



Filed by:

G. Scott Shepherd, Site Development Specialist II - SBA Communications
134 Flanders Rd., Suite 125, Westborough, MA 01581
508.251.0720 x 3807 - gshepherd@sbsite.com

January 26, 2022

Melanie A. Bachman
Executive Director
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

RE: Notice of Exempt Modification
712 Bread & Milk St., Coventry, CT 06238, CT
Latitude: 41.818091
Longitude: -72.393175
Dish Wireless: BOBDL00118A

Dear Ms. Bachman:

Dish Wireless (f.k.a.) Gamma Purchasing, LLC) currently maintains three (3) antennas at the 153-foot level of the existing 178-foot Monopole Tower at **712 Bread & Milk St., Coventry, CT**. The 178-foot tower is owned by SBA Towers, LLC. The property is owned by Ronald Nadeau. Dish now intends to remove three (3) existing antennas and replace with three (3) new antennas. Dish Wireless will still be maintaining a total of three (3) antennas at the 153-foot level.

The new antennas support 5G services and would be installed at the 157-foot level of the tower.

Planned Modifications:

TOWER

Remove:

- N/A

Remove and Replace:

- (3) Comba OD12-65R18k-GQ antennas (remove) – (3) JMA Wireless MX08FR0665-21 antennas (replace)
- (2) Ericsson 4415 RRUs (remove) – (2) Fujitsu TA08025-B605 RRUs (replace)
- (3) Ericsson 0208 RRUs (remove) – (3) Fujitsu TA08025-B604 RRUs (replace)
- (3) Commscope SF-SU7-2-96 Sector Frames (remove) – Low-profile platform w/Support rail (Commscope MC-PK8-DSH)

Install New:

- (1) Fujitsu TA08025-B605 RRUs

Existing Equipment to Remain:

- N/A

Entitlements:

- (1) Raycap RDIC-9181-PF-48 OVP

GROUND (within existing compound)

Install New:

- 5'x7' concrete pad
- Generator Plug (generator not installed)
- GPS unit
- Power protective cabinet
- H-Frame
- Telco fiber enclosure
- Fiber ND (If required)
- Equipment platform
- Dish Equipment cabinet
- 9'-6" L x 12" W Ice bridge

Remain:

- N/A

Remove:

- N/A

The telecommunications facility located at **712 Bread & Milk St., Coventry** was approved by the Town Coventry's Planning and Zoning Commission on October 23, 2000. Please see attached Exhibit 6. There were no other stipulations set forth by the Town of Coventry. Please see attached.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies §16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. §16.50j-72(b)(2). In accordance with R.C.S.A. § 16.50j-73, a copy of this letter is being sent to the Town of Coventry's Town Manager, John Elsesser, Building Official, Joseph Callahan, as well as to the Property Owner, Ronald Nadeau. (Separate notice is not being sent to tower owner, as it belongs to SBA.)

The planned modifications to the facility fall squarely within those activities explicitly provided for in R.C.S.A. §16.50j-72(b)(2).

1. The proposed modifications will not result in an increase in the height of the existing structure.
2. The proposed modification will not require the extension of the site boundary.
3. The proposed modifications will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
4. The operation of the replacement antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard.



5. The proposed modification will not cause a change or alteration in the physical or environmental characteristics of the site.
6. The existing structure and its foundation can support the proposed loading.

For the foregoing reasons, T-Mobile respectfully submits that the proposed modifications to the above-referenced telecommunication facility constitute an exempt modifications under R.C.S.A. § 16-50j-72(b)(2).

Sincerely,

G. Scott Shepherd
Site Development Specialist II
SBA COMMUNICATIONS CORPORATION
134 Flanders Rd., Suite 125
Westborough, MA 01581
508.251.0720 x3807 + T
508.366.2610 + F
508.868.6000 + C
gshepherd@sbsite.com

Attachments

cc: John Elsesser, Town Manager / with attachments
Town of Coventry, 1712 Main St., Coventry, CT 06238
Joseph Callahan, Building Official / with attachments
Town of Coventry, 1712 Main St., Coventry, CT 06238
Ronald Nadeau / with attachments
2050 Boston Turnpike, Coventry, CT 06238 (SBA address on file)

EXHIBIT LIST

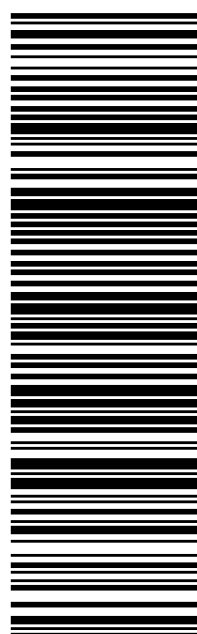
Exhibit 1	Check Copy	x
Exhibit 2	Notification Receipts	x
Exhibit 3	Property Card	x
Exhibit 4	Property Map	x
Exhibit 5	Original Zoning Approval	Coventry P&Z #00-20S (10/23/00)
Exhibit 6	Construction Drawings	B+T Group 1/13/22
Exhibit 7	Structural Analysis	TES 11/4/21
Exhibit 8	Mount Analysis	B + T Group 11/1/21
Exhibit 8	EME Report	EBI Consulting 12/20/21

EXHIBIT 1

Copy of check

EXHIBIT 2

FedEx Labels

ORIGIN ID: BFFA (508) 614-0389 RICK WOODS SBA COMMUNICATIONS CORPORATION 134 FLANDERS RD SUITE 125 WESTBOROUGH, MA 01581 UNITED STATES US		SHIP DATE: 26JAN22 ACTWGT: 2.00 LB CAD: 105843304/NET4460
TO MELANIE A. BACHMAN EXEC. DIR CONNECTICUT SITING COUNCIL TEN FRANKLIN SQUARE		
NEW BRITAIN CT 06051 (508) 251-0720 X 3807 REF: 1056-92009-6089 INV: DEPT:		
		
		
THU - 27 JAN 10:30A PRIORITY OVERNIGHT		
TRK# 7758 7987 1968 0201		
EB BDLA CT-US BDL 06051		
		

56DJ4/F289/FE4A

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775879871968

[ADD NICKNAME](#)

ON TIME

Scheduled delivery:
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FROM
SBA COMMUNICATIONS CORPORATION
Rick Woods
134 Flanders Rd
Suite 125
WESTBOROUGH, MA US 01581
508-614-0389

TO
Melanie A. Bachman Exec. Dir
Connecticut Siting Council
Ten Franklin Square
NEW BRITAIN, CT US 06051
508-251-0720

[MANAGE DELIVERY](#) [Travel History](#)[Shipment Facts](#)

Travel History

TIME ZONE
Local Scan Time



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2022

4:27 PM

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Shipment Facts

TRACKING NUMBER
775879871968

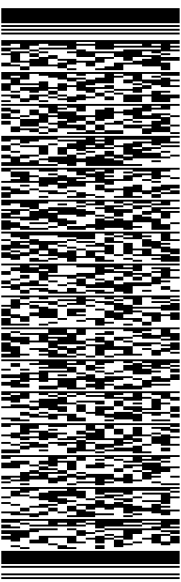
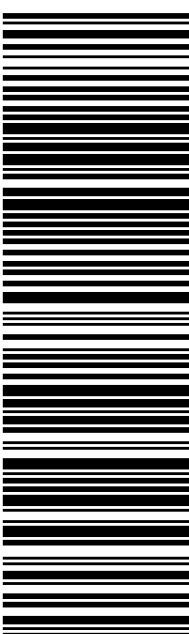
SERVICE
FedEx Priority Overnight

WEIGHT
2 lbs / 0.91 kgs

TOTAL PIECES
1

TOTAL SHIPMENT WEIGHT
2 lbs / 0.91 kgs

TERMS
Domestic

ORIGIN ID: BFFA (508) 614-0389 RICK WOODS SBA COMMUNICATIONS CORPORATION 134 FLANDERS RD SUITE 125 WESTBOROUGH, MA 01581 UNITED STATES US		SHIP DATE: 26JAN22 ACTWGT: 1.00 LB CAD: 105843304/NET4460
TO JOHN ELSESSER TOWN OF COVENTRY TOWN MANAGER		
COVENTRY CT 06238 (508) 251-0720 X 3807 INV: REF: 105692009-6089 PO: DEPT:		
  		
TRK# 7758 7989 9478 0201	THU - 27 JAN 12:00P PRIORITY OVERNIGHT	
EB GONA CT-US BDL 06238		

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SBA COMMUNICATIONS CORPORATION
Rick Woods
134 Flanders Rd
Suite 125
WESTBOROUGH, MA US 01581
508-614-0389

TO
John Elsesser
Town of Coventry
Town Manager
COVENTRY, CT US 06238
508-251-0720

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Travel History

Shipment Facts

Travel History

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Local Scan Time



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2022

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Shipment Facts

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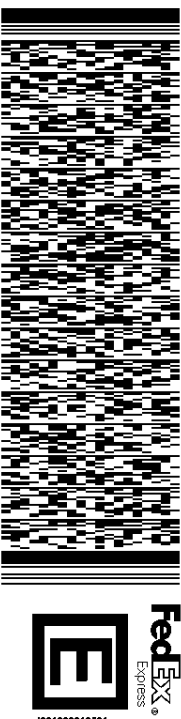
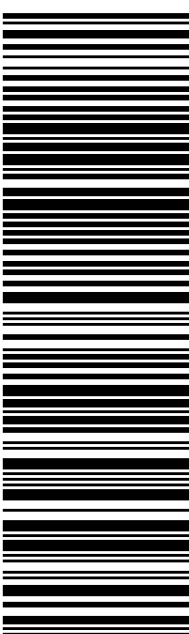
SERVICE
FedEx Priority Overnight

WEIGHT
0.5 lbs / 0.23 kgs

TOTAL PIECES
1

TOTAL SHIPMENT WEIGHT
0.5 lbs / 0.23 kgs

TERMS
Standard

ORIGIN ID:BF-A (508) 614-0389 RICK WOODS SBA COMMUNICATIONS CORPORATION 134 FLANDERS RD SUITE 125 WESTBOROUGH, MA 01581 UNITED STATES US		SHIP DATE: 26JAN22 ACTWGT: 1.00 LB CAD: 105843304/NET4460
TO JOSEPH CALLAHAN TOWN OF COVENTRY BUILDING OFFICIAL		BILL SENDER
COVENTRY CT 06238 (508) 251-0720 X 3807 REF: 1056-92009-6089 INV: DEPT:		
		
		
THU - 27 JAN 12:00P PRIORITY OVERNIGHT		
TRK# 7758 7992 7997 0201		
EB GONA CT-US BDL 06238		
		

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775879927997

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FROM
SBA COMMUNICATIONS CORPORATION
Rick Woods
134 Flanders Rd
Suite 125
WESTBOROUGH, MA US 01581
508-614-0389

TO
Joseph Callahan
Town of Coventry
Building Official
COVENTRY, CT US 06238
508-251-0720

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Travel History

Shipment Facts

Travel History

TIME ZONE
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2022

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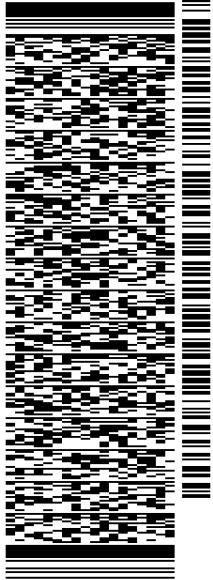
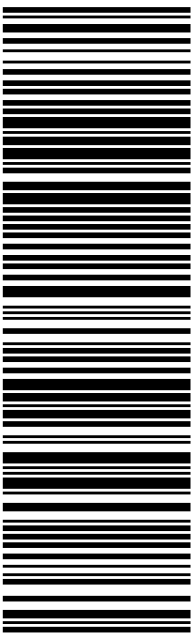
SERVICE
FedEx Priority Overnight

WEIGHT
0.5 lbs / 0.23 kgs

TOTAL PIECES
1

TOTAL SHIPMENT WEIGHT
0.5 lbs / 0.23 kgs

TERMS
Standard

ORIGIN ID: BFFA (508) 614-0389 RICK WOODS SBA COMMUNICATIONS CORPORATION 134 FLANDERS RD SUITE 125 WESTBOROUGH, MA 01581 UNITED STATES US		SHIP DATE: 26JAN22 ACTWGT: 1.00 LB CAD: 105843304/NET4460
TO RONALD NADEAU 2050 BOSTON TURNPIKE COVENTRY CT 06238 (508) 251-0720 X 3807 INV: REF: 1056-92009-6089 PO: DEPT:		
 		
TRK# 7758 7995 5600 0201	THU - 27 JAN 12:00P PRIORITY OVERNIGHT	
EB GONA CT-US BDL 06238		
		

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FROM
SBA COMMUNICATIONS CORPORATION
Rick Woods
134 Flanders Rd
Suite 125
WESTBOROUGH, MA US 01581
508-614-0389

TO
Ronald Nadeau
2050 Boston Turnpike
COVENTRY, CT US 06238
508-251-0720

[MANAGE DELIVERY](#)

Travel History

Shipment Facts

Travel History

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Shipment Facts

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775879955600

SERVICE
FedEx Priority Overnight

WEIGHT
0.5 lbs / 0.23 kgs

TOTAL PIECES
1

TOTAL SHIPMENT WEIGHT
0.5 lbs / 0.23 kgs

TERMS
Standard

EXHIBIT 3

Property Card

712 BREAD & MILK ST

Location	712 BREAD & MILK ST	Mblu	10/ / 15/ /
Acct#	R04086	Owner	NADEAU, RONALD R
PBN		Assessment	\$1,268,300
Appraisal	\$1,836,300	PID	3904
Building Count	6		

Current Value

Appraisal			
Valuation Year	Improvements	Land	Total
2019	\$1,114,600	\$721,700	\$1,836,300
Assessment			
Valuation Year	Improvements	Land	Total
2019	\$780,400	\$487,900	\$1,268,300

Owner of Record

Owner	NADEAU, RONALD R	Sale Price	\$0
Co-Owner		Certificate	
Address	2050 BOSTON TPK COVENTRY, CT 06238	Book & Page	1264/462
		Sale Date	10/10/2019
		Instrument	79

Ownership History

Ownership History					
Owner	Sale Price	Certificate	Book & Page	Instrument	Sale Date
NADEAU, RONALD R	\$0		1264/462	79	10/10/2019
NADEAU RONALD R +	\$407,500		0968/0121	81	11/02/2005
NADEAU RONALD&RENETTE G TRUSTEE	\$0		0876/0158	64	03/15/2004

Building Information

Building 1 : Section 1

Year Built:	1950	Building Photo
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Living Area: 24,816
Replacement Cost: \$1,022,221
Building Percent Good: 60
Replacement Cost
Less Depreciation: \$613,300

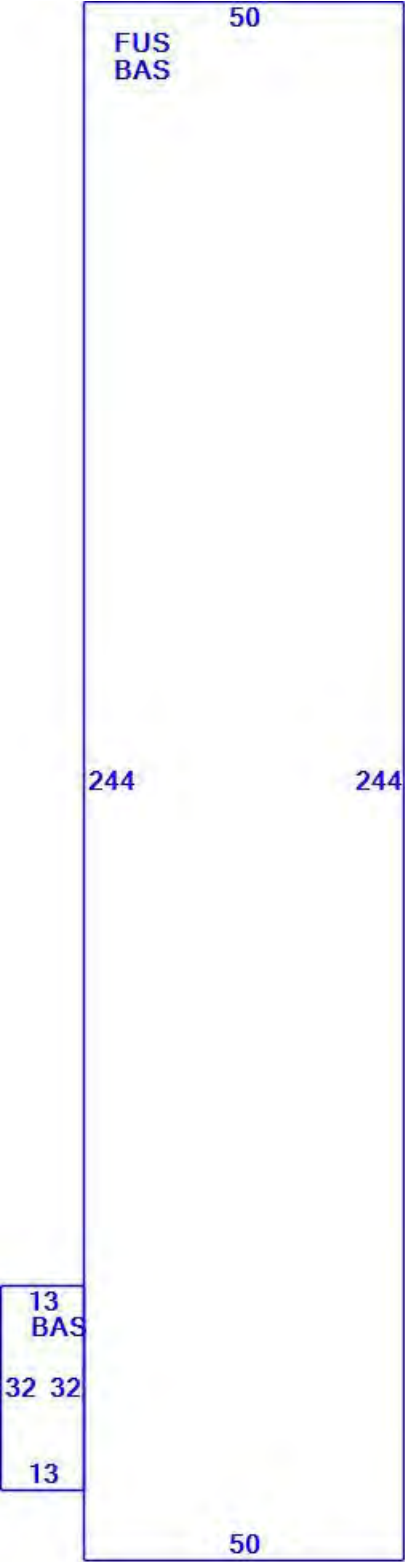
Building Attributes	
Field	Description
Style	Office/Warehs
Model	Comm/Ind
Grade	C-
Stories:	2
Occupancy	8.00
Exterior Wall 1	Pre-finish Metl
Exterior Wall 2	
Roof Structure	Gable
Roof Cover	Metal/Tin
Interior Wall 1	Drywall
Interior Wall 2	
Interior Floor 1	Cement
Interior Floor 2	
Heating Fuel	Gas
Heating Type	Forced Air
AC Type	None/partial
Struct Class	
Bldg Use	Commercial Improv
Total Rooms	0
Usrflid 216	
Total Baths	2
Usrflid 218	
Usrflid 219	
1st Floor Use:	201
Heat/AC	HEAT ONLY
Frame Type	WOOD FRAME
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	8.00
% Comn Wall	0.00
Usrflid 100	
Usrflid 302	
Usrflid 301	
Usrflid 303	



(<http://images.vgsi.com/photos/CoventryCTPhotos/\00\00\65\83.jpg>)

Usrflid 103	
Usrflid 107	
Usrflid 304	
Usrflid 104	
Usrflid 105	
Usrflid 101	
Usrflid 225	
Usrflid 300	
Usrflid 220	
Usrflid 221	
Usrflid 102	
Usrflid 701	
Usrflid 106	
Usrflid 305	
Usrflid 900	No
Usrflid 901	No

Building Layout



(ParcelSketch.ashx?pid=3904&bid=3904)

Building Sub-Areas (sq ft)			Legend
Code	Description	Gross Area	Living Area
BAS	First Floor	12,616	12,616
FUS	Upper Story, Finished	12,200	12,200

		24,816	24,816
--	--	--------	--------

Building 2 : Section 1

Year Built: 1950
Living Area: 14,520
Replacement Cost: \$515,800
Building Percent Good: 54
**Replacement Cost
Less Depreciation:** \$278,500

Building Attributes : Bldg 2 of 6	
Field	Description
Style	Light Indust
Model	Comm/Ind
Grade	C
Stories:	1
Occupancy	2.00
Exterior Wall 1	Pre-finsh Metl
Exterior Wall 2	
Roof Structure	Shed
Roof Cover	Metal/Tin
Interior Wall 1	Drywall
Interior Wall 2	
Interior Floor 1	Cement
Interior Floor 2	
Heating Fuel	Gas
Heating Type	Forced Air
AC Type	None/partial
Struct Class	
Bldg Use	Commercial Improv
Total Rooms	0
Usrflid 216	
Total Baths	
Usrflid 218	
Usrflid 219	
1st Floor Use:	201
Heat/AC	HEAT ONLY
Frame Type	WOOD FRAME
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & MIN WL
Rooms/Prtns	AVERAGE
Wall Height	10.00
% Comn Wall	0.00

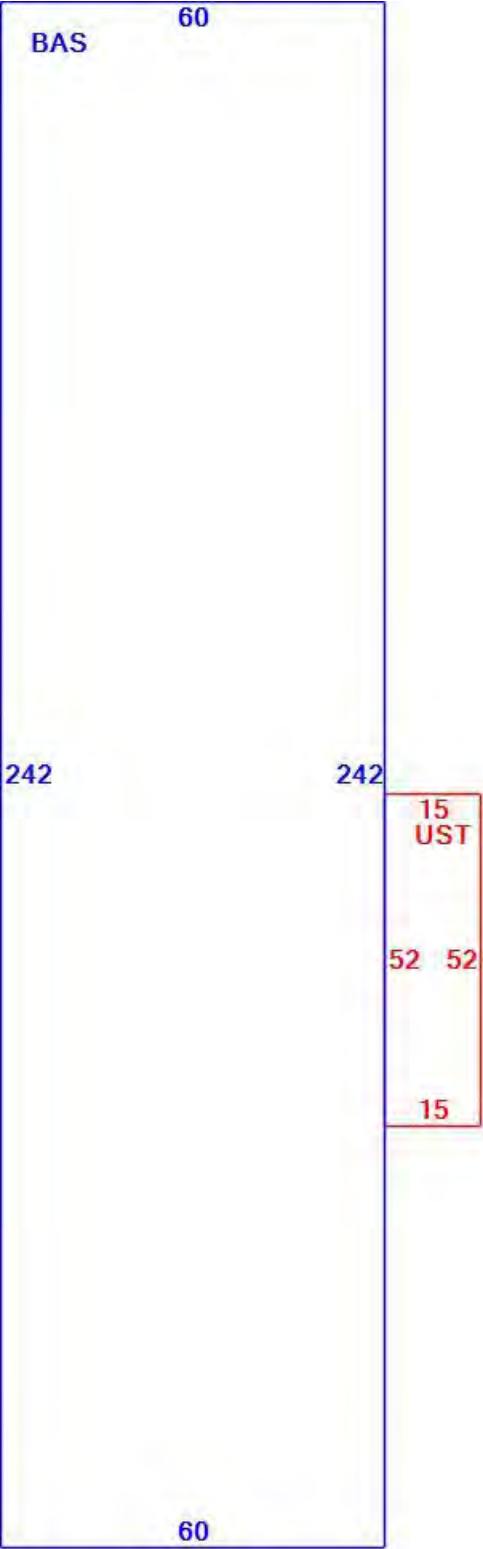
Building Photo



(<http://images.vgsi.com/photos/CoventryCTPhotos/\A00\00\65\88.jpg>)

Usrflid 100	
Usrflid 302	
Usrflid 301	
Usrflid 303	
Usrflid 103	
Usrflid 107	
Usrflid 304	
Usrflid 104	
Usrflid 105	
Usrflid 101	
Usrflid 225	
Usrflid 300	
Usrflid 220	
Usrflid 221	
Usrflid 102	
Usrflid 701	
Usrflid 106	
Usrflid 305	
Usrflid 900	No
Usrflid 901	No

Building Layout



(ParcelSketch.ashx?pid=3904&bid=20055)

Building Sub-Areas (sq ft)			Legend
Code	Description	Gross Area	Living Area
BAS	First Floor	14,520	14,520
UST	Utility, Storage, Unfinished	780	0

		15,300	14,520
--	--	--------	--------

Building 3 : Section 1

Year Built: 1950
Living Area: 4,800
Replacement Cost: \$171,410
Building Percent Good: 54
**Replacement Cost
Less Depreciation:** \$92,600

Building Attributes : Bldg 3 of 6	
Field	Description
Style	Warehouse
Model	Comm/Ind
Grade	C-
Stories:	1
Occupancy	2.00
Exterior Wall 1	Pre-finish Metl
Exterior Wall 2	
Roof Structure	Shed
Roof Cover	Metal/Tin
Interior Wall 1	Drywall
Interior Wall 2	
Interior Floor 1	Cement
Interior Floor 2	
Heating Fuel	Gas
Heating Type	Forced Air
AC Type	None/partial
Struct Class	
Bldg Use	Commercial Improv
Total Rooms	0
Usrflid 216	
Total Baths	
Usrflid 218	
Usrflid 219	
1st Floor Use:	201
Heat/AC	HEAT ONLY
Frame Type	WOOD FRAME
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	14.00
% Comn Wall	0.00

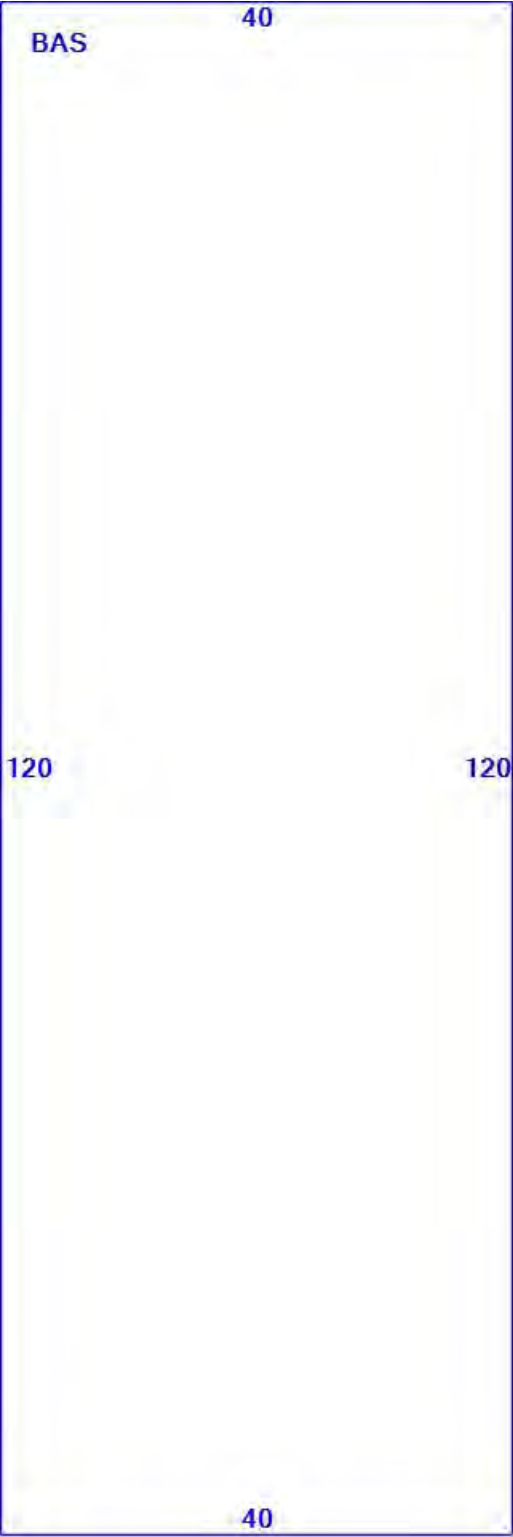
Building Photo



(<http://images.vgsi.com/photos/CoventryCTPhotos/\00\00\65\95.jpg>)

Usrflid 100	
Usrflid 302	
Usrflid 301	
Usrflid 303	
Usrflid 103	
Usrflid 107	
Usrflid 304	
Usrflid 104	
Usrflid 105	
Usrflid 101	
Usrflid 225	
Usrflid 300	
Usrflid 220	
Usrflid 221	
Usrflid 102	
Usrflid 701	
Usrflid 106	
Usrflid 305	
Usrflid 900	No
Usrflid 901	No

Building Layout



(ParcelSketch.ashx?pid=3904&bid=20056)

Building Sub-Areas (sq ft)			Legend
Code	Description	Gross Area	Living Area
BAS	First Floor	4,800	4,800
		4,800	4,800

Year Built:

1957

Living Area:

1,296

Replacement Cost:

\$84,468

Building Percent Good:

30

Replacement Cost

Less Depreciation:

\$25,300

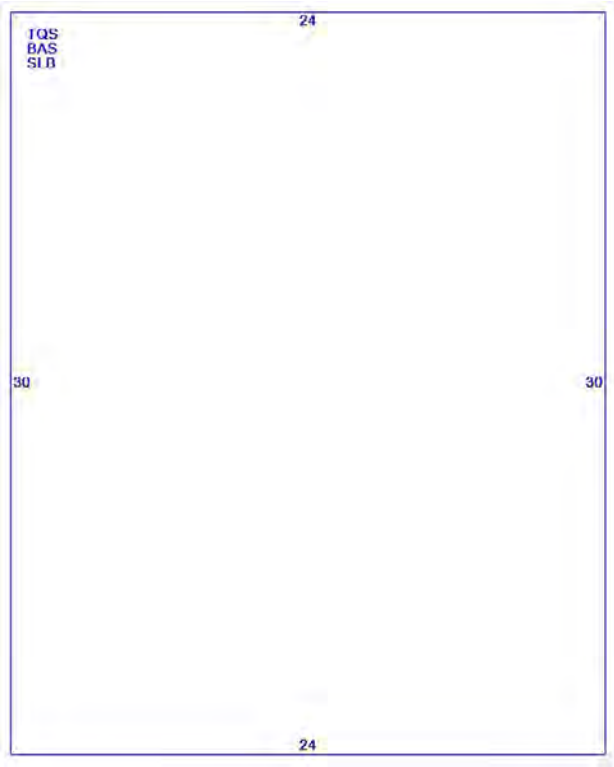
Building Attributes : Bldg 4 of 6	
Field	Description
Style	Conventional
Model	Residential
Grade:	Below Average
Story Height	1.75
Occupancy	1
Exterior Wall 1	Vinyl
Exterior Wall 2	
Roof Structure:	Gable
Roof Cover	Metal/Tin
Interior Wall 1	Panel
Interior Wall 2	Drywall
Interior Flr 1	Vnl Linoleum
Interior Flr 2	Carpet
Heat Fuel	Electric
Heat Type:	Electr Basebrd
AC Type:	None/partial
Total Bedrooms:	2 Bedrooms
Total Bthrms:	1
Total Half Baths:	
Extra Fixtures	
Total Rooms:	4
Bath Style:	Average
Kitchen Style:	Average
Num Kitchens	
Bsmt Gar	
Usrflid 103	06
Usrflid 104	0
Fire_Places	
Usrflid 106	
Usrflid 107	
Num Park	
Fireplaces	
Usrflid 108	

Building Photo



(http://images.vgsi.com/photos/CoventryCTPhotos/\00\00\66\00.jpg)

Building Layout



(ParcelSketch.ashx?pid=3904&bid=20057)

Building Sub-Areas (sq ft)			Legend
Code	Description	Gross Area	Living Area
BAS	First Floor	720	720
TQS	Three Quarter Story	720	576
SLB	Slab	720	0
		2,160	1,296

Usrflid 101	
Usrflid 102	
Usrflid 100	
Usrflid 300	
Usrflid 301	
Usrflid 302	
Usrflid 304	
Fndtn Cndtn	
Basement	
Usrflid 701	
Usrflid 305	
Usrflid 900	No
Usrflid 901	No
Usrflid 303	

Building 5 : Section 1

Year Built: 1950
Living Area: 360
Replacement Cost: \$7,326
Building Percent Good: 60
Replacement Cost Less Depreciation: \$4,400

Building Attributes : Bldg 5 of 6	
Field	Description
Style	Support Shed
Model	Comm/Ind
Grade	D
Stories:	1
Occupancy	
Exterior Wall 1	Vinyl
Exterior Wall 2	
Roof Structure	Gable
Roof Cover	Roll Roofing
Interior Wall 1	Minimum
Interior Wall 2	
Interior Floor 1	Sub Floor
Interior Floor 2	
Heating Fuel	None
Heating Type	None
AC Type	None/partial
Struct Class	
Bldg Use	Commercial Improv

Building Photo



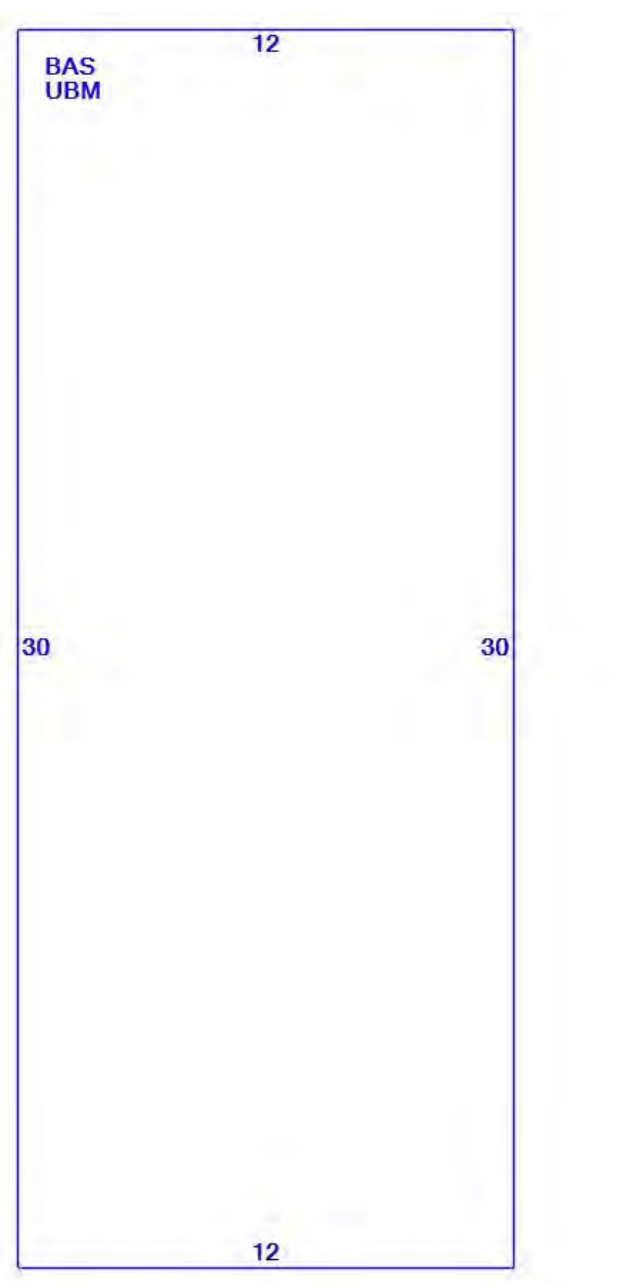
(<http://images.vgsi.com/photos/CoventryCTPhotos/\00\00\66\04.jpg>)

Total Rooms	
Usrflid 216	
Total Baths	
Usrflid 218	
Usrflid 219	
1st Floor Use:	
Heat/AC	HEAT ONLY
Frame Type	WOOD FRAME
Baths/Plumbing	NONE
Ceiling/Wall	CEIL & MIN WL
Rooms/Prtns	AVERAGE
Wall Height	8.00
% Comn Wall	
Usrflid 100	
Usrflid 302	
Usrflid 301	
Usrflid 303	
Usrflid 103	
Usrflid 107	
Usrflid 304	
Usrflid 104	
Usrflid 105	
Usrflid 101	
Usrflid 225	
Usrflid 300	
Usrflid 220	
Usrflid 221	
Usrflid 102	
Usrflid 701	
Usrflid 106	
Usrflid 305	
Usrflid 900	No
Usrflid 901	No

Building 6 : Section 1

Year Built:	1930
Living Area:	920
Replacement Cost:	\$99,585
Building Percent Good:	68
Replacement Cost	
Less Depreciation:	\$67,700

Building Layout



(ParcelSketch.ashx?pid=3904&bid=20058)

Building Sub-Areas (sq ft)			Legend
Code	Description	Gross Area	Living Area
BAS	First Floor	360	360
UBM	Basement	360	0
		720	360

Building Attributes : Bldg 6 of 6

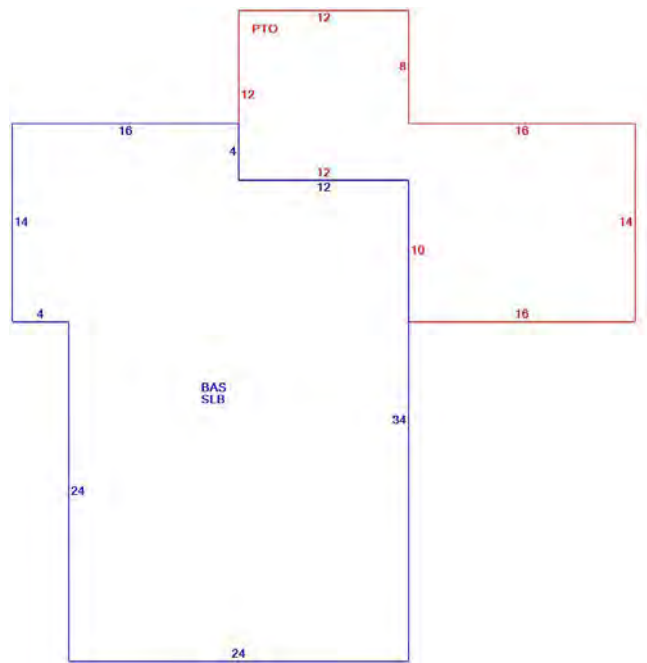
Field	Description
Style	Ranch
Model	Residential
Grade:	Average
Story Height	1
Occupancy	1
Exterior Wall 1	Vinyl
Exterior Wall 2	
Roof Structure:	Gable
Roof Cover	Asphalt Shingl
Interior Wall 1	Drywall
Interior Wall 2	
Interior Flr 1	Hardwood
Interior Flr 2	Carpet
Heat Fuel	Gas
Heat Type:	Forced Air
AC Type:	None/partial
Total Bedrooms:	2 Bedrooms
Total Bthrms:	1
Total Half Baths:	
Extra Fixtures	
Total Rooms:	5
Bath Style:	Average
Kitchen Style:	Average
Num Kitchens	
Bsmt Gar	
Usrflid 103	
Usrflid 104	
Fire_Places	0
Usrflid 106	
Usrflid 107	
Num Park	
Fireplaces	
Usrflid 108	
Usrflid 101	
Usrflid 102	
Usrflid 100	
Usrflid 300	
Usrflid 301	
Usrflid 302	

Building Photo



(<http://images.vgsi.com/photos/CoventryCTPhotos/\A00\00\72\71.jpg>)

Building Layout



(ParcelSketch.ashx?pid=3904&bid=20331)

Building Sub-Areas (sq ft)			<u>Legend</u>
Code	Description	Gross Area	Living Area
BAS	First Floor	920	920
PTO	Patio	368	0
SLB	Slab	920	0
		2,208	920

Usrflid 304	
Fndtn Cndtn	
Basement	
Usrflid 701	
Usrflid 305	
Usrflid 900	No
Usrflid 901	No
Usrflid 303	

Extra Features

Extra Features				<u>Legend</u>
Code	Description	Size	Value	Bldg #
MEZ1	Mezzanine-Unf	2184.00 S.F.	\$9,400	3

Land

Land Use		Land Line Valuation	
Use Code	201	Size (Acres)	24.94
Description	Commercial Improv	Frontage	
Zone	RD	Depth	
Neighborhood	E	Assessed Value	\$487,900
Alt Land Appr Category	No	Appraised Value	\$721,700

Outbuildings

Outbuildings						<u>Legend</u>
Code	Description	Sub Code	Sub Description	Size	Value	Bldg #
PAV1	Paving			15250.00 S.F.	\$13,700	1
SHD1	Shed			288.00 S.F.	\$1,400	1
SHD1	Shed			560.00 S.F.	\$2,800	1
LNT	Lean-to			384.00 S.F.	\$1,800	1
FNC	Fence	M	Metal	280.00 L.F.	\$3,700	1

Valuation History

Appraisal			
Valuation Year	Improvements	Land	Total
2018	\$1,253,600	\$728,800	\$1,982,400
2018	\$1,253,600	\$728,800	\$1,982,400
2017	\$1,253,600	\$728,800	\$1,982,400

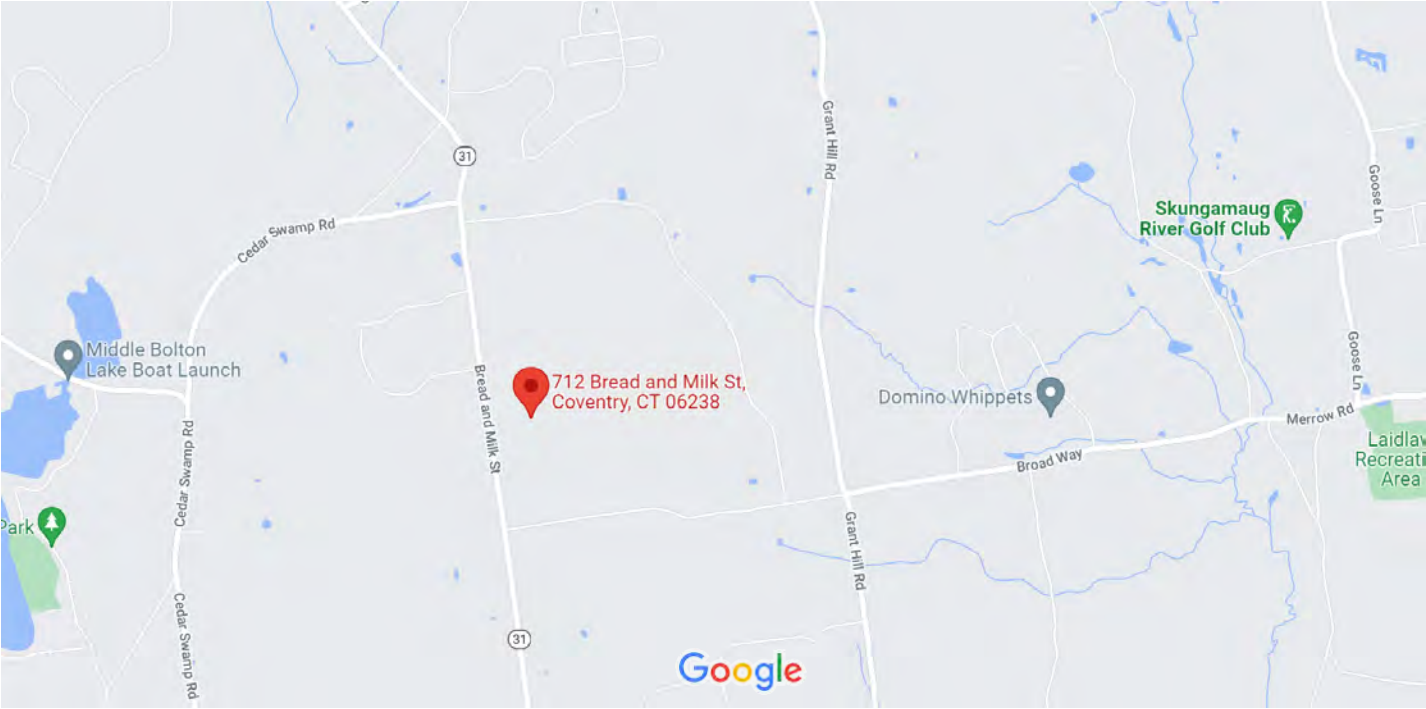
Assessment			
Valuation Year	Improvements	Land	Total

2018	\$877,700	\$487,900	\$1,365,600
2018	\$877,700	\$487,900	\$1,365,600
2017	\$877,700	\$487,900	\$1,365,600

EXHIBIT 4

Property Map

Google Maps 712 Bread and Milk St



Map data ©2021 2000 ft

EXHIBIT 5

Zoning Docs

TO: OFFICE OF THE TOWN CLERK

FROM: COVENTRY PLANNING AND ZONING COMMISSION

SUBJECT: FILING REQUIREMENTS - SECTION 8-3D, CT. GENERAL STATUTES.

In accordance with the provisions of Public Act Number 75-317, State of Connecticut, the following application #00-20S approved on October 23, 2000, by the Coventry Planning and Zoning Commission, is being submitted to your office for recording within the Coventry Land Records.

1. Description of Premises: 712 BREAD AND MILK STREET.
2. Assessor's Map: 4; Block: 12; Lot (s): 8.
Volume 226; Page(s): 35-39.
3. Nature of SPECIAL PERMIT: Granted to SBA, Inc. to install a 175' monopole communications tower with the capability of expanding to 195', antenna, and associated equipment. The following conditions apply: 1) A copy of federal licenses necessary to operate the facility must be submitted by the applicant as necessary. 2) The landscape plans provided on the site plan, currently propose vegetation on the westerly fence as white pine to be used. The vegetation is to be reviewed by the Planning and Zoning staff. 3) The tower be constructed to provide service for seven carriers, and that it be built and constructed with the ability to be expanded to 195'. Reason for approval: application meets the regulations and is appropriate for the location.
4. Zoning Regulation(s) which apply: Section 4.0 and 6.19.
5. Owner(s) of Record: NORMAN NADEAU AND RONALD NADEAU.

This information is certified by:

Paul Polinsky Chairman
Name Title

11/16/00
Date Signed

Return to:
Attorney Wendell G. Davis
Cranmore, Fitzgerald, and Meany
For SBA, Inc.
49 Wethersfield Avenue
Hartford CT 06114

Received for record Nov 29 2000
At 3:30 P M. Recorded in Coventry
Land Records, Vol. 687 Page 290
By Paula Benson Town Clerk

EXHIBIT 6

Construction Drawings

PROPERTY INFORMATION

1. PROPERTY ADDRESS:

712 BREAD AND MILK STREET
COVENTRY, CONNECTICUT

2. PROPERTY OWNER:

NORMAN AND RONALD NADEAU
250 BOSTON TURNPIKE
COVENTRY, CONNECTICUT 06230

DEED: VOLUME 226, PAGE 35

3. ASSESSORS DATA: TAX MAP IN BLOCK 12 LOT 8

4. FEMA FIRM MAP: ZONED "C"

5. PROPERTY SIZE: 25.98 ACRES

TOWER INFORMATION

1. LOCATION

NAD 27-CT
N 358,973.29
E 697,136.68

GEOID LAT/LONG NAD83
41° 49' 05.15" N
72° 23' 35.45" W

2. GROUND ELEVATION AT TOWER: 625.1 ANGL

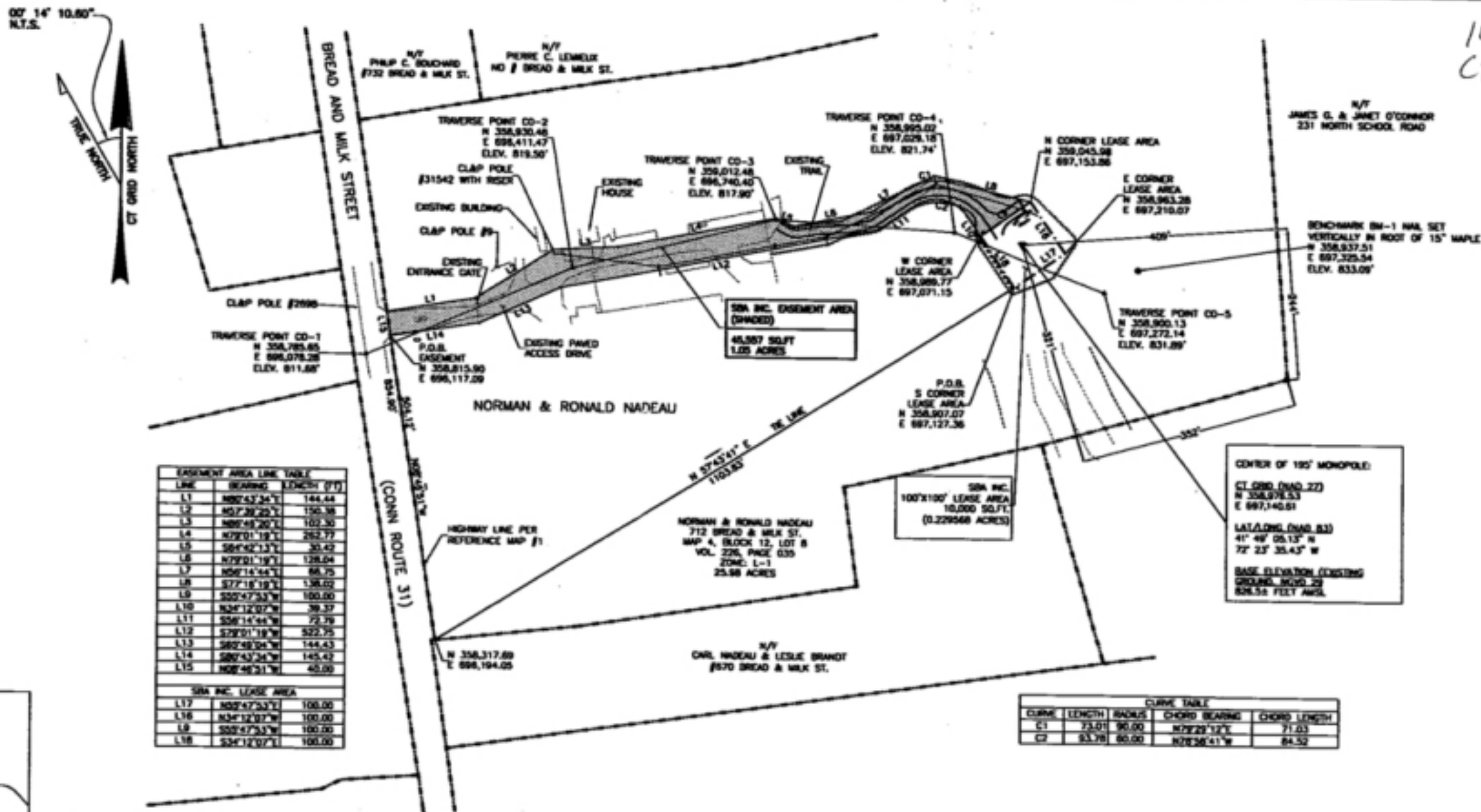
3. TYPE: MONOPOLE

4. TOWER HEIGHT: 195' ABOVE TOP OF FOUNDATION

REFERENCES

1. "THROWING DRAINAGE LANDSCAPE SITE PLAN RONALD & NORMAN NADEAU, TOWN OF COVENTRY, CONN." SCALE: AS NOTED. DATE: 10-2-88, LAST REVISION 1-25-91, BY GARDNER & PETERSON ASSOCIATES.

2. "FLOOD INSURANCE RATE MAP, TOWN OF COVENTRY, CONNECTICUT, TOLLAND COUNTY COMMUNITY PANEL NUMBER 090110 0005 D PANEL 5 OF 10, MAP REVISED JUNE 11, 1992"



LINE	BEARING	LENGTH (FT)
L1	N89°43'24"E	144.44
L2	N57°38'22"E	150.38
L3	N89°48'20"E	102.30
L4	N72°01'18"E	262.77
L5	S86°42'13"E	30.42
L6	N72°01'18"E	128.04
L7	N68°14'54"E	66.75
L8	S77°18'19"E	138.02
L9	S50°47'53"E	100.00
L10	N34°12'07"E	39.37
L11	S56°14'44"E	72.79
L12	S79°01'18"E	522.75
L13	S80°48'04"E	144.43
L14	S80°43'24"E	145.42
L15	N02°46'31"E	40.00

LINE	BEARING	LENGTH (FT)
L17	N02°47'53"E	100.00
L18	N34°12'07"E	100.00
L19	S50°47'53"E	100.00
L16	S34°12'07"E	100.00

CURVE	LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	73.01	90.00	N72°29'12"E	71.03
C2	93.78	80.00	N72°58'41"E	84.52

NOTES:

1. THIS SURVEY AND MAP HAVE BEEN PREPARED IN ACCORDANCE WITH SECTIONS 20-3000-1 THRU 20-3000-23 OF THE REGULATIONS OF CONNECTICUT STATE AGENCIES - "MINIMUM STANDARDS FOR SURVEY AND MAPS IN THE STATE OF CONNECTICUT" AS ENDORSED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPT. 26, 1996.

IT IS A ZONING LOCATION SURVEY BASED ON A DEPENDENT RESURVEY CONFORMING TO HORIZONTAL ACCURACY CLASS A-2 AND INTENDED TO BE USED FOR THE PURPOSE OF DEPICTING ZONING COMPLIANCE.

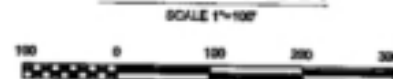
2. THE TYPE OF SURVEY IS FOR LEASED PROPERTY AND IS INTENDED TO DEPICT THE LIMITS OF THE PROJECT AREA OF PROPERTY FOR THE PROJECT REFERENCED HEREON.

3. THE BASE LINE FROM WHICH THIS PROPERTY TRANSACTION IS REFERENCED CONFORMS TO CLASS A-2 HORIZONTAL ACCURACY.

4. COORDINATE SYSTEM IS NORTH AMERICAN DATUM OF 1983 (NAD 83).

5. VERTICAL DATUM IS NATIONAL GEODETIC VERTICAL DATUM OF 1929.

SURVEY PLAN



LEGEND

DATUM IS MEAN SEA LEVEL

- EXISTING HIGHWAY LINE/PROPERTY LINE
- PROPOSED LEASE AREA
- BUILDING SETBACKS
- WETLAND BOUNDARY
- TREE, HEDGE, EDGE OF WOODS
- EXISTING CONTOUR
- EXISTING SPOT ELEVATION @ X
- BARNED WIRE, FARM AND CHAIN LINK FENCE
- EXISTING UTILITY POLE AND OVERHEAD UTILITIES
- PROPOSED UTILITY POLE AND OVERHEAD UTILITIES
- CHD BOUNDARY MONUMENT
- CLEARING LINE

MAP SHOWING EASEMENT AREA TO BE GRANTED TO
SBA, INC.

ACROSS THE PROPERTY OF
NORMAN AND RONALD NADEAU

712 BREAD AND MILK STREET (CT RTE 31) COVENTRY, CONNECTICUT
SCALE: 1" = 100' DATE: AUGUST 17, 2000

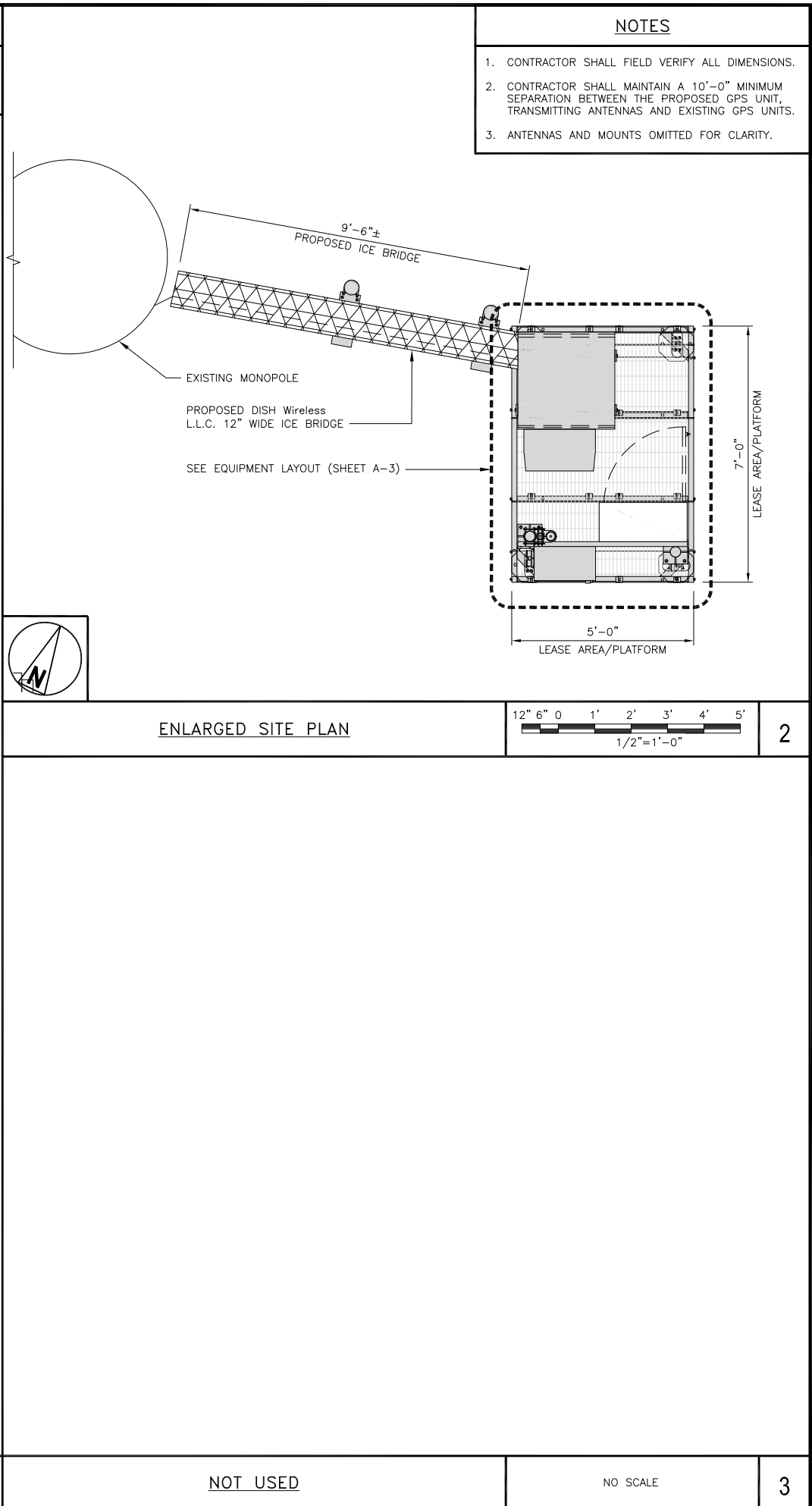
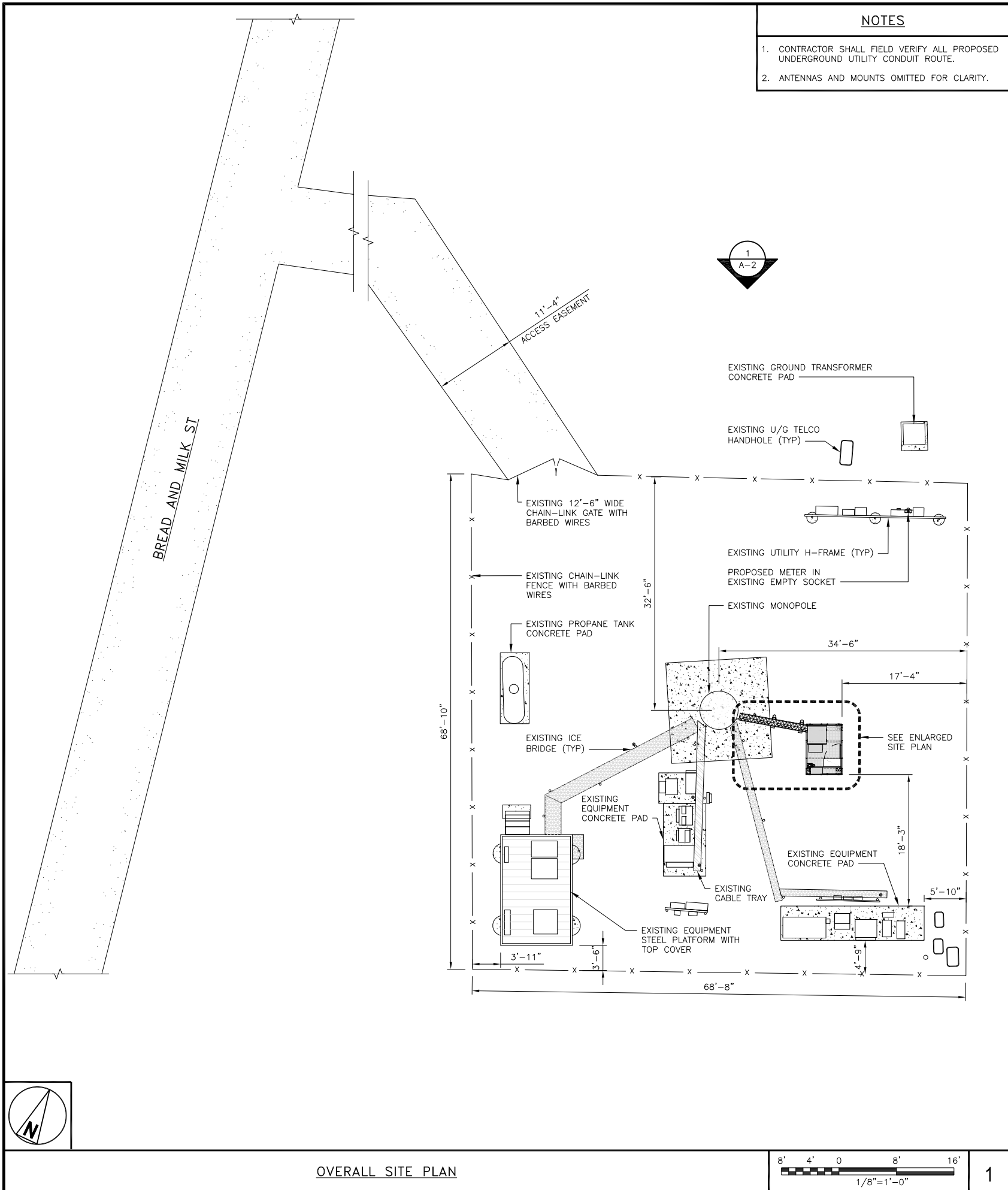
SBA SITE NUMBER 10125-033

TO THE BEST OF MY KNOWLEDGE AND BELIEF THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.
Edward A. Nelson
EDWARD A. NELSON
By Goodkind & O'Dea, Inc. ELS. 0004

Goodkind & O'Dea, Inc.
Consulting Engineers and Planners

59 ELM STREET, SUITE 101
NEW HAVEN, CONNECTICUT 06510
(203) 778-2277

NO.	DATE	REVISION	BY	CHK	APP
1		ISSUED FOR SBA, INC. EASEMENT	FJD	ELM	FJD
2		REVISED	FJD	ELM	FJD
3		FINAL AS NOTED	FJD	ELM	FJD



dish

wireless.

