



NSS **NORTHEAST**
SITE SOLUTIONS
Turnkey Wireless Development

Northeast Site Solutions
Denise Sabo
4 Angela's Way, Burlington CT 06013
203-435-3640
denise@northeastsitesolutions.com

September 7, 2021

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

RE: Exempt Modification Application
347 East Street, Wolcott, CT 06716
Latitude: 41.559500
Longitude: -72.946900
Site#: 806362_Crown_VZW

Dear Ms. Bachman:

Verizon Wireless is requesting to file an exempt modification for an existing tower located at 347 East Street, Wolcott, CT 06716. Verizon Wireless currently maintains twelve (12) antennas at the 177-foot level of the existing 185-foot tower. The property is owned by Augustinho & Joanne Rodrigues and the tower is owned by Crown Castle. Verizon now intends to replace six (6) of the existing antenna and add three (3) new antenna. The new antennas would be installed at the 177-foot level of the tower. This modification includes B2, B5 hardware that is both 4G (LTE), and 5G capable. Antenna mount modifications will be completed as per the attached Maser mount analysis dated July 6, 2021.

Verizon Planned Modifications:

Remove: (1) Raycap

Remove and Replace:

- (3) SBNHH-1045B Antenna (REMOVE) – (3) Andrew JAHH 65B R3B Antenna (REPLACE)
- (3) SBNHH-1D65B Antenna (REMOVE) – (3) Andrew JAHH 65B R3B Antenna (REPLACE)
- (3) Nokia B13 RRH (REMOVE) - (3) Samsung B2/B66A -BRO49 – RFV01U-D1A RRH (REPLACE)
- (3) Nokia B4 RRH (REMOVE) - (3) Samsung B5/B13 -BRO4C – RFV01U-D2A RRH (REPLACE)

Install New:

- (3) Sub6 VZS01 Antenna
- (3) Commscope Antenna Mount
- (3) Diplexers
- (1) Raycap
- (1) Hybrid



Existing to Remain:

- (2) LPA-80063/6CF Antenna
- (2) SC-E 6014 Rev2 Antenna
- (2) DB846F65ZAXY Antenna
- (12) Coax
- (1) Hybrid Line

The facility was approved by the Connecticut Siting Council in Docket No. 56 on April 14, 1986. Please see attached.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies § 16- SOj-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-SOj-73, a copy of this letter is being sent to The Honorable Thomas G. Dunn, Mayor, and David Kalinowski, Zoning Inspector, for the Town of Wolcott. A copy is also being sent to the tower owner, and property owner.

The planned modifications to the facility fall squarely within those activities explicitly provided for in R.C.S.A. § 16-50j-72(b)(2).

1. The proposed modifications will not result in an increase in the height of the existing structure.
2. The proposed modifications will not require the extension of the site boundary.
3. The proposed modifications will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
4. The operation of the replacement antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard.
5. The proposed 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, Verizon Wireless respectfully submits that the proposed modifications to the above referenced telecommunications facility constitute an exempt modification under R.C.S.A. § 16-50j-72(b)(2).

Sincerely,

Denise Sabo
Mobile: 203-435-3640
Fax: 413-521-0558
Office: 4 Angela's Way, Burlington CT 06013
Email: denise@northeastsitesolutions.com



NSS **NORTHEAST**
SITE SOLUTIONS
Turnkey Wireless Development

Attachments

cc: The Honorable Thomas G. Dunn, Mayor
Wolcott Town Hall
10 Kenea Avenue Wolcott, CT 06716

David Kalinowski, Zoning Inspector
Wolcott Town Hall
10 Kenea Avenue Wolcott, CT 06716

Augustinho & Joanne Rodrigues, Property Owner
347 East Street Wolcott, CT 06716

Crown Castle, Tower Owner

Exhibit A

Original Facility Approval

AN APPLICATION OF METRO MOBILE CTS OF NEW HAVEN, INC., FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED FOR THE CONSTRUCTION, MAINTENANCE, AND OPERATION OF FACILITIES TO PROVIDE CELLULAR SERVICE IN NEW HAVEN COUNTY. : CONNECTICUT SITING
: COUNCIL
: April 14, 1986

D E C I S I O N A N D O R D E R

Pursuant to the foregoing opinion, the Council hereby directs that a certificate of environmental compatibility and public need as required by section 16-50k of the General Statutes of Connecticut (CGS) be issued to Metro Mobile CTS of New Haven, Inc., for the construction, maintenance, and operation of cellular mobile phone telecommunication towers and associated equipment in the towns of Wolcott, Naugatuck, West Haven (existing tower), Milford, Hamden (existing tower), Guilford, and North Branford subject to the conditions below.

1. The proposed and alternate Beacon Falls sites are rejected without prejudice.
2. The Wolcott tower shall be constructed to meet Zone C wind loading with 1" of radial ice and shall not exceed 180' in height excluding antennas.
3. The Naugatuck tower shall not exceed 160' in height, excluding antennas. The certificate holder shall offer to remove the existing privately owned, unused tower now on the site.
4. Any future actions requiring the removal of the existing West Haven or Hamden towers to be shared by the certificate holder shall also apply to the equipment mounted on those towers by the certificate holder, regardless of that equipment's status under Chapter 277a of the CGS.

5. The Milford tower shall be a monopole structure not to exceed 100' in height, excluding antennas.
6. The Guilford tower shall be a monopole structure not to exceed 150' in height, excluding antennas.
7. The North Branford Route 17 site is rejected. The North Branford East Reeds Gap Road tower shall not exceed 160' in height, excluding antennas.
8. The certificate holder shall submit a development and management plan for the Wolcott, Naugatuck, Milford, Hamden, Guilford, and North Branford sites pursuant to sections 16-50j-75 through 16-50j-77 of the RSA, except that irrelevant items in section 16-50j-76 need only be identified as such. In addition to the requirements of section 16-50j-76, the D&M plan shall provide plans for evergreen screening around the fenced perimeter at the Wolcott, Milford, Hamden, Guilford, and North Branford sites. The D&M plan shall include a proposal for painting the approved monopole structures to blend with the sky. Any changes to specifications in the D&M plan must be approved by the Council prior to facility operation.
9. All certified facilities shall be constructed, operated, and maintained as specified in the Council's record and in the site development and management plan required by order 8.
10. The certificate holder shall permit public or private entities to share space on the towers approved herein, for due consideration received, or shall provide any requesting entity with specific legal, technical, environmental, or economic reasons precluding such tower sharing. In addition to complying with 16-50j-73, the

certificate holder shall notify the Council of the addition of any equipment to any approved tower.

11. A fence not lower than 8' shall surround each tower and associated equipment.
12. Unless necessary to comply with order 13, below, no lights shall be installed on any of these towers.
13. The facilities' construction and any future tower sharing shall be in accordance with all applicable federal, state, and municipal laws and regulations. Shared uses by entities not subject to jurisdiction pursuant to sections 16-50i and 16-50k of the CGS shall be subject to all applicable federal, state, and municipal laws and regulations.
14. Construction activities shall take place during daylight working hours.
15. This decision and order shall be void and the towers and associated equipment shall be dismantled and removed, or reapplication for any new use shall be made to the CSC before any such new use is made, if the towers do not provide or permanently cease to provide cellular service following completion of construction.
16. This decision and order shall be void if all construction authorized herein is not completed within three years of the issuance of this decision, or within three years of the completion of any appeal if appeal of this decision is taken, unless otherwise approved by the Council.

Pursuant to CGS section 16-50p, we hereby direct that a copy of the decision and order shall be served on each person listed below. A notice

of the issuance shall be published in The Record-Journal, The New Haven Register, The Branford Review, The Evening Sentinel, The Waterbury American, and The Waterbury Republican.

The parties to this proceeding are:

Metro Mobile CTS of New Haven, Inc. (Applicant)
5 Eversley Avenue
Norwalk, Connecticut 06855

ATTN: Armand Mascioli
General Manager

Mr. Kevin B. Sullivan, Esq. (its attorneys)
Byrne, Slater, Sandler, Shulman & Rouse, P.C.
111 Pearl Street
P.O. Box 3216
Hartford, Connecticut 06103

Mr. Richard Rubin, Esq.
Fleischman and Walsh, P.C.
1725 N Street, N.W.
Washington, D.C. 20036

Guilford Conservation Commission

represented by:

Mr. David B. Damer
Chairman
Guilford Conservation Commission
440 Great Hill Road
Guilford, Connecticut 06437

Mr. Robert W. Griswold, Jr.
100 Rimmon Hill Road
Beacon Falls, Connecticut 06403

Town of Hamden
Memorial Town Hall
2372 Whitney Avenue
Hamden, Connecticut 06518

ATTN: Shirley Gonzales
Town Planner

Guilford Planning and Zoning Commission

represented by:

Mr. David W. Fisher
Chairman
Town Hall
31 Park Street
Guilford, Connecticut 06437

Town of Hamden

represented by:

John DeNicola, Jr.
Mayor
Town of Hamden
Memorial Town Hall
2372 Whitney Avenue
New Haven, Connecticut 06518

Citizens Park Council of New Haven

represented by:

Mr. John J. Ciarleglio
President
Citizens Park Council
of New Haven
36 Elmwood Road
New Haven, Connecticut 06515

Mr. Thomas V. Keating
343 Rimmon Hill Road
Beacon Falls, Connecticut 06403

Ms. Evelyn M. Sirowich
245 Rimmon Hill Road
Beacon Falls, Connecticut 06403

Mr. Jack B. Levine
11 White Birch Lane
Beacon Falls, Connecticut 06403

Southern New England Telephone Company

represented by:

Mr. Peter J. Tyrrell, Esq.
227 Church Street
New Haven, Connecticut 06506

Mr. Dennis Bialecki
96 West Road
Beacon Falls, Connecticut 06403

Brittany Woods Homeowner's Association

represented by:

Mr. Stephen P. DeI Sole, Esq.
DeI Sole & DeI Sole
152 Temple Street
P.O. Box 405
New Haven, Connecticut 06502-0405

Ms. Barbara G. Schlein
Box 2993 Westville Station
New Haven, Connecticut 06515

Mr. & Mrs. Joseph T. Farrell, Jr.
334 Rimmon Hill Road
Beacon Falls, Connecticut 06403

Town of Beacon Falls

represented by:

The Honorable Leonard F. D'Amico
First Selectman
10 Maple Avenue
Beacon Falls, Connecticut 06403

West Rock Ridge Park Association

represented by:

Mr. William L. Doheny Jr., D.D.S.
President
220 Mountain Road
Hamden, Connecticut 06514

Department of Parks,
Recreation & Trees

represented by:

Mr. Robert G. Sheeley
Director
Parks, Recreation & Trees
P.O. Box 1416
New Haven, Connecticut 06506

Town of Wallingford

represented by:

William W. Dickinson, Jr.
Mayor
Municipal Building
350 Center Street
P.O. Box 427
Wallingford, Connecticut 06492

New Haven Sierra Club

represented by:

Ms. Laurie Klein
270 Edgewood Avenue
New Haven, Connecticut 06511

Peter M. Lerner
State Representative
8 Merritt Avenue
Woodbridge, Connecticut 06525

Carleton J. Benson
State Representative
161 Scott Road
Prospect, Connecticut 06712

Dr. Stephen Collins (service waived)
Vice Chairman
West Rock State Park
Advisory Council
Bethany, Connecticut

Mr. Louis Melillo (service waived)
985 Wintergreen Avenue
Hamden, Connecticut

Mr. John McGeever (service waived)
339 Rimmon Hill
Beacon Falls, Connecticut 06403

Senator John Consoli (service waived)
51 Luke Hill Road
Bethany, Connecticut 06525

Representative George P. Bassing (service waived)
14 Oakwood Drive
Seymour, Connecticut 06483

Dr. George D. Whitney (service waived)
858 Oakwood Road
Orange, Connecticut

Mr. Steve Molnar (service waived)
205 West Road
Beacon Falls, Connecticut

Mr. James W. Grandy (service waived)
President
Hamden Land Conservation Trust
Hamden, Connecticut

Senator Richard S. Eaton (service waived)
269 Mulberry Point Road
Guilford, Connecticut 06437

Representative Robert M. Ward
719 Totoket Road
Northford, Connecticut 06472

Town of North Branford

represented by:

John Gesmonde, Esquire
3127 Whitney Avenue
Hamden, Connecticut 06518

Regina Smith
1887 Middletown Avenue
Northford, Connecticut 06472

(service waived)

Richard A. Nizolek
The Restland Farm Corporation
Route 17
Northford, Connecticut 06472

Mary Liska
83 Reeds Gap Road
Northford, Connecticut 06472

Ben Bullard
50 Christmas Hill Road
Guilford, Connecticut 06437

(service waived)

Roland Robichaud
31 Berncliff Drive
North Branford, Connecticut 06471

(service waived)

Irene Flynn
1926 Middletown Avenue
Northford, Connecticut 06472

(service waived)

Charles Pope
199 Donalds Road
Guilford, Connecticut 06437

Richard Abate
131 Manor Road
Guilford, Connecticut 06437

(service waived)

City of Milford

represented by:

Mayor Alberta Jagoe
Alderman Maurice Condon
Alderman Frederick Lisman
City Hall
River Street
Milford, Connecticut 06460

Thomas Scelfo
81 Berncliff Drive
North Branford, Connecticut 06471

(service waived)

Senator Thomas Scott
22 Meyers Court
Milford, Connecticut 06460

(service waived)

Helen Moore
385 Oronoque Road
Milford, Connecticut 06460

(service waived)

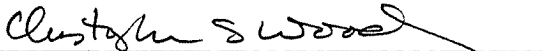
William Barberi
298 Oronoque Road
Milford, Connecticut 06460

(service waived)

STATE OF CONNECTICUT)
 :
COUNTY OF HARTFORD) ss. New Britain, April 14, 1986

I hereby certify that the foregoing is a true and correct copy of the decision and order issued by the Connecticut Siting Council, State of Connecticut.

ATTEST:



Christopher S. Wood, Executive Director
Connecticut Siting Council

Petition No. 673
Omnipoint Communications, Inc. (T-Mobile)
347 East Street
Wolcott, CT
Staff Report
June 9, 2004

On May 28, 2004, Connecticut Siting Council (Council) member Edward S. Wilensky and Christina Lepage of the Council staff met with Omnipoint Communications, Inc., a subsidiary of T-Mobile USA, Inc. (T-Mobile) representative Stephen Humes at 347 East Street, Wolcott, Connecticut for the inspection of an existing lattice tower. The structure is owned by Crown Castle. T-Mobile proposes to modify the existing tower by installing antennas and associated equipment for telecommunications use and is petitioning the Council for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need (Certificate) is required for the modification.

T-Mobile proposes to install six flush mounted antennas, which would be mounted to pipe supports attached to the existing 180-foot tower. The pipe mast would extend approximately ten feet above the top of the existing tower. The antennas would be mounted with a centerline at 188 feet above ground level (AGL) bringing the top of the tower to 190 feet three inches AGL. T-Mobile would install GPS and GSM antennas on the ice bridge at 30 feet AGL.

The proposed equipment would be installed on a 17-foot by five-foot concrete slab to be located within the existing fenced area at the base of the tower. Access to the tower is via an existing access drive extending from East Street. Utilities would originate from existing sources.

The tower is located in an industrial zone on property owned by Agostino Rodrigues. The proposed antennas are intended to provide coverage to a portion of Interstate 84, Route 322 and the surrounding area.

The calculated cumulative worst-case radio frequency power density would not exceed the applicable standard.

T-Mobile contends that the proposed project would reduce the need for another telecommunications tower to provide coverage to the area, and that the proposed project would not have a substantial environmental effect.

Exhibit B

Property Card

347 EAST ST

Location 347 EAST ST

Mblu 131/ 1/ 19/ /

Acct# R0478100

Owner RODRIGUES AGOSTINHO V &

Assessment \$453,670

Appraisal \$648,090

PID 5352

Building Count 3

Current Value

Appraisal			
Valuation Year	Improvements	Land	Total
2016	\$401,720	\$246,370	\$648,090

Assessment			
Valuation Year	Improvements	Land	Total
2016	\$281,210	\$172,460	\$453,670

Owner of Record

Owner RODRIGUES AGOSTINHO V &
Co-Owner JOANNE
Address 347 EAST ST
WOLCOTT, CT 06716

Sale Price \$0
Certificate
Book & Page 0131/0023
Sale Date 06/27/1980
Instrument 25

Ownership History

Ownership History					
Owner	Sale Price	Certificate	Book & Page	Instrument	Sale Date
RODRIGUES AGOSTINHO V &	\$0		0131/0023	25	06/27/1980

Building Information

Building 1 : Section 1

Year Built: 1930
Living Area: 3,139
Replacement Cost: \$339,418
Building Percent Good: 62
Replacement Cost
Less Depreciation: \$210,440

Building Attributes

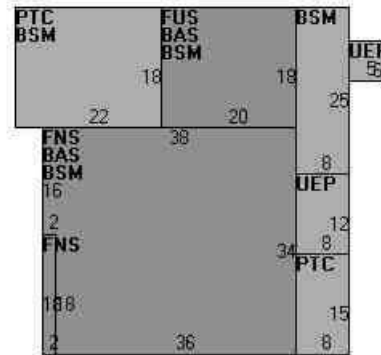
Field	Description
Style	Colonial
Model	Residential
Grade:	B
Stories	1.9
Occupancy	1
Exterior Wall 1	Vinyl Siding
Exterior Wall 2	
Roof Structure	Gambrel
Roof Cover	Arch Shingles
Interior Wall 1	Drywall
Interior Wall 2	
Interior Flr 1	Carpet
Interior Flr 2	
Heat Fuel	Oil
Heat Type:	Hot Water
AC Percent	35% CAC
Total Bedrooms:	5 Bedrooms
Full Bthrms:	3
Half Baths:	0
Extra Fixtures	0
Total Rooms:	9
Bath Style:	Average
Kitchen Style:	Average
Num Kitchens	1
Fireplace(s)	0
% Attic Fin	0
LF Dormer	12
Foundation	Poured Conc
Bsmt Gar(s)	0
Bsmt %	100
SF FBM	0.00
SF Rec Rm	182
Fin Bsmt Qual	LQ
Bsmt Access	Int & Ext
Fndtn Cndtn	
Basement	

Building Photo



(<http://images.vgsi.com/photos/WolcottCTPhotos/A00\01\17\56.jpg>)

Building Layout



(http://images.vgsi.com/photos/WolcottCTPhotos/Sketches/5352_5352.jpg)

Building Sub-Areas (sq ft)			Legend
Code	Description	Gross Area	Living Area
BAS	First Floor	1,616	1,616
FNS	Finished 90% Story	1,292	1,163
FUS	Finished Upper Story	360	360
BSM	Basement	2,212	0
PTC	Concrete Patio	516	0
UEP	Unfin. Enclosed Porch	126	0
		6,122	3,139

Building 2 : Section 1

Year Built: 1910
Living Area: 1,308

Replacement Cost: \$134,245

Building Percent Good: 60

Replacement Cost

Less Depreciation: \$80,550

Building Attributes : Bldg 2 of 3

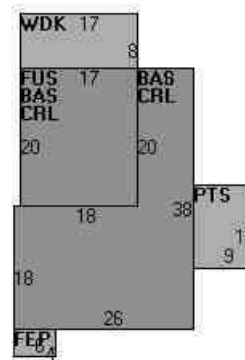
Field	Description
Style	Conventional
Model	Residential
Grade:	D
Stories	1
Occupancy	1
Exterior Wall 1	Vinyl Siding
Exterior Wall 2	
Roof Structure	Gable
Roof Cover	Arch Shingles
Interior Wall 1	Plaster
Interior Wall 2	
Interior Flr 1	Carpet
Interior Flr 2	
Heat Fuel	Oil
Heat Type:	Hot Water
AC Percent	None
Total Bedrooms:	2 Bedrooms
Full Bthrms:	1
Half Baths:	0
Extra Fixtures	0
Total Rooms:	5
Bath Style:	Average
Kitchen Style:	Average
Num Kitchens	1
Fireplace(s)	0
% Attic Fin	0
LF Dormer	0
Foundation	Poured Conc
Bsmt Gar(s)	0
Bsmt %	0
SF FBM	0.00
SF Rec Rm	0
Fin Bsmt Qual	
Bsmt Access	None
Fndtn Cndtn	
Basement	

Building Photo



(<http://images.vgsi.com/photos/WolcottCTPhotos/A00\01\17\57.jpg>)

Building Layout



(http://images.vgsi.com/photos/WolcottCTPhotos/Sketches/5352_20142.jp)

Building Sub-Areas (sq ft)			Legend
Code	Description	Gross Area	Living Area
BAS	First Floor	968	968
FUS	Finished Upper Story	340	340
CRL	Crawl Space	968	0
FEP	Finished Enclosed Porch	24	0
PTS	Stone Patio	108	0
WDK	Deck	136	0
		2,544	1,308

Building 3 : Section 1

Year Built: 1912
Living Area: 1,481
Replacement Cost: \$160,287
Building Percent Good: 60
Replacement Cost Less Depreciation: \$96,170

Building Attributes : Bldg 3 of 3

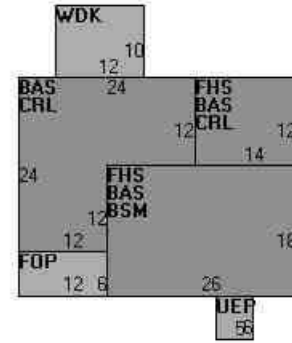
Field	Description
Style	Conventional
Model	Residential
Grade:	D
Stories	1.65
Occupancy	2
Exterior Wall 1	Vinyl Siding
Exterior Wall 2	
Roof Structure	Gable
Roof Cover	Arch Shingles
Interior Wall 1	Plaster
Interior Wall 2	
Interior Flr 1	Hardwood
Interior Flr 2	Carpet
Heat Fuel	Oil
Heat Type:	Hot Water
AC Percent	None
Total Bedrooms:	3 Bedrooms
Full Bthrms:	2
Half Baths:	0
Extra Fixtures	0
Total Rooms:	7
Bath Style:	Average
Kitchen Style:	Average
Num Kitchens	2
Fireplace(s)	0
% Attic Fin	0
LF Dormer	0
Foundation	Poured Conc
Bsmt Gar(s)	0
Bsmt %	100
SF FBM	0.00
SF Rec Rm	0
Fin Bsmt Qual	

Building Photo



(<http://images.vgsi.com/photos/WolcottCTPhotos/A00\01\17\58.jpg>)

Building Layout



(http://images.vgsi.com/photos/WolcottCTPhotos/Sketches/5352_20143.jp)

Building Sub-Areas (sq ft)			Legend
Code	Description	Gross Area	Living Area
BAS	First Floor	1,068	1,068
FHS	Finished Half Story	636	413
BSM	Basement	468	0
CRL	Crawl Space	600	0
FOP	Open Porch	72	0
UEP	Unfin. Enclosed Porch	30	0
WDK	Deck	120	0
		2,994	1,481

Bsmt Access	Int & Ext
Fndtn Cndtn	
Basement	

Extra Features

Extra Features				Legend
Code	Description	Size	Value	Bldg #
SOL	Solar Array	39.00 UNITS	\$0	1

Land

Land Use

Use Code 112
Description Multiple Houses
Zone R-30
Neighborhood 6C
Alt Land Appr Category No

Land Line Valuation

Size (Acres) 2.20
Frontage
Depth
Assessed Value \$172,460
Appraised Value \$246,370

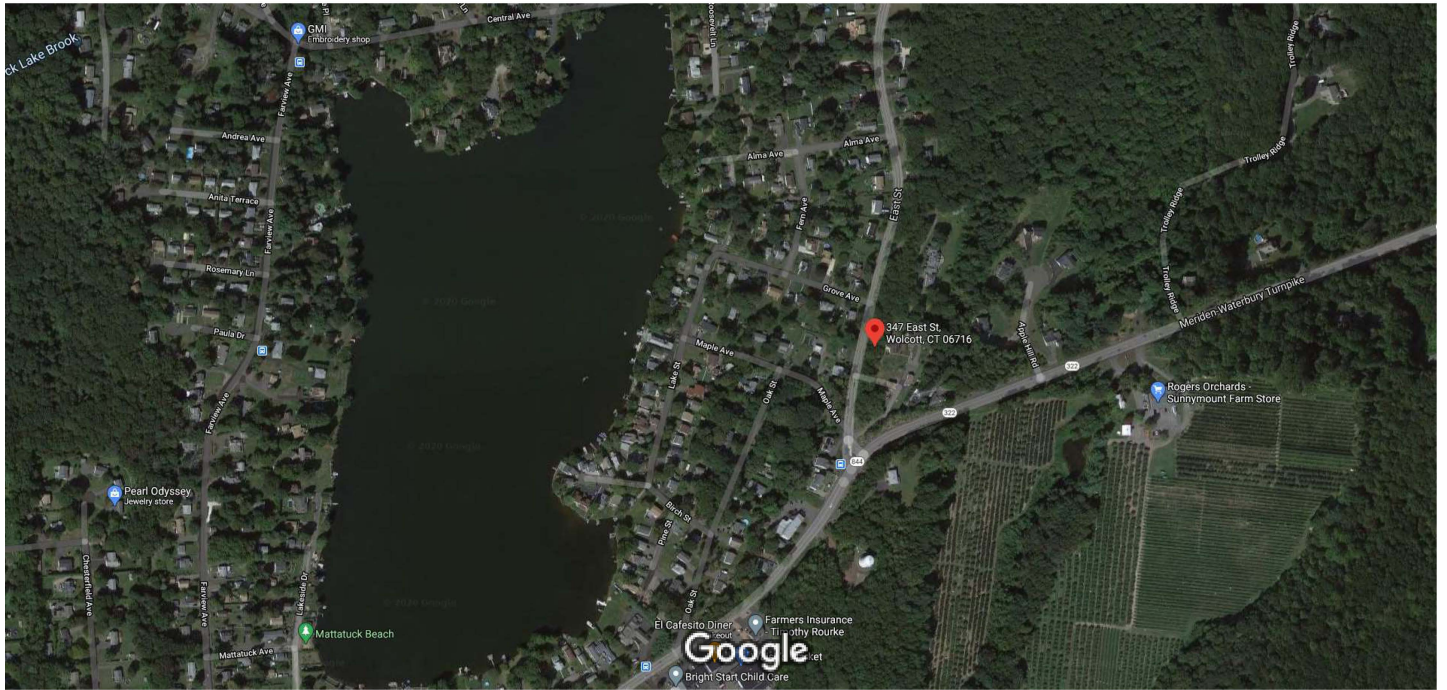
Outbuildings

Outbuildings						Legend
Code	Description	Sub Code	Sub Description	Size	Value	Bldg #
FGR1	Garage	FR	Frame	672.00 S.F.	\$5,880	1
FGR1	Garage	FR	Frame	560.00 S.F.	\$4,900	1
FOP	Porch			480.00 S.F.	\$2,760	1
PTO	Patio	CN	Concrete	408.00 S.F.	\$1,020	1

