BRIDGE STIFFENERS ELV 20'
(6 REQUIRED)(MK-6: Fy = 36 KSI)
(MK-7: Fy = 65 KSI)

Cut to fit

9

Hey Keith,
Below are my comments for the punch list.
#1. It is acceptable. We would recommend providing mapping for the tower since the flanges are off from what is specified in the manufacturing drawings.
#6. Acceptable.
#8. 18'6" is a typo. It should be 13'3".
#9. It is acceptable.
#10. It is acceptable.

Please let me know if you have any other questions or concerns.

Thanks,
Rohitash Jain, Project Engineer

1717 South Boulder Ave., Suite 300, Tulsa, Oklahoma 74119
M (352) 870-8698 + O (918) 587-4630 + btgrp.com

From: Ali Abbaszadeh [mailto:AAbbaszadeh@btgrp.com]
Sent: Wednesday, October 15, 2014 9:40 AM
To: Donahue, James (Vendor); rich_taschek@lcc.com
Cc: D'Amico, Jason (Vendor); Bruno, Jerry (Contractor); Tuttle, Steve; Keith_ Stackhouse; Forsythe Jorge; Robbie Frazier
Subject: RE: 826217 Newington

Rich,

As we discussed we will need to cut back the square pier to a 7' round pier. I was able to get this to work with only 10 anchor rods as opposed to 14 that was shown originally on the drawings. This is because of the larger bolt circle. The new bolt circle will be 92.25". This should give you enough to clear the pier and install the new rods with 3.5" clear form the existing pier. We will need to sets of hoops (#5) at 5 levels. Also 9 U bars doweled into the pier around each anchor. Also 5 L dowels will be needed between the U dowels. The bottom of the anchor rod will be 3" clear form the 5' deep and 1' wide collar. An oversized washer plate (6" diameter) will be needed secured with a nut on the top and the bottom. Please review attached and let me know if you have any questions.

I will get this into drafting and update the drawing according to the changes.

Thanks,
Ali Abbaszadeh, E.I.T., Project Engineer

1717 South Boulder Ave., Suite 300, Tulsa, Oklahoma 74119
O (918) 587-4630 x 169 + btgrp.com + aabbaszadeh@btgrp.com

B+T GRP

The other problem is more complicated, there is a flat bar in the approximate location of one of the A/B; because of this condition. The A/B is pushed up against the existing anchor rod. Would it acceptable to remove portion of the flat bar and add termination bolts above the A/B.(See snippet)

Thanks,

Keith A. Stackhouse

3

From: Hari Rotithor [mailto:hrotithor@btgrp.com]
Sent: Wednesday, July 23, 2014 3:12 PM
To: Keith_ Stackhouse; Jorge Forsythe; Stephen Teti; Klaus Horsch
Cc: Robbie Frazier; Santhosha Shanbhogue; Brenden Foster
Subject: RE: Newington 1 - 826217 - project#87581.005.01

Keith,

Please find the attached as discussed over the phone. Please let me know if you have more questions or need further assistance.

Regards,

Hari Rotithor, E.I., Project Engineer

1717 South Boulder Ave., Suite 300, Tulsa, Oklahoma 74119
Office (918) 587-4630 + btgrp.com

B+T GRP

From: Keith_ Stackhouse [mailto:keith_stackhouse@lcc.com]
Sent: Tuesday, July 22, 2014 9:06 AM
To: Hari Rotithor; Jorge Forsythe; Stephen Teti; Klaus Horsch
Cc: Robbie Frazier; Santhosha Shanbhogue; Brenden Foster
Subject: RE: Newington 1 - 826217 - project#87581.005.01