5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

SBA

8051 CONGRESS AVENUE
BOCA RATON, FL 33487

B+T GRP

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

STATE OF CONNECTICUT
PROFESSIONAL ENGINEER
No. 23924
LICENSED

1/13/22

B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/23

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DRAWN BY: CH
CHECKED BY: RMC
APPROVED BY: RMC

RFDS REV #: 3

CONSTRUCTION DOCUMENTS

SUBMITTALS

REV	DATE	DESCRIPTION
A	11/1/21	ISSUED FOR REVIEW
B	12/27/21	ISSUED FOR REVIEW
O	1/13/22	CONSTRUCTION

A&E PROJECT NUMBER

149439.001.01

DISH Wireless L.L.C.
PROJECT INFORMATION

BOBDL00118A
712 BREAD & MILK ST
COVENTRY, CT 06238

SHEET TITLE

OVERALL AND ENLARGED SITE PLAN

SHEET NUMBER

A-1

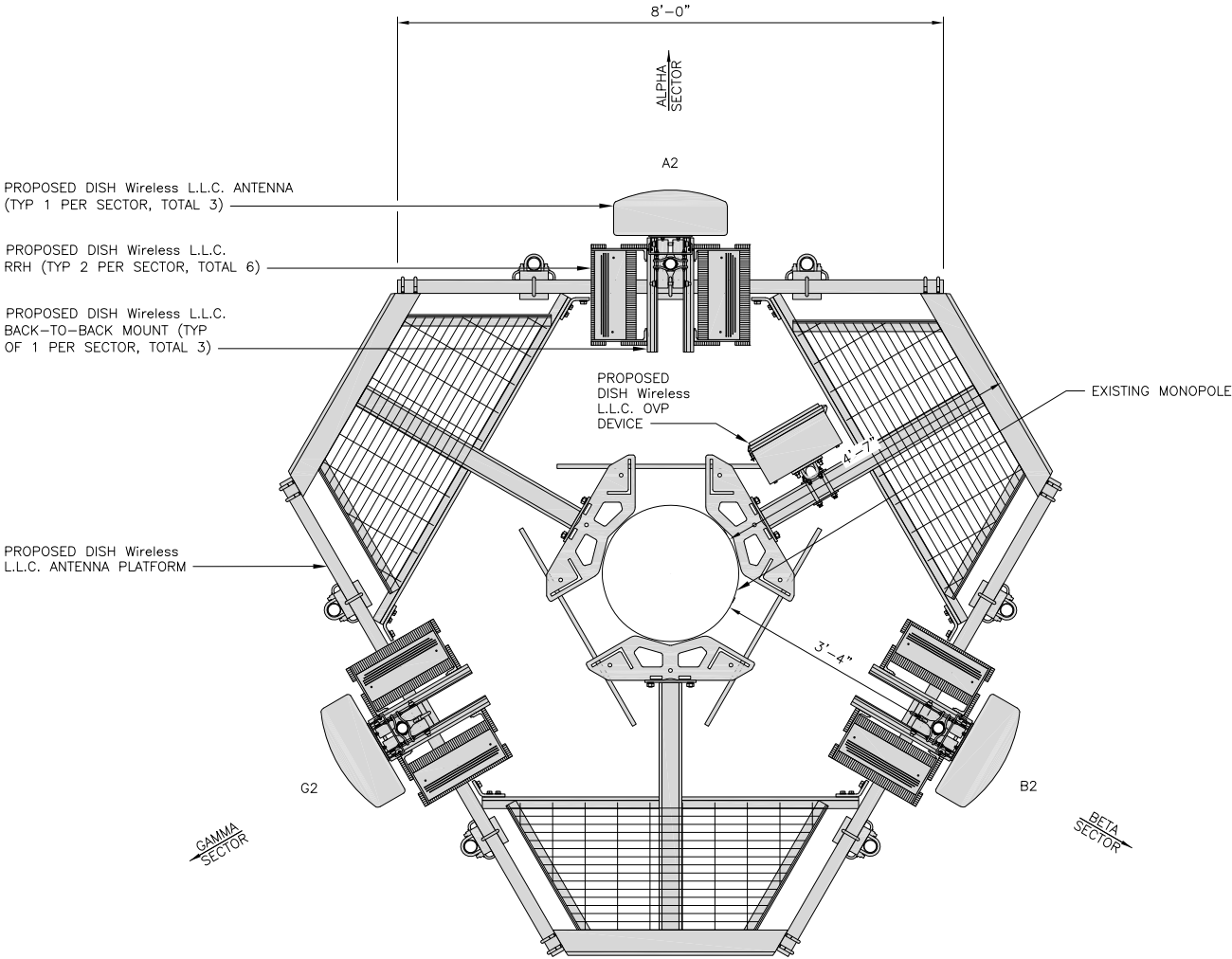
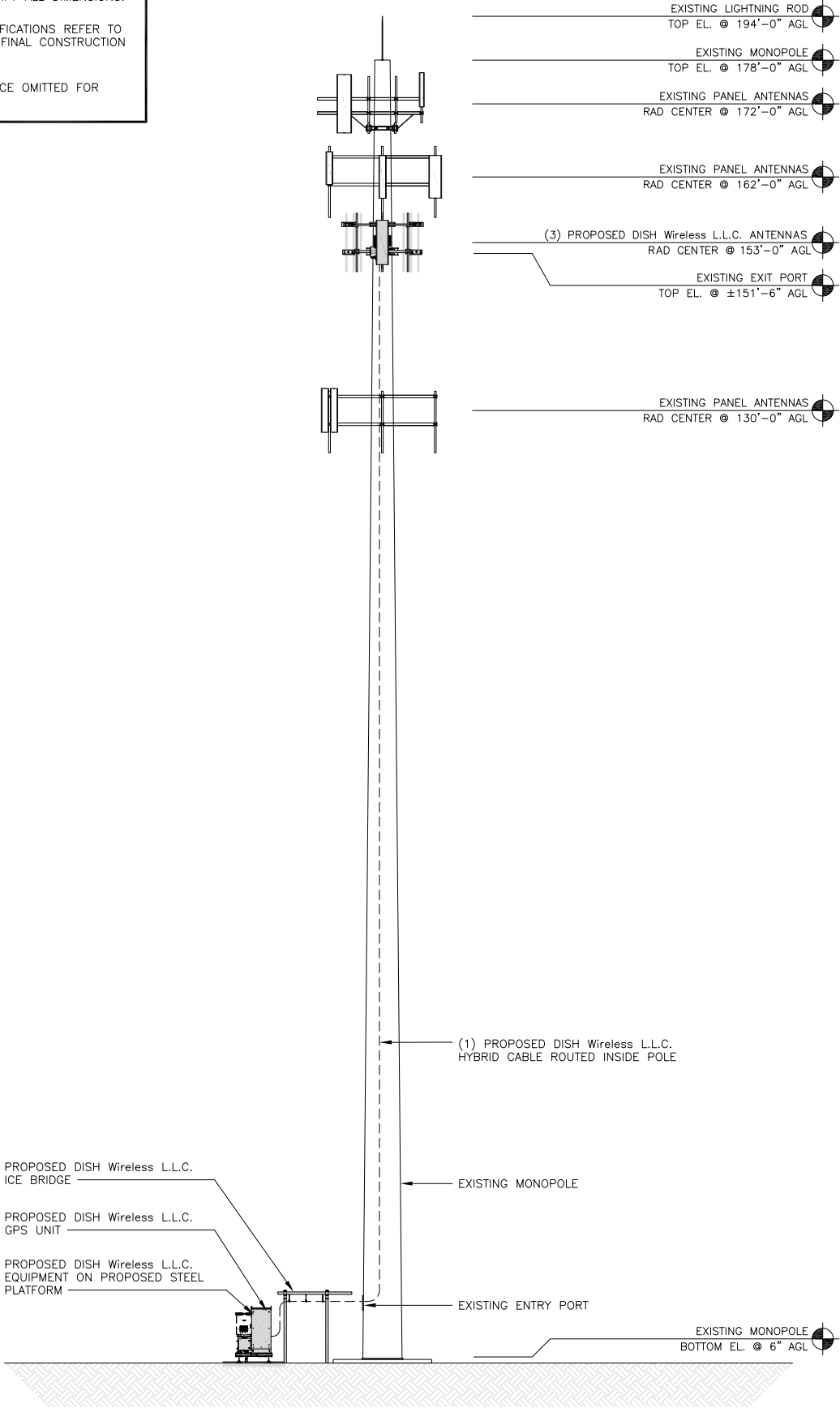
DISH Wireless L.L.C. TEMPLATE VERSION 45 – 10/08/2021

149439.001.01_2020020118.dwg – Sheet A-1 – Date: 01/13/2022 – 2:35pm

- NOTES
1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.

2. ANTENNA AND MW DISH SPECIFICATIONS REFER TO ANTENNA SCHEDULE AND TO FINAL CONSTRUCTION RFDS FOR ALL RF DETAILS

3. EXISTING EQUIPMENT AND FENCE OMITTED FOR CLARITY.

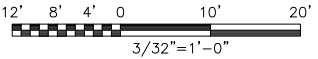


ANTENNA LAYOUT

SECTOR	POSITION	ANTENNA						TRANSMISSION CABLE	
		EXISTING OR PROPOSED	MANUFACTURER – MODEL NUMBER	TECHNOLOGY	SIZE (HxW)	AZIMUTH	RAD CENTER	FEED LINE TYPE AND LENGTH	
ALPHA	A2	PROPOSED	JMA WIRELESS–MX08FRO665–21	5G	72.0" x 20.0"	0°	153'–0"	(1) HIGH–CAPACITY HYBRID CABLE (190' LONG)	
BETA	B2	PROPOSED	JMA WIRELESS–MX08FRO665–21	5G	72.0" x 20.0"	120°	153'–0"		
GAMMA	G2	PROPOSED	JMA WIRELESS–MX08FRO665–21	5G	72.0" x 20.0"	240°	153'–0"		

SECTOR	POSITION	RRH		NOTES
		MANUFACTURER – MODEL NUMBER	TECHNOLOGY	
ALPHA	A2	FUJITSU–TA08025–B605	5G	1. CONTRACTOR TO REFER TO FINAL CONSTRUCTION RFDS FOR ALL RF DETAILS. 2. ANTENNA AND RRH MODELS MAY CHANGE DUE TO EQUIPMENT AVAILABILITY. ALL EQUIPMENT CHANGES MUST BE APPROVED AND REMAIN IN COMPLIANCE WITH THE PROPOSED DESIGN AND STRUCTURAL ANALYSES.
	A2	FUJITSU–TA08025–B604	5G	
BETA	B2	FUJITSU–TA08025–B605	5G	
	B2	FUJITSU–TA08025–B604	5G	
GAMMA	G2	FUJITSU–TA08025–B605	5G	
	G2	FUJITSU–TA08025–B604	5G	

PROPOSED NORTH ELEVATION



ANTENNA SCHEDULE

NO SCALE



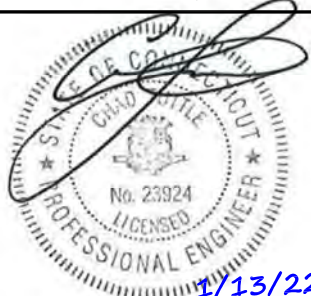
5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



8051 CONGRESS AVENUE
BOCA RATON, FL 33487



1717 S. BOULDER
SUITE 300
TULSA, OK 74119
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PEC.0001564
Expires 2/10/23

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OF A LICENSED PROFESSIONAL ENGINEER,
TO ALTER THIS DOCUMENT.

DRAWN BY: CHECKED BY: APPROVED BY:

CH RMC RMC

RFDS REV #: 3

CONSTRUCTION
DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
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B	12/27/21	ISSUED FOR REVIEW
0	1/13/22	CONSTRUCTION

A&E PROJECT NUMBER

149439.001.01

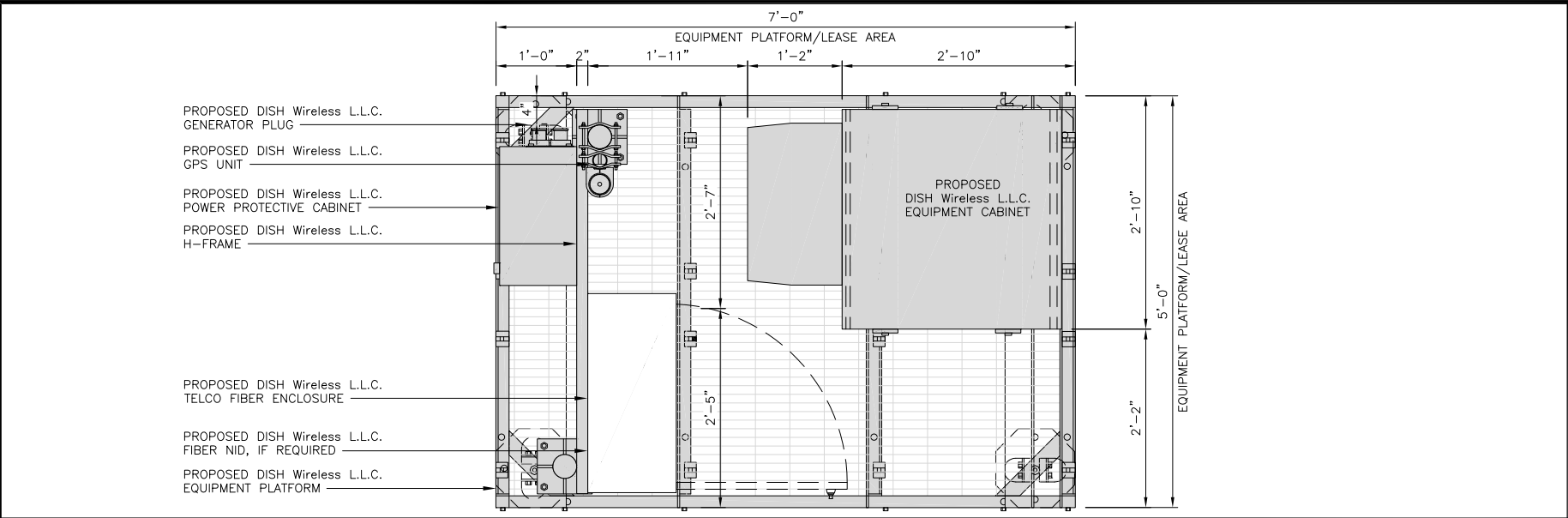
DISH Wireless L.L.C.
PROJECT INFORMATION

BOBDL00118A
712 BREAD & MILK ST
COVENTRY, CT 06238

SHEET TITLE
ELEVATION, ANTENNA
LAYOUT AND SCHEDULE

SHEET NUMBER

A-2

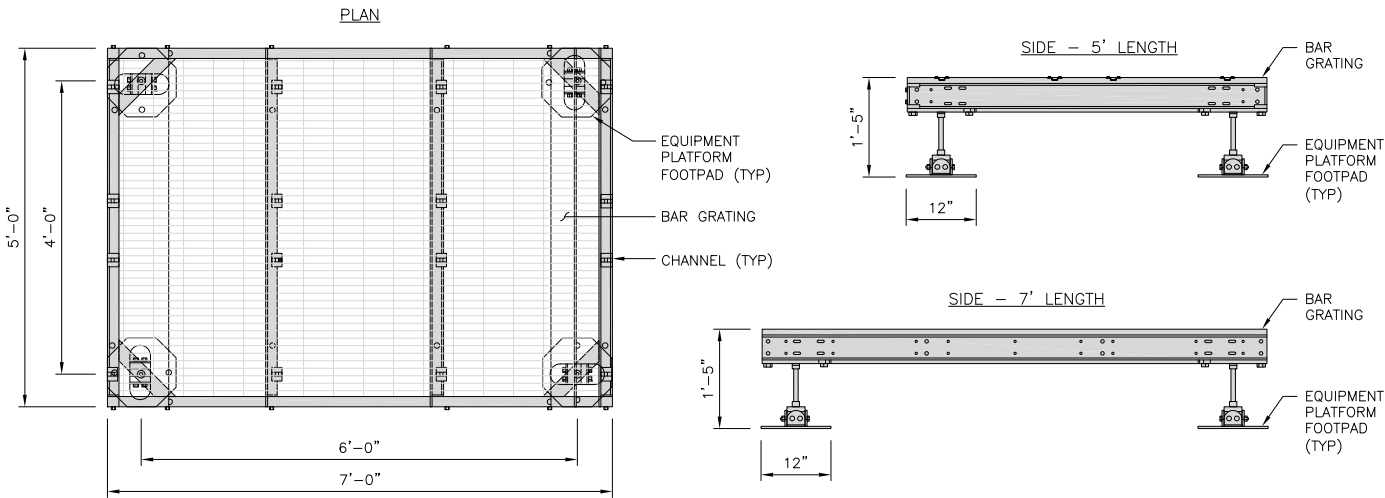


PLATFORM EQUIPMENT PLAN

1

COMMSCOPE MTC4045LP 5X7 PLATFORM	
DIMENSIONS (HxWxD)	16"x84"x60"
TOTAL WEIGHT	423 LBS

NOTE:
GC TO PROVIDE EXTENDED
THREAD FOR PLATFORM IF
REQUIRED HEIGHT EXCEEDS 17"

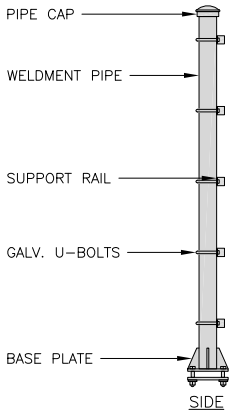


PLATFORM DETAIL

NO SCALE

2

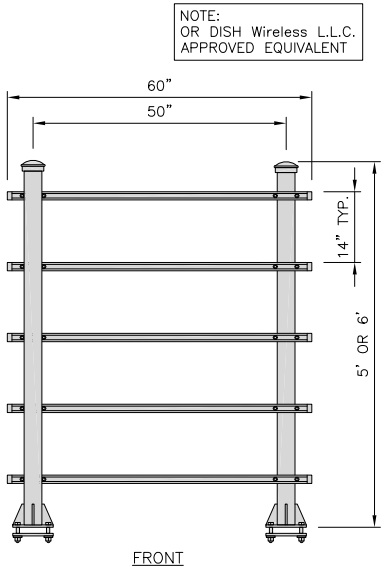
COMMSCOPE MTC4045HFLD H-FRAME	
UNISTRUT/SUPPORT RAILS QTY	5
WEIGHT	59.74 lbs



H-FRAME DETAIL

NO SCALE

3

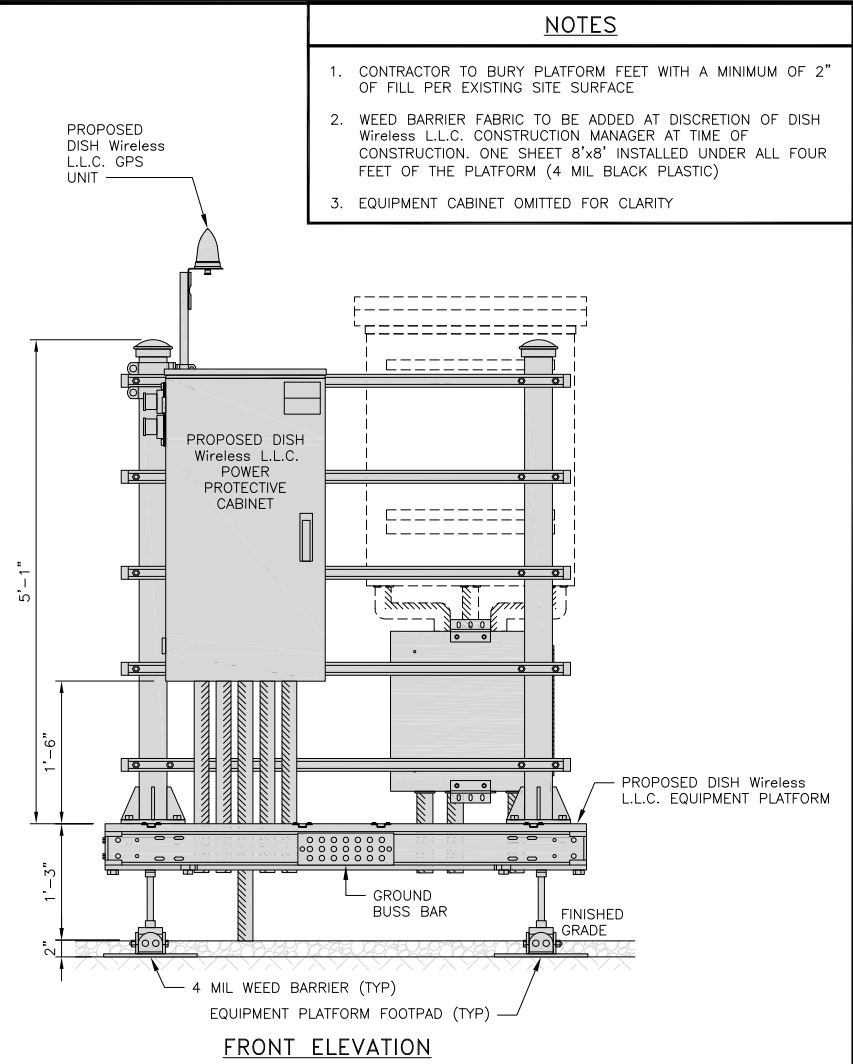


FRONT

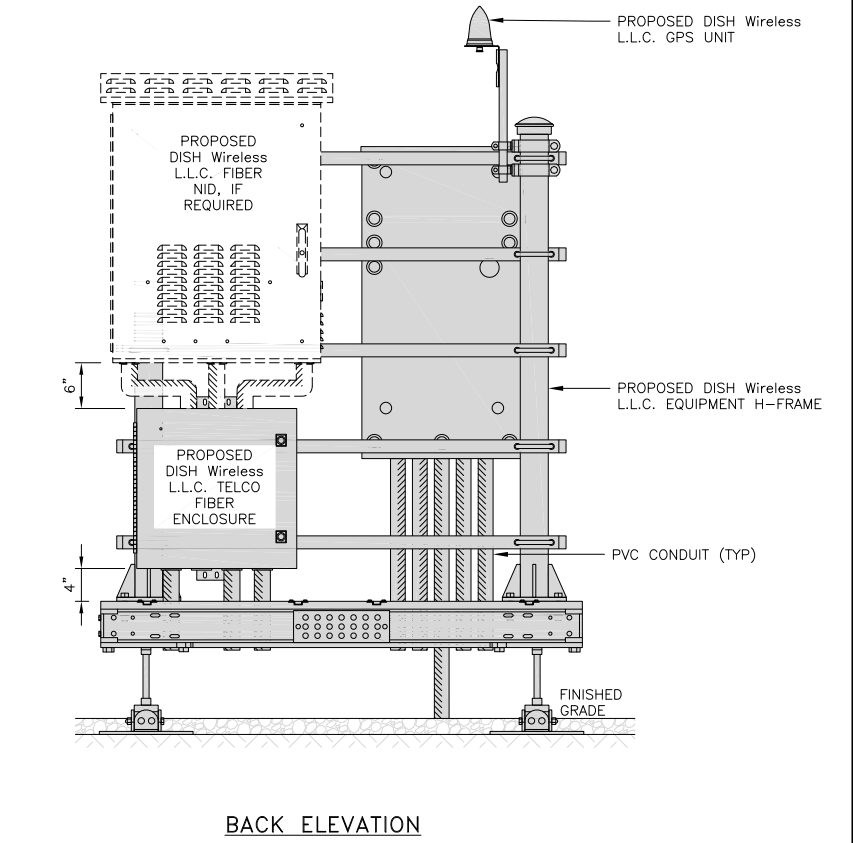
NOT USED

NO SCALE

4

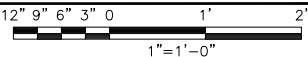


FRONT ELEVATION



BACK ELEVATION

H-FRAME EQUIPMENT ELEVATION



5

NOTES

1. CONTRACTOR TO BURY PLATFORM FEET WITH A MINIMUM OF 2" OF FILL PER EXISTING SITE SURFACE
2. WEED BARRIER FABRIC TO BE ADDED AT DISCRETION OF DISH Wireless L.L.C. CONSTRUCTION MANAGER AT TIME OF CONSTRUCTION. ONE SHEET 8'x8' INSTALLED UNDER ALL FOUR FEET OF THE PLATFORM (4 MIL BLACK PLASTIC)
3. EQUIPMENT CABINET OMITTED FOR CLARITY



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



8051 CONGRESS AVENUE
BOCA RATON, FL 33487



1717 S. BOULDER
SUITE 300
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DRAWN BY:	CHECKED BY:	APPROVED BY:
CH	RMC	RMC

RFDS REV #: 3

CONSTRUCTION
DOCUMENTS

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B	12/27/21	ISSUED FOR REVIEW
O	1/13/22	CONSTRUCTION

A&E PROJECT NUMBER
149439.001.01

DISH Wireless L.L.C.
PROJECT INFORMATION

BOBDL00118A
712 BREAD & MILK ST
COVENTRY, CT 06238

SHEET TITLE
EQUIPMENT PLATFORM AND
H-FRAME DETAILS

SHEET NUMBER

A-3

ENERSYS HVAC
2000005995

DIMENSIONS (HxWxD)	73"x30"x32"
POWER SYSTEM	-48V ALPHA/600A
HVAC	600W
TOTAL WEIGHT (EMPTY)	371 lbs

PLAN

BACK

SIDE

FRONT

CABINET DETAIL

NO SCALE

1

RAYCAP PPC
RDIAC-2465-P-240-MTS

ENCLOSURE DIMENSIONS (HxWxD):	39"x22.855"x12.593
WEIGHT:	80 lbs
OPERATING AC VOLTAGE	240/120 1 PHASE 3W+G

TOP

BACK

SIDE

FRONT

SIDE

POWER PROTECTION CABINET (PPC) DETAIL

NO SCALE

2

NOT USED

NO SCALE

3

ZAYO 5RU (LEFT SWING DOOR)
FIBER NID ENCLOSURE

DIMENSIONS (HxWxD)	36.1"x29"x12.9"
WEIGHT	85 lbs

BACK

SIDE

FRONT

BOTTOM

FIBER NID ENCLOSURE DETAIL

NO SCALE

5

CHARLES CFIT-PF2020DSH1
FIBER TELCO ENCLOSURE

ENCLOSURE DIMS (HxWxD)	20"x20"x9"
ENCLOSURE WEIGHT	20 lbs
MOUNTING	WALL
COMPLIANCE	TYPE 4

FRONT

SIDE

BACK

FRONT

FIBER TELCO ENCLOSURE DETAIL

NO SCALE

6

COMMSCOPE WB-K110-B
WAVEGUIDE BRIDGE KIT

DIMENSIONS (HxL)	160"x10'
WEIGHT/ VOLUME	325.0 LBS
CABLE RUN (QTY)	12

PLAN

FRONT

SIDE

INCLUDED PRODUCTS:

WB-T12-3 TRAPEZE KIT,
3 RUNGS

WB-LB12-3 SUPPORT BRACKET

MF-130 DIRECT BURIAL PIPE
COLUMN, 13'-4"

ICE BRIDGE DETAIL

NO SCALE

7

FINISH SLOPE
TO DRAIN

A-A

A-A

PROPOSED 3.5" DIA.
SCH 40 PIPE
GALVANIZED

PROPOSED 1'-6"
DIA. CONCRETE
PIER (TYP)

CONCRETE PIER

3" DIA SCH 40 PIPE

18" DIA DRILLED
PIER FOUNDATION

A-A SECTION

1'-6"

3"

3'-6"

3"

TYPICAL ICE BRIDGE CONCRETE PIER DETAIL

NO SCALE

8

PROPOSED ICE BRIDGE

PROPOSED X" DIA
HYBRID CABLE

PROPOSED CABLE CLAMP
@ 3'-0" O.C.

EXISTING ENTRY PORT

EXISTING MONOPOLE

HYBRID CABLE RUN

NO SCALE

9

DISH Wireless L.L.C. TEMPLATE VERSION 45 – 10/08/2021

149439.001.01_2020020110.dwg – Sheet 8 – Equip. Details – Jan 13, 2022 – 3:39pm

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STATE OF CONNECTICUT
PROFESSIONAL ENGINEER
No. 23924
LICENSED

2/13/22

B&T ENGINEERING, INC.
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APPROVED BY:

CH

RMC

RMC

RFDS REV #:

3

CONSTRUCTION
DOCUMENTS

REV	DATE	DESCRIPTION
A	11/1/21	ISSUED FOR REVIEW
B	12/27/21	ISSUED FOR REVIEW
O	1/13/22	CONSTRUCTION

A&E PROJECT NUMBER

149439.001.01

DISH Wireless L.L.C.
PROJECT INFORMATION

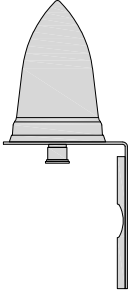
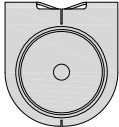
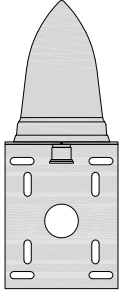
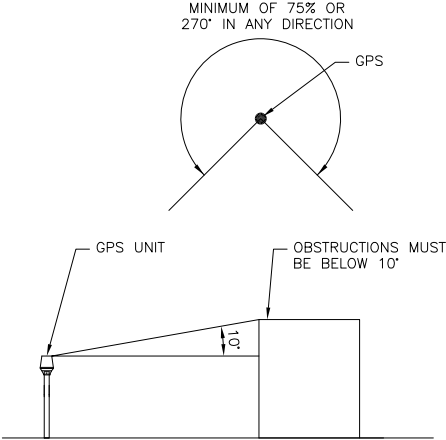
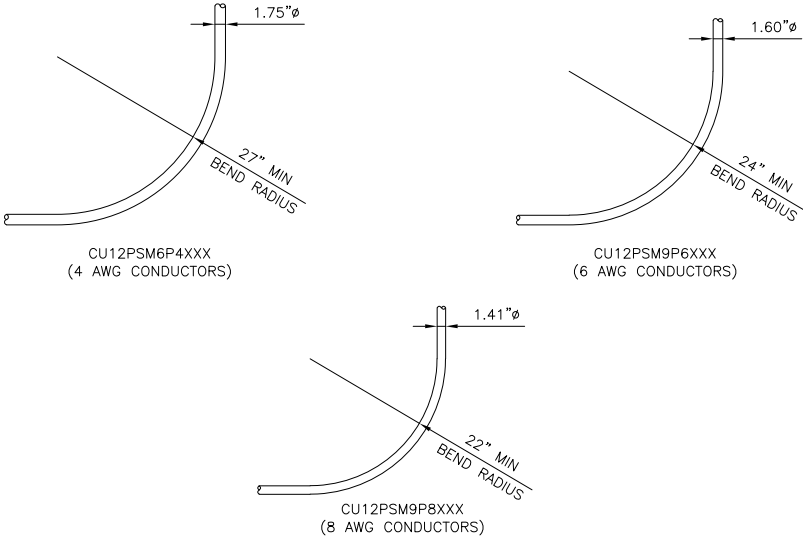
BOBDL00118A
712 BREAD & MILK ST
COVENTRY, CT 06238

SHEET TITLE

EQUIPMENT DETAILS

SHEET NUMBER

A-4

<table><tr><td colspan="2">PCTEL GPSGL-TMG-SPI-40NCB</td></tr><tr><td>DIMENSIONS (DIAxH) MM/INCH</td><td>81x184mm 3.2"x7.25"</td></tr><tr><td>WEIGHT W/ACCESSORIES</td><td>075 lbs</td></tr><tr><td>CONNECTOR</td><td>N-FEMALE</td></tr><tr><td>FREQUENCY RANGE</td><td>1590 ± 30MHz</td></tr></table>  BACK  TOP  SIDE			PCTEL GPSGL-TMG-SPI-40NCB		DIMENSIONS (DIAxH) MM/INCH	81x184mm 3.2"x7.25"	WEIGHT W/ACCESSORIES	075 lbs	CONNECTOR	N-FEMALE	FREQUENCY RANGE	1590 ± 30MHz						
PCTEL GPSGL-TMG-SPI-40NCB																		
DIMENSIONS (DIAxH) MM/INCH	81x184mm 3.2"x7.25"																	
WEIGHT W/ACCESSORIES	075 lbs																	
CONNECTOR	N-FEMALE																	
FREQUENCY RANGE	1590 ± 30MHz																	
GPS DETAIL		NO SCALE	1	GPS MINIMUM SKY VIEW REQUIREMENTS		NO SCALE	2	CABLES UNLIMITED HYBRID CABLE MINIMUM BEND RADIUSES		NO SCALE	3							
NOT USED		NO SCALE	4	NOT USED		NO SCALE	5	NOT USED		NO SCALE	6							
NOT USED		NO SCALE	7	NOT USED		NO SCALE	8	NOT USED		NO SCALE	9							

FUJITSU TRIPLE BAND
TA08025-B605

DIMENSIONS (HxWxD)	14.9"x15.7"x9"
WEIGHT	74.95 lbs
CONNECTOR TYPE	4.3-10 RF CONNECTOR
POWER SUPPLY	DC -58~-36V

PLAN

FUJITSU DUAL BAND
TA08025-B604

DIMENSIONS (HxWxD)	14.9"x15.7"x7.8"
WEIGHT	63.9 lbs
CONNECTOR TYPE	4.3-10 RF CONNECTOR
POWER SUPPLY	DC -58~-36V

PLAN

SABRE DOUBLE Z-BRACKET
C10123155

DIMENSIONS (HxWxD) (1 BRACKET)	5"x20"x1-13/16"
WEIGHT (FULL ASSEMBLY)	35.79 lbs
PACKAGE QUANTITY	4

#	DESCRIPTION
1	PLATE, CHANNEL BRACKET
2	RRH Z BRACKET, 3/16"
3	THREADED ROD ASSEMBLY 1/2"x12"

NOTE:
OR DISH Wireless L.L.C.
APPROVED EQUIVALENT

RRH DETAILNO SCALE1

JMA
MX08FR0665-21

DIMENSIONS (HxWxD)	72"x20.0"x8.0"
RF PORTS, CONNECTOR TYPE	8 x 4.3-10 FEMALE
WEIGHT	64.5 lbs
WEIGHT WITH BRACKETS	82.5 lbs

PLAN

ANTENNA DETAILNO SCALE4

RAYCAP RDIDC-9181-PF-48
DC SURGE PROTECTION (OVP)

DIMENSIONS (HxWxD)	18.98"x14.39"x8.15"
WEIGHT	21.82 LBS

PLAN

SURGE SUPPRESSION DETAIL (OVP)NO SCALE7

COMMSCOPE XP-2040
CROSSOVER PLATE

DIMENSIONS (HxW)	10"x12"
WEIGHT	11 lbs

PLAN
U-BOLT

SIDE
U-BOLT

NOTE:
OR DISH Wireless L.L.C.
APPROVED EQUIVALENT

RRH/OVP MOUNT DETAILNO SCALE8

COMMSCOPE
MC-PK8-DSH

FACE WIDTH	96"
WEIGHT	1373.08 lbs

NOTE: 15" TO 38" O.D.

NOTE:
OR DISH Wireless L.L.C.
APPROVED EQUIVALENT

ANTENNA PLATFORM DETAILNO SCALE9

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APPROVED BY: RMC

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CONSTRUCTION
DOCUMENTS

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A&E PROJECT NUMBER
149439.001.01

DISH Wireless L.L.C.
PROJECT INFORMATION
BOBDL00118A
712 BREAD & MILK ST
COVENTRY, CT 06238

SHEET TITLE
EQUIPMENT DETAILS

SHEET NUMBER
A-6

DISH Wireless L.L.C. TEMPLATE VERSION 45 - 10/08/2021

149439.001.01_20250201-Rev001 - Sheet 8 - Equip. Details - Jan 13, 2022 - 3:35pm

NOTES

1. CONTRACTOR SHALL FIELD VERIFY ALL PROPOSED UNDERGROUND UTILITY CONDUIT ROUTE.
2. ANTENNAS AND MOUNTS OMITTED FOR CLARITY.
3. THE GROUND LEASE PROVIDES BROAD/BANKET UTILITY RIGHTS. "PWR" AND "FBR" PATH DEPICTED ON A-1 AND E-1 ARE BASED ON BEST AVAILABLE INFORMATION INCLUDING BUT NOT LIMITED TO FIELD VERIFICATION, PRIOR PROJECT DOCUMENTATION AND OTHER REAL PROPERTY RIGHTS DOCUMENTS. WHEN INSTALLING THE UTILITIES PLEASE LOCATE AND FOLLOW EXISTING PATH. IF EXISTING PATH IS NOT AN OPTION, PLEASE NOTIFY TOWER OWNER AS FURTHER COORDINATION MAY BE NEEDED.

DC POWER WIRING SHALL BE COLOR CODED AT EACH END FOR IDENTIFYING +24V AND -48V CONDUCTORS. RED MARKINGS SHALL IDENTIFY +24V AND BLUE MARKINGS SHALL IDENTIFY -48V.

1. CONTRACTOR SHALL INSPECT THE EXISTING CONDITIONS PRIOR TO SUBMITTING A BID. ANY QUESTIONS ARISING DURING THE BID PERIOD IN REGARDS TO THE CONTRACTOR'S FUNCTIONS, THE SCOPE OF WORK, OR ANY OTHER ISSUE RELATED TO THIS PROJECT SHALL BE BROUGHT UP DURING THE BID PERIOD WITH THE PROJECT MANAGER FOR CLARIFICATION, NOT AFTER THE CONTRACT HAS BEEN AWARDED.
2. ALL ELECTRICAL WORK SHALL BE DONE IN ACCORDANCE WITH CURRENT NATIONAL ELECTRICAL CODES AND ALL STATE AND LOCAL CODES, LAWS, AND ORDINANCES. PROVIDE ALL COMPONENTS AND WIRING SIZES AS REQUIRED TO MEET NEC STANDARDS.
3. LOCATION OF EQUIPMENT, CONDUIT AND DEVICES SHOWN ON THE DRAWINGS ARE APPROXIMATE AND SHALL BE COORDINATED WITH FIELD CONDITIONS PRIOR TO CONSTRUCTION.
4. CONDUIT ROUGH-IN SHALL BE COORDINATED WITH THE MECHANICAL EQUIPMENT TO AVOID LOCATION CONFLICTS. VERIFY WITH THE MECHANICAL EQUIPMENT CONTRACTOR AND COMPLY AS REQUIRED.
5. CONTRACTOR SHALL PROVIDE ALL BREAKERS, CONDUITS AND CIRCUITS AS REQUIRED FOR A COMPLETE SYSTEM.
6. CONTRACTOR SHALL PROVIDE PULL BOXES AND JUNCTION BOXES AS REQUIRED BY THE NEC ARTICLE 314.
7. CONTRACTOR SHALL PROVIDE ALL STRAIN RELIEF AND CABLE SUPPORTS FOR ALL CABLE ASSEMBLIES. INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
8. ALL DISCONNECTS AND CONTROLLING DEVICES SHALL BE PROVIDED WITH ENGRAVED PHENOLIC NAMEPLATES INDICATING EQUIPMENT CONTROLLED, BRANCH CIRCUITS INSTALLED ON, AND PANEL FIELD LOCATIONS FED FROM.
9. INSTALL AN EQUIPMENT GROUNDING CONDUCTOR IN ALL CONDUITS PER THE SPECIFICATIONS AND NEC 250. THE EQUIPMENT GROUNDING CONDUCTORS SHALL BE BONDED AT ALL JUNCTION BOXES, PULL BOXES, AND ALL DISCONNECT SWITCHES, AND EQUIPMENT CABINETS.
10. ALL NEW MATERIAL SHALL HAVE A U.L. LABEL.
11. PANEL SCHEDULE LOADING AND CIRCUIT ARRANGEMENTS REFLECT POST-CONSTRUCTION EQUIPMENT.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR AS-BUILT PANEL SCHEDULE AND SITE DRAWINGS.
13. ALL TRENCHES IN COMPOUND TO BE HAND DUG

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CH RMC RMC

RFDS REV #: 3

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A&E PROJECT NUMBER

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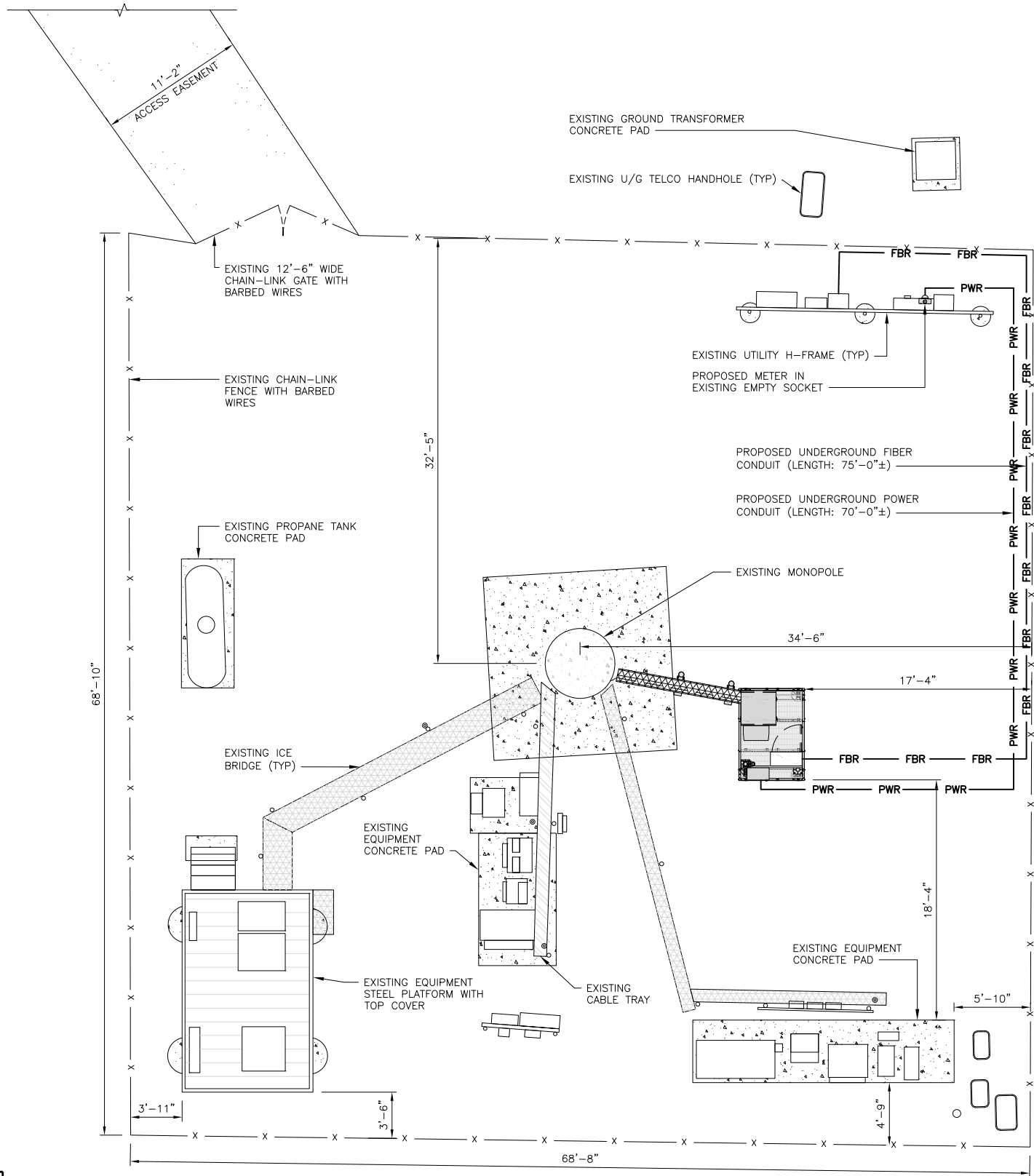
DISH Wireless L.L.C.
PROJECT INFORMATION

BOBDL00118A
712 BREAD & MILK ST
COVENTRY, CT 06238

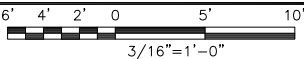
SHEET TITLE
ELECTRICAL/FIBER ROUTE
PLAN AND NOTES

SHEET NUMBER

E-1



UTILITY ROUTE PLAN



CARLON EXPANSION FITTINGS

COUPLING END PART#	MALE TERMINAL ADAPTER END PART#	SIZE	STD CTN QTY.	TRAVEL LENGTH
E945D	E945DX	1/2"	20	4"
E945E	E945EX	3/4"	15	4"
E945F	E945FX	1"	10	4"
E945G	E945GX	1 1/4"	5	4"
E945H	E945HX	1 1/2"	5	4"
E945J	E945JX	2"	15	8"
E945K	E945KX	2 1/2"	10	8"
E945L	E945LX	3"	10	8"
E945M	E945MX	3 1/2"	5	8"
E945N	E945NX	4"	5	8"
E945P	E945PX	5"	1	8"
E945R	E945RX	6"	1	8"

VARIES PER PART NUMBER

2'-0"

SLIP JOINT (SEE CHART FOR PART NUMBER)

NOTE:
CONTRACTOR TO INSTALL EXPANSION FITTING SLIP JOINT AT METER CENTER CONDUIT TERMINATION, AS PER LOCAL UTILITY POLICY, ORDINANCE AND/OR SPECIFIED REQUIREMENT.

TRENCHING NOTES

1. CONTRACTOR SHALL RESTORE THE TRENCH TO ITS ORIGINAL CONDITIONS BY EITHER SEEDING OR SODDING GRASS AREAS, OR REPLACING ASPHALT OR CONCRETE AREAS TO ITS ORIGINAL CROSS SECTION.

2. TRENCHING SAFETY; INCLUDING, BUT NOT LIMITED TO SOIL CLASSIFICATION, SLOPING, AND SHORING, SHALL BE GOVERNED BY THE CURRENT OSHA TRENCHING AND EXCAVATION SAFETY STANDARDS.

3. ALL CONDUITS SHALL BE INSTALLED IN COMPLIANCE WITH THE CURRENT NATIONAL ELECTRIC CODE (NEC) OR AS REQUIRED BY THE LOCAL JURISDICTION, WHICHEVER IS THE MOST STRINGENT.

SEE TRENCHING NOTE 1

BACKFILL PER SITE WORK SPECIFICATIONS (SEE GENERAL NOTES)

SLOPE TO SUIT SOIL CONDITION IN ACCORDANCE WITH LOCAL REGULATIONS SEE TRENCHING NOTE 2

1'-0"

30" OR 6" BELOW FROST LINE; WHICHEVER IS GREATER

UTILITY WARNING TAPE

SAND BEDDING PER SITE WORK SPECIFICATIONS

VERTICAL DEPTH SEE TRENCHING NOTE 2

1'-0"

DISH Wireless L.L.C. PROVIDES 12AWG WIRE (6' TAIL)

PROPOSED DISH Wireless L.L.C. UNISTRUT

PROPOSED DISH Wireless L.L.C. 10 AMP DISTRIBUTION BREAKER

PROPOSED DISH Wireless L.L.C. 12 AWG WIRE

PROPOSED DISH Wireless L.L.C. 1-1/2" POWER FROM CABINET

DISH Wireless L.L.C. INSTALLS 1-1/2" CONDUITS FOR POWER AND FIBER TO CABINET

DISH Wireless L.L.C. FIBER DISTRIBUTION PANEL

PROPOSED DISH Wireless L.L.C. TELCO FIBER ENCLOSURE

DISH Wireless L.L.C. FIBER JUMPER TO CABINET WILL NEED TO BE TERMINATED BY FIBER PROVIDER ON OTHER SIDE OF BULKHEAD/LC TO LC CONNECTOR WHERE CIRCUIT IS TERMINATED.

PROPOSED FIBER PROVIDER FIBER LATERAL FROM RIGHT OF WAY TO STREET, TERMINATED TO FDP

PROPOSED DISH Wireless L.L.C. 1-1/2" FIBER TO CABINET

PROPOSED DISH Wireless L.L.C. 2" CONDUIT FROM COMMERCIAL FIBER VAULT

EXPANSION JOINT DETAIL

NO SCALE

1

PROPOSED DISH Wireless L.L.C. UNISTRUT

PROPOSED FIBER PROVIDER 1-1/4" FLEX CONDUITS

FIBER PROVIDER TO TERMINATE POWER TO FIBER PROVIDER NID

PROPOSED DISH Wireless L.L.C. 12 AWG WIRE (6' TAIL)

PROPOSED DISH Wireless L.L.C. 10 AMP DISTRIBUTION BREAKER

PROPOSED DISH Wireless L.L.C. 12 AWG WIRE

PROPOSED DISH Wireless L.L.C. 1-1/2" POWER FROM CABINET

NOTE: FIBER PROVIDER WILL NEED TO PROVIDE AN ADDITIONAL 5FT UNISTRUT, 2 U-BOLTS WITH 4 NUTS, IN THE EVENT THE BRACKET SPACING DOESN'T LINE UP WITH CURRENT SPACING BELOW

IN IN OUT

FIBER PROVIDER TO PUNCH TOP OF TELCO BOX OF NID ENCLOSURE AND INSTALL 1-1/4" LIQUID TIGHT CONNECTORS, UL LISTED, NYLON MATERIAL, WITH O-RING GASKET

FIBER PROVIDER TO INSTALL 1-1/4" FLEX CONDUITS BETWEEN FDP TELCO BOX & NID

PROPOSED DISH Wireless L.L.C. TELCO FIBER ENCLOSURE

PROPOSED DISH Wireless L.L.C. 1-1/2" FIBER TO CABINET

PROPOSED DISH Wireless L.L.C. 2" CONDUIT FROM COMMERCIAL FIBER VAULT

TYPICAL UNDERGROUND TRENCH DETAIL

NO SCALE

2

DARK TELCO BOX – INTERIOR WIRING LAYOUT

NO SCALE

3

LIT TELCO BOX – INTERIOR WIRING LAYOUT (OPTIONAL)

NO SCALE

4

NOT USED

NO SCALE

5

NOT USED

NO SCALE

6

NOT USED

NO SCALE

7

NOT USED

NO SCALE

8

NOT USED

NO SCALE

9

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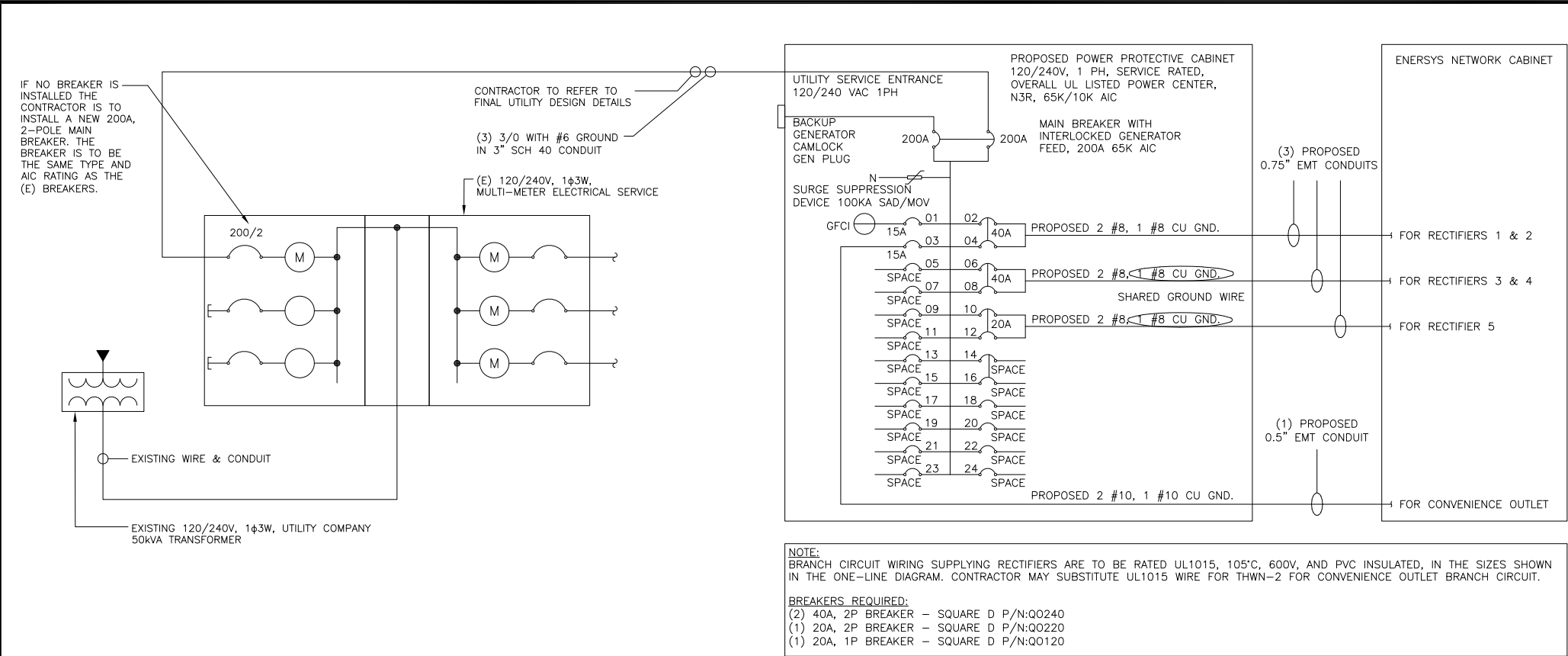
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PROJECT INFORMATION
BOBDL00118A
712 BREAD & MILK ST
COVENTRY, CT 06238

SHEET TITLE
ELECTRICAL DETAILS

SHEET NUMBER
E-2

DISH Wireless L.L.C. TEMPLATE VERSION 45 – 10/08/2021

149439.001.01_2020020118.dwg – Sheet: E-2 – Date: 08/08/2021 – Job: 151_2021 – 3:37pm



NOTES
THE ENGINEER OF RECORD HAS PERFORMED ALL REQUIRED SHORT CIRCUIT CALCULATIONS AND THE AIC RATINGS FOR EACH DEVICE IS ADEQUATE TO PROTECT THE EQUIPMENT AND THE ELECTRICAL SYSTEM.
THE ENGINEER OF RECORD HAS PERFORMED ALL REQUIRED VOLTAGE DROP CALCULATIONS AND ALL BRANCH CIRCUIT AND FEEDERS COMPLY WITH THE NEC (LISTED ON T-1) ARTICLE 210.19(A)(1) FPN NO. 4.
CONDUIT SIZING: AT 40% FILL PER NEC CHAPTER 9, TABLE 4, ARTICLE 358. 0.5" CONDUIT - 0.122 SQ. IN AREA 0.75" CONDUIT - 0.213 SQ. IN AREA 2.0" CONDUIT - 1.316 SQ. IN AREA 3.0" CONDUIT - 2.907 SQ. IN AREA
CABINET CONVENIENCE OUTLET CONDUCTORS (1 CONDUIT): USING THWN-2, CU. #10 - 0.0211 SQ. IN X 2 = 0.0422 SQ. IN #10 - 0.0211 SQ. IN X 1 = 0.0211 SQ. IN <GROUND TOTAL = 0.0633 SQ. IN
0.5" EMT CONDUIT IS ADEQUATE TO HANDLE THE TOTAL OF (3) WIRES, INCLUDING GROUND WIRE, AS INDICATED ABOVE.
RECTIFIER CONDUCTORS (3 CONDUITS): USING UL1015, CU. #8 - 0.0552 SQ. IN X 2 = 0.1103 SQ. IN #8 - 0.0131 SQ. IN X 1 = 0.0131 SQ. IN <BARE GROUND TOTAL = 0.1234 SQ. IN
0.75" EMT CONDUIT IS ADEQUATE TO HANDLE THE TOTAL OF (3) WIRES, INCLUDING GROUND WIRE, AS INDICATED ABOVE.
PPC FEED CONDUCTORS (1 CONDUIT): USING THWN, CU. 3/0 - 0.2679 SQ. IN X 3 = 0.8037 SQ. IN #6 - 0.0507 SQ. IN X 1 = 0.0507 SQ. IN <GROUND TOTAL = 0.8544 SQ. IN
3.0" SCH 40 PVC CONDUIT IS ADEQUATE TO HANDLE THE TOTAL OF (4) WIRES, INCLUDING GROUND WIRE, AS INDICATED ABOVE.

