



Crown Castle
3 Corporate Park Drive, Suite 101
Clifton Park, NY 12065

August 1, 2020

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

RE: **Notice of Exempt Modification for AT&T - 842872**
52 New Britain Avenue, Rocky Hill, CT 06067
Latitude: 41° 39' 36.89" / Longitude: -72° 40' 50.58"

Dear Ms. Bachman:

AT&T currently maintains nine (9) antennas at the 168-foot mount on the existing 182-foot Monopole Tower, located at 52 New Britain Avenue, Rocky Hill, CT. The property is owned by the Town of Rocky Hill and the Tower is owned by Crown Castle. AT&T now intends to add three (3) new antennas at the 168-ft level of the tower. AT&T is also proposing a tower mount replacement as shown on the enclosed Mount Analysis.

The facility was approved by the Town of Rocky Hill. Diligent search was made, and the original building permit number 13621 dated November 30, 1998 was located.

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 John Mehr, Town Manager for the Town of Rocky Hill, as both the municipality and property owner, Kim Ricci, Town Planner, and Crown Castle is the tower owner.

1. The proposed modifications will not result in an increase in the height of the existing tower.
2. The proposed modifications will not require the extension of the site boundary.
3. The proposed modification will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
4. The operation of the replacement antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communication Commission safety standard.
5. The proposed modifications 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, AT&T respectfully submits that the proposed modifications to the above-reference telecommunications facility constitutes an exempt modification under R.C.S.A. § 16-50j-72(b)(2). Please send approval/rejection letter to Attn: Anne Marie Zsamba.

Melanie A. Bachman

Page 2

Sincerely,

Anne Marie Zsamba
Site Acquisition Specialist
3 Corporate Park Drive, Suite 101
Clifton Park, NY 12065
(201) 236-9224
AnneMarie.Zsamba@crowncastle.com

Attachments

cc:

John Mehr, Town Manager (*via email only to jmehr@rockyhillct.gov*)
Town of Rocky Hill
761 Old Main Street
Rocky Hill, CT 06067

Kim Ricci, Town Planner (*via email only to kricci@rockyhillct.gov*)
Town of Rocky Hill
761 Old Main Street
Rocky Hill, CT 06067

Crown Castle, Tower Owner

From: [Zsamba, Anne Marie](mailto:Zsamba,Anne.Marie)
To: "jmehrf@rockyhillect.gov"
Subject: Notice of Exempt Modification - 52 New Britain Avenue, Rocky Hill - AT&T
Date: Saturday, August 1, 2020 8:47:00 PM
Attachments: [EM-AT&T-52 NEW BRITAIN AVE ROCKY HILL-842872_notice.pdf](#)

Dear Town Manager Mehr:

Attached please find AT&T's exempt modification application that is being submitted to the Connecticut Siting Council, this coming Monday, August 3, 2020.

In light of the present circumstances with Covid-19, The Council has advised that electronic notification of this filing is acceptable. If you could kindly confirm receipt. Thank you.

Best,
Anne Marie Zsamba

ANNE MARIE ZSAMBA
Site Acquisition Specialist
T: (201) 236-9224
M: (518) 350-3639
F: (724) 416-6112

CROWN CASTLE
3 Corporate Park Drive, Suite 101
Clifton Park, NY 12065
CrownCastle.com

From: [Zsamba, Anne Marie](mailto:Zsamba,Anne.Marie)
To: "kricci@rockyhillct.gov"
Subject: Notice of Exempt Modification - 52 New Britain Avenue, Rocky Hill - AT&T
Date: Saturday, August 1, 2020 8:47:00 PM
Attachments: [EM-AT&T-52 NEW BRITAIN AVE ROCKY HILL-842872_notice.pdf](#)

Dear Town Planner Ricci:

Attached please find AT&T's exempt modification application that is being submitted to the Connecticut Siting Council, this coming Monday, August 3, 2020.

In light of the present circumstances with Covid-19, The Council has advised that electronic notification of this filing is acceptable. If you could kindly confirm receipt. Thank you.

Best,
Anne Marie Zsamba

ANNE MARIE ZSAMBA
Site Acquisition Specialist
T: (201) 236-9224
M: (518) 350-3639
F: (724) 416-6112

CROWN CASTLE
3 Corporate Park Drive, Suite 101
Clifton Park, NY 12065
CrownCastle.com

Exhibit A

Original Facility Approval

No 13621

TOWN OF ROCKY HILL, CONN.
BUILDING PERMIT

Estimated Cost (structural) \$ 669,707.00

Fee \$ waived

.....November 30,..... 19 98.

APPLICANTS PERMIT

PERMISSION IS HEREBY GRANTED TO.....Conn. Strux, Inc., 860-677-9255.....

to erect a.....addition.....

Location.....R.H. Fire Station #2 N.Britain Ave.....No. of families or units.....

Zoned.....Lot Area.....Frontage.....

Front yard setback.....Right side yard.....Left side yard.....

Rear yard.....Dimensions of building.....No. stories.....

Type of Const OwnerTown of Rocky Hill.....

NOTICE

The recipient of this permit accepts this permit on the condition that he, as owner or as representing the owner, agrees to comply with all Building, Zoning Ordinances of the Town of Rocky Hill and the State Statutes of the State of Connecticut, regarding the use occupancy and type of building to be constructed.

License No.

Building Official

Permission must be obtained from the Office of the Town Engineer before Building Materials can be placed in the highway. Surface and roof water must not be connected with the Storm Sewer.



Town of Rocky Hill

699 OLD MAIN STREET • PO BOX 657 • ROCKY HILL, CT 06067 • FAX (860) 258-7638

August 27, 2001

To: Jennifer Charland

From: J-P. Langlois, Building Official

Re: Communication Tower, 52 New Britain Avenue

Dear Jennifer;

This letter is in reference to a communication tower that was installed under building permit #13621 at 52 New Britain Avenue in Rocky Hill, Connecticut.

A final inspection was performed on January 25, 2001 and was approved.

Should you have any questions, please feel free to contact the Building Department At (860) 258-2745.

Exhibit B

Property Card

Situs : 52 NEW BRITAIN AVENUE

PARCEL ID: 6855

Class: 907

Card: 1 of 1

Printed: March 5, 2020

CURRENT OWNER
ROCKY HILL TOWN OF
CO 2 FIREHOUSE
761 OLD MAIN STREET
ROCKY HILL CT 06067-1517
057/353 12/15/1957

GENERAL INFORMATION
Living Units
Neighborhood S
Alternate ID 007392
Vol / Pg 057/353
Map/Lot 08-354
Zoning C
Class EXEMPT



Property Notes

Land Information				
Type	Size	Influence Factors	Influence %	Value
Primary	AC 0.5700			314,000
Total Acres: .57 Spot: Location:				

Assessment Information					
	Assessed	Appraised	Cost	Income	Market
Land	219,800	314,000	314,000	0	0
Building	544,110	777,300	777,300	0	0
Total	763,910	1,091,300	1,091,300	0	0
Manual Override Reason					
Base Date of Value					
Effective Date of Value					
Value Flag					
Gross Building:					

Entrance Information			
Date	ID	Entry Code	Source
10/04/12	ST	Measured + 1visit	From Conversion

Permit Information					
Date Issued	Number	Price	Purpose	% Complete	
03/15/18	2018-352	25,000	CM	Remove And Replace (3) Antenna:	0
10/31/17	2018-198	20,000	CM	Sprint To Add Three (3) Antennas .	0
09/10/16	2017-104	20,000	MS	At&T To Add Three (3) Antennas /	0
10/28/15	2016-135	28,000	EL	Retrofit Lights In Fire Station	0
06/18/15	2015-457	44,000	SN	Replace Existing Message Boards	0

Sales/Ownership History						
Transfer Date	Price	Type	Validity	Deed Reference	Deed Type	Grantee
12/15/57		Vacant - Land Only Sale	No Consideration	057/353	No Consideration	ROCKY HILL TOWN OF

Inspection Witnessed By _____

Situs : 52 NEW BRITAIN AVENUE

Parcel Id: 6855

Class: 907

Card: 1 of 1

Printed: March 5, 2020

Building Information

Year Built/Eff Year 1958 /
 Building # 1
 Structure Type Police/Fire Station
 Identical Units 1
 Total Units 1
 Grade B
 # Covered Parking
 # Uncovered Parking
 DBA CO 2 FIREHOUSE

Building Other Features

Line	Type	+/-	Meas1	Meas2	# Stops	Ident Units	Line	Type	+/-	Meas1	Meas2	# Stops	Ident Units
------	------	-----	-------	-------	---------	-------------	------	------	-----	-------	-------	---------	-------------

Interior/Exterior Information

Line	Level From	To	Int Fin	Area	Perim	Use Type	Wall Height	Ext Walls	Construction	Partitions	Heating	Cooling	Plumbing	Physical	Functional
1	01	01		4,199	260	Municipal	12	Brick & Con	Fire Resistant	Normal	Hot Air	Central	Normal	5	3
2	02	02		3,074	222	Municipal	12	Brick & Con	Fire Resistant	Normal	Hot Air	Central	Normal	5	3

Interior/Exterior Valuation Detail

Line	Area	Use Type	% Good	% Complete	Use Value/RCNLD
1	4,199	Municipal	60		456,520
2	3,074	Municipal	60		299,700

Outbuilding Data

Line	Type	Yr Blt	Meas1	Meas2	Qty	Area	Grade	Phy Fun	Value
1	Asph Pav	1958			1	17,000	C	A	21,040

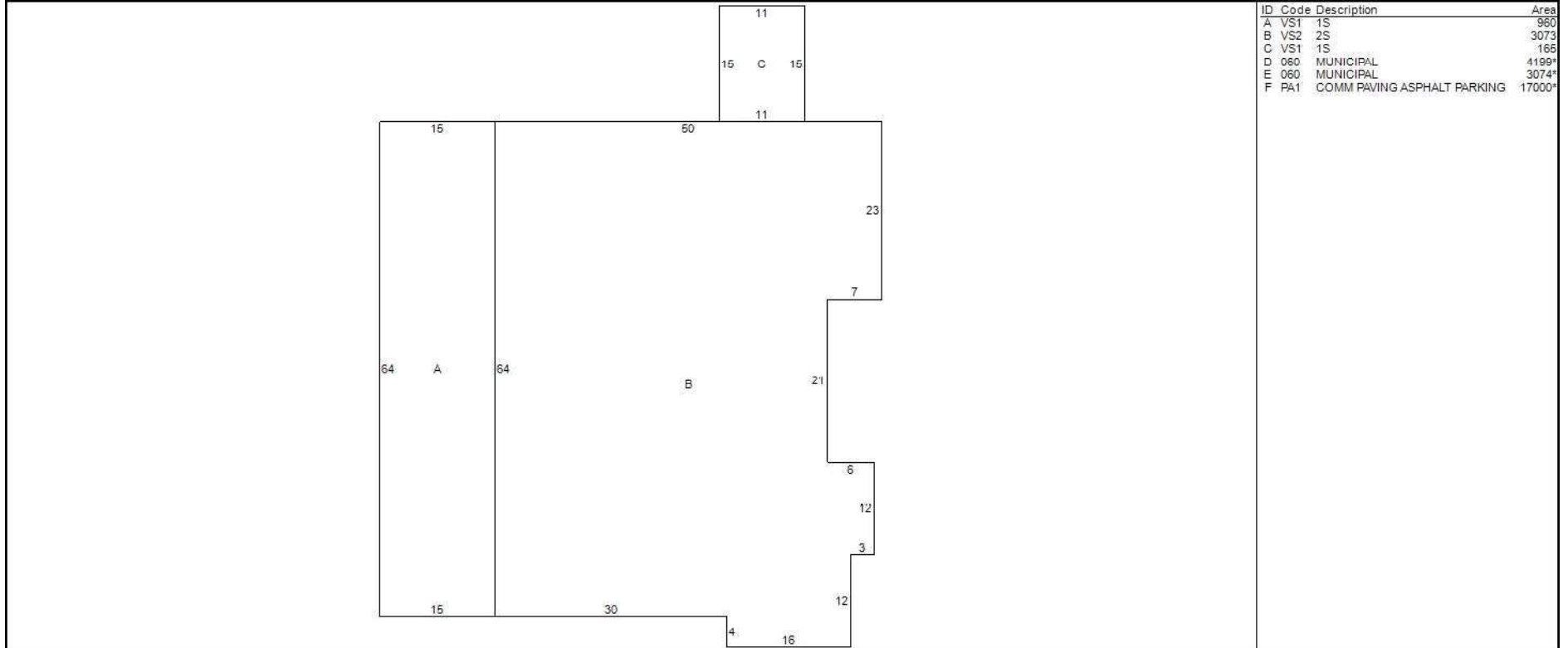
Situs : 52 NEW BRITAIN AVENUE

Parcel Id: 6855

Class: 907

Card: 1 of 1

Printed: March 5, 2020



Additional Property Photos



Situs : 52 NEW BRITAIN AVENUE	Parcel Id: 6855	Class: 907	Card: 1 of 1	Printed: March 5, 2020
-------------------------------	-----------------	------------	--------------	------------------------

Income Detail (Includes all Buildings on Parcel)

Use Mod Grp	Inc Type	Model Description	Units	Net Area	Income Rate	Econ Adjust	Potential Gross Income	Vac Model	Vac Adj	Additional Income	Effective Gross Income	Expense Model %	Expense Adj %	Expense Adj	Other Expenses	Total Expenses	Net Operating Income
00	S	1 Shell Income Use Group	0	7,273						0							

Apartment Detail - Building 1 of 1

Line	Use Type	Per Bldg	Beds	Baths	Units	Rent	Income

Building Cost Detail - Building 1 of 1

Total Gross Building Area	7,273
Replace, Cost New Less Depr	756,220
Percent Complete	100
Number of Identical Units	1
Economic Condition Factor	
Final Building Value	756,220
Value per SF	103.98

Notes - Building 1 of 1

--

Income Summary (Includes all Building on Parcel)

Total Net Income	
Capitalization Rate	0.090000
Sub total	
Residual Land Value	
Final Income Value	
Total Gross Rent Area	
Total Gross Building Area	7,273



Exhibit C

Construction Drawings



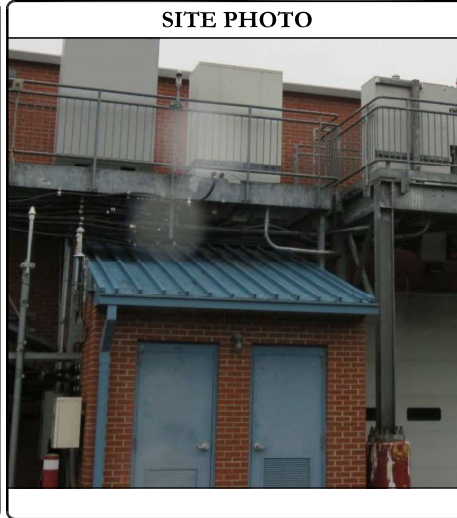
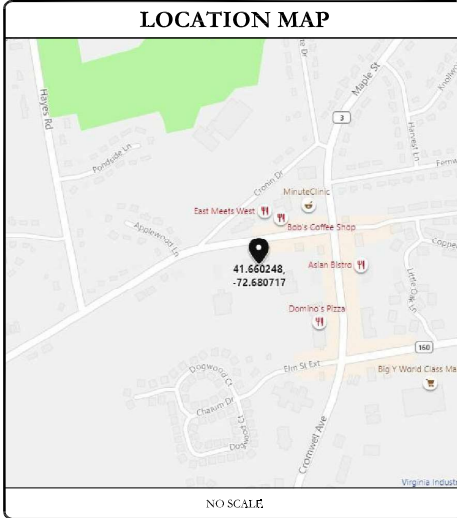
AT&T SITE NUMBER: CTL05123
AT&T SITE NAME: ROCKY HILL
AT&T FA CODE: 10071221
AT&T PACE NUMBER: MRCTB047539
AT&T PROJECT: MULTICARRIER

BUSINESS UNIT #: 842872
SITE ADDRESS: 52 NEW BRITAIN AVENUE
COUNTY: ROCKY HILL, CT 06067
SITE TYPE: HARTFORD
TOWER HEIGHT: MONOPOLE
 182'-0"



SITE INFORMATION	
CROWN CASTLE USA INC.	ROCKY HILL.
SITE NAME:	
SITE ADDRESS:	52 NEW BRITAIN AVENUE ROCKY HILL, CT 06067
COUNTY:	HARTFORD
MAP/PARCEL #:	ROCK-000008-000003-000354
AREA OF CONSTRUCTION:	EXISTING
LATITUDE:	41° 39' 36.89"
LONGITUDE:	-72° 40' 50.58"
LAT/LONG TYPE:	NAD83
GROUND ELEVATION:	198 FT.
CURRENT ZONING:	C-COMMERCIAL
JURISDICTION:	TOWN OF ROCKY HILL
OCCUPANCY CLASSIFICATION:	U
TYPE OF CONSTRUCTION:	UB
A.D.A. COMPLIANCE:	FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION
PROPERTY OWNER:	TOWN OF ROCKY HILL 699 OLD MAN ST ROCKY HILL, CT 06067
TOWER OWNER:	CCAT LLC 2000 CORPORATE DRIVE CANONSBURG, PA 15317
CARRIER/APPLICANT:	AT&T TOWER ASSET GROUP 575 MOROSGO DRIVE ATLANTA, GA 30324-3300
ELECTRIC PROVIDER:	NORTHEAST UTILITIES (800) 286-2000
TELCO PROVIDER:	LIGHTTOWER (845) 458-7720

DRAWING INDEX	
SHEET #	SHEET DESCRIPTION
T-1	TITLE SHEET
T-2	GENERAL NOTES
C-1.1	SITE PLAN
C-1.2	FINAL EQUIPMENT PLANS
C-2	FINAL ELEVATION & ANTENNA PLANS
C-3	FINAL EQUIPMENT SCHEDULE
C-4	EQUIPMENT SPECS
G-1	GROUNDING SCHEMATIC
G-2	GROUNDING DETAILS
ATTACHED	PLUMBING DIAGRAM
ATTACHED	PLATFORM SPECIFICATION
ALL DRAWINGS CONTAINED HEREIN ARE FORMATTED FOR I1X17. CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.	
CALL CONNECTICUT ONE CALL (800) 922-4455 CHYV.COM CALL 811 BEFORE YOU DIG	



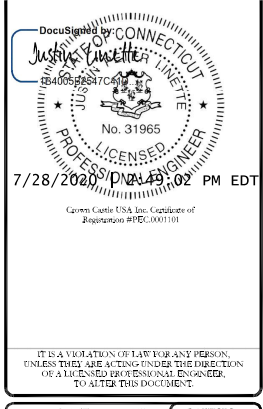
AT&T SITE NUMBER: CTL05123
 BU #: 842872
 ROCKY HILL
 52 NEW BRITAIN AVENUE
 ROCKY HILL, CT 06067
 EXISTING 182'-0" MONOPOLE

ISSUED FOR:				
REV	DATE	DRWN	DESCRIPTION	DES./QA
A	05/11/20	TJ	PRELIMINARY	EO
B	06/05/20	TJ	PRELIMINARY	TJ
C	06/30/20	TJ	PRELIMINARY	TJ
D	07/27/20	TJ	CONSTRUCTION	JL

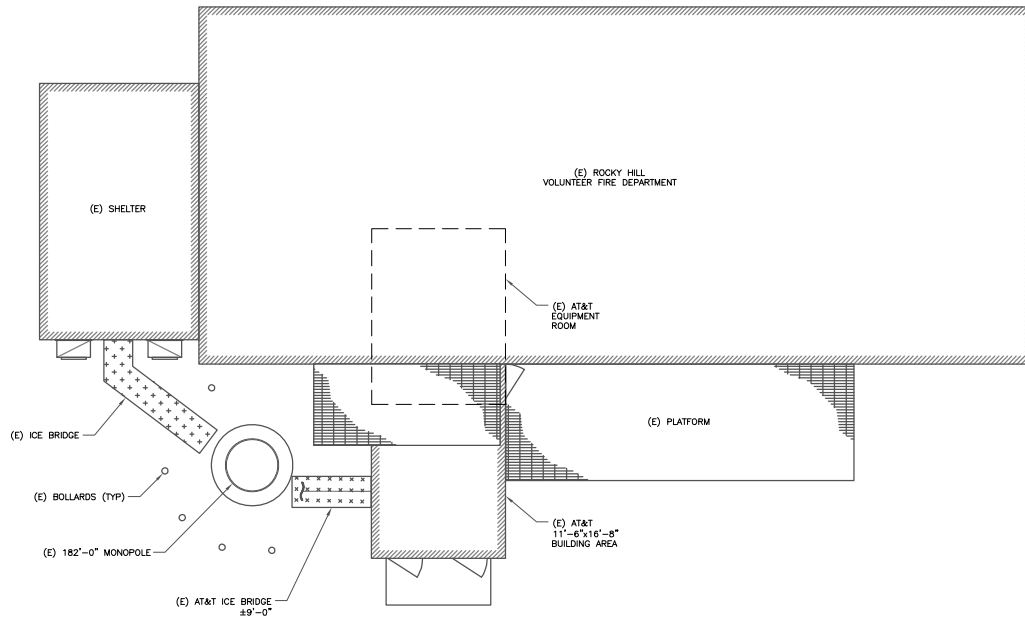
PROJECT TEAM	
A&E FIRM:	CROWN CASTLE USA INC. 2000 CORPORATE DRIVE CANONSBURG, PA 15317 CROWN.AE.APPROVAL@CROWNCastle.COM
CROWN CASTLE USA INC. DISTRICT CONTACTS:	3 CORPORATE PARK DRIVE, SUITE 101 CLIFTON PARK, NY 12065
	VERONICA DELIA - PROJECT MANAGER (610) 635-3222
	JASON D'AMICO - CONSTRUCTION MANAGER (860) 209-0104

PROJECT DESCRIPTION	
THE PURPOSE OF THIS PROJECT IS TO ENHANCE BROADBAND CONNECTIVITY AND CAPACITY TO THE EXISTING ELIGIBLE WIRELESS FACILITY.	
TOWER SCOPE OF WORK: <ul style="list-style-type: none"> REMOVE PLATFORM REMOVE (2) ERICSSON - RRUS-11 B12 RRHs INSTALL (1) VALIOMT - RMQLP-496-HK PLATFORM RELOCATE (3) CCL-HF3-65R-BU-6 ANTENNAS RELOCATE (3) ERICSSON - RRUS-32 B66A RRHs RELOCATE (3) ERICSSON - 4476 B14 RRHs INSTALL (3) CCL-DMP65R-BU02A ANTENNAS INSTALL (3) ERICSSON - 4449 B5/B12 RRHs INSTALL (3) ERICSSON - RRUS-32 B2 RRHs INSTALL (3) ERICSSON - RRUS-E2 B29 RRHs INSTALL (1) RAYCAP - DC-648-6118-3R SQUID INSTALL (1) RAYCAP - DC-648-6118-3R SQUID INSTALL (4) #6 AWG DC CABLES INSTALL (1) FIBER CABLE 	GROUND SCOPE OF WORK: <ul style="list-style-type: none"> REMOVE (6) TRIPLEXERS REMOVE (1) 6601 REMOVE (2) DUS4 REMOVE (1) XMU03 INSTALL (1) 6630
INSTALLER NOTE: NO PROPOSED LOADING TO BE ADDED UNTIL MOUNT SWAP IS COMPLETE. CONTRACTOR TO INSTALL MOUNT PER MANUFACTURER'S SPECIFICATIONS.	

APPLICABLE CODES/REFERENCE DOCUMENTS	
ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES:	
CODE TYPE	CODE
BUILDING	2018 CT STATE BUILDING CODE/2015 IBC W/ CT AMENDMENTS
MECHANICAL	2018 CT STATE BUILDING CODE/2015 IMC W/ CT AMENDMENTS
ELECTRICAL	2018 CT STATE BUILDING CODE/2017 NEC W/ CT AMENDMENTS
REFERENCE DOCUMENTS:	
STRUCTURAL ANALYSIS:	BLACK & VEATCH CORP.
DATED:	JUNE 23, 2020
MOUNT REPLACEMENT ANALYSIS REPORT:	KIMLEY-HORN AND ASSOCIATES, INC.
DATED:	JUNE 17, 2020
RFDS REVISION:	PRELIMINARY
DATED:	4/27/2020
ORDER ID:	517090
REVISION:	0
NOTE: PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE CROWN NOC AT (800) 788-7011 & CROWN CONSTRUCTION MANAGER.	



SHEET NUMBER:	REVISION:
T-1	0



1 SITE PLAN
 SCALE: 3/16"=1'-0" (FULL SIZE)
 3/32"=1'-0" (1:1217)



AT&T
 575 MOROSGO DRIVE
 ATLANTA, GA 30324-3300

CROWN CASTLE
 3 CORPORATE PARK DRIVE, SUITE 101
 CLIFTON PARK, NY 12065

AT&T SITE NUMBER: CTL05123

BU #: 842872
ROCKY HILL

52 NEW BRITAIN AVENUE
 ROCKY HILL, CT 06067

EXISTING 182'-0" MONOPOLE

ISSUED FOR:

REV	DATE	BY	DESCRIPTION	DES./QA
A	05/11/20	TJ	PRELIMINARY	EO
B	06/05/20	TJ	PRELIMINARY	TJ
C	06/30/20	TJ	PRELIMINARY	TJ
D	07/27/20	TJ	CONSTRUCTION	JL

DocuSigned by:
Justin J. Ametter

7/28/2020 4:59:02 PM EDT

Crown Castle USA, Inc. Certificate of Registration #PEC-0001101

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SHEET NUMBER: **C-1.1** REVISION: **0**

GROUND SCOPE OF WORK:
 • REMOVE (6) TRIPLIXERS
 • REMOVE (1) 6601
 • REMOVE (2) DUS4
 • REMOVE (1) XMU03
 • INSTALL (1) 6630

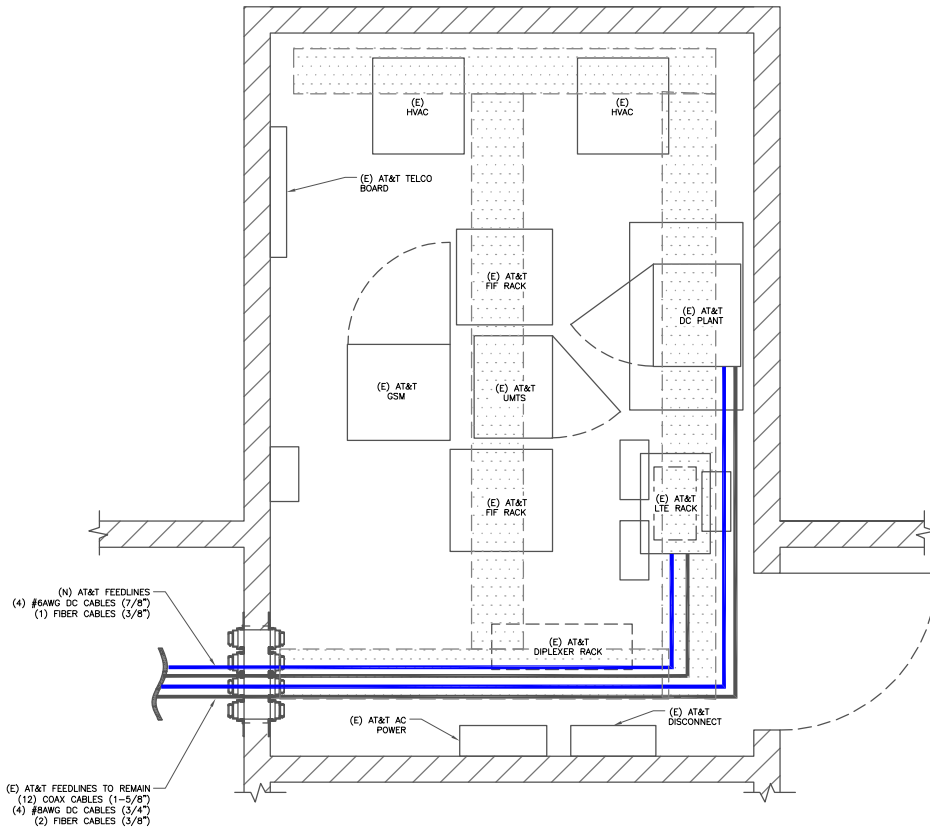


AT&T SITE NUMBER: CTL05123

BU #: 842872
ROCKY HILL
 52 NEW BRITAIN AVENUE
 ROCKY HILL, CT 06067
 EXISTING 182'-0" MONOPOLE

ISSUED FOR:

REV	DATE	BY	DESCRIPTION	DES./QA
A	05/11/20	TJ	PRELIMINARY	EO
B	06/05/20	TJ	PRELIMINARY	TJ
C	06/30/20	TJ	PRELIMINARY	TJ
D	07/27/20	TJ	CONSTRUCTION	JL



- (N) AT&T FEEDLINES
 (4) #6AWG DC CABLES (3/8")
 (1) FIBER CABLES (3/8")
- (E) AT&T FEEDLINES TO REMAIN
 (12) COAX CABLES (1-5/8")
 (4) #8AWG DC CABLES (3/4")
 (2) FIBER CABLES (3/8")

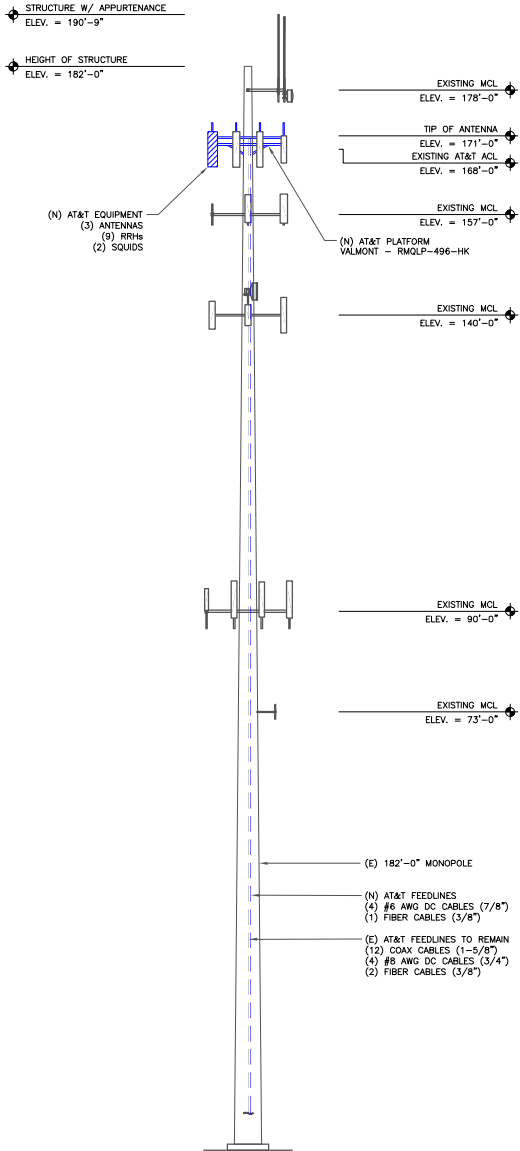
1 FINAL EQUIPMENT PLAN
 SCALE: 3/4"=1'-0" (FULL SIZE)
 3/8"=1'-0" (11x17)



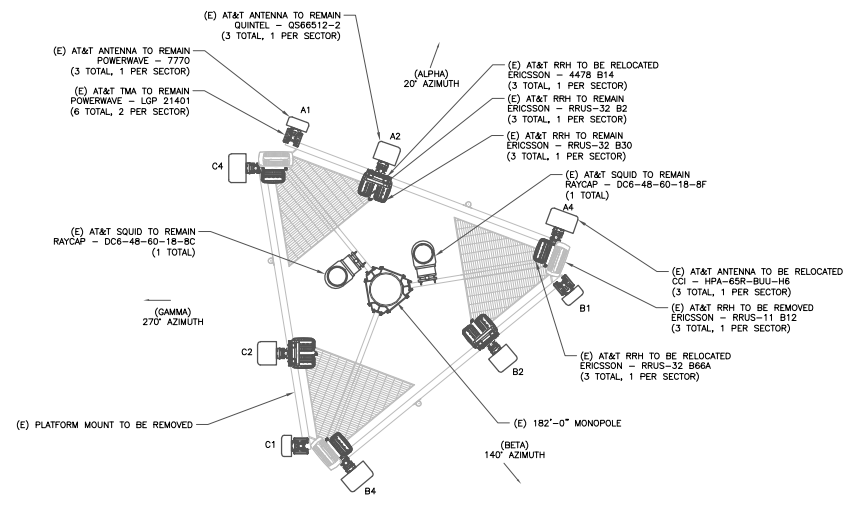
DocuSigned by:
JUSTIN J. WELTER
 18400-85470-0000
 No. 31965
PROFESSIONAL ENGINEER
 7/28/2020 4:59:02 PM EDT
© Crown Castle USA, Inc. Certificate of Registration #PEC-0001101

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

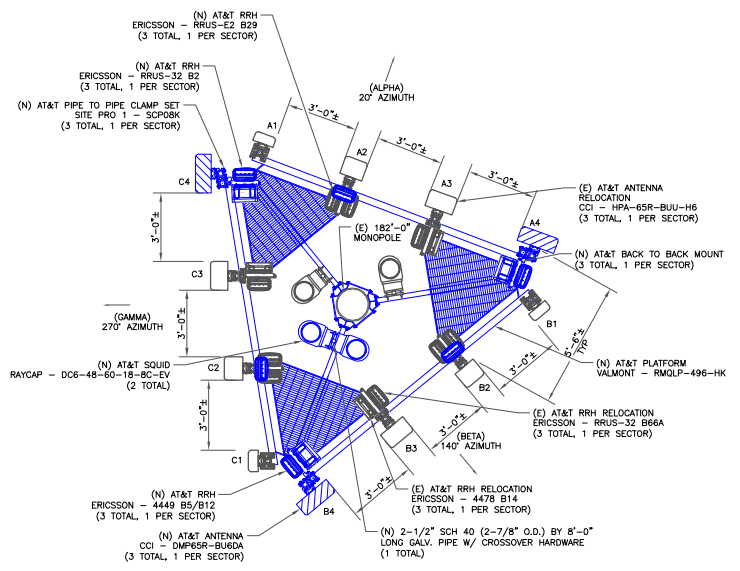
SHEET NUMBER: **C-1.2** REVISION: **0**



1 FINAL ELEVATION
SCALE: NOT TO SCALE



2 EXISTING ANTENNA PLAN
SCALE: 3/8"=1'-0" (FULL SIZE)
3/16"=1'-0" (1:4:7)



3 FINAL ANTENNA PLAN
SCALE: 3/8"=1'-0" (FULL SIZE)
3/16"=1'-0" (1:4:7)

3"OOK UP" - CROWN CASTLE USA, INC.
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: FINCHING 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 CROWN CASTLE USA, INC. POC OR CALL THE NOC TO GENERATE A SAFETY CLIMB MAINTENANCE AND CONTRACTOR NOTICE TICKET.

INSTALLER NOTES:

- REFERENCE C-3 FOR FINAL EQUIPMENT SCHEDULE
- REFERENCE C-4 FOR NEW EQUIPMENT SPECIFICATIONS
- CONTRACTOR TO VERIFY ALL ANTENNA TIP HEIGHTS DO NOT EXCEED BEACON BASE HEIGHT.
- 3'-0" MINIMUM DISTANCE REQUIRED BETWEEN LTE ANTENNAS ON SAME SECTOR.
- 6'-0" MINIMUM DISTANCE REQUIRED BETWEEN TDSC & TDD ANTENNAS ON SAME SECTOR.
- 4'-0" MINIMUM DISTANCE REQUIRED BETWEEN LTE 700 ANTENNAS ON OPPOSING SECTORS.
- ALL ANTENNA MEASUREMENT DISTANCES MUST BE EDGE TO EDGE (RELOCATE ANTENNAS AS NEEDED).
- 8' MINIMUM DISTANCE REQUIRED BETWEEN ANTENNA & RADIO. SEE GENERIC EXAMPLE DETAIL ON SHEET C-4.



AT&T SITE NUMBER: CTL05123

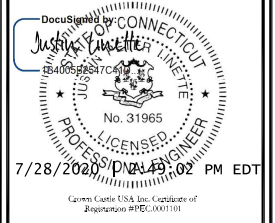
BU #: 842872
ROCKY HILL

52 NEW BRITAIN AVENUE
ROCKY HILL, CT 06067

EXISTING 182'-0" MONOPOLE

ISSUED FOR:

REV	DATE	BY	DESCRIPTION	DES./QA
A	05/11/20	TJ	PRELIMINARY	EO
B	05/05/20	TJ	PRELIMINARY	TJ
C	05/30/20	TJ	PRELIMINARY	TJ
D	07/27/20	TJ	CONSTRUCTION	JL



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SHEET NUMBER: C-2
REVISION: 0



FINAL EQUIPMENT SCHEDULE
(VERIFY WITH CURRENT RFDS)

ALPHA		ANTENNA		RADIO			DIPLEXER		TMA		SURGE PROTECTION		CABLES						
POSITION	TECH.	STATUS/MANUFACTURER MODEL	AZIMUTH	RAD CENTER	QTY.	STATUS/MODEL	LOCATION	QTY.	STATUS	LOCATION	QTY.	STATUS	QTY.	STATUS/MODEL	QTY.	STATUS/TYPE	SIZE	LENGTH	
A1	UMTS	(E) POWERWAVE 7770	20°	168°-0"	-	-	-	2	(E)	GROUND	2	(E)	-	-	2	(E) COAX	1-5/8"	218'-0"	
A2	LTE	(E) QUINTEL QS66512-2	20°	168°-0"	1	(E) RRUS 32 B2	TOWER	-	-	-	-	-	1	(N) DC6-48-60-0-BF	2	(N) #6 AWG DC	3/4"	218'-0"	
					1	(E) RRUS 32 B30	TOWER	-	-	-	-	-	-	-	-	-	-	-	-
					1	(N) RRUS E2 B29	TOWER	-	-	-	-	-	-	-	-	-	-	-	-
A3	LTE	(E) CCI HPA-65R-BUU-H6	20°	168°-0"	1	(E) 4478 B14	TOWER	-	-	-	-	-	1	(E) DC6-48-60-18-BF	4	(E) #8 AWG DC	3/4"	218'-0"	
					1	(E) RRUS-32 B66A	TOWER	-	-	-	-	1	(E) DC6-48-60-18-BC	2	(E) COAX	1-5/8"	218'-0"		
A4	LTE/5G	(N) CCI DMP65R-BU6DA	20°	168°-0"	1	(N) 4449 B5/B12	TOWER	-	-	-	-	-	1	(N) DC6-48-60-18-BF	2	(N) #6 AWG DC	3/4"	218'-0"	
					1	(N) RRUS 32 B2	TOWER	-	-	-	-	-	-	1	(N) FIBER	3/8"	218'-0"		
BETA																			
B1	UMTS	(E) POWERWAVE 7770	140°	168°-0"	-	-	-	2	(E)	GROUND	2	(E)	-	-	2	(E) COAX	1-5/8"	218'-0"	
B2	LTE	(E) QUINTEL QS66512-2	140°	168°-0"	1	(E) RRUS 32 B2	TOWER	-	-	-	-	-	-	-	-	-	-	-	
					1	(E) RRUS 32 B30	TOWER	-	-	-	-	-	-	-	-	-	-	-	
					1	(N) RRUS E2 B29	TOWER	-	-	-	-	-	-	-	-	-	-	-	
B3	LTE	(E) CCI HPA-65R-BUU-H6	140°	168°-0"	1	(E) 4478 B14	TOWER	-	-	-	-	-	-	2	(E) COAX	1-5/8"	218'-0"		
					1	(E) RRUS-32 B66A	TOWER	-	-	-	-	-	-	-	-	-	-		
B4	LTE/5G	(N) CCI DMP65R-BU6DA	140°	168°-0"	1	(N) 4449 B5/B12	TOWER	-	-	-	-	-	-	-	-	-	-	-	
					1	(N) RRUS 32 B2	TOWER	-	-	-	-	-	-	-	-	-	-		
GAMMA																			
C1	UMTS	(E) POWERWAVE 7770	270°	168°-0"	-	-	-	2	(E)	GROUND	2	(E)	-	-	2	(E) COAX	1-5/8"	218'-0"	
C2	LTE	(E) QUINTEL QS66512-2	270°	168°-0"	1	(E) RRUS 32 B2	TOWER	-	-	-	-	-	-	-	-	-	-	-	
					1	(E) RRUS 32 B30	TOWER	-	-	-	-	-	-	-	-	-	-		
					1	(N) RRUS E2 B29	TOWER	-	-	-	-	-	-	-	-	-	-		
C3	LTE	(E) CCI HPA-65R-BUU-H6	270°	168°-0"	1	(E) 4478 B14	TOWER	-	-	-	-	-	-	2	(E) COAX	1-5/8"	218'-0"		
					1	(E) RRUS-32 B66A	TOWER	-	-	-	-	-	-	-	-	-			
C4	LTE/5G	(N) CCI DMP65R-BU6DA	270°	168°-0"	1	(N) 4449 B5/B12	TOWER	-	-	-	-	-	-	-	-	-	-	-	
					1	(N) RRUS 32 B2	TOWER	-	-	-	-	-	-	-	-	-			

NOTE:
(E) - EXISTING
(N) - NEW

1 FINAL EQUIPMENT SCHEDULE
SCALE: NOT TO SCALE

AT&T SITE NUMBER: CTL05123

BU #: 842872
ROCKY HILL

52 NEW BRITAIN AVENUE
ROCKY HILL, CT 06067
EXISTING 182'-0" MONOPOLE

ISSUED FOR:

REV	DATE	BY	DESCRIPTION	DES./QA
A	05/11/20	JL	PRELIMINARY	EO
B	06/05/20	JL	PRELIMINARY	JL
C	06/30/20	JL	PRELIMINARY	JL
D	07/27/20	JL	CONSTRUCTION	JL

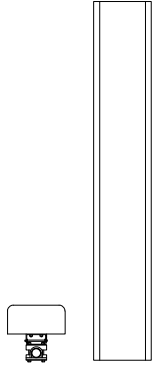
DocuSigned by:
Justin J. Ametter

7/28/2020 4:50:02 PM EDT

Corona Castle USA, Inc. Certificate of Registration #PEC-0001101

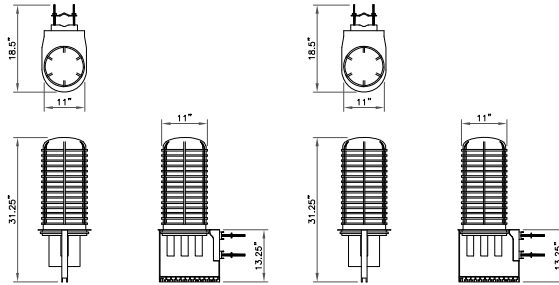
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SHEET NUMBER: **C-3** REVISION: **0**



CCI ANTENNAS - DMP65R-BU6D
 WEIGHT (WITHOUT MOUNTING HARDWARE): 89.3 LBS
 SIZE (HxWxD): 71.2x20.69x7.7 IN.
 MOUNTING HARDWARE P/N: MBK-01
 RATED WIND VELOCITY: 150.0 MPH

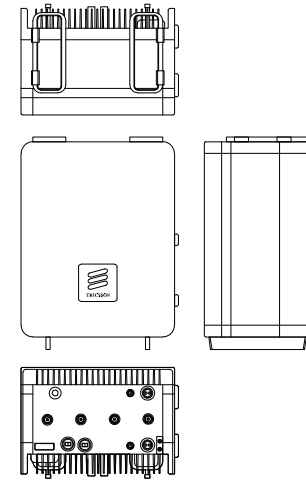
1 CCI ANTENNAS - DMP65R-BU6D
 SCALE: NOT TO SCALE



RAYCAP - DC6-48-60-18-BF
 WEIGHT (WITHOUT MOUNTING HARDWARE): 20.0 LBS
 SIZE (HxWxD): 31.25x11.0x11.0 IN.

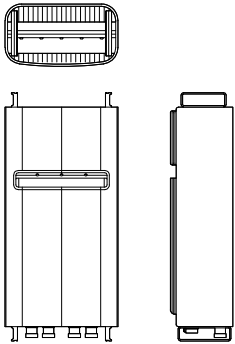
RAYCAP - DC6-48-60-0-BF
 WEIGHT (WITHOUT MOUNTING HARDWARE): 20.0 LBS
 SIZE (HxWxD): 31.25x11.0x11.0 IN.

2 RAYCAP - DC6-48-60-18-BF/DC6-48-60-0-BF
 SCALE: NOT TO SCALE



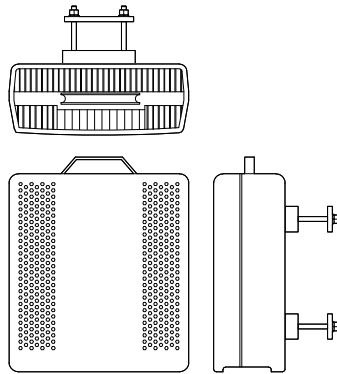
ERICSSON - RADIO 4449
 WEIGHT: 70.0 LBS
 SIZE (HxWxD): 18.0x13.2x9.4 IN.

3 ERICSSON - RADIO 4449
 SCALE: NOT TO SCALE



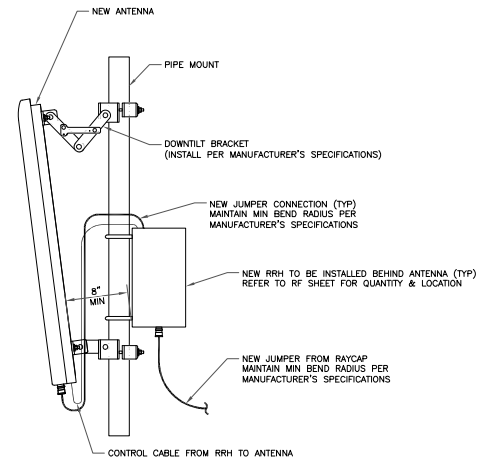
ERICSSON - RRUS 32
 WEIGHT (WITHOUT MOUNTING HARDWARE): 52.9 LBS
 SIZE (HxWxD): 27.20x12.05x7.00 IN.

4 ERICSSON - RRUS 32
 SCALE: NOT TO SCALE



ERICSSON - RRUS E2
 WEIGHT (FULLY EQUIPPED): 52.9 LBS.
 SIZE (HxWxD): 20.4x18.5x7.5 IN.

5 ERICSSON - RRUS E2
 SCALE: NOT TO SCALE



6 GENERIC ANTENNA MOUNTING ELEVATION
 SCALE: NOT TO SCALE



AT&T SITE NUMBER: CTL05123

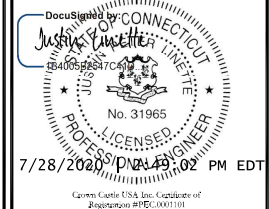
BU #: 842872
 ROCKY HILL

52 NEW BRITAIN AVENUE
 ROCKY HILL, CT 06067

EXISTING 182'-0" MONOPOLE

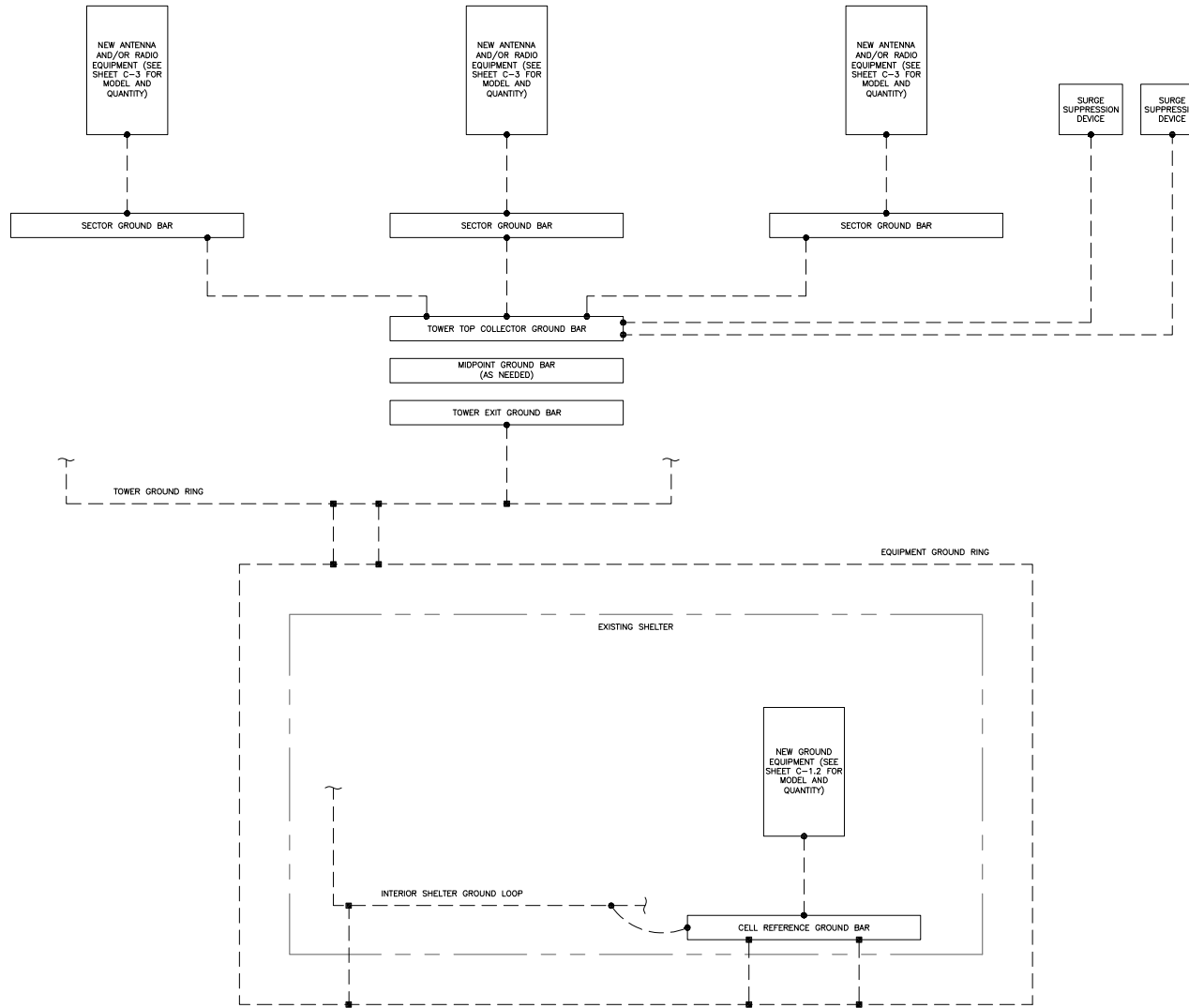
ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	05/11/20	TJ	PRELIMINARY	EO
B	06/05/20	TJ	PRELIMINARY	TJ
C	06/30/20	TJ	PRELIMINARY	TJ
D	07/27/20	TJ	CONSTRUCTION	JL



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SHEET NUMBER: **C-4** REVISION: **0**



1 GROUNDING SCHEMATIC
SCALE: NOT TO SCALE

GROUNDING PLAN LEGEND:

- GROUND WIRE
- EXOTHERMIC WELD
- MECHANICAL CONNECTION
- COPPER GROUND ROD
- GROUND ROD W/ TEST WELL

CELL REFERENCE GROUND BAR: POINT OF GROUND REFERENCE FOR ALL COMMUNICATIONS EQUIPMENT FRAMES. ALL BONDS ARE MADE WITH #2 STRANDED GREEN INSULATED COPPER CONDUCTORS. BOND TO GROUND RING WITH (2) #2 SOLID TINNED COPPER CONDUITS (ATT-TP-76416 7.6.7).

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

EXTERIOR CABLE ENTRY PORT GROUND BARS: LOCATED AT THE ENTRANCE TO THE CELL SITE BUILDING. BOND TO GROUND RING WITH A #2 SOLID TINNED COPPER CONDUCTORS WITH AN EXOTHERMIC WELD AND INSPECTION SLEEVE (ATT-TP-76416 7.6.7.2).

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 SERVICES CONTRACTORS VERIFY ALL DC POWER SYSTEMS ARE EQUIPPED WITH MASTER DC SYSTEM RETURN GROUND CONDUCTOR FROM THE DC POWER SYSTEM COMMON RETURN BUS DIRECTLY CONNECTED TO THE CELL SITE REFERENCE GROUND BAR PER TP76300 SECTION H 6 AND TP76416 FIGURE 7-11 REQUIREMENTS.

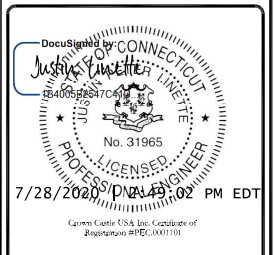


AT&T SITE NUMBER: CTL05123

BU #: 842872
ROCKY HILL
 52 NEW BRITAIN AVENUE
 ROCKY HILL, CT 06067
 EXISTING 182'-0" MONOPOLE

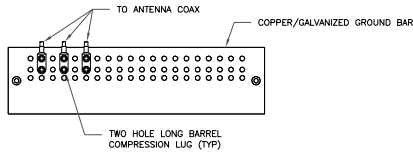
ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	05/11/20	TJ	PRELIMINARY	EO
B	06/05/20	TJ	PRELIMINARY	TJ
C	06/30/20	TJ	PRELIMINARY	TJ
D	07/27/20	TJ	CONSTRUCTION	JL



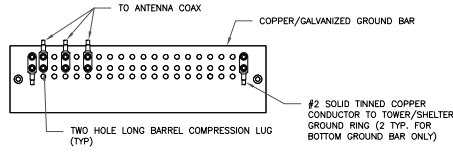
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SHEET NUMBER: **G-1** REVISION: **0**



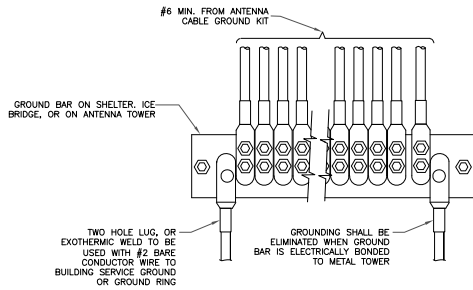
- NOTES:
1. DOUBLING UP "OR STACKING" OF CONNECTIONS IS NOT PERMITTED.
 2. EXTERIOR ANTIOXIDANT JOINT COMPOUND TO BE USED ON ALL EXTERIOR CONNECTIONS.
 3. GROUND BAR SHALL NOT BE ISOLATED FROM TOWER. MOUNT DIRECTLY TO ANTENNA MOUNT STEEL.

1 ANTENNA SECTOR GROUND BAR DETAIL
SCALE: NOT TO SCALE

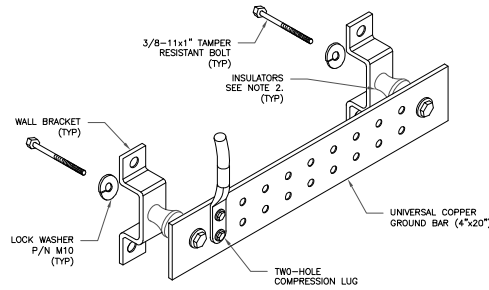


- NOTES:
1. EXTERIOR ANTIOXIDANT JOINT COMPOUND TO BE USED ON ALL EXTERIOR CONNECTIONS.
 2. GROUND BAR SHALL NOT BE ISOLATED FROM TOWER. MOUNT DIRECTLY TO TOWER STEEL (TOWER ONLY).
 3. GROUND BAR SHALL BE ISOLATED FROM BUILDING OR SHELTER.

2 TOWER/SHELTER GROUND BAR DETAIL
SCALE: NOT TO SCALE

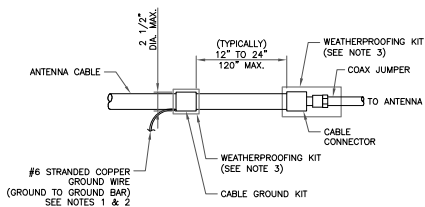


4 GROUNDWIRE INSTALLATION
SCALE: NOT TO SCALE



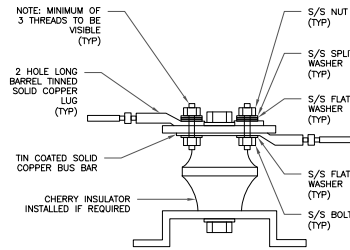
- NOTES:
1. DOWN LEAD (HOME RUN) CONDUCTORS ARE NOT TO BE INSTALLED ON CROWN CASTLE USA INC. TOWER, PER THE GROUNDING DOWN CONDUCTOR POLICY GAS-STD-10091. NO MODIFICATION OR DRILLING TO TOWER STEEL IS ALLOWED IN ANY FORM OR FASHION, CAD-WELDING ON THE TOWER AND/OR IN THE AIR ARE NOT PERMITTED.
 2. OMIT INSULATOR WHEN MOUNTING TO TOWER STEEL OR PLATFORM STEEL. USE INSULATORS WHEN ATTACHING TO BUILDING OR SHELTERS.

5 GROUND BAR DETAIL
SCALE: NOT TO SCALE



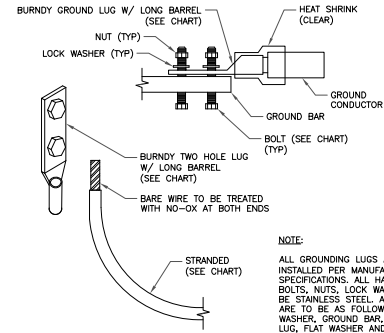
- NOTES:
1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
 2. GROUNDING KIT SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.
 3. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT, COLD SHRINK SHALL NOT BE USED.

6 CABLE GROUND KIT CONNECTION
SCALE: NOT TO SCALE



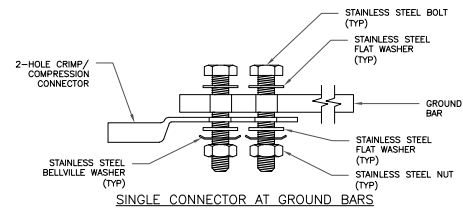
7 LUG DETAIL
SCALE: NOT TO SCALE

WIRE SIZE	BURNDY LUG	BOLT SIZE
#6 GREEN INSULATED	YA6C-2TC38	3/8" - 16 NC SS 2 BOLT
#2 SOLID TINNED	YA3C-2TC38	3/8" - 16 NC SS 2 BOLT
#2 STRANDED	YA2C-2TC38	3/8" - 16 NC SS 2 BOLT
#2/0 STRANDED	YA26-2TC38	3/8" - 16 NC SS 2 BOLT
#4/0 STRANDED	YA28-2N	1/2" - 16 NC SS 2 BOLT

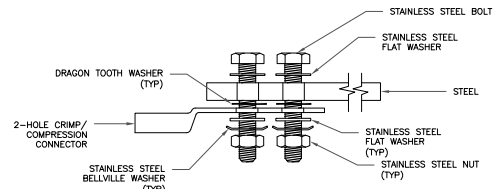


3 MECHANICAL LUG CONNECTION
SCALE: NOT TO SCALE

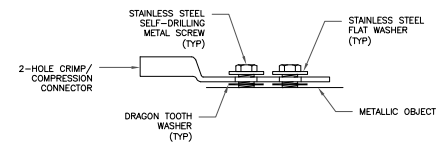
- NOTE:
- ALL GROUNDING LUGS ARE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS. ALL HARDWARE BOLTS, NUTS, LOCK WASHERS SHALL BE STAINLESS STEEL. ALL HARDWARE ARE TO BE AS FOLLOWS: BOLT, FLAT WASHER, GROUND BAR, GROUND LUG, FLAT WASHER AND NUT.



SINGLE CONNECTOR AT GROUND BARS



SINGLE CONNECTOR AT STEEL OBJECTS



SINGLE CONNECTOR AT METALLIC/STEEL OBJECTS

8 HARDWARE DETAIL FOR EXTERIOR CONNECTIONS
SCALE: NOT TO SCALE



AT&T SITE NUMBER: CTL05123

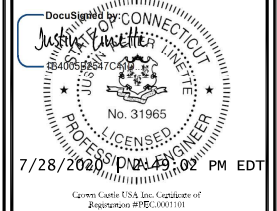
BU #: 842872
ROCKY HILL

52 NEW BRITAIN AVENUE
ROCKY HILL, CT 06067

EXISTING 182'-0" MONOPOLE

ISSUED FOR:

REV	DATE	BY	DESCRIPTION	DES./QA
A	05/11/20	TJ	PRELIMINARY	EO
B	06/05/20	TJ	PRELIMINARY	TJ
C	06/30/20	TJ	PRELIMINARY	TJ
D	07/27/20	TJ	CONSTRUCTION	JL



Crown Castle USA, Inc. Certificate of Registration #PEC0001101

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SHEET NUMBER: **G-2** REVISION: **0**

Diagram - Sector A
 Diagram File Name - CTS123_A_B_C_LTE700DE_PCS_700BC_850_Rdev2.vsd
 Atoll Site Name - CTL05123
 Location Name - ROCKY HILL
 Market - CONNECTICUT
 Market Cluster - NEW ENGLAND
 Comments: Important Note: For detailed radio to antenna wiring refer to the latest field notice - Antenna_Radio Connection Drawings Playbook v5.0_Ericsson

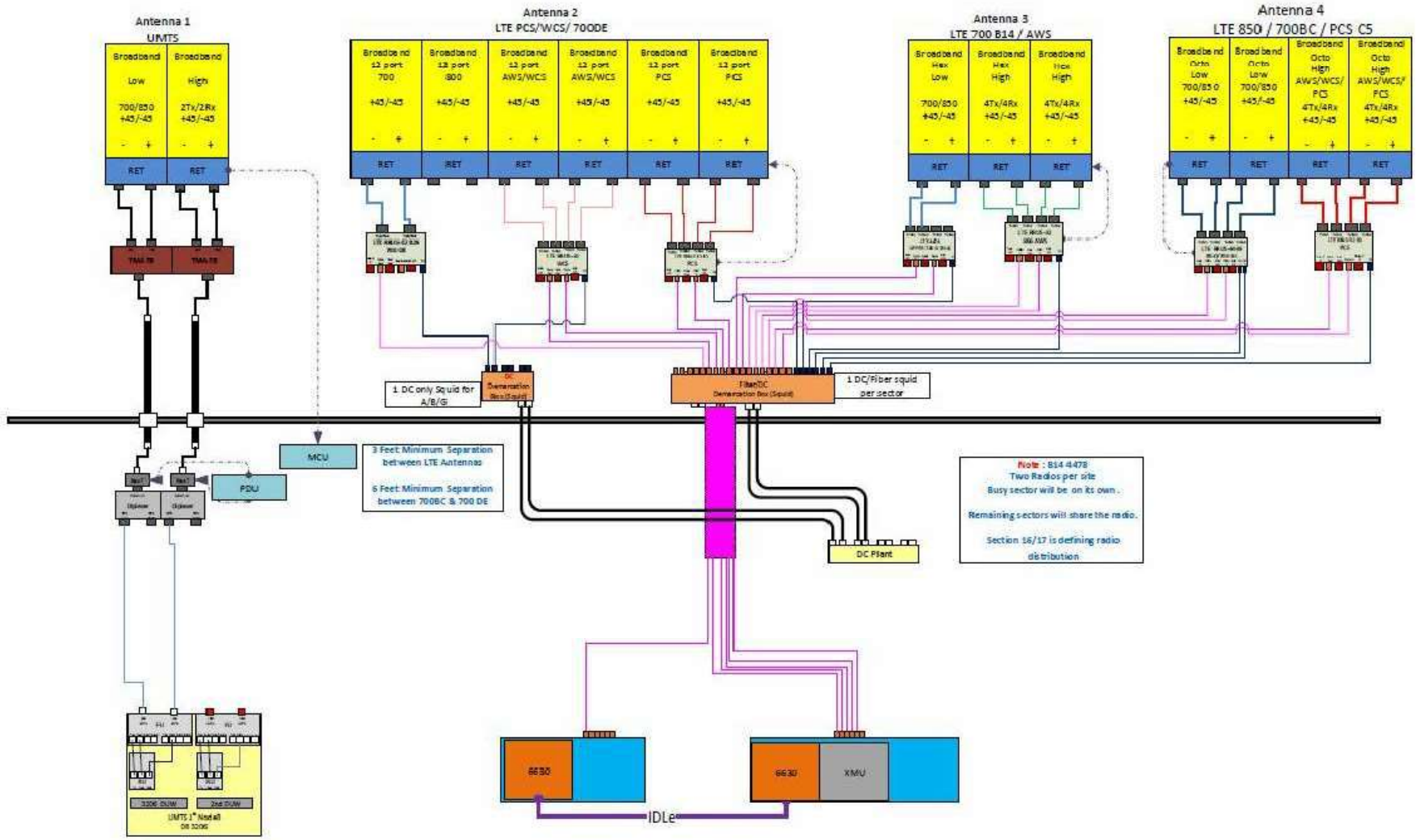
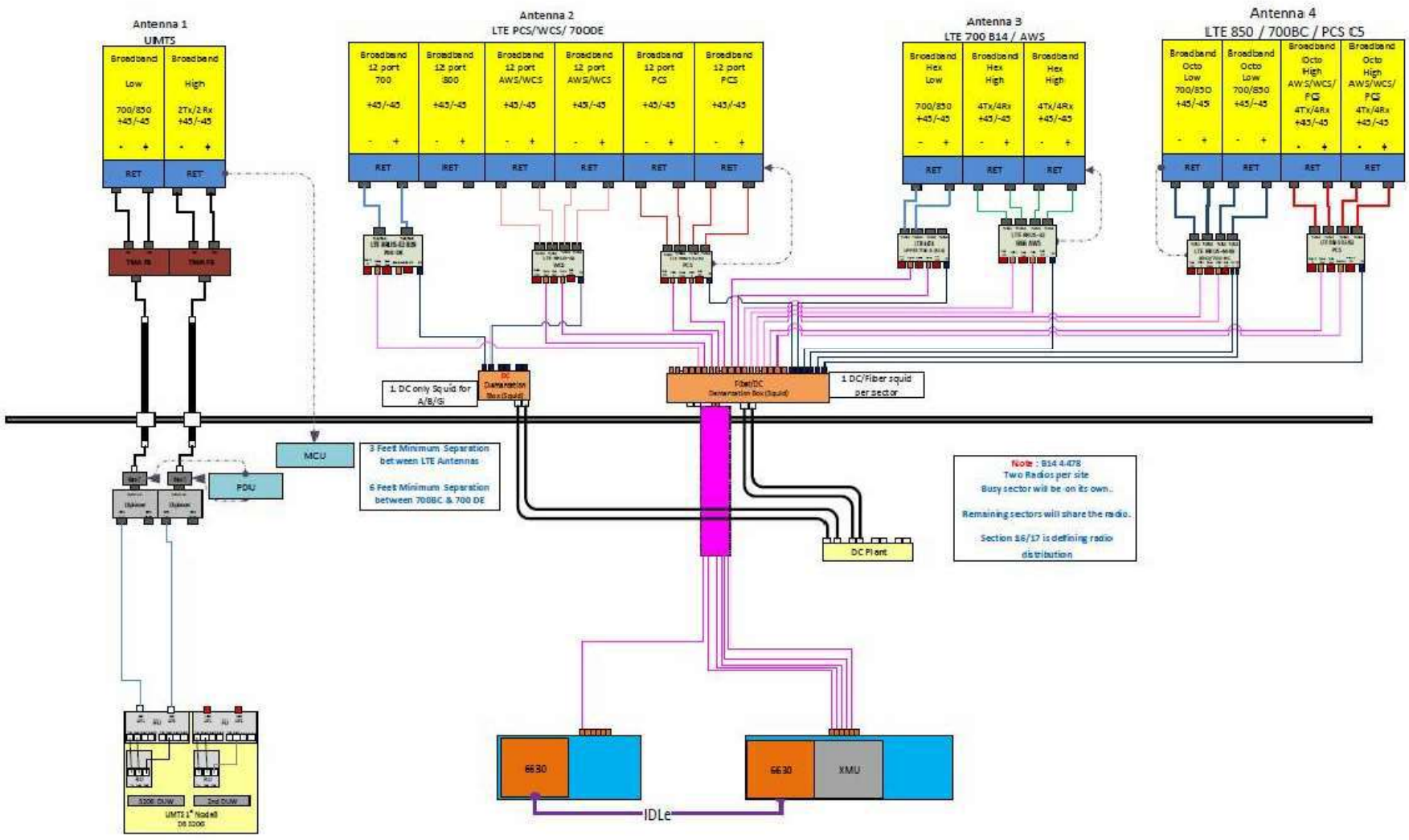
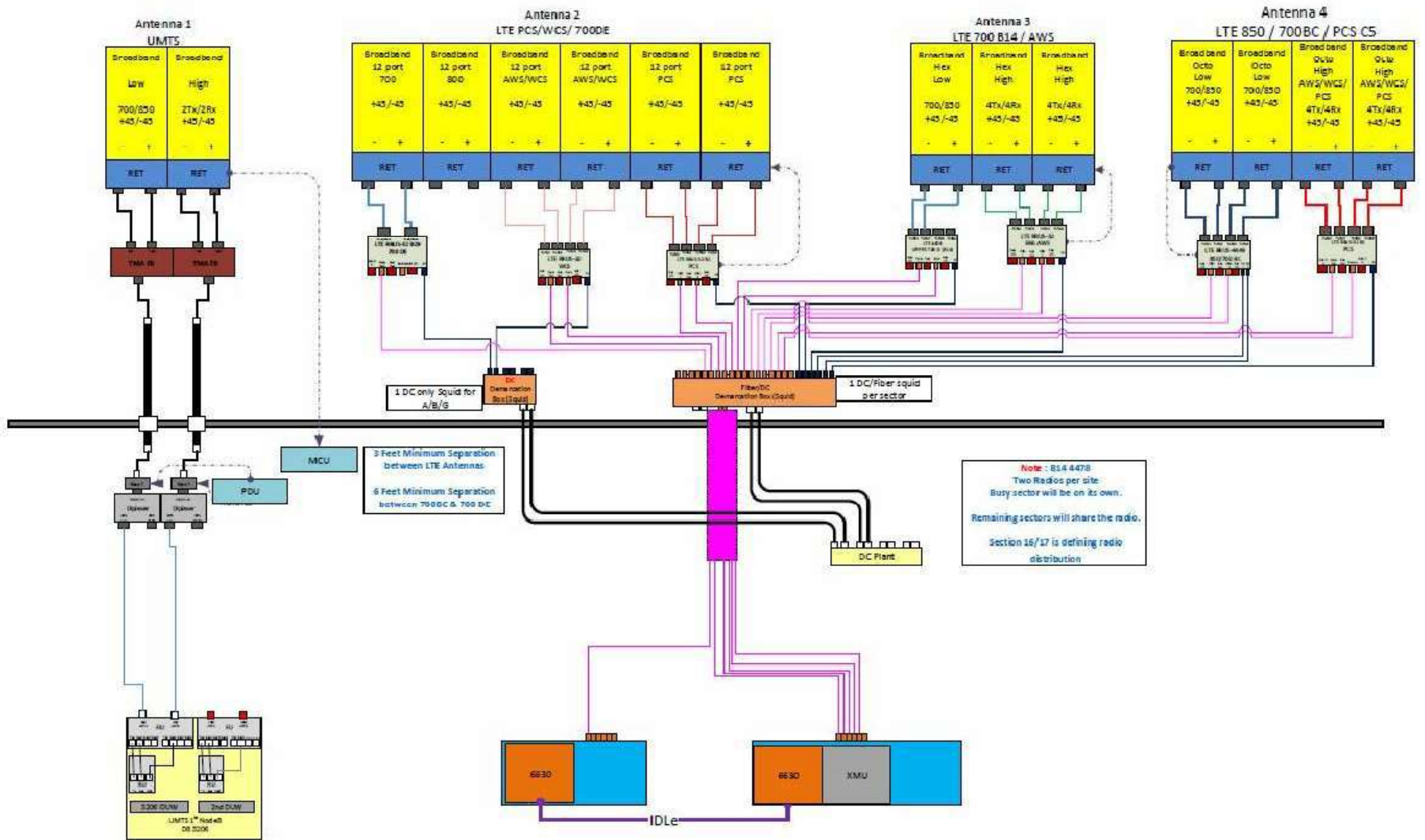


Diagram - Sector B
 Diagram File Name - CT5123_A_B_C_LTE700DE_PCS_700BC_850_Rev2.vsd
 Alotl Site Name - CTL05123
 Location Name - ROCKY HILL
 Market - CONNECTICUT
 Market Cluster - NEW ENGLAND
 Comments: Important Note: For detailed radio to antenna wiring refer to the latest field notice - Antenna_Radio Connection Drawings Playbook v6.0_Ericsson





PARTS LIST						
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	6	X-LWRM	RING MOUNT WELDMENT		68.16	408.95
2	66	G58LW	5/8" HDG LOCKWASHER		0.03	1.72
3	60	A58NUT	5/8" HDG A325 HEX NUT		0.13	7.78
4	18	G58R-24	5/8" x 24" THREADED ROD (HDG.)		0.55	9.88
4	18	G58R-48	5/8" x 48" THREADED ROD (HDG.)		0.55	9.88
5	24	A58234	5/8" x 2-3/4" HDG A325 HEX BOLT	2 3/4 in	0.36	8.53
6	24	A58FW	5/8" HDG A325 FLATWASHER		0.03	0.82
7	36	X-UB1306	1/2" X 3-5/8" X 6" X 3" U-BOLT (HDG.)		0.73	26.34
8	264	G12FW	1/2" HDG USS FLATWASHER		0.03	8.99
9	252	G12LW	1/2" HDG LOCKWASHER		0.01	3.50
10	252	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	18.03
11	12	P296	2-3/8" X 96" SCH. 40 GALVANIZED PIPE	93 in	30.76	369.08
12	84	X-UB1212	1/2" X 2-1/2" X 4-1/2" X 2" U-BOLT (HDG.)		0.73	61.46
13	3	P3174	3-1/2" X 174" SCH 40 GALVANIZED PIPE	174 in	109.97	329.90
14	3	X-SV196L	LONG PLATFORM WELDMENT		228.76	686.27
15	3	P2174	2-3/8" OD X 174" Sch 40 Galvanized Pipe	174 in	55.75	167.24
16	12	SCX2	CROSSOVER PLATE	7 in	4.80	57.56
17	15	SCX4	CROSSOVER PLATE	8 1/2 in	6.02	90.32
18	6	G58NUT	5/8" HDG HEAVY 2H HEX NUT		0.13	0.78
19	6	X-254923	PLATFORM REINFORCEMENT KIT ANGLE	84 in	22.83	137.00
20	6	X-253992	T-BRACKET FOR REINFORCEMENT KIT		13.55	81.27
21	6	G5802	5/8" X 2" HDG HEX BOLT GR5		0.27	1.62
22	12	G12065	1/2" X 6-1/2" HDG HEX BOLT GR5 FULL THREAD	6 1/2 in	0.41	4.91
23	3	X-AHCP	ANGLE HANDRAIL CORNER PLATE		12.92	38.76
					TOTAL WT. #	2448.72

DETAIL A

DETAIL B

DETAIL C

DETAIL D

TOLERANCE NOTES

TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:
 SAWED, SHEARED AND GAS CUT EDGES ($\pm 0.030"$)
 DRILLED AND GAS CUT HOLES ($\pm 0.030"$) - NO CONING OF HOLES
 LASER CUT EDGES AND HOLES ($\pm 0.010"$) - NO CONING OF HOLES
 BENDS ARE $\pm 1/2$ DEGREE
 ALL OTHER MACHINING ($\pm 0.030"$)
 ALL OTHER ASSEMBLY ($\pm 0.060"$)

PROPRIETARY NOTE:
 THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.

DESCRIPTION:
14' 6" LOW PROFILE PLATFORM WITH TWELVE 2-3/8" ANTENNA MOUNTING PIPES, AND HANDRAIL

CPD NO. 4488	DRAWN BY CEK 7/15/2014	ENG. APPROVAL
CLASS 81	SUB 02	CHECKED BY CUSTOMER
		DATE 7/23/2014

SITE PRO
 A valmont COMPANY

Locations:
 New York, NY
 Atlanta, GA
 Los Angeles, CA
 Plymouth, IN
 Salem, OR
 Dallas, TX

Engineering Support Team:
 1-888-753-7448

PART NO.
RMQLP-496-HK

DWG. NO.
RMQLP-496-HK

PAGE
1 OF 3

Certificate Of Completion

Envelope Id: 6E151CAE449041548B0F8AA5920D3C3B	Status: Completed
Subject: Please DocuSign: 10071221_842872_ROCKY HILL_AT&T Multicarrier FCD_Rev0_7.28.20.pdf	
Source Envelope:	
Document Pages: 13	Signatures: 9
Certificate Pages: 3	Initials: 0
AutoNav: Enabled	Envelope Originator:
Envelopeld Stamping: Enabled	Phillip Lander
Time Zone: (UTC-05:00) Eastern Time (US & Canada)	2000 Corporate Drive
	Canonsburg, PA 15317
	Phil.Lander@crowncastle.com
	IP Address: 64.213.130.12

Record Tracking

Status: Original	Holder: Phillip Lander	Location: DocuSign
7/28/2020 2:26:17 PM	Phil.Lander@crowncastle.com	

Signer Events

Justin Linette
 Justin.linette@crowncastle.com
 Crown Castle International Corp.
 Security Level: Email, Account Authentication (None)

Signature



Signature Adoption: Pre-selected Style
 Using IP Address: 162.254.108.200

Timestamp

Sent: 7/28/2020 2:27:53 PM
 Viewed: 7/28/2020 2:48:32 PM
 Signed: 7/28/2020 2:49:02 PM

Electronic Record and Signature Disclosure:
 Accepted: 9/20/2018 7:12:49 AM
 ID: 5006cfc0-7b26-47be-9523-588826283226

In Person Signer Events	Signature	Timestamp
Editor Delivery Events	Status	Timestamp
Agent Delivery Events	Status	Timestamp
Intermediary Delivery Events	Status	Timestamp
Certified Delivery Events	Status	Timestamp
Carbon Copy Events	Status	Timestamp
Witness Events	Signature	Timestamp
Notary Events	Signature	Timestamp
Envelope Summary Events	Status	Timestamps
Envelope Sent	Hashed/Encrypted	7/28/2020 2:27:53 PM
Certified Delivered	Security Checked	7/28/2020 2:48:32 PM
Signing Complete	Security Checked	7/28/2020 2:49:02 PM
Completed	Security Checked	7/28/2020 2:49:02 PM
Payment Events	Status	Timestamps
Electronic Record and Signature Disclosure		

ELECTRONIC RECORD AND SIGNATURE DISCLOSURE

In order to provide more efficient and faster service, Crown Castle ("we", "us" or "company") is pleased to announce the use of DocuSign, Inc. ("DocuSign") electronic signing system. The terms for providing such documents for execution and various other documents and records to you electronically through DocuSign are set forth below. Please read the information below carefully and if you can satisfactorily access this information electronically and agree to these terms, please confirm your agreement by clicking the "I agree" button at the bottom of this document.

Getting paper copies

At any time, you may request from us a paper copy of any document for execution or other document or record provided or made available electronically to you by us. You will be able to download and print documents we send to you through the DocuSign system during and immediately after each signing session and, if you elect to create a DocuSign signer account, you may access them for a limited period of time thereafter. To request paper copies of documents previously provided by us to you electronically, send an e-mail to esignature@CrownCastle.com, requesting the subject paper copies and stating your e-mail address, name, US Postal address and telephone number.

Withdrawing your consent to receive and/or execute documents electronically

If you elect to receive documents for execution and various other documents and records from us electronically, you may at any time change your mind and tell us that thereafter you want to receive such documents only in paper format. To withdraw your consent to electronic delivery and execution of documents, use the DocuSign 'Withdraw Consent' form on the signing page of a DocuSign envelope, instead of signing it. Thereafter, you will no longer be able to use the DocuSign system to electronically receive and execute documents or other records from us. You may also send an e-mail to esignature@CrownCastle.com stating that you are withdrawing your consent to electronic delivery and execution of documents through the DocuSign system and stating your e-mail address, name, US Postal Address, and telephone number.

Consequences of withdrawing consent to receive and/or execute documents electronically

If you elect to receive documents for execution and various other documents and other records only in paper format, it will slow the speed at which we can complete the subject transactions because of the increased delivery time.

Documents for execution, and other documents and records may be sent to you electronically

Unless you tell us otherwise in accordance with the procedures described herein, we may provide documents for execution, and other documents and records electronically to you through the DocuSign system during the course of our relationship with you. To reduce the chance of you inadvertently not receiving any document for execution or other document or record, we prefer to provide all documents for execution, and other documents and records by the same method and to the same address that you have given us. If you do not agree with this process, please let us know as described below.

How to contact Crown Castle

You may contact us to let us know of any changes related to contacting you electronically, to request paper copies of documents for execution and other documents and records from us, and to withdraw your prior consent to receive documents for execution and other documents and records electronically as follows:

To contact us by phone call: 724-416-2000

To contact us by email, send messages to: esignature@CrownCastle.com

To contact us by paper mail, send correspondence to

Crown Castle
2000 Corporate Drive
Canonsburg, PA 15317

To advise Crown Castle and DocuSign of your new e-mail address

To let us know of a change to the e-mail address where we should send documents for execution and other documents and records to you, you must send an email message to esignature@CrownCastle.com and state your previous e-mail address and your new e-mail address.

In addition, you must notify DocuSign, Inc. to arrange for your new email address to be reflected in your DocuSign account by following the process for changing e-mail in the DocuSign system.

Required hardware and software

Browsers:	Internet Explorer® 11 (Windows only); Windows Edge Current Version; Mozilla Firefox Current Version; Safari™ (Mac OS only) 6.2 or above; Google Chrome Current Version; Note : Pre-release (e.g., beta) versions of operating systems and browsers are not supported.
Mobile Signing:	Apple iOS 7.0 or above; Android 4.0 or above
PDF Reader:	Acrobat® Reader or similar software may be required to view and print PDF files
Screen Resolution:	1024 x 768

Enabled Security Settings:	Allow per session cookies
----------------------------------	---------------------------

These minimum requirements are subject to change. If these requirements change, you will be asked to re-accept the disclosure. Pre-release (e.g. beta) versions of operating systems and browsers are not supported.

Acknowledging your access and consent to receive documents electronically

Please confirm that you were able to access this disclosure electronically (which is similar to the manner in which we will deliver documents for execution and other documents and records) and that you were able to print this disclosure on paper or electronically save it for your future reference and access or that you were able to e-mail this disclosure to an address where you will be able to print it on paper or save it for your future reference and access. Further, if you consent to receiving documents for execution and other documents and records in electronic format on the terms described above, please let us know by clicking the "I agree" button below.

By checking the 'I agree' box, I confirm that:

- You can access and read this Electronic Record and Signature Disclosure; and
- As a recipient, you can read, electronically sign and act upon this message, and you agree not to forward it or any other DocuSign e-mail communications. In the event another party needs to be added to the DocuSign communication, you must make a request to the e-mail originator.

Exhibit D

Structural Analysis Report

Date: **June 23, 2020**

Amanda D Brown
Crown Castle
6325 Ardrey Kell Rd. Suite 600
Charlotte, NC 28277



Black & Veatch Corp.
6800 W. 115th St., Suite 2292
Overland Park, KS 66211
(913) 458-6909

Subject:

Structural Analysis Report

Carrier Designation:

**AT&T Mobility Co-Locate
Carrier Site Number:** 10071221
Carrier Site Name: Rocky Hill

Crown Castle Designation:

Crown Castle BU Number: 842872
Crown Castle Site Name: Rocky Hill
Crown Castle JDE Job Number: 605392
Crown Castle Work Order Number: 1861846
Crown Castle Order Number: 517090 Rev. 1

Engineering Firm Designation:

Black & Veatch Corp. Project Number: 400087

Site Data:

52 New Britain Avenue, Rocky Hill, Hartford County, CT
Latitude 41° 39' 36.89", Longitude -72° 40' 50.58"
181.833 Foot - Monopole Tower

Dear Amanda D Brown,

Black & Veatch Corp. is pleased to submit this “**Structural Analysis Report**” to determine the structural integrity of the above mentioned tower.

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

LC7: Proposed Equipment Configuration

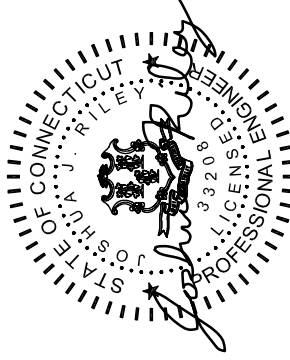
Sufficient Capacity – 99.7%

This analysis utilizes an ultimate 3-second gust wind speed of 125 mph as required by the 2018 Connecticut State Building Code. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Structural analysis prepared by: Aditya Kulkarni

Respectfully submitted by:

Joshua J. Riley, P.E
Professional Engineer



06/23/2020

TABLE OF CONTENTS

- 1) INTRODUCTION**
- 2) ANALYSIS CRITERIA**
 - Table 1 - Proposed Equipment Configuration
 - Table 2 - Other Considered Equipment
- 3) ANALYSIS PROCEDURE**
 - Table 3 - Documents Provided
 - 3.1) Analysis Method
 - 3.2) Assumptions
- 4) ANALYSIS RESULTS**
 - Table 4 - Section Capacity (Summary)
 - Table 5 – Tower Component Stresses vs. Capacity - LC7
 - 4.1) Recommendations
- 5) APPENDIX A**
 - tnxTower Output
- 6) APPENDIX B**
 - Base Level Drawing
- 7) APPENDIX C**
 - Additional Calculations

1) INTRODUCTION

This tower is a 181.833 ft Monopole tower designed by Engineered Endeavors, Inc.