Valuation History

Appraisal			
Valuation Year	Improvements	Land	Total
2019	\$401,720	\$246,370	\$648,090
2018	\$401,720	\$246,370	\$648,090
2017	\$401,720	\$246,370	\$648,090

Assessment			
Valuation Year	Improvements	Land	Total
2019	\$281,210	\$172,460	\$453,670
2018	\$281,210	\$172,460	\$453,670
2017	\$281,210	\$172,460	\$453,670



200 ft



Exhibit C

Construction Drawings



VERIZON SITE NUMBER: 467897
VERIZON SITE NAME: WOLCOTT CT
SITE TYPE: SELF SUPPORT TOWER
TOWER HEIGHT: 185'-0"

BUSINESS UNIT #: 806362
SITE ADDRESS: INTERSECTION OF RTE 322, MERIDIAN RD
WOLCOTT SITE, WOLCOTT, CT 06716
COUNTY: NEW HEAVEN
JURISDICTION: NEW HAVEN COUNTY

VERIZON FUZE PROJECT #: 16244099

verizon
180 WASHINGTON VALLEY ROAD
BEDMINSTER, NJ 07921

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

INFINIGY
FROM ZERO TO INFINIGY
the solutions are endless
BELLEVUE, WA 98004

VERIZON SITE NUMBER:
467897
BU #: **806362**
NHV 108 943133
INTERSECTION OF RTE 322,
MERIDIAN RD
WOLCOTT SITE, WOLCOTT, CT
06716
EXISTING 185'-0" SELF
SUPPORT TOWER

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	08/02/2021	RCD	FINAL CDs	--

8/6/2021

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: **T-1** REVISION: **0**

SITE INFORMATION

CROWN CASTLE USA INC. NHV 108 943133
SITE NAME:
SITE ADDRESS: INTERSECTION OF RTE 322, MERIDIAN RD
WOLCOTT SITE, WOLCOTT, CT 06716
COUNTY: NEW HEAVEN
MAP/PARCEL #: VERIFY
AREA OF CONSTRUCTION: EXISTING
LATITUDE: 41° 33' 34.41" N (41.559528°)
LONGITUDE: -72° 56' 49.10" W (-72.947028°)
LAT/LONG TYPE: NAD83
GROUND ELEVATION: 360.0'
CURRENT ZONING: TBD
JURISDICTION: NEW HAVEN COUNTY
OCCUPANCY CLASSIFICATION: U
TYPE OF CONSTRUCTION: IIB
A.D.A. COMPLIANCE: FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION
PROPERTY OWNER: TBD
TOWER OWNER: CCAIT LLC
2000 CORPORATE DRIVE
CANONSBURG, PA 15317
CARRIER/APPLICANT: VERIZON WIRELESS
20 ALEXANDER DRIVE, 2ND FLOOR
WALLINGFORD, CT 06492
ELECTRIC PROVIDER: TBD
TELCO PROVIDER: TBD

DRAWING INDEX

SHEET #	SHEET DESCRIPTION
T-1	TITLE SHEET
T-2	GENERAL NOTES
C-1	SITE PLAN
C-2	TOWER ELEVATION & ANTENNA PLANS
C-3	EQUIPMENT SCHEDULES
C-4	EQUIPMENT DETAILS
C-5	EQUIPMENT DETAILS
C-6	PLUMBING DIAGRAM
G-1	GROUNDING DETAILS
G-2	GROUNDING DETAILS

ALL DRAWINGS CONTAINED HEREIN ARE FORMATTED FOR 11X17. 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.

APPROVALS

SIGNATURE	DATE
_____	_____
_____	_____
_____	_____
_____	_____

CONTRACTOR PMI REQUIREMENTS

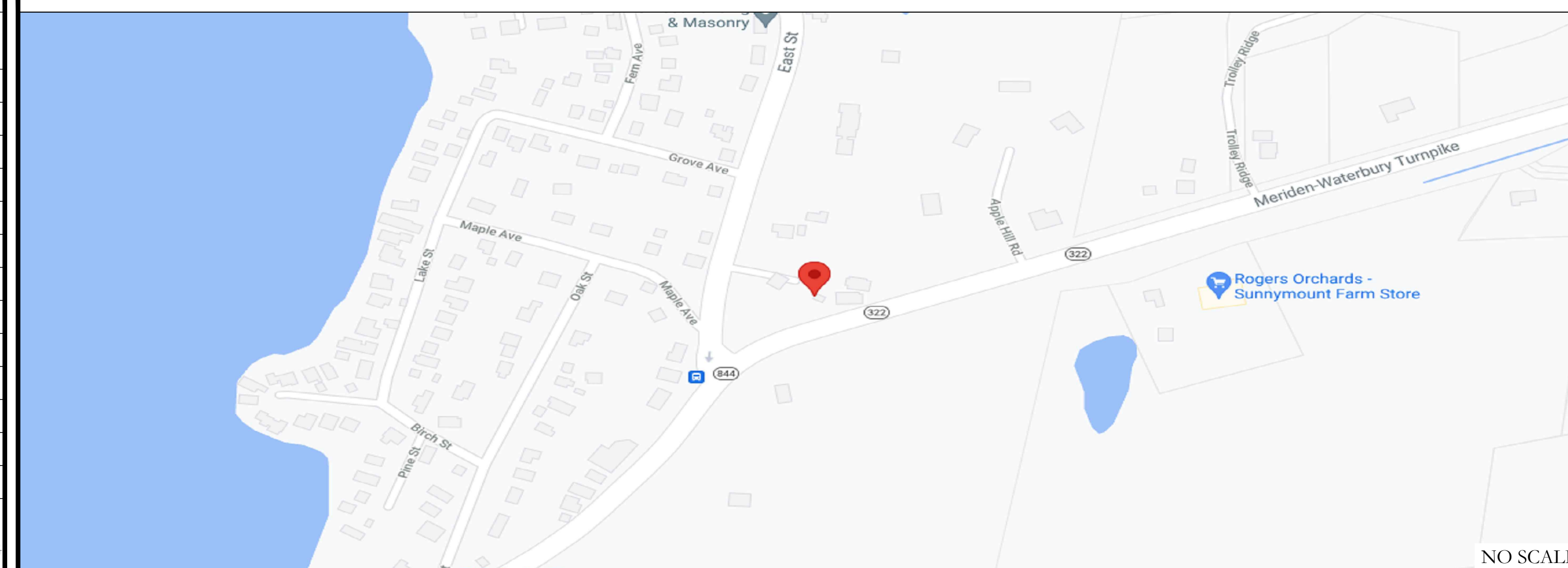
PMI ACCESSED AT <https://pmi.vxwsmart.com>
SMART TOOL VENDOR
PROJECT NUMBER 6039-Z0001-C
VzW LOCATION CODE (PSLC) 467897
*** PMI AND REQUIREMENTS ALSO EMBEDDED IN MOUNT ANALYSIS REPORT

MOUNT MODIFICATION REQUIRED N

VzW APPROVED SMART KIT VENDORS

REFER TO MOUNT MODIFICATION DRAWINGS PAGE FOR VzW SMART KIT APPROVED VENDORS

LOCATION MAP



DRIVING DIRECTIONS FROM VERIZON LOCAL OFFICE (180 WASHINGTON VALLEY RD, BEDMINSTER, NJ 07921) DEPART AND HEAD TOWARD WASHINGTON VALLEY RD / COUNTY HWY-620, BEAR RIGHT ONTO US-206 N / US-202 N / US HIGHWAY 202 206, EXXON ON THE CORNER, BEAR RIGHT ONTO US-202 N / US-206 N / US HIGHWAY 202 206, TURN RIGHT ONTO SCHLEY MOUNTAIN RD, TAKE THE RAMP ON THE RIGHT FOR I-287 N, AT EXIT 41A, HEAD RIGHT ON THE RAMP FOR I-80 EAST TOWARD NEW YORK CITY / SMITH ROAD, KEEP STRAIGHT TO GET ONTO I-95 N / NEW JERSEY TPKE N, PASS FINE FARE SUPERMARKET ON THE RIGHT IN 7.7 KM, ENTERING NEW YORK, KEEP LEFT TO STAY ON I-95 N, AT EXIT 9, HEAD ON THE RAMP RIGHT AND FOLLOW SIGNS FOR HUTCHINSON PKWY N, AT EXIT 6, HEAD RIGHT ON THE RAMP FOR I-95 NORTH TOWARD NEW HAVEN, ENTERING CONNECTICUT, AT EXIT 27A, HEAD RIGHT ON THE RAMP FOR CT-25 / CT-8 TOWARD TRUMBULL / WATERBURY, TAKE THE RAMP ON THE RIGHT FOR CT-8 NORTH AND HEAD TOWARD SHELTON / WATERBURY, AT EXIT 30, HEAD RIGHT ON THE RAMP FOR S LEONARD ST TOWARD WASHINGTON AVE, TURN RIGHT ONTO BANK ST TOWARD TORRINGTON / CT-8 NORTH, TURN LEFT ONTO MEADOW ST, BANK STREET EXXON ON THE CORNER, TAKE THE RAMP ON THE RIGHT FOR I-84 EAST AND HEAD TOWARD HARTFORD, AT EXIT 26, HEAD RIGHT ON THE RAMP FOR CT-70 TOWARD WATERBURY, TURN LEFT ONTO CT-70 / WATERBURY RD TOWARD WATERBURY, KEEP STRAIGHT TO GET ONTO WATERBURY RD, TURN RIGHT ONTO BYAM RD, TURN RIGHT ONTO MUSSO VIEW AVE, TURN RIGHT ONTO MERIDEN RD, TURN LEFT ONTO CT-322 / EAST ST, TURN RIGHT, ARRIVE AT INTERSECTION OF RTE 322, MERIDIAN RD, WOLCOTT SITE WOLCOTT, CT 06716

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
MECHANICAL	2015 IMC
ELECTRICAL	2017 NEC

REFERENCE DOCUMENTS:
STRUCTURAL ANALYSIS: BY OTHERS
DATED:
MOUNT ANALYSIS: MASER CONSULTING CONNECTICUT
DATED: 07/06/2021
RFDS REVISION: 0
DATED: 05/25/2021
ORDER ID: 568280
REVISION: 2

PROJECT DESCRIPTION

THE PURPOSE OF THIS PROJECT IS TO ENHANCE BROADBAND CONNECTIVITY AND CAPACITY TO THE EXISTING ELIGIBLE WIRELESS FACILITY.

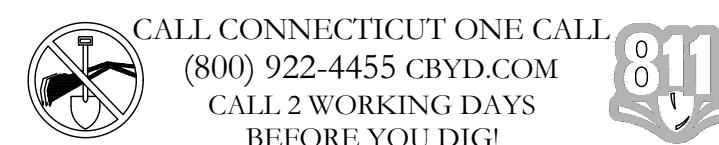
- TOWER SCOPE OF WORK:**
- REMOVE (6) ANTENNAS
 - REMOVE (6) RRHS
 - REMOVE (1) OVP BOX
 - INSTALL (9) ANTENNAS
 - INSTALL (6) RRHS
 - INSTALL (1) OVP BOX
 - INSTALL (3) DIPLEXERS

GROUND SCOPE OF WORK:
N/A

NOTE:
PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE CROWN NOC AT (800) 788-7011 & CROWN CONSTRUCTION MANAGER

PROJECT TEAM

A&E FIRM: CROWN CASTLE USA INC.
2000 CORPORATE DRIVE
CANONSBURG, PA 15317
CROWNNAE.APPROVAL@CROWNCastle.COM
CROWN CASTLE USA INC. DISTRICT CONTACTS:
3 CORPORATE PARK DRIVE, SUITE 101
CLIFTON PARK, NY 12065
TBD - PROJECT MANAGER
--
TBD - CONSTRUCTION MANAGER
--
VERIZON CONTACT: ANDREW LEONE
ALEONE@STRUCTURECONSULTING.NET



CROWN CASTLE USA INC. SITE ACTIVITY REQUIREMENTS:

- NOTICE TO PROCEED- NO WORK SHALL COMMENCE PRIOR TO CROWN CASTLE USA INC. WRITTEN NOTICE TO PROCEED (NTP) AND THE ISSUANCE OF A PURCHASE ORDER. PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE CROWN CASTLE USA INC. NOC AT 800-788-7011 & THE CROWN CASTLE USA INC. CONSTRUCTION MANAGER.
- "LOOK 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: PINCHING OF THE WIRE ROPE, BENDING OF THE WIRE ROPE FROM ITS SUPPORTS, DIRECT CONTACT OR CLOSE PROXIMITY TO THE WIRE ROPE WHICH MAY CAUSE FRICTIONAL WEAR, IMPACT TO THE ANCHORAGE POINTS IN ANY WAY, OR TO IMPEDE/BLOCK ITS INTENDED USE. ANY COMPROMISED SAFETY CLIMB, INCLUDING EXISTING CONDITIONS MUST BE TAGGED OUT AND REPORTED TO YOUR CROWN CASTLE USA INC. POC OR CALL THE NOC TO GENERATE A SAFETY CLIMB MAINTENANCE AND CONTRACTOR NOTICE TICKET.
- PRIOR TO THE START OF CONSTRUCTION, ALL REQUIRED JURISDICTIONAL PERMITS SHALL BE OBTAINED. THIS INCLUDES, BUT IS NOT LIMITED TO, BUILDING, ELECTRICAL, MECHANICAL, FIRE, FLOOD ZONE, ENVIRONMENTAL, AND ZONING. AFTER ONSITE ACTIVITIES AND CONSTRUCTION ARE COMPLETED, ALL REQUIRED PERMITS SHALL BE SATISFIED AND CLOSED OUT ACCORDING TO LOCAL JURISDICTIONAL REQUIREMENTS.
- ALL CONSTRUCTION MEANS AND METHODS; INCLUDING BUT NOT LIMITED TO, ERECTION PLANS, RIGGING PLANS, CLIMBING PLANS, AND RESCUE PLANS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THE WORK CONTAINED HEREIN, AND SHALL MEET ANSI/ASSE A10.48 (LATEST EDITION); FEDERAL, STATE, AND LOCAL REGULATIONS; AND ANY APPLICABLE INDUSTRY CONSENSUS STANDARDS RELATED TO THE CONSTRUCTION ACTIVITIES BEING PERFORMED. ALL RIGGING PLANS SHALL ADHERE TO ANSI/ASSE A10.48 (LATEST EDITION) AND CROWN CASTLE USA INC. STANDARD CED-STD-10253, INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION, TO CERTIFY THE SUPPORTING STRUCTURE(S) IN ACCORDANCE WITH ANSI/TIA-322 (LATEST EDITION).
- ALL SITE WORK TO COMPLY WITH QAS-STD-10068 "INSTALLATION STANDARDS FOR CONSTRUCTION ACTIVITIES ON CROWN CASTLE USA INC. TOWER SITE," CED-STD-10294 "STANDARD FOR INSTALLATION OF MOUNTS AND APPURTENANCES," AND LATEST VERSION OF ANSI/TIA-1019-AA-2012 "STANDARD FOR INSTALLATION, ALTERATION, AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS." IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY CROWN CASTLE USA INC. PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
- ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
- ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY CONTRACTOR. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING AND EXCAVATION E) CONSTRUCTION SAFETY PROCEDURES.
- ALL SITE WORK SHALL BE AS INDICATED ON THE STAMPED CONSTRUCTION DRAWINGS AND PROJECT SPECIFICATIONS. LATEST APPROVED REVISION.
- CONTRACTOR SHALL KEEP THE SITE FREE FROM ACCUMULATING WASTE MATERIAL, DEBRIS, AND TRASH AT THE COMPLETION OF THE WORK. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
- ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK. SUBJECT TO THE APPROVAL OF CONTRACTOR, TOWER OWNER, CROWN CASTLE USA INC., AND/OR LOCAL UTILITIES.
- THE CONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATION FOR SITE SIGNAGE REQUIRED BY LOCAL JURISDICTION AND SIGNAGE REQUIRED ON INDIVIDUAL PIECES OF EQUIPMENT, ROOMS, AND SHELTERS.
- THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE CARRIER'S EQUIPMENT AND TOWER AREAS.
- THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
- THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION AS SPECIFIED ON THE CONSTRUCTION DRAWINGS AND/OR PROJECT SPECIFICATIONS.
- CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
- THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.
- CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
- CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.
- NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.

GREENFIELD GROUNDING NOTES:

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

GENERAL NOTES:

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

CONCRETE, FOUNDATIONS, AND REINFORCING STEEL:

- ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 318, ACI 336, ASTM A184, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST-IN-PLACE CONCRETE.
- UNLESS NOTED OTHERWISE, SOIL BEARING CAPACITY USED FOR DESIGN OF SLABS AND FOUNDATIONS IS ASSUMED TO BE 1000 psf.
- ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (F'c) OF 3000 PSI AT 28 DAYS, UNLESS NOTED OTHERWISE. NO MORE THAN 90 MINUTES SHALL ELAPSE FROM BATCH TIME TO TIME OF PLACEMENT UNLESS APPROVED BY THE ENGINEER OF RECORD. TEMPERATURE OF CONCRETE SHALL NOT EXCEED 90° AT TIME OF PLACEMENT.
- CONCRETE EXPOSED TO FREEZE-THAW CYCLES SHALL CONTAIN AIR ENTRAINING ADMIXTURES. AMOUNT OF AIR ENTRAINMENT TO BE BASED ON SIZE OF AGGREGATE AND F3 CLASS EXPOSURE (VERY SEVERE). CEMENT USED TO BE TYPE II PORTLAND CEMENT WITH A MAXIMUM WATER-TO-CEMENT RATIO (W/C) OF 0.45.
- ALL STEEL REINFORCING SHALL CONFORM TO ASTM A615. ALL WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A185. ALL SPLICES SHALL BE CLASS "B" TENSION SPLICES, UNLESS NOTED OTHERWISE. ALL HOOKS SHALL BE STANDARD 90 DEGREE HOOKS, UNLESS NOTED OTHERWISE. YIELD STRENGTH (Fy) OF STANDARD DEFORMED BARS ARE AS FOLLOWS:
#4 BARS AND SMALLER.....40 ksi
#5 BARS AND LARGER.....60 ksi
- THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:
CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH.....3"
CONCRETE EXPOSED TO EARTH OR WEATHER:
#6 BARS AND LARGER.....2"
#5 BARS AND SMALLER.....1-1/2"
CONCRETE NOT EXPOSED TO EARTH OR WEATHER:
SLAB AND WALLS.....3/4"
BEAMS AND COLUMNS.....1-1/2"
- A TOOLED EDGE OR A 3/4" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNLESS NOTED OTHERWISE, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.

ELECTRICAL INSTALLATION NOTES:

- ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES/ORDINANCES.
- CONDUIT ROUTINGS ARE SCHEMATIC. CONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED AND TRIP HAZARDS ARE ELIMINATED.
- WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC.
- ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC.
4.1. ALL EQUIPMENT SHALL BEAR THE UNDERWRITERS LABORATORIES LABEL OF APPROVAL, AND SHALL CONFORM TO REQUIREMENT OF THE NATIONAL ELECTRICAL CODE.
4.2. ALL OVERCURRENT DEVICES SHALL HAVE AN INTERRUPTING CURRENT RATING THAT SHALL BE GREATER THAN THE SHORT CIRCUIT CURRENT TO WHICH THEY ARE SUBJECTED, 22,000 AIC MINIMUM. VERIFY AVAILABLE SHORT CIRCUIT CURRENT DOES NOT EXCEED THE RATING OF ELECTRICAL EQUIPMENT IN ACCORDANCE WITH ARTICLE 110.24 NEC OR THE MOST CURRENT ADOPTED CODE PRE THE GOVERNING JURISDICTION.
- EACH END OF EVERY POWER PHASE CONDUCTOR, GROUNDING CONDUCTOR, AND TELCO CONDUCTOR OR CABLE SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2" PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC AND OSHA.
- ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH LAMICOID TAGS SHOWING THEIR RATED VOLTAGE, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING AND BRANCH CIRCUIT ID NUMBERS (i.e. PANEL BOARD AND CIRCUIT ID'S).
- PANEL BOARDS (ID NUMBERS) SHALL BE CLEARLY LABELED WITH PLASTIC LABELS.
- ALL TIE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.
- ALL POWER AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE COPPER CONDUCTOR (#14 OR LARGER) WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
- SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE COPPER CONDUCTOR (#6 OR LARGER) WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
- POWER AND CONTROL WIRING IN FLEXIBLE CORD SHALL BE MULTI-CONDUCTOR, TYPE SOOW CORD (#14 OR LARGER) UNLESS OTHERWISE SPECIFIED.
- POWER AND CONTROL WIRING FOR USE IN CABLE TRAY SHALL BE MULTI-CONDUCTOR, TYPE TC CABLE (#14 OR LARGER), WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
- ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND WIRE NUTS BY THOMAS AND BETTS (OR EQUAL). LUGS AND WIRE NUTS SHALL BE RATED FOR OPERATION NOT LESS THAN 75° C (90° C IF AVAILABLE).
- RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.
- ELECTRICAL METALLIC TUBING (EMT), INTERMEDIATE METAL CONDUIT (IMC), OR RIGID METAL CONDUIT (RMC) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.
- ELECTRICAL METALLIC TUBING (EMT) OR METAL-CLAD CABLE (MC) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
- SCHEDULE 40 PVC UNDERGROUND ON STRAIGHTS AND SCHEDULE 80 PVC FOR ALL ELBOWS/90s AND ALL APPROVED ABOVE GRADE PVC CONDUIT.
- LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
- CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SET SCREW FITTINGS ARE NOT ACCEPTABLE.
- CABINETS, BOXES AND WIRE WAYS SHALL BE LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND THE NEC.
- WIREWAYS SHALL BE METAL WITH AN ENAMEL FINISH AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARDS (WIREFOLD SPECMATE WIREWAY).
- SLOTTED WIRING DUCT SHALL BE PVC AND INCLUDE COVER (PANDUIT TYPE E OR EQUAL).
- CONDUITS SHALL BE FASTENED SECURELY IN PLACE WITH APPROVED NON-PERFORATED STRAPS AND HANGERS. EXPLOSIVE DEVICES (i.e. POWDER-ACTUATED) FOR ATTACHING HANGERS TO STRUCTURE WILL NOT BE PERMITTED. CLOSELY FOLLOW THE LINES OF THE STRUCTURE, MAINTAIN CLOSE PROXIMITY TO THE STRUCTURE AND KEEP CONDUITS IN TIGHT ENVELOPES. CHANGES IN DIRECTION TO ROUTE AROUND OBSTACLES SHALL BE MADE WITH CONDUIT OUTLET BODIES. CONDUIT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER, PARALLEL AND PERPENDICULAR TO STRUCTURE WALL AND CEILING LINES. ALL CONDUIT SHALL BE FISHED TO CLEAR OBSTRUCTIONS. ENDS OF CONDUITS SHALL BE TEMPORARILY CAPPED FLUSH TO FINISH GRADE TO PREVENT CONCRETE, PLASTER OR DIRT FROM ENTERING. CONDUITS SHALL BE RIGIDLY CLAMPED TO BOXES BY GALVANIZED MALLEABLE IRON BUSHING ON INSIDE AND GALVANIZED MALLEABLE IRON LOCKNUT ON OUTSIDE AND INSIDE.
- EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES AND PULL BOXES SHALL BE GALVANIZED OR EPOXY-COATED SHEET STEEL. SHALL MEET OR EXCEED UL 50 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND NEMA 3R (OR BETTER) FOR EXTERIOR LOCATIONS.
- METAL RECEPTACLE, SWITCH AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY-COATED OR NON-CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
- NONMETALLIC RECEPTACLE SWITCH AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2 (NEWEST REVISION) AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
- THE CONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CARRIER AND/OR CROWN CASTLE USA INC. BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
- THE CONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD LIFE AND PROPERTY.
- INSTALL LAMICOID LABEL ON THE METER CENTER TO SHOW "VERIZON".
- ALL EMPTY/SPARE CONDUITS THAT ARE INSTALLED ARE TO HAVE A METERED MULE TAPE PULL CORD INSTALLED.

