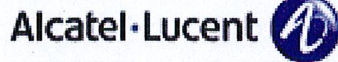


EM-SPRINT-004-130502

277 Huckleberry Road

Avon



RECEIVED
JUL 10 2014

1 Robbins Road
Westford, MA 01886

July 9, 2014

State of Connecticut
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

CONNECTICUT
SITING COUNCIL

RE: Notification of Construction Completion on telecommunication facilities

To whom it may concern:

Alcatel Lucent hereby acknowledges that the list of attached sites have completed construction per the approval granted on the specified date. Please advise if further information is needed..

Very truly yours,

Martha Powers

Martha Powers
Lead Development Manager
Alcatel-Lucent
Sprint Vision Project
1 Robbins Road
Westford, MA 01886

Cc: FST, Siterra

EM/TS #	Address	Town	Sprint ID	Decision Date
EM-SPRINT-062-130912	1065 Wintergreen Avenue	Hamden	CT03XC003	10/15/2013
EM-SPRINT-NEXTEL-060-130118	10 Tanner Marsh Road	Guilford	CT03XC022	2/14/2013
EM-SPRINT-004-130822	181 Montevideo Road	Avon	CT03XC053	9/6/2013
EM-SPRINT-NEXTEL-155-130214	1358 New Britain Ave.	West Hartford	CT03XC057	3/1/2013
EM-SPRINT-NEXTEL-164-130201	440 Hayden Station Road	Windsor	CT03XC065	3/8/2013
EM-SPRINT-NEXTEL-132-130201	59 McGuire Road	South Windsor	CT03XC066	3/1/2013
EM-SPRINT-NEXTEL-054-130201	299 Paxton Way	Glastonbury	CT03XC081	3/1/2013
EM-SPRINT-NEXTEL-094-130214	36 Prospect Street	Newington	CT03XC084	3/1/2013
EM-SPRINT-110-130725	10 Sparks Street	Plainville	CT03XC086	8/8/2013
EM-SPRINT-007-130314	260 Beckley Road	Kensington	CT03XC088	4/5/2013
EM-SPRINT-NEXTEL-155-130201	570 New Park Avenue	West Hartford	CT03XC091	3/1/2013
EM-SPRINT-NEXTEL-106-130201	430 Middlesex Turnpike	Old Saybrook	CT03XC102	3/1/2013
EM-SPRINT-NEXTEL-105-130201	30 Short Hills Road	Old Lyme	CT03XC104	3/1/2013
EM-SPRINT-NEXTEL-152-130201	41 Manitock Hill Road	Waterford	CT03XC105	3/1/2013
EM-SPRINT-NEXTEL-045-130201	93 Roxbury Road	East Lyme	CT03XC110	3/1/2013
EM-SPRINT-152-130114	45R Fargo Road	Waterford	CT03XC112	2/14/2013
EM-SPRINT-NEXTEL-027-130201	48 Cow Hill Road	Clinton	CT03XC156	3/1/2013
EM-SPRINT-NEXTEL-082-130201	238 Meridan Road	Middlefield	CT03XC160	3/8/2013
EM-SPRINT-047-130109	160 Plantation Road	East Windsor	CT03XC202	2/7/2013
EM-SPRINT-NEXTEL-077-130214	53 Slater Street	Manchester	CT03XC211	3/1/2013
EM-SPRINT-142-130109	497 Old Post Road	Tolland	CT03XC212	2/7/2013
EM-SPRINT-NEXTEL-042-130222	94 East High Street	East Hampton	CT03XC335	3/8/2013
EM-SPRINT-057-121226	Butternut Hollow Road	Greenwich	CT03XC343	1/11/2013
EM-SPRINT-158-130213	515 Boston Post Road	Westport	CT03XC355	3/1/2013
EM-SPRINT-046-130402	206 Everett Road	Easton	CT03XC362	4/19/2013
EM-SPRINT-085-130322	474 MAIN STREET	MONROE	CT03XC365	4/5/2013
EM-SPRINT-086-131011	57 Cook Drive	Montville	CT03XC365	10/25/2013
EM-SPRINT-118-130322	76 EAST RIDGE	RIDGEFIELD	CT03XC370	4/5/2013
EM-SPRINT-097-131230	20 Barnabas Road	Newtown	CT03XC383	1/21/2014
EM-SPRINT-051-130207	3965 Congress Street	Fairfield	CT03XC385	3/1/2013
EM-SPRINT-NEXTEL-094-130214	123 Costello Road	Newington	CT23XC555	3/1/2013
EM-SPRINT-119-131008	699 Old Main Street	Rocky Hill	CT23XC556	10/25/2013
EM-SPRINT-077-131008	60 Adams Street	Manchester	CT23XC557	10/25/2013
EM-SPRINT-NEXTEL-080-130123	462 West Main Street	Meriden	CT25XC840	2/14/2013
EM-SPRINT-096-130920	18 Hilltop View Lane	New Milford	CT33XC095	10/4/2013
EM-SPRINT-157-130213	237 Godfrey Road	Weston	CT33XC522	3/1/2013
EM-SPRINT-018-131008	20 Vale Road	Brookfield	CT33XC525	10/25/2013
EM-SPRINT-077-130528	595 Keeney Street	Manchester	CT33XC538	6/14/2013
EM-SPRINT-NEXTEL-129-130214	400 Main Street	Somers	CT33XC554	3/1/2013
EM-SPRINT-047-130322	15 CHAMBERLAIN	BROADBROOK	CT33XC565	4/5/2013
EM-SPRINT-004-130502	277 Huckleberry Road	Avon	CT33XC589	5/17/2013

EM-SPRINT-143-130604	218 Wheeler Road	Torrington	CT33XC592	6/28/2013
EM-SPRINT-140-130724	583 Chapel Street	Thomaston	CT33XC603	8/8/2013
EM-SPRINT-103-130920	Charles Marshall Drive	Norwalk	CT33XC802	10/4/2013
EM-SPRINT-NEXTEL-064-130214	439-455 Homestead Ave.	Hartford	CT43XC805	3/1/2013
EM-SPRINT-064-130311	99 Meadow Street	Hartford	CT43XC806	4/5/2013
EM-SPRINT-083-131127	290 Preston Ave.	Middletown	CT43XC816	12/16/2013
EM-SPRINT-128-130920	530 Bushy Hill Road	Simsbury	CT43XC825	10/4/2013
EM-SPRINT-164-130405A	340 Bloomfield Avenue	Windsor	CT43XC826	4/19/2013
EM-SPRINT-077-130109	239 Middle Turnpike	Manchester	CT43XC827	2/13/2013
EM-SPRINT-165-130118	2-4 Volunteer Drive	Windsor Locks	CT43XC828	2/14/2013
EM-SPRINT-NEXTEL-139-130214	44 Fyler Place	Suffield	CT43XC829	3/8/2013
EM-SPRINT-111-130712	171 Town Hill Road	Plymouth	CT54XC712	7/26/2013
EM-SPRINT-009-130322	38 Spring Hill Road	Bethel	CT54XC749	4/5/2013
EM-SPRINT-154-131011	315 Spencer Plains Road	Westbrook	CT54XC758	10/25/2013
EM-SPRINT-023-130405	14 Canton Springs Road	Canton	CT54XC760	4/19/2013
EM-SPRINT-104-130606	153 Old Salem Road	Norwich	CT54XC775	6/28/2013
EM-SPRINT-164-130405B	99 Day Hill Road	Windsor	CT54XC787	4/19/2013
EM-SPRINT-132-130920	300 Governor's Highway	South Windsor	CT60XC014	10/4/2013
EM-SPRINT-094-130108	605 Willard Avenue	Newington	CT60XC018	1/25/2013
EM-SPRINT-146-130506	197 South Street	Vernon	CT60XC935	5/24/2013
EM-SPRINT-146-130311	777 Talcottville Road	Vernon	CT70XC147	4/5/2013
EM-SPRINT-126-130531	62 Birdseye Road	Shelton	CT73XC004	6/21/2013

SBA



June 05, 2014

David Martin and
Members of the Siting Council
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

RECEIVED
JUN - 8 2014
CONNECTICUT
SITING COUNCIL

RE: Notice of Work Complete
277 Huckleberry Hill Road
Avon, CT 06013
Sprint Site #: NV2.5_CT33XC589

Dear Mr. Martin and Members of the Siting Council:

On behalf of Sprint Spectrum, SBA Communications is hereby notifying the Connecticut Siting Council that work has been completed to the aforementioned telecommunications facility.

Pursuant to the Council's letter of acknowledgement dated May 17, 2013, please find the enclosed Post Modification Inspection Report confirming that the installation meets with the recommendations made in the structural analysis report.

Thank you,

Peter Nute
SBA Communications Corporation
33 Boston Post Road West Suite 320
Marlborough, MA 01752
508-251-0720 x 3804 + T
508-251-1755 + F
pnute@sbasite.com



ENGINEERING INNOVATION

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

January 7, 2014

Tim Rosa
Regional Site Manager
SBA Network Services
2490 Bruen Lane
Easton, PA 18040

Subject: Modification Inspection Report

SBA Designation: SBA Site Number: CT46143-A
SBA Site Name: Burlington - Avon Landfill

Inspection Firm Designation: FDH Inc. Project Number: 1303591700

Site Data: 277 Huckleberry Hill Road, Avon, CT 06013
Latitude: 41.7881° Longitude: -72.9182°
100' Wood Pole

FDH Engineering, Inc. is pleased to submit this **"Modification Inspection Report"** (MI Report) to SBA Network Services for the modification/reinforcement to the subject structure. This Modification Inspection (MI) was performed in accordance with Contract Documents, and FDH Inspection Standards. 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 1. The MI is not a review of the adequacy or effectiveness of the modification solution.

Table 1 – General Information

	Company	Contact
MI Inspector	FDH Engineering Inc.	Rakesh Khan, P.E. 919-755-1012
Independent	EOR	Turnkey
Modification Design EOR	FDH Engineering Inc.	919-755-1012
General Contractor	Patriot Towers Inc.	Jeremy King 585-889-3391
Sub to the General Contractor	NA	NA
Field CWI for the General Contractor	IQS, LLC	Kevin J. Adair, CWI 315-589-9389
Field NDE for the General Contractor	NA	NA

Table 2 – Design Documents

Document(s)	Remarks	Source
Tower Modification Drawings	FDH Engineering 1309511400 Dated 06-28-2013	FDH Engineering, Inc.

Based on our inspection, FDH Engineering determines this project:

X_PASSING MI

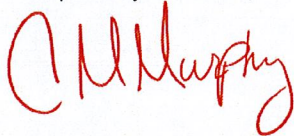
The configuration, materials and/or workmanship of the modifications are installed in accordance with the Contract Documents and no deficiencies were found.

- Issues noted on the MI field notes were approved by the EOR and/or fixed by the GC with approved documentation.
- "Foundation Inspection" was verified via photographs and approved by the EOR before concrete was poured by the GC

All observations were performed after the construction was complete and that FDH Engineering, Inc. was not present during the construction phase.

We at FDH Engineering, Inc. appreciate the opportunity of providing our continuing professional services to you and SBA Network Services. If you have any questions or need further assistance on this or any other projects please give us a call.

Respectfully submitted,



Christopher M. Murphy, P.E.
Connecticut License #25842



Project Closeout Information - Table of Contents

PRE-CONSTRUCTION

- MI Checklist Drawing
- EOR Approved Shop Drawings
- Fabrication Inspection
- Fabricator Certified Welding Inspection (CWI)
- Material Testing Report (MTR)
- Fabricator NDE Inspection
- NDE Report of Monopole Base Plate
- Packing Slips

Reference Document

10
NA
NA
11
12-22
NA
NA
23-32

CONSTRUCTION

- Construction Inspections
- Foundation Inspections
- Concrete Compression Strength and Slump Tests
- Post Installed Anchor Rod Verification
- Base Plate Grout Verification
- Contractor's Certified Weld Inspection
- Earthwork: Lift and Density
- Galvanization Verification
- Guy Wire Tension Report
- GC As-Built Documents

Waived
Waived
33-34
NA
NA
NA
NA
35
36
37-48

POST-CONSTRUCTION

- MI Inspector Redline/Record Drawings
- Engineer Approval
- Post Installed Anchor Rod Pull-out Testing
- On-Site Inspection Photographs

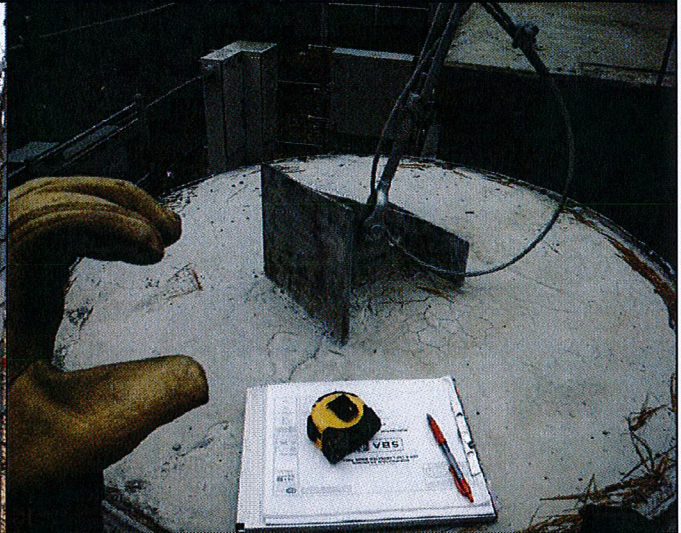
49-60
61-63
NA
See Table 3

Table 3.0 – On-Site Inspection Photographs

PH#01 Site Sign –



PH#02 Installation of Modification –
Installation of Guy Anchor Foundations



PH#03 Installation of Modification –
Installation of Guy Wire Anchors



PH#04 Installation of Modification –
Installation of Guy Wire Anchors

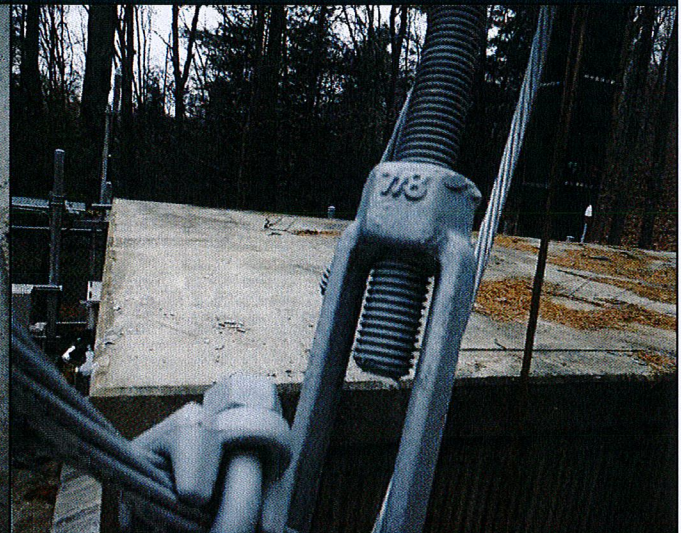


Table 3.1 – On-Site Inspection Photographs

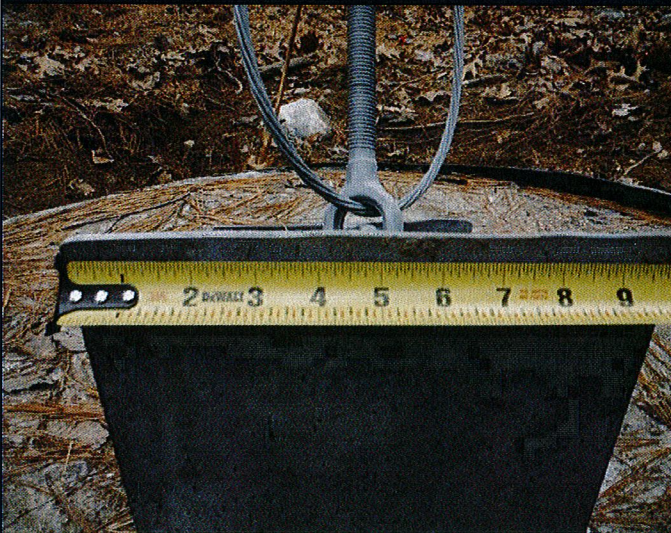
PH#05 Installation of Modification –
Guy Anchor Hardware



PH#06 Installation of Modification –
Guy Anchor Hardware



PH#07 Installation of Modification –
Installation of Guy Anchors



PH#08 Installation of Modification –
Installation of Guy Wires



Table 3.2 – On-Site Inspection Photographs

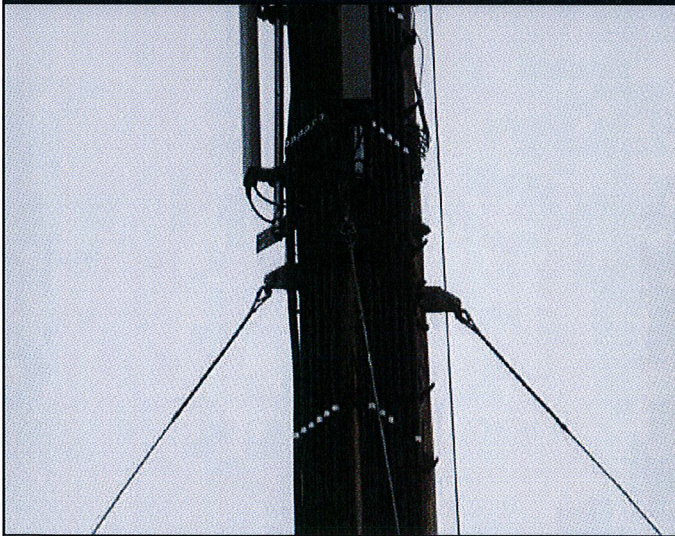
PH#09 Installation of Modification –
Installation of Guy Wire Anchors



PH#10 Installation of Modification –
Installation of Guy Wire Anchors



PH#11 Installation of Modification –
Installation of Lug Plate



PH#12 Installation of Modification –
Installation of Lug Plate

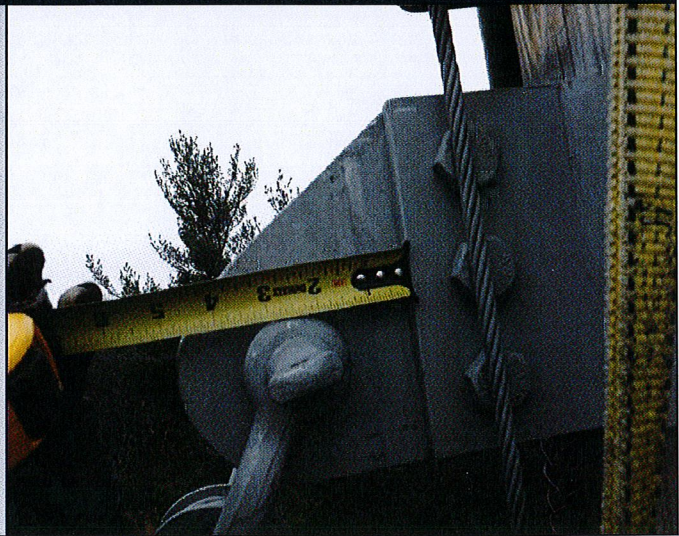


Table 3.3 – On-Site Inspection Photographs

PH#13 Installation of Modification –
Installation of Lug Plate



PH#14 Installation of Modification –
Installation of Lug Plate



PH#15 Installation of Modification –
Installation of Lug Plate



PH#16 Installation of Modification –
Installation of Lug Plate

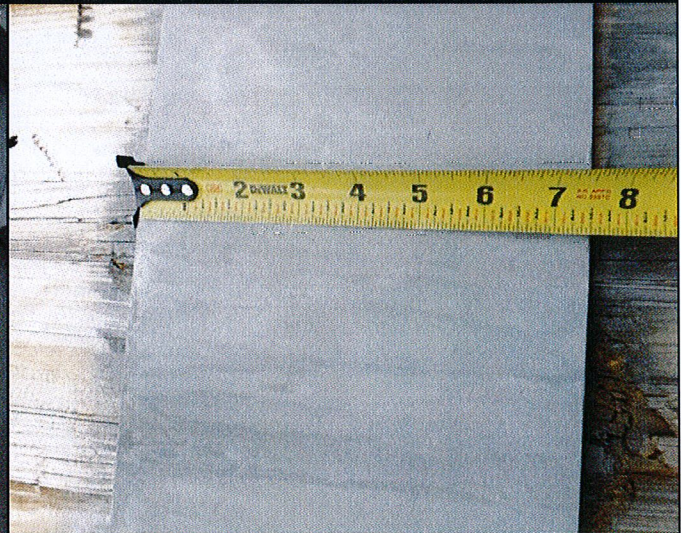
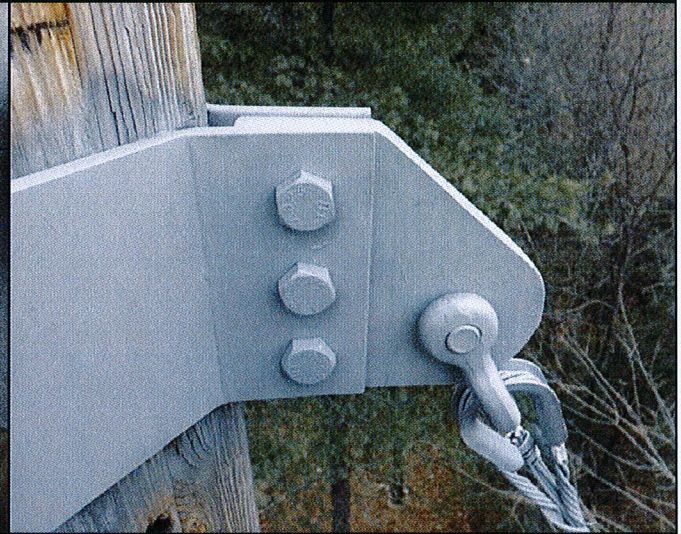


Table 3.4 – On-Site Inspection Photographs

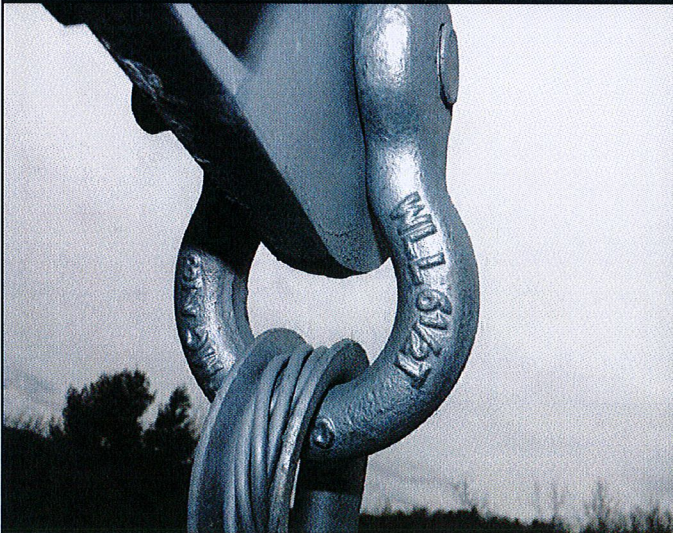
PH#17 Installation of Modification –
Installation of Lug Plate



PH#18 Installation of Modification –
Installation of Guy Wire and Lug Plate



PH#19 Installation of Modification –
Installation of Guy Wire and Hardware



PH#20 Installation of Modification –
Installation of Guy Wire and Hardware

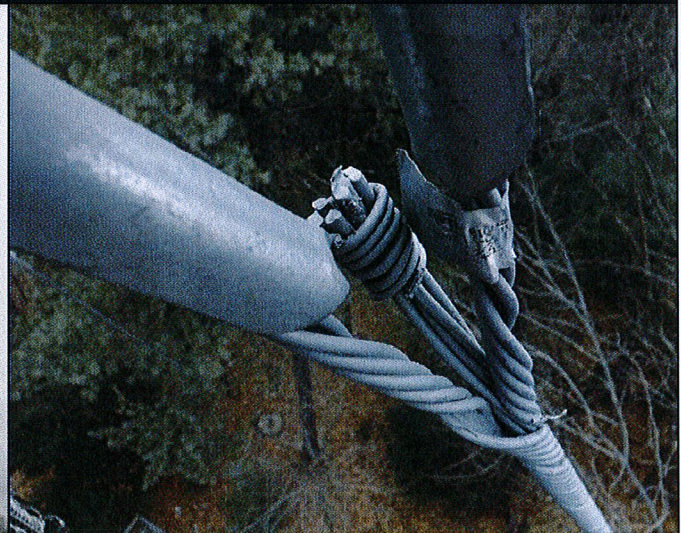
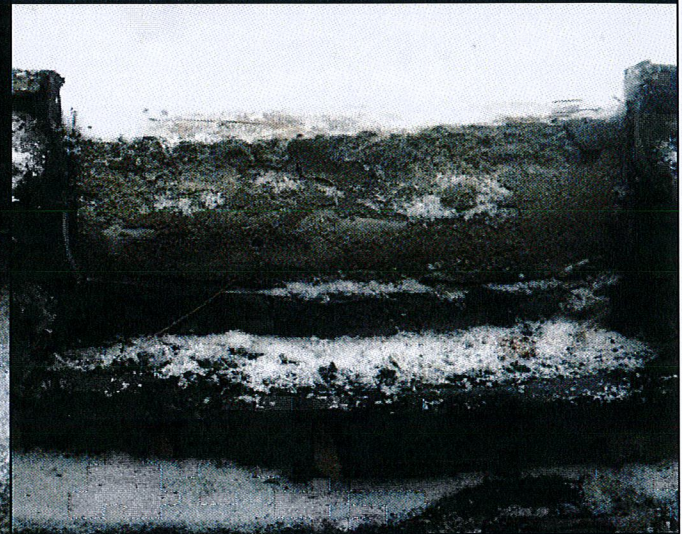


Table 3.5 – On-Site Inspection Photographs

PH#21 Installation of Modification –
Rework Photo Submitted by the GC



PH#22 Installation of Modification –
Rework Photo Submitted by the GC



PH#23 Installation of Modification –
Rework Photo Submitted by the GC



PH#24 Installation of Modification –
Rework Photo Submitted by the GC



PCI CHECKLIST

CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED	REPORT ITEM
PRE-CONSTRUCTION	
X	PCI CHECKLIST DRAWING
N/A	EOR APPROVED SHOP DRAWINGS
N/A	FABRICATION INSPECTION
X	FABRICATOR CERTIFIED WELD INSPECTION
X	MATERIAL TEST REPORT (MTR)
N/A	FABRICATOR NDE INSPECTION
N/A	NDE REPORT OF MONOPOLE BASE PLATE (AS REQUIRED)
X	PACKING SLIPS
ADDITIONAL TESTING AND INSPECTIONS:	
CONSTRUCTION	
X	CONSTRUCTION INSPECTIONS
X	FOUNDATION INSPECTIONS
X	CONCRETE COMP. STRENGTH AND SLUMP TESTS
N/A	POST INSTALLED ANCHOR ROD VERIFICATION
N/A	BASE PLATE GROUT VERIFICATION
N/A	CONTRACTOR'S CERTIFIED WELD INSPECTION
N/A	EARTHWORK: LIFT AND DENSITY
X	ON SITE COLD GALVANIZING VERIFICATION
X	GUY WIRE TENSION REPORT
X	GC AS-BUILT DOCUMENTS
ADDITIONAL TESTING AND INSPECTIONS:	
POST-CONSTRUCTION	
X	PCI INSPECTOR REDLINE OR RECORD DRAWING(S)
N/A	POST INSTALLED ANCHOR ROD PULL-OUT TESTING
X	PHOTOGRAPHS
ADDITIONAL TESTING AND INSPECTIONS:	

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

POST CONSTRUCTION INSPECTION NOTES:

GENERAL

- THE POST CONSTRUCTION INSPECTION (PCI) 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 PCI IS TO CONFIRM INSTALLATION CONFIGURATION AND WORKMANSHIP ONLY AND IS NOT A REVIEW OF THE MODIFICATION DESIGN ITSELF, NOR DOES THE PCI INSPECTOR TAKE OWNERSHIP OF THE MODIFICATION DESIGN. OWNERSHIP OF THE STRUCTURAL MODIFICATION DESIGN EFFECTIVENESS AND INTEGRITY RESIDES WITH THE EOR AT ALL TIMES.
- ALL PCI'S SHALL BE CONDUCTED BY A PCI INSPECTOR THAT IS APPROVED TO PERFORM ELEVATED WORK FOR FDH ENGINEERING, INC.
- TO ENSURE THAT THE REQUIREMENTS OF THE PCI ARE MET, IT IS VITAL THAT THE GENERAL CONTRACTOR (GC) AND THE PCI INSPECTOR BEGIN COMMUNICATING AND COORDINATING AS SOON AS A PO IS RECEIVED. IT IS EXPECTED THAT EACH PARTY WILL BE PROACTIVE IN REACHING OUT TO THE OTHER PARTY. IF CONTACT INFORMATION IS NOT KNOWN, CONTACT YOUR FDH POINT OF CONTACT (POC).
- REFER TO CCR-01 : CONTRACTOR CLOSEOUT REQUIREMENTS FOR FURTHER DETAILS AND REQUIREMENTS.

PCI INSPECTOR

- THE PCI INSPECTOR IS REQUIRED TO CONTACT THE GC AS SOON AS RECEIVING A PO FOR THE PCI TO, AT A MINIMUM:
 - REVIEW THE REQUIREMENTS OF THE PCI CHECKLIST
 - WORK WITH THE GC TO DEVELOP A SCHEDULE TO CONDUCT ON-SITE INSPECTIONS, INCLUDING FOUNDATION INSPECTIONS
- THE PCI 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 PCI REPORT TO FDH.

CORRECTION OF FAILING PCI'S

- IF THE MODIFICATION INSTALLATION WOULD FAIL THE PCI ("FAILED PCI"), THE GC SHALL WORK WITH FDH TO COORDINATE A REMEDIATION PLAN IN ONE OF TWO WAYS:
 - CORRECT FAILING ISSUES TO COMPLY WITH THE SPECIFICATIONS CONTAINED IN THE ORIGINAL CONTRACT DOCUMENTS AND COORDINATE A SUPPLEMENT PCI.
 - OR, WITH FDH'S APPROVAL, THE GC MAY WORK WITH THE EOR TO RE-ANALYZE THE MODIFICATION/REINFORCEMENT USING THE AS-BUILT CONDITION.

REQUIRED PHOTOS

- BETWEEN THE GC AND THE PCI INSPECTOR THE FOLLOWING PHOTOGRAPHS, AT A MINIMUM, ARE TO BE TAKEN AND INCLUDED IN THE PCI REPORT:
 - PRE-CONSTRUCTION GENERAL SITE CONDITION
 - PHOTOGRAPHS DURING THE REINFORCEMENT MODIFICATION CONSTRUCTION/ERECTION AND INSPECTION
 - RAW MATERIALS
 - PHOTOS OF ALL CRITICAL DETAILS
 - FOUNDATION MODIFICATIONS
 - WELD PREPARATION
 - BOLT INSTALLATION AND TORQUE
 - FINAL INSTALLED CONDITION
 - SURFACE COATING REPAIR
 - POST CONSTRUCTION PHOTOGRAPHS
 - FINAL INFIELD CONDITION
- PHOTOS OF ELEVATED MODIFICATIONS TAKEN FROM THE GROUND SHALL BE CONSIDERED INADEQUATE.

PREPARED BY:

FDH

6521 MERIDIEN DRIVE
RALEIGH, NC 27616
PHONE: 919-755-1012
FAX: 919-755-1031

ENGINEERING INNOVATION

PREPARED FOR:

SBA

5800 BROKEN SOUND PARKWAY, NW
BOCA RATON, FL 33487
(800) 487-SITE

STATE OF CONNECTICUT

Christopher M. Murphy

No. 25842

PROFESSIONAL ENGINEER

06/28/13

CHRISTOPHER M. MURPHY, P.E.
CONNECTICUT LIC. NO. 25842

DRAWN BY:JMR

CHECKED BY:AB

ENG APP'VD:CMM

PROJECT NO:1309511400

SUBMITTALS

DATE	DESCRIPTION	REV
03/18/13	PRELIMINARY/REVIEW	A
06/28/13	CONSTRUCTION	0

THE INFORMATION CONTAINED IN THIS SET OF DOCUMENTS IS PROPRIETARY BY NATURE. REPRODUCTION OR CAUSING TO BE REPRODUCED THE WHOLE OR ANY PART OF THESE DRAWINGS WITHOUT THE PERMISSION OF FDH ENGINEERING, INC. IS PROHIBITED.

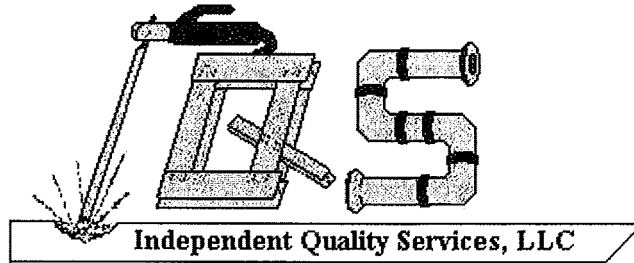
SITE NAME:
BURLINGTON
AVON LANDFILL

SITE NUMBER:
CT46143-A

SITE ADDRESS:
277 HUCKLEBERRY HILL ROAD
AVON, CT 06013

SHEET TITLE
POST CONSTRUCTION
INSPECTION NOTES

SHEET NUMBER
N-1



6559 Lake Avenue ~ Williamson, New York 14589-9504 ~ USA
Phone (315) 589-9389 ~ Fax (315) 589-9628 ~ Email kadair.iqs@gmail.com

September 6, 2013

Report # 13-0906-01

Kevin J Adair, CWI
Christina G Cosden

Inspection & Observations Report

Inspection Site: Patriot Towers – Rochester, NY

Project Name: Burlington-Avon Landfill

Site#: CT46143-A

Contractor Name: Patriot Towers

Client Name: Patriot Towers

Specific Inspection Area: All welds on four I-Beam anchors with new bearing plates

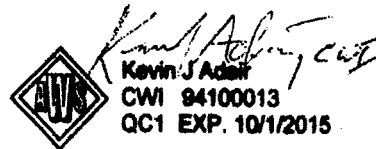
Weldment Type(s): Fillet

Inspection Type(s): Visual

Inspection Code: ANSI/AWS D1.1 “Structural Welding Code - Steel”

Welder Verified: Yes

Inspection results: Inspection was conducted in accordance with the aforementioned code(s), standards and project documents. Visual inspection was conducted today on all welds on four I-beam anchors with new bearing plates for the new guy anchor foundation. There are no known outstanding deficiencies on these weldments.



Reinspection Required: No

Project Status (Continuing/Closed): Closed

Inspection results reported to: Patriot Towers representatives

Kevin J. Adair, CWI #94100013



CONTROLLED DOCUMENT

Fabricator/Supplier Material Statement Form Number: MTR-01

Site Name:	Burlington-Avon Landfill
Site ID:	CT46143-A
Proposed Carrier:	AT&T
Tower Type:	100' Laminated Wood Pole
Site Address:	277 Huckleberry Hill Road Avon, CT 06013

FDH No.:	1303591700
Str. Analysis Date:	1/14/13
Drawing Date:	6/28/13
Drawing Issue:	Construction
Coordinates:	41.7881° -72.9182°

Material Statement

This statement certifies that all materials and hardware bearing the above listed descriptions were used in this project/order. The attached "mill test reports" (MTR) are specific to the site listed above only. The performing contractor must submit all MTRs in order to receive a passing Post Modification Inspection. Failure to provide these documents could result in nonpayment, PO deductions and/or additional scopes of work.

Material Information

No.	Material Description	Project Use	Vendor	QTY	Heat No.	ASTM Spec
1	3/4 Hot Rolled Plate x 10.875"	Fabrication	Klein Steel	16	R1705	A36
2	3/4 Hot Rolled Plate x 9"	Fabrication	Klein Steel	4	R1705	A36
3	3/8 Hot Rolled Plate x 33.1875"	Fabrication	Klein Steel	2	4069P3	A36
4	3/8 Hot Rolled Plate x 18.875"	Fabrication	Klein Steel	2	4069P3	A36
5	3/8 Hot Rolled Plate x 22.875"	Fabrication	Klein Steel	2	A3E133	A36
6	Rebar #9 Vertical Members	Foundation Repair	Klein Reinforcing	1 set	61093632/05	60
7	Rebar #4 3' x 6" Hoops	Foundation Repair	Klein Reinforcing	1 set	61093337/04	60
8	1-8 x 21 Galv Threaded Stud	Fabrication	Fasteners Direct	8		
9	1" Galv Lock Washer	Fabrication	Fasteners Direct	12		
10	1-8 Galv Heavy Hex Nut	Fabrication	Fasteners Direct	12		
11	3/4-10 x 2-1/2 Galv Hex Head Bolt	Fabrication	Fasteners Direct	12		A325
12	3/4 Galv Lock Washer	Fabrication	Fasteners Direct	12		
13	3/4-10 Galv Heavy Hex Nut	Fabrication	Fasteners Direct	12		A194
14	Rod 1" x 21'	Fabrication	Fasteners Direct	6	5801310902 & 63131478/02	A36
15	1/2" Guy Wire		Sabre	400'		A475
16	1/2" Guy Wire Hardware kit		Sabre	4		

ALL MTRS LISTED ABOVE MUST BE INCLUDED WITH THIS STATEMENT AND HEAT NO. INITIALED. DO NOT INCLUDE NON-APPLICABLE MTRS.

Notary Statement

Patriot Towers Inc.

Subcontractor Company Name



9/26/2013

Authorized Signature

Date

Douglas Harradine

Printed Name

Vice President

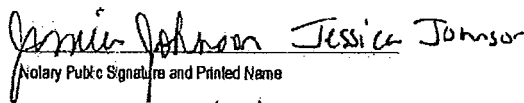
Title

State Of: New York

County Of: Monroe

I, Jessica Johnson, a Notary Public of Monroe County, NY, certify that Douglas Harradine personally appeared before me this day and acknowledged that he/she is the Vice President (title) of Patriot Towers Inc. (subcontractor), a S corporation, and as Vice President (title), being authorized to do so, executed the foregoing instrument on behalf of the corporation. Witness my hand and office of stamp or seal, this 23rd day of September, 20 13.

JESSICA JOHNSON
Notary Public, State of New York
Qualified in Monroe County
Reg. No. 01JO6194496
Commission Expires 9/29/2016


Notary Public Signature and Printed Name

My Commission Expires: 9/29/2016

(Notary Stamp or Seal)

Customer Name

Patriot Towers Inc

Customer PO#

000967

Shipper No

477568

Heat Number

R1705

28Jun13 8:30

T E S T C E R T I F I C A T E

No: 1 83971

THE UNIVERSAL STEEL COMPANY
6600 GRANT AVENUE
CLEVELAND, OH 44105
Tel: 216 883-4972 Fax: 216 341-0421

P/O No MF5727
Rel
S/O No 1 200116-003
B/L No 1 171956-003 Shp 28Jun13
Inv No Inv

Sold To: (110053)
KLEIN STEEL
105 VANGUARD PKWY
ROCHESTER NY 14606

Ship To: (999)
KLEIN STEEL
CUSTOMER PICK UP
ROCHESTER NY

Tel: 585-328-4000 Fax: 585-647-5175

CERTIFICATE of ANALYSIS and TESTSCert. No: 1 83971
28Jun13

Part No P3448
Hot Roll Sheet A36
.7400 Min X 48.0000" X 96.0000"

Pcs Wgt
15 14,793

Heat Number	Tag No	Pcs	Wgt
R1705	191256	5	4,931
	YLD=<48000>/TEN=<74000>/ELG=<32>/YLD2=<42000>/TEN2=<66500>		
	ELG2=<32>		
R1705	191258	5	4,931
	YLD=<48000>/TEN=<74000>/ELG=<32>/YLD2=<42000>/TEN2=<66500>		
	ELG2=<32>		
R1705	191259	5	4,931
	YLD=<48000>/TEN=<74000>/ELG=<32>/YLD2=<42000>/TEN2=<66500>		
	ELG2=<32>		

Heat Number *** Chemical Analysis ***

Novolipetsk Steel (NLMK)

R1705 C=<.20> Mn=<.71> P=<.008> S=<.004> Si=<.037> Al=<.026> Cu=<.12>
Mo=<.02> Sn=<.035> V=<.003> N=<.006> Cr=<.05> Ni=<.06> Ti=<.001>
B=<.0000> Nb=<.002> Ca=<.0039> Sb=<.001> Origin=<M&M>

<u>Customer Name</u>	<u>Customer PO#</u>	<u>Shipper No</u>	<u>Heat Number</u>
Patriot Towers Inc	000967	477568	4069P3

CERTIFIED TEST REPORT

*CENTER STEEL SALES, INC.
6645 ROOSEVELT AVENUE
ALLEN PARK, MI 48101

DATE: 6/21/13

SOLD TO: KLEIN STEEL SERVICE INC.
105 VANGUARD PKWY
ROCHESTER, NY 14606

SHIP TO: KLEIN STEEL SERVICE INC.
105 VANGUARD PKWY
ROCHESTER, NY. 14606
APPOINTMENT REQUIRED

Cust P/O# MF5728 Part# (HT#4069P3 O
SalesOrd# 876441 02
SIZE: .375 NOM X 72.00 X 144.00

GRADE: HOT ROLLED ASTM A36 ✓ MILL EDGE PLATES

**
DATE SHPPD: 6/21/13

Wt. Shipped 16530

CHEMICAL ANALYSIS

Heat Number 4069P3

C : .17	Mn: .97	P : .009	S : .004
Si: .230	Ti: .002	Cr: .02	
Cu: .02	Al: .029		
B : .0001	Ni: .010		

PHYSICAL PROPERTIES

Tensile 69000 Yield 43000 ✓ Elongation 48.00

MELTED & MFG IN CANADA
EN10204 3.1 ELONG= 48% @ 2"
BOL# BL891742

WE HEREBY CERTIFY THE ABOVE FIGURES ARE ACCURATELY STATED, MEET YOUR
MATERIAL REQUIREMENTS AND ARE TRACEABLE IN OUR RECORDS BACK TO THE
PRODUCER AND/OR AN ACCREDITED TEST LABORATORY.

QUALITY CONTROL MANAGER

<u>Customer Name</u>	<u>Customer PO#</u>	<u>Shipper No</u>	<u>Heat Number</u>
Patriot Towers Inc	000967	477568	4069P3

CERTIFIED TEST REPORT

*CENTER STEEL SALES, INC.
6645 ROOSEVELT AVENUE
ALLEN PARK, MI 48101

DATE: 5/31/13

SOLD TO: KLEIN STEEL SERVICE INC.
105 VANGUARD PKWY
ROCHESTER, NY 14606

SHIP TO: KLEIN STEEL SERVICE INC.
105 VANGUARD PKWY
ROCHESTER, NY. 14606
APPOINTMENT REQUIRED

Cust P/O# MF5613 Part# (HT#4069P3 ON T
SalesOrd# 875946 02
SIZE: .375 NOM X 72.00 X 144.00

GRADE: HOT ROLLED ASTM A36 MILL EDGE PLATES

DATE SHPPD: 5/31/13

Wt. Shipped 5510

CHEMICAL ANALYSIS

Heat Number 4069P3

C : .17	Mn: .97	P : .009	S : .004
Si: .230	Ti: .002	Cr: .02	
Cu: .02	Al: .029		
B : .0001	Ni: .010		

PHYSICAL PROPERTIES

Tensile 69000 Yield 43000 Elongation 48.00

MELTED & MFG IN CANADA
ELONG--48% @ 2"
BOL# BL891469 EN10204 3.1

WE HEREBY CERTIFY THE ABOVE FIGURES ARE ACCURATELY STATED, MEET YOUR
MATERIAL REQUIREMENTS AND ARE TRACEABLE IN OUR RECORDS BACK TO THE
PRODUCER AND/OR AN ACCREDITED TEST LABORATORY.

QUALITY CONTROL MANAGER



US-ML-SAYREVILLE
NORTH CROSSMAN ROAD
SAYREVILLE, NJ 08872
USA

CERTIFIED MATERIAL TEST REPORT

Page 1/1

CUSTOMER SHIP TO KLEIN REINFORCING SERVICES INC 11 TURNER DR SPENCERPORT NY 14559-1930 USA		CUSTOMER BILL TO KLEIN REINFORCING SERVICES INC 11 TURNER DR SPENCERPORT NY 14559-1930 USA		GRADE 60 (420)	SHAPE / SIZE Rebar / #9 (29MM)	Vertical Number	
SALES ORDER 445710/000010		CUSTOMER MATERIAL N°		LENGTH 60'00"	WEIGHT 29,376 LB	HEAT / BATCH 61093632/05	
CUSTOMER PURCHASE ORDER NUMBER mark061813				SPECIFICATION / DATE OF REVISION 1-ASTM A615/A615M-09			
BILL OF LADING 1331-0000007027		DATE 06/19/2013					

CHEMICAL COMPOSITION									
C	0.45	Mn	0.64	P	0.020	S	0.040	Si	0.18
Fe									

MECHANICAL PROPERTIES									
YS	63466	MPa	453	UTS	59366	PSI	861	UTS	659
Elong.	15.50	%							

MECHANICAL PROPERTIES									
Beam Test	OK								
Elong.	15.50	%							

GEOMETRIC CHARACTERISTICS									
Def/Hgt	0.070	Inch		Def/Gap	0.177	Inch		Def/Space	0.749
Light	4.70	%			0.182				

COMMENTS / NOTES

The above figures are certified chemical and physical test records as contained in the permanent records of company. This material, including the billets, was melted and manufactured in the USA. We certify that these data are correct and in compliance with specified requirements. CMTR complies with EN 10204 3.1.