The tower has been modified multiple times in the past to accommodate additional loading.

The tower has been modified per reinforcement drawings prepared by B+T Group, in June of 2012. Reinforcement consists of addition of stiffener plates on base plate. Refer to legacy modification inspection report by GPD Engineering and Architecture Professional Corporation, in December of 2015. This modification has been considered ineffective in this analysis.

The tower was later reinforced per modification drawings prepared by B+T Group, in May of 2013. Reinforcement consists of addition of reinforcement plates at elevation 47' - 87' and additional rebars to foundation. Refer to post modification inspection report by B+T Group, in February of 2014. This modification has been considered effective in this analysis.

The tower was later reinforced per modification drawings prepared by B+T Group, in October of 2016. Reinforcement consists of repairing existing shaft to base plate weld, removed existing welds and install new weld to existing base plate stiffeners. Refer to post modification inspection report by Tower Engineering Professionals, in January of 2017. This modification has been considered effective in this analysis.

2) ANALYSIS CRITERIA

TIA-222 Revision: TIA-222-H
Risk Category: II
Wind Speed: 125 mph
Exposure Category: C
Topographic Factor: 1
Ice Thickness: 2 in
Wind Speed with Ice: 50 mph
Service Wind Speed: 60 mph

Table 1 - Proposed Equipment Configuration

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
168.0	168.0	3	cci antennas	DMP65R-BU6D w/ Mount Pipe	3 4 4 6 2	3/8 3/4 7/8 1 5/8 2 1/2 conduit
		3	cci antennas	HPA-65R-BUU-H6 w/ Mount Pipe		
		3	powerwave technologies	7770.00		
		3	quintel technology	QS66512-2 w/ Mount Pipe		
		3	ericsson	RRUS 32 B2_CCIV2		
		3	ericsson	RRUS 4449 B5/B12		
		3	ericsson	RRUS 4478 B14_CCIV2		
		3	ericsson	RRUS E2 B29		
		3	ericsson	RRUS-32 B30		
		6	powerwave technologies	LGP21401		
		2	raycap	DC6-48-60-18-8C-EV		
		4	cci antennas	TPX-070821		

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
		3	ericsson	RRUS 32 B2		
		3	ericsson	RRUS 32 B66		
		1	raycap	DC6-48-60-18-8C		
		1	raycap	DC6-48-60-18-8F		
		1	site pro 1	RMQLP-469-HK Platform Mount		

Table 2 - Other Considered Equipment

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
	188.0	2	db spectra	DS4C06F36D-D		
	185.0	1	austin antenna company	APC-1362		
		1	austin antenna company	APC-2163		
178.0	184.0	1	austin antenna company	APC-301	12	7/8
		1	austin antenna company	APC-4065		
	178.0	1	cci tower mounts (v2.1)	Side Arm Mount [SO 702-3]		
	177.0	2	radiowaves	HPD2-4.7		
		3	ericsson	Ericsson Air 21 B2A B4P w/ Mount Pipe		
157.0	159.0	3	ericsson	Ericsson Air 21 B4A B12P-B8P 4FT w/ Mount Pipe	2	1 1/4
		3	ericsson	RRUS 11 B12	12	1 5/8
		3	rfs celwave	ATMAA1412D-1A20		
	157.0	1	cci tower mounts (v2.1)	Platform Mount [LP 305-1]		
		3	alcatel lucent	1900MHZ RRRH (65MHZ)		
		3	alcatel lucent	800 External Notch Filter		
142.0	142.0	3	alcatel lucent	800MHZ RRRH	-	-
		1	cci tower mounts (v2.1)	Pipe Mount [PM 601-3]		
	144.0	2	andrew	VHLP2.5-10W		
		2	dragonwave	Horizon Compact		
		3	rfs celwave	APXVSP18-C-A20 w/ Mount Pipe	4	1/2
140.0	142.0	3	rfs celwave	APXVTM14-C-120 w/ Mount Pipe	2	2 1/4
		3	alcatel lucent	TD-RRH8x20-25	1	7/8
	140.0	3	kathrein	840 10054 w/ Mount Pipe	3	1 1/4
		3	samsung	Uras-Flexible		

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
			telecommunications			
		1	cci tower mounts (v2.1)	Platform Mount [12' LP 1201-1]		
		6	commscope	NHH-65B-R2B w/ Mount Pipe		
		3	andrew	HBXX-6517DS-A2M w/ Mount Pipe		
		3	antel	BXA-70080-4BF-EDIN-0 w/ Mount Pipe		
		1	gps	GPS_A		
90.0	90.0	3	samsung telecommunications	RFV01U-D1A	1	1/2
		3	samsung telecommunications	RFV01U-D2A	7	1 5/8
		1	rfs celwave	DB-T1-6Z-8AB-0Z		
		3	site pro 1	PRK-SFS-L Handrail Reinforcement Kit		
		1	cci tower mounts (v2.1)	Platform Mount [LP 1201-1_HR-1]		
	75.0	1	gps	GPS_A		
73.0	73.0	1	cci tower mounts (v2.1)	Side Arm Mount [SO 701-1]	1	1/2

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

Document	Remarks	Reference	Source
4-GEOTECHNICAL REPORTS	Tower Engineering Professionals	4713251	CCISITES
4-TOWER FOUNDATION DRAWINGS/DESIGN/SPECS	Tower Engineering Professionals (Mapped)	4713252	CCISITES
4-TOWER MANUFACTURER DRAWINGS	Engineered Endeavors, Inc.	4844402	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	B+T Group	4740398	CCISITES
4-POST-MODIFICATION INSPECTION	B+T Group	4904967	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	B+T Group	4904956	CCISITES
4-POST-MODIFICATION INSPECTION	GPD Engineering and Architecture Professional Corporation	6040534	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	B+T Group	6525881	CCISITES
4-POST-MODIFICATION INSPECTION	Tower Engineering Professionals	6647989	CCISITES

3.1) Analysis Method

tnxTower (version 8.0.5.0), a commercially available analysis software package, was used to create a three-dimensional model of the tower and calculate member stresses for various loading cases. Selected output from the analysis is included in Appendix A. When applicable, Crown Castle has calculated and provided the effective area for panel antennas using approved methods following the intent of the TIA-222 Standard.

tnxTower was used to determine the loads on the modified structure. Additional calculations were performed to determine the stresses in the pole and in the reinforcing elements. These calculations are presented in Appendix C.

3.2) Assumptions

- 1) Tower and structures were maintained in accordance with the TIA-222 Standard.
- 2) The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Tables 1 and 2 and the referenced drawings.

This analysis may be affected if any assumptions are not valid or have been made in error. Black & Veatch Corp. should be notified to determine the effect on the structural integrity of the tower.

4) ANALYSIS RESULTS

Table 4 - Section Capacity (Summary) (Monopole Tower)

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
181.83 - 176.83	Pole	TP15.678x14.5x0.25	Pole	5.0%	Pass
176.83 - 171.83	Pole	TP16.856x15.678x0.25	Pole	8.2%	Pass
171.83 - 166.83	Pole	TP18.033x16.856x0.25	Pole	14.1%	Pass
166.83 - 161.83	Pole	TP19.211x18.033x0.25	Pole	25.6%	Pass
161.83 - 156.83	Pole	TP20.389x19.211x0.25	Pole	35.8%	Pass
156.83 - 151.83	Pole	TP21.567x20.389x0.25	Pole	46.2%	Pass
151.83 - 146.83	Pole	TP22.745x21.567x0.25	Pole	54.6%	Pass
146.83 - 141.83	Pole	TP23.922x22.745x0.25	Pole	61.6%	Pass
141.83 - 136.83	Pole	TP25.1x23.922x0.25	Pole	70.8%	Pass
136.83 - 136.67	Pole	TP26.023x25.1x0.25	Pole	71.1%	Pass
136.67 - 131.67	Pole	TP25.806x24.639x0.375	Pole	54.4%	Pass
131.67 - 126.67	Pole	TP26.973x25.806x0.375	Pole	58.4%	Pass
126.67 - 121.67	Pole	TP28.14x26.973x0.375	Pole	61.8%	Pass
121.67 - 116.67	Pole	TP29.307x28.14x0.375	Pole	64.6%	Pass
116.67 - 111.67	Pole	TP30.474x29.307x0.375	Pole	66.9%	Pass
111.67 - 106.67	Pole	TP31.641x30.474x0.375	Pole	68.8%	Pass
106.67 - 101.67	Pole	TP32.808x31.641x0.375	Pole	70.4%	Pass
101.67 - 96.67	Pole	TP33.975x32.808x0.375	Pole	71.7%	Pass
96.67 - 92.32	Pole	TP36.161x33.975x0.375	Pole	72.7%	Pass
92.32 - 86.3	Pole	TP35.642x34.239x0.375	Pole	77.8%	Pass
86.3 - 85	Pole	TP35.945x35.642x0.375	Pole	78.3%	Pass

85 - 84.75	Pole	TP36.004x35.945x0.375	Pole	78.4%	Pass
84.75 - 79.75	Pole	TP37.169x36.004x0.375	Pole	80.6%	Pass
79.75 - 75	Pole	TP38.276x37.169x0.375	Pole	82.5%	Pass
75 - 74.75	Pole + Reinf.	TP38.334x38.276x0.6625	Reinf. 1 Tension Rupture	76.7%	Pass
74.75 - 74	Pole + Reinf.	TP38.509x38.334x0.6625	Reinf. 1 Tension Rupture	77.0%	Pass
74 - 73.75	Pole	TP38.567x38.509x0.375	Pole	83.0%	Pass
73.75 - 68.75	Pole	TP39.733x38.567x0.375	Pole	84.9%	Pass
68.75 - 63.75	Pole	TP40.898x39.733x0.375	Pole	86.7%	Pass
63.75 - 58.75	Pole	TP42.064x40.898x0.375	Pole	88.4%	Pass
58.75 - 53.75	Pole	TP43.229x42.064x0.375	Pole	90.0%	Pass
53.75 - 49	Pole	TP44.336x43.229x0.375	Pole	91.5%	Pass
49 - 48.93	Pole	TP45.805x44.336x0.375	Pole	91.5%	Pass
48.93 - 41.7	Pole	TP45.287x43.603x0.4375	Pole	79.2%	Pass
41.7 - 36.7	Pole	TP46.452x45.287x0.4375	Pole	80.1%	Pass
36.7 - 31.7	Pole	TP47.616x46.452x0.4375	Pole	80.9%	Pass
31.7 - 26.7	Pole	TP48.781x47.616x0.4375	Pole	81.7%	Pass
26.7 - 21.7	Pole	TP49.946x48.781x0.4375	Pole	82.4%	Pass
21.7 - 16.7	Pole	TP51.11x49.946x0.4375	Pole	83.0%	Pass
16.7 - 11.7	Pole	TP52.275x51.11x0.4375	Pole	83.6%	Pass
11.7 - 6.7	Pole	TP53.44x52.275x0.4375	Pole	84.2%	Pass
6.7 - 1.7	Pole	TP54.604x53.44x0.4375	Pole	84.7%	Pass
1.7 - 0	Pole	TP55x54.604x0.4375	Pole	84.8%	Pass
				Summary	
			Pole	91.5%	Pass
			Reinforcement	77.0%	Pass
			Overall	91.5%	Pass

Table 5 - Tower Component Stresses vs. Capacity (Monopole Tower) - LC7

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1	Anchor Rods		96.7	Pass
	Base Plate		71.6	Pass
	Base Plate Stiffeners	0	99.7	Pass
	Pole Punching Shear		3.9	Pass
1	Base Foundation	0	90.2	Pass
	Base Foundation Soil Interaction		80.8	Pass

Structure Rating (max from all components) =	99.7%
---	--------------

Note:

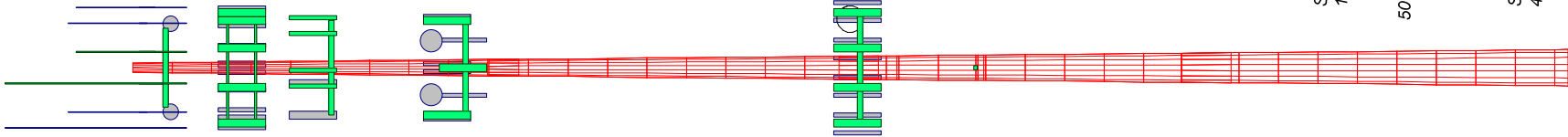
- See additional documentation in "Appendix C - Additional Calculations" for calculations supporting the % capacity consumed. Rating per TIA-222-H Section 15.5.

4.1) Recommendations

The tower and its foundation have sufficient capacity to carry the proposed load configuration. No modifications are required at this time.

APPENDIX A

TNXTOWER OUTPUT



Section	Length (ft)	Number of Sides	Thickness (in)	Socket Length (ft)	Top Dia (in)	Bot Dia (in)	Grade	Weight (K)
43	42	18	0.43	3.75	54.64	55.00	A572-65	28.0
42	41	18	0.43	3.75	54.39	54.64	A572-65	28.0
41	5.00	18	0.43	3.75	54.14	54.39	A572-65	0.2
40	5.00	18	0.43	3.75	53.89	54.14	A572-65	0.2
39	5.00	18	0.43	3.75	53.64	53.89	A572-65	0.2
38	5.00	18	0.43	3.75	53.39	53.64	A572-65	0.2
37	5.00	18	0.43	3.75	53.14	53.39	A572-65	0.2
36	5.00	18	0.43	3.75	52.89	53.14	A572-65	0.2
35	5.00	18	0.43	3.75	52.64	52.89	A572-65	0.2
34	5.00	18	0.43	3.75	52.39	52.64	A572-65	0.2
33	4.75	18	0.43	3.75	52.14	52.39	A572-65	0.2
32	5.00	18	0.43	3.75	51.89	52.14	A572-65	0.2
31	5.00	18	0.43	3.75	51.64	51.89	A572-65	0.2
30	5.00	18	0.43	3.75	51.39	51.64	A572-65	0.2
29	5.00	18	0.43	3.75	51.14	51.39	A572-65	0.2
28	5.00	18	0.43	3.75	50.89	51.14	A572-65	0.2
27	5.00	18	0.43	3.75	50.64	50.89	A572-65	0.2
26	5.00	18	0.43	3.75	50.39	50.64	A572-65	0.2
25	5.00	18	0.43	3.75	50.14	50.39	A572-65	0.2
24	5.00	18	0.43	3.75	49.89	50.14	A572-65	0.2
23	5.00	18	0.43	3.75	49.64	49.89	A572-65	0.2
22	5.00	18	0.43	3.75	49.39	49.64	A572-65	0.2
21	5.00	18	0.43	3.75	49.14	49.39	A572-65	0.2
20	5.00	18	0.43	3.75	48.89	49.14	A572-65	0.2
19	5.00	18	0.43	3.75	48.64	48.89	A572-65	0.2
18	5.00	18	0.43	3.75	48.39	48.64	A572-65	0.2
17	5.00	18	0.43	3.75	48.14	48.39	A572-65	0.2
16	5.00	18	0.43	3.75	47.89	48.14	A572-65	0.2
15	5.00	18	0.43	3.75	47.64	47.89	A572-65	0.2
14	5.00	18	0.43	3.75	47.39	47.64	A572-65	0.2
13	5.00	18	0.43	3.75	47.14	47.39	A572-65	0.2
12	5.00	18	0.43	3.75	46.89	47.14	A572-65	0.2
11	5.00	18	0.43	3.75	46.64	46.89	A572-65	0.2
10	5.00	18	0.43	3.75	46.39	46.64	A572-65	0.2
9	5.00	18	0.43	3.75	46.14	46.39	A572-65	0.2
8	5.00	18	0.43	3.75	45.89	46.14	A572-65	0.2
7	5.00	18	0.43	3.75	45.64	45.89	A572-65	0.2
6	5.00	18	0.43	3.75	45.39	45.64	A572-65	0.2
5	5.00	18	0.43	3.75	45.14	45.39	A572-65	0.2
4	5.00	18	0.43	3.75	44.89	45.14	A572-65	0.2
3	5.00	18	0.43	3.75	44.64	44.89	A572-65	0.2
2	5.00	18	0.43	3.75	44.39	44.64	A572-65	0.2
1	5.00	18	0.43	3.75	44.14	44.39	A572-65	0.2

GRADE	Fy	Fu
A572-65	65 ksi	80 ksi

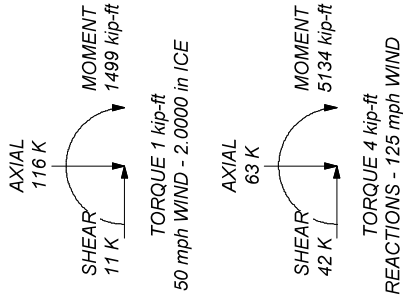
MATERIAL STRENGTH

GRADE	Fy	Fu
A572-65	65 ksi	80 ksi

TOWER DESIGN NOTES

1. Tower is located in Hartford County, Connecticut.
2. Tower designed for Exposure C to the TIA-222-H Standard.
3. Tower designed for a 125 mph basic wind in accordance with the TIA-222-H Standard.
4. Tower is also designed for a 50 mph basic wind with 2.00 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Risk Category II.
7. Topographic Category 1 with Crest Height of 0.00 ft
8. TOWER RATING: 91.5%

ALL REACTIONS ARE FACTORED



BLACK & VEATCH
Building a world of difference®

Black & Veatch Corp.
6800 W. 115th St., Suite 2292
Overland Park, KS 66211
Phone: (913) 458-6909
FAX: (913) 458-8136

Job: **Rocky Hill (BU# 842872)**
Project: **400087 (842872.1861846)**
Client: Crown Castle Drawn by: Aditya Kulkarni
Code: TIA-222-H Date: 06/23/20 Scale: NTS
Path: Dwg No. E-1

Tower Input Data

The tower is a monopole.

This tower is designed using the TIA-222-H standard.

The following design criteria apply:

1. Tower is located in Hartford County, Connecticut.
2. Tower base elevation above sea level: 199.00 ft.
3. Basic wind speed of 125 mph.
4. Risk Category II.
5. Exposure Category C.
6. Simplified Topographic Factor Procedure for wind speed-up calculations is used.
7. Topographic Category: 1.
8. Crest Height: 0.00 ft.
9. Nominal ice thickness of 2.0000 in.
10. Ice thickness is considered to increase with height.
11. Ice density of 56.00 pcf.
12. A wind speed of 50 mph is used in combination with ice.
13. Temperature drop of 50 °F.
14. Deflections calculated using a wind speed of 60 mph.
15. A non-linear (P-delta) analysis was used.
16. Pressures are calculated at each section.
17. Stress ratio used in pole design is 1.05.
18. Tower analysis based on target reliabilities in accordance with Annex S.
19. Load Modification Factors used: $K_{es}(F_w) = 0.95$, $K_{es}(t) = 0.85$.
20. Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Options

Consider Moments - Legs
 Consider Moments - Horizontals
 Consider Moments - Diagonals
 Use Moment Magnification
 Use Code Stress Ratios
 Use Code Safety Factors - Guys
 Escalate Ice
 Always Use Max Kz
 Use Special Wind Profile

Distribute Leg Loads As Uniform
 Assume Legs Pinned
 ✓ Assume Rigid Index Plate
 ✓ Use Clear Spans For Wind Area
 Use Clear Spans For KL/r
 Retension Guys To Initial Tension
 ✓ Bypass Mast Stability Checks
 ✓ Use Azimuth Dish Coefficients
 ✓ Project Wind Area of Appurt.

Include Bolts In Member Capacity

Autocalc Torque Arm Areas

Leg Bolts Are At Top Of Section
 Secondary Horizontal Braces Leg
 Use Diamond Inner Bracing (4 Sided)
 SR Members Have Cut Ends
 SR Members Are Concentric

Add IBC .6D+W Combination
 Sort Capacity Reports By Component
 Triangulate Diamond Inner Bracing
 Treat Feed Line Bundles As Cylinder
 Ignore KL/ry For 60 Deg. Angle Legs

Use ASCE 10 X-Brace Ly Rules
 Calculate Redundant Bracing Forces
 Ignore Redundant Members in FEA
 SR Leg Bolts Resist Compression
 All Leg Panels Have Same Allowable
 Offset Girt At Foundation
 ✓ Consider Feed Line Torque
 Include Angle Block Shear Check
 Use TIA-222-H Bracing Resist.
 Exemption
 Use TIA-222-H Tension Splice
 Exemption

Poles

✓ Include Shear-Torsion Interaction
 Always Use Sub-Critical Flow
 Use Top Mounted Sockets
 Pole Without Linear Attachments
 Pole With Shroud Or No
 Appurtenances
 Outside and Inside Corner Radii Are
 Known

Tapered Pole Section Geometry

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L1	181.83-176.83	5.00	0.00	18	14.5000	15.6778	0.2500	1.0000	A572-65 (65 ksi)
L2	176.83-171.83	5.00	0.00	18	15.6778	16.8556	0.2500	1.0000	A572-65

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L3	171.83-166.83	5.00	0.00	18	16.8556	18.0334	0.2500	1.0000	(65 ksi) A572-65
L4	166.83-161.83	5.00	0.00	18	18.0334	19.2112	0.2500	1.0000	(65 ksi) A572-65
L5	161.83-156.83	5.00	0.00	18	19.2112	20.3890	0.2500	1.0000	(65 ksi) A572-65
L6	156.83-151.83	5.00	0.00	18	20.3890	21.5668	0.2500	1.0000	(65 ksi) A572-65
L7	151.83-146.83	5.00	0.00	18	21.5668	22.7446	0.2500	1.0000	(65 ksi) A572-65
L8	146.83-141.83	5.00	0.00	18	22.7446	23.9224	0.2500	1.0000	(65 ksi) A572-65
L9	141.83-136.83	5.00	0.00	18	23.9224	25.1001	0.2500	1.0000	(65 ksi) A572-65
L10	136.83-132.91	3.92	3.75	18	25.1001	26.0233	0.2500	1.0000	(65 ksi) A572-65
L11	132.91-131.67	5.00	0.00	18	24.6392	25.8062	0.3750	1.5000	(65 ksi) A572-65
L12	131.67-126.67	5.00	0.00	18	25.8062	26.9732	0.3750	1.5000	(65 ksi) A572-65
L13	126.67-121.67	5.00	0.00	18	26.9732	28.1401	0.3750	1.5000	(65 ksi) A572-65
L14	121.67-116.67	5.00	0.00	18	28.1401	29.3071	0.3750	1.5000	(65 ksi) A572-65
L15	116.67-111.67	5.00	0.00	18	29.3071	30.4740	0.3750	1.5000	(65 ksi) A572-65
L16	111.67-106.67	5.00	0.00	18	30.4740	31.6410	0.3750	1.5000	(65 ksi) A572-65
L17	106.67-101.67	5.00	0.00	18	31.6410	32.8079	0.3750	1.5000	(65 ksi) A572-65
L18	101.67-96.67	5.00	0.00	18	32.8079	33.9749	0.3750	1.5000	(65 ksi) A572-65
L19	96.67-87.30	9.37	5.02	18	33.9749	36.1606	0.3750	1.5000	(65 ksi) A572-65
L20	87.30-86.30	6.02	0.00	18	34.2387	35.6420	0.3750	1.5000	(65 ksi) A572-65
L21	86.30-85.00	1.30	0.00	18	35.6420	35.9455	0.3750	1.5000	(65 ksi) A572-65
L22	85.00-84.75	0.25	0.00	18	35.9455	36.0038	0.3750	1.5000	(65 ksi) A572-65
L23	84.75-79.75	5.00	0.00	18	36.0038	37.1691	0.3750	1.5000	(65 ksi) A572-65
L24	79.75-75.00	4.75	0.00	18	37.1691	38.2762	0.3750	1.5000	(65 ksi) A572-65
L25	75.00-74.75	0.25	0.00	18	38.2762	38.3344	0.6625	2.6500	(65 ksi) A572-65
L26	74.75-74.00	0.75	0.00	18	38.3344	38.5092	0.6625	2.6500	(65 ksi) A572-65
L27	74.00-73.75	0.25	0.00	18	38.5092	38.5675	0.3750	1.5000	(65 ksi) A572-65
L28	73.75-68.75	5.00	0.00	18	38.5675	39.7328	0.3750	1.5000	(65 ksi) A572-65
L29	68.75-63.75	5.00	0.00	18	39.7328	40.8982	0.3750	1.5000	(65 ksi) A572-65
L30	63.75-58.75	5.00	0.00	18	40.8982	42.0635	0.3750	1.5000	(65 ksi) A572-65
L31	58.75-53.75	5.00	0.00	18	42.0635	43.2288	0.3750	1.5000	(65 ksi) A572-65
L32	53.75-49.00	4.75	0.00	18	43.2288	44.3359	0.3750	1.5000	(65 ksi) A572-65
L33	49.00-42.70	6.30	6.23	18	44.3359	45.8047	0.3750	1.5000	(65 ksi) A572-65
L34	42.70-41.70	7.23	0.00	18	43.6034	45.2869	0.4375	1.7500	(65 ksi) A572-65
L35	41.70-36.70	5.00	0.00	18	45.2869	46.4516	0.4375	1.7500	(65 ksi) A572-65
L36	36.70-31.70	5.00	0.00	18	46.4516	47.6163	0.4375	1.7500	(65 ksi) A572-65

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L37	31.70-26.70	5.00	0.00	18	47.6163	48.7810	0.4375	1.7500	A572-65 (65 ksi)
L38	26.70-21.70	5.00	0.00	18	48.7810	49.9457	0.4375	1.7500	A572-65 (65 ksi)
L39	21.70-16.70	5.00	0.00	18	49.9457	51.1104	0.4375	1.7500	A572-65 (65 ksi)
L40	16.70-11.70	5.00	0.00	18	51.1104	52.2751	0.4375	1.7500	A572-65 (65 ksi)
L41	11.70-6.70	5.00	0.00	18	52.2751	53.4398	0.4375	1.7500	A572-65 (65 ksi)
L42	6.70-1.70	5.00	0.00	18	53.4398	54.6045	0.4375	1.7500	A572-65 (65 ksi)
L43	1.70-0.00	1.70		18	54.6045	55.0000	0.4375	1.7500	A572-65 (65 ksi)

Tapered Pole Properties

Section	Tip Dia. in	Area in ²	I in ⁴	r in	C in	I/C in ³	J in ⁴	I/Q in ²	w in	w/t
L1	14.6851	11.3074	290.0875	5.0587	7.3660	39.3820	580.5566	5.6548	2.1120	8.448
	15.8811	12.2420	368.1255	5.4769	7.9643	46.2218	736.7353	6.1221	2.3193	9.277
L2	15.8811	12.2420	368.1255	5.4769	7.9643	46.2218	736.7353	6.1221	2.3193	9.277
	17.0770	13.1765	459.0364	5.8950	8.5626	53.6092	918.6769	6.5895	2.5266	10.106
L3	17.0770	13.1765	459.0364	5.8950	8.5626	53.6092	918.6769	6.5895	2.5266	10.106
	18.2730	14.1111	563.8031	6.3131	9.1610	61.5441	1128.3481	7.0569	2.7339	10.936
L4	18.2730	14.1111	563.8031	6.3131	9.1610	61.5441	1128.3481	7.0569	2.7339	10.936
	19.4690	15.0457	683.4082	6.7312	9.7593	70.0265	1367.7157	7.5243	2.9412	11.765
L5	19.4690	15.0457	683.4082	6.7312	9.7593	70.0265	1367.7157	7.5243	2.9412	11.765
	20.6649	15.9803	818.8345	7.1493	10.3576	79.0564	1638.7465	7.9917	3.1485	12.594
L6	20.6649	15.9803	818.8345	7.1493	10.3576	79.0564	1638.7465	7.9917	3.1485	12.594
	21.8609	16.9149	971.0647	7.5675	10.9559	88.6338	1943.4071	8.4590	3.3558	13.423
L7	21.8609	16.9149	971.0647	7.5675	10.9559	88.6338	1943.4071	8.4590	3.3558	13.423
	23.0569	17.8494	1141.0816	7.9856	11.5542	98.7587	2283.6647	8.9264	3.5630	14.252
L8	23.0569	17.8494	1141.0816	7.9856	11.5542	98.7587	2283.6647	8.9264	3.5630	14.252
	24.2528	18.7840	1329.8681	8.4037	12.1526	109.4312	2661.4860	9.3938	3.7703	15.081
L9	24.2528	18.7840	1329.8681	8.4037	12.1526	109.4312	2661.4860	9.3938	3.7703	15.081
	25.4488	19.7186	1538.4067	8.8218	12.7509	120.6511	3078.8377	9.8612	3.9776	15.911
L10	25.4488	19.7186	1538.4067	8.8218	12.7509	120.6511	3078.8377	9.8612	3.9776	15.911
	26.3862	20.4511	1716.3050	9.1495	13.2198	129.8280	3434.8684	10.2275	4.1401	16.56
L11	26.3862	20.4511	1716.3050	9.1495	13.2198	129.8280	3434.8684	10.2275	4.1401	16.56
	25.8509	28.8805	2148.2071	8.6138	12.5167	171.6268	4299.2409	14.4430	3.6765	9.804
L11	25.8509	28.8805	2148.2071	8.6138	12.5167	171.6268	4299.2409	14.4430	3.6765	9.804
	26.1465	30.2695	2473.2975	9.0281	13.1096	188.6638	4949.8494	15.1376	3.8819	10.352
L12	26.1465	30.2695	2473.2975	9.0281	13.1096	188.6638	4949.8494	15.1376	3.8819	10.352
	27.3314	31.6585	2829.6347	9.4423	13.7024	206.5070	5662.9927	15.8322	4.0873	10.899
L13	27.3314	31.6585	2829.6347	9.4423	13.7024	206.5070	5662.9927	15.8322	4.0873	10.899
	28.5164	33.0474	3218.6523	9.8566	14.2952	225.1565	6441.5399	16.5269	4.2927	11.447
L14	28.5164	33.0474	3218.6523	9.8566	14.2952	225.1565	6441.5399	16.5269	4.2927	11.447
	29.7013	34.4364	3641.7838	10.2709	14.8880	244.6122	7288.3596	17.2215	4.4980	11.995
L15	29.7013	34.4364	3641.7838	10.2709	14.8880	244.6122	7288.3596	17.2215	4.4980	11.995
	30.8863	35.8254	4100.4637	10.6852	15.4808	264.8741	8206.3228	17.9161	4.7034	12.542
L16	30.8863	35.8254	4100.4637	10.6852	15.4808	264.8741	8206.3228	17.9161	4.7034	12.542
	32.0712	37.2143	4596.1249	11.0994	16.0736	285.9421	9198.2974	18.6107	4.9088	13.09
L17	32.0712	37.2143	4596.1249	11.0994	16.0736	285.9421	9198.2974	18.6107	4.9088	13.09
	33.2562	38.6033	5130.2021	11.5137	16.6664	307.8165	10267.154	19.3053	5.1142	13.638
L18	33.2562	38.6033	5130.2021	11.5137	16.6664	307.8165	10267.154	19.3053	5.1142	13.638
	34.4412	39.9923	5704.1283	11.9280	17.2592	330.4970	11415.762	19.9999	5.3196	14.186
L19	34.4412	39.9923	5704.1283	11.9280	17.2592	330.4970	11415.762	19.9999	5.3196	14.186
	36.6606	42.5938	6891.2904	12.7039	18.3696	375.1468	13791.648	21.3010	5.7043	15.211
L20	36.6606	42.5938	6891.2904	12.7039	18.3696	375.1468	13791.648	21.3010	5.7043	15.211
	35.8974	40.3063	5839.5653	12.0216	17.3933	335.7368	11686.814	20.1570	5.3660	14.309
L20	35.8974	40.3063	5839.5653	12.0216	17.3933	335.7368	11686.814	20.1570	5.3660	14.309
	36.1340	41.9766	6596.0307	12.5198	18.1062	364.2977	13200.740	20.9923	5.6130	14.968
L20	36.1340	41.9766	6596.0307	12.5198	18.1062	364.2977	13200.740	20.9923	5.6130	14.968

Section	Tip Dia. in	Area in ²	I in ⁴	r in	C in	I/C in ³	J in ⁴	I/Q in ²	w in	w/t
L21	36.1340	41.9766	6596.0307	12.5198	18.1062	364.2977	13200.740 ⁷	20.9923	5.6130	14.968
	36.4422	42.3378	6767.7659	12.6275	18.2603	370.6271	13544.437 ¹	21.1729	5.6664	15.11
L22	36.4422	42.3378	6767.7659	12.6275	18.2603	370.6271	13544.437 ¹	21.1729	5.6664	15.11
	36.5013	42.4071	6801.0787	12.6482	18.2899	371.8487	13611.106 ⁴	21.2076	5.6767	15.138
L23	36.5013	42.4071	6801.0787	12.6482	18.2899	371.8487	13611.106 ⁴	21.2076	5.6767	15.138
	37.6846	43.7942	7490.4870	13.0619	18.8819	396.7020	14990.830 ¹	21.9012	5.8818	15.685
L24	37.6846	43.7942	7490.4870	13.0619	18.8819	396.7020	14990.830 ¹	21.9012	5.8818	15.685
	38.8088	45.1119	8187.1608	13.4549	19.4443	421.0573	16385.094 ⁴	22.5602	6.0766	16.204
L25	38.7644	79.0931	14137.324 ⁰	13.3529	19.4443	727.0681	28293.250 ³	39.5541	5.5706	8.408
	38.8236	79.2156	14203.125 ⁹	13.3735	19.4739	729.3419	28424.940 ⁶	39.6153	5.5809	8.424
L26	38.8236	79.2156	14203.125 ⁹	13.3735	19.4739	729.3419	28424.940 ⁶	39.6153	5.5809	8.424
	39.0011	79.5832	14401.754 ⁷	13.4356	19.5627	736.1848	28822.459 ⁶	39.7991	5.6116	8.47
L27	39.0454	45.3893	8339.1283	13.5377	19.5627	426.2772	16689.229 ⁴	22.6989	6.1176	16.314
	39.1046	45.4586	8377.4119	13.5583	19.5923	427.5872	16765.847 ⁰	22.7336	6.1279	16.341
L28	39.1046	45.4586	8377.4119	13.5583	19.5923	427.5872	16765.847 ⁰	22.7336	6.1279	16.341
	40.2879	46.8457	9167.8868	13.9720	20.1843	454.2093	18347.837 ⁰	23.4273	6.3330	16.888
L29	40.2879	46.8457	9167.8868	13.9720	20.1843	454.2093	18347.837 ⁰	23.4273	6.3330	16.888
	41.4712	48.2327	10006.585 ⁴	14.3857	20.7763	481.6353	20026.337 ⁸	24.1209	6.5381	17.435
L30	41.4712	48.2327	10006.585 ⁴	14.3857	20.7763	481.6353	20026.337 ⁸	24.1209	6.5381	17.435
	42.6546	49.6197	10894.934 ⁸	14.7994	21.3683	509.8653	21804.205 ⁴	24.8146	6.7432	17.982
L31	42.6546	49.6197	10894.934 ⁸	14.7994	21.3683	509.8653	21804.205 ⁴	24.8146	6.7432	17.982
	43.8379	51.0068	11834.364 ³	15.2131	21.9603	538.8993	23684.300 ⁵	25.5082	6.9483	18.529
L32	43.8379	51.0068	11834.364 ³	15.2131	21.9603	538.8993	23684.300 ⁵	25.5082	6.9483	18.529
	44.9620	52.3245	12775.434 ⁸	15.6061	22.5226	567.2263	25567.679 ⁹	26.1672	7.1431	19.048
L33	44.9620	52.3245	12775.434 ⁸	15.6061	22.5226	567.2263	25567.679 ⁹	26.1672	7.1431	19.048
	46.4535	54.0727	14099.225 ²	16.1275	23.2688	605.9287	28217.002 ⁵	27.0415	7.4016	19.738
L34	45.6814	59.9412	14110.570 ¹	15.3239	22.1505	637.0310	28239.707 ²	29.9763	6.9042	15.781
	45.9180	62.2789	15826.720 ⁰	15.9215	23.0057	687.9472	31674.265 ²	31.1454	7.2005	16.458
L35	45.9180	62.2789	15826.720 ⁰	15.9215	23.0057	687.9472	31674.265 ²	31.1454	7.2005	16.458
	47.1007	63.8963	17092.039 ⁸	16.3350	23.5974	724.3191	34206.569 ⁷	31.9542	7.4055	16.927
L36	47.1007	63.8963	17092.039 ⁸	16.3350	23.5974	724.3191	34206.569 ⁷	31.9542	7.4055	16.927
	48.2833	65.5136	18423.063 ⁹	16.7485	24.1891	761.6280	36870.369 ³	32.7630	7.6105	17.395
L37	48.2833	65.5136	18423.063 ⁹	16.7485	24.1891	761.6280	36870.369 ³	32.7630	7.6105	17.395
	49.4660	67.1309	19821.455 ⁴	17.1619	24.7807	799.8739	39668.992 ⁴	33.5718	7.8154	17.864
L38	49.4660	67.1309	19821.455 ⁴	17.1619	24.7807	799.8739	39668.992 ⁴	33.5718	7.8154	17.864

Section	Tip Dia. in	Area in ²	I in ⁴	r in	C in	I/C in ³	J in ⁴	I/Q in ²	w in	w/t
	50.6487	68.7483	21288.877 ⁴	17.5754	25.3724	839.0567	42605.767 ³	34.3807	8.0204	18.332
L39	50.6487	68.7483	21288.877 ⁴	17.5754	25.3724	839.0567	42605.767 ³	34.3807	8.0204	18.332
	51.8313	70.3656	22826.993 ⁴	17.9889	25.9641	879.1764	45684.022 ⁴	35.1895	8.2254	18.801
L40	51.8313	70.3656	22826.993 ⁰	17.9889	25.9641	879.1764	45684.022 ⁴	35.1895	8.2254	18.801
	53.0140	71.9829	24437.465 ³	18.4023	26.5557	920.2332	48907.086 ¹	35.9983	8.4304	19.27
L41	53.0140	71.9829	24437.465 ³	18.4023	26.5557	920.2332	48907.086 ¹	35.9983	8.4304	19.27
	54.1967	73.6003	26121.957 ⁴	18.8158	27.1474	962.2268	52278.286 ⁸	36.8071	8.6354	19.738
L42	54.1967	73.6003	26121.957 ⁴	18.8158	27.1474	962.2268	52278.286 ⁸	36.8071	8.6354	19.738
	55.3793	75.2176	27882.132 ⁴	19.2293	27.7391	1005.1575	55800.952 ⁹	37.6159	8.8404	20.207
L43	55.3793	75.2176	27882.132 ⁴	19.2293	27.7391	1005.1575	55800.952 ⁹	37.6159	8.8404	20.207
	55.7810	75.7669	28497.398 ³	19.3697	27.9400	1019.9498	57032.294 ³	37.8906	8.9100	20.366

Tower Elevation	Gusset Area (per face)	Gusset Thickness	Gusset Grade	Adj. Factor A _r	Factor A _r	Weight Mult.	Double Bolt Spacing Diagonals	Double Bolt Spacing Horizontals	Double Bolt Spacing Redundants	Angle
ft	ft ²	in					in	in	in	in
L1 181.83-176.83				1	1	1				
L2 176.83-171.83				1	1	1				
L3 171.83-166.83				1	1	1				
L4 166.83-161.83				1	1	1				
L5 161.83-156.83				1	1	1				
L6 156.83-151.83				1	1	1				
L7 151.83-146.83				1	1	1				
L8 146.83-141.83				1	1	1				
L9 141.83-136.83				1	1	1				
L10 136.83-132.91				1	1	1				
L11 132.91-131.67				1	1	1				
L12 131.67-126.67				1	1	1				
L13 126.67-121.67				1	1	1				
L14 121.67-116.67				1	1	1				
L15 116.67-111.67				1	1	1				
L16 111.67-106.67				1	1	1				
L17 106.67-101.67				1	1	1				
L18 101.67-96.67				1	1	1				
L19 96.67-87.30				1	1	1				
L20 87.30-86.30				1	1	1				
L21 86.30-				1	1	1				

Tower Elevation	Gusset Area (per face)	Gusset Thickness	Gusset Grade	Adjust. Factor A _r	Adjust. Factor A _r	Weight Mult.	Double Bolt Spacing Diagonals	Double Bolt Spacing Horizontals	Double Bolt Spacing Redundants
ft	ft ²	in					in	in	in
85.00									
L22 85.00-				1	1	1			
84.75									
L23 84.75-				1	1	1			
79.75									
L24 79.75-				1	1	1			
75.00									
L25 75.00-				1	1	1.00589			
74.75									
L26 74.75-				1	1	1.00386			
74.00									
L27 74.00-				1	1	1			
73.75									
L28 73.75-				1	1	1			
68.75									
L29 68.75-				1	1	1			
63.75									
L30 63.75-				1	1	1			
58.75									
L31 58.75-				1	1	1			
53.75									
L32 53.75-				1	1	1			
49.00									
L33 49.00-				1	1	1			
42.70									
L34 42.70-				1	1	1			
41.70									
L35 41.70-				1	1	1			
36.70									
L36 36.70-				1	1	1			
31.70									
L37 31.70-				1	1	1			
26.70									
L38 26.70-				1	1	1			
21.70									
L39 21.70-				1	1	1			
16.70									
L40 16.70-				1	1	1			
11.70									
L41 11.70-				1	1	1			
6.70									
L42 6.70-1.70				1	1	1			
L43 1.70-0.00				1	1	1			

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Sector	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	Number Per Row	Start/End Position	Width or Diameter	Perimeter	Weight
								in	r	plf
Safety Line 3/8	B	No	Surface Ar (CaAa)	181.83 - 10.00	1	1	0.350 0.360	0.3750		0.22
140										
LDF4-50A(1/2)	B	No	Surface Ar (CaAa)	140.00 - 12.00	4	1	-0.316 -0.300	0.6250		0.15
LDF12-50A(2-1/4)	B	No	Surface Ar (CaAa)	140.00 - 12.00	2	2	-0.300 -0.182	0.0000		1.22
HB114-1-0813U4-M5F(1-1/4)	B	No	Surface Ar (CaAa)	140.00 - 12.00	3	3	-0.116 0.000	1.5400		1.20
LDF5-50A(7/8)	B	No	Surface Ar (CaAa)	140.00 - 12.00	1	1	-0.141 -0.115	1.0300		0.33
73										
LDF4-50A(1/2)	B	No	Surface Ar	73.00 -	1	1	-0.155	0.6250		0.15

Description	Sector	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	Number Per Row	Start/End Position	Width or Diameter in	Perimeter in	Weight plf
Reinforcement PL1x5.75 Reinforcement - Wind Area	A	No	Surface Af (CaAa)	87.00 - 72.00	1	1	0.000 0.000	5.7500	13.5000	19.57
PL1x5.75 Reinforcement - Wind Area	B	No	Surface Af (CaAa)	87.00 - 72.00	1	1	0.000 0.000	5.7500	13.5000	19.57
PL1x5.75 Reinforcement - Wind Area	C	No	Surface Af (CaAa)	87.00 - 72.00	1	1	0.000 0.000	5.7500	13.5000	19.57
PL1x5.75 Reinforcement - Wind Area	A	No	Surface Af (CaAa)	77.00 - 47.00	1	1	0.000 0.000	5.7500	13.5000	19.57
PL1x5.75 Reinforcement - Wind Area	B	No	Surface Af (CaAa)	77.00 - 47.00	1	1	0.000 0.000	5.7500	13.5000	19.57
PL1x5.75 Reinforcement - Wind Area	C	No	Surface Af (CaAa)	77.00 - 47.00	1	1	0.000 0.000	5.7500	13.5000	19.57

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	C _A A _A ft ² /ft	Weight plf
***178** LDF5-50A(7/8)	C	No	No	Inside Pole	178.00 - 0.00	6	0.00	0.33
								0.33
								0.33
								0.33
								0.29
								0.29
								0.29
***168** 2 1/2" Rigid Conduit	C	No	No	Inside Pole	168.00 - 0.00	2	0.00	3.00
								3.00
								3.00
								3.00
								0.06
								0.06
								0.06
FB-L98B-034-XXX(3/8)	C	No	No	Inside Pole	168.00 - 0.00	3	0.00	0.06
								0.06
								0.06
								0.58
								0.58
								0.58
WR-VG66ST-BRD(3/4)	C	No	No	Inside Pole	168.00 - 0.00	4	0.00	0.58
								0.58
								0.58
								0.88
								0.88
								0.88
WR-VG66ST-BRD_CCIV2(7/8)	C	No	No	Inside Pole	168.00 - 0.00	4	0.00	0.88
								0.88
								0.88
								0.82
								0.82
								0.82
LDF7-50A(1-5/8)	C	No	No	Inside Pole	168.00 - 0.00	6	0.00	0.82
								0.82
								0.82
								0.82
***157** MLE Hybrid 3Power/6Fiber RL 2(1-1/4)	C	No	No	Inside Pole	157.00 - 0.00	2	0.00	0.68
								0.68
								0.68
								0.68
								0.82
								0.82
LDF7-50A(1-5/8)	C	No	No	Inside Pole	157.00 - 0.00	12	0.00	0.82

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	C _{AA} ft ² /ft	Weight plf
90 LDF4-50A(1/2)	C	No	No	Inside Pole	90.00 - 0.00	1	0.00	0.82
								1/2" Ice
								1" Ice
								2" Ice
HJ7-50A(1-5/8)	C	No	No	Inside Pole	90.00 - 0.00	6	0.00	0.15
								1/2" Ice
								1" Ice
								2" Ice
								No Ice
								1/2" Ice
								1" Ice
								2" Ice
HB158-1-08U8-S8J18(1-5/8)	C	No	No	Inside Pole	90.00 - 0.00	1	0.00	1.30
								No Ice
								1/2" Ice
								1" Ice
								2" Ice

Feed Line/Linear Appurtenances Section Areas

Tower Sectio n	Tower Elevation ft	Face	A _R ft ²	A _F ft ²	C _{AA} In Face ft ²	C _{AA} Out Face ft ²	Weight K
L1	181.83-176.83	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.188	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.00
L2	176.83-171.83	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.188	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.02
L3	171.83-166.83	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.188	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.04
L4	166.83-161.83	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.188	0.000	0.10
		C	0.000	0.000	0.000	0.000	0.00
L5	161.83-156.83	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.188	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.11
L6	156.83-151.83	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.188	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.16
L7	151.83-146.83	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.188	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.16
L8	146.83-141.83	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.188	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.16
L9	141.83-136.83	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	2.175	0.000	0.02
		C	0.000	0.000	0.000	0.000	0.16
L10	136.83-132.91	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	2.606	0.000	0.03
		C	0.000	0.000	0.000	0.000	0.12
L11	132.91-131.67	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.829	0.000	0.01
		C	0.000	0.000	0.000	0.000	0.04
L12	131.67-126.67	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	3.325	0.000	0.04
		C	0.000	0.000	0.000	0.000	0.16
L13	126.67-121.67	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	3.325	0.000	0.04
		C	0.000	0.000	0.000	0.000	0.16
L14	121.67-116.67	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	3.325	0.000	0.04

181.833 Ft Monopole Tower Structural Analysis
 Project Number 400087, Order 517090, Revision 1

Tower Sectio n	Tower Elevation ft	Face	A _R ft ²	A _F ft ²	C _{AA} In Face ft ²	C _{AA} Out Face ft ²	Weight K
L15	116.67-111.67	C	0.000	0.000	0.000	0.000	0.16
		A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	3.325	0.000	0.04
		C	0.000	0.000	0.000	0.000	0.16
L16	111.67-106.67	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	3.325	0.000	0.04
		C	0.000	0.000	0.000	0.000	0.16
L17	106.67-101.67	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	3.325	0.000	0.04
		C	0.000	0.000	0.000	0.000	0.16
L18	101.67-96.67	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	3.325	0.000	0.04
		C	0.000	0.000	0.000	0.000	0.16
L19	96.67-87.30	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	6.228	0.000	0.07
		C	0.000	0.000	0.000	0.000	0.32
L20	87.30-86.30	A	0.000	0.000	0.669	0.000	0.01
		B	0.000	0.000	1.334	0.000	0.02
		C	0.000	0.000	0.669	0.000	0.05
L21	86.30-85.00	A	0.000	0.000	1.248	0.000	0.03
		B	0.000	0.000	2.114	0.000	0.03
		C	0.000	0.000	1.248	0.000	0.08
L22	85.00-84.75	A	0.000	0.000	0.240	0.000	0.00
		B	0.000	0.000	0.406	0.000	0.01
		C	0.000	0.000	0.240	0.000	0.01
L23	84.75-79.75	A	0.000	0.000	4.792	0.000	0.10
		B	0.000	0.000	8.117	0.000	0.13
		C	0.000	0.000	4.792	0.000	0.30
L24	79.75-75.00	A	0.000	0.000	6.469	0.000	0.13
		B	0.000	0.000	9.627	0.000	0.17
		C	0.000	0.000	6.469	0.000	0.32
L25	75.00-74.75	A	0.000	0.000	0.479	0.000	0.01
		B	0.000	0.000	0.645	0.000	0.01
		C	0.000	0.000	0.479	0.000	0.02
L26	74.75-74.00	A	0.000	0.000	1.438	0.000	0.03
		B	0.000	0.000	1.936	0.000	0.03
		C	0.000	0.000	1.438	0.000	0.06
L27	74.00-73.75	A	0.000	0.000	0.479	0.000	0.01
		B	0.000	0.000	0.645	0.000	0.01
		C	0.000	0.000	0.479	0.000	0.02
L28	73.75-68.75	A	0.000	0.000	6.469	0.000	0.13
		B	0.000	0.000	10.059	0.000	0.17
		C	0.000	0.000	6.469	0.000	0.33
L29	68.75-63.75	A	0.000	0.000	4.792	0.000	0.10
		B	0.000	0.000	8.429	0.000	0.13
		C	0.000	0.000	4.792	0.000	0.30
L30	63.75-58.75	A	0.000	0.000	4.792	0.000	0.10
		B	0.000	0.000	8.429	0.000	0.13
		C	0.000	0.000	4.792	0.000	0.30
L31	58.75-53.75	A	0.000	0.000	4.792	0.000	0.10
		B	0.000	0.000	8.429	0.000	0.13
		C	0.000	0.000	4.792	0.000	0.30
L32	53.75-49.00	A	0.000	0.000	4.552	0.000	0.09
		B	0.000	0.000	8.008	0.000	0.13
		C	0.000	0.000	4.552	0.000	0.28
L33	49.00-42.70	A	0.000	0.000	1.917	0.000	0.04
		B	0.000	0.000	6.501	0.000	0.09
		C	0.000	0.000	1.917	0.000	0.29
L34	42.70-41.70	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.728	0.000	0.01
		C	0.000	0.000	0.000	0.000	0.04
L35	41.70-36.70	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	3.638	0.000	0.04
		C	0.000	0.000	0.000	0.000	0.20
L36	36.70-31.70	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	3.637	0.000	0.04
		C	0.000	0.000	0.000	0.000	0.20
L37	31.70-26.70	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	3.637	0.000	0.04

Tower Sectio n	Tower Elevation ft	Face	A _R ft ²	A _F ft ²	C _{AA} In Face ft ²	C _{AA} Out Face ft ²	Weight K
L38	26.70-21.70	C	0.000	0.000	0.000	0.000	0.20
		A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	3.637	0.000	0.04
		C	0.000	0.000	0.000	0.000	0.20
L39	21.70-16.70	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	3.637	0.000	0.04
		C	0.000	0.000	0.000	0.000	0.20
L40	16.70-11.70	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	3.448	0.000	0.03
		C	0.000	0.000	0.000	0.000	0.20
L41	11.70-6.70	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.376	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.20
L42	6.70-1.70	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.169	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.20
L43	1.70-0.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.07

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Sectio n	Tower Elevation ft	Face or Leg	Ice Thickness in	A _R ft ²	A _F ft ²	C _{AA} In Face ft ²	C _{AA} Out Face ft ²	Weight K
L1	181.83-176.83	A	2.014	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	2.201	0.000	0.03
		C	0.000	0.000	0.000	0.000	0.000	0.00
L2	176.83-171.83	A	2.008	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	2.195	0.000	0.03
		C	0.000	0.000	0.000	0.000	0.000	0.02
L3	171.83-166.83	A	2.002	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	2.190	0.000	0.03
		C	0.000	0.000	0.000	0.000	0.000	0.04
L4	166.83-161.83	A	1.996	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	2.184	0.000	0.03
		C	0.000	0.000	0.000	0.000	0.000	0.10
L5	161.83-156.83	A	1.990	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	2.177	0.000	0.03
		C	0.000	0.000	0.000	0.000	0.000	0.11
L6	156.83-151.83	A	1.984	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	2.171	0.000	0.03
		C	0.000	0.000	0.000	0.000	0.000	0.16
L7	151.83-146.83	A	1.977	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	2.164	0.000	0.03
		C	0.000	0.000	0.000	0.000	0.000	0.16
L8	146.83-141.83	A	1.970	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	2.158	0.000	0.03
		C	0.000	0.000	0.000	0.000	0.000	0.16
L9	141.83-136.83	A	1.963	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	10.100	0.000	0.21
		C	0.000	0.000	0.000	0.000	0.000	0.16
L10	136.83-132.91	A	1.957	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	11.495	0.000	0.25
		C	0.000	0.000	0.000	0.000	0.000	0.12
L11	132.91-131.67	A	1.953	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	3.658	0.000	0.08
		C	0.000	0.000	0.000	0.000	0.000	0.04
L12	131.67-126.67	A	1.949	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	14.619	0.000	0.31
		C	0.000	0.000	0.000	0.000	0.000	0.16
L13	126.67-121.67	A	1.941	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	14.577	0.000	0.31
		C	0.000	0.000	0.000	0.000	0.000	0.16
L14	121.67-116.67	A	1.933	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	14.533	0.000	0.31

Tower Sectio n	Tower Elevation ft	Face or Leg	Ice Thickness in	A _R ft ²	A _F ft ²	C _A A _A In Face ft ²	C _A A _A Out Face ft ²	Weight K
L15	116.67-111.67	C		0.000	0.000	0.000	0.000	0.16
		A	1.925	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	14.488	0.000	0.31
		C		0.000	0.000	0.000	0.000	0.16
L16	111.67-106.67	A	1.916	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	14.441	0.000	0.30
		C		0.000	0.000	0.000	0.000	0.16
L17	106.67-101.67	A	1.907	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	14.391	0.000	0.30
		C		0.000	0.000	0.000	0.000	0.16
L18	101.67-96.67	A	1.898	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	14.340	0.000	0.30
		C		0.000	0.000	0.000	0.000	0.16
L19	96.67-87.30	A	1.883	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	26.711	0.000	0.56
		C		0.000	0.000	0.000	0.000	0.32
L20	87.30-86.30	A	1.873	0.000	0.000	0.869	0.000	0.02
		B		0.000	0.000	3.721	0.000	0.08
		C		0.000	0.000	0.869	0.000	0.06
L21	86.30-85.00	A	1.870	0.000	0.000	1.618	0.000	0.04
		B		0.000	0.000	5.313	0.000	0.12
		C		0.000	0.000	1.618	0.000	0.10
L22	85.00-84.75	A	1.868	0.000	0.000	0.311	0.000	0.01
		B		0.000	0.000	1.020	0.000	0.02
		C		0.000	0.000	0.311	0.000	0.02
L23	84.75-79.75	A	1.863	0.000	0.000	6.210	0.000	0.17
		B		0.000	0.000	20.356	0.000	0.46
		C		0.000	0.000	6.210	0.000	0.37
L24	79.75-75.00	A	1.851	0.000	0.000	8.551	0.000	0.23
		B		0.000	0.000	21.931	0.000	0.51
		C		0.000	0.000	8.551	0.000	0.42
L25	75.00-74.75	A	1.845	0.000	0.000	0.642	0.000	0.02
		B		0.000	0.000	1.344	0.000	0.03
		C		0.000	0.000	0.642	0.000	0.03
L26	74.75-74.00	A	1.844	0.000	0.000	1.925	0.000	0.05
		B		0.000	0.000	4.032	0.000	0.09
		C		0.000	0.000	1.925	0.000	0.08
L27	74.00-73.75	A	1.843	0.000	0.000	0.642	0.000	0.02
		B		0.000	0.000	1.344	0.000	0.03
		C		0.000	0.000	0.642	0.000	0.03
L28	73.75-68.75	A	1.836	0.000	0.000	8.796	0.000	0.23
		B		0.000	0.000	24.623	0.000	0.54
		C		0.000	0.000	8.796	0.000	0.43
L29	68.75-63.75	A	1.823	0.000	0.000	6.614	0.000	0.17
		B		0.000	0.000	22.677	0.000	0.48
		C		0.000	0.000	6.614	0.000	0.37
L30	63.75-58.75	A	1.808	0.000	0.000	6.600	0.000	0.17
		B		0.000	0.000	22.570	0.000	0.48
		C		0.000	0.000	6.600	0.000	0.37
L31	58.75-53.75	A	1.793	0.000	0.000	6.585	0.000	0.17
		B		0.000	0.000	22.455	0.000	0.47
		C		0.000	0.000	6.585	0.000	0.37
L32	53.75-49.00	A	1.777	0.000	0.000	6.240	0.000	0.16
		B		0.000	0.000	21.217	0.000	0.44
		C		0.000	0.000	6.240	0.000	0.35
L33	49.00-42.70	A	1.757	0.000	0.000	2.619	0.000	0.07
		B		0.000	0.000	22.324	0.000	0.44
		C		0.000	0.000	2.619	0.000	0.32
L34	42.70-41.70	A	1.742	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	3.127	0.000	0.06
		C		0.000	0.000	0.000	0.000	0.04
L35	41.70-36.70	A	1.729	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	15.457	0.000	0.29
		C		0.000	0.000	0.000	0.000	0.20
L36	36.70-31.70	A	1.706	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	15.304	0.000	0.28
		C		0.000	0.000	0.000	0.000	0.20
L37	31.70-26.70	A	1.679	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	15.130	0.000	0.28

Tower Sectio n	Tower Elevation ft	Face or Leg	Ice Thickness in	A _R ft ²	A _F ft ²	C _A A _A In Face ft ²	C _A A _A Out Face ft ²	Weight K
L38	26.70-21.70	C	1.648	0.000	0.000	0.000	0.000	0.20
		A		0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	14.927	0.000	0.27
		C		0.000	0.000	0.000	0.000	0.20
L39	21.70-16.70	A	1.610	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	14.682	0.000	0.26
		C		0.000	0.000	0.000	0.000	0.20
L40	16.70-11.70	A	1.562	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	13.722	0.000	0.24
		C		0.000	0.000	0.000	0.000	0.20
L41	11.70-6.70	A	1.496	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	2.380	0.000	0.03
		C		0.000	0.000	0.000	0.000	0.20
L42	6.70-1.70	A	1.383	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.915	0.000	0.01
		C		0.000	0.000	0.000	0.000	0.20
L43	1.70-0.00	A	1.179	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.07

Feed Line Center of Pressure

Section	Elevation ft	CP _X in	CP _Z in	CP _X Ice in	CP _Z Ice in
L1	181.83-176.83	0.2926	0.0654	1.4008	0.3131
L2	176.83-171.83	0.2928	0.0655	1.4327	0.3203
L3	171.83-166.83	0.2930	0.0655	1.4612	0.3266
L4	166.83-161.83	0.2932	0.0655	1.4867	0.3323
L5	161.83-156.83	0.2934	0.0656	1.5094	0.3374
L6	156.83-151.83	0.2936	0.0656	1.5299	0.3420
L7	151.83-146.83	0.2937	0.0656	1.5482	0.3461
L8	146.83-141.83	0.2938	0.0657	1.5645	0.3497
L9	141.83-136.83	2.2231	-1.6966	3.3124	-2.4739
L10	136.83-132.91	3.0257	-2.4266	3.8545	-3.2976
L11	132.91-131.67	3.0301	-2.4300	3.8644	-3.3059
L12	131.67-126.67	3.0505	-2.4460	3.9250	-3.3566
L13	126.67-121.67	3.0816	-2.4702	4.0213	-3.4375
L14	121.67-116.67	3.1107	-2.4930	4.1139	-3.5151
L15	116.67-111.67	3.1383	-2.5145	4.2028	-3.5897
L16	111.67-106.67	3.1642	-2.5348	4.2881	-3.6612
L17	106.67-101.67	3.1888	-2.5540	4.3700	-3.7297
L18	101.67-96.67	3.2121	-2.5722	4.4485	-3.7953
L19	96.67-87.30	3.2434	-2.5967	4.5553	-3.8846
L20	87.30-86.30	1.9097	-1.5288	3.4552	-2.9462
L21	86.30-85.00	1.6275	-1.3028	3.1303	-2.6686
L22	85.00-84.75	1.6322	-1.3066	3.1397	-2.6765
L23	84.75-79.75	1.6481	-1.3192	3.1710	-2.7027
L24	79.75-75.00	1.1451	-0.9165	2.8235	-2.4057
L25	75.00-74.75	0.9591	-0.7675	2.4205	-2.0621
L26	74.75-74.00	0.9608	-0.7689	2.4254	-2.0661
L27	74.00-73.75	0.9622	-0.7700	2.4296	-2.0697
L28	73.75-68.75	1.5552	-1.2752	3.1908	-2.8062
L29	68.75-63.75	1.8638	-1.5340	3.6303	-3.2071
L30	63.75-58.75	1.8935	-1.5584	3.6882	-3.2573
L31	58.75-53.75	1.9225	-1.5821	3.7435	-3.3051
L32	53.75-49.00	1.9502	-1.6048	3.7946	-3.3492
L33	49.00-42.70	2.8603	-2.3534	4.8449	-4.2745
L34	42.70-41.70	3.6062	-2.9672	5.5137	-4.8645
L35	41.70-36.70	3.6160	-2.9751	5.5258	-4.8731
L36	36.70-31.70	3.6317	-2.9878	5.5656	-4.9061
L37	31.70-26.70	3.6468	-3.0000	5.5985	-4.9329
L38	26.70-21.70	3.6613	-3.0117	5.6228	-4.9517
L39	21.70-16.70	3.6752	-3.0230	5.6357	-4.9598
L40	16.70-11.70	3.5297	-2.8923	5.4987	-4.7802

Section	Elevation ft	CP _x in	CP _z in	CP _x Ice in	CP _z Ice in
L41	11.70-6.70	0.4348	-0.3492	1.5390	-1.0607
L42	6.70-1.70	0.1829	-0.2018	0.5625	-0.6208
L43	1.70-0.00	0.0000	0.0000	0.0000	0.0000

Note: For pole sections, center of pressure calculations do not consider feed line shielding.

Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L1	1	Safety Line 3/8	176.83 - 181.83	1.0000	1.0000
L2	1	Safety Line 3/8	171.83 - 176.83	1.0000	1.0000
L3	1	Safety Line 3/8	166.83 - 171.83	1.0000	1.0000
L4	1	Safety Line 3/8	161.83 - 166.83	1.0000	1.0000
L5	1	Safety Line 3/8	156.83 - 161.83	1.0000	1.0000
L6	1	Safety Line 3/8	151.83 - 156.83	1.0000	1.0000
L7	1	Safety Line 3/8	146.83 - 151.83	1.0000	1.0000
L8	1	Safety Line 3/8	141.83 - 146.83	1.0000	1.0000
L9	1	Safety Line 3/8	136.83 - 141.83	1.0000	1.0000
L9	19	LDF4-50A(1/2)	136.83 - 140.00	1.0000	1.0000
L9	20	LDF12-50A(2-1/4)	136.83 - 140.00	1.0000	1.0000
L9	21	HB114-1-0813U4-M5F(1-1/4)	136.83 - 140.00	1.0000	1.0000
L9	22	LDF5-50A(7/8)	136.83 - 140.00	1.0000	1.0000
L10	1	Safety Line 3/8	132.91 - 136.83	1.0000	1.0000
L10	19	LDF4-50A(1/2)	132.91 - 136.83	1.0000	1.0000
L10	20	LDF12-50A(2-1/4)	132.91 - 136.83	1.0000	1.0000
L10	21	HB114-1-0813U4-M5F(1-1/4)	132.91 - 136.83	1.0000	1.0000
L10	22	LDF5-50A(7/8)	132.91 - 136.83	1.0000	1.0000
L12	1	Safety Line 3/8	126.67 - 131.67	1.0000	1.0000
L12	19	LDF4-50A(1/2)	126.67 - 131.67	1.0000	1.0000
L12	20	LDF12-50A(2-1/4)	126.67 - 131.67	1.0000	1.0000
L12	21	HB114-1-0813U4-M5F(1-1/4)	126.67 - 131.67	1.0000	1.0000
L12	22	LDF5-50A(7/8)	126.67 - 131.67	1.0000	1.0000
L13	1	Safety Line 3/8	121.67 - 126.67	1.0000	1.0000
L13	19	LDF4-50A(1/2)	121.67 - 126.67	1.0000	1.0000
L13	20	LDF12-50A(2-1/4)	121.67 - 126.67	1.0000	1.0000
L13	21	HB114-1-0813U4-M5F(1-1/4)	121.67 - 126.67	1.0000	1.0000
L13	22	LDF5-50A(7/8)	121.67 - 126.67	1.0000	1.0000
L14	1	Safety Line 3/8	116.67 - 121.67	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L14	19	LDF4-50A(1/2)	121.67	1.0000	1.0000
L14	20	LDF12-50A(2-1/4)	116.67 - 121.67	1.0000	1.0000
L14	21	HB114-1-0813U4-M5F(1-1/4)	121.67 - 116.67	1.0000	1.0000
L14	22	LDF5-50A(7/8)	121.67 - 116.67	1.0000	1.0000
L15	1	Safety Line 3/8	121.67	1.0000	1.0000
L15	19	LDF4-50A(1/2)	111.67 - 116.67	1.0000	1.0000
L15	20	LDF12-50A(2-1/4)	111.67 - 116.67	1.0000	1.0000
L15	21	HB114-1-0813U4-M5F(1-1/4)	116.67 - 111.67	1.0000	1.0000
L15	22	LDF5-50A(7/8)	111.67 - 116.67	1.0000	1.0000
L16	1	Safety Line 3/8	116.67	1.0000	1.0000
L16	19	LDF4-50A(1/2)	111.67 - 106.67	1.0000	1.0000
L16	20	LDF12-50A(2-1/4)	111.67 - 106.67	1.0000	1.0000
L16	21	HB114-1-0813U4-M5F(1-1/4)	106.67 - 111.67	1.0000	1.0000
L16	22	LDF5-50A(7/8)	111.67 - 106.67	1.0000	1.0000
L17	1	Safety Line 3/8	111.67	1.0000	1.0000
L17	19	LDF4-50A(1/2)	101.67 - 106.67	1.0000	1.0000
L17	20	LDF12-50A(2-1/4)	101.67 - 106.67	1.0000	1.0000
L17	21	HB114-1-0813U4-M5F(1-1/4)	106.67 - 101.67	1.0000	1.0000
L17	22	LDF5-50A(7/8)	101.67 - 106.67	1.0000	1.0000
L18	1	Safety Line 3/8	106.67	1.0000	1.0000
L18	19	LDF4-50A(1/2)	96.67 - 101.67	1.0000	1.0000
L18	20	LDF12-50A(2-1/4)	96.67 - 101.67	1.0000	1.0000
L18	21	HB114-1-0813U4-M5F(1-1/4)	101.67 - 96.67	1.0000	1.0000
L18	22	LDF5-50A(7/8)	96.67 - 101.67	1.0000	1.0000
L19	1	Safety Line 3/8	101.67	1.0000	1.0000
L19	19	LDF4-50A(1/2)	87.30 - 96.67	1.0000	1.0000
L19	20	LDF12-50A(2-1/4)	87.30 - 96.67	1.0000	1.0000
L19	21	HB114-1-0813U4-M5F(1-1/4)	96.67 - 87.30	1.0000	1.0000
L19	22	LDF5-50A(7/8)	87.30 - 96.67	1.0000	1.0000
L19	31	PL1x5.75 Reinforcement - Wind Area	87.30 - 87.00	1.0000	1.0000
L19	32	PL1x5.75 Reinforcement - Wind Area	87.30 - 87.00	1.0000	1.0000
L19	33	PL1x5.75 Reinforcement - Wind Area	87.30 - 87.00	1.0000	1.0000
L21	1	Safety Line 3/8	87.00	1.0000	1.0000
L21	19	LDF4-50A(1/2)	85.00 - 86.30 85.00 - 86.30	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L21	20	LDF12-50A(2-1/4)	85.00 - 86.30	1.0000	1.0000
L21	21	HB114-1-0813U4-M5F(1-1/4)	85.00 - 86.30	1.0000	1.0000
L21	22	LDF5-50A(7/8)	85.00 - 86.30	1.0000	1.0000
L21	31	PL1x5.75 Reinforcement - Wind Area	85.00 - 86.30	1.0000	1.0000
L21	32	PL1x5.75 Reinforcement - Wind Area	85.00 - 86.30	1.0000	1.0000
L21	33	PL1x5.75 Reinforcement - Wind Area	85.00 - 86.30	1.0000	1.0000
L22	1	Safety Line 3/8	84.75 - 85.00	1.0000	1.0000
L22	19	LDF4-50A(1/2)	84.75 - 85.00	1.0000	1.0000
L22	20	LDF12-50A(2-1/4)	84.75 - 85.00	1.0000	1.0000
L22	21	HB114-1-0813U4-M5F(1-1/4)	84.75 - 85.00	1.0000	1.0000
L22	22	LDF5-50A(7/8)	84.75 - 85.00	1.0000	1.0000
L22	31	PL1x5.75 Reinforcement - Wind Area	84.75 - 85.00	1.0000	1.0000
L22	32	PL1x5.75 Reinforcement - Wind Area	84.75 - 85.00	1.0000	1.0000
L22	33	PL1x5.75 Reinforcement - Wind Area	84.75 - 85.00	1.0000	1.0000
L23	1	Safety Line 3/8	79.75 - 84.75	1.0000	1.0000
L23	19	LDF4-50A(1/2)	79.75 - 84.75	1.0000	1.0000
L23	20	LDF12-50A(2-1/4)	79.75 - 84.75	1.0000	1.0000
L23	21	HB114-1-0813U4-M5F(1-1/4)	79.75 - 84.75	1.0000	1.0000
L23	22	LDF5-50A(7/8)	79.75 - 84.75	1.0000	1.0000
L23	31	PL1x5.75 Reinforcement - Wind Area	79.75 - 84.75	1.0000	1.0000
L23	32	PL1x5.75 Reinforcement - Wind Area	79.75 - 84.75	1.0000	1.0000
L23	33	PL1x5.75 Reinforcement - Wind Area	79.75 - 84.75	1.0000	1.0000
L24	1	Safety Line 3/8	75.00 - 79.75	1.0000	1.0000
L24	19	LDF4-50A(1/2)	75.00 - 79.75	1.0000	1.0000
L24	20	LDF12-50A(2-1/4)	75.00 - 79.75	1.0000	1.0000
L24	21	HB114-1-0813U4-M5F(1-1/4)	75.00 - 79.75	1.0000	1.0000
L24	22	LDF5-50A(7/8)	75.00 - 79.75	1.0000	1.0000
L24	31	PL1x5.75 Reinforcement - Wind Area	75.00 - 79.75	1.0000	1.0000
L24	32	PL1x5.75 Reinforcement - Wind Area	75.00 - 79.75	1.0000	1.0000
L24	33	PL1x5.75 Reinforcement - Wind Area	75.00 - 79.75	1.0000	1.0000
L24	34	PL1x5.75 Reinforcement - Wind Area	75.00 - 77.00	1.0000	1.0000
L24	35	PL1x5.75 Reinforcement - Wind Area	75.00 - 77.00	1.0000	1.0000
L24	36	PL1x5.75 Reinforcement - Wind Area	75.00 - 77.00	1.0000	1.0000
L25	1	Safety Line 3/8	74.75 - 75.00	1.0000	1.0000
L25	19	LDF4-50A(1/2)	74.75 - 75.00	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L25	20	LDF12-50A(2-1/4)	75.00 74.75 -	1.0000	1.0000
L25	21	HB114-1-0813U4-M5F(1-1/4)	75.00 74.75 -	1.0000	1.0000
L25	22	LDF5-50A(7/8)	75.00 74.75 -	1.0000	1.0000
L25	31	PL1x5.75 Reinforcement - Wind Area	75.00 74.75 -	1.0000	1.0000
L25	32	PL1x5.75 Reinforcement - Wind Area	75.00 74.75 -	1.0000	1.0000
L25	33	PL1x5.75 Reinforcement - Wind Area	75.00 74.75 -	1.0000	1.0000
L25	34	PL1x5.75 Reinforcement - Wind Area	75.00 74.75 -	1.0000	1.0000
L25	35	PL1x5.75 Reinforcement - Wind Area	75.00 74.75 -	1.0000	1.0000
L25	36	PL1x5.75 Reinforcement - Wind Area	75.00 74.75 -	1.0000	1.0000
L26	1	Safety Line 3/8	75.00 74.75	1.0000	1.0000
L26	19	LDF4-50A(1/2)	74.00 - 74.75	1.0000	1.0000
L26	20	LDF12-50A(2-1/4)	74.00 - 74.75	1.0000	1.0000
L26	21	HB114-1-0813U4-M5F(1-1/4)	74.00 - 74.75	1.0000	1.0000
L26	22	LDF5-50A(7/8)	74.00 - 74.75	1.0000	1.0000
L26	31	PL1x5.75 Reinforcement - Wind Area	74.00 - 74.75	1.0000	1.0000
L26	32	PL1x5.75 Reinforcement - Wind Area	74.00 - 74.75	1.0000	1.0000
L26	33	PL1x5.75 Reinforcement - Wind Area	74.00 - 74.75	1.0000	1.0000
L26	34	PL1x5.75 Reinforcement - Wind Area	74.00 - 74.75	1.0000	1.0000
L26	35	PL1x5.75 Reinforcement - Wind Area	74.00 - 74.75	1.0000	1.0000
L26	36	PL1x5.75 Reinforcement - Wind Area	74.00 - 74.75	1.0000	1.0000
L27	1	Safety Line 3/8	73.75 - 74.00	1.0000	1.0000
L27	19	LDF4-50A(1/2)	73.75 - 74.00	1.0000	1.0000
L27	20	LDF12-50A(2-1/4)	73.75 - 74.00	1.0000	1.0000
L27	21	HB114-1-0813U4-M5F(1-1/4)	73.75 - 74.00	1.0000	1.0000
L27	22	LDF5-50A(7/8)	73.75 - 74.00	1.0000	1.0000
L27	31	PL1x5.75 Reinforcement - Wind Area	73.75 - 74.00	1.0000	1.0000
L27	32	PL1x5.75 Reinforcement - Wind Area	73.75 - 74.00	1.0000	1.0000
L27	33	PL1x5.75 Reinforcement - Wind Area	73.75 - 74.00	1.0000	1.0000
L27	34	PL1x5.75 Reinforcement - Wind Area	73.75 - 74.00	1.0000	1.0000
L27	35	PL1x5.75 Reinforcement - Wind Area	73.75 - 74.00	1.0000	1.0000
L27	36	PL1x5.75 Reinforcement - Wind Area	73.75 - 74.00	1.0000	1.0000
L28	1	Safety Line 3/8	68.75 - 73.75	1.0000	1.0000
L28	19	LDF4-50A(1/2)	68.75 - 73.75	1.0000	1.0000
L28	20	LDF12-50A(2-1/4)	68.75 - 73.75	1.0000	1.0000

181.833 Ft Monopole Tower Structural Analysis
 Project Number 400087, Order 517090, Revision 1

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L28	21	HB114-1-0813U4-M5F(1-1/4)	68.75 - 73.75	1.0000	1.0000
L28	22	LDF5-50A(7/8)	68.75 - 73.75	1.0000	1.0000
L28	29	LDF4-50A(1/2)	68.75 - 73.00	1.0000	1.0000
L28	31	PL1x5.75 Reinforcement - Wind Area	72.00 - 73.75	1.0000	1.0000
L28	32	PL1x5.75 Reinforcement - Wind Area	72.00 - 73.75	1.0000	1.0000
L28	33	PL1x5.75 Reinforcement - Wind Area	72.00 - 73.75	1.0000	1.0000
L28	34	PL1x5.75 Reinforcement - Wind Area	68.75 - 73.75	1.0000	1.0000
L28	35	PL1x5.75 Reinforcement - Wind Area	68.75 - 73.75	1.0000	1.0000
L28	36	PL1x5.75 Reinforcement - Wind Area	68.75 - 73.75	1.0000	1.0000
L29	1	Safety Line 3/8	63.75 - 68.75	1.0000	1.0000
L29	19	LDF4-50A(1/2)	63.75 - 68.75	1.0000	1.0000
L29	20	LDF12-50A(2-1/4)	63.75 - 68.75	1.0000	1.0000
L29	21	HB114-1-0813U4-M5F(1-1/4)	63.75 - 68.75	1.0000	1.0000
L29	22	LDF5-50A(7/8)	63.75 - 68.75	1.0000	1.0000
L29	29	LDF4-50A(1/2)	63.75 - 68.75	1.0000	1.0000
L29	34	PL1x5.75 Reinforcement - Wind Area	63.75 - 68.75	1.0000	1.0000
L29	35	PL1x5.75 Reinforcement - Wind Area	63.75 - 68.75	1.0000	1.0000
L29	36	PL1x5.75 Reinforcement - Wind Area	63.75 - 68.75	1.0000	1.0000
L30	1	Safety Line 3/8	58.75 - 63.75	1.0000	1.0000
L30	19	LDF4-50A(1/2)	58.75 - 63.75	1.0000	1.0000
L30	20	LDF12-50A(2-1/4)	58.75 - 63.75	1.0000	1.0000
L30	21	HB114-1-0813U4-M5F(1-1/4)	58.75 - 63.75	1.0000	1.0000
L30	22	LDF5-50A(7/8)	58.75 - 63.75	1.0000	1.0000
L30	29	LDF4-50A(1/2)	58.75 - 63.75	1.0000	1.0000
L30	34	PL1x5.75 Reinforcement - Wind Area	58.75 - 63.75	1.0000	1.0000
L30	35	PL1x5.75 Reinforcement - Wind Area	58.75 - 63.75	1.0000	1.0000
L30	36	PL1x5.75 Reinforcement - Wind Area	58.75 - 63.75	1.0000	1.0000
L31	1	Safety Line 3/8	53.75 - 58.75	1.0000	1.0000
L31	19	LDF4-50A(1/2)	53.75 - 58.75	1.0000	1.0000
L31	20	LDF12-50A(2-1/4)	53.75 - 58.75	1.0000	1.0000
L31	21	HB114-1-0813U4-M5F(1-1/4)	53.75 - 58.75	1.0000	1.0000
L31	22	LDF5-50A(7/8)	53.75 - 58.75	1.0000	1.0000
L31	29	LDF4-50A(1/2)	53.75 - 58.75	1.0000	1.0000
L31	34	PL1x5.75 Reinforcement - Wind Area	53.75 - 58.75	1.0000	1.0000
L31	35	PL1x5.75 Reinforcement - Wind Area	53.75 - 58.75	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L31	36	Wind Area PL1x5.75 Reinforcement -	58.75	1.0000	1.0000
L32	1	Wind Area Safety Line 3/8	53.75 - 58.75	1.0000	1.0000
L32	19	LDF4-50A(1/2)	53.75	1.0000	1.0000
L32	20	LDF12-50A(2-1/4)	53.75	1.0000	1.0000
L32	21	HB114-1-0813U4-M5F(1-1/4)	53.75	1.0000	1.0000
L32	22	LDF5-50A(7/8)	49.00 - 53.75	1.0000	1.0000
L32	29	LDF4-50A(1/2)	53.75	1.0000	1.0000
L32	34	PL1x5.75 Reinforcement - Wind Area	49.00 - 53.75	1.0000	1.0000
L32	35	PL1x5.75 Reinforcement - Wind Area	49.00 - 53.75	1.0000	1.0000
L32	36	PL1x5.75 Reinforcement - Wind Area	49.00 - 53.75	1.0000	1.0000
L33	1	Safety Line 3/8	53.75	1.0000	1.0000
L33	19	LDF4-50A(1/2)	42.70 - 49.00	1.0000	1.0000
L33	20	LDF12-50A(2-1/4)	49.00	1.0000	1.0000
L33	21	HB114-1-0813U4-M5F(1-1/4)	42.70 - 49.00	1.0000	1.0000
L33	22	LDF5-50A(7/8)	42.70 - 49.00	1.0000	1.0000
L33	29	LDF4-50A(1/2)	42.70 - 49.00	1.0000	1.0000
L33	34	PL1x5.75 Reinforcement - Wind Area	47.00 - 49.00	1.0000	1.0000
L33	35	PL1x5.75 Reinforcement - Wind Area	47.00 - 49.00	1.0000	1.0000
L33	36	PL1x5.75 Reinforcement - Wind Area	47.00 - 49.00	1.0000	1.0000
L35	1	Safety Line 3/8	36.70 - 41.70	1.0000	1.0000
L35	19	LDF4-50A(1/2)	36.70 - 41.70	1.0000	1.0000
L35	20	LDF12-50A(2-1/4)	36.70 - 41.70	1.0000	1.0000
L35	21	HB114-1-0813U4-M5F(1-1/4)	36.70 - 41.70	1.0000	1.0000
L35	22	LDF5-50A(7/8)	36.70 - 41.70	1.0000	1.0000
L35	29	LDF4-50A(1/2)	36.70 - 41.70	1.0000	1.0000
L36	1	Safety Line 3/8	31.70 - 36.70	1.0000	1.0000
L36	19	LDF4-50A(1/2)	31.70 - 36.70	1.0000	1.0000
L36	20	LDF12-50A(2-1/4)	31.70 - 36.70	1.0000	1.0000
L36	21	HB114-1-0813U4-M5F(1-1/4)	31.70 - 36.70	1.0000	1.0000
L36	22	LDF5-50A(7/8)	31.70 - 36.70	1.0000	1.0000
L36	29	LDF4-50A(1/2)	31.70 - 36.70	1.0000	1.0000
L37	1	Safety Line 3/8	26.70 - 31.70	1.0000	1.0000
L37	19	LDF4-50A(1/2)	26.70 - 31.70	1.0000	1.0000
L37	20	LDF12-50A(2-1/4)	26.70 - 31.70	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L37	21	HB114-1-0813U4-M5F(1-1/4)	26.70 - 31.70	1.0000	1.0000
L37	22	LDF5-50A(7/8)	26.70 - 31.70	1.0000	1.0000
L37	29	LDF4-50A(1/2)	26.70 - 31.70	1.0000	1.0000
L38	1	Safety Line 3/8	21.70 - 26.70	1.0000	1.0000
L38	19	LDF4-50A(1/2)	21.70 - 26.70	1.0000	1.0000
L38	20	LDF12-50A(2-1/4)	21.70 - 26.70	1.0000	1.0000
L38	21	HB114-1-0813U4-M5F(1-1/4)	21.70 - 26.70	1.0000	1.0000
L38	22	LDF5-50A(7/8)	21.70 - 26.70	1.0000	1.0000
L38	29	LDF4-50A(1/2)	21.70 - 26.70	1.0000	1.0000
L39	1	Safety Line 3/8	16.70 - 21.70	1.0000	1.0000
L39	19	LDF4-50A(1/2)	16.70 - 21.70	1.0000	1.0000
L39	20	LDF12-50A(2-1/4)	16.70 - 21.70	1.0000	1.0000
L39	21	HB114-1-0813U4-M5F(1-1/4)	16.70 - 21.70	1.0000	1.0000
L39	22	LDF5-50A(7/8)	16.70 - 21.70	1.0000	1.0000
L39	29	LDF4-50A(1/2)	16.70 - 21.70	1.0000	1.0000
L40	1	Safety Line 3/8	11.70 - 16.70	1.0000	1.0000
L40	19	LDF4-50A(1/2)	12.00 - 16.70	1.0000	1.0000
L40	20	LDF12-50A(2-1/4)	12.00 - 16.70	1.0000	1.0000
L40	21	HB114-1-0813U4-M5F(1-1/4)	12.00 - 16.70	1.0000	1.0000
L40	22	LDF5-50A(7/8)	12.00 - 16.70	1.0000	1.0000
L40	29	LDF4-50A(1/2)	11.70 - 16.70	1.0000	1.0000
L41	1	Safety Line 3/8	10.00 - 11.70	1.0000	1.0000
L41	29	LDF4-50A(1/2)	6.70 - 11.70	1.0000	1.0000
L42	29	LDF4-50A(1/2)	4.00 - 6.70	1.0000	1.0000