Hello Hari,

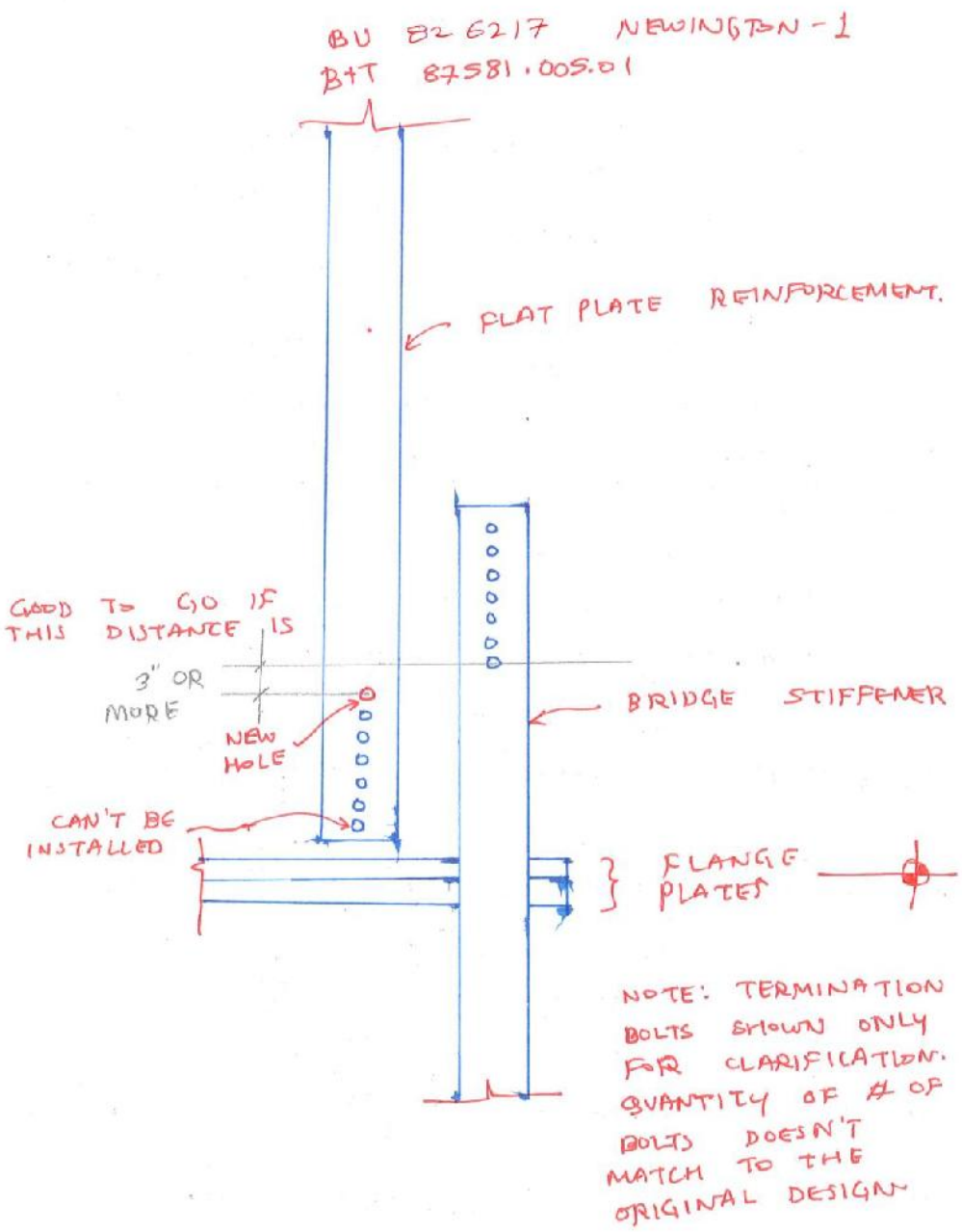
The crew has ran into another issue,

Between the 20' & 40' elevation, they started installing the flat bar; when they tried drilling the very top hole and very bottom hole of the flat bar. They encountered a gusset inside the pole, that prevented them from drilling all the way through(photos attached).

Can we eliminate the very top hole and bottom hole and add a hole to the terminations, so that we would have the correct amount of termination holes; I believe rotating the bars would not be a good option, since they have drilled a lot of holes below the problem area.

This problem may re-occur at other elevations.

1


BU 82 6217 NEWINGTON - 1
B+T 87581.005.01
FLAT PLATE REINFORCEMENT.
GOOD TO GO IF THIS DISTANCE IS 3" OR MORE
NEW HOLE
BRIDGE STIFFENER
CAN'T BE INSTALLED
FLANGE PLATES
NOTE: TERMINATION BOLTS SHOWN ONLY FOR CLARIFICATION. QUANTITY OF # OF BOLTS DOESN'T MATCH TO THE ORIGINAL DESIGN

From:	Rohitash Jain
Sent:	Tuesday, December 30, 2014 9:49 AM
To:	Keith_ Stackhouse
Cc:	SGS_PMI@sgstowers.com; Matthew_ Novak; Robbie Frazier; Bruno, Jerry (Contractor); Braden Tabb; Kishore Machani; Jamie Hayes; Amy Tebow; Iccmods; D'Amico, Jason (Vendor); Donahue, James (Vendor); Dan Sinnott; Ali Abbaszadeh
Subject:	RE: 826217 - Newington_1 826217 130573 Punch List: B+T Group EOR Approval Request 12-26-14 (Urgent)
Categories:	Newington 1 - 826217 - 131099

Hey Keith,
Below are my comments for the punch list.
#1. It is acceptable. We would recommend providing mapping for the tower since the flanges are off from what is specified in the manufacturing drawings.
#6. Acceptable.
#8. 18'6" is a typo. It should be 13'3".
#9. It is acceptable.
#10. It is acceptable.