Maskary
BHASKAR YALAMANCHILI
QUALITY DIRECTOR

Julius Gebzanich
JULIUS GEBZANICH
QUALITY ASSURANCE MGR.



US-ML-SAYREVILLE
NORTH CROSSMAN ROAD
SAYREVILLE, NJ 08872
USA

CERTIFIED MATERIAL TEST REPORT

Page 1/1

CUSTOMER PURCHASE ORDER NUMBER mark042313		BILL OF LADING 1331-0000006042		DATE 05/21/2013	
CUSTOMER SHIP TO KLEIN REINFORCING SERVICES INC 11 TURNER DR SPENCERPORT, NY 14559-1930 USA		CUSTOMER MATERIAL N° 370522/000040		SPECIFICATION / DATE OF REVISION 1-ASTM A615/A615M-09	
GRADE 60 (420)		SHAPE / SIZE Rebar / #4 (13MM)		WEIGHT 9.620 LB	
LENGTH 40'00"		HEAT / BATCH 61093337/04			

CHEMICAL COMPOSITION																							
C	%	Mn	%	P	%	S	%	Si	%	Al	%	Ni	%	Cr	%	Mo	%	V	%	Ceq	A706	%	
0.39		0.63		0.024		0.057		0.20		0.31		0.21		0.14		0.060		0.013		0.53			
MECHANICAL PROPERTIES																							
YS	MPa	YS	MPa	UTS	PSI	UTS	MPa	UTS	MPa	UTS	MPa	UTS	MPa	UTS	MPa	UTS	MPa	UTS	MPa	UTS	MPa	UTS	MPa
69253	478	69253	478	100773	478	100773	692	100773	692	100773	692	100773	692	100773	692	100773	692	100773	692	100773	692	100773	692

MECHANICAL PROPERTIES	Ed	15.00	Ed	15.00	Ed	15.00	Ed	15.00	Ed	15.00	Ed	15.00	Ed	15.00	Ed	15.00	Ed	15.00	Ed	15.00	Ed	15.00	Ed	15.00	Ed	15.00
-----------------------	----	-------	----	-------	----	-------	----	-------	----	-------	----	-------	----	-------	----	-------	----	-------	----	-------	----	-------	----	-------	----	-------

GEOMETRIC CHARACTERISTICS	Def	0.090	Def	0.090	Def	0.090	Def	0.090	Def	0.090	Def	0.090	Def	0.090	Def	0.090	Def	0.090	Def	0.090	Def	0.090	Def	0.090	Def	0.090
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COMMENTS / NOTES

The above figures are certified chemical and physical test records as contained in the permanent records of company. This material, including the billets, was melted and manufactured in the USA. We certify that these data are correct and in compliance with specified requirements. CMTR complies with EN 10204 3.1.

Shaskary
BHASKAR VALAMANCHILI
QUALITY DIRECTOR

Julius Gerzanice
JULIUS GERZANICE
QUALITY ASSURANCE MGR



TEST CERTIFICATE

INVOICE NO.: JMC13007L

PO NO.:01-00050338

Description of Item Being Tested: H.D.GALV TURNBUCKLE JAW & EYE, WITHOUT LOCK NUTS
Applicable U.S. Federal Spec: FF-T-791B, TY.1, FM.1, CL.8
Grade of Steel: C1045 STEEL

SIZE	PART NO.	Specified Breaking Strength	Load at which Sample Broke	Safety Working Load
1/2" X 12"	TBJE1/2X12C	11000LBS	11350LBS	2200LBS
3/4" X 12"	TBJE3/4X12C	26000LBS	26815LBS	5200LBS
7/8" X 12"	TBJE7/8X12C	36000LBS	37125LBS	7200LBS
1.1/2" X 12"	TBJE1.1/2X12C	107000LBS	110350LBS	21400LBS
5/8" X 12"	TBJE5/8X12C	17500LBS	18050LBS	3500LBS

Description of Item Being Tested: H.D.GALV TURNBUCKLE JAW & JAW, WITHOUT LOCK NUTS
Applicable U.S. Federal Spec: FF-T-791B, TY.1, FM.1, CL.7
Grade of Steel: C1045 STEEL

SIZE	PART NO.	Specified Breaking Strength	Load at which Sample Broke	Safety Working Load
1/2" X 6"	TBJJ1/2X6C	11000LBS	11345LBS	2200LBS

Chemical Composition C1045 STEEL

C	SI	Mn	P	S	Cr	Ni	Cu	Ti	V
0.44	0.25	0.54	0.027	0.004	0.06	0.01	0.01	0.005	0.006

TEST DATE: Jan 13, 2015

SIGNATURE: [Signature]



TEST CERTIFICATE

INVOICE NO.: JMC13007L

PO NO.:01-00050338

Description of Item Being Tested: H.D.GALV OPEN THIMBLE HEAVY DUTY

Applicable U.S. Federal Spec: FF-T-276B, TY. III

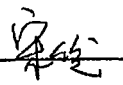
Grade of Steel: Q235B STEEL

SIZE	PART NO.	Specified Breaking Strength	Load at which Sample Broke
1/2"	THMBO1/2C		2.5T
5/8"	THMBO5/8C		4.8T

Chemical Composition Q235B STEEL

C	Si	Mn	P	S
0.130	0.150	0.440	0.011	0.028

TEST DATE: 2013.3.15

SIGNATURE: 



TEST CERTIFICATE

INVOICE NO.: JMC13007L

PO NO.:01-00050338

Description of Item Being Tested: H.D.GALV. SCREW PIN ANCHOR SHACKLE

Applicable U.S. Federal Spec: RR-C-271D, TY.4A, GR.A, CL.2

Grade of Steel: BOW C1045/ PIN 4130 STEEL

SIZE	PART NO.	Specified Breaking Strength	Load at which Sample Broke	Safety Working Load
3/8"	SPA3/8C	6T	6.1T	1T
7/8"	SPA7/8C	39T	40.2T	6.5T

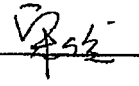
Chemical Composition C1045 STEEL

C	Si	Mn	P	S	Cr	Ni	Cu	Ti	V
0.44	0.25	0.54	0.027	0.004	0.06	0.01	0.01	0.005	0.006

Chemical Composition 4130 STEEL

C	Si	Mn	P	S	Cr	Ni	Cu	Ti	V
0.40	0.25	0.65	0.017	0.008	0.89	0.02	0.02	0.003	0.005

TEST DATE: 2013. 3. 15

SIGNATURE: 

Vendor
Triad Metals International

Heat Number
60102671

Customer Name

Customer PO#

Shipper No

Heat Number

Klein Steel Service

MH19578-OP

187093

60102671

Page 1/1

CERTIFIED MATERIAL TEST REPORT

CUSTOMER SHIP TO TRIAD METALS INTERNATIONAL 1951 BESSEMER RD PETERSBURG, VA 23805-1112 USA		CUSTOMER BILL TO TRIAD METALS INTERNATIONAL MET 1 VILLAGE RD HORSHAM, PA 19044-3800 USA		GRADE 992/572-50	SHAPE / SIZE W/BEAM SHAPE_1 / 12 X 53# / 310 X 79
SALES ORDER 192398/000030		BILL OF LADING 1330-0000014065		LENGTH 60'00"	WEIGHT 12,720 LB
CUSTOMER PURCHASE ORDER NUMBER 45593		DATE 01/23/2013		SPECIFICATION / DATE OF REVISION ASTM A572M-07 A992/A992M-11 ASTM A572M-07	

CHEMICAL COMPOSITION											
C	P	S	Si	Q	Mn	Cu	Mo	S	V	Nb	Al
0.10	0.012	0.0033	0.21	0.34	0.09	0.08	0.019	0.014	0.000	0.017	0.002

CHEMICAL COMPOSITION											
CEPA6											
0.3											

MECHANICAL PROPERTIES											
YS	UTS	YS	UTS	GS	GS						
KSI	KSI	MPa	MPa	mm	mm						
53.2	71.6	367	494	8.000	200.0						
53.3	71.6	368	494	8.000	200.0						

MECHANICAL PROPERTIES											
Elong	Y/T rad										
%	%										
26.40	0.743										
26.90	0.744										

COMMENTS / NOTES

The above figures are certified chemical and physical test records as contained in the permanent records of company. This material including the biller, was melted and manufactured in the USA. We certify that these data are correct and in compliance with specified requirements. CMTR complies with EN 10204 3.1.

Shackay
BHASKAR YALAMANCHILI
QUALITY DIRECTOR

Wale A. H.
WADE LUMPKINS
QUALITY ASSURANCE MGR.

Sabre Industries™

Site Solutions

2101 Murray St • PO Box 658 • Sioux City, IA 51111
Phone: (712) 293-1961 • Fax: (712) 293-1964
www.sabreindustries.com

Pack Slip: 95243

Packing Slip: 95243

Ship To: Patriot Towers Inc -New York
Deanne Carr
870 Scottsville Chili Rd
Scottsville NY 14546-9751

Fax: 585-889-5588

Sold To: Patriot Towers Inc
Deanne Carr
Accounts Payable
870 Scottsville-Chili Road
Scottsville NY 14546

Fax: 585-889-5588

Ship Date: 7/18/2013

Ship Via: UPS Ground

F.O.B.: Origin

1 box - misc/hdw - 52#
30 x 6 x 6
1 bundle - dead end grips - 25#
51 x 6 x 5

Total - 77#

Sales Order: 85783
Burlington Avon Landfill

Your PO: 948

Salesperson: Jacob Robinson

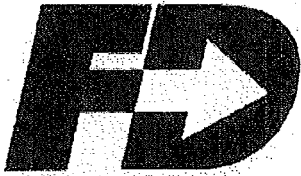
Line/Rel	Shipped Qty	Part Number/Description	Rev
1/1	4.00	C40100013 GUY CABLE HARDWARE KIT FOR 1/2" DIA EHS GUY STRAND	0

Weight : 77.00

Dimensions : 0.00 X 0.00 X 0.00 inches

Total Cubic : -

Packaging Type:



FASTENERS DIRECT
www.fastenersdirect.com

FASTENERS DIRECT
545 BASKET ROAD
WEBSTER, NY 14580

PHONE: 800-691-0292
FAX: 585-265-6678
sales@fastenersdirect.com

PACKING LIST

July 25, 2013 9:38 AM

ORDER



Order #	00144601
Order Date	07/19/2013
Page	1 of 1

BILL TO: PATRIOT TOWERS
870 SCOTTSVILLE-CHILI ROAD
SCOTTSVILLE, NY 14546

SHIP TO: PATRIOT TOWERS
870 SCOTTSVILLE-CHILI ROAD
SCOTTSVILLE, NY 14546

Confirmed With	MR. DOUG HARRADINE
Customer PO#	0976

Salesperson	GARY PARR
Terms	NET 30 DAYS

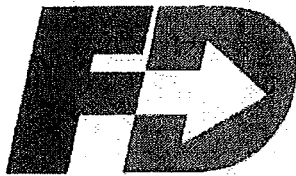
Freight	Freight Acct#	Ship Via	Tracking Number	Shipped Date
		WILL CALL		07/25/2013

Order Qty	Ship Qty	B/O Qty	Item # / Description	Your Part Number	U/M:
-----------	----------	---------	----------------------	------------------	------

Needs Certification with order.

6	6	0	F-130445-21 1-8 X 21 GALVANIZED LOW CARBON FULL THREAD STUD		EA
12	12	0	F-99309 1 GALVANIZED LOCK WASHER		EA
12	12	0	F-99109 1-8 GALVANIZED HEAVY HEX NUT		EA
12	12	0	F-99612 3/4-10 X 2-1/2 GALVANIZED A325 HEX HEAD BOLT		EA
12	12	0	F-99307 3/4 GALVANIZED LOCK WASHER		EA
12	12	0	F-99408 3/4-10 GALVANIZED HEAVY HEX NUT A194 2H		EA

THANK YOU FOR PLACING YOUR ORDER WITH US!



FASTENERS DIRECT
www.fastenersdirect.com

FASTENERS DIRECT
545 BASKET ROAD
WEBSTER, NY 14580

PHONE: 800-691-0292
FAX: 585-265-6678
sales@fastenersdirect.com

**CERTIFICATE OF
CONFORMANCE**

September 24, 2013 1:08 PM

Order # 00148086

Order Date 07/19/2013

Page 1 of 1

PATR120

BILL PATRIOT TOWERS

TO: 870 SCOTTSVILLE-CHILI ROAD

SCOTTSVILLE, NY 14546

SHIP PATRIOT TOWERS

TO: 870 SCOTTSVILLE-CHILI ROAD

SCOTTSVILLE, NY 14546

Confirmed With MR. DOUG HARRADINE

Customer PO# 0976

Salesperson HOUSE ACCOUNT

Terms NET 30 DAYS

Freight	F.O.B	Ship Via	Tracking Number	Req Ship Date
NO CHARGE @ \$250		WILL CALL		07/19/2013

Ship Qty	Item # / Description	Customer Part Number
----------	----------------------	----------------------

2	F-130445-21 1-8 X 21 GALVANIZED LOW CARBON FULL THREAD STUD	
---	--	--

12	F-99309 1 GALVANIZED LOCK WASHER	
----	-------------------------------------	--

12	F-99109 1-8 GALVANIZED HEAVY HEX NUT	
----	---	--

12	F-99612 3/4-10 X 2-1/2 GALVANIZED A325 HEX HEAD BOLT	
----	---	--

12	F-99307 3/4 GALVANIZED LOCK WASHER	
----	---------------------------------------	--

12	F-99408 3/4-10 GALVANIZED HEAVY HEX NUT A194 2H	
----	--	--

Fasteners Direct hereby certifies that all materials used in the manufacture or parts called for on this purchase order do conform to the material specifications indicated in drawings or specifications as called for on said purchase order. All galvanized items are coated per ASTM A153. Test reports are on file with us or with our suppliers for examination and indicate conformance with applicable specification requirements. These reports are available upon request, subject to a fee.

Signed: _____

FD Authorized Representative

Date: _____

Klein Steel Service Inc.

105 Vanguard Pkwy
Rochester, NY 14606
Phone: 585-328-4000 Fax: 585-328-0470
Website: www.kleinsteel.com

July 26, 2013

5:05:19AM

Page 1 of 1

Shipper No. 477568

Bill To Patriot Towers Inc
870 Scottsville-Chili Rd
Scottsville, NY 14546

Ship To Patriot Towers Inc
870 Scottsville-Chili Rd
Scottsville, NY 14546

Attn: Doug Harradine

585-889-3391

Terms: 5% 10 Net 30

Contract:

Customer P.O. Number: 000967

F.O.B.: Delivered

Ship Via: Klein

Sales 1: Geoff Grambo

Sales 2: Robert Corsaro

Order No: 477568

Due Date: 7/26/13

Ship Qty	Order Qty	UM	Description	Width	Length	Weight
16	16	P	3/4 HOT ROLLED A36 PLATE BURN ✓ TOL: +1/8", -0 ✓ Job Name: Burlington Avon Landfill Heat Numbers: R1705(16)	4.75"	10.875"	175.80
4	4	P	3/4 HOT ROLLED A36 PLATE BURN ✓ TOL: +1/8", -0 ✓ Job Name: Burlington Avon Landfill Heat Numbers: R1705(4)	7.5"	9"	57.43
2	2	P	3/8 HOT ROLLED A36 PLATE BURN ✓ TOL: +1/8", -0 ✓ Job Name: Burlington Avon Landfill Heat Numbers: 4069P3(2)	7.5"	33.1875"	52.96
2	2	P	3/8 HOT ROLLED A36 PLATE BURN ✓ TOL: +1/8", -0 ✓ Job Name: Burlington Avon Landfill Heat Numbers: 4069P3(2)	7.5"	18.875"	30.12
24	24			Total Weight		316.31

Shipping Instructions:

Receiving Hours: 8 AM - 3 PM

Max Bundle Weight: 0

Spacers: Fork Lift Unloading

Test Certificates Required

Messages:

Job Name: Burlington Avon Landfill

doug@patriottowers.com

Date _____

Driver Sig _____

Print Name _____

Consignee Sig _____

Print Name _____

Customer is responsible for unloading material upon delivery.



KLEIN STEEL SERVICE

*477568

Work Order No. 477568

BURNING

Bill To: Patriot Towers Inc
Scottsville, NY
Order Due Date: 07/26/2013
Inside Sales: Geoff Grambo
Outside Sales: Robert Corsaro
Customer P.O. #: 000967
Terms: .5% 10 Net 30

WEST SAW

STOP #

Ship To: Region: 5R - Southwest
Patriot Towers Inc
870 Scottsville-Chili Rd
Scottsville, NY 14546
Attn: Doug Harradine 585-889-3391

LD Qty	Code	Description	Width	Length	Loc	Weight	Certs	Processing
1	[W1253]	12 X 53# WF BEAM ✓		40' 0"		2,120.00	X	
Comments: INCOMING Job Name: Burlington Avon Landfill								
Line Due Date: 07/26/2013 Line 2								
16	[P34]	3/4 HOT ROLLED A36 PLATE ✓	4.75"	10.875"		175.80	X	Burning
Comments: BURN TOL: +1/8", -0 Job Name: Burlington Avon Landfill BURN-R:								
Line Due Date: 07/26/2013 Line 3								
4	[P34]	3/4 HOT ROLLED A36 PLATE ✓	7.5"	9"		57.43	X	Burning
Comments: BURN TOL: +1/8", -0 Job Name: Burlington Avon Landfill BURN-R:								
Line Due Date: 07/26/2013 Line 4								
2	[P38]	3/8 HOT ROLLED A36 PLATE ✓	7.5"	33.1875"		52.96	X	Burning
Comments: BURN TOL: +1/8", -0 Job Name: Burlington Avon Landfill BURN-R:								
Line Due Date: 07/26/2013 Line 5								



KLEIN STEEL SERVICE

*477568

Work Order No. 477568

Bill To: Patriot Towers Inc
Scottsville, NY
Order Due Date: 07/26/2013
Inside Sales: Geoff Grambo
Outside Sales: Robert Corsaro
Customer P.O. #: 000967
Terms: .5% 10 Net 30

STOP #

Ship To: Region: 5R - Southwest
Patriot Towers Inc
870 Scottsville-Chili Rd
Scottsville, NY 14546

Attn: Doug Harradine 585-889-3391

LD Qty	Code	Description	Width	Length	Loc	Weight	Certs	Processing
2	[P38]	3/8 HOT ROLLED A36 PLATE	7.5"	18.875"		30.12	X	Burning
Comments: BURN TOL: +1/8", -0 Job Name: Burlington Avon Landfill BURN-R:								
Line Due Date: 07/26/2013 Line 6								
1	[W1253]	12 X 53# WF BEAM		20' 0"		1,060.00	X	Saw-Stock
Comments: INCOMING Job Name: Burlington Avon Landfill								
Line Due Date: 07/26/2013 Line 1								
SAW-STOCK:								

Totals:

3,486.31

26

Material Packaging Instructions:

Skids:
Max Bundle Weight: 0
Spacers:
Fork Lift Unloading

Delivery Instructions:

Receiving Hours: 8 AM - 3 PM
Delivery Comments: Job Name: Burlington Avon Landfill

doug@patriottowers.com

Deanne

Signature:

Klein Steel Service Inc.

105 Vanguard Pkwy
Rochester, NY 14606
Phone: 585-328-4000 Fax 585-328-0470
Website www.kleinsteel.com

Burlington-Avon 1432-02

August 30, 2013

4:42:39AM

Page 1 of 1

Shipper No. 483598

Bill To Patriot Towers Inc
870 Scottsville-Chili Rd
Scottsville, NY 14546

Ship To Patriot Towers Inc
870 Scottsville-Chili Rd
Scottsville, NY 14546

Attn. Doug

585-889-3391

Terms. 5% 10 Net 30

Customer P.O. Number: 001130

Contract.

F.O.B. Delivered

Ship Via. Klein

Sales 1: Geoff Grambo

Sales 2: Robert Corsaro

Order No. 483598

Due Date: 8/30/13

Ship Qty	Order Qty	UM	Description	Width	Length	Weight
2	2	P	3/8 HOT ROLLED A36 PLATE BURN TO SIZE TOL:CKS Heat Numbers: A3E133(2)	7.5"	22 875"	36.50
2	2				Total Weight	36.50

Shipping Instructions:

Receiving Hours 8 AM - 3 PM

Max Bundle Weight: 0

Spacers: Fork Lift Unloading

Test Certificates Required

Messages:

doug@patriottowers.com

deanne@patriottowers.com

Date 8-30-13

Driver Sig _____

Print Name KEITH ARGUS

Consignee Sig _____

Print Name _____



Bill of Lading

11 Turner Drive
 Spencerport, NY 14559 USA
 Phone: (585) 352-9433
 Fax: (585) 352-4474

Bill of Lading No: B30912

Ship Date: 8/1/2013

Customer: patriottower

Job Number:

Ship Via: Klein Truck

F.O.B.: Delivered Jobsite

Customer P.O.: 001016

Contact: Amy Karst

Phone: (585) 889-3391

S Patriot Towers, Inc.
 H Job: Burlington-Avon
 I 870 Scottsville-Chili Road
 P Scottsville, NY 14546 USA

T
 O

Quantity Ordered	Quantity This Ship	U M	Description	Weight Lbs.
SO #:KR36389 1,467	1,467	lbs	CC GUZ, Release 001, Burlington-Avon Fabricated Rebar, Plain 3: 10'-6" high by 4'-0" diameter piers 1: 20'-0" high by 4'-0" diameter pier	1,467
Total Weight:				1,467

Special Instructions:

Requested Delivery Date:

8/1/2013

Mill Cert copies required:

1

Received By: *Amy Karst*

Date:

8-1-2013

Larry 40644

2765A



NATIONAL

WEL09

Burlington Avon
1432-02

P.O. Box 96149
12611 Cain Circle (77015)
Houston, Texas 77213-6149
Phone: (713) 455-2888
Fax: (713) 455-3888

CERTIFICATE OF COMPLIANCE

CUSTOMER: Sabre Communications Corp		DATE: 7/19/2013	
CUSTOMER PO #:299265		SALES ORDER #: 76369	
PRODUCT	DIAMETER	PACKAGE	SPECIFICATION
GALVANIZED STEEL STRAND EXTRA HIGH STRENGTH 7-WIRE CLASS "A"	1/2" ✓	1 X 400" REEL	ASTM-A475 ✓

TEST RESULTS						
HEAT #	SIZE	MINIMUM BREAKING STRENGTH (LBS)	ELONGATION PER 24"	WEIGHT OF COATING (OZ. PER FT ²)	MANDREL ADHERENCE & DUCTILITY	LAY LENGTH
N/A	1/2"	26900	4% min.	.9	PASS	7.42"

National Strand certifies that the above test results are representative of those contained in company records and were obtained using methods consistent with the requirements of applicable specifications.
The above products were manufactured in the USA.

Juan Garza
Quality Department

VERIFY MOST CURRENT REVISION



PREFORMED LINE PRODUCTS

09/17/2013

CERTIFICATE OF CONFORMANCE

Attention: Quality Assurance

Reference Customer Order No. 304794

PLP Order No. M1079233

Date Shipped: 09/19/2013

Preformed Line Products Company certifies that the material(s) shipped on the above referenced purchase order has been manufactured in conformance with the requirements of specification(s) listed on P/N(s) 2202115, and 00065266.

Test or inspection data pertaining to the material is on file and is available for inspection upon request.

ITEM(S) SHIPPED

<u>Quantity</u>	<u>Description</u>
120	BIG-GIP DEAD-END 1/2 BG-2115
140	END SLEEVE 1/2 GC-65266

PREFORMED LINE PRODUCTS COMPANY

Phyllis Harbeck

Dale Hoback
Quality Assurance Supervisor
PLP-Rogers, AR
(479) 636-7600
dhoback@preformed.com

bmm

FORM: COCL
Revised: 11/8/10



**Contract
Drilling
and
Testing**

**Albany Office
5 Knabner Road
Mechanicville, NY 12118
Phone: 518-899-7491
Fax: 518-899-7496**

INSPECTOR'S DAILY REPORT

Project:	Cell Tower Anchors – Avon, Connecticut	Date:	09/25/13
Client:	Patriot Towers	Day:	Wednesday
Contractor:	Patriot Towers	Weather:	Clear
Project Number:	AT-13-011	Temperature:	60°F
		Wind:	

OBSERVATIONS:

The undersigned SJB Services, Inc. representative was present at the above referenced project site for the purpose of concrete testing. The following was noted:

A total of 26 cubic yards of mix no. 4534F concrete (4000 psi) was placed for tower anchors A-D. Concrete was tested for slump, air content and temperature. One set of five 4" x 8" cylinders was fabricated for compressive strength testing. See Concrete Field Observation Report for this date for more information on locations and test results.

Job site supervisor allowed placement of overtime truck loads of concrete.

SJB Representative: S. Brodell

**Respectfully submitted:
SJB Services, Inc.**

Hamburg, New York
800-821-5911

Cortland, New York
800-296-6740

Albany, New York
888-248-8903



TOWER PLUMB TENSION REPORT



DATE: 10/8/2013-10/14/2013

SITE: Burlington-Avon Landfill

TEMPERATURE: 60

MANUFACTURER: Dillon

WEATHER CONDITIONS: Clear

MODEL: 36310-2088

WIND SPEED & DIRECTION: 8MPH NE

TENSIONS									
Guy Level	Cable Size	Required Dial Reading	Leg: A-60		Leg: B-180		Leg: C-300		
			Before	After	Before	After	Before	After	
1	1/2"	2690	1290	2710	1700	2470	1560	2760	
2					Leg: D-180				
3					3100	2510			
4									
5									

COMMENTS:

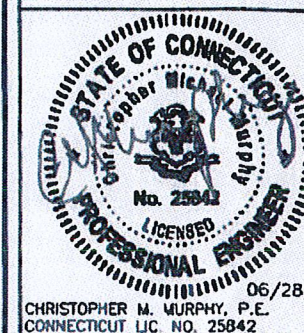
Calibration Date: 7-29-13

THE MODIFICATIONS DEPICTED ON THESE DRAWINGS ARE BASED ON THE RECOMMENDATIONS OUTLINED IN THE STRUCTURAL ANALYSIS COMPLETED BY FDH ENGINEERING, INC., PROJECT NO. 12-12603E S1 DATED JANUARY 14, 2013.

THIS REPORT WAS BASED ON A SPECIFIC ANTENNA AND COAX CONFIGURATION PROVIDED BY THE TOWER OWNER. ANY CHANGE TO THIS INFORMATION MUST BE REVIEWED BY FDH ENGINEERING, INC.

ALL DIMENSIONS, MEASUREMENTS, QUANTITIES, PART NUMBERS AND COAX/ANTENNA PLACEMENTS TO BE FIELD VERIFIED BY CONTRACTOR PRIOR TO MATERIAL ORDERS AND CONSTRUCTION.

FOR INQUIRIES REGARDING THE CONTENT OF THESE MODIFICATION DRAWINGS, PLEASE CONTACT STEVEN STRICKLAND WITH THE FDH CONSTRUCTION DEPARTMENT (919) 755-1012



DRAWN BY: JMR
CHECKED BY: AB
ENG APPVD: CMM
PROJECT NO: 1309511400

SUBMITTALS		
DATE	DESCRIPTION	REV
03/18/13	PRELIMINARY/REVIEW	A
06/28/13	CONSTRUCTION	D

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SITE NAME:
**BURLINGTON
AVON LANDFILL**

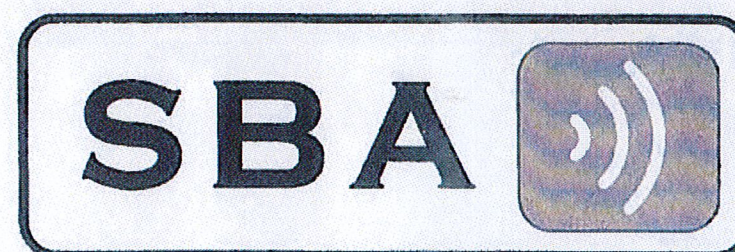
SITE NUMBER:
CT46143-A

SITE ADDRESS:
**277 HUCKLEBERRY HILL ROAD
AVON, CT 06013**

SHEET TITLE
**TITLE
SHEET**

SHEET NUMBER
T-1

PROJECT DESCRIPTION:
**MODIFICATION DRAWINGS
FOR A 100' LAMINATED WOOD POLE**



SITE NAME:
BURLINGTON - AVON LANDFILL

SITE NUMBER:
CT46143-A

SITE ADDRESS:
**277 HUCKLEBERRY HILL ROAD
AVON, CT 06013**

COORDINATES:
**LATITUDE: 41.7881°
LONGITUDE: -72.9182°**

Patriot Towers, Inc. Civil
As Built/Red Lines
Date: 9/27/13
Signature: [Signature]

SHEET INDEX	
SHT. NO.	DESCRIPTION
T-1	TITLE SHEET
N-1	POST CONSTRUCTION INSPECTION NOTES
N-2	GENERAL NOTES
S-1	MODIFICATION SCHEDULE
S-2	NEW GUY LUG COLLAR DETAILS I
S-3	NEW GUY LUG COLLAR DETAILS II
S-4	SITE PLAN
S-5	NEW GUY ANCHOR FOUNDATION DETAILS I
S-6	NEW GUY ANCHOR FOUNDATION DETAILS II
S-7	GUY WIRE DETAILS & PULSE CHARTS
S-8	Add L UPDATE
S-9	Add

RECEIVED
AUG 13 2013
TOWN OF AVON
BUILDING DEPT.

PCI CHECKLIST

CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED	REPORT ITEM
PRE-CONSTRUCTION	
X	PCI CHECKLIST DRAWING
N/A	EOR APPROVED SHOP DRAWINGS
N/A	FABRICATION INSPECTION
X	FABRICATOR CERTIFIED WELD INSPECTION
X	MATERIAL TEST REPORT (MTR)
N/A	FABRICATOR NDE INSPECTION
N/A	NDE REPORT OF MONOPOLE BASE PLATE (AS REQUIRED)
X	PACKING SLIPS
ADDITIONAL TESTING AND INSPECTIONS:	
CONSTRUCTION	
X	CONSTRUCTION INSPECTIONS
X	FOUNDATION INSPECTIONS
X	CONCRETE COMP. STRENGTH AND SLUMP TESTS
N/A	POST INSTALLED ANCHOR ROD VERIFICATION
N/A	BASE PLATE GROUT VERIFICATION
N/A	CONTRACTOR'S CERTIFIED WELD INSPECTION
N/A	EARTHWORK: LIFT AND DENSITY
X	ON SITE COLD GALVANIZING VERIFICATION
X	GUY WIRE TENSION REPORT
X	GC AS-BUILT DOCUMENTS
ADDITIONAL TESTING AND INSPECTIONS:	
POST-CONSTRUCTION	
X	PCI INSPECTOR REDLINE OR RECORD DRAWING(S)
N/A	POST INSTALLED ANCHOR ROD PULL-OUT TESTING
X	PHOTOGRAPHS
ADDITIONAL TESTING AND INSPECTIONS:	

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

POST CONSTRUCTION INSPECTION NOTES:

GENERAL

1. THE POST CONSTRUCTION INSPECTION (PCI) 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).
2. THE PCI IS TO CONFIRM INSTALLATION CONFIGURATION AND WORKMANSHIP ONLY AND IS NOT A REVIEW OF THE MODIFICATION DESIGN ITSELF. NOR DOES THE PCI INSPECTOR TAKE OWNERSHIP OF THE MODIFICATION DESIGN. OWNERSHIP OF THE STRUCTURAL MODIFICATION DESIGN EFFECTIVENESS AND INTEGRITY RESIDES WITH THE EOR AT ALL TIMES.
3. ALL PCI'S SHALL BE CONDUCTED BY A PCI INSPECTOR THAT IS APPROVED TO PERFORM ELEVATED WORK FOR FDH ENGINEERING, INC.
4. TO ENSURE THAT THE REQUIREMENTS OF THE PCI ARE MET, IT IS VITAL THAT THE GENERAL CONTRACTOR (GC) AND THE PCI INSPECTOR BEGIN COMMUNICATING AND COORDINATING AS SOON AS A PO IS RECEIVED. IT IS EXPECTED THAT EACH PARTY WILL BE PROACTIVE IN REACHING OUT TO THE OTHER PARTY. IF CONTACT INFORMATION IS NOT KNOWN, CONTACT YOUR FDH POINT OF CONTACT (POC).
5. REFER TO CCR-01 : CONTRACTOR CLOSEOUT REQUIREMENTS FOR FURTHER DETAILS AND REQUIREMENTS.

PCI INSPECTOR

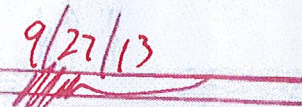
1. THE PCI INSPECTOR IS REQUIRED TO CONTACT THE GC AS SOON AS RECEIVING A PO FOR THE PCI TO, AT A MINIMUM:
 - REVIEW THE REQUIREMENTS OF THE PCI CHECKLIST
 - WORK WITH THE GC TO DEVELOP A SCHEDULE TO CONDUCT ON-SITE INSPECTIONS, INCLUDING FOUNDATION INSPECTIONS
2. THE PCI INSPECTOR IS RESPONSIBLE FOR 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 PCI REPORT TO FDH.

CORRECTION OF FAILING PCI'S

1. IF THE MODIFICATION INSTALLATION WOULD FAIL THE PCI ('FAILED PCI'), THE GC SHALL WORK WITH FDH TO COORDINATE A REMEDIATION PLAN IN ONE OF TWO WAYS:
 - CORRECT FAILING ISSUES TO COMPLY WITH THE SPECIFICATIONS CONTAINED IN THE ORIGINAL CONTRACT DOCUMENTS AND COORDINATE A SUPPLEMENT PCI.
 - OR, WITH FDH'S APPROVAL, THE GC MAY WORK WITH THE EOR TO RE-ANALYZE THE MODIFICATION/REINFORCEMENT USING THE AS-BUILT CONDITION.

REQUIRED PHOTOS

1. BETWEEN THE GC AND THE PCI INSPECTOR THE FOLLOWING PHOTOGRAPHS, AT A MINIMUM, ARE TO BE TAKEN AND INCLUDED IN THE PCI REPORT:
 - PRE-CONSTRUCTION GENERAL SITE CONDITION
 - PHOTOGRAPHS DURING THE REINFORCEMENT MODIFICATION CONSTRUCTION/ERECTION AND INSPECTION
 - RAW MATERIALS
 - PHOTOS OF ALL CRITICAL DETAILS
 - FOUNDATION MODIFICATIONS
 - WELD PREPARATION
 - BOLT INSTALLATION AND TORQUE
 - FINAL INSTALLED CONDITION
 - SURFACE COATING REPAIR
 - POST CONSTRUCTION PHOTOGRAPHS
 - FINAL INFIELD CONDITION
2. PHOTOS OF ELEVATED MODIFICATIONS TAKEN FROM THE GROUND SHALL BE CONSIDERED INADEQUATE.

Patriot Towers, Inc. Civil
As Built/Red Lines
Date: 9/27/13
Signature: 



DRAWN BY: JMR
CHECKED BY: AB
ENG APPVD: CMM
PROJECT NO: 1309511400

SUBMITTALS		
DATE	DESCRIPTION	REV
03/18/13	PRELIMINARY/REVIEW	A
06/26/13	CONSTRUCTION	0

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SITE NAME:
**BURLINGTON
AVON LANDFILL**
SITE NUMBER:
CT46143-A
SITE ADDRESS:
**277 HUCKLEBERRY HILL ROAD
AVON, CT 06013**

SHEET TITLE
**POST CONSTRUCTION
INSPECTION NOTES**

SHEET NUMBER
N-1

GENERAL NOTES:

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES AND ORDINANCES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ALL PERMITS NECESSARY TO COMPLETE THE PROJECT AND ABIDE BY ALL CONDITIONS AND REQUIREMENTS OF THE PERMITS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL DIMENSIONS, ELEVATIONS AND EXISTING CONDITIONS AT THE SITE BEFORE ORDERING ANY MATERIALS OR DOING ANY WORK. NO EXTRA CHARGE OR COMPENSATION SHALL BE ALLOWED DUE TO DIFFERENCE BETWEEN ACTUAL DIMENSIONS AND DIMENSIONS INDICATED ON THE CONSTRUCTION DRAWINGS. ANY SUCH DISCREPANCY IN DIMENSION WHICH MAY BE FOUND SHALL BE SUBMITTED TO FDH ENGINEERING FOR CONSIDERATION BEFORE THE CONTRACTOR PROCEEDS WITH THE WORK IN THE AFFECTED AREAS.
3. INCORRECTLY FABRICATED, DAMAGED, OTHERWISE MISFITTING, OR NON-CONFORMING MATERIALS AND CONDITIONS SHALL BE REPORTED TO FDH ENGINEERING PRIOR TO ANY REMEDIAL OR CORRECTIVE ACTION. ALL ACTIONS SHALL REQUIRE FDH ENGINEERING APPROVAL.
4. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE TO ENSURE THE SAFETY OF THE STRUCTURE AND ITS COMPONENT PARTS DURING ERECTION AND/OR FIELD MODIFICATIONS. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF TEMPORARY BRACING, GUYS OR TIE DOWNS THAT MAY BE NECESSARY. SUCH MATERIAL SHALL BE REMOVED AFTER THE COMPLETION OF THE PROJECT.
5. CONTRACTOR SHALL PROMPTLY REMOVE ANY & ALL DEBRIS FROM SITE AND RESTORE AS BEST AS POSSIBLE TO PRECONSTRUCTION CONDITION.

CONTRACTOR QUALIFICATION NOTES:

1. ALL REPAIRS SHALL BE PERFORMED BY A TOWER CONTRACTOR WITH A MINIMUM 5 YEARS EXPERIENCE IN TOWER ERECTION AND RETROFIT AND WITH WORKING KNOWLEDGE OF THE TIA/EIA 222-F "STRUCTURAL STANDARD FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORTING STRUCTURES".
2. CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION MEANS AND METHODS. SHOULD THE CONTRACTOR REQUIRE DIRECT CONSULTATION, FDH ENGINEERING, INC. IS WILLING TO OFFER SERVICES BASED UPON AN AGREED FEE FOR THE WORK REQUIRED.
3. ALL SUBMITTAL INFORMATION MUST BE SENT TO FDH ENGINEERING, INC. 6521 MERIDEN DRIVE, RALEIGH NC, 27616, TEL. (919) 755-1012, FAX. (919) 755-1031, E-MAIL INFO@FDH-INC.COM. ANY VARIATION OF THESE SPECIFICATIONS OR DRAWINGS WITHOUT CONSENT FROM FDH ENGINEERING, INC. WILL VOID ANY RESPONSIBILITY OR LIABILITY FOR DAMAGE (MATERIAL OR PHYSICAL) TOWARDS FDH ENGINEERING, INC.

JOB SITE SAFETY & NOTES:

1. NEITHER THE PROFESSIONAL ACTIVITIES OF FDH ENGINEERING, INC. NOR THE PRESENCE OF FDH ENGINEERING, INC. OR EMPLOYEES AND SUB-CONSULTANTS AT THE CONSTRUCTION SITE, SHALL RELIEVE THE GENERAL CONTRACTOR AND OR SUBCONTRACTORS AND ANY OTHER ENTITY OF THEIR OBLIGATIONS, DUTIES AND RESPONSIBILITIES INCLUDING, BUT NOT LIMITED TO, CONSTRUCTION MEANS, METHODS, SEQUENCE, TECHNIQUES OR PROCEDURES NECESSARY FOR PERFORMING, SUPERINTENDING OR COORDINATING ALL PORTIONS OF THE WORK OF CONSTRUCTION IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND ANY HEALTH OR SAFETY PRECAUTIONS REQUIRED BY ANY REGULATORY AGENCIES. THE GENERAL CONTRACTOR AND OR SUBCONTRACTOR IS SOLELY RESPONSIBLE FOR JOB SAFETY, AND WARRANTS THAT THIS INTENT IS EVIDENT BY ACCEPTING THIS WORK.

SUBSTITUTES AND/OR EQUALS:

1. IF CONTRACTOR WISHES TO FURNISH OR USE A SUBSTITUTE ITEM OF MATERIAL OR EQUIPMENT, CONTRACTOR SHALL FIRST MAKE WRITTEN APPLICATION TO ENGINEER OF RECORD FOR ACCEPTANCE THEREOF, CERTIFYING THAT THE PROPOSED SUBSTITUTE WILL PERFORM ADEQUATELY THE FUNCTIONS AND ACHIEVE THE RESULTS CALLED FOR BY THE GENERAL DESIGN, BE SIMILAR IN SUBSTANCE TO THAT SPECIFIED AND SUITED TO THE SAME USE AS THAT SPECIFIED. ALL VARIATIONS OF THE PROPOSED SUBSTITUTE FROM THAT SPECIFIED WILL BE IDENTIFIED IN THE APPLICATION AND AVAILABLE MAINTENANCE, REPAIR AND REPLACEMENT SERVICE WILL BE INDICATED. THE APPLICATION WILL ALSO CONTAIN AN ITEMIZED ESTIMATE OF ALL COSTS OR CREDITS THAT WILL RESULT DIRECTLY OR INDIRECTLY FROM ACCEPTANCE OF SUCH SUBSTITUTE INCLUDING COSTS OF REDESIGN AND CLAIMS OF OTHER CONTRACTORS AFFECTED BY THE RESULTING CHANGE, ALL OF WHICH WILL BE CONSIDERED BY ENGINEER OF RECORD IN EVALUATION OF THE PROPOSED SUBSTITUTE. ENGINEER OF RECORD MAY REQUIRE CONTRACTOR TO FURNISH ADDITIONAL DATA ABOUT THE PROPOSED SUBSTITUTE.

STEEL:

1. ALL STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST AISC CODE AND ASTM SPECIFICATIONS.
*ALL STEEL PLATE SHALL BE ASTM A36 (Fy=36KSI) UNLESS OTHERWISE SPECIFIED.
*ALL GUY WIRE SHALL BE EHS ASTM A475 UNLESS OTHERWISE SPECIFIED.
*ALL STEEL W-SHAPES SHALL BE ASTM A992-50 (Fy=50 KSI) UNLESS OTHERWISE SPECIFIED.
2. ALL CONNECTIONS OF STRUCTURAL STEEL MEMBERS SHALL BE MADE USING SPECIFIED WELDS WITH WELDING ELECTRODES E-70XX OR SPECIFIED HIGH STRENGTH BOLTS TO BE ASTM A325N, THREAD INCLUDED WITH SHEAR PLANE (UNLESS OTHERWISE NOTED).
3. ALL BOLTED CONNECTIONS TO BE INSTALLED TO A SNUG-TIGHTENED CONDITION IN ACCORDANCE WITH AISC 13 PART 16.2, "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS", SECTION 8.1, UNLESS OTHERWISE SPECIFIED. WHEN "X" TYPE BOLTS ARE USED, CONTRACTOR MAY BE REQUIRED TO STACK ADDITIONAL WASHERS TO OBTAIN PROPER SNUG TIGHT INSTALLATION. ALL NUTS SHALL BE HEAVY HEX UNLESS OTHERWISE NOTED.
4. ALL STEEL, AFTER FABRICATION, SHALL BE HOT DIPPED GALVANIZED PER ASTM A-123. ALL DAMAGED SURFACES, WELDED AREAS AND AUTHORIZED NON-GALVANIZED MEMBERS OR PARTS (EXISTING OR NEW) SHALL BE PAINTED WITH MULTIPLE COATS OF ZRC COLD GALVANIZING COMPOUND ACHIEVING A MINIMUM OF 4 MILS DRY FILM PER ASTM A 780.
5. ALL SHOP AND FIELD WELDING SHALL BE DONE BY WELDERS QUALIFIED AS DESCRIBED IN THE "AMERICAN WELDING SOCIETY'S STANDARD QUALIFICATION PROCEDURE" TO PERFORM THE TYPE OF WORK REQUIRED. CONTRACTOR IS REQUIRED TO PROVIDE FDH ENGINEERING, INC. WITH A PASSING CERTIFIED WELDING INSPECTION FOR ALL WELDS.
6. STRUCTURAL STEEL MAY NOT BE TORCH CUT FOR FABRICATION. ALL STEEL FABRICATION MUST FOLLOW AISC STANDARDS.

MISC. NOTES:

1. ALL MODIFICATIONS ARE ASSUMED TO BE MADE ON AN EMPTY TOWER. CONTRACTOR IS RESPONSIBLE TO MAKE PROVISIONS TO SUPPORT OR WORK AROUND EXISTING ANTENNAS AND TRANSMISSION LINES. MODIFICATIONS MUST BE CONTINUOUS THROUGH ALL AREAS SHOWN.
2. CONTRACTOR FIELD VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION.

FABRICATION NOTES:

1. ALL DIMENSIONS ARE PRELIMINARY UNTIL FIELD VERIFIED BY CONTRACTOR. ANY CHANGES MUST BE APPROVED BY ENGINEER OF RECORD IN WRITING PRIOR TO FABRICATION AND INSTALLATION.
2. NEW STEEL MEMBERS MUST HAVE SINGLE DRILLED HOLES SLOTTED AND DOUBLE DRILLED HOLES ARE NOT ACCEPTABLE MEANS OF FABRICATION.

- Threaded Rod grade?
- A36?

- Foundation notes?