PPC ONE-LINE DIAGRAM	NO SCALE	1
----------------------	----------	---

PROPOSED ENERSYS PANEL SCHEDULE												
LOAD SERVED	VOLT AMPS (WATTS)		TRIP	CKT #	PHASE		CKT #	TRIP	VOLT AMPS (WATTS)		LOAD SERVED	
	L1	L2			L1	L2			L1	L2		
PPC GFCI OUTLET	180		15A	1	A		2	40A	3840		ENERSYS ALPHA CORDEX RECTIFIERS 1 & 2	
ENERSYS GFCI OUTLET		180	15A	3	B		4			3840		
—SPACE—				5	A		6	40A	3840		ENERSYS ALPHA CORDEX RECTIFIER 3 & 4	
—SPACE—				7	B		8			3840		
—SPACE—				9	A		10	20A	1920		ENERSYS ALPHA CORDEX RECTIFIER 5	
—SPACE—				11	B		12			1920		
—SPACE—				13	A		14				—SPACE—	
—SPACE—				15	B		16				—SPACE—	
—SPACE—				17	A		18				—SPACE—	
—SPACE—				19	B		20				—SPACE—	
—SPACE—				21	A		22				—SPACE—	
—SPACE—				23	B		24				—SPACE—	
VOLTAGE AMPS	180	180							9500	9500		
200A MCB, 1ø, 24 SPACE, 120/240V				L1		L2						
MB RATING: 65,000 AIC				9680		9680			VOLTAGE AMPS			
				81		81			AMPS			
				81					MAX AMPS			
				102					MAX 125%			

PANEL SCHEDULE	NO SCALE	2	NOT USED	NO SCALE	3
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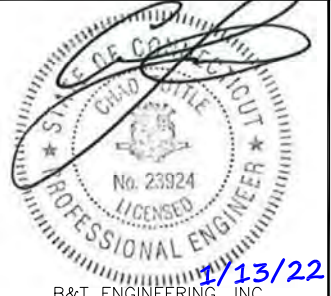
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1/13/22

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CONSTRUCTION DOCUMENTS

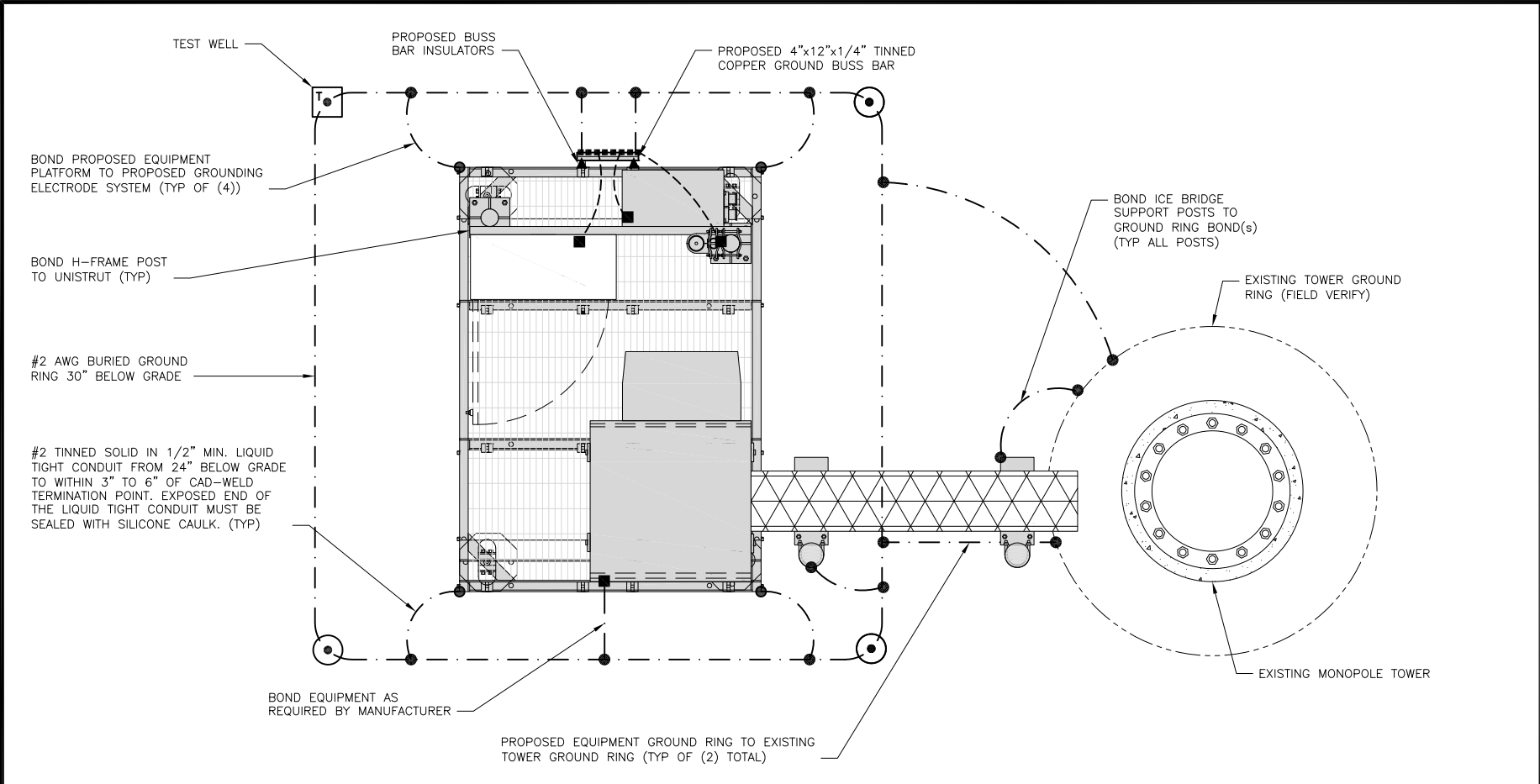
REV	DATE	DESCRIPTION
A	11/1/21	ISSUED FOR REVIEW
B	12/27/21	ISSUED FOR REVIEW
0	1/13/22	CONSTRUCTION

A&E PROJECT NUMBER
149439.001.01

DISH Wireless L.L.C.
PROJECT INFORMATION
BOBDL00118A
712 BREAD & MILK ST
COVENTRY, CT 06238

SHEET TITLE
ELECTRICAL ONE-LINE, FAULT
CALCS & PANEL SCHEDULE

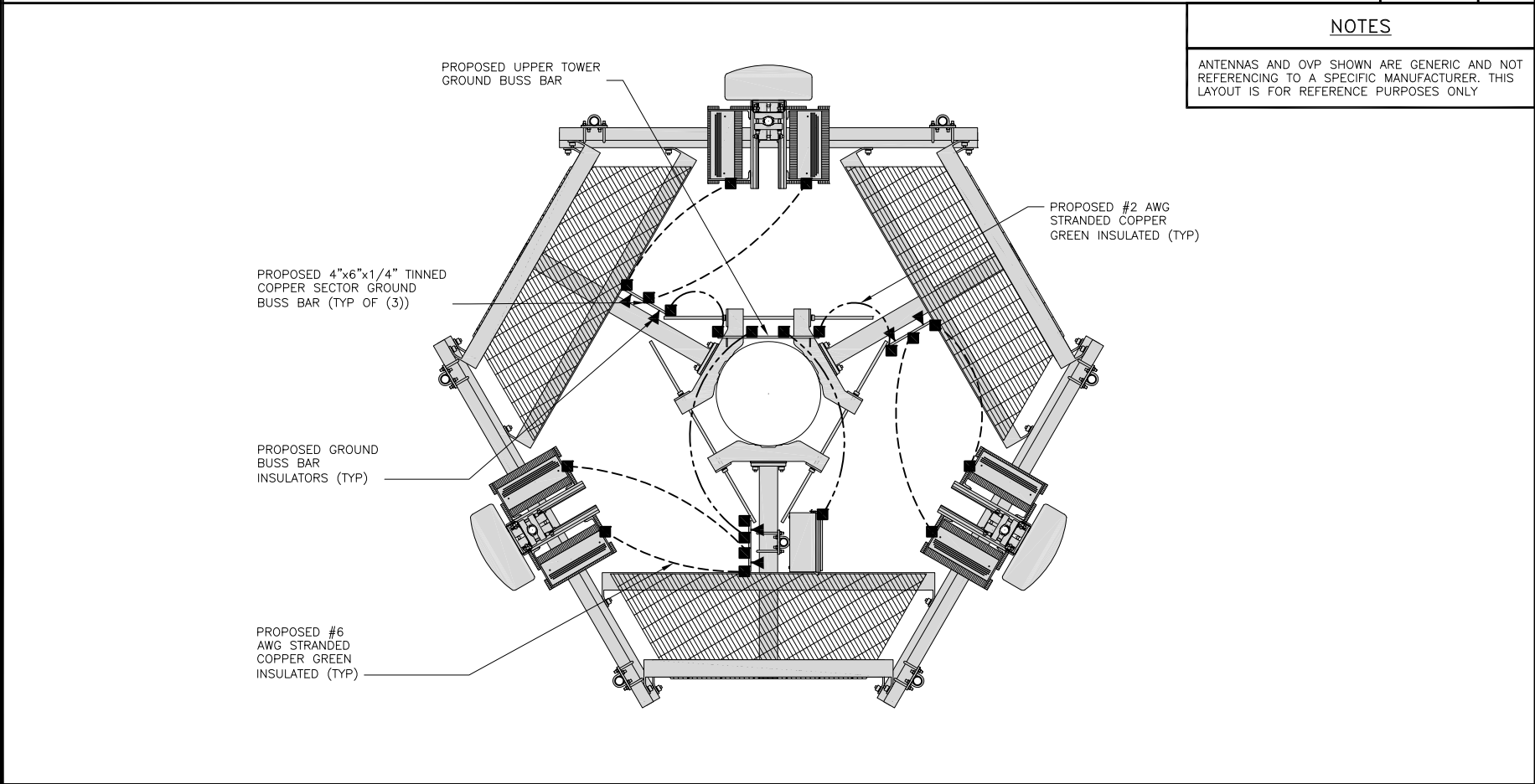
SHEET NUMBER
E-3



TYPICAL EQUIPMENT GROUNDING PLAN

NO SCALE

1



TYPICAL ANTENNA GROUNDING PLAN

NO SCALE

2

- EXOTHERMIC CONNECTION

■

 MECHANICAL CONNECTION

▬

 GROUND BUS BAR

○

 GROUND ROD
- TEST GROUND ROD WITH INSPECTION SLEEVE

 #6 AWG STRANDED & INSULATED

- · - · -

 #2 AWG SOLID COPPER TINNED

 #2 AWG STRANDED & INSULATED

▲

 BUSS BAR INSULATOR

GROUNDING LEGEND

1. GROUNDING IS SHOWN DIAGRAMMATICALLY ONLY.
2. CONTRACTOR SHALL GROUND ALL EQUIPMENT AS A COMPLETE SYSTEM. GROUNDING SHALL BE IN COMPLIANCE WITH NEC SECTION 250 AND DISH Wireless L.L.C. GROUNDING AND BONDING REQUIREMENTS AND MANUFACTURER'S SPECIFICATIONS.
3. ALL GROUND CONDUCTORS SHALL BE COPPER; NO ALUMINUM CONDUCTORS SHALL BE USED.

GROUNDING KEY NOTES

- (A)

EXTERIOR GROUND RING: #2 AWG SOLID COPPER, BURIED AT A DEPTH OF AT LEAST 30 INCHES BELOW GRADE, OR 6 INCHES BELOW THE FROST LINE AND APPROXIMATELY 24 INCHES FROM THE EXTERIOR WALL OR FOOTING.
- (B)

TOWER GROUND RING: THE GROUND RING SYSTEM SHALL BE INSTALLED AROUND AN ANTENNA TOWER'S LEGS, AND/OR GUY ANCHORS. WHERE SEPARATE SYSTEMS HAVE BEEN PROVIDED FOR THE TOWER AND THE BUILDING, AT LEAST TWO BONDS SHALL BE MADE BETWEEN THE TOWER RING GROUND SYSTEM AND THE BUILDING RING GROUND SYSTEM USING MINIMUM #2 AWG SOLID COPPER CONDUCTORS.
- (C)

INTERIOR GROUND RING: #2 AWG STRANDED GREEN INSULATED COPPER CONDUCTOR EXTENDED AROUND THE PERIMETER OF THE EQUIPMENT AREA. ALL NON-TELECOMMUNICATIONS RELATED METALLIC OBJECTS FOUND WITHIN A SITE SHALL BE GROUNDED TO THE INTERIOR GROUND RING WITH #6 AWG STRANDED GREEN INSULATED CONDUCTOR.
- (D)

BOND TO INTERIOR GROUND RING: #2 AWG SOLID TINNED COPPER WIRE PRIMARY BONDS SHALL BE PROVIDED AT LEAST AT FOUR POINTS ON THE INTERIOR GROUND RING, LOCATED AT THE CORNERS OF THE BUILDING.
- (E)

GROUND ROD: UL LISTED COPPER CLAD STEEL. MINIMUM 1/2" DIAMETER BY EIGHT FEET LONG. GROUND RODS SHALL BE INSTALLED WITH INSPECTION SLEEVES. GROUND RODS SHALL BE DRIVEN TO THE DEPTH OF GROUND RING CONDUCTOR.
- (F)

CELL REFERENCE GROUND BAR: POINT OF GROUND REFERENCE FOR ALL COMMUNICATIONS EQUIPMENT FRAMES. ALL BONDS ARE MADE WITH #2 AWG UNLESS NOTED OTHERWISE STRANDED GREEN INSULATED COPPER CONDUCTORS. BOND TO GROUND RING WITH (2) #2 SOLID TINNED COPPER CONDUCTORS.
- (G)

HATCH PLATE GROUND BAR: BOND TO THE INTERIOR GROUND RING WITH TWO #2 AWG STRANDED GREEN INSULATED COPPER CONDUCTORS. WHEN A HATCH-PLATE AND A CELL REFERENCE GROUND BAR ARE BOTH PRESENT, THE CRGB MUST BE CONNECTED TO THE HATCH-PLATE AND TO THE INTERIOR GROUND RING USING (2) TWO #2 AWG STRANDED GREEN INSULATED COPPER CONDUCTORS EACH.
- (H)

EXTERIOR CABLE ENTRY PORT GROUND BARS: LOCATED AT THE ENTRANCE TO THE CELL SITE BUILDING. BOND TO GROUND RING WITH A #2 AWG SOLID TINNED COPPER CONDUCTORS WITH AN EXOTHERMIC WELD AND INSPECTION SLEEVE.
- (I)

TELCO GROUND BAR: BOND TO BOTH CELL REFERENCE GROUND BAR OR EXTERIOR GROUND RING.
- (J)

FRAME BONDING: THE BONDING POINT FOR TELECOM EQUIPMENT FRAMES SHALL BE THE GROUND BUS THAT IS NOT ISOLATED FROM THE EQUIPMENTS METAL FRAMEWORK.
- (K)

INTERIOR UNIT BONDS: METAL FRAMES, CABINETS AND INDIVIDUAL METALLIC UNITS LOCATED WITH THE AREA OF THE INTERIOR GROUND RING REQUIRE A #6 AWG STRANDED GREEN INSULATED COPPER BOND TO THE INTERIOR GROUND RING.
- (L)

FENCE AND GATE GROUNDING: METAL FENCES WITHIN 7 FEET OF THE EXTERIOR GROUND RING OR OBJECTS BONDED TO THE EXTERIOR GROUND RING SHALL BE BONDED TO THE GROUND RING WITH A #2 AWG SOLID TINNED COPPER CONDUCTOR AT AN INTERVAL NOT EXCEEDING 25 FEET. BONDS SHALL BE MADE AT EACH GATE POST AND ACROSS GATE OPENINGS.
- (M)

EXTERIOR UNIT BONDS: METALLIC OBJECTS, EXTERNAL TO OR MOUNTED TO THE BUILDING, SHALL BE BONDED TO THE EXTERIOR GROUND RING. USING #2 TINNED SOLID COPPER WIRE
- (N)

ICE BRIDGE SUPPORTS: EACH ICE BRIDGE LEG SHALL BE BONDED TO THE GROUND RING WITH #2 AWG BARE TINNED COPPER CONDUCTOR. PROVIDE EXOTHERMIC WELDS AT BOTH THE ICE BRIDGE LEG AND BURIED GROUND RING.
- (O)

 DURING ALL DC POWER SYSTEM CHANGES INCLUDING DC SYSTEM CHANGE OUTS, RECTIFIER REPLACEMENTS OR ADDITIONS, BREAKER DISTRIBUTION CHANGES, BATTERY ADDITIONS, BATTERY REPLACEMENTS AND INSTALLATIONS OR CHANGES TO DC CONVERTER SYSTEMS IT SHALL BE REQUIRED THAT SERVICE CONTRACTORS VERIFY ALL DC POWER SYSTEMS ARE EQUIPPED WITH A MASTER DC SYSTEM RETURN GROUND CONDUCTOR FROM THE DC POWER SYSTEM COMMON RETURN BUS DIRECTLY CONNECTED TO THE CELL SITE REFERENCE GROUND BAR
- (P)

 TOWER TOP COLLECTOR BUSS BAR IS TO BE MECHANICALLY BONDED TO PROPOSED ANTENNA MOUNT COLLAR.

REFER TO DISH Wireless L.L.C. GROUNDING NOTES.

GROUNDING KEY NOTES

NO SCALE

3



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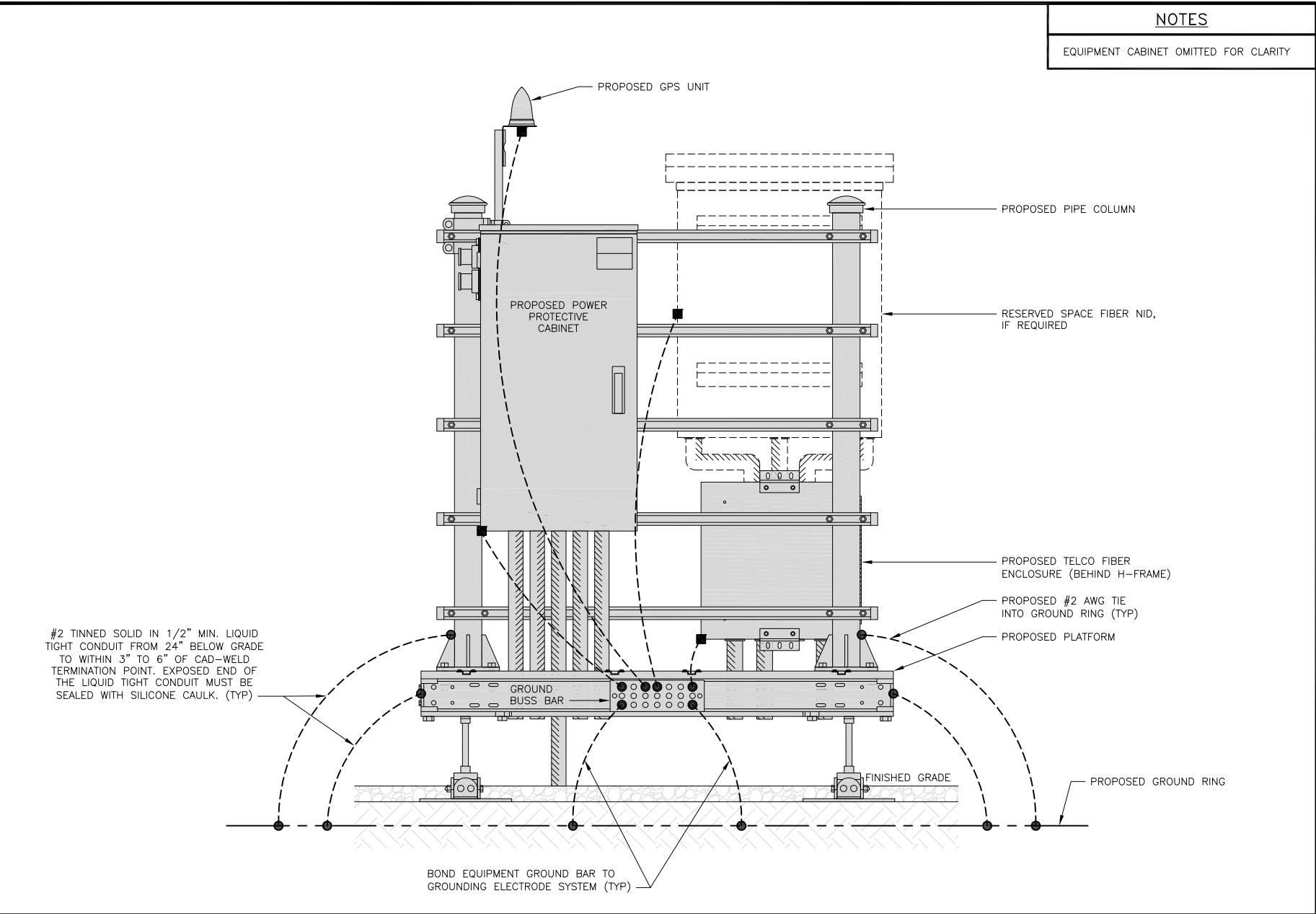
DISH Wireless L.L.C.
PROJECT INFORMATION

BOBDL00118A
712 BREAD & MILK ST
COVENTRY, CT 06238

SHEET TITLE
GROUNDING PLANS
AND NOTES

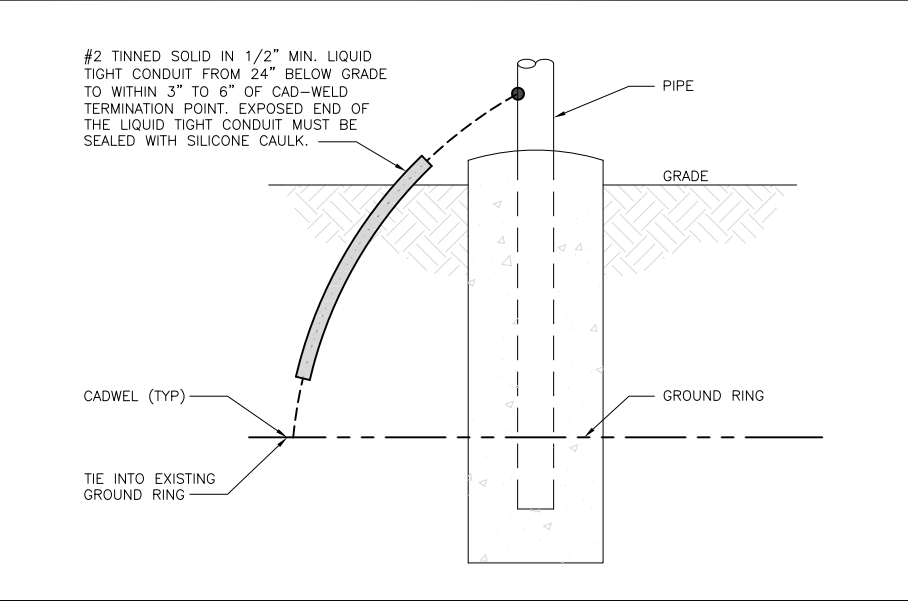
SHEET NUMBER

G-1



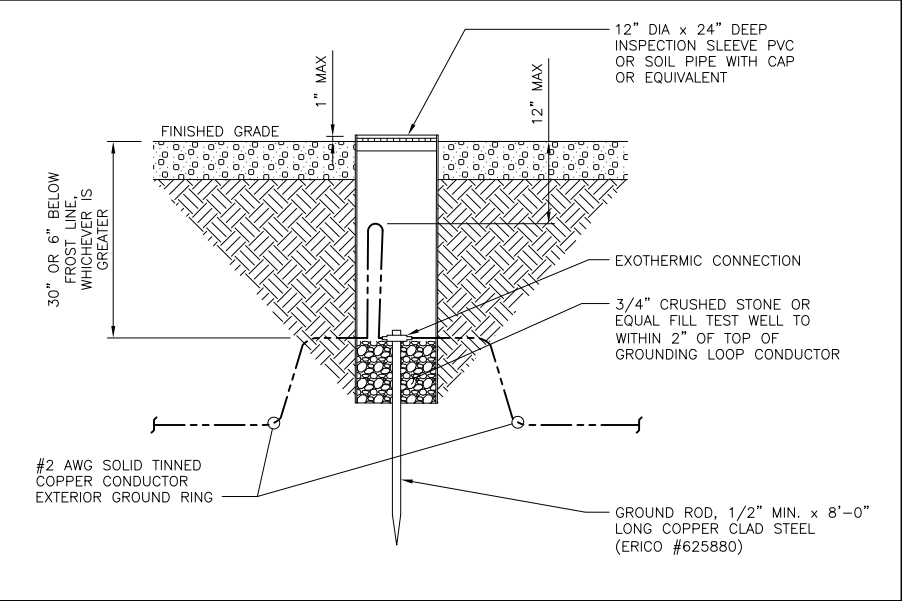
H-FRAME GROUNDING DETAIL

NO SCALE 1



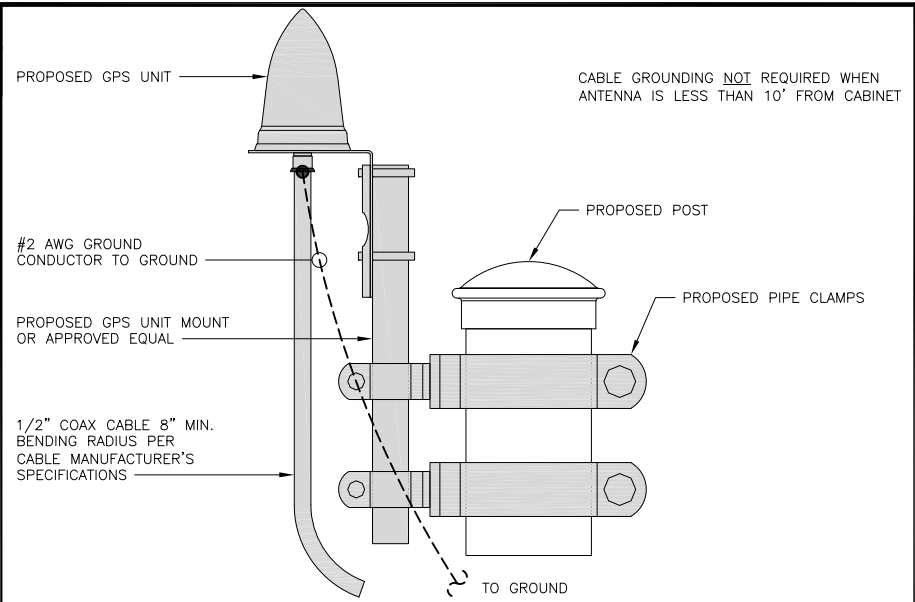
TRANSITIONING GROUND DETAIL

NO SCALE 4



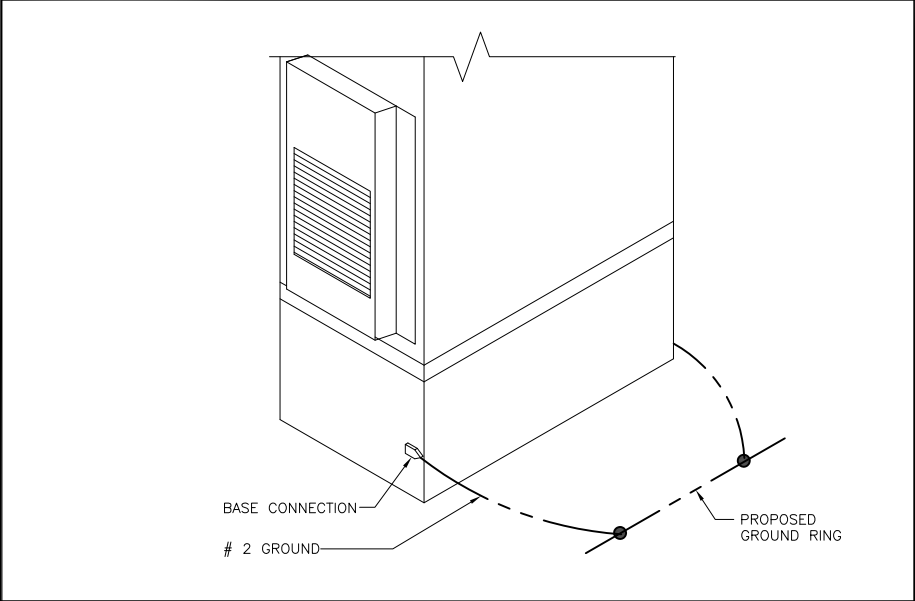
TYPICAL TEST GROUND ROD WITH INSPECTION SLEEVE

NO SCALE 5



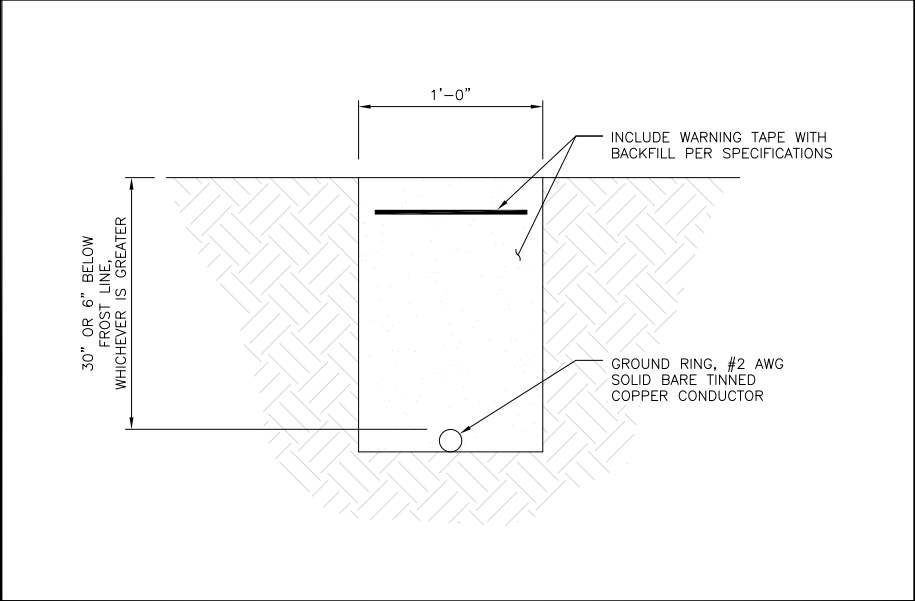
TYPICAL GPS UNIT GROUNDING

NO SCALE 2



OUTDOOR CABINET GROUNDING

NO SCALE 3



TYPICAL GROUND RING TRENCH

NO SCALE 6

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No. 23924
LICENSED PROFESSIONAL ENGINEER

1/13/22
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CHECKED BY: RMC
APPROVED BY: RMC

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CONSTRUCTION DOCUMENTS

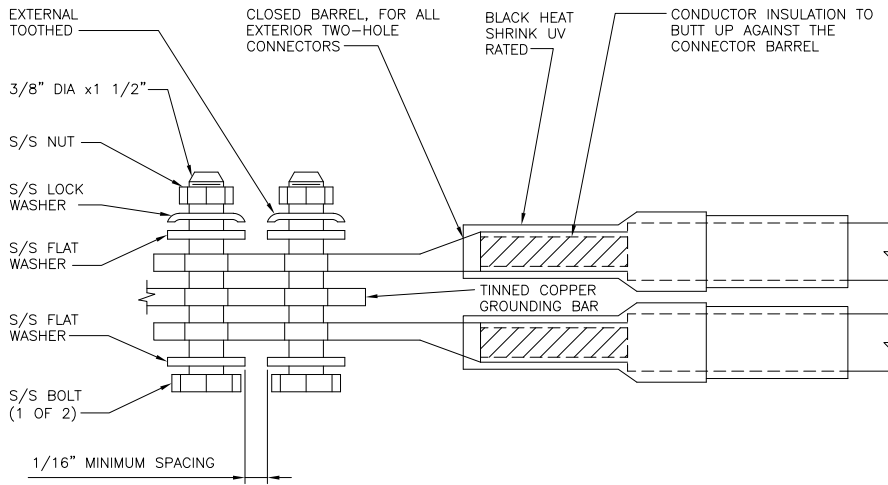
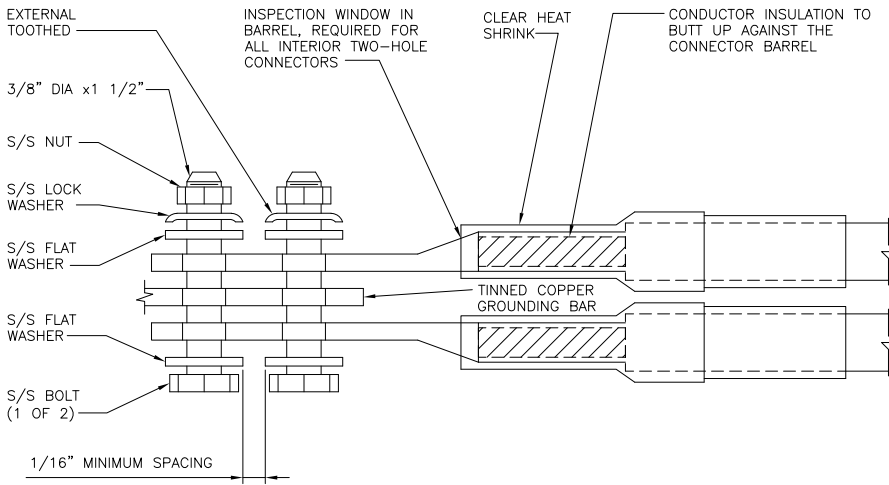
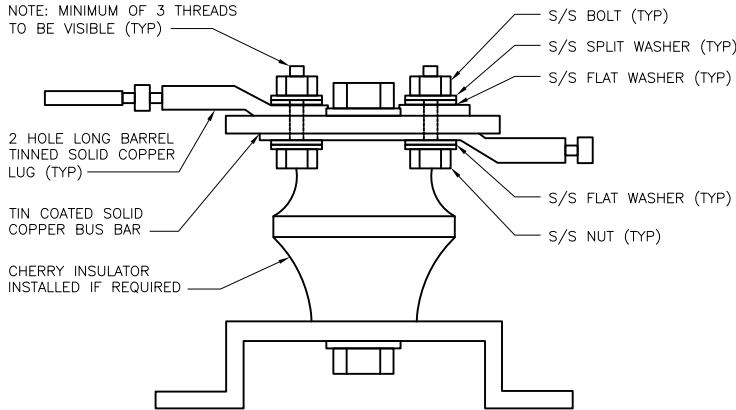
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DISH Wireless L.L.C.
PROJECT INFORMATION
BOBDL00118A
712 BREAD & MILK ST
COVENTRY, CT 06238

SHEET TITLE
GROUNDING DETAILS

SHEET NUMBER
G-2

1. EXOTHERMIC WELD (2) TWO, #2 AWG BARE TINNED SOLID COPPER CONDUCTORS TO GROUND BAR. ROUTE CONDUCTORS TO BURIED GROUND RING AND PROVIDE PARALLEL EXOTHERMIC WELD. 2. ALL EXTERIOR GROUNDING HARDWARE SHALL BE STAINLESS STEEL 3/8" DIAMETER OR LARGER. ALL HARDWARE 18-8 STAINLESS STEEL INCLUDING LOCK WASHERS, COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING. 3. FOR GROUND BOND TO STEEL ONLY: COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING. 4. DO NOT INSTALL CABLE GROUNDING KIT AT A BEND AND ALWAYS DIRECT GROUND CONDUCTOR DOWN TO GROUNDING BUS. 5. NUT & WASHER SHALL BE PLACED ON THE FRONT SIDE OF THE GROUND BAR AND BOLTED ON THE BACK SIDE. 6. ALL GROUNDING PARTS AND EQUIPMENT TO BE SUPPLIED AND INSTALLED BY CONTRACTOR. 7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ADDITIONAL GROUND BAR AS REQUIRED. 8. ENSURE THE WIRE INSULATION TERMINATION IS WITHIN 1/8" OF THE BARREL (NO SHINERS).														
TYPICAL GROUNDING NOTES			NO SCALE	1	TYPICAL EXTERIOR TWO HOLE LUG			NO SCALE	2	TYPICAL INTERIOR TWO HOLE LUG			NO SCALE	3
														
LUG DETAIL			NO SCALE	4	NOT USED			NO SCALE	5	NOT USED			NO SCALE	6
NOT USED			NO SCALE	7	NOT USED			NO SCALE	8	NOT USED			NO SCALE	9

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STATE OF CALIFORNIA

CHAD BUTLER

No. 23924

PROFESSIONAL ENGINEER

1/13/22

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PROJECT INFORMATION

BOBDL00118A
712 BREAD & MILK ST
COVENTRY, CT 06238

SHEET TITLE

GROUNDING DETAILS

SHEET NUMBER

G-3

HYBRID/DISCREET CABLES				3/4" TAPE WIDTHS WITH 3/4" SPACING											
LOW-BAND RRH (600 MHz N71 BASEBAND) + (850 MHz N26 BAND) + (700 MHz N29 BAND) – OPTIONAL PER MARKET ADD FREQUENCY COLOR TO SECTOR BAND (CBRS WILL USE YELLOW BAND)				ALPHA RRH				BETA RRH				GAMMA RRH			
				PORT 1 + SLANT	PORT 2 – SLANT	PORT 3 + SLANT	PORT 4 – SLANT	PORT 1 + SLANT	PORT 2 – SLANT	PORT 3 + SLANT	PORT 4 – SLANT	PORT 1 + SLANT	PORT 2 – SLANT	PORT 3 + SLANT	PORT 4 – SLANT
				RED	RED	RED	RED	BLUE	BLUE	BLUE	BLUE	GREEN	GREEN	GREEN	GREEN
				ORANGE	ORANGE	RED	RED	ORANGE	ORANGE	BLUE	BLUE	ORANGE	ORANGE	GREEN	GREEN
					WHITE (–) PORT	ORANGE	ORANGE		WHITE (–) PORT	ORANGE	ORANGE		WHITE (–) PORT	ORANGE	ORANGE
MID-BAND RRH (AWS BANDS N66+N70) ADD FREQUENCY COLOR TO SECTOR BAND (CBRS WILL USE YELLOW BANDS)				RED	RED	RED	RED	BLUE	BLUE	BLUE	BLUE	GREEN	GREEN	GREEN	GREEN
				PURPLE	PURPLE	RED	RED	PURPLE	PURPLE	BLUE	BLUE	PURPLE	PURPLE	GREEN	GREEN
					WHITE (–) PORT	PURPLE	PURPLE		WHITE (–) PORT	PURPLE	PURPLE		WHITE (–) PORT	PURPLE	PURPLE
							WHITE (–) PORT				WHITE (–) PORT				WHITE (–) PORT
HYBRID/DISCREET CABLES				EXAMPLE 1	EXAMPLE 2	EXAMPLE 3	CANISTER COAX #2 (ALPHA)	CONTRACTOR TO REFER TO FINAL CONSTRUCTION RFDS FOR ALL RD DETAILS. FINAL RFDS IS IN NEXSYSONE.							
INCLUDE SECTOR BANDS BEING SUPPORTED ALONG WITH FREQUENCY BANDS. EXAMPLE 1 – HYBRID, OR DISCREET, SUPPORTS ALL SECTORS, BOTH LOW-BANDS AND MID-BANDS. EXAMPLE 2 – HYBRID, OR DISCREET, SUPPORTS CBRS ONLY, ALL SECTORS. EXAMPLE 3 – MAIN COAX WITH GROUND MOUNTED RRHs.				RED	RED	RED	RED								
				BLUE	BLUE										
				GREEN	GREEN										
				ORANGE	YELLOW										
				PURPLE											
FIBER JUMPERS TO RRHs				LOW BAND RRH	MID BAND RRH	LOW BAND RRH	MID BAND RRH	LOW BAND RRH	MID BAND RRH	LOW BAND RRH	MID BAND RRH				
LOW-BAND HHR FIBER CABLES HAVE SECTOR STRIPE ONLY.				RED	RED	BLUE	BLUE	GREEN	GREEN	ORANGE	PURPLE				
				ORANGE	PURPLE	ORANGE	PURPLE	ORANGE	PURPLE						
POWER CABLES TO RRHs				LOW BAND RRH	MID BAND RRH	LOW BAND RRH	MID BAND RRH	LOW BAND RRH	MID BAND RRH	LOW BAND RRH	MID BAND RRH				
LOW-BAND RRH POWER CABLES HAVE SECTOR STRIPE ONLY				RED	RED	BLUE	BLUE	GREEN	GREEN	ORANGE	PURPLE				
				ORANGE	PURPLE	ORANGE	PURPLE	ORANGE	PURPLE						
RET MOTORS AT ANTENNAS				ANTENNA 1 MID BAND	ANTENNA 1 LOW BAND	ANTENNA 1 MID BAND	ANTENNA 1 LOW BAND	ANTENNA 1 MID BAND	ANTENNA 1 LOW BAND	ANTENNA 1 MID BAND	ANTENNA 1 LOW BAND				
RET CONTROL IS HANDLED BY THE MID-BAND RRH WHEN ONE SET OF RET PORTS EXIST ON ANTENNA. SEPARATE RET CABLES ARE USED WHEN ANTENNA PORTS PROVIDE INPUTS FOR BOTH LOW AND MID BANDS.				IN	IN	IN	IN	IN	IN	IN					
				RED	RED	BLUE	BLUE	GREEN	GREEN	PURPLE	ORANGE				
				PURPLE	ORANGE	PURPLE	ORANGE	PURPLE	ORANGE						
MICROWAVE RADIO LINKS				FORWARD AZIMUTH OF 0–120 DEGREES				FORWARD AZIMUTH OF 120–240 DEGREES				FORWARD AZIMUTH OF 240–359 DEGREES			
LINKS WILL HAVE A 1.5–2 INCH WHITE WRAP WITH THE AZIMUTH COLOR OVERLAPPING IN THE MIDDLE. ADD ADDITIONAL SECTOR COLOR BANDS FOR EACH ADDITIONAL MW RADIO. MICROWAVE CABLES WILL REQUIRE P-TOUCH LABELS INSIDE THE CABINET TO IDENTIFY THE LOCAL AND REMOTE SITE ID's.				PRIMARY	SECONDARY	PRIMARY	SECONDARY	PRIMARY	SECONDARY	PRIMARY	SECONDARY				
				WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE				
				RED	RED	BLUE	BLUE	GREEN	GREEN	WHITE	WHITE				
				WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	GREEN	GREEN				
					RED		BLUE				WHITE				

LOW BANDS (N71+N26)
OPTIONAL – (N29)

ORANGE

AWS
(N66+N70+H–BLOCK)

PURPLE

CBRS TECH
(3 GHz)

YELLOW

NEGATIVE SLANT PORT
ON ANT/RRH

WHITE

ALPHA SECTOR

RED

BETA SECTOR

BLUE

GAMMA SECTOR

GREEN

COLOR IDENTIFIER

NO SCALE

2

NOT USED

NO SCALE

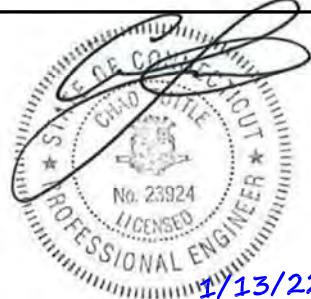
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RFDS REV #: 3

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DISH Wireless L.L.C.
PROJECT INFORMATION

BOBDL00118A
712 BREAD & MILK ST
COVENTRY, CT 06238

SHEET TITLE
RF
CABLE COLOR CODES

SHEET NUMBER

RF-1

EXOTHERMIC CONNECTION MECHANICAL CONNECTION BUSS BAR INSULATOR CHEMICAL ELECTROLYTIC GROUNDING SYSTEM TEST CHEMICAL ELECTROLYTIC GROUNDING SYSTEM EXOTHERMIC WITH INSPECTION SLEEVE GROUNDING BAR GROUND ROD TEST GROUND ROD WITH INSPECTION SLEEVE SINGLE POLE SWITCH DUPLEX RECEPTACLE DUPLEX GFCI RECEPTACLE FLUORESCENT LIGHTING FIXTURE (2) TWO LAMPS 48-T8 SMOKE DETECTION (DC) EMERGENCY LIGHTING (DC) SECURITY LIGHT W/PHOTOCELL LITHONIA ALXW LED-1-25A400/51K-SR4-120-PE-DDBTXD CHAIN LINK FENCE WOOD/WROUGHT IRON FENCE WALL STRUCTURE LEASE AREA PROPERTY LINE (PL) SETBACKS ICE BRIDGE CABLE TRAY WATER LINE UNDERGROUND POWER UNDERGROUND TELCO OVERHEAD POWER OVERHEAD TELCO UNDERGROUND TELCO/POWER ABOVE GROUND POWER ABOVE GROUND TELCO ABOVE GROUND TELCO/POWER WORKPOINT SECTION REFERENCE DETAIL REFERENCE	ABANCHOR BOLT ABVABOVE ACALTERNATING CURRENT ADDLADDITIONAL AFFABOVE FINISHED FLOOR AFGABOVE FINISHED GRADE AGLABOVE GROUND LEVEL AICAMPERAGE INTERRUPTION CAPACITY ALUMALUMINUM ALTALTERNATE ANTANTENNA APPROXAPPROXIMATE ARCHARCHITECTURAL ATSAutomatic Transfer Switch AWGAMERICAN WIRE GAUGE BATTBATTERY BLDGBUILDING BLKBLOCK BLKGBLOCKING BMBEAM BTCBARE TINNED COPPER CONDUCTOR BOFBOTTOM OF FOOTING CABCABINET CANTCANTILEVERED CHGCHARGING CLGCEILING CLRCLEAR COLCOLUMN COMMCOMMON CONCConcrete CONSTRCONSTRUCTION DBLDOUBLE DCDIRECT CURRENT DEPTDEPARTMENT DFDOUGLAS FIR DIA DIAMETER DIAGDIAGONAL DIMDIMENSION DWGDRAWING DWLDOWEL EA EACH ECELECTRICAL CONDUCTOR ELELEVATION ELECELECTRICAL EMTELECTRICAL METALLIC TUBING ENGENGINEER EQEQUAL EXPEXPANSION EXTEXTERIOR EW EACH WAY FABFABRICATION FFFINISH FLOOR FGFINISH GRADE FIFACILITY INTERFACE FRAME FINFINISH(ED) FLRFLOOR FDNFoundation FOCFACE OF CONCRETE FOMFACE OF MASONRY FOSFACE OF STUD FOWFACE OF WALL FSFINISH SURFACE FTFOOT FTGFOOTING GAGAUGE GENGENERATOR GFCIGROUND FAULT CIRCUIT INTERRUPTER GLBGLUE LAMINATED BEAM GLVGALVANIZED GPSGLOBAL POSITIONING SYSTEM GNDGROUND GSMGLOBAL SYSTEM FOR MOBILE HDBGHOT DIPPED GALVANIZED HDRHEADER HGRHANGER HVACHEAT/VENTILATION/AIR CONDITIONING HTHEIGHT IGRINTERIOR GROUND RING ININCH INTINTERIOR LB(S)POUND(S) LFLINEAR FEET LTELONG TERM EVOLUTION MASMASONRY MAXMAXIMUM MBMACHINE BOLT MECHMECHANICAL MFRMANUFACTURER MGBMASTER GROUND BAR MINMINIMUM MISCMISCELLANEOUS MTLMETAL MTSMANUAL TRANSFER SWITCH MWMICROWAVE NECNATIONAL ELECTRIC CODE NMNEWTON METERS NO. NUMBER #NUMBER NTSNOT TO SCALE OC ON-CENTER OSHA OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION OPNGOPENING PCSPERSONAL COMMUNICATION SERVICES PCUPRIMARY CONTROL UNIT PRCPRIMARY RADIO CABINET PPPOLARIZING PRESERVING PSFPOUNDS PER SQUARE FOOT PSIPOUNDS PER SQUARE INCH PTPRESSURE TREATED PWRPOWER CABINET QTYQUANTITY RADRADIUS RECTRECTIFIER REFREFERENCE REINFREINFORCEMENT REQ'DREQUIRED RETEREMOTE ELECTRIC TILT RF RADIO FREQUENCY RMC RIGID METALLIC CONDUIT RRHREMOTE RADIO HEAD RRUREMOTE RADIO UNIT RWYRACEWAY SCHSCHEDULE SHTSHEET SIADSMART INTEGRATED ACCESS DEVICE SIMSIMILAR SPECSPECIFICATION SQSQUARE SSSTAINLESS STEEL STDSTANDARD STLSTEEL TEMPTEMPORARY THKTHICKNESS TMATOWER MOUNTED AMPLIFIER TNTOE NAIL TOATOP OF ANTENNA TOCTOP OF CURB TOFTOP OF FOUNDATION TOPTOP OF PLATE (PARAPET) TOSTOP OF STEEL TOWTOP OF WALL TVSSTRANSIENT VOLTAGE SURGE SUPPRESSION TYP TYPICAL UGUNDERGROUND ULUNDERWRITERS LABORATORY UNO UNLESS NOTED OTHERWISE UMTS UNIVERSAL MOBILE TELECOMMUNICATIONS SYSTEM UPS UNINTERRUPTIBLE POWER SYSTEM (DC POWER PLANT) VIFVERIFIED IN FIELD WWIDE W/WITH WDWOOD WPWEATHERPROOF WTWEIGHT
LEGEND	ABBREVIATIONS



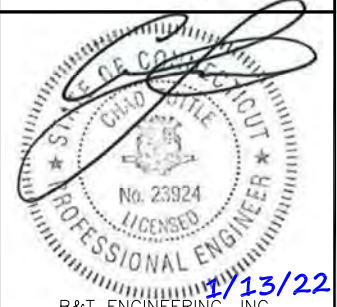
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PEC.0001564
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TO ALTER THIS DOCUMENT.

DRAWN BY: CHECKED BY: APPROVED BY:

CH	RMC	RMC
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RFDS REV #: 3

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	11/1/21	ISSUED FOR REVIEW
B	12/27/21	ISSUED FOR REVIEW
O	1/13/22	CONSTRUCTION

A&E PROJECT NUMBER
149439.001.01

DISH Wireless L.L.C.
PROJECT INFORMATION
BOBDL00118A
712 BREAD & MILK ST
COVENTRY, CT 06238

SHEET TITLE
LEGEND AND ABBREVIATIONS

SHEET NUMBER
GN-1

SITE ACTIVITY REQUIREMENTS:

1. NOTICE TO PROCEED – NO WORK SHALL COMMENCE PRIOR TO CONTRACTOR RECEIVING A WRITTEN NOTICE TO PROCEED (NTP) AND THE ISSUANCE OF A PURCHASE ORDER. PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE DISH Wireless L.L.C. AND TOWER OWNER NOC & THE DISH Wireless L.L.C. AND TOWER OWNER CONSTRUCTION MANAGER.
2. "LOOK UP" – DISH Wireless L.L.C. AND TOWER OWNER SAFETY CLIMB REQUIREMENT:

THE INTEGRITY OF THE SAFETY CLIMB AND ALL COMPONENTS OF THE CLIMBING FACILITY SHALL BE CONSIDERED DURING ALL STAGES OF DESIGN, INSTALLATION, AND INSPECTION. TOWER MODIFICATION, MOUNT REINFORCEMENTS, AND/OR EQUIPMENT INSTALLATIONS SHALL NOT COMPROMISE THE INTEGRITY OR FUNCTIONAL USE OF THE SAFETY CLIMB OR ANY COMPONENTS OF THE CLIMBING FACILITY ON THE STRUCTURE. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO: PINCHING OF THE WIRE ROPE, BENDING OF THE WIRE ROPE FROM ITS SUPPORTS, DIRECT CONTACT OR CLOSE PROXIMITY TO THE WIRE ROPE WHICH MAY CAUSE FRICTIONAL WEAR, IMPACT TO THE ANCHORAGE POINTS IN ANY WAY, OR TO IMPEDE/BLOCK ITS INTENDED USE. ANY COMPROMISED SAFETY CLIMB, INCLUDING EXISTING CONDITIONS MUST BE TAGGED OUT AND REPORTED TO YOUR DISH Wireless L.L.C. AND DISH Wireless L.L.C. AND TOWER OWNER POC OR CALL THE NOC TO GENERATE A SAFETY CLIMB MAINTENANCE AND CONTRACTOR NOTICE TICKET.
3. PRIOR TO THE START OF CONSTRUCTION, ALL REQUIRED JURISDICTIONAL PERMITS SHALL BE OBTAINED. THIS INCLUDES, BUT IS NOT LIMITED TO, BUILDING, ELECTRICAL, MECHANICAL, FIRE, FLOOD ZONE, ENVIRONMENTAL, AND ZONING. AFTER ONSITE ACTIVITIES AND CONSTRUCTION ARE COMPLETED, ALL REQUIRED PERMITS SHALL BE SATISFIED AND CLOSED OUT ACCORDING TO LOCAL JURISDICTIONAL REQUIREMENTS.
4. ALL CONSTRUCTION MEANS AND METHODS; INCLUDING BUT NOT LIMITED TO, ERECTION PLANS, RIGGING PLANS, CLIMBING PLANS, AND RESCUE PLANS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THE WORK CONTAINED HEREIN, AND SHALL MEET ANSI/ASSE A10.48 (LATEST EDITION); FEDERAL, STATE, AND LOCAL REGULATIONS; AND ANY APPLICABLE INDUSTRY CONSENSUS STANDARDS RELATED TO THE CONSTRUCTION ACTIVITIES BEING PERFORMED. ALL RIGGING PLANS SHALL ADHERE TO ANSI/ASSE A10.48 (LATEST EDITION) AND DISH Wireless L.L.C. AND TOWER OWNER STANDARDS, INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION, TO CERTIFY THE SUPPORTING STRUCTURE(S) IN ACCORDANCE WITH ANSI/TIA–322 (LATEST EDITION).
5. ALL SITE WORK TO COMPLY WITH DISH Wireless L.L.C. AND TOWER OWNER INSTALLATION STANDARDS FOR CONSTRUCTION ACTIVITIES ON DISH Wireless L.L.C. AND TOWER OWNER TOWER SITE AND LATEST VERSION OF ANSI/TIA–1019–A–2012 "STANDARD FOR INSTALLATION, ALTERATION, AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS."
6. IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY DISH Wireless L.L.C. AND TOWER OWNER PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
7. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
8. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER’S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
9. THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES INCLUDING PRIVATE LOCATES SERVICES PRIOR TO THE START OF CONSTRUCTION.
10. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY CONTRACTOR. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING AND EXCAVATION E) CONSTRUCTION SAFETY PROCEDURES.
11. ALL SITE WORK SHALL BE AS INDICATED ON THE STAMPED CONSTRUCTION DRAWINGS AND DISH PROJECT SPECIFICATIONS, LATEST APPROVED REVISION.
12. CONTRACTOR SHALL KEEP THE SITE FREE FROM ACCUMULATING WASTE MATERIAL, DEBRIS, AND TRASH AT THE COMPLETION OF THE WORK. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
13. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF DISH Wireless L.L.C. AND TOWER OWNER, AND/OR LOCAL UTILITIES.
14. THE CONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATION FOR SITE SIGNAGE REQUIRED BY LOCAL JURISDICTION AND SIGNAGE REQUIRED ON INDIVIDUAL PIECES OF EQUIPMENT, ROOMS, AND SHELTERS.
15. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE CARRIER’S EQUIPMENT AND TOWER AREAS.
16. THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
17. THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION AS SPECIFIED ON THE CONSTRUCTION DRAWINGS AND/OR PROJECT SPECIFICATIONS.
18. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
19. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR’S EXPENSE TO THE SATISFACTION OF OWNER.
20. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS AND RADIOS REMOVED SHALL BE RETURNED TO THE OWNER’S DESIGNATED LOCATION.
21. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.
22. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.

GENERAL NOTES:

- 1.FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:

CONTRACTOR:GENERAL CONTRACTOR RESPONSIBLE FOR CONSTRUCTION

CARRIER:DISH Wireless L.L.C.

TOWER OWNER:TOWER OWNER
2. THESE DRAWINGS HAVE BEEN PREPARED USING STANDARDS OF PROFESSIONAL CARE AND COMPLETENESS NORMALLY EXERCISED UNDER SIMILAR CIRCUMSTANCES BY REPUTABLE ENGINEERS IN THIS OR SIMILAR LOCALITIES. IT IS ASSUMED THAT THE WORK DEPICTED WILL BE PERFORMED BY AN EXPERIENCED CONTRACTOR AND/OR WORKPEOPLE WHO HAVE A WORKING KNOWLEDGE OF THE APPLICABLE CODE STANDARDS AND REQUIREMENTS AND OF INDUSTRY ACCEPTED STANDARD GOOD PRACTICE. AS NOT EVERY CONDITION OR ELEMENT IS (OR CAN BE) EXPLICITLY SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL USE INDUSTRY ACCEPTED STANDARD GOOD PRACTICE FOR MISCELLANEOUS WORK NOT EXPLICITLY SHOWN.
3. THESE DRAWINGS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE MEANS OR METHODS OF CONSTRUCTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY FOR PROTECTION OF LIFE AND PROPERTY DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, FORMWORK, SHORING, ETC. SITE VISITS BY THE ENGINEER OR HIS REPRESENTATIVE WILL NOT INCLUDE INSPECTION OF THESE ITEMS AND IS FOR STRUCTURAL OBSERVATION OF THE FINISHED STRUCTURE ONLY.
4. NOTES AND DETAILS IN THE CONSTRUCTION DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT, AND/OR AS PROVIDED FOR IN THE CONTRACT DOCUMENTS. WHERE DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, GENERAL NOTES, AND SPECIFICATIONS, THE GREATER, MORE STRICT REQUIREMENTS, SHALL GOVERN. IF FURTHER CLARIFICATION IS REQUIRED CONTACT THE ENGINEER OF RECORD.
5. SUBSTANTIAL EFFORT HAS BEEN MADE TO PROVIDE ACCURATE DIMENSIONS AND MEASUREMENTS ON THE DRAWINGS TO ASSIST IN THE FABRICATION AND/OR PLACEMENT OF CONSTRUCTION ELEMENTS BUT IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE DIMENSIONS, MEASUREMENTS, AND/OR CLEARANCES SHOWN IN THE CONSTRUCTION DRAWINGS PRIOR TO FABRICATION OR CUTTING OF ANY NEW OR EXISTING CONSTRUCTION ELEMENTS. IF IT IS DETERMINED THAT THERE ARE DISCREPANCIES AND/OR CONFLICTS WITH THE CONSTRUCTION DRAWINGS THE ENGINEER OF RECORD IS TO BE NOTIFIED AS SOON AS POSSIBLE.
6. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING CONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CARRIER POC AND TOWER OWNER.
7. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
8. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
9. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER’S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
10. IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CARRIER AND TOWER OWNER PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
11. CONTRACTOR IS TO PERFORM A SITE INVESTIGATION, BEFORE SUBMITTING BIDS, TO DETERMINE THE BEST ROUTING OF ALL CONDUITS FOR POWER, AND TELCO AND FOR GROUNDING CABLES AS SHOWN IN THE POWER, TELCO, AND GROUNDING PLAN DRAWINGS.
12. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR’S EXPENSE TO THE SATISFACTION OF DISH Wireless L.L.C. AND TOWER OWNER
13. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER’S DESIGNATED LOCATION.
14. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.



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DRAWN BY: CHECKED BY:APPROVED BY:

CH	RMC	RMC
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RFDS REV #: 3

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	11/1/21	ISSUED FOR REVIEW
B	12/27/21	ISSUED FOR REVIEW
O	1/13/22	CONSTRUCTION

A&E PROJECT NUMBER

149439.001.01

DISH Wireless L.L.C.
PROJECT INFORMATION

BOBDL00118A
712 BREAD & MILK ST
COVENTRY, CT 06238

SHEET TITLE

GENERAL NOTES

SHEET NUMBER

GN-2

CONCRETE, FOUNDATIONS, AND REINFORCING STEEL:

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST-IN-PLACE CONCRETE.
2. UNLESS NOTED OTHERWISE, SOIL BEARING PRESSURE USED FOR DESIGN OF SLABS AND FOUNDATIONS IS ASSUMED TO BE 1000 psf.
3. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (f'_c) OF 3000 psi AT 28 DAYS, UNLESS NOTED OTHERWISE. NO MORE THAN 90 MINUTES SHALL ELAPSE FROM BATCH TIME TO TIME OF PLACEMENT UNLESS APPROVED BY THE ENGINEER OF RECORD. TEMPERATURE OF CONCRETE SHALL NOT EXCEED 90°F AT TIME OF PLACEMENT.
4. CONCRETE EXPOSED TO FREEZE-THAW CYCLES SHALL CONTAIN AIR ENTRAINING ADMIXTURES. AMOUNT OF AIR ENTRAINMENT TO BE BASED ON SIZE OF AGGREGATE AND F3 CLASS EXPOSURE (VERY SEVERE). CEMENT USED TO BE TYPE II PORTLAND CEMENT WITH A MAXIMUM WATER-TO-CEMENT RATIO (W/C) OF 0.45.
5. ALL STEEL REINFORCING SHALL CONFORM TO ASTM A615. ALL WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A185. ALL SPLICES SHALL BE CLASS "B" TENSION SPLICES, UNLESS NOTED OTHERWISE. ALL HOOKS SHALL BE STANDARD 90 DEGREE HOOKS, UNLESS NOTED OTHERWISE. YIELD STRENGTH (F_y) OF STANDARD DEFORMED BARS ARE AS FOLLOWS:

#4 BARS AND SMALLER 40 ksi
#5 BARS AND LARGER 60 ksi
6. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:
 - CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH 3"
 - CONCRETE EXPOSED TO EARTH OR WEATHER:
 - #6 BARS AND LARGER 2"
 - #5 BARS AND SMALLER 1-1/2"
 - CONCRETE NOT EXPOSED TO EARTH OR WEATHER:
 - SLAB AND WALLS 3/4"
 - BEAMS AND COLUMNS 1-1/2"
7. A TOOLED EDGE OR A 3/4" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNLESS NOTED OTHERWISE, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.