Please let me know if you have any other questions or concerns.

Thanks,
Rohitash Jain, Project Engineer

1717 South Boulder Ave., Suite 300, Tulsa, Oklahoma 74119
M (352) 870-8698 + O (918) 587-4630 + btgrp.com

From: Ali Abbaszadeh [mailto:AAbbaszadeh@btgrp.com]
Sent: Monday, December 29, 2014 4:31 PM
To: Matthew_ Novak; Cameron McElreath
Cc: Robbie Frazier; Bruno, Jerry (Contractor); Braden Tabb; Kishore Machani; Rohitash Jain; Jamie Hayes; Amy Tebow; lccmods; Donahue, James (Vendor); D'Amico, Jason (Vendor); Keith_ Stackhouse
Subject: RE: 826217 - Newington_1 826217 130573 Punch List: B+T Group EOR Approval Request 12-26-14 (Urgent)

Matt,

As long as the only difference was size of the washers, it is structurally acceptable.

Thank you,
Ali Abbaszadeh, E.I.T., Project Engineer

1717 South Boulder Ave., Suite 300, Tulsa, Oklahoma 74119
O (918) 587-4630 x 169 + btgrp.com + aabbaszadeh@btgrp.com

B+T GRP

From: Cameron McElreath [mailto:cameron.mcelreath@sgstowers.com]
Sent: Monday, December 29, 2014 3:06 PM
To: 'Ali Abbaszadeh'
Cc: 'Matthew_ Novak'; 'Robbie Frazier'; 'Bruno, Jerry (Contractor)'; 'Braden Tabb'; 'Kishore Machani'; 'Rohitash Jain'; 'Jamie Hayes'; 'Amy Tebow'; 'lccmods'; 'Donahue, James (Vendor)'; 'D'Amico, Jason (Vendor)'; 'Keith_ Stackhouse'
Subject: RE: 826217 - Newington_1 826217 130573 Punch List: B+T Group EOR Approval Request 12-26-14 (Urgent)

Ali,

Please see attached photos regarding Punch Item 6. There were atypical flat washers installed that were larger than the AJAX Washers.

Regards,

Cameron McElreath
SGS Towers
919-819-2938
cameron.mcelreath@sgstowers.com

PUNCH ITEM 1

HEIGHT	FLAT/ARC	PLATE #	PLATE HT START/STOP	DRAWING PG #
10 ¾" – 106'-6"	All	1-6	6" – 105'-6"	S4

DISCREPANCY:

Actual plate heights found on the tower were.

- Plate 1 observed at 10 ¾" – 10'-10 ¾", drawings specify 6" – 10'-6".
- Plate 2 observed at 20'-8 ¾" – 39'-8 ¾", drawings specify 20'-6" – 39'-6".
- Plate 3 observed at 40'-11 ½" – 59'-11 ½", drawings specify 40'-6" – 59'-6".
- Plate 4 observed at 61'-2 ½" – 80'-2 ½", drawings specify 60'-6" – 79'-6"
- Plate 5 observed at 81'-4 ½" – 91'-4 ½", drawings specify 80'-6" – 90'-6"
- Plate 6 observed at 101'-6" – 106'-6", drawings specify 100'-6" – 105'-6"

ACTIONS NEEDED BY GC:

Provide EOR approval for the existing conditions or install per the modification drawings.

PHOTOGRAPHS




PUNCH ITEM 3

HEIGHT	FLAT/ARC	PLATE #	PLATE HT START/STOP	DRAWING PG #
Base	10 positions	Stiffener	N/A	S5

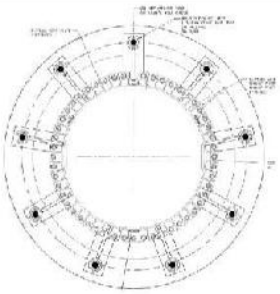
DISCREPANCY:

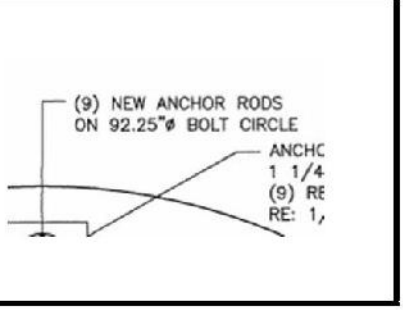
(10) anchor rod stiffeners were found to be installed on the tower. Drawings show 9

ACTIONS NEEDED BY GC:

Provide EOR approval for the existing conditions.