Patriot Towers, Inc. Civil
As Built/Red Lines

Date:

Signature:

9/27/13

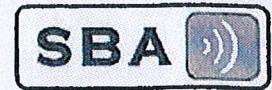
PREPARED BY:



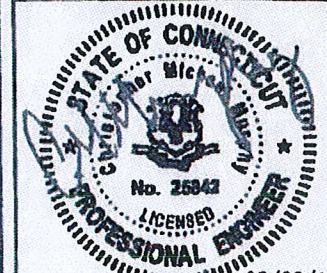
6521 MERIDEN DRIVE
RALEIGH, NC 27616
PHONE: 919-755-1012
FAX: 919-755-1031

ENGINEERING INNOVATION

PREPARED FOR:



5500 BROKEN SOUND PARKWAY, NW
BOCA RATON, FL 33487
(800) 487-SITE



06/28/13
CHRISTOPHER M. MURPHY, P.E.
CONNECTICUT LIC. NO. 25842

DRAWN BY: JMR
CHECKED BY: AB
ENG APPVD: CMM
PROJECT NO: 1309511400

SUBMITTALS

DATE	DESCRIPTION	REV
03/18/13	PRELIMINARY/REVIEW	A
06/28/13	CONSTRUCTION	0

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SITE NAME:
BURLINGTON
AVON LANDFILL

SITE NUMBER:
CT46143-A

SITE ADDRESS:
277 HUCKLEBERRY HILL ROAD
AVON, CT 06013

SHEET TITLE
GENERAL
NOTES

SHEET NUMBER
N-2

- APPURTENANCES MAY INTERFERE WITH PROPOSED MODIFICATIONS.
- ALL MODIFICATIONS TO BE INSTALLED CONTINUOUSLY THROUGH EXISTING EQUIPMENT. ALL EXISTING EQUIPMENT NOT TO BE DAMAGED OR TAKEN OFF AIR DURING INSTALLATION.
- ANTENNA GRAPHICS NOT SHOWN FOR CLARITY. SEE STRUCTURAL ANALYSIS REPORT FOR EXISTING ANTENNA LOADING.

TOWER MODIFICATION SCHEDULE			
NO.	TYPE OF MODIFICATION	BOTTOM ELEV. (FT)	TOP ELEV. (FT)
1	INSTALLATION OF (1) NEW GUY LUG. SEE S-2 & S-3 FOR DETAILS.	-	75.0±
2	INSTALLATION OF (4) NEW 1/2" EHS GUY WIRES (T=10%. SEE S-8 AND S-9 FOR DETAILS. (CONTRACTOR TO PROVIDE ALL NEW HARDWARE)	-	75.0±
3	INSTALLATION OF (4) NEW GUY ANCHOR FOUNDATIONS. SEE S-4 THROUGH S-7 FOR DETAILS.	-10.0±	VARIES
4	CONTRACTOR TO PLUMB TOWER & TENSION ALL GUY WIRES TO INITIAL TENSION (T) AS SHOWN. SEE S-8 AND S-9 FOR DETAILS.	-	75.0±

PREPARED BY:

FDH 6521 MERIDIAN DRIVE
RALEIGH, NC 27616
PHONE: 919-755-0112
FAX: 919-755-1031

ENGINEERING INNOVATION

PREPARED FOR:

SBA

5900 BROKEN SOUND PARKWAY, NW
BOCA RATON, FL 33487
(800) 487-5111

STATE OF CONNECTICUT
Professional Engineer
No. 25842
06/28/13
CHRISTOPHER M. MURPHY, P.E.
CONNECTICUT LIC. NO. 25842

DRAWN BY: JMR
CHECKED BY: AB
ENG APPVD: CMM
PROJECT NO: 1309511400

SUBMITTALS		
DATE	DESCRIPTION	REV
01/18/13	PRELIMINARY/REVIEW	A
05/28/13	CONSTRUCTION	0

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SITE NAME:
**BURLINGTON
AVON LANDFILL**

SITE NUMBER:
CT46143-A

SITE ADDRESS:
**277 HUCKLEBERRY HILL ROAD
AVON, CT 06013**

SHEET TITLE
**MODIFICATION
SCHEDULE**

SHEET NUMBER
S-1

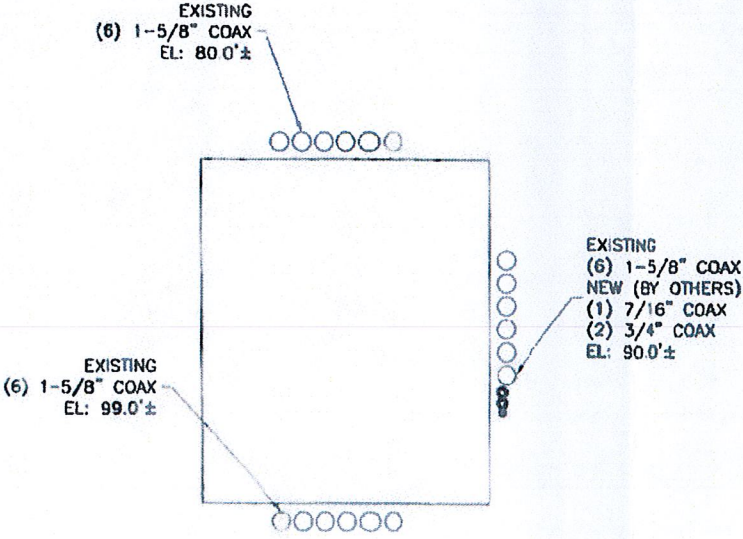
LENGTH (FT)	100.0
NUMBER OF SIDES	1
TOP DIAMETER (IN)	26.25 X 12.00
BTM DIAMETER (IN)	26.25 X 30.25
TOWER FINISH	LAMINATED WOODEN POLE



GUY RADIUS
(SEE SITE LAYOUT)

TOWER ELEVATION
SCALE: NTS

NOTE:?
TYP. install detail for anchors A, B, & D.



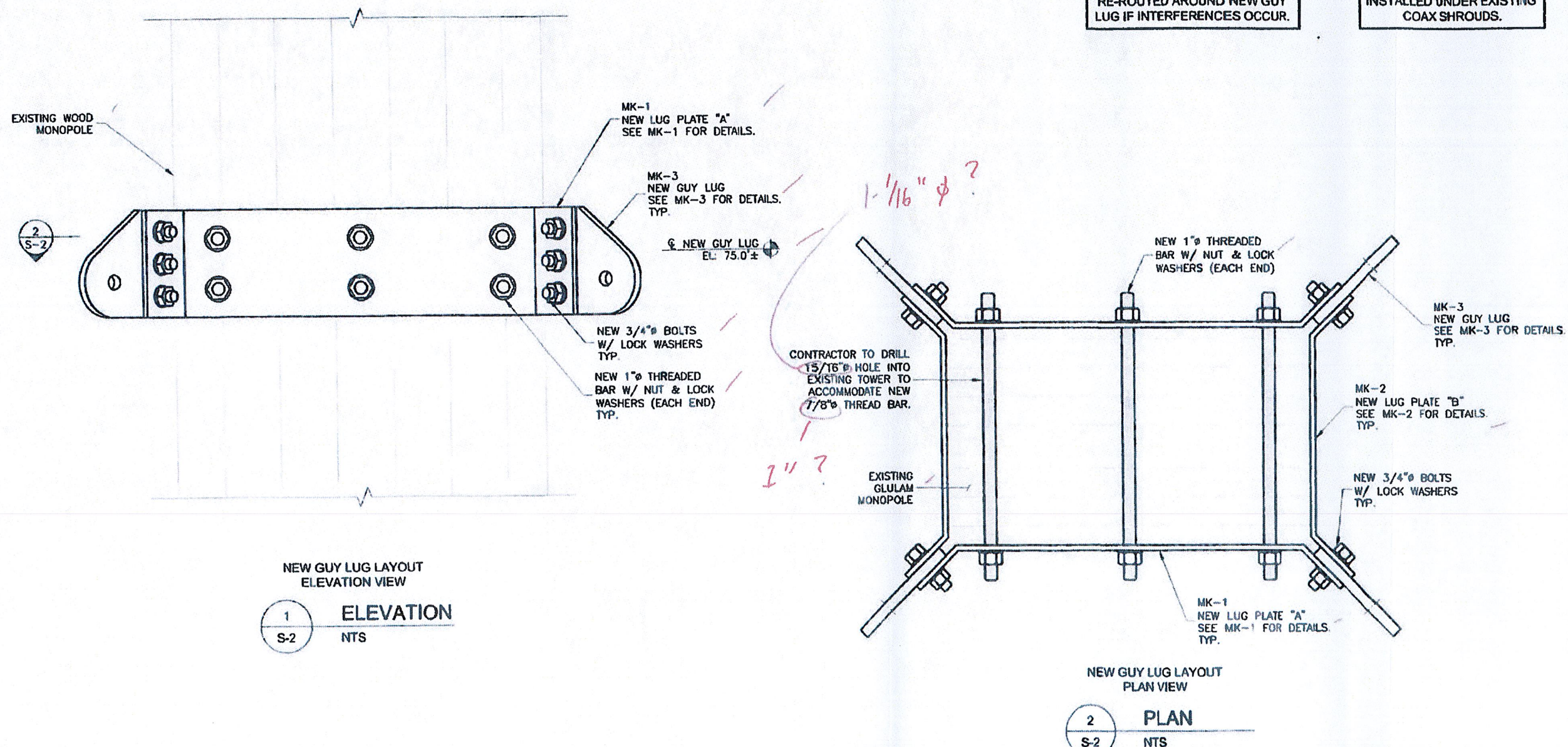
COAX LAYOUT
SCALE: NTS

GUY LUG COLLAR MATERIAL LIST

PART NO.	QTY.	DESCRIPTION	ELEVATION
MK-1	2	LUG PLATE "A". SEE S-3 FOR DETAILS.	75'-0"
MK-2	2	LUG PLATE "B". SEE S-3 FOR DETAILS.	75'-0"
MK-3	4	GUY LUG	75'-0"
-	12	3/4"Ø BOLTS W/ LOCK WASHERS	-
-	6	1"Ø x1'-9" THREADED BAR W/ (2) NUTS AND LOCK WASHERS	-

EXISTING SAFETY CABLE TO BE RE-ROUTED AROUND NEW GUY LUG IF INTERFERENCES OCCUR.

NEW LUG PLATES TO BE INSTALLED UNDER EXISTING COAX SHROUDS.



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STATE OF CONNECTICUT
 Christopher M. Murphy, P.E.
 No. 25842
 LICENSED PROFESSIONAL ENGINEER
 06/28/13
 CHRISTOPHER M. MURPHY, P.E.
 CONNECTICUT LIC. NO. 25842

DRAWN BY: JWR
 CHECKED BY: AB
 ENG APPVD: CMM
 PROJECT NO: 1309511400

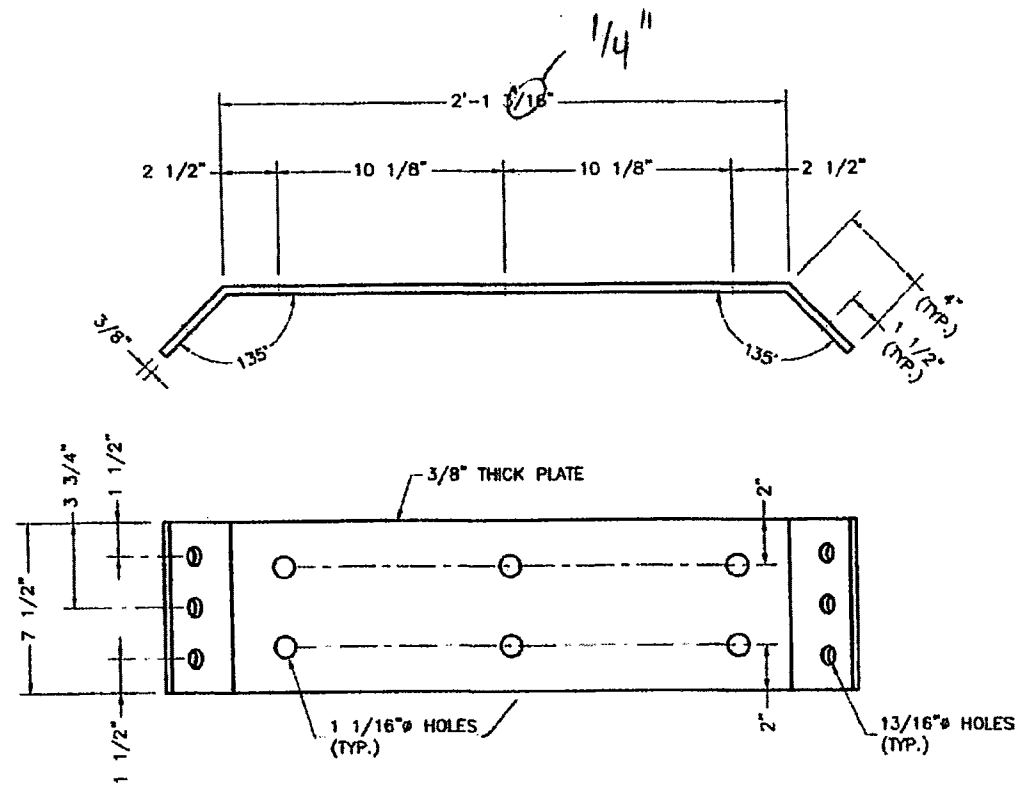
SUBMITTALS		
DATE	DESCRIPTION	REV
03/15/13	PRELIMINARY/REVIEW	A
06/28/13	CONSTRUCTION	D

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SITE NAME:
BURLINGTON AVON LANDFILL
 SITE NUMBER:
CT46143-A
 SITE ADDRESS:
277 HUCKLEBERRY HILL ROAD AVON, CT 06013

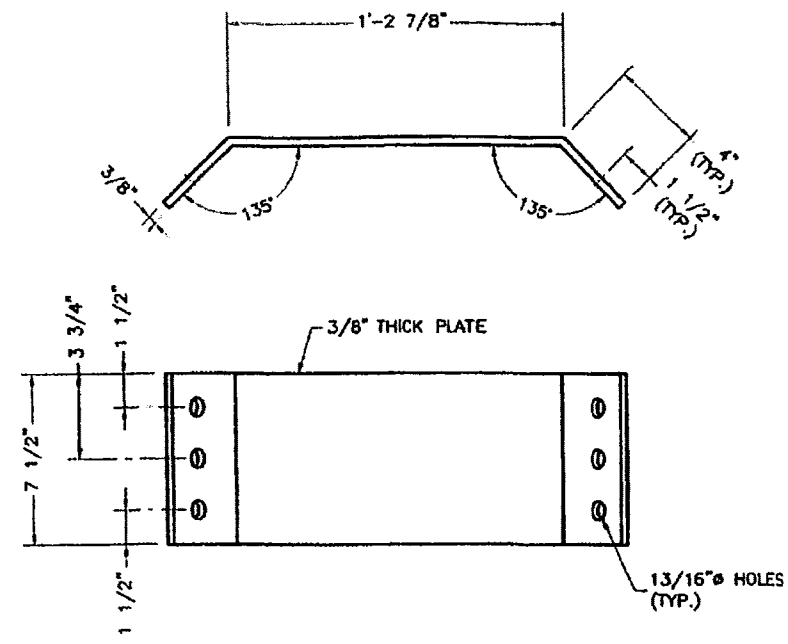
SHEET TITLE
NEW GUY LUG COLLAR DETAILS

SHEET NUMBER
S-2



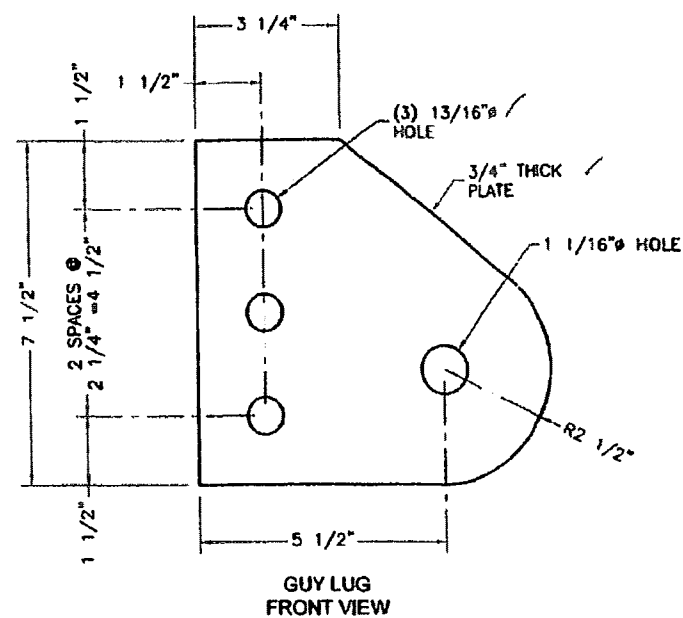
LUG PLATE "A"
TOP & FRONT VIEW

MK-1
S-3
ELEVATION
SCALE: 1 1/2" = 1'-0"



LUG PLATE "B"
TOP & FRONT VIEW

MK-2
S-3
ELEVATION
SCALE: 1 1/2" = 1'-0"



MK-3
S-3
DETAIL
NTS

PREPARED BY:
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RALEIGH, NC 27616
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FAX: 919-755-1031
ENGINEERING INNOVATION

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STATE OF CONNECTICUT
No. 25842
LICENSED PROFESSIONAL ENGINEER
06/28/13
CHRISTOPHER M. MURPHY, P.E.
CONNECTICUT LIC. NO. 25842

DRAWN BY: JMR
CHECKED BY: AB
ENG APPVD: CMM
PROJECT NO: 1309511400

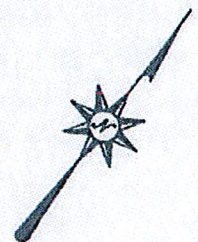
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DATE	DESCRIPTION	REV
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05/28/13	CONSTRUCTION	D

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SITE NAME:
**BURLINGTON
AVON LANDFILL**
SITE NUMBER:
CT46143-A
SITE ADDRESS:
**277 HUCKLEBERRY HILL ROAD
AVON, CT 06013**

SHEET TITLE
**NEW GUY LUG
COLLAR DETAILS II**

SHEET NUMBER
S-3



EXISTING
METER RACK
(TYP.)

EXISTING
EQUIPMENT SHELTER

EXISTING
EQUIPMENT SHELTER

EXISTING
METER RACK
(TYP.)

EXISTING
ACCESS GATE
(TYP.)

NEW ANCHOR "C"
(R=25.0')

NEW GUY ANCHOR.
SEE SHEET S-6
FOR DETAILS.

EXISTING
ICE BRIDGE
(TYP.)

EXISTING
CONCRETE PAD
(TYP.)

EXISTING
COMPOUND FENCE

NEW ANCHOR "D"
(R=40.0')

NEW ANCHOR "A"
(R=40.0')

NEW GUY WIRE. SEE
SHEET S-7 FOR DETAILS.
(TYP. OF 4)

NEW GUY ANCHOR. SEE SHEETS
S-5 FOR DETAILS.
(TYP. OF 3)

NOTE: COMPOUND IS LOCATED IN A
HEAVILY WOODED AREA. EXISTING
TREE LINE NOT SHOWN FOR CLARITY.

Patriot Towers, Inc. Civil
As Built/Red Lines
Date: 9/27/13
Signature:

SITE PLAN
PLAN VIEW

1
S-4
PLAN
NTS

PREPARED BY:

FDH

ENGINEERING INNOVATION

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PHONE: 818-755-1012
FAX: 818-755-1031

PREPARED FOR:

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STATE OF CONNECTICUT
Professional Engineer
No. 25842
LICENSED
06/28/13
CHRISTOPHER M. MURPHY, P.E.
CONNECTICUT LIC. NO. 25842

DRAWN BY: JMR
CHECKED BY: AB
ENG APPVD: CMM
PROJECT NO: 1309511400

SUBMITTALS		
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06/28/13	CONSTRUCTION	0

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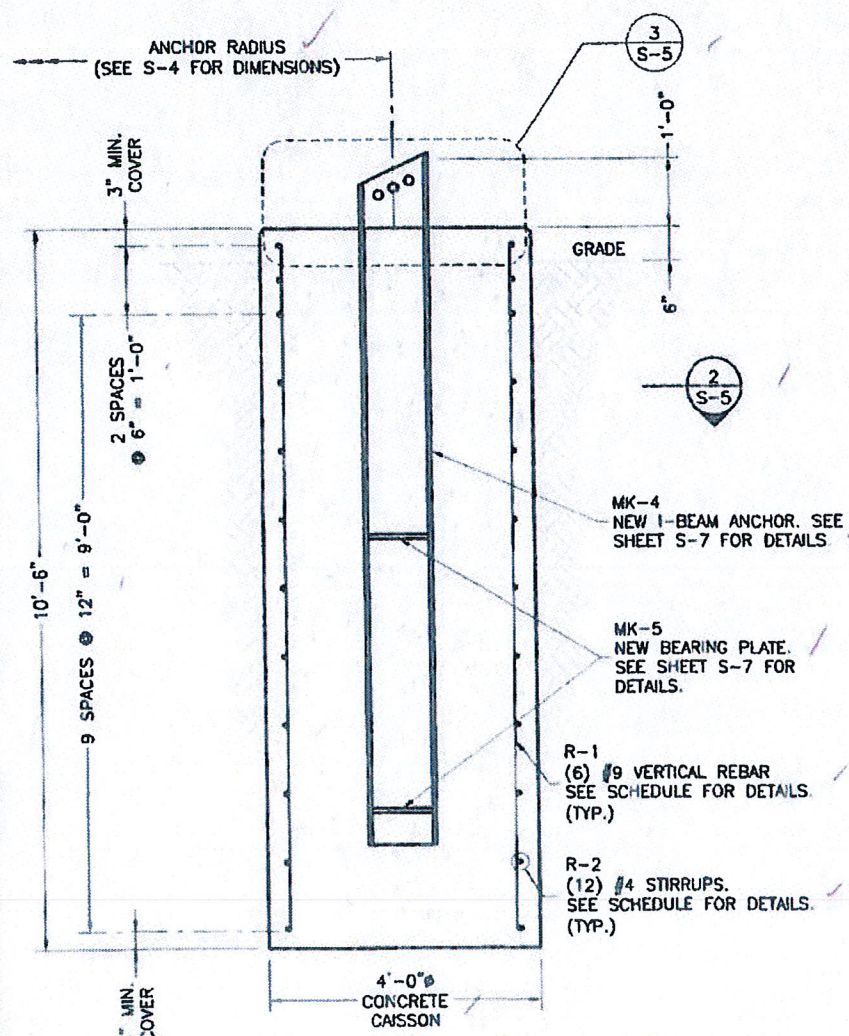
SITE NAME:
**BURLINGTON
AVON LANDFILL**

SITE NUMBER:
CT46143-A

SITE ADDRESS:
**277 HUCKLEBERRY HILL ROAD
AVON, CT 06013**

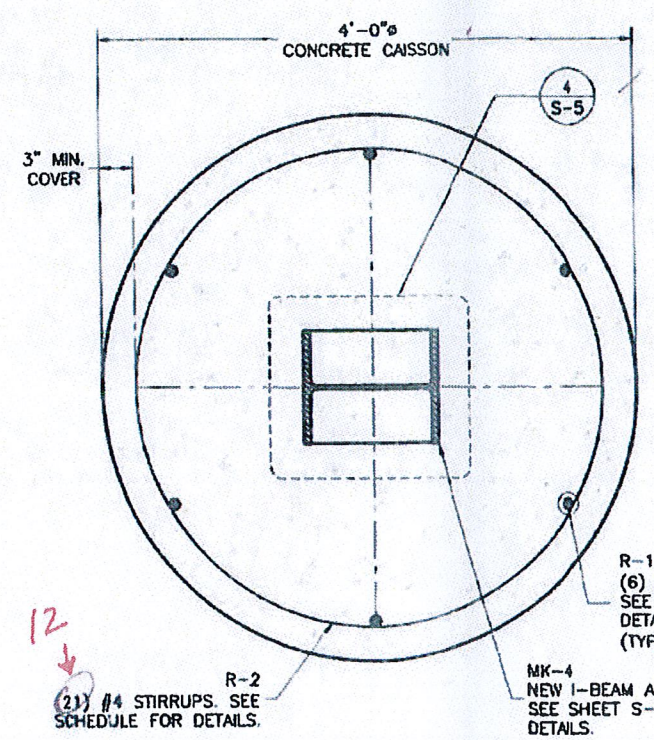
SHEET TITLE
SITE PLAN

SHEET NUMBER
S-4



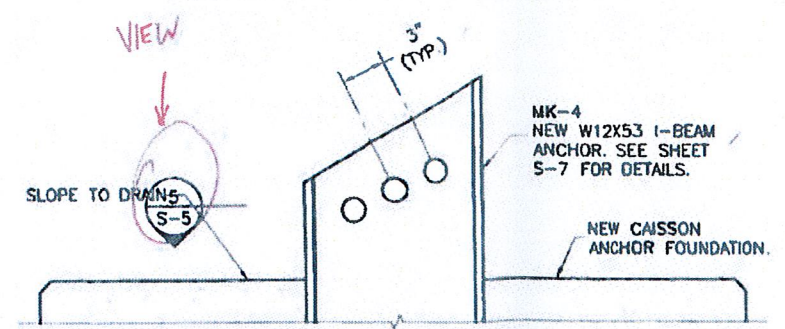
NEW CAISSON ANCHOR FOUNDATION
ELEVATION VIEW

1
S-5
SCALE: 3/8" = 1'-0"



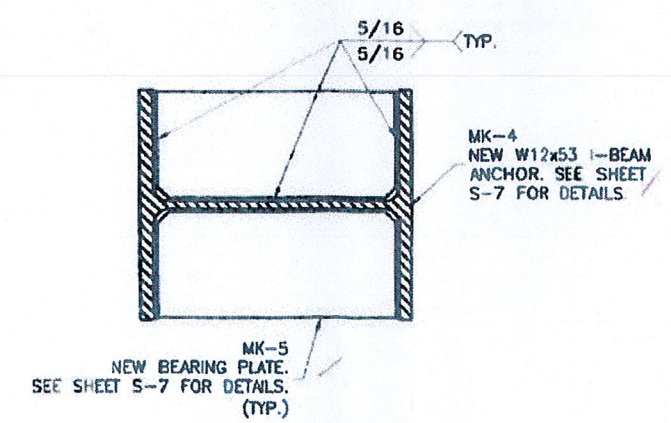
NEW CAISSON ANCHOR FOUNDATION
PLAN VIEW

2
S-5
SCALE: 3/4" = 1'-0"



NEW ANCHOR HEAD
ELEVATION VIEW

3
S-5
SCALE: 1" = 1'-0"



BEARING PLATE DETAIL
SECTION VIEW

4
S-5
SCALE: 1-1/2" = 1'-0"

FOUNDATION MODIFICATION MATERIAL LIST				
PART NO.	SHAPE	QTY.	LENGTH	DESCRIPTION
R-1	—	6	10'-0"	#9 VERTICAL REBAR
R-2	○	12	12'-0"	#4 REBAR STIRRUPS WITH MIN. 12" OVERLAP
MK-4	—	1	10'-0"	W12X53 I-BEAM ANCHOR SEE SHEET S-7 FOR DETAILS
MK-5	—	2	—	BEARING PLATE SEE SHEET S-7 FOR DETAILS
—	—	1	4.8± CU. YD.	4000 PSI CONCRETE

*MATERIAL SCHEDULE FOR (1) CAISSON FOUNDATION. (3) REQUIRED.

Patnot Towers, Inc. Civil
As Built/Red Lines
Date: 9/27/13
Signature: *[Signature]*

PREPARED BY:
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6521 MERIDIAN DRIVE
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FAX: 919-755-1031

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STATE OF CONNECTICUT
Christopher M. Murphy, P.E.
No. 25842
LICENSED PROFESSIONAL ENGINEER
08/28/13
CHRISTOPHER M. MURPHY, P.E.
CONNECTICUT LIC. NO. 25842

DRAWN BY: JMR
CHECKED BY: AB
ENG APPVD: CMM
PROJECT NO: 1309511400

SUBMITTALS		
DATE	DESCRIPTION	REV
03/18/13	PRELIMINARY/REVIEW	A
06/28/13	CONSTRUCTION	0

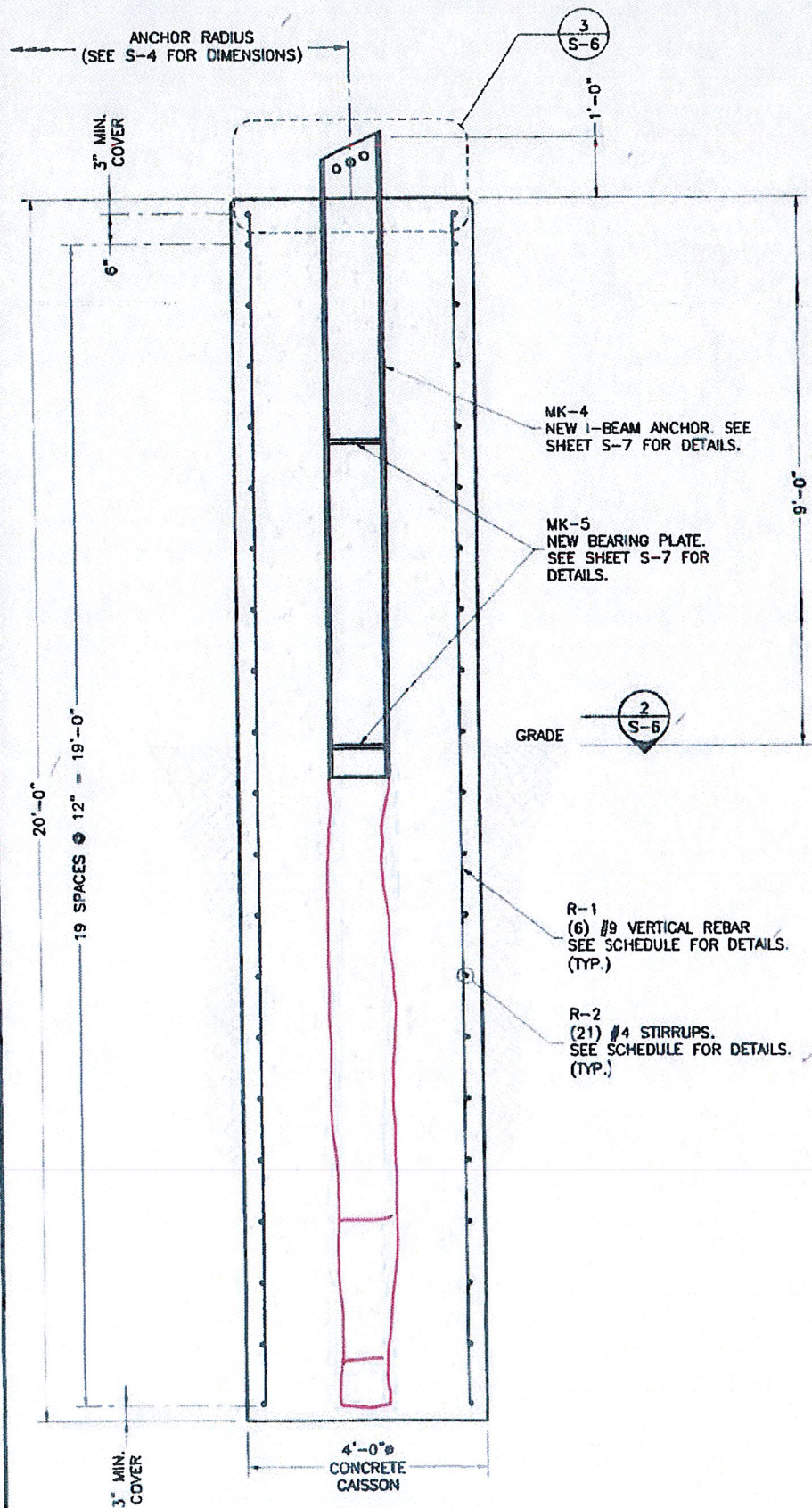
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SITE NAME:
BURLINGTON AVON LANDFILL
SITE NUMBER:
CT46143-A
SITE ADDRESS:
**277 HUCKLEBERRY HILL ROAD
AVON, CT 06013**

SHEET TITLE
NEW GUY ANCHOR FOUNDATION DETAILS

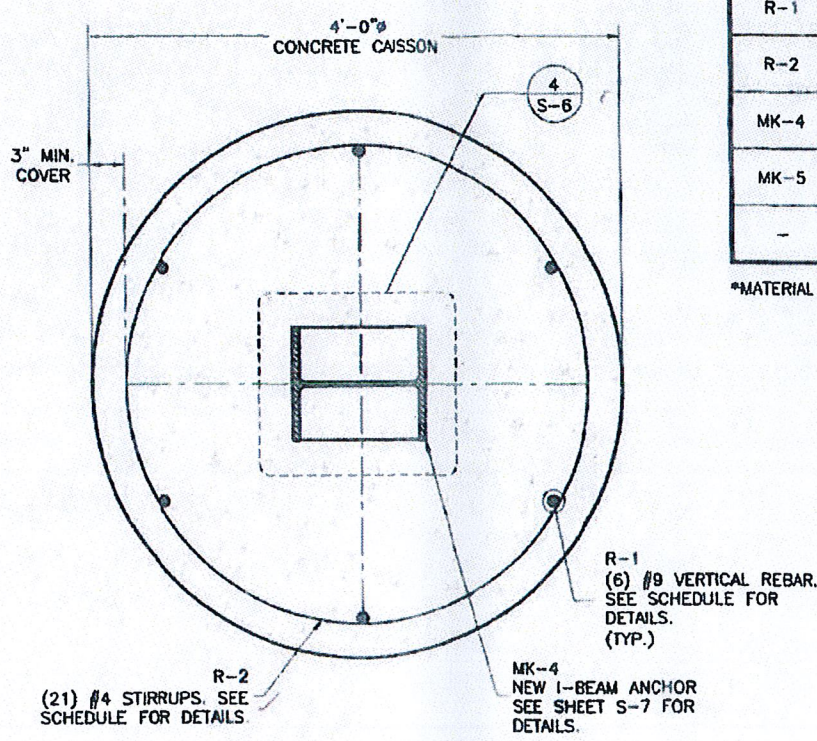
SHEET NUMBER
S-5

Add -> TYP. OF ANCHOR A, B, C



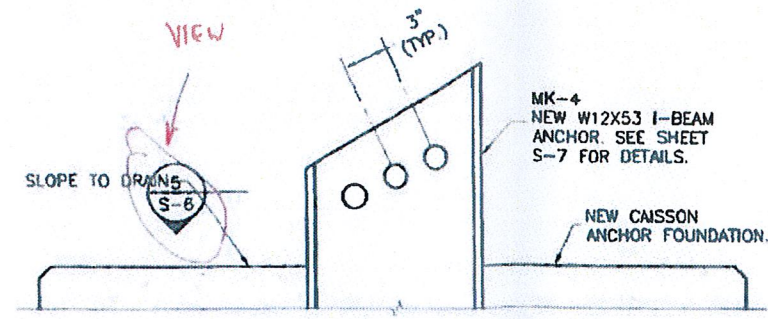
NEW CAISSON ANCHOR FOUNDATION
ELEVATION VIEW

1
S-6
ELEVATION
SCALE: 3/8" = 1'-0"



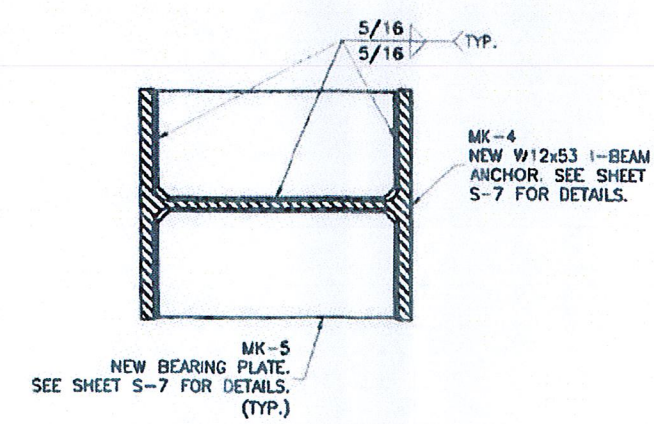
NEW CAISSON ANCHOR FOUNDATION
PLAN VIEW

2
S-6
PLAN
SCALE: 3/4" = 1'-0"



NEW ANCHOR HEAD
ELEVATION VIEW

3
S-6
DETAIL
SCALE: 1" = 1'-0"



BEARING PLATE DETAIL
SECTION VIEW

4
S-6
SECTION
SCALE: 1-1/2" = 1'-0"

FOUNDATION MODIFICATION MATERIAL LIST				
PART NO.	SHAPE	QTY.	LENGTH	DESCRIPTION
R-1	—	6	19'-6"	#9 VERTICAL REBAR
R-2	○	21	12'-0"	#4 REBAR STIRRUPS WITH MIN. 12" OVERLAP
MK-4	—	1	10'-0"	W12X53 I-BEAM ANCHOR SEE SHEET S-7 FOR DETAILS
MK-5	—	4	—	BEARING PLATE SEE SHEET S-7 FOR DETAILS
—	—	1	9.5± CU. YD.	4000 PSI CONCRETE

*MATERIAL SCHEDULE FOR (1) CAISSON FOUNDATION. (1) REQUIRED.

Patriot Towers, Inc. Civil
As Built/Red Lines
Date: 9/27/13
Signature: [Signature]

PREPARED BY:
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6521 MERIDIAN DRIVE
RALEIGH, NC 27615
PHONE: 919-755-1012
FAX: 919-755-1031

PREPARED FOR:
SBA
5500 BROKEN SOUND PARKWAY, NW
BOCA RATON, FL 33487
(800) 487-SITE

STATE OF CONNECTICUT
Professional Engineer
No. 25842
06/28/13
CHRISTOPHER M. MURPHY, P.E.
CONNECTICUT LIC. NO. 25842

DRAWN BY: JMR
CHECKED BY: AB
ENG APPVD: CMM
PROJECT NO: 1309511400

SUBMITTALS		
DATE	DESCRIPTION	REV
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06/28/13	CONSTRUCTION	D

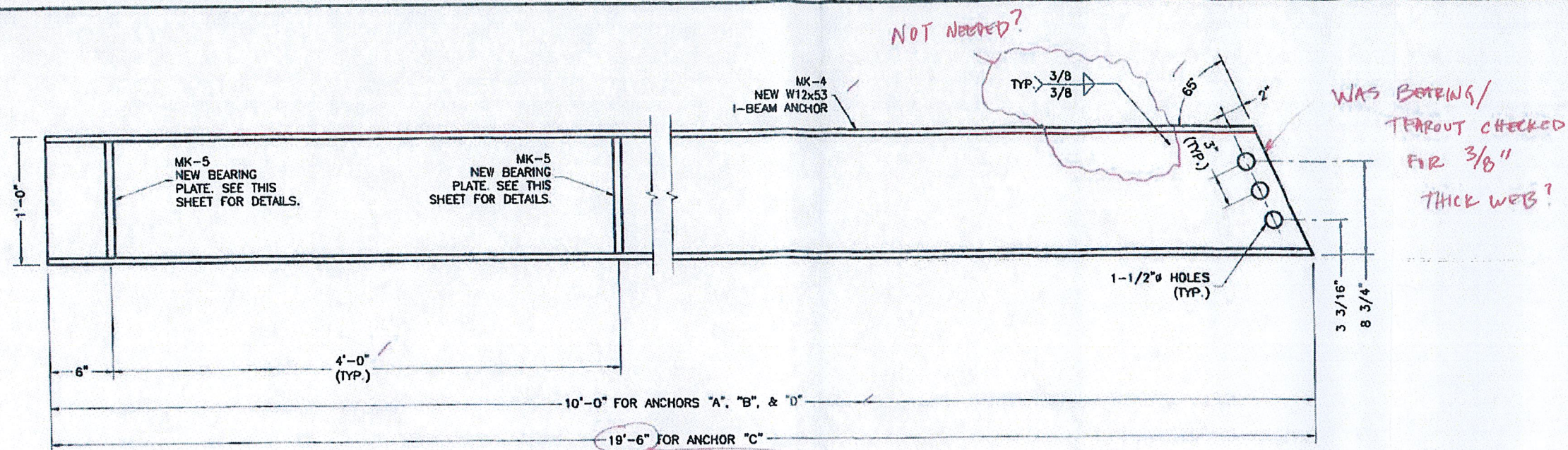
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SITE NAME:
**BURLINGTON
AVON LANDFILL**
SITE NUMBER:
CT46143-A
SITE ADDRESS:
**277 HUCKLEBERRY HILL ROAD
AVON, CT 06013**

SHEET TITLE
**NEW GUY ANCHOR
FOUNDATION DETAILS II**

SHEET NUMBER
S-6

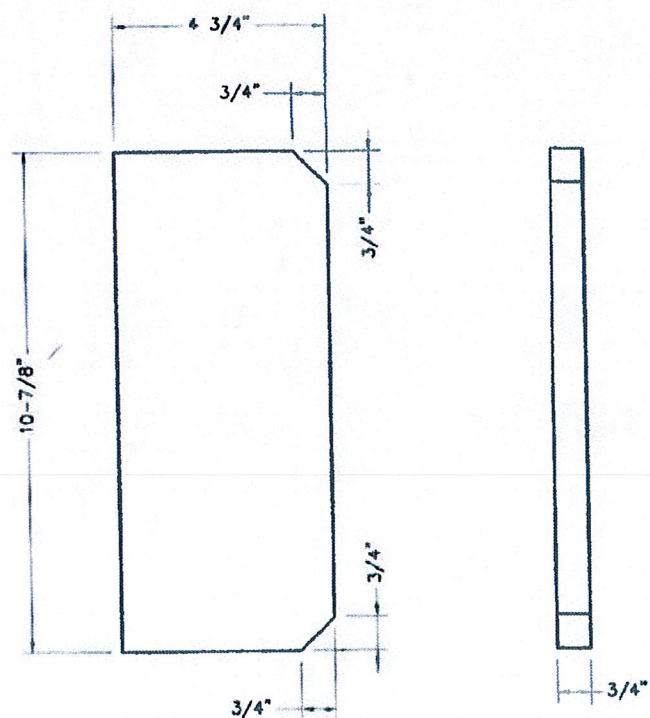
Add → Anchor C ONLY



I-BEAM ANCHOR DETAIL
SIDE VIEW

MK-4
S-7
DETAIL
SCALE: 1"=1'-0"

ONLY SHOWING IT 10' ON SHEET S-6



BEARING PLATE DETAIL
SIDE & FRONT VIEW

MK-5
S-7
DETAIL
SCALE: 3"=1'-0"

PREPARED BY:
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PREPARED FOR:
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STATE OF CONNECTICUT
Professional Engineer
No. 25842
06/28/13
CHRISTOPHER M. MURPHY, P.E.
CONNECTICUT LIC. NO. 25842

DRAWN BY: JMR
CHECKED BY: AB
ENG APPVD: CMM
PROJECT NO: 1309511400

SUBMITTALS		
DATE	DESCRIPTION	REV
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09/28/13	CONSTRUCTION	0

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SITE NAME:
**BURLINGTON
AVON LANDFILL**

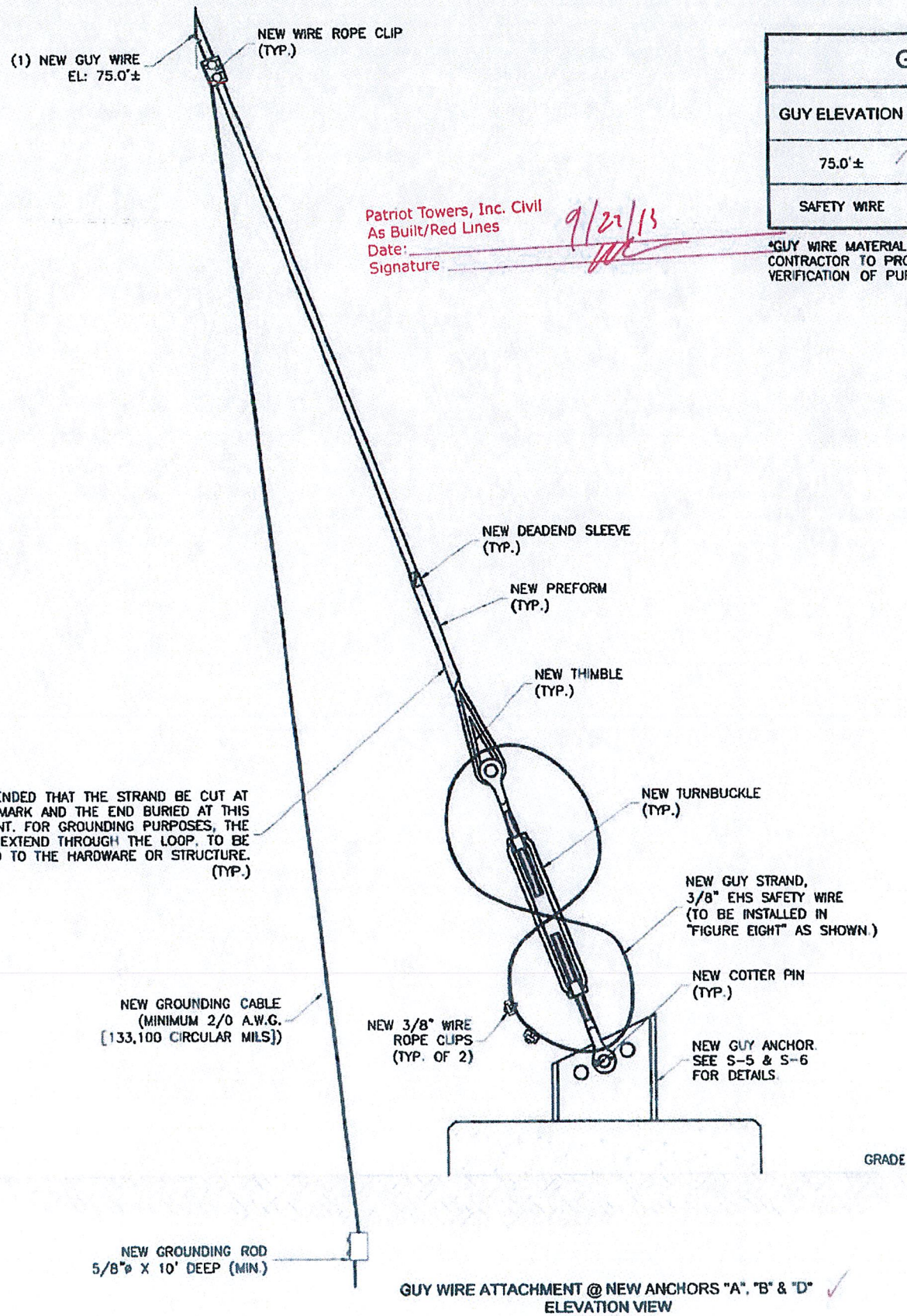
SITE NUMBER:
CT46143-A

SITE ADDRESS:
**277 HUCKLEBERRY HILL ROAD
AVON, CT 06013**

SHEET TITLE
**NEW GUY ANCHOR
FOUNDATION DETAILS III**

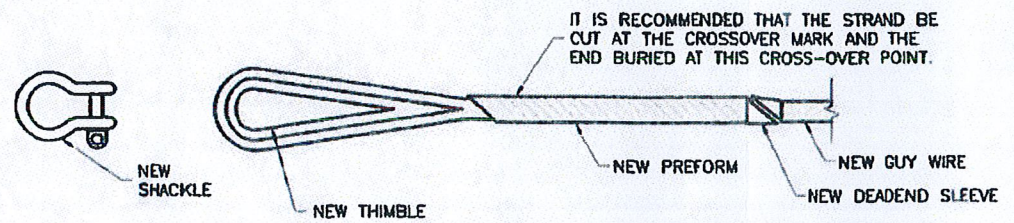
SHEET NUMBER
S-7

Patriot Towers, Inc. Civil
As Built/Red Lines
Date: 9/27/13
Signature: [Signature]



GUY WIRE INSTALLATION SCHEDULE ANCHORS "A", "B", & "D"						
GUY ELEVATION	GUY SIZE	TURNBUCKLE	DEADEND SLEEVE	PREFORM	THIMBLE	SHACKLE
75.0'±	(1) 1/2" EHS	(1) 7/8"x12" J/J	(2) 1/2"	(2) 1/2"	(2) 5/8" HWY	(1) 5/8" SPA (TOP)
SAFETY WIRE	(1) 3/8" EHS	-	-	-	-	-

*GUY WIRE MATERIAL SCHEDULE LISTS COMPONENTS FOR (1) GUY ANCHOR, (3) TOTAL ARE REQUIRED. CONTRACTOR TO PROVIDE NEW HARDWARE ON NEW AND RELOCATED WIRES & SHALL SUBMIT VERIFICATION OF PURCHASED MATERIAL TO FDH CONSTRUCTION MANAGER PRIOR TO INSTALLATION.