ELECTRICAL INSTALLATION NOTES:

1. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES/ORDINANCES.
2. CONDUIT ROUTINGS ARE SCHEMATIC. CONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED AND TRIP HAZARDS ARE ELIMINATED.
3. WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC.
4. ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC.
- 4.1. ALL EQUIPMENT SHALL BEAR THE UNDERWRITERS LABORATORIES LABEL OF APPROVAL, AND SHALL CONFORM TO REQUIREMENT OF THE NATIONAL ELECTRICAL CODE.
- 4.2. ALL OVERCURRENT DEVICES SHALL HAVE AN INTERRUPTING CURRENT RATING THAT SHALL BE GREATER THAN THE SHORT CIRCUIT CURRENT TO WHICH THEY ARE SUBJECTED, 22,000 AIC MINIMUM. VERIFY AVAILABLE SHORT CIRCUIT CURRENT DOES NOT EXCEED THE RATING OF ELECTRICAL EQUIPMENT IN ACCORDANCE WITH ARTICLE 110.24 NEC OR THE MOST CURRENT ADOPTED CODE PRE THE GOVERNING JURISDICTION.
5. EACH END OF EVERY POWER PHASE CONDUCTOR, GROUNDING CONDUCTOR, AND TELCO CONDUCTOR OR CABLE SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2" PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC AND OSHA.
6. ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH LAMICOID TAGS SHOWING THEIR RATED VOLTAGE, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING AND BRANCH CIRCUIT ID NUMBERS (i.e. PANEL BOARD AND CIRCUIT ID'S).
7. PANEL BOARDS (ID NUMBERS) SHALL BE CLEARLY LABELED WITH PLASTIC LABELS.
8. TIE WRAPS ARE NOT ALLOWED.
9. ALL POWER AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE COPPER CONDUCTOR (#14 OR LARGER) WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
10. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE COPPER CONDUCTOR (#6 OR LARGER) WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
11. POWER AND CONTROL WIRING IN FLEXIBLE CORD SHALL BE MULTI-CONDUCTOR, TYPE SOOW CORD (#14 OR LARGER) UNLESS OTHERWISE SPECIFIED.
12. POWER AND CONTROL WIRING FOR USE IN CABLE TRAY SHALL BE MULTI-CONDUCTOR, TYPE TC CABLE (#14 OR LARGER), WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
13. ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND WIRE NUTS BY THOMAS AND BETTS (OR EQUAL). LUGS AND WIRE NUTS SHALL BE RATED FOR OPERATION NOT LESS THAN 75° C (90° C IF AVAILABLE).
14. RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.
15. ELECTRICAL METALLIC TUBING (EMT), INTERMEDIATE METAL CONDUIT (IMC), OR RIGID METAL CONDUIT (RMC) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.

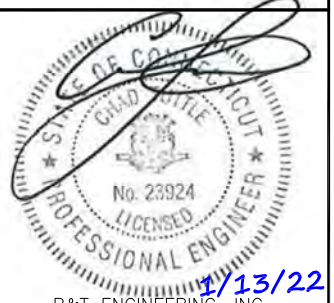
16. ELECTRICAL METALLIC TUBING (EMT) OR METAL-CLAD CABLE (MC) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
17. SCHEDULE 40 PVC UNDERGROUND ON STRAIGHTS AND SCHEDULE 80 PVC FOR ALL ELBOWS/90s AND ALL APPROVED ABOVE GRADE PVC CONDUIT.
18. LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
19. CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SET SCREW FITTINGS ARE NOT ACCEPTABLE.
20. CABINETS, BOXES AND WIRE WAYS SHALL BE LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND THE NEC.
21. WIREWAYS SHALL BE METAL WITH AN ENAMEL FINISH AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARDS (WIREMOLD SPECMATE WIREWAY).
22. SLOTTED WIRING DUCT SHALL BE PVC AND INCLUDE COVER (PANDUIT TYPE E OR EQUAL).
23. CONDUITS SHALL BE FASTENED SECURELY IN PLACE WITH APPROVED NON-PERFORATED STRAPS AND HANGERS. EXPLOSIVE DEVICES (i.e. POWDER-ACTUATED) FOR ATTACHING HANGERS TO STRUCTURE WILL NOT BE PERMITTED. CLOSELY FOLLOW THE LINES OF THE STRUCTURE, MAINTAIN CLOSE PROXIMITY TO THE STRUCTURE AND KEEP CONDUITS IN TIGHT ENVELOPES. CHANGES IN DIRECTION TO ROUTE AROUND OBSTACLES SHALL BE MADE WITH CONDUIT OUTLET BODIES. CONDUIT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER. PARALLEL AND PERPENDICULAR TO STRUCTURE WALL AND CEILING LINES. ALL CONDUIT SHALL BE FISHED TO CLEAR OBSTRUCTIONS. ENDS OF CONDUITS SHALL BE TEMPORARILY CAPPED FLUSH TO FINISH GRADE TO PREVENT CONCRETE, PLASTER OR DIRT FROM ENTERING. CONDUITS SHALL BE RIGIDLY CLAMPED TO BOXES BY GALVANIZED MALLEABLE IRON BUSHING ON INSIDE AND GALVANIZED MALLEABLE IRON LOCKNUT ON OUTSIDE AND INSIDE.
24. EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES AND PULL BOXES SHALL BE GALVANIZED OR EPOXY-COATED SHEET STEEL. SHALL MEET OR EXCEED UL 50 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND NEMA 3 (OR BETTER) FOR EXTERIOR LOCATIONS.
25. METAL RECEPTACLE, SWITCH AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY-COATED OR NON-CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
26. NONMETALLIC RECEPTACLE, SWITCH AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2 (NEWEST REVISION) AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
27. THE CONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CARRIER AND/OR DISH Wireless L.L.C. AND TOWER OWNER BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
28. THE CONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD LIFE AND PROPERTY.
29. INSTALL LAMICOID LABEL ON THE METER CENTER TO SHOW "DISH Wireless L.L.C.".
30. ALL EMPTY/SPARE CONDUITS THAT ARE INSTALLED ARE TO HAVE A METERED MULE TAPE PULL CORD INSTALLED.



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LITTLETON, CO 80120



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BOCA RATON, FL 33487



B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/23

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DRAWN BY: CHECKED BY: APPROVED BY:

CH	RMC	RMC
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RFDS REV #: 3

CONSTRUCTION
DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	11/1/21	ISSUED FOR REVIEW
B	12/27/21	ISSUED FOR REVIEW
0	1/13/22	CONSTRUCTION

A&E PROJECT NUMBER
149439.001.01

DISH Wireless L.L.C.
PROJECT INFORMATION

BOBDL00118A
712 BREAD & MILK ST
COVENTRY, CT 06238

SHEET TITLE
GENERAL NOTES

SHEET NUMBER

GN-3

GROUNDING NOTES:

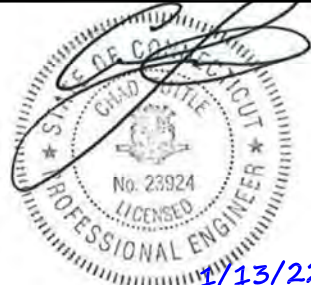
1. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION AND AC POWER GES’S) SHALL BE BONDED TOGETHER AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
2. THE CONTRACTOR SHALL PERFORM IEEE FALL–OF–POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR GROUND ELECTRODE SYSTEMS, THE CONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
3. THE CONTRACTOR IS RESPONSIBLE FOR PROPERLY SEQUENCING GROUNDING AND UNDERGROUND CONDUIT INSTALLATION AS TO PREVENT ANY LOSS OF CONTINUITY IN THE GROUNDING SYSTEM OR DAMAGE TO THE CONDUIT AND PROVIDE TESTING RESULTS.
4. METAL CONDUIT AND TRAY SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
5. METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
6. EACH CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, #6 STRANDED COPPER OR LARGER FOR INDOOR BTS; #2 BARE SOLID TINNED COPPER FOR OUTDOOR BTS.
7. CONNECTIONS TO THE GROUND BUS SHALL NOT BE DOUBLED UP OR STACKED BACK TO BACK CONNECTIONS ON OPPOSITE SIDE OF THE GROUND BUS ARE PERMITTED.
8. ALL EXTERIOR GROUND CONDUCTORS BETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING SHALL BE #2 SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.
9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
10. USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED.
11. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
12. ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR AND EXTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS.
13. COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC WELD CONNECTIONS.
14. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.
15. APPROVED ANTIOXIDANT COATINGS (i.e. CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
16. ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
17. MISCELLANEOUS ELECTRICAL AND NON–ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
18. BOND ALL METALLIC OBJECTS WITHIN 6 ft OF MAIN GROUND RING WITH (1) #2 BARE SOLID TINNED COPPER GROUND CONDUCTOR.
19. GROUND CONDUCTORS USED FOR THE FACILITY GROUNDING AND LIGHTNING PROTECTION SYSTEMS SHALL NOT BE ROUTED THROUGH METALLIC OBJECTS THAT FORM A RING AROUND THE CONDUCTOR, SUCH AS METALLIC CONDUITS, METAL SUPPORT CLIPS OR SLEEVES THROUGH WALLS OR FLOORS. WHEN IT IS REQUIRED TO BE HOUSED IN CONDUIT TO MEET CODE REQUIREMENTS OR LOCAL CONDITIONS, NON–METALLIC MATERIAL SUCH AS PVC CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (i.e., NONMETALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.
20. ALL GROUNDS THAT TRANSITION FROM BELOW GRADE TO ABOVE GRADE MUST BE #2 BARE SOLID TINNED COPPER IN 3/4” NON–METALLIC, FLEXIBLE CONDUIT FROM 24” BELOW GRADE TO WITHIN 3” TO 6” OF CAD–WELD TERMINATION POINT. THE EXPOSED END OF THE CONDUIT MUST BE SEALED WITH SILICONE CAULK. (ADD TRANSITIONING GROUND STANDARD DETAIL AS WELL).
21. BUILDINGS WHERE THE MAIN GROUNDING CONDUCTORS ARE REQUIRED TO BE ROUTED TO GRADE, THE CONTRACTOR SHALL ROUTE TWO GROUNDING CONDUCTORS FROM THE ROOFTOP, TOWERS, AND WATER TOWERS GROUNDING RING, TO THE EXISTING GROUNDING SYSTEM, THE GROUNDING CONDUCTORS SHALL NOT BE SMALLER THAN 2/0 COPPER. ROOFTOP GROUNDING RING SHALL BE BONDED TO THE EXISTING GROUNDING SYSTEM, THE BUILDING STEEL COLUMNS, LIGHTNING PROTECTION SYSTEM, AND BUILDING MAIN WATER LINE (FERROUS OR NONFERROUS METAL PIPING ONLY). DO NOT ATTACH GROUNDING TO FIRE SPRINKLER SYSTEM PIPES.



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A&E PROJECT NUMBER

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DISH Wireless L.L.C.
PROJECT INFORMATION

BOBDL00118A
712 BREAD & MILK ST
COVENTRY, CT 06238

SHEET TITLE

GENERAL NOTES

SHEET NUMBER

GN-4

EXHIBIT 7

Structural Ananlysis



Tower Engineering Solutions

Phone (972) 483-0607, Fax (972) 975-9615
1320 Greenway Drive, Suite 600, Irving, Texas 75038

Structural Analysis Report

Existing 178 ft Nudd Corporation Monopole

Customer Name: SBA Communications Corp

Customer Site Number: CT02573-S

Customer Site Name: Coventry 2 CT

Carrier Name: Dish Network (App#: 168264, V2)

Carrier Site ID / Name: BOBDL00118A / SBA-CT02573S

Site Location: 712 Bread & Milk Street

Coventry, Connecticut

Tolland County

Latitude: 41.818091

Longitude: -72.393175

Exp. 01/31/2022



Analysis Result:

Max Structural Usage: 92.9% [Pass]

Max Foundation Usage: 34.0% [Pass]

Additional Usage Caused by New Mount: +0.3%

11/04/2021

Report Prepared By : Dipika Dhungana

Introduction

The purpose of this report is to summarize the analysis results on the 178 ft Nudd Corporation Monopole to support the proposed antennas and transmission lines in addition to those currently installed. Any modification listed under Sources of Information was assumed completed and was included in this analysis.

Sources of Information

Tower Drawings	Fred A. Nudd Corporation Project # 7491R Rev A, dated 10/03/2002; Engineered Tower Solutions Job # 171015 (Mapping), dated 05/12/2017
Foundation Drawing	Fred A. Nudd Corporation, Project # 7491R Rev A Dated 10/03/2002; Engineered Tower Solutions Job # 171015 (Mapping), dated 05/12/2017
Geotechnical Report	Jaworski Geotech Inc., Project # 00214G Dated 06/14/2000
Modification Drawings	N/A
Mount Analysis	N/A

Analysis Criteria

The rigorous analysis was performed in accordance with the requirements and stipulations of the TIA-222-G-2. In accordance with this standard, the structure was analyzed using **TESPoles**, a proprietary analysis software. The program considers the structure as an elastic 3-D model with second-order effects and temperature effects incorporated in the analysis. The analysis was performed using multiple wind directions.

Wind Speed Used in the Analysis:	Ultimate Design Wind Speed $V_{ult} = 130.0$ mph (3-Sec. Gust)/ Nominal Design Wind Speed $V_{asd} = 101.0$ mph (3-Sec. Gust)
Wind Speed with Ice:	50 mph (3-Sec. Gust) with 1" radial ice concurrent
Operational Wind Speed:	60 mph + 0" Radial ice
Standard/Codes:	TIA-222-G-2 / 2015 IBC / 2018 Connecticut State Building Code
Exposure Category:	B
Structure Class:	II
Topographic Category:	1
Crest Height:	0 ft
Seismic Parameters:	$S_S = 0.176$, $S_1 = 0.063$

This structural analysis is based upon the tower being classified as a Structure Class II; however, if a different classification is required subsequent to the date hereof, the tower classification will be changed to meet such requirement and a new structural analysis will be run.

Existing Antennas, Mounts and Transmission Lines

The table below summarizes the antennas, mounts and transmission lines that were considered in the analysis as existing on the tower.

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
1	172.0	3	EMS - RR90-1702-DP - Panel	Low-Profile Platform w/ Mods	(12) 1 5/8" (1) 1 5/8" Fiber	T-Mobile
2		3	Ericsson - KRY 112 144/1 - TMA			
3		3	Ericsson - KRY 112 489/2 - TMA			
4		3	Ericsson - Radio 4449 B71+B12 - RRU			
5		3	Kathrein - 782 11056 - Bias T			
6	170.0	3	RFS - APXVAARR24_43-U-NA20 - Panel			
7	162.0	2	Cci DMP65R-BU6DA - Panel	Platform w/ Hand Rail HRK12 (Handrail Kit)	(12) 1 5/8" (2) 1" DC Power (4) 1/2" (1) 3/8" Fiber	AT&T
8		1	Cci DMP65R-BU8DA - Panel			
9		1	Cci HPA-65R-BU8AA - Panel			
10		2	Cci HPA-65R-BU6AA - Panel			
11		6	Powerwave 21401 TMA			
12		6	Powerwave 7020.00 RET			
13		3	Ericsson RRUS 8843 B2 B66A RRU			
14		3	Ericsson RRUS 4449 B5/B12 RRU			
15		3	Powerwave 7770 - Panel			
16		1	Raycap DC6-48-60-18-8F			
-	153.0	3	Comba ODI2-065R18K-GQ - Panel	(3) Commscope SF-SU7-2-96 Sector Frames	(1) 1 1/4" Hybrid	Dish Network
-		2	Ericsson 4415			
-		3	Ericsson 0208			
21	130.0	3	Samsung MT6407-77A - Panel	14'-6" Platform w/ Support Rail [PV-LPP14M-HR-B]	(2) 1 5/8" Hybrid	Verizon
22		3	Samsung XXDWMM-12.5-65 - Panel			
23		6	Andrew SBNHH-1D65B - Panel			
24		3	Samsung RF4440d-13A			
25		3	Samsung RF4439d-25A			
26		3	Alcatel Lucent B25 RRH4X30			
27		2	RFS DB-T1-6Z-8AB-OZ			

Proposed Carrier's Final Configuration of Antennas, Mounts and Transmission Lines

Information pertaining to the proposed carrier's final configuration of antennas and transmission lines was provided by SBA Communications Corp. The proposed antennas and lines are listed below.

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
17	153.0	3	JMA Wireless MX08FRO665-21	Low-profile platform w/support rail Commscope MC-PK8-DSH	(1) 1.75" Hybrid	Dish Network
18		3	Fujitsu TA08025-B605			
19		3	Fujitsu TA08025-B604			
20		1	Raycap RDIDC-9181-PF-48			

See the attached coax layout for the line placement considered in the analysis.

Analysis Results

The results of the structural analysis, performed for the wind and ice loading and antenna equipment as defined above, are summarized as the following:

	Pole shafts	Anchor Bolts	Base Plate
Max. Usage:	57.7%	48.2%	92.9%
Pass/Fail	Pass	Pass	Pass

Foundations

	Moment (Kip-Ft)	Shear (Kips)
Analysis Reactions	4335.3	34.5

The foundation has been investigated using the supplied documents and soils report and was found adequate. Therefore, no modification to the foundation will be required.

Operational Condition (Rigidity):

Operational characteristics of the tower are found to be within the limits prescribed by TIA-222 for the installed antennas. The maximum twist/sway at the elevation of the proposed equipment is 0.9056 degrees under the operational wind speed as specified in the Analysis Criteria.

Conclusions

Based on the analysis results, the existing structure and its foundation were found to be adequate to safely support the existing and proposed equipment and meet the minimum requirements per the TIA-222 Standard under the design basic wind speed as specified in the Analysis Criteria.

Standard Conditions

1. This analysis was performed based on the information supplied to **(TES) Tower Engineering Solutions, LLC**. Verification of the information provided was not included in the Scope of Work for **TES**. The accuracy of the analysis is dependent on the accuracy of the information provided.
2. The structural analysis was performance based upon the evidence available at the time of this report. All information provided by the client is considered to be accurate.
3. The analyses will be performed based on the codes as specified by the client or based on the best knowledge of the engineering staff of **TES**. In the absence of information to the contrary, all work will be performed in accordance with the latest relevant revision of ANSI/TIA-222. If wind speed and/or ice loads are different from the minimum values recommended by the ANSI/TIA-222 standard or other codes, **TES** should be notified in writing and the applicable minimum values provided by the client.
4. The configuration of the existing mounts, antennas, coax and other appurtenances were supplied by the customer for the current structural analysis. **TES** has not visited the tower site to verify the adequacy of the information provided. If there is any discrepancy found in the report regarding the existing conditions, **TES** should be notified immediately to evaluate the effect of the discrepancy on the analysis results.
5. The client will assume responsibility for rework associated with the differences in initially provided information, including tower and foundation information, existing and/or proposed equipment and transmission lines.
6. If a feasibility analysis was performed, final acceptance of changed conditions shall be based upon a rigorous structural analysis.

Usage Diagram - Max Ratio 57.74% at 0.0ft

Structure: CT02573-S-SBA

Code: EIA/TIA-222-G

11/4/2021

Site Name: Coventry 2 CT

Exposure: B

Height: 177.95 (ft)

Gh: 1.1

Base Elev: 0.000 (ft)

Page: 1



Dead Load Factor: 1.20

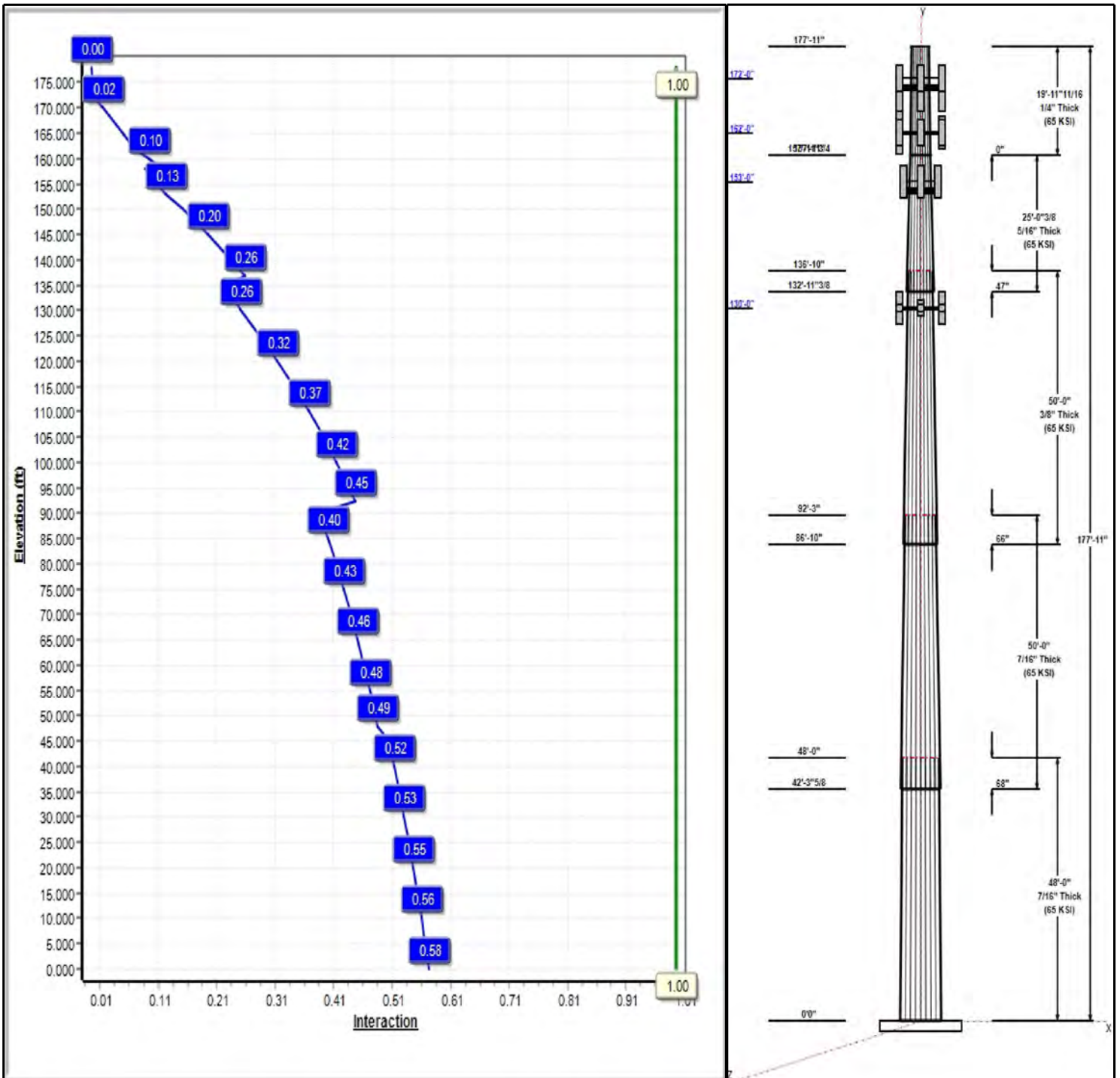
Wind Load Factor: 1.60

Iterations: 24

Load Case : 1.2D + 1.6W 101 mph Wind



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Structure: CT02573-S-SBA

Type: Tapered
Site Name: Coventry 2 CT
Height: 177.95 (ft)
Base Elev: 0.00 (ft)

Base Shape: 18 Sided
Taper: 0.23391

11/4/2021

Page: 2



Shaft Properties

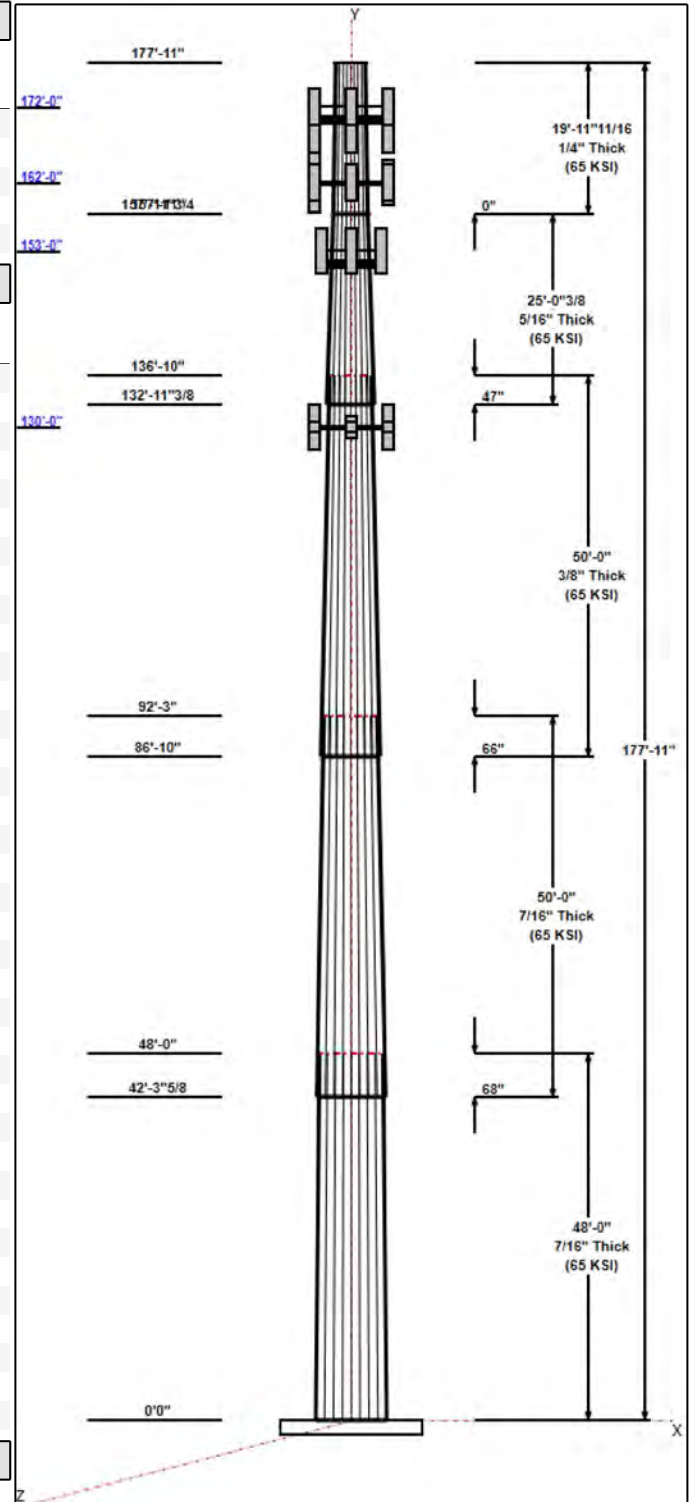
Seq	Length (ft)	Top (in)	Bottom (in)	Thick (in)	Joint Type	Taper	Grade (ksi)
1	48.00	53.27	64.50	0.438		0.23391	65
2	50.00	43.78	55.48	0.438	Slip	0.23391	65
3	50.00	34.12	45.81	0.375	Slip	0.23391	65
4	25.03	29.80	35.65	0.313	Slip	0.23391	65
5	19.97	25.13	29.80	0.250	Butt	0.23391	65

Discrete Appurtenances

Attach Elev (ft)	Force Elev (ft)	Qty	Description	Carrier
177.95	177.95	1	6' Lightning rod	
172.00	172.00	1	MS-1436 (Light Collar	T-Mobile
172.00	172.00	1	MS-HRECP	T-Mobile
172.00	172.00	1	MS-HR35	T-Mobile
172.00	172.00	1	MS-C1B-2875P	T-Mobile
172.00	172.00	3	RR90-17-02DP	T-Mobile
172.00	172.00	3	KRY 112 144/1	T-Mobile
172.00	172.00	3	KRY 112 89/4	T-Mobile
172.00	172.00	3	4449	T-Mobile
172.00	172.00	3	782 10660	T-Mobile
172.00	170.00	3	APXVAARR24_43-U-NA20	T-Mobile
172.00	172.00	3	T-Frames w/ Pipe Mount	T-Mobile
162.00	162.00	2	Cci DMP65R-BU6DA	AT&T
162.00	162.00	1	Cci DMP65R-BU8DA	AT&T
162.00	162.00	1	Cci HPA-65R-BU8AA	AT&T
162.00	162.00	2	Cci HPA-65R-BU6AA	AT&T
162.00	162.00	6	Powerwave 21401 TMA	AT&T
162.00	162.00	6	Powerwave 7020.00 RET	AT&T
162.00	162.00	3	Ericsson RRUS 8843 B2	AT&T
162.00	162.00	3	Ericsson RRUS 4449	AT&T
162.00	162.00	1	HRK12 (Handrail Kit)	AT&T
162.00	162.00	1	HP Platform w/ Pipe Mount	AT&T
162.00	162.00	3	Powerwave 7770	AT&T
162.00	162.00	1	Raycap DC6-48-60-18-8F	AT&T
153.00	153.00	3	MX08FRO665-21	Dish Network
153.00	153.00	1	MC-PK8-DSH	Dish Network
153.00	153.00	3	TA08025-B604	Dish Network
153.00	153.00	3	TA08025-B605	Dish Network
153.00	153.00	1	RDIDC-9181-OF-48	Dish Network
130.00	130.00	3	B25 RRH4x30-4R	Verizon
130.00	130.00	2	DB-T1-6Z-8AB-0Z	Verizon
130.00	130.00	1	PV-LPP14L-HR-B Platform	Verizon
130.00	130.00	3	MT6407-77A	Verizon
130.00	130.00	6	SBNHH-1D65B	Verizon
130.00	130.00	3	XXDWMM-12.5-65	Verizon
130.00	130.00	3	RF4440d-13A	Verizon
130.00	130.00	3	RF4439d-25A	Verizon

Linear Appurtenances

Elev From (ft)	Elev To (ft)	Placement	Description	Carrier
0.00	173.00	Inside	1 5/8" Coax	T-Mobile
0.00	173.00	Inside	1 5/8" Fiber	T-Mobile
0.00	162.00	Inside	1 5/8" Coax	AT&T
0.00	162.00	Inside	1" DC Power	AT&T



Structure: CT02573-S-SBA

Type: Tapered	Base Shape: 18 Sided	11/4/2021
Site Name: Coventry 2 CT	Taper: 0.23391	
Height: 177.95 (ft)		
Base Elev: 0.00 (ft)		Page: 3



0.00	162.00	Inside	1/2" Coax	AT&T
0.00	162.00	Inside	3/8" Fiber	AT&T
0.00	153.00	Inside	1.75" Hybrid	Dish Network
0.00	130.00	Inside	1 5/8" Hybrid	Verizon

Anchor Bolts

Qty	Specifications	Grade (ksi)	Arrangement
24	2.00" F1554 105	105.0	Radial

Base Plate

Thickness (in)	Specifications (in)	Grade (ksi)	Geometry
2.2500	68.0	50.0	Round

Reactions

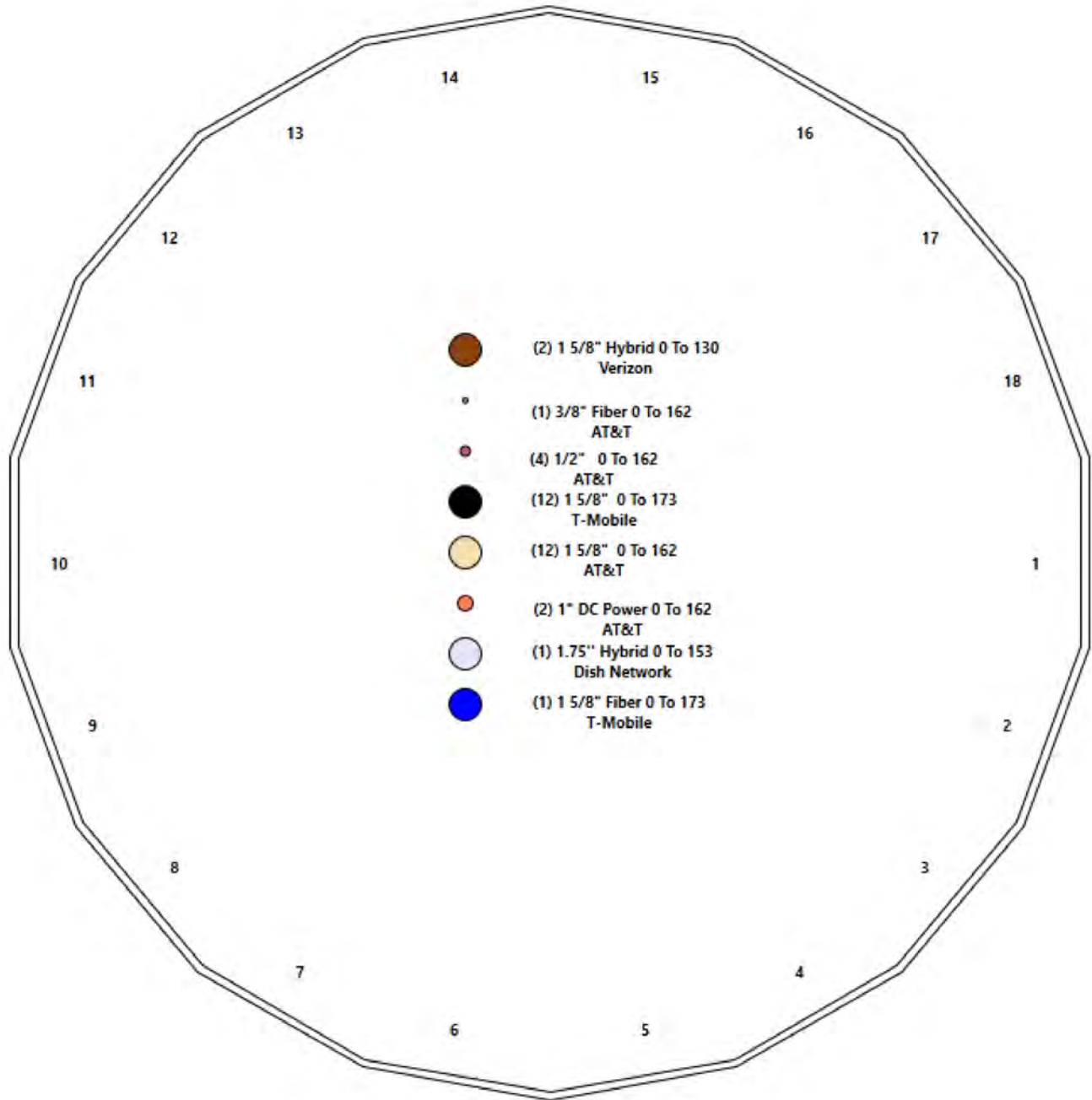
Load Case	Moment (FT-Kips)	Shear (Kips)	Axial (Kips)
1.2D + 1.6W 101 mph Wind	4335.3	34.5	64.3
0.9D + 1.6W 101 mph Wind	4289.7	34.5	48.2
1.2D + 1.0Di + 1.0Wi 50 mph Wind	1283.2	9.9	108.2
1.2D + 1.0E	283.9	2.2	64.3
0.9D + 1.0E	280.7	2.2	48.3
1.0D + 1.0W 60 mph Wind	950.2	7.6	53.6

Structure: CT02573-S-SBA - Coax Line Placement

Type: Monopole
Site Name: Coventry 2 CT
Height: 177.95 (ft)

11/4/2021

Page: 4



Shaft Properties

Structure: CT02573-S-SBA	Code: EIA/TIA-222-G	11/4/2021
Site Name: Coventry 2 CT	Exposure: B	
Height: 177.95 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 5

Sec. No.	Shape	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Overlap (in)	Weight (lb)
1	18	48.000	0.4375	65		0.00	13,256
2	18	50.000	0.4375	65	Slip	68.38	11,622
3	18	50.000	0.3750	65	Slip	65.63	8,017
4	18	25.030	0.3125	65	Slip	46.63	2,738
5	18	19.972	0.2500	65	Flange	0.00	1,467
Total Shaft Weight:							37,101

Bottom

Top

Sec. No.	Dia (in)	Elev (ft)	Area (sqin)	Ix (in^4)	W/t Ratio	D/t Ratio	Dia (in)	Elev (ft)	Area (sqin)	Ix (in^4)	W/t Ratio	D/t Ratio	Taper
1	64.50	0.00	88.96	46124.76	24.59	147.43	53.27	48.00	73.36	25874.8	20.06	121.7	0.233914
2	55.48	42.30	76.43	29256.05	20.95	126.81	43.78	92.30	60.19	14288.6	16.24	100.0	0.233914
3	45.81	86.83	54.08	14107.39	20.13	122.17	34.12	136.83	40.16	5777.20	14.63	90.98	0.233914
4	35.65	132.9	35.05	5530.46	18.71	114.09	29.80	157.98	29.24	3211.92	15.40	95.35	0.233914
5	29.80	157.9	23.44	2585.91	19.61	119.19	25.13	177.95	19.74	1543.03	16.31	100.5	0.233914

Load Summary

Structure: CT02573-S-SBA	Code: EIA/TIA-222-G	11/4/2021
Site Name: Coventry 2 CT	Exposure: B	
Height: 177.95 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Discrete Appurtenances

No.	Elev (ft)	Description	Qty	No Ice			Ice			Hor. Ecc. (ft)	Vert Ecc (ft)
				Weight (lb)	CaAa (sf)	CaAa Factor	Weight (lb)	CaAa (sf)	CaAa Factor		
1	177.95	6' Lightning rod	1	6.50	0.38	1.00	55.73	1.855	1.00	0.00	0.00
2	172.00	MS-1436 (Light Collar Mount)	1	65.60	1.50	1.00	189.40	3.623	1.00	0.00	0.00
3	172.00	MS-HRECP	1	514.00	12.25	1.00	1338.52	28.433	1.00	0.00	0.00
4	172.00	MS-HR35	1	430.00	8.75	1.00	1119.78	20.309	1.00	0.00	0.00
5	172.00	MS-C1B-2875P	1	329.00	10.00	1.00	949.89	24.154	1.00	0.00	0.00
6	172.00	RR90-17-02DP	3	13.50	4.36	0.73	151.29	5.701	0.77	0.00	0.00
7	172.00	KRY 112 144/1	3	11.00	0.41	0.50	25.57	1.052	0.50	0.00	0.00
8	172.00	KRY 112 89/4	3	15.40	0.65	0.50	39.22	1.477	0.50	0.00	0.00
9	172.00	4449	3	70.00	1.65	0.67	202.11	2.429	0.67	0.00	0.00
10	172.00	782 10660	3	2.60	0.28	0.50	11.43	0.822	0.50	0.00	0.00
11	172.00	APXVAARR24_43-U-NA20	3	128.00	20.24	0.70	750.03	22.799	0.72	0.00	-2.00
12	172.00	T-Frames w/ Pipe Mount	3	450.00	16.00	0.75	925.58	26.870	0.75	0.00	0.00
13	162.00	Cci DMP65R-BU6DA	2	79.40	12.71	0.72	475.16	14.677	0.72	0.00	0.00
14	162.00	Cci DMP65R-BU8DA	1	95.70	17.87	0.72	713.81	20.284	0.72	0.00	0.00
15	162.00	Cci HPA-65R-BU8AA	1	54.00	11.23	0.86	434.64	13.482	0.86	0.00	0.00
16	162.00	Cci HPA-65R-BU6AA	2	43.00	7.92	0.99	387.80	9.679	0.99	0.00	0.00
17	162.00	Powerwave 21401 TMA	6	17.50	0.82	0.50	61.25	1.402	0.50	0.00	0.00
18	162.00	Powerwave 7020.00 RET	6	2.20	0.40	0.50	15.94	1.051	0.50	0.00	0.00
19	162.00	Ericsson RRUS 8843 B2 B66A RRU	3	72.00	1.64	0.67	134.94	2.308	0.67	0.00	0.00
20	162.00	Ericsson RRUS 4449 B5/B12 RRU	3	70.00	1.65	0.67	170.03	2.400	0.67	0.00	0.00
21	162.00	HRK12 (Handrail Kit)	1	261.72	6.75	1.00	679.05	15.614	1.00	0.00	0.00
22	162.00	HP Platform w/ Pipe Mount	1	1600.00	25.00	1.00	3475.95	51.967	1.00	0.00	0.00
23	162.00	Powerwave 7770	3	35.00	5.50	0.73	231.06	6.964	0.75	0.00	0.00
24	162.00	Raycap DC6-48-60-18-8F	1	31.80	0.92	1.00	114.87	1.509	1.00	0.00	0.00
25	153.00	MX08FRO665-21	3	64.50	12.49	0.74	453.10	14.447	0.74	0.00	0.00
26	153.00	MC-PK8-DSH	1	1727.00	37.59	1.00	3981.90	00.693	1.00	0.00	0.00
27	153.00	TA08025-B604	3	63.90	1.96	0.67	131.54	2.709	0.67	0.00	0.00
28	153.00	TA08025-B605	3	75.00	1.96	0.67	144.88	2.709	0.67	0.00	0.00
29	153.00	RDIDC-9181-OF-48	1	21.90	2.01	0.67	93.04	2.769	0.67	0.00	0.00
30	130.00	B25 RRH4x30-4R	3	51.00	2.14	0.67	126.90	2.939	0.67	0.00	0.00
31	130.00	DB-T1-6Z-8AB-OZ	2	18.90	4.80	0.67	218.60	5.973	0.67	0.00	0.00
32	130.00	PV-LPP14L-HR-B Platform w/	1	1641.00	36.80	1.00	4471.74	79.008	1.00	0.00	0.00
33	130.00	MT6407-77A	3	79.40	4.69	0.70	247.09	5.953	0.70	0.00	0.00
34	130.00	SBNHH-1D65B	6	40.00	8.16	0.83	323.26	9.906	0.83	0.00	0.00
35	130.00	XXDWMM-12.5-65	3	23.14	1.53	0.74	136.31	2.274	0.74	0.00	0.00
36	130.00	RF4440d-13A	3	70.33	1.93	0.67	177.52	3.138	0.67	0.00	0.00
37	130.00	RF4439d-25A	3	50.70	1.93	0.75	127.97	3.138	0.67	0.00	0.00
Totals:			91	11,455.43			34,743.80				

Linear Appurtenances

Bottom Elev. (ft)	Top Elev. (ft)	Description	Exposed Width	Exposed
0.00	173.00	(12) 1 5/8" Coax	0.00	Inside
0.00	173.00	(1) 1 5/8" Fiber	0.00	Inside
0.00	162.00	(12) 1 5/8" Coax	0.00	Inside
0.00	162.00	(2) 1" DC Power	0.00	Inside

Discrete Appurtenances

No.	Elev (ft)	Description	Qty	No Ice			Ice			Hor. Ecc. (ft)	Vert Ecc (ft)
				Weight (lb)	CaAa (sf)	CaAa Factor	Weight (lb)	CaAa (sf)	CaAa Factor		
0.00	162.00	(4) 1/2" Coax			0.00	Inside					
0.00	162.00	(1) 3/8" Fiber			0.00	Inside					
0.00	153.00	(1) 1.75" Hybrid			0.00	Inside					
0.00	130.00	(2) 1 5/8" Hybrid			0.00	Inside					

Shaft Section Properties

Structure: CT02573-S-SBA	Code: EIA/TIA-222-G	11/4/2021
Site Name: Coventry 2 CT	Exposure: B	
Height: 177.95 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Increment Length: 5 (ft)

Elev (ft)	Description	Thick (in)	Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	Fpy (ksi)	S (in^3)	Weight (lb)
0.00		0.4375	64.500	88.956	46124.8	24.59	147.43	72.5	1408.	0.0
5.00		0.4375	63.330	87.332	43644.3	24.11	144.76	73.0	1357.	1499.7
10.00		0.4375	62.161	85.708	41254.5	23.64	142.08	73.6	1307.	1472.0
15.00		0.4375	60.991	84.083	38953.5	23.17	139.41	74.1	1257.	1444.4
20.00		0.4375	59.822	82.459	36739.7	22.70	136.74	74.7	1209.	1416.8
25.00		0.4375	58.652	80.835	34611.4	22.23	134.06	75.3	1162.	1389.1
30.00		0.4375	57.483	79.211	32566.9	21.76	131.39	75.8	1115.	1361.5
35.00		0.4375	56.313	77.587	30604.6	21.29	128.72	76.4	1070.	1333.9
40.00		0.4375	55.143	75.963	28722.7	20.81	126.04	76.9	1025.	1306.2
42.30	Bot - Section 2	0.4375	54.605	75.216	27882.9	20.60	124.81	77.2	1005.	592.1
45.00		0.4375	53.974	74.339	26919.6	20.34	123.37	77.5	982.4	1384.1
48.00	Top - Section 1	0.4375	54.147	74.580	27181.8	20.41	123.76	0.0	0.0	1520.2
50.00		0.4375	53.679	73.930	26477.7	20.22	122.70	77.6	971.5	505.3
55.00		0.4375	52.510	72.306	24770.9	19.75	120.02	78.2	929.1	1244.0
60.00		0.4375	51.340	70.682	23139.0	19.28	117.35	78.7	887.7	1216.4
65.00		0.4375	50.171	69.058	21580.4	18.81	114.68	79.3	847.2	1188.8
70.00		0.4375	49.001	67.434	20093.4	18.34	112.00	79.8	807.7	1161.1
75.00		0.4375	47.831	65.810	18676.3	17.87	109.33	80.4	769.1	1133.5
80.00		0.4375	46.662	64.186	17327.5	17.40	106.66	80.9	731.4	1105.9
85.00		0.4375	45.492	62.562	16045.2	16.92	103.98	81.5	694.7	1078.2
86.83	Bot - Section 3	0.4375	45.063	61.966	15591.4	16.75	103.00	81.7	681.5	388.4
90.00		0.4375	44.323	60.938	14827.8	16.45	101.31	82.0	658.9	1240.2
92.30	Top - Section 2	0.3750	44.534	52.559	12949.1	19.53	118.76	0.0	0.0	888.7
95.00		0.3750	43.903	51.808	12401.9	19.23	117.08	78.8	556.4	479.1
100.00		0.3750	42.734	50.416	11428.8	18.68	113.96	79.4	526.8	869.6
105.00		0.3750	41.564	49.023	10508.0	18.13	110.84	80.1	497.9	845.9
110.00		0.3750	40.394	47.631	9638.1	17.58	107.72	80.7	469.9	822.2
115.00		0.3750	39.225	46.239	8817.5	17.03	104.60	81.4	442.8	798.6
120.00		0.3750	38.055	44.847	8044.9	16.48	101.48	82.0	416.4	774.9
125.00		0.3750	36.886	43.455	7318.8	15.93	98.36	82.6	390.8	751.2
130.00		0.3750	35.716	42.063	6637.7	15.38	95.24	82.6	366.0	727.5
132.95	Bot - Section 4	0.3750	35.027	41.243	6256.7	15.06	93.40	82.6	351.8	417.8
135.00		0.3750	34.547	40.671	6000.3	14.83	92.12	82.6	342.1	529.1
136.83	Top - Section 3	0.3125	34.743	34.149	5114.6	18.19	111.18	0.0	0.0	466.5
140.00		0.3125	34.002	33.415	4791.6	17.77	108.81	80.5	277.6	364.0
145.00		0.3125	32.832	32.255	4309.7	17.11	105.06	81.3	258.5	558.6
150.00		0.3125	31.663	31.095	3861.2	16.46	101.32	82.0	240.2	538.9
153.00		0.3125	30.961	30.399	3607.7	16.06	99.08	82.5	229.5	313.9
155.00		0.3125	30.493	29.935	3445.0	15.80	97.58	82.6	222.5	205.3
157.98	Top - Section 4	0.3125	29.797	29.244	3211.9	15.40	95.35	82.6	212.3	299.8
157.98	Bot - Section 5	0.2500	29.797	23.445	2585.9	19.25	119.19	78.3	170.9	
160.00		0.2500	29.324	23.069	2463.7	19.27	117.30	78.7	165.5	160.0
162.00		0.2500	28.856	22.698	2346.7	18.94	115.42	79.1	160.2	155.7
165.00		0.2500	28.154	22.141	2178.2	18.45	112.62	79.7	152.4	228.9
170.00		0.2500	26.985	21.213	1915.6	17.62	107.94	80.7	139.8	368.8
172.00		0.2500	26.517	20.842	1816.8	17.29	106.07	81.1	134.9	143.1
175.00		0.2500	25.815	20.285	1675.0	16.80	103.26	81.6	127.8	209.9
177.95		0.2500	25.125	19.738	1543.0	16.31	100.50	82.2	121.0	200.9

37100.9

Wind Loading - Shaft

Structure: CT02573-S-SBA

Code: EIA/TIA-222-G

11/4/2021

Site Name: Coventry 2 CT

Exposure: B

Height: 177.95 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 1.1

Topography: 1

Struct Class: II

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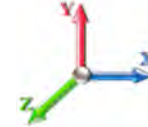


Load Case: 1.2D + 1.6W 101 mph Wind

Iterations 24

Dead Load Factor 1.20

Wind Load Factor 1.60



Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.70	17.366	19.10	461.21	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.70	17.366	19.10	452.85	0.650	0.000	5.00	27.042	17.58	537.2	0.0	1799.6
10.00		1.00	0.70	17.366	19.10	444.48	0.650	0.000	5.00	26.547	17.26	527.4	0.0	1766.4
15.00		1.00	0.70	17.366	19.10	436.12	0.650	0.000	5.00	26.052	16.93	517.6	0.0	1733.3
20.00		1.00	0.70	17.366	19.10	427.76	0.650	0.000	5.00	25.558	16.61	507.8	0.0	1700.1
25.00		1.00	0.70	17.366	19.10	419.39	0.650	0.000	5.00	25.063	16.29	497.9	0.0	1667.0
30.00		1.00	0.70	17.381	19.12	411.20	0.650	0.000	5.00	24.568	15.97	488.5	0.0	1633.8
35.00		1.00	0.73	18.163	19.98	411.81	0.650	0.000	5.00	24.073	15.65	500.2	0.0	1600.7
40.00		1.00	0.76	18.870	20.76	411.02	0.650	0.000	5.00	23.578	15.33	509.0	0.0	1567.5
42.30	Bot - Section 2	1.00	0.77	19.174	21.09	410.27	0.650	0.000	2.30	10.689	6.95	234.5	0.0	710.6
45.00		1.00	0.79	19.516	21.47	409.13	0.650	0.000	2.70	12.594	8.19	281.2	0.0	1661.0
48.00	Top - Section 1	1.00	0.80	19.879	21.87	407.55	0.650	0.000	3.00	13.835	8.99	314.6	0.0	1824.3
50.00		1.00	0.81	20.112	22.12	413.07	0.650	0.000	2.00	9.124	5.93	209.9	0.0	606.4
55.00		1.00	0.83	20.667	22.73	409.61	0.650	0.000	5.00	22.464	14.60	531.1	0.0	1492.8
60.00		1.00	0.85	21.187	23.31	405.49	0.650	0.000	5.00	21.969	14.28	532.5	0.0	1459.7
65.00		1.00	0.87	21.678	23.85	400.81	0.650	0.000	5.00	21.474	13.96	532.5	0.0	1426.5
70.00		1.00	0.89	22.142	24.36	395.63	0.650	0.000	5.00	20.979	13.64	531.4	0.0	1393.4
75.00		1.00	0.91	22.582	24.84	390.02	0.650	0.000	5.00	20.485	13.32	529.2	0.0	1360.2
80.00		1.00	0.93	23.003	25.30	384.00	0.650	0.000	5.00	19.990	12.99	526.0	0.0	1327.0
85.00		1.00	0.94	23.404	25.74	377.64	0.650	0.000	5.00	19.495	12.67	522.0	0.0	1293.9
86.83	Bot - Section 3	1.00	0.95	23.548	25.90	375.22	0.650	0.000	1.83	7.024	4.57	189.2	0.0	466.1
90.00		1.00	0.96	23.790	26.17	370.94	0.650	0.000	3.17	12.177	7.92	331.4	0.0	1488.2
92.30	Top - Section 2	1.00	0.97	23.962	26.36	367.76	0.650	0.000	2.30	8.728	5.67	239.2	0.0	1066.4
95.00		1.00	0.97	24.160	26.58	370.28	0.650	0.000	2.70	10.095	6.56	279.0	0.0	574.9
100.00		1.00	0.99	24.517	26.97	363.07	0.650	0.000	5.00	18.328	11.91	514.0	0.0	1043.5
105.00		1.00	1.00	24.861	27.35	355.60	0.650	0.000	5.00	17.833	11.59	507.2	0.0	1015.1
110.00		1.00	1.02	25.194	27.71	347.90	0.650	0.000	5.00	17.338	11.27	499.7	0.0	986.7
115.00		1.00	1.03	25.516	28.07	339.98	0.650	0.000	5.00	16.843	10.95	491.7	0.0	958.3
120.00		1.00	1.04	25.828	28.41	331.85	0.650	0.000	5.00	16.348	10.63	483.0	0.0	929.8
125.00		1.00	1.05	26.131	28.74	323.53	0.650	0.000	5.00	15.854	10.30	473.9	0.0	901.4
130.00	Appurtenance(s)	1.00	1.07	26.425	29.07	315.04	0.650	0.000	5.00	15.359	9.98	464.3	0.0	873.0
132.95	Bot - Section 4	1.00	1.07	26.595	29.25	309.95	0.650	0.000	2.95	8.823	5.74	268.4	0.0	501.4
135.00		1.00	1.08	26.712	29.38	306.37	0.650	0.000	2.05	6.149	4.00	187.9	0.0	634.9
136.83	Top - Section 3	1.00	1.08	26.815	29.50	303.15	0.650	0.000	1.83	5.423	3.52	166.4	0.0	559.8
140.00		1.00	1.09	26.991	29.69	303.11	0.650	0.000	3.17	9.210	5.99	284.4	0.0	436.8
145.00		1.00	1.10	27.263	29.99	294.15	0.650	0.000	5.00	14.139	9.19	441.0	0.0	670.4
150.00		1.00	1.11	27.528	30.28	285.05	0.650	0.000	5.00	13.644	8.87	429.7	0.0	646.7
153.00	Appurtenance(s)	1.00	1.12	27.684	30.45	279.52	0.650	0.000	3.00	7.949	5.17	251.7	0.0	376.6
155.00		1.00	1.12	27.787	30.57	275.81	0.650	0.000	2.00	5.200	3.38	165.3	0.0	246.4
157.98	Top - Section 4	1.00	1.13	27.939	30.73	270.25	0.650	0.000	2.98	7.596	4.94	242.8	0.0	359.8
160.00		1.00	1.13	28.040	30.84	266.44	0.650	0.000	2.02	5.058	3.29	162.3	0.0	192.0
162.00	Appurtenance(s)	1.00	1.13	28.140	30.95	262.65	0.650	0.000	2.00	4.923	3.20	158.5	0.0	186.9
165.00		1.00	1.14	28.288	31.12	256.94	0.650	0.000	3.00	7.236	4.70	234.2	0.0	274.6
170.00		1.00	1.15	28.530	31.38	247.32	0.650	0.000	5.00	11.664	7.58	380.7	0.0	442.6
172.00	Appurtenance(s)	1.00	1.15	28.626	31.49	243.44	0.650	0.000	2.00	4.527	2.94	148.3	0.0	171.7
175.00		1.00	1.16	28.768	31.64	237.58	0.650	0.000	3.00	6.642	4.32	218.6	0.0	251.9
177.95	Appurtenance(s)	1.00	1.17	28.905	31.80	231.78	0.650	0.000	2.95	6.358	4.13	210.2	0.0	241.1

Wind Loading - Shaft

Structure:	CT02573-S-SBA	Code:	EIA/TIA-222-G	11/4/2021
Site Name:	Coventry 2 CT	Exposure:	B	
Height:	177.95 (ft)	Crest Height:	0.00	
Base Elev:	0.000 (ft)	Site Class:	D - Stiff Soil	
Gh:	1.1	Topography:	1	Struct Class: II
				Page: 10



Totals:	177.95	17,253.7	44,521.1
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Discrete Appurtenance Forces

Structure: CT02573-S-SBA	Code: EIA/TIA-222-G	11/4/2021
Site Name: Coventry 2 CT	Exposure: B	
Height: 177.95 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II
		Page: 11

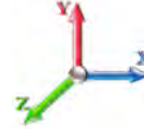


Load Case: 1.2D + 1.6W 101 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60