CONDUCTOR COLOR CODE		
SYSTEM	CONDUCTOR	COLOR
120/240V, 1Ø	A PHASE	BLACK
	B PHASE	RED
	NEUTRAL	WHITE
	GROUND	GREEN
120/208V, 3Ø	A PHASE	BLACK
	B PHASE	RED
	C PHASE	BLUE
	NEUTRAL	WHITE
277/480V, 3Ø	A PHASE	BROWN
	B PHASE	ORANGE OR PURPLE
	C PHASE	YELLOW
	NEUTRAL	GREY
DC VOLTAGE	GROUND	GREEN
	POS (+)	RED**
	NEG (-)	BLACK**

* SEE NEC 210.5(C)(1) AND (2)
** POLARITY MARKED AT TERMINATION

APWA UNIFORM COLOR CODE:

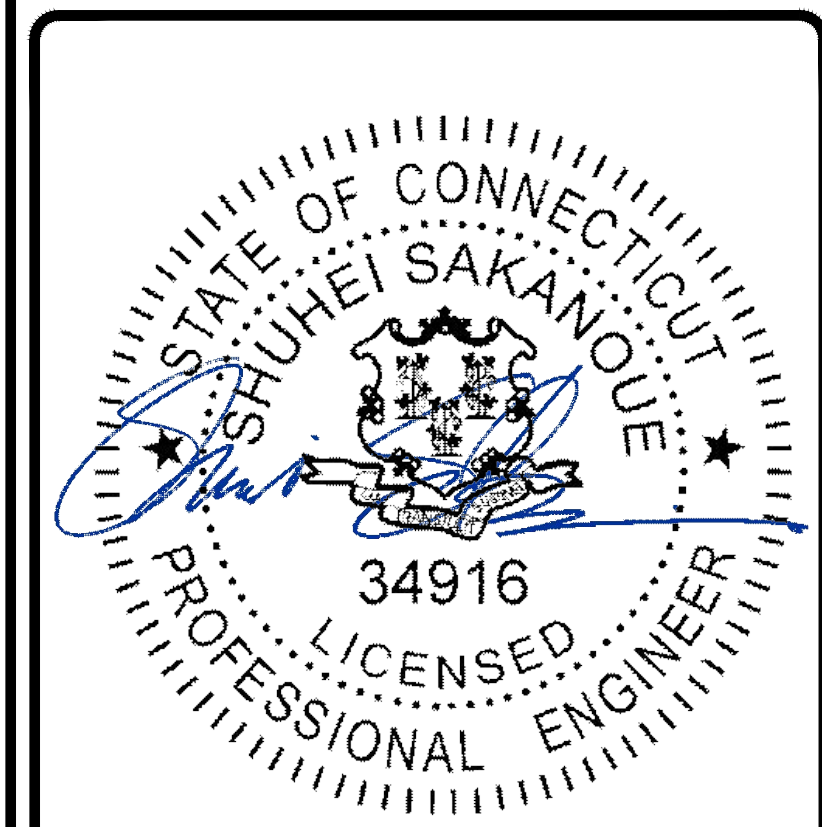
- WHITE PROPOSED EXCAVATION
- PINK TEMPORARY SURVEY MARKINGS
- RED ELECTRIC POWER LINES, CABLES, CONDUIT, AND LIGHTING CABLES
- YELLOW GAS, OIL, STEAM, PETROLEUM, OR GASEOUS MATERIALS
- ORANGE COMMUNICATION, ALARM OR SIGNAL LINES, CABLES, OR CONDUIT AND TRAFFIC LOOPS
- BLUE POTABLE WATER
- PURPLE RECLAIMED WATER, IRRIGATION, AND SLURRY LINES
- GREEN SEWERS AND DRAIN LINES



VERIZON SITE NUMBER:
467897
BU #: 806362
NHV 108 943133
INTERSECTION OF RTE 322,
MERIDIAN RD
WOLCOTT SITE, WOLCOTT, CT
06716
EXISTING 185'-0" SELF
SUPPORT TOWER

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	08/02/2021	RCD	FINAL CDs	--



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

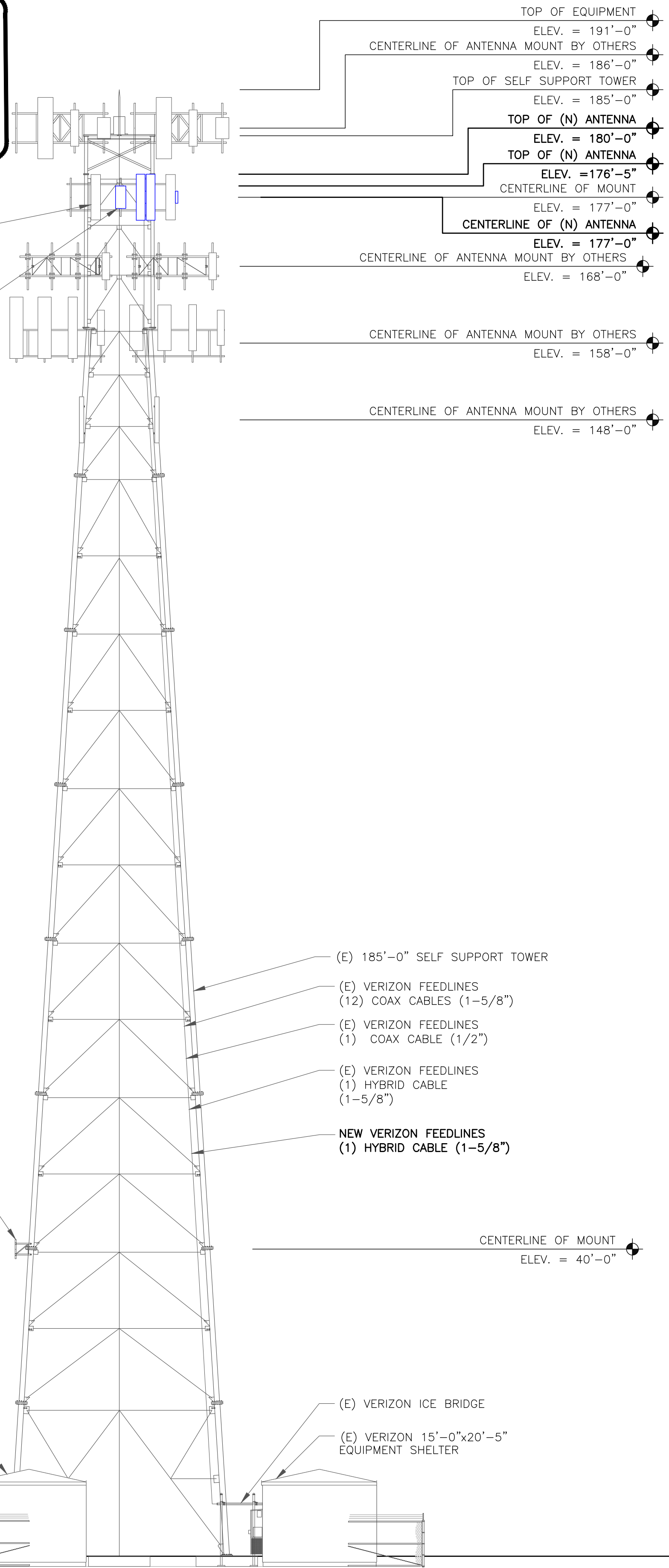
NOTES:

- THESE DRAWINGS ARE NOT INTENDED TO BE A VERIFICATION THAT THE STRUCTURE OR MOUNTS ARE ADEQUATE TO SUPPORT THE PROPOSED LOADING. VERIFICATION THAT THE EXISTING STRUCTURE AND MOUNTS CAN SUPPORT THE PROPOSED LOADING SHALL BE PERFORMED BY A REGISTERED PROFESSIONAL ENGINEER PRIOR TO CONSTRUCTION.
- CONTRACTOR TO REFER TO THE STRUCTURAL ANALYSIS AND MOUNT ASSESSMENT AND VERIFY LOADING WITH THE MOST RECENT RFDS PRIOR TO CONSTRUCTION.

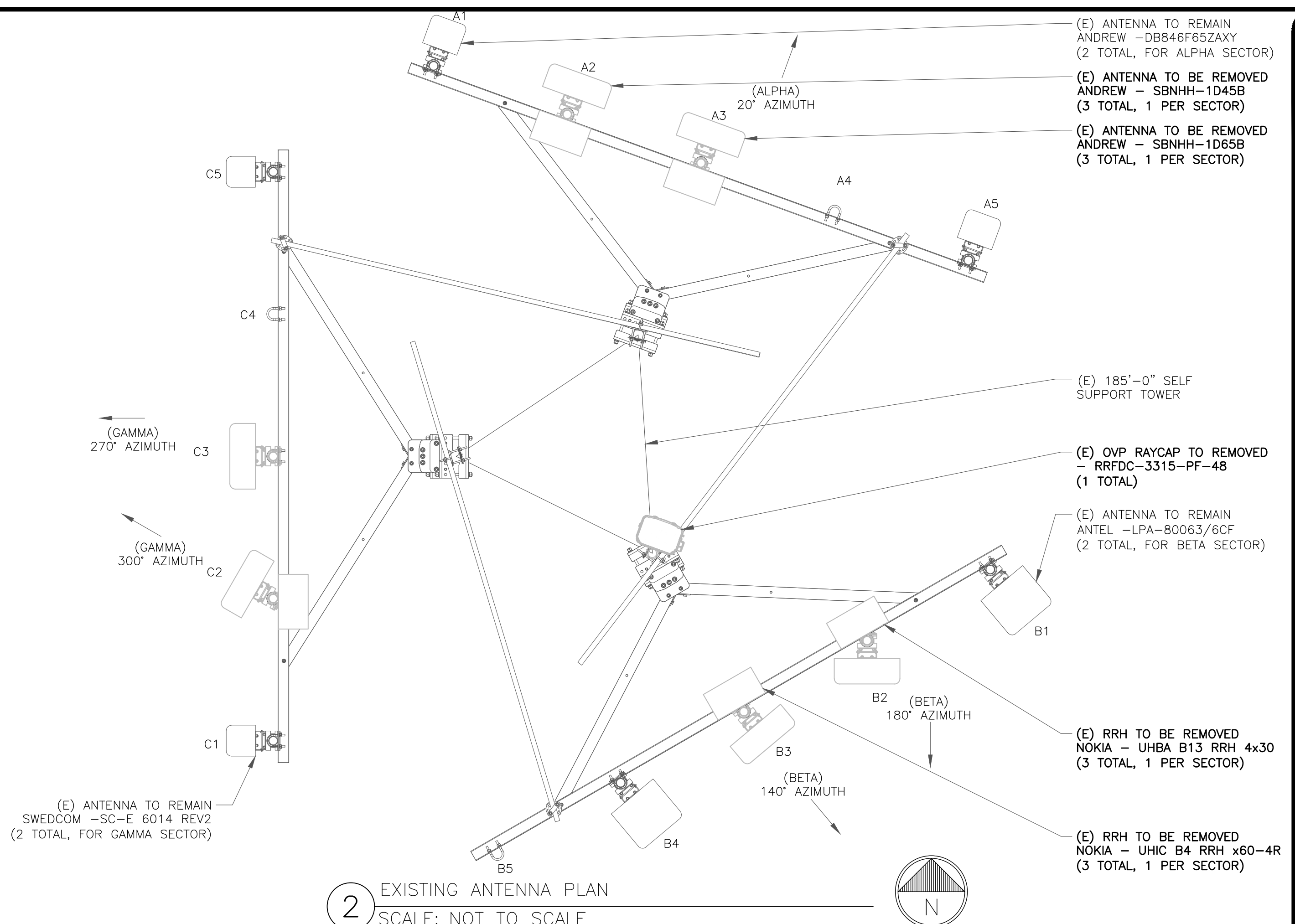
- (E) VERIZON EQUIPMENT TO REMAIN
- (2) ANDREW - DB846F65ZAXY ANTENNAS
 - (2) ANTEL - LPA-80063/6CF ANTENNAS
 - (2) SWEDCOM - SC-E 6014 REV2 ANTENNAS INSTALLED ON EXISTING MOUNTS
- NEW VERIZON EQUIPMENT**
- (6) ANDREW JAHH-65B-R3B ANTENNAS
 - (3) SAMSUNG - B2/B66A RRH-BR049 RRHS
 - (3) SAMSUNG - B5/B13 RRH-BR04C RRHS
 - (3) SAMSUNG MT6407-77A RRHS
 - (3) COMMSCOPE - CBC78T-DS-43-2X DIPLEXERS
 - (1) RAYCAP - OVP-12 OVP_BOX INSTALLED ON EXISTING MOUNTS

VERIZON EQUIPMENT

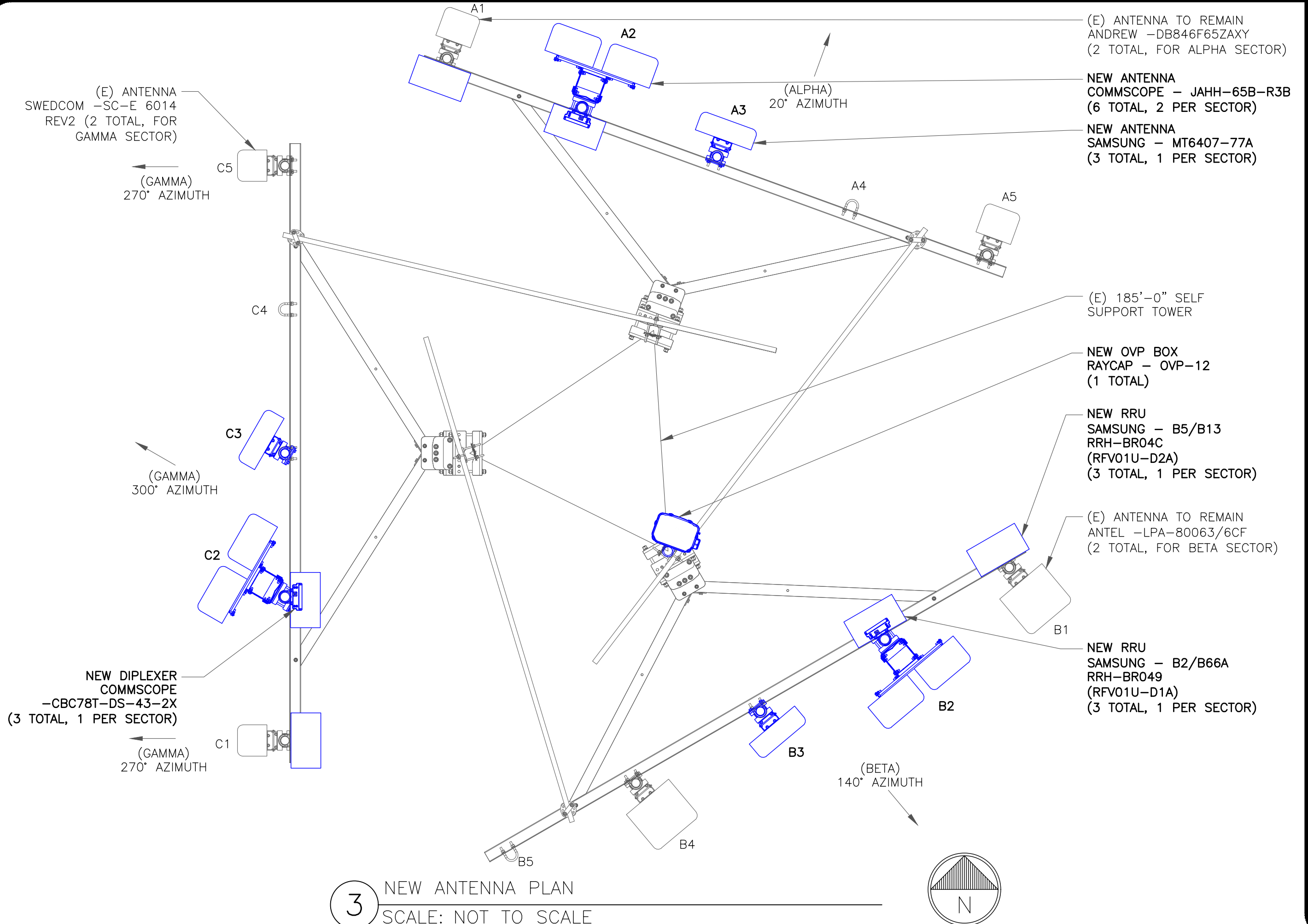
ANTENNA CL: 177'-0"
MOUNT CL: 177'-0"



1 TOWER ELEVATION
SCALE: NOT TO SCALE



2 EXISTING ANTENNA PLAN
SCALE: NOT TO SCALE



3 NEW ANTENNA PLAN
SCALE: NOT TO SCALE

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CROWN CASTLE

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

INFINIGY

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BELLEVUE, WA 98004

VERIZON SITE NUMBER:
467897

BU #: **806362**
NHV **108 943133**

INTERSECTION OF RTE 322,
MERIDIAN RD
WOLCOTT SITE, WOLCOTT, CT
06716

EXISTING 185'-0" SELF
SUPPORT TOWER

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
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STATE OF CONNECTICUT
SHUHEI SAKANQUE
34916
PROFESSIONAL ENGINEER

8/6/2021

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

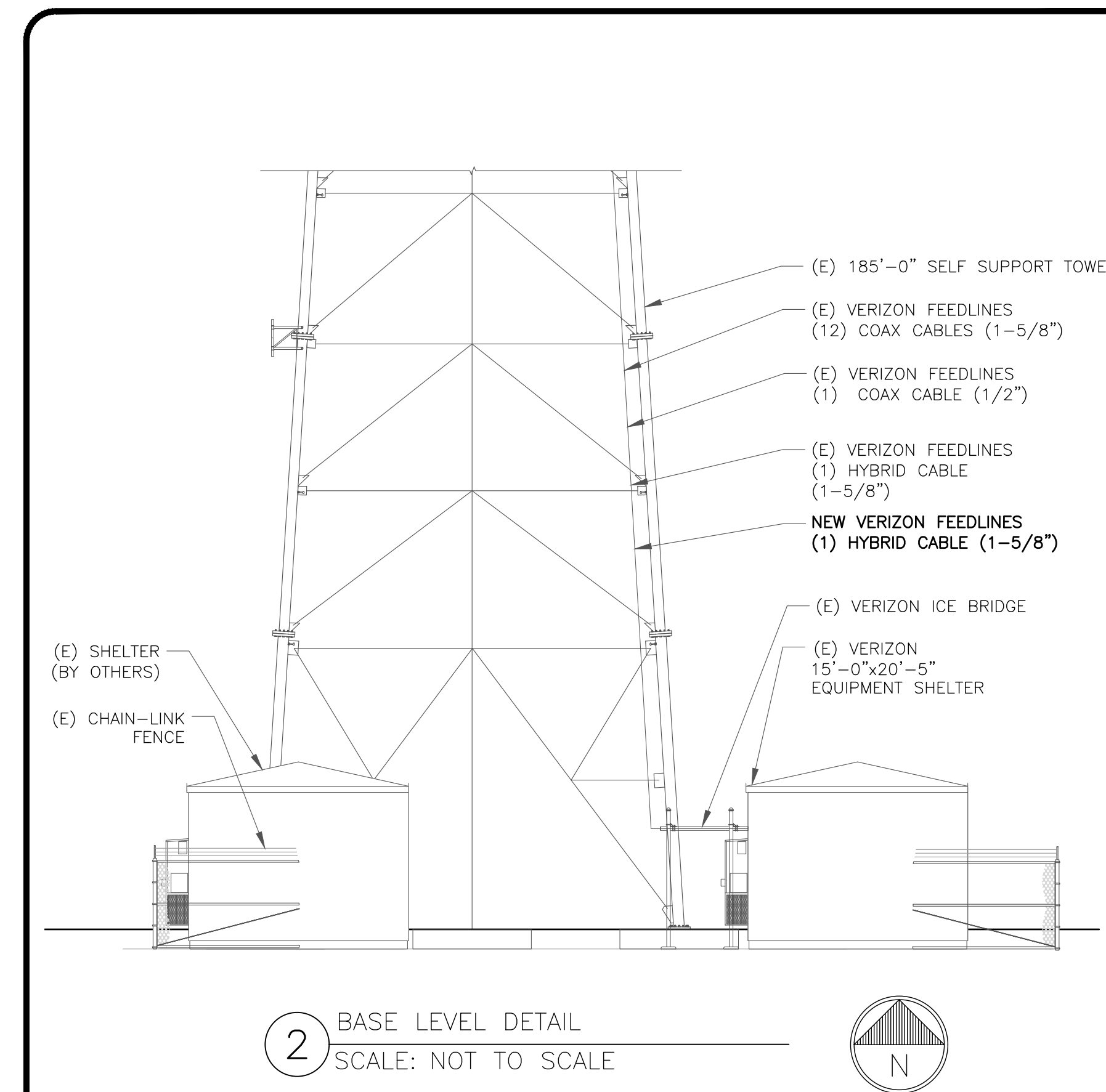
ANTENNA/RRH SCHEDULE									
SECTOR	STATUS	ANTENNA MANUFACTURER	ANTENNA MODEL	ANTENNA CENTERLINE	AZIMUTH	MECHANICAL DOWNTILTS	ELECTRICAL DOWNTILTS	TOWER EQUIPMENT MANUFACTURER	TOWER EQUIPMENT QTY/MODEL
A1	EXISTING	ANDREW	DB846F65ZAXY	177'-0"	20°	6'	0'	SAMSUNG	(1) B5/B13 RRH-BR04C
A2	NEW	ANDREW	(2) JAHH-65B-R3B	177'-0"	20°	3'	10'/10'/0'/0'	SAMSUNG COMMSCOPE	(1) B2/B66A RRH-BR049 (1) CBC78T-DS-43-2X (DIPLEXER)
A3	NEW	SAMSUNG	MT6407-77A	177'-0"	20°	0'	6'	(1) RVZDC-6627-PF-48_CCIV2	-
A4	-	-	-	-	-	-	-	-	-
A5	EXISTING	ANDREW	DB846F65ZAXY	177'-0"	20°	0'	6'	-	-

SECTOR	STATUS	ANTENNA MANUFACTURER	ANTENNA MODEL	ANTENNA CENTERLINE	AZIMUTH	MECHANICAL DOWNTILTS	ELECTRICAL DOWNTILTS	TOWER EQUIPMENT MANUFACTURER	TOWER EQUIPMENT QTY/MODEL
B1	EXISTING	ANTEL	LPA-80063/6CF	177'-0"	140°	6'	5'	SAMSUNG	(1) B5/B13 RRH-BR04C
B2	NEW	ANDREW	(2) JAHH-65B-R3B	177'-0"	140°	3'	3'/3'/1'/3'	SAMSUNG COMMSCOPE	(1) B2/B66A RRH-BR049 (1) CBC78T-DS-43-2X (DIPLEXER)
B3	NEW	SAMSUNG	MT6407-77A	177'-0"	140°	0'	6'	-	-
B4	EXISTING	ANTEL	LPA-80063/6CF	177'-0"	20°	6'	5'	-	-
B5	-	-	-	177'-0"	20°	-	-	-	-

SECTOR	STATUS	ANTENNA MANUFACTURER	ANTENNA MODEL	ANTENNA CENTERLINE	AZIMUTH	MECHANICAL DOWNTILTS	ELECTRICAL DOWNTILTS	TOWER EQUIPMENT MANUFACTURER	TOWER EQUIPMENT QTY/MODEL
C1	EXISTING	SWEDCOM	SC-E 6014 REV2	177'-0"	270°	6'	0'	SAMSUNG	(1) B5/B13 RRH-BR04C
C2	NEW	ANDREW	(2) JAHH-65B-R3B	177'-0"	270°	3'	5'/5'/1'/1'	SAMSUNG COMMSCOPE	(1) B2/B66A RRH-BR049 (1) CBC78T-DS-43-2X (DIPLEXER)
C3	NEW	SAMSUNG	MT6407-77A	177'-0"	270°	0'	6'	-	-
C4	-	-	-	-	-	-	-	-	-
C5	EXISTING	SWEDCOM	SC-E 6014 REV2	177'-0"	20°	6'	0'	-	-

1 VERIZON TOWER EQUIPMENT SCHEDULE
SCALE: NOT TO SCALE

CABLE SCHEDULE				
STATUS	CABLE TYPE	SIZE	LENGTH	QTY
EXISTING	COAX	1-5/8"	227'-0"±	12
EXISTING	COAX	1/2"	90'-0"±	1
EXISTING	HYBRID	1-5/8"	227'-0"±	1
NEW	HYBRID	1-5/8"	227'-0"±	1
TOTAL CABLE QTY:				15