GUY WIRE ATTACHMENT AT TOWER ELEVATION VIEW

2
S-8
DETAIL
NTS

WIRE INSTALLATION SHOULD NOT BE PERFORMED IF WIND SPEED EXCEEDS 20 MPH.

THE CONTRACTOR SHALL CLEARLY LABEL ALL GUY WIRES AT GUY ANCHORS INDICATING THE PERCENT BREAKING STRENGTH THE GUY WIRES ARE TENSIONED TO. CONTACT TOWER OWNER FOR PREFERRED LABELING PROCEDURE.

GUY #	HEIGHT (ft.)	DIA. (in)	RADIUS (ft.)	ANCHOR ELEV. (ft.)	GUY LENGTH (ft.)
1	75	1/2" EHS	40	0	85.0
Initial Tension	Temp. (F)	Guy tension (kips)	(KN)	Time For 10 Pulses (Seconds)	
10%	0	3.02	13.43	3.92	
	10	2.97	13.19	3.96	
	20	2.91	12.94	3.99	
	30	2.86	12.70	4.03	
	40	2.80	12.45	4.07	
	50	2.75	12.21	4.11	
	60	2.69	11.97	4.15	
	70	2.63	11.72	4.20	
	80	2.58	11.48	4.24	
	90	2.52	11.23	4.29	
	100	2.47	10.99	4.33	

PULSE CHARTS

3
S-8
NEW ANCHORS "A", "B", & "D"
NTS

1
S-8
DETAIL
NTS

WON'T FIT W/ MK-3
INCREASE SIZE

Patriot Towers, Inc. Civil
As Built/Red Lines
Date: 9/22/13
Signature: [Signature]

PREPARED BY:
FDH
ENGINEERING INNOVATION
6621 MERIDEN DRIVE
RALEIGH, NC 27616
PHONE: 919-755-1012
FAX: 919-755-1031

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

STATE OF CONNECTICUT
Professional Engineer
No. 25842
06/28/13
CHRISTOPHER M. MURPHY, P.E.
CONNECTICUT LIC. NO. 25842

DRAWN BY: JMR
CHECKED BY: AB
ENG APPVD: CNM
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DATE	DESCRIPTION	REV
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06/28/13	CONSTRUCTION	D

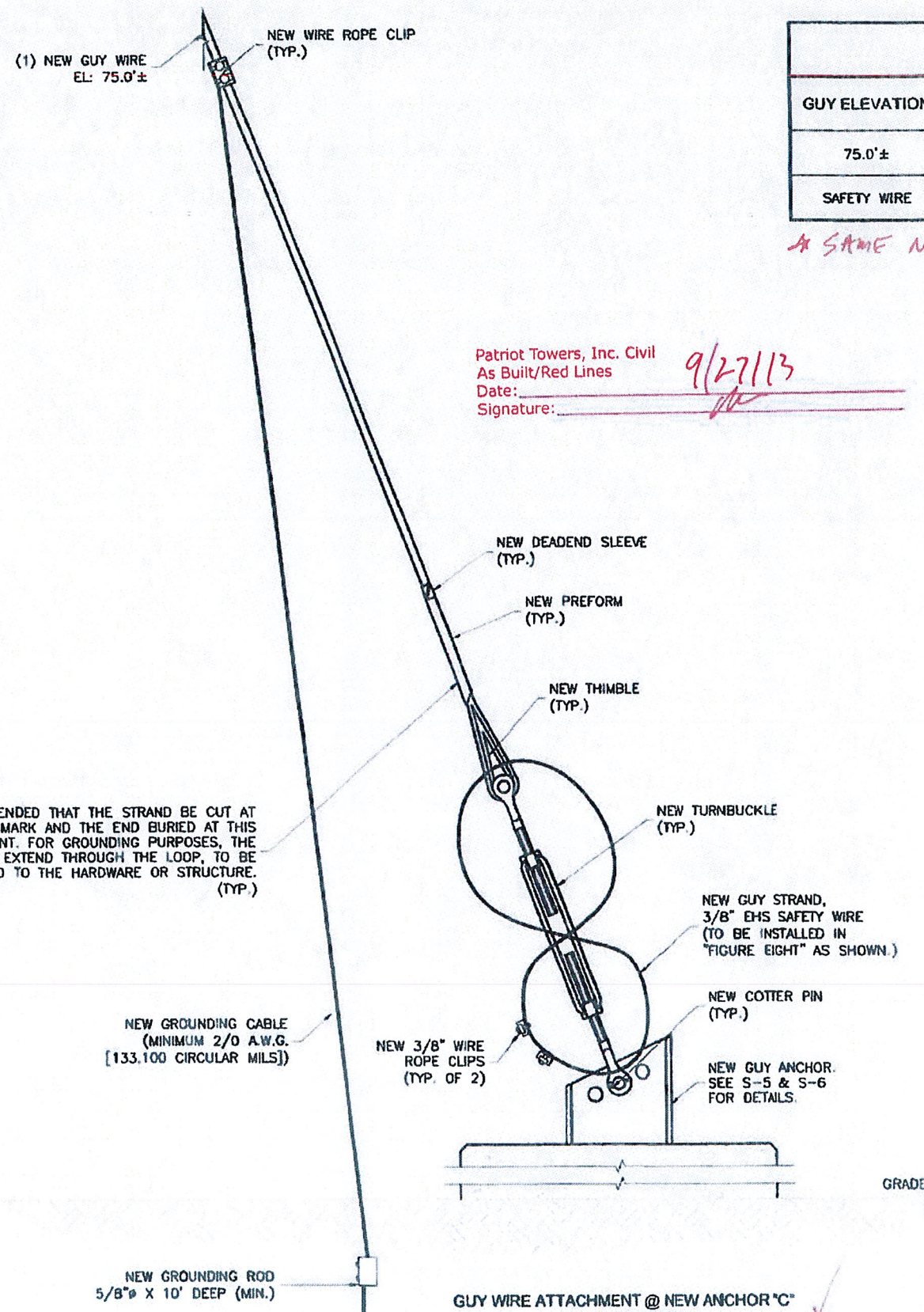
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SITE NAME:
**BURLINGTON
AVON LANDFILL**
SITE NUMBER:
CT46143-A

SITE ADDRESS:
**277 HUCKLEBERRY HILL ROAD
AVON, CT 06013**

SHEET TITLE
**GUY WIRE DETAILS I
& PULSE CHARTS**

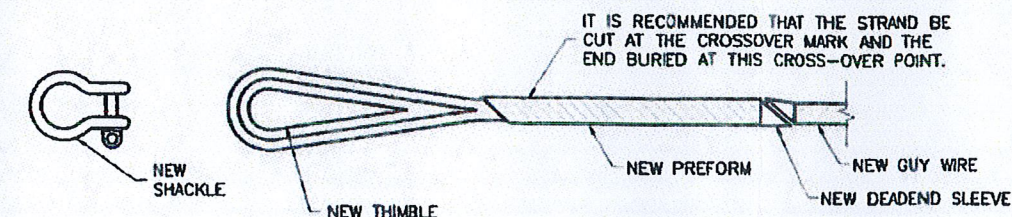
SHEET NUMBER
S-8



Patriot Towers, Inc. Civil
As Built/Red Lines
Date: 9/27/13
Signature: *[Signature]*

* SAME NOTE AS S-B HERE?

GUY WIRE INSTALLATION SCHEDULE ANCHOR "C"						
GUY ELEVATION	GUY SIZE	TURNBUCKLE	DEADEND SLEEVE	PREFORM	THIMBLE	SHACKLE
75.0'±	(1) 1/2" EHS	(1) 7/8"x12"J/J	(2) 1/2"	(2) 1/2"	(2) 5/8" HWY	(1) 5/8" SPA (TOP)
SAFETY WIRE	(1) 3/8" EHS	-	-	-	-	-



GUY WIRE ATTACHMENT AT TOWER ELEVATION VIEW

2
S-9
DETAIL
NTS

WIRE INSTALLATION SHOULD NOT BE PERFORMED IF WIND SPEED EXCEEDS 20 MPH.

THE CONTRACTOR SHALL CLEARLY LABEL ALL GUY WIRES AT GUY ANCHORS INDICATING THE PERCENT BREAKING STRENGTH THE GUY WIRES ARE TENSIONED TO. CONTACT TOWER OWNER FOR PREFERRED LABELING PROCEDURE.

GUY #	HEIGHT (ft.)	DIA. (in)	RADIUS (ft.)	ANCHOR ELEV. (ft.)	GUY LENGTH (ft.)
1	75	1/2" EHS	25	10	69.6
Initial Tension	Temp. (F)	Guy tension (klps)	Guy tension (KN)	Time For 10 Pulses (Seconds)	
10%	0	3.07	13.64	3.19	
	10	3.00	13.36	3.22	
	20	2.94	13.08	3.25	
	30	2.88	12.80	3.29	
	40	2.82	12.52	3.33	
	50	2.75	12.24	3.36	
	60	2.69	11.97	3.40	
	70	2.63	11.69	3.44	
	80	2.56	11.41	3.49	
	90	2.50	11.13	3.53	
	100	2.44	10.85	3.57	

PULSE CHARTS

3
S-9
NEW ANCHOR "C"
NTS

PREPARED BY:
FDH
ENGINEERING INNOVATION
6521 MERIDIAN DRIVE
RALEIGH, NC 27615
PHONE: 919-755-1012
FAX: 919-755-1031

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

STATE OF CONNECTICUT
No. 25842
LICENSED PROFESSIONAL ENGINEER
06/28/13
CHRISTOPHER M. MURPHY, P.E.
CONNECTICUT LIC. NO. 25842

DRAWN BY: JMR
CHECKED BY: AB
ENG APPVD: CMM
PROJECT NO: 1309511400

SUBMITTALS		
DATE	DESCRIPTION	REV
03/18/13	PRELIMINARY/REVIEW	A
06/28/13	CONSTRUCTION	0

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SITE NAME:
BURLINGTON AVON LANDFILL
SITE NUMBER:
CT46143-A
SITE ADDRESS:
**277 HUCKLEBERRY HILL ROAD
AVON, CT 06013**

SHEET TITLE
**GUY WIRE DETAILS II
& PULSE CHARTS**

SHEET NUMBER
S-9

Lauren James

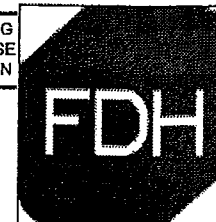
12/8/2013

THE MODIFICATIONS DEPICTED ON THESE DRAWINGS ARE BASED ON THE RECOMMENDATIONS OUTLINED IN THE STRUCTURAL ANALYSIS COMPLETED BY FDH ENGINEERING, INC., PROJECT NO. 12-12603E S1 DATED JANUARY 14, 2013.

THIS REPORT WAS BASED ON A SPECIFIC ANTENNA AND COAX CONFIGURATION PROVIDED BY THE TOWER OWNER. ANY CHANGE TO THIS INFORMATION MUST BE REVIEWED BY FDH ENGINEERING, INC.

ALL DIMENSIONS, MEASUREMENTS, QUANTITIES, PART NUMBERS AND COAX/ANTENNA PLACEMENTS TO BE FIELD VERIFIED BY CONTRACTOR PRIOR TO MATERIAL ORDERS AND CONSTRUCTION.

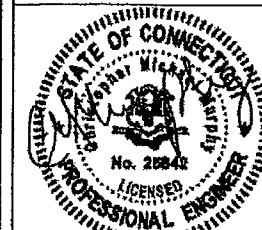
FOR INQUIRIES REGARDING
MODIFICATION DRAWINGS, PLEASE
WITH THE FDH CONSTRUCTION



SECONDARY INSPECTION

☐ EOR has reviewed the issues noted and passed the as-built condition(s).
☒ GC has revisited the site and corrected the punchlist items shown. Documentation showing these corrections has been received by the EOR.

5900 BROKEN SOUND PARKWAY, NW
BOCA RATON, FL 33487
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06/28/13
CHRISTOPHER M. MURPHY, P.E.
CONNECTICUT LIC. NO. 25842

DRAWN BY: JMR
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BURLINGTON
AVON LANDFILL

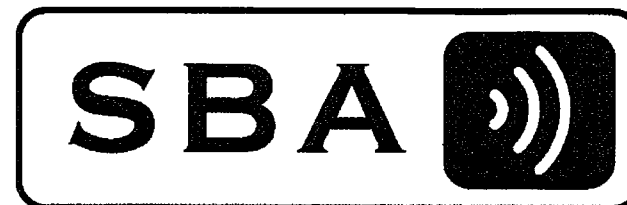
SITE NUMBER:
CT46143-A

SITE ADDRESS:
277 HUCKLEBERRY HILL ROAD
AVON, CT 06013

SHEET TITLE
TITLE
SHEET

SHEET NUMBER
T-1

PROJECT DESCRIPTION: MODIFICATION DRAWINGS FOR A 100' LAMINATED WOOD POLE



SITE NAME:

BURLINGTON - AVON LANDFILL

SITE NUMBER:

CT46143-A

SITE ADDRESS:

277 HUCKLEBERRY HILL ROAD
AVON, CT 06013

COORDINATES:

LATITUDE: 41.7881°
LONGITUDE: -72.9182°

FIELD ISSUES

1. ANCHOR RADIUS

DISCREPANCIES

* APPROVED BY THE EOR

2. ANCHOR ABOVE GRADE

DISCREPANCIES @ A, B, C, D

* APPROVED BY THE

EOR

3. EDGE DISTANCES ON ANCHORS

VARIABLES FROM 1-3/4" - 2"

* APPROVED BY THE EOR

4. GUY WIRE HARDWARE LARGER

THAN SPECIFIED

* APPROVED BY THE EOR

5. EROSION AND EARTH CRACKING AT ALL ANCHORS

* FIXED BY THE GC

6. POOLING WATER AT "A" ANCHOR

* FIXED BY THE GC

SHEET INDEX	
SHT. NO.	DESCRIPTION
T-1	TITLE SHEET
N-1	POST CONSTRUCTION INSPECTION NOTES
N-2	GENERAL NOTES
S-1	MODIFICATION SCHEDULE
S-2	NEW GUY LUG COLLAR DETAILS I
S-3	NEW GUY LUG COLLAR DETAILS II
S-4	SITE PLAN
S-5	NEW GUY ANCHOR FOUNDATION DETAILS I
S-6	NEW GUY ANCHOR FOUNDATION DETAILS II
S-7	GUY WIRE DETAILS & PULSE CHARTS

M. MURPHY

Lauren James

PCI CHECKLIST	
CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED	REPORT ITEM
PRE-CONSTRUCTION	
X	PCI CHECKLIST DRAWING
N/A	EOR APPROVED SHOP DRAWINGS
N/A	FABRICATION INSPECTION
X	FABRICATOR CERTIFIED WELD INSPECTION
X	MATERIAL TEST REPORT (MTR)
N/A	FABRICATOR NDE INSPECTION
N/A	NDE REPORT OF MONOPOLE BASE PLATE (AS REQUIRED)
X	PACKING SLIPS
ADDITIONAL TESTING AND INSPECTIONS:	
CONSTRUCTION	
X	CONSTRUCTION INSPECTIONS
X	FOUNDATION INSPECTIONS
X	CONCRETE COMP. STRENGTH AND SLUMP TESTS
N/A	POST INSTALLED ANCHOR ROD VERIFICATION
N/A	BASE PLATE GROUT VERIFICATION
N/A	CONTRACTOR'S CERTIFIED WELD INSPECTION
N/A	EARTHWORK: LIFT AND DENSITY
X	ON SITE COLD GALVANIZING VERIFICATION
X	GUY WIRE TENSION REPORT
X	GC AS-BUILT DOCUMENTS
ADDITIONAL TESTING AND INSPECTIONS:	
POST-CONSTRUCTION	
X	PCI INSPECTOR REDLINE OR RECORD DRAWING(S)
N/A	POST INSTALLED ANCHOR ROD PULL-OUT TESTING
X	PHOTOGRAPHS
ADDITIONAL TESTING AND INSPECTIONS:	

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

POST CONSTRUCTION INSPECTION NOTES:

GENERAL

1. THE POST CONSTRUCTION INSPECTION (PCI) 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).
2. THE PCI IS TO CONFIRM INSTALLATION CONFIGURATION AND WORKMANSHIP ONLY AND IS NOT A REVIEW OF THE MODIFICATION DESIGN ITSELF, NOR DOES THE PCI INSPECTOR TAKE OWNERSHIP OF THE MODIFICATION DESIGN. OWNERSHIP OF THE STRUCTURAL MODIFICATION DESIGN EFFECTIVENESS AND INTEGRITY RESIDES WITH THE EOR AT ALL TIMES.
3. ALL PCI'S SHALL BE CONDUCTED BY A PCI INSPECTOR THAT IS APPROVED TO PERFORM ELEVATED WORK FOR FDH ENGINEERING, INC.
4. TO ENSURE THAT THE REQUIREMENTS OF THE PCI ARE MET, IT IS VITAL THAT THE GENERAL CONTRACTOR (GC) AND THE PCI INSPECTOR BEGIN COMMUNICATING AND COORDINATING AS SOON AS A PO IS RECEIVED. IT IS EXPECTED THAT EACH PARTY WILL BE PROACTIVE IN REACHING OUT TO THE OTHER PARTY. IF CONTACT INFORMATION IS NOT KNOWN, CONTACT YOUR FDH POINT OF CONTACT (POC).
5. REFER TO CCR-01 : CONTRACTOR CLOSEOUT REQUIREMENTS FOR FURTHER DETAILS AND REQUIREMENTS.

PCI INSPECTOR

1. THE PCI INSPECTOR IS REQUIRED TO CONTACT THE GC AS SOON AS RECEIVING A PO FOR THE PCI TO, AT A MINIMUM:
 - REVIEW THE REQUIREMENTS OF THE PCI CHECKLIST
 - WORK WITH THE GC TO DEVELOP A SCHEDULE TO CONDUCT ON-SITE INSPECTIONS, INCLUDING FOUNDATION INSPECTIONS
2. THE PCI 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 PCI REPORT TO FDH.

CORRECTION OF FAILING PCI'S

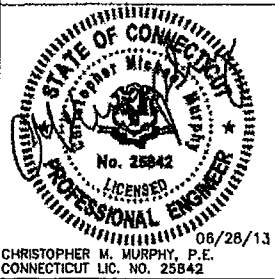
1. IF THE MODIFICATION INSTALLATION WOULD FAIL THE PCI ('FAILED PCI'), THE GC SHALL WORK WITH FDH TO COORDINATE A REMEDIATION PLAN IN ONE OF TWO WAYS:
 - CORRECT FAILING ISSUES TO COMPLY WITH THE SPECIFICATIONS CONTAINED IN THE ORIGINAL CONTRACT DOCUMENTS AND COORDINATE A SUPPLEMENT PCI
 - OR, WITH FDH'S APPROVAL, THE GC MAY WORK WITH THE EOR TO RE-ANALYZE THE MODIFICATION/REINFORCEMENT USING THE AS-BUILT CONDITION.

REQUIRED PHOTOS

1. BETWEEN THE GC AND THE PCI INSPECTOR THE FOLLOWING PHOTOGRAPHS, AT A MINIMUM, ARE TO BE TAKEN AND INCLUDED IN THE PCI REPORT:
 - PRE-CONSTRUCTION GENERAL SITE CONDITION
 - PHOTOGRAPHS DURING THE REINFORCEMENT MODIFICATION CONSTRUCTION/ERECTION AND INSPECTION
 - RAW MATERIALS
 - PHOTOS OF ALL CRITICAL DETAILS
 - FOUNDATION MODIFICATIONS
 - WELD PREPARATION
 - BOLT INSTALLATION AND TORQUE
 - FINAL INSTALLED CONDITION
 - SURFACE COATING REPAIR
 - POST CONSTRUCTION PHOTOGRAPHS
 - FINAL INFIELD CONDITION
2. PHOTOS OF ELEVATED MODIFICATIONS TAKEN FROM THE GROUND SHALL BE CONSIDERED INADEQUATE.

FDH	PREPARED BY SECONDARY INSPECTION
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5900 BROKEN SOUND PARKWAY, NW
BOCA RATON, FL 33487
(800) 487-SITE



DRAWN BY: JMR
CHECKED BY: AB
ENG APP'D: CMM
PROJECT NO: 1309511400

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BURLINGTON
AVON LANDFILL

SITE NUMBER:
CT46143-A

SITE ADDRESS:
277 HUCKLEBERRY HILL ROAD
AVON, CT 06013

SHEET TITLE
POST CONSTRUCTION
INSPECTION NOTES

SHEET NUMBER
N-1

Lauren James

GENERAL NOTES:

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES AND ORDINANCES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ALL PERMITS NECESSARY TO COMPLETE THE PROJECT AND ABIDE BY ALL CONDITIONS AND REQUIREMENTS OF THE PERMITS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL DIMENSIONS, ELEVATIONS AND EXISTING CONDITIONS AT THE SITE BEFORE ORDERING ANY MATERIALS OR DOING ANY WORK. NO EXTRA CHARGE OR COMPENSATION SHALL BE ALLOWED DUE TO DIFFERENCE BETWEEN ACTUAL DIMENSIONS AND DIMENSIONS INDICATED ON THE CONSTRUCTION DRAWINGS. ANY SUCH DISCREPANCY IN DIMENSION WHICH MAY BE FOUND SHALL BE SUBMITTED TO FDH ENGINEERING FOR CONSIDERATION BEFORE THE CONTRACTOR PROCEEDS WITH THE WORK IN THE AFFECTED AREAS.
3. INCORRECTLY FABRICATED, DAMAGED, OTHERWISE MISFITTING, OR NON-CONFORMING MATERIALS AND CONDITIONS SHALL BE REPORTED TO FDH ENGINEERING PRIOR TO ANY REMEDIAL OR CORRECTIVE ACTION. ALL ACTIONS SHALL REQUIRE FDH ENGINEERING APPROVAL.
4. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE TO ENSURE THE SAFETY OF THE STRUCTURE AND ITS COMPONENT PARTS DURING ERECTION AND/OR FIELD MODIFICATIONS. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF TEMPORARY BRACING, GUYS OR TIE DOWNS THAT MAY BE NECESSARY. SUCH MATERIAL SHALL BE REMOVED AFTER THE COMPLETION OF THE PROJECT.
5. CONTRACTOR SHALL PROMPTLY REMOVE ANY & ALL DEBRIS FROM SITE AND RESTORE AS BEST AS POSSIBLE TO PRECONSTRUCTION CONDITION.

CONTRACTOR QUALIFICATION NOTES:

1. ALL REPAIRS SHALL BE PERFORMED BY A TOWER CONTRACTOR WITH A MINIMUM 5 YEARS EXPERIENCE IN TOWER ERECTION AND RETROFIT AND WITH WORKING KNOWLEDGE OF THE TIA/EIA 222-F "STRUCTURAL STANDARD FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORTING STRUCTURES".
2. CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION MEANS AND METHODS. SHOULD THE CONTRACTOR REQUIRE DIRECT CONSULTATION, FDH ENGINEERING, INC. IS WILLING TO OFFER SERVICES BASED UPON AN AGREED FEE FOR THE WORK REQUIRED.
3. ALL SUBMITTAL INFORMATION MUST BE SENT TO FDH ENGINEERING, INC. 6521 MERIDIAN DRIVE, RALEIGH NC, 27616, TEL. (919) 755-1012, FAX. (919) 755-1031, E-MAIL INFO@FDH-INC.COM. ANY VARIATION OF THESE SPECIFICATIONS OR DRAWINGS WITHOUT CONSENT FROM FDH ENGINEERING, INC. WILL VOID ANY RESPONSIBILITY OR LIABILITY FOR DAMAGE (MATERIAL OR PHYSICAL) TOWARDS FDH ENGINEERING, INC.

JOB SITE SAFETY & NOTES:

1. NEITHER THE PROFESSIONAL ACTIVITIES OF FDH ENGINEERING, INC. NOR THE PRESENCE OF FDH ENGINEERING, INC. OR EMPLOYEES AND SUB-CONSULTANTS AT THE CONSTRUCTION SITE, SHALL RELIEVE THE GENERAL CONTRACTOR AND OR SUBCONTRACTORS AND ANY OTHER ENTITY OF THEIR OBLIGATIONS, DUTIES AND RESPONSIBILITIES INCLUDING, BUT NOT LIMITED TO, CONSTRUCTION MEANS, METHODS, SEQUENCE, TECHNIQUES OR PROCEDURES NECESSARY FOR PERFORMING, SUPERINTENDING OR COORDINATING ALL PORTIONS OF THE WORK OF CONSTRUCTION IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND ANY HEALTH OR SAFETY PRECAUTIONS REQUIRED BY ANY REGULATORY AGENCIES. THE GENERAL CONTRACTOR AND OR SUBCONTRACTOR IS SOLELY RESPONSIBLE FOR JOB SAFETY, AND WARRANTS THAT THIS INTENT IS EVIDENT BY ACCEPTING THIS WORK.

SUBSTITUTES AND/OR EQUALS:

1. IF CONTRACTOR WISHES TO FURNISH OR USE A SUBSTITUTE ITEM OF MATERIAL OR EQUIPMENT, CONTRACTOR SHALL FIRST MAKE WRITTEN APPLICATION TO ENGINEER OF RECORD FOR ACCEPTANCE THEREOF, CERTIFYING THAT THE PROPOSED SUBSTITUTE WILL PERFORM ADEQUATELY THE FUNCTIONS AND ACHIEVE THE RESULTS CALLED FOR BY THE GENERAL DESIGN, BE SIMILAR IN SUBSTANCE TO THAT SPECIFIED AND SUITED TO THE SAME USE AS THAT SPECIFIED. ALL VARIATIONS OF THE PROPOSED SUBSTITUTE FROM THAT SPECIFIED WILL BE IDENTIFIED IN THE APPLICATION AND AVAILABLE MAINTENANCE, REPAIR AND REPLACEMENT SERVICE WILL BE INDICATED. THE APPLICATION WILL ALSO CONTAIN AN ITEMIZED ESTIMATE OF ALL COSTS OR CREDITS THAT WILL RESULT DIRECTLY OR INDIRECTLY FROM ACCEPTANCE OF SUCH SUBSTITUTE INCLUDING COSTS OF REDESIGN AND CLAIMS OF OTHER CONTRACTORS AFFECTED BY THE RESULTING CHANGE, ALL OF WHICH WILL BE CONSIDERED BY ENGINEER OF RECORD IN EVALUATION OF THE PROPOSED SUBSTITUTE. ENGINEER OF RECORD MAY REQUIRE CONTRACTOR TO FURNISH ADDITIONAL DATA ABOUT THE PROPOSED SUBSTITUTE.

STEEL:

1. ALL STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST AISC CODE AND ASTM SPECIFICATIONS.

*ALL STEEL PLATE SHALL BE ASTM A36 (Fy=36KSI) UNLESS OTHERWISE SPECIFIED.

*ALL GUY WIRE SHALL BE EHS ASTM A475 UNLESS OTHERWISE SPECIFIED.

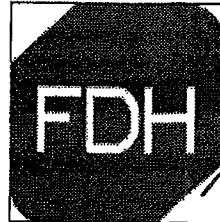
*ALL STEEL W-SHAPES SHALL BE ASTM A992-50 (Fy=50 KSI) UNLESS OTHERWISE SPECIFIED.
2. ALL CONNECTIONS OF STRUCTURAL STEEL MEMBERS SHALL BE MADE USING SPECIFIED WELDS WITH WELDING ELECTRODES E-70XX OR SPECIFIED HIGH STRENGTH BOLTS TO BE ASTM A325N, THREAD INCLUDED WITH SHEAR PLANE (UNLESS OTHERWISE NOTED).
3. ALL BOLTED CONNECTIONS TO BE INSTALLED TO A SNUG-TIGHTENED CONDITION IN ACCORDANCE WITH AISC 13 PART 18.2, "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS", SECTION 8.1, UNLESS OTHERWISE SPECIFIED. WHEN "X" TYPE BOLTS ARE USED, CONTRACTOR MAY BE REQUIRED TO STACK ADDITIONAL WASHERS TO OBTAIN PROPER SNUG TIGHT INSTALLATION. ALL NUTS SHALL BE HEAVY HEX UNLESS OTHERWISE NOTED.
4. ALL STEEL, AFTER FABRICATION, SHALL BE HOT DIPPED GALVANIZED PER ASTM A-123. ALL DAMAGED SURFACES, WELDED AREAS AND AUTHORIZED NON-GALVANIZED MEMBERS OR PARTS (EXISTING OR NEW) SHALL BE PAINTED WITH MULTIPLE COATS OF ZRC GOLD GALVANIZING COMPOUND ACHIEVING A MINIMUM OF 4 MILS DRY FILM PER ASTM A 780.
5. ALL SHOP AND FIELD WELDING SHALL BE DONE BY WELDERS QUALIFIED AS DESCRIBED IN THE "AMERICAN WELDING SOCIETY'S STANDARD QUALIFICATION PROCEDURE" TO PERFORM THE TYPE OF WORK REQUIRED. CONTRACTOR IS REQUIRED TO PROVIDE FDH ENGINEERING, INC. WITH A PASSING CERTIFIED WELDING INSPECTION FOR ALL WELDS.
6. STRUCTURAL STEEL MAY NOT BE TORCH CUT FOR FABRICATION. ALL STEEL FABRICATION MUST FOLLOW AISC STANDARDS.

MISC. NOTES:

1. ALL MODIFICATIONS ARE ASSUMED TO BE MADE ON AN EMPTY TOWER. CONTRACTOR IS RESPONSIBLE TO MAKE PROVISIONS TO SUPPORT OR WORK AROUND EXISTING ANTENNAS AND TRANSMISSION LINES. MODIFICATIONS MUST BE CONTINUOUS THROUGH ALL AREAS SHOWN.
2. CONTRACTOR FIELD VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION.

FABRICATION NOTES:

1. ALL DIMENSIONS ARE PRELIMINARY UNTIL FIELD VERIFIED BY CONTRACTOR. ANY CHANGES MUST BE APPROVED BY ENGINEER OF RECORD IN WRITING PRIOR TO FABRICATION AND INSTALLATION.
2. NEW STEEL MEMBERS MUST HAVE SINGLE DRILLED HOLES. SLOTTED AND DOUBLE DRILLED HOLES ARE NOT ACCEPTABLE MEANS OF FABRICATION.

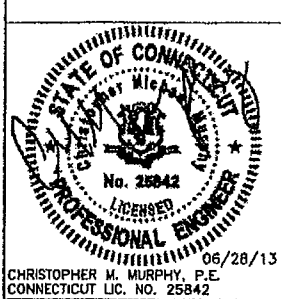


PREPARED BY: **SECONDARY INSPECTION**

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5000 BROKEN SOUND PARKWAY, NW
BOCA RATON, FL 33487
(800) 487-SITE



DRAWN BY: JMR
CHECKED BY: AB
ENG APP'D: CMM
PROJECT NO: 1309511400

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AVON LANDFILL**

SITE NUMBER:
CT46143-A

SITE ADDRESS:
**277 HUCKLEBERRY HILL ROAD
AVON, CT 06013**

SHEET TITLE
GENERAL
NOTES

SHEET NUMBER
N-2

Lauren James

- APPURTENANCES MAY INTERFERE WITH PROPOSED MODIFICATIONS.
- ALL MODIFICATIONS TO BE INSTALLED CONTINUOUSLY THROUGH EXISTING EQUIPMENT. ALL EXISTING EQUIPMENT NOT TO BE DAMAGED OR TAKEN OFF AIR DURING INSTALLATION.
- ANTENNA GRAPHICS NOT SHOWN FOR CLARITY. SEE STRUCTURAL ANALYSIS REPORT FOR EXISTING ANTENNA LOADING.

TOWER MODIFICATION SCHEDULE			
NO.	TYPE OF MODIFICATION		
1	INSTALLATION OF (1) NEW GUY LUG. SEE S-2 & S-3 FOR DETAILS.		
2	INSTALLATION OF (4) NEW 1/2" EHS GUY WIRES IT=10%. SEE S-8 AND S-9 FOR DETAILS. (CONTRACTOR TO PROVIDE ALL NEW HARDWARE)		
3	INSTALLATION OF (4) NEW GUY ANCHOR FOUNDATIONS. SEE S-4 THROUGH S-7 FOR DETAILS.		
4	CONTRACTOR TO PLUMB TOWER & TENSION ALL GUY WIRES TO INITIAL TENSION (IT) AS SHOWN. SEE S-8 AND S-9 FOR DETAILS.		
	-10.0±	VARIES	
	-	75.0±	

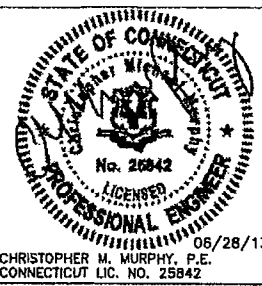


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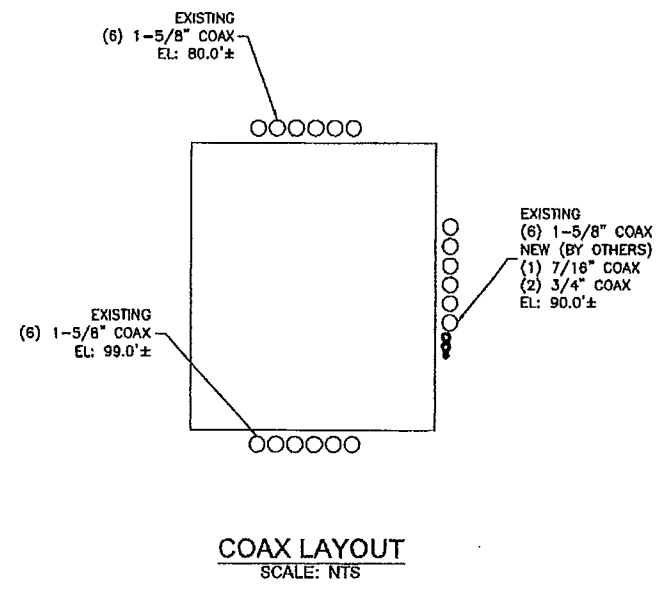
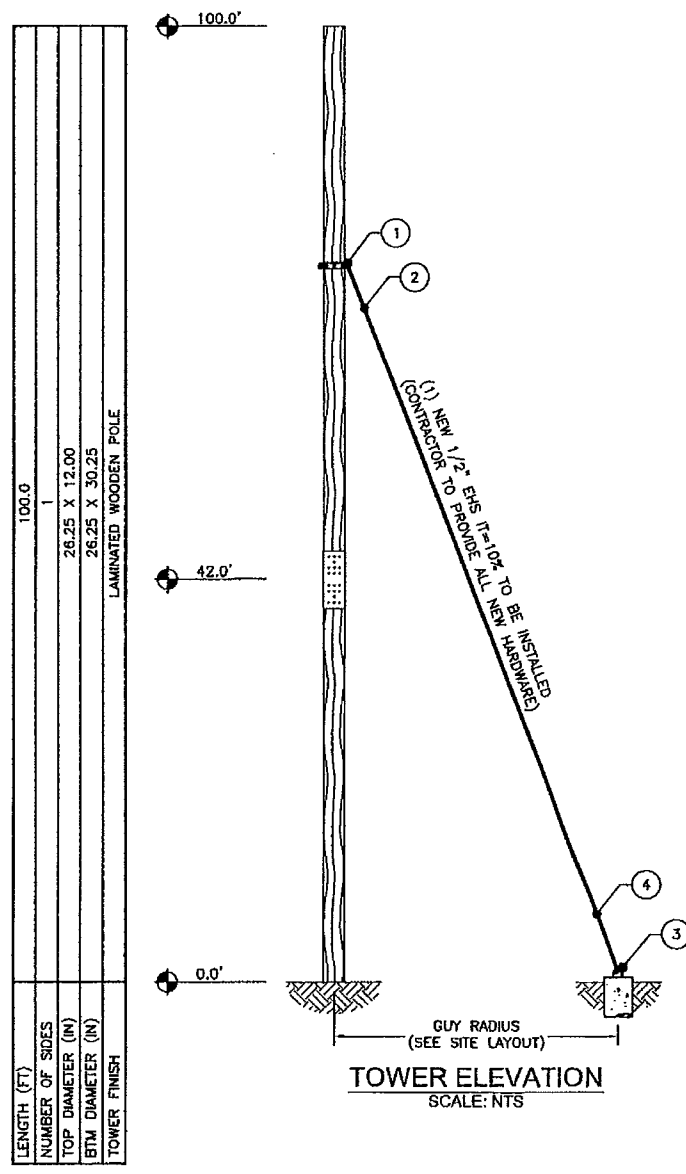
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SITE NUMBER:
CT46143-A

SITE ADDRESS:
277 HUCKLEBERRY HILL ROAD
AVON, CT 06013

SHEET TITLE
MODIFICATION
SCHEDULE

SHEET NUMBER
S-1



Lauren Jenner

GUY LUG COLLAR MATERIALS			
PART NO.	QTY.	DESCRIPTION	
MK-1	2	LUG PLATE "A". SEE S-3 FOR DETAILS.	
MK-2	2	LUG PLATE "B". SEE S-3 FOR DETAILS.	
MK-3	4	GUY LUG	75'-0"
-	12	3/4" BOLTS W/ LOCK WASHERS	-
-	6	1" x 1'-9" THREADED BAR W/ (2) NUTS AND LOCK WASHERS	-



PREPARED BY: **SECONDARY INSPECTION**

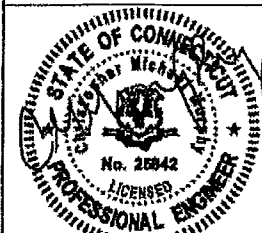
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☒ EC has revisited the site and corrected the punchlist items shown. Documentation showing these corrections has been received by the EOR.

EXISTING SAFETY CABLE TO BE RE-ROUTED AROUND NEW GUY LUG IF INTERFERENCES OCCUR.

NEW LUG PLATES TO BE INSTALLED UNDER EXISTING COAX SHROUDS.

5600 BROKEN SOUND PARKWAY, NW
BOCA RATON, FL 33487
(800) 487-7510



06/28/13
CHRISTOPHER M. MURPHY, P.E.
CONNECTICUT LIC. NO. 25842

DRAWN BY: JMR
CHECKED BY: AB
ENG APP'D: CMM
PROJECT NO: 1309511400

SUBMITTALS		
DATE	DESCRIPTION	REV
03/18/13	PRELIMINARY/REVIEW	A
06/28/13	CONSTRUCTION	D

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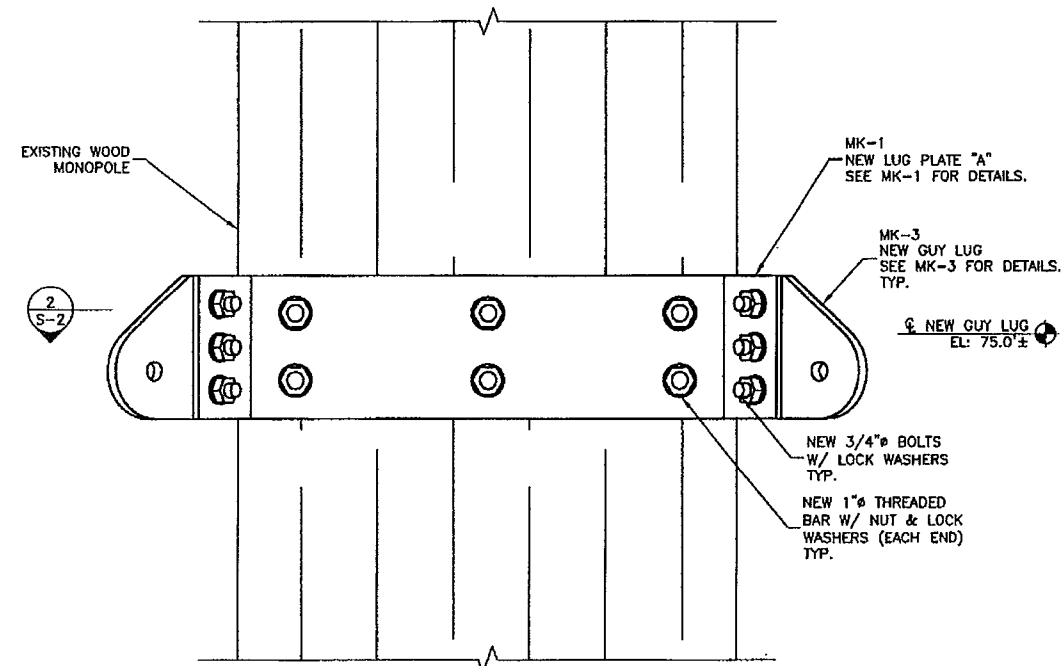
SITE NAME:
BURLINGTON AVON LANDFILL

SITE NUMBER:
CT46143-A

SITE ADDRESS:
**277 HUCKLEBERRY HILL ROAD
AVON, CT 06013**

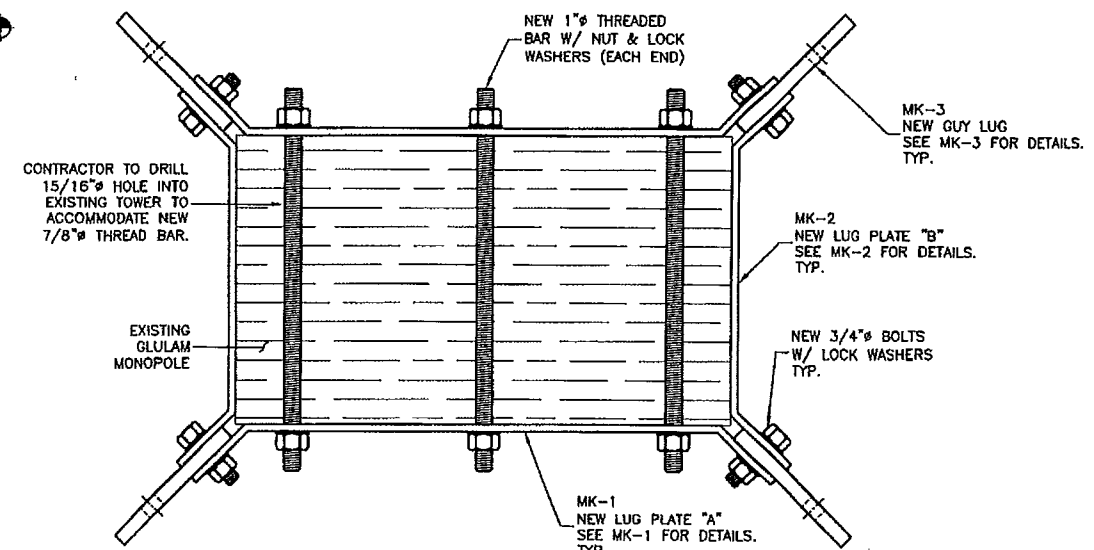
SHEET TITLE
NEW GUY LUG COLLAR DETAILS I

SHEET NUMBER
S-2



NEW GUY LUG LAYOUT
ELEVATION VIEW

1
S-2
ELEVATION
NTS



NEW GUY LUG LAYOUT
PLAN VIEW

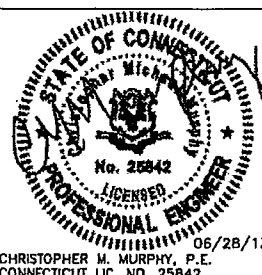
2
S-2
PLAN
NTS

Lauren Garner



PREPARED BY:
SECONDARY INSPECTION
☐ EOR has reviewed the issues noted and passed the as-built condition(s).
☒ GC has revisited the site and corrected the punchlist items shown. Documentation showing these corrections has been received by the EOR.