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horiz Lateral Vert	Azimuth Adjustment t	Placement	C _A A _A Front	C _A A _A Side	Weight
			ft ft ft	°	ft	ft ²	ft ²	K
Side Arm Mount [SO 702-3]	C	None		0.0000	178.00	2.53	2.53	0.08
						3.37	3.37	0.13
						4.12	4.12	0.19
						5.76	5.76	0.36
5x2" Mount Pipe	A	From Face	7.00	0.0000	178.00	1.19	1.19	0.02
			-2.00			1.50	1.50	0.03
			0.00			1.81	1.81	0.04
						2.46	2.46	0.08

178

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _{AA} Front	C _{AA} Side	Weight
			Horz Lateral	Vert					
			ft	ft	°	ft	ft ²	ft ²	K
5'x2" Mount Pipe	A	From Face	7.00	0.0000	178.00	2" Ice	1.19	1.19	0.02
			2.00	No Ice		1.50	1.50	0.03	
			0.00	1/2"		1.81	1.81	0.04	
				Ice		2.46	2.46	0.08	
5'x2" Mount Pipe	B	From Face	7.00	0.0000	178.00	2" Ice	1.19	1.19	0.02
			-2.00	No Ice		1.50	1.50	0.03	
			0.00	1/2"		1.81	1.81	0.04	
				Ice		2.46	2.46	0.08	
5'x2" Mount Pipe	B	From Face	7.00	0.0000	178.00	2" Ice	1.19	1.19	0.02
			2.00	No Ice		1.50	1.50	0.03	
			0.00	1/2"		1.81	1.81	0.04	
				Ice		2.46	2.46	0.08	
5'x2" Mount Pipe	C	From Face	7.00	0.0000	178.00	2" Ice	1.19	1.19	0.02
			-2.00	No Ice		1.50	1.50	0.03	
			0.00	1/2"		1.81	1.81	0.04	
				Ice		2.46	2.46	0.08	
5'x2" Mount Pipe	C	From Face	7.00	0.0000	178.00	2" Ice	1.19	1.19	0.02
			2.00	No Ice		1.50	1.50	0.03	
			0.00	1/2"		1.81	1.81	0.04	
				Ice		2.46	2.46	0.08	
DS4C06F36D-D	A	From Face	7.00	0.0000	178.00	2" Ice	5.82	5.82	0.05
			-2.00	No Ice		7.79	7.79	0.09	
			10.00	1/2"		9.78	9.78	0.15	
				Ice		13.81	13.81	0.29	
APC-2163	A	From Face	7.00	0.0000	178.00	2" Ice	3.38	3.38	0.01
			2.00	No Ice		4.75	4.75	0.04	
			7.00	1/2"		6.15	6.15	0.07	
				Ice		8.99	8.99	0.17	
APC-1362	B	From Face	7.00	0.0000	178.00	2" Ice	3.50	3.50	0.02
			-2.00	No Ice		4.93	4.93	0.04	
			7.00	1/2"		6.38	6.38	0.08	
				Ice		9.32	9.32	0.17	
APC-4065	B	From Face	7.00	0.0000	178.00	2" Ice	3.13	3.13	0.01
			2.00	No Ice		4.40	4.40	0.04	
			6.00	1/2"		5.70	5.70	0.07	
				Ice		8.14	8.14	0.15	
APC-301	C	From Face	7.00	0.0000	178.00	2" Ice	3.00	3.00	0.01
			-2.00	No Ice		4.23	4.23	0.04	
			6.00	1/2"		5.47	5.47	0.07	
				Ice		7.69	7.69	0.15	
DS4C06F36D-D	C	From Face	7.00	0.0000	178.00	2" Ice	5.82	5.82	0.05
			2.00	No Ice		7.79	7.79	0.09	
			10.00	1/2"		9.78	9.78	0.15	
				Ice		13.81	13.81	0.29	
168									
Site Pro 1 RMQLP-469-HK	C	None		0.0000	168.00	No Ice	26.29	25.78	2.13
						1/2"	32.25	31.89	2.58
						Ice	37.98	37.82	3.17
						1" Ice	50.13	50.22	3.93
						2" Ice			
8'x2" Mount Pipe	A	From Face	3.00	0.0000	168.00	No Ice	0.82	1.90	0.03
			-6.00			1/2"	1.17	2.73	0.04
			0.00			Ice	1.46	3.40	0.06

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustmen t °	Placement ft	C _A A _A Front ft ²	C _A A _A Side ft ²	Weight K	
8'x2" Mount Pipe	B	From Face	3.00	0.0000	168.00	1.89	4.40	0.12	
			-6.00			No Ice	0.82	1.90	0.03
			0.00			1/2"	1.17	2.73	0.04
8'x2" Mount Pipe	C	From Face	3.00	0.0000	168.00	1.46	3.40	0.06	
			-6.00			1"	1.89	4.40	0.12
			0.00			2"	0.82	1.90	0.03
7770.00	A	From Face	4.00	0.0000	168.00	1.17	2.73	0.04	
			-7.00			1/2"	1.46	3.40	0.06
			0.00			Ice	1.89	4.40	0.12
7770.00	B	From Face	4.00	0.0000	168.00	5.51	2.93	0.04	
			-7.00			No Ice	5.87	3.27	0.07
			0.00			1/2"	6.23	3.63	0.11
7770.00	C	From Face	4.00	0.0000	168.00	6.99	4.35	0.20	
			-7.00			1"	5.51	2.93	0.04
			0.00			2"	5.87	3.27	0.07
QS66512-2 w/ Mount Pipe	A	From Face	4.00	0.0000	168.00	6.23	3.63	0.11	
			-2.50			Ice	6.99	4.35	0.20
			0.00			2"	5.51	2.93	0.04
QS66512-2 w/ Mount Pipe	B	From Face	4.00	0.0000	168.00	5.51	2.93	0.04	
			-2.50			No Ice	5.87	3.27	0.07
			0.00			1/2"	6.23	3.63	0.11
QS66512-2 w/ Mount Pipe	C	From Face	4.00	0.0000	168.00	6.99	4.35	0.20	
			-2.50			1"	5.51	2.93	0.04
			0.00			2"	5.87	3.27	0.07
DMP65R-BU6D w/ Mount Pipe	A	From Face	4.00	0.0000	168.00	4.04	4.18	0.14	
			-2.50			No Ice	4.42	4.57	0.21
			0.00			1/2"	4.82	4.97	0.29
DMP65R-BU6D w/ Mount Pipe	B	From Face	4.00	0.0000	168.00	5.63	5.79	0.48	
			-2.50			1"	4.04	4.18	0.14
			0.00			2"	4.42	4.57	0.21
DMP65R-BU6D w/ Mount Pipe	C	From Face	4.00	0.0000	168.00	4.82	4.97	0.29	
			-2.50			1"	5.63	5.79	0.48
			0.00			2"	4.04	4.18	0.14
DMP65R-BU6D w/ Mount Pipe	A	From Face	4.00	0.0000	168.00	11.96	5.97	0.11	
			2.50			No Ice	12.70	6.63	0.20
			0.00			1/2"	13.46	7.30	0.30
DMP65R-BU6D w/ Mount Pipe	B	From Face	4.00	0.0000	168.00	15.02	8.69	0.53	
			2.50			1"	11.96	5.97	0.11
			0.00			2"	12.70	6.63	0.20
DMP65R-BU6D w/ Mount Pipe	C	From Face	4.00	0.0000	168.00	13.46	7.30	0.30	
			2.50			1"	15.02	8.69	0.53
			0.00			2"	11.96	5.97	0.11
HPA-65R-BUU-H6 w/ Mount Pipe	A	From Face	4.00	0.0000	168.00	11.96	5.97	0.11	
			7.00			No Ice	12.70	6.63	0.20
			0.00			1/2"	13.46	7.30	0.30
HPA-65R-BUU-H6 w/ Mount Pipe	B	From Face	4.00	0.0000	168.00	15.02	8.69	0.53	
			7.00			1"	11.96	5.97	0.11
			0.00			2"	12.70	6.63	0.20

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustmen t	Placement	C _A A _A Front	C _A A _A Side	Weight
			Horz Lateral	Vert					
HPA-65R-BUU-H6 w/ Mount Pipe	C	From Face	4.00		0.0000	168.00	12.36	9.22	0.42
			7.00				9.22	6.25	0.07
			0.00				9.98	6.96	0.14
							10.76	7.70	0.22
(2) LGP21401	A	From Face	4.00		0.0000	168.00	12.36	9.22	0.42
			0.00				1.10	0.35	0.01
			0.00				1.24	0.44	0.02
			0.00				1.38	0.54	0.03
(2) LGP21401	B	From Face	4.00		0.0000	168.00	1.69	0.77	0.05
			0.00				1.10	0.35	0.01
			0.00				1.24	0.44	0.02
			0.00				1.38	0.54	0.03
(2) LGP21401	C	From Face	4.00		0.0000	168.00	1.69	0.77	0.05
			0.00				1.10	0.35	0.01
			0.00				1.24	0.44	0.02
			0.00				1.38	0.54	0.03
DC6-48-60-18-8C	B	From Face	1.00		0.0000	168.00	1.14	1.14	0.03
			0.00				1.79	1.79	0.05
			0.00				2.00	2.00	0.07
			0.00				2.45	2.45	0.13
RRUS 32 B2	A	From Face	4.00		0.0000	168.00	2.73	1.67	0.05
			0.00				2.95	1.86	0.07
			0.00				3.18	2.05	0.10
			0.00				3.66	2.46	0.16
RRUS 32 B2	B	From Face	4.00		0.0000	168.00	2.73	1.67	0.05
			0.00				2.95	1.86	0.07
			0.00				3.18	2.05	0.10
			0.00				3.66	2.46	0.16
RRUS 32 B2	C	From Face	4.00		0.0000	168.00	2.73	1.67	0.05
			0.00				2.95	1.86	0.07
			0.00				3.18	2.05	0.10
			0.00				3.66	2.46	0.16
RRUS E2 B29	A	From Face	4.00		0.0000	168.00	3.15	1.29	0.05
			0.00				3.36	1.44	0.08
			0.00				3.59	1.60	0.10
			0.00				4.07	1.95	0.17
RRUS E2 B29	B	From Face	4.00		0.0000	168.00	3.15	1.29	0.05
			0.00				3.36	1.44	0.08
			0.00				3.59	1.60	0.10
			0.00				4.07	1.95	0.17
RRUS E2 B29	C	From Face	4.00		0.0000	168.00	3.15	1.29	0.05
			0.00				3.36	1.44	0.08
			0.00				3.59	1.60	0.10
			0.00				4.07	1.95	0.17
RRUS 4478 B14_CCIV2	A	From Face	4.00		0.0000	168.00	2.02	1.25	0.06
			0.00				2.20	1.40	0.08
			0.00				2.39	1.55	0.10
			0.00				2.78	1.89	0.15
RRUS 4478 B14_CCIV2	B	From Face	4.00		0.0000	168.00	2.02	1.25	0.06
			0.00				2.20	1.40	0.08
			0.00				2.39	1.55	0.10
			0.00				2.78	1.89	0.15

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustmen t	Placement	C _A A _A Front	C _A A _A Side	Weight
			Horz Lateral	Vert					
RRUS 4478 B14_CCIV2	C	From Face	4.00		0.0000	168.00	2.78	1.89	0.15
			0.00				2.02	1.25	0.06
			0.00				2.20	1.40	0.08
RRUS-32 B30	A	From Face	4.00		0.0000	168.00	2.39	1.55	0.10
			0.00				2.78	1.89	0.15
			0.00				3.31	2.42	0.08
RRUS-32 B30	B	From Face	4.00		0.0000	168.00	3.56	2.64	0.10
			0.00				3.81	2.86	0.14
			0.00				4.33	3.32	0.21
RRUS-32 B30	C	From Face	4.00		0.0000	168.00	3.31	2.42	0.08
			0.00				3.56	2.64	0.10
			0.00				3.81	2.86	0.14
RRUS 32 B66	A	From Face	4.00		0.0000	168.00	2.74	1.67	0.05
			0.00				2.96	1.86	0.07
			0.00				3.19	2.05	0.10
RRUS 32 B66	B	From Face	4.00		0.0000	168.00	3.68	2.46	0.16
			0.00				2.74	1.67	0.05
			0.00				2.96	1.86	0.07
RRUS 32 B66	C	From Face	4.00		0.0000	168.00	3.19	2.05	0.10
			0.00				3.68	2.46	0.16
			0.00				2.74	1.67	0.05
RRUS 4449 B5/B12	A	From Face	4.00		0.0000	168.00	1.97	1.41	0.07
			0.00				2.14	1.56	0.09
			0.00				2.33	1.73	0.11
RRUS 4449 B5/B12	B	From Face	4.00		0.0000	168.00	2.72	2.07	0.16
			0.00				1.97	1.41	0.07
			0.00				2.14	1.56	0.09
RRUS 4449 B5/B12	C	From Face	4.00		0.0000	168.00	2.33	1.73	0.11
			0.00				2.72	2.07	0.16
			0.00				1.97	1.41	0.07
RRUS 32 B2_CCIV2	A	From Face	4.00		0.0000	168.00	2.86	1.78	0.06
			0.00				3.09	1.97	0.08
			0.00				3.32	2.17	0.10
RRUS 32 B2_CCIV2	B	From Face	4.00		0.0000	168.00	3.81	2.59	0.16
			0.00				2.86	1.78	0.06
			0.00				3.09	1.97	0.08
RRUS 32 B2_CCIV2	C	From Face	4.00		0.0000	168.00	3.81	2.59	0.16
			0.00				2.86	1.78	0.06
			0.00				3.09	1.97	0.08

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustmen t	Placement	C _A A _A Front	C _A A _A Side	Weight
			Horz Lateral ft	Vert ft					
(2) TPX-070821	B	From Face	4.00		0.0000	168.00	3.81	2.59	0.16
			0.00				0.47	0.10	0.01
			0.00				0.56	0.15	0.01
(2) TPX-070821	C	From Face	4.00		0.0000	168.00	0.66	0.20	0.02
			0.00				0.87	0.33	0.03
			0.00				0.47	0.10	0.01
DC6-48-60-18-8C-EV Cylindrical	A	From Face	4.00		0.0000	168.00	0.56	0.15	0.01
			0.00				0.66	0.20	0.02
			0.00				0.87	0.33	0.03
DC6-48-60-18-8C-EV Cylindrical	C	From Face	4.00		0.0000	168.00	1.14	1.14	0.03
			0.00				1.79	1.79	0.05
			0.00				2.00	2.00	0.07
DC6-48-60-18-8F	A	From Face	1.00		0.0000	168.00	0.92	0.92	0.02
			0.00				1.46	1.46	0.04
			0.00				1.64	1.64	0.06
157 Platform Mount [LP 305-1]	C	None	3.00		0.0000	157.00	18.04	18.04	1.12
			6.00				22.04	22.04	1.47
			0.00				26.06	26.06	1.88
5'x2" Mount Pipe	A	From Leg	3.00		0.0000	157.00	1.19	1.19	0.02
			6.00				1.50	1.50	0.03
			0.00				1.81	1.81	0.04
5'x2" Mount Pipe	B	From Leg	3.00		0.0000	157.00	2.46	2.46	0.08
			6.00				1.19	1.19	0.02
			0.00				1.50	1.50	0.03
5'x2" Mount Pipe	C	From Leg	3.00		0.0000	157.00	1.81	1.81	0.04
			6.00				2.46	2.46	0.08
			0.00				1.19	1.19	0.02
Ericsson Air 21 B4A B12P- B8P 4FT w/ Mount Pipe	A	From Leg	3.00		0.0000	157.00	7.89	6.69	0.15
			-6.00				8.37	7.54	0.21
			2.00				8.83	8.29	0.29
Ericsson Air 21 B4A B12P- B8P 4FT w/ Mount Pipe	B	From Leg	3.00		0.0000	157.00	9.79	9.82	0.47
			-6.00				7.89	6.69	0.15
			2.00				8.37	7.54	0.21
Ericsson Air 21 B4A B12P- B8P 4FT w/ Mount Pipe	C	From Leg	3.00		0.0000	157.00	8.83	8.29	0.29
			-6.00				9.79	9.82	0.47
			2.00				7.89	6.69	0.15
ERICSSON AIR 21 B2A B4P w/ Mount Pipe	A	From Leg	3.00		0.0000	157.00	8.37	7.54	0.21
			-6.00				8.83	8.29	0.29
			2.00				9.79	9.82	0.47

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustmen t	Placement	C _A A _A Front	C _A A _A Side	Weight
			Horz Lateral	Vert					
				ft	°	ft	ft ²	ft ²	K
			2.00				7.21	7.13	0.23
							8.12	8.59	0.38
ERICSSON AIR 21 B2A B4P w/ Mount Pipe	B	From Leg	3.00		0.0000	157.00	6.33	5.64	0.11
			-2.00				6.78	6.43	0.17
			2.00				7.21	7.13	0.23
							8.12	8.59	0.38
ERICSSON AIR 21 B2A B4P w/ Mount Pipe	C	From Leg	3.00		0.0000	157.00	6.33	5.64	0.11
			-2.00				6.78	6.43	0.17
			2.00				7.21	7.13	0.23
							8.12	8.59	0.38
RRUS 11 B12	A	From Leg	3.00		0.0000	157.00	1.42	1.18	0.05
			0.00				1.52	1.33	0.07
			2.00				1.63	1.48	0.10
							1.86	1.83	0.15
RRUS 11 B12	B	From Leg	3.00		0.0000	157.00	1.42	1.18	0.05
			0.00				1.52	1.33	0.07
			2.00				1.63	1.48	0.10
							1.86	1.83	0.15
RRUS 11 B12	C	From Leg	3.00		0.0000	157.00	1.42	1.18	0.05
			0.00				1.52	1.33	0.07
			2.00				1.63	1.48	0.10
							1.86	1.83	0.15
ATMAA1412D-1A20	A	From Leg	3.00		0.0000	157.00	1.00	0.41	0.01
			0.00				1.13	0.50	0.02
			2.00				1.26	0.59	0.03
							1.55	0.81	0.06
ATMAA1412D-1A20	B	From Leg	3.00		0.0000	157.00	1.00	0.41	0.01
			0.00				1.13	0.50	0.02
			2.00				1.26	0.59	0.03
							1.55	0.81	0.06
ATMAA1412D-1A20	C	From Leg	3.00		0.0000	157.00	1.00	0.41	0.01
			0.00				1.13	0.50	0.02
			2.00				1.26	0.59	0.03
							1.55	0.81	0.06
142 Pipe Mount [PM 601-3]	C	None			0.0000	142.00	3.17	3.17	0.20
							3.79	3.79	0.23
							4.42	4.42	0.28
							5.76	5.76	0.40
800MHZ RRH	A	From Face	1.00		0.0000	142.00	2.13	1.77	0.05
			0.00				2.32	1.95	0.07
			0.00				2.51	2.13	0.10
							2.92	2.51	0.16
800MHZ RRH	B	From Face	1.00		0.0000	142.00	2.13	1.77	0.05
			0.00				2.32	1.95	0.07
			0.00				2.51	2.13	0.10
							2.92	2.51	0.16
800MHZ RRH	C	From Face	1.00		0.0000	142.00	2.13	1.77	0.05
			0.00				2.32	1.95	0.07
			0.00				2.51	2.13	0.10
							2.92	2.51	0.16
800 EXTERNAL NOTCH	A	From Face	1.00		0.0000	142.00	0.66	0.32	0.01

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert	Azimuth Adjustment	Placement	C _{AA} Front	C _{AA} Side	Weight
			ft ft ft	°	ft	ft ²	ft ²	K
FILTER			0.00 0.00		1/2" Ice 1" Ice 2" Ice	0.76 0.87 1.11	0.40 0.48 0.67	0.02 0.02 0.04
800 EXTERNAL NOTCH FILTER	B	From Face	1.00 0.00 0.00	0.0000	142.00	0.66 0.76 0.87 1.11	0.32 0.40 0.48 0.67	0.01 0.02 0.02 0.04
800 EXTERNAL NOTCH FILTER	C	From Face	1.00 0.00 0.00	0.0000	142.00	0.66 0.76 0.87 1.11	0.32 0.40 0.48 0.67	0.01 0.02 0.02 0.04
1900MHZ RRH (65MHZ)	A	From Face	1.00 0.00 0.00	0.0000	142.00	2.32 2.53 2.74 3.19	2.24 2.44 2.65 3.09	0.06 0.08 0.11 0.17
1900MHZ RRH (65MHZ)	B	From Face	1.00 0.00 0.00	0.0000	142.00	2.32 2.53 2.74 3.19	2.24 2.44 2.65 3.09	0.06 0.08 0.11 0.17
1900MHZ RRH (65MHZ)	C	From Face	1.00 0.00 0.00	0.0000	142.00	2.32 2.53 2.74 3.19	2.24 2.44 2.65 3.09	0.06 0.08 0.11 0.17
140 Platform Mount [12' LP 1201-1]	C	None		0.0000	140.00	15.75 18.95 22.17 28.69	15.75 18.95 22.17 28.69	1.80 2.27 2.80 4.00
APXVSP18-C-A20 w/ Mount Pipe	A	From Face	3.00 -6.00 2.00	0.0000	140.00	4.60 5.05 5.50 6.44	4.01 4.45 4.89 5.82	0.10 0.16 0.23 0.42
APXVSP18-C-A20 w/ Mount Pipe	B	From Face	3.00 -6.00 2.00	0.0000	140.00	4.60 5.05 5.50 6.44	4.01 4.45 4.89 5.82	0.10 0.16 0.23 0.42
APXVSP18-C-A20 w/ Mount Pipe	C	From Face	3.00 -6.00 2.00	0.0000	140.00	4.60 5.05 5.50 6.44	4.01 4.45 4.89 5.82	0.10 0.16 0.23 0.42
APXVTM14-C-120 w/ Mount Pipe	A	From Face	3.00 6.00 2.00	0.0000	140.00	4.09 4.48 4.88 5.71	2.86 3.23 3.61 4.40	0.08 0.13 0.19 0.33
APXVTM14-C-120 w/ Mount Pipe	B	From Face	3.00 6.00 2.00	0.0000	140.00	4.09 4.48 4.88 5.71	2.86 3.23 3.61 4.40	0.08 0.13 0.19 0.33
APXVTM14-C-120 w/ Mount Pipe	C	From Face	3.00 6.00 2.00	0.0000	140.00	4.09 4.48 4.88 5.71	2.86 3.23 3.61 4.40	0.08 0.13 0.19 0.33

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert	Azimuth Adjustmen t	Placement	C _A A _A Front	C _A A _A Side	Weight
			ft ft ft	°	ft	ft ²	ft ²	K
TD-RRH8x20-25	A	From Face	3.00	0.0000	140.00	4.05	1.53	0.07
			0.00			4.30	1.71	0.10
			2.00			4.56	1.90	0.13
TD-RRH8x20-25	B	From Face	3.00	0.0000	140.00	4.05	1.53	0.07
			0.00			4.30	1.71	0.10
			2.00			4.56	1.90	0.13
						5.10	2.30	0.20
TD-RRH8x20-25	C	From Face	3.00	0.0000	140.00	4.05	1.53	0.07
			0.00			4.30	1.71	0.10
			2.00			4.56	1.90	0.13
						5.10	2.30	0.20
840 10054 w/ Mount Pipe	A	From Face	3.00	0.0000	140.00	4.44	1.94	0.05
			0.00			4.88	2.32	0.08
			0.00			5.34	2.72	0.12
						6.31	3.57	0.22
840 10054 w/ Mount Pipe	B	From Face	3.00	0.0000	140.00	4.44	1.94	0.05
			0.00			4.88	2.32	0.08
			0.00			5.34	2.72	0.12
						6.31	3.57	0.22
840 10054 w/ Mount Pipe	C	From Face	3.00	0.0000	140.00	4.44	1.94	0.05
			0.00			4.88	2.32	0.08
			0.00			5.34	2.72	0.12
						6.31	3.57	0.22
URAS-FLEXIBLE	A	From Face	3.00	0.0000	140.00	1.55	0.68	0.03
			0.00			1.70	0.80	0.04
			0.00			1.87	0.92	0.06
						2.22	1.19	0.09
URAS-FLEXIBLE	B	From Face	3.00	0.0000	140.00	1.55	0.68	0.03
			0.00			1.70	0.80	0.04
			0.00			1.87	0.92	0.06
						2.22	1.19	0.09
URAS-FLEXIBLE	C	From Face	3.00	0.0000	140.00	1.55	0.68	0.03
			0.00			1.70	0.80	0.04
			0.00			1.87	0.92	0.06
						2.22	1.19	0.09
Horizon Compact	A	From Face	3.00	0.0000	140.00	0.72	0.37	0.01
			0.00			0.83	0.45	0.02
			4.00			0.94	0.54	0.03
						1.19	0.74	0.05
Horizon Compact	B	From Face	3.00	0.0000	140.00	0.72	0.37	0.01
			0.00			0.83	0.45	0.02
			4.00			0.94	0.54	0.03
						1.19	0.74	0.05
90 Platform Mount [LP 1201- 1_HR-1]	C	None		0.0000	90.00	26.39	26.39	2.36
						31.40	31.40	3.06
						36.20	36.20	3.86
						45.40	45.40	5.76
Side Arm Mount [ISO 102- 3]	A	None		0.0000	90.00	3.60	3.60	0.07
						4.18	4.18	0.11
						4.75	4.75	0.14
						5.90	5.90	0.20

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustmen t °	Placement ft	C _{AA} Front ft ²	C _{AA} Side ft ²	Weight K
Site Pro 1 PRK-SFS-L Handrail Reinforcement Kit	A	From Face	4.00	0.0000	90.00	1.97	0.06	0.07
			0.00			2.54	0.10	0.09
			0.00			3.13	0.14	0.12
						4.35	0.26	0.20
Site Pro 1 PRK-SFS-L Handrail Reinforcement Kit	B	From Face	4.00	0.0000	90.00	1.97	0.06	0.07
			0.00			2.54	0.10	0.09
			0.00			3.13	0.14	0.12
						4.35	0.26	0.20
Site Pro 1 PRK-SFS-L Handrail Reinforcement Kit	C	From Face	4.00	0.0000	90.00	1.97	0.06	0.07
			0.00			2.54	0.10	0.09
			0.00			3.13	0.14	0.12
						4.35	0.26	0.20
GPS_A	A	From Face	4.00	0.0000	90.00	0.26	0.26	0.00
			-7.00			0.32	0.32	0.00
			0.00			0.39	0.39	0.01
						0.56	0.56	0.02
NHH-65B-R2B w/ Mount Pipe	A	From Face	4.00	0.0000	90.00	4.09	3.29	0.07
			-7.00			4.48	3.67	0.13
			0.00			4.88	4.06	0.21
						5.70	4.86	0.39
NHH-65B-R2B w/ Mount Pipe	B	From Face	4.00	0.0000	90.00	4.09	3.29	0.07
			-7.00			4.48	3.67	0.13
			0.00			4.88	4.06	0.21
						5.70	4.86	0.39
NHH-65B-R2B w/ Mount Pipe	C	From Face	4.00	0.0000	90.00	4.09	3.29	0.07
			-7.00			4.48	3.67	0.13
			0.00			4.88	4.06	0.21
						5.70	4.86	0.39
NHH-65B-R2B w/ Mount Pipe	A	From Face	4.00	0.0000	90.00	4.09	3.29	0.07
			-2.50			4.48	3.67	0.13
			0.00			4.88	4.06	0.21
						5.70	4.86	0.39
NHH-65B-R2B w/ Mount Pipe	B	From Face	4.00	0.0000	90.00	4.09	3.29	0.07
			-2.50			4.48	3.67	0.13
			0.00			4.88	4.06	0.21
						5.70	4.86	0.39
NHH-65B-R2B w/ Mount Pipe	C	From Face	4.00	0.0000	90.00	4.09	3.29	0.07
			-2.50			4.48	3.67	0.13
			0.00			4.88	4.06	0.21
						5.70	4.86	0.39
HBXX-6517DS-A2M w/ Mount Pipe	A	From Face	4.00	0.0000	90.00	7.97	5.99	0.08
			2.50			8.73	6.72	0.14
			0.00			9.51	7.47	0.21
						11.11	9.02	0.40
HBXX-6517DS-A2M w/ Mount Pipe	B	From Face	4.00	0.0000	90.00	7.97	5.99	0.08
			2.50			8.73	6.72	0.14
			0.00			9.51	7.47	0.21
						11.11	9.02	0.40
HBXX-6517DS-A2M w/ Mount Pipe	C	From Face	4.00	0.0000	90.00	7.97	5.99	0.08
			2.50			8.73	6.72	0.14
			0.00			9.51	7.47	0.21
						11.11	9.02	0.40

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert	Azimuth Adjustmen t	Placement	C _{AA} Front	C _{AA} Side	Weight
			ft ft ft	°	ft	ft ²	ft ²	K
BXA-70080-4BF-EDIN-0 w/ Mount Pipe	A	From Face	4.00	0.0000	90.00	3.81	3.97	0.03
			7.00			4.17	4.58	0.07
			0.00			4.54	5.19	0.11
BXA-70080-4BF-EDIN-0 w/ Mount Pipe	B	From Face	4.00	0.0000	90.00	3.81	3.97	0.03
			7.00			4.17	4.58	0.07
			0.00			4.54	5.19	0.11
BXA-70080-4BF-EDIN-0 w/ Mount Pipe	C	From Face	4.00	0.0000	90.00	3.81	3.97	0.03
			7.00			4.17	4.58	0.07
			0.00			4.54	5.19	0.11
RFV01U-D1A	A	From Face	4.00	0.0000	90.00	1.88	1.25	0.08
RFV01U-D1A	B	From Face	0.00	0.0000	90.00	2.05	1.39	0.10
			0.00			2.22	1.54	0.12
			0.00			2.60	1.86	0.18
RFV01U-D1A	C	From Face	4.00	0.0000	90.00	1.88	1.25	0.08
			0.00			2.05	1.39	0.10
			0.00			2.22	1.54	0.12
RFV01U-D2A	A	From Face	4.00	0.0000	90.00	1.88	1.01	0.07
			0.00			2.05	1.14	0.09
			0.00			2.22	1.28	0.11
RFV01U-D2A	B	From Face	4.00	0.0000	90.00	1.88	1.01	0.07
			0.00			2.05	1.14	0.09
			0.00			2.22	1.28	0.11
RFV01U-D2A	C	From Face	4.00	0.0000	90.00	1.88	1.01	0.07
			0.00			2.05	1.14	0.09
			0.00			2.22	1.28	0.11
DB-T1-6Z-8AB-0Z	A	From Face	4.00	0.0000	90.00	4.80	2.00	0.04
			0.00			5.07	2.19	0.08
			0.00			5.35	2.39	0.12
***73** Side Arm Mount [ISO 701- 1]	C	From Face	0.00	0.0000	73.00	0.85	1.67	0.07
			0.00			1.14	2.34	0.08
			0.00			1.43	3.01	0.09
GFS_A	C	From Face	3.00	0.0000	73.00	0.26	0.26	0.00
			0.00			0.32	0.32	0.00
			2.00			0.39	0.39	0.01
***						0.56	0.56	0.02

Dishes

Description	Face or Leg	Dish Type	Offset Type	Offsets: Horz Lateral Vert	Azimuth Adjustment	3 dB Beam Width	Elevation	Outside Diameter	Aperture Area	Weight
				ft	°	°	ft	ft	ft ²	K
HPD2-4.7	A	Paraboloid w/Shroud (HP)	From Face	7.00 2.00 -1.00	75.0000		178.00	2.04	No Ice 3.27 3.55 3.82	0.03 0.05 0.06
HPD2-4.7	B	Paraboloid w/Shroud (HP)	From Face	7.00 -2.00 -1.00	-24.0000		178.00	2.04	2" Ice 4.36 3.27 3.55 3.82 4.36	0.10 0.03 0.05 0.06 0.10

VHLP2.5-10W	A	Paraboloid w/Shroud (HP)	From Face	3.00 0.00 4.00	60.0000		140.00	2.92	No Ice 6.68 7.07 7.46	0.05 0.08 0.12
VHLP2.5-10W	B	Paraboloid w/Shroud (HP)	From Face	3.00 0.00 4.00	60.0000		140.00	2.92	2" Ice 8.23 6.68 7.07 7.46 8.23	0.19 0.05 0.08 0.12 0.19

Load Combinations

Comb. No.	Description
1	Dead Only
2	1.2 Dead+1.0 Wind 0 deg - No Ice
3	0.9 Dead+1.0 Wind 0 deg - No Ice
4	1.2 Dead+1.0 Wind 30 deg - No Ice
5	0.9 Dead+1.0 Wind 30 deg - No Ice
6	1.2 Dead+1.0 Wind 60 deg - No Ice
7	0.9 Dead+1.0 Wind 60 deg - No Ice
8	1.2 Dead+1.0 Wind 90 deg - No Ice
9	0.9 Dead+1.0 Wind 90 deg - No Ice
10	1.2 Dead+1.0 Wind 120 deg - No Ice
11	0.9 Dead+1.0 Wind 120 deg - No Ice
12	1.2 Dead+1.0 Wind 150 deg - No Ice
13	0.9 Dead+1.0 Wind 150 deg - No Ice
14	1.2 Dead+1.0 Wind 180 deg - No Ice
15	0.9 Dead+1.0 Wind 180 deg - No Ice
16	1.2 Dead+1.0 Wind 210 deg - No Ice
17	0.9 Dead+1.0 Wind 210 deg - No Ice
18	1.2 Dead+1.0 Wind 240 deg - No Ice
19	0.9 Dead+1.0 Wind 240 deg - No Ice
20	1.2 Dead+1.0 Wind 270 deg - No Ice
21	0.9 Dead+1.0 Wind 270 deg - No Ice
22	1.2 Dead+1.0 Wind 300 deg - No Ice
23	0.9 Dead+1.0 Wind 300 deg - No Ice
24	1.2 Dead+1.0 Wind 330 deg - No Ice
25	0.9 Dead+1.0 Wind 330 deg - No Ice
26	1.2 Dead+1.0 Ice+1.0 Temp
27	1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp
28	1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp
29	1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp
30	1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp
31	1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp
32	1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp
33	1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp
34	1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp
35	1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp
36	1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp
37	1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp

Comb. No.	Description
38	1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp
39	Dead+Wind 0 deg - Service
40	Dead+Wind 30 deg - Service
41	Dead+Wind 60 deg - Service
42	Dead+Wind 90 deg - Service
43	Dead+Wind 120 deg - Service
44	Dead+Wind 150 deg - Service
45	Dead+Wind 180 deg - Service
46	Dead+Wind 210 deg - Service
47	Dead+Wind 240 deg - Service
48	Dead+Wind 270 deg - Service
49	Dead+Wind 300 deg - Service
50	Dead+Wind 330 deg - Service

Maximum Member Forces

Sectio n No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L1	181.833 - 176.833	Pole	Max Tension	36	0.00	-0.00	-0.00
			Max. Compression	26	-2.85	1.37	0.60
			Max. Mx	20	-0.26	14.69	0.06
			Max. My	2	-0.25	-0.00	14.51
			Max. Vy	20	-2.50	14.69	0.06
			Max. Vx	14	2.66	-0.03	-14.13
			Max. Torque	14			-2.29
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-3.39	1.35	0.62
			Max. Mx	20	-0.49	28.02	-0.82
L2	176.833 - 171.833	Pole	Max. Mx	14	-0.45	0.61	-28.23
			Max. Vy	20	-2.83	28.02	-0.82
			Max. Vx	14	2.99	0.61	-28.23
			Max. Torque	14			-2.29
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-3.39	1.35	0.62
			Max. Mx	20	-0.49	28.02	-0.82
			Max. My	14	-0.45	0.61	-28.23
			Max. Vy	20	-2.83	28.02	-0.82
			Max. Vx	14	2.99	0.61	-28.23
L3	171.833 - 166.833	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-18.53	1.58	0.40
			Max. Mx	20	-4.97	52.91	-1.78
			Max. My	14	-4.90	1.29	-53.96
			Max. Vy	20	-11.58	52.91	-1.78
			Max. Vx	14	11.76	1.29	-53.96
			Max. Torque	14			-2.45
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-19.24	1.56	0.46
			Max. Mx	20	-5.37	111.72	-2.74
L4	166.833 - 161.833	Pole	Max. My	14	-5.29	2.04	-113.71
			Max. Vy	20	-11.95	111.72	-2.74
			Max. Vx	14	12.14	2.04	-113.71
			Max. Torque	14			-2.45
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-19.24	1.56	0.46
			Max. Mx	20	-5.37	111.72	-2.74
			Max. My	14	-5.29	2.04	-113.71
			Max. Vy	20	-11.95	111.72	-2.74
			Max. Vx	14	12.14	2.04	-113.71
L5	161.833 - 156.833	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-26.69	1.54	0.52
			Max. Mx	20	-7.75	177.02	-3.70
			Max. My	14	-7.66	2.79	-179.96
			Max. Vy	20	-15.92	177.02	-3.70
			Max. Vx	14	16.12	2.79	-179.96
			Max. Torque	14			-2.45
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-27.53	1.51	0.60
			Max. Mx	20	-8.30	257.57	-4.66
L6	156.833 - 151.833	Pole	Max. My	14	-8.21	3.55	-261.50
			Max. Vy	20	-16.31	257.57	-4.66
			Max. Vx	14	16.51	3.55	-261.50
			Max. Torque	14			-2.45
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-27.53	1.51	0.60
			Max. Mx	20	-8.30	257.57	-4.66
			Max. My	14	-8.21	3.55	-261.50
			Max. Vy	20	-16.31	257.57	-4.66
			Max. Vx	14	16.51	3.55	-261.50

Sectio n No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial		Major Axis Moment		Minor Axis Moment	
					K	K	Kip-ft	Kip-ft	Kip-ft	Kip-ft
L7	151.833 - 146.833	Pole	Max Tension	1	0.00	0.00	0.00	0.00	0.00	0.00
			Max. Compression	26	-28.40	1.47	0.68			
			Max. Mx	20	-8.89	340.10	-5.63			
			Max. My	14	-8.80	4.29	-345.03			
			Max. Vy	20	-16.71	340.10	-5.63			
			Max. Vx	14	16.91	4.29	-345.03			
L8	146.833 - 141.833	Pole	Max. Torque	14	0.00	0.00	0.00	0.00	0.00	
			Max Tension	1	0.00	0.00	0.00	0.00		
			Max. Compression	26	-31.31	1.42	1.55			
			Max. Mx	20	-10.06	426.21	-6.25			
			Max. My	14	-9.95	4.68	-432.06			
			Max. Vy	20	-18.65	426.21	-6.25			
L9	141.833 - 136.833	Pole	Max. Vx	14	18.93	4.68	-432.06			
			Max. Torque	18	0.00	0.00	0.00	0.00		
			Max Tension	1	0.00	0.00	0.00	0.00		
			Max. Compression	26	-40.77	1.19	1.95			
			Max. Mx	20	-13.61	533.79	-6.24			
			Max. My	14	-13.50	4.68	-540.91			
L10	136.833 - 132.914	Pole	Max. Vy	20	-22.36	533.79	-6.24			
			Max. Vx	14	22.63	4.68	-540.91			
			Max. Torque	18	0.00	0.00	0.00	0.00		
			Max Tension	1	0.00	0.00	0.00	0.00		
			Max. Compression	26	-40.81	1.18	1.96			
			Max. Mx	20	-13.65	537.50	-6.24			
L11	132.914 - 131.667	Pole	Max. My	14	-13.54	4.68	-544.66			
			Max. Vy	20	-22.36	537.50	-6.24			
			Max. Vx	14	22.63	4.68	-544.66			
			Max. Torque	19	0.00	0.00	0.00	0.00		
			Max Tension	1	0.00	0.00	0.00	0.00		
			Max. Compression	26	-42.82	0.83	2.22			
L12	131.667 - 126.667	Pole	Max. Mx	20	-14.80	650.60	-6.27			
			Max. My	14	-14.70	4.67	-659.15			
			Max. Vy	20	-22.89	650.60	-6.27			
			Max. Vx	14	23.17	4.67	-659.15			
			Max. Torque	19	0.00	0.00	0.00	0.00		
			Max Tension	1	0.00	0.00	0.00	0.00		
L13	126.667 - 121.667	Pole	Max. Compression	26	-44.30	0.46	2.49			
			Max. Mx	20	-15.76	766.08	-6.29			
			Max. My	14	-15.65	4.65	-776.02			
			Max. Vy	20	-23.34	766.08	-6.29			
			Max. Vx	14	23.62	4.65	-776.02			
			Max. Torque	19	0.00	0.00	0.00	0.00		
L14	121.667 - 116.667	Pole	Max Tension	1	0.00	0.00	0.00	0.00		
			Max. Compression	26	-45.82	0.09	2.77			
			Max. Mx	20	-16.74	883.81	-6.32			
			Max. My	14	-16.64	4.63	-895.15			
			Max. Vy	20	-23.79	883.81	-6.32			
			Max. Vx	14	24.07	4.63	-895.15			
L15	116.667 - 111.667	Pole	Max. Torque	19	0.00	0.00	0.00	0.00		
			Max Tension	1	0.00	0.00	0.00	0.00		
			Max. Compression	26	-47.38	-0.30	3.04			
			Max. Mx	20	-17.76	1003.82	-6.34			
			Max. My	14	-17.66	4.60	-1016.57			
			Max. Vy	20	-24.25	1003.82	-6.34			
L15	116.667 - 111.667	Pole	Max. Vx	14	24.53	4.60	-1016.57			
			Max. Torque	19	0.00	0.00	0.00	0.00		
			Max Tension	1	0.00	0.00	0.00	0.00		
			Max. Compression	26	-48.98	-0.70	3.33			
			Max. Mx	20	-18.81	1126.12	-6.36			
			Max. My	14	-18.71	4.56	-1140.30			

Sectio n No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft	
L16	111.667 - 106.667	Pole	Max. Vy	20	-24.72	1126.12	-6.36	
			Max. Vx	14	25.00	4.56	-1140.30	
			Max. Torque	19				-4.13
			Max Tension	1	0.00	0.00	0.00	
			Max. Compression	26	-50.62	-1.12	3.61	
			Max. Mx	20	-19.90	1250.75	-6.38	
L17	106.667 - 101.667	Pole	Max. My	14	-19.80	4.52	-1266.36	
			Max. Vy	20	-25.18	1250.75	-6.38	
			Max. Vx	14	25.47	4.52	-1266.36	
			Max. Torque	19			-4.12	
			Max Tension	1	0.00	0.00	0.00	
			Max. Compression	26	-52.30	-1.54	3.90	
L18	101.667 - 96.667	Pole	Max. Mx	20	-21.01	1377.73	-6.40	
			Max. My	14	-20.92	4.47	-1394.77	
			Max. Vy	20	-25.66	1377.73	-6.40	
			Max. Vx	14	25.94	4.47	-1394.77	
			Max. Torque	19			-4.12	
			Max Tension	1	0.00	0.00	0.00	
L19	96.667 - 87.302	Pole	Max. Compression	26	-54.01	-1.97	4.20	
			Max. Mx	20	-22.16	1507.07	-6.41	
			Max. My	14	-22.07	4.42	-1525.56	
			Max. Vy	20	-26.13	1507.07	-6.41	
			Max. Vx	14	26.42	4.42	-1525.56	
			Max. Torque	19			-4.11	
L20	87.302 - 86.302	Pole	Max Tension	1	0.00	0.00	0.00	
			Max. Compression	26	-55.55	-2.36	4.46	
			Max. Mx	20	-23.19	1621.38	-6.42	
			Max. My	14	-23.11	4.37	-1641.12	
			Max. Vy	20	-26.55	1621.38	-6.42	
			Max. Vx	14	26.83	4.37	-1641.12	
L21	86.302 - 85	Pole	Max. Torque	19			-4.11	
			Max Tension	1	0.00	0.00	0.00	
			Max. Compression	26	-71.23	-1.72	5.33	
			Max. Mx	20	-29.70	1800.82	-6.15	
			Max. My	14	-29.60	4.32	-1821.84	
			Max. Vy	20	-31.94	1800.82	-6.15	
L22	85 - 84.75	Pole	Max. Vx	14	32.25	4.32	-1821.84	
			Max. Torque	19			-4.47	
			Max Tension	1	0.00	0.00	0.00	
			Max. Compression	26	-71.86	-1.84	5.41	
			Max. Mx	20	-30.13	1842.44	-6.09	
			Max. My	14	-30.02	4.25	-1863.94	
L23	84.75 - 79.75	Pole	Max. Vy	20	-32.07	1842.44	-6.09	
			Max. Vx	14	32.48	4.25	-1863.94	
			Max. Torque	19			-4.47	
			Max Tension	1	0.00	0.00	0.00	
			Max. Compression	26	-71.98	-1.87	5.42	
			Max. Mx	20	-30.23	1850.45	-6.08	
L24	79.75 - 75	Pole	Max. My	14	-30.12	4.23	-1872.05	
			Max. Vy	20	-32.07	1850.45	-6.08	
			Max. Vx	14	32.50	4.23	-1872.05	
			Max. Torque	19			-4.47	
			Max Tension	1	0.00	0.00	0.00	
			Max. Compression	26	-74.41	-2.33	5.74	
L25	75 - 70	Pole	Max. Mx	20	-31.89	2011.85	-5.85	
			Max. My	14	-31.76	3.93	-2036.58	
			Max. Vy	20	-32.54	2011.85	-5.85	
			Max. Vx	14	33.35	3.93	-2036.58	
			Max. Torque	19			-4.47	
			Max Tension	1	0.00	0.00	0.00	
L26	70 - 65	Pole	Max. Compression	26	-76.99	-2.78	6.04	
			Max. Mx	20	-33.63	2168.12	-5.64	
			Max. My	14	-33.49	3.64	-2196.86	

Sectio n No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L25	75 - 74.75	Pole	Max. Vy	20	-33.33	2168.12	-5.64
			Max. Vx	14	34.20	3.64	-2196.86
			Max. Torque	19	0.00	0.00	0.00
			Max. Tension	1	-77.17	-2.81	6.05
			Max. Compression	26	-33.78	2176.45	-5.63
			Max. Mx	20	-33.65	3.63	-2205.41
L26	74.75 - 74	Pole	Max. Vy	20	-33.36	2176.45	-5.63
			Max. Vx	14	34.23	3.63	-2205.41
			Max. Torque	19	0.00	0.00	-4.46
			Max. Tension	1	0.00	0.00	0.00
			Max. Compression	26	-77.74	-2.88	6.10
			Max. Mx	20	-34.18	2201.51	-5.59
L27	74 - 73.75	Pole	Max. My	14	-34.04	3.58	-2231.13
			Max. Vy	20	-33.51	2201.51	-5.59
			Max. Vx	14	34.40	3.58	-2231.13
			Max. Torque	19	0.00	0.00	-4.46
			Max. Tension	1	0.00	0.00	0.00
			Max. Compression	26	-77.89	-2.90	6.11
L28	73.75 - 68.75	Pole	Max. Mx	20	-34.28	2209.89	-5.58
			Max. My	14	-34.15	3.57	-2239.73
			Max. Vy	20	-33.55	2209.89	-5.58
			Max. Vx	14	34.44	3.57	-2239.73
			Max. Torque	19	0.00	0.00	-4.46
			Max. Tension	1	0.00	0.00	0.00
L29	68.75 - 63.75	Pole	Max. Compression	26	-80.78	-3.42	6.14
			Max. Mx	20	-36.21	2379.12	-5.47
			Max. My	14	-36.06	3.26	-2414.45
			Max. Vy	20	-34.12	2379.12	-5.47
			Max. Vx	14	35.39	3.26	-2414.45
			Max. Torque	19	0.00	0.00	-4.46
L30	63.75 - 58.75	Pole	Max. Tension	1	0.00	0.00	0.00
			Max. Compression	26	-83.34	-3.95	6.48
			Max. Mx	20	-37.99	2550.61	-5.24
			Max. My	14	-37.82	2.94	-2593.29
			Max. Vy	20	-34.55	2550.61	-5.24
			Max. Vx	14	36.21	2.94	-2593.29
L31	58.75 - 53.75	Pole	Max. Torque	19	0.00	0.00	-4.30
			Max. Tension	1	0.00	0.00	0.00
			Max. Compression	26	-85.95	-4.49	6.82
			Max. Mx	20	-39.81	2724.26	-5.00
			Max. My	14	-39.63	2.62	-2776.23
			Max. Vy	20	-34.98	2724.26	-5.00
L32	53.75 - 49	Pole	Max. Vx	14	37.03	2.62	-2776.23
			Max. Torque	19	0.00	0.00	-4.30
			Max. Tension	1	0.00	0.00	0.00
			Max. Compression	26	-88.58	-5.03	7.15
			Max. Mx	20	-41.65	2900.03	-4.77
			Max. My	14	-41.47	2.30	-2963.25
L33	49 - 42.698	Pole	Max. Vy	20	-35.40	2900.03	-4.77
			Max. Vx	14	37.84	2.30	-2963.25
			Max. Torque	19	0.00	0.00	-4.29
			Max. Tension	1	0.00	0.00	0.00
			Max. Compression	26	-91.10	-5.54	7.47
			Max. Mx	20	-43.43	3068.91	-4.54
L33	49 - 42.698	Pole	Max. My	14	-43.24	1.99	-3144.65
			Max. Vy	20	-35.79	3068.91	-4.54
			Max. Vx	14	38.61	1.99	-3144.65
			Max. Torque	19	0.00	0.00	-4.29
			Max. Tension	1	0.00	0.00	0.00
			Max. Compression	26	-91.14	-5.55	7.48
L33	49 - 42.698	Pole	Max. Mx	20	-43.48	3071.59	-4.54
			Max. My	14	-43.29	1.98	-3147.54
			Max. Vy	20	-35.79	3071.59	-4.54
			Max. Vx	14	38.59	1.98	-3147.54
			Max. Torque	19	0.00	0.00	-4.29
			Max. Tension	1	0.00	0.00	0.00

Sec _n No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L34	42.698 - 41.698	Pole	Max. Torque	19	0.00	0.00	-4.29
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-96.66	-6.34	7.97
			Max. Mx	20	-47.29	3332.99	-4.19
			Max. My	14	-47.12	1.51	-3429.34
			Max. Vy	20	-36.59	3332.99	-4.19
L35	41.698 - 36.698	Pole	Max. Vx	14	39.41	1.51	-3429.34
			Max. Torque	19	0.00	0.00	-4.29
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-98.99	-6.88	8.30
			Max. Mx	20	-49.02	3516.72	-3.94
			Max. My	14	-48.88	1.18	-3627.17
L36	36.698 - 31.698	Pole	Max. Vy	20	-36.98	3516.72	-3.94
			Max. Vx	14	39.79	1.18	-3627.17
			Max. Torque	19	0.00	0.00	-4.29
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-101.35	-7.40	8.60
			Max. Mx	20	-50.79	3702.35	-3.70
L37	31.698 - 26.698	Pole	Max. My	14	-50.67	0.84	-3826.88
			Max. Vy	20	-37.36	3702.35	-3.70
			Max. Vx	14	40.16	0.84	-3826.88
			Max. Torque	19	0.00	0.00	-4.29
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-103.74	-7.90	8.89
L38	26.698 - 21.698	Pole	Max. Mx	20	-52.60	3889.83	-3.46
			Max. My	14	-52.49	0.50	-4028.40
			Max. Vy	20	-37.72	3889.83	-3.46
			Max. Vx	14	40.52	0.50	-4028.40
			Max. Torque	19	0.00	0.00	-4.28
			Max Tension	1	0.00	0.00	0.00
L39	21.698 - 16.698	Pole	Max. Compression	26	-106.16	-8.41	9.18
			Max. Mx	20	-54.44	4079.06	-3.21
			Max. My	14	-54.35	0.16	-4231.65
			Max. Vy	20	-38.06	4079.06	-3.21
			Max. Vx	14	40.85	0.16	-4231.65
			Max. Torque	19	0.00	0.00	-4.28
L40	16.698 - 11.698	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-108.60	-8.91	9.47
			Max. Mx	20	-56.31	4269.95	-2.96
			Max. My	14	-56.24	-0.19	-4436.50
			Max. Vy	20	-38.38	4269.95	-2.96
			Max. Vx	14	41.16	-0.19	-4436.50
L41	11.698 - 6.698	Pole	Max. Torque	19	0.00	0.00	-4.28
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-111.05	-9.38	9.74
			Max. Mx	20	-58.21	4462.36	-2.71
			Max. My	14	-58.16	-0.53	-4642.84
			Max. Vy	20	-38.67	4462.36	-2.71
L42	6.698 - 1.698	Pole	Max. Vx	14	41.45	-0.53	-4642.84
			Max. Torque	19	0.00	0.00	-4.28
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-113.30	-9.43	9.77
			Max. Mx	20	-60.11	4656.32	-2.51
			Max. My	14	-60.08	-0.80	-4850.65
L43	1.698 - -3.302	Pole	Max. Vy	20	-38.97	4656.32	-2.51
			Max. Vx	14	41.73	-0.80	-4850.65
			Max. Torque	19	0.00	0.00	-4.28
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-115.54	-9.45	9.78
			Max. Mx	20	-62.03	4851.77	-2.31

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L43	1.698 - 0	Pole	Max. My	14	-62.02	-1.06	-5059.89
			Max. Vy	20	-39.27	4851.77	-2.31
			Max. Vx	14	42.02	-1.06	-5059.89
			Max. Torque	19			-4.28
			Max. Tension	1	0.00	0.00	0.00
			Max. Compression	26	-116.28	-9.45	9.78
			Max. Mx	20	-62.68	4918.48	-2.24
			Max. My	14	-62.68	-1.15	-5131.28
			Max. Vy	20	-39.39	4918.48	-2.24
			Max. Vx	14	42.14	-1.15	-5131.28
			Max. Torque	19			-4.28

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Pole	Max. Vert	27	116.28	0.03	10.62
	Max. H _x	20	62.71	39.34	0.04
	Max. H _z	2	62.71	0.17	39.32
	Max. M _x	2	4926.99	0.17	39.32
	Max. M _z	8	4903.78	-39.24	0.02
	Max. Torsion	7	3.52	-36.19	20.98
	Min. Vert	19	47.03	34.02	-19.77
	Min. H _x	9	47.03	-39.24	0.02
	Min. H _z	15	47.03	-0.05	-42.09
	Min. M _x	14	-5131.28	-0.05	-42.09
	Min. M _z	20	-4918.48	39.34	0.04
	Min. Torsion	19	-4.28	34.02	-19.77

Tower Mast Reaction Summary

Load Combination	Vertical K	Shear _x K	Shear _z K	Overturning Moment, M _x kip-ft	Overturning Moment, M _z kip-ft	Torque kip-ft
Dead Only	52.26	0.00	0.00	-1.11	-0.75	0.00
1.2 Dead+1.0 Wind 0 deg - No Ice	62.71	-0.17	-39.32	-4926.99	17.72	-2.39
0.9 Dead+1.0 Wind 0 deg - No Ice	47.03	-0.17	-39.32	-4835.07	17.73	-2.40
1.2 Dead+1.0 Wind 30 deg - No Ice	62.71	19.56	-34.02	-4264.68	-2447.48	-3.34
0.9 Dead+1.0 Wind 30 deg - No Ice	47.03	19.56	-34.02	-4185.04	-2401.76	-3.34
1.2 Dead+1.0 Wind 60 deg - No Ice	62.71	36.19	-20.98	-2562.50	-4396.49	-3.52
0.9 Dead+1.0 Wind 60 deg - No Ice	47.03	36.19	-20.98	-2515.29	-4316.15	-3.52
1.2 Dead+1.0 Wind 90 deg - No Ice	62.71	39.24	-0.02	-12.72	-4903.78	-2.37
0.9 Dead+1.0 Wind 90 deg - No Ice	47.03	39.24	-0.02	-12.00	-4812.55	-2.37
1.2 Dead+1.0 Wind 120 deg - No Ice	62.71	34.15	19.98	2503.44	-4263.90	0.53
0.9 Dead+1.0 Wind 120 deg - No Ice	47.03	34.15	19.98	2457.36	-4184.67	0.53
1.2 Dead+1.0 Wind 150 deg - No Ice	62.71	19.57	34.25	4295.62	-2435.89	2.41
0.9 Dead+1.0 Wind 150 deg - No Ice	47.03	19.57	34.25	4216.11	-2390.61	2.42
1.2 Dead+1.0 Wind 180 deg - No Ice	62.71	0.05	42.09	5131.28	-1.15	3.07

Load Combination	Vertical		Shear _x		Shear _z		Overturning Moment, M _x kip-ft	Overturning Moment, M _z kip-ft	Torque kip-ft
	K	K	K	K	K	K			
- No Ice									
0.9 Dead+1.0 Wind 180 deg	47.03		0.05		42.09		5037.94	-1.01	3.08
- No Ice									
1.2 Dead+1.0 Wind 210 deg	62.71		-19.56		34.24		4298.37	2446.29	3.57
- No Ice									
0.9 Dead+1.0 Wind 210 deg	47.03		-19.56		34.24		4218.73	2401.07	3.58
- No Ice									
1.2 Dead+1.0 Wind 240 deg	62.71		-34.02		19.77		2487.36	4253.65	4.27
- No Ice									
0.9 Dead+1.0 Wind 240 deg	47.03		-34.02		19.77		2441.29	4174.92	4.28
- No Ice									
1.2 Dead+1.0 Wind 270 deg	62.71		-39.34		-0.04		2.24	4918.48	2.32
- No Ice									
0.9 Dead+1.0 Wind 270 deg	47.03		-39.34		-0.04		2.37	4827.41	2.33
- No Ice									
1.2 Dead+1.0 Wind 300 deg	62.71		-36.50		-21.26		-2592.65	4431.78	0.29
- No Ice									
0.9 Dead+1.0 Wind 300 deg	47.03		-36.50		-21.26		-2545.04	4351.37	0.29
- No Ice									
1.2 Dead+1.0 Wind 330 deg	62.71		-19.65		-34.16		-4282.82	2447.97	-1.42
- No Ice									
0.9 Dead+1.0 Wind 330 deg	47.03		-19.65		-34.16		-4202.86	2402.90	-1.43
- No Ice									
1.2 Dead+1.0 Ice+1.0 Temp	116.28		0.00		-0.00		-9.78	-9.45	0.00
1.2 Dead+1.0 Wind 0	116.28		-0.03		-10.62		-1496.16	-6.22	-0.75
deg+1.0 Ice+1.0 Temp									
1.2 Dead+1.0 Wind 30	116.28		5.29		-9.19		-1296.76	-749.55	-0.88
deg+1.0 Ice+1.0 Temp									
1.2 Dead+1.0 Wind 60	116.28		9.21		-5.34		-757.34	-1294.16	-0.80
deg+1.0 Ice+1.0 Temp									
1.2 Dead+1.0 Wind 90	116.28		10.60		-0.01		-13.29	-1490.80	-0.43
deg+1.0 Ice+1.0 Temp									
1.2 Dead+1.0 Wind 120	116.28		9.17		5.34		738.46	-1289.59	0.28
deg+1.0 Ice+1.0 Temp									
1.2 Dead+1.0 Wind 150	116.28		5.29		9.23		1284.38	-745.65	0.75
deg+1.0 Ice+1.0 Temp									
1.2 Dead+1.0 Wind 180	116.28		0.01		10.69		1486.38	-8.77	0.89
deg+1.0 Ice+1.0 Temp									
1.2 Dead+1.0 Wind 210	116.28		-5.29		9.23		1285.46	730.79	0.93
deg+1.0 Ice+1.0 Temp									
1.2 Dead+1.0 Wind 240	116.28		-9.19		5.33		740.02	1275.49	0.96
deg+1.0 Ice+1.0 Temp									
1.2 Dead+1.0 Wind 270	116.28		-10.63		-0.00		-7.99	1475.39	0.42
deg+1.0 Ice+1.0 Temp									
1.2 Dead+1.0 Wind 300	116.28		-9.23		-5.36		-759.36	1276.54	-0.11
deg+1.0 Ice+1.0 Temp									
1.2 Dead+1.0 Wind 330	116.28		-5.31		-9.21		-1300.46	729.70	-0.54
deg+1.0 Ice+1.0 Temp									
Dead+Wind 0 deg - Service	52.26		-0.04		-8.53		-1061.08	3.26	-0.54
Dead+Wind 30 deg - Service	52.26		4.24		-7.38		-918.56	-527.20	-0.75
Dead+Wind 60 deg - Service	52.26		7.85		-4.55		-552.40	-946.77	-0.79
Dead+Wind 90 deg - Service	52.26		8.51		-0.00		-3.63	-1055.71	-0.53
Dead+Wind 120 deg - Service	52.26		7.41		4.34		537.80	-918.08	0.12
Dead+Wind 150 deg - Service	52.26		4.25		7.43		923.46	-524.73	0.54
Dead+Wind 180 deg - Service	52.26		0.01		9.13		1103.56	-0.80	0.69
Dead+Wind 210 deg - Service	52.26		-4.24		7.43		924.07	525.87	0.81
Dead+Wind 240 deg - Service	52.26		-7.38		4.29		534.32	914.76	0.96
Dead+Wind 270 deg - Service	52.26		-8.54		-0.01		-0.43	1057.77	0.52
Dead+Wind 300 deg - Service	52.26		-7.92		-4.61		-558.90	953.29	0.07
Dead+Wind 330 deg - Service	52.26		-4.26		-7.41		-922.46	526.20	-0.32

Solution Summary

Load Comb.	Sum of Applied Forces			Sum of Reactions			% Error
	PX K	PY K	PZ K	PX K	PY K	PZ K	
1	0.00	-52.26	0.00	0.00	52.26	0.00	0.000%
2	-0.17	-62.71	-39.32	0.17	62.71	39.32	0.000%
3	-0.17	-47.03	-39.32	0.17	47.03	39.32	0.000%
4	19.56	-62.71	-34.02	-19.56	62.71	34.02	0.000%
5	19.56	-47.03	-34.02	-19.56	47.03	34.02	0.000%
6	36.19	-62.71	-20.98	-36.19	62.71	20.98	0.000%
7	36.19	-47.03	-20.98	-36.19	47.03	20.98	0.000%
8	39.24	-62.71	-0.02	-39.24	62.71	0.02	0.000%
9	39.24	-47.03	-0.02	-39.24	47.03	0.02	0.000%
10	34.15	-62.71	19.98	-34.15	62.71	-19.98	0.000%
11	34.15	-47.03	19.98	-34.15	47.03	-19.98	0.000%
12	19.57	-62.71	34.25	-19.57	62.71	-34.25	0.000%
13	19.57	-47.03	34.25	-19.57	47.03	-34.25	0.000%
14	0.05	-62.71	42.09	-0.05	62.71	-42.09	0.000%
15	0.05	-47.03	42.09	-0.05	47.03	-42.09	0.000%
16	-19.56	-62.71	34.24	19.56	62.71	-34.24	0.000%
17	-19.56	-47.03	34.24	-19.56	47.03	-34.24	0.000%
18	-34.02	-62.71	19.77	34.02	62.71	-19.77	0.000%
19	-34.02	-47.03	19.77	34.02	47.03	-19.77	0.000%
20	-39.34	-62.71	-0.04	39.34	62.71	0.04	0.000%
21	-39.34	-47.03	-0.04	39.34	47.03	0.04	0.000%
22	-36.50	-62.71	-21.26	36.50	62.71	21.26	0.000%
23	-36.50	-47.03	-21.26	36.50	47.03	21.26	0.000%
24	-19.65	-62.71	-34.16	19.65	62.71	34.16	0.000%
25	-19.65	-47.03	-34.16	19.65	47.03	34.16	0.000%
26	0.00	-116.28	0.00	0.00	116.28	0.00	0.000%
27	-0.03	-116.28	-10.62	0.03	116.28	10.62	0.000%
28	5.29	-116.28	-9.19	-5.29	116.28	9.19	0.000%
29	9.21	-116.28	-5.34	-9.21	116.28	5.34	0.000%
30	10.60	-116.28	-0.01	-10.60	116.28	0.01	0.000%
31	9.17	-116.28	5.34	-9.17	116.28	-5.34	0.000%
32	5.29	-116.28	9.23	-5.29	116.28	-9.23	0.000%
33	0.01	-116.28	10.69	-0.01	116.28	-10.69	0.000%
34	-5.29	-116.28	9.23	5.29	116.28	-9.23	0.000%
35	-9.19	-116.28	5.33	9.19	116.28	-5.33	0.000%
36	-10.63	-116.28	-0.00	10.63	116.28	0.00	0.000%
37	-9.23	-116.28	-5.36	9.23	116.28	5.36	0.000%
38	-5.31	-116.28	-9.21	5.31	116.28	9.21	0.000%
39	-0.04	-52.26	-8.53	0.04	52.26	8.53	0.000%
40	4.24	-52.26	-7.38	-4.24	52.26	7.38	0.000%
41	7.85	-52.26	-4.55	-7.85	52.26	4.55	0.000%
42	8.51	-52.26	-0.00	-8.51	52.26	0.00	0.000%
43	7.41	-52.26	4.34	-7.41	52.26	-4.34	0.000%
44	4.25	-52.26	7.43	-4.25	52.26	-7.43	0.000%
45	0.01	-52.26	9.13	-0.01	52.26	-9.13	0.000%
46	-4.24	-52.26	7.43	4.24	52.26	-7.43	0.000%
47	-7.38	-52.26	4.29	7.38	52.26	-4.29	0.000%
48	-8.54	-52.26	-0.01	8.54	52.26	0.01	0.000%
49	-7.92	-52.26	-4.61	7.92	52.26	4.61	0.000%
50	-4.26	-52.26	-7.41	4.26	52.26	7.41	0.000%

Non-Linear Convergence Results

Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance
1	Yes	4	0.00000001	0.00000001
2	Yes	6	0.00000001	0.00096608
3	Yes	6	0.00000001	0.00029639
4	Yes	8	0.00000001	0.00010315
5	Yes	7	0.00000001	0.00027447
6	Yes	8	0.00000001	0.00011421
7	Yes	7	0.00000001	0.00030499
8	Yes	7	0.00000001	0.00008053

9	Yes	6	0.00000001	0.00030660
10	Yes	8	0.00000001	0.00010924
11	Yes	7	0.00000001	0.00029188
12	Yes	8	0.00000001	0.00010488
13	Yes	7	0.00000001	0.00027943
14	Yes	7	0.00000001	0.00008067
15	Yes	6	0.00000001	0.00031031
16	Yes	8	0.00000001	0.00011272
17	Yes	7	0.00000001	0.00030265
18	Yes	8	0.00000001	0.00010187
19	Yes	7	0.00000001	0.00027029
20	Yes	6	0.00000001	0.00077848
21	Yes	6	0.00000001	0.00023447
22	Yes	8	0.00000001	0.00011057
23	Yes	7	0.00000001	0.00029342
24	Yes	8	0.00000001	0.00011013
25	Yes	7	0.00000001	0.00029520
26	Yes	6	0.00000001	0.00034865
27	Yes	9	0.00000001	0.00042427
28	Yes	9	0.00000001	0.00053556
29	Yes	9	0.00000001	0.00054219
30	Yes	9	0.00000001	0.00042076
31	Yes	9	0.00000001	0.00052787
32	Yes	9	0.00000001	0.00042050
33	Yes	9	0.00000001	0.00053176
34	Yes	9	0.00000001	0.00052531
35	Yes	9	0.00000001	0.00041862
36	Yes	9	0.00000001	0.00053459
37	Yes	9	0.00000001	0.00053485
38	Yes	9	0.00000001	0.00010253
39	Yes	6	0.00000001	0.00031027
40	Yes	6	0.00000001	0.00037269
41	Yes	6	0.00000001	0.00010270
42	Yes	6	0.00000001	0.00033604
43	Yes	6	0.00000001	0.00031314
44	Yes	6	0.00000001	0.00010883
45	Yes	6	0.00000001	0.00036188
46	Yes	6	0.00000001	0.00031136
47	Yes	6	0.00000001	0.00010155
48	Yes	6	0.00000001	0.00035264
49	Yes	6	0.00000001	0.00033980
50	Yes	6	0.00000001	0.00033980

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	181.833 - 176.833	47.251	45	2.4326	0.0157
L2	176.833 - 171.833	44.705	45	2.4297	0.0154
L3	171.833 - 166.833	42.169	45	2.4143	0.0137
L4	166.833 - 161.833	39.652	45	2.3921	0.0123
L5	161.833 - 156.833	37.167	45	2.3510	0.0111
L6	156.833 - 151.833	34.736	45	2.2919	0.0101
L7	151.833 - 146.833	32.375	45	2.2162	0.0093
L8	146.833 - 141.833	30.100	45	2.1280	0.0086
L9	141.833 - 136.833	27.922	45	2.0316	0.0076
L10	136.833 - 132.914	25.848	45	1.9280	0.0065
L11	136.667 -	25.781	45	1.9244	0.0064

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L12	131.667	23.791	45	1.8695	0.0059
L13	126.667	21.877	45	1.7866	0.0053
L14	121.667	20.050	45	1.7021	0.0047
L15	116.667	18.313	45	1.6168	0.0042
L16	111.667	16.665	45	1.5316	0.0038
L17	106.667	15.105	45	1.4469	0.0034
	101.667				
L18	101.667 - 96.667	13.635	49	1.3633	0.0030
L19	96.667 - 87.302	12.252	49	1.2809	0.0027
L20	92.323 - 86.302	11.119	49	1.2105	0.0025
L21	86.302 - 85	9.626	49	1.1523	0.0023
L22	85 - 84.75	9.315	49	1.1307	0.0022
L23	84.75 - 79.75	9.255	49	1.1265	0.0022
L24	79.75 - 75	8.120	49	1.0430	0.0019
L25	75 - 74.75	7.122	49	0.9647	0.0017
L26	74.75 - 74	7.071	49	0.9623	0.0017
L27	74 - 73.75	6.921	49	0.9553	0.0017
L28	73.75 - 68.75	6.871	49	0.9512	0.0017
L29	68.75 - 63.75	5.917	49	0.8704	0.0015
L30	63.75 - 58.75	5.047	49	0.7908	0.0013
L31	58.75 - 53.75	4.260	49	0.7124	0.0011
L32	53.75 - 49	3.555	49	0.6354	0.0009
L33	49 - 42.698	2.959	49	0.5634	0.0008
L34	48.925 - 41.698	2.950	49	0.5623	0.0008
L35	41.698 - 36.698	2.138	49	0.5051	0.0007
L36	36.698 - 31.698	1.643	49	0.4396	0.0006
L37	31.698 - 26.698	1.217	49	0.3755	0.0005
L38	26.698 - 21.698	0.856	49	0.3127	0.0004
L39	21.698 - 16.698	0.561	49	0.2512	0.0003
L40	16.698 - 11.698	0.330	49	0.1911	0.0002
L41	11.698 - 6.698	0.160	49	0.1323	0.0002
L42	6.698 - 1.698	0.052	49	0.0748	0.0001
L43	1.698 - 0	0.003	49	0.0186	0.0000

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
178.00	Side Arm Mount [SO 702-3]	45	45.299	2.4314	0.0157	27305
177.00	HPD2-4.7	45	44.790	2.4300	0.0155	27305
168.00	Site Pro 1 RMQLP-469-HK	45	40.237	2.3985	0.0126	10322
157.00	Platform Mount [LP 305-1]	45	34.816	2.2941	0.0101	4265
144.00	VHLP2.5-10W	45	28.653	2.0742	0.0081	2960
142.00	Pipe Mount [PM 601-3]	45	27.993	2.0349	0.0077	2874
140.00	Platform Mount [12' LP 1201-1]	45	27.149	1.9946	0.0072	2902
90.00	Platform Mount [LP 1201-1_HR-1]	49	10.533	1.1890	0.0024	5089
73.00	Side Arm Mount [SO 701-1]	49	6.722	0.9385	0.0016	3740

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	181.833 -	219.196	14	11.3142	0.0741

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L2	176.833	207.426	14	11.3016	0.0736
L3	171.833	195.702	14	11.2296	0.0656
L4	166.833	184.067	14	11.1266	0.0588
L5	161.833	172.578	14	10.9368	0.0530
L6	156.833	161.329	14	10.6636	0.0481
L7	151.833	150.400	14	10.3134	0.0439
L8	146.833	139.865	14	9.9052	0.0404
L9	141.833	129.771	14	9.4584	0.0359
L10	136.833	120.157	14	8.9774	0.0302
L11	132.914	119.846	14	8.9608	0.0300
L12	131.667	110.615	14	8.7059	0.0276
L13	126.667	101.732	14	8.3208	0.0246
L14	121.667	93.252	14	7.9275	0.0219
L15	116.667	85.183	14	7.5309	0.0195
L16	111.667	77.525	14	7.1343	0.0174
L17	106.667	70.278	14	6.7404	0.0156
L18	101.667	63.439	14	6.3510	0.0139
L19	96.667 - 87.302	57.002	14	5.9673	0.0124
L20	92.323 - 86.302	51.731	14	5.6394	0.0112
L21	86.302 - 85	44.779	14	5.3684	0.0103
L22	85 - 84.75	43.331	14	5.2675	0.0100
L23	84.75 - 79.75	43.056	14	5.2480	0.0099
L24	79.75 - 75	37.771	14	4.8588	0.0087
L25	75 - 74.75	33.125	14	4.4937	0.0077
L26	74.75 - 74	32.890	14	4.4827	0.0076
L27	74 - 73.75	32.189	14	4.4499	0.0076
L28	73.75 - 68.75	31.957	14	4.4309	0.0075
L29	68.75 - 63.75	27.519	14	4.0534	0.0066
L30	63.75 - 58.75	23.473	14	3.6817	0.0057
L31	58.75 - 53.75	19.811	14	3.3161	0.0049
L32	53.75 - 49	16.529	14	2.9568	0.0042
L33	49 - 42.698	13.756	14	2.6213	0.0036
L34	48.925 - 41.698	13.715	14	2.6161	0.0036
L35	41.698 - 36.698	9.938	22	2.3496	0.0031
L36	36.698 - 31.698	7.639	22	2.0446	0.0026
L37	31.698 - 26.698	5.655	22	1.7461	0.0022
L38	26.698 - 21.698	3.981	22	1.4539	0.0018
L39	21.698 - 16.698	2.609	22	1.1680	0.0014
L40	16.698 - 11.698	1.532	22	0.8884	0.0010
L41	11.698 - 6.698	0.746	22	0.6150	0.0007
L42	6.698 - 1.698	0.242	22	0.3477	0.0004
L43	1.698 - 0	0.015	22	0.0864	0.0001

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
178.00	Side Arm Mount [SO 702-3]	14	210.171	11.3092	0.0744	6843
177.00	HPD2-4.7	14	207.819	11.3029	0.0738	6843
168.00	Site Pro 1 RMQLP-469-HK	14	186.773	11.1563	0.0603	2468
157.00	Platform Mount [LP 305-1]	14	161.700	10.6740	0.0483	992
144.00	VHLP2.5-10W	14	134.089	9.6559	0.0380	676
142.00	Pipe Mount [PM 601-3]	14	130.101	9.4738	0.0360	654
140.00	Platform Mount [12' LP 1201-1]	14	126.189	9.2869	0.0338	659
90.00	Platform Mount [LP 1201-1_HR-1]	14	49.003	5.5394	0.0109	1112
73.00	Side Arm Mount [SO 701-1]	14	31.266	4.3715	0.0073	811

Compression Checks

Pole Design Data

Section No.	Elevation ft	Size	L ft	L _w ft	Kl/r	A in ²	P _u K	φP _n K	Ratio P _u φP _n
L1	181.833 - 176.833 (1)	TP15.6778x14.5x0.25	5.00	0.00	0.0	12.242 ₀	-0.27	716.15	0.000
L2	176.833 - 171.833 (2)	TP16.8556x15.6778x0.25	5.00	0.00	0.0	13.176 ₅	-0.45	770.83	0.001
L3	171.833 - 166.833 (3)	TP18.0334x16.8556x0.25	5.00	0.00	0.0	14.111 ₁	-4.91	825.50	0.006
L4	166.833 - 161.833 (4)	TP19.2112x18.0334x0.25	5.00	0.00	0.0	15.045 ₇	-5.30	880.17	0.006
L5	161.833 - 156.833 (5)	TP20.389x19.2112x0.25	5.00	0.00	0.0	15.980 ₃	-7.68	934.85	0.008
L6	156.833 - 151.833 (6)	TP21.5668x20.389x0.25	5.00	0.00	0.0	16.914 ₉	-8.23	989.52	0.008
L7	151.833 - 146.833 (7)	TP22.7446x21.5668x0.25	5.00	0.00	0.0	17.849 ₄	-8.82	1044.19	0.008
L8	146.833 - 141.833 (8)	TP23.9224x22.7446x0.25	5.00	0.00	0.0	18.784 ₀	-9.99	1098.86	0.009
L9	141.833 - 136.833 (9)	TP25.1001x23.9224x0.25	5.00	0.00	0.0	19.718 ₆	-13.55	1153.54	0.012
L10	136.833 - 132.914 (10)	TP26.0233x25.1001x0.25	3.92	0.00	0.0	19.749 ₆	-13.59	1155.35	0.012
L11	132.914 - 131.667 (11)	TP25.8062x24.6392x0.37 ₅	5.00	0.00	0.0	30.269 ₅	-14.74	1770.77	0.008
L12	131.667 - 126.667 (12)	TP26.9732x25.8062x0.37 ₅	5.00	0.00	0.0	31.658 ₅	-15.70	1852.02	0.008
L13	126.667 - 121.667 (13)	TP28.1401x26.9732x0.37 ₅	5.00	0.00	0.0	33.047 ₄	-16.64	1933.27	0.009
L14	121.667 - 116.667 (14)	TP29.3071x28.1401x0.37 ₅	5.00	0.00	0.0	34.436 ₄	-17.66	2014.53	0.009
L15	116.667 - 111.667 (15)	TP30.474x29.3071x0.375	5.00	0.00	0.0	35.825 ₄	-18.71	2095.78	0.009
L16	111.667 - 106.667 (16)	TP31.641x30.474x0.375	5.00	0.00	0.0	37.214 ₃	-19.80	2177.04	0.009
L17	106.667 - 101.667 (17)	TP32.8079x31.641x0.375	5.00	0.00	0.0	38.603 ₃	-20.92	2258.29	0.009
L18	101.667 - 96.667 (18)	TP33.9749x32.8079x0.37 ₅	5.00	0.00	0.0	39.992 ₃	-22.07	2339.55	0.009
L19	96.667 - 87.302 (19)	TP36.1606x33.9749x0.37 ₅	9.36	0.00	0.0	41.199 ₀	-23.11	2410.14	0.010
L20	87.302 - 86.302 (20)	TP35.642x34.2387x0.375	6.02	0.00	0.0	41.976 ₆	-29.60	2455.63	0.012
L21	86.302 - 85 (21)	TP35.9455x35.642x0.375	1.30	0.00	0.0	42.337 ₈	-30.02	2476.76	0.012
L22	85 - 84.75	TP36.0038x35.9455x0.37	0.25	0.00	0.0	42.407	-30.12	2480.82	0.012

Section No.	Elevation ft	Size	L ft	L _w ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
L23	84.75 - 79.75 (22)	TP37.1691x36.0038x0.37 5	5.00	0.00	0.0	43.794 1	-31.76	2561.96	0.012
L24	79.75 - 75 (23)	TP38.2762x37.1691x0.37 5	4.75	0.00	0.0	45.111 2	-33.49	2639.04	0.013
L25	75 - 74.75 (24)	TP38.3344x38.2762x0.66 5	0.25	0.00	0.0	79.215 9	-33.65	4634.11	0.007
L26	74.75 - 74 (25)	TP38.5092x38.3344x0.66 25	0.75	0.00	0.0	79.583 6	-34.04	4655.62	0.007
L27	74 - 73.75 (26)	TP38.5675x38.5092x0.37 5	0.25	0.00	0.0	45.458 2	-34.15	2659.33	0.013
L28	73.75 - 68.75 (27)	TP39.7328x38.5675x0.37 5	5.00	0.00	0.0	46.845 6	-36.06	2740.47	0.013
L29	68.75 - 63.75 (28)	TP40.8982x39.7328x0.37 5	5.00	0.00	0.0	48.232 7	-37.82	2821.61	0.013
L30	63.75 - 58.75 (29)	TP42.0635x40.8982x0.37 5	5.00	0.00	0.0	49.619 7	-39.63	2902.76	0.014
L31	58.75 - 53.75 (30)	TP43.2288x42.0635x0.37 5	5.00	0.00	0.0	51.006 8	-41.47	2983.90	0.014
L32	53.75 - 49 (31)	TP44.3359x43.2288x0.37 5	4.75	0.00	0.0	52.324 5	-43.24	3060.98	0.014
L33	49 - 42.698 (32)	TP45.8047x44.3359x0.37 5	6.30	0.00	0.0	52.345 3	-43.29	3062.20	0.014
L34	42.698 - (33)	TP45.2869x43.6034x0.43 75	7.23	0.00	0.0	62.278 9	-47.12	3643.32	0.013
L35	41.698 - (34)	TP46.4516x45.2869x0.43 75	5.00	0.00	0.0	63.896 3	-48.88	3737.93	0.013
L36	36.698 - (35)	TP47.6163x46.4516x0.43 75	5.00	0.00	0.0	65.513 6	-50.67	3832.55	0.013
L37	31.698 - (36)	TP48.781x47.6163x0.437 5	5.00	0.00	0.0	67.130 9	-52.49	3927.16	0.013
L38	26.698 - (37)	TP49.9457x48.781x0.437 5	5.00	0.00	0.0	68.748 3	-54.35	4021.77	0.014
L39	21.698 - (38)	TP51.1104x49.9457x0.43 75	5.00	0.00	0.0	70.365 6	-56.24	4116.39	0.014
L40	16.698 - (39)	TP52.2751x51.1104x0.43 75	5.00	0.00	0.0	71.982 9	-58.16	4211.00	0.014
L41	11.698 - (40)	TP53.4398x52.2751x0.43 75	5.00	0.00	0.0	73.600 3	-60.08	4305.62	0.014
L42	6.698 - 1.698 (41)	TP54.6045x53.4398x0.43 75	5.00	0.00	0.0	75.217 6	-62.02	4400.23	0.014
L43	1.698 - 0 (43)	TP55x54.6045x0.4375	1.70	0.00	0.0	75.766 9	-62.68	4432.36	0.014

Pole Bending Design Data

Section No.	Elevation ft	Size	M _{ux} kip-ft	φM _{rx} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{rx}}$	M _{uy} kip-ft	φM _{ry} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{ry}}$
L1	181.833 - 176.833 (1)	TP15.6778x14.5x0.25	14.73	286.17	0.051	0.00	286.17	0.000
L2	176.833 - 171.833 (2)	TP16.8556x15.6778x0.25	28.59	331.91	0.086	0.00	331.91	0.000
L3	171.833 - 166.833 (3)	TP18.0334x16.8556x0.25	54.47	381.04	0.143	0.00	381.04	0.000
L4	166.833 - 161.833 (4)	TP19.2112x18.0334x0.25	114.36	433.55	0.264	0.00	433.55	0.000
L5	161.833 - 156.833 (5)	TP20.389x19.2112x0.25	180.74	489.46	0.369	0.00	489.46	0.000
L6	156.833 - 151.833 (6)	TP21.5668x20.389x0.25	262.40	548.75	0.478	0.00	548.75	0.000
L7	151.833 - 146.833 (7)	TP22.7446x21.5668x0.25	346.04	611.44	0.566	0.00	611.44	0.000
L8	146.833 - 141.833 (8)	TP23.9224x22.7446x0.25	433.05	677.52	0.639	0.00	677.52	0.000