Iterations 24



No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	177.95	6' Lightning rod	1	28.905	31.796	1.00	1.00	0.38	7.80	0.000	0.000	19.33	0.00	0.00
2	172.00	KRY 112 144/1	3	28.626	31.488	0.38	0.75	0.46	39.60	0.000	0.000	23.24	0.00	0.00
3	172.00	MS-1436 (Light Collar)	1	28.626	31.488	1.00	1.00	1.50	78.72	0.000	0.000	75.57	0.00	0.00
4	172.00	MS-HRECP	1	28.626	31.488	1.00	1.00	12.25	616.80	0.000	0.000	617.17	0.00	0.00
5	172.00	MS-HR35	1	28.626	31.488	1.00	1.00	8.75	516.00	0.000	0.000	440.84	0.00	0.00
6	172.00	RR90-17-02DP	3	28.626	31.488	0.55	0.75	7.15	48.60	0.000	0.000	360.30	0.00	0.00
7	172.00	MS-C1B-2875P	1	28.626	31.488	1.00	1.00	10.00	394.80	0.000	0.000	503.82	0.00	0.00
8	172.00	4449	3	28.626	31.488	0.50	0.75	2.49	252.00	0.000	0.000	125.32	0.00	0.00
9	172.00	782 10660	3	28.626	31.488	0.38	0.75	0.32	9.36	0.000	0.000	15.87	0.00	0.00
10	172.00	APXVAARR24_43-U-NA2	3	28.530	31.383	0.53	0.75	31.97	460.80	0.000	-2.000	1605.28	0.00	-3210.56
11	172.00	T-Frames w/ Pipe Mount	3	28.626	31.488	0.56	0.75	27.00	1620.00	0.000	0.000	1360.30	0.00	0.00
12	172.00	KRY 112 89/4	3	28.626	31.488	0.38	0.75	0.73	55.44	0.000	0.000	36.84	0.00	0.00
13	162.00	HRK12 (Handrail Kit)	1	28.140	30.954	1.00	1.00	6.75	314.06	0.000	0.000	334.30	0.00	0.00
14	162.00	Ericsson RRUS 8843 B2	3	28.140	30.954	0.50	0.75	2.47	259.20	0.000	0.000	122.44	0.00	0.00
15	162.00	Ericsson RRUS 4449	3	28.140	30.954	0.50	0.75	2.49	252.00	0.000	0.000	123.19	0.00	0.00
16	162.00	Raycap DC6-48-60-18-8F	1	28.140	30.954	0.75	0.75	0.69	38.16	0.000	0.000	34.17	0.00	0.00
17	162.00	HP Platform w/ Pipe	1	28.140	30.954	1.00	1.00	25.00	1920.00	0.000	0.000	1238.17	0.00	0.00
18	162.00	Powerwave 7770	3	28.140	30.954	0.55	0.75	9.03	126.00	0.000	0.000	447.41	0.00	0.00
19	162.00	Powerwave 7020.00 RET	6	28.140	30.954	0.38	0.75	0.90	15.84	0.000	0.000	44.57	0.00	0.00
20	162.00	Cci HPA-65R-BU6AA	2	28.140	30.954	0.74	0.75	11.76	103.20	0.000	0.000	582.49	0.00	0.00
21	162.00	Cci HPA-65R-BU8AA	1	28.140	30.954	0.65	0.75	7.24	64.80	0.000	0.000	358.74	0.00	0.00
22	162.00	Cci DMP65R-BU8DA	1	28.140	30.954	0.54	0.75	9.65	114.84	0.000	0.000	477.92	0.00	0.00
23	162.00	Cci DMP65R-BU6DA	2	28.140	30.954	0.54	0.75	13.73	190.56	0.000	0.000	679.84	0.00	0.00
24	162.00	Powerwave 21401 TMA	6	28.140	30.954	0.38	0.75	1.85	126.00	0.000	0.000	91.38	0.00	0.00
25	153.00	TA08025-B604	3	27.684	30.453	0.50	0.75	2.95	230.04	0.000	0.000	143.97	0.00	0.00
26	153.00	MX08FRO665-21	3	27.684	30.453	0.55	0.75	20.80	232.20	0.000	0.000	1013.27	0.00	0.00
27	153.00	MC-PK8-DSH	1	27.684	30.453	1.00	1.00	37.59	2072.40	0.000	0.000	1831.55	0.00	0.00
28	153.00	TA08025-B605	3	27.684	30.453	0.50	0.75	2.95	270.00	0.000	0.000	143.97	0.00	0.00
29	153.00	RDIDC-9181-OF-48	1	27.684	30.453	0.50	0.75	1.01	26.28	0.000	0.000	49.21	0.00	0.00
30	130.00	SBNHH-1D65B	6	26.425	29.068	0.62	0.75	30.48	288.00	0.000	0.000	1417.47	0.00	0.00
31	130.00	RF4439d-25A	3	26.425	29.068	0.56	0.75	3.26	182.52	0.000	0.000	151.47	0.00	0.00
32	130.00	RF4440d-13A	3	26.425	29.068	0.50	0.75	2.91	253.19	0.000	0.000	135.32	0.00	0.00
33	130.00	XXDWMM-12.5-65	3	26.425	29.068	0.56	0.75	2.56	83.30	0.000	0.000	118.96	0.00	0.00
34	130.00	MT6407-77A	3	26.425	29.068	0.52	0.75	7.39	285.84	0.000	0.000	343.55	0.00	0.00
35	130.00	PV-LPP14L-HR-B	1	26.425	29.068	1.00	1.00	36.80	1969.20	0.000	0.000	1711.51	0.00	0.00
36	130.00	DB-T1-6Z-8AB-OZ	2	26.425	29.068	0.50	0.75	4.82	45.36	0.000	0.000	224.36	0.00	0.00
37	130.00	B25 RRH4x30-4R	3	26.425	29.068	0.50	0.75	3.23	183.60	0.000	0.000	150.04	0.00	0.00

Totals: 13,746.52

17,153.16

Total Applied Force Summary

Structure: CT02573-S-SBA	Code: EIA/TIA-222-G	11/4/2021	
Site Name: Coventry 2 CT	Exposure: B		
Height: 177.95 (ft)	Crest Height: 0.00		
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil		
Gh: 1.1	Topography: 1	Struct Class: II	Page: 12

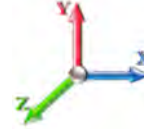


Load Case: 1.2D + 1.6W 101 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60

Iterations 24



Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		537.24	1984.40	0.00	0.00
10.00		527.41	1951.24	0.00	0.00
15.00		517.58	1918.08	0.00	0.00
20.00		507.75	1884.93	0.00	0.00
25.00		497.92	1851.77	0.00	0.00
30.00		488.50	1818.61	0.00	0.00
35.00		500.22	1785.45	0.00	0.00
40.00		508.99	1752.30	0.00	0.00
42.30		234.47	795.64	0.00	0.00
45.00		281.17	1760.67	0.00	0.00
48.00		314.62	1935.14	0.00	0.00
50.00		209.93	680.34	0.00	0.00
55.00		531.12	1677.63	0.00	0.00
60.00		532.50	1644.47	0.00	0.00
65.00		532.55	1611.32	0.00	0.00
70.00		531.41	1578.16	0.00	0.00
75.00		529.20	1545.00	0.00	0.00
80.00		526.03	1511.84	0.00	0.00
85.00		521.97	1478.69	0.00	0.00
86.83		189.22	533.88	0.00	0.00
90.00		331.40	1605.25	0.00	0.00
92.30		239.25	1151.47	0.00	0.00
95.00		279.02	674.59	0.00	0.00
100.00		514.04	1228.33	0.00	0.00
105.00		507.19	1199.91	0.00	0.00
110.00		499.71	1171.49	0.00	0.00
115.00		491.65	1143.06	0.00	0.00
120.00		483.05	1114.64	0.00	0.00
125.00		473.92	1086.22	0.00	0.00
130.00	(24) attachments	4716.98	4348.82	0.00	0.00
132.95		268.45	602.56	0.00	0.00
135.00		187.90	705.33	0.00	0.00
136.83		166.36	622.72	0.00	0.00
140.00		284.39	545.50	0.00	0.00
145.00		440.96	841.97	0.00	0.00
150.00		429.67	818.29	0.00	0.00
153.00	(11) attachments	3433.70	3310.53	0.00	0.00
155.00		165.31	312.50	0.00	0.00
157.98		242.79	458.28	0.00	0.00
160.00		162.25	258.90	0.00	0.00
162.00	(30) attachments	4693.13	3777.69	0.00	0.00
165.00		234.17	323.53	0.00	0.00
170.00		380.71	524.06	0.00	0.00
172.00	(25) attachments	5312.81	4296.44	0.00	-3210.56
175.00		218.60	268.20	0.00	0.00
177.95	(1) attachments	229.58	248.85	0.00	0.00

Total Applied Force Summary

Structure:	CT02573-S-SBA	Code:	EIA/TIA-222-G	11/4/2021
Site Name:	Coventry 2 CT	Exposure:	B	
Height:	177.95 (ft)	Crest Height:	0.00	
Base Elev:	0.000 (ft)	Site Class:	D - Stiff Soil	
Gh:	1.1	Topography:	1	
		Struct Class:	II	Page: 13



Totals:	34,406.81	64,338.67	0.00	-3,210.56
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Calculated Forces

Structure: CT02573-S-SBA	Code: EIA/TIA-222-G	11/4/2021	
Site Name: Coventry 2 CT	Exposure: B		
Height: 177.95 (ft)	Crest Height: 0.00		
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil		
Gh: 1.1	Topography: 1	Struct Class: II	Page: 14

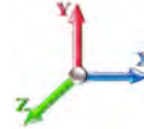


Load Case: 1.2D + 1.6W 101 mph Wind

Iterations 24

Dead Load Factor 1.20

Wind Load Factor 1.60



Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-64.30	-34.48	0.00	-4335.2	0.00	4335.25	5803.10	2901.55	15291.3	7657.05	0.00	0.000	0.000	0.577
5.00	-62.24	-34.09	0.00	-4162.8	0.00	4162.85	5740.73	2870.37	14848.9	7435.53	0.07	-0.131	0.000	0.571
10.00	-60.21	-33.69	0.00	-3992.4	0.00	3992.43	5676.74	2838.37	14408.5	7214.97	0.28	-0.264	0.000	0.564
15.00	-58.21	-33.30	0.00	-3823.9	0.00	3823.97	5611.13	2805.57	13970.2	6995.50	0.63	-0.399	0.000	0.557
20.00	-56.25	-32.91	0.00	-3657.4	0.00	3657.47	5543.90	2771.95	13534.3	6777.22	1.12	-0.535	0.000	0.550
25.00	-54.33	-32.53	0.00	-3492.9	0.00	3492.91	5475.05	2737.52	13101.0	6560.27	1.76	-0.674	0.000	0.542
30.00	-52.44	-32.14	0.00	-3330.2	0.00	3330.28	5404.57	2702.29	12670.6	6344.75	2.54	-0.814	0.000	0.535
35.00	-50.58	-31.74	0.00	-3169.5	0.00	3169.56	5332.48	2666.24	12243.3	6130.79	3.47	-0.956	0.000	0.527
40.00	-48.78	-31.29	0.00	-3010.8	0.00	3010.85	5258.76	2629.38	11819.4	5918.51	4.54	-1.100	0.000	0.518
42.30	-47.95	-31.10	0.00	-2938.8	0.00	2938.81	5224.28	2612.14	11625.4	5821.36	5.09	-1.167	0.000	0.514
45.00	-46.15	-30.85	0.00	-2854.9	0.00	2854.90	5183.43	2591.71	11399.0	5708.01	5.77	-1.247	0.000	0.509
48.00	-44.18	-30.55	0.00	-2762.3	0.00	2762.34	5194.69	2597.35	11461.1	5739.07	6.59	-1.336	0.000	0.490
50.00	-43.45	-30.40	0.00	-2701.2	0.00	2701.23	5164.20	2582.10	11293.7	5655.29	7.16	-1.396	0.000	0.486
55.00	-41.72	-29.93	0.00	-2549.2	0.00	2549.22	5086.83	2543.42	10878.2	5447.20	8.70	-1.537	0.000	0.476
60.00	-40.02	-29.45	0.00	-2399.5	0.00	2399.56	5007.85	2503.92	10466.7	5241.17	10.38	-1.679	0.000	0.466
65.00	-38.35	-28.97	0.00	-2252.2	0.00	2252.29	4927.24	2463.62	10059.6	5037.31	12.22	-1.822	0.000	0.455
70.00	-36.72	-28.48	0.00	-2107.4	0.00	2107.45	4845.02	2422.51	9657.14	4835.75	14.21	-1.966	0.000	0.444
75.00	-35.12	-27.98	0.00	-1965.0	0.00	1965.06	4761.17	2380.58	9259.43	4636.60	16.34	-2.110	0.000	0.431
80.00	-33.56	-27.48	0.00	-1825.1	0.00	1825.16	4675.70	2337.85	8866.76	4439.97	18.63	-2.255	0.000	0.418
85.00	-32.06	-26.96	0.00	-1687.7	0.00	1687.74	4588.61	2294.31	8479.38	4245.99	21.07	-2.399	0.000	0.405
86.83	-31.50	-26.79	0.00	-1638.3	0.00	1638.32	4556.28	2278.14	8338.71	4175.55	22.00	-2.453	0.000	0.399
90.00	-29.87	-26.43	0.00	-1553.5	0.00	1553.50	4499.90	2249.95	8097.52	4054.78	23.66	-2.545	0.000	0.390
92.30	-28.70	-26.17	0.00	-1492.6	0.00	1492.66	3709.97	1854.99	6727.57	3368.78	24.90	-2.612	0.000	0.451
95.00	-27.99	-25.92	0.00	-1422.0	0.00	1422.06	3673.22	1836.61	6564.94	3287.35	26.40	-2.691	0.000	0.440
100.00	-26.72	-25.42	0.00	-1292.4	0.00	1292.46	3603.88	1801.94	6266.45	3137.88	29.30	-2.846	0.000	0.420
105.00	-25.48	-24.92	0.00	-1165.3	0.00	1165.37	3532.91	1766.45	5971.95	2990.41	32.37	-2.999	0.000	0.397
110.00	-24.27	-24.42	0.00	-1040.7	0.00	1040.78	3460.32	1730.16	5681.65	2845.05	35.59	-3.149	0.000	0.373
115.00	-23.10	-23.92	0.00	-918.68	0.00	918.68	3386.11	1693.05	5395.81	2701.92	38.96	-3.293	0.000	0.347
120.00	-21.96	-23.43	0.00	-799.08	0.00	799.08	3310.28	1655.14	5114.65	2561.13	42.48	-3.432	0.000	0.319
125.00	-20.86	-22.93	0.00	-681.95	0.00	681.95	3228.52	1614.26	4831.97	2419.57	46.15	-3.563	0.000	0.289
130.00	-16.78	-17.98	0.00	-567.29	0.00	567.29	3125.09	1562.55	4525.83	2266.28	49.94	-3.684	0.000	0.256
132.95	-16.18	-17.69	0.00	-514.30	0.00	514.30	3064.12	1532.06	4350.03	2178.25	52.24	-3.752	0.000	0.242
135.00	-15.48	-17.46	0.00	-478.01	0.00	478.01	3021.67	1510.84	4229.72	2118.00	53.86	-3.799	0.000	0.231
136.83	-14.85	-17.27	0.00	-445.99	0.00	445.99	2458.83	1229.41	3474.42	1739.79	55.33	-3.839	0.000	0.263
140.00	-14.30	-16.97	0.00	-391.30	0.00	391.30	2420.71	1210.36	3346.31	1675.64	57.89	-3.904	0.000	0.240
145.00	-13.46	-16.50	0.00	-306.45	0.00	306.45	2359.20	1179.60	3147.03	1575.85	62.04	-4.008	0.000	0.200
150.00	-12.66	-16.02	0.00	-223.97	0.00	223.97	2296.08	1148.04	2951.62	1478.00	66.28	-4.095	0.000	0.157
153.00	-9.60	-12.37	0.00	-175.90	0.00	175.90	2257.42	1128.71	2836.33	1420.27	68.87	-4.139	0.000	0.128
155.00	-9.29	-12.18	0.00	-151.17	0.00	151.17	2223.99	1111.99	2751.24	1377.66	70.61	-4.165	0.000	0.114
157.98	-8.85	-11.91	0.00	-114.89	0.00	114.89	2172.66	1086.33	2625.07	1314.48	73.21	-4.198	0.000	0.092
157.98	-8.85	-11.91	0.00	-114.89	0.00	114.89	1653.01	826.50	2005.69	1004.33	73.21	-4.198	0.000	0.120
160.00	-8.60	-11.73	0.00	-90.80	0.00	90.80	1634.69	817.35	1951.45	977.17	75.00	-4.216	0.000	0.098
162.00	-5.17	-6.78	0.00	-67.33	0.00	67.33	1616.31	808.16	1898.20	950.51	76.76	-4.235	0.000	0.074
165.00	-4.87	-6.52	0.00	-47.00	0.00	47.00	1588.26	794.13	1819.10	910.90	79.43	-4.255	0.000	0.055
170.00	-4.37	-6.10	0.00	-14.39	0.00	14.39	1540.22	770.11	1689.48	845.99	83.90	-4.275	0.000	0.020
172.00	-0.48	-0.49	0.00	-2.19	0.00	2.19	1520.54	760.27	1638.44	820.44	85.69	-4.278	0.000	0.003
175.00	-0.23	-0.25	0.00	-0.73	0.00	0.73	1490.55	745.27	1562.81	782.56	88.37	-4.279	0.000	0.001
177.95	0.00	-0.23	0.00	0.00	0.00	0.00	1460.49	730.24	1489.55	745.88	91.01	-4.279	0.000	0.000

Calculated Forces

Structure:	CT02573-S-SBA	Code:	EIA/TIA-222-G	11/4/2021
Site Name:	Coventry 2 CT	Exposure:	B	
Height:	177.95 (ft)	Crest Height:	0.00	
Base Elev:	0.000 (ft)	Site Class:	D - Stiff Soil	
Gh:	1.1	Topography:	1	Struct Class: II
				Page: 15



Wind Loading - Shaft

Structure: CT02573-S-SBA

Code: EIA/TIA-222-G

11/4/2021

Site Name: Coventry 2 CT

Exposure: B

Height: 177.95 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 1.1

Topography: 1

Struct Class: II

Page: 16

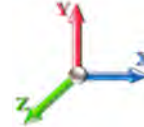


Load Case: 0.9D + 1.6W 101 mph Wind

Iterations 24

Dead Load Factor 0.90

Wind Load Factor 1.60



Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.70	17.366	19.10	461.21	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.70	17.366	19.10	452.85	0.650	0.000	5.00	27.042	17.58	537.2	0.0	1349.7
10.00		1.00	0.70	17.366	19.10	444.48	0.650	0.000	5.00	26.547	17.26	527.4	0.0	1324.8
15.00		1.00	0.70	17.366	19.10	436.12	0.650	0.000	5.00	26.052	16.93	517.6	0.0	1300.0
20.00		1.00	0.70	17.366	19.10	427.76	0.650	0.000	5.00	25.558	16.61	507.8	0.0	1275.1
25.00		1.00	0.70	17.366	19.10	419.39	0.650	0.000	5.00	25.063	16.29	497.9	0.0	1250.2
30.00		1.00	0.70	17.381	19.12	411.20	0.650	0.000	5.00	24.568	15.97	488.5	0.0	1225.4
35.00		1.00	0.73	18.163	19.98	411.81	0.650	0.000	5.00	24.073	15.65	500.2	0.0	1200.5
40.00		1.00	0.76	18.870	20.76	411.02	0.650	0.000	5.00	23.578	15.33	509.0	0.0	1175.6
42.30	Bot - Section 2	1.00	0.77	19.174	21.09	410.27	0.650	0.000	2.30	10.689	6.95	234.5	0.0	532.9
45.00		1.00	0.79	19.516	21.47	409.13	0.650	0.000	2.70	12.594	8.19	281.2	0.0	1245.7
48.00	Top - Section 1	1.00	0.80	19.879	21.87	407.55	0.650	0.000	3.00	13.835	8.99	314.6	0.0	1368.2
50.00		1.00	0.81	20.112	22.12	413.07	0.650	0.000	2.00	9.124	5.93	209.9	0.0	454.8
55.00		1.00	0.83	20.667	22.73	409.61	0.650	0.000	5.00	22.464	14.60	531.1	0.0	1119.6
60.00		1.00	0.85	21.187	23.31	405.49	0.650	0.000	5.00	21.969	14.28	532.5	0.0	1094.8
65.00		1.00	0.87	21.678	23.85	400.81	0.650	0.000	5.00	21.474	13.96	532.5	0.0	1069.9
70.00		1.00	0.89	22.142	24.36	395.63	0.650	0.000	5.00	20.979	13.64	531.4	0.0	1045.0
75.00		1.00	0.91	22.582	24.84	390.02	0.650	0.000	5.00	20.485	13.32	529.2	0.0	1020.2
80.00		1.00	0.93	23.003	25.30	384.00	0.650	0.000	5.00	19.990	12.99	526.0	0.0	995.3
85.00		1.00	0.94	23.404	25.74	377.64	0.650	0.000	5.00	19.495	12.67	522.0	0.0	970.4
86.83	Bot - Section 3	1.00	0.95	23.548	25.90	375.22	0.650	0.000	1.83	7.024	4.57	189.2	0.0	349.6
90.00		1.00	0.96	23.790	26.17	370.94	0.650	0.000	3.17	12.177	7.92	331.4	0.0	1116.2
92.30	Top - Section 2	1.00	0.97	23.962	26.36	367.76	0.650	0.000	2.30	8.728	5.67	239.2	0.0	799.8
95.00		1.00	0.97	24.160	26.58	370.28	0.650	0.000	2.70	10.095	6.56	279.0	0.0	431.2
100.00		1.00	0.99	24.517	26.97	363.07	0.650	0.000	5.00	18.328	11.91	514.0	0.0	782.6
105.00		1.00	1.00	24.861	27.35	355.60	0.650	0.000	5.00	17.833	11.59	507.2	0.0	761.3
110.00		1.00	1.02	25.194	27.71	347.90	0.650	0.000	5.00	17.338	11.27	499.7	0.0	740.0
115.00		1.00	1.03	25.516	28.07	339.98	0.650	0.000	5.00	16.843	10.95	491.7	0.0	718.7
120.00		1.00	1.04	25.828	28.41	331.85	0.650	0.000	5.00	16.348	10.63	483.0	0.0	697.4
125.00		1.00	1.05	26.131	28.74	323.53	0.650	0.000	5.00	15.854	10.30	473.9	0.0	676.1
130.00	Appurtenance(s)	1.00	1.07	26.425	29.07	315.04	0.650	0.000	5.00	15.359	9.98	464.3	0.0	654.8
132.95	Bot - Section 4	1.00	1.07	26.595	29.25	309.95	0.650	0.000	2.95	8.823	5.74	268.4	0.0	376.0
135.00		1.00	1.08	26.712	29.38	306.37	0.650	0.000	2.05	6.149	4.00	187.9	0.0	476.2
136.83	Top - Section 3	1.00	1.08	26.815	29.50	303.15	0.650	0.000	1.83	5.423	3.52	166.4	0.0	419.8
140.00		1.00	1.09	26.991	29.69	303.11	0.650	0.000	3.17	9.210	5.99	284.4	0.0	327.6
145.00		1.00	1.10	27.263	29.99	294.15	0.650	0.000	5.00	14.139	9.19	441.0	0.0	502.8
150.00		1.00	1.11	27.528	30.28	285.05	0.650	0.000	5.00	13.644	8.87	429.7	0.0	485.0
153.00	Appurtenance(s)	1.00	1.12	27.684	30.45	279.52	0.650	0.000	3.00	7.949	5.17	251.7	0.0	282.5
155.00		1.00	1.12	27.787	30.57	275.81	0.650	0.000	2.00	5.200	3.38	165.3	0.0	184.8
157.98	Top - Section 4	1.00	1.13	27.939	30.73	270.25	0.650	0.000	2.98	7.596	4.94	242.8	0.0	269.8
160.00		1.00	1.13	28.040	30.84	266.44	0.650	0.000	2.02	5.058	3.29	162.3	0.0	144.0
162.00	Appurtenance(s)	1.00	1.13	28.140	30.95	262.65	0.650	0.000	2.00	4.923	3.20	158.5	0.0	140.2
165.00		1.00	1.14	28.288	31.12	256.94	0.650	0.000	3.00	7.236	4.70	234.2	0.0	206.0
170.00		1.00	1.15	28.530	31.38	247.32	0.650	0.000	5.00	11.664	7.58	380.7	0.0	331.9
172.00	Appurtenance(s)	1.00	1.15	28.626	31.49	243.44	0.650	0.000	2.00	4.527	2.94	148.3	0.0	128.8
175.00		1.00	1.16	28.768	31.64	237.58	0.650	0.000	3.00	6.642	4.32	218.6	0.0	188.9
177.95	Appurtenance(s)	1.00	1.17	28.905	31.80	231.78	0.650	0.000	2.95	6.358	4.13	210.2	0.0	180.8

Wind Loading - Shaft

Structure:	CT02573-S-SBA	Code:	EIA/TIA-222-G	11/4/2021
Site Name:	Coventry 2 CT	Exposure:	B	
Height:	177.95 (ft)	Crest Height:	0.00	
Base Elev:	0.000 (ft)	Site Class:	D - Stiff Soil	
Gh:	1.1	Topography:	1	Struct Class: II
				Page: 17



Totals:	177.95	17,253.7	33,390.8
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Discrete Appurtenance Forces

Structure: CT02573-S-SBA	Code: EIA/TIA-222-G	11/4/2021	
Site Name: Coventry 2 CT	Exposure: B		
Height: 177.95 (ft)	Crest Height: 0.00		
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil		
Gh: 1.1	Topography: 1	Struct Class: II	Page: 18



Load Case: 0.9D + 1.6W 101 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 24

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	177.95	6' Lightning rod	1	28.905	31.796	1.00	1.00	0.38	5.85	0.000	0.000	19.33	0.00	0.00
2	172.00	KRY 112 144/1	3	28.626	31.488	0.38	0.75	0.46	29.70	0.000	0.000	23.24	0.00	0.00
3	172.00	MS-1436 (Light Collar)	1	28.626	31.488	1.00	1.00	1.50	59.04	0.000	0.000	75.57	0.00	0.00
4	172.00	MS-HRECP	1	28.626	31.488	1.00	1.00	12.25	462.60	0.000	0.000	617.17	0.00	0.00
5	172.00	MS-HR35	1	28.626	31.488	1.00	1.00	8.75	387.00	0.000	0.000	440.84	0.00	0.00
6	172.00	RR90-17-02DP	3	28.626	31.488	0.55	0.75	7.15	36.45	0.000	0.000	360.30	0.00	0.00
7	172.00	MS-C1B-2875P	1	28.626	31.488	1.00	1.00	10.00	296.10	0.000	0.000	503.82	0.00	0.00
8	172.00	4449	3	28.626	31.488	0.50	0.75	2.49	189.00	0.000	0.000	125.32	0.00	0.00
9	172.00	782 10660	3	28.626	31.488	0.38	0.75	0.32	7.02	0.000	0.000	15.87	0.00	0.00
10	172.00	APXVAARR24_43-U-NA2	3	28.530	31.383	0.53	0.75	31.97	345.60	0.000	-2.000	1605.28	0.00	-3210.56
11	172.00	T-Frames w/ Pipe Mount	3	28.626	31.488	0.56	0.75	27.00	1215.00	0.000	0.000	1360.30	0.00	0.00
12	172.00	KRY 112 89/4	3	28.626	31.488	0.38	0.75	0.73	41.58	0.000	0.000	36.84	0.00	0.00
13	162.00	HRK12 (Handrail Kit)	1	28.140	30.954	1.00	1.00	6.75	235.55	0.000	0.000	334.30	0.00	0.00
14	162.00	Ericsson RRUS 8843 B2	3	28.140	30.954	0.50	0.75	2.47	194.40	0.000	0.000	122.44	0.00	0.00
15	162.00	Ericsson RRUS 4449	3	28.140	30.954	0.50	0.75	2.49	189.00	0.000	0.000	123.19	0.00	0.00
16	162.00	Raycap DC6-48-60-18-8F	1	28.140	30.954	0.75	0.75	0.69	28.62	0.000	0.000	34.17	0.00	0.00
17	162.00	HP Platform w/ Pipe	1	28.140	30.954	1.00	1.00	25.00	1440.00	0.000	0.000	1238.17	0.00	0.00
18	162.00	Powerwave 7770	3	28.140	30.954	0.55	0.75	9.03	94.50	0.000	0.000	447.41	0.00	0.00
19	162.00	Powerwave 7020.00 RET	6	28.140	30.954	0.38	0.75	0.90	11.88	0.000	0.000	44.57	0.00	0.00
20	162.00	Cci HPA-65R-BU6AA	2	28.140	30.954	0.74	0.75	11.76	77.40	0.000	0.000	582.49	0.00	0.00
21	162.00	Cci HPA-65R-BU8AA	1	28.140	30.954	0.65	0.75	7.24	48.60	0.000	0.000	358.74	0.00	0.00
22	162.00	Cci DMP65R-BU8DA	1	28.140	30.954	0.54	0.75	9.65	86.13	0.000	0.000	477.92	0.00	0.00
23	162.00	Cci DMP65R-BU6DA	2	28.140	30.954	0.54	0.75	13.73	142.92	0.000	0.000	679.84	0.00	0.00
24	162.00	Powerwave 21401 TMA	6	28.140	30.954	0.38	0.75	1.85	94.50	0.000	0.000	91.38	0.00	0.00
25	153.00	TA08025-B604	3	27.684	30.453	0.50	0.75	2.95	172.53	0.000	0.000	143.97	0.00	0.00
26	153.00	MX08FRO665-21	3	27.684	30.453	0.55	0.75	20.80	174.15	0.000	0.000	1013.27	0.00	0.00
27	153.00	MC-PK8-DSH	1	27.684	30.453	1.00	1.00	37.59	1554.30	0.000	0.000	1831.55	0.00	0.00
28	153.00	TA08025-B605	3	27.684	30.453	0.50	0.75	2.95	202.50	0.000	0.000	143.97	0.00	0.00
29	153.00	RDIDC-9181-OF-48	1	27.684	30.453	0.50	0.75	1.01	19.71	0.000	0.000	49.21	0.00	0.00
30	130.00	SBNHH-1D65B	6	26.425	29.068	0.62	0.75	30.48	216.00	0.000	0.000	1417.47	0.00	0.00
31	130.00	RF4439d-25A	3	26.425	29.068	0.56	0.75	3.26	136.89	0.000	0.000	151.47	0.00	0.00
32	130.00	RF4440d-13A	3	26.425	29.068	0.50	0.75	2.91	189.89	0.000	0.000	135.32	0.00	0.00
33	130.00	XXDWMM-12.5-65	3	26.425	29.068	0.56	0.75	2.56	62.48	0.000	0.000	118.96	0.00	0.00
34	130.00	MT6407-77A	3	26.425	29.068	0.52	0.75	7.39	214.38	0.000	0.000	343.55	0.00	0.00
35	130.00	PV-LPP14L-HR-B	1	26.425	29.068	1.00	1.00	36.80	1476.90	0.000	0.000	1711.51	0.00	0.00
36	130.00	DB-T1-6Z-8AB-OZ	2	26.425	29.068	0.50	0.75	4.82	34.02	0.000	0.000	224.36	0.00	0.00
37	130.00	B25 RRH4x30-4R	3	26.425	29.068	0.50	0.75	3.23	137.70	0.000	0.000	150.04	0.00	0.00

Totals: 10,309.89

17,153.16

Total Applied Force Summary

Structure: CT02573-S-SBA	Code: EIA/TIA-222-G	11/4/2021
Site Name: Coventry 2 CT	Exposure: B	
Height: 177.95 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

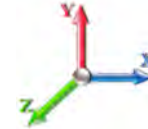


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Load Case: 0.9D + 1.6W 101 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 24

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		537.24	1488.30	0.00	0.00
10.00		527.41	1463.43	0.00	0.00
15.00		517.58	1438.56	0.00	0.00
20.00		507.75	1413.69	0.00	0.00
25.00		497.92	1388.83	0.00	0.00
30.00		488.50	1363.96	0.00	0.00
35.00		500.22	1339.09	0.00	0.00
40.00		508.99	1314.22	0.00	0.00
42.30		234.47	596.73	0.00	0.00
45.00		281.17	1320.50	0.00	0.00
48.00		314.62	1451.35	0.00	0.00
50.00		209.93	510.25	0.00	0.00
55.00		531.12	1258.22	0.00	0.00
60.00		532.50	1233.35	0.00	0.00
65.00		532.55	1208.49	0.00	0.00
70.00		531.41	1183.62	0.00	0.00
75.00		529.20	1158.75	0.00	0.00
80.00		526.03	1133.88	0.00	0.00
85.00		521.97	1109.01	0.00	0.00
86.83		189.22	400.41	0.00	0.00
90.00		331.40	1203.94	0.00	0.00
92.30		239.25	863.60	0.00	0.00
95.00		279.02	505.94	0.00	0.00
100.00		514.04	921.25	0.00	0.00
105.00		507.19	899.93	0.00	0.00
110.00		499.71	878.61	0.00	0.00
115.00		491.65	857.30	0.00	0.00
120.00		483.05	835.98	0.00	0.00
125.00		473.92	814.67	0.00	0.00
130.00	(24) attachments	4716.98	3261.61	0.00	0.00
132.95		268.45	451.92	0.00	0.00
135.00		187.90	529.00	0.00	0.00
136.83		166.36	467.04	0.00	0.00
140.00		284.39	409.12	0.00	0.00
145.00		440.96	631.48	0.00	0.00
150.00		429.67	613.72	0.00	0.00
153.00	(11) attachments	3433.70	2482.89	0.00	0.00
155.00		165.31	234.38	0.00	0.00
157.98		242.79	343.71	0.00	0.00
160.00		162.25	194.18	0.00	0.00
162.00	(30) attachments	4693.13	2833.27	0.00	0.00
165.00		234.17	242.65	0.00	0.00
170.00		380.71	393.04	0.00	0.00
172.00	(25) attachments	5312.81	3222.33	0.00	-3210.56
175.00		218.60	201.15	0.00	0.00
177.95	(1) attachments	229.58	186.64	0.00	0.00

Total Applied Force Summary

Structure:	CT02573-S-SBA	Code:	EIA/TIA-222-G	11/4/2021
Site Name:	Coventry 2 CT	Exposure:	B	
Height:	177.95 (ft)	Crest Height:	0.00	
Base Elev:	0.000 (ft)	Site Class:	D - Stiff Soil	
Gh:	1.1	Topography:	1	
		Struct Class:	II	Page: 20



Totals:	34,406.81	48,254.00	0.00	-3,210.56
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Calculated Forces

Structure: CT02573-S-SBA	Code: EIA/TIA-222-G	11/4/2021
Site Name: Coventry 2 CT	Exposure: B	
Height: 177.95 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II
		Page: 21

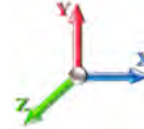


Load Case: 0.9D + 1.6W 101 mph Wind

Iterations 24

Dead Load Factor 0.90

Wind Load Factor 1.60



Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-48.21	-34.46	0.00	-4289.7	0.00	4289.74	5803.10	2901.55	15291.3	7657.05	0.00	0.000	0.000	0.569
5.00	-46.65	-34.03	0.00	-4117.4	0.00	4117.43	5740.73	2870.37	14848.9	7435.53	0.07	-0.130	0.000	0.562
10.00	-45.11	-33.60	0.00	-3947.2	0.00	3947.29	5676.74	2838.37	14408.5	7214.97	0.28	-0.261	0.000	0.555
15.00	-43.60	-33.18	0.00	-3779.2	0.00	3779.29	5611.13	2805.57	13970.2	6995.50	0.62	-0.394	0.000	0.548
20.00	-42.11	-32.76	0.00	-3613.4	0.00	3613.40	5543.90	2771.95	13534.3	6777.22	1.11	-0.529	0.000	0.541
25.00	-40.65	-32.34	0.00	-3449.6	0.00	3449.61	5475.05	2737.52	13101.0	6560.27	1.74	-0.666	0.000	0.533
30.00	-39.21	-31.93	0.00	-3287.9	0.00	3287.90	5404.57	2702.29	12670.6	6344.75	2.51	-0.804	0.000	0.526
35.00	-37.80	-31.51	0.00	-3128.2	0.00	3128.24	5332.48	2666.24	12243.3	6130.79	3.43	-0.945	0.000	0.517
40.00	-36.44	-31.04	0.00	-2970.7	0.00	2970.71	5258.76	2629.38	11819.4	5918.51	4.49	-1.086	0.000	0.509
42.30	-35.81	-30.84	0.00	-2899.2	0.00	2899.26	5224.28	2612.14	11625.4	5821.36	5.03	-1.153	0.000	0.505
45.00	-34.45	-30.58	0.00	-2816.0	0.00	2816.06	5183.43	2591.71	11399.0	5708.01	5.71	-1.232	0.000	0.500
48.00	-32.97	-30.28	0.00	-2724.3	0.00	2724.32	5194.69	2597.35	11461.1	5739.07	6.51	-1.320	0.000	0.481
50.00	-32.41	-30.11	0.00	-2663.7	0.00	2663.77	5164.20	2582.10	11293.7	5655.29	7.08	-1.379	0.000	0.477
55.00	-31.10	-29.62	0.00	-2513.2	0.00	2513.23	5086.83	2543.42	10878.2	5447.20	8.59	-1.518	0.000	0.468
60.00	-29.81	-29.13	0.00	-2365.1	0.00	2365.11	5007.85	2503.92	10466.7	5241.17	10.26	-1.658	0.000	0.457
65.00	-28.54	-28.63	0.00	-2219.4	0.00	2219.47	4927.24	2463.62	10059.6	5037.31	12.07	-1.799	0.000	0.447
70.00	-27.31	-28.13	0.00	-2076.3	0.00	2076.31	4845.02	2422.51	9657.14	4835.75	14.03	-1.941	0.000	0.435
75.00	-26.10	-27.62	0.00	-1935.6	0.00	1935.67	4761.17	2380.58	9259.43	4636.60	16.14	-2.083	0.000	0.423
80.00	-24.92	-27.12	0.00	-1797.5	0.00	1797.54	4675.70	2337.85	8866.76	4439.97	18.40	-2.225	0.000	0.410
85.00	-23.79	-26.59	0.00	-1661.9	0.00	1661.95	4588.61	2294.31	8479.38	4245.99	20.80	-2.367	0.000	0.397
86.83	-23.36	-26.42	0.00	-1613.2	0.00	1613.20	4556.28	2278.14	8338.71	4175.55	21.72	-2.420	0.000	0.392
90.00	-22.14	-26.06	0.00	-1529.5	0.00	1529.55	4499.90	2249.95	8097.52	4054.78	23.36	-2.511	0.000	0.382
92.30	-21.26	-25.81	0.00	-1469.5	0.00	1469.55	3709.97	1854.99	6727.57	3368.78	24.59	-2.577	0.000	0.442
95.00	-20.71	-25.55	0.00	-1399.9	0.00	1399.91	3673.22	1836.61	6564.94	3287.35	26.07	-2.654	0.000	0.432
100.00	-19.75	-25.05	0.00	-1272.1	0.00	1272.15	3603.88	1801.94	6266.45	3137.88	28.93	-2.807	0.000	0.411
105.00	-18.81	-24.55	0.00	-1146.9	0.00	1146.91	3532.91	1766.45	5971.95	2990.41	31.95	-2.958	0.000	0.389
110.00	-17.90	-24.05	0.00	-1024.1	0.00	1024.18	3460.32	1730.16	5681.65	2845.05	35.13	-3.105	0.000	0.365
115.00	-17.01	-23.55	0.00	-903.96	0.00	903.96	3386.11	1693.05	5395.81	2701.92	38.45	-3.247	0.000	0.340
120.00	-16.15	-23.06	0.00	-786.22	0.00	786.22	3310.28	1655.14	5114.65	2561.13	41.93	-3.384	0.000	0.312
125.00	-15.32	-22.57	0.00	-670.95	0.00	670.95	3228.52	1614.26	4831.97	2419.57	45.54	-3.512	0.000	0.282
130.00	-12.33	-17.67	0.00	-558.11	0.00	558.11	3125.09	1562.55	4525.83	2266.28	49.28	-3.632	0.000	0.250
132.95	-11.88	-17.39	0.00	-506.01	0.00	506.01	3064.12	1532.06	4350.03	2178.25	51.54	-3.699	0.000	0.236
135.00	-11.35	-17.18	0.00	-470.33	0.00	470.33	3021.67	1510.84	4229.72	2118.00	53.14	-3.745	0.000	0.226
136.83	-10.88	-16.99	0.00	-438.84	0.00	438.84	2458.83	1229.41	3474.42	1739.79	54.59	-3.784	0.000	0.257
140.00	-10.47	-16.69	0.00	-385.04	0.00	385.04	2420.71	1210.36	3346.31	1675.64	57.12	-3.848	0.000	0.234
145.00	-9.84	-16.23	0.00	-301.57	0.00	301.57	2359.20	1179.60	3147.03	1575.85	61.20	-3.950	0.000	0.196
150.00	-9.24	-15.77	0.00	-220.43	0.00	220.43	2296.08	1148.04	2951.62	1478.00	65.39	-4.036	0.000	0.153
153.00	-7.00	-12.17	0.00	-173.13	0.00	173.13	2257.42	1128.71	2836.33	1420.27	67.94	-4.080	0.000	0.125
155.00	-6.77	-11.99	0.00	-148.79	0.00	148.79	2223.99	1111.99	2751.24	1377.66	69.65	-4.105	0.000	0.111
157.98	-6.44	-11.73	0.00	-113.08	0.00	113.08	2172.66	1086.33	2625.07	1314.48	72.22	-4.138	0.000	0.089
157.98	-6.44	-11.73	0.00	-113.08	0.00	113.08	1653.01	826.50	2005.69	1004.33	72.22	-4.138	0.000	0.117
160.00	-6.26	-11.55	0.00	-89.37	0.00	89.37	1634.69	817.35	1951.45	977.17	73.97	-4.156	0.000	0.095
162.00	-3.77	-6.67	0.00	-66.26	0.00	66.26	1616.31	808.16	1898.20	950.51	75.72	-4.174	0.000	0.072
165.00	-3.54	-6.42	0.00	-46.26	0.00	46.26	1588.26	794.13	1819.10	910.90	78.35	-4.194	0.000	0.053
170.00	-3.18	-6.01	0.00	-14.16	0.00	14.16	1540.22	770.11	1689.48	845.99	82.75	-4.214	0.000	0.019
172.00	-0.35	-0.48	0.00	-2.14	0.00	2.14	1520.54	760.27	1638.44	820.44	84.51	-4.216	0.000	0.003
175.00	-0.17	-0.24	0.00	-0.72	0.00	0.72	1490.55	745.27	1562.81	782.56	87.16	-4.217	0.000	0.001
177.95	0.00	-0.23	0.00	0.00	0.00	0.00	1460.49	730.24	1489.55	745.88	89.76	-4.217	0.000	0.000

Calculated Forces

Structure:	CT02573-S-SBA	Code:	EIA/TIA-222-G	11/4/2021
Site Name:	Coventry 2 CT	Exposure:	B	
Height:	177.95 (ft)	Crest Height:	0.00	
Base Elev:	0.000 (ft)	Site Class:	D - Stiff Soil	
Gh:	1.1	Topography:	1	Struct Class: II
				Page: 22



Wind Loading - Shaft

Structure: CT02573-S-SBA

Code: EIA/TIA-222-G

11/4/2021

Site Name: Coventry 2 CT

Exposure: B

Height: 177.95 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 1.1

Topography: 1

Struct Class: II

Page: 23

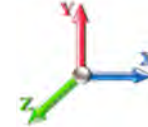


Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Iterations 24

Dead Load Factor 1.20

Wind Load Factor 1.00



Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.70	4.256	4.68	0.00	1.200	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.70	4.256	4.68	0.00	1.200	1.656	5.00	28.422	34.11	159.7	674.2	2473.8
10.00		1.00	0.70	4.256	4.68	0.00	1.200	1.775	5.00	28.026	33.63	157.5	710.8	2477.3
15.00		1.00	0.70	4.256	4.68	0.00	1.200	1.848	5.00	27.593	33.11	155.0	727.5	2460.8
20.00		1.00	0.70	4.256	4.68	0.00	1.200	1.902	5.00	27.143	32.57	152.5	735.5	2435.6
25.00		1.00	0.70	4.256	4.68	0.00	1.200	1.945	5.00	26.684	32.02	149.9	738.3	2405.3
30.00		1.00	0.70	4.260	4.69	0.00	1.200	1.981	5.00	26.219	31.46	147.4	737.8	2371.6
35.00		1.00	0.73	4.451	4.90	0.00	1.200	2.012	5.00	25.750	30.90	151.3	734.9	2335.6
40.00		1.00	0.76	4.625	5.09	0.00	1.200	2.039	5.00	25.277	30.33	154.3	730.2	2297.7
42.30 Bot - Section 2		1.00	0.77	4.699	5.17	0.00	1.200	2.050	2.30	11.476	13.77	71.2	335.0	1045.5
45.00		1.00	0.79	4.783	5.26	0.00	1.200	2.063	2.70	13.521	16.23	85.4	396.8	2057.7
48.00 Top - Section 1		1.00	0.80	4.872	5.36	0.00	1.200	2.076	3.00	14.873	17.85	95.6	438.7	2263.0
50.00		1.00	0.81	4.929	5.42	0.00	1.200	2.085	2.00	9.819	11.78	63.9	291.3	897.7
55.00		1.00	0.83	5.065	5.57	0.00	1.200	2.105	5.00	24.218	29.06	161.9	720.0	2212.8
60.00		1.00	0.85	5.193	5.71	0.00	1.200	2.123	5.00	23.738	28.49	162.7	710.9	2170.6
65.00		1.00	0.87	5.313	5.84	0.00	1.200	2.140	5.00	23.258	27.91	163.1	701.2	2127.7
70.00		1.00	0.89	5.426	5.97	0.00	1.200	2.156	5.00	22.776	27.33	163.1	690.8	2084.2
75.00		1.00	0.91	5.534	6.09	0.00	1.200	2.171	5.00	22.294	26.75	162.9	679.9	2040.1
80.00		1.00	0.93	5.637	6.20	0.00	1.200	2.185	5.00	21.811	26.17	162.3	668.4	1995.5
85.00		1.00	0.94	5.736	6.31	0.00	1.200	2.198	5.00	21.327	25.59	161.5	656.6	1950.5
86.83 Bot - Section 3		1.00	0.95	5.771	6.35	0.00	1.200	2.203	1.83	7.697	9.24	58.6	239.1	705.2
90.00		1.00	0.96	5.830	6.41	0.00	1.200	2.211	3.17	13.344	16.01	102.7	414.6	1902.9
92.30 Top - Section 2		1.00	0.97	5.872	6.46	0.00	1.200	2.217	2.30	9.578	11.49	74.2	298.8	1365.2
95.00		1.00	0.97	5.921	6.51	0.00	1.200	2.223	2.70	11.095	13.31	86.7	346.5	921.4
100.00		1.00	0.99	6.008	6.61	0.00	1.200	2.234	5.00	20.190	24.23	160.1	629.2	1672.7
105.00		1.00	1.00	6.093	6.70	0.00	1.200	2.245	5.00	19.704	23.64	158.5	616.0	1631.1
110.00		1.00	1.02	6.174	6.79	0.00	1.200	2.256	5.00	19.218	23.06	156.6	602.5	1589.1
115.00		1.00	1.03	6.253	6.88	0.00	1.200	2.266	5.00	18.732	22.48	154.6	588.7	1546.9
120.00		1.00	1.04	6.330	6.96	0.00	1.200	2.276	5.00	18.245	21.89	152.4	574.6	1504.5
125.00		1.00	1.05	6.404	7.04	0.00	1.200	2.285	5.00	17.758	21.31	150.1	560.4	1461.8
130.00 Appurtenance(s)		1.00	1.07	6.476	7.12	0.00	1.200	2.294	5.00	17.270	20.72	147.6	545.9	1418.9
132.95 Bot - Section 4		1.00	1.07	6.518	7.17	0.00	1.200	2.299	2.95	9.953	11.94	85.6	316.8	818.1
135.00		1.00	1.08	6.546	7.20	0.00	1.200	2.303	2.05	6.937	8.32	59.9	221.7	856.6
136.83 Top - Section 3		1.00	1.08	6.572	7.23	0.00	1.200	2.306	1.83	6.128	7.35	53.2	196.1	755.9
140.00		1.00	1.09	6.615	7.28	0.00	1.200	2.311	3.17	10.430	12.52	91.1	332.7	769.6
145.00		1.00	1.10	6.681	7.35	0.00	1.200	2.319	5.00	16.071	19.29	141.7	510.3	1180.7
150.00		1.00	1.11	6.746	7.42	0.00	1.200	2.327	5.00	15.583	18.70	138.8	495.1	1141.8
153.00 Appurtenance(s)		1.00	1.12	6.785	7.46	0.00	1.200	2.332	3.00	9.115	10.94	81.6	291.6	668.2
155.00		1.00	1.12	6.810	7.49	0.00	1.200	2.335	2.00	5.978	7.17	53.7	191.9	438.3
157.98 Top - Section 4		1.00	1.13	6.847	7.53	0.00	1.200	2.339	2.98	8.757	10.51	79.1	280.2	640.0
160.00		1.00	1.13	6.872	7.56	0.00	1.200	2.342	2.02	5.847	7.02	53.0	187.7	379.8
162.00 Appurtenance(s)		1.00	1.13	6.896	7.59	0.00	1.200	2.345	2.00	5.705	6.85	51.9	183.2	370.1
165.00		1.00	1.14	6.933	7.63	0.00	1.200	2.349	3.00	8.411	10.09	77.0	269.1	543.8
170.00		1.00	1.15	6.992	7.69	0.00	1.200	2.356	5.00	13.628	16.35	125.8	432.7	875.3
172.00 Appurtenance(s)		1.00	1.15	7.015	7.72	0.00	1.200	2.359	2.00	5.314	6.38	49.2	170.5	342.3
175.00		1.00	1.16	7.050	7.76	0.00	1.200	2.363	3.00	7.824	9.39	72.8	250.1	502.0
177.95 Appurtenance(s)		1.00	1.17	7.084	7.79	0.00	1.200	2.367	2.95	7.522	9.03	70.3	240.3	481.3

Wind Loading - Shaft

Structure:	CT02573-S-SBA	Code:	EIA/TIA-222-G	11/4/2021
Site Name:	Coventry 2 CT	Exposure:	B	
Height:	177.95 (ft)	Crest Height:	0.00	
Base Elev:	0.000 (ft)	Site Class:	D - Stiff Soil	
Gh:	1.1	Topography:	1	Struct Class: II
				Page: 24



Totals:	177.95	5,368.3	66,586.2
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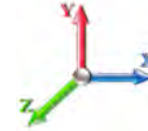
Discrete Appurtenance Forces

Structure: CT02573-S-SBA	Code: EIA/TIA-222-G	11/4/2021
Site Name: Coventry 2 CT	Exposure: B	
Height: 177.95 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II
		Page: 25



Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 24

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	177.95	6' Lightning rod	1	7.084	7.792	1.00	1.00	1.86	51.73	0.000	0.000	14.46	0.00	0.00
2	172.00	KRY 112 144/1	3	7.015	7.717	0.38	0.75	1.18	74.02	0.000	0.000	9.13	0.00	0.00
3	172.00	MS-1436 (Light Collar)	1	7.015	7.717	1.00	1.00	3.62	173.62	0.000	0.000	27.96	0.00	0.00
4	172.00	MS-HRECP	1	7.015	7.717	1.00	1.00	28.43	1955.32	0.000	0.000	219.42	0.00	0.00
5	172.00	MS-HR35	1	7.015	7.717	1.00	1.00	20.31	1635.78	0.000	0.000	156.73	0.00	0.00
6	172.00	RR90-17-02DP	3	7.015	7.717	0.58	0.75	9.90	502.48	0.000	0.000	76.42	0.00	0.00
7	172.00	MS-C1B-2875P	1	7.015	7.717	1.00	1.00	24.15	870.69	0.000	0.000	186.40	0.00	0.00
8	172.00	4449	3	7.015	7.717	0.50	0.75	3.66	614.42	0.000	0.000	28.25	0.00	0.00
9	172.00	782 10660	3	7.015	7.717	0.38	0.75	0.93	30.15	0.000	0.000	7.14	0.00	0.00
10	172.00	APXVAARR24_43-U-NA2	3	6.992	7.691	0.54	0.75	36.99	2022.98	0.000	-2.000	284.47	0.00	-568.94
11	172.00	T-Frames w/ Pipe Mount	3	7.015	7.717	0.56	0.75	45.34	2746.73	0.000	0.000	349.92	0.00	0.00
12	172.00	KRY 112 89/4	3	7.015	7.717	0.38	0.75	1.66	111.89	0.000	0.000	12.83	0.00	0.00
13	162.00	HRK12 (Handrail Kit)	1	6.896	7.586	1.00	1.00	15.61	993.11	0.000	0.000	118.45	0.00	0.00
14	162.00	Ericsson RRUS 8843 B2	3	6.896	7.586	0.50	0.75	3.48	412.03	0.000	0.000	26.39	0.00	0.00
15	162.00	Ericsson RRUS 4449	3	6.896	7.586	0.50	0.75	3.62	552.08	0.000	0.000	27.44	0.00	0.00
16	162.00	Raycap DC6-48-60-18-8F	1	6.896	7.586	0.75	0.75	1.13	103.53	0.000	0.000	8.58	0.00	0.00
17	162.00	HP Platform w/ Pipe	1	6.896	7.586	1.00	1.00	51.97	3595.94	0.000	0.000	394.22	0.00	0.00
18	162.00	Powerwave 7770	3	6.896	7.586	0.56	0.75	11.75	714.18	0.000	0.000	89.14	0.00	0.00
19	162.00	Powerwave 7020.00 RET	6	6.896	7.586	0.38	0.75	2.36	80.90	0.000	0.000	17.93	0.00	0.00
20	162.00	Cci HPA-65R-BU6AA	2	6.896	7.586	0.74	0.75	14.37	792.80	0.000	0.000	109.04	0.00	0.00
21	162.00	Cci HPA-65R-BU8AA	1	6.896	7.586	0.65	0.75	8.70	445.44	0.000	0.000	65.97	0.00	0.00
22	162.00	Cci DMP65R-BU8DA	1	6.896	7.586	0.54	0.75	10.95	655.35	0.000	0.000	83.09	0.00	0.00
23	162.00	Cci DMP65R-BU6DA	2	6.896	7.586	0.54	0.75	15.85	847.48	0.000	0.000	120.25	0.00	0.00
24	162.00	Powerwave 21401 TMA	6	6.896	7.586	0.38	0.75	3.16	388.49	0.000	0.000	23.94	0.00	0.00
25	153.00	TA08025-B604	3	6.785	7.463	0.50	0.75	4.08	396.66	0.000	0.000	30.48	0.00	0.00
26	153.00	MX08FRO665-21	3	6.785	7.463	0.55	0.75	24.05	1196.39	0.000	0.000	179.52	0.00	0.00
27	153.00	MC-PK8-DSH	1	6.785	7.463	1.00	1.00	100.69	3954.30	0.000	0.000	751.49	0.00	0.00
28	153.00	TA08025-B605	3	6.785	7.463	0.50	0.75	4.08	441.83	0.000	0.000	30.48	0.00	0.00
29	153.00	RDIDC-9181-OF-48	1	6.785	7.463	0.50	0.75	1.39	84.72	0.000	0.000	10.39	0.00	0.00
30	130.00	SBNHH-1D65B	6	6.476	7.124	0.62	0.75	37.00	1987.55	0.000	0.000	263.56	0.00	0.00
31	130.00	RF4439d-25A	3	6.476	7.124	0.50	0.75	4.73	363.93	0.000	0.000	33.70	0.00	0.00
32	130.00	RF4440d-13A	3	6.476	7.124	0.50	0.75	4.73	583.24	0.000	0.000	33.70	0.00	0.00
33	130.00	XXDWMM-12.5-65	3	6.476	7.124	0.56	0.75	3.80	355.43	0.000	0.000	27.08	0.00	0.00
34	130.00	MT6407-77A	3	6.476	7.124	0.52	0.75	9.38	788.92	0.000	0.000	66.80	0.00	0.00
35	130.00	PV-LPP14L-HR-B	1	6.476	7.124	1.00	1.00	79.01	4240.94	0.000	0.000	562.83	0.00	0.00
36	130.00	DB-T1-6Z-8AB-OZ	2	6.476	7.124	0.50	0.75	6.00	444.75	0.000	0.000	42.76	0.00	0.00
37	130.00	B25 RRH4x30-4R	3	6.476	7.124	0.50	0.75	4.43	369.61	0.000	0.000	31.56	0.00	0.00

Totals: 35,579.42

4,521.91

Total Applied Force Summary

Structure: CT02573-S-SBA	Code: EIA/TIA-222-G	11/4/2021
Site Name: Coventry 2 CT	Exposure: B	
Height: 177.95 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



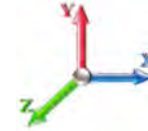
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Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00

Iterations 24



Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		159.67	2658.56	0.00	0.00
10.00		157.45	2662.09	0.00	0.00
15.00		155.01	2645.63	0.00	0.00
20.00		152.49	2620.40	0.00	0.00
25.00		149.91	2590.10	0.00	0.00
30.00		147.42	2556.44	0.00	0.00
35.00		151.30	2520.38	0.00	0.00
40.00		154.30	2482.50	0.00	0.00
42.30		71.18	1130.61	0.00	0.00
45.00		85.36	2157.46	0.00	0.00
48.00		95.64	2373.83	0.00	0.00
50.00		63.89	971.60	0.00	0.00
55.00		161.92	2397.58	0.00	0.00
60.00		162.71	2355.40	0.00	0.00
65.00		163.10	2312.49	0.00	0.00
70.00		163.14	2268.96	0.00	0.00
75.00		162.86	2224.87	0.00	0.00
80.00		162.30	2180.29	0.00	0.00
85.00		161.47	2135.26	0.00	0.00
86.83		58.64	772.99	0.00	0.00
90.00		102.69	2019.89	0.00	0.00
92.30		74.25	1450.26	0.00	0.00
95.00		86.71	1021.07	0.00	0.00
100.00		160.13	1857.53	0.00	0.00
105.00		158.47	1815.88	0.00	0.00
110.00		156.63	1773.94	0.00	0.00
115.00		154.62	1731.74	0.00	0.00
120.00		152.44	1689.29	0.00	0.00
125.00		150.11	1646.60	0.00	0.00
130.00	(24) attachments	1209.63	10738.05	0.00	0.00
132.95		85.63	919.32	0.00	0.00
135.00		59.94	927.04	0.00	0.00
136.83		53.15	818.81	0.00	0.00
140.00		91.07	878.24	0.00	0.00
145.00		141.74	1352.31	0.00	0.00
150.00		138.77	1313.42	0.00	0.00
153.00	(11) attachments	1083.99	6845.07	0.00	0.00
155.00		53.74	504.41	0.00	0.00
157.98		79.15	738.52	0.00	0.00
160.00		53.04	446.64	0.00	0.00
162.00	(30) attachments	1136.37	10017.54	0.00	0.00
165.00		76.97	592.65	0.00	0.00
170.00		125.78	956.77	0.00	0.00
172.00	(25) attachments	1407.87	11112.94	0.00	-568.94
175.00		72.81	518.25	0.00	0.00
177.95	(1) attachments	84.79	533.08	0.00	0.00

Total Applied Force Summary

Structure:	CT02573-S-SBA	Code:	EIA/TIA-222-G	11/4/2021
Site Name:	Coventry 2 CT	Exposure:	B	
Height:	177.95 (ft)	Crest Height:	0.00	
Base Elev:	0.000 (ft)	Site Class:	D - Stiff Soil	
Gh:	1.1	Topography:	1	
		Struct Class:	II	Page: 27



Totals:	9,890.25	108,236.7 2	0.00	-568.94
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Calculated Forces

Structure: CT02573-S-SBA

Code: EIA/TIA-222-G

11/4/2021

Site Name: Coventry 2 CT

Exposure: B

Height: 177.95 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 1.1

Topography: 1

Struct Class: II

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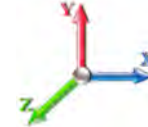


Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Iterations 24

Dead Load Factor 1.20

Wind Load Factor 1.00



Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-108.2	-9.93	0.00	-1283.1	0.00	1283.17	5803.10	2901.55	15291.3	7657.05	0.00	0.000	0.000	0.186
5.00	-105.5	-9.84	0.00	-1233.5	0.00	1233.53	5740.73	2870.37	14848.9	7435.53	0.02	-0.039	0.000	0.184
10.00	-102.9	-9.75	0.00	-1184.3	0.00	1184.34	5676.74	2838.37	14408.5	7214.97	0.08	-0.078	0.000	0.182
15.00	-100.2	-9.66	0.00	-1135.5	0.00	1135.59	5611.13	2805.57	13970.2	6995.50	0.19	-0.118	0.000	0.180
20.00	-97.62	-9.57	0.00	-1087.2	0.00	1087.29	5543.90	2771.95	13534.3	6777.22	0.33	-0.159	0.000	0.178
25.00	-95.02	-9.48	0.00	-1039.4	0.00	1039.43	5475.05	2737.52	13101.0	6560.27	0.52	-0.200	0.000	0.176
30.00	-92.46	-9.39	0.00	-992.02	0.00	992.02	5404.57	2702.29	12670.6	6344.75	0.75	-0.242	0.000	0.173
35.00	-89.93	-9.30	0.00	-945.06	0.00	945.06	5332.48	2666.24	12243.3	6130.79	1.03	-0.284	0.000	0.171
40.00	-87.45	-9.18	0.00	-898.58	0.00	898.58	5258.76	2629.38	11819.4	5918.51	1.35	-0.327	0.000	0.168
42.30	-86.31	-9.13	0.00	-877.45	0.00	877.45	5224.28	2612.14	11625.4	5821.36	1.51	-0.347	0.000	0.167
45.00	-84.15	-9.07	0.00	-852.81	0.00	852.81	5183.43	2591.71	11399.0	5708.01	1.71	-0.371	0.000	0.166
48.00	-81.78	-8.99	0.00	-825.60	0.00	825.60	5194.69	2597.35	11461.1	5739.07	1.96	-0.398	0.000	0.160
50.00	-80.80	-8.96	0.00	-807.62	0.00	807.62	5164.20	2582.10	11293.7	5655.29	2.13	-0.415	0.000	0.158
55.00	-78.40	-8.84	0.00	-762.81	0.00	762.81	5086.83	2543.42	10878.2	5447.20	2.58	-0.458	0.000	0.155
60.00	-76.04	-8.72	0.00	-718.60	0.00	718.60	5007.85	2503.92	10466.7	5241.17	3.09	-0.500	0.000	0.152
65.00	-73.72	-8.59	0.00	-675.03	0.00	675.03	4927.24	2463.62	10059.6	5037.31	3.63	-0.543	0.000	0.149
70.00	-71.45	-8.45	0.00	-632.10	0.00	632.10	4845.02	2422.51	9657.14	4835.75	4.23	-0.586	0.000	0.145
75.00	-69.22	-8.32	0.00	-589.83	0.00	589.83	4761.17	2380.58	9259.43	4636.60	4.86	-0.629	0.000	0.142
80.00	-67.03	-8.18	0.00	-548.23	0.00	548.23	4675.70	2337.85	8866.76	4439.97	5.55	-0.673	0.000	0.138
85.00	-64.90	-8.03	0.00	-507.31	0.00	507.31	4588.61	2294.31	8479.38	4245.99	6.27	-0.716	0.000	0.134
86.83	-64.12	-7.99	0.00	-492.59	0.00	492.59	4556.28	2278.14	8338.71	4175.55	6.55	-0.732	0.000	0.132
90.00	-62.10	-7.88	0.00	-467.30	0.00	467.30	4499.90	2249.95	8097.52	4054.78	7.05	-0.760	0.000	0.129
92.30	-60.65	-7.81	0.00	-449.15	0.00	449.15	3709.97	1854.99	6727.57	3368.78	7.42	-0.780	0.000	0.150
95.00	-59.62	-7.75	0.00	-428.08	0.00	428.08	3673.22	1836.61	6564.94	3287.35	7.87	-0.804	0.000	0.146
100.00	-57.76	-7.61	0.00	-389.33	0.00	389.33	3603.88	1801.94	6266.45	3137.88	8.73	-0.851	0.000	0.140
105.00	-55.94	-7.47	0.00	-351.29	0.00	351.29	3532.91	1766.45	5971.95	2990.41	9.65	-0.897	0.000	0.133
110.00	-54.17	-7.32	0.00	-313.95	0.00	313.95	3460.32	1730.16	5681.65	2845.05	10.61	-0.942	0.000	0.126
115.00	-52.43	-7.18	0.00	-277.34	0.00	277.34	3386.11	1693.05	5395.81	2701.92	11.62	-0.985	0.000	0.118
120.00	-50.74	-7.03	0.00	-241.44	0.00	241.44	3310.28	1655.14	5114.65	2561.13	12.68	-1.027	0.000	0.110
125.00	-49.09	-6.89	0.00	-206.27	0.00	206.27	3228.52	1614.26	4831.97	2419.57	13.78	-1.067	0.000	0.100
130.00	-38.38	-5.49	0.00	-171.84	0.00	171.84	3125.09	1562.55	4525.83	2266.28	14.91	-1.104	0.000	0.088
132.95	-37.46	-5.40	0.00	-155.65	0.00	155.65	3064.12	1532.06	4350.03	2178.25	15.60	-1.124	0.000	0.084
135.00	-36.53	-5.33	0.00	-144.57	0.00	144.57	3021.67	1510.84	4229.72	2118.00	16.09	-1.138	0.000	0.080
136.83	-35.71	-5.27	0.00	-134.80	0.00	134.80	2458.83	1229.41	3474.42	1739.79	16.53	-1.150	0.000	0.092
140.00	-34.83	-5.18	0.00	-118.11	0.00	118.11	2420.71	1210.36	3346.31	1675.64	17.30	-1.170	0.000	0.085
145.00	-33.48	-5.02	0.00	-92.23	0.00	92.23	2359.20	1179.60	3147.03	1575.85	18.54	-1.201	0.000	0.073
150.00	-32.17	-4.87	0.00	-67.10	0.00	67.10	2296.08	1148.04	2951.62	1478.00	19.81	-1.228	0.000	0.059
153.00	-25.35	-3.64	0.00	-52.50	0.00	52.50	2257.42	1128.71	2836.33	1420.27	20.59	-1.241	0.000	0.048
155.00	-24.84	-3.58	0.00	-45.22	0.00	45.22	2223.99	1111.99	2751.24	1377.66	21.11	-1.249	0.000	0.044
157.98	-24.11	-3.49	0.00	-34.55	0.00	34.55	2172.66	1086.33	2625.07	1314.48	21.89	-1.258	0.000	0.037
157.98	-24.11	-3.49	0.00	-34.55	0.00	34.55	1653.01	826.50	2005.69	1004.33	21.89	-1.258	0.000	0.049
160.00	-23.66	-3.43	0.00	-27.50	0.00	27.50	1634.69	817.35	1951.45	977.17	22.43	-1.264	0.000	0.043
162.00	-13.67	-2.07	0.00	-20.64	0.00	20.64	1616.31	808.16	1898.20	950.51	22.96	-1.270	0.000	0.030
165.00	-13.08	-1.98	0.00	-14.42	0.00	14.42	1588.26	794.13	1819.10	910.90	23.76	-1.276	0.000	0.024
170.00	-12.13	-1.84	0.00	-4.50	0.00	4.50	1540.22	770.11	1689.48	845.99	25.10	-1.282	0.000	0.013
172.00	-1.05	-0.18	0.00	-0.83	0.00	0.83	1520.54	760.27	1638.44	820.44	25.64	-1.283	0.000	0.002
175.00	-0.53	-0.10	0.00	-0.29	0.00	0.29	1490.55	745.27	1562.81	782.56	26.44	-1.283	0.000	0.001
177.95	0.00	-0.08	0.00	0.00	0.00	0.00	1460.49	730.24	1489.55	745.88	27.24	-1.283	0.000	0.000

Calculated Forces

Structure:	CT02573-S-SBA	Code:	EIA/TIA-222-G	11/4/2021
Site Name:	Coventry 2 CT	Exposure:	B	
Height:	177.95 (ft)	Crest Height:	0.00	
Base Elev:	0.000 (ft)	Site Class:	D - Stiff Soil	
Gh:	1.1	Topography:	1	Struct Class: II
				Page: 29



Seismic Segment Forces (Factored)

Structure: CT02573-S-SBA	Code: EIA/TIA-222-G	11/4/2021	
Site Name: Coventry 2 CT	Exposure: B		
Height: 177.95 (ft)	Crest Height: 0.00		
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil		
Gh: 1.1	Topography: 1	Struct Class: II	Page: 30



Load Case: 1.2D + 1.0E

Iterations 22

Gust Response Factor 1.10

Sds 0.19

Ss 0.18

Dead Load Factor 1.20 **Seismic Load Factor** 1.00

Sd1 0.10

S1 0.06

Wind Load Factor 0.00 **Structure Frequency (f1)** 0.32

SA 0.03

Seismic Importance Factor 1.00



Top Elev (ft)	Description	Wz (lb)	a	b	c	Lateral Fs (lb)	R: 1.50
0.00		0.00	0.00	0.00	0.00	0.00	
5.00		1499.6	0.00	0.03	0.02	25.16	
10.00		1472.0	0.01	0.05	0.03	36.77	
15.00		1444.4	0.01	0.06	0.03	42.46	
20.00		1416.7	0.02	0.07	0.04	45.12	
25.00		1389.1	0.04	0.07	0.04	46.23	
30.00		1361.5	0.05	0.07	0.04	46.58	
35.00		1333.8	0.07	0.07	0.04	46.64	
40.00		1306.2	0.10	0.07	0.04	46.61	
42.30	Bot - Section 2	592.13	0.11	0.07	0.04	21.33	
45.00		1384.1	0.12	0.07	0.03	50.38	
48.00	Top - Section 1	1520.2	0.14	0.07	0.03	55.95	
50.00		505.35	0.15	0.07	0.03	18.72	
55.00		1244.0	0.18	0.07	0.03	46.57	
60.00		1216.3	0.21	0.06	0.02	45.36	
65.00		1188.7	0.25	0.05	0.02	43.06	
70.00		1161.1	0.29	0.05	0.01	39.22	
75.00		1133.5	0.34	0.04	0.01	33.38	
80.00		1105.8	0.38	0.02	0.01	25.23	
85.00		1078.2	0.43	0.01	0.01	14.83	
86.83	Bot - Section 3	388.43	0.45	0.00	0.01	3.84	
90.00		1240.1	0.48	-0.01	0.01	3.38	
92.30	Top - Section 2	888.65	0.51	-0.02	0.01	-2.44	
95.00		479.06	0.54	-0.03	0.01	-4.40	
100.00		869.61	0.60	-0.05	0.01	-17.78	
105.00		845.92	0.66	-0.07	0.02	-25.04	
110.00		822.24	0.72	-0.09	0.03	-29.34	
115.00		798.55	0.79	-0.11	0.05	-30.51	
120.00		774.87	0.86	-0.12	0.07	-28.72	
125.00		751.19	0.93	-0.12	0.10	-24.25	
130.00	Appurtenance(s)	3470.0	1.01	-0.11	0.14	-83.17	
132.95	Bot - Section 4	417.83	1.05	-0.09	0.16	-7.28	
135.00		529.08	1.09	-0.08	0.18	-6.43	
136.83	Top - Section 3	466.50	1.12	-0.06	0.20	-3.25	
140.00		364.02	1.17	-0.02	0.23	1.13	
145.00		558.64	1.25	0.06	0.30	12.20	
150.00		538.91	1.34	0.18	0.38	23.75	
153.00	Appurtenance(s)	2672.9	1.40	0.28	0.43	158.01	
155.00		205.30	1.43	0.35	0.47	14.34	
157.98	Top - Section 4	299.83	1.49	0.48	0.53	26.06	
160.00		160.02	1.53	0.57	0.58	15.88	
162.00	Appurtenance(s)	3092.9	1.57	0.68	0.63	346.50	
165.00		228.87	1.62	0.86	0.70	30.28	
170.00		368.81	1.72	1.22	0.85	62.38	
172.00	Appurtenance(s)	3553.2	1.77	1.39	0.92	657.12	
175.00		209.92	1.83	1.67	1.03	44.04	

Seismic Segment Forces (Factored)

Structure: CT02573-S-SBA	Code: EIA/TIA-222-G	11/4/2021	
Site Name: Coventry 2 CT	Exposure: B		
Height: 177.95 (ft)	Crest Height: 0.00		
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil		
Gh: 1.1	Topography: 1	Struct Class: II	Page: 31



177.95	Appurtenance(s)	207.38	1.89	1.98	1.14	48.86	
	Totals:	48,556.3				1,914.8	Total Wind: 34,406.8

Seismic Base Shear is Less Than 50% of Wind Force - An Analysis is NOT Required

Calculated Forces

Structure: CT02573-S-SBA **Code:** EIA/TIA-222-G 11/4/2021
Site Name: Coventry 2 CT **Exposure:** B
Height: 177.95 (ft) **Crest Height:** 0.00
Base Elev: 0.000 (ft) **Site Class:** D - Stiff Soil
Gh: 1.1 **Topography:** 1 **Struct Class:** II Page: 32



Load Case: 1.2D + 1.0E

Iterations 22

Gust Response Factor 1.10

Sds 0.19

Ss 0.18

Dead Load Factor 1.20

Seismic Load Factor 1.00

Sd1 0.10

S1 0.06

Wind Load Factor 0.00

Structure Frequency (f1) 0.32

SA 0.03

Seismic Importance Factor 1.00



Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-64.34	-2.18	0.00	-283.89	0.00	283.89	5803.10	2901.55	15291.3	7657.05	0.00	0.00	0.00	0.048
5.00	-62.35	-2.17	0.00	-272.98	0.00	272.98	5740.73	2870.37	14848.9	7435.53	0.00	-0.01	0.048	
10.00	-60.40	-2.14	0.00	-262.16	0.00	262.16	5676.74	2838.37	14408.5	7214.97	0.02	-0.02	0.047	
15.00	-58.48	-2.10	0.00	-251.47	0.00	251.47	5611.13	2805.57	13970.2	6995.50	0.04	-0.03	0.046	
20.00	-56.60	-2.07	0.00	-240.95	0.00	240.95	5543.90	2771.95	13534.3	6777.22	0.07	-0.04	0.046	
25.00	-54.75	-2.03	0.00	-230.62	0.00	230.62	5475.05	2737.52	13101.0	6560.27	0.12	-0.04	0.045	
30.00	-52.93	-1.99	0.00	-220.48	0.00	220.48	5404.57	2702.29	12670.6	6344.75	0.17	-0.05	0.045	
35.00	-51.14	-1.95	0.00	-210.55	0.00	210.55	5332.48	2666.24	12243.3	6130.79	0.23	-0.06	0.044	
40.00	-49.39	-1.91	0.00	-200.81	0.00	200.81	5258.76	2629.38	11819.4	5918.51	0.30	-0.07	0.043	
42.30	-48.59	-1.89	0.00	-196.42	0.00	196.42	5224.28	2612.14	11625.4	5821.36	0.33	-0.08	0.043	
45.00	-46.83	-1.84	0.00	-191.33	0.00	191.33	5183.43	2591.71	11399.0	5708.01	0.38	-0.08	0.043	
48.00	-44.90	-1.78	0.00	-185.81	0.00	185.81	5194.69	2597.35	11461.1	5739.07	0.43	-0.09	0.041	
50.00	-44.22	-1.77	0.00	-182.24	0.00	182.24	5164.20	2582.10	11293.7	5655.29	0.47	-0.09	0.041	
55.00	-42.54	-1.73	0.00	-173.40	0.00	173.40	5086.83	2543.42	10878.2	5447.20	0.57	-0.10	0.040	
60.00	-40.89	-1.69	0.00	-164.76	0.00	164.76	5007.85	2503.92	10466.7	5241.17	0.69	-0.11	0.040	
65.00	-39.28	-1.65	0.00	-156.33	0.00	156.33	4927.24	2463.62	10059.6	5037.31	0.81	-0.12	0.039	
70.00	-37.70	-1.61	0.00	-148.10	0.00	148.10	4845.02	2422.51	9657.14	4835.75	0.94	-0.13	0.038	
75.00	-36.16	-1.58	0.00	-140.05	0.00	140.05	4761.17	2380.58	9259.43	4636.60	1.08	-0.14	0.038	
80.00	-34.65	-1.56	0.00	-132.15	0.00	132.15	4675.70	2337.85	8866.76	4439.97	1.24	-0.15	0.037	
85.00	-33.17	-1.54	0.00	-124.37	0.00	124.37	4588.61	2294.31	8479.38	4245.99	1.40	-0.16	0.037	
86.83	-32.63	-1.54	0.00	-121.54	0.00	121.54	4556.28	2278.14	8338.71	4175.55	1.47	-0.17	0.036	
90.00	-31.03	-1.54	0.00	-116.66	0.00	116.66	4499.90	2249.95	8097.52	4054.78	1.58	-0.17	0.036	
92.30	-29.88	-1.53	0.00	-113.13	0.00	113.13	3709.97	1854.99	6727.57	3368.78	1.66	-0.18	0.042	
95.00	-29.20	-1.54	0.00	-108.99	0.00	108.99	3673.22	1836.61	6564.94	3287.35	1.77	-0.18	0.041	
100.00	-27.97	-1.54	0.00	-101.31	0.00	101.31	3603.88	1801.94	6266.45	3137.88	1.97	-0.20	0.040	
105.00	-26.77	-1.54	0.00	-93.61	0.00	93.61	3532.91	1766.45	5971.95	2990.41	2.18	-0.21	0.039	
110.00	-25.60	-1.54	0.00	-85.91	0.00	85.91	3460.32	1730.16	5681.65	2845.05	2.40	-0.22	0.038	
115.00	-24.46	-1.54	0.00	-78.20	0.00	78.20	3386.11	1693.05	5395.81	2701.92	2.64	-0.23	0.036	
120.00	-23.34	-1.54	0.00	-70.50	0.00	70.50	3310.28	1655.14	5114.65	2561.13	2.89	-0.25	0.035	
125.00	-22.26	-1.54	0.00	-62.79	0.00	62.79	3228.52	1614.26	4831.97	2419.57	3.16	-0.26	0.033	
130.00	-17.91	-1.52	0.00	-55.08	0.00	55.08	3125.09	1562.55	4525.83	2266.28	3.43	-0.27	0.030	
132.95	-17.31	-1.52	0.00	-50.58	0.00	50.58	3064.12	1532.06	4350.03	2178.25	3.60	-0.27	0.029	
135.00	-16.60	-1.52	0.00	-47.45	0.00	47.45	3021.67	1510.84	4229.72	2118.00	3.72	-0.28	0.028	
136.83	-15.98	-1.52	0.00	-44.66	0.00	44.66	2458.83	1229.41	3474.42	1739.79	3.83	-0.28	0.032	
140.00	-15.43	-1.52	0.00	-39.85	0.00	39.85	2420.71	1210.36	3346.31	1675.64	4.02	-0.29	0.030	
145.00	-14.59	-1.50	0.00	-32.26	0.00	32.26	2359.20	1179.60	3147.03	1575.85	4.33	-0.30	0.027	
150.00	-13.77	-1.48	0.00	-24.74	0.00	24.74	2296.08	1148.04	2951.62	1478.00	4.65	-0.31	0.023	
153.00	-10.46	-1.30	0.00	-20.30	0.00	20.30	2257.42	1128.71	2836.33	1420.27	4.84	-0.32	0.019	
155.00	-10.15	-1.29	0.00	-17.70	0.00	17.70	2223.99	1111.99	2751.24	1377.66	4.98	-0.32	0.017	
157.98	-9.69	-1.26	0.00	-13.86	0.00	13.86	2172.66	1086.33	2625.07	1314.48	5.18	-0.32	0.015	
157.98	-9.69	-1.26	0.00	-13.86	0.00	13.86	1653.01	826.50	2005.69	1004.33	5.18	-0.32	0.020	
160.00	-9.43	-1.24	0.00	-11.32	0.00	11.32	1634.69	817.35	1951.45	977.17	5.31	-0.32	0.017	
162.00	-5.66	-0.87	0.00	-8.83	0.00	8.83	1616.31	808.16	1898.20	950.51	5.45	-0.33	0.013	
165.00	-5.33	-0.84	0.00	-6.21	0.00	6.21	1588.26	794.13	1819.10	910.90	5.66	-0.33	0.010	
170.00	-4.81	-0.78	0.00	-1.99	0.00	1.99	1540.22	770.11	1689.48	845.99	6.00	-0.33	0.005	
172.00	-0.52	-0.10	0.00	-0.44	0.00	0.44	1520.54	760.27	1638.44	820.44	6.14	-0.33	0.001	
175.00	-0.25	-0.05	0.00	-0.15	0.00	0.15	1490.55	745.27	1562.81	782.56	6.35	-0.33	0.000	

Calculated Forces

Structure: CT02573-S-SBA	Code: EIA/TIA-222-G	11/4/2021	
Site Name: Coventry 2 CT	Exposure: B		
Height: 177.95 (ft)	Crest Height: 0.00		
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil		
Gh: 1.1	Topography: 1	Struct Class: II	Page: 33



177.95	0.00	-0.05	0.00	0.00	0.00	0.00	0.00	1460.49	730.24	1489.55	745.88	6.56	-0.33	0.000
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Seismic Segment Forces (Factored)

Structure: CT02573-S-SBA	Code: EIA/TIA-222-G	11/4/2021	
Site Name: Coventry 2 CT	Exposure: B		
Height: 177.95 (ft)	Crest Height: 0.00		
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil		
Gh: 1.1	Topography: 1	Struct Class: II	Page: 34



Load Case: 0.9D + 1.0E

Iterations 22

Gust Response Factor 1.10

Sds 0.19

Ss 0.18

Dead Load Factor 0.90 **Seismic Load Factor** 1.00

Sd1 0.10

S1 0.06

Wind Load Factor 0.00 **Structure Frequency (f1)** 0.32

SA 0.03

Seismic Importance Factor 1.00



Top Elev (ft)	Description	Wz (lb)	a	b	c	Lateral Fs (lb)	R: 1.50
0.00		0.00	0.00	0.00	0.00	0.00	
5.00		1499.6	0.00	0.03	0.02	25.16	
10.00		1472.0	0.01	0.05	0.03	36.77	
15.00		1444.4	0.01	0.06	0.03	42.46	
20.00		1416.7	0.02	0.07	0.04	45.12	
25.00		1389.1	0.04	0.07	0.04	46.23	
30.00		1361.5	0.05	0.07	0.04	46.58	
35.00		1333.8	0.07	0.07	0.04	46.64	
40.00		1306.2	0.10	0.07	0.04	46.61	
42.30	Bot - Section 2	592.13	0.11	0.07	0.04	21.33	
45.00		1384.1	0.12	0.07	0.03	50.38	
48.00	Top - Section 1	1520.2	0.14	0.07	0.03	55.95	
50.00		505.35	0.15	0.07	0.03	18.72	
55.00		1244.0	0.18	0.07	0.03	46.57	
60.00		1216.3	0.21	0.06	0.02	45.36	
65.00		1188.7	0.25	0.05	0.02	43.06	
70.00		1161.1	0.29	0.05	0.01	39.22	
75.00		1133.5	0.34	0.04	0.01	33.38	
80.00		1105.8	0.38	0.02	0.01	25.23	
85.00		1078.2	0.43	0.01	0.01	14.83	
86.83	Bot - Section 3	388.43	0.45	0.00	0.01	3.84	
90.00		1240.1	0.48	-0.01	0.01	3.38	
92.30	Top - Section 2	888.65	0.51	-0.02	0.01	-2.44	
95.00		479.06	0.54	-0.03	0.01	-4.40	
100.00		869.61	0.60	-0.05	0.01	-17.78	
105.00		845.92	0.66	-0.07	0.02	-25.04	
110.00		822.24	0.72	-0.09	0.03	-29.34	
115.00		798.55	0.79	-0.11	0.05	-30.51	
120.00		774.87	0.86	-0.12	0.07	-28.72	
125.00		751.19	0.93	-0.12	0.10	-24.25	
130.00	Appurtenance(s)	3470.0	1.01	-0.11	0.14	-83.17	
132.95	Bot - Section 4	417.83	1.05	-0.09	0.16	-7.28	
135.00		529.08	1.09	-0.08	0.18	-6.43	
136.83	Top - Section 3	466.50	1.12	-0.06	0.20	-3.25	
140.00		364.02	1.17	-0.02	0.23	1.13	
145.00		558.64	1.25	0.06	0.30	12.20	
150.00		538.91	1.34	0.18	0.38	23.75	
153.00	Appurtenance(s)	2672.9	1.40	0.28	0.43	158.01	
155.00		205.30	1.43	0.35	0.47	14.34	
157.98	Top - Section 4	299.83	1.49	0.48	0.53	26.06	
160.00		160.02	1.53	0.57	0.58	15.88	
162.00	Appurtenance(s)	3092.9	1.57	0.68	0.63	346.50	
165.00		228.87	1.62	0.86	0.70	30.28	
170.00		368.81	1.72	1.22	0.85	62.38	
172.00	Appurtenance(s)	3553.2	1.77	1.39	0.92	657.12	
175.00		209.92	1.83	1.67	1.03	44.04	

Seismic Segment Forces (Factored)

Structure: CT02573-S-SBA	Code: EIA/TIA-222-G	11/4/2021	
Site Name: Coventry 2 CT	Exposure: B		
Height: 177.95 (ft)	Crest Height: 0.00		
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil		
Gh: 1.1	Topography: 1	Struct Class: II	Page: 35



177.95	Appurtenance(s)	207.38	1.89	1.98	1.14	48.86	
	Totals:	48,556.3				1,914.8	Total Wind: 34,406.8

Seismic Base Shear is Less Than 50% of Wind Force - An Analysis is NOT Required

Calculated Forces

Structure: CT02573-S-SBA **Code:** EIA/TIA-222-G 11/4/2021
Site Name: Coventry 2 CT **Exposure:** B
Height: 177.95 (ft) **Crest Height:** 0.00
Base Elev: 0.000 (ft) **Site Class:** D - Stiff Soil
Gh: 1.1 **Topography:** 1 **Struct Class:** II Page: 36



Load Case: 0.9D + 1.0E

Iterations 22

Gust Response Factor 1.10

Sds 0.19

Ss 0.18

Dead Load Factor 0.90 **Seismic Load Factor** 1.00 **Sd1** 0.10

S1 0.06

Wind Load Factor 0.00 **Structure Frequency (f1)** 0.32 **SA** 0.03 **Seismic Importance Factor** 1.00



Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-48.25	-2.18	0.00	-280.72	0.00	280.72	5803.10	2901.55	15291.3	7657.05	0.00	0.00	0.00	0.045
5.00	-46.77	-2.16	0.00	-269.82	0.00	269.82	5740.73	2870.37	14848.9	7435.53	0.00	-0.01	0.044	
10.00	-45.30	-2.13	0.00	-259.01	0.00	259.01	5676.74	2838.37	14408.5	7214.97	0.02	-0.02	0.044	
15.00	-43.86	-2.10	0.00	-248.36	0.00	248.36	5611.13	2805.57	13970.2	6995.50	0.04	-0.03	0.043	
20.00	-42.45	-2.06	0.00	-237.88	0.00	237.88	5543.90	2771.95	13534.3	6777.22	0.07	-0.03	0.043	
25.00	-41.06	-2.02	0.00	-227.60	0.00	227.60	5475.05	2737.52	13101.0	6560.27	0.11	-0.04	0.042	
30.00	-39.70	-1.97	0.00	-217.52	0.00	217.52	5404.57	2702.29	12670.6	6344.75	0.16	-0.05	0.042	
35.00	-38.36	-1.93	0.00	-207.65	0.00	207.65	5332.48	2666.24	12243.3	6130.79	0.22	-0.06	0.041	
40.00	-37.04	-1.89	0.00	-197.99	0.00	197.99	5258.76	2629.38	11819.4	5918.51	0.30	-0.07	0.040	
42.30	-36.44	-1.87	0.00	-193.64	0.00	193.64	5224.28	2612.14	11625.4	5821.36	0.33	-0.08	0.040	
45.00	-35.12	-1.82	0.00	-188.60	0.00	188.60	5183.43	2591.71	11399.0	5708.01	0.38	-0.08	0.040	
48.00	-33.67	-1.77	0.00	-183.14	0.00	183.14	5194.69	2597.35	11461.1	5739.07	0.43	-0.09	0.038	
50.00	-33.16	-1.75	0.00	-179.61	0.00	179.61	5164.20	2582.10	11293.7	5655.29	0.47	-0.09	0.038	
55.00	-31.90	-1.71	0.00	-170.86	0.00	170.86	5086.83	2543.42	10878.2	5447.20	0.57	-0.10	0.038	
60.00	-30.67	-1.66	0.00	-162.32	0.00	162.32	5007.85	2503.92	10466.7	5241.17	0.68	-0.11	0.037	
65.00	-29.46	-1.62	0.00	-154.00	0.00	154.00	4927.24	2463.62	10059.6	5037.31	0.80	-0.12	0.037	
70.00	-28.28	-1.59	0.00	-145.88	0.00	145.88	4845.02	2422.51	9657.14	4835.75	0.93	-0.13	0.036	
75.00	-27.12	-1.56	0.00	-137.95	0.00	137.95	4761.17	2380.58	9259.43	4636.60	1.07	-0.14	0.035	
80.00	-25.98	-1.53	0.00	-130.17	0.00	130.17	4675.70	2337.85	8866.76	4439.97	1.22	-0.15	0.035	
85.00	-24.88	-1.52	0.00	-122.51	0.00	122.51	4588.61	2294.31	8479.38	4245.99	1.38	-0.16	0.034	
86.83	-24.48	-1.51	0.00	-119.73	0.00	119.73	4556.28	2278.14	8338.71	4175.55	1.45	-0.16	0.034	
90.00	-23.27	-1.51	0.00	-114.93	0.00	114.93	4499.90	2249.95	8097.52	4054.78	1.56	-0.17	0.034	
92.30	-22.41	-1.51	0.00	-111.46	0.00	111.46	3709.97	1854.99	6727.57	3368.78	1.64	-0.18	0.039	
95.00	-21.90	-1.51	0.00	-107.38	0.00	107.38	3673.22	1836.61	6564.94	3287.35	1.74	-0.18	0.039	
100.00	-20.98	-1.51	0.00	-99.82	0.00	99.82	3603.88	1801.94	6266.45	3137.88	1.94	-0.19	0.038	
105.00	-20.08	-1.51	0.00	-92.26	0.00	92.26	3532.91	1766.45	5971.95	2990.41	2.15	-0.21	0.037	
110.00	-19.20	-1.51	0.00	-84.69	0.00	84.69	3460.32	1730.16	5681.65	2845.05	2.37	-0.22	0.035	
115.00	-18.34	-1.52	0.00	-77.11	0.00	77.11	3386.11	1693.05	5395.81	2701.92	2.61	-0.23	0.034	
120.00	-17.51	-1.52	0.00	-69.54	0.00	69.54	3310.28	1655.14	5114.65	2561.13	2.85	-0.24	0.032	
125.00	-16.69	-1.52	0.00	-61.96	0.00	61.96	3228.52	1614.26	4831.97	2419.57	3.11	-0.25	0.031	
130.00	-13.43	-1.50	0.00	-54.38	0.00	54.38	3125.09	1562.55	4525.83	2266.28	3.38	-0.26	0.028	
132.95	-12.98	-1.50	0.00	-49.95	0.00	49.95	3064.12	1532.06	4350.03	2178.25	3.55	-0.27	0.027	
135.00	-12.45	-1.50	0.00	-46.87	0.00	46.87	3021.67	1510.84	4229.72	2118.00	3.67	-0.28	0.026	
136.83	-11.98	-1.50	0.00	-44.12	0.00	44.12	2458.83	1229.41	3474.42	1739.79	3.77	-0.28	0.030	
140.00	-11.57	-1.50	0.00	-39.37	0.00	39.37	2420.71	1210.36	3346.31	1675.64	3.96	-0.29	0.028	
145.00	-10.94	-1.48	0.00	-31.89	0.00	31.89	2359.20	1179.60	3147.03	1575.85	4.27	-0.30	0.025	
150.00	-10.33	-1.46	0.00	-24.46	0.00	24.46	2296.08	1148.04	2951.62	1478.00	4.58	-0.31	0.021	
153.00	-7.84	-1.29	0.00	-20.09	0.00	20.09	2257.42	1128.71	2836.33	1420.27	4.78	-0.31	0.018	
155.00	-7.61	-1.27	0.00	-17.51	0.00	17.51	2223.99	1111.99	2751.24	1377.66	4.91	-0.31	0.016	
157.98	-7.27	-1.25	0.00	-13.72	0.00	13.72	2122.66	1086.33	2625.07	1314.48	5.11	-0.32	0.014	
157.98	-7.27	-1.25	0.00	-13.72	0.00	13.72	1653.01	826.50	2005.69	1004.33	5.11	-0.32	0.018	
160.00	-7.07	-1.23	0.00	-11.20	0.00	11.20	1634.69	817.35	1951.45	977.17	5.24	-0.32	0.016	
162.00	-4.24	-0.87	0.00	-8.75	0.00	8.75	1616.31	808.16	1898.20	950.51	5.37	-0.32	0.012	
165.00	-4.00	-0.84	0.00	-6.15	0.00	6.15	1588.26	794.13	1819.10	910.90	5.58	-0.32	0.009	
170.00	-3.61	-0.77	0.00	-1.97	0.00	1.97	1540.22	770.11	1689.48	845.99	5.92	-0.33	0.005	
172.00	-0.39	-0.10	0.00	-0.43	0.00	0.43	1520.54	760.27	1638.44	820.44	6.06	-0.33	0.001	
175.00	-0.19	-0.05	0.00	-0.15	0.00	0.15	1490.55	745.27	1562.81	782.56	6.26	-0.33	0.000	

Calculated Forces

Structure: CT02573-S-SBA	Code: EIA/TIA-222-G	11/4/2021	
Site Name: Coventry 2 CT	Exposure: B		
Height: 177.95 (ft)	Crest Height: 0.00		
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil		
Gh: 1.1	Topography: 1	Struct Class: II	Page: 37



177.95	0.00	-0.05	0.00	0.00	0.00	0.00	0.00	1460.49	730.24	1489.55	745.88	6.47	-0.33	0.000
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Wind Loading - Shaft

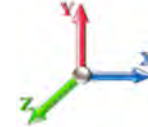
Structure: CT02573-S-SBA	Code: EIA/TIA-222-G	11/4/2021	
Site Name: Coventry 2 CT	Exposure: B		
Height: 177.95 (ft)	Crest Height: 0.00		
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil		
Gh: 1.1	Topography: 1	Struct Class: II	Page: 38



Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 23

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.70	6.129	6.74	273.99	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.70	6.129	6.74	269.02	0.650	0.000	5.00	27.042	17.58	118.5	0.0	1499.7
10.00		1.00	0.70	6.129	6.74	264.05	0.650	0.000	5.00	26.547	17.26	116.3	0.0	1472.0
15.00		1.00	0.70	6.129	6.74	259.08	0.650	0.000	5.00	26.052	16.93	114.2	0.0	1444.4
20.00		1.00	0.70	6.129	6.74	254.11	0.650	0.000	5.00	25.558	16.61	112.0	0.0	1416.8
25.00		1.00	0.70	6.129	6.74	249.14	0.650	0.000	5.00	25.063	16.29	109.8	0.0	1389.1
30.00		1.00	0.70	6.134	6.75	244.28	0.650	0.000	5.00	24.568	15.97	107.7	0.0	1361.5
35.00		1.00	0.73	6.410	7.05	244.64	0.650	0.000	5.00	24.073	15.65	110.3	0.0	1333.9
40.00		1.00	0.76	6.659	7.33	244.17	0.650	0.000	5.00	23.578	15.33	112.3	0.0	1306.2
42.30	Bot - Section 2	1.00	0.77	6.767	7.44	243.73	0.650	0.000	2.30	10.689	6.95	51.7	0.0	592.1
45.00		1.00	0.79	6.887	7.58	243.05	0.650	0.000	2.70	12.594	8.19	62.0	0.0	1384.1
48.00	Top - Section 1	1.00	0.80	7.015	7.72	242.11	0.650	0.000	3.00	13.835	8.99	69.4	0.0	1520.2
50.00		1.00	0.81	7.098	7.81	245.39	0.650	0.000	2.00	9.124	5.93	46.3	0.0	505.3
55.00		1.00	0.83	7.294	8.02	243.33	0.650	0.000	5.00	22.464	14.60	117.1	0.0	1244.0
60.00		1.00	0.85	7.477	8.22	240.89	0.650	0.000	5.00	21.969	14.28	117.5	0.0	1216.4
65.00		1.00	0.87	7.650	8.42	238.11	0.650	0.000	5.00	21.474	13.96	117.5	0.0	1188.8
70.00		1.00	0.89	7.814	8.60	235.03	0.650	0.000	5.00	20.979	13.64	117.2	0.0	1161.1
75.00		1.00	0.91	7.969	8.77	231.69	0.650	0.000	5.00	20.485	13.32	116.7	0.0	1133.5
80.00		1.00	0.93	8.118	8.93	228.12	0.650	0.000	5.00	19.990	12.99	116.0	0.0	1105.9
85.00		1.00	0.94	8.260	9.09	224.34	0.650	0.000	5.00	19.495	12.67	115.1	0.0	1078.2
86.83	Bot - Section 3	1.00	0.95	8.310	9.14	222.90	0.650	0.000	1.83	7.024	4.57	41.7	0.0	388.4
90.00		1.00	0.96	8.396	9.24	220.36	0.650	0.000	3.17	12.177	7.92	73.1	0.0	1240.2
92.30	Top - Section 2	1.00	0.97	8.456	9.30	218.47	0.650	0.000	2.30	8.728	5.67	52.8	0.0	888.7
95.00		1.00	0.97	8.526	9.38	219.97	0.650	0.000	2.70	10.095	6.56	61.5	0.0	479.1
100.00		1.00	0.99	8.652	9.52	215.68	0.650	0.000	5.00	18.328	11.91	113.4	0.0	869.6
105.00		1.00	1.00	8.774	9.65	211.25	0.650	0.000	5.00	17.833	11.59	111.9	0.0	845.9
110.00		1.00	1.02	8.891	9.78	206.67	0.650	0.000	5.00	17.338	11.27	110.2	0.0	822.2
115.00		1.00	1.03	9.005	9.91	201.97	0.650	0.000	5.00	16.843	10.95	108.4	0.0	798.6
120.00		1.00	1.04	9.115	10.03	197.14	0.650	0.000	5.00	16.348	10.63	106.5	0.0	774.9
125.00		1.00	1.05	9.222	10.14	192.20	0.650	0.000	5.00	15.854	10.30	104.5	0.0	751.2
130.00	Appurtenance(s)	1.00	1.07	9.326	10.26	187.15	0.650	0.000	5.00	15.359	9.98	102.4	0.0	727.5
132.95	Bot - Section 4	1.00	1.07	9.386	10.32	184.13	0.650	0.000	2.95	8.823	5.74	59.2	0.0	417.8
135.00		1.00	1.08	9.427	10.37	182.00	0.650	0.000	2.05	6.149	4.00	41.4	0.0	529.1
136.83	Top - Section 3	1.00	1.08	9.463	10.41	180.09	0.650	0.000	1.83	5.423	3.52	36.7	0.0	466.5
140.00		1.00	1.09	9.525	10.48	180.06	0.650	0.000	3.17	9.210	5.99	62.7	0.0	364.0
145.00		1.00	1.10	9.621	10.58	174.74	0.650	0.000	5.00	14.139	9.19	97.3	0.0	558.6
150.00		1.00	1.11	9.715	10.69	169.34	0.650	0.000	5.00	13.644	8.87	94.8	0.0	538.9
153.00	Appurtenance(s)	1.00	1.12	9.770	10.75	166.05	0.650	0.000	3.00	7.949	5.17	55.5	0.0	313.9
155.00		1.00	1.12	9.806	10.79	163.85	0.650	0.000	2.00	5.200	3.38	36.5	0.0	205.3
157.98	Top - Section 4	1.00	1.13	9.860	10.85	160.54	0.650	0.000	2.98	7.596	4.94	53.6	0.0	299.8
160.00		1.00	1.13	9.896	10.89	158.28	0.650	0.000	2.02	5.058	3.29	35.8	0.0	160.0
162.00	Appurtenance(s)	1.00	1.13	9.931	10.92	156.03	0.650	0.000	2.00	4.923	3.20	35.0	0.0	155.7
165.00		1.00	1.14	9.983	10.98	152.64	0.650	0.000	3.00	7.236	4.70	51.7	0.0	228.9
170.00		1.00	1.15	10.069	11.08	146.92	0.650	0.000	5.00	11.664	7.58	84.0	0.0	368.8
172.00	Appurtenance(s)	1.00	1.15	10.102	11.11	144.62	0.650	0.000	2.00	4.527	2.94	32.7	0.0	143.1
175.00		1.00	1.16	10.152	11.17	141.14	0.650	0.000	3.00	6.642	4.32	48.2	0.0	209.9
177.95	Appurtenance(s)	1.00	1.17	10.201	11.22	137.69	0.650	0.000	2.95	6.358	4.13	46.4	0.0	200.9

Wind Loading - Shaft

Structure:	CT02573-S-SBA	Code:	EIA/TIA-222-G	11/4/2021
Site Name:	Coventry 2 CT	Exposure:	B	
Height:	177.95 (ft)	Crest Height:	0.00	
Base Elev:	0.000 (ft)	Site Class:	D - Stiff Soil	
Gh:	1.1	Topography:	1	Struct Class: II
				Page: 39



Totals:	177.95	3,805.6	37,100.9
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Discrete Appurtenance Forces

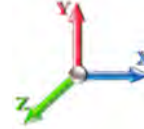
Structure: CT02573-S-SBA	Code: EIA/TIA-222-G	11/4/2021
Site Name: Coventry 2 CT	Exposure: B	
Height: 177.95 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II
		Page: 40



Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00

Iterations 23



No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	177.95	6' Lightning rod	1	10.201	11.221	1.00	1.00	0.38	6.50	0.000	0.000	4.26	0.00	0.00
2	172.00	KRY 112 144/1	3	10.102	11.112	0.38	0.75	0.46	33.00	0.000	0.000	5.13	0.00	0.00
3	172.00	MS-1436 (Light Collar)	1	10.102	11.112	1.00	1.00	1.50	65.60	0.000	0.000	16.67	0.00	0.00
4	172.00	MS-HRECP	1	10.102	11.112	1.00	1.00	12.25	514.00	0.000	0.000	136.13	0.00	0.00
5	172.00	MS-HR35	1	10.102	11.112	1.00	1.00	8.75	430.00	0.000	0.000	97.23	0.00	0.00
6	172.00	RR90-17-02DP	3	10.102	11.112	0.55	0.75	7.15	40.50	0.000	0.000	79.47	0.00	0.00
7	172.00	MS-C1B-2875P	1	10.102	11.112	1.00	1.00	10.00	329.00	0.000	0.000	111.12	0.00	0.00
8	172.00	4449	3	10.102	11.112	0.50	0.75	2.49	210.00	0.000	0.000	27.64	0.00	0.00
9	172.00	782 10660	3	10.102	11.112	0.38	0.75	0.32	7.80	0.000	0.000	3.50	0.00	0.00
10	172.00	APXVAARR24_43-U-NA2	3	10.069	11.075	0.53	0.75	31.97	384.00	0.000	-2.000	354.07	0.00	-708.14
11	172.00	T-Frames w/ Pipe Mount	3	10.102	11.112	0.56	0.75	27.00	1350.00	0.000	0.000	300.04	0.00	0.00
12	172.00	KRY 112 89/4	3	10.102	11.112	0.38	0.75	0.73	46.20	0.000	0.000	8.13	0.00	0.00
13	162.00	HRK12 (Handrail Kit)	1	9.931	10.924	1.00	1.00	6.75	261.72	0.000	0.000	73.74	0.00	0.00
14	162.00	Ericsson RRUS 8843 B2	3	9.931	10.924	0.50	0.75	2.47	216.00	0.000	0.000	27.01	0.00	0.00
15	162.00	Ericsson RRUS 4449	3	9.931	10.924	0.50	0.75	2.49	210.00	0.000	0.000	27.17	0.00	0.00
16	162.00	Raycap DC6-48-60-18-8F	1	9.931	10.924	0.75	0.75	0.69	31.80	0.000	0.000	7.54	0.00	0.00
17	162.00	HP Platform w/ Pipe	1	9.931	10.924	1.00	1.00	25.00	1600.00	0.000	0.000	273.10	0.00	0.00
18	162.00	Powerwave 7770	3	9.931	10.924	0.55	0.75	9.03	105.00	0.000	0.000	98.68	0.00	0.00
19	162.00	Powerwave 7020.00 RET	6	9.931	10.924	0.38	0.75	0.90	13.20	0.000	0.000	9.83	0.00	0.00
20	162.00	Cci HPA-65R-BU6AA	2	9.931	10.924	0.74	0.75	11.76	86.00	0.000	0.000	128.48	0.00	0.00
21	162.00	Cci HPA-65R-BU8AA	1	9.931	10.924	0.65	0.75	7.24	54.00	0.000	0.000	79.13	0.00	0.00
22	162.00	Cci DMP65R-BU8DA	1	9.931	10.924	0.54	0.75	9.65	95.70	0.000	0.000	105.41	0.00	0.00
23	162.00	Cci DMP65R-BU6DA	2	9.931	10.924	0.54	0.75	13.73	158.80	0.000	0.000	149.95	0.00	0.00
24	162.00	Powerwave 21401 TMA	6	9.931	10.924	0.38	0.75	1.85	105.00	0.000	0.000	20.15	0.00	0.00
25	153.00	TA08025-B604	3	9.770	10.747	0.50	0.75	2.95	191.70	0.000	0.000	31.75	0.00	0.00
26	153.00	MX08FRO665-21	3	9.770	10.747	0.55	0.75	20.80	193.50	0.000	0.000	223.49	0.00	0.00
27	153.00	MC-PK8-DSH	1	9.770	10.747	1.00	1.00	37.59	1727.00	0.000	0.000	403.98	0.00	0.00
28	153.00	TA08025-B605	3	9.770	10.747	0.50	0.75	2.95	225.00	0.000	0.000	31.75	0.00	0.00
29	153.00	RDIDC-9181-OF-48	1	9.770	10.747	0.50	0.75	1.01	21.90	0.000	0.000	10.85	0.00	0.00
30	130.00	SBNHH-1D65B	6	9.326	10.258	0.62	0.75	30.48	240.00	0.000	0.000	312.65	0.00	0.00
31	130.00	RF4439d-25A	3	9.326	10.258	0.56	0.75	3.26	152.10	0.000	0.000	33.41	0.00	0.00
32	130.00	RF4440d-13A	3	9.326	10.258	0.50	0.75	2.91	210.99	0.000	0.000	29.85	0.00	0.00
33	130.00	XXDWMM-12.5-65	3	9.326	10.258	0.56	0.75	2.56	69.42	0.000	0.000	26.24	0.00	0.00
34	130.00	MT6407-77A	3	9.326	10.258	0.52	0.75	7.39	238.20	0.000	0.000	75.78	0.00	0.00
35	130.00	PV-LPP14L-HR-B	1	9.326	10.258	1.00	1.00	36.80	1641.00	0.000	0.000	377.50	0.00	0.00
36	130.00	DB-T1-6Z-8AB-OZ	2	9.326	10.258	0.50	0.75	4.82	37.80	0.000	0.000	49.49	0.00	0.00
37	130.00	B25 RRH4x30-4R	3	9.326	10.258	0.50	0.75	3.23	153.00	0.000	0.000	33.09	0.00	0.00

Totals: 11,455.43

3,783.41

Total Applied Force Summary

Structure: CT02573-S-SBA	Code: EIA/TIA-222-G	11/4/2021	
Site Name: Coventry 2 CT	Exposure: B		
Height: 177.95 (ft)	Crest Height: 0.00		
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil		
Gh: 1.1	Topography: 1	Struct Class: II	Page: 41

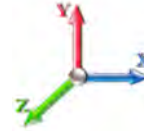


Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00

Iterations 23



Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		118.50	1653.66	0.00	0.00
10.00		116.33	1626.03	0.00	0.00
15.00		114.16	1598.40	0.00	0.00
20.00		111.99	1570.77	0.00	0.00
25.00		109.82	1543.14	0.00	0.00
30.00		107.75	1515.51	0.00	0.00
35.00		110.33	1487.88	0.00	0.00
40.00		112.27	1460.25	0.00	0.00
42.30		51.72	663.03	0.00	0.00
45.00		62.02	1467.22	0.00	0.00
48.00		69.39	1612.62	0.00	0.00
50.00		46.30	566.95	0.00	0.00
55.00		117.15	1398.03	0.00	0.00
60.00		117.45	1370.39	0.00	0.00
65.00		117.46	1342.76	0.00	0.00
70.00		117.21	1315.13	0.00	0.00
75.00		116.72	1287.50	0.00	0.00
80.00		116.02	1259.87	0.00	0.00
85.00		115.13	1232.24	0.00	0.00
86.83		41.74	444.90	0.00	0.00
90.00		73.10	1337.71	0.00	0.00
92.30		52.77	959.56	0.00	0.00
95.00		61.54	562.16	0.00	0.00
100.00		113.38	1023.61	0.00	0.00
105.00		111.87	999.92	0.00	0.00
110.00		110.22	976.24	0.00	0.00
115.00		108.44	952.55	0.00	0.00
120.00		106.54	928.87	0.00	0.00
125.00		104.53	905.19	0.00	0.00
130.00	(24) attachments	1040.41	3624.01	0.00	0.00
132.95		59.21	502.14	0.00	0.00
135.00		41.45	587.77	0.00	0.00
136.83		36.69	518.93	0.00	0.00
140.00		62.73	454.58	0.00	0.00
145.00		97.26	701.64	0.00	0.00
150.00		94.77	681.91	0.00	0.00
153.00	(11) attachments	757.36	2758.77	0.00	0.00
155.00		36.46	260.42	0.00	0.00
157.98		53.55	381.90	0.00	0.00
160.00		35.79	215.75	0.00	0.00
162.00	(30) attachments	1035.15	3148.08	0.00	0.00
165.00		51.65	269.61	0.00	0.00
170.00		83.97	436.71	0.00	0.00
172.00	(25) attachments	1171.83	3580.36	0.00	-708.14
175.00		48.22	223.50	0.00	0.00
177.95	(1) attachments	50.64	207.38	0.00	0.00

Total Applied Force Summary

Structure:	CT02573-S-SBA	Code:	EIA/TIA-222-G	11/4/2021
Site Name:	Coventry 2 CT	Exposure:	B	
Height:	177.95 (ft)	Crest Height:	0.00	
Base Elev:	0.000 (ft)	Site Class:	D - Stiff Soil	
Gh:	1.1	Topography:	1	
		Struct Class:	II	Page: 42



Totals:	7,588.99	53,615.56	0.00	-708.14
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Calculated Forces

Structure: CT02573-S-SBA **Code:** EIA/TIA-222-G 11/4/2021
Site Name: Coventry 2 CT **Exposure:** B
Height: 177.95 (ft) **Crest Height:** 0.00
Base Elev: 0.000 (ft) **Site Class:** D - Stiff Soil
Gh: 1.1 **Topography:** 1 **Struct Class:** II Page: 43

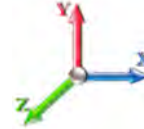


Load Case: 1.0D + 1.0W 60 mph Wind

Iterations 23

Dead Load Factor 1.00

Wind Load Factor 1.00



Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-53.61	-7.60	0.00	-950.16	0.00	950.16	5803.10	2901.55	15291.3	7657.05	0.00	0.000	0.000	0.133
5.00	-51.96	-7.51	0.00	-912.16	0.00	912.16	5740.73	2870.37	14848.9	7435.53	0.02	-0.029	0.000	0.132
10.00	-50.33	-7.42	0.00	-874.61	0.00	874.61	5676.74	2838.37	14408.5	7214.97	0.06	-0.058	0.000	0.130
15.00	-48.72	-7.33	0.00	-837.53	0.00	837.53	5611.13	2805.57	13970.2	6995.50	0.14	-0.087	0.000	0.128
20.00	-47.15	-7.24	0.00	-800.89	0.00	800.89	5543.90	2771.95	13534.3	6777.22	0.25	-0.117	0.000	0.127
25.00	-45.60	-7.15	0.00	-764.71	0.00	764.71	5475.05	2737.52	13101.0	6560.27	0.38	-0.148	0.000	0.125
30.00	-44.08	-7.06	0.00	-728.98	0.00	728.98	5404.57	2702.29	12670.6	6344.75	0.56	-0.178	0.000	0.123
35.00	-42.59	-6.97	0.00	-693.68	0.00	693.68	5332.48	2666.24	12243.3	6130.79	0.76	-0.209	0.000	0.121
40.00	-41.13	-6.87	0.00	-658.85	0.00	658.85	5258.76	2629.38	11819.4	5918.51	1.00	-0.241	0.000	0.119
42.30	-40.47	-6.82	0.00	-643.04	0.00	643.04	5224.28	2612.14	11625.4	5821.36	1.12	-0.256	0.000	0.118
45.00	-39.00	-6.77	0.00	-624.64	0.00	624.64	5183.43	2591.71	11399.0	5708.01	1.26	-0.273	0.000	0.117
48.00	-37.38	-6.70	0.00	-604.34	0.00	604.34	5194.69	2597.35	11461.1	5739.07	1.44	-0.293	0.000	0.113
50.00	-36.81	-6.66	0.00	-590.94	0.00	590.94	5164.20	2582.10	11293.7	5655.29	1.57	-0.306	0.000	0.112
55.00	-35.41	-6.56	0.00	-557.62	0.00	557.62	5086.83	2543.42	10878.2	5447.20	1.90	-0.337	0.000	0.109
60.00	-34.04	-6.45	0.00	-524.83	0.00	524.83	5007.85	2503.92	10466.7	5241.17	2.27	-0.368	0.000	0.107
65.00	-32.69	-6.34	0.00	-492.58	0.00	492.58	4927.24	2463.62	10059.6	5037.31	2.68	-0.399	0.000	0.104
70.00	-31.38	-6.23	0.00	-460.87	0.00	460.87	4845.02	2422.51	9657.14	4835.75	3.11	-0.430	0.000	0.102
75.00	-30.09	-6.12	0.00	-429.70	0.00	429.70	4761.17	2380.58	9259.43	4636.60	3.58	-0.462	0.000	0.099
80.00	-28.82	-6.01	0.00	-399.09	0.00	399.09	4675.70	2337.85	8866.76	4439.97	4.08	-0.493	0.000	0.096
85.00	-27.59	-5.90	0.00	-369.03	0.00	369.03	4588.61	2294.31	8479.38	4245.99	4.61	-0.525	0.000	0.093
86.83	-27.14	-5.86	0.00	-358.22	0.00	358.22	4556.28	2278.14	8338.71	4175.55	4.82	-0.537	0.000	0.092
90.00	-25.81	-5.78	0.00	-339.67	0.00	339.67	4499.90	2249.95	8097.52	4054.78	5.18	-0.557	0.000	0.090
92.30	-24.85	-5.72	0.00	-326.36	0.00	326.36	3709.97	1854.99	6727.57	3368.78	5.45	-0.572	0.000	0.104
95.00	-24.28	-5.67	0.00	-310.92	0.00	310.92	3673.22	1836.61	6564.94	3287.35	5.78	-0.589	0.000	0.101
100.00	-23.26	-5.56	0.00	-282.57	0.00	282.57	3603.88	1801.94	6266.45	3137.88	6.42	-0.623	0.000	0.097
105.00	-22.25	-5.45	0.00	-254.78	0.00	254.78	3532.91	1766.45	5971.95	2990.41	7.09	-0.656	0.000	0.092
110.00	-21.28	-5.34	0.00	-227.54	0.00	227.54	3460.32	1730.16	5681.65	2845.05	7.79	-0.689	0.000	0.086
115.00	-20.32	-5.23	0.00	-200.85	0.00	200.85	3386.11	1693.05	5395.81	2701.92	8.53	-0.720	0.000	0.080
120.00	-19.39	-5.12	0.00	-174.71	0.00	174.71	3310.28	1655.14	5114.65	2561.13	9.30	-0.751	0.000	0.074
125.00	-18.49	-5.01	0.00	-149.11	0.00	149.11	3228.52	1614.26	4831.97	2419.57	10.10	-0.779	0.000	0.067
130.00	-14.88	-3.93	0.00	-124.04	0.00	124.04	3125.09	1562.55	4525.83	2266.28	10.93	-0.806	0.000	0.059
132.95	-14.37	-3.86	0.00	-112.46	0.00	112.46	3064.12	1532.06	4350.03	2178.25	11.44	-0.821	0.000	0.056
135.00	-13.79	-3.82	0.00	-104.53	0.00	104.53	3021.67	1510.84	4229.72	2118.00	11.79	-0.831	0.000	0.054
136.83	-13.27	-3.78	0.00	-97.53	0.00	97.53	2458.83	1229.41	3474.42	1739.79	12.11	-0.840	0.000	0.061
140.00	-12.81	-3.71	0.00	-85.58	0.00	85.58	2420.71	1210.36	3346.31	1675.64	12.67	-0.854	0.000	0.056
145.00	-12.11	-3.61	0.00	-67.03	0.00	67.03	2359.20	1179.60	3147.03	1575.85	13.58	-0.877	0.000	0.048
150.00	-11.43	-3.50	0.00	-48.99	0.00	48.99	2296.08	1148.04	2951.62	1478.00	14.51	-0.896	0.000	0.038
153.00	-8.68	-2.70	0.00	-38.48	0.00	38.48	2257.42	1128.71	2836.33	1420.27	15.08	-0.906	0.000	0.031
155.00	-8.42	-2.67	0.00	-33.07	0.00	33.07	2223.99	1111.99	2751.24	1377.66	15.46	-0.911	0.000	0.028
157.98	-8.04	-2.61	0.00	-25.14	0.00	25.14	2172.66	1086.33	2625.07	1314.48	16.03	-0.918	0.000	0.023
157.98	-8.04	-2.61	0.00	-25.14	0.00	25.14	1653.01	826.50	2005.69	1004.33	16.03	-0.918	0.000	0.030
160.00	-7.83	-2.57	0.00	-19.86	0.00	19.86	1634.69	817.35	1951.45	977.17	16.42	-0.922	0.000	0.025
162.00	-4.69	-1.48	0.00	-14.73	0.00	14.73	1616.31	808.16	1898.20	950.51	16.81	-0.926	0.000	0.018
165.00	-4.43	-1.43	0.00	-10.28	0.00	10.28	1588.26	794.13	1819.10	910.90	17.39	-0.931	0.000	0.014
170.00	-3.99	-1.34	0.00	-3.15	0.00	3.15	1540.22	770.11	1689.48	845.99	18.37	-0.935	0.000	0.006
172.00	-0.43	-0.11	0.00	-0.48	0.00	0.48	1520.54	760.27	1638.44	820.44	18.76	-0.936	0.000	0.001
175.00	-0.21	-0.05	0.00	-0.16	0.00	0.16	1490.55	745.27	1562.81	782.56	19.35	-0.936	0.000	0.000
177.95	0.00	-0.05	0.00	0.00	0.00	0.00	1460.49	730.24	1489.55	745.88	19.93	-0.936	0.000	0.000

Calculated Forces

Structure:	CT02573-S-SBA	Code:	EIA/TIA-222-G	11/4/2021
Site Name:	Coventry 2 CT	Exposure:	B	
Height:	177.95 (ft)	Crest Height:	0.00	
Base Elev:	0.000 (ft)	Site Class:	D - Stiff Soil	
Gh:	1.1	Topography:	1	Struct Class: II
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Final Analysis Summary

Structure: CT02573-S-SBA	Code: EIA/TIA-222-G	11/4/2021
Site Name: Coventry 2 CT	Exposure: B	
Height: 177.95 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Reactions

Load Case	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)
1.2D + 1.6W 101 mph Wind	34.5	0.00	64.30	0.00	0.00	4335.25
0.9D + 1.6W 101 mph Wind	34.5	0.00	48.21	0.00	0.00	4289.74
1.2D + 1.0Di + 1.0Wi 50 mph Wind	9.9	0.00	108.23	0.00	0.00	1283.17
1.2D + 1.0E	2.2	0.00	64.34	0.00	0.00	283.89
0.9D + 1.0E	2.2	0.00	48.25	0.00	0.00	280.72
1.0D + 1.0W 60 mph Wind	7.6	0.00	53.61	0.00	0.00	950.16

Max Stresses

Load Case	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Elev (ft)	Stress Ratio
1.2D + 1.6W 101 mph Wind	-64.30	-34.48	0.00	-4335.2	0.00	-4335.2	5803.10	2901.5	15291.3	7657.05	0.00	0.577
0.9D + 1.6W 101 mph Wind	-48.21	-34.46	0.00	-4289.7	0.00	-4289.7	5803.10	2901.5	15291.3	7657.05	0.00	0.569
1.2D + 1.0Di + 1.0Wi 50 mph Wind	-108.23	-9.93	0.00	-1283.1	0.00	-1283.1	5803.10	2901.5	15291.3	7657.05	0.00	0.186
1.2D + 1.0E	-64.34	-2.18	0.00	-283.89	0.00	-283.89	5803.10	2901.5	15291.3	7657.05	0.00	0.048
0.9D + 1.0E	-48.25	-2.18	0.00	-280.72	0.00	-280.72	5803.10	2901.5	15291.3	7657.05	0.00	0.045
1.0D + 1.0W 60 mph Wind	-53.61	-7.60	0.00	-950.16	0.00	-950.16	5803.10	2901.5	15291.3	7657.05	0.00	0.133

	Monopole Mat Foundation Design		Date 11/4/2021	
	Customer Name:	Dish Network	EIA/TIA Standard:	EIA-222-G
	Site Name:		Structure Height (Ft.):	177.95
	Site Number:	CT02573-S-SBA	Engineer Name:	J. Chen
	Engr. Number:	118511	Engineer Login ID:	

Foundation Info Obtained from:

Structure Type:

Analysis or Design?