5000 BROKEN SOUND PARKWAY, NW
 BOCA RATON, FL 33487
 (800) 487-SITE



DRAWN BY: JMR
 CHECKED BY: AB
 ENG APP'D: CMM
 PROJECT NO: 1309511400

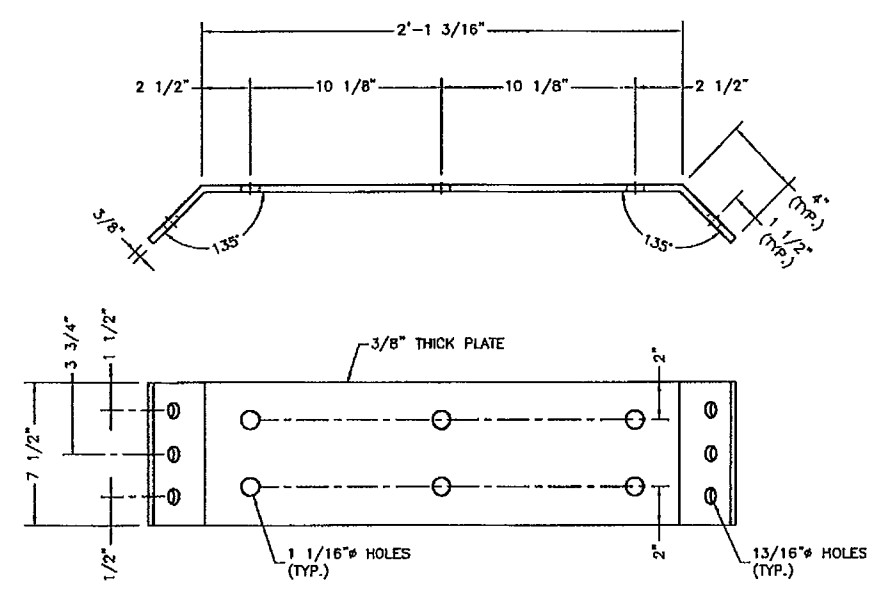
SUBMITTALS		
DATE	DESCRIPTION	REV
03/19/13	PRELIMINARY/REVIEW	A
06/28/13	CONSTRUCTION	B

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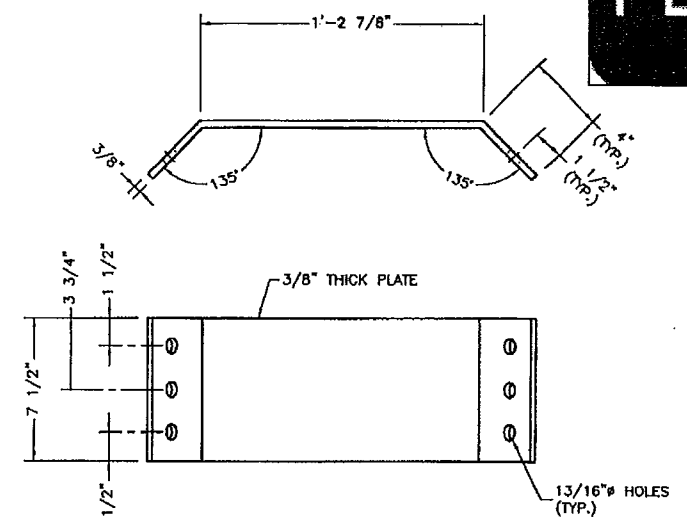
SITE NAME:
**BURLINGTON
 AVON LANDFILL**
 SITE NUMBER:
CT46143-A
 SITE ADDRESS:
**277 HUCKLEBERRY HILL ROAD
 AVON, CT 06013**

SHEET TITLE
**NEW GUY LUG
 COLLAR DETAILS II**

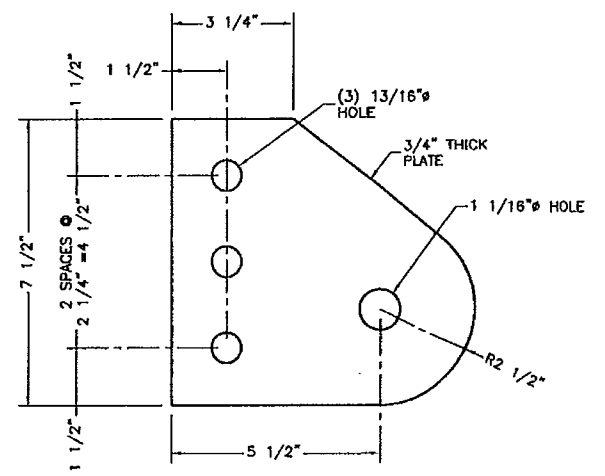
SHEET NUMBER
S-3



LUG PLATE "A"
 TOP & FRONT VIEW
 MK-1 ELEVATION
 S-3 SCALE: 1 1/2" = 1'-0"

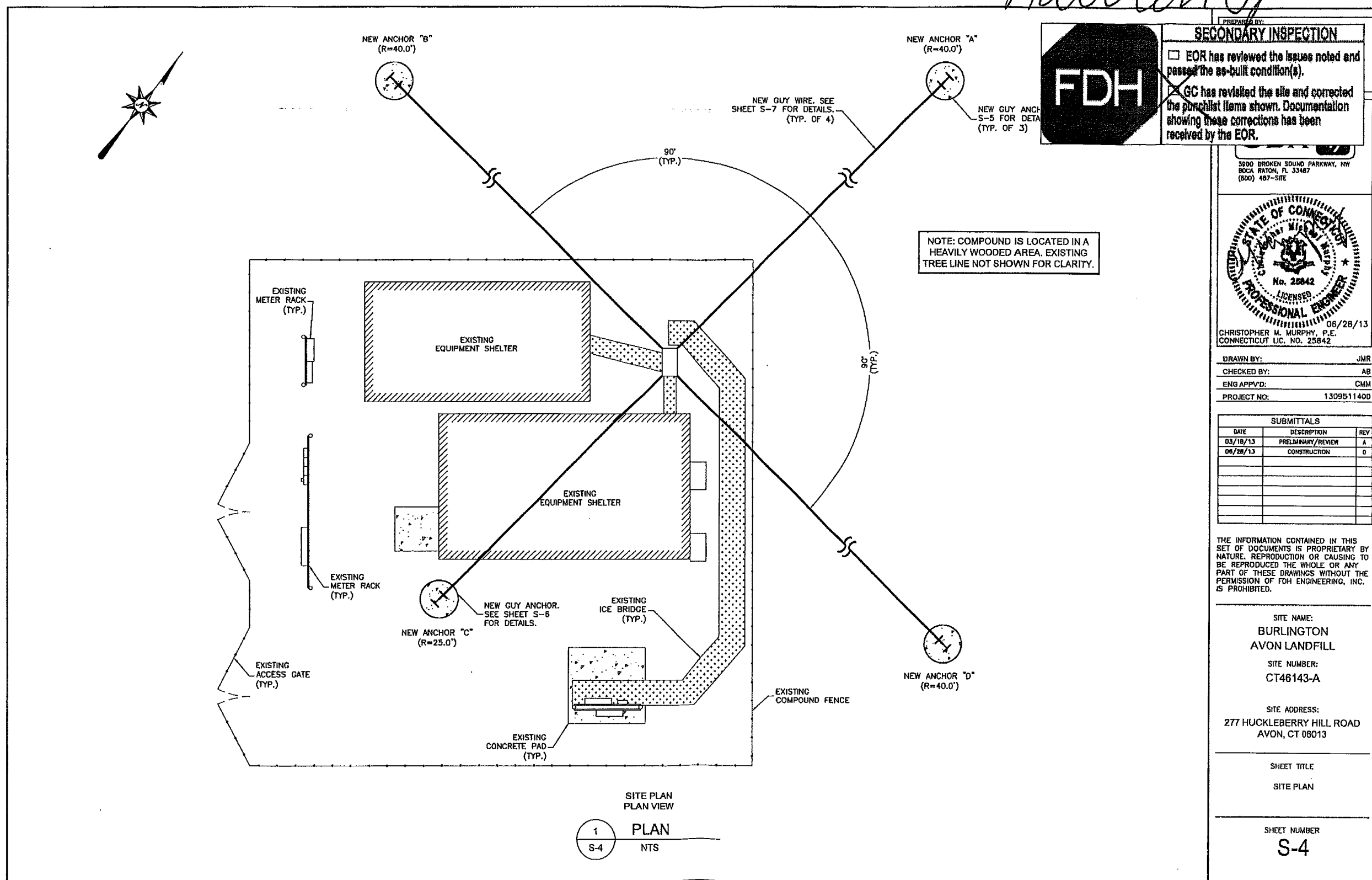


LUG PLATE "B"
 TOP & FRONT VIEW
 MK-2 ELEVATION
 S-3 SCALE: 1 1/2" = 1'-0"

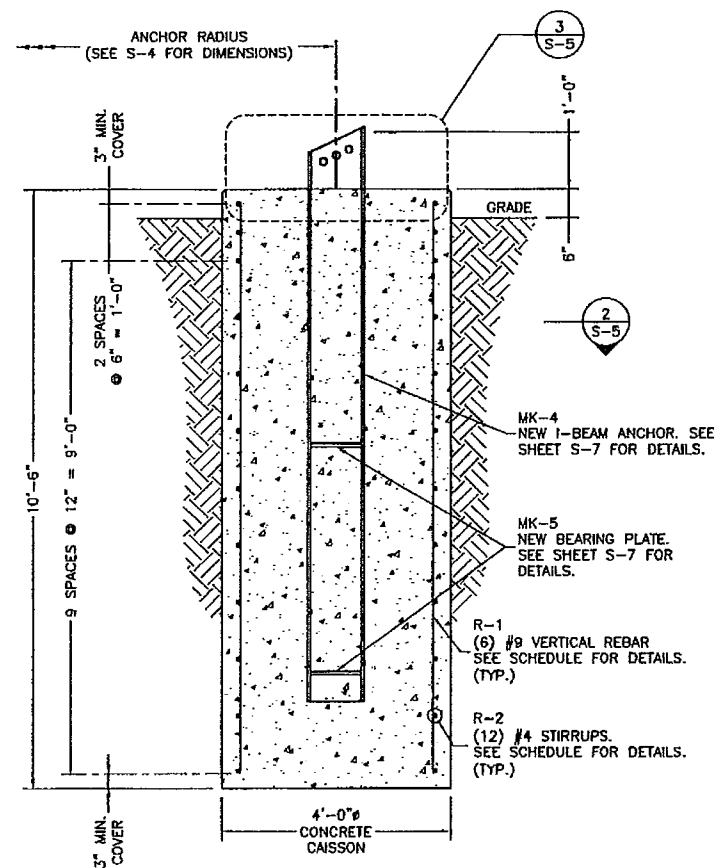


GUY LUG
 FRONT VIEW
 MK-3 DETAIL
 S-3 NTS

Rauren James

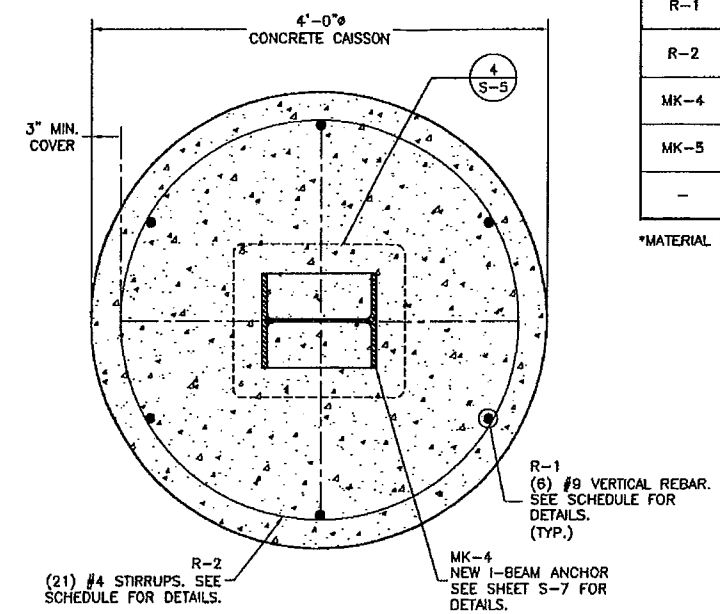


Lauren James



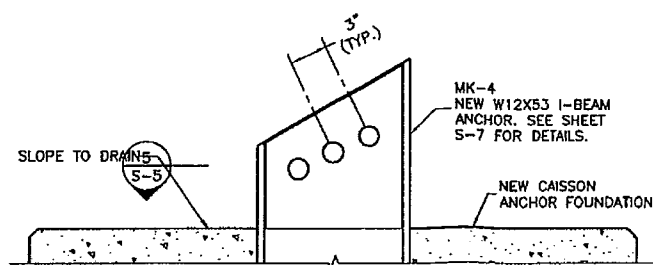
NEW CAISSON ANCHOR FOUNDATION
ELEVATION VIEW

1
S-5
ELEVATION
SCALE: 3/8" = 1'-0"



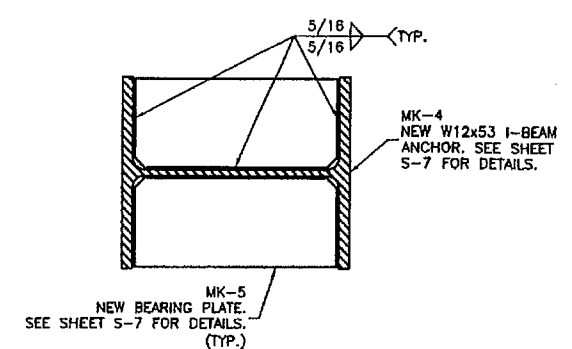
NEW CAISSON ANCHOR FOUNDATION
PLAN VIEW

2
S-5
PLAN
SCALE: 3/4" = 1'-0"



NEW ANCHOR HEAD
ELEVATION VIEW

3
S-5
DETAIL
SCALE: 1" = 1'-0"



BEARING PLATE DETAIL
SECTION VIEW

4
S-5
SECTION
SCALE: 1-1/2" = 1'-0"

FOUNDATION MATERIAL LIST			
PART NO.	SHAPE	QTY.	LENGTH
R-1	—	6	10'-0"
R-2	○	12	12'-0"
MK-4	—	1	10'-0"
MK-5	—	2	—
—	—	1	4.8± CU. YD.

#4 REBAR STIRRUPS WITH MIN. 12" OVERLAP
W12X53 I-BEAM ANCHOR SEE SHEET S-7 FOR DETAILS
BEARING PLATE SEE SHEET S-7 FOR DETAILS
4000 PSI CONCRETE

*MATERIAL SCHEDULE FOR (1) CAISSON FOUNDATION. (3) REQUIRED.

SECONDARY INSPECTION

☐ EOR has reviewed the issues noted and passed the as-built condition(s).

☒ GC has revisited the site and corrected the punchlist items shown. Documentation showing these corrections has been received by the EOR.

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

STATE OF CONNECTICUT
No. 25842
LICENSED PROFESSIONAL ENGINEER

06/28/13
CHRISTOPHER M. MURPHY, P.E.
CONNECTICUT LIC. NO. 25842

DRAWN BY: JMR
CHECKED BY: AB
ENG APP'D: CMM
PROJECT NO: 1309511400

SUBMITTALS		
DATE	DESCRIPTION	REV
03/18/13	PRELIMINARY/REVIEW	A
06/28/13	CONSTRUCTION	0

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BURLINGTON
AVON LANDFILL

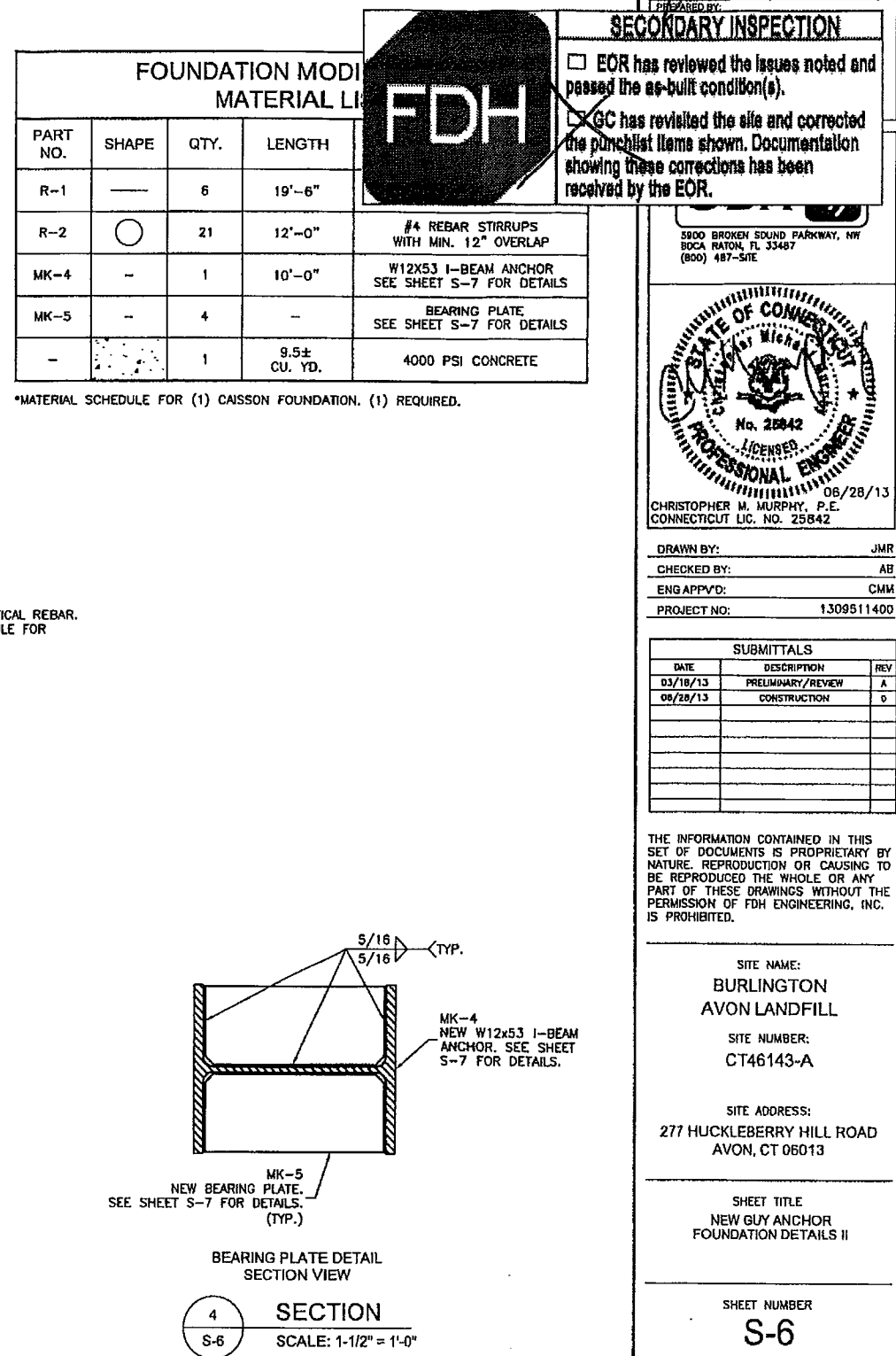
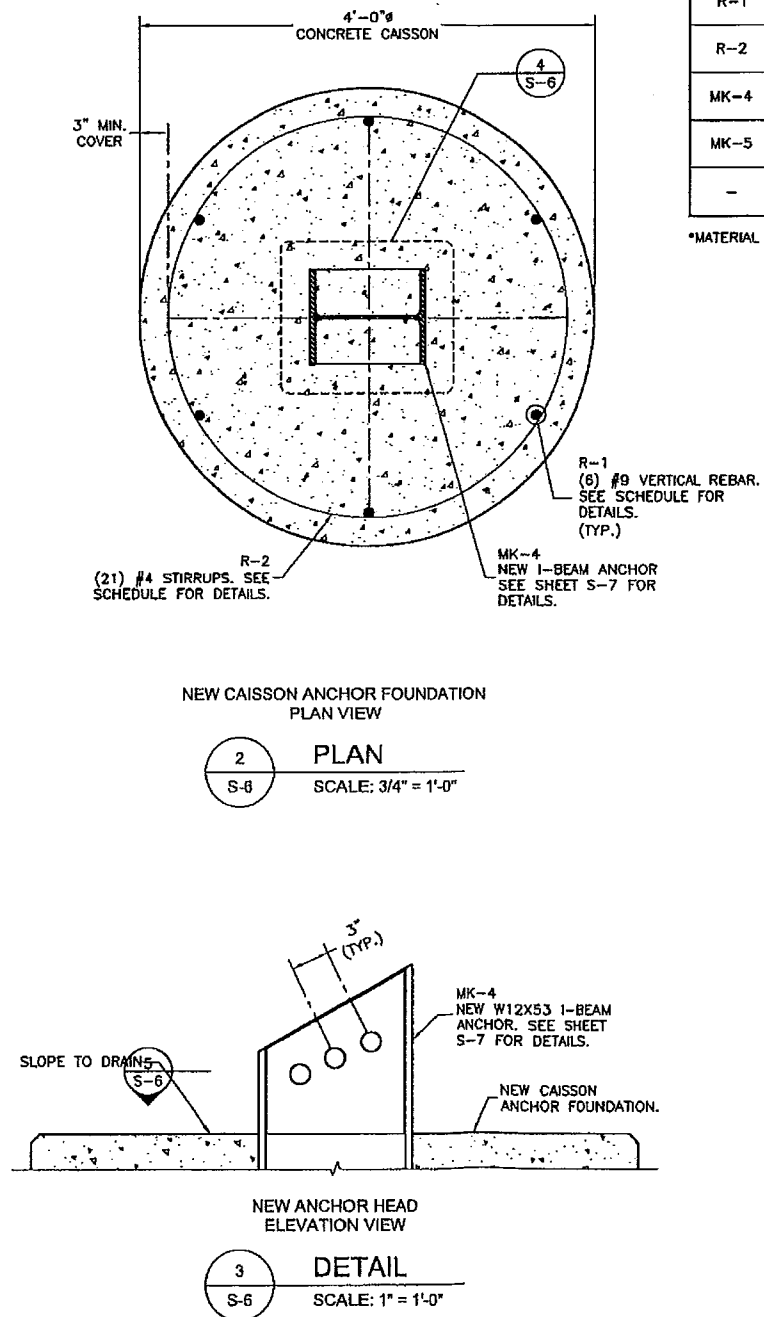
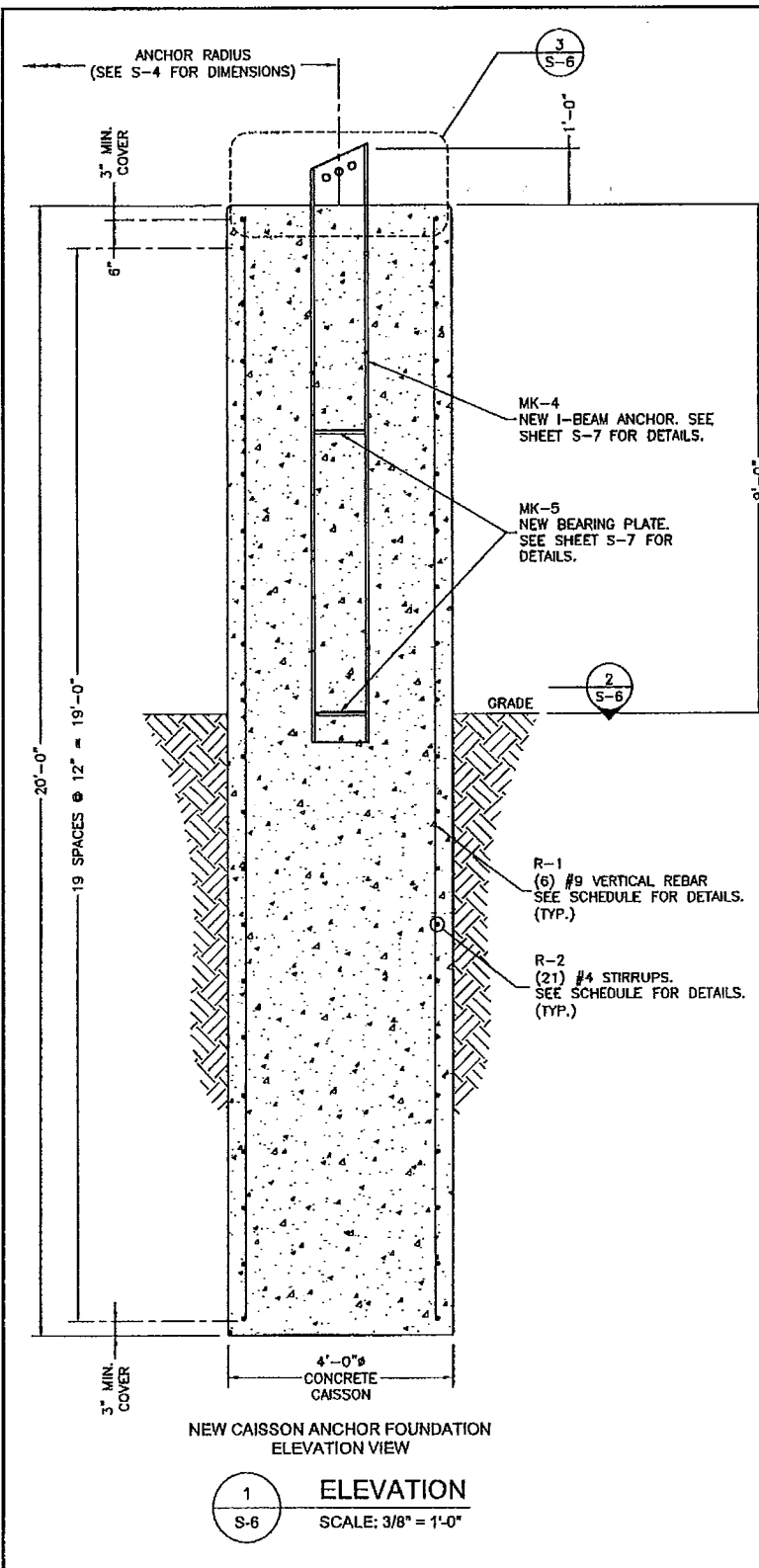
SITE NUMBER:
CT46143-A

SITE ADDRESS:
277 HUCKLEBERRY HILL ROAD
AVON, CT 06013

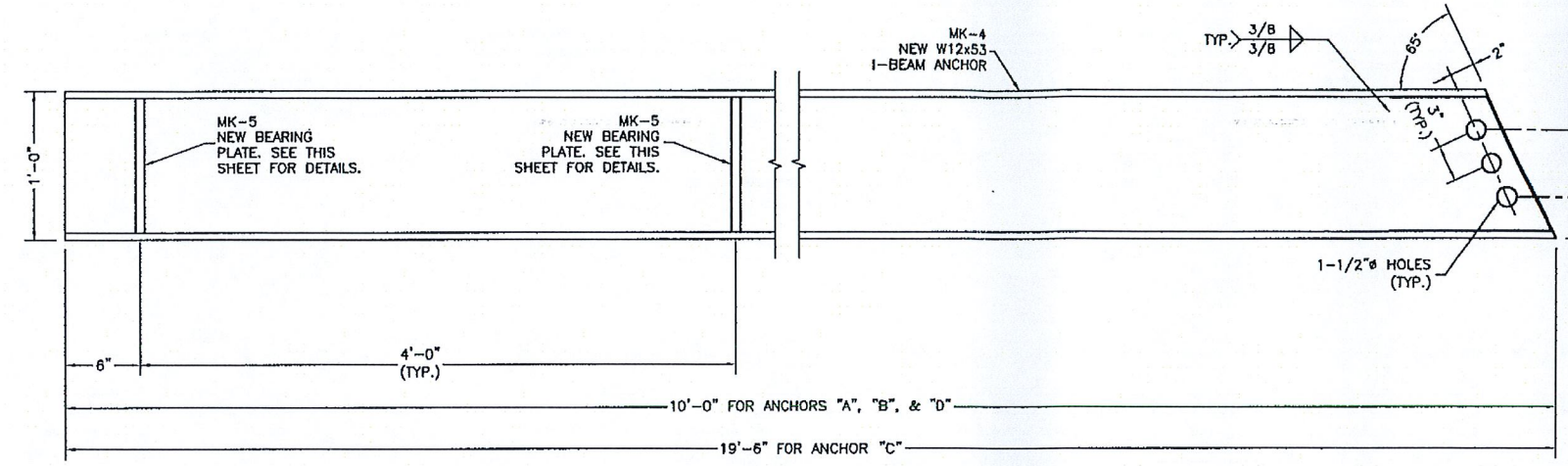
SHEET TITLE
NEW GUY ANCHOR
FOUNDATION DETAILS I

SHEET NUMBER
S-5

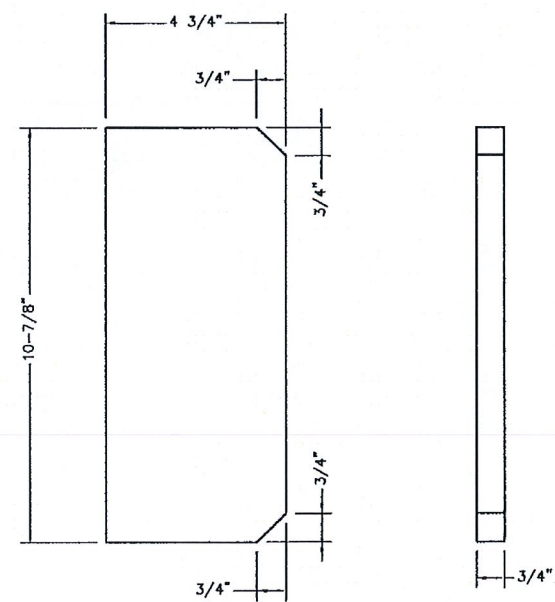
Lauren James



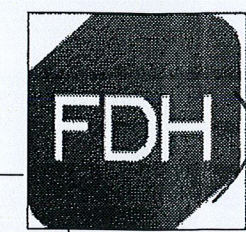
Raunen Jones



I-BEAM ANCHOR DETAIL
SIDE VIEW
MK-4
S-7
SCALE: 1"=1'-0"

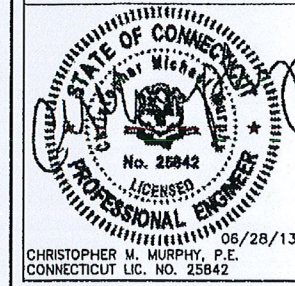


BEARING PLATE DETAIL
SIDE & FRONT VIEW
MK-5
S-7
SCALE: 3"=1'-0"



PREPARED BY
SECONDARY INSPECTION
☐ EOR has reviewed the issues noted and passed the as-built condition(s).
☒ GC has revisited the site and corrected the punchlist items shown. Documentation showing these corrections has been received by the EOR.

8000 BROKEN SOUND PARKWAY, NW
BOCA RATON, FL 33467
(800) 487-SITE



DRAWN BY: JMR
CHECKED BY: AB
ENG APPVD: CMM
PROJECT NO: 1309511400

SUBMITTALS		
DATE	DESCRIPTION	REV
03/18/13	PRELIMINARY/REVIEW	A
06/28/13	CONSTRUCTION	0

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SITE NAME:
**BURLINGTON
AVON LANDFILL**

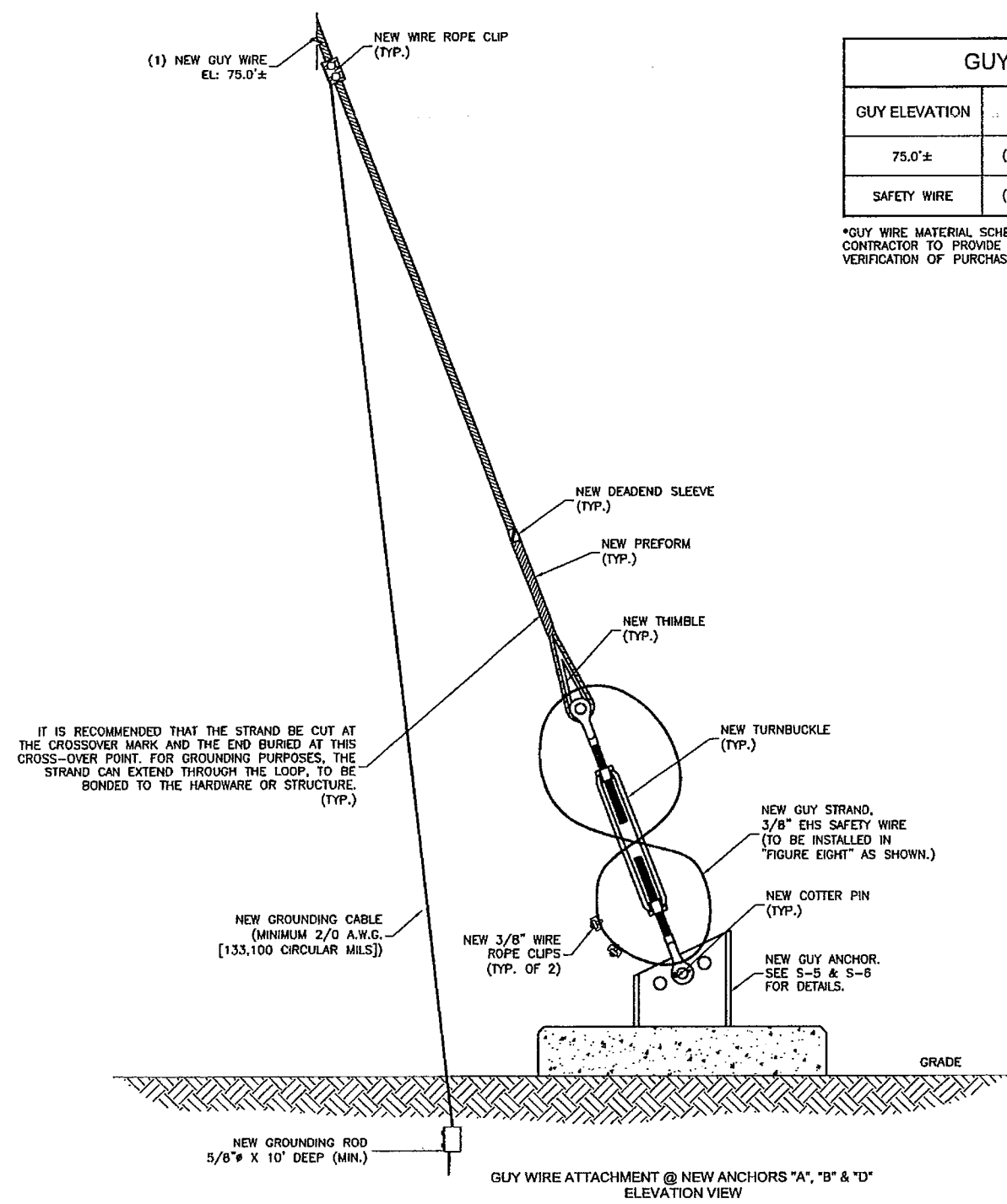
SITE NUMBER:
CT46143-A

SITE ADDRESS:
**277 HUCKLEBERRY HILL ROAD
AVON, CT 06013**

SHEET TITLE
**NEW GUY ANCHOR
FOUNDATION DETAILS III**

SHEET NUMBER
S-7

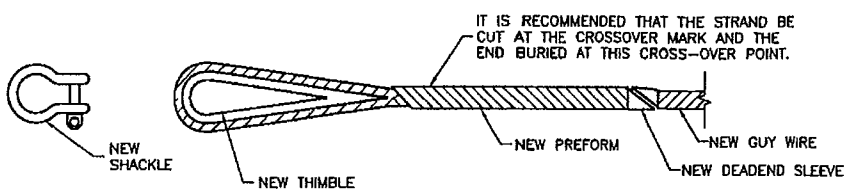
Raunier Jones



GUY WIRE INSTALLATION SCHEDULE ANCHORS "A", "B", & "D"

GUY ELEVATION	GUY SIZE	TURNBUCKLE	DEADEND SLEEVE	PREFORM	THIMBLE
75.0'±	(1) 1/2" EHS	(1) 7/8"x12"J/J	(2) 1/2"	(2) 1/2"	(2) 5/8"
SAFETY WIRE	(1) 3/8" EHS	-	-	-	-

*GUY WIRE MATERIAL SCHEDULE LISTS COMPONENTS FOR (1) GUY ANCHOR, (3) TOTAL ARE REQUIRED. CONTRACTOR TO PROVIDE NEW HARDWARE ON NEW AND RELOCATED WIRES & SHALL SUBMIT VERIFICATION OF PURCHASED MATERIAL TO FDH CONSTRUCTION MANAGER PRIOR TO INSTALLATION.



GUY WIRE ATTACHMENT AT TOWER ELEVATION VIEW

2
S-8
DETAIL
NTS

WIRE INSTALLATION SHOULD NOT BE PERFORMED IF WIND SPEED EXCEEDS 20 MPH.

THE CONTRACTOR SHALL CLEARLY LABEL ALL GUY WIRES AT GUY ANCHORS INDICATING THE PERCENT BREAKING STRENGTH THE GUY WIRES ARE TENSIONED TO. CONTACT TOWER OWNER FOR PREFERRED LABELING PROCEDURE.

GUY #	HEIGHT (ft.)	DIA. (in)	RADIUS ANCHOR (ft.)	GUY ELEV. (ft.)	GUY LENGTH (ft.)
1	75	1/2" EHS	40	0	85.0

Initial Tension	Temp. (F)	Guy tension (kips)	Guy tension (KN)	Time For 10 Pulses (Seconds)
10%	0	3.02	13.43	3.92
	10	2.97	13.19	3.96
	20	2.91	12.94	3.99
	30	2.86	12.70	4.03
	40	2.80	12.45	4.07
	50	2.75	12.21	4.11
	60	2.69	11.97	4.15
	70	2.63	11.72	4.20
	80	2.58	11.48	4.24
	90	2.52	11.23	4.29
	100	2.47	10.99	4.33

PULSE CHARTS

3
S-8
NEW ANCHORS "A", "B", & "D"
NTS

1
S-8
DETAIL
NTS

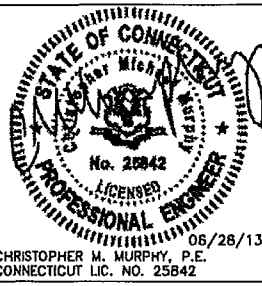


PREPARED BY: SECONDARY INSPECTION

☐ EOR has reviewed the issues noted and passed the as-built condition(s).

☒ GC has revisited the site and corrected the punchlist items shown. Documentation showing these corrections has been received by the EOR.

5000 BROKEN SOUND PARKWAY, NW
BOCA RATON, FL 33487
(800) 487-SITE



DRAWN BY: JMR
CHECKED BY: AB
ENG APP'D: CMM
PROJECT NO: 1309511400

SUBMITTALS		
DATE	DESCRIPTION	REV
03/18/13	PRELIMINARY/REVIEW	A
06/28/13	CONSTRUCTION	0

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SITE NAME:
BURLINGTON
AVON LANDFILL

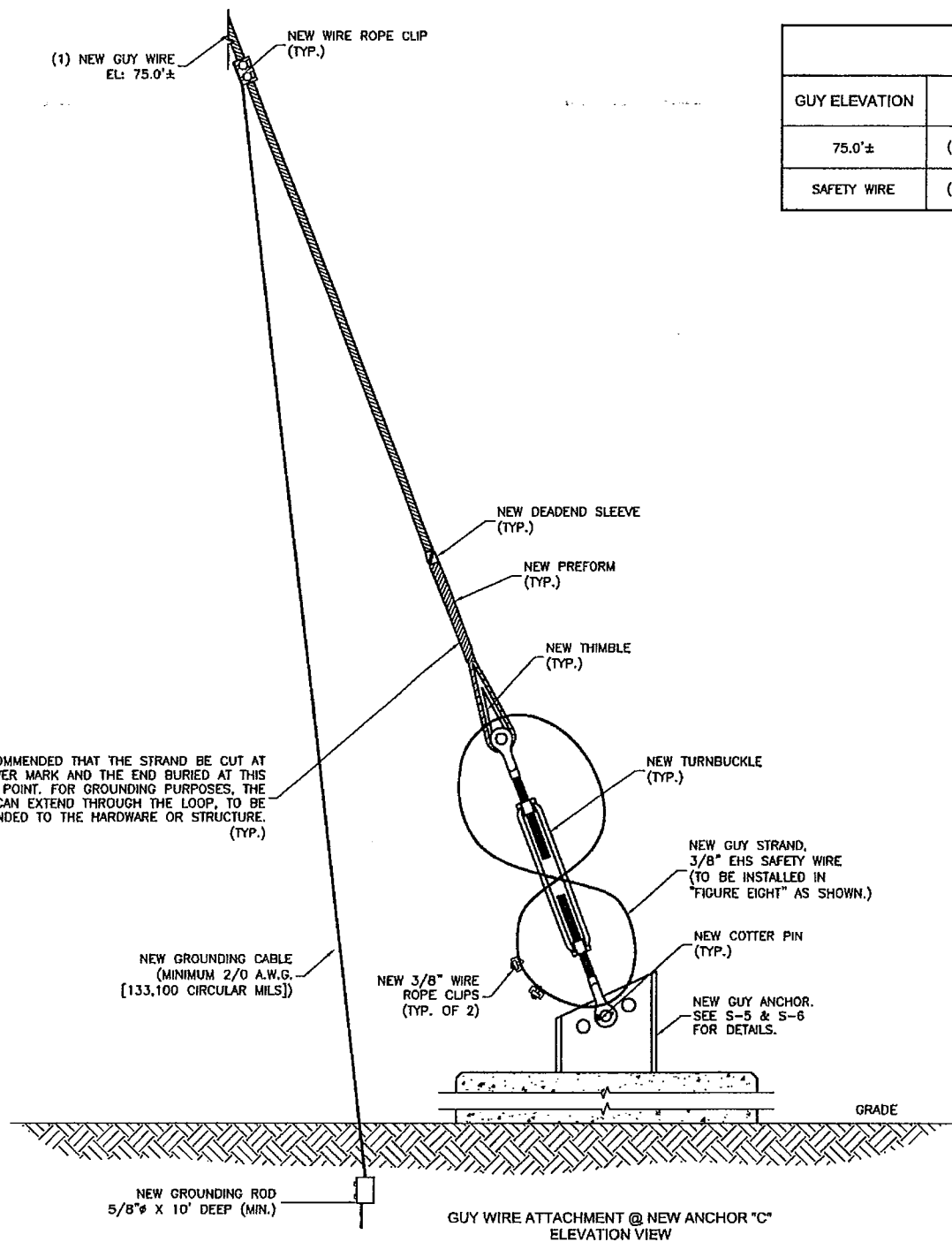
SITE NUMBER:
CT46143-A

SITE ADDRESS:
277 HUCKLEBERRY HILL ROAD
AVON, CT 06013

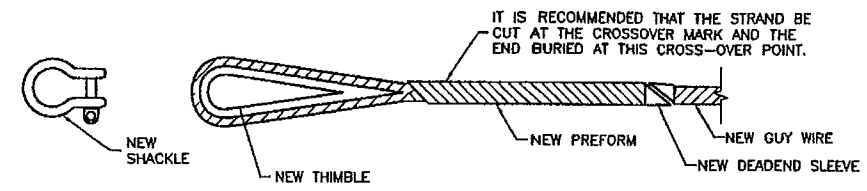
SHEET TITLE
GUY WIRE DETAILS I
& PULSE CHARTS

SHEET NUMBER
S-8

Raun James



GUY WIRE INSTALLATION SCHEDULE ANCHOR "C"						
GUY ELEVATION	GUY SIZE	TURNBUCKLE	DEADEND SLEEVE	PREFORM	THIMBLE	
75.0'±	(1) 1/2" EHS	(1) 7/8"x12"J/J	(2) 1/2"	(2) 1/2"	(2) 5/8"	
SAFETY WIRE	(1) 3/8" EHS	-	-	-	-	-



2
S-9
DETAIL
NTS

WIRE INSTALLATION SHOULD NOT BE PERFORMED IF WIND SPEED EXCEEDS 20 MPH.

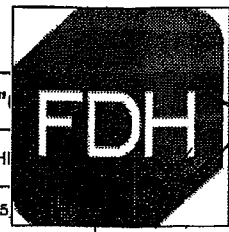
THE CONTRACTOR SHALL CLEARLY LABEL ALL GUY WIRES AT GUY ANCHORS INDICATING THE PERCENT BREAKING STRENGTH THE GUY WIRES ARE TENSIONED TO. CONTACT TOWER OWNER FOR PREFERRED LABELING PROCEDURE.