PHOTOGRAPHS





PUNCH ITEM 4

HEIGHT	FLAT/ARC	PLATE #	PLATE HT START/STOP	DRAWING PG #
3'-4"	Position 2	1	3'-4" – 13'-4"	S4

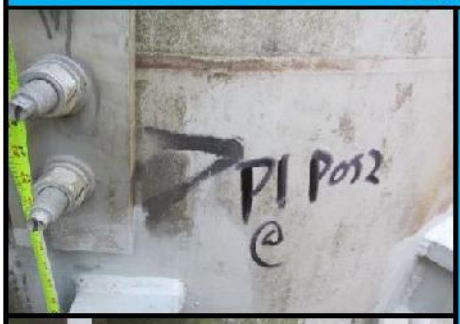
DISCREPANCY:

The above mentioned plate had a start height of 3' 4".

ACTIONS NEEDED BY GC:

Provide EOR approval for the existing conditions.

PHOTOGRAPHS



SGS_PMI@Sgstowers.com

PUNCH ITEM 6

HEIGHT	FLAT/ARC	PLATE #	PLATE HT START/STOP	DRAWING PG #
60'	All	Bridge 3	55'-5 ½" – 73'-4 ½"	S3

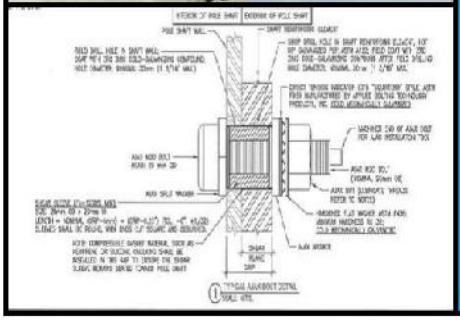
DISCREPANCY:

Ajax bolts/washers were found in the above mentioned locations, to be different than specified in the drawings.

ACTIONS NEEDED BY GC:

Provide EOR approval for the existing conditions or install per the modification drawings.

PHOTOGRAPHS



SGS_PMI@Sgstowers.com

PUNCH ITEM 8

HEIGHT	FLAT/ARC	PLATE #	PLATE HT START/STOP	DRAWING PG #
60'	TYP	Bridge 3	55'-2 ½" – 68'-5 ½"	S14

DISCREPANCY:

The drawings call for the bottom plate for bridge stiffener #3 to have a length of 18'-6". The bottom plate was observed with a length of 13'-3".

ACTIONS NEEDED BY GC:

Provide EOR approval for the existing conditions.

PHOTOGRAPHS

ELEVATION	NO. OF BRIDGE STIFFENERS	FLAT PLATE SIZE	BOTTOM "A"
60'	6	CCI–65FB–085125	18'–6"

PUNCH ITEM 9

HEIGHT	FLAT/ARC	PLATE #	PLATE HT START/STOP	DRAWING PG #
20'	See below	Bridge 1	12'-8 ½" – 27'-6 ½"	S6

DISCREPANCY:

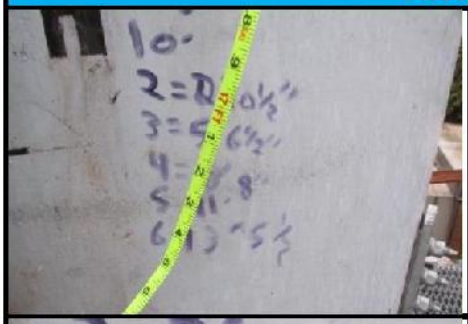
The drawings call for the newly installed bridge stiffeners to be evenly spaced. Bridge stiffener #1 was observed with the following degree separations:

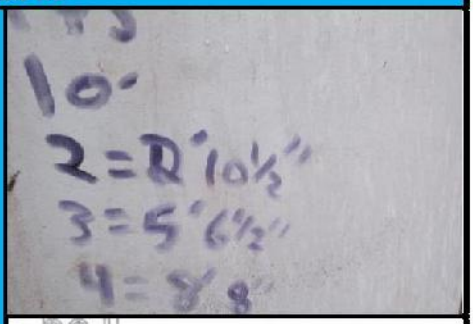
Bridge Stiffeners	A-B	B-C	C-D	D-E	E-F	F-A
Degree of Sep	65.4°	60.6°	71.1°	53.1°	55.9°	54.0°