Base Reactions (Factored):

Axial Load (Kips):	64.3	Shear Force (Kips):	34.5
Uplift Force (Kips):	0.0	Moment (Kips-ft):	4335.3

Allowable overstress %: 5.0%

Foundation Geometries:

		Mods required -Yes/No ?:	No
Diameter of Pier (ft.):	14.0	Depth of Base BG (ft.):	6.0
Pier Height A. G. (ft.):	0.50	Thickness of Pad (ft):	4.00
Length of Pad (ft.):	32	Width of Pad (ft.):	32

Final Length of pad (ft)	32.0	Final width of pad (ft):	32.0
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Material Properties and Rebar Info:

Concrete Strength (psi):	3000	Steel Elastic Modulus:	29000	ksi
Vertical bar yield (ksi)	60	Tie steel yield (ksi):	60	
Vertical Rebar Size #:	11	Tie / Stirrup Size #:	5	
Qty. of Vertical Rebars:	46	Tie Spacing (in):	12.0	
Pad Rebar Yield (Ksi):	60	Pad Steel Rebar Size (#):	9	
Concrete Cover (in.):	3	Unit Weight of Concrete:	150.0	pcf

Rebar at the bottom of the concrete pad:

Qty. of Rebar in Pad (L):	31	Qty. of Rebar in Pad (W):	31
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Rebar at the top of the concrete pad:

Qty. of Rebar in Pad (L):	31	Qty. of Rebar in Pad (W):	31
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Apply 1.35 factor for e/w Per G: 1.35

Soil Design Parameters:

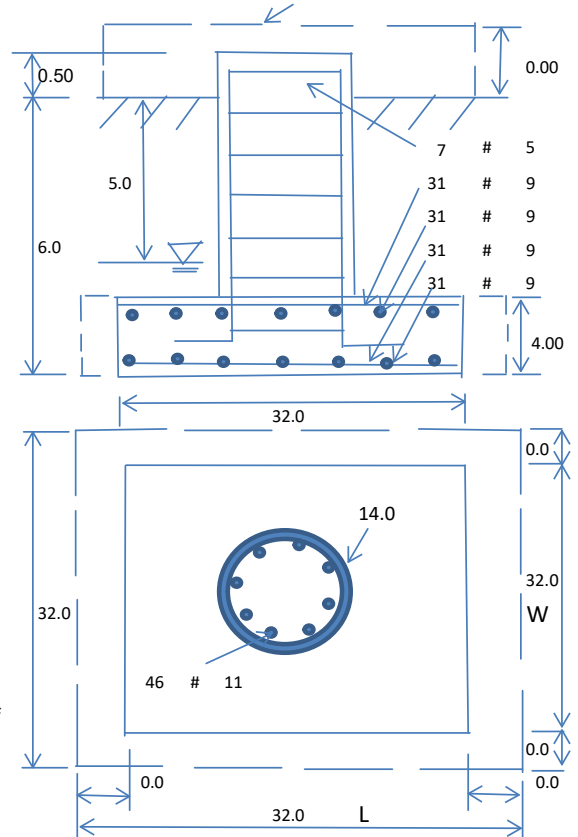
Soil Unit Weight (pcf):	125.0	Soil Buoyant Weight:	50.0	Pcf	
Water Table B.G.S. (ft):	5.0	Unit Weight of Water:	62.4	pcf	Angle from Top of Pad: 30
Ultimate Bearing Pressure (psf):	16000	Ultimate Skin Friction:	175	Psf	Angle from Bottm of Pad: 25
Consider Friction for O.T.M. (Y/N):	No	Consider Friction for bearing (Y/N):	Yes	Angle from Bottm of Pad:	25
Consider soil hor. resist. for OTM.:	Yes	Reduction factor on the maximum soil bearing pressure:		1.00	

Foundation Analysis and Design:

Uplift Strength Reduction Factor:	0.75	Compression Strength Reduction Factor:	0.75
Total Dry Soil Volume (cu. Ft.):	1740.12	Total Dry Soil Weight (Kips):	217.52
Total Buoyant Soil Volume (cu. Ft.):	0.00	Total Buoyant Soil Weight (Kips):	0.00
Total Effective Soil Weight (Kips):	217.52	Weight from the Concrete Block at Top (K):	0.00
Total Dry Concrete Volume (cu. Ft.):	3456.85	Total Dry Concrete Weight (Kips):	518.53
Total Buoyant Concrete Volume (cu. Ft.):	1024.00	Total Buoyant Concrete Weight (Kips):	89.70
Total Effective Concrete Weight (Kips):	608.23	Total Vertical Load on Base (Kips):	890.04

Check Soil Capacities:

Calculated Maxium Net Soil Pressure under the base (psf):	1784	<	Allowable Factored Soil Bearing (psf):	12000	0.15	OK!
Allowable Foundation Overturning Resistance (kips-ft.):	12919.5	>	Design Factored Momont (kips-ft):	4347	0.34	OK!
Factor of Safety Against Overturning (O. R. Moment/Design Moment):	2.97					OK!



Check the capacities of Reinforcing Concrete:

Strength reduction factor (Flexure and axial tension):

0.90

Strength reduction factor (Shear):

0.75

Strength reduction factor (Axial compression):

0.65

Wind Load Factor on Concrete Design:

1.00

Load/
Capacity
Ratio**(1) Concrete Pier:**

Vertical Steel Rebar Area (sq. in./each):

1.56

Tie / Stirrup Area (sq. in./each):

0.31

Calculated Moment Capacity (Mn,Kips-Ft):

24776.3

>

Design Factored Moment (Mu, Kips-F

4421.6

0.18

OK!

Calculated Shear Capacity (Kips):

2237.9

>

Design Factored Shear (Kips):

34.5

0.02

OK!

Calculated Tension Capacity (Tn, Kips):

3875.0

>

Design Factored Tension (Tu Kips):

0.0

0.00

OK!

Calculated Compression Capacity (Pn, Kips):

29298.4

>

Design Factored Axial Load (Pu Kips):

64.3

0.00

OK!

Moment & Axial Strength Combination:

0.18

OK!

Check Tie Spacing (Design/Required):

1

OK!

Pier Reinforcement Ratio:

0.003

Reinforcement Ratio is too small

(2).Concrete Pad:

One-Way Design Shear Capacity (L-Direction, Kips):

1402.0

>

One-Way Factored Shear (L-D. Kips):

236.0

0.17

OK!

One-Way Design Shear Capacity (W-Direction, Kips):

1402.0

>

One-Way Factored Shear (W-D., Kips)

236.0

0.17

OK!

One-Way Design Shear Capacity (Corner-Corner. Kips):

1044.8

>

One-Way Factored Shear (C-C, Kips):

208.0

0.20

OK!

Lower Steel Pad Reinforcement Ratio (L-Direct.):

0.0018

OK!

Lower Steel Pad Reinf. Ratio (W-Direc

0.0018

Lower Steel Pad Moment Capacity (L-Direction. Kips-ft):

6066.5

>

Moment at Bottom (L-Dir. K-Ft):

1640.6

0.27

OK!

Lower Steel Pad Moment Capacity (W-Direction. Kips-ft):

6066.5

>

Moment at Bottom (W-Dir. K-Ft):

1640.6

0.27

OK!

Lower Steel Pad Moment Capacity (Corner-Corner,K-ft):

8495.5

>

Moment at Bottom (C-C Dir. K-Ft):

2320.2

0.27

OK!

Upper Steel Pad Reinforcement Ratio (L-Direct.):

0.0018

OK!

Upper Steel Reinf. Ratio (W-Dir.):

0.0018

Upper Steel Pad Moment Capacity (L-Direc. Kips-ft):

6066.5

>

Moment at the top (L-Dir K-Ft):

392.5

0.06

OK!

Upper Steel Pad Moment Capacity (W-Direc. Kips-ft):

6066.5

>

Moment at the top (W-Dir K-Ft):

392.5

0.06

OK!

Upper Steel Pad Moment Capacity (Corner-Corner. K-ft):

8495.5

>

Moment at the top (C-C Dir. K-Ft):

385.3

0.05

OK!

(3).Check Punching Shear Capacity due to Moment in the Pier:

Moment transferred by punching shear:

1734.1

k-ft.

Max. factored shear stress $v_{u,CD}$:

0.4

Psi

Max. factored shear stress $v_{u,AB}$:

3.2

Psi

Factored shear Strength ϕv_n :

164.3

Psi

Max. factored shear stress v_u :

3.2

Psi

Check Usage of Punching Shear Capacity:

0.02

OK!

EXHIBIT 8

Mount Analysis

November 1, 2021

Dave Evans
SBA Network Services, LLC.
134 Flanders Road, Suite 125
Westborough, MA 01581
(508) 251-0720 x 3805



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

Subject: Appurtenance Mount Analysis Report

Carrier Designation: *Dish Wireless Co-Locate*
Site Number: BOBDL00118A
Site Name: SBA-CT02573S

SBA Network Services Designation: **Site Number:** CT02573-S
Site Name: Coventry 2 CT
Application Number: 168264, v1

Engineering Firm Designation: **B+T Group Project Number:** 149439.003.01

Site Data: 712 Bread & Milk Street, Coventry, CT, 06238, Tolland County
Latitude 41.81809°, Longitude -72.39317°
Monopole
8' Platform Mount

Dear Mr. Evans,

B+T Group is pleased to submit this “**Appurtenance Mount Analysis Report**” to determine the structural integrity of the antenna mount on the above-mentioned structure.

The purpose of the analysis is to determine acceptability of the mount’s stress level. Based on our analysis we have determined the stress level for the mount under the following load case to be:

Proposed Equipment

Note: See Table 1 for the final loading configuration

**Sufficient Capacity
(Passing at 99.4%)**

This analysis has been performed in accordance with the 2018 Connecticut State Building Code (2015 IBC) based upon an ultimate 3-second gust wind speed of 119 mph converted to a nominal 3-second gust wind speed of 92 mph per Section 1609.3 and Appendix N as required for use in the ANSI/TIA-222-G Standard per Exception #5 of Section 1609.1.1. Exposure Category B and Risk Category II were used in this analysis.

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

Mount structural analysis prepared by: Erik Perez

Respectfully submitted by: B&T Engineering, Inc.
COA: PEC.0001564 Expires: 02/10/2022



Chad E. Tuttle, P.E.

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1) INTRODUCTION

The mount consists of Commscope platform mount (Part #MC-PK8-DSH) at 153 ft., attached to monopole at 712 Bread & Milk Street, Coventry, CT, 06238, Tolland County. The proposed antenna loading information was obtained from SBA Network Services, LLC. All information provided to B+T Group was assumed accurate and complete.

2) ANALYSIS CRITERIA

The structural analysis was performed for this mount in accordance with the ANSI/TIA-222-G-2-2005 Structural Standard for Antenna Supporting Structures and Antennas – Addendum 2 using a 3-second gust wind speed of 92 mph with no ice and 50 mph with 1.5 inch escalated ice thickness. Exposure Category B, Topographic Category 1 and Risk Category II were used in this analysis. In addition, the platform mount has been analyzed for various live loading conditions consisting of a 250-lb man live load applied individually at the midpoint and cantilevered ends of horizontal members as well as a 500-pound man live load applied individually at mount pipe locations using a 3-second gust of 30 mph. The mount was analyzed under 30° increments in the wind direction. The analyzed loading is detailed in Table 1.

Table 1 – Proposed Equipment Information

Loading	RAD Center Elev. (ft.)	Position	Qty.	Description	Note
Proposed	153	2	3	JMA Wireless MX08FRO665-21	1
			3	Fujitsu TA08025-B605	2
			3	Fujitsu TA08025-B604	
		--	1	Raycap RDIDC-9181-PF-48	3

Note:

- (1) Proposed Antenna to be installed on the proposed Mount Pipe.
- (2) Proposed Equipment to be installed directly behind the Antenna.
- (3) Proposed Equipment to be installed on the Mount.

Table 2 - Documents Provided

Documents	Remarks	Reference	Source
Collo App	Proposed Loading	Date: 08/04/2021	SBA Network Services, LLC.
RFDS		Date: 08/02/2021	

3) ANALYSIS PROCEDURE

3.1) Analysis Method

RISA-3D (Version 19.0.4), a commercially available analysis software package, was used to create a three-dimensional model of the mount and calculate member stresses and deflections for various loading cases. Selected output from the analysis is included in Appendix A.

Manufacturers drawing were used to create the model.

3.2) Assumptions

1. The mount was built in accordance with the manufacturer's specifications.
2. The mount has been maintained in accordance with the manufacturer's specifications and is free of damage.
3. The configuration of antennas and other appurtenances are as specified in Table 1.
4. All mount components have been assumed to be in sufficient condition to carry their full design capacity for the analysis.
5. Mount areas and weights are determined from field measurements, standard material properties, and/or manufacturer product data.

6. Serviceability with respect to antenna twist, tilt, roll, or lateral translation is not checked and is left to the carrier or tower owner to ensure conformance.
7. All prior structural modifications if any are assumed to be correctly installed and fully effective.
8. All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected member unless otherwise specified in this report.
9. The following material grades were assumed (Unless Noted Otherwise):
 - a) Connection Bolts : ASTM A325
 - b) Steel Pipe : ASTM A53 (GR. 35)
 - c) HSS (Round) : ASTM 500 (GR. B-42)
 - d) HSS (Rectangular) : ASTM 500 (GR. B-46)
 - e) Channel : ASTM A36 (GR. 36)
 - f) Steel Solid Rod : ASTM A36 (GR. 36)
 - g) Steel Plate : ASTM A36 (GR. 36)
 - h) Steel Angle : ASTM A36 (GR. 36)
 - i) UNISTRUT : ASTM A570 (GR. 33)

This analysis may be affected if any assumptions are not valid or have been made in error. B+T Group should be notified to determine the effect on the structural integrity of the antenna mounting system.

4) ANALYSIS RESULTS

Table 3 – Mount Component Stresses vs. Capacity

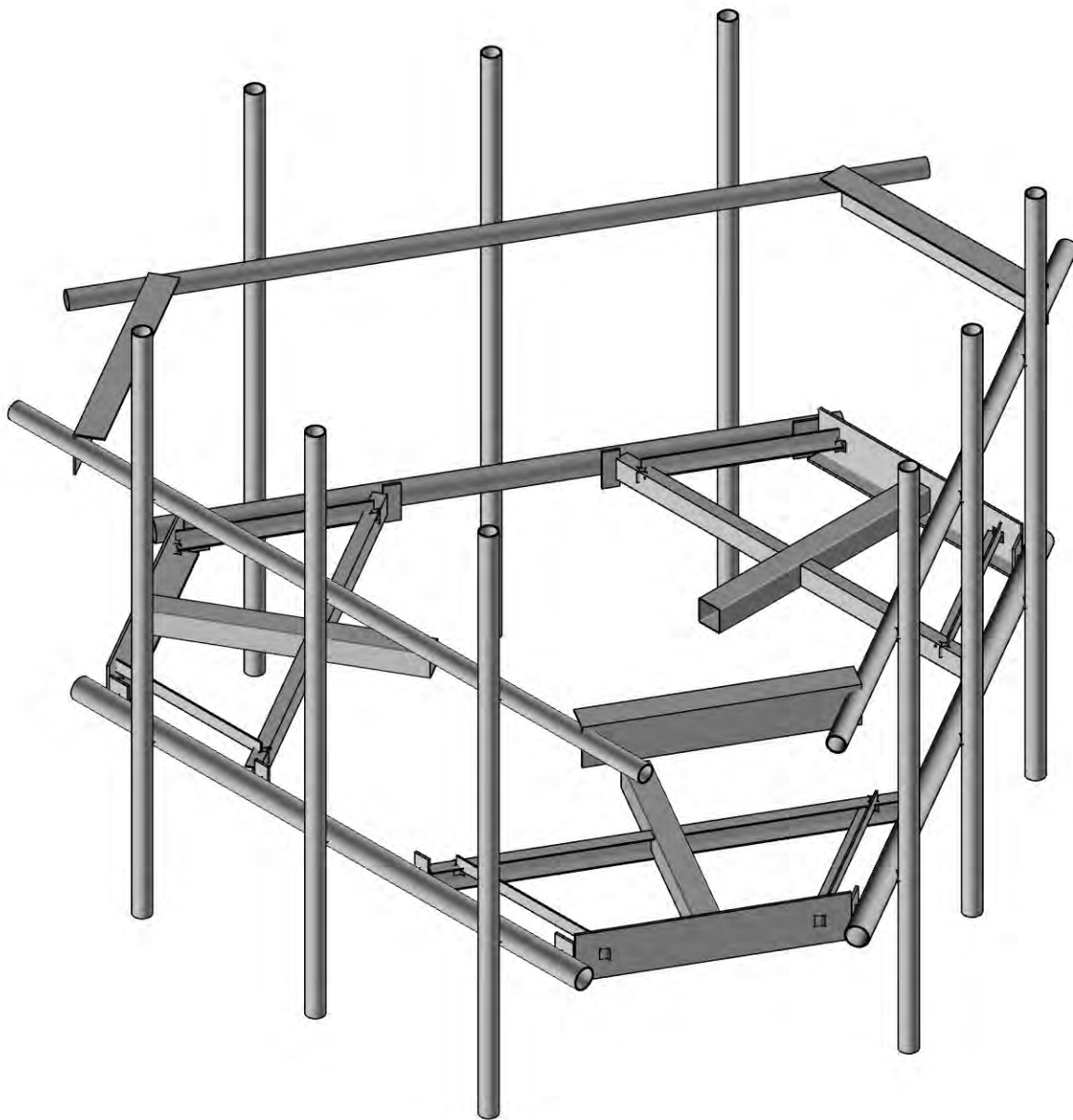
Notes	Component	Elevation (ft.)	% Capacity	Pass / Fail
-	Main Face Horizontals	153	10.8	Pass
-	Support Rails	153	13.0	Pass
-	Support Tubes	153	99.4	Pass
-	Support Channels	153	77.3	Pass
-	Support Angles	153	34.9	Pass
-	Mount Pipes	153	14.9	Pass
-	Connection Plates	153	43.8	Pass
-	Connection Angles	153	23.2	Pass
-	Connection Bolts	153	48.4	Pass

5) RECOMMENDATIONS

The Commscope platform mount (Part #MC-PK8-DSH) has sufficient capacity to carry the proposed loads and is in compliance with the ANSI/TIA-222-G standard for the proposed loading. (Refer to the RISA output for the specific members).

APPENDIX A

(RISA-3D Output)



Envelope Only Solution

B+T Group

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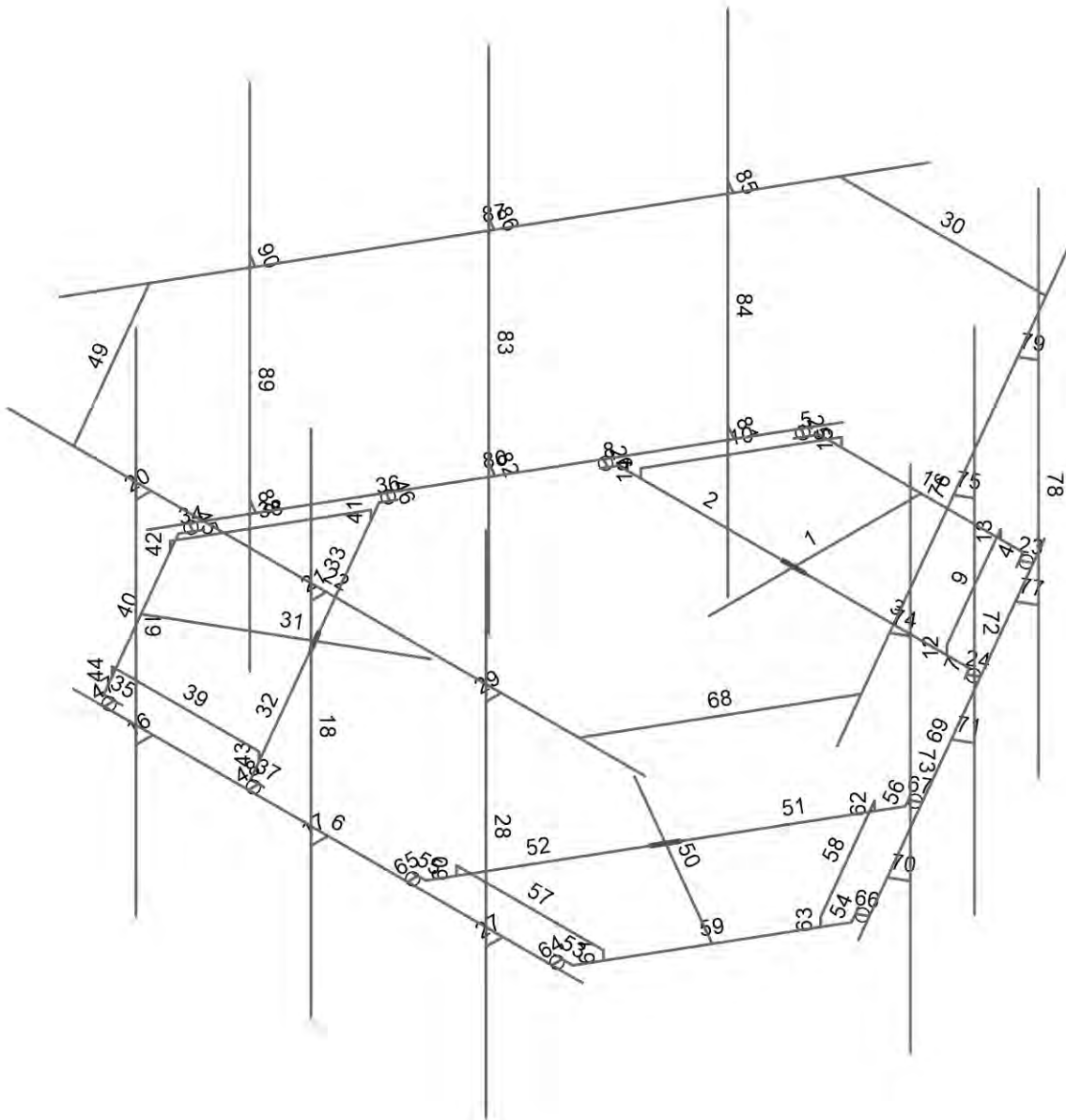
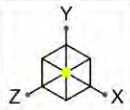
149439.003.01

CT02573-S - Coventry 2 CT

SK-1

Oct 30, 2021

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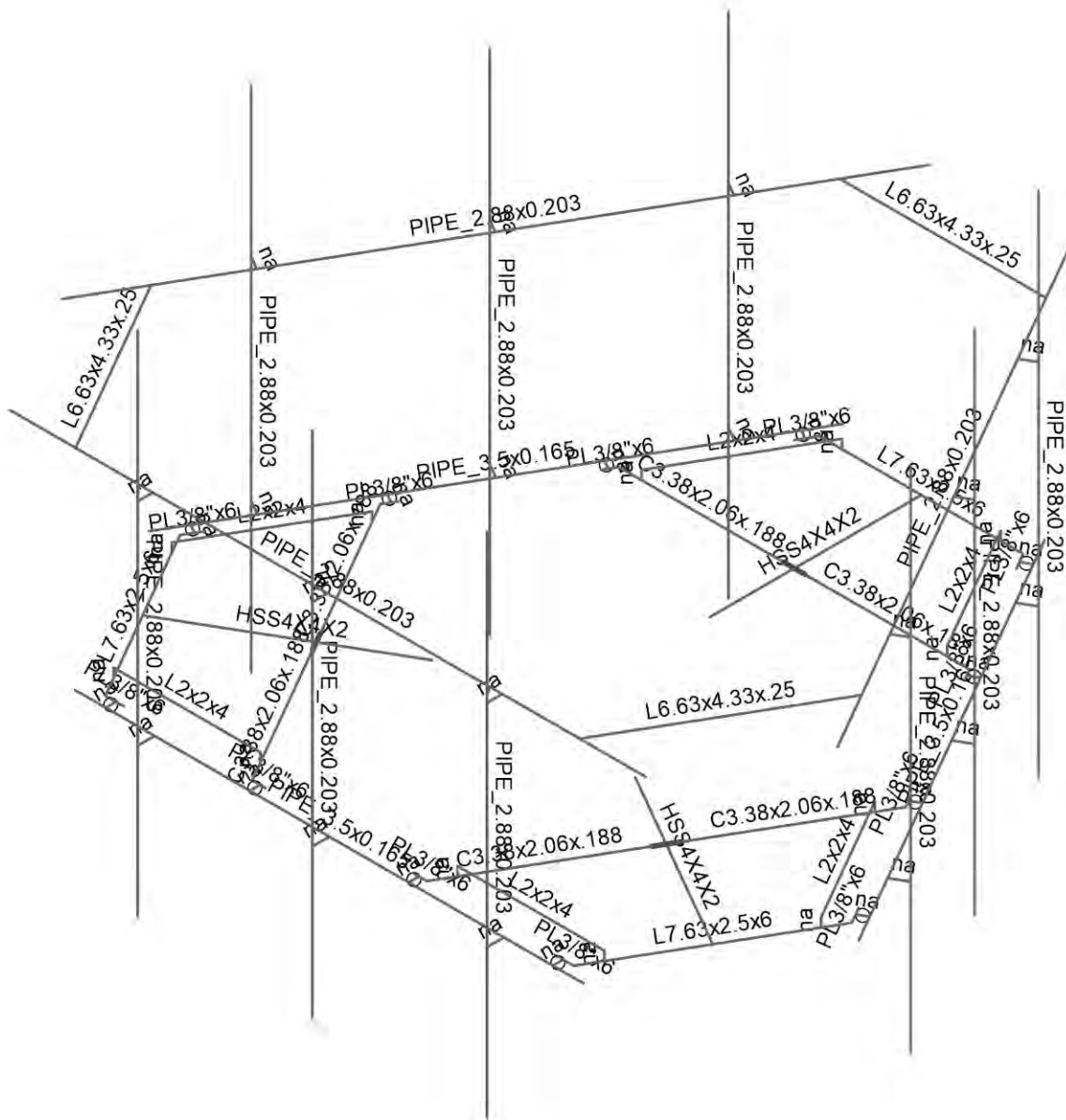
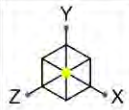
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CT02573-S - Coventry 2 CT

SK-2

Oct 30, 2021

149439_003_01_Coventry 2 CT_...



Envelope Only Solution

B+T Group

KR

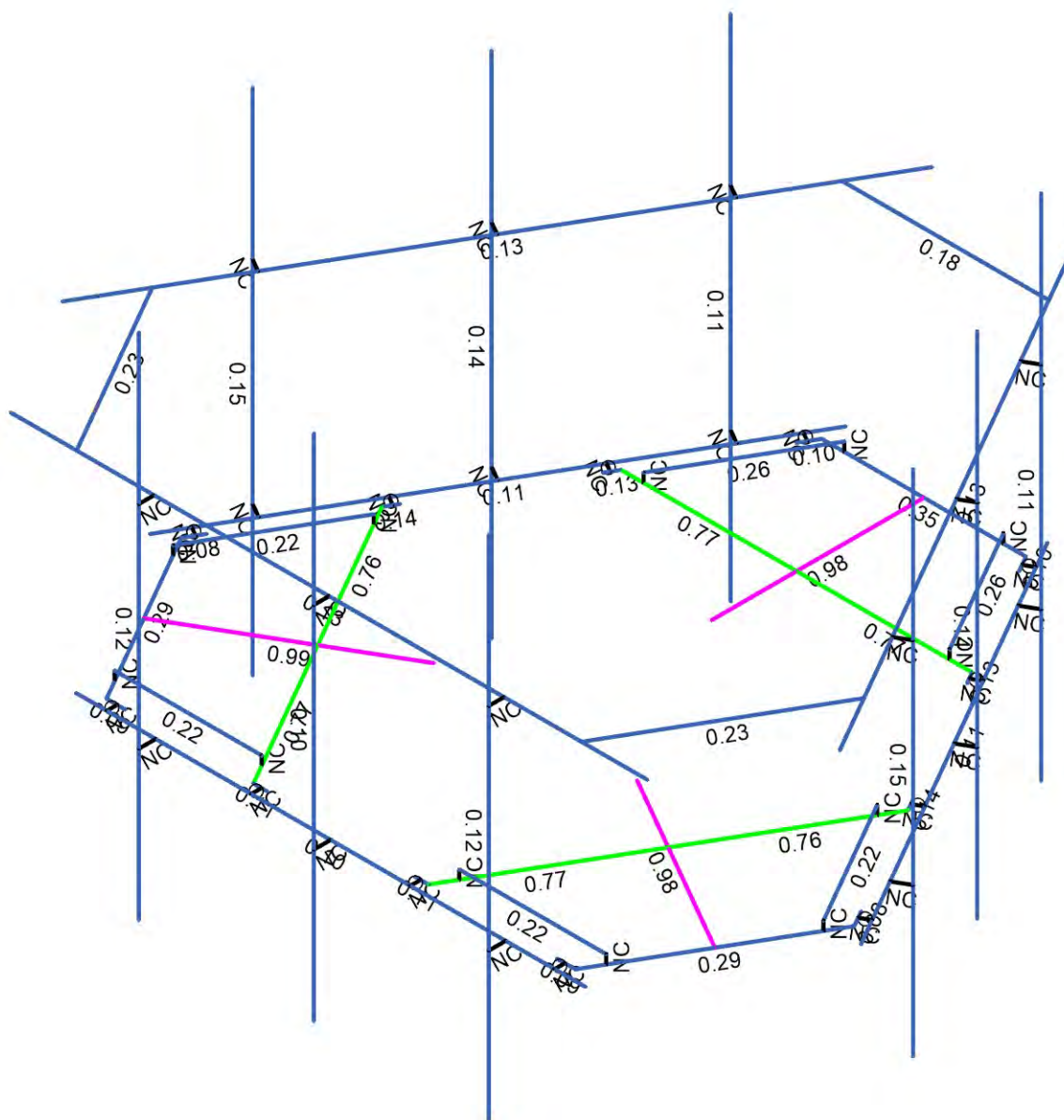
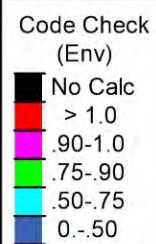
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CT02573-S - Coventry 2 CT

SK-3

Oct 30, 2021

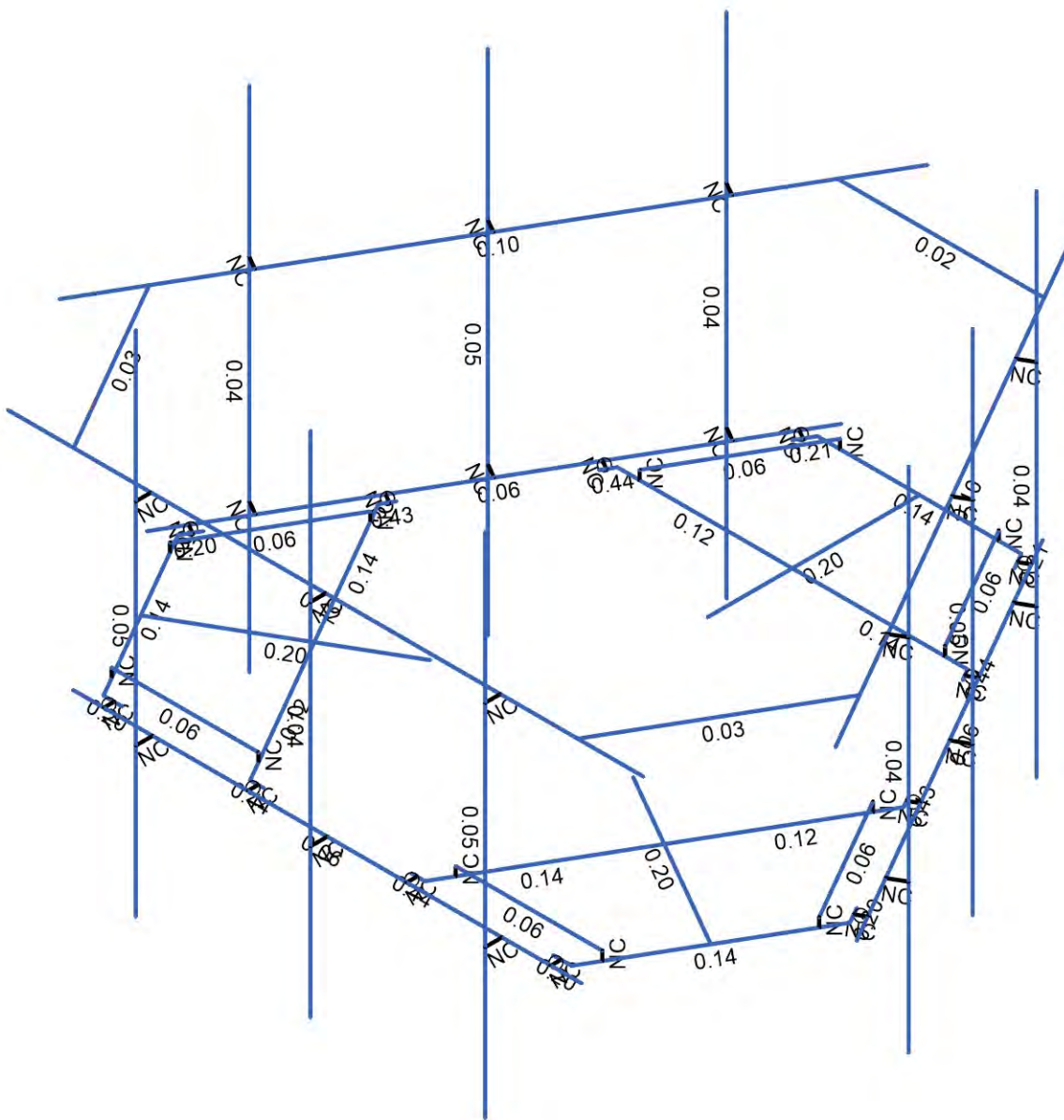
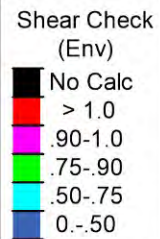
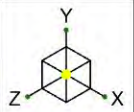
149439_003_01_Coventry 2 CT_...



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149439.003.01

CT02573-S - Coventry 2 CT

SK-4
Oct 30, 2021
149439 003 01 Coventry 2 CT ...



Member Shear Checks Displayed (Enveloped)
Envelope Only Solution

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149439.003.01

CT02573-S - Coventry 2 CT

SK-5

Oct 30, 2021

149439_003_01_Coventry 2 CT_...

Node Coordinates

	Label	X [ft]	Y [ft]	Z [ft]	Detach From Diaphragm
1	1	0	0	-1.848175	
2	2	0	0	-5.181508	
3	3	0	0	-3.181508	
4	4	2.758333	0	-3.181508	
5	5	-2.758333	0	-3.181508	
6	6	-1.603633	0	-5.181508	
7	7	1.603633	0	-5.181508	
8	8	1.749466	0	-4.928918	
9	9	-1.749466	0	-4.928918	
10	10	1.686966	0	-5.037171	
11	11	1.826813	0	-5.117911	
12	12	-1.686966	0	-5.037171	
13	13	-1.826813	0	-5.117911	
14	14	-3.999998	0	4.141022	
15	15	3.999998	0	4.141022	
16	16	2.8625	0	-3.001086	
17	17	2.820833	0	-3.073256	
18	18	2.960679	0	-3.153996	
19	19	-2.8625	0	-3.001086	
20	20	-2.820833	0	-3.073256	
21	21	-2.960679	0	-3.153996	
22	22	-1.25	0.140833	-5.181508	
23	23	-2.404701	0.140833	-3.181508	
24	24	2.404701	0.140833	-3.181508	
25	25	1.25	0.140833	-5.181508	
26	26	-1.25	0	-5.181508	
27	27	-2.404701	0	-3.181508	
28	28	2.404701	0	-3.181508	
29	29	1.25	0	-5.181508	
30	30	-2.749998	0	4.141022	
31	31	0.000002	0	4.141022	
32	32	-2.749998	0	4.406647	
33	33	0.000002	0	4.406647	
34	34	-2.749998	-2.333667	4.406647	
35	35	0.000002	-2.333667	4.406647	
36	36	-2.749998	5.666635	4.406647	
37	37	0.000002	5.666635	4.406647	
38	38	-2.749998	3.333337	4.406647	
39	39	0.000002	3.333337	4.406647	
40	40	-2.749998	3.333337	4.167063	
41	41	0.000002	3.333337	4.167063	
42	42	-5	3.333337	4.167063	
43	43	5	3.333337	4.167063	
44	44	2.749998	0	4.141022	
45	45	2.749998	0	4.406647	
46	46	2.749998	-2.333667	4.406647	
47	47	2.749998	5.666635	4.406647	
48	48	2.749998	3.333337	4.406647	
49	49	2.749998	3.333337	4.167063	
50	50	0	0	0	
51	51	1.625027	3.333337	-5.519498	
52	52	-1.625027	3.333337	-5.519498	
53	53	-1.600566	0	0.924087	
54	54	-4.487318	0	2.590754	
55	55	-2.755267	0	1.590754	

Node Coordinates (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Detach From Diaphragm
56	56	-4.134434	0	-0.798033	
57	57	-1.3761	0	3.979541	
58	58	-3.685501	0	3.979541	
59	59	-5.289134	0	1.201967	
60	60	-5.143301	0	0.949377	
61	61	-3.393835	0	3.979541	
62	62	-5.205801	0	1.05763	
63	63	-5.345647	0	0.976889	
64	64	-3.518835	0	3.979541	
65	65	-3.518835	0	4.141022	
66	66	-4.030267	0	-0.978455	
67	67	-4.071934	0	-0.906285	
68	68	-4.211781	0	-0.987025	
69	69	-1.167767	0	3.979541	
70	70	-1.251101	0	3.979541	
71	71	-1.251101	0	4.141022	
72	72	-3.862318	0.140833	3.673286	
73	73	-1.552917	0.140833	3.673286	
74	74	-3.957617	0.140833	-0.491778	
75	75	-5.112318	0.140833	1.508222	
76	76	-3.862318	0	3.673286	
77	77	-1.552917	0	3.673286	
78	78	-3.957617	0	-0.491778	
79	79	-5.112318	0	1.508222	
80	80	-5.592539	3.333337	1.352434	
81	81	-3.967512	3.333337	4.167063	
82	82	1.600566	0	0.924087	
83	83	4.487318	0	2.590754	
84	84	2.755267	0	1.590754	
85	85	1.3761	0	3.979541	
86	86	4.134434	0	-0.798033	
87	87	5.289134	0	1.201967	
88	88	3.685501	0	3.979541	
89	89	3.393835	0	3.979541	
90	90	5.143301	0	0.949377	
91	91	3.518835	0	3.979541	
92	92	3.518835	0	4.141022	
93	93	5.205801	0	1.05763	
94	94	5.345647	0	0.976889	
95	95	1.167767	0	3.979541	
96	96	1.251101	0	3.979541	
97	97	1.251101	0	4.141022	
98	98	4.030267	0	-0.978455	
99	99	4.071934	0	-0.906285	
100	100	4.211781	0	-0.987025	
101	101	5.112318	0.140833	1.508222	
102	102	3.957617	0.140833	-0.491778	
103	103	1.552917	0.140833	3.673286	
104	104	3.862318	0.140833	3.673286	
105	105	5.112318	0	1.508222	
106	106	3.957617	0	-0.491778	
107	107	1.552917	0	3.673286	
108	108	3.862318	0	3.673286	
109	109	3.967512	3.333337	4.167063	
110	110	5.592539	3.333337	1.352434	

Node Coordinates (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Detach From Diaphragm
111	111	5.586229	0	1.393589	
112	112	1.586231	0	-5.534611	
113	113	4.961229	0	0.311057	
114	114	3.586229	0	-2.070513	
115	115	5.191267	0	0.178245	
116	116	3.816267	0	-2.203325	
117	117	5.191267	-2.333667	0.178245	
118	118	3.816267	-2.333667	-2.203325	
119	119	5.191267	5.666635	0.178245	
120	120	3.816267	5.666635	-2.203325	
121	121	5.191267	3.333337	0.178245	
122	122	3.816267	3.333337	-2.203325	
123	123	4.983782	3.333337	0.298036	
124	124	3.608782	3.333337	-2.083533	
125	125	6.108783	3.333337	2.246595	
126	126	1.108783	3.333337	-6.413659	
127	127	2.211231	0	-4.452079	
128	128	2.441269	0	-4.584892	
129	129	2.441269	-2.333667	-4.584892	
130	130	2.441269	5.666635	-4.584892	
131	131	2.441269	3.333337	-4.584892	
132	132	2.233784	3.333337	-4.4651	
133	133	-1.586231	0	-5.534611	
134	134	-5.586229	0	1.393589	
135	135	-2.211231	0	-4.452079	
136	136	-3.586231	0	-2.070509	
137	137	-2.441269	0	-4.584892	
138	138	-3.816269	0	-2.203322	
139	139	-2.441269	-2.333667	-4.584892	
140	140	-3.816269	-2.333667	-2.203322	
141	141	-2.441269	5.666635	-4.584892	
142	142	-3.816269	5.666635	-2.203322	
143	143	-2.441269	3.333337	-4.584892	
144	144	-3.816269	3.333337	-2.203322	
145	145	-2.233784	3.333337	-4.4651	
146	146	-3.608784	3.333337	-2.08353	
147	147	-1.108783	3.333337	-6.413659	
148	148	-6.108783	3.333337	2.246595	
149	149	-4.961229	0	0.311057	
150	150	-5.191267	0	0.178245	
151	151	-5.191267	-2.333667	0.178245	
152	152	-5.191267	5.666635	0.178245	
153	153	-5.191267	3.333337	0.178245	
154	154	-4.983782	3.333337	0.298036	

Node Boundary Conditions

	Node Label	X [k/in] Reaction	Y [k/in] Reaction	Z [k/in] Reaction	X Rot [k-ft/rad] Reaction	Y Rot [k-ft/rad] Reaction	Z Rot [k-ft/rad] Reaction
1	1						
2	2						
3	3						
4	4						
5	5						
6	16						
7	17						
8	19						

Node Boundary Conditions (Continued)

	Node Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot [k-ft/rad]	Y Rot [k-ft/rad]	Z Rot [k-ft/rad]
9	20						
10	22						
11	25						
12	26						
13	29						
14	53	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
15	54						
16	55						
17	56						
18	57						
19	66						
20	67						
21	69						
22	70						
23	72						
24	75						
25	76						
26	79						
27	82	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
28	83						
29	84						
30	85						
31	86						
32	95						
33	96						
34	98						
35	99						
36	101						
37	104						
38	105						
39	108						

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm. Coeff. [1e ⁻⁶ F ⁻¹]	Density [k/ft ³]	Yield [ksi]	Ry	Fu [ksi]	Rt
1	A992	29000	11154	0.3	0.65	0.49	50	1.1	65	1.1
2	A36 Gr.36	29000	11154	0.3	0.65	0.49	36	1.5	58	1.2
3	A572 Gr.50	29000	11154	0.3	0.65	0.49	50	1.1	65	1.1
4	A500 Gr.B RND	29000	11154	0.3	0.65	0.527	42	1.4	58	1.3
5	A500 Gr.B Rect	29000	11154	0.3	0.65	0.527	46	1.4	58	1.3
6	A53 Gr.B	29000	11154	0.3	0.65	0.49	35	1.6	60	1.2
7	A1085	29000	11154	0.3	0.65	0.49	50	1.4	65	1.3
8	A500 Gr.C	29000	11154	0.3	0.65	0.49	46	1.4	62	1.3

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rule	Area [in ²]	Iyy [in ⁴]	Izz [in ⁴]	J [in ⁴]
1	MF-H1	PIPE 3.5x0.165	Beam	Pipe	A500 Gr.C	Typical	1.729	2.409	2.409	4.819
2	MF-H2	PIPE 2.88x0.203	Beam	Pipe	A500 Gr.C	Typical	1.707	1.538	1.538	3.076
3	SF-H1	HSS4X4X2	Beam	Tube	A500 Gr.B Rect	Typical	1.77	4.4	4.4	6.91
4	SF-H2	C3.38x2.06x.188	Beam	Channel	A36 Gr.36	Typical	1.339	0.562	2.4	0.015
5	SF-H3	L2x2x4	Beam	Single Angle	A36 Gr.36	Typical	0.944	0.346	0.346	0.021
6	SF-H4	L7.63x2.5x6	Beam	Single Angle	A36 Gr.36	Typical	3.658	1.307	22.092	0.163
7	MF-P1	PIPE 2.88x0.203	Column	Pipe	A500 Gr.C	Typical	1.707	1.538	1.538	3.076
8	MF-CP1	PL3/8"x6	Beam	RECT	A36 Gr.36	Typical	2.25	0.026	6.75	0.101

Hot Rolled Steel Section Sets (Continued)

	Label	Shape	Type	Design List	Material	Design Rule	Area [in ²]	Iyy [in ⁴]	Izz [in ⁴]	J [in ⁴]
9	MF-H3	L6.63x4.33x.25	Beam	Single Angle	A36 Gr.36	Typical	2.678	4.383	12.502	0.054

Member Primary Data

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
1	1	1	2		SF-H1	Beam	Tube	A500 Gr.B Rect	Typical
2	2	5	3	180	SF-H2	Beam	Channel	A36 Gr.36	Typical
3	3	3	4	180	SF-H2	Beam	Channel	A36 Gr.36	Typical
4	4	7	8		MF-CP1	Beam	RECT	A36 Gr.36	Typical
5	5	6	9		MF-CP1	Beam	RECT	A36 Gr.36	Typical
6	6	14	15		MF-H1	Beam	Pipe	A500 Gr.C	Typical
7	7	16	4		MF-CP1	Beam	RECT	A36 Gr.36	Typical
8	8	5	19		MF-CP1	Beam	RECT	A36 Gr.36	Typical
9	9	25	24		SF-H3	Beam	Single Angle	A36 Gr.36	Typical
10	10	23	22		SF-H3	Beam	Single Angle	A36 Gr.36	Typical
11	11	6	7		SF-H4	Beam	Single Angle	A36 Gr.36	Typical
12	12	28	24		RIGID	None	None	RIGID	Typical
13	13	29	25		RIGID	None	None	RIGID	Typical
14	14	27	23		RIGID	None	None	RIGID	Typical
15	15	26	22		RIGID	None	None	RIGID	Typical
16	16	32	30		RIGID	None	None	RIGID	Typical
17	17	33	31		RIGID	None	None	RIGID	Typical
18	18	37	35		MF-P1	Column	Pipe	A500 Gr.C	Typical
19	19	36	34		MF-P1	Column	Pipe	A500 Gr.C	Typical
20	20	38	40		RIGID	None	None	RIGID	Typical
21	21	39	41		RIGID	None	None	RIGID	Typical
22	22	42	43		MF-H2	Beam	Pipe	A500 Gr.C	Typical
23	23	11	10		RIGID	None	None	RIGID	Typical
24	24	18	17		RIGID	None	None	RIGID	Typical
25	25	13	12		RIGID	None	None	RIGID	Typical
26	26	21	20		RIGID	None	None	RIGID	Typical
27	27	45	44		RIGID	None	None	RIGID	Typical
28	28	47	46		MF-P1	Column	Pipe	A500 Gr.C	Typical
29	29	48	49		RIGID	None	None	RIGID	Typical
30	30	51	52	180	MF-H3	Beam	Single Angle	A36 Gr.36	Typical
31	31	53	54		SF-H1	Beam	Tube	A500 Gr.B Rect	Typical
32	32	57	55	180	SF-H2	Beam	Channel	A36 Gr.36	Typical
33	33	55	56	180	SF-H2	Beam	Channel	A36 Gr.36	Typical
34	34	59	60		MF-CP1	Beam	RECT	A36 Gr.36	Typical
35	35	58	61		MF-CP1	Beam	RECT	A36 Gr.36	Typical
36	36	66	56		MF-CP1	Beam	RECT	A36 Gr.36	Typical
37	37	57	69		MF-CP1	Beam	RECT	A36 Gr.36	Typical
38	38	75	74		SF-H3	Beam	Single Angle	A36 Gr.36	Typical
39	39	73	72		SF-H3	Beam	Single Angle	A36 Gr.36	Typical
40	40	58	59		SF-H4	Beam	Single Angle	A36 Gr.36	Typical
41	41	78	74		RIGID	None	None	RIGID	Typical
42	42	79	75		RIGID	None	None	RIGID	Typical
43	43	77	73		RIGID	None	None	RIGID	Typical
44	44	76	72		RIGID	None	None	RIGID	Typical
45	45	63	62		RIGID	None	None	RIGID	Typical
46	46	68	67		RIGID	None	None	RIGID	Typical
47	47	65	64		RIGID	None	None	RIGID	Typical
48	48	71	70		RIGID	None	None	RIGID	Typical
49	49	80	81	180	MF-H3	Beam	Single Angle	A36 Gr.36	Typical
50	50	82	83		SF-H1	Beam	Tube	A500 Gr.B Rect	Typical
51	51	86	84	180	SF-H2	Beam	Channel	A36 Gr.36	Typical

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
52	52	84	85	180	SF-H2	Beam	Channel	A36 Gr.36	Typical
53	53	88	89		MF-CP1	Beam	RECT	A36 Gr.36	Typical
54	54	87	90		MF-CP1	Beam	RECT	A36 Gr.36	Typical
55	55	95	85		MF-CP1	Beam	RECT	A36 Gr.36	Typical
56	56	86	98		MF-CP1	Beam	RECT	A36 Gr.36	Typical
57	57	104	103		SF-H3	Beam	Single Angle	A36 Gr.36	Typical
58	58	102	101		SF-H3	Beam	Single Angle	A36 Gr.36	Typical
59	59	87	88		SF-H4	Beam	Single Angle	A36 Gr.36	Typical
60	60	107	103		RIGID	None	None	RIGID	Typical
61	61	108	104		RIGID	None	None	RIGID	Typical
62	62	106	102		RIGID	None	None	RIGID	Typical
63	63	105	101		RIGID	None	None	RIGID	Typical
64	64	92	91		RIGID	None	None	RIGID	Typical
65	65	97	96		RIGID	None	None	RIGID	Typical
66	66	94	93		RIGID	None	None	RIGID	Typical
67	67	100	99		RIGID	None	None	RIGID	Typical
68	68	109	110	180	MF-H3	Beam	Single Angle	A36 Gr.36	Typical
69	69	111	112		MF-H1	Beam	Pipe	A500 Gr.C	Typical
70	70	115	113		RIGID	None	None	RIGID	Typical
71	71	116	114		RIGID	None	None	RIGID	Typical
72	72	120	118		MF-P1	Column	Pipe	A500 Gr.C	Typical
73	73	119	117		MF-P1	Column	Pipe	A500 Gr.C	Typical
74	74	121	123		RIGID	None	None	RIGID	Typical
75	75	122	124		RIGID	None	None	RIGID	Typical
76	76	125	126		MF-H2	Beam	Pipe	A500 Gr.C	Typical
77	77	128	127		RIGID	None	None	RIGID	Typical
78	78	130	129		MF-P1	Column	Pipe	A500 Gr.C	Typical
79	79	131	132		RIGID	None	None	RIGID	Typical
80	80	133	134		MF-H1	Beam	Pipe	A500 Gr.C	Typical
81	81	137	135		RIGID	None	None	RIGID	Typical
82	82	138	136		RIGID	None	None	RIGID	Typical
83	83	142	140		MF-P1	Column	Pipe	A500 Gr.C	Typical
84	84	141	139		MF-P1	Column	Pipe	A500 Gr.C	Typical
85	85	143	145		RIGID	None	None	RIGID	Typical
86	86	144	146		RIGID	None	None	RIGID	Typical
87	87	147	148		MF-H2	Beam	Pipe	A500 Gr.C	Typical
88	88	150	149		RIGID	None	None	RIGID	Typical
89	89	152	151		MF-P1	Column	Pipe	A500 Gr.C	Typical
90	90	153	154		RIGID	None	None	RIGID	Typical

Member Advanced Data

	Label	I Release	I Offset [in]	J Offset [in]	Physical	Deflection Ratio Options	Seismic DR
1	1				Yes	N/A	None
2	2			2	Yes	N/A	None
3	3		2		Yes	N/A	None
4	4				Yes	N/A	None
5	5				Yes	N/A	None
6	6				Yes	N/A	None
7	7				Yes	N/A	None
8	8				Yes	N/A	None
9	9				Yes	N/A	None
10	10				Yes	N/A	None
11	11				Yes	N/A	None
12	12				Yes	** NA **	None
13	13				Yes	** NA **	None

Member Advanced Data (Continued)

	Label	I Release	I Offset [in]	J Offset [in]	Physical	Deflection Ratio Options	Seismic DR
14	14				Yes	** NA **	None
15	15				Yes	** NA **	None
16	16				Yes	** NA **	None
17	17				Yes	** NA **	None
18	18				Yes	** NA **	None
19	19				Yes	** NA **	None
20	20				Yes	** NA **	None
21	21				Yes	** NA **	None
22	22				Yes	N/A	None
23	23	OOOOOX			Yes	** NA **	None
24	24	OOOOOX			Yes	** NA **	None
25	25	OOOOOX			Yes	** NA **	None
26	26	OOOOOX			Yes	** NA **	None
27	27				Yes	** NA **	None
28	28				Yes	** NA **	None
29	29				Yes	** NA **	None
30	30				Yes	N/A	None
31	31				Yes	N/A	None
32	32			2	Yes	N/A	None
33	33		2		Yes	N/A	None
34	34				Yes	N/A	None
35	35				Yes	N/A	None
36	36				Yes	N/A	None
37	37				Yes	N/A	None
38	38				Yes	N/A	None
39	39				Yes	N/A	None
40	40				Yes	N/A	None
41	41				Yes	** NA **	None
42	42				Yes	** NA **	None
43	43				Yes	** NA **	None
44	44				Yes	** NA **	None
45	45	OOOOOX			Yes	** NA **	None
46	46	OOOOOX			Yes	** NA **	None
47	47	OOOOOX			Yes	** NA **	None
48	48	OOOOOX			Yes	** NA **	None
49	49				Yes	N/A	None
50	50				Yes	N/A	None
51	51			2	Yes	N/A	None
52	52		2		Yes	N/A	None
53	53				Yes	N/A	None
54	54				Yes	N/A	None
55	55				Yes	N/A	None
56	56				Yes	N/A	None
57	57				Yes	N/A	None
58	58				Yes	N/A	None
59	59				Yes	N/A	None
60	60				Yes	** NA **	None
61	61				Yes	** NA **	None
62	62				Yes	** NA **	None
63	63				Yes	** NA **	None
64	64	OOOOOX			Yes	** NA **	None
65	65	OOOOOX			Yes	** NA **	None
66	66	OOOOOX			Yes	** NA **	None
67	67	OOOOOX			Yes	** NA **	None
68	68				Yes	N/A	None

Member Advanced Data (Continued)

	Label	I Release	I Offset [in]	J Offset [in]	Physical	Deflection Ratio Options	Seismic DR
69	69				Yes	N/A	None
70	70				Yes	** NA **	None
71	71				Yes	** NA **	None
72	72				Yes	** NA **	None
73	73				Yes	** NA **	None
74	74				Yes	** NA **	None
75	75				Yes	** NA **	None
76	76				Yes	N/A	None
77	77				Yes	** NA **	None
78	78				Yes	** NA **	None
79	79				Yes	** NA **	None
80	80				Yes	N/A	None
81	81				Yes	** NA **	None
82	82				Yes	** NA **	None
83	83				Yes	** NA **	None
84	84				Yes	** NA **	None
85	85				Yes	** NA **	None
86	86				Yes	** NA **	None
87	87				Yes	N/A	None
88	88				Yes	** NA **	None
89	89				Yes	** NA **	None
90	90				Yes	** NA **	None

Hot Rolled Steel Design Parameters

	Label	Shape	Length [ft]	Lcomp top [ft]	Function
1	1	SF-H1	3.333	Lbyy	Lateral
2	2	SF-H2	2.758	Lbyy	Lateral
3	3	SF-H2	2.758	Lbyy	Lateral
4	4	MF-CP1	0.292	Lbyy	Lateral
5	5	MF-CP1	0.292	Lbyy	Lateral
6	6	MF-H1	8	Lbyy	Lateral
7	7	MF-CP1	0.208	Lbyy	Lateral
8	8	MF-CP1	0.208	Lbyy	Lateral
9	9	SF-H3	2.309	Lbyy	Lateral
10	10	SF-H3	2.309	Lbyy	Lateral
11	11	SF-H4	3.207	Lbyy	Lateral
12	18	MF-P1	8	Lbyy	Lateral
13	19	MF-P1	8	Lbyy	Lateral
14	22	MF-H2	10	Lbyy	Lateral
15	28	MF-P1	8	Lbyy	Lateral
16	30	MF-H3	3.25	Lbyy	Lateral
17	31	SF-H1	3.333	Lbyy	Lateral
18	32	SF-H2	2.758	Lbyy	Lateral
19	33	SF-H2	2.758	Lbyy	Lateral
20	34	MF-CP1	0.292	Lbyy	Lateral
21	35	MF-CP1	0.292	Lbyy	Lateral
22	36	MF-CP1	0.208	Lbyy	Lateral
23	37	MF-CP1	0.208	Lbyy	Lateral
24	38	SF-H3	2.309	Lbyy	Lateral
25	39	SF-H3	2.309	Lbyy	Lateral
26	40	SF-H4	3.207	Lbyy	Lateral
27	49	MF-H3	3.25	Lbyy	Lateral
28	50	SF-H1	3.333	Lbyy	Lateral
29	51	SF-H2	2.758	Lbyy	Lateral
30	52	SF-H2	2.758	Lbyy	Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length [ft]	Lcomp top [ft]	Function
31	53	MF-CP1	0.292	Lbyy	Lateral
32	54	MF-CP1	0.292	Lbyy	Lateral
33	55	MF-CP1	0.208	Lbyy	Lateral
34	56	MF-CP1	0.208	Lbyy	Lateral
35	57	SF-H3	2.309	Lbyy	Lateral
36	58	SF-H3	2.309	Lbyy	Lateral
37	59	SF-H4	3.207	Lbyy	Lateral
38	68	MF-H3	3.25	Lbyy	Lateral
39	69	MF-H1	8	Lbyy	Lateral
40	72	MF-P1	8	Lbyy	Lateral
41	73	MF-P1	8	Lbyy	Lateral
42	76	MF-H2	10	Lbyy	Lateral
43	78	MF-P1	8	Lbyy	Lateral
44	80	MF-H1	8	Lbyy	Lateral
45	83	MF-P1	8	Lbyy	Lateral
46	84	MF-P1	8	Lbyy	Lateral
47	87	MF-H2	10	Lbyy	Lateral
48	89	MF-P1	8	Lbyy	Lateral