Section No.	Elevation ft	Size	M _{ux} kip-ft	φM _{rx} kip-ft	Ratio M _{ux} / φM _{rx}	M _{uy} kip-ft	φM _{ry} kip-ft	Ratio M _{uy} / φM _{ry}
L9	141.833 - 136.833 (9)	TP25.1001x23.9224x0.25	541.63	738.85	0.733	0.00	738.85	0.000
L10	136.833 - 132.914 (10)	TP26.0233x25.1001x0.25	545.38	740.90	0.736	0.00	740.90	0.000
L11	132.914 - 131.667 (11)	TP25.8062x24.6392x0.37 5	659.56	1168.07	0.565	0.00	1168.07	0.000
L12	131.667 - 126.667 (12)	TP26.9732x25.8062x0.37 5	776.13	1278.53	0.607	0.00	1278.53	0.000
L13	126.667 - 121.667 (13)	TP28.1401x26.9732x0.37 5	895.17	1394.00	0.642	0.00	1394.00	0.000
L14	121.667 - 116.667 (14)	TP29.3071x28.1401x0.37 5	1016.58	1514.46	0.671	0.00	1514.46	0.000
L15	116.667 - 111.667 (15)	TP30.474x29.3071x0.375	1140.31	1639.90	0.695	0.00	1639.90	0.000
L16	111.667 - 106.667 (16)	TP31.641x30.474x0.375	1266.37	1770.34	0.715	0.00	1770.34	0.000
L17	106.667 - 101.667 (17)	TP32.8079x31.641x0.375	1394.78	1905.77	0.732	0.00	1905.77	0.000
L18	101.667 - 96.667 (18)	TP33.9749x32.8079x0.37 5	1525.56	2046.19	0.746	0.00	2046.19	0.000
L19	96.667 - 87.302 (19)	TP36.1606x33.9749x0.37 5	1641.13	2172.24	0.756	0.00	2172.24	0.000
L20	87.302 - 86.302 (20)	TP35.642x34.2387x0.375	1821.84	2255.46	0.808	0.00	2255.46	0.000
L21	86.302 - 85 (21)	TP35.9455x35.642x0.375	1863.94	2294.64	0.812	0.00	2294.64	0.000
L22	85 - 84.75 (22)	TP36.0038x35.9455x0.37 5	1872.06	2302.21	0.813	0.00	2302.21	0.000
L23	84.75 - 79.75 (23)	TP37.1691x36.0038x0.37 5	2036.58	2437.26	0.836	0.00	2437.26	0.000
L24	79.75 - 75 (24)	TP38.2762x37.1691x0.37 5	2196.86	2567.60	0.856	0.00	2567.60	0.000
L25	75 - 74.75 (25)	TP38.3344x38.2762x0.66 25	2205.41	4515.54	0.488	0.00	4515.54	0.000
L26	74.75 - 74 (26)	TP38.5092x38.3344x0.66 25	2231.13	4557.90	0.490	0.00	4557.90	0.000
L27	74 - 73.75 (27)	TP38.5675x38.5092x0.37 5	2239.73	2602.26	0.861	0.00	2602.26	0.000
L28	73.75 - 68.75 (28)	TP39.7328x38.5675x0.37 5	2414.45	2742.37	0.880	0.00	2742.37	0.000
L29	68.75 - 63.75 (29)	TP40.8982x39.7328x0.37 5	2593.29	2884.72	0.899	0.00	2884.72	0.000
L30	63.75 - 58.75 (30)	TP42.0635x40.8982x0.37 5	2776.23	3029.20	0.916	0.00	3029.20	0.000
L31	58.75 - 53.75 (31)	TP43.2288x42.0635x0.37 5	2963.25	3175.70	0.933	0.00	3175.70	0.000
L32	53.75 - 49 (32)	TP44.3359x43.2288x0.37 5	3144.65	3316.63	0.948	0.00	3316.63	0.000
L33	49 - 42.698 (33)	TP45.8047x44.3359x0.37 5	3147.54	3318.87	0.948	0.00	3318.87	0.000
L34	42.698 - 41.698 (34)	TP45.2869x43.6034x0.43 75	3429.34	4179.68	0.820	0.00	4179.68	0.000
L35	41.698 - 36.698 (35)	TP46.4516x45.2869x0.43 75	3627.17	4370.72	0.830	0.00	4370.72	0.000
L36	36.698 - 31.698 (36)	TP47.6163x46.4516x0.43 75	3826.88	4564.37	0.838	0.00	4564.37	0.000
L37	31.698 - 26.698 (37)	TP48.781x47.6163x0.437 5	4028.40	4760.52	0.846	0.00	4760.52	0.000
L38	26.698 - 21.698 (38)	TP49.9457x48.781x0.437 5	4231.64	4959.03	0.853	0.00	4959.03	0.000
L39	21.698 - 16.698 (39)	TP51.1104x49.9457x0.43 75	4437.10	5159.82	0.860	0.00	5159.82	0.000
L40	16.698 - 11.698 (40)	TP52.2751x51.1104x0.43 75	4644.22	5362.74	0.866	0.00	5362.74	0.000
L41	11.698 - 6.698 (41)	TP53.4398x52.2751x0.43 75	4852.79	5567.69	0.872	0.00	5567.69	0.000
L42	6.698 - 1.698 (42)	TP54.6045x53.4398x0.43 75	5062.79	5774.56	0.877	0.00	5774.56	0.000
L43	1.698 - 0 (43)	TP55x54.6045x0.4375	5134.44	5845.22	0.878	0.00	5845.22	0.000

Section No.	Elevation ft	Size	M_{ux} kip-ft	ϕM_{nx} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy} kip-ft	ϕM_{ny} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
-------------	-----------------	------	--------------------	-------------------------	---------------------------------------	--------------------	-------------------------	---------------------------------------

Pole Shear Design Data

Section No.	Elevation ft	Size	Actual		Ratio $\frac{V_u}{\phi V_n}$	ϕV_n K	Actual		Ratio $\frac{T_u}{\phi T_n}$
			V_u K	K			T_u kip-ft	ϕT_n kip-ft	
L1	181.833 - 176.833 (1)	TP15.6778x14.5x0.25	2.46	214.85	0.011	214.85	1.24	290.28	0.004
L2	176.833 - 171.833 (2)	TP16.8556x15.6778x0.25	3.01	231.25	0.013	231.25	2.23	336.29	0.007
L3	171.833 - 166.833 (3)	TP18.0334x16.8556x0.25	11.79	247.65	0.048	247.65	2.34	385.69	0.006
L4	166.833 - 161.833 (4)	TP19.2112x18.0334x0.25	12.17	264.05	0.046	264.05	2.33	438.46	0.005
L5	161.833 - 156.833 (5)	TP20.389x19.2112x0.25	16.14	280.45	0.058	280.45	2.33	494.63	0.005
L6	156.833 - 151.833 (6)	TP21.5668x20.389x0.25	16.53	296.86	0.056	296.86	2.33	554.17	0.004
L7	151.833 - 146.833 (7)	TP22.7446x21.5668x0.25	16.93	313.26	0.054	313.26	2.33	617.11	0.004
L8	146.833 - 141.833 (8)	TP23.9224x22.7446x0.25	18.88	329.66	0.057	329.66	3.24	683.42	0.005
L9	141.833 - 136.833 (9)	TP25.1001x23.9224x0.25	22.57	346.06	0.065	346.06	3.27	753.12	0.004
L10	136.833 - 132.914 (10)	TP26.0233x25.1001x0.25	22.58	346.61	0.065	346.61	3.27	755.49	0.004
L11	132.914 - 131.667 (11)	TP25.8062x24.6392x0.37 5	23.11	531.23	0.044	531.23	3.26	1183.13	0.003
L12	131.667 - 126.667 (12)	TP26.9732x25.8062x0.37 5	23.56	555.61	0.042	555.61	3.26	1294.19	0.003
L13	126.667 - 121.667 (13)	TP28.1401x26.9732x0.37 5	24.07	579.98	0.042	579.98	2.68	1410.24	0.002
L14	121.667 - 116.667 (14)	TP29.3071x28.1401x0.37 5	24.53	604.36	0.041	604.36	2.68	1531.28	0.002
L15	116.667 - 111.667 (15)	TP30.474x29.3071x0.375 5	25.00	628.74	0.040	628.74	2.67	1657.30	0.002
L16	111.667 - 106.667 (16)	TP31.641x30.474x0.375 5	25.47	653.11	0.039	653.11	2.67	1788.30	0.001
L17	106.667 - 101.667 (17)	TP32.8079x31.641x0.375 5	25.94	677.49	0.038	677.49	2.67	1924.28	0.001
L18	101.667 - 96.667 (18)	TP33.9749x32.8079x0.37 5	26.42	701.86	0.038	701.86	2.66	2065.24	0.001
L19	96.667 - 87.302 (19)	TP36.1606x33.9749x0.37 5	26.83	723.04	0.037	723.04	2.66	2191.76	0.001
L20	87.302 - 86.302 (20)	TP35.642x34.2387x0.375 5	32.25	731.82	0.044	731.82	3.10	2275.28	0.001
L21	86.302 - 85 (21)	TP35.9455x35.642x0.375 5	32.48	736.69	0.044	736.69	3.10	2314.59	0.001
L22	85 - 84.75 (22)	TP36.0038x35.9455x0.37 5	32.50	743.03	0.044	743.03	3.10	2322.18	0.001
L23	84.75 - 79.75 (23)	TP37.1691x36.0038x0.37 5	33.35	763.72	0.044	763.72	3.09	2476.57	0.001
L24	79.75 - 75 (24)	TP38.2762x37.1691x0.37 5	34.20	785.93	0.044	785.93	3.09	2627.85	0.001
L25	75 - 74.75 (25)	TP38.3344x38.2762x0.66 25	34.23	1388.08	0.025	1388.08	3.09	4586.54	0.001
L26	74.75 - 74 (26)	TP38.5092x38.3344x0.66 25	34.40	1390.23	0.025	1390.23	3.09	4629.21	0.001
L27	74 - 73.75 (27)	TP38.5675x38.5092x0.37 5	34.44	796.58	0.043	796.58	3.09	2668.40	0.001
L28	73.75 - 68.75 (28)	TP39.7328x38.5675x0.37 5	35.39	817.27	0.043	817.27	3.09	2833.72	0.001
L29	68.75 - 63.75 (29)	TP40.8982x39.7328x0.37 5	36.21	841.62	0.043	841.62	3.08	3004.02	0.001
L30	63.75 - 58.75 (29)	TP42.0635x40.8982x0.37 5	37.03	865.96	0.043	865.96	3.08	3179.28	0.001

Section No.	Elevation ft	Size	Actual V_u K	ϕV_n K	Ratio $\frac{V_u}{\phi V_n}$	Actual T_u kip-ft	ϕT_n kip-ft	Ratio $\frac{T_u}{\phi T_n}$
L31	58.75 - 53.75 (30)	5 TP43.2288x42.0635x0.37	37.84	890.30	0.043	3.08	3359.50	0.001
L32	53.75 - 49 (31)	5 TP44.3359x43.2288x0.37	38.61	912.51	0.042	3.08	3535.32	0.001
L33	49 - 42.698 (32)	5 TP45.8047x44.3359x0.37	38.59	918.29	0.042	3.08	3538.13	0.001
L34	42.698 - (33)	5 TP45.2869x43.6034x0.43	39.41	1087.32	0.036	3.08	4292.93	0.001
L35	41.698 - (34)	75 TP46.4516x45.2869x0.43	39.79	1115.70	0.036	3.07	4518.80	0.001
L36	36.698 - (35)	75 TP47.6163x46.4516x0.43	40.16	1144.09	0.035	3.07	4750.45	0.001
L37	31.698 - (36)	75 TP48.781x47.6163x0.437	40.52	1172.47	0.035	3.07	4987.90	0.001
L38	26.698 - (37)	5 TP49.9457x48.781x0.437	40.85	1200.86	0.034	3.07	5231.13	0.001
L39	21.698 - (38)	5 TP51.1104x49.9457x0.43	41.32	1234.92	0.033	0.29	5480.16	0.000
L40	16.698 - (39)	75 TP52.2751x51.1104x0.43	41.60	1263.30	0.033	0.29	5734.97	0.000
L41	11.698 - (40)	75 TP53.4398x52.2751x0.43	41.89	1291.68	0.032	0.29	5995.57	0.000
L42	6.698 - (41)	75 TP54.6045x53.4398x0.43	42.17	1320.07	0.032	0.29	6261.97	0.000
L43	1.698 - 0 (42)	75 TP55x54.6045x0.4375	42.29	1329.71	0.032	0.29	6353.76	0.000

Pole Interaction Design Data

Section No.	Elevation ft	Ratio $\frac{P_u}{\phi P_n}$	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	Ratio $\frac{M_{uy}}{\phi M_{ny}}$	Ratio $\frac{V_u}{\phi V_n}$	Ratio $\frac{T_u}{\phi T_n}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
L1	181.833 - 176.833 (1)	0.000	0.051	0.000	0.011	0.004	0.052	1.050	4.8.2
L2	176.833 - 171.833 (2)	0.001	0.086	0.000	0.013	0.007	0.087	1.050	4.8.2
L3	171.833 - 166.833 (3)	0.006	0.143	0.000	0.048	0.006	0.152	1.050	4.8.2
L4	166.833 - 161.833 (4)	0.006	0.264	0.000	0.046	0.005	0.272	1.050	4.8.2
L5	161.833 - 156.833 (5)	0.008	0.369	0.000	0.058	0.005	0.381	1.050	4.8.2
L6	156.833 - 151.833 (6)	0.008	0.478	0.000	0.056	0.004	0.490	1.050	4.8.2
L7	151.833 - 146.833 (7)	0.008	0.566	0.000	0.054	0.004	0.578	1.050	4.8.2
L8	146.833 - 141.833 (8)	0.009	0.639	0.000	0.057	0.005	0.652	1.050	4.8.2
L9	141.833 - 136.833 (9)	0.012	0.733	0.000	0.065	0.004	0.750	1.050	4.8.2
L10	136.833 - 132.914 (10)	0.012	0.736	0.000	0.065	0.004	0.753	1.050	4.8.2
L11	132.914 - 131.667 (11)	0.008	0.565	0.000	0.044	0.003	0.575	1.050	4.8.2
L12	131.667 - 126.667 (12)	0.008	0.607	0.000	0.042	0.003	0.618	1.050	4.8.2
L13	126.667 - 121.667 (13)	0.009	0.642	0.000	0.042	0.002	0.653	1.050	4.8.2
L14	121.667 - 116.667 (14)	0.009	0.671	0.000	0.041	0.002	0.682	1.050	4.8.2
L15	116.667 - 111.667 (15)	0.009	0.695	0.000	0.040	0.002	0.706	1.050	4.8.2
L16	111.667 - 106.667 (16)	0.009	0.715	0.000	0.039	0.001	0.726	1.050	4.8.2
L17	106.667 -	0.009	0.732	0.000	0.038	0.001	0.743	1.050	4.8.2

Section No.	Elevation ft	Ratio		Ratio		Ratio		Ratio		Comb. Stress Ratio	Allow. Stress Ratio	Criteria
		$\frac{P_u}{\phi P_n}$	$\frac{M_{ux}}{\phi M_{nx}}$	$\frac{M_{uy}}{\phi M_{ny}}$	$\frac{V_u}{\phi V_n}$	$\frac{T_u}{\phi T_n}$	Stress Ratio					
L18	101.667 (17)	0.009	0.746	0.000	0.038	0.001	0.757	1.050	4.8.2			
L19	96.667 (18)	0.010	0.756	0.000	0.037	0.001	0.767	1.050	4.8.2			
L20	87.302 (19)	0.012	0.808	0.000	0.044	0.001	0.822	1.050	4.8.2			
L21	86.302 (20)	0.012	0.812	0.000	0.044	0.001	0.826	1.050	4.8.2			
L22	85 - 84.75 (21)	0.012	0.813	0.000	0.044	0.001	0.827	1.050	4.8.2			
L23	84.75 - 79.75 (22)	0.012	0.836	0.000	0.044	0.001	0.850	1.050	4.8.2			
L24	79.75 - 75 (23)	0.013	0.856	0.000	0.044	0.001	0.870	1.050	4.8.2			
L25	75 - 74.75 (24)	0.007	0.488	0.000	0.025	0.001	0.496	1.050	4.8.2			
L26	74.75 - 74 (25)	0.007	0.490	0.000	0.025	0.001	0.497	1.050	4.8.2			
L27	74 - 73.75 (26)	0.013	0.861	0.000	0.043	0.001	0.876	1.050	4.8.2			
L28	73.75 - 68.75 (27)	0.013	0.880	0.000	0.043	0.001	0.896	1.050	4.8.2			
L29	68.75 - 63.75 (28)	0.013	0.899	0.000	0.043	0.001	0.914	1.050	4.8.2			
L30	63.75 - 58.75 (29)	0.014	0.916	0.000	0.043	0.001	0.932	1.050	4.8.2			
L31	58.75 - 53.75 (30)	0.014	0.933	0.000	0.043	0.001	0.949	1.050	4.8.2			
L32	53.75 - 49 (31)	0.014	0.948	0.000	0.042	0.001	0.964	1.050	4.8.2			
L33	49 - 42.698 (32)	0.014	0.948	0.000	0.042	0.001	0.964	1.050	4.8.2			
L34	42.698 - 41.698 (33)	0.013	0.820	0.000	0.036	0.001	0.835	1.050	4.8.2			
L35	41.698 - 36.698 (34)	0.013	0.830	0.000	0.036	0.001	0.844	1.050	4.8.2			
L36	36.698 - 31.698 (35)	0.013	0.838	0.000	0.035	0.001	0.853	1.050	4.8.2			
L37	31.698 - 26.698 (36)	0.013	0.846	0.000	0.035	0.001	0.861	1.050	4.8.2			
L38	26.698 - 21.698 (37)	0.014	0.853	0.000	0.034	0.001	0.868	1.050	4.8.2			
L39	21.698 - 16.698 (38)	0.014	0.860	0.000	0.033	0.000	0.875	1.050	4.8.2			
L40	16.698 - 11.698 (39)	0.014	0.866	0.000	0.033	0.000	0.881	1.050	4.8.2			
L41	11.698 - 6.698 (40)	0.014	0.872	0.000	0.032	0.000	0.887	1.050	4.8.2			
L42	6.698 - 1.698 (41)	0.014	0.877	0.000	0.032	0.000	0.892	1.050	4.8.2			
L43	1.698 - 0 (42)	0.014	0.878	0.000	0.032	0.000	0.894	1.050	4.8.2			

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
L1	181.833 - 176.833	Pole	TP15.6778x14.5x0.25	1	-0.27	751.96	5.0	Pass
L2	176.833 - 171.833	Pole	TP16.8556x15.6778x0.25	2	-0.45	809.37	8.3	Pass
L3	171.833 - 166.833	Pole	TP18.0334x16.8556x0.25	3	-4.91	866.77	14.5	Pass
L4	166.833 - 161.833	Pole	TP19.2112x18.0334x0.25	4	-5.30	924.18	25.9	Pass

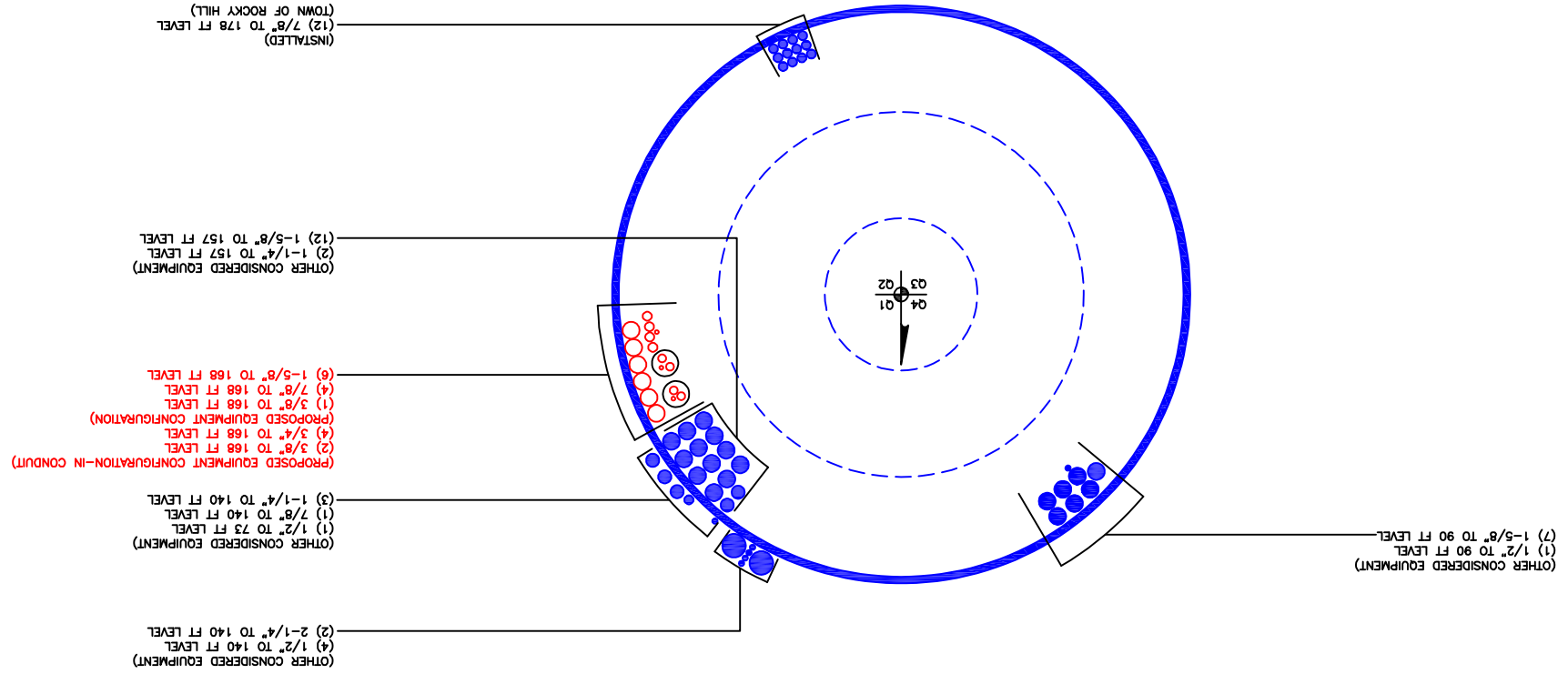
Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
L5	161.833	Pole	TP20.389x19.2112x0.25	5	-7.68	981.59	36.3	Pass
L6	161.833 - 156.833	Pole	TP21.5668x20.389x0.25	6	-8.23	1038.99	46.7	Pass
L7	151.833 - 146.833	Pole	TP22.7446x21.5668x0.25	7	-8.82	1096.40	55.0	Pass
L8	146.833 - 141.833	Pole	TP23.9224x22.7446x0.25	8	-9.99	1153.80	62.1	Pass
L9	141.833 - 136.833	Pole	TP25.1001x23.9224x0.25	9	-13.55	1211.22	71.4	Pass
L10	136.833 - 132.914	Pole	TP26.0233x25.1001x0.25	10	-13.59	1213.12	71.7	Pass
L11	132.914 - 131.667	Pole	TP25.8062x24.6392x0.375	11	-14.74	1859.31	54.8	Pass
L12	131.667 - 126.667	Pole	TP26.9732x25.8062x0.375	12	-15.70	1944.62	58.8	Pass
L13	126.667 - 121.667	Pole	TP28.1401x26.9732x0.375	13	-16.64	2029.93	62.2	Pass
L14	121.667 - 116.667	Pole	TP29.3071x28.1401x0.375	14	-17.66	2115.26	64.9	Pass
L15	116.667 - 111.667	Pole	TP30.474x29.3071x0.375	15	-18.71	2200.57	67.2	Pass
L16	111.667 - 106.667	Pole	TP31.641x30.474x0.375	16	-19.80	2285.89	69.1	Pass
L17	106.667 - 101.667	Pole	TP32.8079x31.641x0.375	17	-20.92	2371.20	70.7	Pass
L18	101.667 - 96.667	Pole	TP33.9749x32.8079x0.375	18	-22.07	2456.53	72.0	Pass
L19	96.667 - 87.302	Pole	TP36.1606x33.9749x0.375	19	-23.11	2530.65	73.0	Pass
L20	87.302 - 86.302	Pole	TP35.642x34.2387x0.375	20	-29.60	2578.41	78.3	Pass
L21	86.302 - 85	Pole	TP35.9455x35.642x0.375	21	-30.02	2600.60	78.7	Pass
L22	85 - 84.75	Pole	TP36.0038x35.9455x0.375	22	-30.12	2604.86	78.8	Pass
L23	84.75 - 79.75	Pole	TP37.1691x36.0038x0.375	23	-31.76	2690.06	81.0	Pass
L24	79.75 - 75	Pole	TP38.2762x37.1691x0.375	24	-33.49	2770.99	82.9	Pass
L25	75 - 74.75	Pole	TP38.3344x38.2762x0.6625	25	-33.65	4865.82	47.3	Pass
L26	74.75 - 74	Pole	TP38.5092x38.3344x0.6625	26	-34.04	4888.40	47.4	Pass
L27	74 - 73.75	Pole	TP38.5675x38.5092x0.375	27	-34.15	2792.30	83.4	Pass
L28	73.75 - 68.75	Pole	TP39.7328x38.5675x0.375	28	-36.06	2877.49	85.3	Pass
L29	68.75 - 63.75	Pole	TP40.8982x39.7328x0.375	29	-37.82	2962.69	87.1	Pass
L30	63.75 - 58.75	Pole	TP42.0635x40.8982x0.375	30	-39.63	3047.90	88.8	Pass
L31	58.75 - 53.75	Pole	TP43.2288x42.0635x0.375	31	-41.47	3133.09	90.4	Pass
L32	53.75 - 49	Pole	TP44.3359x43.2288x0.375	32	-43.24	3214.03	91.8	Pass
L33	49 - 42.698	Pole	TP45.8047x44.3359x0.375	33	-43.29	3215.31	91.8	Pass
L34	42.698 - 41.698	Pole	TP45.2869x43.6034x0.4375	34	-47.12	3825.49	79.5	Pass
L35	41.698 - 36.698	Pole	TP46.4516x45.2869x0.4375	35	-48.88	3924.83	80.4	Pass
L36	36.698 - 31.698	Pole	TP47.6163x46.4516x0.4375	36	-50.67	4024.18	81.2	Pass
L37	31.698 - 26.698	Pole	TP48.781x47.6163x0.4375	37	-52.49	4123.52	82.0	Pass
L38	26.698 - 21.698	Pole	TP49.9457x48.781x0.4375	38	-54.35	4222.86	82.7	Pass
L39	21.698 - 16.698	Pole	TP51.1104x49.9457x0.4375	39	-56.24	4322.21	83.3	Pass
L40	16.698 - 11.698	Pole	TP52.2751x51.1104x0.4375	40	-58.16	4421.55	83.9	Pass
L41	11.698 - 6.698	Pole	TP53.4398x52.2751x0.4375	41	-60.08	4520.90	84.4	Pass
L42	6.698 - 1.698	Pole	TP54.6045x53.4398x0.4375	42	-62.02	4620.24	84.9	Pass
L43	1.698 - 0	Pole	TP55x54.6045x0.4375	43	-62.68	4653.98	85.1	Pass

Summary

Pole (L33) 91.8
RATING = 91.8 Pass

***NOTE: Above stress ratios for reinforced sections are approximate. More exact calculations are presented in Appendix C.**

APPENDIX B
BASE LEVEL DRAWING



APPENDIX C
ADDITIONAL CALCULATIONS

Site BU: 842872
Work Order: 1861846

Pole Geometry

	Pole Height Above Base (ft)	Section Length (ft)	Lap Splice Length (ft)	Number of Sides	Top Diameter (in)	Bottom Diameter (in)	Wall Thickness (in)	Bend Radius (in)	Pole Material
1	181.833	48.919	3.753	18	14.5	26.0233	0.25	Auto	A572-65
2	136.667	49.365	5.021	18	24.64	36.1606	0.375	Auto	A572-65
3	92.323	49.625	6.227	18	34.24	45.8047	0.375	Auto	A572-65
4	48.925	48.925	0	18	43.60	55	0.4375	Auto	A572-65

Reinforcement Configuration

	Bottom Effective Elevation (ft)	Top Effective Elevation (ft)	Type	Model	Number																					
						1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
1	74	85	plate	PL 1x5.75	3				E								E							E		
2	49	75	plate	PL 1x5.75	3		E										E							E		
3																										
4																										
5																										
6																										
7																										
8																										
9																										
10																										

Reinforcement Details

	B (in)	H (in)	Gross Area (in ²)	Pole Face to Centroid (in)	Bottom Termination Length (in)	Top Termination Length (in)	L _v (in)	Net Area (in ²)	Bolt Hole Size (in)	Reinforcement Material
1	5.75	1	5.75	0.5	24.000	24.000	14.000	4.438	1.2500	A572-65
2	5.75	1	5.75	0.5	24.000	24.000	14.000	4.438	1.2500	A572-65

TNX Geometry Input

Increment (ft): 5 [Export to TNX](#)

	Section Height (ft)	Section Length (ft)	Lap Splice Length (ft)	Number of Sides	Top Diameter (in)	Bottom Diameter (in)	Wall Thickness (in)	Tapered Pole Grade	Weight Multiplier
1	181.833 - 176.833	5		18	14.500	15.678	0.25	A572-65	1.000
2	176.833 - 171.833	5		18	15.678	16.856	0.25	A572-65	1.000
3	171.833 - 166.833	5		18	16.856	18.033	0.25	A572-65	1.000
4	166.833 - 161.833	5		18	18.033	19.211	0.25	A572-65	1.000
5	161.833 - 156.833	5		18	19.211	20.389	0.25	A572-65	1.000
6	156.833 - 151.833	5		18	20.389	21.567	0.25	A572-65	1.000
7	151.833 - 146.833	5		18	21.567	22.745	0.25	A572-65	1.000
8	146.833 - 141.833	5		18	22.745	23.922	0.25	A572-65	1.000
9	141.833 - 136.833	5		18	23.922	25.100	0.25	A572-65	1.000
10	136.833 - 136.667	3.919	3.753	18	25.100	26.023	0.25	A572-65	1.000
11	136.667 - 131.667	5		18	24.639	25.806	0.375	A572-65	1.000
12	131.667 - 126.667	5		18	25.806	26.973	0.375	A572-65	1.000
13	126.667 - 121.667	5		18	26.973	28.140	0.375	A572-65	1.000
14	121.667 - 116.667	5		18	28.140	29.307	0.375	A572-65	1.000
15	116.667 - 111.667	5		18	29.307	30.474	0.375	A572-65	1.000
16	111.667 - 106.667	5		18	30.474	31.641	0.375	A572-65	1.000
17	106.667 - 101.667	5		18	31.641	32.808	0.375	A572-65	1.000
18	101.667 - 96.667	5		18	32.808	33.975	0.375	A572-65	1.000
19	96.667 - 92.323	9.365	5.021	18	33.975	36.161	0.375	A572-65	1.000
20	92.323 - 86.302	6.021		18	34.239	35.642	0.375	A572-65	1.000
21	86.302 - 85	1.302		18	35.642	35.945	0.375	A572-65	1.000
22	85 - 84.75	0.25		18	35.945	36.004	0.375	A572-65	1.000
23	84.75 - 79.75	5		18	36.004	37.169	0.375	A572-65	1.000
24	79.75 - 75	4.75		18	37.169	38.276	0.375	A572-65	1.000
25	75 - 74.75	0.25		18	38.276	38.334	0.6625	A572-65	1.006
26	74.75 - 74	0.75		18	38.334	38.509	0.6625	A572-65	1.004
27	74 - 73.75	0.25		18	38.509	38.567	0.375	A572-65	1.000
28	73.75 - 68.75	5		18	38.567	39.733	0.375	A572-65	1.000
29	68.75 - 63.75	5		18	39.733	40.898	0.375	A572-65	1.000
30	63.75 - 58.75	5		18	40.898	42.064	0.375	A572-65	1.000
31	58.75 - 53.75	5		18	42.064	43.229	0.375	A572-65	1.000
32	53.75 - 49	4.75		18	43.229	44.336	0.375	A572-65	1.000
33	49 - 48.925	6.302	6.227	18	44.336	45.805	0.375	A572-65	1.000
34	48.925 - 41.698	7.227		18	43.603	45.287	0.4375	A572-65	1.000
35	41.698 - 36.698	5		18	45.287	46.452	0.4375	A572-65	1.000
36	36.698 - 31.698	5		18	46.452	47.616	0.4375	A572-65	1.000
37	31.698 - 26.698	5		18	47.616	48.781	0.4375	A572-65	1.000
38	26.698 - 21.698	5		18	48.781	49.946	0.4375	A572-65	1.000
39	21.698 - 16.698	5		18	49.946	51.110	0.4375	A572-65	1.000
40	16.698 - 11.698	5		18	51.110	52.275	0.4375	A572-65	1.000
41	11.698 - 6.698	5		18	52.275	53.440	0.4375	A572-65	1.000
42	6.698 - 1.698	5		18	53.440	54.604	0.4375	A572-65	1.000
43	1.698 - 0	1.698		18	54.604	55.000	0.4375	A572-65	1.000

TNX Section Forces

	Increment (ft): 5		TNX Output		
	Section Height (ft)	P _u (K)	M _{ux} (kip-ft)	V _u (K)	
1	181.833 - 176.833	0.74	14.76	2.36	
2	176.833 - 171.833	0.45	28.59	3.01	
3	171.833 - 166.833	4.91	54.47	11.79	
4	166.833 - 161.833	5.30	114.36	12.17	
5	161.833 - 156.833	7.68	180.74	16.14	
6	156.833 - 151.833	8.23	262.40	16.53	
7	151.833 - 146.833	8.82	346.03	16.93	
8	146.833 - 141.833	9.99	433.05	18.88	
9	141.833 - 136.833	13.55	541.63	22.57	
10	136.833 - 136.667	13.59	545.38	22.58	
11	136.667 - 131.667	14.74	659.56	23.11	
12	131.667 - 126.667	15.70	776.13	23.56	
13	126.667 - 121.667	16.64	895.17	24.07	
14	121.667 - 116.667	17.66	1016.58	24.53	
15	116.667 - 111.667	18.71	1140.31	25.00	
16	111.667 - 106.667	19.80	1266.36	25.47	
17	106.667 - 101.667	20.92	1394.78	25.94	
18	101.667 - 96.667	22.07	1525.56	26.42	
19	96.667 - 92.323	23.11	1641.13	26.83	
20	92.323 - 86.302	29.60	1821.84	32.25	
21	86.302 - 85	30.02	1863.94	32.48	
22	85 - 84.75	30.12	1872.06	32.50	
23	84.75 - 79.75	31.76	2036.58	33.35	
24	79.75 - 75	33.49	2196.86	34.20	
25	75 - 74.75	33.65	2205.41	34.23	
26	74.75 - 74	34.04	2231.14	34.40	
27	74 - 73.75	34.15	2239.74	34.44	
28	73.75 - 68.75	36.06	2414.45	35.39	
29	68.75 - 63.75	37.82	2593.29	36.21	
30	63.75 - 58.75	39.63	2776.24	37.03	
31	58.75 - 53.75	41.47	2963.25	37.84	
32	53.75 - 49	43.24	3144.65	38.61	
33	49 - 48.925	43.29	3147.54	38.59	
34	48.925 - 41.698	47.12	3429.34	39.41	
35	41.698 - 36.698	48.88	3627.17	39.79	
36	36.698 - 31.698	50.67	3826.88	40.16	
37	31.698 - 26.698	52.49	4028.40	40.52	
38	26.698 - 21.698	54.35	4231.65	40.85	
39	21.698 - 16.698	56.24	4437.10	41.32	
40	16.698 - 11.698	58.16	4644.21	41.60	
41	11.698 - 6.698	60.08	4852.79	41.89	
42	6.698 - 1.698	62.02	5062.79	42.17	
43	1.698 - 0	62.68	5134.44	42.29	

Analysis Results

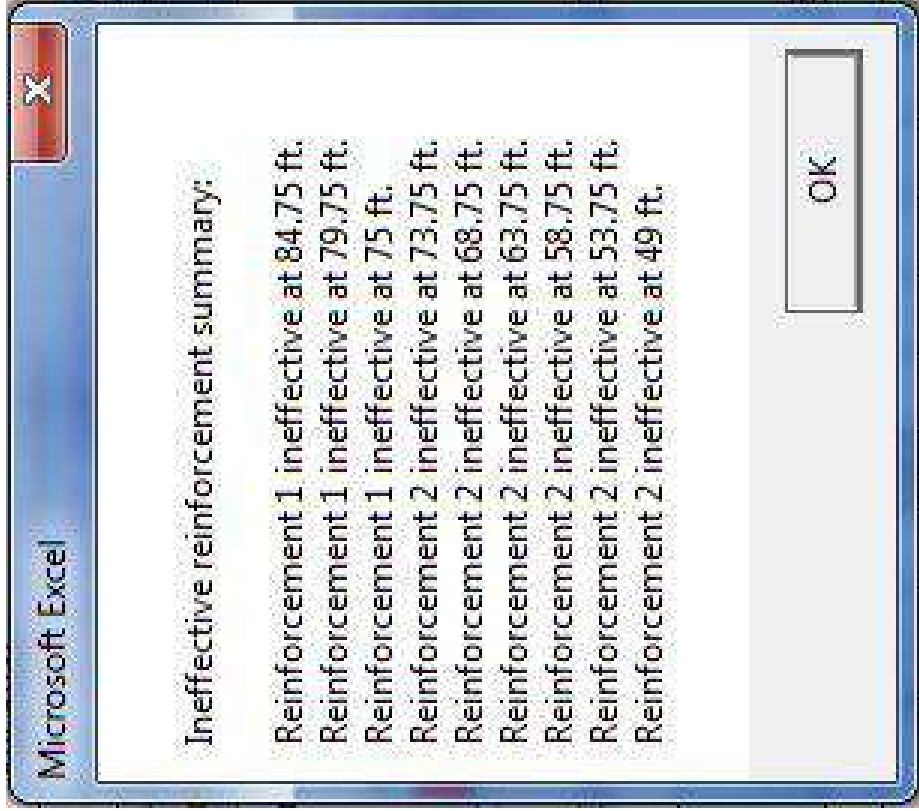
Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
181.83 - 176.83	Pole	TP15.678x14.5x0.25	Pole	5.0%	Pass
176.83 - 171.83	Pole	TP16.856x15.678x0.25	Pole	8.2%	Pass
171.83 - 166.83	Pole	TP18.033x16.856x0.25	Pole	14.1%	Pass
166.83 - 161.83	Pole	TP19.211x18.033x0.25	Pole	25.6%	Pass
161.83 - 156.83	Pole	TP20.389x19.211x0.25	Pole	35.8%	Pass
156.83 - 151.83	Pole	TP21.567x20.389x0.25	Pole	46.2%	Pass
151.83 - 146.83	Pole	TP22.745x21.567x0.25	Pole	54.6%	Pass
146.83 - 141.83	Pole	TP23.922x22.745x0.25	Pole	61.6%	Pass
141.83 - 136.83	Pole	TP25.1x23.922x0.25	Pole	70.8%	Pass
136.83 - 136.67	Pole	TP26.023x25.1x0.25	Pole	71.1%	Pass
136.67 - 131.67	Pole	TP25.806x24.639x0.375	Pole	54.4%	Pass
131.67 - 126.67	Pole	TP26.973x25.806x0.375	Pole	58.4%	Pass
126.67 - 121.67	Pole	TP28.14x26.973x0.375	Pole	61.8%	Pass
121.67 - 116.67	Pole	TP29.307x28.14x0.375	Pole	64.6%	Pass
116.67 - 111.67	Pole	TP30.474x29.307x0.375	Pole	66.9%	Pass
111.67 - 106.67	Pole	TP31.641x30.474x0.375	Pole	68.8%	Pass
106.67 - 101.67	Pole	TP32.808x31.641x0.375	Pole	70.4%	Pass
101.67 - 96.67	Pole	TP33.975x32.808x0.375	Pole	71.7%	Pass
96.67 - 92.32	Pole	TP36.161x33.975x0.375	Pole	72.7%	Pass
92.32 - 86.3	Pole	TP35.642x34.239x0.375	Pole	77.8%	Pass
86.3 - 85	Pole	TP35.945x35.642x0.375	Pole	78.3%	Pass
85 - 84.75	Pole	TP36.004x35.945x0.375	Pole	78.4%	Pass
84.75 - 79.75	Pole	TP37.169x36.004x0.375	Pole	80.6%	Pass
79.75 - 75	Pole	TP38.276x37.169x0.375	Pole	82.5%	Pass
75 - 74.75	Pole + Reinf.	TP38.334x38.276x0.6625	Reinf. 1 Tension Rupture	76.7%	Pass
74.75 - 74	Pole + Reinf.	TP38.509x38.334x0.6625	Reinf. 1 Tension Rupture	77.0%	Pass
74 - 73.75	Pole	TP38.567x38.509x0.375	Pole	83.0%	Pass
73.75 - 68.75	Pole	TP39.733x38.567x0.375	Pole	84.9%	Pass
68.75 - 63.75	Pole	TP40.898x39.733x0.375	Pole	86.7%	Pass
63.75 - 58.75	Pole	TP42.064x40.898x0.375	Pole	88.4%	Pass
58.75 - 53.75	Pole	TP43.229x42.064x0.375	Pole	90.0%	Pass
53.75 - 49	Pole	TP44.336x43.229x0.375	Pole	91.5%	Pass
49 - 48.93	Pole	TP45.805x44.336x0.375	Pole	91.5%	Pass
48.93 - 41.7	Pole	TP45.287x43.603x0.4375	Pole	79.2%	Pass
41.7 - 36.7	Pole	TP46.452x45.287x0.4375	Pole	80.1%	Pass
36.7 - 31.7	Pole	TP47.616x46.452x0.4375	Pole	80.9%	Pass
31.7 - 26.7	Pole	TP48.781x47.616x0.4375	Pole	81.7%	Pass
26.7 - 21.7	Pole	TP49.946x48.781x0.4375	Pole	82.4%	Pass
21.7 - 16.7	Pole	TP51.11x49.946x0.4375	Pole	83.0%	Pass
16.7 - 11.7	Pole	TP52.275x51.11x0.4375	Pole	83.6%	Pass
11.7 - 6.7	Pole	TP53.44x52.275x0.4375	Pole	84.2%	Pass
6.7 - 1.7	Pole	TP54.604x53.44x0.4375	Pole	84.7%	Pass
1.7 - 0	Pole	TP55x54.604x0.4375	Pole	84.8%	Pass
			Summary		
			Pole	91.5%	Pass
			Reinforcement	77.0%	Pass
			Overall	91.5%	Pass

Additional Calculations

Section Elevation (ft)	Moment of Inertia (in ⁴)			Area (in ²)			% Capacity*		
	Pole	Reinf.	Total	Pole	Reinf.	Total	Pole	R1	R2
181.83 - 176.83	368	n/a	368	12.24	n/a	12.24	5.0%		
176.83 - 171.83	459	n/a	459	13.18	n/a	13.18	8.2%		
171.83 - 166.83	564	n/a	564	14.11	n/a	14.11	14.1%		
166.83 - 161.83	683	n/a	683	15.05	n/a	15.05	25.6%		
161.83 - 156.83	819	n/a	819	15.98	n/a	15.98	35.8%		
156.83 - 151.83	971	n/a	971	16.91	n/a	16.91	46.2%		
151.83 - 146.83	1141	n/a	1141	17.85	n/a	17.85	54.6%		
146.83 - 141.83	1329	n/a	1329	18.78	n/a	18.78	61.6%		
141.83 - 136.83	1538	n/a	1538	19.72	n/a	19.72	70.8%		
136.83 - 136.67	1545	n/a	1545	19.75	n/a	19.75	71.1%		
136.67 - 131.67	2473	n/a	2473	30.27	n/a	30.27	54.4%		
131.67 - 126.67	2829	n/a	2829	31.66	n/a	31.66	58.4%		
126.67 - 121.67	3218	n/a	3218	33.05	n/a	33.05	61.8%		
121.67 - 116.67	3641	n/a	3641	34.44	n/a	34.44	64.6%		
116.67 - 111.67	4099	n/a	4099	35.82	n/a	35.82	66.9%		
111.67 - 106.67	4595	n/a	4595	37.21	n/a	37.21	68.8%		
106.67 - 101.67	5128	n/a	5128	38.60	n/a	38.60	70.4%		
101.67 - 96.67	5702	n/a	5702	39.99	n/a	39.99	71.7%		
96.67 - 92.32	6234	n/a	6234	41.20	n/a	41.20	72.7%		
92.32 - 86.3	6594	n/a	6594	41.98	n/a	41.98	77.8%		
86.3 - 85	6765	n/a	6765	42.34	n/a	42.34	78.3%		
85 - 84.75	6799	n/a	6799	42.41	n/a	42.41	78.4%		
84.75 - 79.75	7488	n/a	7488	43.79	n/a	43.79	80.6%		
79.75 - 75	8184	n/a	8184	45.11	n/a	45.11	82.5%		
75 - 74.75	8226	6001	14227	45.18	34.50	79.68	48.3%	76.7%	73.3%
74.75 - 74	8340	6054	14394	45.39	34.50	79.89	48.6%	77.0%	73.6%
74 - 73.75	8374	n/a	8374	45.46	n/a	45.46	83.0%		
73.75 - 68.75	9165	n/a	9165	46.84	n/a	46.84	84.9%		
68.75 - 63.75	10003	n/a	10003	48.23	n/a	48.23	86.7%		
63.75 - 58.75	10891	n/a	10891	49.62	n/a	49.62	88.4%		
58.75 - 53.75	11830	n/a	11830	51.00	n/a	51.00	90.0%		
53.75 - 49	12771	n/a	12771	52.32	n/a	52.32	91.5%		
49 - 48.93	12786	n/a	12786	52.34	n/a	52.34	91.5%		
48.93 - 41.7	15821	n/a	15821	62.28	n/a	62.28	79.2%		
41.7 - 36.7	17086	n/a	17086	63.89	n/a	63.89	80.1%		
36.7 - 31.7	18417	n/a	18417	65.51	n/a	65.51	80.9%		
31.7 - 26.7	19814	n/a	19814	67.13	n/a	67.13	81.7%		
26.7 - 21.7	21281	n/a	21281	68.75	n/a	68.75	82.4%		
21.7 - 16.7	22819	n/a	22819	70.36	n/a	70.36	83.0%		
16.7 - 11.7	24429	n/a	24429	71.98	n/a	71.98	83.6%		
11.7 - 6.7	26113	n/a	26113	73.60	n/a	73.60	84.2%		
6.7 - 1.7	27872	n/a	27872	75.21	n/a	75.21	84.7%		
1.7 - 0	28487	n/a	28487	75.76	n/a	75.76	84.8%		

Note: Section capacity checked in 5 degree increments.

Rating per TIA-222-H Section 15.5.



Monopole Base Plate Connection

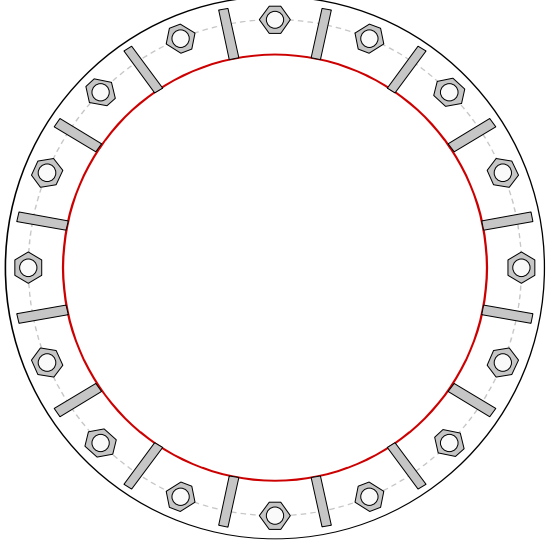


Site Info	
BU #	842872
Site Name	Rocky Hill
Order #	517090 Rev. 1

Analysis Considerations	
TIA-222 Revision	H
Grout Considered:	No
l_{ar} (in)	2.75

Applied Loads	
Moment (kip-ft)	5134.44
Axial Force (kips)	62.68
Shear Force (kips)	42.29

*TIA-222-H Section 15.5 Applied



Connection Properties

Anchor Rod Data

(16) 2-1/4" ϕ bolts (A615-75 N; $F_y=75$ ksi, $F_u=100$ ksi) on 64" BC

Base Plate Data

70" OD x 2" Plate (A871 Gr. 60; $F_y=60$ ksi, $F_u=75$ ksi)

Stiffener Data

(16) 3/6"H x 6.5"W x 1.25" T, Notch: 0.75"

plate: $F_y=65$ ksi; weld: $F_y=70$ ksi

horiz. weld: 0.625" fillet

vert. weld: 0.375" fillet

Pole Data

55" x 0.4375" 18-sided pole (A572-65; $F_y=65$ ksi, $F_u=80$ ksi)

Analysis Results

Anchor Rod Summary

$P_u_t = 236.64$ $\phi P_n_t = 243.75$ (units of kips, kip-in)
 $V_u = 2.64$ $\phi V_n = 149.1$ **Stress Rating**
 $M_u = 4.72$ $\phi M_n = 128.14$ **96.7%**
Pass

Base Plate Summary

Max Stress (ksi): 40.6 (Roark's Flexural)
 Allowable Stress (ksi): 54
 Stress Rating: **71.6%**
Pass

Stiffener Summary

Horizontal Weld: **99.7%** **Pass**
 Vertical Weld: **28.0%** **Pass**
 Plate Flexure+Shear: **2.7%** **Pass**
 Plate Tension+Shear: **38.3%** **Pass**
 Plate Compression: **32.2%** **Pass**

Pole Summary

Punching Shear: **3.9%** **Pass**

Drilled Pier Foundation

BU #:	842872
Site Name:	Rocky Hill
Order Number:	517090 Rev. 1

TIA-222 Revision:	H
Tower Type:	Monopole



Applied Loads		
	Comp.	Uplift
Moment (kip-ft)	5134.44	
Axial Force (kips)	62.68	
Shear Force (kips)	42.29	

Material Properties	
Concrete Strength, f _c :	3 ksi
Rebar Strength, F _y :	60 ksi

Pier Design Data	
Depth	17.67 ft
Ext. Above Grade	0.83 ft
Pier Section 1	
<i>From 0.83' above grade to 9.92' below grade</i>	
Pier Diameter	7 ft
Rebar Quantity	20
Rebar Size	11
Clear Cover to Ties	3 in
Tie Size	3
Rebar Quantity	4
Rebar Size	11
Rebar Cage Diameter	71 in
Pier Section 2	
<i>From 9.92' below grade to 17.67' below grade</i>	
Pier Diameter	7 ft
Rebar Quantity	20
Rebar Size	11
Clear Cover to Ties	3 in
Tie Size	3

Rebar & Pier Options
Embedded Pole Inputs
Belled Pier Inputs

Analysis Results		
Soil Lateral Check		
	Compression	Uplift
D _{v=0} (ft from TOC)	6.50	-
Soil Safety Factor	1.57	-
Max Moment (kip-ft)	5573.21	-
Rating*	80.8%	-
Soil Vertical Check		
	Compression	Uplift
Skin Friction (kips)	439.95	-
End Bearing (kips)	659.53	-
Weight of Concrete (kips)	101.73	-
Total Capacity (kips)	1099.48	-
Axial (kips)	164.41	-
Rating*	14.2%	-
Reinforced Concrete Check		
	Compression	Uplift
Critical Depth (ft from TOC)	6.41	-
Critical Moment (kip-ft)	5572.94	-
Critical Moment Capacity	5882.89	-
Rating*	90.2%	-
Soil Interaction Rating* 80.8%		
Structural Foundation Rating* 90.2%		

Check Limitation	
Apply TIA-222-H Section 15.5:	<input checked="" type="checkbox"/>
N/A	<input type="checkbox"/>

*Rating per TIA-222-H Section 15.5

Soil Profile			
Groundwater Depth	8.5	# of Layers	6

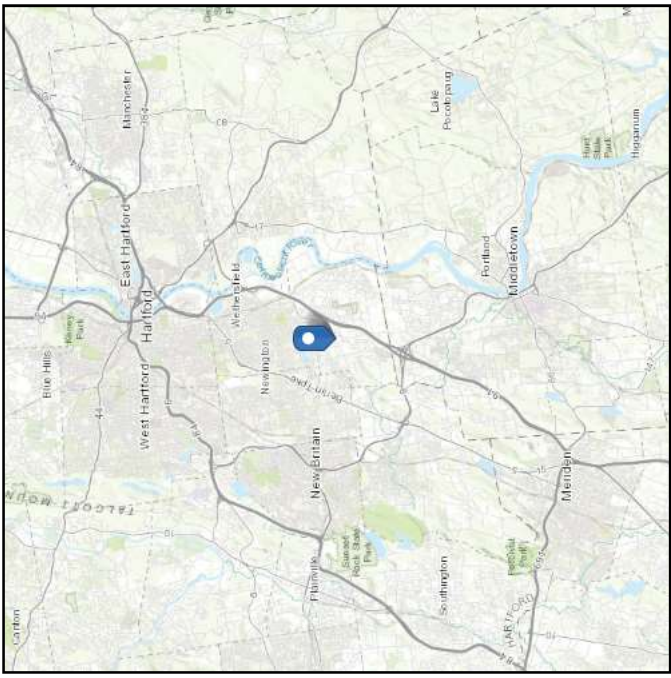
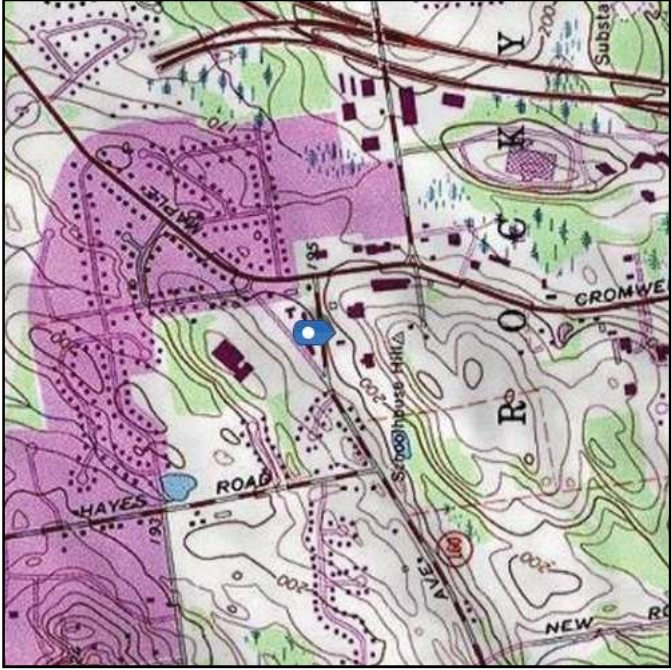
Layer	Top (ft)	Bottom (ft)	Thickness (ft)	γ _{soil} (pcf)	γ _{concrete} (pcf)	Cohesion (ksf)	Angle of Friction (degrees)	Calculated Ultimate Skin Friction Comp (ksf)	Calculated Ultimate Skin Friction Uplift (ksf)	Ultimate Skin Friction Comp Override (ksf)	Ultimate Skin Friction Uplift Override (ksf)	Ult. Gross Bearing Capacity (ksf)	SPT Blow Count	Soil Type
1	0	3	3	110	150	0	0	0.000	0.000	0.00	0.00			Cohesionless
2	3	5	2	120	150	0	0	0.000	0.000	0.00	0.00			Cohesionless
3	5	7	2	110	150	1.75		0.963	0.963	0.96	0.96			Cohesive
4	7	8.5	1.5	135	150	5		2.321	2.321	2.32	2.32			Cohesive
5	8.5	12	3.5	72.6	87.6	5		2.321	2.321	2.32	2.32			Cohesive
6	12	17.67	5.67	72.6	87.6	5		2.321	2.321	2.32	2.32	22.85		Cohesive



ASCE 7 Hazards Report

Address:
No Address at This
Location

Standard: ASCE/SEI 7-10 **Elevation:** 198.53 ft (NAVD 88)
Risk Category: II **Latitude:** 41.660247
Soil Class: D - Stiff Soil **Longitude:** -72.680717

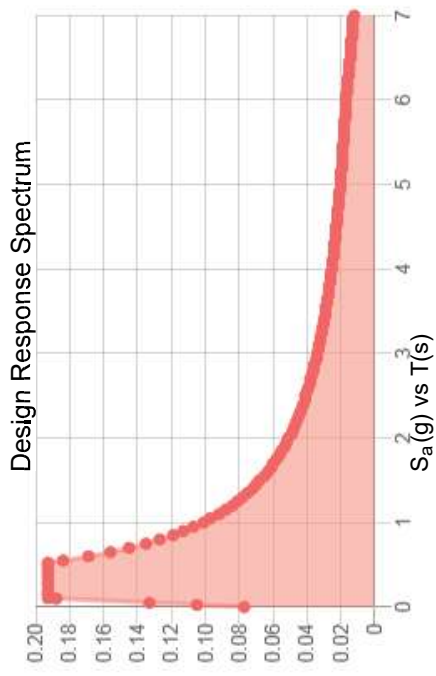
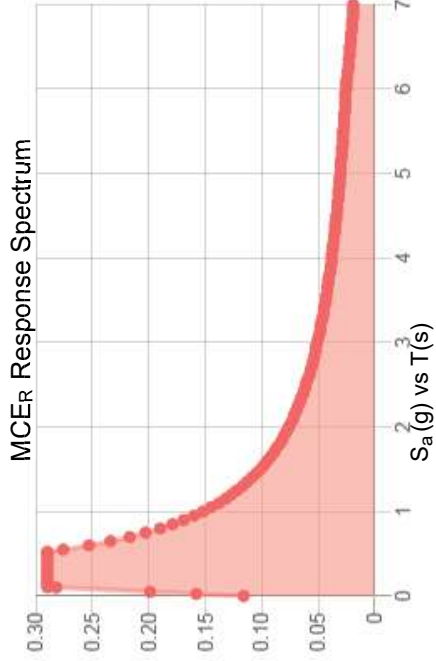


Site Soil Class: D - Stiff Soil

Results:

S_S :	0.181	S_{DS} :	0.193
S_1 :	0.063	S_{D1} :	0.101
F_a :	1.6	T_L :	6
F_v :	2.4	PGA :	0.092
S_{MS} :	0.29	PGA_M :	0.147
S_{M1} :	0.152	F_{PGA} :	1.6
		I_e :	1

Seismic Design Category B



Data Accessed:

Date Source:

Thu May 28 2020

USGS Seismic Design Maps based on ASCE/SEI 7-10, incorporating Supplement 1 and errata of March 31, 2013, and ASCE/SEI 7-10 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-10 Ch. 21 are available from USGS.

Results:

Ice Thickness: 1.00 in.

Concurrent Temperature: 5 F

Gust Speed: 50 mph

Data Source: Standard ASCE/SEI 7-10, Figs. 10-2 through 10-8

Date Accessed: Thu May 28 2020

Ice thicknesses on structures in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

Values provided are equivalent radial ice thicknesses due to freezing rain with concurrent 3-second gust speeds, for a 50-year mean recurrence interval, and temperatures concurrent with ice thicknesses due to freezing rain. Thicknesses for ice accretions caused by other sources shall be obtained from local meteorological studies. Ice thicknesses in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

The ASCE 7 Hazard Tool is provided for your convenience, for informational purposes only, and is provided “as is” and without warranties of any kind. The location data included herein has been obtained from information developed, produced, and maintained by third party providers; or has been extrapolated from maps incorporated in the ASCE 7 standard. While ASCE has made every effort to use data obtained from reliable sources or methodologies, ASCE does not make any representations or warranties as to the accuracy, completeness, reliability, currency, or quality of any data provided herein. Any third-party links provided by this Tool should not be construed as an endorsement, affiliation, relationship, or sponsorship of such third-party content by or from ASCE.

ASCE does not intend, nor should anyone interpret, the results provided by this Tool to replace the sound judgment of a competent professional, having knowledge and experience in the appropriate field(s) of practice, nor to substitute for the standard of care required of such professionals in interpreting and applying the contents of this Tool or the ASCE 7 standard.

In using this Tool, you expressly assume all risks associated with your use. Under no circumstances shall ASCE or its officers, directors, employees, members, affiliates, or agents be liable to you or any other person for any direct, indirect, special, incidental, or consequential damages arising from or related to your use of, or reliance on, the Tool or any information obtained therein. To the fullest extent permitted by law, you agree to release and hold harmless ASCE from any and all liability of any nature arising out of or resulting from any use of data provided by the ASCE 7 Hazard Tool.

Exhibit E

Mount Analysis

Date: **June 17, 2020**

Darcy Tarr
Crown Castle
3530 Toringdon Way, Suite 300
Charlotte, NC 28277
(704) 405-6589

Kimley»»Horn

Kimley-Horn and Associates, Inc.
421 Fayetteville Street, Suite 600
Raleigh, NC 27601
(919) 677-2000
CrownMounts@kimley-horn.com

Subject:

Mount Replacement Analysis Report

Carrier Designation:

AT&T Mobility Equipment Change-Out
Carrier Site Number: 10071221
Carrier Site Name: ROCKY HILL

Crown Castle Designation:

Crown Castle BU Number: 842872
Crown Castle Site Name: ROCKY HILL
Crown Castle JDE Job Number: 605392
Crown Castle Order Number: 517090, Rev. 1

Engineering Firm Designation:

Kimley-Horn Report Designation: 019558049

Site Data:

52 New Britain Avenue, Rocky Hill, Hartford County, CT 06067
Latitude 41° 39' 36.89" Longitude -72° 40' 50.58"

Structure Information:

Tower Height & Type: 182 ft Monopole
Mount Elevation: 168 ft
Mount Type: 14.5 ft Platform w/ Support Rails

Dear Darcy Tarr,

Kimley-Horn is pleased to submit this “**Mount Replacement Analysis Report**” to determine the structural integrity of AT&T Mobility’s antenna mounting system with the proposed appurtenance and equipment addition on the abovementioned supporting tower structure. Analysis of the existing supporting tower structure is to be completed by others and therefore is not part of this analysis. Analysis of the antenna mounting system as a tie-off point for fall protection or rigging is not part of this document.

The purpose of the analysis is to determine acceptability of the mount stress level. Based on our analysis we have determined the mount stress level to be:

Platform w/ Support Rails

Sufficient

This analysis has been performed in accordance with the 2018 International Building Code based upon an ultimate 3-second gust wind speed of 118 mph. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Mount analysis prepared by: Zachary A. Medoff, P.E.

Respectfully Submitted by:

Thomas M. Groves, P.E.

Lic. #PEN.0031433, Exp. 01/31/2021
Kimley-Horn and Associates, Inc. COA #PEC.0000738

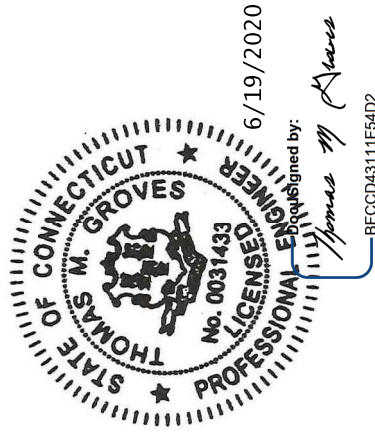


TABLE OF CONTENTS

- 1) INTRODUCTION**
- 2) ANALYSIS CRITERIA**
 - Table 1 - Proposed Equipment Configuration
- 3) ANALYSIS PROCEDURE**
 - Table 2 - Documents Provided
 - 3.1) Analysis Method
 - 3.2) Assumptions
- 4) ANALYSIS RESULTS**
 - Table 3 - Mount Component Stresses vs. Capacity
 - 4.1) Recommendations
- 5) APPENDIX A**
 - Wire Frame and Rendered Models
- 6) APPENDIX B**
 - Software Input Calculations
- 7) APPENDIX C**
 - Software Analysis Output
- 8) APPENDIX D**
 - Additional Calculations

1) INTRODUCTION

The mounting configuration consists of a proposed 14.5 ft platform with support rails and kickers designed by Site Pro 1.

2) ANALYSIS CRITERIA

Building Code: 2018 IBC
TIA-222 Revision: TIA-222-H
Risk Category: II
Ultimate Wind Speed: 118 mph
Exposure Category: C
Topographic Factor at Base: 1.0
Topographic Factor at Mount: 1.0
Ice Thickness: 1.5 in
Wind Speed with Ice: 50 mph
Live Loading Wind Speed: 30 mph
Man Live Load at Mount Pipes: 500 lb

Table 1 – Proposed Equipment Configuration

Elevation (ft)		Antennas	
Mount	Centerline	#	Name
168		3	CCI HPA-65R-BUU-H6
		3	Quintel QS66512-2
		3	CCI DMP65R-BU6D
		3	Powerwave 7770.00
		3	Ericsson RRUS-32 B30
		3	Ericsson RRUS 32 B2_CCIV2
		3	Ericsson RRUS 32 B2
		3	Ericsson RRUS 32 B66
		3	Ericsson RRUS E2 B29
		3	Ericsson RRUS 4478 B14_CCIV2
		3	Ericsson RRUS 4449 B5/B12
		6	Powerwave LGP21401
4	CCI TPX-070821		
1	Raycap DC6-48-60-18-8C		
2	Raycap DC6-48-60-18-8C-EV		
1	Raycap DC6-48-60-18-8F		

3) ANALYSIS PROCEDURE

Table 2 - Documents Provided

Document	Remarks	Reference	Source
Mount Analysis	Kimley-Horn	9091067	CCISites
Mount Design Drawings	Site Pro 1	RMQLP-496-HK	On File
Supplemental Loading	AT&T RFDS	06/09/2020	TSA

3.1) Analysis Method

RISA-3D (version 17.02.00), a commercially available analysis software package, was used to create a three-dimensional model of the antenna mounting system and calculate member stresses for various loading cases.

A proprietary tool internally developed by Kimley-Horn was used to calculate wind loading on all appurtenances, dishes and mount members for various load cases. Selected output from the analysis is included in Appendix B.

This analysis was performed in accordance with Crown Castle's ENG-SOW-10208 *Tower Mount Analysis* (Revision B).

3.2) Assumptions

- 1) The antenna mounting system was properly fabricated, installed and maintained in good condition in accordance with its original design and manufacturer's specifications.
- 2) The configuration of antennas, mounts, and other appurtenances are as specified in Tables 1 and 2 and the referenced drawings.
- 3) 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.
- 4) Steel grades have been assumed as follows, unless noted otherwise:
 - Channel, Solid Round, Angle, Plate ASTM A36 (Gr. 36)
 - HSS (Rectangular) ASTM A36 (Gr. 36)
 - Pipe ASTM A53 (Gr. B-35)
 - Threaded Rods ASTM A36 (Gr. 36)
 - Connection Bolts ASTM A325

This analysis may be affected if any assumptions are not valid or have been made in error. Kimley-Horn 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

Component	% Capacity	Pass / Fail
Mount Pipes	66%	Pass
Corner Plates	48%	Pass
Support Rails	34%	Pass
Connections	30%	Pass
Stand Off Horizontals	29%	Pass
Face Horizontals	15%	Pass

Structure Rating (max from all components) =	66%
---	------------

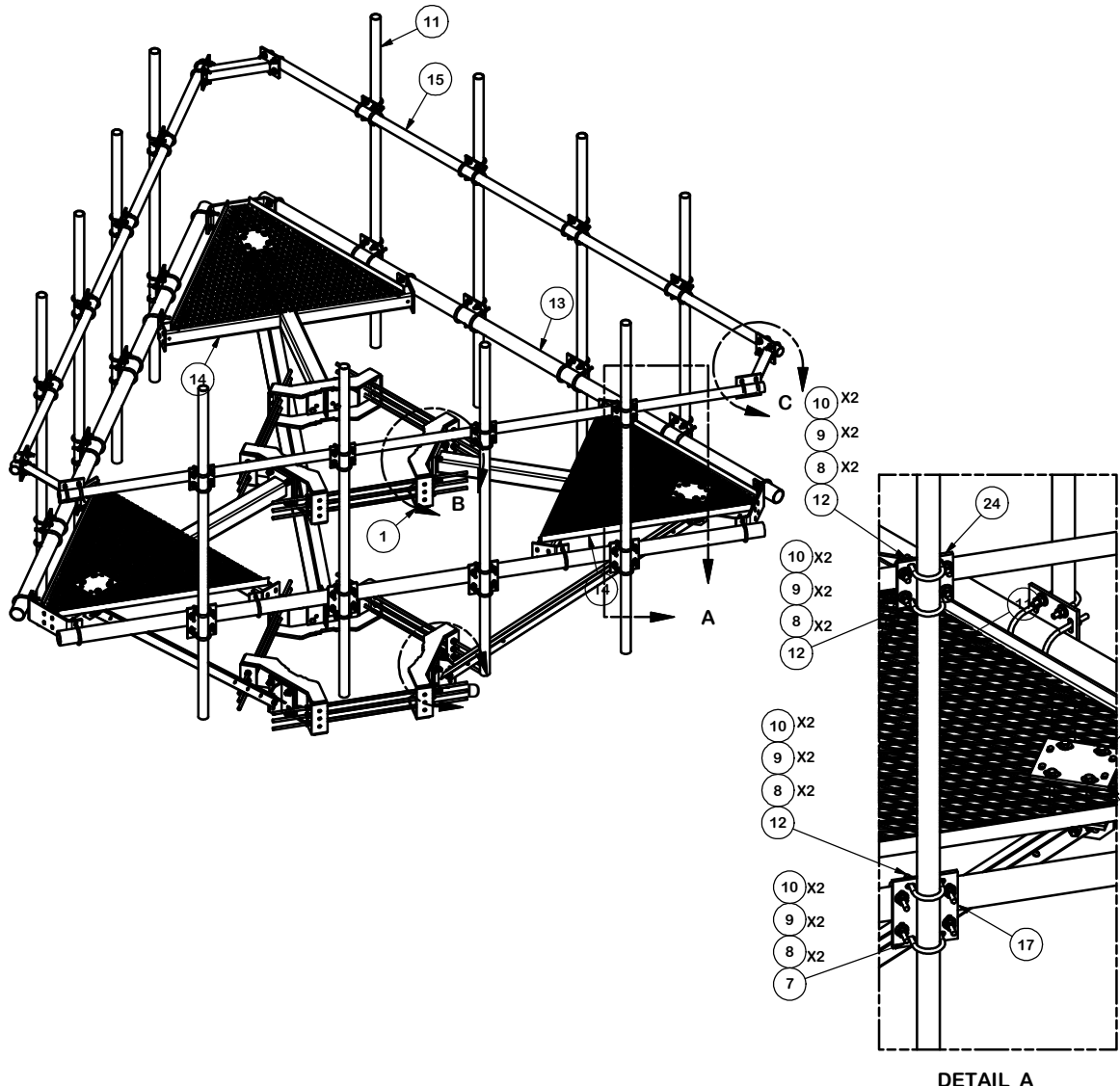
Notes:

- 1) See additional documentation in "Appendix C - Software Analysis Output" for calculations supporting the % capacity consumed.

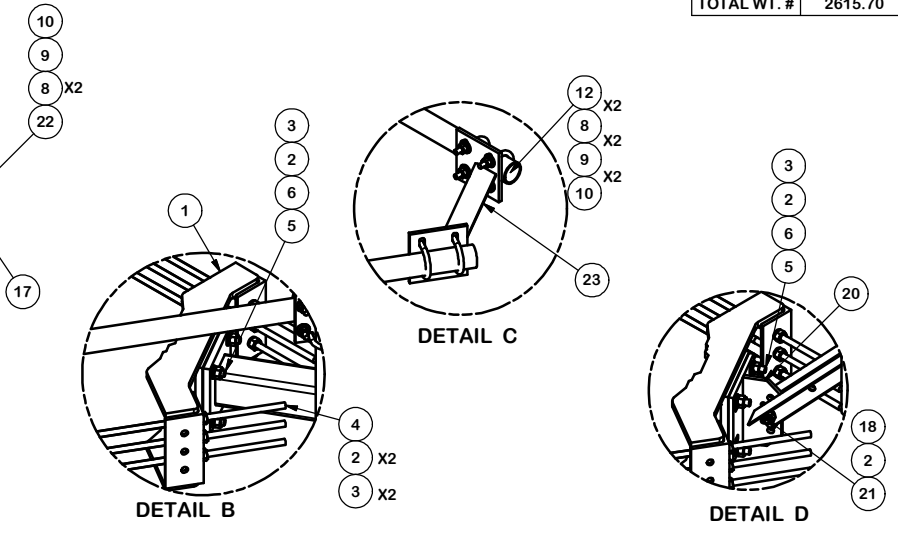
4.1) Recommendations

According to our structural analysis, the mounting configuration has been found to **PASS PENDING REPLACEMENT**. The mounting configuration considered in this analysis will be capable of supporting the referenced loading pursuant to referenced standards once the following scope is executed:

- **Replace existing mounts with a new Site Pro 1 RMQLP-496-HK platform with support rails and kickers.**



PARTS LIST						
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	6	X-LWRM	RING MOUNT WELDMNT		68.81	412.85
2	66	G58LW	5/8" HDG LOCKWASHER		0.03	1.72
3	60	A58NUT	5/8" HDG A325 HEX NUT		0.13	7.79
4	18	G58R-24	5/8" x 24" THREADED ROD (HDG.)		2.09	37.63
5	18	G58R-48	5/8" x 48" THREADED ROD (HDG.)		4.18	75.27
6	24	A58234	5/8" x 2-3/4" HDG A325 HEX BOLT	2 3/4 in	0.36	8.54
7	24	A58FW	5/8" HDG A325 FLATWASHER		0.03	0.82
8	36	X-UB1306	1/2" X 3-5/8" X 6" X 3" U-BOLT (HDG.)		0.83	29.82
9	264	G12FW	1/2" HDG USS FLATWASHER	3/32 in	0.03	9.00
10	252	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	18.05
11	12	P296	2-3/8" X 96" SCH. 40 GALVANIZED PIPE	96 in	30.76	369.08
12	84	X-UB1212	1/2" X 2-1/2" X 4-1/2" X 2" U-BOLT (HDG.)		0.60	50.17
13	3	P3174	3-1/2" X 174" SCH 40 GALVANIZED PIPE	174 in	109.97	329.90
14	3	X-SV196L	LONG PLATFORM WELDMNT		230.94	692.81
15	3	P2174	2-3/8" OD X 174" SCH 40 GALVANIZED PIPE	174 in	55.75	167.24
17	15	SCX4	CROSSOVER PLATE	8 1/2 in	6.02	90.32
18	6	G58NUT	5/8" HDG HEAVY 2H HEX NUT		0.13	0.78
19	6	X-254923	PLATFORM REINFORCEMENT KIT ANGLE	84 in	22.83	137.00
20	6	X-TBW	T-BRACKET WELDMNT		13.60	81.60
21	6	G5802	5/8" x 2" HDG HEX BOLT GR5		0.27	1.62
22	12	G12065	1/2" x 6-1/2" HDG HEX BOLT GR5 FULL THREAD	5 1/2 in	0.41	4.91
23	3	X-AHCP	ANGLE HANDRAIL CORNER PLATE		12.92	38.76
24	12	SCX1	CROSSOVER PLATE 2-3/8" X 2-3/8"	6 in	3.71	44.50
					TOTAL WT. #	2615.70



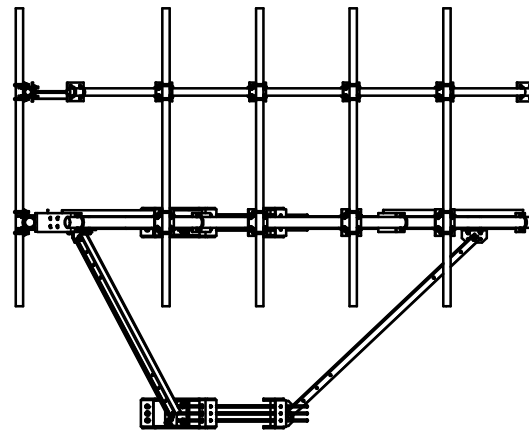
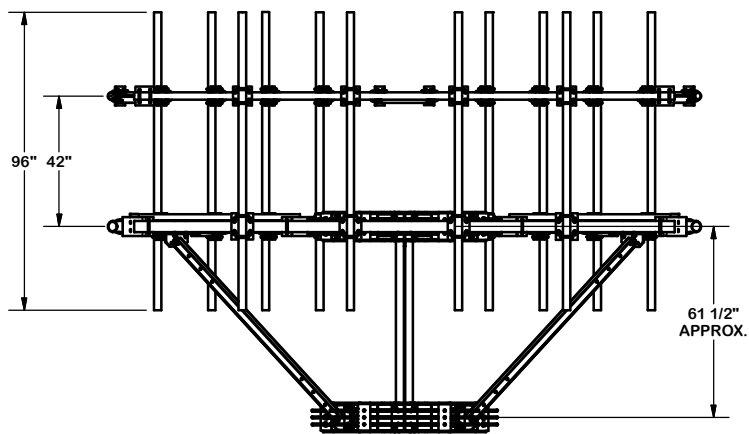
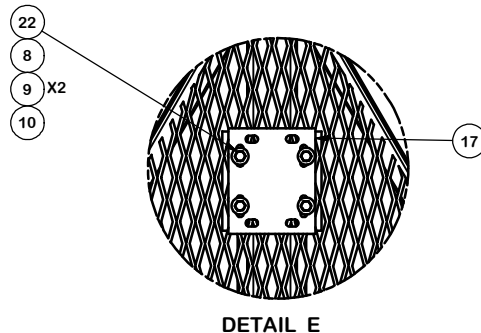
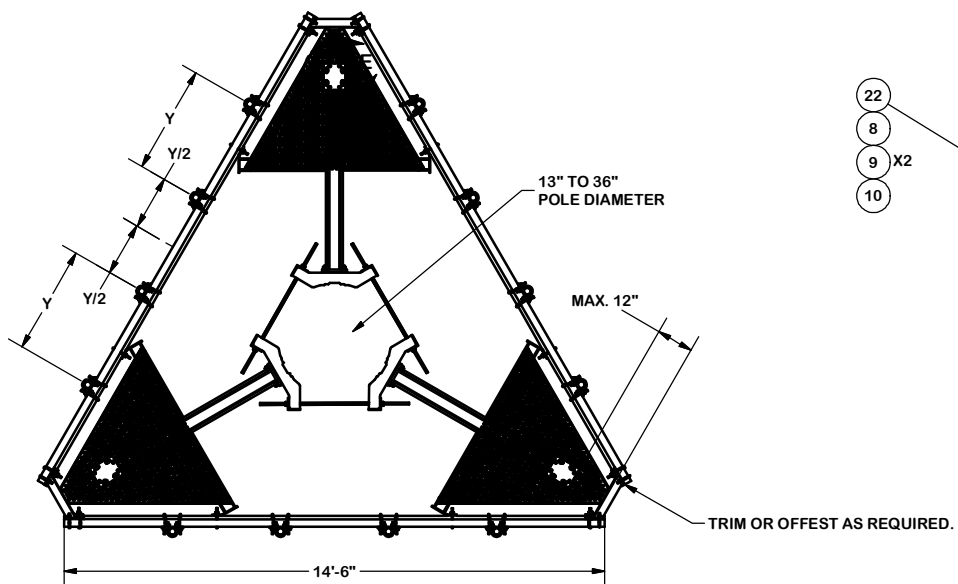
REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
A	CHANGED X-253992 TO X-TBW	4488	CEK	9/20/2018
REVISION HISTORY				

TOLERANCE NOTES
 TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:
 SAWED, SHEARED AND GAS CUT EDGES ($\pm 0.030"$)
 DRILLED AND GAS CUT HOLES ($\pm 0.030"$) - NO CONING OF HOLES
 LASER CUT EDGES AND HOLES ($\pm 0.010"$) - NO CONING OF HOLES
 BENDS ARE $\pm 1/2$ DEGREE
 ALL OTHER MACHINING ($\pm 0.030"$)
 ALL OTHER ASSEMBLY ($\pm 0.080"$)

PROPRIETARY NOTE:
 THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.

DESCRIPTION 14' 6" LOW PROFILE PLATFORM WITH TWELVE 2-3/8" ANTENNA MOUNTING PIPES, AND HANDRAIL	
CPD NO. 4488	DRAWN BY CEK 7/15/2014
CLASS 81	SUB 02
DRAWING USAGE CUSTOMER	ENG. APPROVAL BMC 7/23/2014

 A valmont COMPANY	Locations: New York, NY Atlanta, GA Los Angeles, CA Plymouth, IN Salem, OR Dallas, TX
	Engineering Support Team: 1-888-753-7446
PART NO. RMQLP-496-HK	DWG. NO. RMQLP-496-HK



TOLERANCE NOTES

TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:
 SAWED, SHEARED AND GAS CUT EDGES (± 0.030 ")
 DRILLED AND GAS CUT HOLES (± 0.030 ") - NO CONING OF HOLES
 LASER CUT EDGES AND HOLES (± 0.010 ") - NO CONING OF HOLES
 BENDS ARE $\pm 1/2$ DEGREE
 ALL OTHER MACHINING (± 0.030 ")
 ALL OTHER ASSEMBLY (± 0.080 ")

PROPRIETARY NOTE:
 THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.

DESCRIPTION
14' 6" LOW PROFILE PLATFORM WITH TWELVE 2-3/8" ANTENNA MOUTING PIPES, AND HANDRAIL

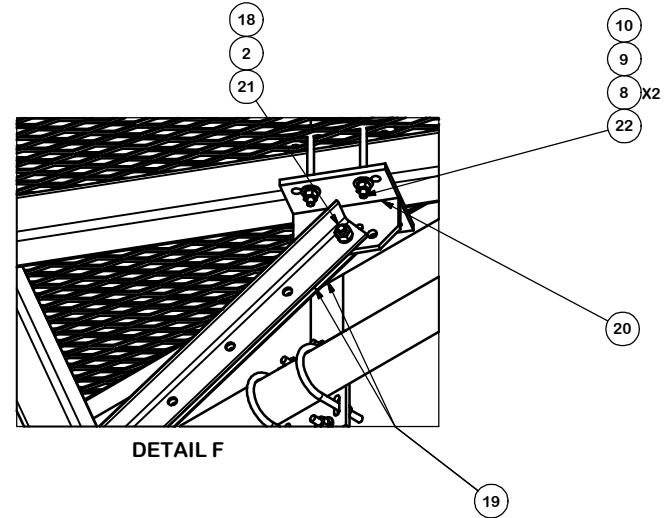
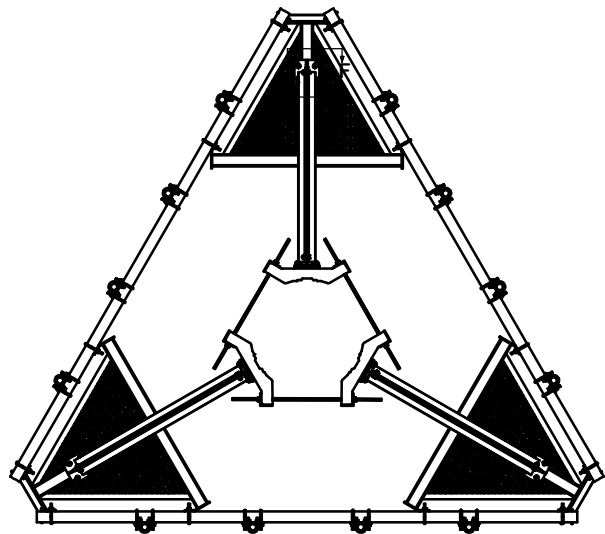
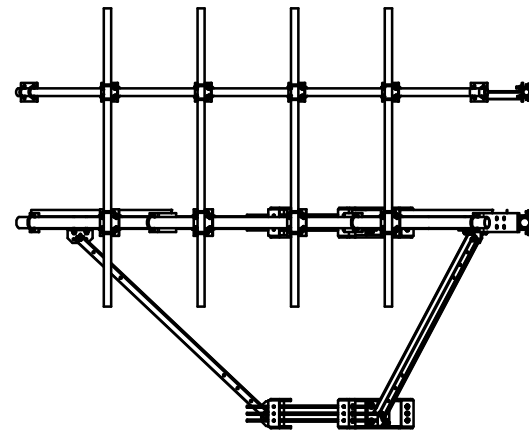
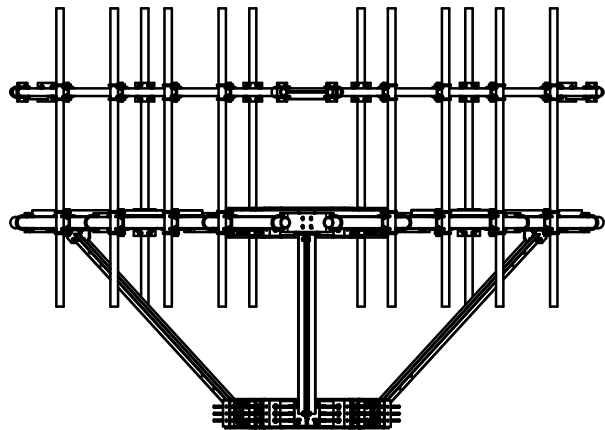
SITE PRO 1
 Engineering Support Team: 1-888-753-7446
 Locations: New York, NY; Atlanta, GA; Los Angeles, CA; Plymouth, IN; Salem, OR; Dallas, TX

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
A	CHANGED X-253992 TO X-TBW	4488	CEK	9/20/2018

CPD NO. 4488	DRAWN BY CEK 7/15/2014	ENG. APPROVAL
CLASS 81	SUB 02	DRAWING USAGE CUSTOMER
CHECKED BY BMC 7/23/2014		

PART NO. RMQLP-496-HK	PAGE 2 OF 3
DWG. NO. RMQLP-496-HK	

REVISION HISTORY



DETAIL F

TOLERANCE NOTES

TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:
 SAWED, SHEARED AND GAS CUT EDGES ($\pm 0.030"$)
 DRILLED AND GAS CUT HOLES ($\pm 0.030"$) - NO CONING OF HOLES
 LASER CUT EDGES AND HOLES ($\pm 0.010"$) - NO CONING OF HOLES
 BENDS ARE $\pm 1/2$ DEGREE
 ALL OTHER MACHINING ($\pm 0.030"$)
 ALL OTHER ASSEMBLY ($\pm 0.080"$)

PROPRIETARY NOTE:
 THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.