GUY #	HEIGHT (ft.)	DIA. (in.)	RADIUS (ft.)	ANCHOR ELEV. (ft.)	GUY LENGTH (ft.)
1	75	1/2" EHS	25	10	69.6

Initial Temp.	Guy tension	Time for 10 Pulses (Seconds)
Tension (F)	(kips) (KN)	
10%	0	3.07
10	3.00	13.64
20	2.94	13.36
30	2.88	13.08
40	2.82	12.80
50	2.75	12.52
60	2.69	12.24
70	2.63	11.97
80	2.56	11.69
90	2.50	11.41
100	2.44	11.13

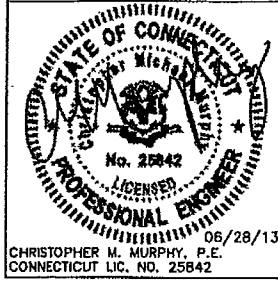
3
S-9
PULSE CHARTS
NEW ANCHOR "C"
NTS

1
S-9
DETAIL
NTS



PREPARED BY:
SECONDARY INSPECTION
☐ EOR has reviewed the issues noted and passed the as-built condition(s).
☒ GC has revisited the site and corrected the punchlist items shown. Documentation showing these corrections has been received by the EOR.

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



DRAWN BY: JMR
CHECKED BY: AB
ENG APP'D: CMM
PROJECT NO: 1309511400

SUBMITTALS		
DATE	DESCRIPTION	REV
05/18/13	PRELIMINARY/REVIEW	A
06/28/13	CONSTRUCTION	D

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SITE NAME:
**BURLINGTON
AVON LANDFILL**

SITE NUMBER:
CT46143-A

SITE ADDRESS:
**277 HUCKLEBERRY HILL ROAD
AVON, CT 06013**

SHEET TITLE
**GUY WIRE DETAILS II
& PULSE CHARTS**

SHEET NUMBER
S-9

From: Adam Bryan
Sent: Thursday, January 02, 2014 4:38 PM
To: Lauren James
Cc: Rakesh Khan; Blake Bartok
Subject: RE: MI Doc Waiver Request - Burlington Avon

Lauren,

Yes, you can wave the inspections. Sorry for the delay.

Thanks,

Adam Bryan, EI
Project Engineer

FDH Engineering, Inc.
6521 Meridien Drive
Raleigh, NC 27616
Direct: 919/367-5267
Office: 919/755-1012 • Fax: 919.755.1031
Email: abryan@fdh-inc.com

www.fdh-inc.com

Raleigh • St. Louis • Baton Rouge • Irvine



From: Lauren James
Sent: Thursday, January 02, 2014 4:02 PM
To: Adam Bryan
Cc: Rakesh Khan
Subject: RE: MI Doc Waiver Request - Burlington Avon

Adam,

Have you had a chance to review the info below? I am putting this MI report together and need an approval to waive the Construction Inspection as well as the Foundation Inspection. These items were verified through photographs of the foundation construction phases (see link below for photos) and concrete break tests.

[\\FDH-SERVER\Construction\2013 Construction Projects\SBA Construction\CT\Burlington-Avon Landfill, CT46143-A\1309511400 \(AT&T\)\PCI\Patriot\Rebar](#)

Lauren

From: Adam Bryan
Sent: Thursday, December 19, 2013 2:50 PM
To: Steven Strickland
Cc: Blake Bartok; Bradley Newman
Subject: RE: CT46143-A Burlington - Avon Landfill (NCN)

Follow Up Flag: Follow up
Flag Status: Flagged

Steven,

The corrections made are acceptable.

Thanks,

Adam Bryan, EI
Project Engineer

FDH Engineering, Inc.
6521 Meridien Drive
Raleigh, NC 27616
Direct: 919/367-5267
Office: 919/755-1012 • Fax: 919.755.1031
Email: abryan@fdh-inc.com

www.fdh-inc.com

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From: Steven Strickland
Sent: Thursday, December 19, 2013 2:27 PM
To: Adam Bryan
Cc: Blake Bartok; Bradley Newman
Subject: FW: CT46143-A Burlington - Avon Landfill (NCN)

Adam,

Corrections have been made. Please review. Thank you.

[\\fdh-server\Construction\2013 Construction Projects\SBA Construction\CT\Burlington-Avon Landfill, CT46143-A\1309511400 \(AT&T\)\PCI\Patriot\Corrections](#)

Steven R. Strickland
Project Manager II - Construction Department

FDH, Inc.
6521 Meridien Drive
Raleigh, NC 27616
Direct: 919.367.5240 • Mobile: 336.432.4943
Office : 919.755.1012 • Fax: 919.755.1031
Email: steven@fdh-inc.com

www.fdh-inc.com
Raleigh • St. Louis • Baton Rouge

From: Steven Strickland
Sent: Wednesday, December 11, 2013 10:34 AM
To: Doug Harradine (doug@patriottowers.com)
Subject: RE: CT46143-A Burlington - Avon Landfill (NCN)

Doug,

As I stated in my Email on Friday SBA was on site and found a few issues at the ground. We had an inspection on site this past weekend. The items below were found during that inspection. These issues need to be addressed as soon as possible. If you have any questions please let me know. Thank you.

NCN Issues

- Could not verify Plumb & Tension due to tree lines resting on the guy wires. **No actions required.**
- New anchor radius discrepancies: B leg 42.5' instead of 40'; C leg 24.5' instead of 25'; D leg 39' instead of 40' **No actions required.**
- New anchor above grade discrepancies @ A,B,D: calls for 6" AG, 12" beam projection; AG varies 6-12", beam projection 9 3/8" to 11 5/8" – **No actions required.**
- New anchor above grade discrepancies @ C: 9' 10.5" AG (not including washout) instead of 9' – **No actions required**
- The edge distances on the anchors varied from 1-3/4" to 2" where 2" was specified. – **No actions required.**
- Some of the installed guy wire hardware is larger than specified. (7/8" shackles instead of 5/8") **No action required.**
- Significant erosion & earth cracking at all anchors (Most notably at "C" & "D" Anchors – **This must be corrected. Soil to be removed and replaced in proper lifts and compacted properly. Re-grade around anchors so water drains away.**
- Pooling water on top of "A" Anchor. – **Need to remove the lip on the plastic or drill weep holes in plastic to allow water to drain.**
- Check length on bolts. Ensure that they protrude from the nut.

Steven R. Strickland
Project Manager II - Construction Department

FDH, Inc.
6521 Meridien Drive
Raleigh, NC 27616
Direct: 919.367.5240 • Mobile: 336.432.4943



STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@ct.gov

www.ct.gov/csc

May 17, 2013

Rick Woods
SBA Communications Corporation
33 Boston Post Road West Suite 320
Marlborough, MA 01752

RE: **EM-SPRINT-004-130502** – Sprint Spectrum L.P. notice of intent to modify an existing telecommunications facility located at 277 Huckleberry Road, Avon, Connecticut.

Dear Mr. Woods:

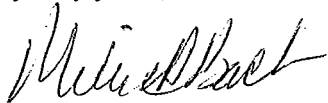
The Connecticut Siting Council (Council) hereby acknowledges your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies with the following conditions:

- The proposed coax shall be installed in accordance with the recommendations made in the Structural Analysis Report prepared by FDH Engineering dated April 25, 2013 and stamped by Darrin Holt;
- Sprint shall verify that the modifications listed in FDH Engineering, Inc. (Project No. 1309511400) dated March 18, 2013 have been completed;
- Within 45 days following completion of the antenna installation, Sprint shall provide documentation certified by a professional engineer that its installation complied with the recommendations of the Structural Analysis Report prepared by FDH Engineering dated April 25, 2013 and stamped by Darrin Holt;
- Any deviation from the proposed modification as specified in this notice and supporting materials with the Council shall render this acknowledgement invalid;
- Any material changes to this modification as proposed shall require the filing of a new notice with the Council;
- Within 45 days after completion of construction, the Council shall be notified in writing that construction has been completed;
- The validity of this action shall expire one year from the date of this letter; and
- The applicant may file a request for an extension of time beyond the one year deadline provided that such request is submitted to the Council not less than 60 days prior to the expiration;

The proposed modifications including the placement of all necessary equipment and shelters within the tower compound are to be implemented as specified here and in your notice dated April 26, 2013. The modifications are in compliance with the exception criteria in Section 16-50j-72 (b) of the Regulations of Connecticut State Agencies as changes to an existing facility site that would not increase tower height, extend the boundaries of the tower site, increase noise levels at the tower site boundary by six decibels, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundary to or above the standard adopted by the State Department of Environmental Protection pursuant to General Statutes § 22a-162. This facility has also been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on this tower.

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

Very truly yours,

A handwritten signature in black ink, appearing to read "Melanie Bachman", written in a cursive style.

Melanie A. Bachman
Acting Executive Director

MAB/CDM/cm

c: The Honorable Mark W. Zacchio, Chairman Town Council, Town of Avon
Steven V. Kushner, Town Planner, Town of Avon

**ORIGINAL**

May 1, 2013

David Martin and
Members of the Siting Council
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

RECEIVED
MAY - 2 2013
CONNECTICUT
SITING COUNCIL

RE: Notice of Exempt Modification
277 Huckleberry Road
Avon, CT 06001
N 41° 47' 17.54"
W 72° 55' 05.71"

Dear Mr. Martin and Members of the Siting Council:

On behalf of Sprint Spectrum, SBA Communications is submitting an exempt modification application to the Connecticut Siting council for modification of existing equipment at a tower facility located at 277 Huckleberry Road , Avon, CT.

The 277 Huckleberry Road facility consists of a 100' Wood Tower owned and operated by SBA 2012 TC Assets, LLC. In order to accommodate technological changes and enhance system performance in the State of Connecticut, Sprint Spectrum plans to modify the equipment configurations at many of its existing cell sites. Please accept this letter and attachments as notification, pursuant to R.C.S.A. Section 16-50j-73, of construction which constitutes an exempt modification pursuant to R.C.S.A. Section 16-50j-72(b)(2). In compliance with R.C.S.A. Section 16-50j-73, a copy of this letter and attachments is being sent to the chief elected official of the municipality in which the affected cell site is located.

As part of Sprint's Network Vision modification project, Sprint desires to upgrade their equipment to meet the new standards of 4G technology. The new equipment will allow customers to download files and browse the internet at a high rate of speed while also allowing their phones to be compatible with the latest 4G technology.

Attached is a summary of the planned modifications, including power density calculations reflecting the change in Sprint's operations at the site along with the required fee of \$625.

The changes to the facility do not constitute modifications as defined in Connecticut General Statutes ("C.G.S.") Section 16-50i(d) because the general physical characteristics of the facility will not be



significantly changed or altered. Rather, the planned changes to the facility fall squarely within those activities explicitly provided for in R.C.S.A. Section 16-50j-72(b)(2).

1. The overall height of the structure will be unaffected.
2. The proposed changes will not extend the site boundaries. There will be no effect on the site compound other than the new equipment cabinets.
3. The proposed changes will not increase the noise level at the existing facility by six decibels or more.
4. The changes in radio frequency power density will not increase the calculated "worst case" power density for the combined operations at the site to a level at or above the applicable standard for uncontrolled environments as calculated for a mixed frequency site.

For the foregoing reasons, SBA Communications on behalf of Sprint Spectrum, respectfully submits that he proposed changes at the referenced site constitute exempt modifications under R.C.S.A. Section 16-50j-72(b)(2).

Please feel free to call me at (508) 614-0389 with any questions you may have concerning this matter.

Thank you,

Rick Woods
SBA Communications Corporation
33 Boston Post Road West Suite 320
Marlborough, MA 01752
508-251-1691 x 319 + T
508-251-1755 + F
508-614-0389 + C
rwoods@sbsite.com



Sprint Spectrum Equipment Modification

277 Huckleberry Road, Avon, CT
Site number CT33XC589

Tower Owner: SBA 2012 TC Assets, LLC

Equipment Configuration: Wood Tower

Current and/or approved:

- (1) EXISTING MODCELL CABINET
- (1) EXISTING BATTERY CABINET
- (3) EXISTING CDMA ANTENNAS
- (6) EXISTING COAX CABLES
- EXISTING LOCAL EXCHANGE CARRIER LANDLINE BACKHAUL FACILITIES

Planned Modifications:

- RETROFIT EXISTING MODCELL CABINET
- REPLACE EXISTING BATTERY CABINET
- INSTALL (1) BBU CABINET, FIBER DISTRIBUTION BOX, & (6) RRHs WITHIN EXISTING LEASE AREA
- REMOVE (3) EXISTING CDMA ANTENNAS AND REPLACE WITH (3) NETWORK VISION ANTENNAS
- REMOVE EXISTING (6) COAX CABLES & INSTALL (18) 7/8" COAX CABLES AND (6) 3/8" RET CABLES
- EXISTING LOCAL EXCHANGE CARRIER LANDLINE BACKHAUL FACILITIES TO BE REPLACED WITH PROPOSED ALTERNATIVE ACCESS VENDOR (AAV) FIBER OPTIC FACILITIES INCLUDING PROPOSED OVERHEAD/UNDERGROUND CONDUITS AND NETWORK INTERFACE DEVICE

Structural Information:

The attached structural analysis demonstrates that the tower and foundation will have adequate structural capacity to accommodate the proposed modifications.

Power Density:

The anticipated Maximum Composite contributions from the Sprint facility are 25.324% of the allowable FCC established general public limit. The anticipated composite MPE value for this site assuming all carriers present is 55.084% of the allowable FCC established general public limit sampled at the ground level.

Site Composite MPE %	
Carrier	MPE %
Sprint	25.324%
Pocket	10.640%
AT&T	19.120%
Total Site MPE %	55.084%



May 1, 2013

COPY

Mr. Brandon Robertson
Town Manager, Avon
Avon Town Hall
60 West Main Street
Avon, CT 06001

RE: Telecommunications Facility @ 277 Huckleberry Road , Avon, CT

Dear Mr. Robertson,

In order to accommodate technological changes and enhance system performance in the State of Connecticut, Sprint Spectrum will be changing its equipment configuration at certain cell sites.

As required by Regulations of Connecticut State Agencies (R.C.S.A.) Section 16-50j-73, the Connecticut Siting Council has been notified of the changes and will review Sprint's proposal. Please accept this letter as notification under Section 16-50j-73 of construction which constitutes an exempt modification pursuant to R.C.S.A. Section 16-50j-72(b)(2).

The accompanying letter to the Siting Council fully describes Sprint's proposal for the referenced cell site. However, if you have any questions or require any further information on our plans or the Siting Council's procedures, please call me at (508) 614-0389.

Thank you,

Rick Woods
SBA Communications Company
33 Boston Post Road West Suite 320
Marlborough, MA 01752
508-251-1691 x 319 + T
508-251-1755 + F
508-614-0389 + C
rwoods@sbsite.com



EBI Consulting

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RADIO FREQUENCY EMISSIONS ANALYSIS REPORT EVALUATION OF HUMAN EXPOSURE POTENTIAL TO NON-IONIZING EMISSIONS

Sprint Existing Facility

Site ID: CT33XC589

Burlington - Avon Landfill
277 Huckleberry Hill Road
Avon, CT 06001

November 3, 2012



EBI Consulting

environmental | engineering | due diligence

November 3, 2012

Sprint

Attn: RF Engineering Manager

1 International Boulevard, Suite 800

Mahwah, NJ 07495

Re: Emissions Values for Site: **CT33XC589 – Burlington - Avon Landfill**

EBI Consulting was directed to analyze the proposed upgrades to the existing Sprint facility located at 277 Huckleberry Hill Road, Avon, CT, for the purpose of determining whether the emissions from the proposed Sprint equipment upgrades on this property are within specified federal limits.

All information used in this report was analyzed as a percentage of current Maximum Permissible Exposure (% MPE) as listed in the FCC OET Bulletin 65 Edition 97-01 and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The number of $\mu\text{W}/\text{cm}^2$ calculated at each sample point is called the power density. The exposure limit for power density varies depending upon the frequencies being utilized. Wireless Carriers and Paging Services use different frequency bands each with different exposure limits, therefore it is necessary to report results and limits in terms of percent MPE rather than power density.

All results were compared to the FCC (Federal Communications Commission) radio frequency exposure rules, 47 CFR 1.1307(b)(1) – (b)(3), to determine compliance with the Maximum Permissible Exposure (MPE) limits for General Population/Uncontrolled environments as defined below.

General population/uncontrolled exposure limits apply to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general public would always be considered under this category when exposure is not employment related, for example, in the case of a telecommunications tower that exposes persons in a nearby residential area.

Public exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The general population exposure limit for the cellular band is approximately $567 \mu\text{W}/\text{cm}^2$, and the general population exposure limit for the PCS band is $1000 \mu\text{W}/\text{cm}^2$. Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density.



Occupational/controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits (see below), as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

Additional details can be found in FCC OET 65.

CALCULATIONS

Calculations were done for the proposed upgrades to the existing Sprint Wireless antenna facility located at 277 Huckleberry Hill Road, Avonj, CT, using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. All calculations were performed assuming the main lobe of the antenna was focused at the base of the tower to present a worst case scenario. Actual values seen from this site will be dramatically less than those shown in this report. For this report the sample point is the top of a 6 foot person standing at the base of the tower.

For all calculations, all emissions were calculated using the following assumptions:

- 1) 2 CDMA Carriers (1900 MHz) were considered for each sector of the proposed installation.
- 2) 1 CDMA Carrier (850 MHz) was considered for each sector of the proposed installation
- 3) All radios at the proposed installation were considered to be running at full power and were uncombined in their RF transmissions paths per carrier prescribed configuration. Per FCC OET Bulletin No. 65 - Edition 97-01 recommendations to achieve the maximum anticipated value at each sample point, all power levels emitting from the proposed antenna installation are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. This is rarely the case, and if so, is never continuous.
- 4) For the following calculations the sample point was the top of a six foot person standing at the base of the tower. The actual gain in this direction was used per the manufactures supplied specifications.
- 5) The antenna used in this modeling is the APXVSP18-C-A20. This is based on feedback from the carrier with regards to anticipated antenna selection. This antenna has a 15.9 dBd gain value at its main lobe at 1900 MHz and 13.4 dBd at its main lobe for 850 MHz. All calculations were performed assuming the main lobe of the antenna was focused at the base of the tower to present a worst case scenario.



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- 6) The antenna mounting height centerline of the proposed antennas is **100 feet** above ground level (AGL)
- 7) Emissions values for additional carriers were taken from the Connecticut Siting Council active database. Values in this database are provided by the individual carriers themselves.

All calculation were done with respect to uncontrolled / general public threshold limits

Site ID	CT33X/C589 - Burlington - Avon Landfill
Site Address	277 Huckleberry Hill Road, Avon, CT, 06001
Site Type	Monopole

Sector 1

Antenna Number	Antenna Make	Antenna Model	Radio Type	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain in direction of sample point (dBi)	Antenna Height (ft)	analysis height	Cable Size	Cable Loss (dB)	Additional Loss	ERP	Power Density Value	Power Density Percentage
1a	RFS	APXVSP18-C-A20	RRH	1900 MHz	CDMA / LTE	20	2	40	15.9	100	94	1/2"	0.5	0	1386.9474	56.43003	5.64300%
1b	RFS	APXVSP18-C-A20	RRH	850 MHz	CDMA / LTE	20	1	20	13.4	100	94	1/2"	0.5	0	389.96892	15.86647	2.79832%
Sector total Power Density Value: 8.441%																	

Sector 2

Antenna Number	Antenna Make	Antenna Model	Radio Type	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain in direction of sample point (dBi)	Antenna Height (ft)	analysis height	Cable Size	Cable Loss (dB)	Additional Loss	ERP	Power Density Value	Power Density Percentage
2a	RFS	APXVSP18-C-A20	RRH	1900 MHz	CDMA / LTE	20	2	40	15.9	100	94	1/2"	0.5	0	1386.9474	56.43003	5.64300%
2b	RFS	APXVSP18-C-A20	RRH	850 MHz	CDMA / LTE	20	1	20	13.4	100	94	1/2"	0.5	0	389.96892	15.86647	2.79832%
Sector total Power Density Value: 8.441%																	

Sector 3

Antenna Number	Antenna Make	Antenna Model	Radio Type	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain in direction of sample point (dBi)	Antenna Height (ft)	analysis height	Cable Size	Cable Loss (dB)	Additional Loss	ERP	Power Density Value	Power Density Percentage
3a	RFS	APXVSP18-C-A20	RRH	1900 MHz	CDMA / LTE	20	2	40	15.9	100	94	1/2"	0.5	0	1386.9474	56.43003	5.64300%
3b	RFS	APXVSP18-C-A20	RRH	850 MHz	CDMA / LTE	20	1	20	13.4	100	94	1/2"	0.5	0	389.96892	15.86647	2.79832%
Sector total Power Density Value: 8.441%																	

Site Composite MPE %		
Carrier	MPE %	
Sprint	25.324%	
Pocket	10.640%	
AT&T	19.120%	
Total Site MPE %	55.084%	



Summary

All calculations performed for this analysis yielded results that were well within the allowable limits for general public exposure to RF Emissions.

The anticipated Maximum Composite contributions from the Sprint facility are **25.324% (8.441% from each sector)** of the allowable FCC established general public limit considering all three sectors simultaneously sampled at the ground level.

The anticipated composite MPE value for this site assuming all carriers present is **55.084%** of the allowable FCC established general public limit sampled at the ground level. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions

FCC guidelines state that if a site is found to be out of compliance (over allowable thresholds), that carriers over a 5% contribution to the composite value will require measures to bring the site into compliance. For this facility, the composite values calculated were well within the allowable 100% threshold standard per the federal government

Scott Heffernan

RF Engineering Director

EBI Consulting

21 B Street

Burlington, MA 01803



FDH Engineering, Inc., 6521 Meridien Drive Raleigh, NC 27616, Ph. 919.755.1012

**Structural Analysis for
SBA Network Services, Inc.**

100 ft Glu-Lam Monopole

SBA Site Name: Burlington-Avon Landfill
SBA Site ID: CT46143-A-02
Sprint Site Name: Burlington-Avon Landfill
Sprint Site ID: CT33XC589

FDH Project Number 1321991400

Analysis Results

Tower Components	98.6%	Sufficient
Foundation	22.2%	Sufficient

Prepared By:

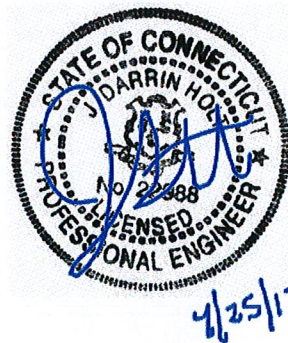
Adam Bryan, EI
Project Engineer

Reviewed By:

J. Darrin Holt, P.E., PhD
Principal
CT PE License No. 22988

FDH Engineering, Inc.
6521 Meridien Drive
Raleigh, NC 27616
(919) 755-1012
info@fdh-inc.com

April 25, 2013



Prepared pursuant to 2005 Edition of the Nation Design Specification (NDS) for Wood Construction & the 2005 Connecticut Building Code (CBC)

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 Conclusions
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EXECUTIVE SUMMARY

At the request of SBA Network Services, Inc., FDH Engineering, Inc. performed a structural analysis of the glu-lam monopole located in Raleigh, NC to determine whether the tower is structurally adequate to support both the existing and proposed loads, pursuant to the *2005 Edition of the National Design Specifications (NDS) for Wood Construction* and the *2005 Connecticut Building Code*. Information pertaining to the existing/proposed antenna loading, geotechnical data, current tower geometry, foundation dimensions, and member sizes was obtained from:

- ☐ Laminated Wood Systems, Inc. (DWG No. SPSM-0079) original design drawings dated April 7, 2005
- ☐ Dr. Clarence Welti, P.E., P.C. Geotechnical Engineering (Project Name Avon Landfill Sprint Site) geotechnical report dated March 25, 2005
- ☐ Vertical Solutions, Inc. (Project No. 091061.01) Rigorous Structural Analysis dated August 27, 2009
- ☐ FDH Engineering, Inc. (Project No. 1309511400) Modification Drawings for a 100' Laminated Wood Pole dated March 18, 2013
- ☐ SBA Network Services, Inc.

The *basic design wind speed* per the *2005 Connecticut Building Code* standards is 95 mph without ice and 38 mph with 1.0" radial ice. Ice is considered to increase in thickness with height.

Conclusions

With the current and proposed antennas from Sprint at 98.5 ft, the tower meets the requirements of the *2005 Connecticut Building Code* and the *2005 NDS* standards. Furthermore, given the existing foundation dimensions (see Laminated Wood Systems, Inc. DWG No. SPSM-0079) and the soil parameters (see Dr. Clarence Welti, P.E., P.C. Geotechnical Engineering Project Name Avon Landfill Sprint Site), the foundations should have the necessary capacity to support the existing and proposed loading. For a more detailed description of the analysis of the tower, see the **Results** section of this report.

Our structural analysis has been performed assuming all information provided to FDH Engineering, Inc. is accurate (i.e. the steel data, tower layout, existing antenna loading, and proposed antenna loading) and that the tower has been properly erected and maintained per the original design drawings.

Recommendations

To ensure the requirements of the *2005 Connecticut Building Code* and the *2005 NDS* standards are met with the existing and proposed loading in place, we have the following recommendations:

1. The proposed coax must be double stacked.
2. Modifications listed in FDH Engineering, Inc. (Project No. 1309511400) dated March 18, 2013 must be completed for this analysis to be valid.

APPURTENANCE LISTING

The proposed and existing antennas with their corresponding cables/coax lines are shown in **Table 1**. *If the actual layout determined in the field deviates from this layout, FDH Engineering, Inc. should be contacted to perform a revised analysis.*

Table 1 – Appurtenance Loading

Existing Loading:

Antenna Elevation (ft)	Description	Coax and Lines	Carrier	Mount Elevation (ft)	Mount Type
99 ¹	(3) EMS RR65-18-00DPL2-R (3) AMB36-2.5EXT	(6) 1-5/8"	Sprint	99	(3) Flush Mounts
90 ²	(1) KMW AM-X-CD-16-65-00T-RET (1) Andrew SBNH-1D6565C (1) Powerwave P65-17-XLH-RR (3) Powerwave LGP21401 TMAs (3) CCI DTMABP7819VG12A TMAs (3) Powerwave 7020 RETs (6) Powerwave LGP13519 Diplexers (3) Andrew APTDC-BDFDM-DBW Surge Arrestors	(6) 1-5/8" (1) 7/16" Fiber (2) 3/4" DC	AT&T	90	(3) Flush Mounts
80 ³	(3) RFS APXV18-206517	(6) 1-5/8"	Pocket Communications	80	(3) Flush Mounts

1. Sprint has (6) 1-5/8" coax installed on the outside in a single row from 0 to 90' and double stacked 3-on-3 from 90 to 99'.

2. AT&T has (6) 1-5/8" coax installed on the outside in a single row.

3. Pocket has (6) 1-5/8" coax installed on the outside in a single row.

Proposed Loading:

Antenna Elevation (ft)	Description	Coax and Lines	Carrier	Mount Elevation (ft)	Mount Type
98.5 ¹	(2) RFS APXV9ERR18-C-A10 (1) RFS APXVSP18-C-A20	(18) 7/8" (6) 3/8" RET	Sprint	99	(3) Flush Mounts

1. The proposed (18) 7/8" coax must be installed on the outside double stacked.

RESULTS

Based on information obtained from the original design drawings, the yield strength of the individual members was as follows:

Table 2 - Material Strength

Member Type	Yield Strength
Tower Shaft Sections	$F_b = 2.4$ ksi (strong direction) $F_b = 1.75$ ksi (weak direction)

Table 3 displays the summary of the ratio (as a percentage) of force in the member to their capacities. Values greater than 100% indicate locations where the maximum force in the member exceeds its capacity. *Note: Capacities up to 100% are considered acceptable.* **Table 4** displays the maximum foundation reactions.

If the assumptions outlined in this report differ from actual field conditions, FDH Engineering, Inc. should be contacted to perform a revised analysis. Furthermore, as no information pertaining to the allowable twist and sway requirements for the existing or proposed appurtenances was provided, deflection and rotation were not taken into consideration when performing this analysis.

See the **Appendix** for detailed modeling information.

Table 3 – Summary of Working Percentage of Structural Components

Section No.	Elevation ft	Component Type	Size	% Capacity	Pass Fail
L1	100 – 80	Glu Laminated Pole	26.25"x30.25" at base tapering to 26.25"x12" at top	8.5	Pass
L2	80 – 60			13.3	Pass
L3	60 – 40			21.1	Pass
L4	40 – 20			46.4	Pass
L5	20 – 0			98.6	Pass
	75	Guy A	1/2	75.3	Pass
	75	Guy B	1/2	75.3	Pass
	75	Guy C	1/2	86.6	Pass
	75	Guy D	1/2	75.3	Pass

Table 4 – Maximum Base Reactions

Reaction	Current Analysis (2005 CBC)*			Original Design		
	Horizontal	Vertical	Moment	Horizontal	Vertical	Moment
Tower Base	7 k	39 k	294 k-ft	13 k	24 k	725 k-ft
Anchor	4 k	11 k	--	--	--	--

* Foundation determined adequate based on independent analysis based on normal soils.

GENERAL COMMENTS

This engineering analysis is based upon the theoretical capacity of the structure. It is not a condition assessment of the tower and its foundation. It is the responsibility of SBA Network Services, Inc. to verify that the tower modeled and analyzed is the correct structure (with accurate antenna loading information) modeled. If there are substantial modifications to be made or the assumptions made in this analysis are not accurate, FDH Engineering, Inc. should be notified immediately to perform a revised analysis.

LIMITATIONS

All opinions and conclusions are considered accurate to a reasonable degree of engineering certainty based upon the evidence available at the time of this report. All opinions and conclusions are subject to revision based upon receipt of new or additional/updated information. All services are provided exercising a level of care and diligence equivalent to the standard and care of our profession. No other warranty or guarantee, expressed or implied, is offered. Our services are confidential in nature and we will not release this report to any other party without the client's consent. The use of this engineering work is limited to the express purpose for which it was commissioned and it may not be reused, copied, or distributed for any other purpose without the written consent of FDH Engineering, Inc.

APPENDIX

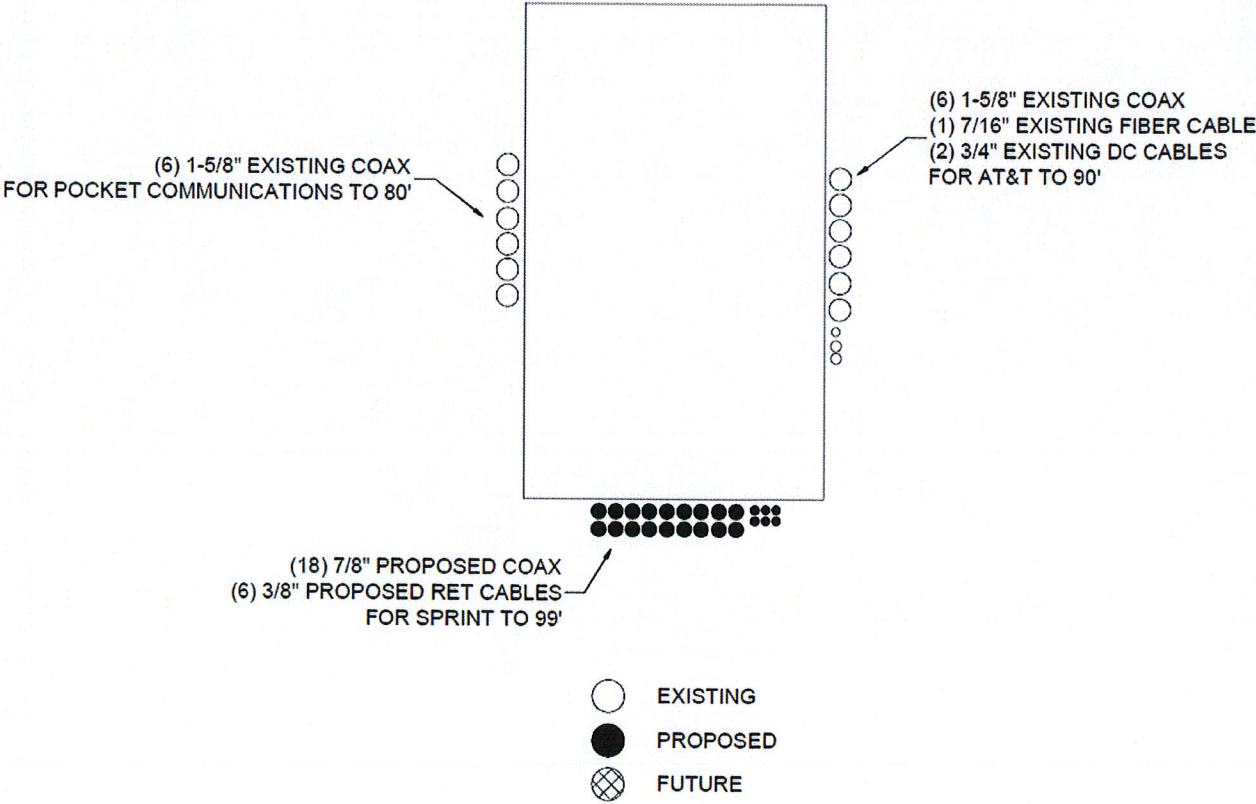
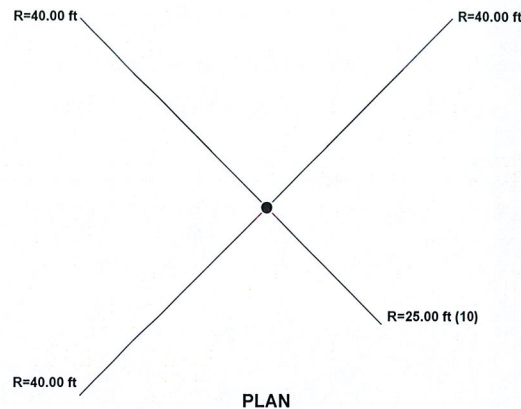
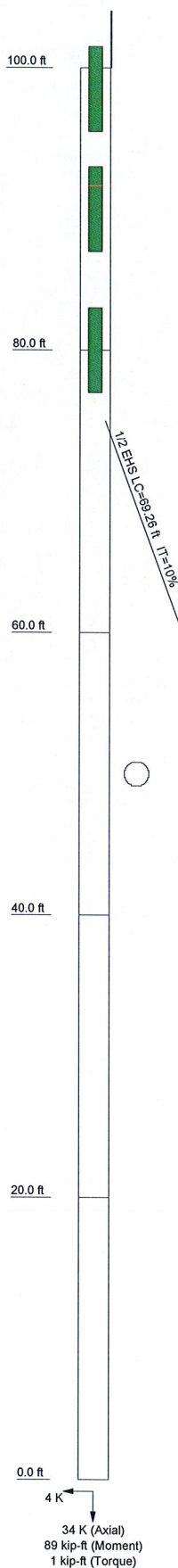


Figure 1—Assumed Coax Layout

Section	1	2	3	4	5
Length (ft)	20.00	20.00	20.00	20.00	20.00
Number of Sides	1	1	1	1	1
Thickness (in)	6.0000	7.8250	9.6500	11.4750	13.3000
Top Dia (in)	26.2500	26.2500	26.2500	26.2500	26.2500
Bot Dia (in)	26.2500	26.2500	26.2500	26.2500	26.2500
Grade	Wood Glulam	Wood Glulam	Wood Glulam	Wood Glulam	Wood Glulam
Weight (K)	1.4	1.7	1.9	2.0	2.0



DESIGNED APPURTENANCE LOADING

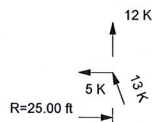
TYPE	ELEVATION	TYPE	ELEVATION
Lightning Rod	100	7020.00 RET	90
APXV9ERR18-C-A10 w/Mount Pipe	99	7020.00 RET	90
APXVSP18-C-A20 w/Mount Pipe	99	(2) LGP13519 TMA	90
APXV9ERR18-C-A10 w/Mount Pipe	99	(2) LGP13519 TMA	90
SBNH-1D6565C w/ Mount Pipe	90	(2) LGP13519 TMA	90
SBNH-1D6565C w/ Mount Pipe	90	APTDC-BDFDM-DB Surge Arrestors	90
LGP21401 TMA	90	APTDC-BDFDM-DB Surge Arrestors	90
LGP21401 TMA	90	APTDC-BDFDM-DB Surge Arrestors	90
LGP21401 TMA	90	SBNH-1D6565C w/ Mount Pipe	90
DTMABP7819VG12A TMA	90	APXV18-206517S-A20 w/Mount Pipe	80
DTMABP7819VG12A TMA	90	APXV18-206517S-A20 w/Mount Pipe	80
DTMABP7819VG12A TMA	90	APXV18-206517S-A20 w/Mount Pipe	80
7020.00 RET	90		

MATERIAL STRENGTH

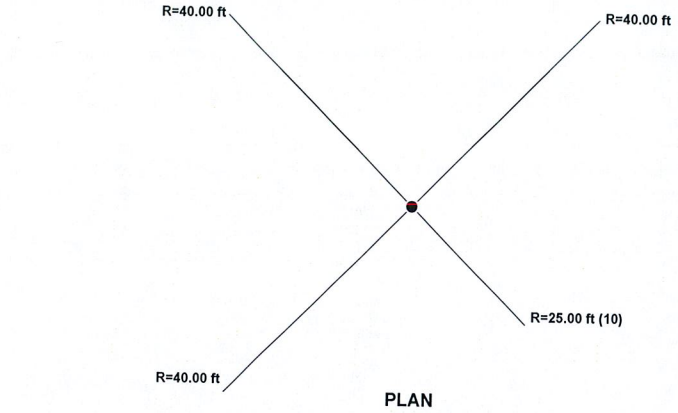
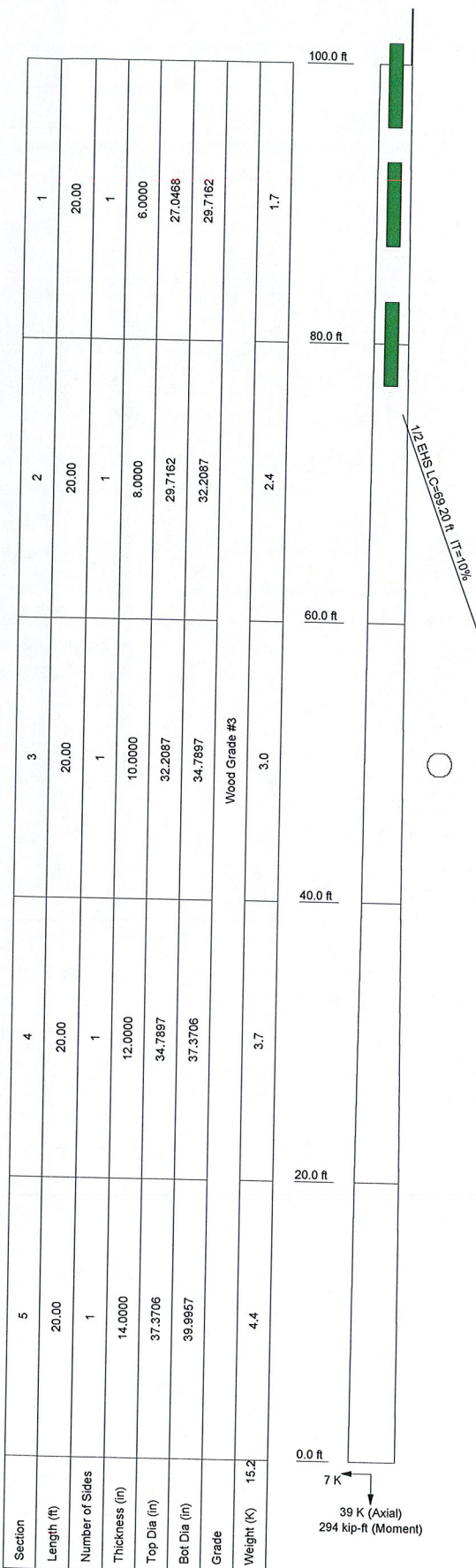
GRADE	Fy	Fu	GRADE	Fy	Fu
Wood Glulam	1 ksi	2 ksi			

TOWER DESIGN NOTES

1. Tower is located in Hartford County, Connecticut.
2. Tower designed for a 80 mph basic wind in accordance with the TIA/EIA-222-F Standard.
3. Tower is also designed for a 38 mph basic wind with 1.00 in ice. Ice is considered to increase in thickness with height.
4. Deflections are based upon a 50 mph wind.



 FDH Engineering, Inc. 6521 Meridien Drive, Suite 107 Raleigh, NC 27616 Phone: 919-7551012 FAX: 919-7551031	Job: Burlington Landfill, CT46143-A-02 (0 DEG)		
	Project: 1321991400		
	Client: SBA Network Services, Inc.	Drawn by: Adam Bryan	App'd:
	Code: TIA/EIA-222-F	Date: 04/25/13	Scale: NTS
	Path:	Dwg No. E-1	



DESIGNED APPURTENANCE LOADING

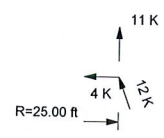
TYPE	ELEVATION	TYPE	ELEVATION
Lightning Rod	100	7020.00 RET	90
APXV9ERR18-C-A10 w/Mount Pipe	99	7020.00 RET	90
APXVSPP18-C-A20 w/Mount Pipe	99	(2) LGP13519 TMA	90
APXV9ERR18-C-A10 w/Mount Pipe	99	(2) LGP13519 TMA	90
SBNH-1D6565C w/ Mount Pipe	90	(2) LGP13519 TMA	90
P65-17-XLH-RR w/Mount Pipe	90	APTDC-BDFDM-DB Surge Arrestors	90
LGP21401 TMA	90	APTDC-BDFDM-DB Surge Arrestors	90
LGP21401 TMA	90	APTDC-BDFDM-DB Surge Arrestors	90
LGP21401 TMA	90	AM-X-CD-16-65-00T-RET w/ Mount Pipe	90
DTMABP7819VG12A TMA	90	APXV18-206517S-A20 w/Mount Pipe	80
DTMABP7819VG12A TMA	90	APXV18-206517S-A20 w/Mount Pipe	80
DTMABP7819VG12A TMA	90	APXV18-206517S-A20 w/Mount Pipe	80
7020.00 RET	90	APXV18-206517S-A20 w/Mount Pipe	80

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
Wood Grade #3	1 ksi	2 ksi			

TOWER DESIGN NOTES

1. Tower is located in Hartford County, Connecticut.
2. Tower designed for a 80 mph basic wind in accordance with the TIA/EIA-222-F Standard.
3. Tower is also designed for a 38 mph basic wind with 1.00 in ice. Ice is considered to increase in thickness with height.
4. Deflections are based upon a 50 mph wind.