Member Point Loads (BLC 1 : Dead)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	18	Y	-0.032	%15
2	18	Y	-0.032	%85
3	18	Y	-0.075	%20
4	18	Y	-0.064	%50
5	18	Y	0	0
6	83	Y	-0.032	%15
7	83	Y	-0.032	%85
8	83	Y	-0.075	%20
9	83	Y	-0.064	%50
10	83	Y	0	0
11	72	Y	-0.032	%15
12	72	Y	-0.032	%85
13	72	Y	-0.075	%20
14	72	Y	-0.064	%50
15	72	Y	0	0
16	31	Y	-0.022	%20
17	31	Y	0	0
18	31	Y	0	0
19	31	Y	0	0
20	31	Y	0	0

Member Point Loads (BLC 2 : 0 Wind - No Ice)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	18	Z	-0.143	%15
2	18	Z	-0.143	%85
3	18	Z	-0.045	%20
4	18	Z	-0.045	%50
5	18	Z	0	0
6	83	Z	-0.143	%15
7	83	Z	-0.143	%85
8	83	Z	-0.045	%20
9	83	Z	-0.045	%50

Member Point Loads (BLC 2 : 0 Wind - No Ice) (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
10	83	Z	0	0
11	72	Z	-0.143	%15
12	72	Z	-0.143	%85
13	72	Z	-0.045	%20
14	72	Z	-0.045	%50
15	72	Z	0	0
16	31	Z	-0.046	%20
17	31	Z	0	0
18	31	Z	0	0
19	31	Z	0	0
20	31	Z	0	0

Member Point Loads (BLC 3 : 90 Wind - No Ice)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	18	X	-0.057	%15
2	18	X	-0.057	%85
3	18	X	-0.027	%20
4	18	X	-0.024	%50
5	18	X	0	0
6	83	X	-0.057	%15
7	83	X	-0.057	%85
8	83	X	-0.027	%20
9	83	X	-0.024	%50
10	83	X	0	0
11	72	X	-0.057	%15
12	72	X	-0.057	%85
13	72	X	-0.027	%20
14	72	X	-0.024	%50
15	72	X	0	0
16	31	X	-0.027	%20
17	31	X	0	0
18	31	X	0	0
19	31	X	0	0
20	31	X	0	0

Member Point Loads (BLC 4 : 0 Wind - Ice)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	18	Z	-0.062	%15
2	18	Z	-0.062	%85
3	18	Z	-0.028	%20
4	18	Z	-0.028	%50
5	18	Z	0	0
6	83	Z	-0.062	%15
7	83	Z	-0.062	%85
8	83	Z	-0.028	%20
9	83	Z	-0.028	%50
10	83	Z	0	0
11	72	Z	-0.062	%15
12	72	Z	-0.062	%85
13	72	Z	-0.028	%20
14	72	Z	-0.028	%50
15	72	Z	0	0
16	31	Z	-0.029	%20

Member Point Loads (BLC 4 : 0 Wind - Ice) (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
17	31	Z	0	0
18	31	Z	0	0
19	31	Z	0	0
20	31	Z	0	0

Member Point Loads (BLC 5 : 90 Wind - Ice)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	18	X	-0.035	%15
2	18	X	-0.035	%85
3	18	X	-0.021	%20
4	18	X	-0.019	%50
5	18	X	0	0
6	83	X	-0.035	%15
7	83	X	-0.035	%85
8	83	X	-0.021	%20
9	83	X	-0.019	%50
10	83	X	0	0
11	72	X	-0.035	%15
12	72	X	-0.035	%85
13	72	X	-0.021	%20
14	72	X	-0.019	%50
15	72	X	0	0
16	31	X	-0.021	%20
17	31	X	0	0
18	31	X	0	0
19	31	X	0	0
20	31	X	0	0

Member Point Loads (BLC 6 : 0 Wind - Service)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	18	Z	-0.015	%15
2	18	Z	-0.015	%85
3	18	Z	-0.005	%20
4	18	Z	-0.005	%50
5	18	Z	0	0
6	83	Z	-0.015	%15
7	83	Z	-0.015	%85
8	83	Z	-0.005	%20
9	83	Z	-0.005	%50
10	83	Z	0	0
11	72	Z	-0.015	%15
12	72	Z	-0.015	%85
13	72	Z	-0.005	%20
14	72	Z	-0.005	%50
15	72	Z	0	0
16	31	Z	-0.005	%20
17	31	Z	0	0
18	31	Z	0	0
19	31	Z	0	0
20	31	Z	0	0

Member Point Loads (BLC 7 : 90 Wind - Service)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	18	X	-0.006	%15
2	18	X	-0.006	%85
3	18	X	-0.003	%20
4	18	X	-0.003	%50
5	18	X	0	0
6	83	X	-0.006	%15
7	83	X	-0.006	%85
8	83	X	-0.003	%20
9	83	X	-0.003	%50
10	83	X	0	0
11	72	X	-0.006	%15
12	72	X	-0.006	%85
13	72	X	-0.003	%20
14	72	X	-0.003	%50
15	72	X	0	0
16	31	X	-0.003	%20
17	31	X	0	0
18	31	X	0	0
19	31	X	0	0
20	31	X	0	0

Member Point Loads (BLC 8 : Ice)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	18	Y	-0.321	%15
2	18	Y	-0.321	%85
3	18	Y	-0.118	%20
4	18	Y	-0.114	%50
5	18	Y	0	0
6	83	Y	-0.321	%15
7	83	Y	-0.321	%85
8	83	Y	-0.118	%20
9	83	Y	-0.114	%50
10	83	Y	0	0
11	72	Y	-0.321	%15
12	72	Y	-0.321	%85
13	72	Y	-0.118	%20
14	72	Y	-0.114	%50
15	72	Y	0	0
16	31	Y	-0.12	%20
17	31	Y	0	0
18	31	Y	0	0
19	31	Y	0	0
20	31	Y	0	0

Member Point Loads (BLC 13 : Maint LL 1)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	22	Y	-0.25	%5

Member Point Loads (BLC 14 : Maint LL 2)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	6	Y	-0.25	%5

Member Point Loads (BLC 15 : Maint LL 3)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	76	Y	-0.25	%5

Member Point Loads (BLC 16 : Maint LL 4)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	69	Y	-0.25	%5

Member Point Loads (BLC 17 : Maint LL 5)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	87	Y	-0.25	%5

Member Point Loads (BLC 18 : Maint LL 6)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	80	Y	-0.25	%5

Member Point Loads (BLC 19 : Maint LL 7)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	22	Y	-0.25	%95

Member Point Loads (BLC 20 : Maint LL 8)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	6	Y	-0.25	%95

Member Point Loads (BLC 21 : Maint LL 9)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	76	Y	-0.25	%95

Member Point Loads (BLC 22 : Maint LL 10)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	69	Y	-0.25	%95

Member Point Loads (BLC 23 : Maint LL 11)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	87	Y	-0.25	%95

Member Point Loads (BLC 24 : Maint LL 12)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	80	Y	-0.25	%95

Member Point Loads (BLC 25 : Maint LL 13)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	31	Y	-0.25	%95

Member Point Loads (BLC 26 : Maint LL 14)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	50	Y	-0.25	%95

Member Point Loads (BLC 27 : Maint LL 15)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	1	Y	-0.25	%95

Member Distributed Loads (BLC 2 : 0 Wind - No Ice)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	Z	-0.011	-0.011	0	%100
2	2	Z	-0.009	-0.009	0	%100
3	3	Z	-0.009	-0.009	0	%100
4	4	Z	-0.014	-0.014	0	%100
5	5	Z	-0.014	-0.014	0	%100
6	6	Z	-0.008	-0.008	0	%100
7	7	Z	-0.014	-0.014	0	%100
8	8	Z	-0.014	-0.014	0	%100
9	9	Z	-0.006	-0.006	0	%100
10	10	Z	-0.006	-0.006	0	%100
11	11	Z	-0.019	-0.019	0	%100
12	18	Z	-0.007	-0.007	0	%100
13	19	Z	-0.007	-0.007	0	%100
14	22	Z	-0.007	-0.007	0	%100
15	28	Z	-0.007	-0.007	0	%100
16	30	Z	-0.017	-0.017	0	%100
17	31	Z	-0.011	-0.011	0	%100
18	32	Z	-0.009	-0.009	0	%100
19	33	Z	-0.009	-0.009	0	%100
20	34	Z	-0.014	-0.014	0	%100
21	35	Z	-0.014	-0.014	0	%100
22	36	Z	-0.014	-0.014	0	%100
23	37	Z	-0.014	-0.014	0	%100
24	38	Z	-0.006	-0.006	0	%100
25	39	Z	-0.006	-0.006	0	%100
26	40	Z	-0.019	-0.019	0	%100
27	49	Z	-0.017	-0.017	0	%100
28	50	Z	-0.011	-0.011	0	%100
29	51	Z	-0.009	-0.009	0	%100
30	52	Z	-0.009	-0.009	0	%100
31	53	Z	-0.014	-0.014	0	%100
32	54	Z	-0.014	-0.014	0	%100
33	55	Z	-0.014	-0.014	0	%100

Member Distributed Loads (BLC 2 : 0 Wind - No Ice) (Continued)

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
34	56	Z	-0.014	-0.014	0	%100
35	57	Z	-0.006	-0.006	0	%100
36	58	Z	-0.006	-0.006	0	%100
37	59	Z	-0.019	-0.019	0	%100
38	68	Z	-0.017	-0.017	0	%100
39	69	Z	-0.008	-0.008	0	%100
40	72	Z	-0.007	-0.007	0	%100
41	73	Z	-0.007	-0.007	0	%100
42	76	Z	-0.007	-0.007	0	%100
43	78	Z	-0.007	-0.007	0	%100
44	80	Z	-0.008	-0.008	0	%100
45	83	Z	-0.007	-0.007	0	%100
46	84	Z	-0.007	-0.007	0	%100
47	87	Z	-0.007	-0.007	0	%100
48	89	Z	-0.007	-0.007	0	%100

Member Distributed Loads (BLC 3 : 90 Wind - No Ice)

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	X	-0.011	-0.011	0	%100
2	2	X	-0.009	-0.009	0	%100
3	3	X	-0.009	-0.009	0	%100
4	4	X	-0.014	-0.014	0	%100
5	5	X	-0.014	-0.014	0	%100
6	6	X	-0.008	-0.008	0	%100
7	7	X	-0.014	-0.014	0	%100
8	8	X	-0.014	-0.014	0	%100
9	9	X	-0.006	-0.006	0	%100
10	10	X	-0.006	-0.006	0	%100
11	11	X	-0.019	-0.019	0	%100
12	18	X	-0.007	-0.007	0	%100
13	19	X	-0.007	-0.007	0	%100
14	22	X	-0.007	-0.007	0	%100
15	28	X	-0.007	-0.007	0	%100
16	30	X	-0.017	-0.017	0	%100
17	31	X	-0.011	-0.011	0	%100
18	32	X	-0.009	-0.009	0	%100
19	33	X	-0.009	-0.009	0	%100
20	34	X	-0.014	-0.014	0	%100
21	35	X	-0.014	-0.014	0	%100
22	36	X	-0.014	-0.014	0	%100
23	37	X	-0.014	-0.014	0	%100
24	38	X	-0.006	-0.006	0	%100
25	39	X	-0.006	-0.006	0	%100
26	40	X	-0.019	-0.019	0	%100
27	49	X	-0.017	-0.017	0	%100
28	50	X	-0.011	-0.011	0	%100
29	51	X	-0.009	-0.009	0	%100
30	52	X	-0.009	-0.009	0	%100
31	53	X	-0.014	-0.014	0	%100
32	54	X	-0.014	-0.014	0	%100
33	55	X	-0.014	-0.014	0	%100
34	56	X	-0.014	-0.014	0	%100
35	57	X	-0.006	-0.006	0	%100
36	58	X	-0.006	-0.006	0	%100
37	59	X	-0.019	-0.019	0	%100

Member Distributed Loads (BLC 3 : 90 Wind - No Ice) (Continued)

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
38	68	X	-0.017	-0.017	0	%100
39	69	X	-0.008	-0.008	0	%100
40	72	X	-0.007	-0.007	0	%100
41	73	X	-0.007	-0.007	0	%100
42	76	X	-0.007	-0.007	0	%100
43	78	X	-0.007	-0.007	0	%100
44	80	X	-0.008	-0.008	0	%100
45	83	X	-0.007	-0.007	0	%100
46	84	X	-0.007	-0.007	0	%100
47	87	X	-0.007	-0.007	0	%100
48	89	X	-0.007	-0.007	0	%100

Member Distributed Loads (BLC 4 : 0 Wind - Ice)

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	Z	-0.011	-0.011	0	%100
2	2	Z	-0.01	-0.01	0	%100
3	3	Z	-0.01	-0.01	0	%100
4	4	Z	-0.026	-0.026	0	%100
5	5	Z	-0.026	-0.026	0	%100
6	6	Z	-0.004	-0.004	0	%100
7	7	Z	-0.034	-0.034	0	%100
8	8	Z	-0.034	-0.034	0	%100
9	9	Z	-0.01	-0.01	0	%100
10	10	Z	-0.01	-0.01	0	%100
11	11	Z	-0.013	-0.013	0	%100
12	18	Z	-0.004	-0.004	0	%100
13	19	Z	-0.004	-0.004	0	%100
14	22	Z	-0.004	-0.004	0	%100
15	28	Z	-0.004	-0.004	0	%100
16	30	Z	-0.012	-0.012	0	%100
17	31	Z	-0.011	-0.011	0	%100
18	32	Z	-0.01	-0.01	0	%100
19	33	Z	-0.01	-0.01	0	%100
20	34	Z	-0.026	-0.026	0	%100
21	35	Z	-0.026	-0.026	0	%100
22	36	Z	-0.034	-0.034	0	%100
23	37	Z	-0.034	-0.034	0	%100
24	38	Z	-0.01	-0.01	0	%100
25	39	Z	-0.01	-0.01	0	%100
26	40	Z	-0.013	-0.013	0	%100
27	49	Z	-0.012	-0.012	0	%100
28	50	Z	-0.011	-0.011	0	%100
29	51	Z	-0.01	-0.01	0	%100
30	52	Z	-0.01	-0.01	0	%100
31	53	Z	-0.026	-0.026	0	%100
32	54	Z	-0.026	-0.026	0	%100
33	55	Z	-0.034	-0.034	0	%100
34	56	Z	-0.034	-0.034	0	%100
35	57	Z	-0.01	-0.01	0	%100
36	58	Z	-0.01	-0.01	0	%100
37	59	Z	-0.013	-0.013	0	%100
38	68	Z	-0.012	-0.012	0	%100
39	69	Z	-0.004	-0.004	0	%100
40	72	Z	-0.004	-0.004	0	%100
41	73	Z	-0.004	-0.004	0	%100

Member Distributed Loads (BLC 4 : 0 Wind - Ice) (Continued)

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
42	76	Z	-0.004	-0.004	0	%100
43	78	Z	-0.004	-0.004	0	%100
44	80	Z	-0.004	-0.004	0	%100
45	83	Z	-0.004	-0.004	0	%100
46	84	Z	-0.004	-0.004	0	%100
47	87	Z	-0.004	-0.004	0	%100
48	89	Z	-0.004	-0.004	0	%100

Member Distributed Loads (BLC 5 : 90 Wind - Ice)

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	X	-0.011	-0.011	0	%100
2	2	X	-0.01	-0.01	0	%100
3	3	X	-0.01	-0.01	0	%100
4	4	X	-0.026	-0.026	0	%100
5	5	X	-0.026	-0.026	0	%100
6	6	X	-0.004	-0.004	0	%100
7	7	X	-0.034	-0.034	0	%100
8	8	X	-0.034	-0.034	0	%100
9	9	X	-0.01	-0.01	0	%100
10	10	X	-0.01	-0.01	0	%100
11	11	X	-0.013	-0.013	0	%100
12	18	X	-0.004	-0.004	0	%100
13	19	X	-0.004	-0.004	0	%100
14	22	X	-0.004	-0.004	0	%100
15	28	X	-0.004	-0.004	0	%100
16	30	X	-0.012	-0.012	0	%100
17	31	X	-0.011	-0.011	0	%100
18	32	X	-0.01	-0.01	0	%100
19	33	X	-0.01	-0.01	0	%100
20	34	X	-0.026	-0.026	0	%100
21	35	X	-0.026	-0.026	0	%100
22	36	X	-0.034	-0.034	0	%100
23	37	X	-0.034	-0.034	0	%100
24	38	X	-0.01	-0.01	0	%100
25	39	X	-0.01	-0.01	0	%100
26	40	X	-0.013	-0.013	0	%100
27	49	X	-0.012	-0.012	0	%100
28	50	X	-0.011	-0.011	0	%100
29	51	X	-0.01	-0.01	0	%100
30	52	X	-0.01	-0.01	0	%100
31	53	X	-0.026	-0.026	0	%100
32	54	X	-0.026	-0.026	0	%100
33	55	X	-0.034	-0.034	0	%100
34	56	X	-0.034	-0.034	0	%100
35	57	X	-0.01	-0.01	0	%100
36	58	X	-0.01	-0.01	0	%100
37	59	X	-0.013	-0.013	0	%100
38	68	X	-0.012	-0.012	0	%100
39	69	X	-0.004	-0.004	0	%100
40	72	X	-0.004	-0.004	0	%100
41	73	X	-0.004	-0.004	0	%100
42	76	X	-0.004	-0.004	0	%100
43	78	X	-0.004	-0.004	0	%100
44	80	X	-0.004	-0.004	0	%100
45	83	X	-0.004	-0.004	0	%100

Member Distributed Loads (BLC 5 : 90 Wind - Ice) (Continued)

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
46	84	X	-0.004	-0.004	0	%100
47	87	X	-0.004	-0.004	0	%100
48	89	X	-0.004	-0.004	0	%100

Member Distributed Loads (BLC 6 : 0 Wind - Service)

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	Z	-0.001	-0.001	0	%100
2	2	Z	-0.001	-0.001	0	%100
3	3	Z	-0.001	-0.001	0	%100
4	4	Z	-0.002	-0.002	0	%100
5	5	Z	-0.002	-0.002	0	%100
6	6	Z	-0.0004	-0.0004	0	%100
7	7	Z	-0.002	-0.002	0	%100
8	8	Z	-0.002	-0.002	0	%100
9	9	Z	-0.0007	-0.0007	0	%100
10	10	Z	-0.0007	-0.0007	0	%100
11	11	Z	-0.002	-0.002	0	%100
12	18	Z	-0.0004	-0.0004	0	%100
13	19	Z	-0.0004	-0.0004	0	%100
14	22	Z	-0.0004	-0.0004	0	%100
15	28	Z	-0.0004	-0.0004	0	%100
16	30	Z	-0.002	-0.002	0	%100
17	31	Z	-0.001	-0.001	0	%100
18	32	Z	-0.001	-0.001	0	%100
19	33	Z	-0.001	-0.001	0	%100
20	34	Z	-0.002	-0.002	0	%100
21	35	Z	-0.002	-0.002	0	%100
22	36	Z	-0.002	-0.002	0	%100
23	37	Z	-0.002	-0.002	0	%100
24	38	Z	-0.0007	-0.0007	0	%100
25	39	Z	-0.0007	-0.0007	0	%100
26	40	Z	-0.002	-0.002	0	%100
27	49	Z	-0.002	-0.002	0	%100
28	50	Z	-0.001	-0.001	0	%100
29	51	Z	-0.001	-0.001	0	%100
30	52	Z	-0.001	-0.001	0	%100
31	53	Z	-0.002	-0.002	0	%100
32	54	Z	-0.002	-0.002	0	%100
33	55	Z	-0.002	-0.002	0	%100
34	56	Z	-0.002	-0.002	0	%100
35	57	Z	-0.0007	-0.0007	0	%100
36	58	Z	-0.0007	-0.0007	0	%100
37	59	Z	-0.002	-0.002	0	%100
38	68	Z	-0.002	-0.002	0	%100
39	69	Z	-0.0004	-0.0004	0	%100
40	72	Z	-0.0004	-0.0004	0	%100
41	73	Z	-0.0004	-0.0004	0	%100
42	76	Z	-0.0004	-0.0004	0	%100
43	78	Z	-0.0004	-0.0004	0	%100
44	80	Z	-0.0004	-0.0004	0	%100
45	83	Z	-0.0004	-0.0004	0	%100
46	84	Z	-0.0004	-0.0004	0	%100
47	87	Z	-0.0004	-0.0004	0	%100
48	89	Z	-0.0004	-0.0004	0	%100

Member Distributed Loads (BLC 7 : 90 Wind - Service)

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	X	-0.001	-0.001	0	%100
2	2	X	-0.001	-0.001	0	%100
3	3	X	-0.001	-0.001	0	%100
4	4	X	-0.002	-0.002	0	%100
5	5	X	-0.002	-0.002	0	%100
6	6	X	-0.0004	-0.0004	0	%100
7	7	X	-0.002	-0.002	0	%100
8	8	X	-0.002	-0.002	0	%100
9	9	X	-0.0007	-0.0007	0	%100
10	10	X	-0.0007	-0.0007	0	%100
11	11	X	-0.002	-0.002	0	%100
12	18	X	-0.0004	-0.0004	0	%100
13	19	X	-0.0004	-0.0004	0	%100
14	22	X	-0.0004	-0.0004	0	%100
15	28	X	-0.0004	-0.0004	0	%100
16	30	X	-0.002	-0.002	0	%100
17	31	X	-0.001	-0.001	0	%100
18	32	X	-0.001	-0.001	0	%100
19	33	X	-0.001	-0.001	0	%100
20	34	X	-0.002	-0.002	0	%100
21	35	X	-0.002	-0.002	0	%100
22	36	X	-0.002	-0.002	0	%100
23	37	X	-0.002	-0.002	0	%100
24	38	X	-0.0007	-0.0007	0	%100
25	39	X	-0.0007	-0.0007	0	%100
26	40	X	-0.002	-0.002	0	%100
27	49	X	-0.002	-0.002	0	%100
28	50	X	-0.001	-0.001	0	%100
29	51	X	-0.001	-0.001	0	%100
30	52	X	-0.001	-0.001	0	%100
31	53	X	-0.002	-0.002	0	%100
32	54	X	-0.002	-0.002	0	%100
33	55	X	-0.002	-0.002	0	%100
34	56	X	-0.002	-0.002	0	%100
35	57	X	-0.0007	-0.0007	0	%100
36	58	X	-0.0007	-0.0007	0	%100
37	59	X	-0.002	-0.002	0	%100
38	68	X	-0.002	-0.002	0	%100
39	69	X	-0.0004	-0.0004	0	%100
40	72	X	-0.0004	-0.0004	0	%100
41	73	X	-0.0004	-0.0004	0	%100
42	76	X	-0.0004	-0.0004	0	%100
43	78	X	-0.0004	-0.0004	0	%100
44	80	X	-0.0004	-0.0004	0	%100
45	83	X	-0.0004	-0.0004	0	%100
46	84	X	-0.0004	-0.0004	0	%100
47	87	X	-0.0004	-0.0004	0	%100
48	89	X	-0.0004	-0.0004	0	%100

Member Distributed Loads (BLC 8 : Ice)

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	Y	-0.039	-0.039	0	%100
2	2	Y	-0.032	-0.032	0	%100
3	3	Y	-0.032	-0.032	0	%100

Member Distributed Loads (BLC 8 : Ice) (Continued)

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
4	4	Y	-0.041	-0.041	0	%100
5	5	Y	-0.041	-0.041	0	%100
6	6	Y	-0.03	-0.03	0	%100
7	7	Y	-0.041	-0.041	0	%100
8	8	Y	-0.041	-0.041	0	%100
9	9	Y	-0.027	-0.027	0	%100
10	10	Y	-0.027	-0.027	0	%100
11	11	Y	-0.049	-0.049	0	%100
12	18	Y	-0.027	-0.027	0	%100
13	19	Y	-0.027	-0.027	0	%100
14	22	Y	-0.027	-0.027	0	%100
15	28	Y	-0.027	-0.027	0	%100
16	30	Y	-0.049	-0.049	0	%100
17	31	Y	-0.039	-0.039	0	%100
18	32	Y	-0.032	-0.032	0	%100
19	33	Y	-0.032	-0.032	0	%100
20	34	Y	-0.041	-0.041	0	%100
21	35	Y	-0.041	-0.041	0	%100
22	36	Y	-0.041	-0.041	0	%100
23	37	Y	-0.041	-0.041	0	%100
24	38	Y	-0.027	-0.027	0	%100
25	39	Y	-0.027	-0.027	0	%100
26	40	Y	-0.049	-0.049	0	%100
27	49	Y	-0.049	-0.049	0	%100
28	50	Y	-0.039	-0.039	0	%100
29	51	Y	-0.032	-0.032	0	%100
30	52	Y	-0.032	-0.032	0	%100
31	53	Y	-0.041	-0.041	0	%100
32	54	Y	-0.041	-0.041	0	%100
33	55	Y	-0.041	-0.041	0	%100
34	56	Y	-0.041	-0.041	0	%100
35	57	Y	-0.027	-0.027	0	%100
36	58	Y	-0.027	-0.027	0	%100
37	59	Y	-0.049	-0.049	0	%100
38	68	Y	-0.049	-0.049	0	%100
39	69	Y	-0.03	-0.03	0	%100
40	72	Y	-0.027	-0.027	0	%100
41	73	Y	-0.027	-0.027	0	%100
42	76	Y	-0.027	-0.027	0	%100
43	78	Y	-0.027	-0.027	0	%100
44	80	Y	-0.03	-0.03	0	%100
45	83	Y	-0.027	-0.027	0	%100
46	84	Y	-0.027	-0.027	0	%100
47	87	Y	-0.027	-0.027	0	%100
48	89	Y	-0.027	-0.027	0	%100

Member Distributed Loads (BLC 28 : BLC 1 Transient Area Loads)

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	39	Y	-0.016	-0.035	1.155	2.309
2	57	Y	-0.035	-0.016	0	1.155
3	57	Y	-0.016	0.0006164	1.155	2.309
4	58	Y	-0.018	-0.016	0.231	2.309
5	9	Y	-0.026	-0.02	0	1.039
6	9	Y	-0.02	-0.014	1.039	2.078
7	10	Y	-0.01	-0.02	0.231	2.309

Member Distributed Loads (BLC 28 : BLC 1 Transient Area Loads) (Continued)

Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
8 38	Y	-0.014	-0.02	0	2.078
9 39	Y	0.0006163	-0.016	0	1.155

Member Distributed Loads (BLC 29 : BLC 8 Transient Area Loads)

Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1 9	Y	-0.014	-0.011	0	1.039
2 9	Y	-0.011	-0.008	1.039	2.078
3 10	Y	-0.006	-0.011	0.231	2.309
4 38	Y	-0.009	-0.011	0	2.078
5 39	Y	0.0003698	-0.009	0	1.155
6 39	Y	-0.009	-0.021	1.155	2.309
7 57	Y	-0.021	-0.009	0	1.155
8 57	Y	-0.009	0.0003698	1.155	2.309
9 58	Y	-0.011	-0.009	0.231	2.309

Member Area Loads (BLC 1 : Dead)

	Node A	Node B	Node C	Node D	Direction	Load Direction	Magnitude [ksf]
1	23	24	25	22	Y	Two Way	-0.01
2	73	74	75	72	Y	Two Way	-0.01
3	102	103	104	101	Y	Two Way	-0.01

Member Area Loads (BLC 8 : Ice)

	Node A	Node B	Node C	Node D	Direction	Load Direction	Magnitude [ksf]
1	23	24	25	22	Y	Two Way	-0.006
2	73	74	75	72	Y	Two Way	-0.006
3	102	103	104	101	Y	Two Way	-0.006

Node Loads and Enforced Displacements (BLC 9 : Live Load a)

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s ² /ft, k*s ² *ft)]
1	30	L	Y	-0.5
2	113	L	Y	-0.5
3	135	L	Y	-0.5

Node Loads and Enforced Displacements (BLC 10 : Live Load b)

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s ² /ft, k*s ² *ft)]
1	31	L	Y	-0.5
2	114	L	Y	-0.5
3	136	L	Y	-0.5

Node Loads and Enforced Displacements (BLC 11 : Live Load c)

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s ² /ft, k*s ² *ft)]
1	44	L	Y	-0.5
2	127	L	Y	-0.5
3	149	L	Y	-0.5

Basic Load Cases

	BLC Description	Category	Y Gravity	Nodal	Point	Distributed	Area(Member)
1	Dead	DL	-1		20		3
2	0 Wind - No Ice	WLZ			20	48	
3	90 Wind - No Ice	WLX			20	48	
4	0 Wind - Ice	WLZ			20	48	
5	90 Wind - Ice	WLX			20	48	
6	0 Wind - Service	WLZ			20	48	
7	90 Wind - Service	WLX			20	48	
8	Ice	OL1			20	48	3
9	Live Load a	LL		3			
10	Live Load b	LL		3			
11	Live Load c	LL		3			
12	Live Load d	LL					
13	Maint LL 1	LL			1		
14	Maint LL 2	LL			1		
15	Maint LL 3	LL			1		
16	Maint LL 4	LL			1		
17	Maint LL 5	LL			1		
18	Maint LL 6	LL			1		
19	Maint LL 7	LL			1		
20	Maint LL 8	LL			1		
21	Maint LL 9	LL			1		
22	Maint LL 10	LL			1		
23	Maint LL 11	LL			1		
24	Maint LL 12	LL			1		
25	Maint LL 13	LL			1		
26	Maint LL 14	LL			1		
27	Maint LL 15	LL			1		
28	BLC 1 Transient Area Loads	None				9	
29	BLC 8 Transient Area Loads	None				9	

Load Combinations

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
1	1.4 Dead	Yes	Y	1	1.4						
2	0.9 D + 1.6 - 0 W	Yes	Y	1	0.9	2	1.6				
3	0.9 D + 1.6 - 30 W	Yes	Y	1	0.9	2	1.386	3	0.8		
4	0.9 D + 1.6 - 60 W	Yes	Y	1	0.9	3	1.386	2	0.8		
5	0.9 D + 1.6 - 90 W	Yes	Y	1	0.9	3	1.6				
6	0.9 D + 1.6 - 120 W	Yes	Y	1	0.9	3	1.386	2	-0.8		
7	0.9 D + 1.6 - 150 W	Yes	Y	1	0.9	2	-1.386	3	0.8		
8	0.9 D + 1.6 - 180 W	Yes	Y	1	0.9	2	-1.6				
9	0.9 D + 1.6 - 210 W	Yes	Y	1	0.9	2	-1.386	3	-0.8		
10	0.9 D + 1.6 - 240 W	Yes	Y	1	0.9	3	-1.386	2	-0.8		
11	0.9 D + 1.6 - 270 W	Yes	Y	1	0.9	3	-1.6				
12	0.9 D + 1.6 - 300 W	Yes	Y	1	0.9	3	-1.386	2	0.8		
13	0.9 D + 1.6 - 330 W	Yes	Y	1	0.9	2	1.386	3	-0.8		
14	1.2 D + 1.6 - 0 W	Yes	Y	1	1.2	2	1.6				
15	1.2 D + 1.6 - 30 W	Yes	Y	1	1.2	2	1.386	3	0.8		
16	1.2 D + 1.6 - 60 W	Yes	Y	1	1.2	3	1.386	2	0.8		
17	1.2 D + 1.6 - 90 W	Yes	Y	1	1.2	3	1.6				
18	1.2 D + 1.6 - 120 W	Yes	Y	1	1.2	3	1.386	2	-0.8		
19	1.2 D + 1.6 - 150 W	Yes	Y	1	1.2	2	-1.386	3	0.8		
20	1.2 D + 1.6 - 180 W	Yes	Y	1	1.2	2	-1.6				
21	1.2 D + 1.6 - 210 W	Yes	Y	1	1.2	2	-1.386	3	-0.8		
22	1.2 D + 1.6 - 240 W	Yes	Y	1	1.2	3	-1.386	2	-0.8		

Load Combinations (Continued)

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
23	1.2 D + 1.6 - 270 W	Yes	Y	1	1.2	3	-1.6				
24	1.2 D + 1.6 - 300 W	Yes	Y	1	1.2	3	-1.386	2	0.8		
25	1.2 D + 1.6 - 330 W	Yes	Y	1	1.2	2	1.386	3	-0.8		
26	0.9 D + 1.6 - 0 W/Ice	Yes	Y	1	0.9	4	1.6			8	1
27	0.9 D + 1.6 - 30 W/Ice	Yes	Y	1	0.9	4	1.386	5	0.8	8	1
28	0.9 D + 1.6 - 60 W/Ice	Yes	Y	1	0.9	5	1.386	4	0.8	8	1
29	0.9 D + 1.6 - 90 W/Ice	Yes	Y	1	0.9	5	1.6			8	1
30	0.9 D + 1.6 - 120 W/Ice	Yes	Y	1	0.9	5	1.386	4	-0.8	8	1
31	0.9 D + 1.6 - 150 W/Ice	Yes	Y	1	0.9	4	-1.386	5	0.8	8	1
32	0.9 D + 1.6 - 180 W/Ice	Yes	Y	1	0.9	4	-1.6			8	1
33	0.9 D + 1.6 - 210 W/Ice	Yes	Y	1	0.9	4	-1.386	5	-0.8	8	1
34	0.9 D + 1.6 - 240 W/Ice	Yes	Y	1	0.9	5	-1.386	4	-0.8	8	1
35	0.9 D + 1.6 - 270 W/Ice	Yes	Y	1	0.9	5	-1.6			8	1
36	0.9 D + 1.6 - 300 W/Ice	Yes	Y	1	0.9	5	-1.386	4	0.8	8	1
37	0.9 D + 1.6 - 330 W/Ice	Yes	Y	1	0.9	4	1.386	5	-0.8	8	1
38	1.2 D + 1.0 - 0 W/Ice	Yes	Y	1	1.2	4	1			8	1
39	1.2 D + 1.0 - 30 W/Ice	Yes	Y	1	1.2	4	0.866	5	0.5	8	1
40	1.2 D + 1.0 - 60 W/Ice	Yes	Y	1	1.2	5	0.866	4	0.5	8	1
41	1.2 D + 1.0 - 90 W/Ice	Yes	Y	1	1.2	5	1			8	1
42	1.2 D + 1.0 - 120 W/Ice	Yes	Y	1	1.2	5	0.866	4	-0.5	8	1
43	1.2 D + 1.0 - 150 W/Ice	Yes	Y	1	1.2	4	-0.866	5	0.5	8	1
44	1.2 D + 1.0 - 180 W/Ice	Yes	Y	1	1.2	4	-1			8	1
45	1.2 D + 1.0 - 210 W/Ice	Yes	Y	1	1.2	4	-0.866	5	-0.5	8	1
46	1.2 D + 1.0 - 240 W/Ice	Yes	Y	1	1.2	5	-0.866	4	-0.5	8	1
47	1.2 D + 1.0 - 270 W/Ice	Yes	Y	1	1.2	5	-1			8	1
48	1.2 D + 1.0 - 300 W/Ice	Yes	Y	1	1.2	5	-0.866	4	0.5	8	1
49	1.2 D + 1.0 - 330 W/Ice	Yes	Y	1	1.2	4	0.866	5	-0.5	8	1
50	1.2 D + 1.5 LL a + Service - 0 W	Yes	Y	1	1.2	6	1			9	1.5
51	1.2 D + 1.5 LL a + Service - 30 W	Yes	Y	1	1.2	6	0.866	7	0.5	9	1.5
52	1.2 D + 1.5 LL a + Service - 60 W	Yes	Y	1	1.2	7	0.866	6	0.5	9	1.5
53	1.2 D + 1.5 LL a + Service - 90 W	Yes	Y	1	1.2	7	1			9	1.5
54	1.2 D + 1.5 LL a + Service - 120 W	Yes	Y	1	1.2	7	0.866	6	-0.5	9	1.5
55	1.2 D + 1.5 LL a + Service - 150 W	Yes	Y	1	1.2	6	-0.866	7	0.5	9	1.5
56	1.2 D + 1.5 LL a + Service - 180 W	Yes	Y	1	1.2	6	-1			9	1.5
57	1.2 D + 1.5 LL a + Service - 210 W	Yes	Y	1	1.2	6	-0.866	7	-0.5	9	1.5
58	1.2 D + 1.5 LL a + Service - 240 W	Yes	Y	1	1.2	7	-0.866	6	-0.5	9	1.5
59	1.2 D + 1.5 LL a + Service - 270 W	Yes	Y	1	1.2	7	-1			9	1.5
60	1.2 D + 1.5 LL a + Service - 300 W	Yes	Y	1	1.2	7	-0.866	6	0.5	9	1.5
61	1.2 D + 1.5 LL a + Service - 330 W	Yes	Y	1	1.2	6	0.866	7	-0.5	9	1.5
62	1.2 D + 1.5 LL b + Service - 0 W	Yes	Y	1	1.2	6	1			10	1.5
63	1.2 D + 1.5 LL b + Service - 30 W	Yes	Y	1	1.2	6	0.866	7	0.5	10	1.5
64	1.2 D + 1.5 LL b + Service - 60 W	Yes	Y	1	1.2	7	0.866	6	0.5	10	1.5
65	1.2 D + 1.5 LL b + Service - 90 W	Yes	Y	1	1.2	7	1			10	1.5
66	1.2 D + 1.5 LL b + Service - 120 W	Yes	Y	1	1.2	7	0.866	6	-0.5	10	1.5
67	1.2 D + 1.5 LL b + Service - 150 W	Yes	Y	1	1.2	6	-0.866	7	0.5	10	1.5
68	1.2 D + 1.5 LL b + Service - 180 W	Yes	Y	1	1.2	6	-1			10	1.5
69	1.2 D + 1.5 LL b + Service - 210 W	Yes	Y	1	1.2	6	-0.866	7	-0.5	10	1.5
70	1.2 D + 1.5 LL b + Service - 240 W	Yes	Y	1	1.2	7	-0.866	6	-0.5	10	1.5
71	1.2 D + 1.5 LL b + Service - 270 W	Yes	Y	1	1.2	7	-1			10	1.5
72	1.2 D + 1.5 LL b + Service - 300 W	Yes	Y	1	1.2	7	-0.866	6	0.5	10	1.5
73	1.2 D + 1.5 LL b + Service - 330 W	Yes	Y	1	1.2	6	0.866	7	-0.5	10	1.5
74	1.2 D + 1.5 LL c + Service - 0 W	Yes	Y	1	1.2	6	1			11	1.5
75	1.2 D + 1.5 LL c + Service - 30 W	Yes	Y	1	1.2	6	0.866	7	0.5	11	1.5
76	1.2 D + 1.5 LL c + Service - 60 W	Yes	Y	1	1.2	7	0.866	6	0.5	11	1.5
77	1.2 D + 1.5 LL c + Service - 90 W	Yes	Y	1	1.2	7	1			11	1.5

Load Combinations (Continued)

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
78	1.2 D + 1.5 LL c + Service - 120 W	Yes	Y	1	1.2	7	0.866	6	-0.5	11	1.5
79	1.2 D + 1.5 LL c + Service - 150 W	Yes	Y	1	1.2	6	-0.866	7	0.5	11	1.5
80	1.2 D + 1.5 LL c + Service - 180 W	Yes	Y	1	1.2	6	-1			11	1.5
81	1.2 D + 1.5 LL c + Service - 210 W	Yes	Y	1	1.2	6	-0.866	7	-0.5	11	1.5
82	1.2 D + 1.5 LL c + Service - 240 W	Yes	Y	1	1.2	7	-0.866	6	-0.5	11	1.5
83	1.2 D + 1.5 LL c + Service - 270 W	Yes	Y	1	1.2	7	-1			11	1.5
84	1.2 D + 1.5 LL c + Service - 300 W	Yes	Y	1	1.2	7	-0.866	6	0.5	11	1.5
85	1.2 D + 1.5 LL c + Service - 330 W	Yes	Y	1	1.2	6	0.866	7	-0.5	11	1.5
86	1.2 D + 1.5 LL d + Service - 0 W	Yes	Y	1	1.2	6	1			12	1.5
87	1.2 D + 1.5 LL d + Service - 30 W	Yes	Y	1	1.2	6	0.866	7	0.5	12	1.5
88	1.2 D + 1.5 LL d + Service - 60 W	Yes	Y	1	1.2	7	0.866	6	0.5	12	1.5
89	1.2 D + 1.5 LL d + Service - 90 W	Yes	Y	1	1.2	7	1			12	1.5
90	1.2 D + 1.5 LL d + Service - 120 W	Yes	Y	1	1.2	7	0.866	6	-0.5	12	1.5
91	1.2 D + 1.5 LL d + Service - 150 W	Yes	Y	1	1.2	6	-0.866	7	0.5	12	1.5
92	1.2 D + 1.5 LL d + Service - 180 W	Yes	Y	1	1.2	6	-1			12	1.5
93	1.2 D + 1.5 LL d + Service - 210 W	Yes	Y	1	1.2	6	-0.866	7	-0.5	12	1.5
94	1.2 D + 1.5 LL d + Service - 240 W	Yes	Y	1	1.2	7	-0.866	6	-0.5	12	1.5
95	1.2 D + 1.5 LL d + Service - 270 W	Yes	Y	1	1.2	7	-1			12	1.5
96	1.2 D + 1.5 LL d + Service - 300 W	Yes	Y	1	1.2	7	-0.866	6	0.5	12	1.5
97	1.2 D + 1.5 LL d + Service - 330 W	Yes	Y	1	1.2	6	0.866	7	-0.5	12	1.5
98	1.2 D + 1.5 LL Maint (1)	Yes	Y	1	1.2					13	1.5
99	1.2 D + 1.5 LL Maint (2)	Yes	Y	1	1.2					14	1.5
100	1.2 D + 1.5 LL Maint (3)	Yes	Y	1	1.2					15	1.5
101	1.2 D + 1.5 LL Maint (4)	Yes	Y	1	1.2					16	1.5
102	1.2 D + 1.5 LL Maint (5)	Yes	Y	1	1.2					17	1.5
103	1.2 D + 1.5 LL Maint (6)	Yes	Y	1	1.2					18	1.5
104	1.2 D + 1.5 LL Maint (7)	Yes	Y	1	1.2					19	1.5
105	1.2 D + 1.5 LL Maint (8)	Yes	Y	1	1.2					20	1.5
106	1.2 D + 1.5 LL Maint (9)	Yes	Y	1	1.2					21	1.5
107	1.2 D + 1.5 LL Maint (10)	Yes	Y	1	1.2					22	1.5
108	1.2 D + 1.5 LL Maint (11)	Yes	Y	1	1.2					23	1.5
109	1.2 D + 1.5 LL Maint (12)	Yes	Y	1	1.2					24	1.5
110	1.2 D + 1.5 LL Maint (13)	Yes	Y	1	1.2					25	1.5
111	1.2 D + 1.5 LL Maint (14)	Yes	Y	1	1.2					26	1.5
112	1.2 D + 1.5 LL Maint (15)	Yes	Y	1	1.2					27	1.5

Envelope Node Reactions

Node Label			X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	1	max	1.159	5	3.963	38	1.305	2	7.835	26	1.141	11	0.277	107
2		min	-1.158	11	-0.346	8	-1.413	20	-1.301	8	-1.142	5	-0.264	103
3	53	max	1.097	5	4.065	42	1.609	14	0.508	13	1.458	3	0.659	12
4		min	-1.189	23	-0.133	12	-1.554	8	-3.912	31	-1.457	9	-6.7	30
5	82	max	1.147	17	3.925	46	1.535	14	0.514	3	1.42	19	6.632	34
6		min	-1.055	11	-0.15	4	-1.482	8	-3.871	33	-1.42	13	-0.663	4
7	Totals:	max	3.389	17	11.074	40	4.434	14						
8		min	-3.389	11	1.797	10	-4.434	20						

Envelope AISC 13TH (360-05): LRFD Member Steel Code Checks

Member	Shape	Code Check	Loc [ft]	LC	Shear	Check	Loc [ft]	Dir	LC	phi*Pnc [k]	phi*Pnt [k]	phi*Mn y-y [k-ft]	phi*Mn z-z [k-ft]	Cb	Eqn
1	1	HSS4X4X2	0.982	0	37	0.195	0	y	37	70.173	73.278	8.24	8.24	2.203	H1-1b
2	2	C3.38x2.06x.188	0.773	2.592	27	0.123	0.351	y	41	38.433	43.394	1.694	4.483	1.627	H1-1b
3	3	C3.38x2.06x.188	0.773	0	37	0.139	2.241	y	45	38.433	43.394	1.694	4.483	1.628	H1-1b
4	4	PL3/8"x6	0.098	0	25	0.206	0	y	26	68.856	72.9	0.57	9.113	2.144	H1-1b

Envelope AISC 13TH (360-05): LRFD Member Steel Code Checks (Continued)

Member	Shape	Code	Check	Loc[ft]	LC	Shear	Check	Loc[ft]	Dir	LC	phi*	Pnt	[k]	phi*	Mn	y-y	[k-ft]	phi*	Mn	z-z	[k-ft]	Cb	Eqn
5	5	PL3/8"x6	0.098	0	15	0.207	0	y	26	68.856	72.9	0.57	9.113	2.126	H1-1b								
6	6	PIPE_3.5x0.165	0.105	4	36	0.058	5.25	y	35	45.872	71.57	6.336	6.336	1.695	H1-1b								
7	7	PL3/8"x6	0.131	0.208	15	0.435	0.208	y	49	70.733	72.9	0.57	9.113	2.882	H1-1b								
8	8	PL3/8"x6	0.131	0	25	0.437	0	y	39	70.733	72.9	0.57	9.113	2.876	H1-1b								
9	9	L2x2x4	0.257	0	20	0.063	2.309	y	48	23.349	30.586	0.691	1.577	1.5	H2-1								
10	10	L2x2x4	0.256	2.309	20	0.063	0	z	44	23.349	30.586	0.691	1.577	1.5	H2-1								
11	11	L7.63x2.5x6	0.349	1.604	8	0.138	0.334	y	38	73.845	118.523	1.798	13.583	1.213	H2-1								
12	18	PIPE_2.88x0.203	0.105	5.584	23	0.041	5.584	y	23	35.517	70.68	5.029	5.029	3	H1-1b								
13	19	PIPE_2.88x0.203	0.123	2.333	21	0.055	5.584	y	20	35.517	70.68	5.029	5.029	3	H1-1b								
14	22	PIPE_2.88x0.203	0.13	7.812	19	0.117	1.042	14	24.131	70.68	5.029	5.029	2.249	H1-1b									
15	28	PIPE_2.88x0.203	0.123	2.333	19	0.055	5.584	20	35.517	70.68	5.029	5.029	3	H1-1b									
16	30	L6.63x4.33x.25	0.181	3.25	6	0.023	3.25	y	17	49.975	86.751	2.311	6.976	1.5	H2-1								
17	31	HSS4X4X2	0.994	0	31	0.204	0	y	32	70.173	73.278	8.24	8.24	2.224	H1-1b								
18	32	C3.38x2.06x.188	0.773	2.592	31	0.124	0.351	y	45	38.433	43.394	1.694	4.483	1.627	H1-1b								
19	33	C3.38x2.06x.188	0.758	0	29	0.14	2.241	y	49	38.433	43.394	1.694	4.483	1.629	H1-1b								
20	34	PL3/8"x6	0.076	0	29	0.198	0	y	30	68.856	72.9	0.57	9.113	1.73	H1-1b								
21	35	PL3/8"x6	0.092	0	19	0.195	0	y	30	68.856	72.9	0.57	9.113	2.031	H1-1b								
22	36	PL3/8"x6	0.138	0.208	19	0.431	0.208	y	41	70.733	72.9	0.57	9.113	2.912	H1-1b								
23	37	PL3/8"x6	0.109	0	17	0.437	0	y	43	70.733	72.9	0.57	9.113	2.945	H1-1b								
24	38	L2x2x4	0.219	0	36	0.064	2.309	y	39	23.349	30.586	0.691	1.577	1.5	H2-1								
25	39	L2x2x4	0.221	2.309	25	0.063	0	y	44	23.349	30.586	0.691	1.577	1.5	H2-1								
26	40	L7.63x2.5x6	0.286	1.604	12	0.137	2.873	y	42	73.845	118.523	1.798	13.54	1.204	H2-1								
27	49	L6.63x4.33x.25	0.232	0	2	0.031	3.25	y	21	49.975	86.751	2.311	6.976	1.5	H2-1								
28	50	HSS4X4X2	0.982	0	33	0.198	0	y	32	70.173	73.278	8.24	8.24	2.208	H1-1b								
29	51	C3.38x2.06x.188	0.759	2.592	35	0.123	0.351	y	38	38.433	43.394	1.694	4.483	1.629	H1-1b								
30	52	C3.38x2.06x.188	0.773	0	33	0.14	2.241	y	41	38.433	43.394	1.694	4.483	1.627	H1-1b								
31	53	PL3/8"x6	0.092	0	21	0.196	0	y	34	68.856	72.9	0.57	9.113	2.029	H1-1b								
32	54	PL3/8"x6	0.076	0	35	0.199	0	y	34	68.856	72.9	0.57	9.113	1.731	H1-1b								
33	55	PL3/8"x6	0.109	0.208	23	0.438	0.208	y	45	70.733	72.9	0.57	9.113	2.946	H1-1b								
34	56	PL3/8"x6	0.138	0	21	0.432	0	y	47	70.733	72.9	0.57	9.113	2.912	H1-1b								
35	57	L2x2x4	0.221	0	15	0.063	2.309	y	44	23.349	30.586	0.691	1.577	1.5	H2-1								
36	58	L2x2x4	0.219	2.309	28	0.064	0	y	49	23.349	30.586	0.691	1.577	1.5	H2-1								
37	59	L7.63x2.5x6	0.286	1.604	4	0.137	0.334	y	46	73.845	118.523	1.798	13.534	1.202	H2-1								
38	68	L6.63x4.33x.25	0.232	3.25	2	0.031	0	y	19	49.975	86.751	2.311	6.976	1.5	H2-1								
39	69	PIPE_3.5x0.165	0.108	4	32	0.062	2.75	y	33	45.872	71.57	6.336	6.336	1.692	H1-1b								
40	72	PIPE_2.88x0.203	0.138	5.584	21	0.055	5.584	21	35.517	70.68	5.029	5.029	3	H1-1b									
41	73	PIPE_2.88x0.203	0.148	2.333	14	0.045	5.584	25	35.517	70.68	5.029	5.029	3	H1-1b									
42	76	PIPE_2.88x0.203	0.128	2.188	25	0.105	1.042	19	24.131	70.68	5.029	5.029	2.047	H1-1b									
43	78	PIPE_2.88x0.203	0.114	2.333	16	0.043	5.584	25	35.517	70.68	5.029	5.029	3	H1-1b									
44	80	PIPE_3.5x0.165	0.107	4	32	0.062	5.25	31	45.872	71.57	6.336	6.336	1.693	H1-1b									
45	83	PIPE_2.88x0.203	0.137	5.584	19	0.054	5.584	19	35.517	70.68	5.029	5.029	3	H1-1b									
46	84	PIPE_2.88x0.203	0.115	2.333	18	0.043	5.584	15	35.517	70.68	5.029	5.029	3	H1-1b									
47	87	PIPE_2.88x0.203	0.128	7.813	15	0.105	8.958	21	24.131	70.68	5.029	5.029	2.041	H1-1b									
48	89	PIPE_2.88x0.203	0.149	2.333	14	0.045	5.584	15	35.517	70.68	5.029	5.029	3	H1-1b									

APPENDIX B

(Additional Calculations)



1717 S. Boulder, Suite 300
Tulsa, OK 74119
(918) 587-4630

[REF: ANSI/TIA-222-G2005]

ANTENNAS

[illegible]

PROJECT	149439.003.01 - Coventry 2 CT, CT			KSC
SUBJECT	Platform - Mount Analysis			
DATE	11/01/21	PAGE	1	OF 1



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

[REF: AISC 360-05]

Reactions at Bolted Connection

Tension	:	1.305	k
Vertical Shear	:	3.963	k
Horizontal Shear	:	1.159	k
Torsion	:	0.277	k.ft
Moment from Horizontal Forces	:	1.141	k.ft
Moment from Vertical Forces	:	7.835	k.ft

Bolt Parameters

Bolt Grade	:	A325	
Bolt Diameter	:	0.625	in
Nominal Bolt Area	:	0.307	in ²
Bolt spacing, Horizontal	:	6	in
Bolt spacing, Vertical	:	6	in
Bolt edge distance, plate height	:	1.5	in
Bolt edge distance, plate width	:	1.5	in
Total Number of Bolts	:	4	bolts

Summary of Forces

Shear Resultant Force	:	4.13	k
Force from Horz. Moment	:	2.07	k
Force from Vert. Moment	:	14.19	k
Shear Load / Bolt	:	1.03	k
Tension Load / Bolt	:	0.33	k
Resultant from Moments / Bolt	:	7.17	k

Bolt Checks

Nominal Tensile Stress, F_{nt}	:	90.00	ksi	[AISC Table J3.2]
Available Tensile Stress, ΦR_{nt}	:	20.72	k/bolt	[Eq. J3-1]
Unity Check, Bolt Tension	:	36.18%		OKAY
Nominal Shear Stress, F_{nv}	:	48.00	ksi	[AISC Table J3.2]
Available Shear Stress, ΦR_{nv}	:	11.05	k/bolt	[Eq. J3-1]
Unity Check, Bolt Shear	:	12.29%		OKAY
Unity Check, Combined	:	48.47%		OKAY
Available Bearing Strength, ΦR_n	:	34.66	k/bolt	
Unity Check, Bolt Bearing	:	2.98%		OKAY

EXHIBIT 9

EME Report



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

Dish Wireless Existing Facility

Site ID: BOBDL00118A

BOBDL00118A
712 Bread & Milk Street
Coventry, Connecticut 06238

December 20, 2021

EBI Project Number: 6221007644

Site Compliance Summary	
Compliance Status:	COMPLIANT
Site total MPE% of FCC general population allowable limit:	16.49%



December 20, 2021

Dish Wireless

Emissions Analysis for Site: BOBDL00118A - BOBDL00118A

EBI Consulting was directed to analyze the proposed Dish Wireless facility located at **712 Bread & Milk Street** in **Coventry, Connecticut** for the purpose of determining whether the emissions from the Proposed Dish Wireless Antenna Installation located 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 population 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 population 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 limits for the 600 MHz and 700 MHz frequency bands are approximately $400 \mu\text{W}/\text{cm}^2$ and $467 \mu\text{W}/\text{cm}^2$, respectively. The general population exposure limit for the 1900 MHz (PCS), 2100 MHz (AWS) and 11 GHz frequency bands 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 Dish Wireless antenna facility located at 712 Bread & Milk Street in Coventry, Connecticut using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since Dish Wireless is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, all calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 20 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was focused at the base of the tower. 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 equipment was calculated using the following assumptions:

- 1) 4 n71 channels (600 MHz Band) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.
- 2) 4 n70 channels (PCS Band - 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.
- 3) 4 n66 channels (AWS Band - 2190 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.
- 4) 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.
- 5) For the following calculations, the sample point was the top of a 6-foot person standing at the base of the tower. The maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 20 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was used in this direction. This value is a very conservative



estimate as gain reductions for these particular antennas are typically much higher in this direction.

- 6) The antennas used in this modeling are the JMA MX08FRO665-21 for the 600 MHz / 1900 MHz / 2190 MHz channel(s) in Sector A, the JMA MX08FRO665-21 for the 600 MHz / 1900 MHz / 2190 MHz channel(s) in Sector B, the JMA MX08FRO665-21 for the 600 MHz / 1900 MHz / 2190 MHz channel(s) in Sector C. This is based on feedback from the carrier with regard to anticipated antenna selection. All Antenna gain values and associated transmit power levels are shown in the Site Inventory and Power Data table below. The maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 20 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was used for all calculations. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.
- 7) The antenna mounting height centerline of the proposed antennas is 153 feet above ground level (AGL).
- 8) 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.
- 9) All calculations were done with respect to uncontrolled / general population threshold limits.



Dish Wireless Site Inventory and Power Data

Sector:	A	Sector:	B	Sector:	C
Antenna #:	I	Antenna #:	I	Antenna #:	I
Make / Model:	JMA MX08FRO665-21	Make / Model:	JMA MX08FRO665-21	Make / Model:	JMA MX08FRO665-21
Frequency Bands:	600 MHz / 1900 MHz / 2190 MHz	Frequency Bands:	600 MHz / 1900 MHz / 2190 MHz	Frequency Bands:	600 MHz / 1900 MHz / 2190 MHz
Gain:	17.45 dBd / 22.65 dBd / 22.65 dBd	Gain:	17.45 dBd / 22.65 dBd / 22.65 dBd	Gain:	17.45 dBd / 22.65 dBd / 22.65 dBd
Height (AGL):	153 feet	Height (AGL):	153 feet	Height (AGL):	153 feet
Channel Count:	12	Channel Count:	12	Channel Count:	12
Total TX Power (W):	440 Watts	Total TX Power (W):	440 Watts	Total TX Power (W):	440 Watts
ERP (W):	5,236.31	ERP (W):	5,236.31	ERP (W):	5,236.31
Antenna AI MPE %:	1.09%	Antenna BI MPE %:	1.09%	Antenna CI MPE %:	1.09%

Site Composite MPE %	
Carrier	MPE %
Dish Wireless (Max at Sector A):	1.09%
Verizon	4.24%
AT&T	3.92%
T-Mobile	7.24%
Site Total MPE % :	16.49%

Dish Wireless MPE % Per Sector	
Dish Wireless Sector A Total:	1.09%
Dish Wireless Sector B Total:	1.09%
Dish Wireless Sector C Total:	1.09%
Site Total MPE % :	16.49%

Dish Wireless Maximum MPE Power Values (Sector A)							
Dish Wireless Frequency Band / Technology (Sector A)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density ($\mu\text{W}/\text{cm}^2$)	Frequency (MHz)	Allowable MPE ($\mu\text{W}/\text{cm}^2$)	Calculated % MPE
Dish Wireless 600 MHz n71	4	223.68	153.0	1.49	600 MHz n71	400	0.37%
Dish Wireless 1900 MHz n70	4	542.70	153.0	3.61	1900 MHz n70	1000	0.36%
Dish Wireless 2190 MHz n66	4	542.70	153.0	3.61	2190 MHz n66	1000	0.36%
Total:							1.09%

• NOTE: Totals may vary by approximately 0.01% due to summation of remainders in calculations.



Summary

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

The anticipated maximum composite contributions from the Dish Wireless facility as well as the site composite emissions value with regards to compliance with FCC's allowable limits for general population exposure to RF Emissions are shown here:

Dish Wireless Sector	Power Density Value (%)
Sector A:	1.09%
Sector B:	1.09%
Sector C:	1.09%
Dish Wireless Maximum MPE % (Sector A):	1.09%
Site Total:	16.49%
Site Compliance Status:	COMPLIANT

The anticipated composite MPE value for this site assuming all carriers present is **16.49%** of the allowable FCC established general population 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.