2 BASE LEVEL DETAIL
SCALE: NOT TO SCALE

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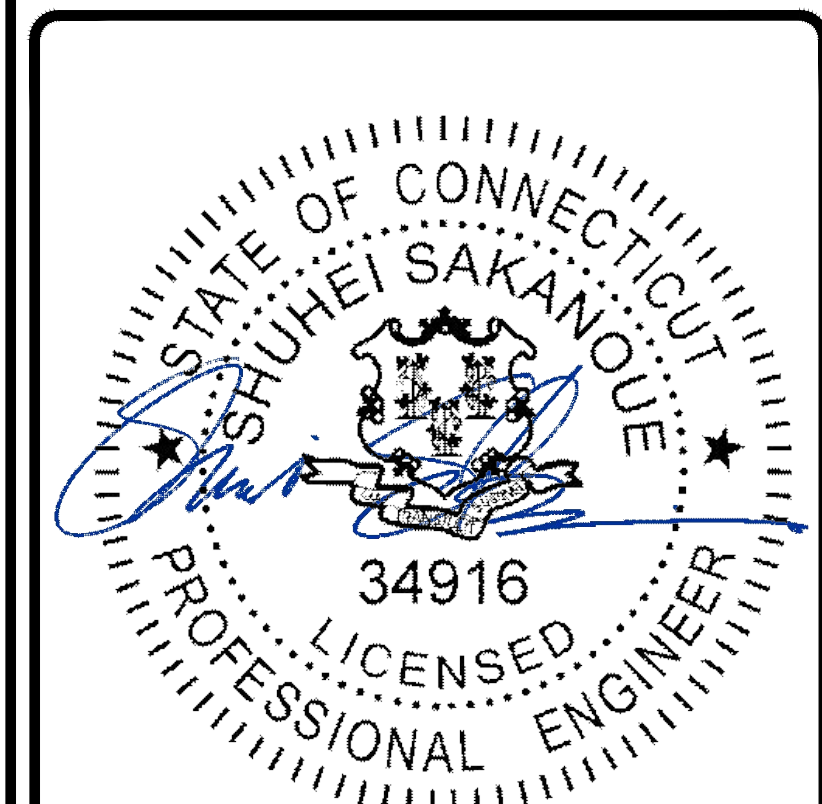
VERIZON SITE NUMBER:
467897

BU #: 806362
NHV 108 943133

INTERSECTION OF RTE 322,
MERIDIAN RD
WOLCOTT SITE, WOLCOTT, CT
06716

EXISTING 185'-0" SELF
SUPPORT TOWER

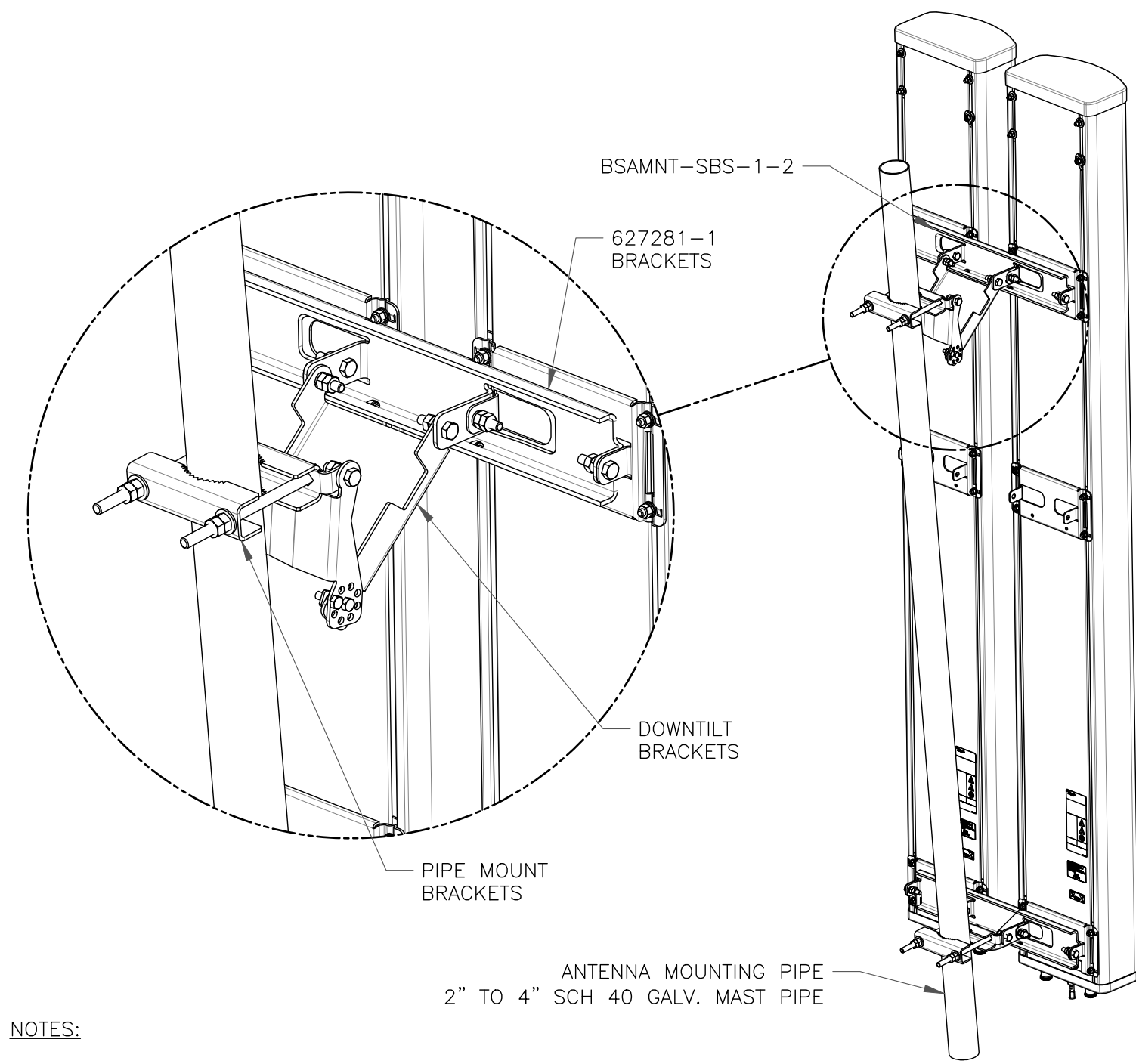
ISSUED FOR:				
REV	DATE	DRWN	DESCRIPTION	DES./QA
0	08/02/2021	RCD	FINAL CDs	-



8/6/2021

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

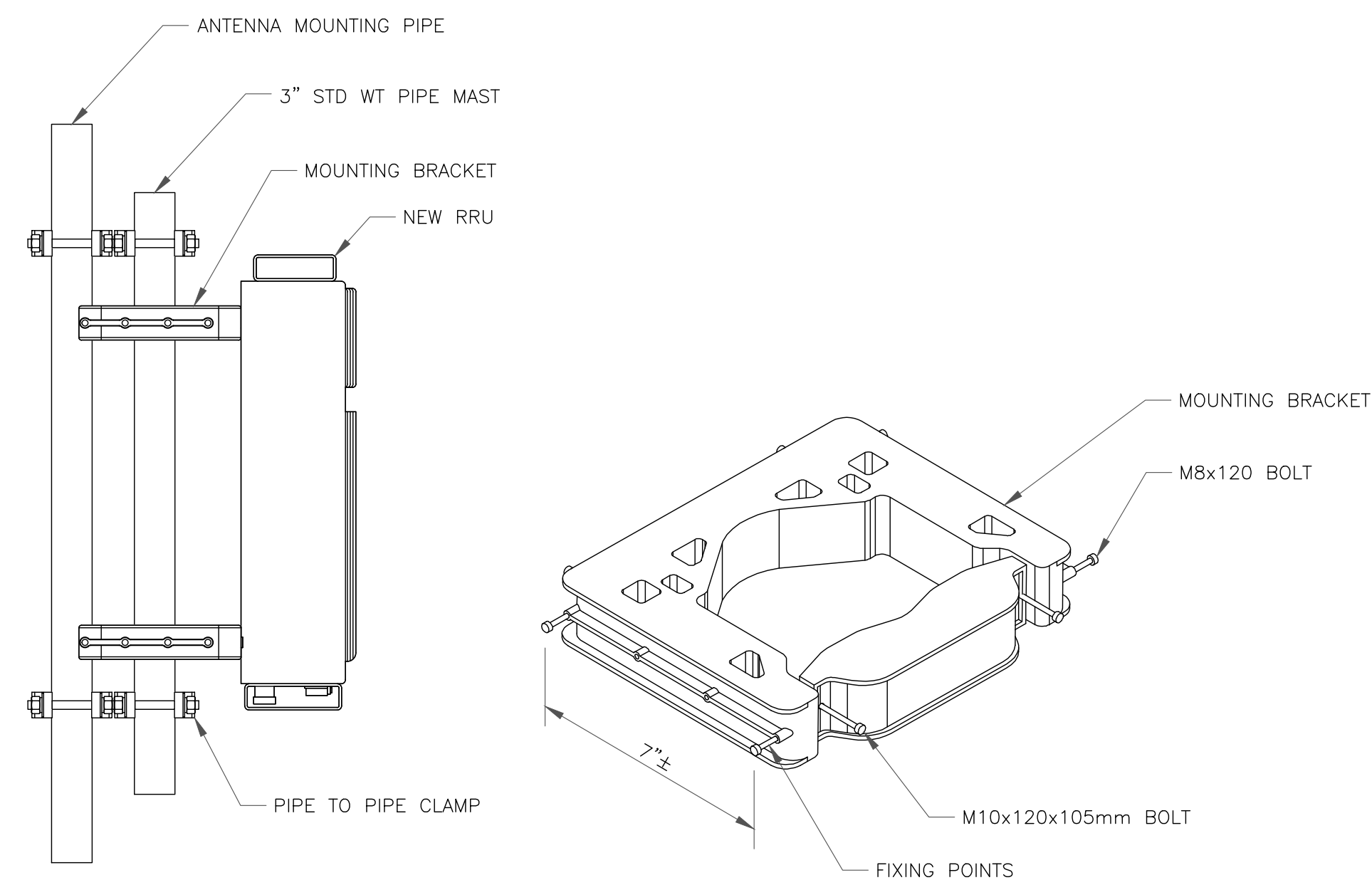


NOTES:

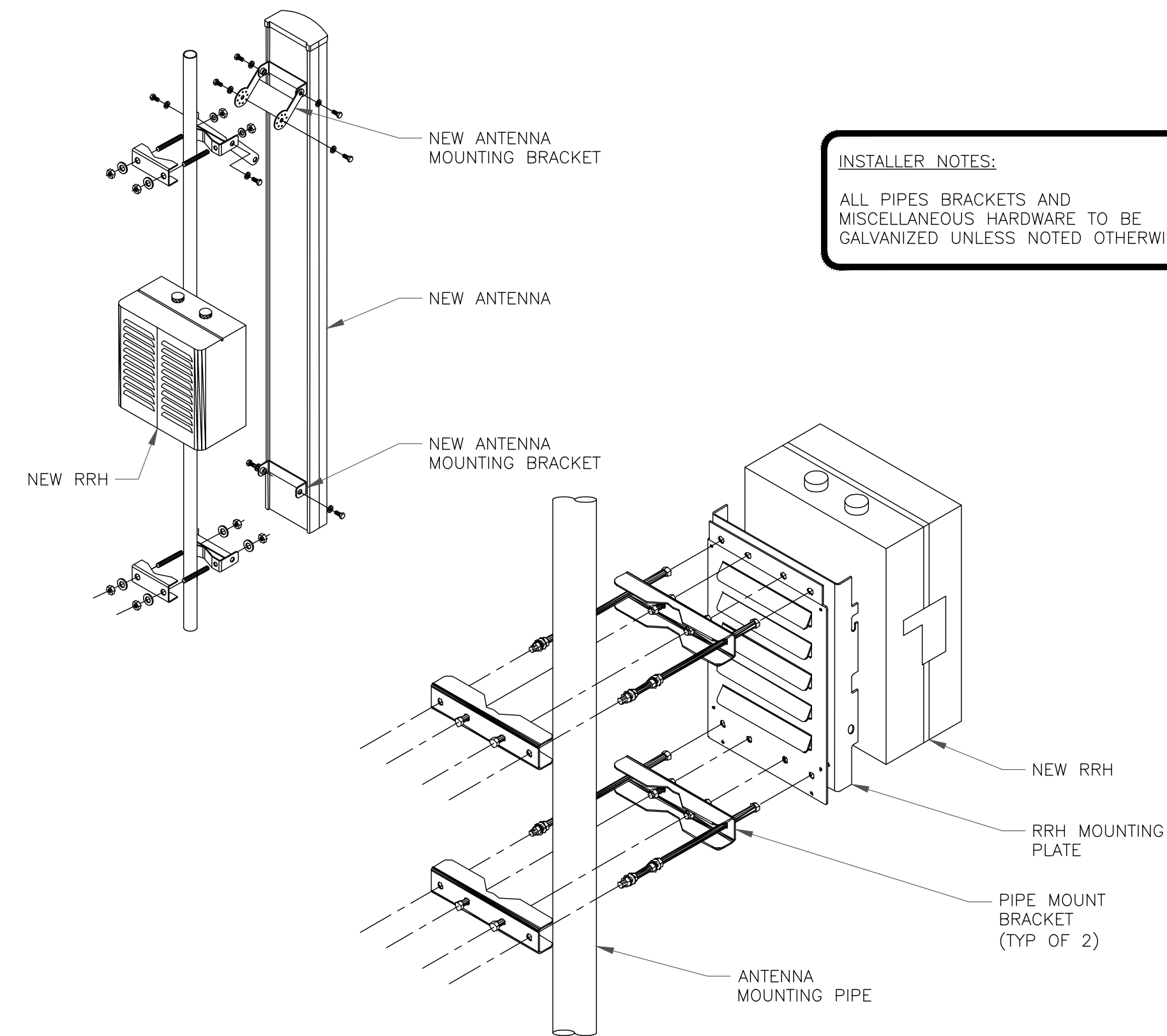
- BSAMNT-SBS-1-2 KIT CONTAINS (2) 627281 MOUNTING BRACKETS.
- TORQUE THE M10 BOLT ASSEMBLY TO 37 N.m. PER MANUFACTURE'S RECOMMENDATIONS.

1 COMMSCOPE – BSAMNT-SBS-1-2
SCALE: NOT TO SCALE

2 NOT USED
SCALE: NOT TO SCALE



3 NOKIA – FPKA BRACKET MOUNTING DETAIL
SCALE: NOT TO SCALE



INSTALLER NOTES:
ALL PIPES BRACKETS AND MISCELLANEOUS HARDWARE TO BE GALVANIZED UNLESS NOTED OTHERWISE.

4 ANTENNA & RRH MOUNTING DETAIL
SCALE: NOT TO SCALE

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VERIZON SITE NUMBER:
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BU #: **806362**
NHV **108 943133**

INTERSECTION OF RTE 322,
MERIDIAN RD
WOLCOTT SITE, WOLCOTT, CT
06716

EXISTING 185'-0" SELF
SUPPORT TOWER

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	08/02/2021	RCD	FINAL CDs	-

STATE OF CONNECTICUT
SHUHEI SAKANQUE
34916
PROFESSIONAL ENGINEER

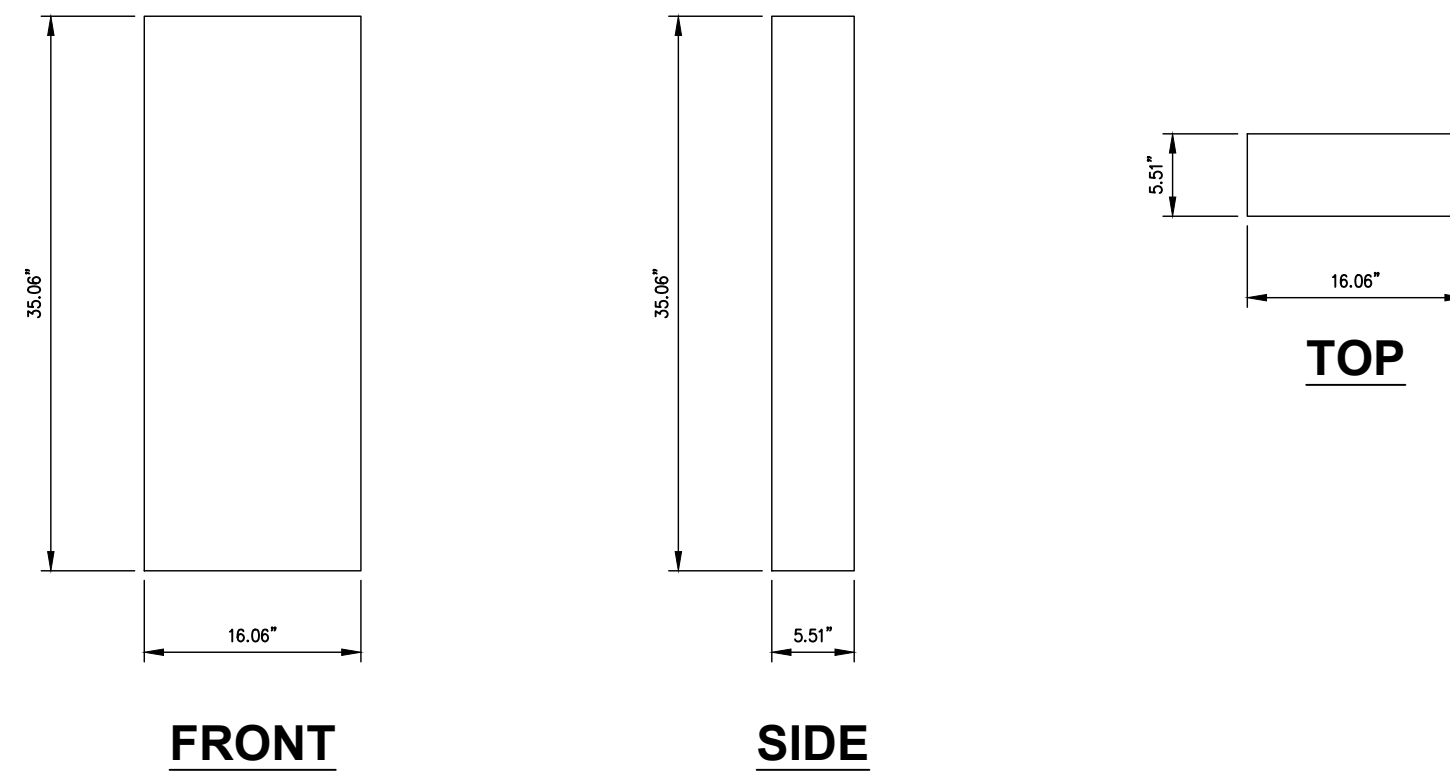
8/6/2021

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

SAMSUNG PANEL ANTENNA (MT6407-77A)

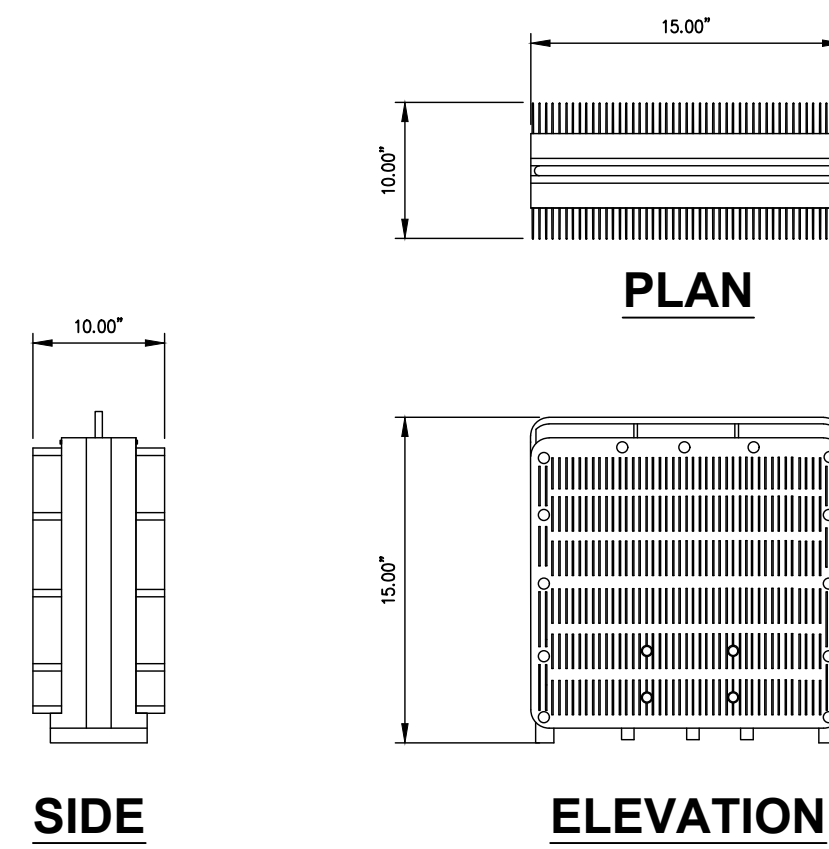
DIMENSIONS, HxWxD: 35.06"x16.06"x5.51"
 WEIGHT, W/O BRACKETS: 81.57 lbs



1 SAMSUNG MT6407-77A ANTENNA DETAIL
 SCALE: NOT TO SCALE

SAMSUNG B2/B66A RRH-BR049 (RFV01U-D1A)

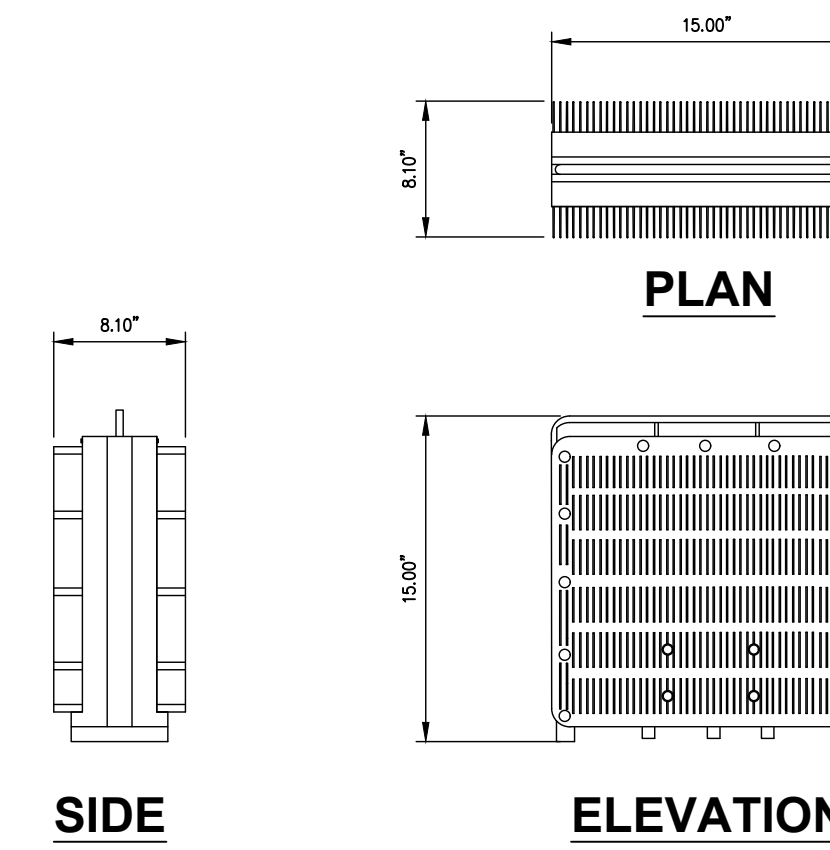
DIMENSIONS, WxDxH: 15.00" X 15.00" X 10.00"
 TOTAL WEIGHT: 84.40 lbs
 TEMPERATURE: -40° TO 55° C



2 SAMSUNG B2/B66A RRH-BR049 DETAIL
 SCALE: NOT TO SCALE

SAMSUNG B5/B13 RRH-BR04C (RFV01U-D2A)