FDH Engineering, Inc.
6521 Meriden Drive, Suite 107
Raleigh, NC 27616
Phone: 919-7551012
FAX: 919-7551031

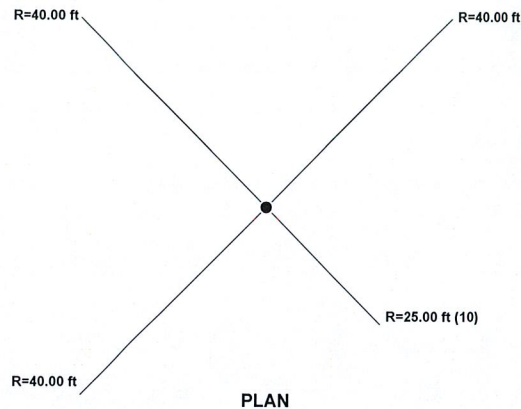
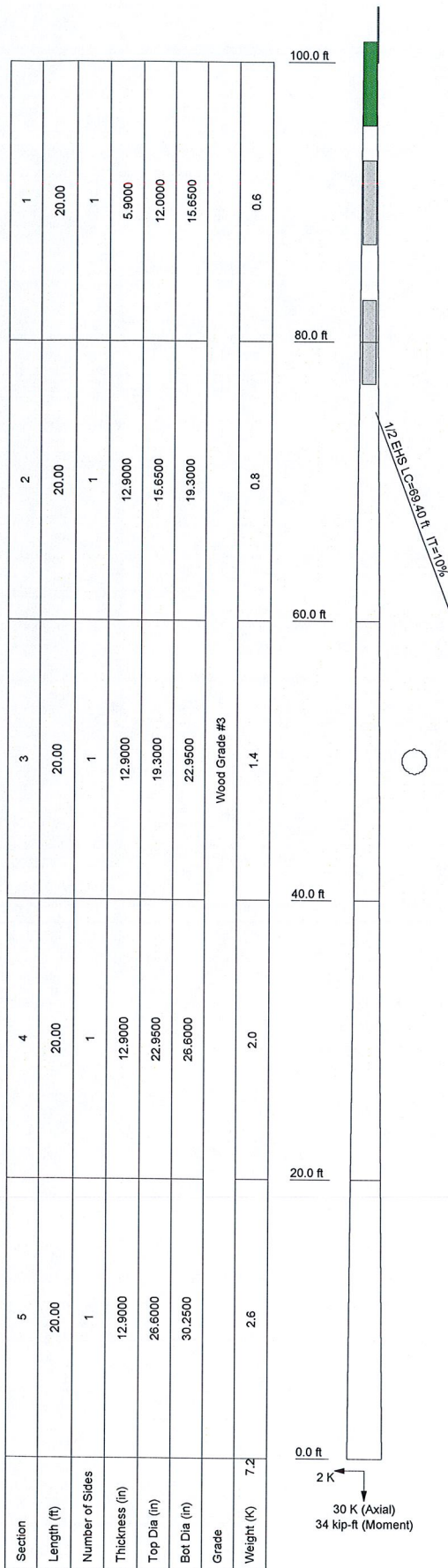
Job: **Burlington Landfill, CT46143-A-00 (45 DEG)**

Project: **1321991400**

Client: **SBA Network Services, Inc.** Drawn by: **Adam Bryan** App'd:

Code: **TIA/EIA-222-F** Date: **04/25/13** Scale: **NTS**

Path: Dwg No. **E-1**



DESIGNED APPURTENANCE LOADING

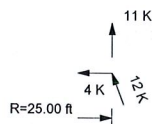
TYPE	ELEVATION	TYPE	ELEVATION
Lightning Rod	100	7020.00 RET	90
APXV9ERR18-C-A10 w/Mount Pipe	99	7020.00 RET	90
APXVSP18-C-A20 w/Mount Pipe	99	(2) LGP13519 TMA	90
APXV9ERR18-C-A10 w/Mount Pipe	99	(2) LGP13519 TMA	90
SBNH-1D6565C w/ Mount Pipe	90	(2) LGP13519 TMA	90
SBNH-1D6565C w/ Mount Pipe	90	APTDC-BDFDM-DB Surge Arrestors	90
LGP21401 TMA	90	APTDC-BDFDM-DB Surge Arrestors	90
LGP21401 TMA	90	APTDC-BDFDM-DB Surge Arrestors	90
LGP21401 TMA	90	SBNH-1D6565C w/ Mount Pipe	90
DTMABP7819VG12A TMA	90	APXV18-206517S-A20 w/Mount Pipe	80
DTMABP7819VG12A TMA	90	APXV18-206517S-A20 w/Mount Pipe	80
DTMABP7819VG12A TMA	90	APXV18-206517S-A20 w/Mount Pipe	80
7020.00 RET	90		

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
Wood Grade #3	1 ksi	2 ksi			

TOWER DESIGN NOTES

1. Tower is located in Hartford County, Connecticut.
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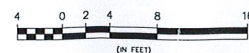
 FDH Engineering, Inc. 6521 Meridien Drive, Suite 107 Raleigh, NC 27616 Phone: 919-7551012 FAX: 919-7551031	Job: Burlington Landfill, CT46143-A-02 (90 DEG)		
	Project: 1321991400		
	Client: SBA Network Services, Inc.	Drawn by: Adam Bryan	App'd:
	Code: TIA/EIA-222-F	Date: 04/25/13	Scale: NTS
	Path:		Dwg No. E-1



11x17 SCALE:3/32"=1'-0"

24x36 SCALE:3/16"=1'-0"

- | |
|---|
| GENERAL NOTES: |
| 1. FINAL ANTENNA & EQUIPMENT CONFIGURATION SHOWN ON THIS PLAN. SEE EQUIPMENT & ANTENNA PLAN SHEETS FOR EXISTING CONFIGURATION. |
| 2. CONTRACTOR TO REPLACE ALL MISSING GROUND BARS AND GROUNDING CONNECTIONS AS REQUIRED IN ACCORDANCE WITH SPRINT GROUNDING AND ANTI-THEFT GUIDELINES. |
| 3. CONTRACTOR TO RESTORE ANY RUST AREA TO ORIGINAL CONDITION AND PROTECTIVE COATING TO BE APPLIED. |



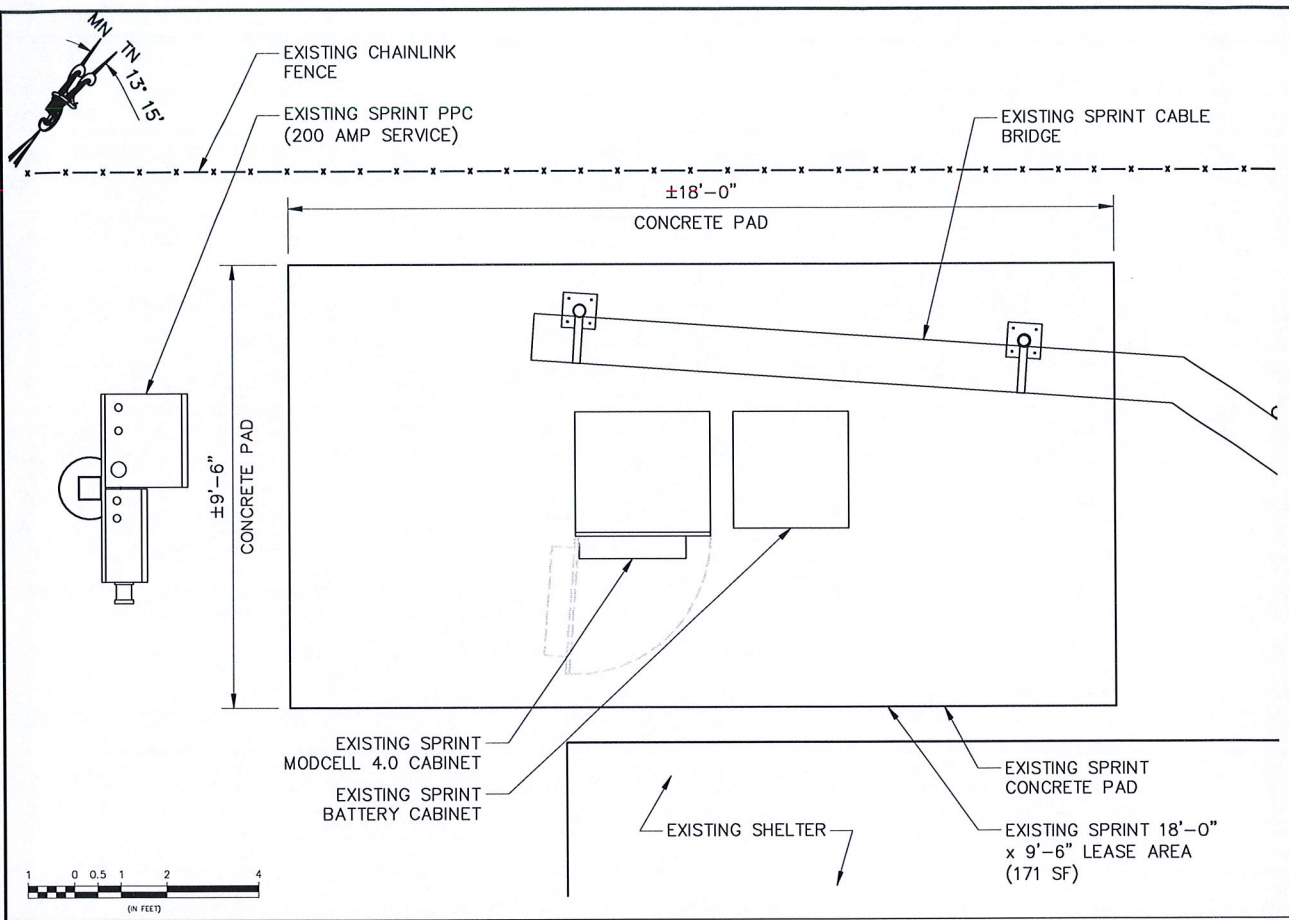
11x17 SCALE:1/16"=1'-0"

24x36 SCALE:1/8"=1'-0"

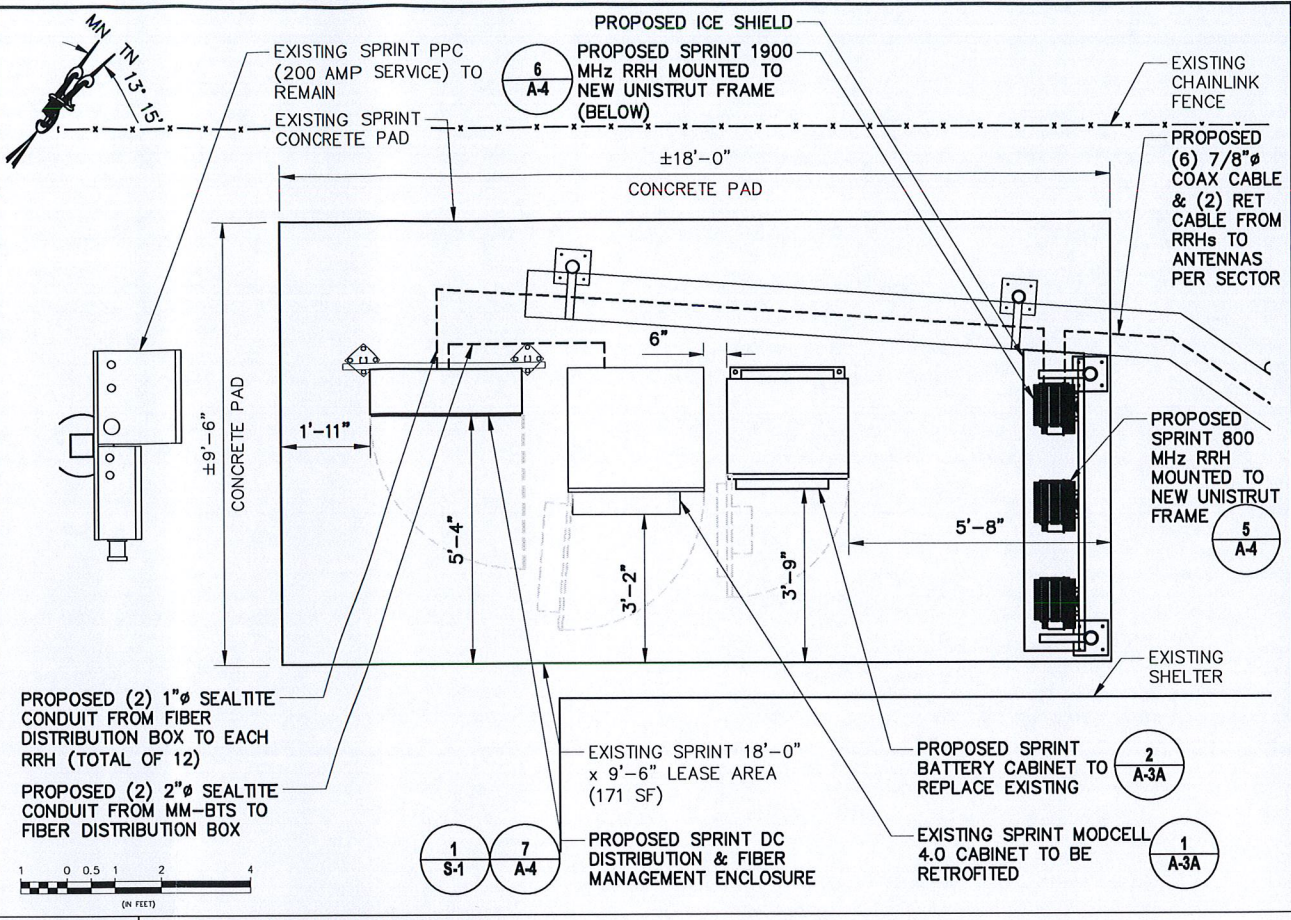
SPRINT/ALU TOWER TOP WORK IS CONTINGENT UPON COMPLETION OF ALL REQUIRED TOWER STRUCTURAL MODIFICATIONS, ENGINEERING CONSTRUCTION CONTROL INSPECTIONS, FINAL ENGINEERING AFFIDAVIT AND ACCEPTANCE/APPROVAL BY SBA COMMUNICATIONS CORP.



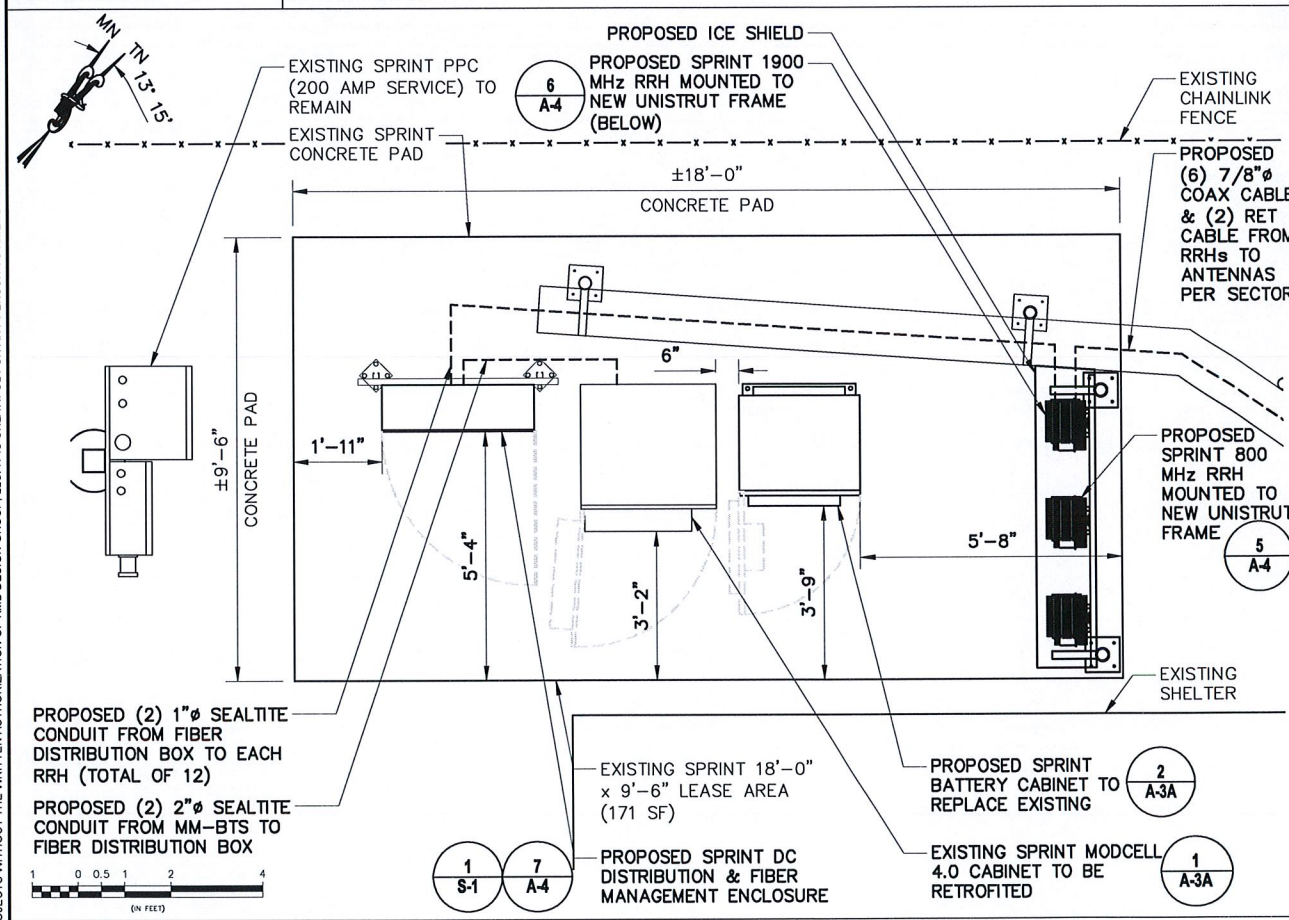
OWNERSHIP OF DOCUMENTS: THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, AS IN INSTRUMENT OF PROFESSIONAL SERVICE, ARE THE PROPERTY OF KMB DESIGN GROUP, LLC AND ARE NOT TO BE USED, IN WHOLE OR IN PART, FOR OTHER PROJECTS WITHOUT THE WRITTEN AUTHORIZATION OF KMB DESIGN GROUP, LLC. IT IS UNLAWFUL FOR ANY PERSON TO AMEND ANY ASPECT OF THESE DRAWINGS UNLESS THEY HAVE THE APPROVAL OF THE LICENSED PROFESSIONAL IN WRITING.



1 EXISTING EQUIPMENT PLAN
11x17 SCALE: 1/4"=1'-0" 24x36 SCALE: 1/2"=1'-0"



2 INTERIM EQUIPMENT PLAN
11x17 SCALE: 1/4"=1'-0" 24x36 SCALE: 1/2"=1'-0"



3 FINAL EQUIPMENT PLAN
11x17 SCALE: 1/4"=1'-0" 24x36 SCALE: 1/2"=1'-0"



4 EXISTING EQUIPMENT PHOTO DETAIL
SCALE: NTS

△				
△				
△				
△				
△				
C	04-25-13	REVISED PER CLIENT COMMENTS	KMO	NS
B	03-25-13	REVISED PER CLIENT COMMENTS	CCR	NS
A	03-19-13	INITIAL SUBMISSION NOT FOR CONSTRUCTION	MJC	NS
REV.	DATE	REVISION DESCRIPTION	DRAWN BY	CHKD. BY

1800 ROUTE 34, SUITE 209
WALL, NJ 07719
(732) 280-5623

Stephen A. Bray
PROFESSIONAL ENGINEER

CT LICENSE: 26657 4/30/13

PROJECT NUMBER: **332.6010**

SITE INFORMATION:
277 HUCKLEBERRY HILL ROAD
AVON, CT 06013
HARTFORD COUNTY
CT33XC589

PROJECT TYPE:
NETWORK VISION

DRAWN BY:	CHECKED BY:	DATE:
MJC	NS	03-17-13

SHEET TITLE:
EQUIPMENT PLANS

SHEET NUMBER:	REV.:
A-2	C

THIS REPORT WAS BASED ON A SPECIFIC ANTENNA AND COAX CONFIGURATION PROVIDED BY THE TOWER OWNER. ANY CHANGE TO THIS INFORMATION MUST BE REVIEWED BY FDH ENGINEERING, INC.

FOR INQUIRIES REGARDING THE CONTENT OF THESE
MODIFICATION DRAWINGS, PLEASE CONTACT STEVEN STRICKLAND
WITH THE FDH CONSTRUCTION DEPARTMENT (919) 755-1012

PREPARED BY:

 6521 MERIDIEN DRIVE
RALEIGH, NC 27616
PHONE: 919-755-1012
FAX: 919-755-1031

ENGINEERING INNOVATION

PREPARED FOR:

SBA 

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

FOR BID ONLY

CHRISTOPHER M. MURPHY, P.E.
CONNECTICUT LIC. NO. 25842

DRAWN BY: JMR

CHECKED BY: _____ AB

ENG APPV'D:	CMM
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PROJECT NO: 1309511400

[illegible]

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SITE NAME:
BURLINGTON
AVON LANDFILL

SITE NUMBER:
CT46143-A

SITE ADDRESS:
277 HUCKLEBERRY HILL ROAD
AVON, CT 06013

SHEET TITLE
TITLE
SHEET

SHEET NUMBER
T-1

PROJECT DESCRIPTION:

**MODIFICATION DRAWINGS
FOR A 100' LAMINATED WOOD POLE**



SITE NAME:
BURLINGTON - AVON LANDFILL

SITE NUMBER:
CT46143-A

SITE ADDRESS:
277 HUCKLEBERRY HILL ROAD
AVON, CT 06013

COORDINATES:
LATITUDE: 41.7881°
LONGITUDE: -72.9182°

[illegible]

PCI CHECKLIST

CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED	REPORT ITEM
PRE-CONSTRUCTION	
X	PCI CHECKLIST DRAWING
N/A	EOR APPROVED SHOP DRAWINGS
N/A	FABRICATION INSPECTION
X	FABRICATOR CERTIFIED WELD INSPECTION
X	MATERIAL TEST REPORT (MTR)
N/A	FABRICATOR NDE INSPECTION
N/A	NDE REPORT OF MONOPOLE BASE PLATE (AS REQUIRED)
X	PACKING SLIPS
ADDITIONAL TESTING AND INSPECTIONS:	
CONSTRUCTION	
X	CONSTRUCTION INSPECTIONS
X	FOUNDATION INSPECTIONS
X	CONCRETE COMP. STRENGTH AND SLUMP TESTS
N/A	POST INSTALLED ANCHOR ROD VERIFICATION
N/A	BASE PLATE GROUT VERIFICATION
N/A	CONTRACTOR'S CERTIFIED WELD INSPECTION
N/A	EARTHWORK: LIFT AND DENSITY
X	ON SITE COLD GALVANIZING VERIFICATION
X	GUY WIRE TENSION REPORT
X	GC AS-BUILT DOCUMENTS
ADDITIONAL TESTING AND INSPECTIONS:	
POST-CONSTRUCTION	
X	PCI INSPECTOR REDLINE OR RECORD DRAWING(S)
N/A	POST INSTALLED ANCHOR ROD PULL-OUT TESTING
X	PHOTOGRAPHS
ADDITIONAL TESTING AND INSPECTIONS:	

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

POST CONSTRUCTION INSPECTION NOTES:

GENERAL

1. THE POST CONSTRUCTION INSPECTION (PCI) 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).
2. THE PCI IS TO CONFIRM INSTALLATION CONFIGURATION AND WORKMANSHIP ONLY AND IS NOT A REVIEW OF THE MODIFICATION DESIGN ITSELF, NOR DOES THE PCI INSPECTOR TAKE OWNERSHIP OF THE MODIFICATION DESIGN. OWNERSHIP OF THE STRUCTURAL MODIFICATION DESIGN EFFECTIVENESS AND INTEGRITY RESIDES WITH THE EOR AT ALL TIMES.
3. ALL PCI'S SHALL BE CONDUCTED BY A PCI INSPECTOR THAT IS APPROVED TO PERFORM ELEVATED WORK FOR FDH ENGINEERING, INC.
4. TO ENSURE THAT THE REQUIREMENTS OF THE PCI ARE MET, IT IS VITAL THAT THE GENERAL CONTRACTOR (GC) AND THE PCI INSPECTOR BEGIN COMMUNICATING AND COORDINATING AS SOON AS A PO IS RECEIVED. IT IS EXPECTED THAT EACH PARTY WILL BE PROACTIVE IN REACHING OUT TO THE OTHER PARTY. IF CONTACT INFORMATION IS NOT KNOWN, CONTACT YOUR FDH POINT OF CONTACT (POC).
5. REFER TO CCR-01 : CONTRACTOR CLOSEOUT REQUIREMENTS FOR FURTHER DETAILS AND REQUIREMENTS.

PCI INSPECTOR

1. THE PCI INSPECTOR IS REQUIRED TO CONTACT THE GC AS SOON AS RECEIVING A PO FOR THE PCI TO, AT A MINIMUM:
 - REVIEW THE REQUIREMENTS OF THE PCI CHECKLIST
 - WORK WITH THE GC TO DEVELOP A SCHEDULE TO CONDUCT ON-SITE INSPECTIONS, INCLUDING FOUNDATION INSPECTIONS
2. THE PCI 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 PCI REPORT TO FDH.

CORRECTION OF FAILING PCI'S

1. IF THE MODIFICATION INSTALLATION WOULD FAIL THE PCI ("FAILED PCI"), THE GC SHALL WORK WITH FDH TO COORDINATE A REMEDIATION PLAN IN ONE OF TWO WAYS:
 - CORRECT FAILING ISSUES TO COMPLY WITH THE SPECIFICATIONS CONTAINED IN THE ORIGINAL CONTRACT DOCUMENTS AND COORDINATE A SUPPLEMENT PCI.
 - OR, WITH FDH'S APPROVAL, THE GC MAY WORK WITH THE EOR TO RE-ANALYZE THE MODIFICATION/REINFORCEMENT USING THE AS-BUILT CONDITION.

REQUIRED PHOTOS

1. BETWEEN THE GC AND THE PCI INSPECTOR THE FOLLOWING PHOTOGRAPHS, AT A MINIMUM, ARE TO BE TAKEN AND INCLUDED IN THE PCI REPORT:
 - PRE-CONSTRUCTION GENERAL SITE CONDITION
 - PHOTOGRAPHS DURING THE REINFORCEMENT MODIFICATION CONSTRUCTION/ERECTION AND INSPECTION
 - RAW MATERIALS
 - PHOTOS OF ALL CRITICAL DETAILS
 - FOUNDATION MODIFICATIONS
 - WELD PREPARATION
 - BOLT INSTALLATION AND TORQUE
 - FINAL INSTALLED CONDITION
 - SURFACE COATING REPAIR
 - POST CONSTRUCTION PHOTOGRAPHS
 - FINAL INFIELD CONDITION
2. PHOTOS OF ELEVATED MODIFICATIONS TAKEN FROM THE GROUND SHALL BE CONSIDERED INADEQUATE.

PREPARED BY:

FDH

6521 MERIDIEN DRIVE
RALEIGH, NC 27616
PHONE: 919-755-1012
FAX: 919-755-1031

ENGINEERING INNOVATION

PREPARED FOR:

SBA

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

FOR BID ONLY

CHRISTOPHER M. MURPHY, P.E.
CONNECTICUT LIC. NO. 25842

DRAWN BY: JMR

CHECKED BY: AB

ENG APP'VD: CMM

PROJECT NO: 1309511400

SUBMITTALS		
DATE	DESCRIPTION	REV
03/18/13	PRELIMINARY/REVIEW	A

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SITE NAME:
BURLINGTON
AVON LANDFILL

SITE NUMBER:
CT46143-A

SITE ADDRESS:
277 HUCKLEBERRY HILL ROAD
AVON, CT 06013

SHEET TITLE
POST CONSTRUCTION
INSPECTION NOTES

SHEET NUMBER
N-1

GENERAL NOTES:

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES AND ORDINANCES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ALL PERMITS NECESSARY TO COMPLETE THE PROJECT AND ABIDE BY ALL CONDITIONS AND REQUIREMENTS OF THE PERMITS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL DIMENSIONS, ELEVATIONS AND EXISTING CONDITIONS AT THE SITE BEFORE ORDERING ANY MATERIALS OR DOING ANY WORK. NO EXTRA CHARGE OR COMPENSATION SHALL BE ALLOWED DUE TO DIFFERENCE BETWEEN ACTUAL DIMENSIONS AND DIMENSIONS INDICATED ON THE CONSTRUCTION DRAWINGS. ANY SUCH DISCREPANCY IN DIMENSION WHICH MAY BE FOUND SHALL BE SUBMITTED TO FDH ENGINEERING FOR CONSIDERATION BEFORE THE CONTRACTOR PROCEEDS WITH THE WORK IN THE AFFECTED AREAS.
3. INCORRECTLY FABRICATED, DAMAGED, OTHERWISE MISFITTING, OR NON-CONFORMING MATERIALS AND CONDITIONS SHALL BE REPORTED TO FDH ENGINEERING PRIOR TO ANY REMEDIAL OR CORRECTIVE ACTION. ALL ACTIONS SHALL REQUIRE FDH ENGINEERING APPROVAL.
4. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE TO ENSURE THE SAFETY OF THE STRUCTURE AND ITS COMPONENT PARTS DURING ERECTION AND/OR FIELD MODIFICATIONS. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF TEMPORARY BRACING, GUYS OR TIE DOWNS THAT MAY BE NECESSARY. SUCH MATERIAL SHALL BE REMOVED AFTER THE COMPLETION OF THE PROJECT.
5. CONTRACTOR SHALL PROMPTLY REMOVE ANY & ALL DEBRIS FROM SITE AND RESTORE AS BEST AS POSSIBLE TO PRECONSTRUCTION CONDITION.

CONTRACTOR QUALIFICATION NOTES:

1. ALL REPAIRS SHALL BE PERFORMED BY A TOWER CONTRACTOR WITH A MINIMUM 5 YEARS EXPERIENCE IN TOWER ERECTION AND RETROFIT AND WITH WORKING KNOWLEDGE OF THE TIA/EIA 222-F "STRUCTURAL STANDARD FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORTING STRUCTURES".
2. CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION MEANS AND METHODS. SHOULD THE CONTRACTOR REQUIRE DIRECT CONSULTATION, FDH ENGINEERING, INC. IS WILLING TO OFFER SERVICES BASED UPON AN AGREED FEE FOR THE WORK REQUIRED.
3. ALL SUBMITTAL INFORMATION MUST BE SENT TO FDH ENGINEERING, INC. 6521 MERIDIEN DRIVE, RALEIGH NC, 27616, TEL. (919) 755-1012, FAX. (919) 755-1031, E-MAIL INFO@FDH-INC.COM. ANY VARIATION OF THESE SPECIFICATIONS OR DRAWINGS WITHOUT CONSENT FROM FDH ENGINEERING, INC. WILL VOID ANY RESPONSIBILITY OR LIABILITY FOR DAMAGE (MATERIAL OR PHYSICAL) TOWARDS FDH ENGINEERING, INC.

JOB SITE SAFETY & NOTES:

1. NEITHER THE PROFESSIONAL ACTIVITIES OF FDH ENGINEERING, INC. NOR THE PRESENCE OF FDH ENGINEERING, INC. OR EMPLOYEES AND SUB-CONSULTANTS AT THE CONSTRUCTION SITE, SHALL RELIEVE THE GENERAL CONTRACTOR AND OR SUBCONTRACTORS AND ANY OTHER ENTITY OF THEIR OBLIGATIONS, DUTIES AND RESPONSIBILITIES INCLUDING, BUT NOT LIMITED TO, CONSTRUCTION MEANS, METHODS, SEQUENCE, TECHNIQUES OR PROCEDURES NECESSARY FOR PERFORMING, SUPERINTENDING OR COORDINATING ALL PORTIONS OF THE WORK OF CONSTRUCTION IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND ANY HEALTH OR SAFETY PRECAUTIONS REQUIRED BY ANY REGULATORY AGENCIES. THE GENERAL CONTRACTOR AND OR SUBCONTRACTOR IS SOLELY RESPONSIBLE FOR JOB SAFETY, AND WARRANTS THAT THIS INTENT IS EVIDENT BY ACCEPTING THIS WORK.

SUBSTITUTES AND/OR EQUALS:

1. IF CONTRACTOR WISHES TO FURNISH OR USE A SUBSTITUTE ITEM OF MATERIAL OR EQUIPMENT, CONTRACTOR SHALL FIRST MAKE WRITTEN APPLICATION TO ENGINEER OF RECORD FOR ACCEPTANCE THEREOF, CERTIFYING THAT THE PROPOSED SUBSTITUTE WILL PERFORM ADEQUATELY THE FUNCTIONS AND ACHIEVE THE RESULTS CALLED FOR BY THE GENERAL DESIGN, BE SIMILAR IN SUBSTANCE TO THAT SPECIFIED AND SUITED TO THE SAME USE AS THAT SPECIFIED. ALL VARIATIONS OF THE PROPOSED SUBSTITUTE FROM THAT SPECIFIED WILL BE IDENTIFIED IN THE APPLICATION AND AVAILABLE MAINTENANCE, REPAIR AND REPLACEMENT SERVICE WILL BE INDICATED. THE APPLICATION WILL ALSO CONTAIN AN ITEMIZED ESTIMATE OF ALL COSTS OR CREDITS THAT WILL RESULT DIRECTLY OR INDIRECTLY FROM ACCEPTANCE OF SUCH SUBSTITUTE INCLUDING COSTS OF REDESIGN AND CLAIMS OF OTHER CONTRACTORS AFFECTED BY THE RESULTING CHANGE, ALL OF WHICH WILL BE CONSIDERED BY ENGINEER OF RECORD IN EVALUATION OF THE PROPOSED SUBSTITUTE. ENGINEER OF RECORD MAY REQUIRE CONTRACTOR TO FURNISH ADDITIONAL DATA ABOUT THE PROPOSED SUBSTITUTE.

STEEL:

1. ALL STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST AISC CODE AND ASTM SPECIFICATIONS.

*ALL STEEL PLATE SHALL BE ASTM A36 (Fy=36KSI) UNLESS OTHERWISE SPECIFIED.

*ALL GUY WIRE SHALL BE EHS ASTM A475 UNLESS OTHERWISE SPECIFIED.

*ALL STEEL W-SHAPES SHALL BE ASTM A992-50 (Fy=50 KSI) UNLESS OTHERWISE SPECIFIED.
2. ALL CONNECTIONS OF STRUCTURAL STEEL MEMBERS SHALL BE MADE USING SPECIFIED WELDS WITH WELDING ELECTRODES E-70XX OR SPECIFIED HIGH STRENGTH BOLTS TO BE ASTM A325N, THREAD INCLUDED WITH SHEAR PLANE (UNLESS OTHERWISE NOTED).
3. ALL BOLTED CONNECTIONS TO BE INSTALLED TO A SNUG-TIGHTENED CONDITION IN ACCORDANCE WITH AISC 13 PART 16.2, "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS", SECTION 8.1, UNLESS OTHERWISE SPECIFIED. WHEN "X" TYPE BOLTS ARE USED, CONTRACTOR MAY BE REQUIRED TO STACK ADDITIONAL WASHERS TO OBTAIN PROPER SNUG TIGHT INSTALLATION. ALL NUTS SHALL BE HEAVY HEX UNLESS OTHERWISE NOTED.
4. ALL STEEL, AFTER FABRICATION, SHALL BE HOT DIPPED GALVANIZED PER ASTM A-123. ALL DAMAGED SURFACES, WELDED AREAS AND AUTHORIZED NON-GALVANIZED MEMBERS OR PARTS (EXISTING OR NEW) SHALL BE PAINTED WITH MULTIPLE COATS OF ZRC COLD GALVANIZING COMPOUND ACHIEVING A MINIMUM OF 4 MILS DRY FILM PER ASTM A 780.
5. ALL SHOP AND FIELD WELDING SHALL BE DONE BY WELDERS QUALIFIED AS DESCRIBED IN THE "AMERICAN WELDING SOCIETY'S STANDARD QUALIFICATION PROCEDURE" TO PERFORM THE TYPE OF WORK REQUIRED. CONTRACTOR IS REQUIRED TO PROVIDE FDH ENGINEERING, INC. WITH A PASSING CERTIFIED WELDING INSPECTION FOR ALL WELDS.
6. STRUCTURAL STEEL MAY NOT BE TORCH CUT FOR FABRICATION. ALL STEEL FABRICATION MUST FOLLOW AISC STANDARDS.

MISC. NOTES:

1. ALL MODIFICATIONS ARE ASSUMED TO BE MADE ON AN EMPTY TOWER. CONTRACTOR IS RESPONSIBLE TO MAKE PROVISIONS TO SUPPORT OR WORK AROUND EXISTING ANTENNAS AND TRANSMISSION LINES. MODIFICATIONS MUST BE CONTINUOUS THROUGH ALL AREAS SHOWN.
2. CONTRACTOR FIELD VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION.

FABRICATION NOTES:

1. ALL DIMENSIONS ARE PRELIMINARY UNTIL FIELD VERIFIED BY CONTRACTOR. ANY CHANGES MUST BE APPROVED BY ENGINEER OF RECORD IN WRITING PRIOR TO FABRICATION AND INSTALLATION.
2. NEW STEEL MEMBERS MUST HAVE SINGLE DRILLED HOLES. SLOTTED AND DOUBLE DRILLED HOLES ARE NOT ACCEPTABLE MEANS OF FABRICATION.

PREPARED BY:



PREPARED FOR:



FOR BID ONLY

CHRISTOPHER M. MURPHY, P.E.
CONNECTICUT LIC. NO. 25842

DRAWN BY: JMR
CHECKED BY: AB
ENG APPV'D: CMM
PROJECT NO: 1309511400

SUBMITTALS		
DATE	DESCRIPTION	REV
03/18/13	PRELIMINARY/REVIEW	A

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SITE NAME:
BURLINGTON
AVON LANDFILL

SITE NUMBER:
CT46143-A

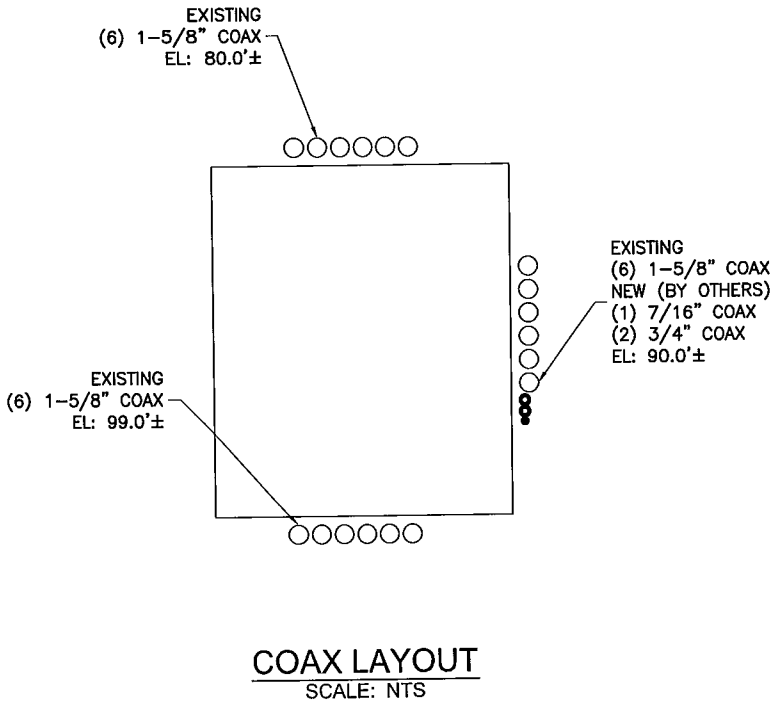
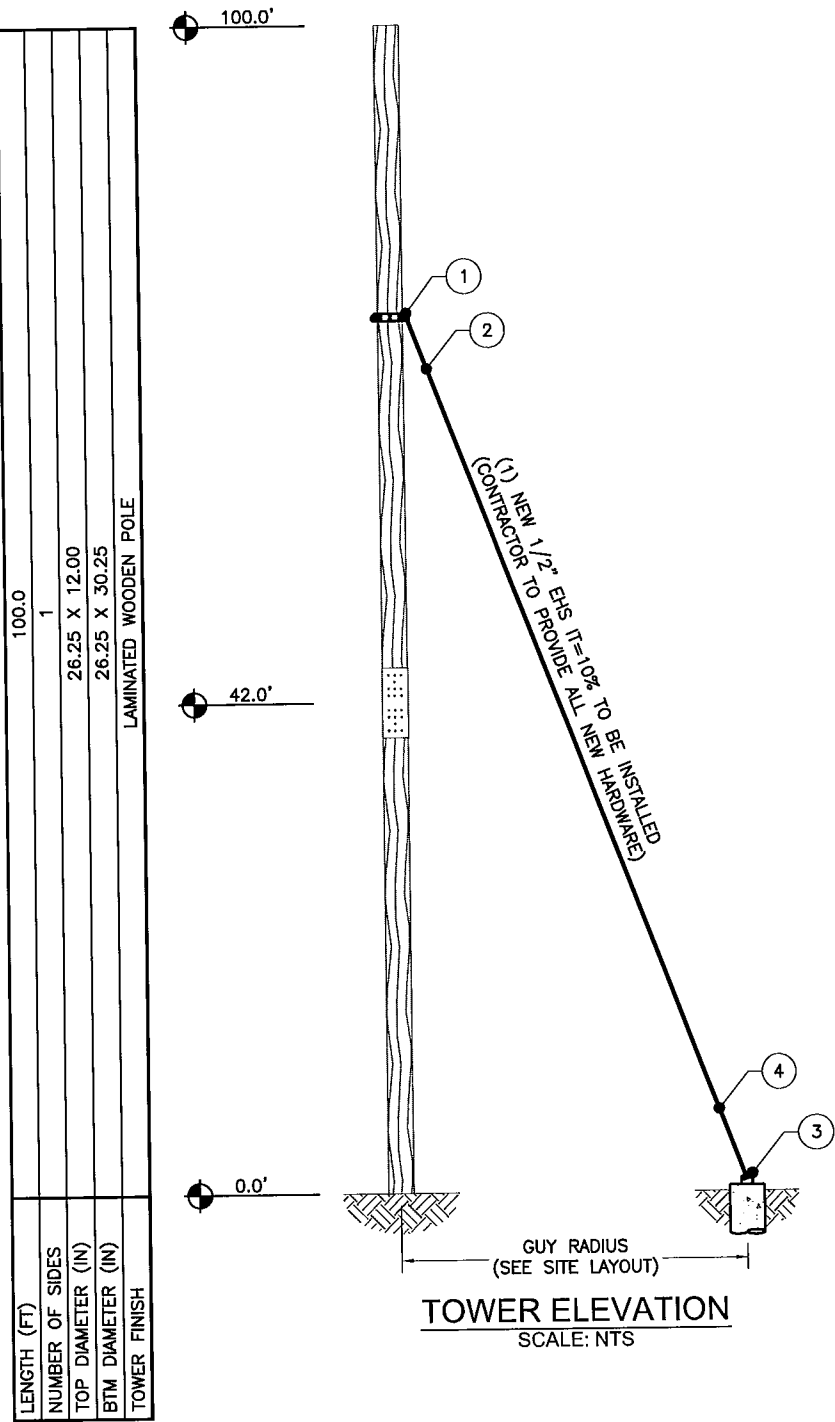
SITE ADDRESS:
277 HUCKLEBERRY HILL ROAD
AVON, CT 06013

SHEET TITLE
GENERAL
NOTES

SHEET NUMBER
N-2

- APPURTENANCES MAY INTERFERE WITH PROPOSED MODIFICATIONS.
- ALL MODIFICATIONS TO BE INSTALLED CONTINUOUSLY THROUGH EXISTING EQUIPMENT. ALL EXISTING EQUIPMENT NOT TO BE DAMAGED OR TAKEN OFF AIR DURING INSTALLATION.
- ANTENNA GRAPHICS NOT SHOWN FOR CLARITY. SEE STRUCTURAL ANALYSIS REPORT FOR EXISTING ANTENNA LOADING.

TOWER MODIFICATION SCHEDULE			
NO.	TYPE OF MODIFICATION	BOTTOM ELEV. (FT)	TOP ELEV. (FT)
1	INSTALLATION OF (1) NEW GUY LUG. SEE S-2 & S-3 FOR DETAILS.	-	75.0±
2	INSTALLATION OF (4) NEW 1/2" EHS GUY WIRES IT=10%. SEE S-8 AND S-9 FOR DETAILS. (CONTRACTOR TO PROVIDE ALL NEW HARDWARE)	-	75.0±
3	INSTALLATION OF (4) NEW GUY ANCHOR FOUNDATIONS. SEE S-4 THROUGH S-7 FOR DETAILS.	-10.0±	VARIES
4	CONTRACTOR TO PLUMB TOWER & TENSION ALL GUY WIRES TO INITIAL TENSION (IT) AS SHOWN. SEE S-8 AND S-9 FOR DETAILS.	-	75.0±



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ENGINEERING INNOVATION

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

FOR BID ONLY

CHRISTOPHER M. MURPHY, P.E.
CONNECTICUT LIC. NO. 25842

DRAWN BY: JMR
CHECKED BY: AB
ENG APP'D: CMM
PROJECT NO: 1309511400

SUBMITTALS		
DATE	DESCRIPTION	REV
03/18/13	PRELIMINARY/REVIEW	A

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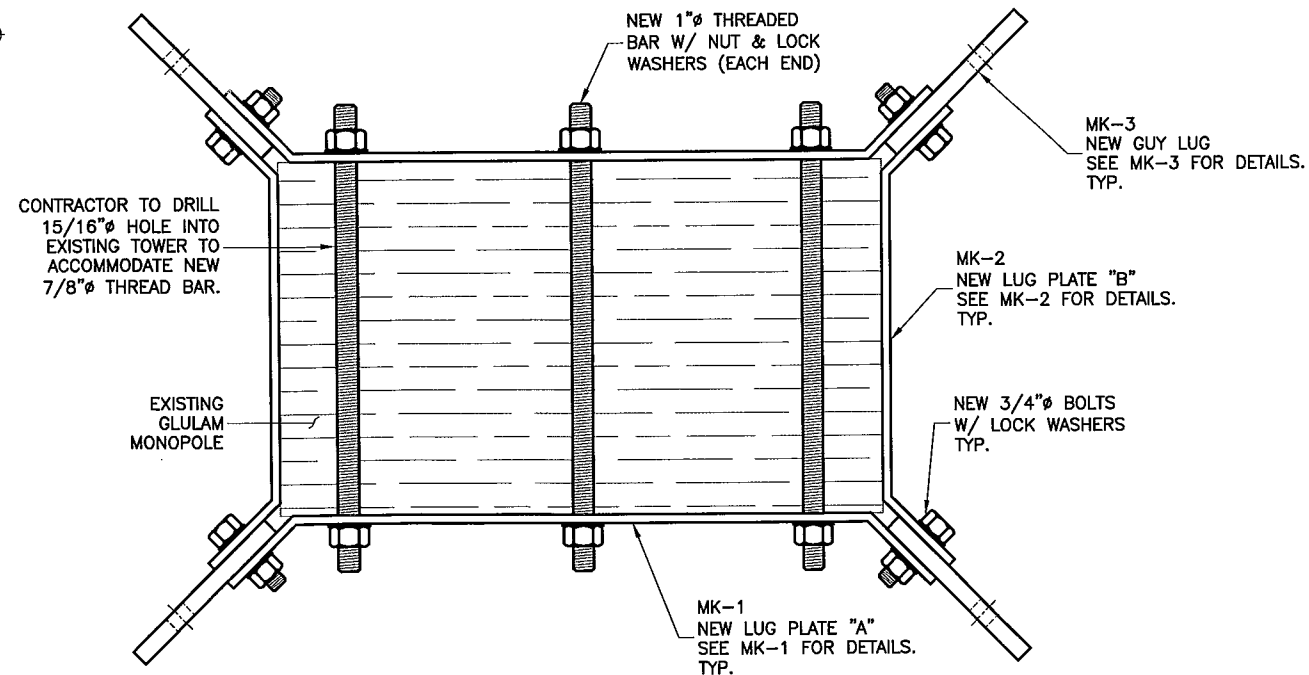
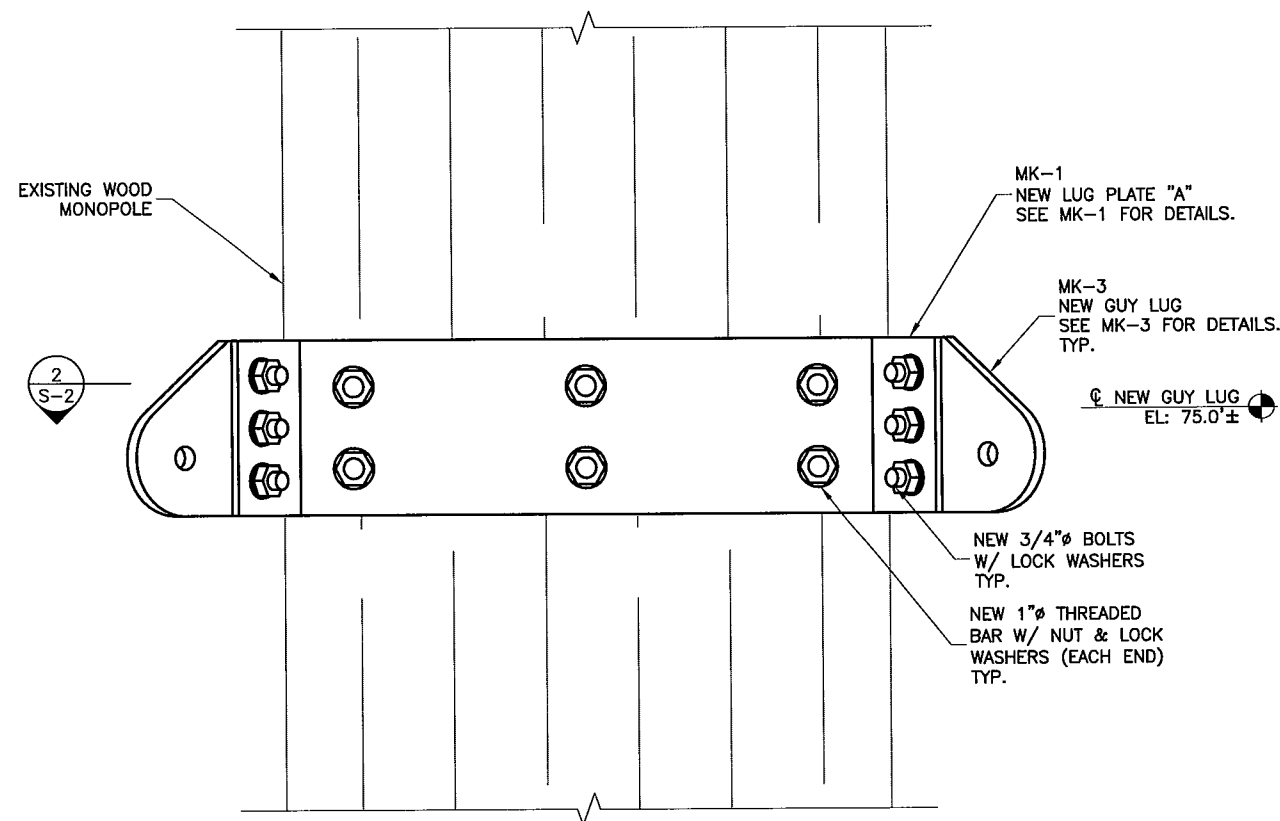
SITE NAME:
**BURLINGTON
AVON LANDFILL**

SITE NUMBER:
CT46143-A

SITE ADDRESS:
**277 HUCKLEBERRY HILL ROAD
AVON, CT 06013**

SHEET TITLE
MODIFICATION
SCHEDULE

SHEET NUMBER
S-1



GUY LUG COLLAR MATERIAL LIST

PART NO.	QTY.	DESCRIPTION	ELEVATION
MK-1	2	LUG PLATE "A". SEE S-3 FOR DETAILS.	75'-0"
MK-2	2	LUG PLATE "B". SEE S-3 FOR DETAILS.	75'-0"
MK-3	4	GUY LUG	75'-0"
-	12	3/4" Ø BOLTS W/ LOCK WASHERS	-
-	6	1" Ø x 1'-9" THREADED BAR W/ (2) NUTS AND LOCK WASHERS	-

EXISTING SAFETY CABLE TO BE
RE-ROUTED AROUND NEW GUY
LUG IF INTERFERENCES OCCUR.