DESCRIPTION
 14' 6" LOW PROFILE PLATFORM
 WITH TWELVE 2-3/8" ANTENNA MOUTING
 PIPES, AND HANDRAIL



Engineering
 Support Team:
 1-888-753-7446

Locations:
 New York, NY
 Atlanta, GA
 Los Angeles, CA
 Plymouth, IN
 Salem, OR
 Dallas, TX

PART NO. **RMQLP-496-HK**

DWG. NO. **RMQLP-496-HK**

CPD NO. **4488** DRAWN BY **CEK 7/15/2014**

ENG. APPROVAL

CLASS SUB **81 02** DRAWING USAGE **CUSTOMER**

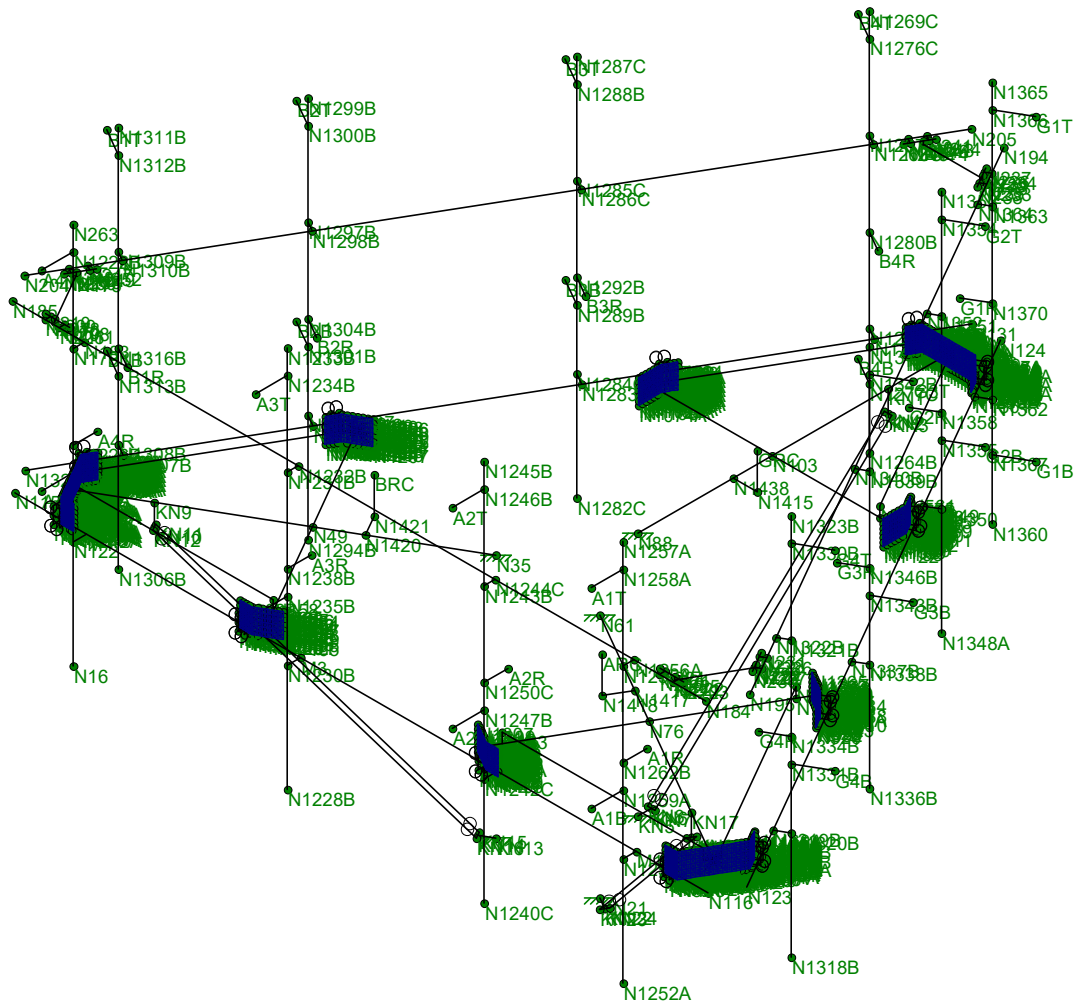
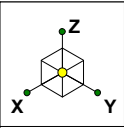
CHECKED BY **BMC 7/23/2014**

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
A	CHANGED X-253992 TO X-TBW	4488	CEK	9/20/2018

REVISION HISTORY

APPENDIX A

WIRE FRAME AND RENDERED MODELS



Envelope Only Solution

Kimley-Horn and Associates, Inc.

ZAM

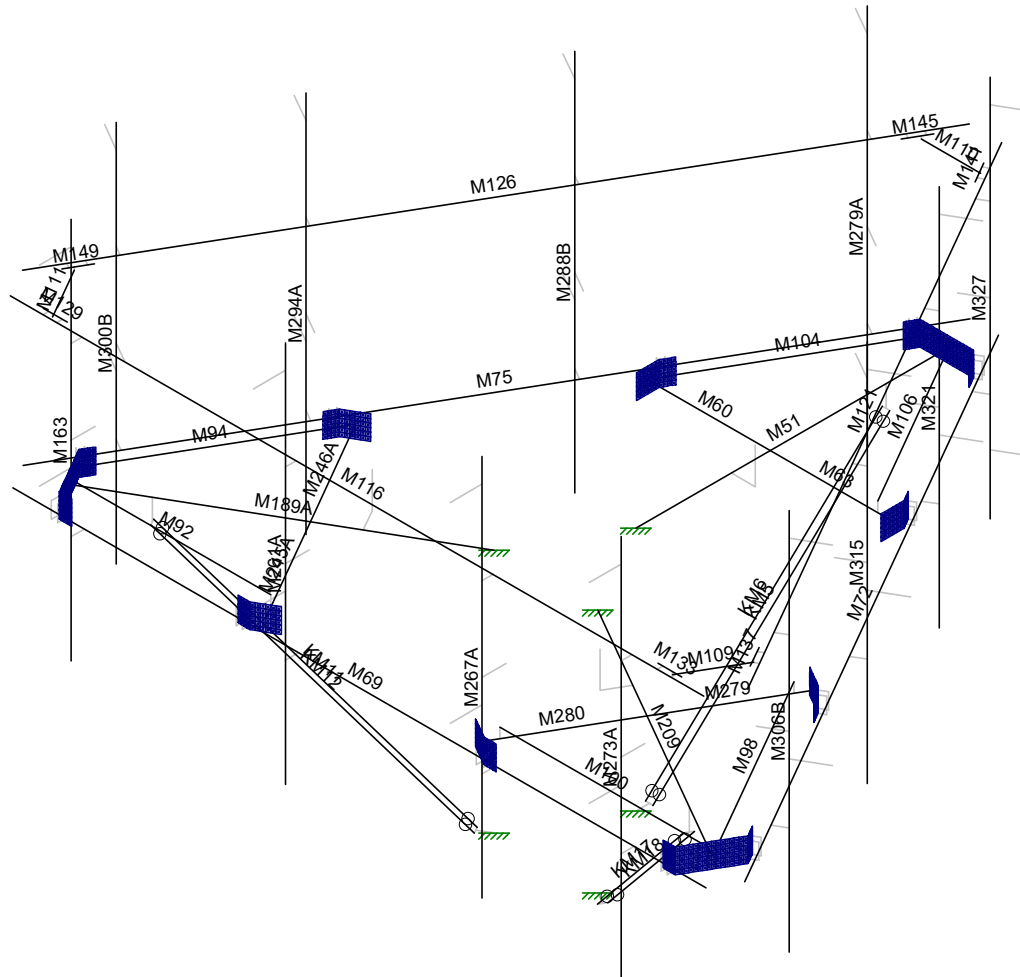
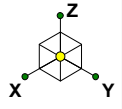
019558049

842872 - ROCKY HILL

SK - 1

June 17, 2020 at 11:31 AM

842872.r3d



Envelope Only Solution

Kimley-Horn and Associates, Inc.

ZAM

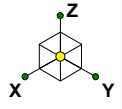
019558049

842872 - ROCKY HILL

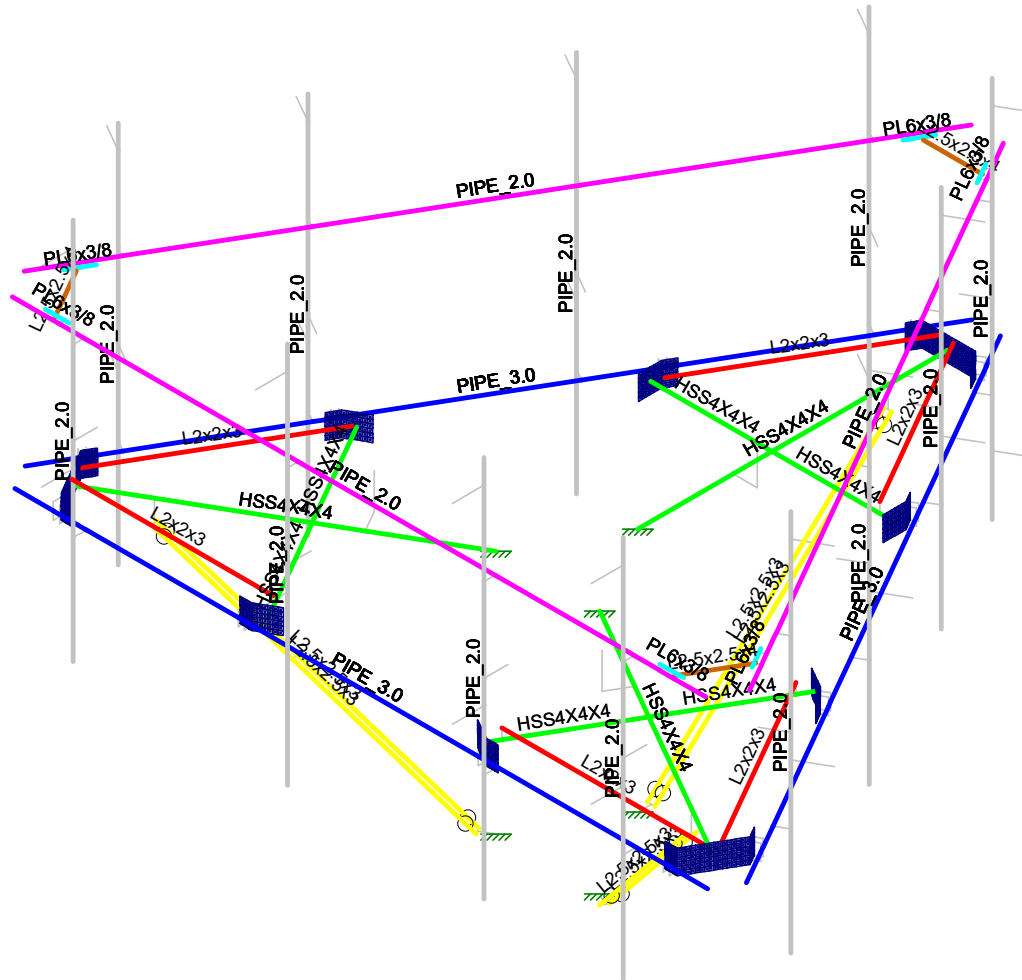
SK - 2

June 17, 2020 at 11:32 AM

842872.r3d



- Section Sets
- Face Horiz
 - Offset Horiz
 - Grating Angle
 - Mount Pipe
 - HRK14 Pipe
 - HRK14 Plate
 - HRK14 Angle
 - PRK-1245 Angle
 - RIGID



Envelope Only Solution

Kimley-Horn and Associates, Inc.

ZAM

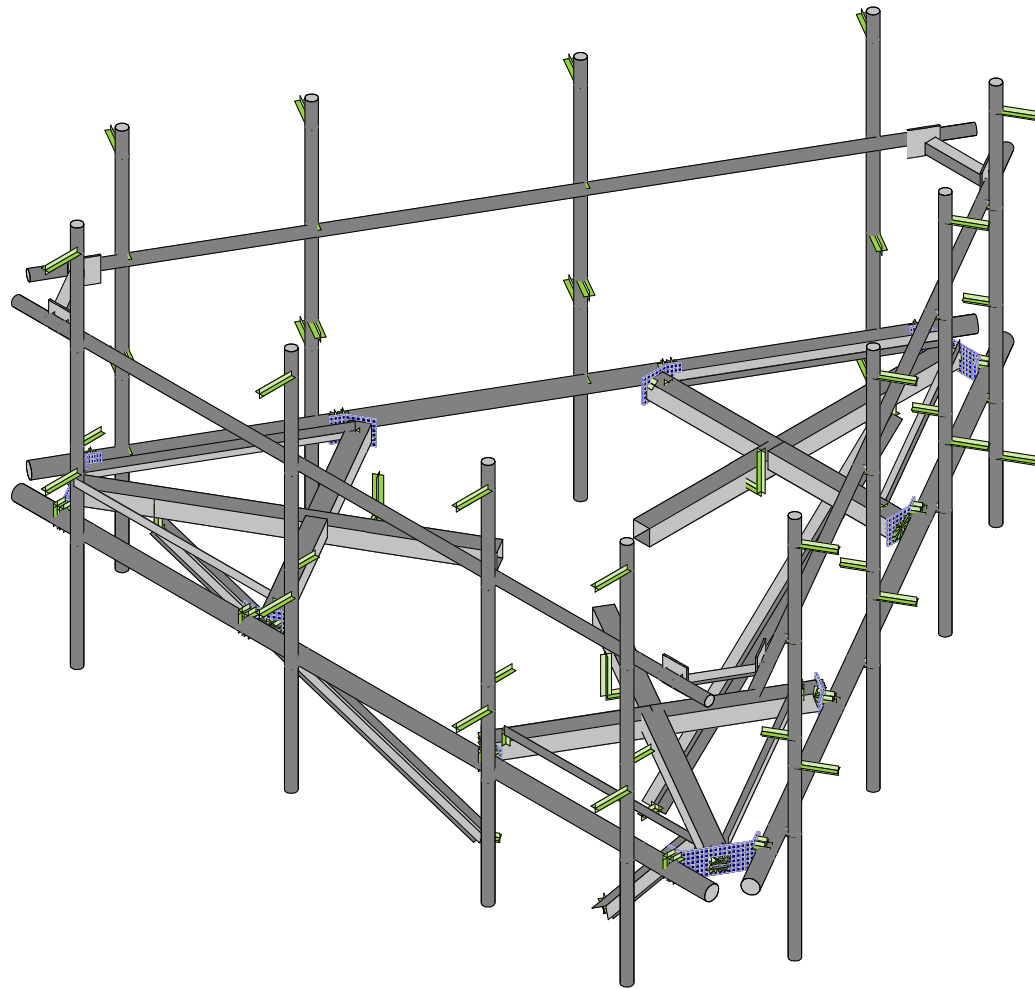
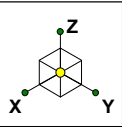
019558049

842872 - ROCKY HILL

SK - 3

June 17, 2020 at 11:32 AM

842872.r3d



Envelope Only Solution

Kimley-Horn and Associates, Inc.

ZAM

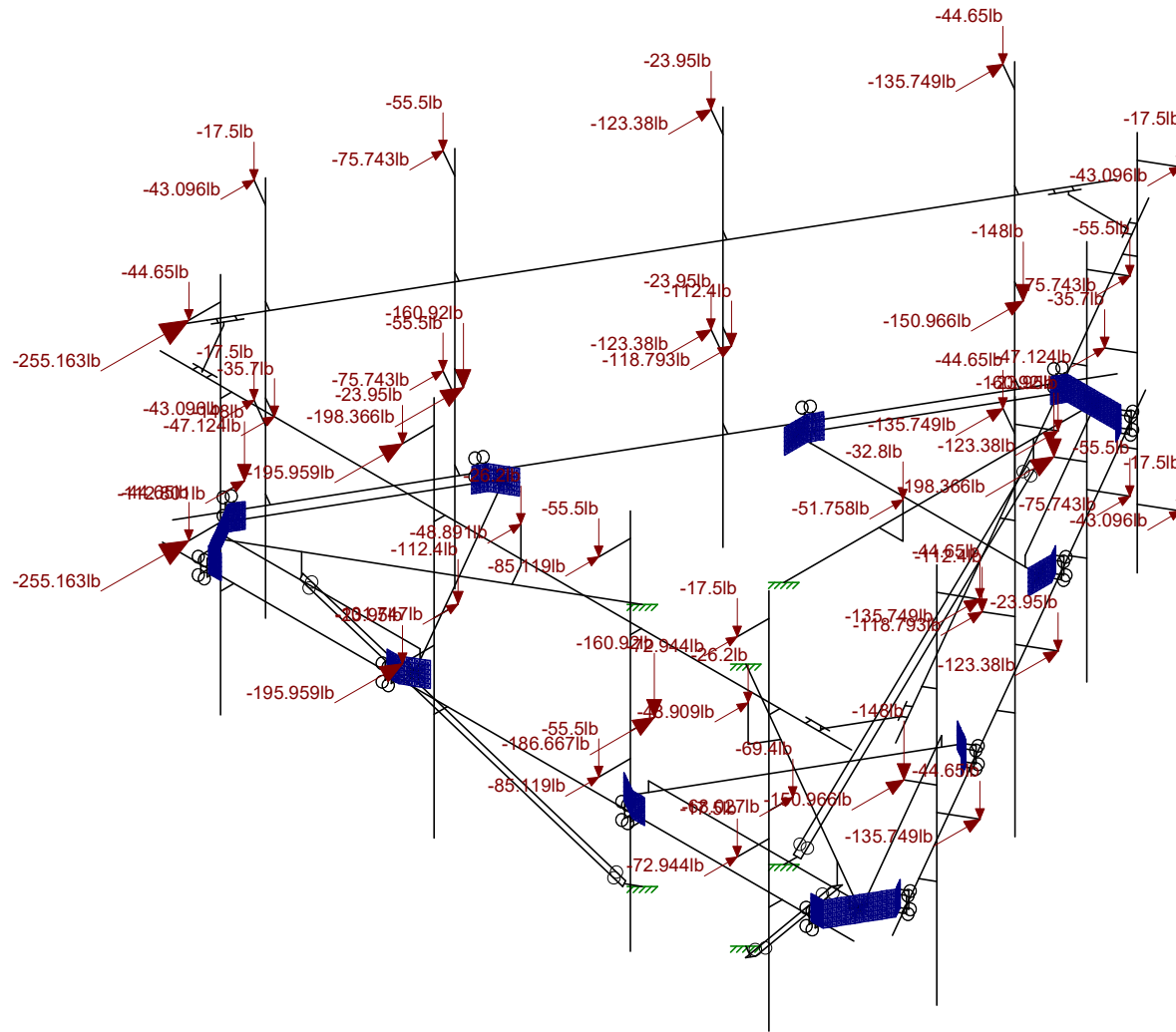
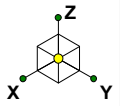
019558049

842872 - ROCKY HILL

SK - 4

June 17, 2020 at 11:32 AM

842872.r3d



Loads: LC 1, Summary: 1.0D + 1.0W
Envelope Only Solution

Kimley-Horn and Associates, Inc.

ZAM

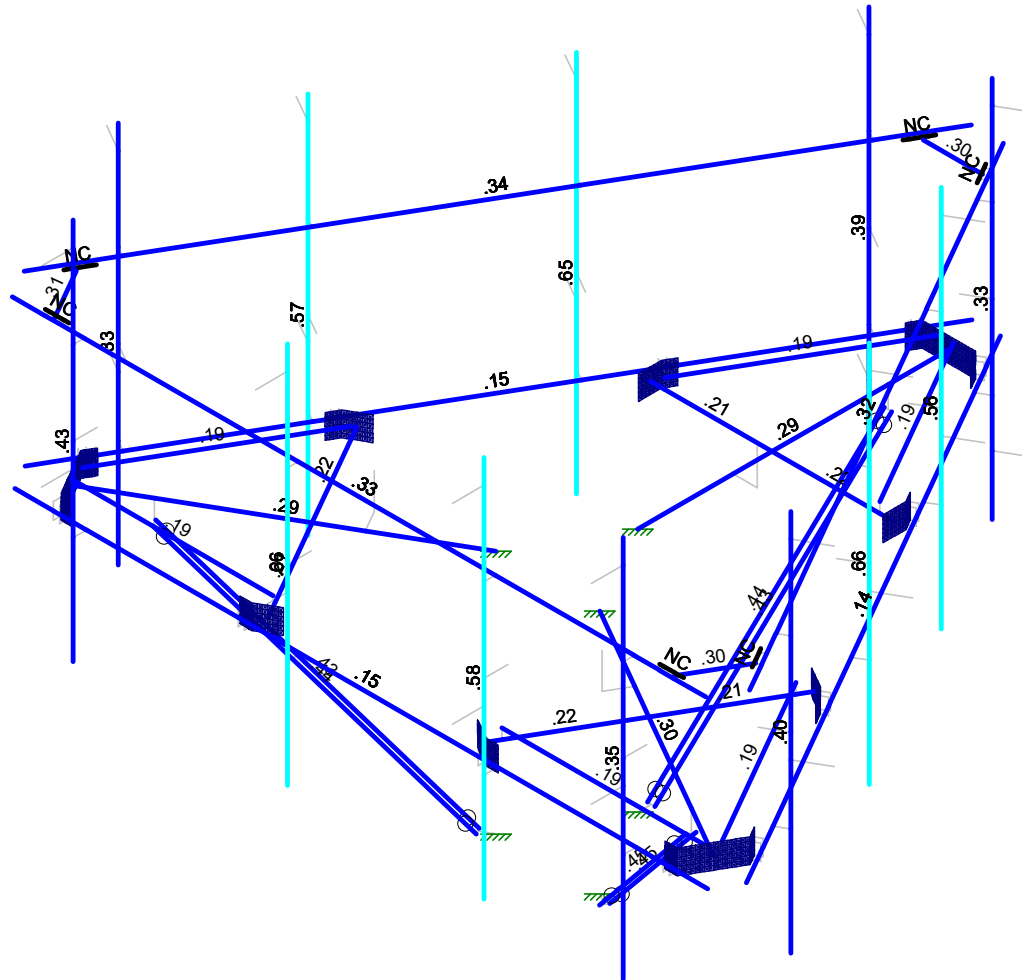
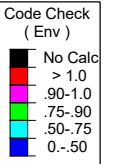
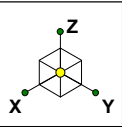
019558049

842872 - ROCKY HILL

SK - 5

June 17, 2020 at 11:32 AM

842872.r3d

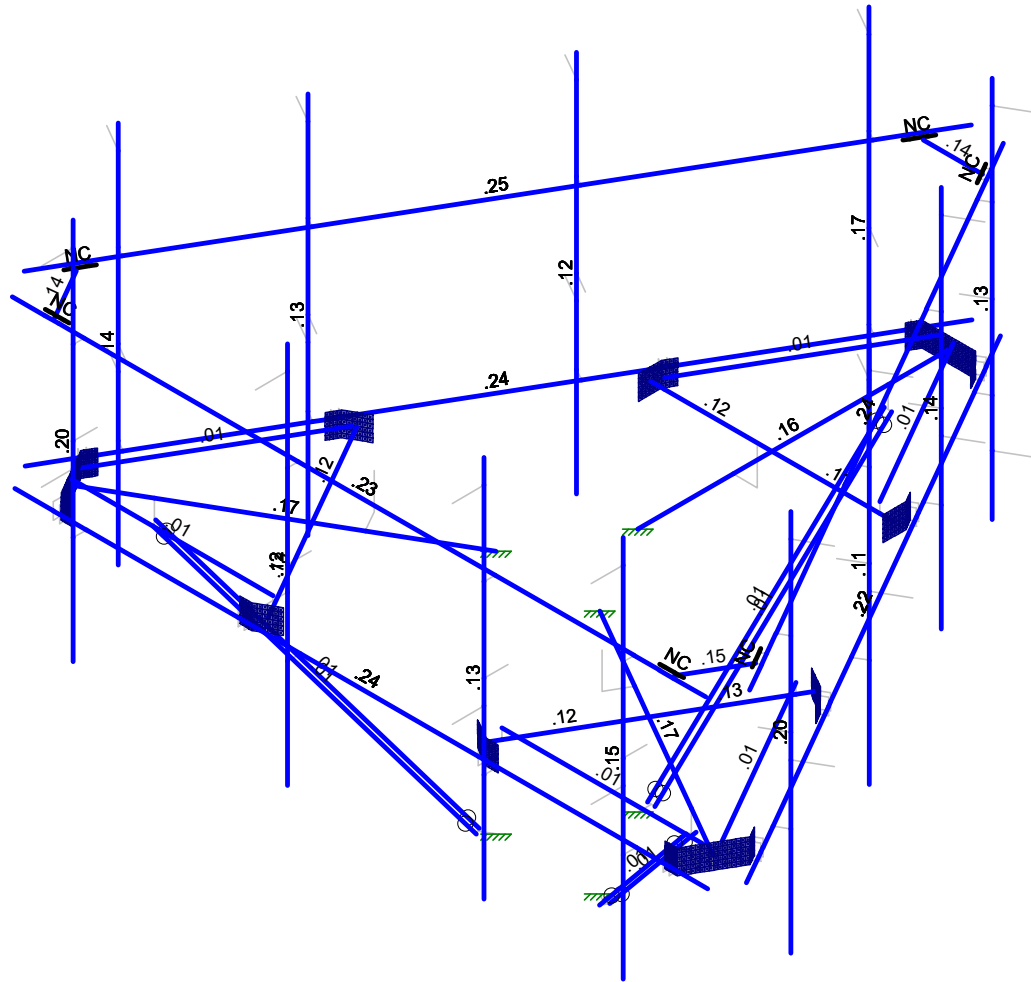
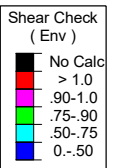
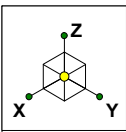


Member Code Checks Displayed (Enveloped)
Envelope Only Solution

Kimley-Horn and Associates, Inc.
ZAM
019558049

842872 - ROCKY HILL

SK - 6
June 17, 2020 at 11:32 AM
842872.r3d



Member Shear Checks Displayed (Enveloped)
Envelope Only Solution

Kimley-Horn and Associates, Inc.
ZAM
019558049

842872 - ROCKY HILL

SK - 7
June 17, 2020 at 11:33 AM
842872.r3d

APPENDIX B
SOFTWARE INPUT CALCULATIONS

Date June 17, 2020
 Client Crown Castle
 Site # 842872
 Site Name ROCKY HILL
 Project # 19558049

Wind Summary	
Basic Wind Speed w/ Ice, V (mph)	118.00
Velocity Pressure Coeff., K _z	1.41
Velocity Pressure, q _z (w/ Ice) (psf)	47.46

Ice Load Summary	
Basic Wind Speed w/ Ice, V _i (mph)	50.00
Design Ice Thick. (ASCE 7-16) , t _i (in)	1.5
Velocity Pressure, q _z (w/ Ice) (psf)	8.52
Escalated Ice Thick. @ Mount, t _e (in)	1.77

Seismic Load Summary	
Spectral Response (Short Periods), S _s	-
Spectral Response (1-Sec. Period), S ₁	-
Site Class	-
Seismic Design Category	-
Seismic Risk Category	-

Snow Load Summary	
Ground Snow Load, P _g (psf)	-
Snow Load on Flat Roofs, P _r (psf)	-

General Criteria	
TIA Standard	H
IBC Edition	2018
Structure Class	-
Risk Category	II

Site-Specific Criteria	
Exposure Category	C
Topographic Factor, K _t	1.00
Structure Base Elev. (AMSL), z _s (ft)	198.00
Ground Effect Factor, K _g	0.99

Mount & Structure Criteria	
Mount Elevation (AGL) (ft)	166.00
Structure Height (ft)	182.00
Structure Type	Monopole

Constants	
Wind Direction Probability Factor, K _d	0.95
Gust Effect Factor, G _h	1
Shielding Factor, K _s (antenna)	0.9
Shielding Factor, K _s (mount)	0.9

Antenna Name	Qty	Shape	Dimensions (m)				Weight (lb)	Joint Labels						EPA (ft ²)		Wind Force, F _A (lb)				
			H		D			Alpha	Beta	Gamma	Delta	Front	Side	Front	Side	No Ice Front	No Ice Side	With Ice Front	With Ice Side	
			H	W	W	D														
DMIP65R-BU6D	3	Flat	71.2	20.7	7.7	89.3	A4B	A4T	B4B	B4T	G4B	G4T			11.95	4.49	510.33	191.89	111.14	49.51
HPA-65R-BUU-H6	3	Flat	72	14.8	9	47.9	A3B	A3T	B3B	B3T	G3B	G3T			9.17	4.64	391.92	198.37	89.11	49.24
7770	3	Flat	55	11	5	35	A1B	A1T	B1B	B1T	G1B	G1T			3.42	1.55	145.89	66.29	35.61	19.64
Q566512-2	3	Flat	72	12	9.6	111	A2B	A2T	B2B	B2T	G2B	G2T			3.99	3.4	170.24	145.24	39.95	35.51
TPX-070821	4	Flat	5.8	9.7	2.1	7.5	A1R		B1R		G1R				0.05	0.23	2.15	10.01	1.67	3.94
RRUS 32 B2	3	Flat	27.2	12.1	7	52.9	A2R		B2R		G2R				1.37	1.67	58.34	71.26	15.3	21
RRUS 32 B2_CCV2	3	Flat	27.6	12.5	7.4	55.1	A2R		B2R		G2R				1.43	1.78	61.16	76.1	15.9	22.05
RRUS 32 B66	3	Flat	27.2	12.1	7	53	A3R		B3R		G3R				1.37	1.67	58.58	71.26	15.35	21
RRUS 4449 B5/B12	3	Flat	17.9	13.2	9.4	71	A4R		B4R		G4R				0.98	1.41	42.02	60.15	11.45	17.76
RRUS 4478 B14_CCV2	3	Flat	18.1	13.4	8.3	59.4	A3R		B3R		G3R				1.01	1.25	43.17	53.22	11.7	16.3
RRUS E2 B29	3	Flat	20.4	18.5	7.5	52.9	A2R		B2R		G2R				1.57	1.29	67.17	54.91	16.85	16.87
RRUS-32 B30	3	Flat	29.9	13.3	9.5	77	A4R		B4R		G4R				1.66	2.42	70.78	103.54	17.98	27.91
LGP21401	6	Flat	14.4	9.2	2.6	14.1	A1R		B1R		G1R				0.17	0.55	7.41	23.58	3.57	7.29
DC6-48-60-18-8C	1	Round	31.4	10.2	10.2	26.2	ARC								1.14	1.14	48.91	48.91	13.73	13.73
DC6-48-60-18-8C-EV	2	Round	31.4	10.2	10.2	26.2	A1R		BRC						1.14	1.14	48.89	48.89	13.73	13.73
DC6-48-60-18-8F	1	Round	31.3	11	11	32.8					GRC				1.21	1.21	51.76	51.76	14.03	14.03

APPENDIX C
SOFTWARE ANALYSIS OUTPUT

Hot Rolled Steel Properties

Label	E [ksi]	G [ksi]	Nu	Therm (Λ...)	Density[lb/ft^3]	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A36 Gr.36	29000	11154	.3	.65	490	36	1.5	58
2	A572 Gr.50	29000	11154	.3	.65	490	50	1.1	65
3	A992	29000	11154	.3	.65	490	50	1.1	65
4	A500 Gr.B RND	29000	11154	.3	.65	527	42	1.4	58
5	A500 Gr.B Rect	29000	11154	.3	.65	527	46	1.4	58
6	A53 Gr.B	29000	11154	.3	.65	490	35	1.6	60
7	A1085	29000	11154	.3	.65	490	50	1.4	65
8	Q235	29000	11154	.3	.65	490	35	1.5	58

Hot Rolled Steel Section Sets

Label	Face Horiz	Shape	Type	Design List	Material	Design ... A [in2]	Ivy [in4]	Izz [in4]	J [in4]
1	Face Horiz	PIPE 3.0	Beam	None	A53 Gr.B	Typical 2.07	2.85	2.85	5.69
2	Stand-Off Horiz	HSS4X4X4	Beam	None	Q235	Typical 3.37	7.8	7.8	12.8
3	Offset Horiz	HSS4X4X4	Beam	None	Q235	Typical 3.37	7.8	7.8	12.8
4	Offset Side Plate	PL6x3/8	Beam	None	Q235	Typical 2.25	.026	6.75	.101
5	Grating Angle	L2x2x3	Beam	None	Q235	Typical .722	.271	.271	.009
6	Mount Pipe	PIPE 2.0	Column	None	A53 Gr.B	Typical 1.02	.627	.627	1.25
7	Offset End Plate	PL6x0.5	Beam	None	Q235	Typical 4.5	.094	30.375	.362
8	HRK14 Pipe	PIPE 2.0	Beam	None	A53 Gr.B	Typical 1.02	.627	.627	1.25
9	HRK14 Plate	PL6x3/8	Beam	None	Q235	Typical 2.25	.026	6.75	.101
10	HRK14 Angle	L2.5x2.5x4	Beam	None	Q235	Typical 1.19	.692	.692	.026
11	PRK-1245 Angle	L2.5x2.5x3	Beam	None	A36 Gr.36	Typical .901	.535	.535	.011
12	HR1A	W10X33	Beam	None	A992	Typical 9.71	36.6	171	.583

Joint Coordinates and Temperatures

Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Di...
1	N16	57.654187	-69.	0	
2	N35	7.5155	-13.017228	0	
3	N36	40.7585	-83.970905	0	
4	N37	52.341687	-77.283349	0	
5	N39	-0.747815	-60.078992	0	
6	N42	52.404187	-32.39167	0	
7	N43	52.404187	-29.39167	0	
8	N48	47.779713	-79.283664	0	
9	N49	24.390513	-42.245607	0	
10	N50	47.779713	-28.741846	0	
11	N51	1.001659	-55.749169	0	
12	N52	46.275762	-80.151971	0	
13	N53	54.341687	-75.754049	0	
14	N60	44.771811	-81.020277	0	
15	N61	7.5155	13.017228	0	
16	N62	52.341687	77.283349	0	
17	N63	40.7585	83.970905	0	
18	N66	52.40384	29.39187	0	
19	N70	-0.748161	60.079192	0	
20	N75	44.771811	81.020277	0	
21	N76	24.390513	42.245608	0	
22	N77	1.001313	55.749369	0	
23	N78	47.779367	28.742046	0	
24	N79	46.275762	80.151971	0	
25	N87	47.779713	79.283664	0	
26	N88	-15.031	-0.	0	
27	N89	-93.100187	6.687556	0	



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 842872 - ROCKY HILL

June 17, 2020
 11:33 AM
 Checked By: MLO

Joint Coordinates and Temperatures (Continued)

Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Di...
28	N90	-93.100187	-6.687556	0	0
29	N93	-51.656026	30.687122	0	0
30	N97	-51.656026	-30.687522	0	0
31	N98	-48.781026	-30.437522	0	0
32	N99	-48.781026	30.437122	0	0
33	N100	-92.850187	-0.	0	0
34	N102	-92.551524	-1.736613	0	0
35	N103	-48.781026	-0.	0	0
36	N104	-48.781026	-27.007522	0	0
37	N105	-48.781026	27.007122	0	0
38	N106	-92.551524	-0.	0	0
39	N114	-92.551524	1.736613	0	0
40	N115	54.341687	-87.00002	0	0
41	N116	54.341687	87.00002	0	0
42	M4	54.341687	-69.	0	0
43	N122	57.654187	-69.	0	0
44	N123	48.173384	90.561292	0	0
45	N124	-102.515071	3.561271	0	0
46	N131	-102.515071	-3.561271	0	0
47	N132	48.173384	-90.561292	0	0
48	N140	54.341687	-30.89167	0	0
49	N158	47.779713	-28.741846	2.561	0
50	N159	1.001659	-55.749169	2.561	0
51	N160	47.779713	-79.283664	2.561	0
52	N161	44.771811	-81.020277	2.561	0
53	N162	1.001313	55.749369	2.561	0
54	N163	47.779367	28.742046	2.561	0
55	N164	44.771811	81.020277	2.561	0
56	N165	47.779713	79.283664	2.561	0
57	N166	-48.781026	-27.007522	2.561	0
58	N167	-48.781026	27.007122	2.561	0
59	N168	-92.551524	-1.736613	2.561	0
60	N169	-92.551524	1.736613	2.561	0
61	N170	53.529187	-77.813521	41.289	0
62	N171	53.529187	77.813521	41.289	0
63	N172	40.623893	85.264396	41.289	0
64	N173	-94.153079	7.450875	41.289	0
65	N174	-94.153079	-7.450875	41.289	0
66	N175	40.623893	-85.264396	41.289	0
67	N179	57.654187	-69.	42	0
68	N183	54.904187	-69.	42	0
69	N184	54.904187	87.00002	42	0
70	N185	54.904187	-87.00002	42	0
71	N194	-102.796321	4.048411	42	0
72	N195	47.892134	91.048431	42	0
73	N204	47.892134	-91.048431	42	0
74	N205	-102.796321	-4.048411	42	0
75	N206	54.904187	-75.383771	42	0
76	N207	54.904187	-78.821271	42	0
77	N208	53.529187	-75.383771	42	0
78	N209	53.529187	-78.821271	42	0
79	N210	53.529187	-80.102521	42	0
80	N211	53.529187	-74.102521	42	0
81	N218	53.529187	-77.813521	42	0
82	N219	54.904187	75.383771	42	0
83	N220	54.904187	78.821271	42	0
84	N221	53.529187	75.383771	42	0

Joint Coordinates and Temperatures (Continued)

Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Di...
85					
N222	53.529187	78.821271	42	0	
N223	53.529187	80.102521	42	0	
N224	53.529187	74.102521	42	0	
N225	53.529187	77.813521	42	0	
N226	37.832167	85.240306	42	0	
N227	40.809129	86.959056	42	0	
N228	38.519667	84.049521	42	0	
N229	41.49663	85.768271	42	0	
N230	42.606225	86.408896	42	0	
N231	37.410072	83.408896	42	0	
N232	40.623893	85.264396	42	0	
N233	-92.736354	9.856535	42	0	
N234	-95.713317	8.137785	42	0	
N235	-92.048854	8.66575	42	0	
N236	-95.025816	6.947	42	0	
N237	-96.135412	6.306375	42	0	
N238	-90.939259	9.306375	42	0	
N239	-94.153079	7.450875	42	0	
N240	-92.736354	-9.856535	42	0	
N241	-95.713317	-8.137785	42	0	
N242	-92.048854	-8.66575	42	0	
N243	-95.025816	-6.947	42	0	
N244	-96.135412	-6.306375	42	0	
N245	-90.939259	-9.306375	42	0	
N246	-94.153079	-7.450875	42	0	
N247	37.832167	-85.240306	42	0	
N248	40.809129	-86.959056	42	0	
N249	38.519667	-84.049521	42	0	
N250	41.49663	-85.768271	42	0	
N251	42.606225	-86.408896	42	0	
N252	37.410072	-83.408896	42	0	
N253	40.623893	-85.264396	42	0	
N263	57.654187	-69.	69	0	
N272	52.341687	-77.283349	3	0	
N274	52.341687	-77.283349	-3	0	
N276	54.341687	-75.754049	2	0	
N277	52.341687	-75.754049	2	0	
N278	54.341687	-75.754049	-2	0	
N279	52.341687	-75.754049	-2	0	
N275A	52.341687	-77.283349	-2	0	
N276A	52.341687	-77.283349	-1	0	
N277A	52.341687	-77.283349	1	0	
N278A	52.341687	-77.283349	2	0	
N319	52.341687	77.283349	3	0	
N321	52.341687	77.283349	-3	0	
N327	52.341687	77.283349	-2	0	
N328	52.341687	77.283349	-1	0	
N329	52.341687	77.283349	1	0	
N330	52.341687	77.283349	2	0	
N365A	52.404187	-30.89167	2	0	
N366A	54.341687	-30.89167	2	0	
N367A	52.404187	-30.89167	-2	0	
N368A	54.341687	-30.89167	-2	0	
N368B	52.404187	-32.39167	3	0	
N369	52.404187	-29.39167	3	0	
N370	52.404187	-32.39167	-3	0	
N371	52.404187	-29.39167	-3	0	



Company : Kimley-Horn and Associates, Inc.
Designer : ZAM
Job Number : 019558049
Model Name : 842872 - ROCKY HILL

June 17, 2020
11:33 AM
Checked By: MLO

Joint Coordinates and Temperatures (Continued)

Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Di...
142	52.404187	-32.39167	-2	0	
143	52.404187	-32.39167	-1	0	
144	52.404187	-32.39167	1	0	
145	52.404187	-32.39167	2	0	
146	52.404187	-31.64167	-3	0	
147	52.404187	-31.64167	-2	0	
148	52.404187	-31.64167	-1	0	
149	52.404187	-31.64167	0	0	
150	52.404187	-31.64167	1	0	
151	52.404187	-31.64167	2	0	
152	52.404187	-31.64167	3	0	
153	52.404187	-30.89167	-3	0	
154	52.404187	-30.89167	-1	0	
155	52.404187	-30.89167	0	0	
156	52.404187	-30.89167	1	0	
157	52.404187	-30.89167	3	0	
158	52.404187	-30.14167	-3	0	
159	52.404187	-30.14167	-2	0	
160	52.404187	-30.14167	-1	0	
161	52.404187	-30.14167	0	0	
162	52.404187	-30.14167	1	0	
163	52.404187	-30.14167	2	0	
164	52.404187	-30.14167	3	0	
165	52.404187	-29.39167	-2	0	
166	52.404187	-29.39167	-1	0	
167	52.404187	-29.39167	1	0	
168	52.404187	-29.39167	2	0	
169	52.404187	32.39167	0	0	
170	54.341687	30.89167	0	0	
171	52.404187	30.89167	2	0	
172	54.341687	30.89167	2	0	
173	52.404187	30.89167	-2	0	
174	54.341687	30.89167	-2	0	
175	52.404187	32.39167	3	0	
176	52.404187	29.39167	3	0	
177	52.404187	32.39167	-3	0	
178	52.404187	29.39167	-3	0	
179	52.404187	32.39167	-2	0	
180	52.404187	32.39167	-1	0	
181	52.404187	32.39167	1	0	
182	52.404187	32.39167	2	0	
183	52.404187	31.64167	-3	0	
184	52.404187	31.64167	-2	0	
185	52.404187	31.64167	-1	0	
186	52.404187	31.64167	0	0	
187	52.404187	31.64167	1	0	
188	52.404187	31.64167	2	0	
189	52.404187	31.64167	3	0	
190	52.404187	30.89167	-3	0	
191	52.404187	30.89167	-1	0	
192	52.404187	30.89167	0	0	
193	52.404187	30.89167	1	0	
194	52.404187	30.89167	3	0	
195	52.404187	30.14167	-3	0	
196	52.404187	30.14167	-2	0	
197	52.404187	30.14167	-1	0	
198	52.404187	30.14167	0	0	

Joint Coordinates and Temperatures (Continued)

Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Di...
199					
200					
201					
202					
203					
204					
205					
206					
207					
208					
209					
210					
211					
212					
213					
214					
215					
216					
217					
218					
219					
220					
221					
222					
223					
224					
225					
226					
227					
228					
229					
230					
231					
232					
233					
234					
235					
236					
237					
238					
239					
240					
241					
242					
243					
244					
245					
246					
247					
248					
249					
250					
251					
252					
253					
254					
255					

Joint Coordinates and Temperatures (Continued)

Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Di...
256	-53.923814	31.615447	0	0	
257	-52.955064	29.937522	2	0	
258	-53.923814	31.615447	2	0	
259	-52.955064	29.937522	-2	0	
260	-53.923814	31.615447	-2	0	
261	-54.254102	29.187522	3	0	
262	-51.656026	30.687522	3	0	
263	-54.254102	29.187522	-3	0	
264	-51.656026	30.687522	-3	0	
265	-54.254102	29.187522	-2	0	
266	-54.254102	29.187522	-1	0	
267	-54.254102	29.187522	1	0	
268	-54.254102	29.187522	2	0	
269	-53.604583	29.562522	-3	0	
270	-53.604583	29.562522	-2	0	
271	-53.604583	29.562522	-1	0	
272	-53.604583	29.562522	0	0	
273	-53.604583	29.562522	1	0	
274	-53.604583	29.562522	2	0	
275	-53.604583	29.562522	3	0	
276	-52.955064	29.937522	-3	0	
277	-52.955064	29.937522	-1	0	
278	-52.955064	29.937522	0	0	
279	-52.955064	29.937522	1	0	
280	-52.955064	29.937522	3	0	
281	-52.305545	30.312522	-3	0	
282	-52.305545	30.312522	-2	0	
283	-52.305545	30.312522	-1	0	
284	-52.305545	30.312522	0	0	
285	-52.305545	30.312522	1	0	
286	-52.305545	30.312522	2	0	
287	-52.305545	30.312522	3	0	
288	-51.656026	30.687522	-2	0	
289	-51.656026	30.687522	-1	0	
290	-51.656026	30.687522	1	0	
291	-51.656026	30.687522	2	0	
292	-54.254102	-29.187522	0	0	
293	-53.923814	-31.615447	0	0	
294	-93.100187	-6.687556	3	0	
295	-93.100187	-6.687556	-3	0	
296	-93.100187	-6.687556	-2	0	
297	-93.100187	-6.687556	-1	0	
298	-93.100187	-6.687556	1	0	
299	-93.100187	-6.687556	2	0	
300	40.7585	-83.970905	3	0	
301	40.7585	-83.970905	-3	0	
302	40.7585	-83.970905	-2	0	
303	40.7585	-83.970905	-1	0	
304	40.7585	-83.970905	1	0	
305	40.7585	-83.970905	2	0	
306	-52.955064	-29.937522	2	0	
307	-53.923814	-31.615447	2	0	
308	-52.955064	-29.937522	-2	0	
309	-53.923814	-31.615447	-2	0	
310	-54.254102	-29.187522	3	0	
311	-51.656026	-30.687522	3	0	
312	-54.254102	-29.187522	-3	0	



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 842872 - ROCKY HILL

June 17, 2020
 11:33 AM
 Checked By: MLO

Joint Coordinates and Temperatures (Continued)

Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Di...
313					
N707	-51.656026	-30.687522	-3	0	
N708	-54.254102	-29.187522	-2	0	
N709	-54.254102	-29.187522	-1	0	
N710	-54.254102	-29.187522	1	0	
N711	-54.254102	-29.187522	2	0	
N712	-53.604583	-29.562522	-3	0	
N713	-53.604583	-29.562522	-2	0	
N714	-53.604583	-29.562522	-1	0	
N715	-53.604583	-29.562522	0	0	
N716	-53.604583	-29.562522	1	0	
N717	-53.604583	-29.562522	2	0	
N718	-53.604583	-29.562522	3	0	
N719	-52.955064	-29.937522	-3	0	
N720	-52.955064	-29.937522	-1	0	
N721	-52.955064	-29.937522	0	0	
N722	-52.955064	-29.937522	1	0	
N723	-52.955064	-29.937522	3	0	
N724	-52.305545	-30.312522	-3	0	
N725	-52.305545	-30.312522	-2	0	
N726	-52.305545	-30.312522	-1	0	
N727	-52.305545	-30.312522	0	0	
N728	-52.305545	-30.312522	1	0	
N729	-52.305545	-30.312522	2	0	
N730	-52.305545	-30.312522	3	0	
N731	-51.656026	-30.687522	-2	0	
N732	-51.656026	-30.687522	-1	0	
N733	-51.656026	-30.687522	1	0	
N734	-51.656026	-30.687522	2	0	
N735	1.849915	-61.579192	0	0	
N736	-0.417873	-62.507116	0	0	
N737	0.550877	-60.829192	2	0	
N738	-0.417873	-62.507116	2	0	
N739	0.550877	-60.829192	-2	0	
N740	-0.417873	-62.507116	-2	0	
N741	1.849915	-61.579192	3	0	
N742	-0.748161	-60.079192	3	0	
N743	1.849915	-61.579192	-3	0	
N744	-0.748161	-60.079192	-3	0	
N745	1.849915	-61.579192	-2	0	
N746	1.849915	-61.579192	-1	0	
N747	1.849915	-61.579192	1	0	
N748	1.849915	-61.579192	2	0	
N749	1.200396	-61.204192	-3	0	
N750	1.200396	-61.204192	-2	0	
N751	1.200396	-61.204192	-1	0	
N752	1.200396	-61.204192	0	0	
N753	1.200396	-61.204192	1	0	
N754	1.200396	-61.204192	2	0	
N755	1.200396	-61.204192	3	0	
N756	0.550877	-60.829192	-3	0	
N757	0.550877	-60.829192	-1	0	
N758	0.550877	-60.829192	0	0	
N759	0.550877	-60.829192	1	0	
N760	0.550877	-60.829192	3	0	
N761	-0.098642	-60.454192	-3	0	
N762	-0.098642	-60.454192	-2	0	
N763	-0.098642	-60.454192	-1	0	

Joint Coordinates and Temperatures (Continued)

Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Di...
370	-0.098642	-60.454192	0	0	
371	-0.098642	-60.454192	1	0	
372	-0.098642	-60.454192	2	0	
373	-0.098642	-60.454192	3	0	
374	-0.748161	-60.079192	-2	0	
375	-0.748161	-60.079192	-1	0	
376	-0.748161	-60.079192	1	0	
377	-0.748161	-60.079192	2	0	
378	-0.748161	-60.079192	3	0	
379	-93.100187	-5.851611	3	0	
380	-93.100187	-5.015667	3	0	
381	-93.100187	-4.179722	3	0	
382	-93.100187	-3.343778	3	0	
383	-93.100187	-2.507833	3	0	
384	-93.100187	-1.671889	3	0	
385	-93.100187	-0.835944	3	0	
386	-93.100187	-0.0	3	0	
387	-93.100187	0.835944	3	0	
388	-93.100187	1.671889	3	0	
389	-93.100187	2.507833	3	0	
390	-93.100187	3.343778	3	0	
391	-93.100187	4.179722	3	0	
392	-93.100187	5.015667	3	0	
393	-93.100187	5.851611	3	0	
394	-93.100187	-5.851611	2	0	
395	-93.100187	-5.015667	2	0	
396	-93.100187	-4.179722	2	0	
397	-93.100187	-3.343778	2	0	
398	-93.100187	-2.507833	2	0	
399	-93.100187	-1.671889	2	0	
400	-93.100187	-0.835944	2	0	
401	-93.100187	-0.0	2	0	
402	-93.100187	0.835944	2	0	
403	-93.100187	1.671889	2	0	
404	-93.100187	2.507833	2	0	
405	-93.100187	3.343778	2	0	
406	-93.100187	4.179722	2	0	
407	-93.100187	5.015667	2	0	
408	-93.100187	5.851611	2	0	
409	-93.100187	-5.851611	1	0	
410	-93.100187	-5.015667	1	0	
411	-93.100187	-4.179722	1	0	
412	-93.100187	-3.343778	1	0	
413	-93.100187	-2.507833	1	0	
414	-93.100187	-1.671889	1	0	
415	-93.100187	-0.835944	1	0	
416	-93.100187	-0.0	1	0	
417	-93.100187	0.835944	1	0	
418	-93.100187	1.671889	1	0	
419	-93.100187	2.507833	1	0	
420	-93.100187	3.343778	1	0	
421	-93.100187	4.179722	1	0	
422	-93.100187	5.015667	1	0	
423	-93.100187	5.851611	1	0	
424	-93.100187	-5.851611	0	0	
425	-93.100187	-5.015667	0	0	
426	-93.100187	-4.179722	0	0	
426	-93.100187	-3.343778	0	0	

Joint Coordinates and Temperatures (Continued)

Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Di...
427	N811	-93.100187	-2.507833	0	
428	N812	-93.100187	-1.671889	0	
429	N813	-93.100187	-0.835944	0	
430	N814	-93.100187	-0.	0	
431	N815	-93.100187	0.835944	0	
432	N816	-93.100187	1.671889	0	
433	N817	-93.100187	2.507833	0	
434	N818	-93.100187	3.343778	0	
435	N819	-93.100187	4.179722	0	
436	N820	-93.100187	5.015667	0	
437	N821	-93.100187	5.851611	0	
438	N822	-93.100187	-5.851611	0	
439	N823	-93.100187	-5.015667	0	
440	N824	-93.100187	-4.179722	0	
441	N825	-93.100187	-3.343778	0	
442	N826	-93.100187	-2.507833	0	
443	N827	-93.100187	-1.671889	0	
444	N828	-93.100187	-0.835944	0	
445	N829	-93.100187	-0.	0	
446	N830	-93.100187	0.835944	0	
447	N831	-93.100187	1.671889	0	
448	N832	-93.100187	2.507833	0	
449	N833	-93.100187	3.343778	0	
450	N834	-93.100187	4.179722	0	
451	N835	-93.100187	5.015667	0	
452	N836	-93.100187	5.851611	0	
453	N837	-93.100187	-5.851611	0	
454	N838	-93.100187	-5.015667	0	
455	N839	-93.100187	-4.179722	0	
456	N840	-93.100187	-3.343778	0	
457	N841	-93.100187	-2.507833	0	
458	N842	-93.100187	-1.671889	0	
459	N843	-93.100187	-0.835944	0	
460	N844	-93.100187	-0.	0	
461	N845	-93.100187	0.835944	0	
462	N846	-93.100187	1.671889	0	
463	N847	-93.100187	2.507833	0	
464	N848	-93.100187	3.343778	0	
465	N849	-93.100187	4.179722	0	
466	N850	-93.100187	5.015667	0	
467	N851	-93.100187	5.851611	0	
468	N852	-93.100187	-5.851611	0	
469	N853	-93.100187	-5.015667	0	
470	N854	-93.100187	-4.179722	0	
471	N855	-93.100187	-3.343778	0	
472	N856	-93.100187	-2.507833	0	
473	N857	-93.100187	-1.671889	0	
474	N858	-93.100187	-0.835944	0	
475	N859	-93.100187	-0.	0	
476	N860	-93.100187	0.835944	0	
477	N861	-93.100187	1.671889	0	
478	N862	-93.100187	2.507833	0	
479	N863	-93.100187	3.343778	0	
480	N864	-93.100187	4.179722	0	
481	N865	-93.100187	5.015667	0	
482	N866	-93.100187	5.851611	0	
483	N864A	46.425094	-80.410621	0	

Joint Coordinates and Temperatures (Continued)

Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Di...
484	N882	51.617738	-77.701321	3	0
485	N883	50.893789	-78.119294	3	0
486	N884	50.169839	-78.537266	3	0
487	N885	49.44589	-78.955238	3	0
488	N886	48.721941	-79.37321	3	0
489	N887	47.997992	-79.791183	3	0
490	N888	47.274043	-80.209155	3	0
491	N889	46.550094	-80.627127	3	0
492	N890	45.826144	-81.045099	3	0
493	N891	45.102195	-81.463072	3	0
494	N892	44.378246	-81.881044	3	0
495	N893	43.654297	-82.299016	3	0
496	N894	42.930348	-82.716988	3	0
497	N895	42.206399	-83.134961	3	0
498	N896	41.482449	-83.552933	3	0
499	N897	51.617738	-77.701321	2	0
500	N898	50.893789	-78.119294	2	0
501	N899	50.169839	-78.537266	2	0
502	N900	49.44589	-78.955238	2	0
503	N901	48.721941	-79.37321	2	0
504	N902	47.997992	-79.791183	2	0
505	N903	47.274043	-80.209155	2	0
506	N904	46.550094	-80.627127	2	0
507	N905	45.826144	-81.045099	2	0
508	N906	45.102195	-81.463072	2	0
509	N907	44.378246	-81.881044	2	0
510	N908	43.654297	-82.299016	2	0
511	N909	42.930348	-82.716988	2	0
512	N910	42.206399	-83.134961	2	0
513	N911	41.482449	-83.552933	2	0
514	N912	51.617738	-77.701321	1	0
515	N913	50.893789	-78.119294	1	0
516	N914	50.169839	-78.537266	1	0
517	N915	49.44589	-78.955238	1	0
518	N916	48.721941	-79.37321	1	0
519	N917	47.997992	-79.791183	1	0
520	N918	47.274043	-80.209155	1	0
521	N919	46.550094	-80.627127	1	0
522	N920	45.826144	-81.045099	1	0
523	N921	45.102195	-81.463072	1	0
524	N922	44.378246	-81.881044	1	0
525	N923	43.654297	-82.299016	1	0
526	N924	42.930348	-82.716988	1	0
527	N925	42.206399	-83.134961	1	0
528	N926	41.482449	-83.552933	1	0
529	N927	51.617738	-77.701321	0	0
530	N928	50.893789	-78.119294	0	0
531	N929	50.169839	-78.537266	0	0
532	N930	49.44589	-78.955238	0	0
533	N931	48.721941	-79.37321	0	0
534	N932	47.997992	-79.791183	0	0
535	N933	47.274043	-80.209155	0	0
536	N934	46.550094	-80.627127	0	0
537	N935	45.826144	-81.045099	0	0
538	N936	45.102195	-81.463072	0	0
539	N937	44.378246	-81.881044	0	0
540	N938	43.654297	-82.299016	0	0

Joint Coordinates and Temperatures (Continued)

Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Di...
541					
N939	42.930348	-82.716988	0	0	
542	42.206399	-83.134961	0	0	
N940	42.206399	-83.134961	0	0	
543	41.482449	-83.552933	0	0	
N941	41.482449	-83.552933	0	0	
544	51.617738	-77.701321	-1	0	
N942	51.617738	-77.701321	-1	0	
545	50.893789	-78.119294	-1	0	
N943	50.893789	-78.119294	-1	0	
546	50.169839	-78.537266	-1	0	
N944	50.169839	-78.537266	-1	0	
547	49.44589	-78.955238	-1	0	
N945	49.44589	-78.955238	-1	0	
548	48.721941	-79.37321	-1	0	
N946	48.721941	-79.37321	-1	0	
549	47.997992	-79.791183	-1	0	
N947	47.997992	-79.791183	-1	0	
550	47.274043	-80.209155	-1	0	
N948	47.274043	-80.209155	-1	0	
551	46.550094	-80.627127	-1	0	
N949	46.550094	-80.627127	-1	0	
552	45.826144	-81.045099	-1	0	
N950	45.826144	-81.045099	-1	0	
553	45.102195	-81.463072	-1	0	
N951	45.102195	-81.463072	-1	0	
554	44.378246	-81.881044	-1	0	
N952	44.378246	-81.881044	-1	0	
555	43.654297	-82.299016	-1	0	
N953	43.654297	-82.299016	-1	0	
556	42.930348	-82.716988	-1	0	
N954	42.930348	-82.716988	-1	0	
557	42.206399	-83.134961	-1	0	
N955	42.206399	-83.134961	-1	0	
558	41.482449	-83.552933	-1	0	
N956	41.482449	-83.552933	-1	0	
559	51.617738	-77.701321	-2	0	
N957	51.617738	-77.701321	-2	0	
560	50.893789	-78.119294	-2	0	
N958	50.893789	-78.119294	-2	0	
561	50.169839	-78.537266	-2	0	
N959	50.169839	-78.537266	-2	0	
562	49.44589	-78.955238	-2	0	
N960	49.44589	-78.955238	-2	0	
563	48.721941	-79.37321	-2	0	
N961	48.721941	-79.37321	-2	0	
564	47.997992	-79.791183	-2	0	
N962	47.997992	-79.791183	-2	0	
565	47.274043	-80.209155	-2	0	
N963	47.274043	-80.209155	-2	0	
566	46.550094	-80.627127	-2	0	
N964	46.550094	-80.627127	-2	0	
567	45.826144	-81.045099	-2	0	
N965	45.826144	-81.045099	-2	0	
568	45.102195	-81.463072	-2	0	
N966	45.102195	-81.463072	-2	0	
569	44.378246	-81.881044	-2	0	
N967	44.378246	-81.881044	-2	0	
570	43.654297	-82.299016	-2	0	
N968	43.654297	-82.299016	-2	0	
571	42.930348	-82.716988	-2	0	
N969	42.930348	-82.716988	-2	0	
572	42.206399	-83.134961	-2	0	
N970	42.206399	-83.134961	-2	0	
573	41.482449	-83.552933	-2	0	
N971	41.482449	-83.552933	-2	0	
574	51.617738	-77.701321	-3	0	
N972	51.617738	-77.701321	-3	0	
575	50.893789	-78.119294	-3	0	
N973	50.893789	-78.119294	-3	0	
576	50.169839	-78.537266	-3	0	
N974	50.169839	-78.537266	-3	0	
577	49.44589	-78.955238	-3	0	
N975	49.44589	-78.955238	-3	0	
578	48.721941	-79.37321	-3	0	
N976	48.721941	-79.37321	-3	0	
579	47.997992	-79.791183	-3	0	
N977	47.997992	-79.791183	-3	0	
580	47.274043	-80.209155	-3	0	
N978	47.274043	-80.209155	-3	0	
581	46.550094	-80.627127	-3	0	
N979	46.550094	-80.627127	-3	0	
582	45.826144	-81.045099	-3	0	
N980	45.826144	-81.045099	-3	0	
583	45.102195	-81.463072	-3	0	
N981	45.102195	-81.463072	-3	0	
584	44.378246	-81.881044	-3	0	
N982	44.378246	-81.881044	-3	0	
585	43.654297	-82.299016	-3	0	
N983	43.654297	-82.299016	-3	0	
586	42.930348	-82.716988	-3	0	
N984	42.930348	-82.716988	-3	0	
587	42.206399	-83.134961	-3	0	
N985	42.206399	-83.134961	-3	0	
588	41.482449	-83.552933	-3	0	
N986	41.482449	-83.552933	-3	0	
589	46.425094	80.410621	0	0	
N990	46.425094	80.410621	0	0	
590	41.482449	83.552933	3	0	
N1008	41.482449	83.552933	3	0	
591	42.206399	83.134961	3	0	
N1009	42.206399	83.134961	3	0	
592	42.930348	82.716988	3	0	
N1010	42.930348	82.716988	3	0	
593	43.654297	82.299016	3	0	
N1011	43.654297	82.299016	3	0	
594	44.378246	81.881044	3	0	
N1012	44.378246	81.881044	3	0	
595	45.102195	81.463072	3	0	
N1013	45.102195	81.463072	3	0	
596	45.826144	81.045099	3	0	
N1014	45.826144	81.045099	3	0	
597	46.550094	80.627127	3	0	
N1015	46.550094	80.627127	3	0	

Joint Coordinates and Temperatures (Continued)

Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Di...
598	N1016	47.274043	80.209155	3	0
599	N1017	47.997992	79.791183	3	0
600	N1018	48.721941	79.37321	3	0
601	N1019	49.44589	78.955238	3	0
602	N1020	50.169839	78.537266	3	0
603	N1021	50.893789	78.119294	3	0
604	N1022	51.617738	77.701321	3	0
605	N1023	41.482449	83.552933	2	0
606	N1024	42.206399	83.134961	2	0
607	N1025	42.930348	82.716988	2	0
608	N1026	43.654297	82.299016	2	0
609	N1027	44.378246	81.881044	2	0
610	N1028	45.102195	81.463072	2	0
611	N1029	45.826144	81.045099	2	0
612	N1030	46.550094	80.627127	2	0
613	N1031	47.274043	80.209155	2	0
614	N1032	47.997992	79.791183	2	0
615	N1033	48.721941	79.37321	2	0
616	N1034	49.44589	78.955238	2	0
617	N1035	50.169839	78.537266	2	0
618	N1036	50.893789	78.119294	2	0
619	N1037	51.617738	77.701321	2	0
620	N1038	41.482449	83.552933	1	0
621	N1039	42.206399	83.134961	1	0
622	N1040	42.930348	82.716988	1	0
623	N1041	43.654297	82.299016	1	0
624	N1042	44.378246	81.881044	1	0
625	N1043	45.102195	81.463072	1	0
626	N1044	45.826144	81.045099	1	0
627	N1045	46.550094	80.627127	1	0
628	N1046	47.274043	80.209155	1	0
629	N1047	47.997992	79.791183	1	0
630	N1048	48.721941	79.37321	1	0
631	N1049	49.44589	78.955238	1	0
632	N1050	50.169839	78.537266	1	0
633	N1051	50.893789	78.119294	1	0
634	N1052	51.617738	77.701321	1	0
635	N1053	41.482449	83.552933	0	0
636	N1054	42.206399	83.134961	0	0
637	N1055	42.930348	82.716988	0	0
638	N1056	43.654297	82.299016	0	0
639	N1057	44.378246	81.881044	0	0
640	N1058	45.102195	81.463072	0	0
641	N1059	45.826144	81.045099	0	0
642	N1060	46.550094	80.627127	0	0
643	N1061	47.274043	80.209155	0	0
644	N1062	47.997992	79.791183	0	0
645	N1063	48.721941	79.37321	0	0
646	N1064	49.44589	78.955238	0	0
647	N1065	50.169839	78.537266	0	0
648	N1066	50.893789	78.119294	0	0
649	N1067	51.617738	77.701321	0	0
650	N1068	41.482449	83.552933	-1	0
651	N1069	42.206399	83.134961	-1	0
652	N1070	42.930348	82.716988	-1	0
653	N1071	43.654297	82.299016	-1	0
654	N1072	44.378246	81.881044	-1	0

Joint Coordinates and Temperatures (Continued)

Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Di...
655					
N1073	45.102195	81.463072	-1	0	
656	45.826144	81.045099	-1	0	
N1074	45.826144	81.045099	-1	0	
657	46.550094	80.627127	-1	0	
N1075	46.550094	80.627127	-1	0	
658	47.274043	80.209155	-1	0	
N1076	47.274043	80.209155	-1	0	
659	47.997992	79.791183	-1	0	
N1077	47.997992	79.791183	-1	0	
660	48.721941	79.37321	-1	0	
N1078	48.721941	79.37321	-1	0	
661	49.44589	78.955238	-1	0	
N1079	49.44589	78.955238	-1	0	
662	50.169839	78.537266	-1	0	
N1080	50.169839	78.537266	-1	0	
663	50.893789	78.119294	-1	0	
N1081	50.893789	78.119294	-1	0	
664	51.617738	77.701321	-1	0	
N1082	51.617738	77.701321	-1	0	
665	41.482449	83.552933	-2	0	
N1083	41.482449	83.552933	-2	0	
666	42.206399	83.134961	-2	0	
N1084	42.206399	83.134961	-2	0	
667	42.930348	82.716988	-2	0	
N1085	42.930348	82.716988	-2	0	
668	43.654297	82.299016	-2	0	
N1086	43.654297	82.299016	-2	0	
669	44.378246	81.881044	-2	0	
N1087	44.378246	81.881044	-2	0	
670	45.102195	81.463072	-2	0	
N1088	45.102195	81.463072	-2	0	
671	45.826144	81.045099	-2	0	
N1089	45.826144	81.045099	-2	0	
672	46.550094	80.627127	-2	0	
N1090	46.550094	80.627127	-2	0	
673	47.274043	80.209155	-2	0	
N1091	47.274043	80.209155	-2	0	
674	47.997992	79.791183	-2	0	
N1092	47.997992	79.791183	-2	0	
675	48.721941	79.37321	-2	0	
N1093	48.721941	79.37321	-2	0	
676	49.44589	78.955238	-2	0	
N1094	49.44589	78.955238	-2	0	
677	50.169839	78.537266	-2	0	
N1095	50.169839	78.537266	-2	0	
678	50.893789	78.119294	-2	0	
N1096	50.893789	78.119294	-2	0	
679	51.617738	77.701321	-2	0	
N1097	51.617738	77.701321	-2	0	
680	41.482449	83.552933	-3	0	
N1098	41.482449	83.552933	-3	0	
681	42.206399	83.134961	-3	0	
N1099	42.206399	83.134961	-3	0	
682	42.930348	82.716988	-3	0	
N1100	42.930348	82.716988	-3	0	
683	43.654297	82.299016	-3	0	
N1101	43.654297	82.299016	-3	0	
684	44.378246	81.881044	-3	0	
N1102	44.378246	81.881044	-3	0	
685	45.102195	81.463072	-3	0	
N1103	45.102195	81.463072	-3	0	
686	45.826144	81.045099	-3	0	
N1104	45.826144	81.045099	-3	0	
687	46.550094	80.627127	-3	0	
N1105	46.550094	80.627127	-3	0	
688	47.274043	80.209155	-3	0	
N1106	47.274043	80.209155	-3	0	
689	47.997992	79.791183	-3	0	
N1107	47.997992	79.791183	-3	0	
690	48.721941	79.37321	-3	0	
N1108	48.721941	79.37321	-3	0	
691	49.44589	78.955238	-3	0	
N1109	49.44589	78.955238	-3	0	
692	50.169839	78.537266	-3	0	
N1110	50.169839	78.537266	-3	0	
693	50.893789	78.119294	-3	0	
N1111	50.893789	78.119294	-3	0	
694	51.617738	77.701321	-3	0	
N1112	51.617738	77.701321	-3	0	
695	-45.906026	-30.687522	3	0	
N1073B	-45.906026	-30.687522	3	0	
696	-45.906026	-30.687522	-3	0	
N1074A	-45.906026	-30.687522	-3	0	
697	-46.864359	-30.687522	3	0	
N1073A	-46.864359	-30.687522	3	0	
698	-47.822693	-30.687522	3	0	
N1074B	-47.822693	-30.687522	3	0	
699	-48.781026	-30.687522	3	0	
N1075A	-48.781026	-30.687522	3	0	
700	-49.739359	-30.687522	3	0	
N1076A	-49.739359	-30.687522	3	0	
701	-50.697693	-30.687522	3	0	
N1077A	-50.697693	-30.687522	3	0	
702	-45.906026	-30.687522	2	0	
N1078A	-45.906026	-30.687522	2	0	
703	-46.864359	-30.687522	2	0	
N1079A	-46.864359	-30.687522	2	0	
704	-47.822693	-30.687522	2	0	
N1080A	-47.822693	-30.687522	2	0	
705	-48.781026	-30.687522	2	0	
N1081A	-48.781026	-30.687522	2	0	
706	-49.739359	-30.687522	2	0	
N1082A	-49.739359	-30.687522	2	0	
707	-50.697693	-30.687522	2	0	
N1083A	-50.697693	-30.687522	2	0	
708	-45.906026	-30.687522	1	0	
N1084A	-45.906026	-30.687522	1	0	
709	-46.864359	-30.687522	1	0	
N1085A	-46.864359	-30.687522	1	0	
710	-47.822693	-30.687522	1	0	
N1086A	-47.822693	-30.687522	1	0	
711	-48.781026	-30.687522	1	0	
N1087A	-48.781026	-30.687522	1	0	



Company : Kimley-Horn and Associates, Inc.
Designer : ZAM
Job Number : 019558049
Model Name : 842872 - ROCKY HILL

June 17, 2020
11:33 AM
Checked By: MLO

Joint Coordinates and Temperatures (Continued)

Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Di...
712	N1088A	-49.739359	-30.687522	1	0
713	N1089A	-50.697693	-30.687522	1	0
714	N1090A	-45.906026	-30.687522	0	0
715	N1091A	-46.864359	-30.687522	0	0
716	N1092A	-47.822693	-30.687522	0	0
717	N1093A	-48.781026	-30.687522	0	0
718	N1094A	-49.739359	-30.687522	0	0
719	N1095A	-50.697693	-30.687522	0	0
720	N1096A	-45.906026	-30.687522	-1	0
721	N1097A	-46.864359	-30.687522	-1	0
722	N1098A	-47.822693	-30.687522	-1	0
723	N1099A	-48.781026	-30.687522	-1	0
724	N1100A	-49.739359	-30.687522	-1	0
725	N1101A	-50.697693	-30.687522	-1	0
726	N1102A	-45.906026	-30.687522	-2	0
727	N1103A	-46.864359	-30.687522	-2	0
728	N1104A	-47.822693	-30.687522	-2	0
729	N1105A	-48.781026	-30.687522	-2	0
730	N1106A	-49.739359	-30.687522	-2	0
731	N1107A	-50.697693	-30.687522	-2	0
732	N1108A	-46.864359	-30.687522	-3	0
733	N1109A	-47.822693	-30.687522	-3	0
734	N1110A	-48.781026	-30.687522	-3	0
735	N1111A	-49.739359	-30.687522	-3	0
736	N1112A	-50.697693	-30.687522	-3	0
737	N1121	-45.906026	30.687522	3	0
738	N1122	-45.906026	30.687522	-3	0
739	N1123	-46.864359	30.687522	3	0
740	N1124	-47.822693	30.687522	3	0
741	N1125	-48.781026	30.687522	3	0
742	N1126	-49.739359	30.687522	3	0
743	N1127	-50.697693	30.687522	3	0
744	N1128	-45.906026	30.687522	2	0
745	N1129	-46.864359	30.687522	2	0
746	N1130	-47.822693	30.687522	2	0
747	N1131	-48.781026	30.687522	2	0
748	N1132	-49.739359	30.687522	2	0
749	N1133	-50.697693	30.687522	2	0
750	N1134	-45.906026	30.687522	1	0
751	N1135	-46.864359	30.687522	1	0
752	N1136	-47.822693	30.687522	1	0
753	N1137	-48.781026	30.687522	1	0
754	N1138	-49.739359	30.687522	1	0
755	N1139	-50.697693	30.687522	1	0
756	N1140	-45.906026	30.687522	0	0
757	N1141	-46.864359	30.687522	0	0
758	N1142	-47.822693	30.687522	0	0
759	N1143	-48.781026	30.687522	0	0
760	N1144	-49.739359	30.687522	0	0
761	N1145	-50.697693	30.687522	0	0
762	N1146	-45.906026	30.687522	-1	0
763	N1147	-46.864359	30.687522	-1	0
764	N1148	-47.822693	30.687522	-1	0
765	N1149	-48.781026	30.687522	-1	0
766	N1150	-49.739359	30.687522	-1	0
767	N1151	-50.697693	30.687522	-1	0
768	N1152	-45.906026	30.687522	-2	0

Joint Coordinates and Temperatures (Continued)

Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Di...
769					
N1153	-46.864359	30.687522	-2	0	
N1154	-47.822693	30.687522	-2	0	
N1155	-48.781026	30.687522	-2	0	
N1156	-49.739359	30.687522	-2	0	
N1157	-50.697693	30.687522	-2	0	
N1158	-46.864359	30.687522	-3	0	
N1159	-47.822693	30.687522	-3	0	
N1160	-48.781026	30.687522	-3	0	
N1161	-49.739359	30.687522	-3	0	
N1162	-50.697693	30.687522	-3	0	
N1149A	50.75018	-27.026846	0	0	
N1150A	-1.968808	-57.464169	0	0	
N1164	49.529187	-24.412023	3	0	
N1165	49.529187	-24.412023	-3	0	
N1166	50.008353	-25.241964	3	0	
N1167	50.48752	-26.071905	3	0	
N1168	50.966687	-26.901846	3	0	
N1169	51.445853	-27.731788	3	0	
N1170	51.92502	-28.561729	3	0	
N1171	49.529187	-24.412023	2	0	
N1172	50.008353	-25.241964	2	0	
N1173	50.48752	-26.071905	2	0	
N1174	50.966687	-26.901846	2	0	
N1175	51.445853	-27.731788	2	0	
N1176	51.92502	-28.561729	2	0	
N1177	49.529187	-24.412023	1	0	
N1178	50.008353	-25.241964	1	0	
N1179	50.48752	-26.071905	1	0	
N1180	50.966687	-26.901846	1	0	
N1181	51.445853	-27.731788	1	0	
N1182	51.92502	-28.561729	1	0	
N1183	49.529187	-24.412023	0	0	
N1184	50.008353	-25.241964	0	0	
N1185	50.48752	-26.071905	0	0	
N1186	50.966687	-26.901846	0	0	
N1187	51.445853	-27.731788	0	0	
N1188	51.92502	-28.561729	0	0	
N1189	49.529187	-24.412023	-1	0	
N1190	50.008353	-25.241964	-1	0	
N1191	50.48752	-26.071905	-1	0	
N1192	50.966687	-26.901846	-1	0	
N1193	51.445853	-27.731788	-1	0	
N1194	51.92502	-28.561729	-1	0	
N1195	49.529187	-24.412023	-2	0	
N1196	50.008353	-25.241964	-2	0	
N1197	50.48752	-26.071905	-2	0	
N1198	50.966687	-26.901846	-2	0	
N1199	51.445853	-27.731788	-2	0	
N1200	51.92502	-28.561729	-2	0	
N1201	50.008353	-25.241964	-3	0	
N1202	50.48752	-26.071905	-3	0	
N1203	50.966687	-26.901846	-3	0	
N1204	51.445853	-27.731788	-3	0	
N1205	51.92502	-28.561729	-3	0	
N1206	-3.623161	-55.099546	3	0	
N1207	-3.623161	-55.099546	-3	0	
N1208	-3.143994	-55.929487	3	0	



Company : Kimley-Horn and Associates, Inc.
Designer : ZAM
Job Number : 019558049
Model Name : 842872 - ROCKY HILL

June 17, 2020
11:33 AM
Checked By: MLO

Joint Coordinates and Temperatures (Continued)

Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Di...
826	-2.664828	-56.759428	3	0	
827	-2.185661	-57.589369	3	0	
828	-1.706494	-58.41931	3	0	
829	-1.227328	-59.249251	3	0	
830	-3.623161	-55.099546	2	0	
831	-3.143994	-55.929487	2	0	
832	-2.664828	-56.759428	2	0	
833	-2.185661	-57.589369	2	0	
834	-1.706494	-58.41931	2	0	
835	-1.227328	-59.249251	2	0	
836	-3.623161	-55.099546	1	0	
837	-3.143994	-55.929487	1	0	
838	-2.664828	-56.759428	1	0	
839	-2.185661	-57.589369	1	0	
840	-1.706494	-58.41931	1	0	
841	-1.227328	-59.249251	1	0	
842	-3.623161	-55.099546	0	0	
843	-3.143994	-55.929487	0	0	
844	-2.664828	-56.759428	0	0	
845	-2.185661	-57.589369	0	0	
846	-1.706494	-58.41931	0	0	
847	-1.227328	-59.249251	0	0	
848	-3.623161	-55.099546	-1	0	
849	-3.143994	-55.929487	-1	0	
850	-2.664828	-56.759428	-1	0	
851	-2.185661	-57.589369	-1	0	
852	-1.706494	-58.41931	-1	0	
853	-1.227328	-59.249251	-1	0	
854	-3.623161	-55.099546	-2	0	
855	-3.143994	-55.929487	-2	0	
856	-2.664828	-56.759428	-2	0	
857	-2.185661	-57.589369	-2	0	
858	-1.706494	-58.41931	-2	0	
859	-1.227328	-59.249251	-2	0	
860	-3.143994	-55.929487	-3	0	
861	-2.664828	-56.759428	-3	0	
862	-2.185661	-57.589369	-3	0	
863	-1.706494	-58.41931	-3	0	
864	-1.227328	-59.249251	-3	0	
865	-1.969155	57.464369	0	0	
866	50.749834	27.027046	0	0	
867	-3.623161	55.099546	3	0	
868	-3.623161	55.099546	-3	0	
869	-3.143994	55.929487	3	0	
870	-2.664828	56.759428	3	0	
871	-2.185661	57.589369	3	0	
872	-1.706494	58.41931	3	0	
873	-1.227328	59.249251	3	0	
874	-3.623161	55.099546	2	0	
875	-3.143994	55.929487	2	0	
876	-2.664828	56.759428	2	0	
877	-2.185661	57.589369	2	0	
878	-1.706494	58.41931	2	0	
879	-1.227328	59.249251	2	0	
880	-3.623161	55.099546	1	0	
881	-3.143994	55.929487	1	0	
882	-2.664828	56.759428	1	0	



Company : Kimley-Horn and Associates, Inc.
Designer : ZAM
Job Number : 019558049
Model Name : 842872 - ROCKY HILL

June 17, 2020
11:33 AM
Checked By: MLO

Joint Coordinates and Temperatures (Continued)

Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Di...
883					
N1281	-2.185661	57.5893369	1	0	
N1282	-1.706494	58.41931	1	0	
N1283	-1.227328	59.249251	1	0	
N1284	-3.623161	55.099546	0	0	
N1285	-3.143994	55.929487	0	0	
N1286	-2.664828	56.759428	0	0	
N1287	-2.185661	57.5893369	0	0	
N1288	-1.706494	58.41931	0	0	
N1289	-1.227328	59.249251	0	0	
N1290	-3.623161	55.099546	-1	0	
N1291	-3.143994	55.929487	-1	0	
N1292	-2.664828	56.759428	-1	0	
N1293	-2.185661	57.5893369	-1	0	
N1294	-1.706494	58.41931	-1	0	
N1295	-1.227328	59.249251	-1	0	
N1296	-3.623161	55.099546	-2	0	
N1297	-3.143994	55.929487	-2	0	
N1298	-2.664828	56.759428	-2	0	
N1299	-2.185661	57.5893369	-2	0	
N1300	-1.706494	58.41931	-2	0	
N1301	-1.227328	59.249251	-2	0	
N1302	-3.143994	55.929487	-3	0	
N1303	-2.664828	56.759428	-3	0	
N1304	-2.185661	57.5893369	-3	0	
N1305	-1.706494	58.41931	-3	0	
N1306	-1.227328	59.249251	-3	0	
N1307	49.529187	24.412023	3	0	
N1308	49.529187	24.412023	-3	0	
N1309	50.008353	25.241964	3	0	
N1310	50.48752	26.071905	3	0	
N1311	50.966687	26.901846	3	0	
N1312	51.445853	27.731788	3	0	
N1313	51.92502	28.561729	3	0	
N1314	49.529187	24.412023	2	0	
N1315	50.008353	25.241964	2	0	
N1316	50.48752	26.071905	2	0	
N1317	50.966687	26.901846	2	0	
N1318	51.445853	27.731788	2	0	
N1319	51.92502	28.561729	2	0	
N1320	49.529187	24.412023	1	0	
N1321	50.008353	25.241964	1	0	
N1322	50.48752	26.071905	1	0	
N1323	50.966687	26.901846	1	0	
N1324	51.445853	27.731788	1	0	
N1325	51.92502	28.561729	1	0	
N1326	49.529187	24.412023	0	0	
N1327	50.008353	25.241964	0	0	
N1328	50.48752	26.071905	0	0	
N1329	50.966687	26.901846	0	0	
N1330	51.445853	27.731788	0	0	
N1331	51.92502	28.561729	0	0	
N1332	49.529187	24.412023	-1	0	
N1333	50.008353	25.241964	-1	0	
N1334	50.48752	26.071905	-1	0	
N1335	50.966687	26.901846	-1	0	
N1336	51.445853	27.731788	-1	0	
N1337	51.92502	28.561729	-1	0	



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 842872 - ROCKY HILL

June 17, 2020
 11:33 AM
 Checked By: MLO

Joint Coordinates and Temperatures (Continued)

Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Di...
940	N1338	49.529187	24.412023	0	
941	N1339	50.008353	25.241964	0	
942	N1340	50.48752	26.071905	0	
943	N1341	50.966687	26.901846	0	
944	N1342	51.445853	27.731788	0	
945	N1343	51.92502	28.561729	0	
946	N1344	50.008353	25.241964	0	
947	N1345	50.48752	26.071905	0	
948	N1346	50.966687	26.901846	0	
949	N1347	51.445853	27.731788	0	
950	N1348	51.92502	28.561729	0	
951	N1239A	52.341687	-75.754049	0	
952	N1240A	52.341687	-75.754049	0	
953	N1241A	52.341687	-74.22475	0	
954	N1242A	52.341687	-74.22475	0	
955	N1243A	52.341687	-76.773583	0	
956	N1244A	52.341687	-76.263816	0	
957	N1245A	52.341687	-75.244283	0	
958	N1246A	52.341687	-74.734516	0	
959	N1247A	52.341687	-76.773583	0	
960	N1248	52.341687	-76.263816	0	
961	N1249	52.341687	-75.244283	0	
962	N1250A	52.341687	-74.734516	0	
963	N1251A	52.341687	-74.22475	0	
964	N1252	52.341687	-76.773583	0	
965	N1253	52.341687	-76.263816	0	
966	N1254	52.341687	-75.754049	0	
967	N1255	52.341687	-75.244283	0	
968	N1256	52.341687	-74.734516	0	
969	N1257	52.341687	-74.22475	0	
970	N1258	52.341687	-76.773583	0	
971	N1259	52.341687	-76.263816	0	
972	N1260	52.341687	-75.754049	0	
973	N1261	52.341687	-75.244283	0	
974	N1262	52.341687	-74.734516	0	
975	N1263	52.341687	-74.22475	0	
976	N1264	52.341687	-76.773583	0	
977	N1265A	52.341687	-76.263816	0	
978	N1266A	52.341687	-75.754049	0	
979	N1267A	52.341687	-75.244283	0	
980	N1268A	52.341687	-74.734516	0	
981	N1269A	52.341687	-74.22475	0	
982	N1270A	52.341687	-76.773583	0	
983	N1271A	52.341687	-76.263816	0	
984	N1272A	52.341687	-75.244283	0	
985	N1273A	52.341687	-74.734516	0	
986	N1274A	52.341687	-74.22475	0	
987	N1275A	52.341687	-76.773583	0	
988	N1276A	52.341687	-76.263816	0	
989	N1277A	52.341687	-75.244283	0	
990	N1278A	52.341687	-74.734516	0	
991	N1095B	54.341687	75.754049	0	
992	N1098B	54.341687	75.754049	0	
993	N1099B	52.341687	75.754049	0	
994	N1100B	54.341687	75.754049	0	
995	N1101B	52.341687	75.754049	0	
996	N1106B	52.341687	75.754049	0	

Joint Coordinates and Temperatures (Continued)

Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Di...
997	N1107B	52.341687	75.754049	-3	0
998	N1108B	52.341687	74.22475	3	0
999	N1109B	52.341687	74.22475	-3	0
1000	N1110B	52.341687	76.773583	3	0
1001	N1111B	52.341687	76.263816	3	0
1002	N1112B	52.341687	75.244283	3	0
1003	N1113	52.341687	74.734516	3	0
1004	N1114	52.341687	76.773583	2	0
1005	N1115	52.341687	76.263816	2	0
1006	N1116	52.341687	75.244283	2	0
1007	N1117	52.341687	74.734516	2	0
1008	N1118	52.341687	74.22475	2	0
1009	N1119	52.341687	76.773583	1	0
1010	N1120	52.341687	76.263816	1	0
1011	N1121A	52.341687	75.754049	1	0
1012	N1122A	52.341687	75.244283	1	0
1013	N1123A	52.341687	74.734516	1	0
1014	N1124A	52.341687	74.22475	1	0
1015	N1125A	52.341687	76.773583	0	0
1016	N1126A	52.341687	76.263816	0	0
1017	N1127A	52.341687	75.754049	0	0
1018	N1128A	52.341687	75.244283	0	0
1019	N1129A	52.341687	74.734516	0	0
1020	N1130A	52.341687	74.22475	0	0
1021	N1131A	52.341687	76.773583	-1	0
1022	N1132A	52.341687	76.263816	-1	0
1023	N1133A	52.341687	75.754049	-1	0
1024	N1134A	52.341687	75.244283	-1	0
1025	N1135A	52.341687	74.734516	-1	0
1026	N1136A	52.341687	74.22475	-1	0
1027	N1137A	52.341687	76.773583	-2	0
1028	N1138A	52.341687	76.263816	-2	0
1029	N1139A	52.341687	75.244283	-2	0
1030	N1140A	52.341687	74.734516	-2	0
1031	N1141A	52.341687	74.22475	-2	0
1032	N1142A	52.341687	76.773583	-3	0
1033	N1143A	52.341687	76.263816	-3	0
1034	N1144A	52.341687	75.244283	-3	0
1035	N1145A	52.341687	74.734516	-3	0
1036	N1140B	38.434087	84.938306	0	0
1037	N1144B	38.434087	84.938306	2	0
1038	N1145B	39.434087	83.206255	2	0
1039	N1146A	38.434087	84.938306	-2	0
1040	N1147A	39.434087	83.206255	-2	0
1041	N1158A	39.434087	83.206255	3	0
1042	N1159A	39.434087	83.206255	-3	0
1043	N1160A	38.109675	82.441605	3	0
1044	N1161A	38.109675	82.441605	-3	0
1045	N1162A	40.317029	83.716022	3	0
1046	N1163	39.875559	83.461138	3	0
1047	N1164A	38.992617	82.951372	3	0
1048	N1165A	38.551146	82.696489	3	0
1049	N1166A	40.317029	83.716022	2	0
1050	N1167A	39.875559	83.461138	2	0
1051	N1168A	38.992617	82.951372	2	0
1052	N1169A	38.551146	82.696489	2	0
1053	N1170A	38.109675	82.441605	2	0

Joint Coordinates and Temperatures (Continued)

Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Di...
1054	N1171A	40.317029	83.716022	1	0
1055	N1172A	39.875559	83.461138	1	0
1056	N1173A	39.434088	83.206255	1	0
1057	N1174A	38.992617	82.951372	1	0
1058	N1175A	38.551146	82.696489	1	0
1059	N1176A	38.109675	82.441605	1	0
1060	N1177A	40.317029	83.716022	0	0
1061	N1178A	39.875559	83.461138	0	0
1062	N1179A	39.434088	83.206255	0	0
1063	N1180A	38.992617	82.951372	0	0
1064	N1181A	38.551146	82.696489	0	0
1065	N1182A	38.109675	82.441605	0	0
1066	N1183A	40.317029	83.716022	-1	0
1067	N1184A	39.875559	83.461138	-1	0
1068	N1185A	39.434088	83.206255	-1	0
1069	N1186A	38.992617	82.951372	-1	0
1070	N1187A	38.551146	82.696489	-1	0
1071	N1188A	38.109675	82.441605	-1	0
1072	N1189A	40.317029	83.716022	-2	0
1073	N1190A	39.875559	83.461138	-2	0
1074	N1191A	38.992617	82.951372	-2	0
1075	N1192A	38.551146	82.696489	-2	0
1076	N1193A	38.109675	82.441605	-2	0
1077	N1194A	40.317029	83.716022	-3	0
1078	N1195A	39.875559	83.461138	-3	0
1079	N1196A	38.992617	82.951372	-3	0
1080	N1197A	38.551146	82.696489	-3	0
1081	N1198A	-92.775774	9.184257	0	0
1082	N1199A	-92.775774	9.184257	2	0
1083	N1200A	-91.775774	7.452206	2	0
1084	N1201A	-92.775774	9.184257	-2	0
1085	N1202A	-91.775774	7.452206	-2	0
1086	N1203A	-91.775774	7.452206	3	0
1087	N1204A	-91.775774	7.452206	-3	0
1088	N1205A	-90.451362	8.216856	3	0
1089	N1206A	-90.451362	8.216856	-3	0
1090	N1207A	-92.658716	6.942439	3	0
1091	N1208A	-92.217245	7.197322	3	0
1092	N1209A	-91.334304	7.707089	3	0
1093	N1210A	-90.892833	7.961972	3	0
1094	N1211A	-92.658716	6.942439	2	0
1095	N1212A	-92.217245	7.197322	2	0
1096	N1213A	-91.334304	7.707089	2	0
1097	N1214A	-90.892833	7.961972	2	0
1098	N1215A	-90.451362	8.216856	2	0
1099	N1216A	-92.658716	6.942439	1	0
1100	N1217A	-92.217245	7.197322	1	0
1101	N1218A	-91.775775	7.452206	1	0
1102	N1219A	-91.334304	7.707089	1	0
1103	N1220A	-90.892833	7.961972	1	0
1104	N1221A	-90.451362	8.216856	1	0
1105	N1222A	-92.658716	6.942439	0	0
1106	N1223A	-92.217245	7.197322	0	0
1107	N1224A	-91.775775	7.452206	0	0
1108	N1225A	-91.334304	7.707089	0	0
1109	N1226A	-90.892833	7.961972	0	0
1110	N1227A	-90.451362	8.216856	0	0

Joint Coordinates and Temperatures (Continued)

Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Di...
1111	N1228A	-92.658716	6.942439	0	
1112	N1229A	-92.217245	7.197322	0	
1113	N1230A	-91.775775	7.452206	0	
1114	N1231A	-91.334304	7.707089	0	
1115	N1232A	-90.892833	7.961972	0	
1116	N1233A	-90.451362	8.216856	0	
1117	N1234A	-92.658716	6.942439	0	
1118	N1235A	-92.217245	7.197322	0	
1119	N1236A	-91.334304	7.707089	0	
1120	N1237A	-90.892833	7.961972	0	
1121	N1238A	-90.451362	8.216856	0	
1122	N1239B	-92.658716	6.942439	0	
1123	N1240B	-92.217245	7.197322	0	
1124	N1241B	-91.334304	7.707089	0	
1125	N1242B	-90.892833	7.961972	0	
1126	N1244B	-92.775774	-9.184257	0	
1127	N1248A	-92.775774	-9.184257	0	
1128	N1249A	-91.775774	-7.452206	0	
1129	N1250B	-92.775774	-9.184257	0	
1130	N1251B	-91.775774	-7.452206	0	
1131	N1262A	-91.775774	-7.452206	0	
1132	N1263A	-91.775774	-7.452206	0	
1133	N1264A	-90.451362	-8.216856	0	
1134	N1265B	-90.451362	-8.216856	0	
1135	N1266B	-92.658716	-6.942439	0	
1136	N1267B	-92.217245	-7.197322	0	
1137	N1268B	-91.334304	-7.707089	0	
1138	N1269B	-90.892833	-7.961972	0	
1139	N1270B	-92.658716	-6.942439	0	
1140	N1271B	-92.217245	-7.197322	0	
1141	N1272B	-91.334304	-7.707089	0	
1142	N1273B	-90.892833	-7.961972	0	
1143	N1274B	-90.451362	-8.216856	0	
1144	N1275B	-92.658716	-6.942439	0	
1145	N1276B	-92.217245	-7.197322	0	
1146	N1277B	-91.775775	-7.452206	0	
1147	N1278B	-91.334304	-7.707089	0	
1148	N1279A	-90.892833	-7.961972	0	
1149	N1280A	-90.451362	-8.216856	0	
1150	N1281A	-92.658716	-6.942439	0	
1151	N1282A	-92.217245	-7.197322	0	
1152	N1283A	-91.775775	-7.452206	0	
1153	N1284A	-91.334304	-7.707089	0	
1154	N1285A	-90.892833	-7.961972	0	
1155	N1286A	-90.451362	-8.216856	0	
1156	N1287A	-92.658716	-6.942439	0	
1157	N1288A	-92.217245	-7.197322	0	
1158	N1289A	-91.775775	-7.452206	0	
1159	N1290A	-91.334304	-7.707089	0	
1160	N1291A	-90.892833	-7.961972	0	
1161	N1292A	-90.451362	-8.216856	0	
1162	N1293A	-92.658716	-6.942439	0	
1163	N1294A	-92.217245	-7.197322	0	
1164	N1295A	-91.334304	-7.707089	0	
1165	N1296A	-90.892833	-7.961972	0	
1166	N1297A	-90.451362	-8.216856	0	
1167	N1298A	-92.658716	-6.942439	0	



Company : Kimley-Horn and Associates, Inc.
Designer : ZAM
Job Number : 019558049
Model Name : 842872 - ROCKY HILL

June 17, 2020
11:33 AM
Checked By: MLO

Joint Coordinates and Temperatures (Continued)

Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Di...
1168	N1299A	-92.217245	-7.197322	0	
1169	N1300A	-91.334304	-7.707089	0	
1170	N1301A	-90.892833	-7.961972	0	
1171	N1302A	38.434087	-84.938306	0	
1172	N1303A	38.434087	-84.938306	0	
1173	N1304A	39.434087	-83.206255	0	
1174	N1305A	38.434087	-84.938306	0	
1175	N1306A	39.434087	-83.206255	0	
1176	N1307A	39.434087	-83.206255	0	
1177	N1308A	39.434087	-83.206255	0	
1178	N1309A	38.109675	-82.441605	0	
1179	N1310A	38.109675	-82.441605	0	
1180	N1311A	40.317029	-83.716022	0	
1181	N1312A	39.875559	-83.461138	0	
1182	N1313A	38.992617	-82.951372	0	
1183	N1314A	38.551146	-82.696489	0	
1184	N1315A	40.317029	-83.716022	0	
1185	N1316A	39.875559	-83.461138	0	
1186	N1317A	38.992617	-82.951372	0	
1187	N1318A	38.551146	-82.696489	0	
1188	N1319A	38.109675	-82.441605	0	
1189	N1320A	40.317029	-83.716022	0	
1190	N1321A	39.875559	-83.461138	0	
1191	N1322A	39.434088	-83.206255	0	
1192	N1323A	38.992617	-82.951372	0	
1193	N1324A	38.551146	-82.696489	0	
1194	N1325A	38.109675	-82.441605	0	
1195	N1326A	40.317029	-83.716022	0	
1196	N1327A	39.875559	-83.461138	0	
1197	N1328A	39.434088	-83.206255	0	
1198	N1329A	38.992617	-82.951372	0	
1199	N1330A	38.551146	-82.696489	0	
1200	N1331A	38.109675	-82.441605	0	
1201	N1332A	40.317029	-83.716022	-1	
1202	N1333A	39.875559	-83.461138	-1	
1203	N1334A	39.434088	-83.206255	-1	
1204	N1335A	38.992617	-82.951372	-1	
1205	N1336A	38.551146	-82.696489	-1	
1206	N1337A	38.109675	-82.441605	-1	
1207	N1338A	40.317029	-83.716022	-2	
1208	N1339A	39.875559	-83.461138	-2	
1209	N1340A	38.992617	-82.951372	-2	
1210	N1341A	38.551146	-82.696489	-2	
1211	N1342A	38.109675	-82.441605	-2	
1212	N1343A	40.317029	-83.716022	-3	
1213	N1344A	39.875559	-83.461138	-3	
1214	N1345A	38.992617	-82.951372	-3	
1215	N1346A	38.551146	-82.696489	-3	
1216	N1222B	57.654187	-69.	63	
1217	N1223B	57.654187	-69.	15	
1218	A4T	65.654187	-69.	63	
1219	A4B	65.654187	-69.	15	
1220	N1226B	57.654187	-69.	21	
1221	A4R	51.654187	-69.	21	
1222	N1228B	57.654187	-15.25	-27	
1223	M3	54.341687	-15.25	0	
1224	N1230B	57.654187	-15.25	0	

Joint Coordinates and Temperatures (Continued)

Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Di...
1225	N1231B	57.654187	-15.25	42	0
1226	N1232B	54.904187	-15.25	42	0
1227	N1233B	57.654187	-15.25	69	0
1228	N1234B	57.654187	-15.25	63	0
1229	N1235B	57.654187	-15.25	15	0
1230	A3T	65.654187	-15.25	63	0
1231	A3B	65.654187	-15.25	15	0
1232	N1238B	57.654187	-15.25	21	0
1233	A3R	51.654187	-15.25	21	0
1234	N1240C	57.654187	34.15	-27	0
1235	M2	54.341687	34.15	0	0
1236	N1242C	57.654187	34.15	0	0
1237	N1243B	57.654187	34.15	42	0
1238	N1244C	54.904187	34.15	42	0
1239	N1245B	57.654187	34.15	69	0
1240	N1246B	57.654187	34.15	63	0
1241	N1247B	57.654187	34.15	15	0
1242	A2T	65.654187	34.15	63	0
1243	A2B	65.654187	34.15	15	0
1244	N1250C	57.654187	34.15	21	0
1245	A2R	51.654187	34.15	21	0
1246	N1252A	57.654187	69.	-27	0
1247	M1	54.341687	69.	0	0
1248	N1254A	57.654187	69.	0	0
1249	N1255A	57.654187	69.	42	0
1250	N1256A	54.904187	69.	42	0
1251	N1257A	57.654187	69.	69	0
1252	N1258A	57.654187	69.	63	0
1253	N1259A	57.654187	69.	15	0
1254	A1T	65.654187	69.	63	0
1255	A1B	65.654187	69.	15	0
1256	N1262B	57.654187	69.	21	0
1257	A1R	51.654187	69.	21	0
1258	N1264B	-88.582847	-15.429991	-27	0
1259	N1265C	-86.926597	-12.561281	0	0
1260	N1266C	-88.582847	-15.429991	0	0
1261	N1267C	-88.582847	-15.429991	42	0
1262	N1268C	-87.207847	-13.048421	42	0
1263	N1269C	-88.582847	-15.429991	69	0
1264	N1276C	-88.582847	-15.429991	63	0
1265	N1277C	-88.582847	-15.429991	-12	0
1266	B4T	-92.582846	-22.358194	63	0
1267	B4B	-92.582846	-22.358194	-12	0
1268	N1280B	-88.582847	-15.429991	21	0
1269	B4R	-85.582846	-10.233838	21	0
1270	N1282C	-42.033981	-42.304991	-27	0
1271	N1283C	-40.377731	-39.436282	0	0
1272	N1284C	-42.033981	-42.304991	0	0
1273	N1285C	-42.033981	-42.304991	42	0
1274	N1286C	-40.658981	-39.923421	42	0
1275	N1287C	-42.033981	-42.304991	69	0
1276	N1288B	-42.033981	-42.304991	63	0
1277	N1289B	-42.033981	-42.304991	15	0
1278	B3T	-46.033981	-49.233194	63	0
1279	B3B	-46.033981	-49.233194	15	0
1280	N1292B	-42.033981	-42.304991	21	0
1281	B3R	-39.033981	-37.108839	21	0

Joint Coordinates and Temperatures (Continued)

Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Di...
1282	N1294B	0.747674	-67.004991	0	
1283	N1295B	2.403924	-64.136282	0	
1284	N1296B	0.747674	-67.004991	0	
1285	N1297B	0.747674	-67.004991	0	
1286	N1298B	2.122674	-64.623421	0	
1287	N1299B	0.747674	-67.004991	0	
1288	N1300B	0.747674	-67.004991	0	
1289	N1301B	0.747674	-67.004991	0	
1290	B2T	-3.252326	-73.933194	0	
1291	B2B	-3.252326	-73.933194	0	
1292	N1304B	0.747674	-67.004991	0	
1293	B2R	3.747674	-61.808839	0	
1294	N1306B	30.928666	-84.429991	0	
1295	N1307B	32.58491	-81.561282	0	
1296	N1308B	30.928666	-84.429991	0	
1297	N1309B	30.928666	-84.429991	0	
1298	N1310B	32.303666	-82.048421	0	
1299	N1311B	30.928666	-84.429991	0	
1300	N1312B	30.928666	-84.429991	0	
1301	N1313B	30.928666	-84.429991	0	
1302	B1T	26.928659	-91.358194	0	
1303	B1B	26.928659	-91.358194	0	
1304	N1316B	30.928666	-84.429991	0	
1305	B1R	33.928659	-79.233838	0	
1306	N1318B	30.928666	84.429991	0	
1307	N1319B	32.58491	81.561282	0	
1308	N1320B	30.928666	84.429991	0	
1309	N1321B	30.928666	84.429991	0	
1310	N1322B	32.303666	82.048421	0	
1311	N1323B	30.928666	84.429991	0	
1312	N1330B	30.928666	84.429991	0	
1313	N1331B	30.928666	84.429991	0	
1314	G4T	26.928659	91.358194	0	
1315	G4B	26.928659	91.358194	0	
1316	N1334B	30.928666	84.429991	0	
1317	G4R	33.928659	79.233838	0	
1318	N1336B	-15.620206	57.554991	0	
1319	N1337B	-13.963956	54.686282	0	
1320	N1338B	-15.620206	57.554991	0	
1321	N1339B	-15.620206	57.554991	0	
1322	N1340B	-14.245206	55.173421	0	
1323	N1341B	-15.620206	57.554991	0	
1324	N1342B	-15.620206	57.554991	0	
1325	N1343B	-15.620206	57.554991	0	
1326	G3T	-19.620206	64.483194	0	
1327	G3B	-19.620206	64.483194	0	
1328	N1346B	-15.620206	57.554991	0	
1329	G3R	-12.620206	52.358839	0	
1330	N1348A	-58.401861	32.854991	0	
1331	N1349	-56.745611	29.986282	0	
1332	N1350	-58.401861	32.854991	0	
1333	N1351	-58.401861	32.854991	0	
1334	N1352	-57.026861	30.473421	0	
1335	N1353	-58.401861	32.854991	0	
1336	N1354	-58.401861	32.854991	0	
1337	N1355	-58.401861	32.854991	0	
1338	G2T	-62.401861	39.783193	0	

Joint Coordinates and Temperatures (Continued)

Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Di...
1339					
G2B	-62.401861	39.783193	15	0	
N1340	-58.401861	32.854991	21	0	
G2R	-55.401861	27.658838	21	0	
N1360	-88.582847	15.429991	-27	0	
N1361	-86.926597	12.561281	0	0	
N1362	-88.582847	15.429991	0	0	
N1363	-88.582847	15.429991	42	0	
N1364	-87.207847	13.048421	42	0	
N1365	-88.582847	15.429991	69	0	
N1366	-88.582847	15.429991	63	0	
N1367	-88.582847	15.429991	-12	0	
G1T	-92.582846	22.358194	63	0	
G1B	-92.582846	22.358194	-12	0	
N1370	-88.582847	15.429991	21	0	
G1R	-85.582846	10.233838	21	0	
KN1	-77.845445	-0.	0	0	
KN2	-77.845445	-0.	-5.375	0	
KN3	-77.845445	0.937	-5.375	0	
KN4	-77.845445	-0.937	-5.375	0	
KN5	-15.031	-0.	-61.499993	0	
KN6	-18.406	-0.	-61.499993	0	
KN7	-18.406	0.937	-61.499993	0	
KN8	-18.406	-0.937	-61.499993	0	
KN9	38.922723	-67.416133	0	0	
KN10	38.922723	-67.416133	-5.375	0	
KN11	38.111257	-67.884633	-5.375	0	
KN12	39.734188	-66.947633	-5.375	0	
KN13	7.5155	-13.017228	-61.499993	0	
KN14	9.203	-15.940064	-61.499993	0	
KN15	8.391534	-16.408564	-61.499993	0	
KN16	10.014466	-15.471564	-61.499993	0	
KN17	38.922723	67.416133	0	0	
KN18	38.922723	67.416133	-5.375	0	
KN19	39.734188	66.947633	-5.375	0	
KN20	38.111257	67.884633	-5.375	0	
KN21	7.5155	13.017228	-61.499993	0	
KN22	9.203	15.940064	-61.499993	0	
KN23	10.014466	15.471564	-61.499993	0	
KN24	8.391534	16.408564	-61.499993	0	
N1380	54.341687	77.28335	0	0	
N1380A	54.341687	77.28335	0	0	
N1382	39.758501	85.702957	0	0	
N1383	-94.100188	8.419607	0	0	
N1386	-94.100188	-8.419607	0	0	
N1387	39.758501	-85.702957	0	0	
N1384	54.341687	-29.39167	0	0	
N1386A	54.341687	29.39187	0	0	
N1388	-1.716911	61.757117	0	0	
N1389	-52.62495	32.365347	0	0	
N1392	-52.624777	-32.365447	0	0	
N1393	-1.716737	-61.757217	0	0	
N1402	54.341687	-77.28335	-2	0	
N1403	54.341687	77.28335	-2	0	
N1404	39.758501	85.702957	-2	0	
N1405	-94.100188	8.419607	-2	0	
N1406	-94.100188	-8.419607	-2	0	
N1407	39.758501	-85.702957	-2	0	

Joint Coordinates and Temperatures (Continued)

Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Di...
1396	54.341687	-29.39167	-2	0	
1397	54.341687	29.39187	-2	0	
1398	-1.716911	61.757117	-2	0	
1399	-52.62495	32.365347	-2	0	
1400	-52.624777	-32.365447	-2	0	
1401	-1.716737	-61.757217	-2	0	
1402	54.341687	-77.28335	2	0	
1403	54.341687	77.28335	2	0	
1404	39.758501	85.702957	2	0	
1405	-94.100188	8.419607	2	0	
1406	-94.100188	-8.419607	2	0	
1407	39.758501	-85.702957	2	0	
1408	54.341687	-29.39167	2	0	
1409	54.341687	29.39187	2	0	
1410	-1.716911	61.757117	2	0	
1411	-52.62495	32.365347	2	0	
1412	-52.624777	-32.365447	2	0	
1413	-1.716737	-61.757217	2	0	
1414	-39.031	-0.	0	0	
1415	-39.031	6.	0	0	
1416	-39.031	6.	9	0	
1417	19.5155	33.801838	0	0	
1418	24.711652	30.801838	0	0	
1419	24.711652	30.801838	9	0	
1420	19.5155	-33.801837	0	0	
1421	14.319348	-36.801837	0	0	
1422	14.319348	-36.801838	9	0	

Member Primary Data

Label	I Joint	J Joint	K Joint	Rotate(...	Section/Shape	Type	Design List	Material
1	N48	N60			RIGID	None	None	RIGID
2	N75	N87			RIGID	None	None	RIGID
3	N88	N100			Offset Horiz	Beam	None	Q235
4	N98	N103			Offset Horiz	Beam	None	Q235
5	N102	N114			RIGID	None	None	RIGID
6	N103	N99			Offset Horiz	Beam	None	Q235
7	N115	N116			Face Horiz	Beam	None	A53 Gr.B
8	M4	N122			RIGID	None	None	RIGID
9	N123	N124			Face Horiz	Beam	None	A53 Gr.B
10	N131	N132			Face Horiz	Beam	None	A53 Gr.B
11	N158	N50	360		RIGID	None	None	RIGID
12	N158	N160			Grating Angle	Beam	None	Q235
13	N93	N159	360		RIGID	None	None	RIGID
14	N94	N159	270		Grating Angle	Beam	None	Q235
15	N95	N160	360		RIGID	None	None	RIGID
16	N96	N161	360		RIGID	None	None	RIGID
17	N162	N77	360		RIGID	None	None	RIGID
18	N162	N164			Grating Angle	Beam	None	Q235
19	N163	N78	360		RIGID	None	None	RIGID
20	N163	N165	270		Grating Angle	Beam	None	Q235
21	N164	N75	360		RIGID	None	None	RIGID
22	N165	N87	360		RIGID	None	None	RIGID
23	N166	N104	360		RIGID	None	None	RIGID
24	N166	N168			Grating Angle	Beam	None	Q235
25	N167	N105	360		RIGID	None	None	RIGID



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 842872 - ROCKY HILL

June 17, 2020
 11:33 AM
 Checked By: MLO

Member Primary Data (Continued)

Label	I Joint	J Joint	K Joint	Rotate(...	Section/Shape	Type	Design List	Material	Design R...
26	M106	N167	N169		270	Grating Angle	Beam	Q235	Typical
27	M107	N168	N102		360	RIGID	None	RIGID	Typical
28	M108	N169	N114		360	RIGID	None	RIGID	Typical
29	M109	N171	N172		90	HRK14 Angle	Beam	Q235	Typical
30	M110	N173	N174		90	HRK14 Angle	Beam	Q235	Typical
31	M111	N175	N170		90	HRK14 Angle	Beam	Q235	Typical
32	M115	N183	N179			RIGID	None	RIGID	Typical
33	M116	N185	N184			HRK14 Pipe	Beam	A53 Gr.B	Typical
34	M121	N195	N194			HRK14 Pipe	Beam	A53 Gr.B	Typical
35	M126	N205	N204			HRK14 Pipe	Beam	A53 Gr.B	Typical
36	M127	N208	N206			RIGID	None	RIGID	Typical
37	M128	N209	N207			RIGID	None	RIGID	Typical
38	M129	N210	N211			HRK14 Plate	Beam	Q235	Typical
39	M130	N218	N170		360	RIGID	None	RIGID	Typical
40	M131	N221	N219			RIGID	None	RIGID	Typical
41	M132	N222	N220			RIGID	None	RIGID	Typical
42	M133	N223	N224			HRK14 Plate	Beam	Q235	Typical
43	M134	N225	N171		360	RIGID	None	RIGID	Typical
44	M135	N228	N226			RIGID	None	RIGID	Typical
45	M136	N229	N227			RIGID	None	RIGID	Typical
46	M137	N230	N231			HRK14 Plate	Beam	Q235	Typical
47	M138	N232	N172		360	RIGID	None	RIGID	Typical
48	M139	N235	N233			RIGID	None	RIGID	Typical
49	M140	N236	N234			RIGID	None	RIGID	Typical
50	M141	N237	N238			HRK14 Plate	Beam	Q235	Typical
51	M142	N239	N173		360	RIGID	None	RIGID	Typical
52	M143	N242	N240			RIGID	None	RIGID	Typical
53	M144	N243	N241			RIGID	None	RIGID	Typical
54	M145	N244	N245			HRK14 Plate	Beam	Q235	Typical
55	M146	N246	N174		360	RIGID	None	RIGID	Typical
56	M147	N249	N247			RIGID	None	RIGID	Typical
57	M148	N250	N248			RIGID	None	RIGID	Typical
58	M149	N251	N252			HRK14 Plate	Beam	Q235	Typical
59	M150	N253	N175		360	RIGID	None	RIGID	Typical
60	M163	N263	N16		360	Mount Pipe	Column	A53 Gr.B	Typical
61	M171A	N277	N276			RIGID	None	RIGID	Typical
62	M172	N279	N278			RIGID	None	RIGID	Typical
63	M172A	N276	N278		360	RIGID	None	RIGID	Typical
64	M172C	N365A	N366A			RIGID	None	RIGID	Typical
65	M173A	N367A	N368A			RIGID	None	RIGID	Typical
66	M173B	N366A	N368A		360	RIGID	None	RIGID	Typical
67	M173C	N402	N403			RIGID	None	RIGID	Typical
68	M174	N404	N405			RIGID	None	RIGID	Typical
69	M175	N403	N405		360	RIGID	None	RIGID	Typical
70	M166A	N520	N521			RIGID	None	RIGID	Typical
71	M167A	N522	N523			RIGID	None	RIGID	Typical
72	M168A	N521	N523		360	RIGID	None	RIGID	Typical
73	M169A	N557	N558			RIGID	None	RIGID	Typical
74	M170A	N559	N560			RIGID	None	RIGID	Typical
75	M171C	N558	N560		360	RIGID	None	RIGID	Typical
76	M178	N700	N701			RIGID	None	RIGID	Typical
77	M179	N702	N703			RIGID	None	RIGID	Typical
78	M180	N701	N703		360	RIGID	None	RIGID	Typical
79	M181	N737	N738			RIGID	None	RIGID	Typical
80	M182	N739	N740			RIGID	None	RIGID	Typical
81	M183	N738	N740		360	RIGID	None	RIGID	Typical
82	M181A	N786	N100			RIGID	None	RIGID	Typical



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 842872 - ROCKY HILL

June 17, 2020
 11:33 AM
 Checked By: MLO

Member Primary Data (Continued)

Label	I Joint	J Joint	K Joint	Rotate(...)	Section/Shape	Type	Design List	Material	Design R...
83	M182A	N782	N100		RIGID	None	None	RIGID	Typical
84	M183A	N842	N100		RIGID	None	None	RIGID	Typical
85	M184	N846	N100		RIGID	None	None	RIGID	Typical
86	M185	N785	N100		RIGID	None	None	RIGID	Typical
87	M186	N784	N100	360	RIGID	None	None	RIGID	Typical
88	M187	N783	N100		RIGID	None	None	RIGID	Typical
89	M188	N801	N100		RIGID	None	None	RIGID	Typical
90	M189	N816	N100		RIGID	None	None	RIGID	Typical
91	M190	N831	N100		RIGID	None	None	RIGID	Typical
92	M191	N845	N100		RIGID	None	None	RIGID	Typical
93	M192	N844	N100	1e-6	RIGID	None	None	RIGID	Typical
94	M193	N843	N100		RIGID	None	None	RIGID	Typical
95	M194	N827	N100		RIGID	None	None	RIGID	Typical
96	M195	N812	N100		RIGID	None	None	RIGID	Typical
97	M196	N797	N100		RIGID	None	None	RIGID	Typical
98	M189A	N35	N864A		Offset Horiz	Beam	None	Q235	Typical
99	M190A	N48	N60		RIGID	None	None	RIGID	Typical
100	M191A	N160	N48	360	RIGID	None	None	RIGID	Typical
101	M192A	N161	N60	360	RIGID	None	None	RIGID	Typical
102	M193A	N906	N864A		RIGID	None	None	RIGID	Typical
103	M194A	N902	N864A		RIGID	None	None	RIGID	Typical
104	M195A	N962	N864A		RIGID	None	None	RIGID	Typical
105	M196A	N966	N864A		RIGID	None	None	RIGID	Typical
106	M197	N905	N864A		RIGID	None	None	RIGID	Typical
107	M198	N904	N864A	360	RIGID	None	None	RIGID	Typical
108	M199	N903	N864A		RIGID	None	None	RIGID	Typical
109	M200	N921	N864A		RIGID	None	None	RIGID	Typical
110	M201	N936	N864A		RIGID	None	None	RIGID	Typical
111	M202	N951	N864A		RIGID	None	None	RIGID	Typical
112	M203	N965	N864A		RIGID	None	None	RIGID	Typical
113	M204	N964	N864A	1e-6	RIGID	None	None	RIGID	Typical
114	M205	N963	N864A		RIGID	None	None	RIGID	Typical
115	M206	N947	N864A		RIGID	None	None	RIGID	Typical
116	M207	N932	N864A		RIGID	None	None	RIGID	Typical
117	M208	N917	N864A		RIGID	None	None	RIGID	Typical
118	M209	N61	N990		Offset Horiz	Beam	None	Q235	Typical
119	M210	N75	N87		RIGID	None	None	RIGID	Typical
120	M211	N164	N75	360	RIGID	None	None	RIGID	Typical
121	M212	N165	N87	360	RIGID	None	None	RIGID	Typical
122	M213	N1032	N990		RIGID	None	None	RIGID	Typical
123	M214	N1028	N990		RIGID	None	None	RIGID	Typical
124	M215	N1088	N990		RIGID	None	None	RIGID	Typical
125	M216	N1092	N990		RIGID	None	None	RIGID	Typical
126	M217	N1031	N990		RIGID	None	None	RIGID	Typical
127	M218	N1030	N990	360	RIGID	None	None	RIGID	Typical
128	M219	N1029	N990		RIGID	None	None	RIGID	Typical
129	M220	N1047	N990		RIGID	None	None	RIGID	Typical
130	M221	N1062	N990		RIGID	None	None	RIGID	Typical
131	M222	N1077	N990		RIGID	None	None	RIGID	Typical
132	M223	N1091	N990		RIGID	None	None	RIGID	Typical
133	M224	N1090	N990	1e-6	RIGID	None	None	RIGID	Typical
134	M225	N1089	N990		RIGID	None	None	RIGID	Typical
135	M226	N1073	N990		RIGID	None	None	RIGID	Typical
136	M227	N1058	N990		RIGID	None	None	RIGID	Typical
137	M228	N1043	N990		RIGID	None	None	RIGID	Typical
138	M225A	N1079A	N98		RIGID	None	None	RIGID	Typical
139	M226A	N1083A	N98		RIGID	None	None	RIGID	Typical



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 842872 - ROCKY HILL

June 17, 2020
 11:33 AM
 Checked By: MLO

Member Primary Data (Continued)

Label	I Joint	J Joint	K Joint	Rotate(...	Section/Shape	Type	Design List	Material	Design R...
140	M227A	N1103A	N98		RIGID	None	None	RIGID	Typical
141	M228A	N1107A	N98		RIGID	None	None	RIGID	Typical
142	M229	N1082A	N98		RIGID	None	None	RIGID	Typical
143	M230	N1081A	N98		RIGID	None	None	RIGID	Typical
144	M231	N1080A	N98		RIGID	None	None	RIGID	Typical
145	M232	N1085A	N98		RIGID	None	None	RIGID	Typical
146	M233	N1091A	N98		RIGID	None	None	RIGID	Typical
147	M234	N1097A	N98		RIGID	None	None	RIGID	Typical
148	M235	N1104A	N98		RIGID	None	None	RIGID	Typical
149	M236	N1105A	N98		RIGID	None	None	RIGID	Typical
150	M237	N1106A	N98		RIGID	None	None	RIGID	Typical
151	M238	N1101A	N98		RIGID	None	None	RIGID	Typical
152	M239	N1095A	N98		RIGID	None	None	RIGID	Typical
153	M240	N1089A	N98		RIGID	None	None	RIGID	Typical
154	M241	N1129	N99		RIGID	None	None	RIGID	Typical
155	M242	N1133	N99		RIGID	None	None	RIGID	Typical
156	M243	N1153	N99		RIGID	None	None	RIGID	Typical
157	M244	N1157	N99		RIGID	None	None	RIGID	Typical
158	M245	N1132	N99		RIGID	None	None	RIGID	Typical
159	M246	N1131	N99		RIGID	None	None	RIGID	Typical
160	M247	N1130	N99		RIGID	None	None	RIGID	Typical
161	M248	N1135	N99		RIGID	None	None	RIGID	Typical
162	M249	N1141	N99		RIGID	None	None	RIGID	Typical
163	M250	N1147	N99		RIGID	None	None	RIGID	Typical
164	M251	N1154	N99		RIGID	None	None	RIGID	Typical
165	M252	N1155	N99		RIGID	None	None	RIGID	Typical
166	M253	N1156	N99		RIGID	None	None	RIGID	Typical
167	M254	N1151	N99		RIGID	None	None	RIGID	Typical
168	M255	N1145	N99		RIGID	None	None	RIGID	Typical
169	M256	N1139	N99		RIGID	None	None	RIGID	Typical
170	M245A	N1149A	N49		Offset Horiz	Beam	None	Q235	Typical
171	M246A	N49	N1150A		Offset Horiz	Beam	None	Q235	Typical
172	M247A	N1172	N1149A		RIGID	None	None	RIGID	Typical
173	M248A	N1176	N1149A		RIGID	None	None	RIGID	Typical
174	M249A	N1196	N1149A		RIGID	None	None	RIGID	Typical
175	M250A	N1200	N1149A		RIGID	None	None	RIGID	Typical
176	M251A	N1175	N1149A		RIGID	None	None	RIGID	Typical
177	M252A	N1174	N1149A		RIGID	None	None	RIGID	Typical
178	M253A	N1173	N1149A		RIGID	None	None	RIGID	Typical
179	M254A	N1178	N1149A		RIGID	None	None	RIGID	Typical
180	M255A	N1184	N1149A		RIGID	None	None	RIGID	Typical
181	M256A	N1190	N1149A		RIGID	None	None	RIGID	Typical
182	M257	N1197	N1149A		RIGID	None	None	RIGID	Typical
183	M258	N1198	N1149A		RIGID	None	None	RIGID	Typical
184	M259	N1199	N1149A		RIGID	None	None	RIGID	Typical
185	M260	N1194	N1149A		RIGID	None	None	RIGID	Typical
186	M261	N1188	N1149A		RIGID	None	None	RIGID	Typical
187	M262	N1182	N1149A		RIGID	None	None	RIGID	Typical
188	M263	N1214	N1150A		RIGID	None	None	RIGID	Typical
189	M264	N1218	N1150A		RIGID	None	None	RIGID	Typical
190	M265	N1238	N1150A		RIGID	None	None	RIGID	Typical
191	M266	N1242	N1150A		RIGID	None	None	RIGID	Typical
192	M267	N1217	N1150A		RIGID	None	None	RIGID	Typical
193	M268	N1216	N1150A		RIGID	None	None	RIGID	Typical
194	M269	N1215	N1150A		RIGID	None	None	RIGID	Typical
195	M270	N1220	N1150A		RIGID	None	None	RIGID	Typical
196	M271	N1226	N1150A		RIGID	None	None	RIGID	Typical



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 842872 - ROCKY HILL

June 17, 2020
 11:33 AM
 Checked By: MLO

Member Primary Data (Continued)

Label	I Joint	J Joint	K Joint	Rotate(...)	Section/Shape	Type	Design List	Material	Design R...
197	M272	N1232	N1150A		RIGID	None	None	RIGID	Typical
198	M273	N1239	N1150A		RIGID	None	None	RIGID	Typical
199	M274	N1240	N1150A		RIGID	None	None	RIGID	Typical
200	M275	N1241	N1150A		RIGID	None	None	RIGID	Typical
201	M276	N1236	N1150A		RIGID	None	None	RIGID	Typical
202	M277	N1230	N1150A		RIGID	None	None	RIGID	Typical
203	M278	N1224	N1150A		RIGID	None	None	RIGID	Typical
204	M279	N1250	N76		Offset Horiz	Beam	None	Q235	Typical
205	M280	N76	N1251		Offset Horiz	Beam	None	Q235	Typical
206	M281	N1273	N1250		RIGID	None	None	RIGID	Typical
207	M282	N1277	N1250		RIGID	None	None	RIGID	Typical
208	M283	N1297	N1250		RIGID	None	None	RIGID	Typical
209	M284	N1301	N1250		RIGID	None	None	RIGID	Typical
210	M285	N1276	N1250		RIGID	None	None	RIGID	Typical
211	M286	N1275	N1250		RIGID	None	None	RIGID	Typical
212	M287	N1274	N1250		RIGID	None	None	RIGID	Typical
213	M288	N1279	N1250		RIGID	None	None	RIGID	Typical
214	M289	N1285	N1250		RIGID	None	None	RIGID	Typical
215	M290	N1291	N1250		RIGID	None	None	RIGID	Typical
216	M291	N1298	N1250		RIGID	None	None	RIGID	Typical
217	M292	N1299	N1250		RIGID	None	None	RIGID	Typical
218	M293	N1300	N1250		RIGID	None	None	RIGID	Typical
219	M294	N1295	N1250		RIGID	None	None	RIGID	Typical
220	M295	N1289	N1250		RIGID	None	None	RIGID	Typical
221	M296	N1283	N1250		RIGID	None	None	RIGID	Typical
222	M297	N1315	N1251		RIGID	None	None	RIGID	Typical
223	M298	N1319	N1251		RIGID	None	None	RIGID	Typical
224	M299	N1339	N1251		RIGID	None	None	RIGID	Typical
225	M300	N1343	N1251		RIGID	None	None	RIGID	Typical
226	M301	N1318	N1251		RIGID	None	None	RIGID	Typical
227	M302	N1317	N1251		RIGID	None	None	RIGID	Typical
228	M303	N1316	N1251		RIGID	None	None	RIGID	Typical
229	M304	N1321	N1251		RIGID	None	None	RIGID	Typical
230	M305	N1327	N1251		RIGID	None	None	RIGID	Typical
231	M306	N1333	N1251		RIGID	None	None	RIGID	Typical
232	M307	N1340	N1251		RIGID	None	None	RIGID	Typical
233	M308	N1341	N1251		RIGID	None	None	RIGID	Typical
234	M309	N1342	N1251		RIGID	None	None	RIGID	Typical
235	M310	N1337	N1251		RIGID	None	None	RIGID	Typical
236	M311	N1331	N1251		RIGID	None	None	RIGID	Typical
237	M312	N1325	N1251		RIGID	None	None	RIGID	Typical
238	M298A	N1099B	N1098B		RIGID	None	None	RIGID	Typical
239	M299A	N1101B	N1100B		RIGID	None	None	RIGID	Typical
240	M300A	N1098B	N1100B	360	RIGID	None	None	RIGID	Typical
241	M301A	N1145B	N1144B		RIGID	None	None	RIGID	Typical
242	M302A	N1147A	N1146A		RIGID	None	None	RIGID	Typical
243	M303A	N1144B	N1146A	240	RIGID	None	None	RIGID	Typical
244	M304A	N1200A	N1199A		RIGID	None	None	RIGID	Typical
245	M305A	N1202A	N1201A		RIGID	None	None	RIGID	Typical
246	M306A	N1199A	N1201A	240	RIGID	None	None	RIGID	Typical
247	M307A	N1249A	N1248A		RIGID	None	None	RIGID	Typical
248	M308A	N1251B	N1250B		RIGID	None	None	RIGID	Typical
249	M309A	N1248A	N1250B	120	RIGID	None	None	RIGID	Typical
250	M310A	N1304A	N1303A		RIGID	None	None	RIGID	Typical
251	M311A	N1306A	N1305A		RIGID	None	None	RIGID	Typical
252	M312A	N1303A	N1305A	120	RIGID	None	None	RIGID	Typical
253	M256B	N1223B	A4B		RIGID	None	None	RIGID	Typical



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 842872 - ROCKY HILL

June 17, 2020
 11:33 AM
 Checked By: MLO

Member Primary Data (Continued)

Label	I Joint	J Joint	K Joint	Rotate(...	Section/Shape	Type	Design List	Material	Design R...
254	M257A	N1222B	A4T		RIGID	None	None	RIGID	Typical
255	M258A	N1226B	A4R		RIGID	None	None	RIGID	Typical
256	M259A	M3	N1230B		RIGID	None	None	RIGID	Typical
257	M260A	N1232B	N1231B		RIGID	None	None	RIGID	Typical
258	M261A	N1233B	N1228B	360	Mount Pipe	Column	None	A53 Gr.B	Typical
259	M262A	N1235B	A3B		RIGID	None	None	RIGID	Typical
260	M263A	N1234B	A3T		RIGID	None	None	RIGID	Typical
261	M264A	N1238B	A3R		RIGID	None	None	RIGID	Typical
262	M265A	M2	N1242C		RIGID	None	None	RIGID	Typical
263	M266A	N1244C	N1243B		RIGID	None	None	RIGID	Typical
264	M267A	N1245B	N1240C	360	Mount Pipe	Column	None	A53 Gr.B	Typical
265	M268A	N1247B	A2B		RIGID	None	None	RIGID	Typical
266	M269A	N1246B	A2T		RIGID	None	None	RIGID	Typical
267	M270A	N1250C	A2R		RIGID	None	None	RIGID	Typical
268	M271A	M1	N1254A		RIGID	None	None	RIGID	Typical
269	M272A	N1256A	N1255A		RIGID	None	None	RIGID	Typical
270	M273A	N1257A	N1252A	360	Mount Pipe	Column	None	A53 Gr.B	Typical
271	M274A	N1259A	A1B		RIGID	None	None	RIGID	Typical
272	M275A	N1258A	A1T		RIGID	None	None	RIGID	Typical
273	M276A	N1262B	A1R		RIGID	None	None	RIGID	Typical
274	M277A	N1265C	N1266C		RIGID	None	None	RIGID	Typical
275	M278A	N1268C	N1267C		RIGID	None	None	RIGID	Typical
276	M279A	N1269C	N1264B	120	Mount Pipe	Column	None	A53 Gr.B	Typical
277	M283A	N1277C	B4B		RIGID	None	None	RIGID	Typical
278	M284A	N1276C	B4T		RIGID	None	None	RIGID	Typical
279	M285A	N1280B	B4R		RIGID	None	None	RIGID	Typical
280	M286B	N1283C	N1284C		RIGID	None	None	RIGID	Typical
281	M287B	N1286C	N1285C		RIGID	None	None	RIGID	Typical
282	M288B	N1287C	N1282C	120	Mount Pipe	Column	None	A53 Gr.B	Typical
283	M289A	N1289B	B3B		RIGID	None	None	RIGID	Typical
284	M290A	N1288B	B3T		RIGID	None	None	RIGID	Typical
285	M291A	N1292B	B3R		RIGID	None	None	RIGID	Typical
286	M292A	N1295B	N1296B		RIGID	None	None	RIGID	Typical
287	M293A	N1298B	N1297B		RIGID	None	None	RIGID	Typical
288	M294A	N1299B	N1294B	120	Mount Pipe	Column	None	A53 Gr.B	Typical
289	M295A	N1301B	B2B		RIGID	None	None	RIGID	Typical
290	M296A	N1300B	B2T		RIGID	None	None	RIGID	Typical
291	M297A	N1304B	B2R		RIGID	None	None	RIGID	Typical
292	M298B	N1307B	N1308B		RIGID	None	None	RIGID	Typical
293	M299B	N1310B	N1309B		RIGID	None	None	RIGID	Typical
294	M300B	N1311B	N1306B	120	Mount Pipe	Column	None	A53 Gr.B	Typical
295	M301B	N1313B	B1B		RIGID	None	None	RIGID	Typical
296	M302B	N1312B	B1T		RIGID	None	None	RIGID	Typical
297	M303B	N1316B	B1R		RIGID	None	None	RIGID	Typical
298	M304B	N1319B	N1320B		RIGID	None	None	RIGID	Typical
299	M305B	N1322B	N1321B		RIGID	None	None	RIGID	Typical
300	M306B	N1323B	N1318B	240	Mount Pipe	Column	None	A53 Gr.B	Typical
301	M310B	N1331B	G4B		RIGID	None	None	RIGID	Typical
302	M311B	N1330B	G4T		RIGID	None	None	RIGID	Typical
303	M312B	N1334B	G4R		RIGID	None	None	RIGID	Typical
304	M313	N1337B	N1338B		RIGID	None	None	RIGID	Typical
305	M314	N1340B	N1339B		RIGID	None	None	RIGID	Typical
306	M315	N1341B	N1336B	240	Mount Pipe	Column	None	A53 Gr.B	Typical
307	M316	N1343B	G3B		RIGID	None	None	RIGID	Typical
308	M317	N1342B	G3T		RIGID	None	None	RIGID	Typical
309	M318	N1346B	G3R		RIGID	None	None	RIGID	Typical
310	M319	N1349	N1350		RIGID	None	None	RIGID	Typical



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 842872 - ROCKY HILL

June 17, 2020
 11:33 AM
 Checked By: MLO

Member Primary Data (Continued)

Label	I Joint	J Joint	K Joint	Rotate(...	Section/Shape	Type	Design List	Material	Design R...
311	M320	N1352	N1351		RIGID	None	None	RIGID	Typical
312	M321	N1353	N1348A	240	Mount Pipe	Column	None	A53 Gr.B	Typical
313	M322	N1355	G2B		RIGID	None	None	RIGID	Typical
314	M323	N1354	G2T		RIGID	None	None	RIGID	Typical
315	M324	N1358	G2R		RIGID	None	None	RIGID	Typical
316	M325	N1361	N1362		RIGID	None	None	RIGID	Typical
317	M326	N1364	N1363		RIGID	None	None	RIGID	Typical
318	M327	N1365	N1360	240	Mount Pipe	Column	None	A53 Gr.B	Typical
319	M328	N1367	G1B		RIGID	None	None	RIGID	Typical
320	M329	N1366	G1T		RIGID	None	None	RIGID	Typical
321	M330	N1370	G1R		RIGID	None	None	RIGID	Typical
322	KM1	KN1	KN2	360	RIGID	None	None	RIGID	Typical
323	KM2	KN3	KN4		RIGID	None	None	RIGID	Typical
324	KM3	KN5	KN6		RIGID	None	None	RIGID	Typical
325	KM4	KN7	KN8		RIGID	None	None	RIGID	Typical
326	KM5	KN3	KN7	180	PRK-1245 Angle	Beam	None	A36 Gr....	Typical
327	KM6	KN4	KN8	90	PRK-1245 Angle	Beam	None	A36 Gr....	Typical
328	KM7	KN9	KN10	360	RIGID	None	None	RIGID	Typical
329	KM8	KN11	KN12		RIGID	None	None	RIGID	Typical
330	KM9	KN13	KN14		RIGID	None	None	RIGID	Typical
331	KM10	KN15	KN16		RIGID	None	None	RIGID	Typical
332	KM11	KN11	KN15	180	PRK-1245 Angle	Beam	None	A36 Gr....	Typical
333	KM12	KN12	KN16	90	PRK-1245 Angle	Beam	None	A36 Gr....	Typical
334	KM13	KN17	KN18	360	RIGID	None	None	RIGID	Typical
335	KM14	KN19	KN20		RIGID	None	None	RIGID	Typical
336	KM15	KN21	KN22		RIGID	None	None	RIGID	Typical
337	KM16	KN23	KN24		RIGID	None	None	RIGID	Typical
338	KM17	KN19	KN23	180	PRK-1245 Angle	Beam	None	A36 Gr....	Typical
339	KM18	KN20	KN24	90	PRK-1245 Angle	Beam	None	A36 Gr....	Typical
340	M346	N275A	N1402		RIGID	None	None	RIGID	Typical
341	M347	N327	N1403		RIGID	None	None	RIGID	Typical
342	M348	N427A	N1404		RIGID	None	None	RIGID	Typical
343	M349	N478	N1405		RIGID	None	None	RIGID	Typical
344	M350	N607	N1406		RIGID	None	None	RIGID	Typical
345	M351	N658	N1407		RIGID	None	None	RIGID	Typical
346	M352	N395	N1408		RIGID	None	None	RIGID	Typical
347	M353	N433	N1409		RIGID	None	None	RIGID	Typical
348	M354	N551	N1410		RIGID	None	None	RIGID	Typical
349	M355	N588	N1411		RIGID	None	None	RIGID	Typical
350	M356	N731	N1412		RIGID	None	None	RIGID	Typical
351	M357	N768	N1413		RIGID	None	None	RIGID	Typical
352	M358	N278A	N1426		RIGID	None	None	RIGID	Typical
353	M359	N330	N1427		RIGID	None	None	RIGID	Typical
354	M360	N430A	N1428		RIGID	None	None	RIGID	Typical
355	M361	N481	N1429		RIGID	None	None	RIGID	Typical
356	M362	N610	N1430		RIGID	None	None	RIGID	Typical
357	M363	N661	N1431		RIGID	None	None	RIGID	Typical
358	M364	N398	N1432		RIGID	None	None	RIGID	Typical
359	M365	N436	N1433		RIGID	None	None	RIGID	Typical
360	M366	N554	N1434		RIGID	None	None	RIGID	Typical
361	M367	N591	N1435		RIGID	None	None	RIGID	Typical
362	M368	N734	N1436		RIGID	None	None	RIGID	Typical
363	M369	N771	N1437		RIGID	None	None	RIGID	Typical
364	M358A	N1402	N1426	1.137e...	RIGID	None	None	RIGID	Typical
365	M359A	N1408	N1432	1.137e...	RIGID	None	None	RIGID	Typical
366	M360A	N1409	N1433	1.137e...	RIGID	None	None	RIGID	Typical
367	M361A	N1403	N1427	1.137e...	RIGID	None	None	RIGID	Typical

Member Primary Data (Continued)

Label	I Joint	J Joint	K Joint	Rotate(...)	Section/Shape	Type	Design List	Material	Design R...
368	M362A	N1406	N1430	240	RIGID	None	None	RIGID	Typical
369	M363A	N1412	N1436	240	RIGID	None	None	RIGID	Typical
370	M364A	N1413	N1437	240	RIGID	None	None	RIGID	Typical
371	M365A	N1407	N1431	240	RIGID	None	None	RIGID	Typical
372	M366A	N1404	N1428	120	RIGID	None	None	RIGID	Typical
373	M367A	N1410	N1434	120	RIGID	None	None	RIGID	Typical
374	M368A	N1411	N1435	120	RIGID	None	None	RIGID	Typical
375	M369A	N1405	N1429	120	RIGID	None	None	RIGID	Typical
376	M376	N1438	N1415		RIGID	None	None	RIGID	Typical
377	M377	N1415	GRC	1.137e-...	RIGID	None	None	RIGID	Typical
378	M378	N1417	N1418		RIGID	None	None	RIGID	Typical
379	M379	N1418	ARC	240	RIGID	None	None	RIGID	Typical
380	M380	N1420	N1421		RIGID	None	None	RIGID	Typical
381	M381	N1421	BRC	120	RIGID	None	None	RIGID	Typical

Basic Load Cases

BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribut...	Area(Member)	Surface(...)
1	DL			-1	55				
2	Dead	RL			55		48		
4	Dead of Ice	None					96		
5	Structure Wind (0)	None					96		
6	Structure Wind (30)	None					96		
7	Structure Wind (45)	None					96		
8	Structure Wind (60)	None					96		
9	Structure Wind (90)	None					96		
10	Structure Wind (120)	None					96		
11	Structure Wind (135)	None					96		
12	Structure Wind (150)	None					96		
13	Structure Wind w/ Ice (0)	None					96		
14	Structure Wind w/ Ice (30)	None					96		
15	Structure Wind w/ Ice (45)	None					96		
16	Structure Wind w/ Ice (60)	None					96		
17	Structure Wind w/ Ice (90)	None					96		
18	Structure Wind w/ Ice (120)	None					96		
19	Structure Wind w/ Ice (135)	None					96		
20	Structure Wind w/ Ice (150)	None					96		
21	Antenna Wind (0)	None			110				
22	Antenna Wind (30)	None			110				
23	Antenna Wind (45)	None			110				
24	Antenna Wind (60)	None			110				
25	Antenna Wind (90)	None			110				
26	Antenna Wind (120)	None			110				
27	Antenna Wind (135)	None			110				
28	Antenna Wind (150)	None			110				
29	Antenna Wind w/ Ice (0)	None			110				
30	Antenna Wind w/ Ice (30)	None			110				
31	Antenna Wind w/ Ice (45)	None			110				
32	Antenna Wind w/ Ice (60)	None			110				
33	Antenna Wind w/ Ice (90)	None			110				
34	Antenna Wind w/ Ice (120)	None			110				
35	Antenna Wind w/ Ice (135)	None			110				
36	Maintenance Live Lm (1)	OL1			1				
37	Maintenance Live Lm (2)	OL2			1				
38	Maintenance Live Lm (3)	OL3			1				
39	Maintenance Live Lm (4)	OL4			1				

Load Combinations

Description		S...	PD...	S...	B...	Fa...	BLC	Fact...	B...	Fact...	B...	Fa...	B...	Fa...	B...	Fa...
1	Summary:	Y		Y	DL	1	20	1								
2	1.4D	Y		Y	DL	1.4										
3	1.2D + 1.0W(0)	Y		Y	DL	1.2	4	1	20	1						
4	1.2D + 1.0W(30)	Y		Y	DL	1.2	5	1	21	1						
5	1.2D + 1.0W(45)	Y		Y	DL	1.2	6	1	22	1						
6	1.2D + 1.0W(60)	Y		Y	DL	1.2	7	1	23	1						
7	1.2D + 1.0W(90)	Y		Y	DL	1.2	8	1	24	1						
8	1.2D + 1.0W(120)	Y		Y	DL	1.2	9	1	25	1						
9	1.2D + 1.0W(135)	Y		Y	DL	1.2	10	1	26	1						
10	1.2D + 1.0W(150)	Y		Y	DL	1.2	11	1	27	1						
11	1.2D + 1.0W(180)	Y		Y	DL	1.2	4	-1	20	-1						
12	1.2D + 1.0W(210)	Y		Y	DL	1.2	5	-1	21	-1						
13	1.2D + 1.0W(225)	Y		Y	DL	1.2	6	-1	22	-1						
14	1.2D + 1.0W(240)	Y		Y	DL	1.2	7	-1	23	-1						
15	1.2D + 1.0W(270)	Y		Y	DL	1.2	8	-1	24	-1						
16	1.2D + 1.0W(300)	Y		Y	DL	1.2	9	-1	25	-1						
17	1.2D + 1.0W(315)	Y		Y	DL	1.2	10	-1	26	-1						
18	1.2D + 1.0W(330)	Y		Y	DL	1.2	11	-1	27	-1						
19	1.2D + 1.0Di + 1.0Wi(0)	Y		Y	DL	1.2	RL	1	12	1	28	1				
20	1.2D + 1.0Di + 1.0Wi(30)	Y		Y	DL	1.2	RL	1	13	1	29	1				
21	1.2D + 1.0Di + 1.0Wi(45)	Y		Y	DL	1.2	RL	1	14	1	30	1				
22	1.2D + 1.0Di + 1.0Wi(60)	Y		Y	DL	1.2	RL	1	15	1	31	1				
23	1.2D + 1.0Di + 1.0Wi(90)	Y		Y	DL	1.2	RL	1	16	1	32	1				
24	1.2D + 1.0Di + 1.0Wi(120)	Y		Y	DL	1.2	RL	1	17	1	33	1				
25	1.2D + 1.0Di + 1.0Wi(135)	Y		Y	DL	1.2	RL	1	18	1	34	1				
26	1.2D + 1.0Di + 1.0Wi(150)	Y		Y	DL	1.2	RL	1	19	1	35	1				
27	1.2D + 1.0Di + 1.0Wi(180)	Y		Y	DL	1.2	RL	1	12	-1	28	-1				
28	1.2D + 1.0Di + 1.0Wi(210)	Y		Y	DL	1.2	RL	1	13	-1	39	-1				
29	1.2D + 1.0Di + 1.0Wi(225)	Y		Y	DL	1.2	RL	1	14	-1	30	-1				
30	1.2D + 1.0Di + 1.0Wi(240)	Y		Y	DL	1.2	RL	1	15	-1	31	-1				
31	1.2D + 1.0Di + 1.0Wi(270)	Y		Y	DL	1.2	RL	1	16	-1	32	-1				
32	1.2D + 1.0Di + 1.0Wi(300)	Y		Y	DL	1.2	RL	1	17	-1	33	-1				
33	1.2D + 1.0Di + 1.0Wi(315)	Y		Y	DL	1.2	RL	1	18	-1	34	-1				
34	1.2D + 1.0Di + 1.0Wi(330)	Y		Y	DL	1.2	RL	1	19	-1	35	-1				
35	1.2D + 1.5Lm(1) + 1.0Wm(0)	Y		Y	DL	1.2	4	.065	20	.065	0...1.5					
36	1.2D + 1.5Lm(1) + 1.0Wm(30)	Y		Y	DL	1.2	5	.065	21	.065	0...1.5					
37	1.2D + 1.5Lm(1) + 1.0Wm(45)	Y		Y	DL	1.2	6	.065	22	.065	0...1.5					
38	1.2D + 1.5Lm(1) + 1.0Wm(60)	Y		Y	DL	1.2	7	.065	23	.065	0...1.5					
39	1.2D + 1.5Lm(1) + 1.0Wm(90)	Y		Y	DL	1.2	8	.065	24	.065	0...1.5					
40	1.2D + 1.5Lm(1) + 1.0Wm(120)	Y		Y	DL	1.2	9	.065	25	.065	0...1.5					
41	1.2D + 1.5Lm(1) + 1.0Wm(135)	Y		Y	DL	1.2	10	.065	26	.065	0...1.5					
42	1.2D + 1.5Lm(1) + 1.0Wm(150)	Y		Y	DL	1.2	11	.065	27	.065	0...1.5					
43	1.2D + 1.5Lm(1) + 1.0Wm(180)	Y		Y	DL	1.2	4	-.065	20	-.065	0...1.5					
44	1.2D + 1.5Lm(1) + 1.0Wm(210)	Y		Y	DL	1.2	5	-.065	21	-.065	0...1.5					
45	1.2D + 1.5Lm(1) + 1.0Wm(225)	Y		Y	DL	1.2	6	-.065	22	-.065	0...1.5					
46	1.2D + 1.5Lm(1) + 1.0Wm(240)	Y		Y	DL	1.2	7	-.065	23	-.065	0...1.5					
47	1.2D + 1.5Lm(1) + 1.0Wm(270)	Y		Y	DL	1.2	8	-.065	24	-.065	0...1.5					
48	1.2D + 1.5Lm(1) + 1.0Wm(300)	Y		Y	DL	1.2	9	-.065	25	-.065	0...1.5					
49	1.2D + 1.5Lm(1) + 1.0Wm(315)	Y		Y	DL	1.2	10	-.065	26	-.065	0...1.5					
50	1.2D + 1.5Lm(1) + 1.0Wm(330)	Y		Y	DL	1.2	11	-.065	27	-.065	0...1.5					
51	1.2D + 1.5Lm(2) + 1.0Wm(0)	Y		Y	DL	1.2	4	.065	20	.065	0...1.5					
52	1.2D + 1.5Lm(2) + 1.0Wm(30)	Y		Y	DL	1.2	5	.065	21	.065	0...1.5					
53	1.2D + 1.5Lm(2) + 1.0Wm(45)	Y		Y	DL	1.2	6	.065	22	.065	0...1.5					
54	1.2D + 1.5Lm(2) + 1.0Wm(60)	Y		Y	DL	1.2	7	.065	23	.065	0...1.5					
55	1.2D + 1.5Lm(2) + 1.0Wm(90)	Y		Y	DL	1.2	8	.065	24	.065	0...1.5					
56	1.2D + 1.5Lm(2) + 1.0Wm(120)	Y		Y	DL	1.2	9	.065	25	.065	0...1.5					



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 842872 - ROCKY HILL

June 17, 2020
 11:33 AM
 Checked By: MLO

Load Combinations (Continued)

	Description	S...	PD...	S...	B...	Fa...	BLC	Fact...	B...	Fact...	B...	Fact...	B...	Fact...	B...	Fact...	B...	Fact...	B...
57	1.2D + 1.5Lm(2) + 1.0Wm(135)	Y...	Y	DL	1.2	10	0.65	26	0.65	0...	1.5								
58	1.2D + 1.5Lm(2) + 1.0Wm(150)	Y...	Y	DL	1.2	11	0.65	27	0.65	0...	1.5								
59	1.2D + 1.5Lm(2) + 1.0Wm(180)	Y...	Y	DL	1.2	4	-0.65	20	-0.65	0...	1.5								
60	1.2D + 1.5Lm(2) + 1.0Wm(210)	Y...	Y	DL	1.2	5	-0.65	21	-0.65	0...	1.5								
61	1.2D + 1.5Lm(2) + 1.0Wm(225)	Y...	Y	DL	1.2	6	-0.65	22	-0.65	0...	1.5								
62	1.2D + 1.5Lm(2) + 1.0Wm(240)	Y...	Y	DL	1.2	7	-0.65	23	-0.65	0...	1.5								
63	1.2D + 1.5Lm(2) + 1.0Wm(270)	Y...	Y	DL	1.2	8	-0.65	24	-0.65	0...	1.5								
64	1.2D + 1.5Lm(2) + 1.0Wm(300)	Y...	Y	DL	1.2	9	-0.65	25	-0.65	0...	1.5								
65	1.2D + 1.5Lm(2) + 1.0Wm(315)	Y...	Y	DL	1.2	10	-0.65	26	-0.65	0...	1.5								
66	1.2D + 1.5Lm(2) + 1.0Wm(330)	Y...	Y	DL	1.2	11	-0.65	27	-0.65	0...	1.5								
67	1.2D + 1.5Lm(3) + 1.0Wm(0)	Y...	Y	DL	1.2	4	0.65	20	0.65	0...	1.5								
68	1.2D + 1.5Lm(3) + 1.0Wm(30)	Y...	Y	DL	1.2	5	0.65	21	0.65	0...	1.5								
69	1.2D + 1.5Lm(3) + 1.0Wm(45)	Y...	Y	DL	1.2	6	0.65	22	0.65	0...	1.5								
70	1.2D + 1.5Lm(3) + 1.0Wm(60)	Y...	Y	DL	1.2	7	0.65	23	0.65	0...	1.5								
71	1.2D + 1.5Lm(3) + 1.0Wm(90)	Y...	Y	DL	1.2	8	0.65	24	0.65	0...	1.5								
72	1.2D + 1.5Lm(3) + 1.0Wm(120)	Y...	Y	DL	1.2	9	0.65	25	0.65	0...	1.5								
73	1.2D + 1.5Lm(3) + 1.0Wm(135)	Y...	Y	DL	1.2	10	0.65	26	0.65	0...	1.5								
74	1.2D + 1.5Lm(3) + 1.0Wm(150)	Y...	Y	DL	1.2	11	0.65	27	0.65	0...	1.5								
75	1.2D + 1.5Lm(3) + 1.0Wm(180)	Y...	Y	DL	1.2	4	-0.65	20	-0.65	0...	1.5								
76	1.2D + 1.5Lm(3) + 1.0Wm(210)	Y...	Y	DL	1.2	5	-0.65	21	-0.65	0...	1.5								
77	1.2D + 1.5Lm(3) + 1.0Wm(225)	Y...	Y	DL	1.2	6	-0.65	22	-0.65	0...	1.5								
78	1.2D + 1.5Lm(3) + 1.0Wm(240)	Y...	Y	DL	1.2	7	-0.65	23	-0.65	0...	1.5								
79	1.2D + 1.5Lm(3) + 1.0Wm(270)	Y...	Y	DL	1.2	8	-0.65	24	-0.65	0...	1.5								
80	1.2D + 1.5Lm(3) + 1.0Wm(300)	Y...	Y	DL	1.2	9	-0.65	25	-0.65	0...	1.5								
81	1.2D + 1.5Lm(3) + 1.0Wm(315)	Y...	Y	DL	1.2	10	-0.65	26	-0.65	0...	1.5								
82	1.2D + 1.5Lm(3) + 1.0Wm(330)	Y...	Y	DL	1.2	11	-0.65	27	-0.65	0...	1.5								
83	1.2D + 1.5Lm(4) + 1.0Wm(0)	Y...	Y	DL	1.2	4	0.65	20	0.65	0...	1.5								
84	1.2D + 1.5Lm(4) + 1.0Wm(30)	Y...	Y	DL	1.2	5	0.65	21	0.65	0...	1.5								
85	1.2D + 1.5Lm(4) + 1.0Wm(45)	Y...	Y	DL	1.2	6	0.65	22	0.65	0...	1.5								
86	1.2D + 1.5Lm(4) + 1.0Wm(60)	Y...	Y	DL	1.2	7	0.65	23	0.65	0...	1.5								
87	1.2D + 1.5Lm(4) + 1.0Wm(90)	Y...	Y	DL	1.2	8	0.65	24	0.65	0...	1.5								
88	1.2D + 1.5Lm(4) + 1.0Wm(120)	Y...	Y	DL	1.2	9	0.65	25	0.65	0...	1.5								
89	1.2D + 1.5Lm(4) + 1.0Wm(135)	Y...	Y	DL	1.2	10	0.65	26	0.65	0...	1.5								
90	1.2D + 1.5Lm(4) + 1.0Wm(150)	Y...	Y	DL	1.2	11	0.65	27	0.65	0...	1.5								
91	1.2D + 1.5Lm(4) + 1.0Wm(180)	Y...	Y	DL	1.2	4	-0.65	20	-0.65	0...	1.5								
92	1.2D + 1.5Lm(4) + 1.0Wm(210)	Y...	Y	DL	1.2	5	-0.65	21	-0.65	0...	1.5								
93	1.2D + 1.5Lm(4) + 1.0Wm(225)	Y...	Y	DL	1.2	6	-0.65	22	-0.65	0...	1.5								
94	1.2D + 1.5Lm(4) + 1.0Wm(240)	Y...	Y	DL	1.2	7	-0.65	23	-0.65	0...	1.5								
95	1.2D + 1.5Lm(4) + 1.0Wm(270)	Y...	Y	DL	1.2	8	-0.65	24	-0.65	0...	1.5								
96	1.2D + 1.5Lm(4) + 1.0Wm(300)	Y...	Y	DL	1.2	9	-0.65	25	-0.65	0...	1.5								
97	1.2D + 1.5Lm(4) + 1.0Wm(315)	Y...	Y	DL	1.2	10	-0.65	26	-0.65	0...	1.5								
98	1.2D + 1.5Lm(4) + 1.0Wm(330)	Y...	Y	DL	1.2	11	-0.65	27	-0.65	0...	1.5								

Joint Loads and Enforced Displacements (BLC 1 : Dead)

	Joint Label	L,D,M	Direction	Magnitude[(lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
1	A4B	L	Z	-44.65
2	A4T	L	Z	-44.65
3	B4B	L	Z	-44.65
4	B4T	L	Z	-44.65
5	G4B	L	Z	-44.65
6	G4T	L	Z	-44.65
7	A3B	L	Z	-23.95
8	A3T	L	Z	-23.95
9	B3B	L	Z	-23.95
10	B3T	L	Z	-23.95

Joint Loads and Enforced Displacements (BLC 1 : Dead) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
11	G3B	L	Z	-23.95
12	G3T	L	Z	-23.95
13	A1B	L	Z	-17.5
14	A1T	L	Z	-17.5
15	B1B	L	Z	-17.5
16	B1T	L	Z	-17.5
17	G1B	L	Z	-17.5
18	G1T	L	Z	-17.5
19	A2B	L	Z	-55.5
20	A2T	L	Z	-55.5
21	B2B	L	Z	-55.5
22	B2T	L	Z	-55.5
23	G2B	L	Z	-55.5
24	G2T	L	Z	-55.5
25	A1R	L	Z	-15
26	B1R	L	Z	-7.5
27	G1R	L	Z	-7.5
28	A2R	L	Z	-52.9
29	B2R	L	Z	-52.9
30	G2R	L	Z	-52.9
31	A2R	L	Z	-55.12
32	B2R	L	Z	-55.12
33	G2R	L	Z	-55.12
34	A3R	L	Z	-53
35	B3R	L	Z	-53
36	G3R	L	Z	-53
37	A4R	L	Z	-71
38	B4R	L	Z	-71
39	G4R	L	Z	-71
40	A3R	L	Z	-59.4
41	B3R	L	Z	-59.4
42	G3R	L	Z	-59.4
43	A2R	L	Z	-52.9
44	B2R	L	Z	-52.9
45	G2R	L	Z	-52.9
46	A4R	L	Z	-77
47	B4R	L	Z	-77
48	G4R	L	Z	-77
49	A1R	L	Z	-28.2
50	B1R	L	Z	-28.2
51	G1R	L	Z	-28.2
52	ARC	L	Z	-26.2
53	A1R	L	Z	-26.2
54	BRC	L	Z	-26.2
55	GRC	L	Z	-32.8

Joint Loads and Enforced Displacements (BLC 2 : Dead of Ice)

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
1	A4B	L	Z	-140.582
2	A4T	L	Z	-140.582
3	B4B	L	Z	-140.582
4	B4T	L	Z	-140.582
5	G4B	L	Z	-140.582
6	G4T	L	Z	-140.582
7	A3B	L	Z	-120.836
8	A3T	L	Z	-120.836

Joint Loads and Enforced Displacements (BLC 2 : Dead of Ice) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
9	B3B	L	Z	-120.836
10	B3T	L	Z	-120.836
11	G3B	L	Z	-120.836
12	G3T	L	Z	-120.836
13	A1B	L	Z	-64.745
14	A1T	L	Z	-64.745
15	B1B	L	Z	-64.745
16	B1T	L	Z	-64.745
17	G1B	L	Z	-64.745
18	G1T	L	Z	-64.745
19	A2B	L	Z	-110.396
20	A2T	L	Z	-110.396
21	B2B	L	Z	-110.396
22	B2T	L	Z	-110.396
23	G2B	L	Z	-110.396
24	G2T	L	Z	-110.396
25	A1R	L	Z	-31.255
26	B1R	L	Z	-15.627
27	G1R	L	Z	-15.627
28	A2R	L	Z	-83.601
29	B2R	L	Z	-83.601
30	G2R	L	Z	-83.601
31	A2R	L	Z	-88.318
32	B2R	L	Z	-88.318
33	G2R	L	Z	-88.318
34	A3R	L	Z	-83.812
35	B3R	L	Z	-83.812
36	G3R	L	Z	-83.812
37	A4R	L	Z	-73.444
38	B4R	L	Z	-73.444
39	G4R	L	Z	-73.444
40	A3R	L	Z	-70.127
41	B3R	L	Z	-70.127
42	G3R	L	Z	-70.127
43	A2R	L	Z	-91.272
44	B2R	L	Z	-91.272
45	G2R	L	Z	-91.272
46	A4R	L	Z	-109.164
47	B4R	L	Z	-109.164
48	G4R	L	Z	-109.164
49	A1R	L	Z	-60.974
50	B1R	L	Z	-60.974
51	G1R	L	Z	-60.974
52	ARC	L	Z	-79.047
53	A1R	L	Z	-79.026
54	BRC	L	Z	-79.026
55	GRC	L	Z	-84.541

Joint Loads and Enforced Displacements (BLC 20 : Antenna Wind (0))

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
1	A4B	L	X	-255.163
2	A4B	L	Y	0
3	A4T	L	X	-255.163
4	A4T	L	Y	0
5	B4B	L	X	-135.749
6	B4B	L	Y	0



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 842872 - ROCKY HILL

June 17, 2020
 11:33 AM
 Checked By: MLO

Joint Loads and Enforced Displacements (BLC 20 : Antenna Wind (0)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
7				
8	B4T	L	X	-135.749
9	B4T	L	Y	0
10	G4B	L	X	-135.749
11	G4B	L	Y	0
12	G4T	L	X	-135.749
13	G4T	L	Y	0
14	A3B	L	X	-195.959
15	A3B	L	Y	0
16	A3T	L	X	-195.959
17	A3T	L	Y	0
18	B3B	L	X	-123.38
19	B3B	L	Y	0
20	B3T	L	X	-123.38
21	B3T	L	Y	0
22	G3B	L	X	-123.38
23	G3B	L	Y	0
24	G3T	L	X	-123.38
25	G3T	L	Y	0
26	A1B	L	X	-72.944
27	A1B	L	Y	0
28	A1T	L	X	-72.944
29	A1T	L	Y	0
30	B1B	L	X	-43.096
31	B1B	L	Y	0
32	B1T	L	X	-43.096
33	B1T	L	Y	0
34	G1B	L	X	-43.096
35	G1B	L	Y	0
36	G1T	L	X	-43.096
37	G1T	L	Y	0
38	A2B	L	X	-85.119
39	A2B	L	Y	0
40	A2T	L	X	-85.119
41	A2T	L	Y	0
42	B2B	L	X	-75.743
43	B2B	L	Y	0
44	B2T	L	X	-75.743
45	B2T	L	Y	0
46	G2B	L	X	-75.743
47	G2B	L	Y	0
48	G2T	L	X	-75.743
49	G2T	L	Y	0
50	A1R	L	X	-4.309
51	A1R	L	Y	0
52	B1R	L	X	-8.049
53	B1R	L	Y	0
54	G1R	L	X	-8.049
55	G1R	L	Y	0
56	A2R	L	X	-58.336
57	A2R	L	Y	0
58	B2R	L	X	-68.025
59	B2R	L	Y	0
60	G2R	L	X	-68.025
61	G2R	L	Y	0
62	A2R	L	X	-61.159
63	A2R	L	Y	0
64	B2R	L	X	-72.367
65	B2R	L	Y	0

Joint Loads and Enforced Displacements (BLC 20 : Antenna Wind (0)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
64	B2R	L	Y	0
65	G2R	L	X	-72.367
66	G2R	L	Y	0
67	A3R	L	X	-58.578
68	A3R	L	Y	0
69	B3R	L	X	-68.086
70	B3R	L	Y	0
71	G3R	L	X	-68.086
72	G3R	L	Y	0
73	A4R	L	X	-42.022
74	A4R	L	Y	0
75	B4R	L	X	-55.618
76	B4R	L	Y	0
77	G4R	L	X	-55.618
78	G4R	L	Y	0
79	A3R	L	X	-43.168
80	A3R	L	Y	0
81	B3R	L	X	-50.707
82	B3R	L	Y	0
83	G3R	L	X	-50.707
84	G3R	L	Y	0
85	A2R	L	X	-67.171
86	A2R	L	Y	0
87	B2R	L	X	-57.973
88	B2R	L	Y	0
89	G2R	L	X	-57.973
90	G2R	L	Y	0
91	A4R	L	X	-70.779
92	A4R	L	Y	0
93	B4R	L	X	-95.348
94	B4R	L	Y	0
95	G4R	L	X	-95.348
96	G4R	L	Y	0
97	A1R	L	X	-14.827
98	A1R	L	Y	0
99	B1R	L	X	-39.076
100	B1R	L	Y	0
101	G1R	L	X	-39.076
102	G1R	L	Y	0
103	ARC	L	X	-48.909
104	ARC	L	Y	0
105	A1R	L	X	-48.891
106	A1R	L	Y	0
107	BRC	L	X	-48.891
108	BRC	L	Y	0
109	GRC	L	X	-51.758
110	GRC	L	Y	0

Joint Loads and Enforced Displacements (BLC 21 : Antenna Wind (30))

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
1	A4B	L	X	-186.506
2	A4B	L	Y	107.679
3	A4T	L	X	-186.506
4	A4T	L	Y	107.679
5	B4B	L	X	-83.091
6	B4B	L	Y	47.972



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 842872 - ROCKY HILL

June 17, 2020
 11:33 AM
 Checked By: MLO

Joint Loads and Enforced Displacements (BLC 21 : Antenna Wind (30)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
7				
8	B4T	L	X	-83.091
9	B4T	L	Y	47.972
10	G4B	L	X	-186.506
11	G4B	L	Y	107.679
12	G4T	L	X	-186.506
13	G4T	L	Y	107.679
14	A3B	L	X	-148.754
15	A3B	L	Y	85.883
16	A3T	L	X	-148.754
17	A3T	L	Y	85.883
18	B3B	L	X	-85.899
19	B3B	L	Y	49.594
20	B3T	L	X	-85.899
21	B3T	L	Y	49.594
22	G3B	L	X	-148.754
23	G3B	L	Y	85.883
24	G3T	L	X	-148.754
25	G3T	L	Y	85.883
26	A1B	L	X	-54.555
27	A1B	L	Y	31.497
28	A1T	L	X	-54.555
29	A1T	L	Y	31.497
30	B1B	L	X	-28.706
31	B1B	L	Y	16.574
32	B1T	L	X	-28.706
33	B1T	L	Y	16.574
34	G1B	L	X	-54.555
35	G1B	L	Y	31.497
36	G1T	L	X	-54.555
37	G1T	L	Y	31.497
38	A2B	L	X	-71.009
39	A2B	L	Y	40.997
40	A2T	L	X	-71.009
41	A2T	L	Y	40.997
42	B2B	L	X	-62.889
43	B2B	L	Y	36.309
44	B2T	L	X	-62.889
45	B2T	L	Y	36.309
46	G2B	L	X	-71.009
47	G2B	L	Y	40.997
48	G2T	L	X	-71.009
49	G2T	L	Y	40.997
50	A1R	L	X	-7.134
51	A1R	L	Y	4.119
52	B1R	L	X	-8.672
53	B1R	L	Y	5.007
54	G1R	L	X	-3.567
55	G1R	L	Y	2.06
56	A2R	L	X	-53.318
57	A2R	L	Y	30.783
58	B2R	L	X	-61.709
59	B2R	L	Y	35.628
60	G2R	L	X	-53.318
61	G2R	L	Y	30.783
62	A2R	L	X	-56.201
63	A2R	L	Y	32.448
64	B2R	L	X	-65.908
65	B2R	L	Y	32.448

Joint Loads and Enforced Displacements (BLC 21 : Antenna Wind (30)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
64	B2R	L	Y	38.052
65	G2R	L	X	-56.201
66	G2R	L	Y	32.448
67	A3R	L	X	-53.475
68	A3R	L	Y	30.874
69	B3R	L	X	-61.709
70	B3R	L	Y	35.628
71	G3R	L	X	-53.475
72	G3R	L	Y	30.874
73	A4R	L	X	-40.317
74	A4R	L	Y	23.277
75	B4R	L	X	-52.092
76	B4R	L	Y	30.075
77	G4R	L	X	-40.317
78	G4R	L	Y	23.277
79	A3R	L	X	-39.561
80	A3R	L	Y	22.841
81	B3R	L	X	-46.089
82	B3R	L	Y	26.61
83	G3R	L	X	-39.561
84	G3R	L	Y	22.841
85	A2R	L	X	-55.517
86	A2R	L	Y	32.053
87	B2R	L	X	-47.551
88	B2R	L	Y	27.454
89	G2R	L	X	-55.517
90	G2R	L	Y	32.053
91	A4R	L	X	-68.389
92	A4R	L	Y	39.484
93	B4R	L	X	-89.666
94	B4R	L	Y	51.769
95	G4R	L	X	-68.389
96	G4R	L	Y	39.484
97	A1R	L	X	-19.841
98	A1R	L	Y	11.455
99	B1R	L	X	-40.841
100	B1R	L	Y	23.579
101	G1R	L	X	-19.841
102	G1R	L	Y	11.455
103	ARC	L	X	-42.356
104	ARC	L	Y	24.454
105	A1R	L	X	-42.341
106	A1R	L	Y	24.445
107	BRC	L	X	-42.341
108	BRC	L	Y	24.445
109	GRC	L	X	-44.823
110	GRC	L	Y	25.879

Joint Loads and Enforced Displacements (BLC 22 : Antenna Wind (45))

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
1	A4B	L	X	-124.135
2	A4B	L	Y	124.135
3	A4T	L	X	-124.135
4	A4T	L	Y	124.135
5	B4B	L	X	-75.385
6	B4B	L	Y	75.385



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 842872 - ROCKY HILL

June 17, 2020
 11:33 AM
 Checked By: MLO

Joint Loads and Enforced Displacements (BLC 22 : Antenna Wind (45)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
7	B4T	L	X	-75.385
8	B4T	L	Y	75.385
9	G4B	L	X	-172.886
10	G4B	L	Y	172.886
11	G4T	L	X	-172.886
12	G4T	L	Y	172.886
13	A3B	L	X	-104.35
14	A3B	L	Y	104.35
15	A3T	L	X	-104.35
16	A3T	L	Y	104.35
17	B3B	L	X	-74.72
18	B3B	L	Y	74.72
19	B3T	L	X	-74.72
20	B3T	L	Y	74.72
21	G3B	L	X	-133.98
22	G3B	L	Y	133.98
23	G3T	L	X	-133.98
24	G3T	L	Y	133.98
25	A1B	L	X	-37.509
26	A1B	L	Y	37.509
27	A1T	L	X	-37.509
28	A1T	L	Y	37.509
29	B1B	L	X	-25.324
30	B1B	L	Y	25.324
31	B1T	L	X	-25.324
32	B1T	L	Y	25.324
33	G1B	L	X	-49.694
34	G1B	L	Y	49.694
35	G1T	L	X	-49.694
36	G1T	L	Y	49.694
37	A2B	L	X	-55.768
38	A2B	L	Y	55.768
39	A2T	L	X	-55.768
40	A2T	L	Y	55.768
41	B2B	L	X	-51.941
42	B2B	L	Y	51.941
43	B2T	L	X	-51.941
44	B2T	L	Y	51.941
45	G2B	L	X	-59.596
46	G2B	L	Y	59.596
47	G2T	L	X	-59.596
48	G2T	L	Y	59.596
49	A1R	L	X	-8.604
50	A1R	L	Y	8.604
51	B1R	L	X	-6.708
52	B1R	L	Y	6.708
53	G1R	L	X	-1.896
54	G1R	L	Y	1.896
55	A2R	L	X	-45.817
56	A2R	L	Y	45.817
57	B2R	L	X	-49.773
58	B2R	L	Y	49.773
59	G2R	L	X	-41.862
60	G2R	L	Y	41.862
61	A2R	L	X	-48.53
62	A2R	L	Y	48.53
63	B2R	L	X	-53.106