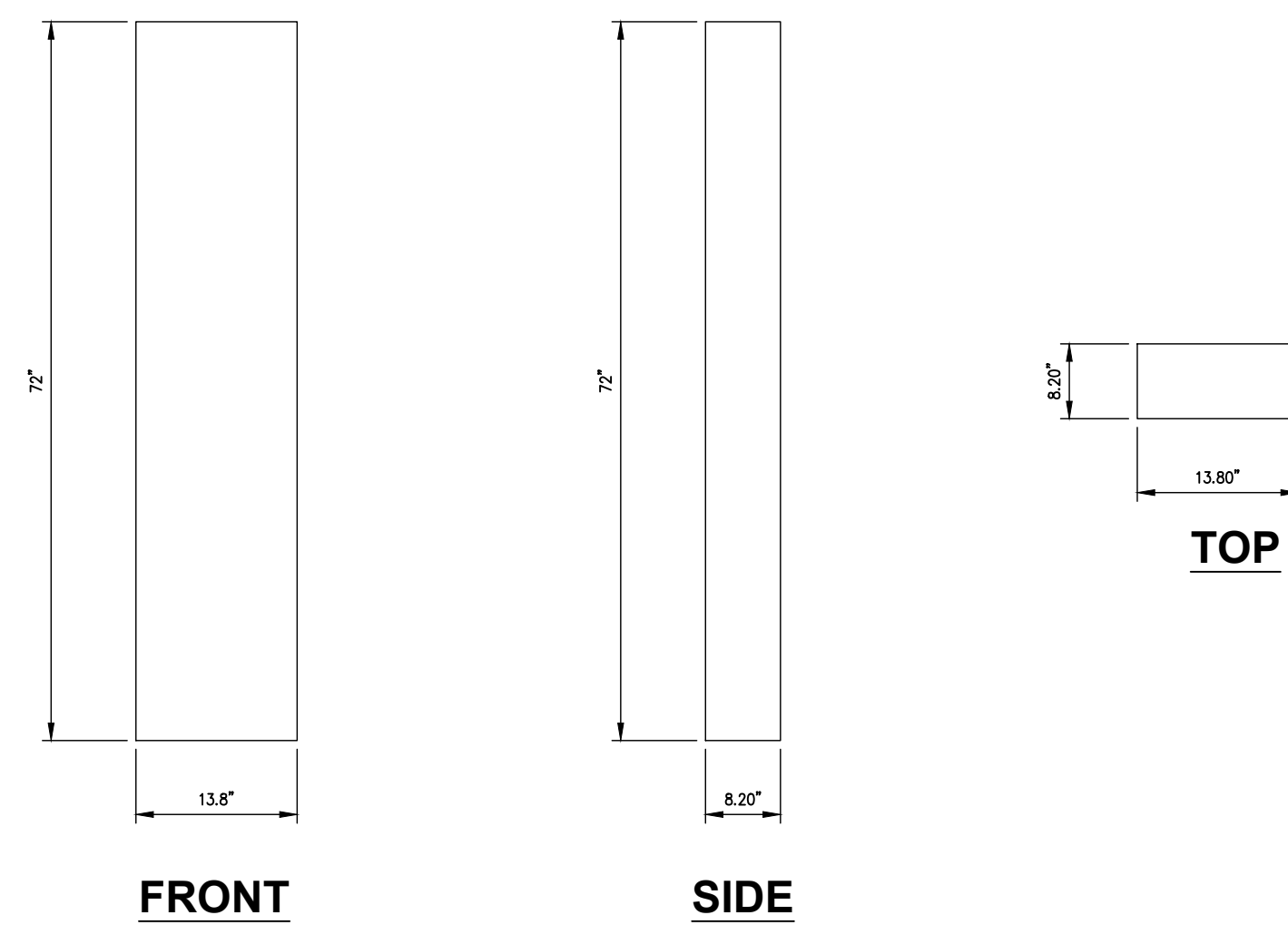
DIMENSIONS, WxDxH: 15.00" X 15.00" X 8.10"
 TOTAL WEIGHT: 70.30 lbs
 TEMPERATURE: -40° TO 55° C



2 SAMSUNG B5/B13 RRH-BR04C DETAIL
 SCALE: NOT TO SCALE

COMMSCOPE PANEL ANTENNA (JAHH-65B-R3B)

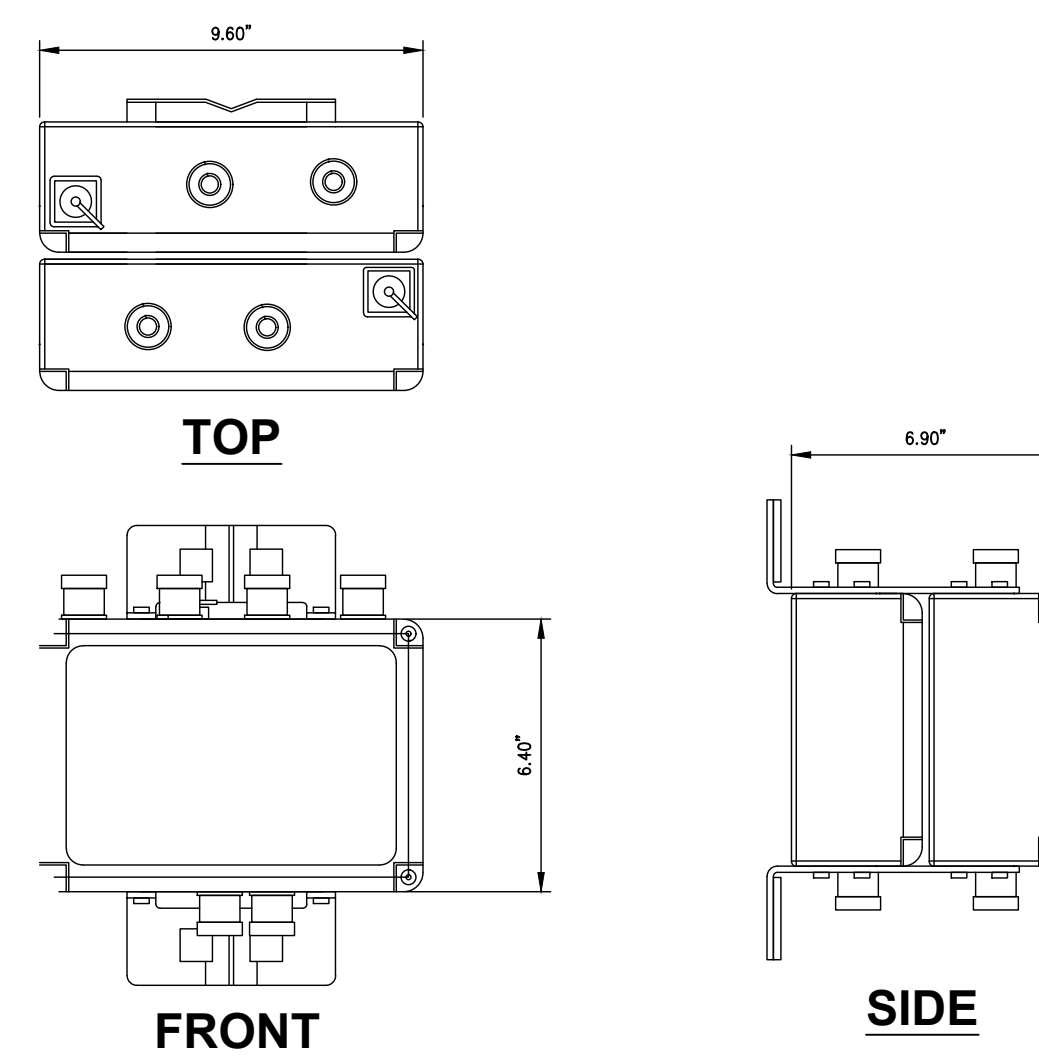
DIMENSIONS, HxWxD: 72"x13.80"x8.20"
 WEIGHT, W/O BRACKETS: 63.00 lbs



4 COMMSCOPE - JAHH-65B-R3B ANTENNA DETAIL
 SCALE: NOT TO SCALE

COMMSCOPE DIPLEXER (CBC78TDS-43-2X)

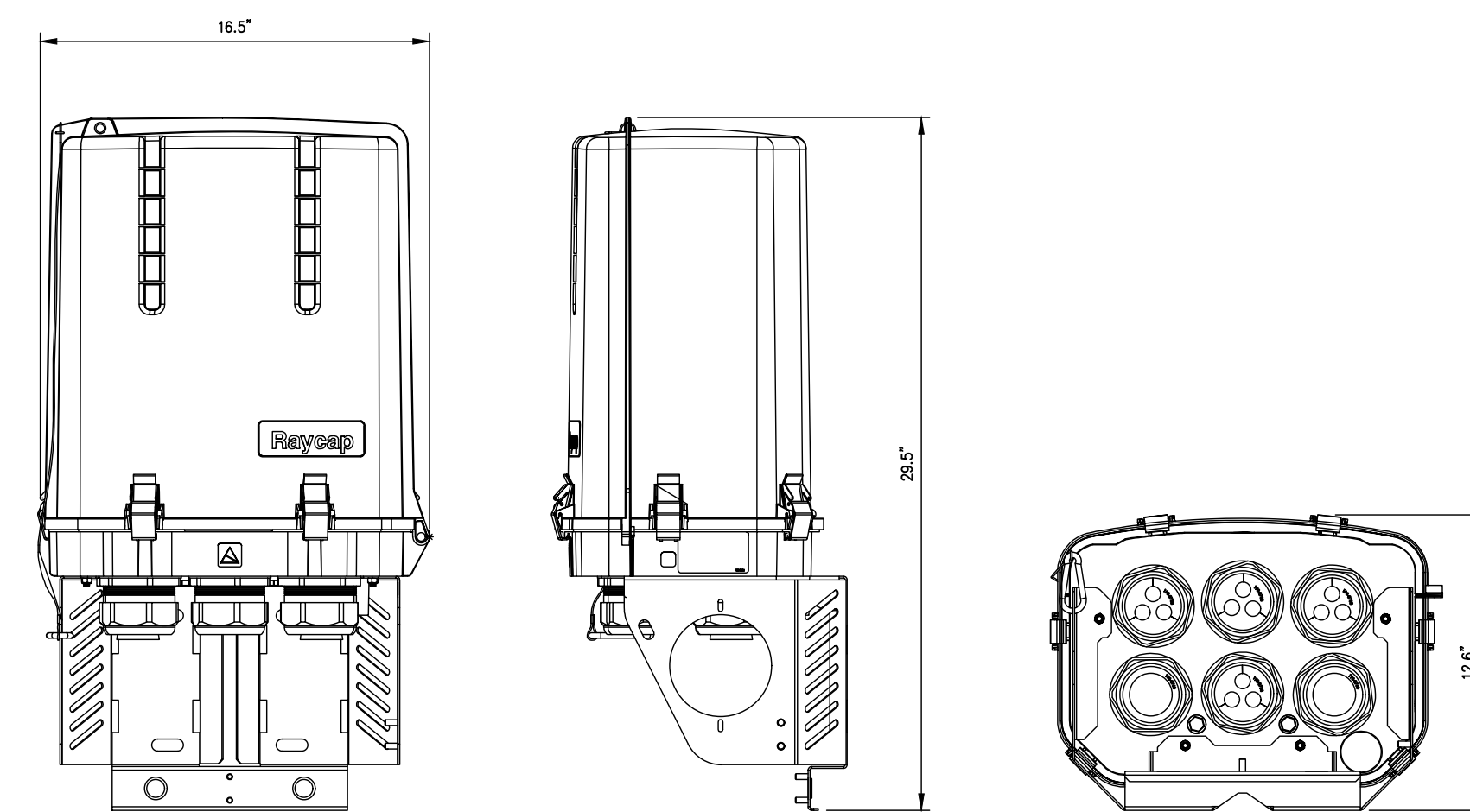
DIMENSIONS, HxWxD: 6.40"x6.90"x9.60"
 WEIGHT, W/O BRACKETS: 20.70 lbs



5 COMMSCOPE / CBC78TDS-43-2X DIPLEXER
 SCALE: NOT TO SCALE

RAYCAP RVZDC-6627-PF-48

DIMENSIONS, LxWxH: 12.6"x16.5"x29.5"
 WEIGHT, W/O BRACKETS: 32.0 lbs



6 RAYCAP RVZDC-6627-PF-48 OVP DETAIL
 SCALE: NOT TO SCALE

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VERIZON SITE NUMBER:
 467897
 BU #: 806362
 NHV 108 943133
 INTERSECTION OF RTE 322,
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 WOLCOTT SITE, WOLCOTT, CT
 06716

EXISTING 185'-0" SELF
 SUPPORT TOWER

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	08/02/2021	RCD	FINAL CDs	-

STATE OF CONNECTICUT
 SHUHEI SAKANoue
 34916
 LICENSED PROFESSIONAL ENGINEER

8/6/2021

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SHEET NUMBER: **C-5** REVISION: **0**

VERIZON SITE NUMBER:
467897

BU #: 806362
NHV 108 943133

INTERSECTION OF RTE 322,
MERIDIAN RD
WOLCOTT SITE, WOLCOTT, CT
06716

EXISTING 185'-0" SELF
SUPPORT TOWER

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	08/02/2021	RCD	FINAL CDs	-

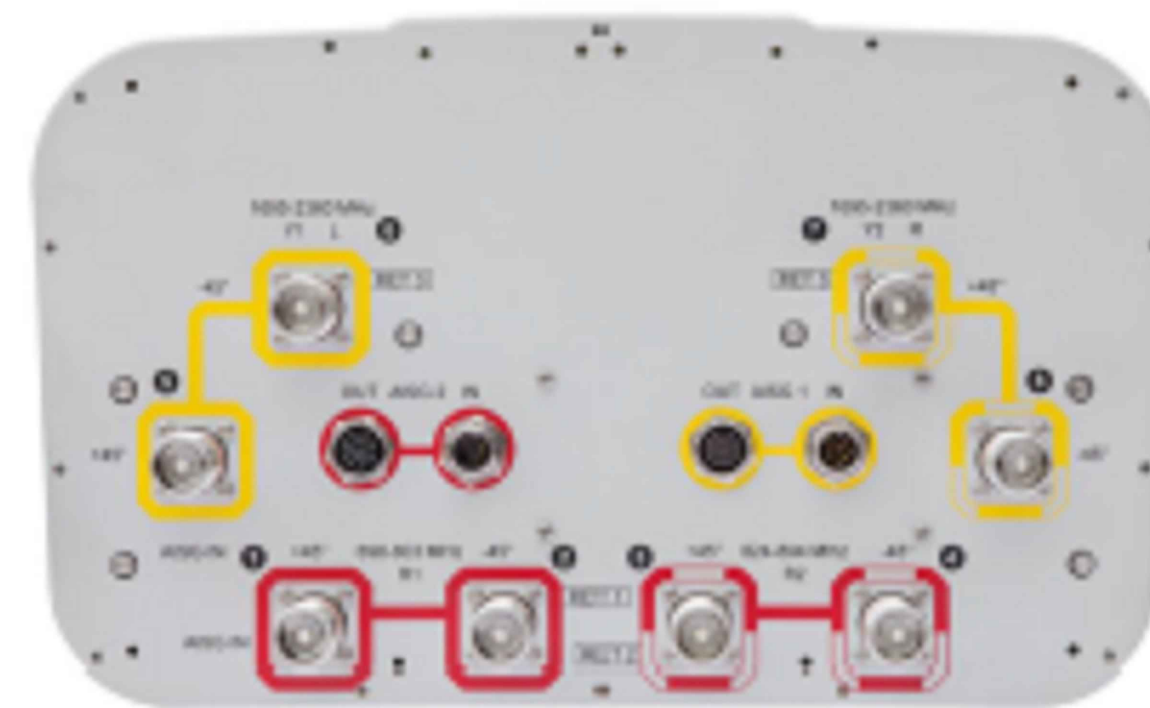


8/6/2021

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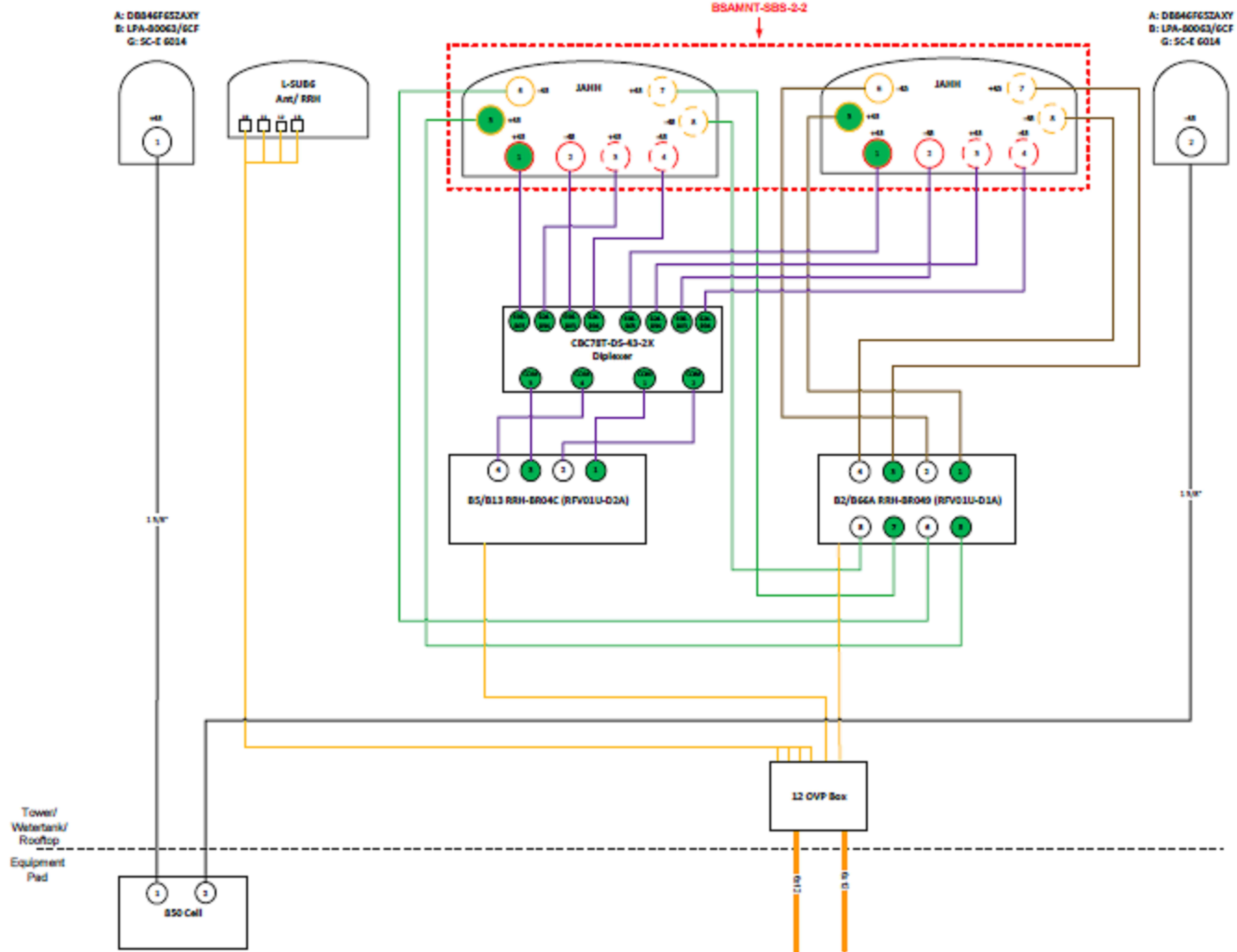
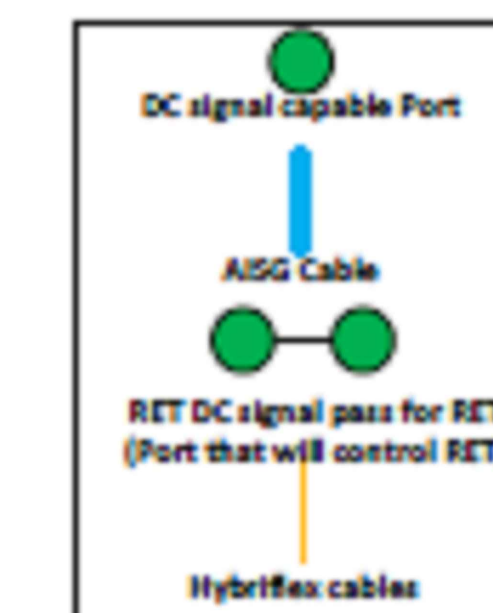
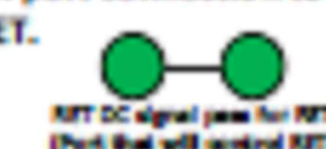
SHEET NUMBER: REVISION:

C-6 0

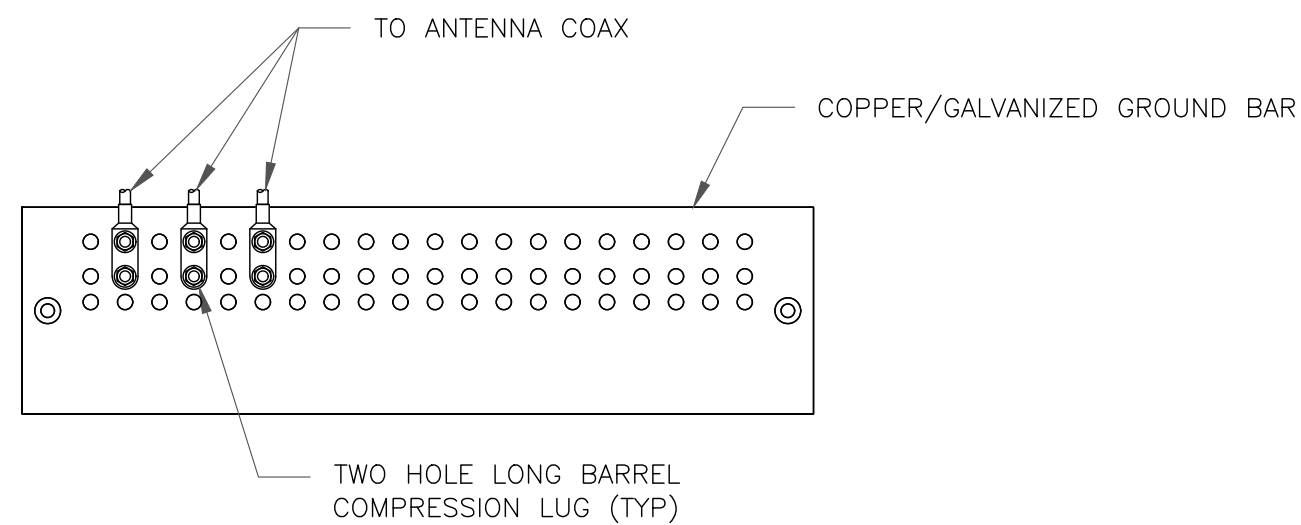


BSANNT-SBS-2-2

- Port 1 & 2 are for low band (698-896 MHz).
- Port 3,4,5, & 6 are for high band (1695-2360 MHz).
- Smart Bias Tee (SBT) is through port 1 & 3 for low band and port 1 for high band.
- AISG cable is only needed when drawn in the diagrams below, if it is not drawn then SBT is enough to control all RET motors.
- Not all SBT ports are needed to control RET, only green port connection to green port will control RET.