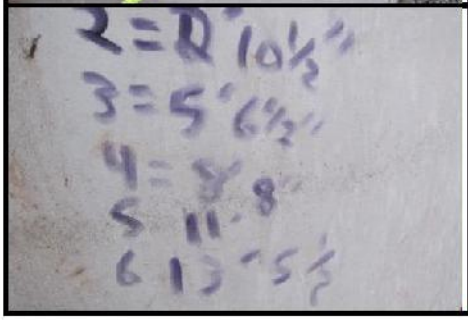
ACTIONS NEEDED BY GC:

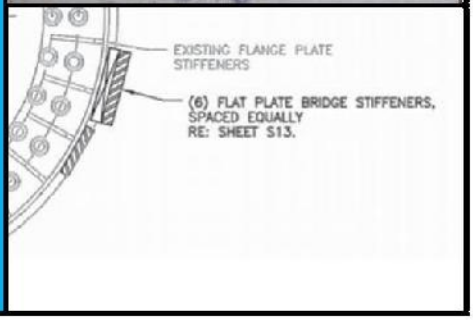
Provide EOR approval for the existing conditions.

PHOTOGRAPHS









PUNCH ITEM 10

HEIGHT	FLAT/ARC	PLATE #	PLATE HT START/STOP	DRAWING PG #
10 ¾"	See below	1	10 ¾" – 10'-10 ¾"	S6

DISCREPANCY:

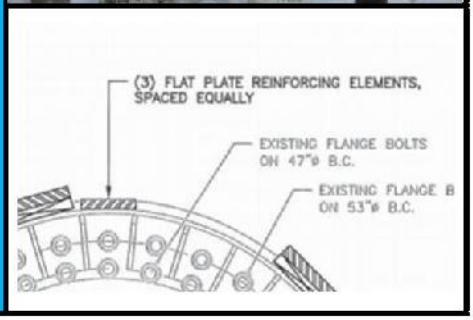
The drawings call for the newly installed plates to be evenly spaced. Plate #1 was observed with the following degree separations:

Plates	A-B	B-C	C-A
Degree of Sep	126.9°	115.6°	117.5°

ACTIONS NEEDED BY GC:

Provide EOR approval for the existing conditions.

PHOTOGRAPHS



6.3.3 PHOTOGRAPHS

6.3.4 POST INSTALLED ANCHOR ROD PULL-OUT TESTING

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

MICROPILE PULL & COMPRESSION TEST REPORT

SITE NAME:	Newington 1
ADDRESS:	240 Kennsington Rd. Berlin, CT
CROWN BU #:	826217
DATE OF TEST	10/02/2014
TECHNICIAN	Joe Gentes
ANCHOR SIZE:	1 3/8"
QUANTITY OF TEST MICROPILES INSTALLED:	8
QUANTITY TESTED:	4
GROUT USED:	Euclid NS grout.
WEATHER CONDITIONS:	SUNNY
TEST UNIT:	ENERPAC 200 ton
TEST RESULT # 1:	PASS
COMMENTS:	Pulled to 67 kips and held for 2 minutes Pulled to 81 kips and held for 2 minutes Pulled to 90 kips and held for 5 minutes

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856-810-1658 (Ph) 856-810-1659 (Fax)

From: Ali Abbaszadeh <AAbbaszadeh@btgrp.com>
Sent: Wednesday, December 31, 2014 10:33 AM
To: Brenden Foster; SGS PMI; Keith_ Stackhouse; Robbie Frazier
Cc: ModInspections; lccmods; Bruno, Jerry (Contractor); Donahue, James (Vendor); D'Amico, Jason (Vendor); cameron.mcelreath@sgstowers.com
Subject: RE: Newington 1 - 826217 - project#87581.005.01 - Close outs

SGS,

90 Kip pull-test looks good to me. Let me know if there is any other concerns.

Thanks,
Ali Abbaszadeh, E.I.T., Project Engineer

1717 South Boulder Ave., Suite 300, Tulsa, Oklahoma 74119
O (918) 587-4630 x 169 + btgrp.com + aabbaszadeh@btgrp.com

B+T GRP

From: Brenden Foster [mailto:brenden_foster@lcc.com]
Sent: Wednesday, December 31, 2014 8:13 AM
To: SGS PMI; Keith_ Stackhouse; Robbie Frazier
Cc: ModInspections; lccmods; Bruno, Jerry (Contractor); Donahue, James (Vendor); D'Amico, Jason (Vendor); cameron.mcelreath@sgstowers.com
Subject: RE: Newington 1 - 826217 - project#87581.005.01 - Close outs

Good morning everyone,
Sorry for the late response I am not sure how this one slipped through the cracks. Please see the attached Rock Anchor Pull test! Please let me know if you need anything else.

Brenden Foster
Project Coordinator

LCC

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