Joint Loads and Enforced Displacements (BLC 22 : Antenna Wind (45)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
64	B2R	L	Y	53.105
65	G2R	L	X	-43.954
66	G2R	L	Y	43.954
67	A3R	L	X	-45.903
68	A3R	L	Y	45.903
69	B3R	L	X	-49.784
70	B3R	L	Y	49.784
71	G3R	L	X	-42.022
72	G3R	L	Y	42.022
73	A4R	L	X	-36.123
74	A4R	L	Y	36.123
75	B4R	L	X	-41.674
76	B4R	L	Y	41.674
77	G4R	L	X	-30.573
78	G4R	L	Y	30.573
79	A3R	L	X	-34.078
80	A3R	L	Y	34.078
81	B3R	L	X	-37.156
82	B3R	L	Y	37.156
83	G3R	L	X	-31.001
84	G3R	L	Y	31.001
85	A2R	L	X	-43.161
86	A2R	L	Y	43.161
87	B2R	L	X	-39.406
88	B2R	L	Y	39.406
89	G2R	L	X	-46.916
90	G2R	L	Y	46.916
91	A4R	L	X	-61.63
92	A4R	L	Y	61.63
93	B4R	L	X	-71.66
94	B4R	L	Y	71.66
95	G4R	L	X	-51.6
96	G4R	L	Y	51.6
97	A1R	L	X	-21.915
98	A1R	L	Y	21.915
99	B1R	L	X	-31.815
100	B1R	L	Y	31.815
101	G1R	L	X	-12.016
102	G1R	L	Y	12.016
103	ARC	L	X	-34.584
104	ARC	L	Y	34.584
105	A1R	L	X	-34.571
106	A1R	L	Y	34.571
107	BRC	L	X	-34.571
108	BRC	L	Y	34.571
109	GRC	L	X	-36.598
110	GRC	L	Y	36.598

Joint Loads and Enforced Displacements (BLC 23 : Antenna Wind (60))

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
1	A4B	L	X	-67.875
2	A4B	L	Y	117.562
3	A4T	L	X	-67.875
4	A4T	L	Y	117.562
5	B4B	L	X	-67.875
6	B4B	L	Y	117.562



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 842872 - ROCKY HILL

June 17, 2020
 11:33 AM
 Checked By: MLO

Joint Loads and Enforced Displacements (BLC 23 : Antenna Wind (60)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
7				
8	B4T	L	X	-67.875
9	B4T	L	Y	117.562
10	G4B	L	X	-127.581
11	G4B	L	Y	220.977
12	G4T	L	X	-127.581
13	G4T	L	Y	220.977
14	A3B	L	X	-61.69
15	A3B	L	Y	106.85
16	A3T	L	X	-61.69
17	A3T	L	Y	106.85
18	B3B	L	X	-61.69
19	B3B	L	Y	106.85
20	B3T	L	X	-61.69
21	B3T	L	Y	106.85
22	G3B	L	X	-97.979
23	G3B	L	Y	169.705
24	G3T	L	X	-97.979
25	G3T	L	Y	169.705
26	A1B	L	X	-21.548
27	A1B	L	Y	37.322
28	A1T	L	X	-21.548
29	A1T	L	Y	37.322
30	B1B	L	X	-21.548
31	B1B	L	Y	37.322
32	B1T	L	X	-21.548
33	B1T	L	Y	37.322
34	G1B	L	X	-36.472
35	G1B	L	Y	63.171
36	G1T	L	X	-36.472
37	G1T	L	Y	63.171
38	A2B	L	X	-37.872
39	A2B	L	Y	65.595
40	A2T	L	X	-37.872
41	A2T	L	Y	65.595
42	B2B	L	X	-37.872
43	B2B	L	Y	65.595
44	B2T	L	X	-37.872
45	B2T	L	Y	65.595
46	G2B	L	X	-42.56
47	G2B	L	Y	73.716
48	G2T	L	X	-42.56
49	G2T	L	Y	73.716
50	A1R	L	X	-8.049
51	A1R	L	Y	13.941
52	B1R	L	X	-4.024
53	B1R	L	Y	6.97
54	G1R	L	X	-1.077
55	G1R	L	Y	1.866
56	A2R	L	X	-34.013
57	A2R	L	Y	58.912
58	B2R	L	X	-34.013
59	B2R	L	Y	58.912
60	G2R	L	X	-29.168
61	G2R	L	Y	50.521
62	A2R	L	X	-36.184
63	A2R	L	Y	62.672
	B2R	L	X	-36.184
	B2R	L	Y	62.672

Joint Loads and Enforced Displacements (BLC 23 : Antenna Wind (60)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
64	B2R	L	Y	62.672
65	G2R	L	X	-30.58
66	G2R	L	Y	52.965
67	A3R	L	X	-34.043
68	A3R	L	Y	58.964
69	B3R	L	X	-34.043
70	B3R	L	Y	58.964
71	G3R	L	X	-29.289
72	G3R	L	Y	50.73
73	A4R	L	X	-27.809
74	A4R	L	Y	48.167
75	B4R	L	X	-27.809
76	B4R	L	Y	48.167
77	G4R	L	X	-21.011
78	G4R	L	Y	36.392
79	A3R	L	X	-25.353
80	A3R	L	Y	43.913
81	B3R	L	X	-25.353
82	B3R	L	Y	43.913
83	G3R	L	X	-21.584
84	G3R	L	Y	37.385
85	A2R	L	X	-28.987
86	A2R	L	Y	50.206
87	B2R	L	X	-28.987
88	B2R	L	Y	50.206
89	G2R	L	X	-33.586
90	G2R	L	Y	58.172
91	A4R	L	X	-47.674
92	A4R	L	Y	82.574
93	B4R	L	X	-47.674
94	B4R	L	Y	82.574
95	G4R	L	X	-35.39
96	G4R	L	Y	61.297
97	A1R	L	X	-19.538
98	A1R	L	Y	33.841
99	B1R	L	X	-19.538
100	B1R	L	Y	33.841
101	G1R	L	X	-7.414
102	G1R	L	Y	12.841
103	ARC	L	X	-24.454
104	ARC	L	Y	42.356
105	A1R	L	X	-24.445
106	A1R	L	Y	42.341
107	BRC	L	X	-24.445
108	BRC	L	Y	42.341
109	GRC	L	X	-25.879
110	GRC	L	Y	44.823

Joint Loads and Enforced Displacements (BLC 24 : Antenna Wind (90))

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
1	A4B	L	X	-2.176e-5
2	A4B	L	Y	95.945
3	A4T	L	X	-2.176e-5
4	A4T	L	Y	95.945
5	B4B	L	X	-4.884e-5
6	B4B	L	Y	215.358

Joint Loads and Enforced Displacements (BLC 24 : Antenna Wind (90)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
7				
8	B4T	L	X	-4.884e-5
9	B4T	L	Y	215.358
10	G4B	L	X	-4.884e-5
11	G4B	L	Y	215.358
12	G4T	L	X	-4.884e-5
13	G4T	L	Y	215.358
14	A3B	L	X	-2.25e-5
15	A3B	L	Y	99.187
16	A3T	L	X	-2.25e-5
17	A3T	L	Y	99.187
18	B3B	L	X	-3.896e-5
19	B3B	L	Y	171.766
20	B3T	L	X	-3.896e-5
21	B3T	L	Y	171.766
22	G3B	L	X	-3.896e-5
23	G3B	L	Y	171.766
24	G3T	L	X	-3.896e-5
25	G3T	L	Y	171.766
26	A1B	L	X	-7.518e-6
27	A1B	L	Y	33.147
28	A1T	L	X	-7.518e-6
29	A1T	L	Y	33.147
30	B1B	L	X	-1.429e-5
31	B1B	L	Y	62.995
32	B1T	L	X	-1.429e-5
33	B1T	L	Y	62.995
34	G1B	L	X	-1.429e-5
35	G1B	L	Y	62.995
36	G1T	L	X	-1.429e-5
37	G1T	L	Y	62.995
38	A2B	L	X	-1.647e-5
39	A2B	L	Y	72.618
40	A2T	L	X	-1.647e-5
41	A2T	L	Y	72.618
42	B2B	L	X	-1.86e-5
43	B2B	L	Y	81.994
44	B2T	L	X	-1.86e-5
45	B2T	L	Y	81.994
46	G2B	L	X	-1.86e-5
47	G2B	L	Y	81.994
48	G2T	L	X	-1.86e-5
49	G2T	L	Y	81.994
50	A1R	L	X	-4.542e-6
51	A1R	L	Y	20.027
52	B1R	L	X	-9.342e-7
53	B1R	L	Y	4.119
54	G1R	L	X	-9.342e-7
55	G1R	L	Y	4.119
56	A2R	L	X	-1.616e-5
57	A2R	L	Y	71.255
58	B2R	L	X	-1.396e-5
59	B2R	L	Y	61.566
60	G2R	L	X	-1.396e-5
61	G2R	L	Y	61.566
62	A2R	L	X	-1.726e-5
63	A2R	L	Y	76.104
64	B2R	L	X	-1.472e-5
65	B2R	L	Y	-1.472e-5

Joint Loads and Enforced Displacements (BLC 24 : Antenna Wind (90)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
64	B2R	L	Y	64.895
65	G2R	L	X	-1.472e-5
66	G2R	L	Y	64.895
67	A3R	L	X	-1.616e-5
68	A3R	L	Y	71.255
69	B3R	L	X	-1.4e-5
70	B3R	L	Y	61.747
71	G3R	L	X	-1.4e-5
72	G3R	L	Y	61.747
73	A4R	L	X	-1.364e-5
74	A4R	L	Y	60.15
75	B4R	L	X	-1.056e-5
76	B4R	L	Y	46.554
77	G4R	L	X	-1.056e-5
78	G4R	L	Y	46.554
79	A3R	L	X	-1.207e-5
80	A3R	L	Y	53.22
81	B3R	L	X	-1.036e-5
82	B3R	L	Y	45.681
83	G3R	L	X	-1.036e-5
84	G3R	L	Y	45.681
85	A2R	L	X	-1.245e-5
86	A2R	L	Y	54.907
87	B2R	L	X	-1.454e-5
88	B2R	L	Y	64.105
89	G2R	L	X	-1.454e-5
90	G2R	L	Y	64.105
91	A4R	L	X	-2.348e-5
92	A4R	L	Y	103.537
93	B4R	L	X	-1.791e-5
94	B4R	L	Y	78.969
95	G4R	L	X	-1.791e-5
96	G4R	L	Y	78.969
97	A1R	L	X	-1.07e-5
98	A1R	L	Y	47.159
99	B1R	L	X	-5.196e-6
100	B1R	L	Y	22.91
101	G1R	L	X	-5.196e-6
102	G1R	L	Y	22.91
103	ARC	L	X	-1.109e-5
104	ARC	L	Y	48.909
105	A1R	L	X	-1.109e-5
106	A1R	L	Y	48.891
107	BRC	L	X	-1.109e-5
108	BRC	L	Y	48.891
109	GRC	L	X	-1.174e-5
110	GRC	L	Y	51.758

Joint Loads and Enforced Displacements (BLC 25 : Antenna Wind (120))

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
1	A4B	L	X	67.875
2	A4B	L	Y	117.562
3	A4T	L	X	67.875
4	A4T	L	Y	117.562
5	B4B	L	X	127.581
6	B4B	L	Y	220.977



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 842872 - ROCKY HILL

June 17, 2020
 11:33 AM
 Checked By: MLO

Joint Loads and Enforced Displacements (BLC 25 : Antenna Wind (120)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
7	B4T	L	X	127.581
8	B4T	L	Y	220.977
9	G4B	L	X	67.875
10	G4B	L	Y	117.562
11	G4T	L	X	67.875
12	G4T	L	Y	117.562
13	A3B	L	X	61.69
14	A3B	L	Y	106.85
15	A3T	L	X	61.69
16	A3T	L	Y	106.85
17	B3B	L	X	97.979
18	B3B	L	Y	169.705
19	B3T	L	X	97.979
20	B3T	L	Y	169.705
21	G3B	L	X	61.69
22	G3B	L	Y	106.85
23	G3T	L	X	61.69
24	G3T	L	Y	106.85
25	A1B	L	X	21.548
26	A1B	L	Y	37.322
27	A1T	L	X	21.548
28	A1T	L	Y	37.322
29	B1B	L	X	36.472
30	B1B	L	Y	63.171
31	B1T	L	X	36.472
32	B1T	L	Y	63.171
33	G1B	L	X	21.548
34	G1B	L	Y	37.322
35	G1T	L	X	21.548
36	G1T	L	Y	37.322
37	A2B	L	X	37.872
38	A2B	L	Y	65.595
39	A2T	L	X	37.872
40	A2T	L	Y	65.595
41	B2B	L	X	42.56
42	B2B	L	Y	73.716
43	B2T	L	X	42.56
44	B2T	L	Y	73.716
45	G2B	L	X	37.872
46	G2B	L	Y	65.595
47	G2T	L	X	37.872
48	G2T	L	Y	65.595
49	A1R	L	X	8.049
50	A1R	L	Y	13.941
51	B1R	L	X	1.077
52	B1R	L	Y	1.866
53	G1R	L	X	4.024
54	G1R	L	Y	6.97
55	A2R	L	X	34.013
56	A2R	L	Y	58.912
57	B2R	L	X	29.168
58	B2R	L	Y	50.521
59	G2R	L	X	34.013
60	G2R	L	Y	58.912
61	A2R	L	X	36.184
62	A2R	L	Y	62.672
63	B2R	L	X	30.58

Joint Loads and Enforced Displacements (BLC 25 : Antenna Wind (120)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb.-lb-ft), (in.-rad), (lb*s^2/in., lb*s^2*in)]
64	B2R	L	Y	52.965
65	G2R	L	X	36.184
66	G2R	L	Y	62.672
67	A3R	L	X	34.043
68	A3R	L	Y	58.964
69	B3R	L	X	29.289
70	B3R	L	Y	50.73
71	G3R	L	X	34.043
72	G3R	L	Y	58.964
73	A4R	L	X	27.809
74	A4R	L	Y	48.167
75	B4R	L	X	21.011
76	B4R	L	Y	36.392
77	G4R	L	X	27.809
78	G4R	L	Y	48.167
79	A3R	L	X	25.353
80	A3R	L	Y	43.913
81	B3R	L	X	21.584
82	B3R	L	Y	37.385
83	G3R	L	X	25.353
84	G3R	L	Y	43.913
85	A2R	L	X	28.987
86	A2R	L	Y	50.206
87	B2R	L	X	33.586
88	B2R	L	Y	58.172
89	G2R	L	X	28.987
90	G2R	L	Y	50.206
91	A4R	L	X	47.674
92	A4R	L	Y	82.574
93	B4R	L	X	35.39
94	B4R	L	Y	61.297
95	G4R	L	X	47.674
96	G4R	L	Y	82.574
97	A1R	L	X	19.538
98	A1R	L	Y	33.841
99	B1R	L	X	7.414
100	B1R	L	Y	12.841
101	G1R	L	X	19.538
102	G1R	L	Y	33.841
103	ARC	L	X	24.454
104	ARC	L	Y	42.356
105	A1R	L	X	24.445
106	A1R	L	Y	42.341
107	BRC	L	X	24.445
108	BRC	L	Y	42.341
109	GRC	L	X	25.879
110	GRC	L	Y	44.823

Joint Loads and Enforced Displacements (BLC 26 : Antenna Wind (135))

	Joint Label	L,D,M	Direction	Magnitude[(lb.-lb-ft), (in.-rad), (lb*s^2/in., lb*s^2*in)]
1	A4B	L	X	124.135
2	A4B	L	Y	124.135
3	A4T	L	X	124.135
4	A4T	L	Y	124.135
5	B4B	L	X	172.886
6	B4B	L	Y	172.886



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 842872 - ROCKY HILL

June 17, 2020
 11:33 AM
 Checked By: MLO

Joint Loads and Enforced Displacements (BLC 26 : Antenna Wind (135)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
7				
8	B4T	L	X	172.886
9	B4T	L	Y	172.886
10	G4B	L	X	75.385
11	G4B	L	Y	75.385
12	G4T	L	X	75.385
13	G4T	L	Y	75.385
14	A3B	L	X	104.35
15	A3B	L	Y	104.35
16	A3T	L	X	104.35
17	A3T	L	Y	104.35
18	B3B	L	X	133.98
19	B3B	L	Y	133.98
20	B3T	L	X	133.98
21	B3T	L	Y	133.98
22	G3B	L	X	74.72
23	G3B	L	Y	74.72
24	G3T	L	X	74.72
25	G3T	L	Y	74.72
26	A1B	L	X	37.509
27	A1B	L	Y	37.509
28	A1T	L	X	37.509
29	A1T	L	Y	37.509
30	B1B	L	X	49.694
31	B1B	L	Y	49.694
32	B1T	L	X	49.694
33	B1T	L	Y	49.694
34	G1B	L	X	25.324
35	G1B	L	Y	25.324
36	G1T	L	X	25.324
37	G1T	L	Y	25.324
38	A2B	L	X	55.768
39	A2B	L	Y	55.768
40	A2T	L	X	55.768
41	A2T	L	Y	55.768
42	B2B	L	X	59.596
43	B2B	L	Y	59.596
44	B2T	L	X	59.596
45	B2T	L	Y	59.596
46	G2B	L	X	51.941
47	G2B	L	Y	51.941
48	G2T	L	X	51.941
49	G2T	L	Y	51.941
50	A1R	L	X	8.604
51	A1R	L	Y	8.604
52	B1R	L	X	1.896
53	B1R	L	Y	1.896
54	G1R	L	X	6.708
55	G1R	L	Y	6.708
56	A2R	L	X	45.817
57	A2R	L	Y	45.817
58	B2R	L	X	41.862
59	B2R	L	Y	41.862
60	G2R	L	X	49.773
61	G2R	L	Y	49.773
62	A2R	L	X	48.53
63	A2R	L	Y	48.53
64	B2R	L	X	43.954
65	B2R	L	Y	43.954

Joint Loads and Enforced Displacements (BLC 26 : Antenna Wind (135)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
64	B2R	L	Y	43.954
65	G2R	L	X	53.105
66	G2R	L	Y	53.106
67	A3R	L	X	45.903
68	A3R	L	Y	45.903
69	B3R	L	X	42.022
70	B3R	L	Y	42.022
71	G3R	L	X	49.784
72	G3R	L	Y	49.784
73	A4R	L	X	36.123
74	A4R	L	Y	36.123
75	B4R	L	X	30.573
76	B4R	L	Y	30.573
77	G4R	L	X	41.674
78	G4R	L	Y	41.674
79	A3R	L	X	34.078
80	A3R	L	Y	34.078
81	B3R	L	X	31.001
82	B3R	L	Y	31.001
83	G3R	L	X	37.156
84	G3R	L	Y	37.156
85	A2R	L	X	43.161
86	A2R	L	Y	43.161
87	B2R	L	X	46.916
88	B2R	L	Y	46.916
89	G2R	L	X	39.406
90	G2R	L	Y	39.406
91	A4R	L	X	61.63
92	A4R	L	Y	61.63
93	B4R	L	X	51.6
94	B4R	L	Y	51.6
95	G4R	L	X	71.66
96	G4R	L	Y	71.66
97	A1R	L	X	21.915
98	A1R	L	Y	21.915
99	B1R	L	X	12.016
100	B1R	L	Y	12.016
101	G1R	L	X	31.815
102	G1R	L	Y	31.815
103	ARC	L	X	34.584
104	ARC	L	Y	34.584
105	A1R	L	X	34.571
106	A1R	L	Y	34.571
107	BRC	L	X	34.571
108	BRC	L	Y	34.571
109	GRC	L	X	36.598
110	GRC	L	Y	36.598

Joint Loads and Enforced Displacements (BLC 27 : Antenna Wind (150))

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
1	A4B	L	X	186.506
2	A4B	L	Y	107.679
3	A4T	L	X	186.506
4	A4T	L	Y	107.679
5	B4B	L	X	186.506
6	B4B	L	Y	107.679



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 842872 - ROCKY HILL

June 17, 2020
 11:33 AM
 Checked By: MLO

Joint Loads and Enforced Displacements (BLC 27 : Antenna Wind (150)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
7				
8	B4T	L	X	186.506
9	B4T	L	Y	107.679
10	G4B	L	X	83.091
11	G4B	L	Y	47.972
12	G4T	L	X	83.091
13	G4T	L	Y	47.972
14	A3B	L	X	148.754
15	A3B	L	Y	85.883
16	A3T	L	X	148.754
17	A3T	L	Y	85.883
18	B3B	L	X	148.754
19	B3B	L	Y	85.883
20	B3T	L	X	148.754
21	B3T	L	Y	85.883
22	G3B	L	X	85.899
23	G3B	L	Y	49.594
24	G3T	L	X	85.899
25	G3T	L	Y	49.594
26	A1B	L	X	54.555
27	A1B	L	Y	31.497
28	A1T	L	X	54.555
29	A1T	L	Y	31.497
30	B1B	L	X	54.555
31	B1B	L	Y	31.497
32	B1T	L	X	54.555
33	B1T	L	Y	31.497
34	G1B	L	X	28.706
35	G1B	L	Y	16.574
36	G1T	L	X	28.706
37	G1T	L	Y	16.574
38	A2B	L	X	71.009
39	A2B	L	Y	40.997
40	A2T	L	X	71.009
41	A2T	L	Y	40.997
42	B2B	L	X	71.009
43	B2B	L	Y	40.997
44	B2T	L	X	71.009
45	B2T	L	Y	40.997
46	G2B	L	X	62.889
47	G2B	L	Y	36.309
48	G2T	L	X	62.889
49	G2T	L	Y	36.309
50	A1R	L	X	7.134
51	A1R	L	Y	4.119
52	B1R	L	X	3.567
53	B1R	L	Y	2.06
54	G1R	L	X	8.672
55	G1R	L	Y	5.007
56	A2R	L	X	53.318
57	A2R	L	Y	30.783
58	B2R	L	X	53.318
59	B2R	L	Y	30.783
60	G2R	L	X	61.709
61	G2R	L	Y	35.628
62	A2R	L	X	56.201
63	A2R	L	Y	32.448
64	B2R	L	X	56.201
65	B2R	L	Y	32.448

Joint Loads and Enforced Displacements (BLC 27 : Antenna Wind (150)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
64	B2R	L	Y	32.448
65	G2R	L	X	65.908
66	G2R	L	Y	38.052
67	A3R	L	X	53.475
68	A3R	L	Y	30.874
69	B3R	L	X	53.475
70	B3R	L	Y	30.874
71	G3R	L	X	61.709
72	G3R	L	Y	35.628
73	A4R	L	X	40.317
74	A4R	L	Y	23.277
75	B4R	L	X	40.317
76	B4R	L	Y	23.277
77	G4R	L	X	52.092
78	G4R	L	Y	30.075
79	A3R	L	X	39.561
80	A3R	L	Y	22.841
81	B3R	L	X	39.561
82	B3R	L	Y	22.841
83	G3R	L	X	46.089
84	G3R	L	Y	26.61
85	A2R	L	X	55.517
86	A2R	L	Y	32.053
87	B2R	L	X	55.517
88	B2R	L	Y	32.053
89	G2R	L	X	47.551
90	G2R	L	Y	27.454
91	A4R	L	X	68.389
92	A4R	L	Y	39.484
93	B4R	L	X	68.389
94	B4R	L	Y	39.484
95	G4R	L	X	89.666
96	G4R	L	Y	51.769
97	A1R	L	X	19.841
98	A1R	L	Y	11.455
99	B1R	L	X	19.841
100	B1R	L	Y	11.455
101	G1R	L	X	40.841
102	G1R	L	Y	23.579
103	ARC	L	X	42.356
104	ARC	L	Y	24.454
105	A1R	L	X	42.341
106	A1R	L	Y	24.445
107	BRC	L	X	42.341
108	BRC	L	Y	24.445
109	GRC	L	X	44.823
110	GRC	L	Y	25.879

Joint Loads and Enforced Displacements (BLC 28 : Antenna Wind w/ Ice (0))

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
1	A4B	L	X	-55.569
2	A4B	L	Y	0
3	A4T	L	X	-55.569
4	A4T	L	Y	0
5	B4B	L	X	-32.46
6	B4B	L	Y	0



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 842872 - ROCKY HILL

June 17, 2020
 11:33 AM
 Checked By: MLO

Joint Loads and Enforced Displacements (BLC 28 : Antenna Wind w/ Ice (0)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
7				
8	B4T	L	X	-32.46
9	B4T	L	Y	0
10	G4B	L	X	-32.46
11	G4B	L	Y	0
12	G4T	L	X	-32.46
13	G4T	L	Y	0
14	A3B	L	X	-44.554
15	A3B	L	Y	0
16	A3T	L	X	-44.554
17	A3T	L	Y	0
18	B3B	L	X	-29.604
19	B3B	L	Y	0
20	B3T	L	X	-29.604
21	B3T	L	Y	0
22	G3B	L	X	-29.604
23	G3B	L	Y	0
24	G3T	L	X	-29.604
25	G3T	L	Y	0
26	A1B	L	X	-17.804
27	A1B	L	Y	0
28	A1T	L	X	-17.804
29	A1T	L	Y	0
30	B1B	L	X	-11.818
31	B1B	L	Y	0
32	B1T	L	X	-11.818
33	B1T	L	Y	0
34	G1B	L	X	-11.818
35	G1B	L	Y	0
36	G1T	L	X	-11.818
37	G1T	L	Y	0
38	A2B	L	X	-19.975
39	A2B	L	Y	0
40	A2T	L	X	-19.975
41	A2T	L	Y	0
42	B2B	L	X	-18.31
43	B2B	L	Y	0
44	B2T	L	X	-18.31
45	B2T	L	Y	0
46	G2B	L	X	-18.31
47	G2B	L	Y	0
48	G2T	L	X	-18.31
49	G2T	L	Y	0
50	A1R	L	X	-3.338
51	A1R	L	Y	0
52	B1R	L	X	-3.374
53	B1R	L	Y	0
54	G1R	L	X	-3.374
55	G1R	L	Y	0
56	A2R	L	X	-15.3
57	A2R	L	Y	0
58	B2R	L	X	-19.577
59	B2R	L	Y	0
60	G2R	L	X	-19.577
61	G2R	L	Y	0
62	A2R	L	X	-15.897
63	A2R	L	Y	0
64	B2R	L	X	-20.508
65	B2R	L	Y	0

Joint Loads and Enforced Displacements (BLC 28 : Antenna Wind w/ Ice (0)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
64	B2R	L	Y	0
65	G2R	L	X	-20.508
66	G2R	L	Y	0
67	A3R	L	X	-15.349
68	A3R	L	Y	0
69	B3R	L	X	-19.589
70	B3R	L	Y	0
71	G3R	L	X	-19.589
72	G3R	L	Y	0
73	A4R	L	X	-11.451
74	A4R	L	Y	0
75	B4R	L	X	-16.186
76	B4R	L	Y	0
77	G4R	L	X	-16.186
78	G4R	L	Y	0
79	A3R	L	X	-11.703
80	A3R	L	Y	0
81	B3R	L	X	-15.15
82	B3R	L	Y	0
83	G3R	L	X	-15.15
84	G3R	L	Y	0
85	A2R	L	X	-16.847
86	A2R	L	Y	0
87	B2R	L	X	-16.864
88	B2R	L	Y	0
89	G2R	L	X	-16.864
90	G2R	L	Y	0
91	A4R	L	X	-17.98
92	A4R	L	Y	0
93	B4R	L	X	-25.426
94	B4R	L	Y	0
95	G4R	L	X	-25.426
96	G4R	L	Y	0
97	A1R	L	X	-7.136
98	A1R	L	Y	0
99	B1R	L	X	-12.725
100	B1R	L	Y	0
101	G1R	L	X	-12.725
102	G1R	L	Y	0
103	ARC	L	X	-13.734
104	ARC	L	Y	0
105	A1R	L	X	-13.73
106	A1R	L	Y	0
107	BRC	L	X	-13.73
108	BRC	L	Y	0
109	GRC	L	X	-14.033
110	GRC	L	Y	0

Joint Loads and Enforced Displacements (BLC 29 : Antenna Wind w/ Ice (30))

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
1	A4B	L	X	-41.453
2	A4B	L	Y	23.933
3	A4T	L	X	-41.453
4	A4T	L	Y	23.933
5	B4B	L	X	-21.44
6	B4B	L	Y	12.378

Joint Loads and Enforced Displacements (BLC 29 : Antenna Wind w/ Ice (30)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
7	B4T	L	X	-21.44
8	B4T	L	Y	12.378
9	G4B	L	X	-41.453
10	G4B	L	Y	23.933
11	G4T	L	X	-41.453
12	G4T	L	Y	23.933
13	A3B	L	X	-34.269
14	A3B	L	Y	19.785
15	A3T	L	X	-34.269
16	A3T	L	Y	19.785
17	B3B	L	X	-21.322
18	B3B	L	Y	12.31
19	B3T	L	X	-21.322
20	B3T	L	Y	12.31
21	G3B	L	X	-34.269
22	G3B	L	Y	19.785
23	G3T	L	X	-34.269
24	G3T	L	Y	19.785
25	A1B	L	X	-13.69
26	A1B	L	Y	7.904
27	A1T	L	X	-13.69
28	A1T	L	Y	7.904
29	B1B	L	X	-8.506
30	B1B	L	Y	4.911
31	B1T	L	X	-8.506
32	B1T	L	Y	4.911
33	G1B	L	X	-13.69
34	G1B	L	Y	7.904
35	G1T	L	X	-13.69
36	G1T	L	Y	7.904
37	A2B	L	X	-16.818
38	A2B	L	Y	9.71
39	A2T	L	X	-16.818
40	A2T	L	Y	9.71
41	B2B	L	X	-15.376
42	B2B	L	Y	8.877
43	B2T	L	X	-15.376
44	B2T	L	Y	8.877
45	G2B	L	X	-16.818
46	G2B	L	Y	9.71
47	G2T	L	X	-16.818
48	G2T	L	Y	9.71
49	A1R	L	X	-3.875
50	A1R	L	Y	2.237
51	B1R	L	X	-3.414
52	B1R	L	Y	1.971
53	G1R	L	X	-1.938
54	G1R	L	Y	1.119
55	A2R	L	X	-14.485
56	A2R	L	Y	8.363
57	B2R	L	X	-18.189
58	B2R	L	Y	10.501
59	G2R	L	X	-14.485
60	G2R	L	Y	8.363
61	A2R	L	X	-15.099
62	A2R	L	Y	8.717
63	B2R	L	X	-19.092

Joint Loads and Enforced Displacements (BLC 29 : Antenna Wind w/ Ice (30)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
64	B2R	L	Y	11.023
65	G2R	L	X	-15.099
66	G2R	L	Y	8.717
67	A3R	L	X	-14.517
68	A3R	L	Y	8.381
69	B3R	L	X	-18.189
70	B3R	L	Y	10.501
71	G3R	L	X	-14.517
72	G3R	L	Y	8.381
73	A4R	L	X	-11.284
74	A4R	L	Y	6.515
75	B4R	L	X	-15.385
76	B4R	L	Y	8.882
77	G4R	L	X	-11.284
78	G4R	L	Y	6.515
79	A3R	L	X	-11.13
80	A3R	L	Y	6.426
81	B3R	L	X	-14.116
82	B3R	L	Y	8.15
83	G3R	L	X	-11.13
84	G3R	L	Y	6.426
85	A2R	L	X	-14.595
86	A2R	L	Y	8.426
87	B2R	L	X	-14.61
88	B2R	L	Y	8.435
89	G2R	L	X	-14.595
90	G2R	L	Y	8.426
91	A4R	L	X	-17.721
92	A4R	L	Y	10.231
93	B4R	L	X	-24.169
94	B4R	L	Y	13.954
95	G4R	L	X	-17.721
96	G4R	L	Y	10.231
97	A1R	L	X	-7.793
98	A1R	L	Y	4.499
99	B1R	L	X	-12.634
100	B1R	L	Y	7.294
101	G1R	L	X	-7.793
102	G1R	L	Y	4.499
103	ARC	L	X	-11.894
104	ARC	L	Y	6.867
105	A1R	L	X	-11.891
106	A1R	L	Y	6.865
107	BRC	L	X	-11.891
108	BRC	L	Y	6.865
109	GRC	L	X	-12.153
110	GRC	L	Y	7.017

Joint Loads and Enforced Displacements (BLC 30 : Antenna Wind w/ Ice (45))

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
1	A4B	L	X	-28.399
2	A4B	L	Y	28.399
3	A4T	L	X	-28.399
4	A4T	L	Y	28.399
5	B4B	L	X	-18.965
6	B4B	L	Y	18.965



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 842872 - ROCKY HILL

June 17, 2020
 11:33 AM
 Checked By: MLO

Joint Loads and Enforced Displacements (BLC 30 : Antenna Wind w/ Ice (45)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
7				
8	B4T	L	X	-18.965
9	B4T	L	Y	18.965
10	G4B	L	X	-37.834
11	G4B	L	Y	37.834
12	G4T	L	X	-37.834
13	G4T	L	Y	37.834
14	A3B	L	X	-24.457
15	A3B	L	Y	24.457
16	A3T	L	X	-24.457
17	A3T	L	Y	24.457
18	B3B	L	X	-18.354
19	B3B	L	Y	18.354
20	B3T	L	X	-18.354
21	B3T	L	Y	18.354
22	G3B	L	X	-30.56
23	G3B	L	Y	30.56
24	G3T	L	X	-30.56
25	G3T	L	Y	30.56
26	A1B	L	X	-9.767
27	A1B	L	Y	9.767
28	A1T	L	X	-9.767
29	A1T	L	Y	9.767
30	B1B	L	X	-7.323
31	B1B	L	Y	7.323
32	B1T	L	X	-7.323
33	B1T	L	Y	7.323
34	G1B	L	X	-12.211
35	G1B	L	Y	12.211
36	G1T	L	X	-12.211
37	G1T	L	Y	12.211
38	A2B	L	X	-13.34
39	A2B	L	Y	13.34
40	A2T	L	X	-13.34
41	A2T	L	Y	13.34
42	B2B	L	X	-12.66
43	B2B	L	Y	12.66
44	B2T	L	X	-12.66
45	B2T	L	Y	12.66
46	G2B	L	X	-14.02
47	G2B	L	Y	14.02
48	G2T	L	X	-14.02
49	G2T	L	Y	14.02
50	A1R	L	X	-3.968
51	A1R	L	Y	3.968
52	B1R	L	X	-2.68
53	B1R	L	Y	2.68
54	G1R	L	X	-1.288
55	G1R	L	Y	1.288
56	A2R	L	X	-12.835
57	A2R	L	Y	12.835
58	B2R	L	X	-14.581
59	B2R	L	Y	14.581
60	G2R	L	X	-11.089
61	G2R	L	Y	11.089
62	A2R	L	X	-13.415
63	A2R	L	Y	13.415
64	B2R	L	X	-15.297
65	B2R	L	Y	15.297

Joint Loads and Enforced Displacements (BLC 30 : Antenna Wind w/ Ice (45)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
64	B2R	L	Y	15.297
65	G2R	L	X	-11.532
66	G2R	L	Y	11.532
67	A3R	L	X	-12.852
68	A3R	L	Y	12.852
69	B3R	L	X	-14.583
70	B3R	L	Y	14.583
71	G3R	L	X	-11.121
72	G3R	L	Y	11.121
73	A4R	L	X	-10.329
74	A4R	L	Y	10.329
75	B4R	L	X	-12.263
76	B4R	L	Y	12.263
77	G4R	L	X	-8.396
78	G4R	L	Y	8.396
79	A3R	L	X	-9.9
80	A3R	L	Y	9.9
81	B3R	L	X	-11.308
82	B3R	L	Y	11.308
83	G3R	L	X	-8.493
84	G3R	L	Y	8.493
85	A2R	L	X	-11.921
86	A2R	L	Y	11.921
87	B2R	L	X	-11.928
88	B2R	L	Y	11.928
89	G2R	L	X	-11.914
90	G2R	L	Y	11.914
91	A4R	L	X	-16.224
92	A4R	L	Y	16.224
93	B4R	L	X	-19.264
94	B4R	L	Y	19.264
95	G4R	L	X	-13.184
96	G4R	L	Y	13.184
97	A1R	L	X	-7.681
98	A1R	L	Y	7.681
99	B1R	L	X	-9.963
100	B1R	L	Y	9.963
101	G1R	L	X	-5.399
102	G1R	L	Y	5.399
103	ARC	L	X	-9.712
104	ARC	L	Y	9.712
105	A1R	L	X	-9.709
106	A1R	L	Y	9.709
107	BRC	L	X	-9.709
108	BRC	L	Y	9.709
109	GRC	L	X	-9.923
110	GRC	L	Y	9.923

Joint Loads and Enforced Displacements (BLC 31 : Antenna Wind w/ Ice (60))

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
1	A4B	L	X	-16.23
2	A4B	L	Y	28.111
3	A4T	L	X	-16.23
4	A4T	L	Y	28.111
5	B4B	L	X	-16.23
6	B4B	L	Y	28.111



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 842872 - ROCKY HILL

June 17, 2020
 11:33 AM
 Checked By: MLO

Joint Loads and Enforced Displacements (BLC 31 : Antenna Wind w/ Ice (60)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
7				
8	B4T	L	X	-16.23
9	B4T	L	Y	28.111
10	G4B	L	X	-27.785
11	G4B	L	Y	48.125
12	G4T	L	X	-27.785
13	G4T	L	Y	48.125
14	A3B	L	X	-14.802
15	A3B	L	Y	25.638
16	A3T	L	X	-14.802
17	A3T	L	Y	25.638
18	B3B	L	X	-14.802
19	B3B	L	Y	25.638
20	B3T	L	X	-14.802
21	B3T	L	Y	25.638
22	G3B	L	X	-22.277
23	G3B	L	Y	38.585
24	G3T	L	X	-22.277
25	G3T	L	Y	38.585
26	A1B	L	X	-5.909
27	A1B	L	Y	10.234
28	A1T	L	X	-5.909
29	A1T	L	Y	10.234
30	B1B	L	X	-5.909
31	B1B	L	Y	10.234
32	B1T	L	X	-5.909
33	B1T	L	Y	10.234
34	G1B	L	X	-8.902
35	G1B	L	Y	15.419
36	G1T	L	X	-8.902
37	G1T	L	Y	15.419
38	A2B	L	X	-9.155
39	A2B	L	Y	15.857
40	A2T	L	X	-9.155
41	A2T	L	Y	15.857
42	B2B	L	X	-9.155
43	B2B	L	Y	15.857
44	B2T	L	X	-9.155
45	B2T	L	Y	15.857
46	G2B	L	X	-9.988
47	G2B	L	Y	17.299
48	G2T	L	X	-9.988
49	G2T	L	Y	17.299
50	A1R	L	X	-3.374
51	A1R	L	Y	5.844
52	B1R	L	X	-1.687
53	B1R	L	Y	2.922
54	G1R	L	X	-835
55	G1R	L	Y	1.446
56	A2R	L	X	-9.788
57	A2R	L	Y	16.954
58	B2R	L	X	-9.788
59	B2R	L	Y	16.954
60	G2R	L	X	-7.65
61	G2R	L	Y	13.25
62	A2R	L	X	-10.254
63	A2R	L	Y	17.761
64	B2R	L	X	-10.254
65	B2R	L	Y	17.761

Joint Loads and Enforced Displacements (BLC 31 : Antenna Wind w/ Ice (60)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
64	B2R	L	Y	17.761
65	G2R	L	X	-7.949
66	G2R	L	Y	13.767
67	A3R	L	X	-9.795
68	A3R	L	Y	16.965
69	B3R	L	X	-9.795
70	B3R	L	Y	16.965
71	G3R	L	X	-7.675
72	G3R	L	Y	13.293
73	A4R	L	X	-8.093
74	A4R	L	Y	14.018
75	B4R	L	X	-8.093
76	B4R	L	Y	14.018
77	G4R	L	X	-5.725
78	G4R	L	Y	9.916
79	A3R	L	X	-7.575
80	A3R	L	Y	13.12
81	B3R	L	X	-7.575
82	B3R	L	Y	13.12
83	G3R	L	X	-5.851
84	G3R	L	Y	10.135
85	A2R	L	X	-8.432
86	A2R	L	Y	14.605
87	B2R	L	X	-8.432
88	B2R	L	Y	14.605
89	G2R	L	X	-8.424
90	G2R	L	Y	14.59
91	A4R	L	X	-12.713
92	A4R	L	Y	22.02
93	B4R	L	X	-12.713
94	B4R	L	Y	22.02
95	G4R	L	X	-8.99
96	G4R	L	Y	15.571
97	A1R	L	X	-6.363
98	A1R	L	Y	11.02
99	B1R	L	X	-6.363
100	B1R	L	Y	11.02
101	G1R	L	X	-3.568
102	G1R	L	Y	6.18
103	ARC	L	X	-6.867
104	ARC	L	Y	11.894
105	A1R	L	X	-6.865
106	A1R	L	Y	11.891
107	BRC	L	X	-6.865
108	BRC	L	Y	11.891
109	GRC	L	X	-7.017
110	GRC	L	Y	12.153

Joint Loads and Enforced Displacements (BLC 32 : Antenna Wind w/ Ice (90))

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
1	A4B	L	X	-5.615e-6
2	A4B	L	Y	24.756
3	A4T	L	X	-5.615e-6
4	A4T	L	Y	24.756
5	B4B	L	X	-1.086e-5
6	B4B	L	Y	47.866

Joint Loads and Enforced Displacements (BLC 32 : Antenna Wind w/ Ice (90)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
7				
8	B4T	L	X	-1.086e-5
9	B4T	L	Y	47.866
10	G4B	L	X	-1.086e-5
11	G4B	L	Y	47.866
12	G4T	L	X	-1.086e-5
13	G4T	L	Y	47.866
14	A3B	L	X	-5.584e-6
15	A3B	L	Y	24.621
16	A3T	L	X	-5.584e-6
17	A3T	L	Y	24.621
18	B3B	L	X	-8.974e-6
19	B3B	L	Y	39.571
20	B3T	L	X	-8.974e-6
21	B3T	L	Y	39.571
22	G3B	L	X	-8.974e-6
23	G3B	L	Y	39.571
24	G3T	L	X	-8.974e-6
25	G3T	L	Y	39.571
26	A1B	L	X	-2.228e-6
27	A1B	L	Y	9.822
28	A1T	L	X	-2.228e-6
29	A1T	L	Y	9.822
30	B1B	L	X	-3.585e-6
31	B1B	L	Y	15.808
32	B1T	L	X	-3.585e-6
33	B1T	L	Y	15.808
34	G1B	L	X	-3.585e-6
35	G1B	L	Y	15.808
36	G1T	L	X	-3.585e-6
37	G1T	L	Y	15.808
38	A2B	L	X	-4.027e-6
39	A2B	L	Y	17.755
40	A2T	L	X	-4.027e-6
41	A2T	L	Y	17.755
42	B2B	L	X	-4.404e-6
43	B2B	L	Y	19.42
44	B2T	L	X	-4.404e-6
45	B2T	L	Y	19.42
46	G2B	L	X	-4.404e-6
47	G2B	L	Y	19.42
48	G2T	L	X	-4.404e-6
49	G2T	L	Y	19.42
50	A1R	L	X	-1.788e-6
51	A1R	L	Y	7.885
52	B1R	L	X	-5.074e-7
53	B1R	L	Y	2.237
54	G1R	L	X	-5.074e-7
55	G1R	L	Y	2.237
56	A2R	L	X	-4.763e-6
57	A2R	L	Y	21.002
58	B2R	L	X	-3.793e-6
59	B2R	L	Y	16.726
60	G2R	L	X	-3.793e-6
61	G2R	L	Y	16.726
62	A2R	L	X	-5e-6
63	A2R	L	Y	22.045
64	B2R	L	X	-3.954e-6

Joint Loads and Enforced Displacements (BLC 32 : Antenna Wind w/ Ice (90)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
64	B2R	L	Y	17.434
65	G2R	L	X	-3.954e-6
66	G2R	L	Y	17.434
67	A3R	L	X	-4.763e-6
68	A3R	L	Y	21.002
69	B3R	L	X	-3.802e-6
70	B3R	L	Y	16.763
71	G3R	L	X	-3.802e-6
72	G3R	L	Y	16.763
73	A4R	L	X	-4.029e-6
74	A4R	L	Y	17.765
75	B4R	L	X	-2.955e-6
76	B4R	L	Y	13.029
77	G4R	L	X	-2.955e-6
78	G4R	L	Y	13.029
79	A3R	L	X	-3.697e-6
80	A3R	L	Y	16.299
81	B3R	L	X	-2.915e-6
82	B3R	L	Y	12.852
83	G3R	L	X	-2.915e-6
84	G3R	L	Y	12.852
85	A2R	L	X	-3.826e-6
86	A2R	L	Y	16.87
87	B2R	L	X	-3.822e-6
88	B2R	L	Y	16.853
89	G2R	L	X	-3.822e-6
90	G2R	L	Y	16.853
91	A4R	L	X	-6.329e-6
92	A4R	L	Y	27.908
93	B4R	L	X	-4.641e-6
94	B4R	L	Y	20.462
95	G4R	L	X	-4.641e-6
96	G4R	L	Y	20.462
97	A1R	L	X	-3.309e-6
98	A1R	L	Y	14.588
99	B1R	L	X	-2.041e-6
100	B1R	L	Y	8.999
101	G1R	L	X	-2.041e-6
102	G1R	L	Y	8.999
103	ARC	L	X	-3.115e-6
104	ARC	L	Y	13.734
105	A1R	L	X	-3.114e-6
106	A1R	L	Y	13.73
107	BRC	L	X	-3.114e-6
108	BRC	L	Y	13.73
109	GRC	L	X	-3.183e-6
110	GRC	L	Y	14.033

Joint Loads and Enforced Displacements (BLC 33 : Antenna Wind w/ Ice (120))

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
1	A4B	L	X	16.23
2	A4B	L	Y	28.111
3	A4T	L	X	16.23
4	A4T	L	Y	28.111
5	B4B	L	X	27.785
6	B4B	L	Y	48.125



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 842872 - ROCKY HILL

June 17, 2020
 11:33 AM
 Checked By: MLO

Joint Loads and Enforced Displacements (BLC 33 : Antenna Wind w/ Ice (120)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
7	B4T	L	X	27.785
8	B4T	L	Y	48.125
9	G4B	L	X	16.23
10	G4B	L	Y	28.111
11	G4T	L	X	16.23
12	G4T	L	Y	28.111
13	A3B	L	X	14.802
14	A3B	L	Y	25.638
15	A3T	L	X	14.802
16	A3T	L	Y	25.638
17	B3B	L	X	22.277
18	B3B	L	Y	38.585
19	B3T	L	X	22.277
20	B3T	L	Y	38.585
21	G3B	L	X	14.802
22	G3B	L	Y	25.638
23	G3T	L	X	14.802
24	G3T	L	Y	25.638
25	A1B	L	X	5.909
26	A1B	L	Y	10.234
27	A1T	L	X	5.909
28	A1T	L	Y	10.234
29	B1B	L	X	8.902
30	B1B	L	Y	15.419
31	B1T	L	X	8.902
32	B1T	L	Y	15.419
33	G1B	L	X	5.909
34	G1B	L	Y	10.234
35	G1T	L	X	5.909
36	G1T	L	Y	10.234
37	A2B	L	X	9.155
38	A2B	L	Y	15.857
39	A2T	L	X	9.155
40	A2T	L	Y	15.857
41	B2B	L	X	9.988
42	B2B	L	Y	17.299
43	B2T	L	X	9.988
44	B2T	L	Y	17.299
45	G2B	L	X	9.155
46	G2B	L	Y	15.857
47	G2T	L	X	9.155
48	G2T	L	Y	15.857
49	A1R	L	X	3.374
50	A1R	L	Y	5.844
51	B1R	L	X	.835
52	B1R	L	Y	1.446
53	G1R	L	X	1.687
54	G1R	L	Y	2.922
55	A2R	L	X	9.788
56	A2R	L	Y	16.954
57	B2R	L	X	7.65
58	B2R	L	Y	13.25
59	G2R	L	X	9.788
60	G2R	L	Y	16.954
61	A2R	L	X	10.254
62	A2R	L	Y	17.761
63	B2R	L	X	7.949

Joint Loads and Enforced Displacements (BLC 33 : Antenna Wind w/ Ice (120)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
64	B2R	L	Y	13.767
65	G2R	L	X	10.254
66	G2R	L	Y	17.761
67	A3R	L	X	9.795
68	A3R	L	Y	16.965
69	B3R	L	X	7.675
70	B3R	L	Y	13.293
71	G3R	L	X	9.795
72	G3R	L	Y	16.965
73	A4R	L	X	8.093
74	A4R	L	Y	14.018
75	B4R	L	X	5.725
76	B4R	L	Y	9.916
77	G4R	L	X	8.093
78	G4R	L	Y	14.018
79	A3R	L	X	7.575
80	A3R	L	Y	13.12
81	B3R	L	X	5.851
82	B3R	L	Y	10.135
83	G3R	L	X	7.575
84	G3R	L	Y	13.12
85	A2R	L	X	8.432
86	A2R	L	Y	14.605
87	B2R	L	X	8.424
88	B2R	L	Y	14.59
89	G2R	L	X	8.432
90	G2R	L	Y	14.605
91	A4R	L	X	12.713
92	A4R	L	Y	22.02
93	B4R	L	X	8.99
94	B4R	L	Y	15.571
95	G4R	L	X	12.713
96	G4R	L	Y	22.02
97	A1R	L	X	6.363
98	A1R	L	Y	11.02
99	B1R	L	X	3.568
100	B1R	L	Y	6.18
101	G1R	L	X	6.363
102	G1R	L	Y	11.02
103	ARC	L	X	6.867
104	ARC	L	Y	11.894
105	A1R	L	X	6.865
106	A1R	L	Y	11.891
107	BRC	L	X	6.865
108	BRC	L	Y	11.891
109	GRC	L	X	7.017
110	GRC	L	Y	12.153

Joint Loads and Enforced Displacements (BLC 34 : Antenna Wind w/ Ice (135))

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
1	A4B	L	X	28.399
2	A4B	L	Y	28.399
3	A4T	L	X	28.399
4	A4T	L	Y	28.399
5	B4B	L	X	37.834
6	B4B	L	Y	37.834



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 842872 - ROCKY HILL

June 17, 2020
 11:33 AM
 Checked By: MLO

Joint Loads and Enforced Displacements (BLC 34 : Antenna Wind w/ Ice (135)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
7				
8	B4T	L	X	37.834
9	B4T	L	Y	37.834
10	G4B	L	X	18.965
11	G4B	L	Y	18.965
12	G4T	L	X	18.965
13	G4T	L	Y	18.965
14	A3B	L	X	24.457
15	A3B	L	Y	24.457
16	A3T	L	X	24.457
17	A3T	L	Y	24.457
18	B3B	L	X	30.56
19	B3B	L	Y	30.56
20	B3T	L	X	30.56
21	B3T	L	Y	30.56
22	G3B	L	X	18.354
23	G3B	L	Y	18.354
24	G3T	L	X	18.354
25	G3T	L	Y	18.354
26	A1B	L	X	9.767
27	A1B	L	Y	9.767
28	A1T	L	X	9.767
29	A1T	L	Y	9.767
30	B1B	L	X	12.211
31	B1B	L	Y	12.211
32	B1T	L	X	12.211
33	B1T	L	Y	12.211
34	G1B	L	X	7.323
35	G1B	L	Y	7.323
36	G1T	L	X	7.323
37	G1T	L	Y	7.323
38	A2B	L	X	13.34
39	A2B	L	Y	13.34
40	A2T	L	X	13.34
41	A2T	L	Y	13.34
42	B2B	L	X	14.02
43	B2B	L	Y	14.02
44	B2T	L	X	14.02
45	B2T	L	Y	14.02
46	G2B	L	X	12.66
47	G2B	L	Y	12.66
48	G2T	L	X	12.66
49	G2T	L	Y	12.66
50	A1R	L	X	3.968
51	A1R	L	Y	3.968
52	B1R	L	X	1.288
53	B1R	L	Y	1.288
54	G1R	L	X	2.68
55	G1R	L	Y	2.68
56	A2R	L	X	12.835
57	A2R	L	Y	12.835
58	B2R	L	X	11.089
59	B2R	L	Y	11.089
60	G2R	L	X	14.581
61	G2R	L	Y	14.581
62	A2R	L	X	13.415
63	A2R	L	Y	13.415
64	B2R	L	X	11.532
65	B2R	L	Y	11.532

Joint Loads and Enforced Displacements (BLC 34 : Antenna Wind w/ Ice (135)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
64	B2R	L	Y	11.532
65	G2R	L	X	15.297
66	G2R	L	Y	15.297
67	A3R	L	X	12.852
68	A3R	L	Y	12.852
69	B3R	L	X	11.121
70	B3R	L	Y	11.121
71	G3R	L	X	14.583
72	G3R	L	Y	14.583
73	A4R	L	X	10.329
74	A4R	L	Y	10.329
75	B4R	L	X	8.396
76	B4R	L	Y	8.396
77	G4R	L	X	12.263
78	G4R	L	Y	12.263
79	A3R	L	X	9.9
80	A3R	L	Y	9.9
81	B3R	L	X	8.493
82	B3R	L	Y	8.493
83	G3R	L	X	11.308
84	G3R	L	Y	11.308
85	A2R	L	X	11.921
86	A2R	L	Y	11.921
87	B2R	L	X	11.914
88	B2R	L	Y	11.914
89	G2R	L	X	11.928
90	G2R	L	Y	11.928
91	A4R	L	X	16.224
92	A4R	L	Y	16.224
93	B4R	L	X	13.184
94	B4R	L	Y	13.184
95	G4R	L	X	19.264
96	G4R	L	Y	19.264
97	A1R	L	X	7.681
98	A1R	L	Y	7.681
99	B1R	L	X	5.399
100	B1R	L	Y	5.399
101	G1R	L	X	9.963
102	G1R	L	Y	9.963
103	ARC	L	X	9.712
104	ARC	L	Y	9.712
105	A1R	L	X	9.709
106	A1R	L	Y	9.709
107	BRC	L	X	9.709
108	BRC	L	Y	9.709
109	GRC	L	X	9.923
110	GRC	L	Y	9.923

Joint Loads and Enforced Displacements (BLC 35 : Antenna Wind w/ Ice (150))

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
1	A4B	L	X	41.453
2	A4B	L	Y	23.933
3	A4T	L	X	41.453
4	A4T	L	Y	23.933
5	B4B	L	X	41.453
6	B4B	L	Y	23.933



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 842872 - ROCKY HILL

June 17, 2020
 11:33 AM
 Checked By: MLO

Joint Loads and Enforced Displacements (BLC 35 : Antenna Wind w/ Ice (150)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
7				
8	B4T	L	X	41.453
9	B4T	L	Y	23.933
10	G4B	L	X	21.44
11	G4B	L	Y	12.378
12	G4T	L	X	21.44
13	G4T	L	Y	12.378
14	A3B	L	X	34.269
15	A3B	L	Y	19.785
16	A3T	L	X	34.269
17	A3T	L	Y	19.785
18	B3B	L	X	34.269
19	B3B	L	Y	19.785
20	B3T	L	X	34.269
21	B3T	L	Y	19.785
22	G3B	L	X	21.322
23	G3B	L	Y	12.31
24	G3T	L	X	21.322
25	G3T	L	Y	12.31
26	A1B	L	X	13.69
27	A1B	L	Y	7.904
28	A1T	L	X	13.69
29	A1T	L	Y	7.904
30	B1B	L	X	13.69
31	B1B	L	Y	7.904
32	B1T	L	X	13.69
33	B1T	L	Y	7.904
34	G1B	L	X	8.506
35	G1B	L	Y	4.911
36	G1T	L	X	8.506
37	G1T	L	Y	4.911
38	A2B	L	X	16.818
39	A2B	L	Y	9.71
40	A2T	L	X	16.818
41	A2T	L	Y	9.71
42	B2B	L	X	16.818
43	B2B	L	Y	9.71
44	B2T	L	X	16.818
45	B2T	L	Y	9.71
46	G2B	L	X	15.376
47	G2B	L	Y	8.877
48	G2T	L	X	15.376
49	G2T	L	Y	8.877
50	A1R	L	X	3.875
51	A1R	L	Y	2.237
52	B1R	L	X	1.938
53	B1R	L	Y	1.119
54	G1R	L	X	3.414
55	G1R	L	Y	1.971
56	A2R	L	X	14.485
57	A2R	L	Y	8.363
58	B2R	L	X	14.485
59	B2R	L	Y	8.363
60	G2R	L	X	18.189
61	G2R	L	Y	10.501
62	A2R	L	X	15.099
63	A2R	L	Y	8.717
64	B2R	L	X	15.099
65	B2R	L	Y	8.717

Joint Loads and Enforced Displacements (BLC 35 : Antenna Wind w/ Ice (150)) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
64	B2R	L	Y	8.717
65	G2R	L	X	19.092
66	G2R	L	Y	11.023
67	A3R	L	X	14.517
68	A3R	L	Y	8.381
69	B3R	L	X	14.517
70	B3R	L	Y	8.381
71	G3R	L	X	18.189
72	G3R	L	Y	10.501
73	A4R	L	X	11.284
74	A4R	L	Y	6.515
75	B4R	L	X	11.284
76	B4R	L	Y	6.515
77	G4R	L	X	15.385
78	G4R	L	Y	8.882
79	A3R	L	X	11.13
80	A3R	L	Y	6.426
81	B3R	L	X	11.13
82	B3R	L	Y	6.426
83	G3R	L	X	14.116
84	G3R	L	Y	8.15
85	A2R	L	X	14.595
86	A2R	L	Y	8.426
87	B2R	L	X	14.595
88	B2R	L	Y	8.426
89	G2R	L	X	14.61
90	G2R	L	Y	8.435
91	A4R	L	X	17.721
92	A4R	L	Y	10.231
93	B4R	L	X	17.721
94	B4R	L	Y	10.231
95	G4R	L	X	24.169
96	G4R	L	Y	13.954
97	A1R	L	X	7.793
98	A1R	L	Y	4.499
99	B1R	L	X	7.793
100	B1R	L	Y	4.499
101	G1R	L	X	12.634
102	G1R	L	Y	7.294
103	ARC	L	X	11.894
104	ARC	L	Y	6.867
105	A1R	L	X	11.891
106	A1R	L	Y	6.865
107	BRC	L	X	11.891
108	BRC	L	Y	6.865
109	GRC	L	X	12.153
110	GRC	L	Y	7.017

Joint Loads and Enforced Displacements (BLC 36 : Maintenance Live Lm (1))

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
1	M1	L	Z	-500

Joint Loads and Enforced Displacements (BLC 37 : Maintenance Live Lm (2))

	Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
1	M2	L	Z	-500

Joint Loads and Enforced Displacements (BLC 38 : Maintenance Live Lm (3))

Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
1	M3	Z	-500

Joint Loads and Enforced Displacements (BLC 39 : Maintenance Live Lm (4))

Joint Label	L,D,M	Direction	Magnitude[(lb.lb-ft), (in.rad), (lb*s^2/in, lb*s^2*in)]
1	M4	Z	-500

Member Distributed Loads (BLC 2 : Dead of Ice)

Member Label	Direction	Start Magnitude[lb/ft, F, psf]	End Magnitude[lb/f, ...]	Start Location[in, %]	End Location[in, %]
1	Z	-14.789	-14.789	0	0
2	Z	-14.789	-14.789	0	0
3	Z	-14.789	-14.789	0	0
4	Z	-11.354	-11.354	0	0
5	Z	-11.354	-11.354	0	0
6	Z	-11.354	-11.354	0	0
7	Z	-9.038	-9.038	0	0
8	Z	-9.038	-9.038	0	0
9	Z	-9.038	-9.038	0	0
10	Z	-9.038	-9.038	0	0
11	Z	-9.038	-9.038	0	0
12	Z	-9.038	-9.038	0	0
13	Z	-10.411	-10.411	0	0
14	Z	-10.411	-10.411	0	0
15	Z	-10.411	-10.411	0	0
16	Z	-8.928	-8.928	0	0
17	Z	-8.928	-8.928	0	0
18	Z	-8.928	-8.928	0	0
19	Z	-12.558	-12.558	0	0
20	Z	-12.558	-12.558	0	0
21	Z	-12.558	-12.558	0	0
22	Z	-12.558	-12.558	0	0
23	Z	-12.558	-12.558	0	0
24	Z	-12.558	-12.558	0	0
25	Z	-8.928	-8.928	0	0
26	Z	-14.789	-14.789	0	0
27	Z	-14.789	-14.789	0	0
28	Z	-14.789	-14.789	0	0
29	Z	-14.789	-14.789	0	0
30	Z	-14.789	-14.789	0	0
31	Z	-14.789	-14.789	0	0
32	Z	-8.928	-8.928	0	0
33	Z	-8.928	-8.928	0	0
34	Z	-8.928	-8.928	0	0
35	Z	-8.928	-8.928	0	0
36	Z	-8.928	-8.928	0	0
37	Z	-8.928	-8.928	0	0
38	Z	-8.928	-8.928	0	0
39	Z	-8.928	-8.928	0	0
40	Z	-8.928	-8.928	0	0
41	Z	-8.928	-8.928	0	0
42	Z	-8.928	-8.928	0	0
43	Z	-10.411	-10.411	0	0
44	Z	-10.411	-10.411	0	0
45	Z	-10.411	-10.411	0	0
46	Z	-10.411	-10.411	0	0
47	Z	-10.411	-10.411	0	0



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 842872 - ROCKY HILL

June 17, 2020
 11:33 AM
 Checked By: MLO

Member Distributed Loads (BLC 2 : Dead of Ice) (Continued)

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in. %]	End Location[in. %]
48	Z	-10.411	-10.411	0	0

Member Distributed Loads (BLC 4 : Structure Wind (0))

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in. %]	End Location[in. %]
1	X	-9.834e-16	-9.834e-16	0	0
2	Y	0	0	0	0
3	X	-28.478	-28.478	0	0
4	Y	0	0	0	0
5	X	-28.478	-28.478	0	0
6	Y	0	0	0	0
7	X	-14.951	-14.951	0	0
8	Y	0	0	0	0
9	X	-3.738	-3.738	0	0
10	Y	0	0	0	0
11	X	-3.738	-3.738	0	0
12	Y	0	0	0	0
13	X	-14.239	-14.239	0	0
14	Y	0	0	0	0
15	X	-3.56	-3.56	0	0
16	Y	0	0	0	0
17	X	-3.56	-3.56	0	0
18	Y	0	0	0	0
19	X	-14.239	-14.239	0	0
20	Y	0	0	0	0
21	X	-3.56	-3.56	0	0
22	Y	0	0	0	0
23	X	-3.56	-3.56	0	0
24	Y	0	0	0	0
25	X	-4.45	-4.45	0	0
26	Y	0	0	0	0
27	X	-17.798	-17.798	0	0
28	Y	0	0	0	0
29	X	-4.45	-4.45	0	0
30	Y	0	0	0	0
31	X	-10.145	-10.145	0	0
32	Y	0	0	0	0
33	X	-2.536	-2.536	0	0
34	Y	0	0	0	0
35	X	-2.536	-2.536	0	0
36	Y	0	0	0	0
37	X	-42.716	-42.716	0	0
38	Y	0	0	0	0
39	X	-42.716	-42.716	0	0
40	Y	0	0	0	0
41	X	-10.679	-10.679	0	0
42	Y	0	0	0	0
43	X	-10.679	-10.679	0	0
44	Y	0	0	0	0
45	X	-10.679	-10.679	0	0
46	Y	0	0	0	0
47	X	-10.679	-10.679	0	0
48	Y	0	0	0	0
49	X	-10.145	-10.145	0	0
50	Y	0	0	0	0
51	X	-21.358	-21.358	0	0
52	Y	0	0	0	0

Member Distributed Loads (BLC 4 : Structure Wind (0)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...]	Start Location[in.%]	End Location[in.%]
53	M209	X	-21.358	-21.358	0
54	M209	Y	0	0	0
55	M245A	X	-7.119	-7.119	0
56	M245A	Y	0	0	0
57	M246A	X	-7.119	-7.119	0
58	M246A	Y	0	0	0
59	M279	X	-7.119	-7.119	0
60	M279	Y	0	0	0
61	M280	X	-7.119	-7.119	0
62	M280	Y	0	0	0
63	M261A	X	-10.145	-10.145	0
64	M261A	Y	0	0	0
65	M267A	X	-10.145	-10.145	0
66	M267A	Y	0	0	0
67	M273A	X	-10.145	-10.145	0
68	M273A	Y	0	0	0
69	M279A	X	-10.145	-10.145	0
70	M279A	Y	0	0	0
71	M288B	X	-10.145	-10.145	0
72	M288B	Y	0	0	0
73	M294A	X	-10.145	-10.145	0
74	M294A	Y	0	0	0
75	M300B	X	-10.145	-10.145	0
76	M300B	Y	0	0	0
77	M306B	X	-10.145	-10.145	0
78	M306B	Y	0	0	0
79	M315	X	-10.145	-10.145	0
80	M315	Y	0	0	0
81	M321	X	-10.145	-10.145	0
82	M321	Y	0	0	0
83	M327	X	-10.145	-10.145	0
84	M327	Y	0	0	0
85	KM5	X	-8.389	-8.389	0
86	KM5	Y	0	0	0
87	KM6	X	-8.389	-8.389	0
88	KM6	Y	0	0	0
89	KM11	X	-15.446	-15.446	0
90	KM11	Y	0	0	0
91	KM12	X	-15.446	-15.446	0
92	KM12	Y	0	0	0
93	KM17	X	-15.446	-15.446	0
94	KM17	Y	0	0	0
95	KM18	X	-15.446	-15.446	0
96	KM18	Y	0	0	0

Member Distributed Loads (BLC 5 : Structure Wind (30))

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...]	Start Location[in.%]	End Location[in.%]
1	M51	X	-6.166	-6.166	0
2	M51	Y	3.56	3.56	0
3	M60	X	-18.497	-18.497	0
4	M60	Y	10.679	10.679	0
5	M63	X	-18.497	-18.497	0
6	M63	Y	10.679	10.679	0
7	M69	X	-9.711	-9.711	0
8	M69	Y	5.607	5.607	0
9	M72	X	-9.711	-9.711	0



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 842872 - ROCKY HILL

June 17, 2020
 11:33 AM
 Checked By: MLO

Member Distributed Loads (BLC 5 : Structure Wind (30)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.-%]	End Location[in.-%]
10	M72	Y	5.607	5.607	0
11	M75	X	-7.4e-14	-7.4e-14	0
12	M75	Y	4.272e-14	4.272e-14	0
13	M92	X	-9.248	-9.248	0
14	M92	Y	5.34	5.34	0
15	M94	X	-5.909e-10	-5.909e-10	0
16	M94	Y	3.411e-10	3.411e-10	0
17	M98	X	-9.248	-9.248	0
18	M98	Y	5.34	5.34	0
19	M100	X	-9.248	-9.248	0
20	M100	Y	5.34	5.34	0
21	M104	X	-8.479e-14	-8.479e-14	0
22	M104	Y	4.896e-14	4.896e-14	0
23	M106	X	-9.248	-9.248	0
24	M106	Y	5.339	5.339	0
25	M109	X	-8.809e-14	-8.809e-14	0
26	M109	Y	5.086e-14	5.086e-14	0
27	M110	X	-11.56	-11.56	0
28	M110	Y	6.674	6.674	0
29	M111	X	-11.56	-11.56	0
30	M111	Y	6.674	6.674	0
31	M116	X	-6.589	-6.589	0
32	M116	Y	3.804	3.804	0
33	M121	X	-6.589	-6.589	0
34	M121	Y	3.804	3.804	0
35	M126	X	-5.021e-14	-5.021e-14	0
36	M126	Y	2.899e-14	2.899e-14	0
37	M129	X	-27.745	-27.745	0
38	M129	Y	16.019	16.019	0
39	M133	X	-27.745	-27.745	0
40	M133	Y	16.019	16.019	0
41	M137	X	-27.745	-27.745	0
42	M137	Y	16.019	16.019	0
43	M141	X	-27.745	-27.745	0
44	M141	Y	16.019	16.019	0
45	M145	X	-2.114e-13	-2.114e-13	0
46	M145	Y	1.221e-13	1.221e-13	0
47	M149	X	-2.114e-13	-2.114e-13	0
48	M149	Y	1.221e-13	1.221e-13	0
49	M163	X	-8.786	-8.786	0
50	M163	Y	5.073	5.073	0
51	M189A	X	-6.166	-6.166	0
52	M189A	Y	3.56	3.56	0
53	M209	X	-24.662	-24.662	0
54	M209	Y	14.239	14.239	0
55	M245A	X	-18.497	-18.497	0
56	M245A	Y	10.679	10.679	0
57	M246A	X	-18.497	-18.497	0
58	M246A	Y	10.679	10.679	0
59	M279	X	-1.409e-13	-1.409e-13	0
60	M279	Y	8.138e-14	8.138e-14	0
61	M280	X	-1.409e-13	-1.409e-13	0
62	M280	Y	8.138e-14	8.138e-14	0
63	M261A	X	-8.786	-8.786	0
64	M261A	Y	5.073	5.073	0
65	M267A	X	-8.786	-8.786	0
66	M267A	Y	5.073	5.073	0



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 842872 - ROCKY HILL

June 17, 2020
 11:33 AM
 Checked By: MLO

Member Distributed Loads (BLC 5 : Structure Wind (30)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...]	Start Location[in.-%]	End Location[in.-%]
67	M273A	X	-8.786	-8.786	0
68	M273A	Y	5.073	5.073	0
69	M279A	X	-8.786	-8.786	0
70	M279A	Y	5.073	5.073	0
71	M288B	X	-8.786	-8.786	0
72	M288B	Y	5.073	5.073	0
73	M294A	X	-8.786	-8.786	0
74	M294A	Y	5.073	5.073	0
75	M300B	X	-8.786	-8.786	0
76	M300B	Y	5.073	5.073	0
77	M306B	X	-8.786	-8.786	0
78	M306B	Y	5.073	5.073	0
79	M315	X	-8.786	-8.786	0
80	M315	Y	5.073	5.073	0
81	M321	X	-8.786	-8.786	0
82	M321	Y	5.073	5.073	0
83	M327	X	-8.786	-8.786	0
84	M327	Y	5.073	5.073	0
85	KM5	X	-9.302	-9.302	0
86	KM5	Y	5.371	5.371	0
87	KM6	X	-9.302	-9.302	0
88	KM6	Y	5.371	5.371	0
89	KM11	X	-9.302	-9.302	0
90	KM11	Y	5.371	5.371	0
91	KM12	X	-9.302	-9.302	0
92	KM12	Y	5.371	5.371	0
93	KM17	X	-15.414	-15.414	0
94	KM17	Y	8.899	8.899	0
95	KM18	X	-15.414	-15.414	0
96	KM18	Y	8.899	8.899	0

Member Distributed Loads (BLC 6 : Structure Wind (45))

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...]	Start Location[in.-%]	End Location[in.-%]
1	M51	X	-10.068	-10.068	0
2	M51	Y	10.068	10.068	0
3	M60	X	-10.068	-10.068	0
4	M60	Y	10.068	10.068	0
5	M63	X	-10.068	-10.068	0
6	M63	Y	10.068	10.068	0
7	M69	X	-5.286	-5.286	0
8	M69	Y	5.286	5.286	0
9	M72	X	-9.864	-9.864	0
10	M72	Y	9.864	9.864	0
11	M75	X	-.708	-.708	0
12	M75	Y	.708	.708	0
13	M92	X	-5.034	-5.034	0
14	M92	Y	5.034	5.034	0
15	M94	X	-.674	-.674	0
16	M94	Y	.674	.674	0
17	M98	X	-9.394	-9.394	0
18	M98	Y	9.394	9.394	0
19	M100	X	-5.034	-5.034	0
20	M100	Y	5.034	5.034	0
21	M104	X	-.674	-.674	0
22	M104	Y	.674	.674	0
23	M106	X	-9.394	-9.394	0



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 842872 - ROCKY HILL

June 17, 2020
 11:33 AM
 Checked By: MLO

Member Distributed Loads (BLC 6 : Structure Wind (45)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.-%]	End Location[in.-%]
24	M106	Y	9.394	9.394	0
25	M109	X	-843	-843	0
26	M109	Y	.843	.843	0
27	M110	X	-6.293	-6.293	0
28	M110	Y	6.293	6.293	0
29	M111	X	-11.742	-11.742	0
30	M111	Y	11.742	11.742	0
31	M116	X	-3.587	-3.587	0
32	M116	Y	3.587	3.587	0
33	M121	X	-6.693	-6.693	0
34	M121	Y	6.693	6.693	0
35	M126	X	-481	-481	0
36	M126	Y	.481	.481	0
37	M129	X	-15.102	-15.102	0
38	M129	Y	15.102	15.102	0
39	M133	X	-15.102	-15.102	0
40	M133	Y	15.102	15.102	0
41	M137	X	-28.182	-28.182	0
42	M137	Y	28.182	28.182	0
43	M141	X	-28.182	-28.182	0
44	M141	Y	28.182	28.182	0
45	M145	X	-2.023	-2.023	0
46	M145	Y	2.023	2.023	0
47	M149	X	-2.023	-2.023	0
48	M149	Y	2.023	2.023	0
49	M163	X	-7.174	-7.174	0
50	M163	Y	7.174	7.174	0
51	M189A	X	-1.349	-1.349	0
52	M189A	Y	1.349	1.349	0
53	M209	X	-18.788	-18.788	0
54	M209	Y	18.788	18.788	0
55	M245A	X	-18.788	-18.788	0
56	M245A	Y	18.788	18.788	0
57	M246A	X	-18.788	-18.788	0
58	M246A	Y	18.788	18.788	0
59	M279	X	-1.349	-1.349	0
60	M279	Y	1.349	1.349	0
61	M280	X	-1.349	-1.349	0
62	M280	Y	1.349	1.349	0
63	M261A	X	-7.174	-7.174	0
64	M261A	Y	7.174	7.174	0
65	M267A	X	-7.174	-7.174	0
66	M267A	Y	7.174	7.174	0
67	M273A	X	-7.174	-7.174	0
68	M273A	Y	7.174	7.174	0
69	M279A	X	-7.174	-7.174	0
70	M279A	Y	7.174	7.174	0
71	M288B	X	-7.174	-7.174	0
72	M288B	Y	7.174	7.174	0
73	M294A	X	-7.174	-7.174	0
74	M294A	Y	7.174	7.174	0
75	M300B	X	-7.174	-7.174	0
76	M300B	Y	7.174	7.174	0
77	M306B	X	-7.174	-7.174	0
78	M306B	Y	7.174	7.174	0
79	M315	X	-7.174	-7.174	0
80	M315	Y	7.174	7.174	0



A NEMETSCHek COMPANY

Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 842872 - ROCKY HILL

June 17, 2020
 11:33 AM
 Checked By: MLO

Member Distributed Loads (BLC 6 : Structure Wind (45)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft.F,psf]	End Magnitude[lb/f...	Start Location[in, %]	End Location[in, %]
81	M321	X	-7.174	-7.174	0	0
82	M321	Y	7.174	7.174	0	0
83	M327	X	-7.174	-7.174	0	0
84	M327	Y	7.174	7.174	0	0
85	KM5	X	-9.259	-9.259	0	0
86	KM5	Y	9.259	9.259	0	0
87	KM6	X	-9.259	-9.259	0	0
88	KM6	Y	9.259	9.259	0	0
89	KM11	X	-6.378	-6.378	0	0
90	KM11	Y	6.378	6.378	0	0
91	KM12	X	-6.378	-6.378	0	0
92	KM12	Y	6.378	6.378	0	0
93	KM17	X	-12.14	-12.14	0	0
94	KM17	Y	12.14	12.14	0	0
95	KM18	X	-12.14	-12.14	0	0
96	KM18	Y	12.14	12.14	0	0

Member Distributed Loads (BLC 7 : Structure Wind (60))

	Member Label	Direction	Start Magnitude[lb/ft.F,psf]	End Magnitude[lb/f...	Start Location[in, %]	End Location[in, %]
1	M51	X	-10.679	-10.679	0	0
2	M51	Y	18.497	18.497	0	0
3	M60	X	-3.56	-3.56	0	0
4	M60	Y	6.166	6.166	0	0
5	M63	X	-3.56	-3.56	0	0
6	M63	Y	6.166	6.166	0	0
7	M69	X	-1.869	-1.869	0	0
8	M69	Y	3.237	3.237	0	0
9	M72	X	-7.475	-7.475	0	0
10	M72	Y	12.948	12.948	0	0
11	M75	X	-1.869	-1.869	0	0
12	M75	Y	3.237	3.237	0	0
13	M92	X	-1.78	-1.78	0	0
14	M92	Y	3.083	3.083	0	0
15	M94	X	-1.78	-1.78	0	0
16	M94	Y	3.083	3.083	0	0
17	M98	X	-7.119	-7.119	0	0
18	M98	Y	12.331	12.331	0	0
19	M100	X	-1.78	-1.78	0	0
20	M100	Y	3.083	3.083	0	0
21	M104	X	-1.78	-1.78	0	0
22	M104	Y	3.083	3.083	0	0
23	M106	X	-7.119	-7.119	0	0
24	M106	Y	12.331	12.331	0	0
25	M109	X	-2.225	-2.225	0	0
26	M109	Y	3.853	3.853	0	0
27	M110	X	-2.225	-2.225	0	0
28	M110	Y	3.853	3.853	0	0
29	M111	X	-8.899	-8.899	0	0
30	M111	Y	15.414	15.414	0	0
31	M116	X	-1.268	-1.268	0	0
32	M116	Y	2.196	2.196	0	0
33	M121	X	-5.073	-5.073	0	0
34	M121	Y	8.786	8.786	0	0
35	M126	X	-1.268	-1.268	0	0
36	M126	Y	2.196	2.196	0	0
37	M129	X	-5.34	-5.34	0	0



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 842872 - ROCKY HILL

June 17, 2020
 11:33 AM
 Checked By: MLO

Member Distributed Loads (BLC 7 : Structure Wind (60)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in. %]	End Location[in. %]
38	M129	Y	9.248	9.248	0
39	M133	X	-5.34	-5.34	0
40	M133	Y	9.248	9.248	0
41	M137	X	-21.358	-21.358	0
42	M137	Y	36.993	36.993	0
43	M141	X	-21.358	-21.358	0
44	M141	Y	36.993	36.993	0
45	M145	X	-5.34	-5.34	0
46	M145	Y	9.248	9.248	0
47	M149	X	-5.34	-5.34	0
48	M149	Y	9.248	9.248	0
49	M163	X	-5.073	-5.073	0
50	M163	Y	8.786	8.786	0
51	M189A	X	-3.513e-13	-3.513e-13	0
52	M189A	Y	6.085e-13	6.085e-13	0
53	M209	X	-10.679	-10.679	0
54	M209	Y	18.497	18.497	0
55	M245A	X	-14.239	-14.239	0
56	M245A	Y	24.662	24.662	0
57	M246A	X	-14.239	-14.239	0
58	M246A	Y	24.662	24.662	0
59	M279	X	-3.56	-3.56	0
60	M279	Y	6.166	6.166	0
61	M280	X	-3.56	-3.56	0
62	M280	Y	6.166	6.166	0
63	M261A	X	-5.073	-5.073	0
64	M261A	Y	8.786	8.786	0
65	M267A	X	-5.073	-5.073	0
66	M267A	Y	8.786	8.786	0
67	M273A	X	-5.073	-5.073	0
68	M273A	Y	8.786	8.786	0
69	M279A	X	-5.073	-5.073	0
70	M279A	Y	8.786	8.786	0
71	M288B	X	-5.073	-5.073	0
72	M288B	Y	8.786	8.786	0
73	M294A	X	-5.073	-5.073	0
74	M294A	Y	8.786	8.786	0
75	M300B	X	-5.073	-5.073	0
76	M300B	Y	8.786	8.786	0
77	M306B	X	-5.073	-5.073	0
78	M306B	Y	8.786	8.786	0
79	M315	X	-5.073	-5.073	0
80	M315	Y	8.786	8.786	0
81	M321	X	-5.073	-5.073	0
82	M321	Y	8.786	8.786	0
83	M327	X	-5.073	-5.073	0
84	M327	Y	8.786	8.786	0
85	KM5	X	-7.723	-7.723	0
86	KM5	Y	13.377	13.377	0
87	KM6	X	-7.723	-7.723	0
88	KM6	Y	13.377	13.377	0
89	KM11	X	-4.195	-4.195	0
90	KM11	Y	7.265	7.265	0
91	KM12	X	-4.195	-4.195	0
92	KM12	Y	7.265	7.265	0
93	KM17	X	-7.723	-7.723	0
94	KM17	Y	13.377	13.377	0

Member Distributed Loads (BLC 7 : Structure Wind (60)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...]	Start Location[in.-%]	End Location[in.-%]
95	KM18	X	-7.723	-7.723	0
96	KM18	Y	13.377	13.377	0

Member Distributed Loads (BLC 8 : Structure Wind (90))

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in.-%]	End Location[in.-%]
1	M51	X	-6.459e-6	-6.459e-6	0
2	M51	Y	28.478	28.478	0
3	M60	X	-3.322e-19	-3.322e-19	0
4	M60	Y	1.465e-12	1.465e-12	0
5	M63	X	-3.322e-19	-3.322e-19	0
6	M63	Y	1.465e-12	1.465e-12	0
7	M69	X	-1.744e-19	-1.744e-19	0
8	M69	Y	7.69e-13	7.69e-13	0
9	M72	X	-2.543e-6	-2.543e-6	0
10	M72	Y	11.213	11.213	0
11	M75	X	-2.543e-6	-2.543e-6	0
12	M75	Y	11.213	11.213	0
13	M92	X	-1.77e-19	-1.77e-19	0
14	M92	Y	7.805e-13	7.805e-13	0
15	M94	X	-2.422e-6	-2.422e-6	0
16	M94	Y	10.679	10.679	0
17	M98	X	-2.422e-6	-2.422e-6	0
18	M98	Y	10.679	10.679	0
19	M100	X	-1.616e-16	-1.616e-16	0
20	M100	Y	7.124e-10	7.124e-10	0
21	M104	X	-2.422e-6	-2.422e-6	0
22	M104	Y	10.679	10.679	0
23	M106	X	-2.422e-6	-2.422e-6	0
24	M106	Y	10.679	10.679	0
25	M109	X	-3.027e-6	-3.027e-6	0
26	M109	Y	13.349	13.349	0
27	M110	X	-2.076e-19	-2.076e-19	0
28	M110	Y	9.155e-13	9.155e-13	0
29	M111	X	-3.027e-6	-3.027e-6	0
30	M111	Y	13.349	13.349	0
31	M116	X	-1.183e-19	-1.183e-19	0
32	M116	Y	5.218e-13	5.218e-13	0
33	M121	X	-1.726e-6	-1.726e-6	0
34	M121	Y	7.609	7.609	0
35	M126	X	-1.726e-6	-1.726e-6	0
36	M126	Y	7.609	7.609	0
37	M129	X	-4.983e-19	-4.983e-19	0
38	M129	Y	2.197e-12	2.197e-12	0
39	M133	X	-4.983e-19	-4.983e-19	0
40	M133	Y	2.197e-12	2.197e-12	0
41	M137	X	-7.266e-6	-7.266e-6	0
42	M137	Y	32.037	32.037	0
43	M141	X	-7.266e-6	-7.266e-6	0
44	M141	Y	32.037	32.037	0
45	M145	X	-7.266e-6	-7.266e-6	0
46	M145	Y	32.037	32.037	0
47	M149	X	-7.266e-6	-7.266e-6	0
48	M149	Y	32.037	32.037	0
49	M163	X	-2.301e-6	-2.301e-6	0
50	M163	Y	10.145	10.145	0
51	M189A	X	-1.615e-6	-1.615e-6	0

Member Distributed Loads (BLC 8 : Structure Wind (90)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...]	Start Location[in.%]	End Location[in.%]
52	M189A	Y	7.119	7.119	0
53	M209	X	-1.615e-6	-1.615e-6	0
54	M209	Y	7.119	7.119	0
55	M245A	X	-4.844e-6	-4.844e-6	0
56	M245A	Y	21.358	21.358	0
57	M246A	X	-4.844e-6	-4.844e-6	0
58	M246A	Y	21.358	21.358	0
59	M279	X	-4.844e-6	-4.844e-6	0
60	M279	Y	21.358	21.358	0
61	M280	X	-4.844e-6	-4.844e-6	0
62	M280	Y	21.358	21.358	0
63	M261A	X	-2.301e-6	-2.301e-6	0
64	M261A	Y	10.145	10.145	0
65	M267A	X	-2.301e-6	-2.301e-6	0
66	M267A	Y	10.145	10.145	0
67	M273A	X	-2.301e-6	-2.301e-6	0
68	M273A	Y	10.145	10.145	0
69	M279A	X	-2.301e-6	-2.301e-6	0
70	M279A	Y	10.145	10.145	0
71	M288B	X	-2.301e-6	-2.301e-6	0
72	M288B	Y	10.145	10.145	0
73	M294A	X	-2.301e-6	-2.301e-6	0
74	M294A	Y	10.145	10.145	0
75	M300B	X	-2.301e-6	-2.301e-6	0
76	M300B	Y	10.145	10.145	0
77	M306B	X	-2.301e-6	-2.301e-6	0
78	M306B	Y	10.145	10.145	0
79	M315	X	-2.301e-6	-2.301e-6	0
80	M315	Y	10.145	10.145	0
81	M321	X	-2.301e-6	-2.301e-6	0
82	M321	Y	10.145	10.145	0
83	M327	X	-2.301e-6	-2.301e-6	0
84	M327	Y	10.145	10.145	0
85	KM5	X	-4.037e-6	-4.037e-6	0
86	KM5	Y	17.798	17.798	0
87	KM6	X	-4.037e-6	-4.037e-6	0
88	KM6	Y	17.798	17.798	0
89	KM11	X	-2.436e-6	-2.436e-6	0
90	KM11	Y	10.741	10.741	0
91	KM12	X	-2.436e-6	-2.436e-6	0
92	KM12	Y	10.741	10.741	0
93	KM17	X	-2.436e-6	-2.436e-6	0
94	KM17	Y	10.742	10.742	0
95	KM18	X	-2.436e-6	-2.436e-6	0
96	KM18	Y	10.742	10.742	0