Comments:
Diagram shows antenna port configuration as viewed from below antennas.
Antenna positions are indicated as viewed from IN FRONT of antennas.
Cap and weatherproof unused antenna ports.
All plumbing diagram colors are irrelevant except for AISG & Hybridex cable. (For the coax colors follow Coax Colors guide above)



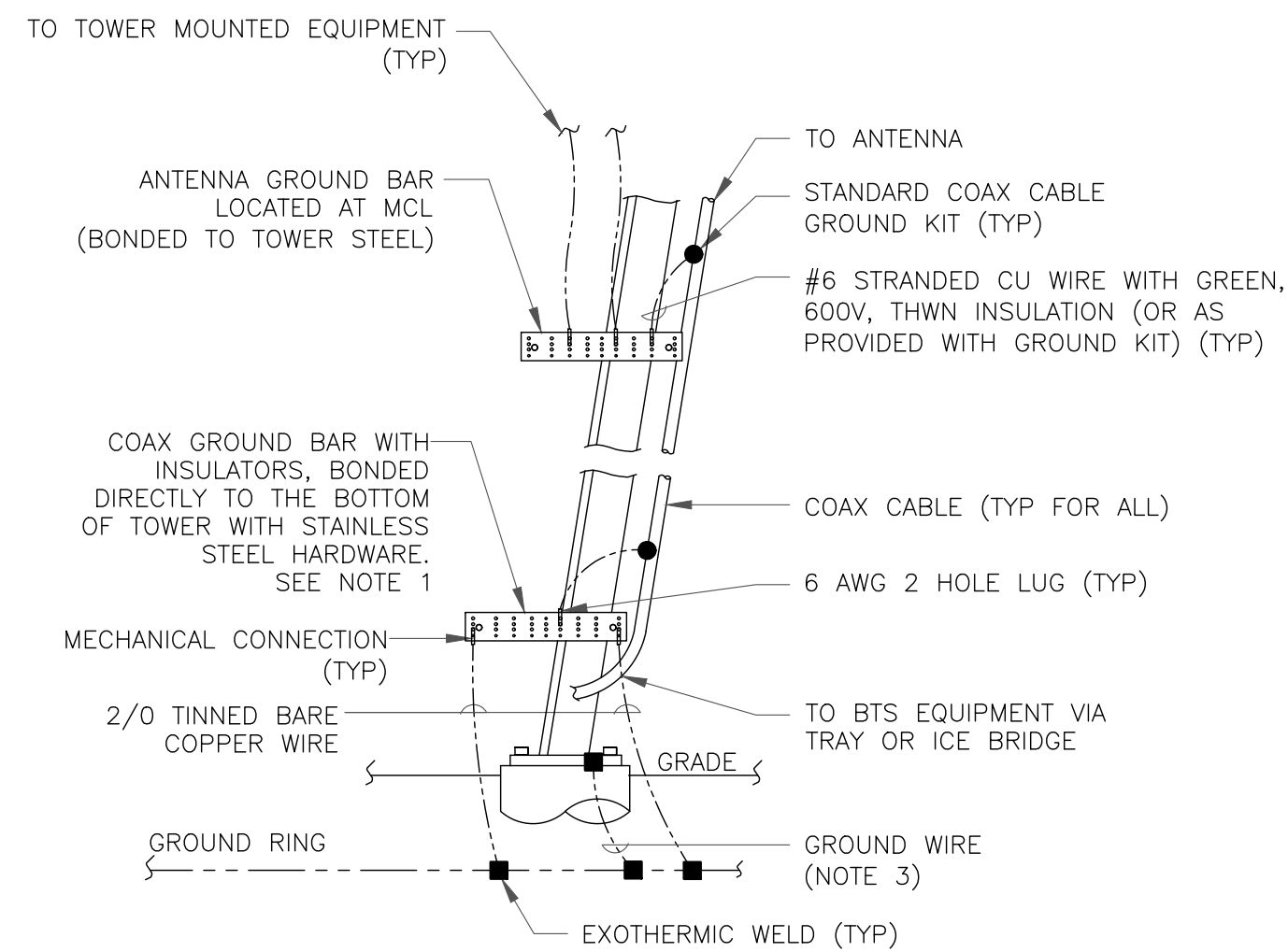
NOTES:

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

2 NOT USED
SCALE: NOT TO SCALE

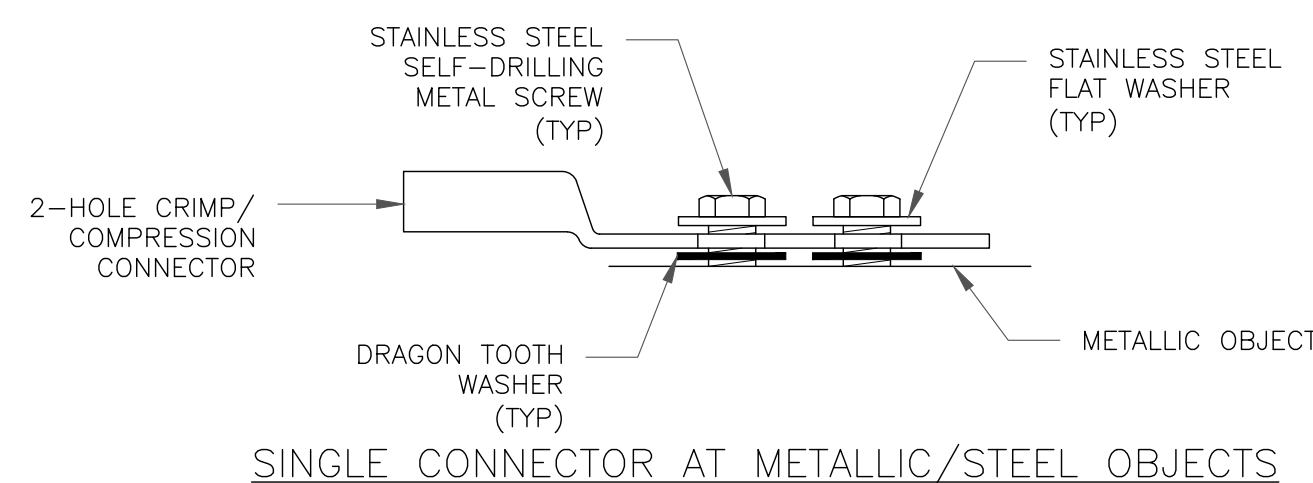
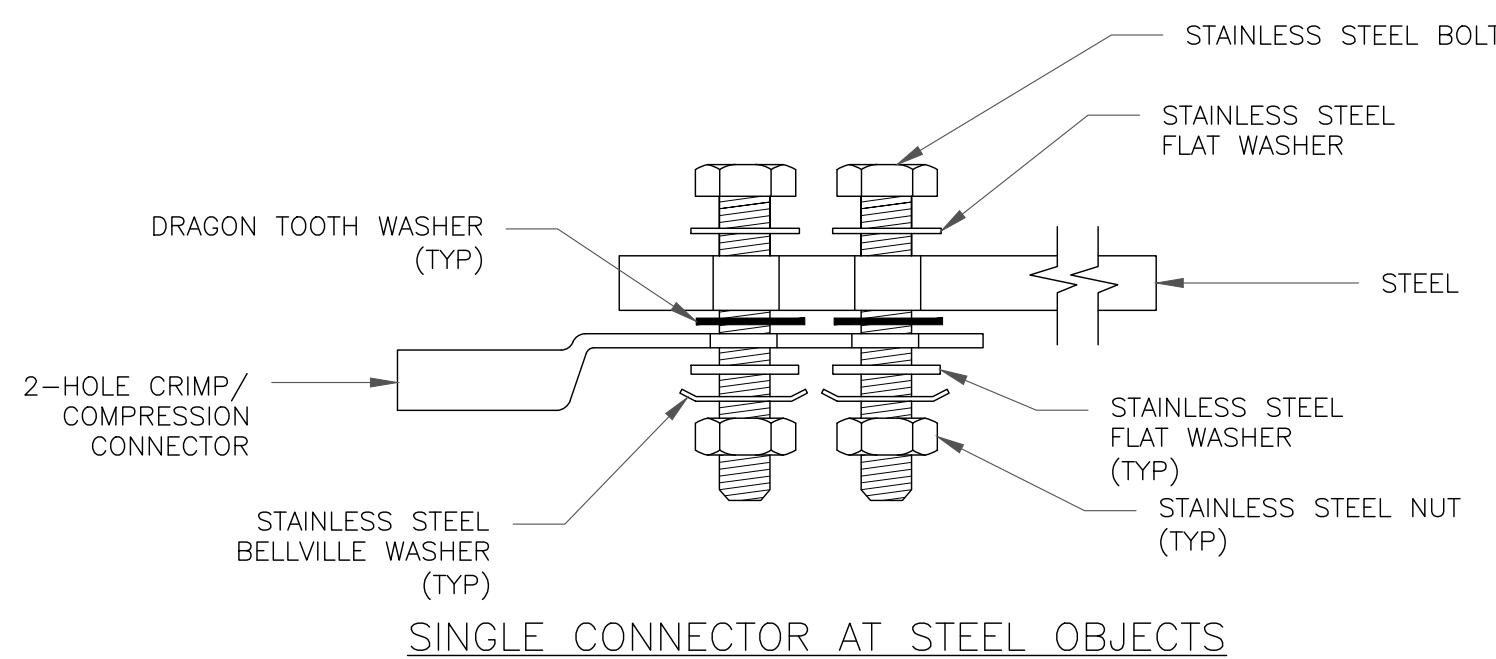
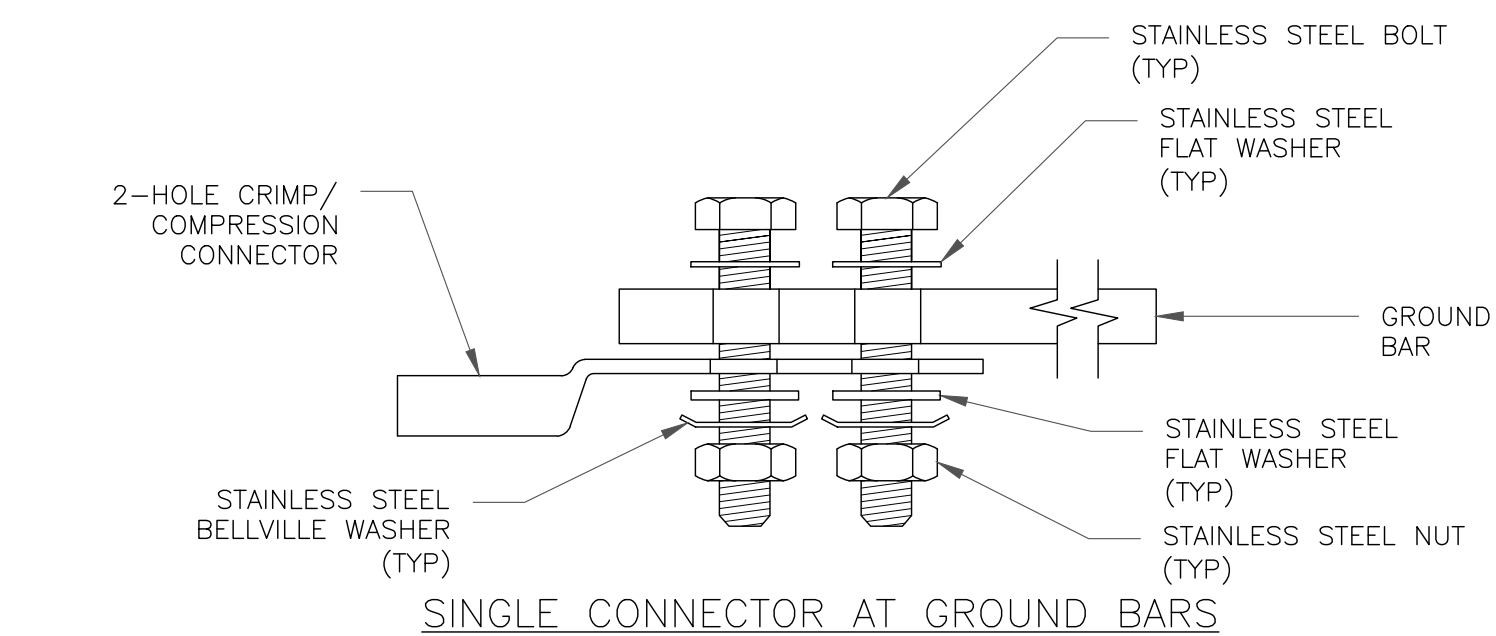
3 NOT USED
SCALE: NOT TO SCALE



NOTES:

1. NUMBER OF GROUNDING BARS MAY VARY DEPENDING ON THE TYPE OF TOWER, ANTENNA LOCATIONS AND CONNECTION ORIENTATION. COAXIAL CABLES EXCEEDING 200 FEET ON THE TOWER SHALL HAVE GROUND KITS AT THE MIDPOINT. PROVIDE AS REQUIRED.
2. ONLY MECHANICAL CONNECTIONS ARE ALLOWED TO BE MADE TO CROWN CASTLE USA INC. TOWERS. ALL MECHANICAL CONNECTIONS SHALL BE TREATED WITH AN ANTI-OXIDANT COATING.
3. ALL TOWER GROUNDING SYSTEMS SHALL COMPLY WITH THE REQUIREMENTS OF THE RECOGNIZED EDITION OF ANSI/TIA 222 AND NFPA 780.

4 TYPICAL ANTENNA CABLE GROUNDING
SCALE: NOT TO SCALE



5 HARDWARE DETAIL FOR EXTERIOR CONNECTIONS
SCALE: NOT TO SCALE

6 NOT USED
SCALE: NOT TO SCALE

verizon
180 WASHINGTON VALLEY ROAD
BEDMINSTER, NJ 07921

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

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the solutions are endless
BELLEVUE, WA 98004

VERIZON SITE NUMBER:
467897

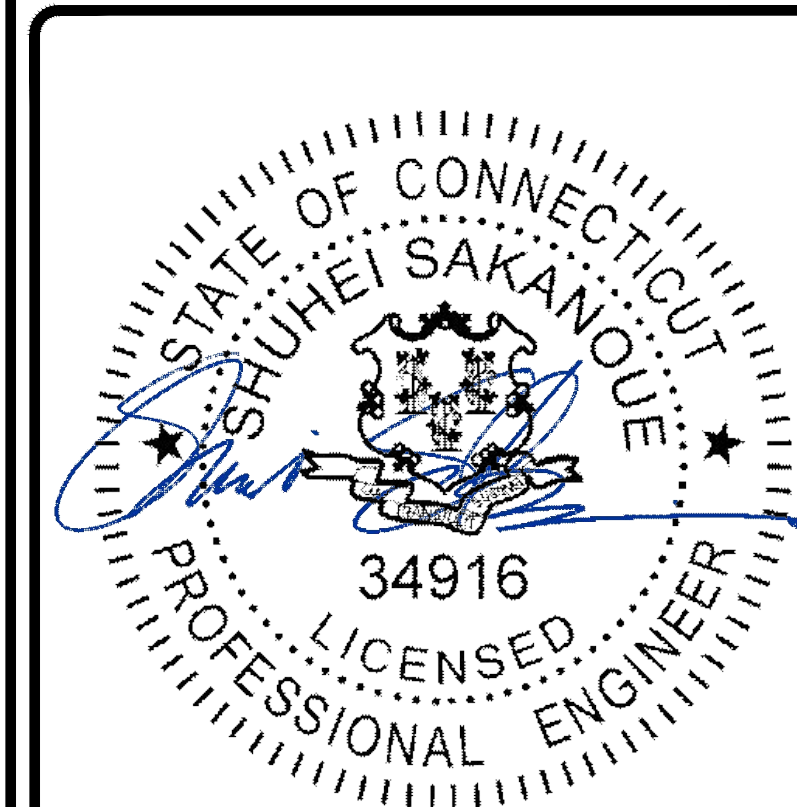
BU #: 806362
NHV 108 943133

INTERSECTION OF RTE 322,
MERIDIAN RD
WOLCOTT SITE, WOLCOTT, CT
06716

EXISTING 185'-0" SELF
SUPPORT TOWER

ISSUED FOR:

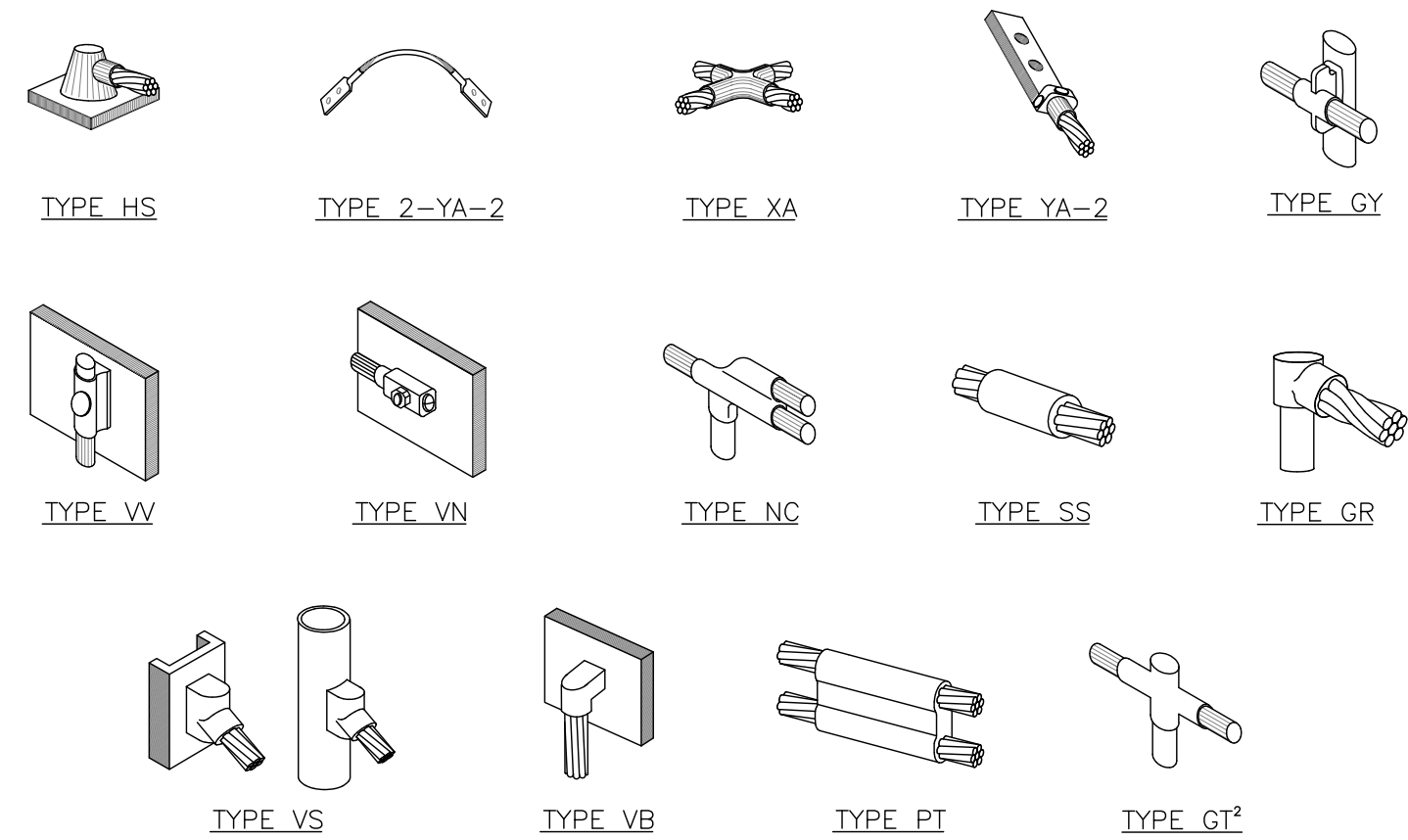
REV	DATE	DRWN	DESCRIPTION	DES./QA
0	08/02/2021	RCD	FINAL CDs	--



8/6/2021

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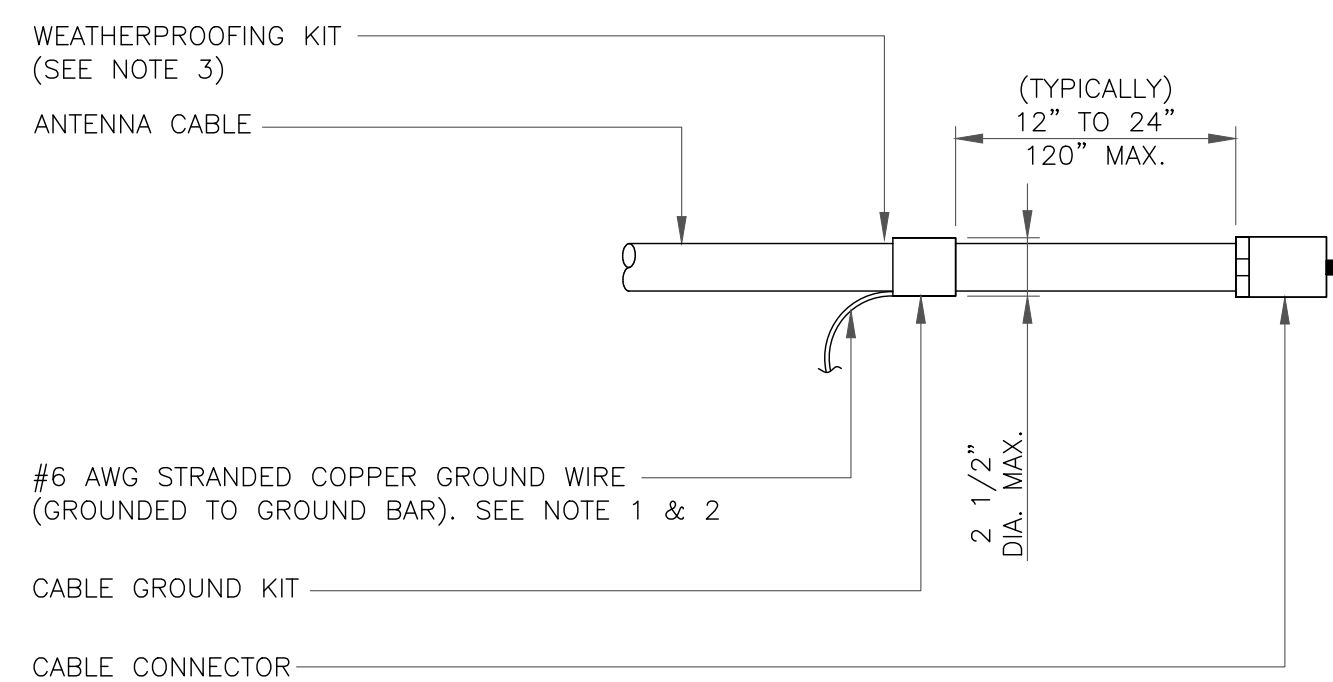
SHEET NUMBER: **G-1** REVISION: **0**



NOTE:

1. ERICO EXOTHERMIC "MOLD TYPES" SHOWN HERE ARE EXAMPLES. CONSULT WITH CONSTRUCTION MANAGER FOR SPECIFIC MOLDS TO BE USED FOR THIS PROJECT.
2. MOLD TYPE ONLY TO BE USED BELOW GRADE WHEN CONNECTING GROUND RING TO GROUND ROD.

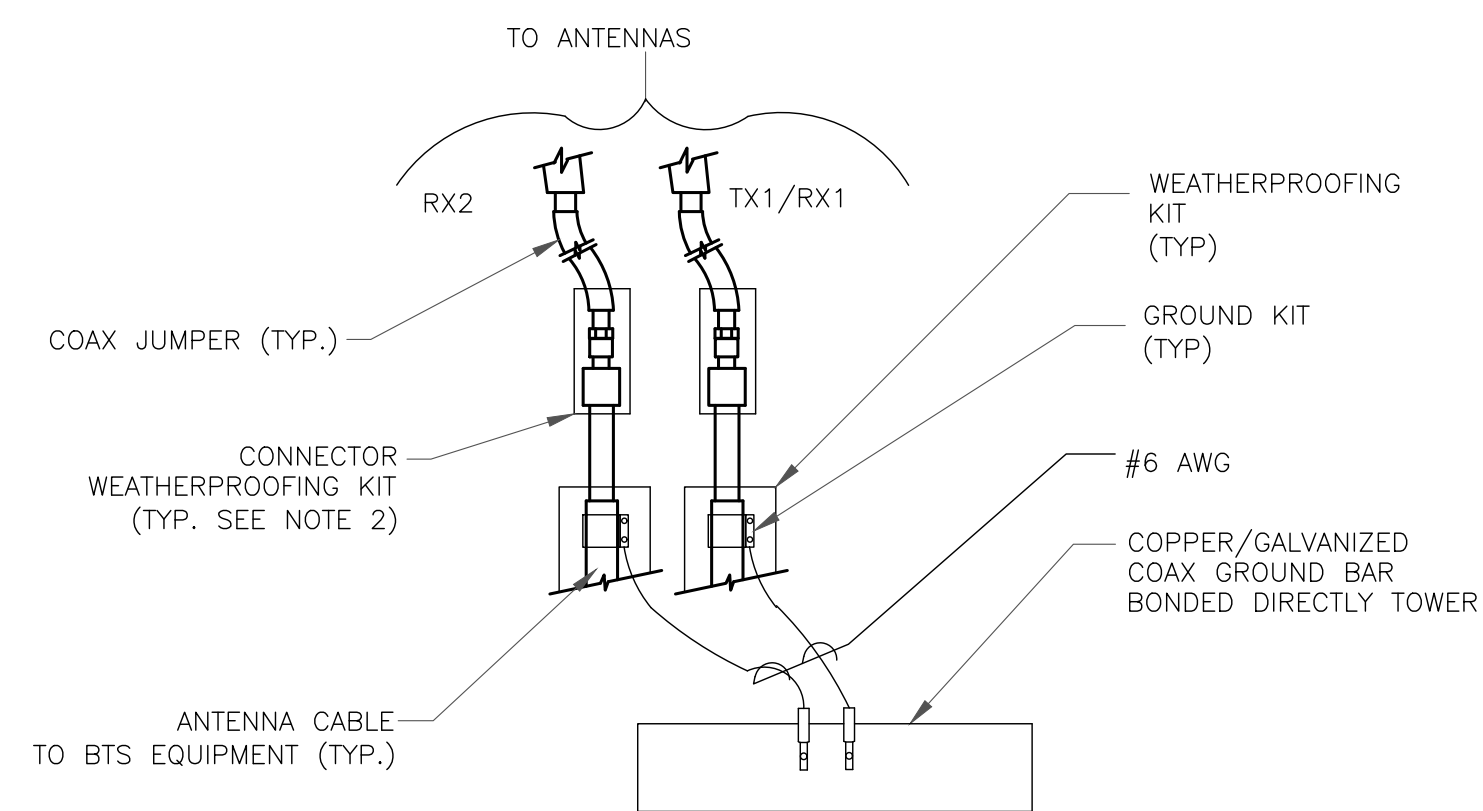
1 CADWELD GROUNDING CONNECTIONS
SCALE: NOT TO SCALE



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.