NEW LUG PLATES TO BE
INSTALLED UNDER EXISTING
COAX SHROUDS.

PREPARED BY:



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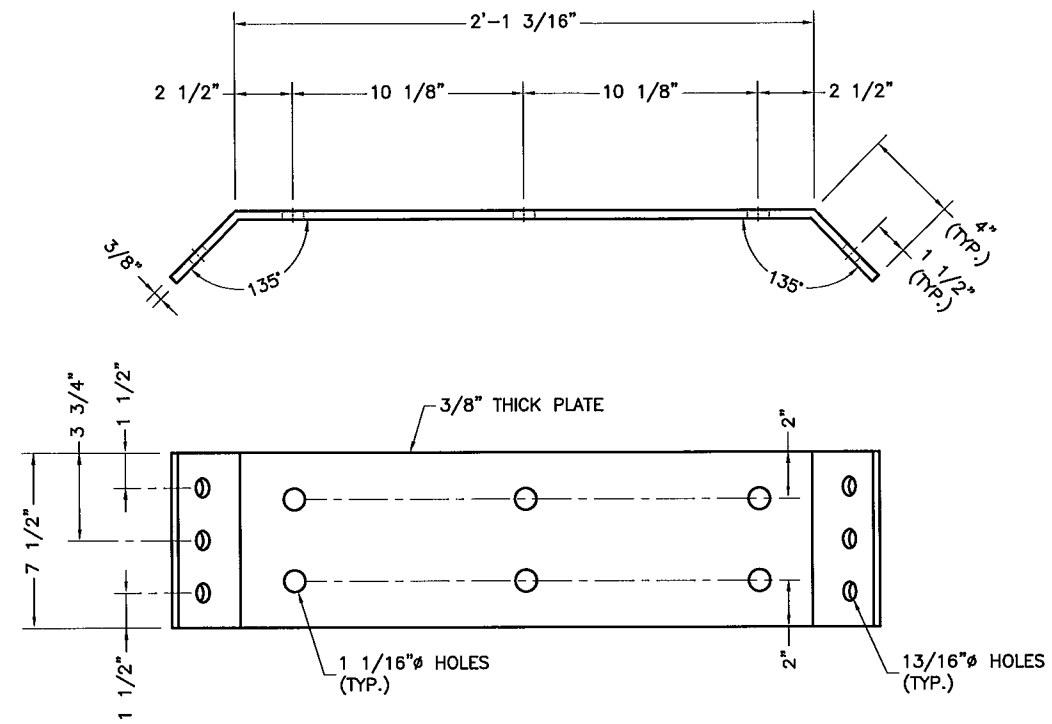
SITE NUMBER:
CT46143-A

SITE ADDRESS:
277 HUCKLEBERRY HILL ROAD
AVON, CT 06013

SHEET TITLE
NEW GUY LUG
COLLAR DETAILS I

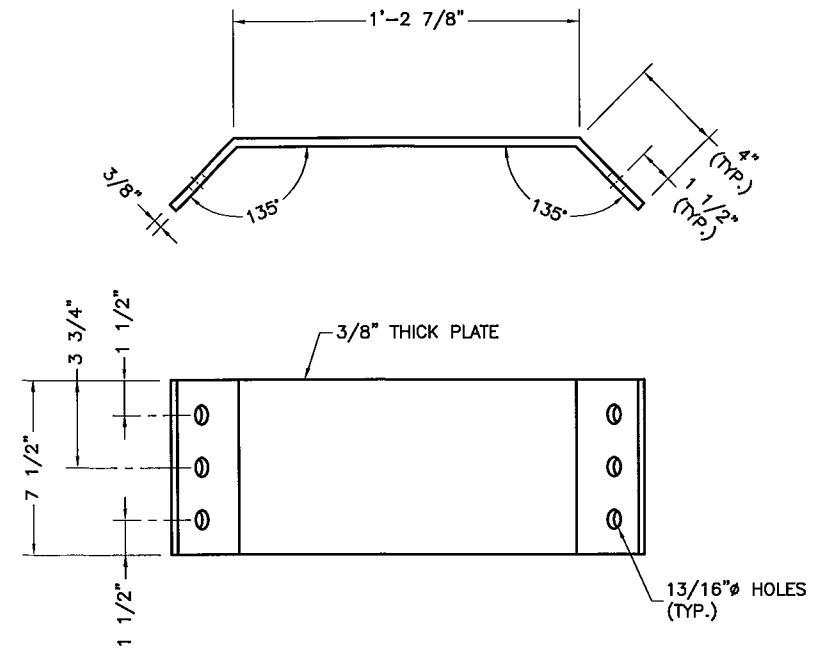
SHEET NUMBER

S-2



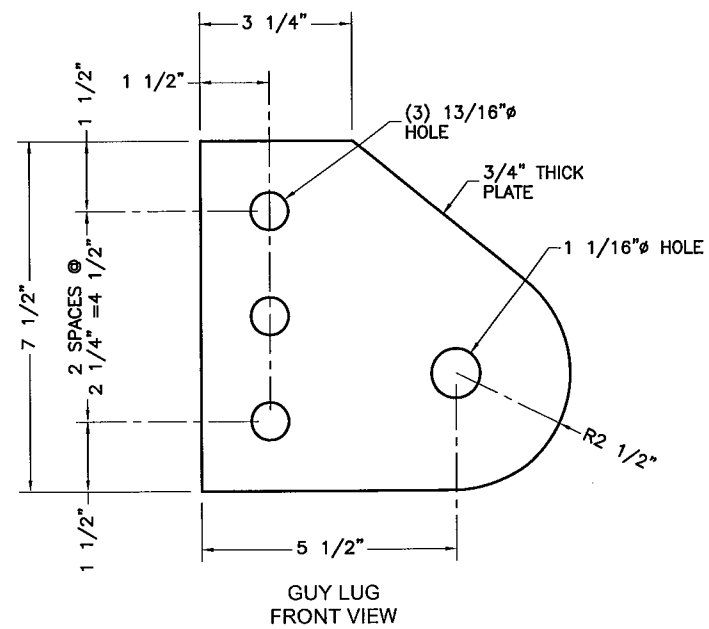
LUG PLATE "A"
TOP & FRONT VIEW

MK-1
S-3
ELEVATION
SCALE: 1 1/2" = 1'-0"



LUG PLATE "B"
TOP & FRONT VIEW

MK-2
S-3
ELEVATION
SCALE: 1 1/2" = 1'-0"



GUY LUG
FRONT VIEW

MK-3
S-3
DETAIL
NTS

FOR BID ONLY

CHRISTOPHER M. MURPHY, P.E.
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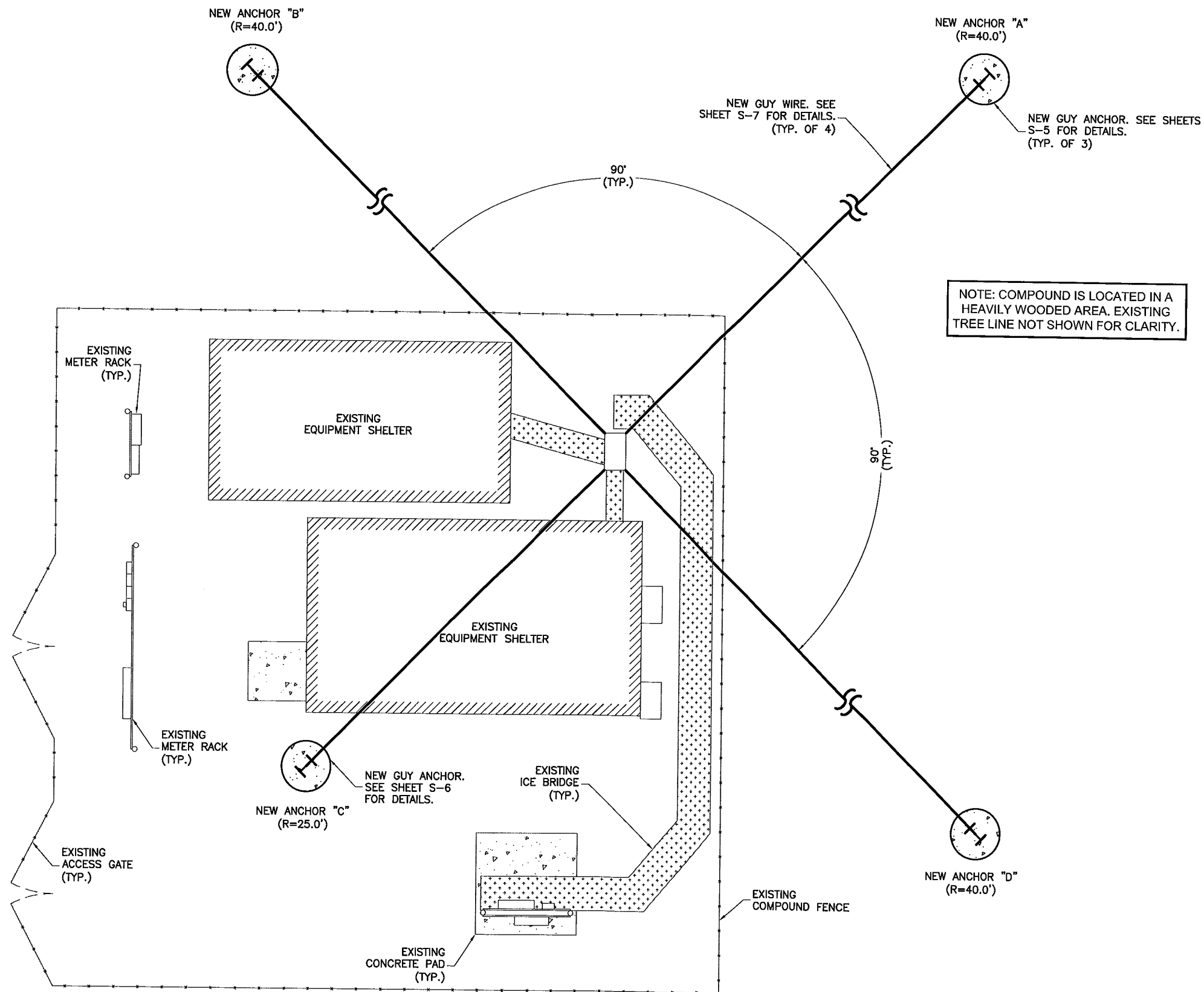
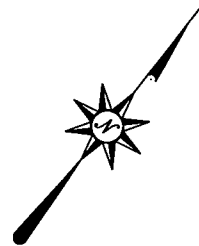
SITE NAME:
**BURLINGTON
AVON LANDFILL**

SITE NUMBER:
CT46143-A

SITE ADDRESS:
**277 HUCKLEBERRY HILL ROAD
AVON, CT 06013**

SHEET TITLE
**NEW GUY LUG
COLLAR DETAILS II**

SHEET NUMBER
S-3



SITE PLAN
PLAN VIEW

1
S-4

PLAN
NTS

PREPARED BY:



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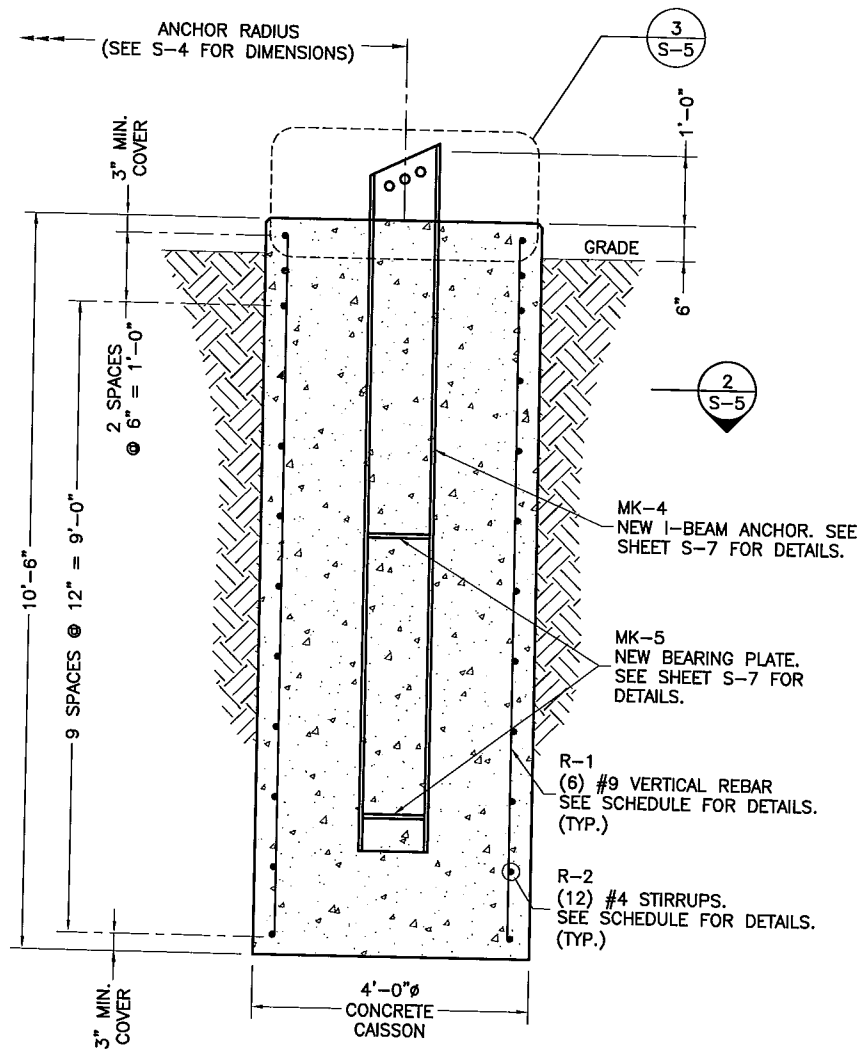
SITE ADDRESS:
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SHEET TITLE

SITE PLAN

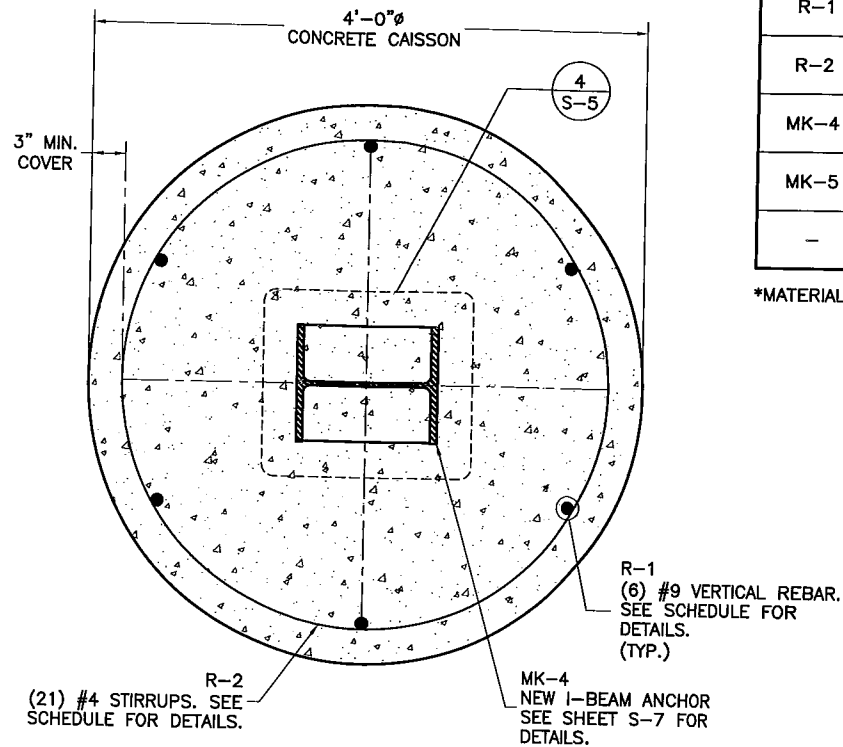
SHEET NUMBER

S-4



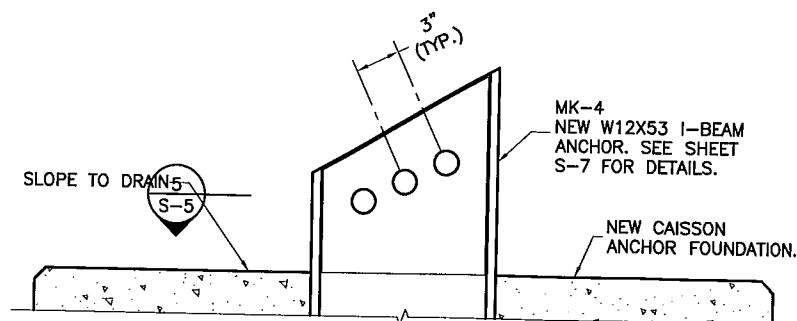
NEW CAISSON ANCHOR FOUNDATION
ELEVATION VIEW

1
S-5
ELEVATION
SCALE: 3/8" = 1'-0"



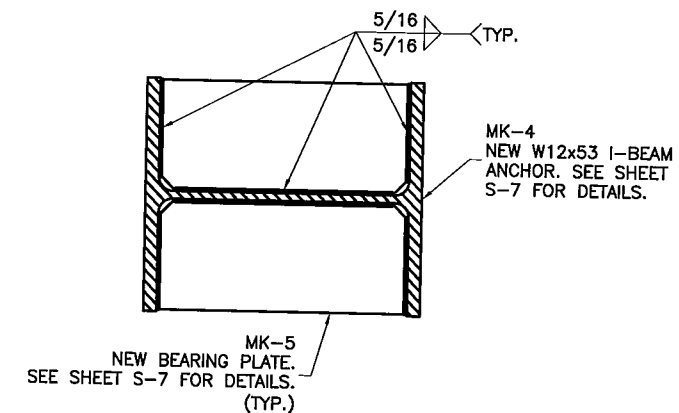
NEW CAISSON ANCHOR FOUNDATION
PLAN VIEW

2
S-5
PLAN
SCALE: 3/4" = 1'-0"



NEW ANCHOR HEAD
ELEVATION VIEW

3
S-5
DETAIL
SCALE: 1" = 1'-0"



BEARING PLATE DETAIL
SECTION VIEW

4
S-5
SECTION
SCALE: 1-1/2" = 1'-0"

FOUNDATION MODIFICATION MATERIAL LIST

PART NO.	SHAPE	QTY.	LENGTH	DESCRIPTION
R-1	—	6	10'-0"	#9 VERTICAL REBAR
R-2	○	12	12'-0"	#4 REBAR STIRRUPS WITH MIN. 12" OVERLAP
MK-4	—	1	10'-0"	W12X53 I-BEAM ANCHOR SEE SHEET S-7 FOR DETAILS
MK-5	—	2	—	BEARING PLATE SEE SHEET S-7 FOR DETAILS
—	•	1	4.8± CU. YD.	4000 PSI CONCRETE

*MATERIAL SCHEDULE FOR (1) CAISSON FOUNDATION. (3) REQUIRED.

PREPARED BY:



PREPARED FOR:



FOR BID ONLY

CHRISTOPHER M. MURPHY, P.E.
CONNECTICUT LIC. NO. 25842

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CHECKED BY: AB
ENG APP'D: CMM
PROJECT NO: 1309511400

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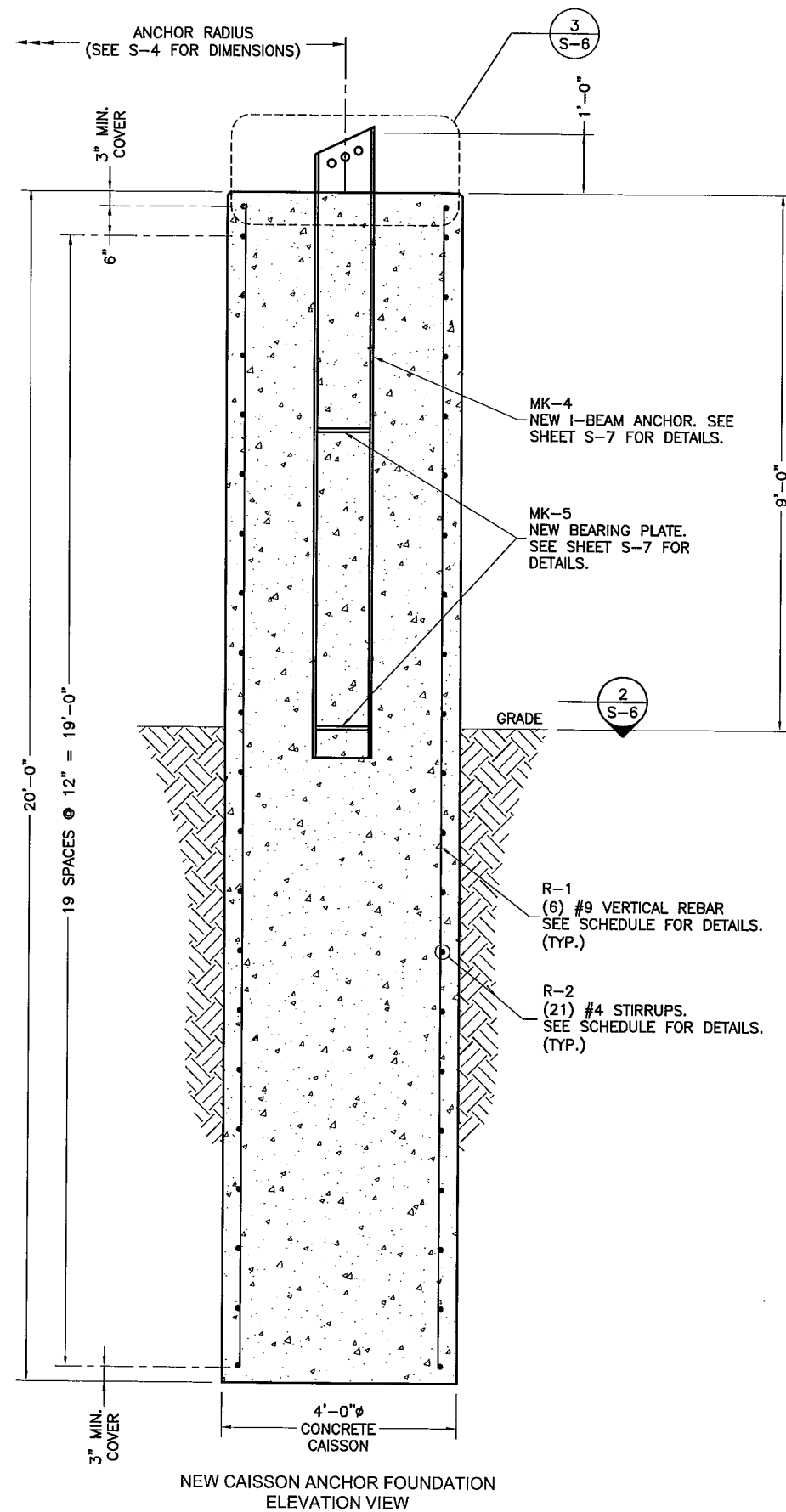
SITE NAME:
BURLINGTON
AVON LANDFILL

SITE NUMBER:
CT46143-A

SITE ADDRESS:
277 HUCKLEBERRY HILL ROAD
AVON, CT 06013

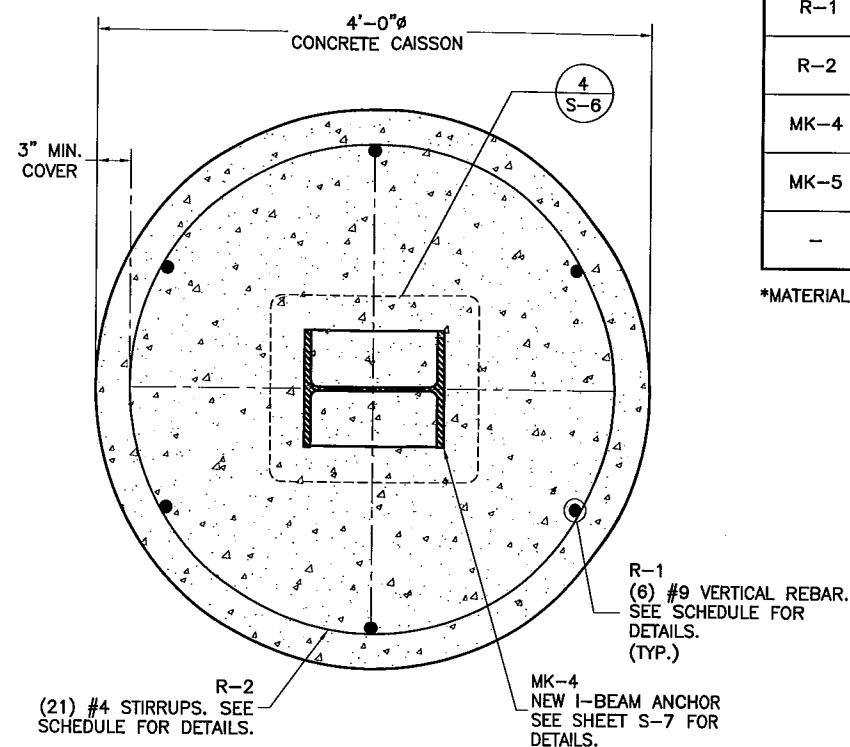
SHEET TITLE
NEW GUY ANCHOR
FOUNDATION DETAILS I

SHEET NUMBER
S-5

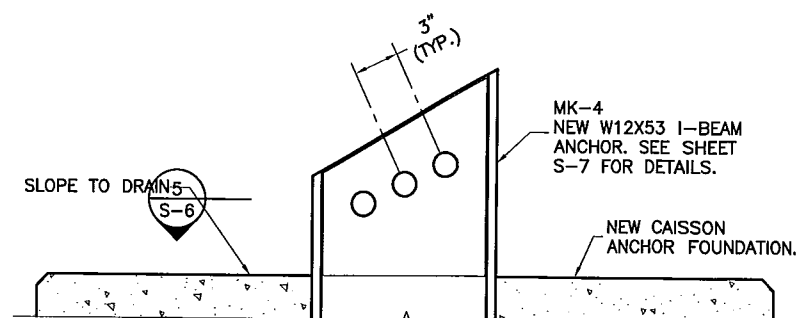


1
S-6

ELEVATION
SCALE: 3/8" = 1'-0"



2
S-6

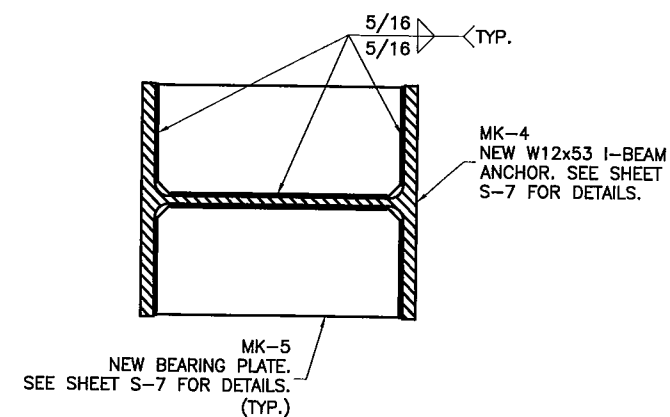


3
S-6

DETAIL
SCALE: 1" = 1'-0"

FOUNDATION MODIFICATION MATERIAL LIST				
PART NO.	SHAPE	QTY.	LENGTH	DESCRIPTION
R-1	—	6	19'-6"	#9 VERTICAL REBAR
R-2	○	21	12'-0"	#4 REBAR STIRRUPS WITH MIN. 12" OVERLAP
MK-4	-	1	10'-0"	W12X53 I-BEAM ANCHOR SEE SHEET S-7 FOR DETAILS
MK-5	-	4	-	BEARING PLATE SEE SHEET S-7 FOR DETAILS
-		1	9.5± CU. YD.	4000 PSI CONCRETE

*MATERIAL SCHEDULE FOR (1) CAISSON FOUNDATION. (1) REQUIRED.



BEARING PLATE DETAIL
SECTION VIEW

 **SECTION**

SCALE: 1-1/2" = 1'-0"

PREPARED BY:



PREPARED FOR:



FOR BID ONLY

CHRISTOPHER M. MURPHY, P.E.
CONNECTICUT LIC. NO. 25842

DRAWN BY:	JMR
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PROJECT NO:	1309511400

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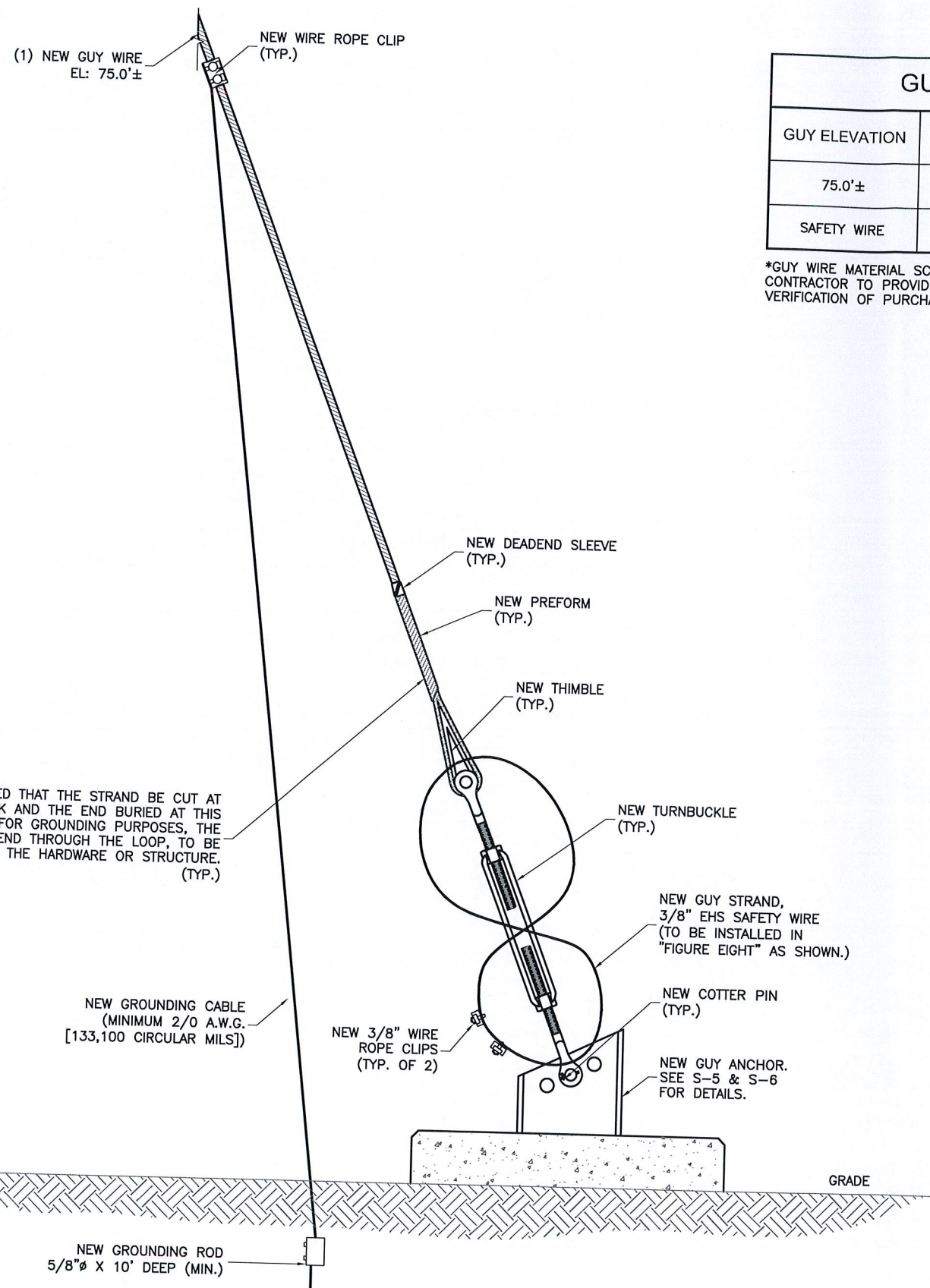
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SITE NUMBER:
CT46143-A

SITE ADDRESS:
277 HUCKLEBERRY HILL ROAD
AVON, CT 06013

SHEET TITLE
NEW GUY ANCHOR
FOUNDATION DETAILS II

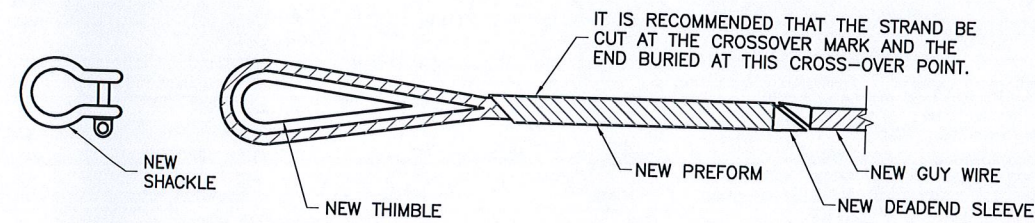
SHEET NUMBER
S-6



1
S-8
DETAIL
NTS

GUY WIRE INSTALLATION SCHEDULE ANCHORS "A", "B", & "D"						
GUY ELEVATION	GUY SIZE	TURNBUCKLE	DEADEND SLEEVE	PREFORM	THIMBLE	SHACKLE
75.0'±	(1) 1/2" EHS	(1) 7/8"x12"J/J	(2) 1/2"	(2) 1/2"	(2) 5/8" HVY	(1) 5/8" SPA (TOP)
SAFETY WIRE	(1) 3/8" EHS	-	-	-	-	-

*GUY WIRE MATERIAL SCHEDULE LISTS COMPONENTS FOR (1) GUY ANCHOR, (3) TOTAL ARE REQUIRED. CONTRACTOR TO PROVIDE NEW HARDWARE ON NEW AND RELOCATED WIRES & SHALL SUBMIT VERIFICATION OF PURCHASED MATERIAL TO FDH CONSTRUCTION MANAGER PRIOR TO INSTALLATION.



GUY WIRE ATTACHMENT AT TOWER
ELEVATION VIEW

2
S-8
DETAIL
NTS

WIRE INSTALLATION SHOULD NOT BE PERFORMED IF WIND SPEED EXCEEDS 20 MPH.

THE CONTRACTOR SHALL CLEARLY LABEL ALL GUY WIRES AT GUY ANCHORS INDICATING THE PERCENT BREAKING STRENGTH THE GUY WIRES ARE TENSIONED TO. CONTACT TOWER OWNER FOR PREFERRED LABELING PROCEDURE.

GUY #	HEIGHT (ft.)	DIA. (in)	RADIUS (ft.)	ANCHOR ELEV. (ft.)	GUY LENGTH (ft.)
1	75	1/2" EHS	40	0	85.0
Initial Tension	Temp. (F)	Guy tension (kips)		Time For 10 Pulses(Seconds)	
10%	0	3.02	13.43	3.92	
	10	2.97	13.19	3.96	
	20	2.91	12.94	3.99	
	30	2.86	12.70	4.03	
	40	2.80	12.45	4.07	
	50	2.75	12.21	4.11	
	60	2.69	11.97	4.15	
	70	2.63	11.72	4.20	
	80	2.58	11.48	4.24	
	90	2.52	11.23	4.29	
	100	2.47	10.99	4.33	

PULSE CHARTS

3
S-8
NEW ANCHORS "A", "B", & "D"
NTS

PREPARED BY:

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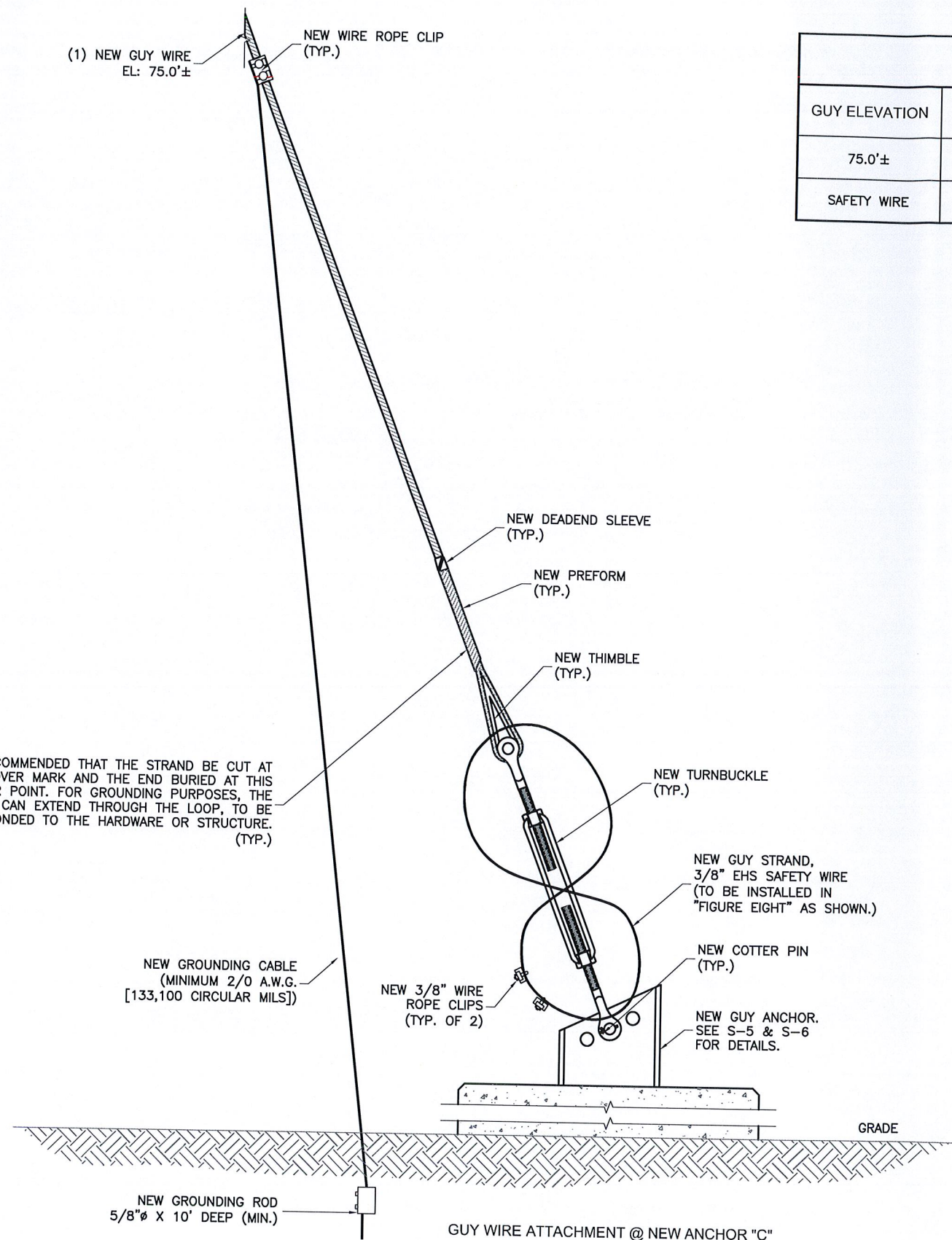
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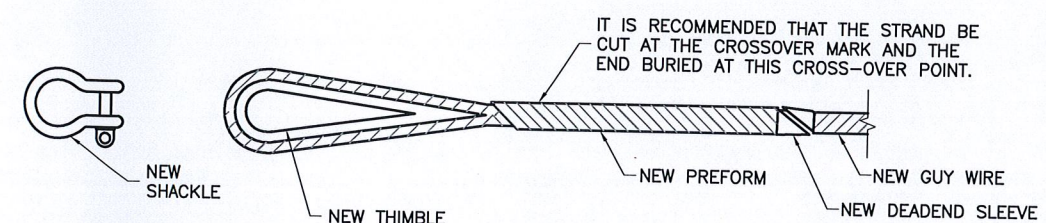
SITE ADDRESS:
**277 HUCKLEBERRY HILL ROAD
AVON, CT 06013**

SHEET TITLE
GUY WIRE DETAILS I
& PULSE CHARTS

SHEET NUMBER
S-8



GUY WIRE INSTALLATION SCHEDULE ANCHOR "C"						
GUY ELEVATION	GUY SIZE	TURNBUCKLE	DEADEND SLEEVE	PREFORM	THIMBLE	SHACKLE
75.0'±	(1) 1/2" EHS	(1) 7/8"x12"J/J	(2) 1/2"	(2) 1/2"	(2) 5/8" HVY	(1) 5/8" SPA (TOP)
SAFETY WIRE	(1) 3/8" EHS	-	-	-	-	-



2
S-9
DETAIL
NTS

WIRE INSTALLATION SHOULD NOT BE PERFORMED IF WIND SPEED EXCEEDS 20 MPH.

THE CONTRACTOR SHALL CLEARLY LABEL ALL GUY WIRES AT GUY ANCHORS INDICATING THE PERCENT BREAKING STRENGTH THE GUY WIRES ARE TENSIONED TO. CONTACT TOWER OWNER FOR PREFERRED LABELING PROCEDURE.

GUY #	HEIGHT (ft.)	DIA. (in)	RADIUS (ft.)	ANCHOR ELEV. (ft.)	GUY LENGTH (ft.)
1	75	1/2" EHS	25	10	69.6
Initial Tension	Temp. (F)	Guy tension (kips)	Guy tension (KN)	Time For 10 Pulses(Seconds)	
10%	0	3.07	13.64	3.19	
	10	3.00	13.36	3.22	
	20	2.94	13.08	3.25	
	30	2.88	12.80	3.29	
	40	2.82	12.52	3.33	
	50	2.75	12.24	3.36	
	60	2.69	11.97	3.40	
	70	2.63	11.69	3.44	
	80	2.56	11.41	3.49	
	90	2.50	11.13	3.53	
	100	2.44	10.85	3.57	

3
S-9
PULSE CHARTS
NEW ANCHOR "C"
NTS

1
S-9
DETAIL
NTS

PREPARED BY:



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ENGINEERING INNOVATION

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AVON, CT 06013

SHEET TITLE
GUY WIRE DETAILS II
& PULSE CHARTS

SHEET NUMBER
S-9