Member Distributed Loads (BLC 9 : Structure Wind (120))

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...]	Start Location[in.%]	End Location[in.%]
1	M51	X	10.679	10.679	0
2	M51	Y	18.497	18.497	0
3	M60	X	3.56	3.56	0
4	M60	Y	6.166	6.166	0
5	M63	X	3.56	3.56	0
6	M63	Y	6.166	6.166	0
7	M69	X	1.869	1.869	0
8	M69	Y	3.237	3.237	0

Member Distributed Loads (BLC 9 : Structure Wind (120)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in. %]	End Location[in. %]
9					
M72	X	1.869	1.869	0	0
M72	Y	3.237	3.237	0	0
M75	X	7.475	7.475	0	0
M75	Y	12.948	12.948	0	0
M92	X	1.78	1.78	0	0
M92	Y	3.083	3.083	0	0
M94	X	7.119	7.119	0	0
M94	Y	12.331	12.331	0	0
M98	X	1.78	1.78	0	0
M98	Y	3.083	3.083	0	0
M100	X	1.78	1.78	0	0
M100	Y	3.083	3.083	0	0
M104	X	7.119	7.119	0	0
M104	Y	12.331	12.331	0	0
M106	X	1.78	1.78	0	0
M106	Y	3.083	3.083	0	0
M109	X	8.899	8.899	0	0
M109	Y	15.414	15.414	0	0
M110	X	2.225	2.225	0	0
M110	Y	3.853	3.853	0	0
M111	X	2.225	2.225	0	0
M111	Y	3.853	3.853	0	0
M116	X	1.268	1.268	0	0
M116	Y	2.196	2.196	0	0
M121	X	1.268	1.268	0	0
M121	Y	2.196	2.196	0	0
M126	X	5.073	5.073	0	0
M126	Y	8.786	8.786	0	0
M129	X	5.34	5.34	0	0
M129	Y	9.248	9.248	0	0
M133	X	5.34	5.34	0	0
M133	Y	9.248	9.248	0	0
M137	X	5.34	5.34	0	0
M137	Y	9.248	9.248	0	0
M141	X	5.34	5.34	0	0
M141	Y	9.248	9.248	0	0
M145	X	21.358	21.358	0	0
M145	Y	36.993	36.993	0	0
M149	X	21.358	21.358	0	0
M149	Y	36.993	36.993	0	0
M163	X	5.073	5.073	0	0
M163	Y	8.786	8.786	0	0
M189A	X	10.679	10.679	0	0
M189A	Y	18.497	18.497	0	0
M209	X	1.353e-12	1.353e-12	0	0
M209	Y	2.344e-12	2.344e-12	0	0
M245A	X	3.56	3.56	0	0
M245A	Y	6.166	6.166	0	0
M246A	X	3.56	3.56	0	0
M246A	Y	6.166	6.166	0	0
M279	X	14.239	14.239	0	0
M279	Y	24.662	24.662	0	0
M280	X	14.239	14.239	0	0
M280	Y	24.662	24.662	0	0
M261A	X	5.073	5.073	0	0
M261A	Y	8.786	8.786	0	0
M267A	X	5.073	5.073	0	0

Member Distributed Loads (BLC 9 : Structure Wind (120)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in.-%]	End Location[in.-%]
66	M267A	Y	8.786	8.786	0
67	M273A	X	5.073	5.073	0
68	M273A	Y	8.786	8.786	0
69	M279A	X	5.073	5.073	0
70	M279A	Y	8.786	8.786	0
71	M288B	X	5.073	5.073	0
72	M288B	Y	8.786	8.786	0
73	M294A	X	5.073	5.073	0
74	M294A	Y	8.786	8.786	0
75	M300B	X	5.073	5.073	0
76	M300B	Y	8.786	8.786	0
77	M306B	X	5.073	5.073	0
78	M306B	Y	8.786	8.786	0
79	M315	X	5.073	5.073	0
80	M315	Y	8.786	8.786	0
81	M321	X	5.073	5.073	0
82	M321	Y	8.786	8.786	0
83	M327	X	5.073	5.073	0
84	M327	Y	8.786	8.786	0
85	KM5	X	7.723	7.723	0
86	KM5	Y	13.377	13.377	0
87	KM6	X	7.723	7.723	0
88	KM6	Y	13.377	13.377	0
89	KM11	X	7.723	7.723	0
90	KM11	Y	13.377	13.377	0
91	KM12	X	7.723	7.723	0
92	KM12	Y	13.377	13.377	0
93	KM17	X	4.195	4.195	0
94	KM17	Y	7.265	7.265	0
95	KM18	X	4.195	4.195	0
96	KM18	Y	7.265	7.265	0

Member Distributed Loads (BLC 10 : Structure Wind (135))

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in.-%]	End Location[in.-%]
1	M51	X	10.068	10.068	0
2	M51	Y	10.068	10.068	0
3	M60	X	10.068	10.068	0
4	M60	Y	10.068	10.068	0
5	M63	X	10.068	10.068	0
6	M63	Y	10.068	10.068	0
7	M69	X	5.286	5.286	0
8	M69	Y	5.286	5.286	0
9	M72	X	.708	.708	0
10	M72	Y	.708	.708	0
11	M75	X	9.864	9.864	0
12	M75	Y	9.864	9.864	0
13	M92	X	5.034	5.034	0
14	M92	Y	5.034	5.034	0
15	M94	X	9.394	9.394	0
16	M94	Y	9.394	9.394	0
17	M98	X	.674	.674	0
18	M98	Y	.674	.674	0
19	M100	X	5.034	5.034	0
20	M100	Y	5.034	5.034	0
21	M104	X	9.394	9.394	0
22	M104	Y	9.394	9.394	0



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 842872 - ROCKY HILL

June 17, 2020
 11:33 AM
 Checked By: MLO

Member Distributed Loads (BLC 10 : Structure Wind (135)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in.-%]	End Location[in.-%]
23	M106	X	.674	.674	0
24	M106	Y	.674	.674	0
25	M109	X	11.742	11.742	0
26	M109	Y	11.742	11.742	0
27	M110	X	6.293	6.293	0
28	M110	Y	6.293	6.293	0
29	M111	X	.843	.843	0
30	M111	Y	.843	.843	0
31	M116	X	3.587	3.587	0
32	M116	Y	3.587	3.587	0
33	M121	X	.481	.481	0
34	M121	Y	.481	.481	0
35	M126	X	6.693	6.693	0
36	M126	Y	6.693	6.693	0
37	M129	X	15.102	15.102	0
38	M129	Y	15.102	15.102	0
39	M133	X	15.102	15.102	0
40	M133	Y	15.102	15.102	0
41	M137	X	2.023	2.023	0
42	M137	Y	2.023	2.023	0
43	M141	X	2.023	2.023	0
44	M141	Y	2.023	2.023	0
45	M145	X	28.182	28.182	0
46	M145	Y	28.182	28.182	0
47	M149	X	28.182	28.182	0
48	M149	Y	28.182	28.182	0
49	M163	X	7.174	7.174	0
50	M163	Y	7.174	7.174	0
51	M189A	X	18.788	18.788	0
52	M189A	Y	18.788	18.788	0
53	M209	X	1.349	1.349	0
54	M209	Y	1.349	1.349	0
55	M245A	X	1.349	1.349	0
56	M245A	Y	1.349	1.349	0
57	M246A	X	1.349	1.349	0
58	M246A	Y	1.349	1.349	0
59	M279	X	18.788	18.788	0
60	M279	Y	18.788	18.788	0
61	M280	X	18.788	18.788	0
62	M280	Y	18.788	18.788	0
63	M261A	X	7.174	7.174	0
64	M261A	Y	7.174	7.174	0
65	M267A	X	7.174	7.174	0
66	M267A	Y	7.174	7.174	0
67	M273A	X	7.174	7.174	0
68	M273A	Y	7.174	7.174	0
69	M279A	X	7.174	7.174	0
70	M279A	Y	7.174	7.174	0
71	M288B	X	7.174	7.174	0
72	M288B	Y	7.174	7.174	0
73	M294A	X	7.174	7.174	0
74	M294A	Y	7.174	7.174	0
75	M300B	X	7.174	7.174	0
76	M300B	Y	7.174	7.174	0
77	M306B	X	7.174	7.174	0
78	M306B	Y	7.174	7.174	0
79	M315	X	7.174	7.174	0

Member Distributed Loads (BLC 10 : Structure Wind (135)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in.-%]	End Location[in.-%]
80	M315	Y	7.174	7.174	0
81	M321	X	7.174	7.174	0
82	M321	Y	7.174	7.174	0
83	M327	X	7.174	7.174	0
84	M327	Y	7.174	7.174	0
85	KM5	X	9.259	9.259	0
86	KM5	Y	9.259	9.259	0
87	KM6	X	9.259	9.259	0
88	KM6	Y	9.259	9.259	0
89	KM11	X	12.14	12.14	0
90	KM11	Y	12.14	12.14	0
91	KM12	X	12.14	12.14	0
92	KM12	Y	12.14	12.14	0
93	KM17	X	6.378	6.378	0
94	KM17	Y	6.378	6.378	0
95	KM18	X	6.378	6.378	0
96	KM18	Y	6.378	6.378	0

Member Distributed Loads (BLC 11 : Structure Wind (150))

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in.-%]	End Location[in.-%]
1	M51	X	6.166	6.166	0
2	M51	Y	3.56	3.56	0
3	M60	X	18.497	18.497	0
4	M60	Y	10.679	10.679	0
5	M63	X	18.497	18.497	0
6	M63	Y	10.679	10.679	0
7	M69	X	9.711	9.711	0
8	M69	Y	5.607	5.607	0
9	M72	X	1.85e-12	1.85e-12	0
10	M72	Y	1.068e-12	1.068e-12	0
11	M75	X	9.711	9.711	0
12	M75	Y	5.607	5.607	0
13	M92	X	9.248	9.248	0
14	M92	Y	5.34	5.34	0
15	M94	X	9.248	9.248	0
16	M94	Y	5.34	5.34	0
17	M98	X	1.831e-12	1.831e-12	0
18	M98	Y	1.057e-12	1.057e-12	0
19	M100	X	9.248	9.248	0
20	M100	Y	5.339	5.339	0
21	M104	X	9.248	9.248	0
22	M104	Y	5.34	5.34	0
23	M106	X	6.436e-10	6.436e-10	0
24	M106	Y	3.716e-10	3.716e-10	0
25	M109	X	11.56	11.56	0
26	M109	Y	6.674	6.674	0
27	M110	X	11.56	11.56	0
28	M110	Y	6.674	6.674	0
29	M111	X	2.202e-12	2.202e-12	0
30	M111	Y	1.272e-12	1.272e-12	0
31	M116	X	6.589	6.589	0
32	M116	Y	3.804	3.804	0
33	M121	X	1.255e-12	1.255e-12	0
34	M121	Y	7.248e-13	7.248e-13	0
35	M126	X	6.589	6.589	0
36	M126	Y	3.804	3.804	0



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 842872 - ROCKY HILL

June 17, 2020
 11:33 AM
 Checked By: MLO

Member Distributed Loads (BLC 11 : Structure Wind (150)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.-%]	End Location[in.-%]
37	M129	X	27.745	27.745	0
38	M129	Y	16.019	16.019	0
39	M133	X	27.745	27.745	0
40	M133	Y	16.019	16.019	0
41	M137	X	5.286e-12	5.286e-12	0
42	M137	Y	3.052e-12	3.052e-12	0
43	M141	X	5.285e-12	5.285e-12	0
44	M141	Y	3.052e-12	3.052e-12	0
45	M145	X	27.745	27.745	0
46	M145	Y	16.019	16.019	0
47	M149	X	27.745	27.745	0
48	M149	Y	16.019	16.019	0
49	M163	X	8.786	8.786	0
50	M163	Y	5.073	5.073	0
51	M189A	X	24.662	24.662	0
52	M189A	Y	14.239	14.239	0
53	M209	X	6.166	6.166	0
54	M209	Y	3.56	3.56	0
55	M245A	X	3.524e-12	3.524e-12	0
56	M245A	Y	2.034e-12	2.034e-12	0
57	M246A	X	3.524e-12	3.524e-12	0
58	M246A	Y	2.034e-12	2.034e-12	0
59	M279	X	18.497	18.497	0
60	M279	Y	10.679	10.679	0
61	M280	X	18.497	18.497	0
62	M280	Y	10.679	10.679	0
63	M261A	X	8.786	8.786	0
64	M261A	Y	5.073	5.073	0
65	M267A	X	8.786	8.786	0
66	M267A	Y	5.073	5.073	0
67	M273A	X	8.786	8.786	0
68	M273A	Y	5.073	5.073	0
69	M279A	X	8.786	8.786	0
70	M279A	Y	5.073	5.073	0
71	M288B	X	8.786	8.786	0
72	M288B	Y	5.073	5.073	0
73	M294A	X	8.786	8.786	0
74	M294A	Y	5.073	5.073	0
75	M300B	X	8.786	8.786	0
76	M300B	Y	5.073	5.073	0
77	M306B	X	8.786	8.786	0
78	M306B	Y	5.073	5.073	0
79	M315	X	8.786	8.786	0
80	M315	Y	5.073	5.073	0
81	M321	X	8.786	8.786	0
82	M321	Y	5.073	5.073	0
83	M327	X	8.786	8.786	0
84	M327	Y	5.073	5.073	0
85	KM5	X	9.302	9.302	0
86	KM5	Y	5.371	5.371	0
87	KM6	X	9.302	9.302	0
88	KM6	Y	5.371	5.371	0
89	KM11	X	15.414	15.414	0
90	KM11	Y	8.899	8.899	0
91	KM12	X	15.414	15.414	0
92	KM12	Y	8.899	8.899	0
93	KM17	X	9.302	9.302	0

Member Distributed Loads (BLC 11 : Structure Wind (150)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in.-%]	End Location[in.-%]
94	KM17	Y	5.371	5.371	0	0
95	KM18	X	9.302	9.302	0	0
96	KM18	Y	5.371	5.371	0	0

Member Distributed Loads (BLC 12 : Structure Wind w/ Ice (0))

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in.-%]	End Location[in.-%]
1	M51	X	-1.082e-16	-1.082e-16	0	0
2	M51	Y	0	0	0	0
3	M60	X	-3.134	-3.134	0	0
4	M60	Y	0	0	0	0
5	M63	X	-3.134	-3.134	0	0
6	M63	Y	0	0	0	0
7	M69	X	-5.392	-5.392	0	0
8	M69	Y	0	0	0	0
9	M72	X	-1.348	-1.348	0	0
10	M72	Y	0	0	0	0
11	M75	X	-1.348	-1.348	0	0
12	M75	Y	0	0	0	0
13	M92	X	-2.921	-2.921	0	0
14	M92	Y	0	0	0	0
15	M94	X	-73	-73	0	0
16	M94	Y	0	0	0	0
17	M98	X	-73	-73	0	0
18	M98	Y	0	0	0	0
19	M100	X	-2.921	-2.921	0	0
20	M100	Y	0	0	0	0
21	M104	X	-73	-73	0	0
22	M104	Y	0	0	0	0
23	M106	X	-73	-73	0	0
24	M106	Y	0	0	0	0
25	M109	X	-743	-743	0	0
26	M109	Y	0	0	0	0
27	M110	X	-2.974	-2.974	0	0
28	M110	Y	0	0	0	0
29	M111	X	-743	-743	0	0
30	M111	Y	0	0	0	0
31	M116	X	-4.529	-4.529	0	0
32	M116	Y	0	0	0	0
33	M121	X	-1.132	-1.132	0	0
34	M121	Y	0	0	0	0
35	M126	X	-1.132	-1.132	0	0
36	M126	Y	0	0	0	0
37	M129	X	-7.318	-7.318	0	0
38	M129	Y	0	0	0	0
39	M133	X	-7.318	-7.318	0	0
40	M133	Y	0	0	0	0
41	M137	X	-1.83	-1.83	0	0
42	M137	Y	0	0	0	0
43	M141	X	-1.83	-1.83	0	0
44	M141	Y	0	0	0	0
45	M145	X	-1.83	-1.83	0	0
46	M145	Y	0	0	0	0
47	M149	X	-1.83	-1.83	0	0
48	M149	Y	0	0	0	0
49	M163	X	-4.529	-4.529	0	0
50	M163	Y	0	0	0	0

Member Distributed Loads (BLC 12 : Structure Wind w/ Ice (0)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...]	Start Location[in.-%]	End Location[in.-%]
51	M189A	X	-2.35	-2.35	0	0
52	M189A	Y	0	0	0	0
53	M209	X	-2.35	-2.35	0	0
54	M209	Y	0	0	0	0
55	M245A	X	-783	-783	0	0
56	M245A	Y	0	0	0	0
57	M246A	X	-783	-783	0	0
58	M246A	Y	0	0	0	0
59	M279	X	-783	-783	0	0
60	M279	Y	0	0	0	0
61	M280	X	-783	-783	0	0
62	M280	Y	0	0	0	0
63	M261A	X	-4.529	-4.529	0	0
64	M261A	Y	0	0	0	0
65	M267A	X	-4.529	-4.529	0	0
66	M267A	Y	0	0	0	0
67	M273A	X	-4.529	-4.529	0	0
68	M273A	Y	0	0	0	0
69	M279A	X	-4.529	-4.529	0	0
70	M279A	Y	0	0	0	0
71	M288B	X	-4.529	-4.529	0	0
72	M288B	Y	0	0	0	0
73	M294A	X	-4.529	-4.529	0	0
74	M294A	Y	0	0	0	0
75	M300B	X	-4.529	-4.529	0	0
76	M300B	Y	0	0	0	0
77	M306B	X	-4.529	-4.529	0	0
78	M306B	Y	0	0	0	0
79	M315	X	-4.529	-4.529	0	0
80	M315	Y	0	0	0	0
81	M321	X	-4.529	-4.529	0	0
82	M321	Y	0	0	0	0
83	M327	X	-4.529	-4.529	0	0
84	M327	Y	0	0	0	0
85	KM5	X	-1.402	-1.402	0	0
86	KM5	Y	0	0	0	0
87	KM6	X	-1.402	-1.402	0	0
88	KM6	Y	0	0	0	0
89	KM11	X	-2.581	-2.581	0	0
90	KM11	Y	0	0	0	0
91	KM12	X	-2.581	-2.581	0	0
92	KM12	Y	0	0	0	0
93	KM17	X	-2.581	-2.581	0	0
94	KM17	Y	0	0	0	0
95	KM18	X	-2.581	-2.581	0	0
96	KM18	Y	0	0	0	0

Member Distributed Loads (BLC 13 : Structure Wind w/ Ice (30))

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...]	Start Location[in.-%]	End Location[in.-%]
1	M51	X	-678	-678	0	0
2	M51	Y	.392	.392	0	0
3	M60	X	-2.035	-2.035	0	0
4	M60	Y	1.175	1.175	0	0
5	M63	X	-2.035	-2.035	0	0
6	M63	Y	1.175	1.175	0	0
7	M69	X	-3.502	-3.502	0	0

Member Distributed Loads (BLC 13 : Structure Wind w/ Ice (30)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.-%]	End Location[in.-%]
8	M69	Y	2.022	2.022	0	0
9	M72	X	-3.502	-3.502	0	0
10	M72	Y	2.022	2.022	0	0
11	M75	X	-2.669e-14	-2.669e-14	0	0
12	M75	Y	1.541e-14	1.541e-14	0	0
13	M92	X	-1.897	-1.897	0	0
14	M92	Y	1.095	1.095	0	0
15	M94	X	-1.212e-10	-1.212e-10	0	0
16	M94	Y	6.997e-11	6.997e-11	0	0
17	M98	X	-1.897	-1.897	0	0
18	M98	Y	1.095	1.095	0	0
19	M100	X	-1.897	-1.897	0	0
20	M100	Y	1.095	1.095	0	0
21	M104	X	-1.739e-14	-1.739e-14	0	0
22	M104	Y	1.004e-14	1.004e-14	0	0
23	M106	X	-1.897	-1.897	0	0
24	M106	Y	1.095	1.095	0	0
25	M109	X	-1.472e-14	-1.472e-14	0	0
26	M109	Y	8.498e-15	8.498e-15	0	0
27	M110	X	-1.932	-1.932	0	0
28	M110	Y	1.115	1.115	0	0
29	M111	X	-1.932	-1.932	0	0
30	M111	Y	1.115	1.115	0	0
31	M116	X	-2.942	-2.942	0	0
32	M116	Y	1.698	1.698	0	0
33	M121	X	-2.942	-2.942	0	0
34	M121	Y	1.698	1.698	0	0
35	M126	X	-2.242e-14	-2.242e-14	0	0
36	M126	Y	1.294e-14	1.294e-14	0	0
37	M129	X	-4.753	-4.753	0	0
38	M129	Y	2.744	2.744	0	0
39	M133	X	-4.753	-4.753	0	0
40	M133	Y	2.744	2.744	0	0
41	M137	X	-4.753	-4.753	0	0
42	M137	Y	2.744	2.744	0	0
43	M141	X	-4.753	-4.753	0	0
44	M141	Y	2.744	2.744	0	0
45	M145	X	-3.622e-14	-3.622e-14	0	0
46	M145	Y	2.091e-14	2.091e-14	0	0
47	M149	X	-3.622e-14	-3.622e-14	0	0
48	M149	Y	2.091e-14	2.091e-14	0	0
49	M163	X	-3.922	-3.922	0	0
50	M163	Y	2.265	2.265	0	0
51	M189A	X	-678	-678	0	0
52	M189A	Y	.392	.392	0	0
53	M209	X	-2.714	-2.714	0	0
54	M209	Y	1.567	1.567	0	0
55	M245A	X	-2.035	-2.035	0	0
56	M245A	Y	1.175	1.175	0	0
57	M246A	X	-2.035	-2.035	0	0
58	M246A	Y	1.175	1.175	0	0
59	M279	X	-1.551e-14	-1.551e-14	0	0
60	M279	Y	8.954e-15	8.954e-15	0	0
61	M280	X	-1.551e-14	-1.551e-14	0	0
62	M280	Y	8.954e-15	8.954e-15	0	0
63	M261A	X	-3.922	-3.922	0	0
64	M261A	Y	2.265	2.265	0	0



A NEMETSCHek COMPANY

Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 842872 - ROCKY HILL

June 17, 2020
 11:33 AM
 Checked By: MLO

Member Distributed Loads (BLC 13 : Structure Wind w/ Ice (30)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in.-%]	End Location[in.-%]
65	M267A	X	-3.922	-3.922	0
66	M267A	Y	2.265	2.265	0
67	M273A	X	-3.922	-3.922	0
68	M273A	Y	2.265	2.265	0
69	M279A	X	-3.922	-3.922	0
70	M279A	Y	2.265	2.265	0
71	M288B	X	-3.922	-3.922	0
72	M288B	Y	2.265	2.265	0
73	M294A	X	-3.922	-3.922	0
74	M294A	Y	2.265	2.265	0
75	M300B	X	-3.922	-3.922	0
76	M300B	Y	2.265	2.265	0
77	M306B	X	-3.922	-3.922	0
78	M306B	Y	2.265	2.265	0
79	M315	X	-3.922	-3.922	0
80	M315	Y	2.265	2.265	0
81	M321	X	-3.922	-3.922	0
82	M321	Y	2.265	2.265	0
83	M327	X	-3.922	-3.922	0
84	M327	Y	2.265	2.265	0
85	KM5	X	-1.554	-1.554	0
86	KM5	Y	.897	.897	0
87	KM6	X	-1.554	-1.554	0
88	KM6	Y	.897	.897	0
89	KM11	X	-1.554	-1.554	0
90	KM11	Y	.897	.897	0
91	KM12	X	-1.554	-1.554	0
92	KM12	Y	.897	.897	0
93	KM17	X	-2.575	-2.575	0
94	KM17	Y	1.487	1.487	0
95	KM18	X	-2.575	-2.575	0
96	KM18	Y	1.487	1.487	0

Member Distributed Loads (BLC 14 : Structure Wind w/ Ice (45))

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in.-%]	End Location[in.-%]
1	M51	X	-1.108	-1.108	0
2	M51	Y	1.108	1.108	0
3	M60	X	-1.108	-1.108	0
4	M60	Y	1.108	1.108	0
5	M63	X	-1.108	-1.108	0
6	M63	Y	1.108	1.108	0
7	M69	X	-1.906	-1.906	0
8	M69	Y	1.906	1.906	0
9	M72	X	-3.557	-3.557	0
10	M72	Y	3.557	3.557	0
11	M75	X	-2.55	-2.55	0
12	M75	Y	.255	.255	0
13	M92	X	-1.033	-1.033	0
14	M92	Y	1.033	1.033	0
15	M94	X	-.138	-.138	0
16	M94	Y	.138	.138	0
17	M98	X	-1.927	-1.927	0
18	M98	Y	1.927	1.927	0
19	M100	X	-1.033	-1.033	0
20	M100	Y	1.033	1.033	0
21	M104	X	-.138	-.138	0

Member Distributed Loads (BLC 14 : Structure Wind w/ Ice (45)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in.-%]	End Location[in.-%]
22	M104	.138	.138	0	0
23	M106	-1.927	-1.927	0	0
24	M106	1.927	1.927	0	0
25	M109	-.141	-.141	0	0
26	M109	.141	.141	0	0
27	M110	-1.051	-1.051	0	0
28	M110	1.051	1.051	0	0
29	M111	-1.962	-1.962	0	0
30	M111	1.962	1.962	0	0
31	M116	-1.601	-1.601	0	0
32	M116	1.601	1.601	0	0
33	M121	-2.988	-2.988	0	0
34	M121	2.988	2.988	0	0
35	M126	-.215	-.215	0	0
36	M126	.215	.215	0	0
37	M129	-2.587	-2.587	0	0
38	M129	2.587	2.587	0	0
39	M133	-2.587	-2.587	0	0
40	M133	2.587	2.587	0	0
41	M137	-4.828	-4.828	0	0
42	M137	4.828	4.828	0	0
43	M141	-4.828	-4.828	0	0
44	M141	4.828	4.828	0	0
45	M145	-.347	-.347	0	0
46	M145	.347	.347	0	0
47	M149	-.347	-.347	0	0
48	M149	.347	.347	0	0
49	M163	-3.203	-3.203	0	0
50	M163	3.203	3.203	0	0
51	M189A	-.148	-.148	0	0
52	M189A	.148	.148	0	0
53	M209	-2.067	-2.067	0	0
54	M209	2.067	2.067	0	0
55	M245A	-2.067	-2.067	0	0
56	M245A	2.067	2.067	0	0
57	M246A	-2.067	-2.067	0	0
58	M246A	2.067	2.067	0	0
59	M279	-.148	-.148	0	0
60	M279	.148	.148	0	0
61	M280	-.148	-.148	0	0
62	M280	.148	.148	0	0
63	M261A	-3.203	-3.203	0	0
64	M261A	3.203	3.203	0	0
65	M267A	-3.203	-3.203	0	0
66	M267A	3.203	3.203	0	0
67	M273A	-3.203	-3.203	0	0
68	M273A	3.203	3.203	0	0
69	M279A	-3.203	-3.203	0	0
70	M279A	3.203	3.203	0	0
71	M288B	-3.203	-3.203	0	0
72	M288B	3.203	3.203	0	0
73	M294A	-3.203	-3.203	0	0
74	M294A	3.203	3.203	0	0
75	M300B	-3.203	-3.203	0	0
76	M300B	3.203	3.203	0	0
77	M306B	-3.203	-3.203	0	0
78	M306B	3.203	3.203	0	0

Member Distributed Loads (BLC 14 : Structure Wind w/ Ice (45)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in.-%]	End Location[in.-%]
79	M315	X	-3.203	-3.203	0
80	M315	Y	3.203	3.203	0
81	M321	X	-3.203	-3.203	0
82	M321	Y	3.203	3.203	0
83	M327	X	-3.203	-3.203	0
84	M327	Y	3.203	3.203	0
85	KM5	X	-1.547	-1.547	0
86	KM5	Y	1.547	1.547	0
87	KM6	X	-1.547	-1.547	0
88	KM6	Y	1.547	1.547	0
89	KM11	X	-1.066	-1.066	0
90	KM11	Y	1.066	1.066	0
91	KM12	X	-1.066	-1.066	0
92	KM12	Y	1.066	1.066	0
93	KM17	X	-2.028	-2.028	0
94	KM17	Y	2.028	2.028	0
95	KM18	X	-2.028	-2.028	0
96	KM18	Y	2.028	2.028	0

Member Distributed Loads (BLC 15 : Structure Wind w/ Ice (60))

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in.-%]	End Location[in.-%]
1	M51	X	-1.175	-1.175	0
2	M51	Y	2.035	2.035	0
3	M60	X	-.392	-.392	0
4	M60	Y	.678	.678	0
5	M63	X	-.392	-.392	0
6	M63	Y	.678	.678	0
7	M69	X	-.674	-.674	0
8	M69	Y	1.167	1.167	0
9	M72	X	-2.696	-2.696	0
10	M72	Y	4.669	4.669	0
11	M75	X	-.674	-.674	0
12	M75	Y	1.167	1.167	0
13	M92	X	-.365	-.365	0
14	M92	Y	.632	.632	0
15	M94	X	-.365	-.365	0
16	M94	Y	.632	.632	0
17	M98	X	-1.46	-1.46	0
18	M98	Y	2.529	2.529	0
19	M100	X	-.365	-.365	0
20	M100	Y	.632	.632	0
21	M104	X	-.365	-.365	0
22	M104	Y	.632	.632	0
23	M106	X	-1.46	-1.46	0
24	M106	Y	2.529	2.529	0
25	M109	X	-.372	-.372	0
26	M109	Y	.644	.644	0
27	M110	X	-.372	-.372	0
28	M110	Y	.644	.644	0
29	M111	X	-1.487	-1.487	0
30	M111	Y	2.575	2.575	0
31	M116	X	-.566	-.566	0
32	M116	Y	.981	.981	0
33	M121	X	-2.265	-2.265	0
34	M121	Y	3.922	3.922	0
35	M126	X	-.566	-.566	0

Member Distributed Loads (BLC 15 : Structure Wind w/ Ice (60)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in.-%]	End Location[in.-%]
36	M126	.981	.981	0	0
37	M129	-915	-915	0	0
38	M129	1.584	1.584	0	0
39	M133	-915	-915	0	0
40	M133	1.584	1.584	0	0
41	M137	-3.659	-3.659	0	0
42	M137	6.338	6.338	0	0
43	M141	-3.659	-3.659	0	0
44	M141	6.338	6.338	0	0
45	M145	-915	-915	0	0
46	M145	1.584	1.584	0	0
47	M149	-915	-915	0	0
48	M149	1.584	1.584	0	0
49	M163	-2.265	-2.265	0	0
50	M163	3.922	3.922	0	0
51	M189A	-3.866e-14	-3.866e-14	0	0
52	M189A	6.695e-14	6.695e-14	0	0
53	M209	-1.175	-1.175	0	0
54	M209	2.035	2.035	0	0
55	M245A	-1.567	-1.567	0	0
56	M245A	2.714	2.714	0	0
57	M246A	-1.567	-1.567	0	0
58	M246A	2.714	2.714	0	0
59	M279	-392	-392	0	0
60	M279	.678	.678	0	0
61	M280	-392	-392	0	0
62	M280	.678	.678	0	0
63	M261A	-2.265	-2.265	0	0
64	M261A	3.922	3.922	0	0
65	M267A	-2.265	-2.265	0	0
66	M267A	3.922	3.922	0	0
67	M273A	-2.265	-2.265	0	0
68	M273A	3.922	3.922	0	0
69	M279A	-2.265	-2.265	0	0
70	M279A	3.922	3.922	0	0
71	M288B	-2.265	-2.265	0	0
72	M288B	3.922	3.922	0	0
73	M294A	-2.265	-2.265	0	0
74	M294A	3.922	3.922	0	0
75	M300B	-2.265	-2.265	0	0
76	M300B	3.922	3.922	0	0
77	M306B	-2.265	-2.265	0	0
78	M306B	3.922	3.922	0	0
79	M315	-2.265	-2.265	0	0
80	M315	3.922	3.922	0	0
81	M321	-2.265	-2.265	0	0
82	M321	3.922	3.922	0	0
83	M327	-2.265	-2.265	0	0
84	M327	3.922	3.922	0	0
85	KM5	-1.29	-1.29	0	0
86	KM5	2.235	2.235	0	0
87	KM6	-1.29	-1.29	0	0
88	KM6	2.235	2.235	0	0
89	KM11	-701	-701	0	0
90	KM11	1.214	1.214	0	0
91	KM12	-701	-701	0	0
92	KM12	1.214	1.214	0	0

Member Distributed Loads (BLC 15 : Structure Wind w/ Ice (60)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...]	Start Location[in.%]	End Location[in.%]
93	KM17	X	-1.29	-1.29	0
94	KM17	Y	2.235	2.235	0
95	KM18	X	-1.29	-1.29	0
96	KM18	Y	2.235	2.235	0

Member Distributed Loads (BLC 16 : Structure Wind w/ Ice (90))

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...]	Start Location[in.%]	End Location[in.%]
1	M51	X	-7.107e-7	-7.107e-7	0
2	M51	Y	3.134	3.134	0
3	M60	X	-3.655e-20	-3.655e-20	0
4	M60	Y	1.612e-13	1.612e-13	0
5	M63	X	-3.655e-20	-3.655e-20	0
6	M63	Y	1.612e-13	1.612e-13	0
7	M69	X	-6.29e-20	-6.29e-20	0
8	M69	Y	2.773e-13	2.773e-13	0
9	M72	X	-9.171e-7	-9.171e-7	0
10	M72	Y	4.044	4.044	0
11	M75	X	-9.171e-7	-9.171e-7	0
12	M75	Y	4.044	4.044	0
13	M92	X	-3.631e-20	-3.631e-20	0
14	M92	Y	1.601e-13	1.601e-13	0
15	M94	X	-4.968e-7	-4.968e-7	0
16	M94	Y	2.19	2.19	0
17	M98	X	-4.968e-7	-4.968e-7	0
18	M98	Y	2.19	2.19	0
19	M100	X	-3.314e-17	-3.314e-17	0
20	M100	Y	1.461e-10	1.461e-10	0
21	M104	X	-4.968e-7	-4.968e-7	0
22	M104	Y	2.19	2.19	0
23	M106	X	-4.968e-7	-4.968e-7	0
24	M106	Y	2.19	2.19	0
25	M109	X	-5.058e-7	-5.058e-7	0
26	M109	Y	2.23	2.23	0
27	M110	X	-3.469e-20	-3.469e-20	0
28	M110	Y	1.53e-13	1.53e-13	0
29	M111	X	-5.058e-7	-5.058e-7	0
30	M111	Y	2.23	2.23	0
31	M116	X	-5.283e-20	-5.283e-20	0
32	M116	Y	2.33e-13	2.33e-13	0
33	M121	X	-7.704e-7	-7.704e-7	0
34	M121	Y	3.397	3.397	0
35	M126	X	-7.704e-7	-7.704e-7	0
36	M126	Y	3.397	3.397	0
37	M129	X	-8.537e-20	-8.537e-20	0
38	M129	Y	3.764e-13	3.764e-13	0
39	M133	X	-8.537e-20	-8.537e-20	0
40	M133	Y	3.764e-13	3.764e-13	0
41	M137	X	-1.245e-6	-1.245e-6	0
42	M137	Y	5.489	5.489	0
43	M141	X	-1.245e-6	-1.245e-6	0
44	M141	Y	5.489	5.489	0
45	M145	X	-1.245e-6	-1.245e-6	0
46	M145	Y	5.489	5.489	0
47	M149	X	-1.245e-6	-1.245e-6	0
48	M149	Y	5.489	5.489	0
49	M163	X	-1.027e-6	-1.027e-6	0



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 842872 - ROCKY HILL

June 17, 2020
 11:33 AM
 Checked By: MLO

Member Distributed Loads (BLC 16 : Structure Wind w/ Ice (90)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.-%]	End Location[in.-%]
50	M163	Y	4.529	4.529	0
51	M189A	X	-1.777e-7	-1.777e-7	0
52	M189A	Y	.783	.783	0
53	M209	X	-1.777e-7	-1.777e-7	0
54	M209	Y	.783	.783	0
55	M245A	X	-5.33e-7	-5.33e-7	0
56	M245A	Y	2.35	2.35	0
57	M246A	X	-5.33e-7	-5.33e-7	0
58	M246A	Y	2.35	2.35	0
59	M279	X	-5.33e-7	-5.33e-7	0
60	M279	Y	2.35	2.35	0
61	M280	X	-5.33e-7	-5.33e-7	0
62	M280	Y	2.35	2.35	0
63	M261A	X	-1.027e-6	-1.027e-6	0
64	M261A	Y	4.529	4.529	0
65	M267A	X	-1.027e-6	-1.027e-6	0
66	M267A	Y	4.529	4.529	0
67	M273A	X	-1.027e-6	-1.027e-6	0
68	M273A	Y	4.529	4.529	0
69	M279A	X	-1.027e-6	-1.027e-6	0
70	M279A	Y	4.529	4.529	0
71	M288B	X	-1.027e-6	-1.027e-6	0
72	M288B	Y	4.529	4.529	0
73	M294A	X	-1.027e-6	-1.027e-6	0
74	M294A	Y	4.529	4.529	0
75	M300B	X	-1.027e-6	-1.027e-6	0
76	M300B	Y	4.529	4.529	0
77	M306B	X	-1.027e-6	-1.027e-6	0
78	M306B	Y	4.529	4.529	0
79	M315	X	-1.027e-6	-1.027e-6	0
80	M315	Y	4.529	4.529	0
81	M321	X	-1.027e-6	-1.027e-6	0
82	M321	Y	4.529	4.529	0
83	M327	X	-1.027e-6	-1.027e-6	0
84	M327	Y	4.529	4.529	0
85	KM5	X	-6.744e-7	-6.744e-7	0
86	KM5	Y	2.974	2.974	0
87	KM6	X	-6.744e-7	-6.744e-7	0
88	KM6	Y	2.974	2.974	0
89	KM11	X	-4.07e-7	-4.07e-7	0
90	KM11	Y	1.795	1.795	0
91	KM12	X	-4.07e-7	-4.07e-7	0
92	KM12	Y	1.795	1.795	0
93	KM17	X	-4.07e-7	-4.07e-7	0
94	KM17	Y	1.795	1.795	0
95	KM18	X	-4.07e-7	-4.07e-7	0
96	KM18	Y	1.795	1.795	0

Member Distributed Loads (BLC 17 : Structure Wind w/ Ice (120))

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[in.-%]	End Location[in.-%]
1	M51	X	1.175	1.175	0
2	M51	Y	2.035	2.035	0
3	M60	X	.392	.392	0
4	M60	Y	.678	.678	0
5	M63	X	.392	.392	0
6	M63	Y	.678	.678	0

Member Distributed Loads (BLC 17 : Structure Wind w/ Ice (120)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in.-%]	End Location[in.-%]
7					
8	X	.674	.674	0	0
9	Y	1.167	1.167	0	0
10	X	.674	.674	0	0
11	Y	1.167	1.167	0	0
12	X	2.696	2.696	0	0
13	Y	4.669	4.669	0	0
14	X	.365	.365	0	0
15	Y	.632	.632	0	0
16	X	1.46	1.46	0	0
17	Y	2.529	2.529	0	0
18	X	.365	.365	0	0
19	Y	.632	.632	0	0
20	X	.365	.365	0	0
21	Y	.632	.632	0	0
22	X	1.46	1.46	0	0
23	Y	2.529	2.529	0	0
24	X	.365	.365	0	0
25	Y	.632	.632	0	0
26	X	1.487	1.487	0	0
27	Y	2.575	2.575	0	0
28	X	.372	.372	0	0
29	Y	.644	.644	0	0
30	X	.372	.372	0	0
31	Y	.644	.644	0	0
32	X	.566	.566	0	0
33	Y	.981	.981	0	0
34	X	.566	.566	0	0
35	Y	.981	.981	0	0
36	X	2.265	2.265	0	0
37	Y	3.922	3.922	0	0
38	X	.915	.915	0	0
39	Y	1.584	1.584	0	0
40	X	.915	.915	0	0
41	Y	1.584	1.584	0	0
42	X	.915	.915	0	0
43	Y	1.584	1.584	0	0
44	X	.915	.915	0	0
45	Y	1.584	1.584	0	0
46	X	3.659	3.659	0	0
47	Y	6.338	6.338	0	0
48	X	3.659	3.659	0	0
49	Y	6.338	6.338	0	0
50	X	2.265	2.265	0	0
51	Y	3.922	3.922	0	0
52	X	1.175	1.175	0	0
53	Y	2.035	2.035	0	0
54	X	1.489e-13	1.489e-13	0	0
55	Y	2.579e-13	2.579e-13	0	0
56	X	.392	.392	0	0
57	Y	.678	.678	0	0
58	X	.392	.392	0	0
59	Y	.678	.678	0	0
60	X	1.567	1.567	0	0
61	Y	2.714	2.714	0	0
62	X	1.567	1.567	0	0
63	Y	2.714	2.714	0	0
M261A	X	2.265	2.265	0	0

Member Distributed Loads (BLC 17 : Structure Wind w/ Ice (120)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in.-%]	End Location[in.-%]
64	M261A	Y	3.922	3.922	0
65	M261A	X	2.265	2.265	0
66	M267A	Y	3.922	3.922	0
67	M273A	X	2.265	2.265	0
68	M273A	Y	3.922	3.922	0
69	M279A	X	2.265	2.265	0
70	M279A	Y	3.922	3.922	0
71	M288B	X	2.265	2.265	0
72	M288B	Y	3.922	3.922	0
73	M294A	X	2.265	2.265	0
74	M294A	Y	3.922	3.922	0
75	M300B	X	2.265	2.265	0
76	M300B	Y	3.922	3.922	0
77	M306B	X	2.265	2.265	0
78	M306B	Y	3.922	3.922	0
79	M315	X	2.265	2.265	0
80	M315	Y	3.922	3.922	0
81	M321	X	2.265	2.265	0
82	M321	Y	3.922	3.922	0
83	M327	X	2.265	2.265	0
84	M327	Y	3.922	3.922	0
85	KM5	X	1.29	1.29	0
86	KM5	Y	2.235	2.235	0
87	KM6	X	1.29	1.29	0
88	KM6	Y	2.235	2.235	0
89	KM11	X	1.29	1.29	0
90	KM11	Y	2.235	2.235	0
91	KM12	X	1.29	1.29	0
92	KM12	Y	2.235	2.235	0
93	KM17	X	.701	.701	0
94	KM17	Y	1.214	1.214	0
95	KM18	X	.701	.701	0
96	KM18	Y	1.214	1.214	0

Member Distributed Loads (BLC 18 : Structure Wind w/ Ice (135))

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in.-%]	End Location[in.-%]
1	M51	X	1.108	1.108	0
2	M51	Y	1.108	1.108	0
3	M60	X	1.108	1.108	0
4	M60	Y	1.108	1.108	0
5	M63	X	1.108	1.108	0
6	M63	Y	1.108	1.108	0
7	M69	X	1.906	1.906	0
8	M69	Y	1.906	1.906	0
9	M72	X	.255	.255	0
10	M72	Y	.255	.255	0
11	M75	X	3.557	3.557	0
12	M75	Y	3.557	3.557	0
13	M92	X	1.033	1.033	0
14	M92	Y	1.033	1.033	0
15	M94	X	1.927	1.927	0
16	M94	Y	1.927	1.927	0
17	M98	X	.138	.138	0
18	M98	Y	.138	.138	0
19	M100	X	1.033	1.033	0
20	M100	Y	1.033	1.033	0



Company : Kimley-Horn and Associates, Inc.
 Designer : ZAM
 Job Number : 019558049
 Model Name : 842872 - ROCKY HILL

June 17, 2020
 11:33 AM
 Checked By: MLO

Member Distributed Loads (BLC 18 : Structure Wind w/ Ice (135)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in.-%]	End Location[in.-%]
21	M104	X	1.927	1.927	0
22	M104	Y	1.927	1.927	0
23	M106	X	.138	.138	0
24	M106	Y	.138	.138	0
25	M109	X	1.962	1.962	0
26	M109	Y	1.962	1.962	0
27	M110	X	1.051	1.051	0
28	M110	Y	1.051	1.051	0
29	M111	X	.141	.141	0
30	M111	Y	.141	.141	0
31	M116	X	1.601	1.601	0
32	M116	Y	1.601	1.601	0
33	M121	X	.215	.215	0
34	M121	Y	.215	.215	0
35	M126	X	2.988	2.988	0
36	M126	Y	2.988	2.988	0
37	M129	X	2.587	2.587	0
38	M129	Y	2.587	2.587	0
39	M133	X	2.587	2.587	0
40	M133	Y	2.587	2.587	0
41	M137	X	.347	.347	0
42	M137	Y	.347	.347	0
43	M141	X	.347	.347	0
44	M141	Y	.347	.347	0
45	M145	X	4.828	4.828	0
46	M145	Y	4.828	4.828	0
47	M149	X	4.828	4.828	0
48	M149	Y	4.828	4.828	0
49	M163	X	3.203	3.203	0
50	M163	Y	3.203	3.203	0
51	M189A	X	2.067	2.067	0
52	M189A	Y	2.067	2.067	0
53	M209	X	.148	.148	0
54	M209	Y	.148	.148	0
55	M245A	X	.148	.148	0
56	M245A	Y	.148	.148	0
57	M246A	X	.148	.148	0
58	M246A	Y	.148	.148	0
59	M279	X	2.067	2.067	0
60	M279	Y	2.067	2.067	0
61	M280	X	2.067	2.067	0
62	M280	Y	2.067	2.067	0
63	M261A	X	3.203	3.203	0
64	M261A	Y	3.203	3.203	0
65	M267A	X	3.203	3.203	0
66	M267A	Y	3.203	3.203	0
67	M273A	X	3.203	3.203	0
68	M273A	Y	3.203	3.203	0
69	M279A	X	3.203	3.203	0
70	M279A	Y	3.203	3.203	0
71	M288B	X	3.203	3.203	0
72	M288B	Y	3.203	3.203	0
73	M294A	X	3.203	3.203	0
74	M294A	Y	3.203	3.203	0
75	M300B	X	3.203	3.203	0
76	M300B	Y	3.203	3.203	0
77	M306B	X	3.203	3.203	0

Member Distributed Loads (BLC 18 : Structure Wind w/ Ice (135)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in.-%]	End Location[in.-%]
78	M306B	Y	3.203	3.203	0
79	M315	X	3.203	3.203	0
80	M315	Y	3.203	3.203	0
81	M321	X	3.203	3.203	0
82	M321	Y	3.203	3.203	0
83	M327	X	3.203	3.203	0
84	M327	Y	3.203	3.203	0
85	KM5	X	1.547	1.547	0
86	KM5	Y	1.547	1.547	0
87	KM6	X	1.547	1.547	0
88	KM6	Y	1.547	1.547	0
89	KM11	X	2.028	2.028	0
90	KM11	Y	2.028	2.028	0
91	KM12	X	2.028	2.028	0
92	KM12	Y	2.028	2.028	0
93	KM17	X	1.066	1.066	0
94	KM17	Y	1.066	1.066	0
95	KM18	X	1.066	1.066	0
96	KM18	Y	1.066	1.066	0

Member Distributed Loads (BLC 19 : Structure Wind w/ Ice (150))

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/f...	Start Location[in.-%]	End Location[in.-%]
1	M51	X	.678	.678	0
2	M51	Y	.392	.392	0
3	M60	X	2.035	2.035	0
4	M60	Y	1.175	1.175	0
5	M63	X	2.035	2.035	0
6	M63	Y	1.175	1.175	0
7	M69	X	3.502	3.502	0
8	M69	Y	2.022	2.022	0
9	M72	X	6.672e-13	6.672e-13	0
10	M72	Y	3.852e-13	3.852e-13	0
11	M75	X	3.502	3.502	0
12	M75	Y	2.022	2.022	0
13	M92	X	1.897	1.897	0
14	M92	Y	1.095	1.095	0
15	M94	X	1.897	1.897	0
16	M94	Y	1.095	1.095	0
17	M98	X	3.755e-13	3.755e-13	0
18	M98	Y	2.168e-13	2.168e-13	0
19	M100	X	1.897	1.897	0
20	M100	Y	1.095	1.095	0
21	M104	X	1.897	1.897	0
22	M104	Y	1.095	1.095	0
23	M106	X	1.32e-10	1.32e-10	0
24	M106	Y	7.622e-11	7.622e-11	0
25	M109	X	1.932	1.932	0
26	M109	Y	1.115	1.115	0
27	M110	X	1.932	1.932	0
28	M110	Y	1.115	1.115	0
29	M111	X	3.68e-13	3.68e-13	0
30	M111	Y	2.124e-13	2.124e-13	0
31	M116	X	2.942	2.942	0
32	M116	Y	1.698	1.698	0
33	M121	X	5.604e-13	5.604e-13	0
34	M121	Y	3.235e-13	3.235e-13	0

Member Distributed Loads (BLC 19 : Structure Wind w/ Ice (150)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft.F,psf]	End Magnitude[lb/f...	Start Location[in,°]	End Location[in,°]
35	M126	X	2.942	2.942	0
36	M126	Y	1.698	1.698	0
37	M129	X	4.753	4.753	0
38	M129	Y	2.744	2.744	0
39	M133	X	4.753	4.753	0
40	M133	Y	2.744	2.744	0
41	M137	X	9.055e-13	9.055e-13	0
42	M137	Y	5.228e-13	5.228e-13	0
43	M141	X	9.055e-13	9.055e-13	0
44	M141	Y	5.228e-13	5.228e-13	0
45	M145	X	4.753	4.753	0
46	M145	Y	2.744	2.744	0
47	M149	X	4.753	4.753	0
48	M149	Y	2.744	2.744	0
49	M163	X	3.922	3.922	0
50	M163	Y	2.265	2.265	0
51	M189A	X	2.714	2.714	0
52	M189A	Y	1.567	1.567	0
53	M209	X	.678	.678	0
54	M209	Y	.392	.392	0
55	M245A	X	3.877e-13	3.877e-13	0
56	M245A	Y	2.239e-13	2.239e-13	0
57	M246A	X	3.877e-13	3.877e-13	0
58	M246A	Y	2.239e-13	2.239e-13	0
59	M279	X	2.035	2.035	0
60	M279	Y	1.175	1.175	0
61	M280	X	2.035	2.035	0
62	M280	Y	1.175	1.175	0
63	M261A	X	3.922	3.922	0
64	M261A	Y	2.265	2.265	0
65	M267A	X	3.922	3.922	0
66	M267A	Y	2.265	2.265	0
67	M273A	X	3.922	3.922	0
68	M273A	Y	2.265	2.265	0
69	M279A	X	3.922	3.922	0
70	M279A	Y	2.265	2.265	0
71	M288B	X	3.922	3.922	0
72	M288B	Y	2.265	2.265	0
73	M294A	X	3.922	3.922	0
74	M294A	Y	2.265	2.265	0
75	M300B	X	3.922	3.922	0
76	M300B	Y	2.265	2.265	0
77	M306B	X	3.922	3.922	0
78	M306B	Y	2.265	2.265	0
79	M315	X	3.922	3.922	0
80	M315	Y	2.265	2.265	0
81	M321	X	3.922	3.922	0
82	M321	Y	2.265	2.265	0
83	M327	X	3.922	3.922	0
84	M327	Y	2.265	2.265	0
85	KM5	X	1.554	1.554	0
86	KM5	Y	.897	.897	0
87	KM6	X	1.554	1.554	0
88	KM6	Y	.897	.897	0
89	KM11	X	2.575	2.575	0
90	KM11	Y	1.487	1.487	0
91	KM12	X	2.575	2.575	0

Member Distributed Loads (BLC 19 : Structure Wind w/ Ice (150)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft.F.psfl]	End Magnitude[lb/f...]	Start Location[in.%]	End Location[in.%]
92	Y	1.487	1.487	0	0
93	X	1.554	1.554	0	0
94	Y	.897	.897	0	0
95	X	1.554	1.554	0	0
96	Y	.897	.897	0	0

Joint Boundary Conditions

Joint 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]
1	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
2	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
3	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
4	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
5	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
6	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
7						
8						
9						
10						
11						
12						
13						
14						
15						

Envelope Joint Reactions

Joint	X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [lb-ft]	LC	MY [lb-ft]	LC	MZ [lb-ft]	LC	
1	max	1873.98	4	4628.234	14	1142.266	20	45.277	11	669.168	18	2830.972	18
2	min	-2622.781	12	-3325.871	6	338.954	12	-1673.945	19	-1260.389	10	-2836.943	10
3	max	1940.6	16	3190.449	16	1134.154	31	1561.293	20	678.595	5	2957.385	12
4	min	-2735.884	8	-4571.706	8	317.744	7	-7.767	12	-1399.262	13	-2963.861	4
5	max	5275.513	3	1608.39	15	1130.863	28	1066.165	7	1714.45	28	2811.926	7
6	min	-3769.642	11	-1604.129	7	342.09	80	-1003.351	15	522.576	80	-2816.739	15
7	max	20.832	11	120.12	15	3365.03	19	92.933	7	946.415	19	131.193	7
8	min	-3453.873	19	-120.187	7	-48.569	11	-92.884	15	-13.66	11	-131.121	15
9	max	1731.011	30	53.03	6	3373.112	30	20.54	6	17.503	4	140.98	18
10	min	-30.663	6	-2998.679	30	-86.736	6	-820.789	30	-476.927	29	-140.602	10
11	max	1804.559	24	3125.468	24	3511.451	24	854.431	24	4.024	16	145.829	12
12	min	-7.228	16	-12.552	16	-42.574	16	-11.503	16	-495.606	25	-143.426	4
13	max	7205.262	3	7212.964	15	12571.574	29						
14	min	-7205.246	11	-7212.962	7	3836.244	1						

Envelope AISC 14th(360-10): LRFD Steel Code Checks

Member	Shape	Code Check	Locf...	LC	Shear C...	Lo...	LC	phi*	phi*	phi*	phi*M...	Eqn
1	M261A PIPE 2.0	.662	68.2..	3	.117	68..	13	1491..	32130	1871...	1871...	H1-
2	M315 PIPE 2.0	.659	68.2..	14	.109	68..	8	1491..	32130	1871...	1871...	H1-
3	M288B PIPE 2.0	.649	68.2..	8	.116	68..	3	1491..	32130	1871...	1871...	H1-
4	M267A PIPE 2.0	.575	68.2..	4	.133	68..	11	1491..	32130	1871...	1871...	H1-
5	M294A PIPE 2.0	.570	68.2..	9	.129	68..	16	1491..	32130	1871...	1871...	H1-
6	M321 PIPE 2.0	.560	68.2..	14	.137	68..	5	1491..	32130	1871...	1871...	H1-
7	KM18 L2.5x2.5x3	.449	40.8..	22	.010	81...y	12	7075..	2919..	872.5...	15.18...	H2-1
8	KM17 L2.5x2.5x3	.448	40.8..	27	.010	0 z	12	7075..	2919..	872.5...	15.18...	H2-1
9	KM12 L2.5x2.5x3	.438	40.8..	27	.010	81...y	18	7075..	2919..	872.5...	15.18...	H2-1

Envelope AISC 14th(360-10): LRFD Steel Code Checks (Continued)

Member	Shape	Code Check	Loc1	LC	Shear C.	Lo	LC	phi*	phi*	M	phi*	E _{gn}	
10	KM6	L2.5x2.5x3	40.8	.32	.010	0	Y	15	7075	.2919	.8725	.1518	H2-1
11	KM11	L2.5x2.5x3	40.8	.32	.010	81	Z	18	7075	.2919	.8725	.1518	H2-1
12	KM5	L2.5x2.5x3	40.8	.22	.010	0	Z	15	7075	.2919	.8725	.1518	H2-1
13	M163	PIPE 2.0	68.2	.13	.198	68		12	1491	.32130	1871	.1871	H1
14	M306B	PIPE 2.0	68.2	.8	.195	68		6	1491	.32130	1871	.1871	H1
15	M279A	PIPE 2.0	68.2	.3	.170	48		17	1491	.32130	1871	.1871	H1
16	M273A	PIPE 2.0	68.2	.8	.149	53		4	1491	.32130	1871	.1871	H1
17	M126	PIPE 2.0	18.3	.18	.247	13		16	4678	.32130	1871	.1871	H1
18	M116	PIPE 2.0	18.3	.13	.232	13		11	4678	.32130	1871	.1871	H1
19	M327	PIPE 2.0	68.2	.3	.134	68		15	1491	.32130	1871	.1871	H1
20	M300B	PIPE 2.0	68.2	.11	.138	53		10	1491	.32130	1871	.1871	H1
21	M121	PIPE 2.0	18.3	.7	.244	13		5	4678	.32130	1871	.1871	H1
22	M111	L2.5x2.5x4	0	.12	.139	0	Y	11	3569	.37485	1082	.2466	H2-1
23	M110	L2.5x2.5x4	14.9	.16	.137	14	Z	16	3569	.37485	1082	.2466	H2-1
24	M209	HSS4X4X4	0	.12	.171	0	Z	12	9285	.1061	.1231	.1231	H1
25	M109	L2.5x2.5x4	0	.7	.146	14	Z	5	3569	.37485	1082	.2466	H2-1
26	M189A	HSS4X4X4	0	.18	.166	0	Z	18	9285	.1061	.1231	.1231	H1
27	M51	HSS4X4X4	0	.7	.158	0	Z	7	9285	.1061	.1231	.1231	H1
28	M280	HSS4X4X4	0	.26	.118	27	Z	3	1040	.1061	.1231	.1231	H1
29	M246A	HSS4X4X4	0	.31	.117	27	Z	8	1040	.1061	.1231	.1231	H1
30	M63	HSS4X4X4	0	.20	.114	27	Z	14	1040	.1061	.1231	.1231	H1
31	M279	HSS4X4X4	30.4	.23	.129	3	Z	14	1040	.1061	.1231	.1231	H1
32	M245A	HSS4X4X4	30.4	.29	.127	3	Z	3	1040	.1061	.1231	.1231	H1
33	M60	HSS4X4X4	30.4	.34	.121	3	Z	8	1040	.1061	.1231	.1231	H1
34	M104	L2x2x3	0	.17	.010	50	Y	21	9585	.22743	542.2	.1204	H2-1
35	M106	L2x2x3	0	.5	.012	50	Z	33	9585	.22743	542.2	.1204	H2-1
36	M98	L2x2x3	0	.6	.010	50	Y	27	9585	.22743	542.2	.1204	H2-1
37	M100	L2x2x3	0	.11	.012	50	Z	22	9585	.22743	542.2	.1204	H2-1
38	M94	L2x2x3	0	.16	.012	50	Z	27	9585	.22743	542.2	.1204	H2-1
39	M92	L2x2x3	0	.11	.010	50	Y	32	9585	.22743	542.2	.1204	H2-1
40	M69	PIPE 3.0	114	.14	.239	11		3	2126	.65205	5748	.5748	H1
41	M75	PIPE 3.0	114	.4	.244	11		9	2126	.65205	5748	.5748	H1
42	M72	PIPE 3.0	114	.10	.222	11		14	2126	.65205	5748	.5748	H1

Envelope Plate/Shell Principal Stresses

Plate	Surf...	Sigma1 [ksi]		Sigma2 [ksi]		Tau Max [ksi]		Angle [rad]		Von Mises [ksi]		LC	
		max	min	max	min	LC	Angle [rad]	LC	Von Mises [ksi]				
1	P732	max	T	16.923	12	3.446	12	7.086	11	2.327	87	15.683	11
2		min		-2.581	4	-15.113	4	.107	2	-.774	95	.287	50
3	P804	max	B	7.648	4	1.607	5	4.487	12	2.322	96	10.539	12
4		min		-2.632	12	-11.606	12	.052	98	-.748	89	.134	98
5	P661	max	T	16.526	6	3.313	7	6.973	6	2.311	18	15.399	6
6		min		-2.439	15	-14.625	15	.033	50	.277	3	.199	97
7	P236	max	B	7.067	15	1.399	15	4.29	7	2.261	1	10.054	7
8		min		-2.483	7	-11.063	7	.428	95	.301	18	.994	95
9	P235	max	T	16.136	17	3.207	18	6.544	17	2.335	12	14.849	17
10		min		-2.378	10	-14.214	9	.014	93	-.095	61	.08	78
11	P236	max	B	6.525	10	1.348	10	4.013	18	2.274	13	9.433	18
12		min		-2.364	18	-10.39	18	.013	74	.248	74	.033	73
13	P235	max	T	14.153	5	5.351	5	4.401	5	2.271	36	12.377	5
14		min		-5.283	13	-13.642	13	.07	38	-.773	38	.122	87
15	P235	max	B	14.054	13	4.568	13	4.887	5	2.34	54	12.748	5
16		min		-4.645	5	-14.419	5	.11	52	-.762	68	.204	52
17	P235	max	T	14.016	5	6.08	5	3.968	5	2.348	28	12.174	5
18		min		-6.098	13	-13.503	13	.011	36	-.772	83	.085	36
19	P235	max	B	13.653	13	6.659	13	3.77	5	2.339	68	12.126	5

APPENDIX D
ADDITIONAL CALCUATIONS

CCI Mount Analysis Square Plate Connection 1.0.1



Location:	A	Select
------------------	---	--------

TIA Revision:	TIA-222-H	Select
----------------------	-----------	--------

SITE DATA		
BU Number:	842872	
Site Name:	ROCKY HILL	
Order Number:	517090	

REACTIONS		
Moment:	2.960	kip-ft
Axial:	0.860	kips
Shear:	1.660	kips

BOLT DATA		
Quantity:	4	
Diameter:	0.625	in
Material:	A325	Select
Fy:	92	ksi
Fu:	120	ksi
Bolt Spacing:	6	in

Load Combination	4
-------------------------	---

BOLT RESULTS		
Max Bolt (Cu+ Vu/η):	4.40	kips
Axial Design Strength:	21.70	kips
Stress Ratio	20.29%	

PLATE DATA		
Width:	8	in
Thickness:	0.75	in
Fy:	36	ksi

PLATE RESULTS		
Base Plate Stress:	9.60	ksi
Bending Strength:	32.40	ksi
Stress Ratio:	29.62%	

SUPPORT ARM DATA		
Type:	HSST	Select
Diameter/Width:	4	in
Thickness	0.25	in
Fy:	35	ksi
Number of Sides:	4	

Controlling Load Combination	4
-------------------------------------	---

Exhibit F

Power Density/RF Emissions Report



RF EMISSIONS COMPLIANCE REPORT

Crown Castle on behalf of AT&T Mobility, LLC

Crown Castle Site Name: ROCKY HILL
Crown Castle Site BU: 842872
AT&T Mobility, LLC FA #: 10071221
52 New Britain Avenue
Rocky Hill, CT
6/11/2020

Report Status:

AT&T Mobility, LLC is Compliant



Michael Fischer, P.E.
Registered Professional Engineer (Electrical)
Connecticut License Number 33928
Expires January 31, 2021

Signed 11 June 2020

Prepared By:

Site Safe, LLC

8618 Westwood Center Drive
Suite 315

Vienna, VA 22182

Voice: 703-276-1100
Fax: 703-276-1169

Engineering Statement in Re:
Electromagnetic Energy Analysis
Crown Castle
Rocky Hill, CT

My signature on the cover of this document indicates:

That I am registered as a Professional Engineer in the jurisdiction indicated; and

That I have extensive professional experience in the wireless communications engineering industry; and

That I am an employee of Site Safe, LLC in Vienna, Virginia; and

That I am thoroughly familiar with the Rules and Regulations of the Federal Communications Commission ("the FCC" and "the FCC Rules") both in general and specifically as they apply to the FCC's Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields; and

That the technical information serving as the basis for this report was supplied by Crown Castle on behalf of AT&T Mobility, LLC (see attached Site Summary and Carrier documents) and that AT&T Mobility, LLC's installation involves communications equipment, antennas and associated technical equipment at a location referred to as "ROCKY HILL" ("the site"); and

That AT&T Mobility, LLC proposes to operate at the site with transmit antennas listed in the carrier summary and with a maximum effective radiated power as specified by AT&T Mobility, LLC and shown on the worksheet and that worst-case 100% duty cycle has been assumed; and

That in addition to the emitters specified in the worksheet, there are additional collocated point-to-point microwave facilities on this structure, and the antennas used are highly directional and oriented at angles at or just below the horizontal, and that the energy present at ground level is typically so low as to be considered insignificant and has not been included in this analysis (a list of microwave antennas is included); and

That this analysis has been performed with the assumption that the ground immediately surrounding the tower is primarily flat or falling; and

That at this time, the FCC requires that certain licensees address specific levels of radio frequency energy to which workers or members of the public might possibly be exposed (at §1.1307(b) of the FCC Rules); and

That such consideration of possible exposure of humans to radio frequency energy must utilize the standards set by the FCC, which is the federal agency having jurisdiction over communications facilities; and

That the FCC rules define two tiers of permissible exposure guidelines: 1) "uncontrolled environments," which defines situations in which persons may not be aware of (the "general public"), or may not be able to control their exposure to a transmission facility; and 2) "controlled environments," which defines situations in which persons are aware of their potential for exposure (industry personnel); and

That this statement specifically addresses the uncontrolled environment (which is more conservative than the controlled environment) and the limit set forth in the FCC rules for licensees of AT&T Mobility, LLC's operating frequencies as shown on the attached antenna worksheet; and

That when applying the uncontrolled environment standards, the predicted Maximum Power Density at two meters above ground level from the proposed AT&T Mobility, LLC operation is no more than 1.972% of the maximum permissible exposure limits in any accessible area on the ground; and

That it is understood per FCC Guidelines and OET 65 Appendix A, that regardless of the existent radio frequency environment, only those licensees whose contributions exceed 5% of the exposure limit pertinent to their operation(s) bear any responsibility for bringing any non-compliant area(s) into compliance; and

That when applying the uncontrolled environment standards, the cumulative predicted energy density from the proposed operation is no more than 9.884% of the maximum in any accessible area up to two meters above the ground per OET 65; and

That the calculations provided in this report are based on data provided by the client and antenna pattern data supplied by the antenna manufacturer, in accordance with FCC guidelines listed in OET 65. Horizontal and vertical antenna patterns are combined for modeling purposes to accurately reflect the energy two meters above ground level where on-axis energy refers to maximum energy two meters above the ground along the azimuth of the antenna and where area energy refers to the maximum energy anywhere two meters above the ground regardless of the antenna azimuth, accounting for cumulative energy from multiple antennas for the carrier(s) and frequency range(s) indicated; and

That the Occupational Safety and Health Administration has policies in place which address worker safety in and around communications sites, thus individual companies will be responsible for their employees' training regarding radio frequency safety; and

In summary, it is stated here that the proposed operation at the site will not result in exposure of the public to excessive levels of radio frequency energy as defined in the FCC Rules and Regulations, specifically 47 CFR 1.1307(b), and that AT&T Mobility, LLC's proposed operation is completely compliant.

Finally, it is stated that access to the tower should be restricted to communication industry professionals and approved contractor personnel trained in radio frequency safety and that this instant analysis addresses exposure levels at two meters above ground level and does not address exposure levels on the tower or in the immediate proximity of the antennas.

**Crown Castle
ROCKY HILL
Site Summary**

Carrier	Area Maximum Percentage MPE
AT&T Mobility, LLC	0.405 %
AT&T Mobility, LLC	0.265 %
AT&T Mobility, LLC	0.118 %
AT&T Mobility, LLC	0.178 %
AT&T Mobility, LLC	0.116 %
AT&T Mobility, LLC	0.069 %
AT&T Mobility, LLC (Proposed)	0.409 %
AT&T Mobility, LLC (Proposed)	0.206 %
AT&T Mobility, LLC (Proposed)	0.206 %
Clearwire	0.092 %
Sprint	0.272 %
Sprint	0.184 %
Sprint	0.184 %
Sprint	0.139 %
T-Mobile	0.131 %
T-Mobile	0.192 %
T-Mobile	0.206 %
Town of Rocky Hill	0.141 %
Verizon Wireless	2.011 %
Verizon Wireless	1.530 %
Verizon Wireless	1.762 %
Verizon Wireless	1.068 %
Composite Site MPE:	9.884 %

**AT&T Mobility, LLC
ROCKY HILL
Carrier Summary**

Frequency:

2100 MHz
1000 $\mu\text{W}/\text{cm}^2$
4.04916 $\mu\text{W}/\text{cm}^2$
0.40492 %

Maximum Permissible Exposure (MPE):

Maximum power density at ground level:

Highest percentage of Maximum Permissible Exposure:

		On Axis			Area			
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
CCI Antennas	HPA-65R-BUU-H6	168	20	4530	3.209872	0.320987	3.989085	0.398908
CCI Antennas	HPA-65R-BUU-H6	168	140	4530	3.209872	0.320987	3.989085	0.398908
CCI Antennas	HPA-65R-BUU-H6	168	270	4530	3.209872	0.320987	3.989085	0.398908

**AT&T Mobility, LLC
ROCKY HILL
Carrier Summary**

Frequency:

763 MHz

Maximum Permissible Exposure (MPE):

508.67 $\mu\text{W}/\text{cm}^2$

Maximum power density at ground level:

1.34683 $\mu\text{W}/\text{cm}^2$

Highest percentage of Maximum Permissible Exposure:

0.26478 %

			On Axis			Area		
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
CCI Antennas	HPA-65R-BUU-H6	168	20	2350	0.813167	0.159862	1,247186	0.245187
CCI Antennas	HPA-65R-BUU-H6	168	140	2350	0.813167	0.159862	1,247186	0.245187
CCI Antennas	HPA-65R-BUU-H6	168	270	2350	0.813167	0.159862	1,247186	0.245187

**AT&T Mobility, LLC
ROCKY HILL
Carrier Summary**

Frequency:

2300 MHz

Maximum Permissible Exposure (MPE):

1000 $\mu\text{W}/\text{cm}^2$

Maximum power density at ground level:

1.18317 $\mu\text{W}/\text{cm}^2$

Highest percentage of Maximum Permissible Exposure:

0.11832 %

		On Axis				Area		
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
Quintel	QS66512-2	168	20	2858	0.541781	0.054178	1.098678	0.109868
Quintel	QS66512-2	168	140	2858	0.541781	0.054178	1.098678	0.109868
Quintel	QS66512-2	168	270	2858	0.541781	0.054178	1.098678	0.109868

**AT&T Mobility, LLC
ROCKY HILL
Carrier Summary**

Frequency:

1900 MHz

Maximum Permissible Exposure (MPE):

1000 $\mu\text{W}/\text{cm}^2$

Maximum power density at ground level:

1.77692 $\mu\text{W}/\text{cm}^2$

Highest percentage of Maximum Permissible Exposure:

0.17769 %

		On Axis				Area		
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
Quintel	QS66512-2	168	20	4170	0.772648	0.077265	1.586261	0.158626
Quintel	QS66512-2	168	140	4170	0.772648	0.077265	1.586261	0.158626
Quintel	QS66512-2	168	270	4170	0.772648	0.077265	1.586261	0.158626

**AT&T Mobility, LLC
ROCKY HILL
Carrier Summary**

Frequency:

722 MHz

Maximum Permissible Exposure (MPE):

481.33 $\mu\text{W}/\text{cm}^2$

Maximum power density at ground level:

0.56009 $\mu\text{W}/\text{cm}^2$

Highest percentage of Maximum Permissible Exposure:

0.11636 %

		On Axis				Area		
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
Quintel	QS66512-2	168	20	1120	0.383366	0.079647	0.542638	0.112736
Quintel	QS66512-2	168	140	1120	0.383366	0.079647	0.542638	0.112736
Quintel	QS66512-2	168	270	1120	0.383366	0.079647	0.542638	0.112736

**AT&T Mobility, LLC
ROCKY HILL
Carrier Summary**

Frequency:

850 MHz

Maximum Permissible Exposure (MPE):

566.67 $\mu\text{W}/\text{cm}^2$

Maximum power density at ground level:

0.38986 $\mu\text{W}/\text{cm}^2$

Highest percentage of Maximum Permissible Exposure:

0.06880 %

		On Axis				Area		
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
Powerwave	7770	168	20	547	0.181745	0.032073	0.284400	0.050188
Powerwave	7770	168	140	547	0.181745	0.032073	0.284400	0.050188
Powerwave	7770	168	270	547	0.181745	0.032073	0.284400	0.050188

**AT&T Mobility, LLC (Proposed)
ROCKY HILL
Carrier Summary**

Frequency:

1900 MHz

Maximum Permissible Exposure (MPE):

1000 $\mu\text{W}/\text{cm}^2$

Maximum power density at ground level:

4.08646 $\mu\text{W}/\text{cm}^2$

Highest percentage of Maximum Permissible Exposure:

0.40865 %

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
CCI Antennas	DMP65R-BU6D	168	20	4075	3.403727	0.340373	4.028016	0.402802
CCI Antennas	DMP65R-BU6D	168	140	4075	3.403727	0.340373	4.028016	0.402802
CCI Antennas	DMP65R-BU6D	168	270	4075	3.403727	0.340373	4.028016	0.402802

**AT&T Mobility, LLC (Proposed)
ROCKY HILL
Carrier Summary**

Frequency:

850 MHz

Maximum Permissible Exposure (MPE):

566.67 $\mu\text{W}/\text{cm}^2$

Maximum power density at ground level:

1.16962 $\mu\text{W}/\text{cm}^2$

Highest percentage of Maximum Permissible Exposure:

0.20640 %

		On Axis				Area		
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
CCI Antennas	DMP65R-BU6D	168	20	2239	0.603070	0.106424	1.113796	0.196552
CCI Antennas	DMP65R-BU6D	168	140	2239	0.603070	0.106424	1.113796	0.196552
CCI Antennas	DMP65R-BU6D	168	270	2239	0.603070	0.106424	1.113796	0.196552

**AT&T Mobility, LLC (Proposed)
ROCKY HILL
Carrier Summary**

Frequency:

737 MHz

Maximum Permissible Exposure (MPE):

491.33 $\mu\text{W}/\text{cm}^2$

Maximum power density at ground level:

1.00982 $\mu\text{W}/\text{cm}^2$

Highest percentage of Maximum Permissible Exposure:

0.20553 %

		On Axis				Area		
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
CCI Antennas	DMP65R-BU6D	168	20	2400	0.656171	0.133549	0.849068	0.172809
CCI Antennas	DMP65R-BU6D	168	140	2400	0.656171	0.133549	0.849068	0.172809
CCI Antennas	DMP65R-BU6D	168	270	2400	0.656171	0.133549	0.849068	0.172809

**Clearwire
ROCKY HILL
Carrier Summary**

Frequency:

2500 MHz

Maximum Permissible Exposure (MPE):

1000 $\mu\text{W}/\text{cm}^2$

Maximum power density at ground level:

0.91695 $\mu\text{W}/\text{cm}^2$

Highest percentage of Maximum Permissible Exposure:

0.09169 %

		On Axis			Area			
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
Kathrein-Scala	84010054	140	0	1031	0.386217	0.038622	0.858764	0.085876
Kathrein-Scala	84010054	140	120	1031	0.386217	0.038622	0.858764	0.085876
Kathrein-Scala	84010054	140	240	1031	0.386217	0.038622	0.858764	0.085876

**Sprint
ROCKY HILL
Carrier Summary**

Frequency: 2500 MHz
 Maximum Permissible Exposure (MPE): 1000 $\mu\text{W}/\text{cm}^2$
 Maximum power density at ground level: 2.72163 $\mu\text{W}/\text{cm}^2$
 Highest percentage of Maximum Permissible Exposure: 0.27216 %

		On Axis			Area			
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
RFS	APXVTM14-C-I20	142	0	6168	1.123528	0.112353	2.109804	0.210980
RFS	APXVTM14-C-I20	142	120	6168	1.123528	0.112353	2.109804	0.210980
RFS	APXVTM14-C-I20	142	240	6168	1.123528	0.112353	2.109804	0.210980

**Sprint
ROCKY HILL
Carrier Summary**

Frequency:

1990 MHz

Maximum Permissible Exposure (MPE):

1000 $\mu\text{W}/\text{cm}^2$

Maximum power density at ground level:

1.83876 $\mu\text{W}/\text{cm}^2$

Highest percentage of Maximum Permissible Exposure:

0.18388 %

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
RFS	APXVSPP18-C-A20	142	0	3804	0.922453	0.092245	1.701335	0.170133
RFS	APXVSPP18-C-A20	142	120	3804	0.922453	0.092245	1.701335	0.170133
RFS	APXVSPP18-C-A20	142	240	3804	0.922453	0.092245	1.701335	0.170133

**Sprint
ROCKY HILL
Carrier Summary**

Frequency:

1900 MHz

Maximum Permissible Exposure (MPE):

1000 $\mu\text{W}/\text{cm}^2$

Maximum power density at ground level:

1.83876 $\mu\text{W}/\text{cm}^2$

Highest percentage of Maximum Permissible Exposure:

0.18388 %

		On Axis			Area			
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
RFS	APXVSP18-C-A20	142	0	3804	0.922453	0.092245	1.701335	0.170133
RFS	APXVSP18-C-A20	142	120	3804	0.922453	0.092245	1.701335	0.170133
RFS	APXVSP18-C-A20	142	240	3804	0.922453	0.092245	1.701335	0.170133

**Sprint
ROCKY HILL
Carrier Summary**

Frequency:

862 MHz

Maximum Permissible Exposure (MPE):

574.67 $\mu\text{W}/\text{cm}^2$

Maximum power density at ground level:

0.79785 $\mu\text{W}/\text{cm}^2$

Highest percentage of Maximum Permissible Exposure:

0.13884 %

Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	On Axis		Area	
					Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
RFS	APXVSPP18-C-A20	142	0	2168	0.766120	0.133316	0.777726	0.135335
RFS	APXVSPP18-C-A20	142	120	2168	0.766120	0.133316	0.777726	0.135335
RFS	APXVSPP18-C-A20	142	240	2168	0.766120	0.133316	0.777726	0.135335

**T-Mobile
ROCKY HILL
Carrier Summary**

Frequency:

1900 MHz

Maximum Permissible Exposure (MPE):

1000 $\mu\text{W}/\text{cm}^2$

Maximum power density at ground level:

1.31239 $\mu\text{W}/\text{cm}^2$

Highest percentage of Maximum Permissible Exposure:

0.13124 %

		On Axis			Area			
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
Ericsson	AIR 21 B2A B4P	159	60	4123	0.781774	0.078177	0.895624	0.089562
Ericsson	AIR 21 B2A B4P	159	180	4123	0.781774	0.078177	0.895624	0.089562
Ericsson	AIR 21 B2A B4P	159	300	4123	0.781774	0.078177	0.895624	0.089562

**T-Mobile
ROCKY HILL
Carrier Summary**

Frequency: 2100 MHz
Maximum Permissible Exposure (MPE): 1000 $\mu\text{W}/\text{cm}^2$
Maximum power density at ground level: 1.92401 $\mu\text{W}/\text{cm}^2$
Highest percentage of Maximum Permissible Exposure: 0.19240 %

			On Axis			Area		
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
Ericsson	AIR21 B4A B12P-B8P	159	60	3275	0.993474	0.099347	1.816390	0.181639
Ericsson	AIR21 B4A B12P-B8P	159	180	3275	0.993474	0.099347	1.816390	0.181639
Ericsson	AIR21 B4A B12P-B8P	159	300	3275	0.993474	0.099347	1.816390	0.181639

**T-Mobile
ROCKY HILL
Carrier Summary**

Frequency: 700 MHz
 Maximum Permissible Exposure (MPE): 466.67 $\mu\text{W}/\text{cm}^2$
 Maximum power density at ground level: 0.96200 $\mu\text{W}/\text{cm}^2$
 Highest percentage of Maximum Permissible Exposure: 0.20614 %

		On Axis			Area	
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
Ericsson	AIR21 B4A B12P-B8P	159	60	1637	0.496735	0.106443
Ericsson	AIR21 B4A B12P-B8P	159	180	1637	0.496735	0.106443
Ericsson	AIR21 B4A B12P-B8P	159	300	1637	0.496735	0.106443
					0.908192	0.194613
					0.908192	0.194613
					0.908192	0.194613

**Town of Rocky Hill
ROCKY HILL
Carrier Summary**

Frequency:

450 MHz

Maximum Permissible Exposure (MPE):

300 $\mu\text{W}/\text{cm}^2$

Maximum power density at ground level:

0.42433 $\mu\text{W}/\text{cm}^2$

Highest percentage of Maximum Permissible Exposure:

0.14144 %

		On Axis				Area		
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
Austin Antenna	APC 301	184	240	50	0.115634	0.038545	0.115634	0.038545
Austin Antenna	APC 4065	184	120	50	0.103470	0.034490	0.103470	0.034490
Austin Antenna	APC 1362	185	120	50	0.087934	0.029311	0.087934	0.029311
Austin Antenna	APC 2163	185	0	50	0.080904	0.026968	0.080904	0.026968
dBSpectra	DS4C06F36D-D	188	0	50	0.049332	0.016444	0.049332	0.016444
dBSpectra	DS4C06F36D-D	188	240	50	0.049332	0.016444	0.049332	0.016444
TELEWAVE	ANT450D6-9	173	20	50	0.039236	0.013079	0.042585	0.014195

**Verizon Wireless
ROCKY HILL
Carrier Summary**

Frequency: 850 MHz
 Maximum Permissible Exposure (MPE): 566.67 $\mu\text{W}/\text{cm}^2$
 Maximum power density at ground level: 11.39621 $\mu\text{W}/\text{cm}^2$
 Highest percentage of Maximum Permissible Exposure: 2.01110 %

		On Axis				Area		
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
Antel	BXA-70080-4BF	90	30	2536	3.189311	0.562820	5.217719	0.920774
Antel	BXA-70080-4BF	90	150	2536	3.189311	0.562820	5.217719	0.920774
Antel	BXA-70080-4BF	90	270	2536	3.189311	0.562820	5.217719	0.920774

**Verizon Wireless
ROCKY HILL
Carrier Summary**

Frequency: 2100 MHz
 Maximum Permissible Exposure (MPE): 1000 $\mu\text{W}/\text{cm}^2$
 Maximum power density at ground level: 15.30023 $\mu\text{W}/\text{cm}^2$
 Highest percentage of Maximum Permissible Exposure: 1.53002 %

			On Axis			Area		
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
Commscope	NHH-65B-R2B	90	30	6763	9.473977	0.947398	15.273121	1.527312
Commscope	NHH-65B-R2B	90	150	6763	9.473977	0.947398	15.273121	1.527312
Commscope	NHH-65B-R2B	90	270	6763	9.473977	0.947398	15.273121	1.527312

**Verizon Wireless
ROCKY HILL
Carrier Summary**

Frequency:

1900 MHz

Maximum Permissible Exposure (MPE):

1000 $\mu\text{W}/\text{cm}^2$

Maximum power density at ground level:

17.61860 $\mu\text{W}/\text{cm}^2$

Highest percentage of Maximum Permissible Exposure:

1.76186 %

		On Axis			Area			
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
Commscope	NHH-65B-R2B	90	30	6027	12.425214	1.242521	16.591482	1.659148
ANDREW	HBXX-6517DS-VTM	90	30	2052	1.3825730	0.138257	2.562129	0.256213
Commscope	NHH-65B-R2B	90	150	6027	12.425214	1.242521	16.591482	1.659148
ANDREW	HBXX-6517DS-VTM	90	150	2052	1.3825730	0.138257	2.562129	0.256213
Commscope	NHH-65B-R2B	90	270	6027	12.425214	1.242521	16.591482	1.659148
ANDREW	HBXX-6517DS-VTM	90	270	2052	1.3825730	0.138257	2.562129	0.256213

**Verizon Wireless
ROCKY HILL
Carrier Summary**

Frequency:

751 MHz

Maximum Permissible Exposure (MPE):

500.67 $\mu\text{W}/\text{cm}^2$

Maximum power density at ground level:

5.34908 $\mu\text{W}/\text{cm}^2$

Highest percentage of Maximum Permissible Exposure:

1.06839 %

		On Axis			Area			
Antenna Make	Model	Height (feet)	Orientation (degrees true)	ERP (Watts)	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE	Max Power Density ($\mu\text{W}/\text{cm}^2$)	Percent of MPE
Commscope	NHH-65B-R2B	90	30	3021	3.696132	0.738242	5.251020	1.048806
Commscope	NHH-65B-R2B	90	150	3021	3.696132	0.738242	5.251020	1.048806
Commscope	NHH-65B-R2B	90	270	3021	3.696132	0.738242	5.251020	1.048806

ROCKY HILL

Composite Microwave Antenna Summary

Carrier	Antenna Make/Model	Height (feet)
Clearwire	Andrew VHLP2.5-10W	144
Clearwire	Andrew VHLP2.5-10W	144
Town of Rocky Hill	Radiowaves HPD2-4,7	177
Town of Rocky Hill	Radiowaves HPD2-4,7	177