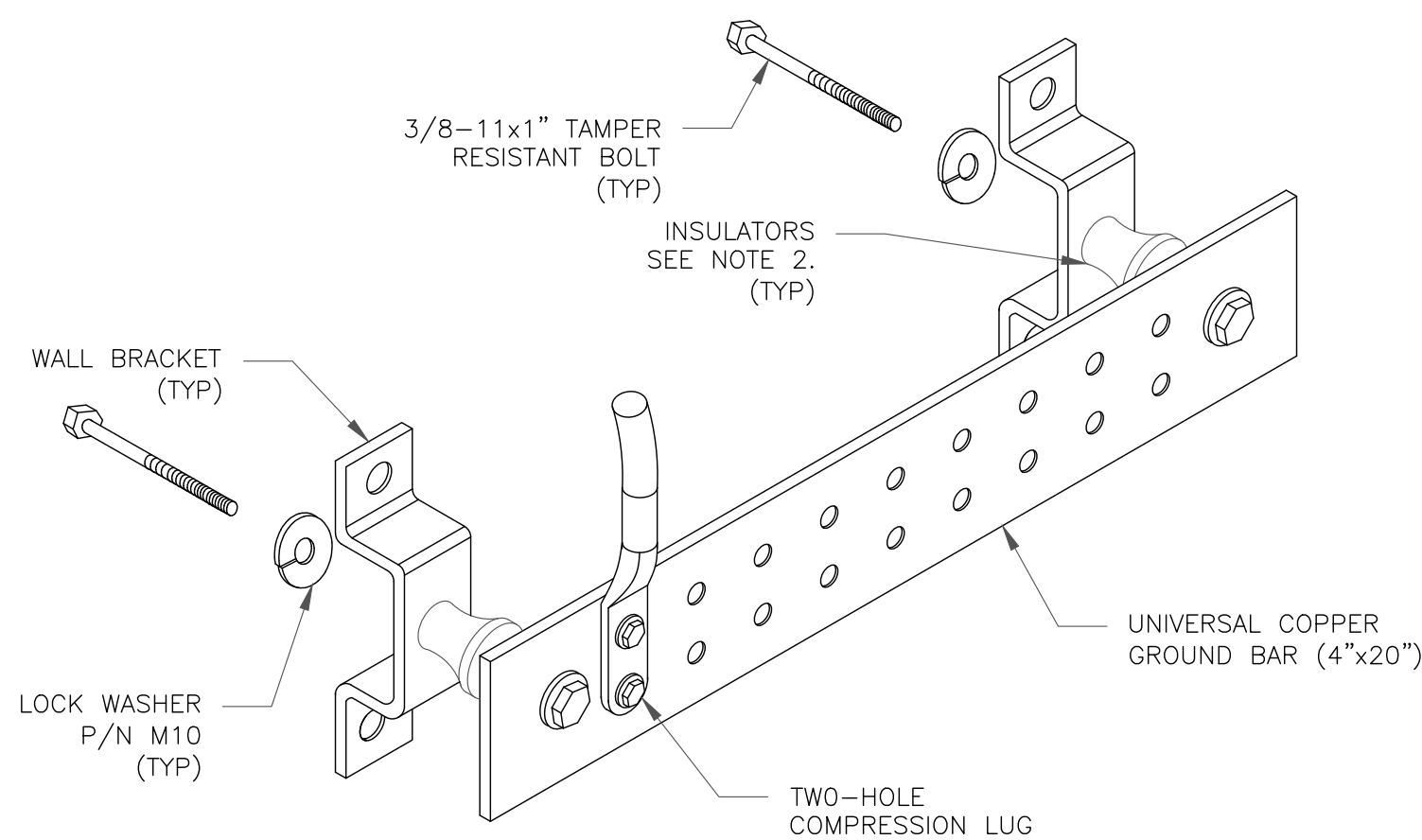
3 CABLE GROUND KIT CONNECTION
SCALE: NOT TO SCALE



NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO ANTENNA GROUND BAR.
2. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT. COLD SHRINK SHALL NOT BE USED.

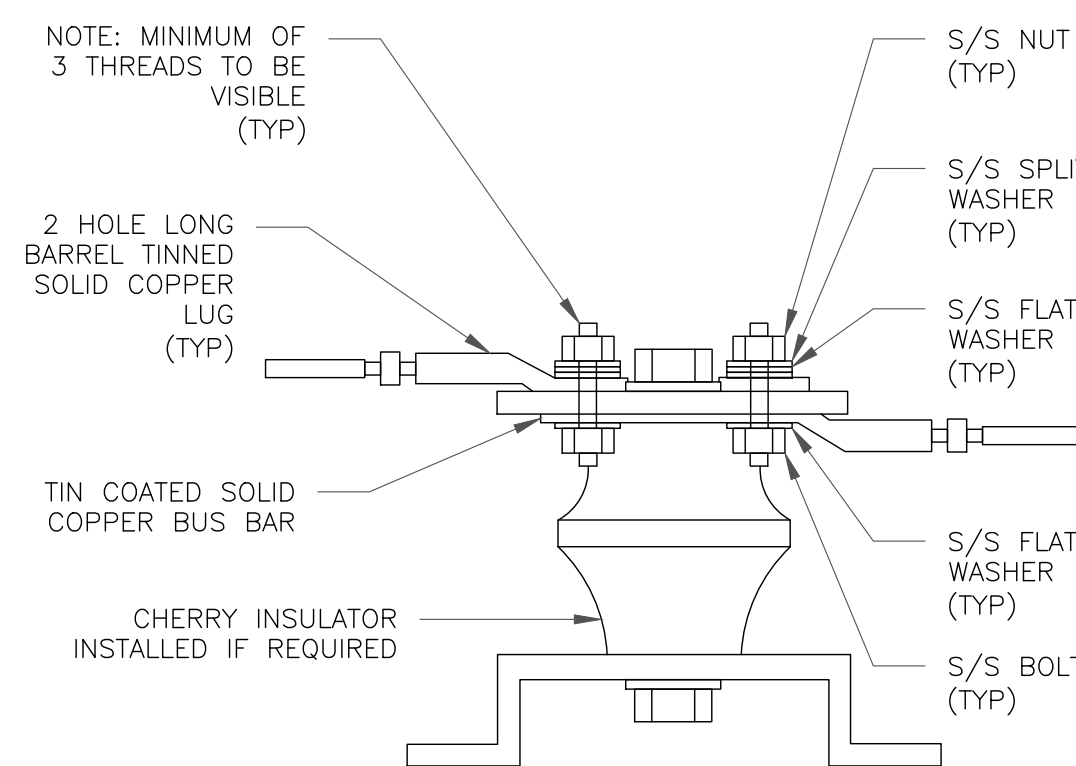
4 GROUND CABLE CONNECTION
SCALE: NOT TO SCALE



NOTES:

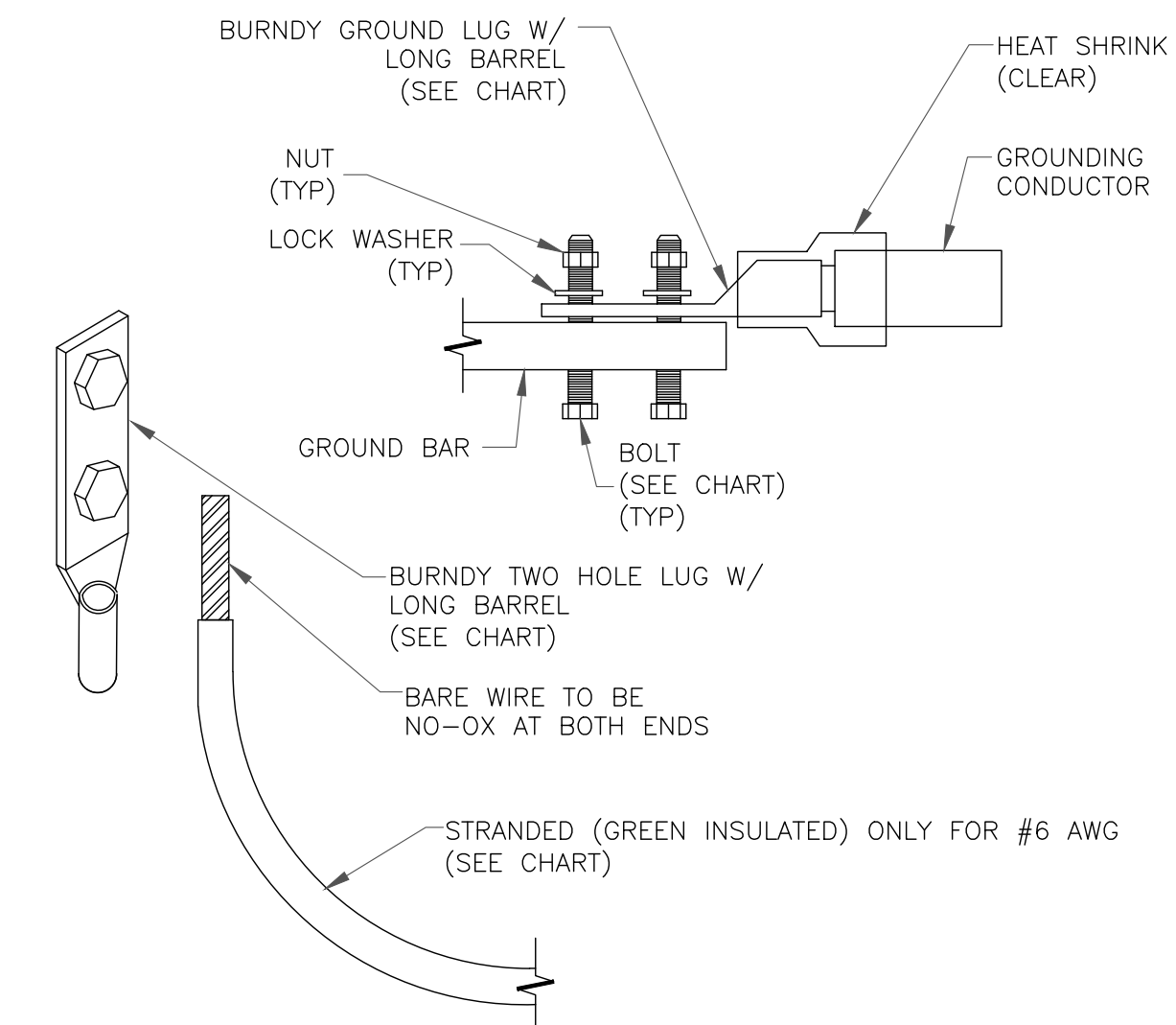
1. DOWN LEAD (HOME RUN) CONDUCTORS ARE NOT TO BE INSTALLED ON CROWN CASTLE USA INC. TOWER, PER THE GROUNDING DOWN CONDUCTOR POLICY QAS-STD-10091. NO MODIFICATION OR DRILLING TO TOWER STEEL IS ALLOWED IN ANY FORM OR FASHION. CAD-WELDING ON THE TOWER AND/OR IN THE AIR ARE NOT PERMITTED.
2. OMIT INSULATOR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

6 GROUND BAR DETAIL
SCALE: NOT TO SCALE



7 LUG DETAIL
SCALE: NOT TO SCALE

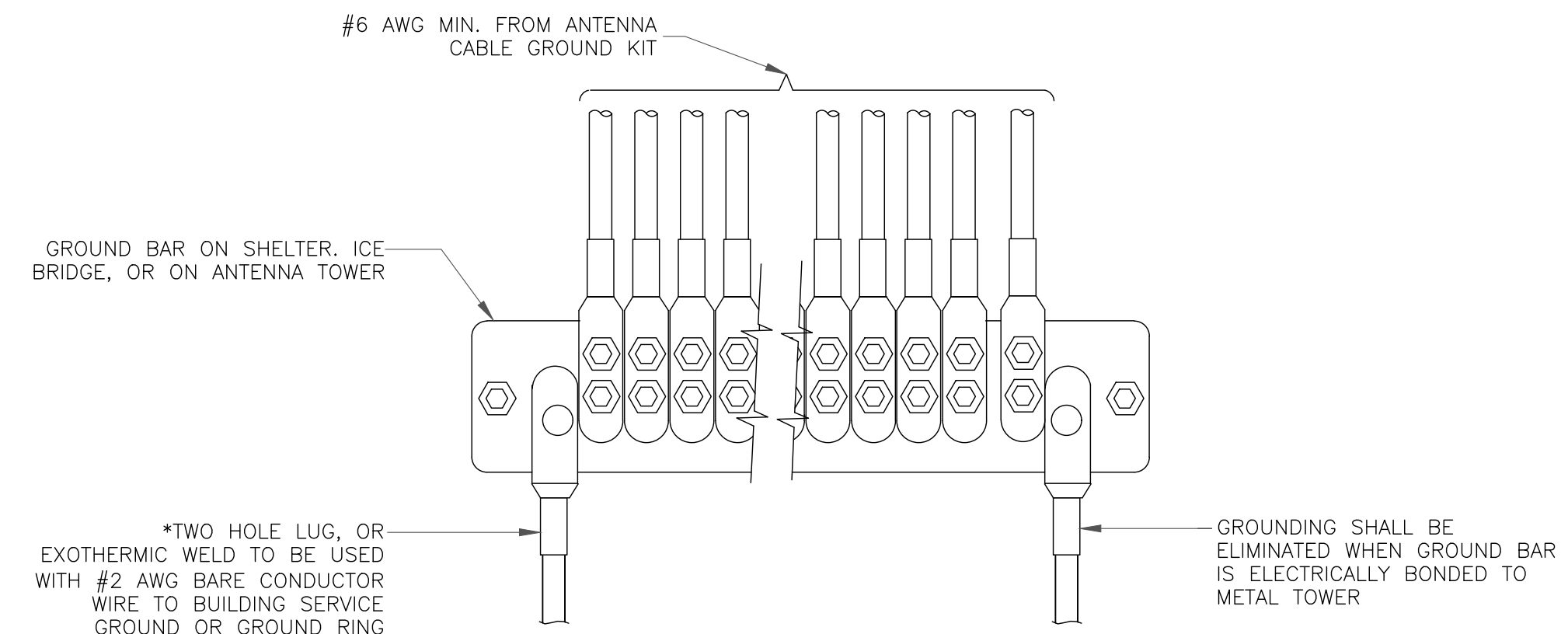
WIRE SIZE	BURNDY LUG	BOLT SIZE
#6 AWG GREEN INSULATED	YA6C-2TC38	3/8" - 16 NC S 2 BOLT
#2 AWG SOLID TINNED	YA3C-2TC38	3/8" - 16 NC S 2 BOLT
#2 AWG STRANDED	YA2C-2TC38	3/8" - 16 NC S 2 BOLT
#2/0 AWG STRANDED	YA26-2TC38	3/8" - 16 NC S 2 BOLT
#4/0 AWG STRANDED	YA28-2N	1/2" - 16 NC S 2 BOLT



NOTES:

1. 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.

2 MECHANICAL LUG CONNECTION
SCALE: NOT TO SCALE



5 GROUNDWIRE INSTALLATION
SCALE: NOT TO SCALE

8 NOT USED
SCALE: NOT TO SCALE

verizon
180 WASHINGTON VALLEY ROAD
BEDMINSTER, NJ 07921

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

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VERIZON SITE NUMBER:
467897

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INTERSECTION OF RTE 322,
MERIDIAN RD
WOLCOTT SITE, WOLCOTT, CT
06716

EXISTING 185'-0" SELF
SUPPORT TOWER

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	08/02/2021	RCD	FINAL CDs	--

STATE OF CONNECTICUT
SHUHEI SAKANQUE
34916
PROFESSIONAL ENGINEER

8/6/2021

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

Exhibit D

Structural Analysis Report

Date: **May 14, 2021**



Tower Engineering Professionals
326 Tryon Road
Raleigh, NC 27603
(919) 661-6351

Subject: Structural Analysis Report

Carrier Designation: **Verizon Wireless Co-Locate**
Site Number: 467897
Site Name: Wolcott CT

Crown Castle Designation: **BU Number:** 806362
Site Name: NHV 108 943133
JDE Job Number: 667185
Work Order Number: 1962279
Order Number: 568280 Rev. 1

Engineering Firm Designation: **TEP Project Number:** 217724.543747

Site Data: **Intersection of RTE 322/Meridian Rd Wolcott Site,**
Wolcott, New Haven County, CT 06716
Latitude 41° 33' 34.41", Longitude -72° 56' 49.10"
185 Foot - Self-Supporting Tower

Tower Engineering Professionals 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

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: Gautam Sopal, E.I. / PHX

Respectfully submitted by:

Aaron T. Rucker, P.E.



Electronic Copy

05/14/2021

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4) ANALYSIS RESULTS

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tnxTower Output

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7) APPENDIX C

Additional Calculations

1) INTRODUCTION

This tower is a 185-ft self supporting tower designed by Rohn. The tower has been modified multiple times in the past to accommodate additional loading.

2) ANALYSIS CRITERIA

TIA-222 Revision:	TIA-222-H
Risk Category:	II
Wind Speed:	125 mph
Exposure Category:	C
Topographic Factor:	1.0
Ice Thickness:	1.5 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)
177.0	177.0	2	Andrew	DB846F65ZAXY w/ Mount Pipe	14	1-5/8
		2	Antel	LPA-80063/6CFx5 w/ Mount Pipe		
		6	Commscope	JAHH-65B-R3B w/ Mount Pipe		
		2	Swedcom	SC-E 6014 Rev2 w/ Mount Pipe		
		3	VZW	Sub6 Antenna - VZS01 w/ Mount Pipe		
		3	Commscope	CBC78T-DS-43-2X		
		1	Raycap	RVZDC-6627-PF-48_CCIV2		
		3	Samsung Telecommunications	RFV01U-D1A		
		3	Samsung Telecommunications	RFV01U-D2A		
		3	Commscope	BSAMNT-SBS-2-2		
40.0	40.0	1	Tower Mounts	Sector Mount [SM 504-3]	1	1/2
		1	GPS	GPS_A		
		1	Tower Mounts	Side Arm Mount [SO 306-1]		

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)
186.0	186.0	3	Ericsson	AIR 32 B2A/B66AA w/ Mount Pipe	2 10	1-3/8 1-5/8
		3	Ericsson	APXVAARR24_43-U-NA20 w/ Mount Pipe		
		3	RFS Celwave	AIR6449 B41_T-Mobile w/ Mount Pipe		
		3	Commscope	SDX1926Q-43		
		3	Ericsson	KRY 112 144/1		
		3	Ericsson	Radio 4449 B71 B85A_T-Mobile		
		3	Ericsson	RRUS 4415 B25		
		1	Tower Mounts	Sector Mount [SM 502-3]		
168.0	168.0	3	Commscope	NNVV-65B-R4 w/ Mount Pipe	1 6 3	1/4 5/16 1-1/4
		3	RFS Celwave	APXVTM14-ALU-I20 w/ Mount Pipe		
		1	Andrew	VHLP2-11		
		3	Samsung Telecommunications	FDD_R6_RRH		
		3	Nokia	AHCC		
		3	Nokia	AHFIB_CCIV2		
		1	Dragonwave	Horizon Duo		
		3	Site Pro 1	VFA12-HD		
158.0	160.0	3	Powerwave Technologies	7770.00 w/ Mount Pipe	2 6 12	3/8 3/4 1-1/4
		2	Quintel Technology	QS66512-2 w/ Mount Pipe		
		4	CCI Antennas	OPA65R-BU6D w/ Mount Pipe		
		1	CCI Antennas	OPA65R-BU8D w/ Mount Pipe		
		1	CCI Antennas	TPA-65R-LCUUUU-H8 w/ Mount Pipe		
		1	CCI Antennas	DMP65R-BU8D w/ Mount Pipe		
		3	Communication Components, Inc.	DTMABP7819VG12A		
		3	Powerwave Technologies	7020.00		
		3	Raycap	DC6-48-60-18-8F		
		6	Kaelus	DBC0061F1V51-2		
		3	Ericsson	RRUS 32 B30		
		3	Ericsson	RRUS 32 B2		
		3	Ericsson	RRUS 4478 B14_CCIV2		
		3	Ericsson	RRUS 32 B66A		
	3	Ericsson	RRUS 4449 B5/B12			
158.0	158.0	1	Tower Mounts	Sector Mount [SM 502-3]		

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

Document	Reference	Source
Geotechnical Report	2303630	CCISites
Tower Foundation Drawings	217670	CCISites
Tower Manufacturer Drawings	529684	CCISites
Tower Reinforcement Drawings	903539	CCISites
Tower Reinforcement Drawings	7904718	CCISites
Post Modification Inspection	8288884	CCISites

3.1) Analysis Method

tnxTower (version 8.0.9.0), 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.

3.2) Assumptions

- 1) The 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. Tower Engineering Professionals should be notified to determine the effect on the structural integrity of the tower.

4) ANALYSIS RESULTS

Table 4 - Section Capacity (Summary)

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (k)	ΦP_{allow} (k)	% Capacity	Pass / Fail
T1	185 - 180	Leg	ROHN 2.5 STD	2	-3.88	40.52	9.6	Pass
T2	180 - 160	Leg	ROHN 2.5 STD	15	-23.72	47.80	49.6	Pass
T3	160 - 140	Leg	ROHN 3 X-STR	54	-66.86	99.05	67.5	Pass
T4	140 - 120	Leg	ROHN 4 X-STR	93	-106.43	167.90	63.4	Pass
T5	120 - 100	Leg	ROHN 5 EH	132	-136.66	211.25	64.7	Pass
T6	100 - 80	Leg	ROHN 5 EH	159	-168.99	211.17	80.0	Pass
T7	80 - 60	Leg	ROHN 6 EHS	186	-198.68	256.16	77.6	Pass
T8	60 - 40	Leg	ROHN 6 X-STR	213	-228.20	318.80	71.6	Pass
T9	40 - 20	Leg	ROHN 6 X-STR	240	-256.39	318.76	80.4	Pass
T10	20 - 0	Leg	ROHN 8 EHS	267	-268.81	405.62	66.3	Pass
T1	185 - 180	Diagonal	L2x2x1/4	10	-1.56	13.74	11.4	Pass
T2	180 - 160	Diagonal	ROHN 2 STD	20	-8.54	18.52	46.1	Pass
T3	160 - 140	Diagonal	ROHN 2 STD	59	-10.01	15.95	62.8	Pass
T4	140 - 120	Diagonal	ROHN 2 STD	99	-9.97	13.72	72.7	Pass
T5	120 - 100	Diagonal	ROHN 2.5 STD	138	-12.19	17.20	70.9	Pass
T6	100 - 80	Diagonal	ROHN 2.5 STD	165	-11.12	15.01	74.1	Pass

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (k)	ΦP_{allow} (k)	% Capacity	Pass / Fail
T7	80 - 60	Diagonal	ROHN 2.5 STD	192	-11.74	13.29	88.4	Pass
T8	60 - 40	Diagonal	ROHN 2.5 X-STR	219	-12.15	14.66	82.9	Pass
T9	40 - 20	Diagonal	ROHN 3 STD	246	-12.01	20.09	59.8	Pass
T10	20 - 0	Diagonal	ROHN 3 STD	279	-18.77	33.58	55.9	Pass
T2	180 - 160	Horizontal	ROHN 1.5 STD	19	-4.55	23.69	19.2	Pass
T3	160 - 140	Horizontal	ROHN 1.5 STD	58	-6.18	20.10	30.8	Pass
T4	140 - 120	Horizontal	ROHN 2 STD	97	-6.80	28.55	23.8	Pass
T5	120 - 100	Horizontal	ROHN 2 STD	136	-7.20	23.76	30.3	Pass
T6	100 - 80	Horizontal	ROHN 2 STD	163	-7.20	17.60	40.9	Pass
T7	80 - 60	Horizontal	ROHN 2.5 STD	190	-8.10	30.29	26.7	Pass
T8	60 - 40	Horizontal	ROHN 2.5 STD	217	-8.77	23.43	37.4	Pass
T9	40 - 20	Horizontal	ROHN 2.5 STD	244	-9.00	18.55	48.5	Pass
T10	20 - 0	Horizontal	ROHN 3 STD	275	-9.98	33.23	30.0	Pass
T1	185 - 180	Top Girt	L2x2x1/4	4	-0.31	4.66	6.7	Pass
T10	20 - 0	Redund Horz 1 Bracing	ROHN 1.5 TUBE (11ga)	280	-4.66	5.84	79.9	Pass
T10	20 - 0	Redund Diag 1 Bracing	2L2x2x1/4x1/4	281	-4.26	12.80	33.3	Pass
T10	20 - 0	Redund Hip 1 Bracing	ROHN 1.5 TUBE (11ga)	282	-0.03	5.19	0.6	Pass
T10	20 - 0	Redund Hip Diagonal 1 Bracing	ROHN 2.5 STD	283	-0.08	11.09	0.7	Pass
T2	180 - 160	Inner Bracing	L2x2x1/8	27	-0.01	8.79	0.4	Pass
T3	160 - 140	Inner Bracing	L2x2x1/8	66	-0.01	6.48	0.5	Pass
T4	140 - 120	Inner Bracing	L2x2x1/8	105	-0.01	4.43	0.6	Pass
T5	120 - 100	Inner Bracing	L2x2x1/8	143	-0.01	3.34	0.6	Pass
T6	100 - 80	Inner Bracing	L2 1/2x2 1/2x3/16	171	-0.01	6.99	0.5	Pass
T7	80 - 60	Inner Bracing	L3x3x3/16	198	-0.01	9.15	0.6	Pass
T8	60 - 40	Inner Bracing	L3 1/2x3 1/2x1/4	225	-0.01	14.99	0.4	Pass
T9	40 - 20	Inner Bracing	L3 1/2x3 1/2x1/4	252	-0.02	11.94	0.4	Pass
T10	20 - 0	Inner Bracing	ROHN 3 STD	296	-0.02	31.36	0.3	Pass
							Summary	
							Leg (T9)	80.4 Pass
							Diagonal (T7)	88.4 Pass
							Horizontal (T9)	48.5 Pass
							Top Girt (T1)	6.7 Pass
							Redund Horz 1 Bracing (T10)	79.9 Pass
							Redund Diag 1 Bracing (T10)	33.3 Pass
							Redund Hip 1 Bracing (T10)	0.6 Pass
							Redund Hip Diagonal 1 Bracing (T10)	0.7 Pass
							Inner Bracing (T5)	0.6 Pass
							Bolt Checks	58.7 Pass
							Rating =	88.4 Pass

Table 5 - Tower Component Stresses vs. Capacity - LC7

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1,2	Anchor Rods	-	56.8	Pass
1,2	Base Foundation Soil Interaction	-	31.8	Pass
1,2	Base Foundation Structural	-	57.7	Pass
Structure Rating (max from all components) =				88.4%

Notes:

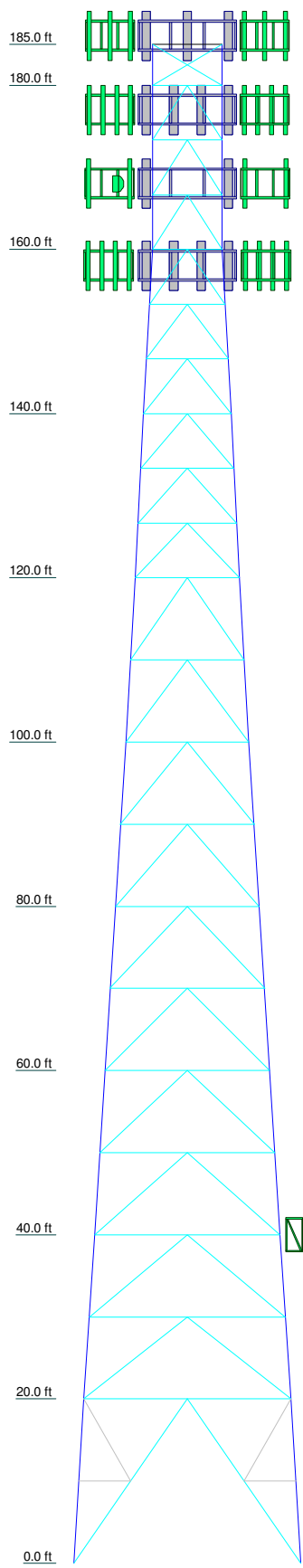
- 1) See additional documentation in "Appendix C - Additional Calculations" for calculations supporting the % capacity listed.
- 2) Rating per TIA-222-H Section 15.5

4.1) Recommendations

- 1) 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	T10	T9	T8	T7	T6	T5	T4	T3	T2	T1
Legs	ROHN 6 EHS	ROHN 6 X-STR	ROHN 6 EHS	ROHN 2.5 STD	ROHN 2.5 STD	ROHN 5 EH	ROHN 4 X-STR	ROHN 3 X-STR	ROHN 2.5 STD	
Leg Grade				A572-50	A572-50					A53-A
Diagonals	ROHN 3 STD	ROHN 2.5 X-STR	ROHN 2.5 STD					ROHN 2 STD		A
Diagonal Grade										B
Top Girts										A
Horizontals	ROHN 3 STD	ROHN 2.5 STD	ROHN 2.5 STD			ROHN 2 STD		ROHN 1.5 STD		N.A.
Red. Horizontals	ROHN 1.5 TUBE (11ga)					N.A.				
Red. Diagonals	2L2x2x1/4x1/4					N.A.				
Red. Hips	ROHN 1.5 TUBE (11ga)					N.A.				
Inner Bracing	ROHN 3 STD	L3 1/2x3 1/2x1/4	L3x3x3/16	L2 1/2x2 1/2x3/16	L2 1/2x2 1/2x3/16		L2x2x1/8			N.A.
Face Width (ft)	27.6771	22.5417	17.5417	14.9583	12.7083	10.625	8.54167			8.5
# Panels @ (ft)	1 @ 20	10 @ 10	10 @ 10	10 @ 10	9 @ 6.66667	9 @ 6.66667	1 @ 5			1 @ 5
Weight (K)	27.8	4.6	4.4	3.3	2.8	2.0	1.5	1.2	0.4	0.4



SYMBOL LIST

MARK	SIZE	MARK	SIZE
A	L2x2x1/4	B	A529-50

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A53-A	30 ksi	48 ksi	A572-50	50 ksi	65 ksi
A529-50	50 ksi	65 ksi			

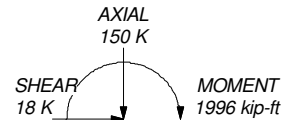
TOWER DESIGN NOTES

1. Tower is located in New Haven 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 1.50 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'
8. TOWER RATING: 88.4%

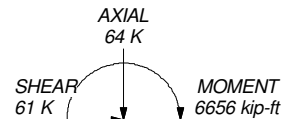
ALL REACTIONS ARE FACTORED

MAX. CORNER REACTIONS AT BASE:
DOWN: 296 K
SHEAR: 37 K

UPLIFT: -260 K
SHEAR: 33 K



TORQUE 18 kip-ft
50 mph WIND - 1.500 in ICE



TORQUE 79 kip-ft
REACTIONS - 125 mph WIND

Tower Engineering Professionals
326 Tryon Road
Raleigh, NC 27603
Phone: (919) 661-6351
FAX: (919) 661-6350

Job: NHV 108 943133 (BU 806362)		
Project: TEP No. 217724.543747		
Client: Crown Castle	Drawn by: JDB	App'd:
Code: TIA-222-H	Date: 05/14/21	Scale: NTS
Path:		Dwg No. E-1

C:\Work in Progress (SAI\806362 - NHV 108 943133)\m\Tower\806362_1962279_LC7.dwg

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Tower Input Data

The main tower is a 3x free standing tower with an overall height of 185' above the ground line.
The base of the tower is set at an elevation of 0' above the ground line.
The face width of the tower is 8'6" at the top and 27'8-1/8" at the base.
This tower is designed using the TIA-222-H standard.

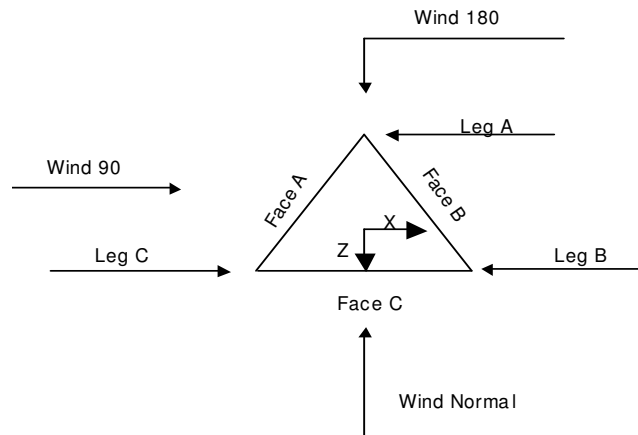
The following design criteria apply:

- Tower is located in New Haven County, Connecticut.
- Tower base elevation above sea level: 745'.
- Basic wind speed of 125 mph.
- Risk Category II.
- Exposure Category C.
- Simplified Topographic Factor Procedure for wind speed-up calculations is used.
- Topographic Category: 1.
- Crest Height: 0'.
- Nominal ice thickness of 1.500 in.
- Ice thickness is considered to increase with height.
- Ice density of 56 pcf.
- A wind speed of 50 mph is used in combination with ice.
- Deflections calculated using a wind speed of 60 mph.
- Pressures are calculated at each section.
- Stress ratio used in tower member design is 1.
- Tower analysis based on target reliabilities in accordance with Annex S.
- Load Modification Factors used: $K_{es}(F_w) = 0.95$, $K_{es}(t_i) = 0.85$.
- Maximum demand-capacity ratio is: 1.05.
- Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Options

- | | | |
|--|---|--|
| <ul style="list-style-type: none"> 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 Include Bolts In Member Capacity 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 | <ul style="list-style-type: none"> 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. Autocalc Torque Arm Areas 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 | <ul style="list-style-type: none"> 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 <p style="text-align: center; background-color: #e0e0e0; margin: 5px 0;">Poles</p> <ul style="list-style-type: none"> 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 |
|--|---|--|

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Triangular Tower

Tower Section Geometry

Tower Section	Tower Elevation	Assembly Database	Description	Section Width	Number of Sections	Section Length
	<i>ft</i>			<i>ft</i>		<i>ft</i>
T1	185'-180'			8'6"	1	5'
T2	180'-160'			8'6"	1	20'
T3	160'-140'			8'6-1/2"	1	20'
T4	140'-120'			10'7-1/2"	1	20'
T5	120'-100'			12'8-1/2"	1	20'
T6	100'-80'			14'11-1/2"	1	20'
T7	80'-60'			17'6-1/2"	1	20'
T8	60'-40'			20'1/2"	1	20'
T9	40'-20'			22'6-1/2"	1	20'
T10	20'-0'			25'2-1/8"	1	20'

Tower Section Geometry (cont'd)

Tower Section	Tower Elevation	Diagonal Spacing	Bracing Type	Has K Brace End Panels	Has Horizontals	Top Girt Offset	Bottom Girt Offset
	<i>ft</i>	<i>ft</i>				<i>in</i>	<i>in</i>
T1	185'-180'	5'	X Brace	No	Yes	0.000	0.000
T2	180'-160'	6'8"	K Brace Down	No	Yes	0.000	0.000
T3	160'-140'	6'8"	K Brace Down	No	Yes	0.000	0.000
T4	140'-120'	6'8"	K Brace Down	No	Yes	0.000	0.000
T5	120'-100'	10'	K Brace Down	No	Yes	0.000	0.000

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Tower Section	Tower Elevation	Diagonal Spacing	Bracing Type	Has K Brace End Panels	Has Horizontals	Top Girt Offset	Bottom Girt Offset
	ft	ft				in	in
T6	100'-80'	10'	K Brace Down	No	Yes	0.000	0.000
T7	80'-60'	10'	K Brace Down	No	Yes	0.000	0.000
T8	60'-40'	10'	K Brace Down	No	Yes	0.000	0.000
T9	40'-20'	10'	K Brace Down	No	Yes	0.000	0.000
T10	20'-0'	20'	K1 Down	No	Yes	0.000	0.000

Tower Section Geometry (cont'd)

Tower Elevation	Leg Type	Leg Size	Leg Grade	Diagonal Type	Diagonal Size	Diagonal Grade
ft						
T1 185'-180'	Pipe	ROHN 2.5 STD	A53-A (30 ksi)	Equal Angle	L2x2x1/4	A529-50 (50 ksi)
T2 180'-160'	Pipe	ROHN 2.5 STD	A572-50 (50 ksi)	Pipe	ROHN 2 STD	A572-50 (50 ksi)
T3 160'-140'	Pipe	ROHN 3 X-STR	A572-50 (50 ksi)	Pipe	ROHN 2 STD	A572-50 (50 ksi)
T4 140'-120'	Pipe	ROHN 4 X-STR	A572-50 (50 ksi)	Pipe	ROHN 2 STD	A572-50 (50 ksi)
T5 120'-100'	Pipe	ROHN 5 EH	A572-50 (50 ksi)	Pipe	ROHN 2.5 STD	A572-50 (50 ksi)
T6 100'-80'	Pipe	ROHN 5 EH	A572-50 (50 ksi)	Pipe	ROHN 2.5 STD	A572-50 (50 ksi)
T7 80'-60'	Pipe	ROHN 6 EHS	A572-50 (50 ksi)	Pipe	ROHN 2.5 STD	A572-50 (50 ksi)
T8 60'-40'	Pipe	ROHN 6 X-STR	A572-50 (50 ksi)	Pipe	ROHN 2.5 X-STR	A572-50 (50 ksi)
T9 40'-20'	Pipe	ROHN 6 X-STR	A572-50 (50 ksi)	Pipe	ROHN 3 STD	A572-50 (50 ksi)
T10 20'-0'	Pipe	ROHN 8 EHS	A572-50 (50 ksi)	Pipe	ROHN 3 STD	A572-50 (50 ksi)

Tower Section Geometry (cont'd)

Tower Elevation	Top Girt Type	Top Girt Size	Top Girt Grade	Bottom Girt Type	Bottom Girt Size	Bottom Girt Grade
ft						
T1 185'-180'	Equal Angle	L2x2x1/4	A529-50 (50 ksi)	Pipe		A572-50 (50 ksi)

Tower Section Geometry (cont'd)

Tower Elevation	No. of Mid Girts	Mid Girt Type	Mid Girt Size	Mid Girt Grade	Horizontal Type	Horizontal Size	Horizontal Grade
ft							
T2 180'-160'	None	Pipe		A618-50	Pipe	ROHN 1.5 STD	A572-50

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Tower Elevation ft	No. of Mid Girts	Mid Girt Type	Mid Girt Size	Mid Girt Grade	Horizontal Type	Horizontal Size	Horizontal Grade
T3 160'-140'	None	Pipe		(50 ksi) A618-50	Pipe	ROHN 1.5 STD	(50 ksi) A572-50
T4 140'-120'	None	Pipe		(50 ksi) A618-50	Pipe	ROHN 2 STD	(50 ksi) A572-50
T5 120'-100'	None	Pipe		(50 ksi) A618-50	Pipe	ROHN 2 STD	(50 ksi) A572-50
T6 100'-80'	None	Pipe		(50 ksi) A618-50	Pipe	ROHN 2 STD	(50 ksi) A572-50
T7 80'-60'	None	Pipe		(50 ksi) A618-50	Pipe	ROHN 2.5 STD	(50 ksi) A572-50
T8 60'-40'	None	Pipe		(50 ksi) A618-50	Pipe	ROHN 2.5 STD	(50 ksi) A572-50
T9 40'-20'	None	Pipe		(50 ksi) A618-50	Pipe	ROHN 2.5 STD	(50 ksi) A572-50
T10 20'-0'	None	Pipe		(50 ksi) A618-50	Pipe	ROHN 3 STD	(50 ksi) A572-50

Tower Section Geometry (cont'd)

Tower Elevation ft	Secondary Horizontal Type	Secondary Horizontal Size	Secondary Horizontal Grade	Inner Bracing Type	Inner Bracing Size	Inner Bracing Grade
T2 180'-160'	Pipe		A572-50 (50 ksi)	Equal Angle	L2x2x1/8	A36 (36 ksi)
T3 160'-140'	Pipe		A572-50 (50 ksi)	Equal Angle	L2x2x1/8	A36 (36 ksi)
T4 140'-120'	Pipe		A572-50 (50 ksi)	Equal Angle	L2x2x1/8	A36 (36 ksi)
T5 120'-100'	Pipe		A572-50 (50 ksi)	Equal Angle	L2x2x1/8	A36 (36 ksi)
T6 100'-80'	Pipe		A572-50 (50 ksi)	Equal Angle	L2 1/2x2 1/2x3/16	A36 (36 ksi)
T7 80'-60'	Pipe		A572-50 (50 ksi)	Equal Angle	L3x3x3/16	A36 (36 ksi)
T8 60'-40'	Pipe		A572-50 (50 ksi)	Equal Angle	L3 1/2x3 1/2x1/4	A572-50 (50 ksi)
T9 40'-20'	Pipe		A572-50 (50 ksi)	Equal Angle	L3 1/2x3 1/2x1/4	A572-50 (50 ksi)
T10 20'-0'	Pipe		A572-50 (50 ksi)	Pipe	ROHN 3 STD	A572-50 (50 ksi)

Tower Section Geometry (cont'd)

Tower Elevation ft	Redundant Bracing Grade	Redundant Type	Redundant Size	K Factor	
T10 20'-0'	A572-50 (50 ksi)	Horizontal (1) Diagonal (1)	Pipe Double Equal Angle	ROHN 1.5 TUBE (11ga) 2L2x2x1/4x1/4	1 1

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Tower Elevation ft	Calc K Single Angles	Calc K Solid Rounds	K Factors ¹								
			Legs	X Brace Diags	K Brace Diags	Single Diags	Girts	Horiz.	Sec. Horiz.	Inner Brace	
				X Y	X Y	X Y	X Y	X Y	X Y	X Y	
T8 60'-40'	Yes	Yes	1	1	1	1	1	1	1	1	1
T9 40'-20'	Yes	Yes	1	1	1	1	1	1	1	1	1
T10 20'-0'	Yes	Yes	1	1	1	1	1	1	1	1	1

¹Note: K factors are applied to member segment lengths. K-braces without inner supporting members will have the K factor in the out-of-plane direction applied to the overall length.

Tower Section Geometry (cont'd)

Tower Elevation ft	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U
T1 185'-180'	0.000	1	0.000	0.75	0.000	0.75	0.000	1	0.000	0.75	0.000	1	0.000	0.75
T2 180'-160'	0.000	1	0.000	1	0.000	1	0.000	1	0.000	0.75	0.000	1	0.000	0.75
T3 160'-140'	0.000	1	0.000	1	0.000	1	0.000	1	0.000	1	0.000	1	0.000	1
T4 140'-120'	0.000	1	0.000	1	0.000	1	0.000	1	0.000	1	0.000	1	0.000	1
T5 120'-100'	0.000	1	0.000	1	0.000	1	0.000	1	0.000	1	0.000	1	0.000	1
T6 100'-80'	0.000	1	0.000	1	0.000	1	0.000	1	0.000	1	0.000	1	0.000	1
T7 80'-60'	0.000	1	0.000	1	0.000	1	0.000	1	0.000	1	0.000	1	0.000	1
T8 60'-40'	0.000	1	0.000	1	0.000	1	0.000	1	0.000	1	0.000	1	0.000	1
T9 40'-20'	0.000	1	0.000	1	0.000	1	0.000	1	0.000	1	0.000	1	0.000	1
T10 20'-0'	0.000	1	0.000	1	0.000	1	0.000	1	0.000	1	0.000	1	0.000	1

Tower Elevation ft	Redundant Horizontal		Redundant Diagonal		Redundant Sub-Diagonal		Redundant Sub-Horizontal		Redundant Vertical		Redundant Hip		Redundant Hip Diagonal	
	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U
T1 185'-180'	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T2 180'-160'	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T3 160'-140'	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T4 140'-120'	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T5 120'-100'	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T6 100'-80'	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T7 80'-60'	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T8 60'-40'	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T9 40'-20'	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T10 20'-0'	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	1	0.000	1

Tower Section Geometry (cont'd)

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Tower Elevation ft	Leg Connection Type	Leg Bolt Size in	Leg No.	Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
				Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.
T1 185'-180'	Flange	0.750	4	0.500	1	0.500	1	0.000	0	0.625	0	0.000	0	0.625	0
		A325X		A325X		A325X		A325N		A325N		A325N		A325N	
T2 180'-160'	Flange	0.750	4	0.625	3	0.000	0	0.000	0	0.625	0	0.625	2	0.625	0
		A325X		A325X		A325N		A325N		A325N		A325X		A325N	
T3 160'-140'	Flange	0.875	4	0.625	3	0.000	0	0.000	0	0.000	0	0.625	2	0.000	0
		A325X		A325X		A325N		A325N		A325N		A325X		A325N	
T4 140'-120'	Flange	1.000	4	0.625	3	0.000	0	0.000	0	0.000	0	0.625	2	0.000	0
		A325X		A325X		A325N		A325N		A325N		A325X		A325N	
T5 120'-100'	Flange	1.000	4	0.625	3	0.000	0	0.000	0	0.000	0	0.625	2	0.000	0
		A325X		A325X		A325N		A325N		A325N		A325X		A325N	
T6 100'-80'	Flange	1.000	6	0.625	3	0.000	0	0.000	0	0.000	0	0.625	2	0.000	0
		A325X		A325X		A325N		A325N		A325N		A325X		A325N	
T7 80'-60'	Flange	1.000	6	0.625	3	0.000	0	0.000	0	0.625	0	0.625	2	0.625	0
		A325X		A325X		A325N		A325N		A325N		A325X		A325N	
T8 60'-40'	Flange	1.000	6	0.625	3	0.000	0	0.000	0	0.625	0	0.625	2	0.625	0
		A325X		A325X		A325N		A325N		A325N		A325X		A325N	
T9 40'-20'	Flange	1.000	8	0.625	3	0.000	0	0.000	0	0.625	0	0.625	2	0.625	0
		A325X		A325X		A325N		A325N		A325N		A325X		A325N	
T10 20'-0'	Flange	1.000	0	0.750	3	0.000	0	0.000	0	0.625	0	0.750	2	0.625	0
		A449		A325X		A325N		A325N		A325N		A325X		A325N	

Tower Section Geometry (cont'd)

Tower Elevation ft	Redundant Horizontal		Redundant Diagonal		Redundant Sub-Diagonal		Redundant Sub-Horizontal		Redundant Vertical		Redundant Hip		Redundant Hip Diagonal	
	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.
T1 185'-180'	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0
	A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T2 180'-160'	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0
	A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T3 160'-140'	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0
	A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T4 140'-120'	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0
	A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T5 120'-100'	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0
	A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T6 100'-80'	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0
	A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T7 80'-60'	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0
	A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T8 60'-40'	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0
	A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T9 40'-20'	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0
	A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T10 20'-0'	0.625	1	0.625	1	0.000	0	0.000	0	0.000	0	0.625	1	0.625	1
	A325X		A325X		A325N		A325N		A325N		A325X		A325X	

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Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	C _{AA} ft ² /ft	Weight klf

Feed Line/Linear Appurtenances Section Areas

Tower Section	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
T1	185'-180'	A	0.000	0.000	0.362	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	13.830	0.000	0.08
T2	180'-160'	A	0.000	0.000	59.320	0.000	0.47
		B	0.000	0.000	0.700	0.000	0.01
		C	0.000	0.000	56.020	0.000	0.32
T3	160'-140'	A	0.000	0.000	82.090	0.000	0.63
		B	0.000	0.000	0.700	0.000	0.01
		C	0.000	0.000	115.487	0.000	0.59
T4	140'-120'	A	0.000	0.000	82.090	0.000	0.63
		B	0.000	0.000	0.700	0.000	0.01
		C	0.000	0.000	122.095	0.000	0.62
T5	120'-100'	A	0.000	0.000	82.090	0.000	0.63
		B	0.000	0.000	0.700	0.000	0.01
		C	0.000	0.000	122.095	0.000	0.62
T6	100'-80'	A	0.000	0.000	82.090	0.000	0.63
		B	0.000	0.000	0.700	0.000	0.01
		C	0.000	0.000	122.095	0.000	0.62
T7	80'-60'	A	0.000	0.000	82.090	0.000	0.63
		B	0.000	0.000	0.700	0.000	0.01
		C	0.000	0.000	122.095	0.000	0.62
T8	60'-40'	A	0.000	0.000	82.090	0.000	0.63
		B	0.000	0.000	0.700	0.000	0.01
		C	0.000	0.000	122.095	0.000	0.62
T9	40'-20'	A	0.000	0.000	83.340	0.000	0.63
		B	0.000	0.000	0.700	0.000	0.01
		C	0.000	0.000	122.095	0.000	0.62
T10	20'-0'	A	0.000	0.000	83.340	0.000	0.63
		B	0.000	0.000	0.700	0.000	0.01
		C	0.000	0.000	122.095	0.000	0.62

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section	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
T1	185'-180'	A	1.513	0.000	0.000	3.388	0.000	0.04
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	25.097	0.000	0.36

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Tower Section	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
T2	180'-160'	A	1.502	0.000	0.000	106.494	0.000	1.73
		B		0.000	0.000	6.708	0.000	0.08
		C		0.000	0.000	106.914	0.000	1.52
T3	160'-140'	A	1.483	0.000	0.000	154.977	0.000	2.39
		B		0.000	0.000	6.634	0.000	0.08
		C		0.000	0.000	247.876	0.000	3.15
T4	140'-120'	A	1.462	0.000	0.000	153.979	0.000	2.36
		B		0.000	0.000	6.549	0.000	0.07
		C		0.000	0.000	262.348	0.000	3.29
T5	120'-100'	A	1.438	0.000	0.000	152.833	0.000	2.33
		B		0.000	0.000	6.453	0.000	0.07
		C		0.000	0.000	260.929	0.000	3.24
T6	100'-80'	A	1.410	0.000	0.000	151.481	0.000	2.29
		B		0.000	0.000	6.338	0.000	0.07
		C		0.000	0.000	259.257	0.000	3.18
T7	80'-60'	A	1.375	0.000	0.000	149.827	0.000	2.24
		B		0.000	0.000	6.198	0.000	0.07
		C		0.000	0.000	257.210	0.000	3.11
T8	60'-40'	A	1.329	0.000	0.000	147.678	0.000	2.18
		B		0.000	0.000	6.016	0.000	0.06
		C		0.000	0.000	254.551	0.000	3.03
T9	40'-20'	A	1.263	0.000	0.000	150.853	0.000	2.15
		B		0.000	0.000	5.752	0.000	0.06
		C		0.000	0.000	250.685	0.000	2.90
T10	20'-0'	A	1.132	0.000	0.000	144.127	0.000	1.97
		B		0.000	0.000	5.226	0.000	0.05
		C		0.000	0.000	243.025	0.000	2.65

Feed Line Center of Pressure

Section	Elevation ft	CP _X in	CP _Z in	CP _X Ice in	CP _Z Ice in
T1	185'-180'	11.455	4.234	11.940	1.809
T2	180'-160'	1.137	4.478	1.789	1.966
T3	160'-140'	7.636	4.004	8.522	1.947
T4	140'-120'	9.692	4.965	10.810	2.800
T5	120'-100'	11.415	5.841	12.808	3.363
T6	100'-80'	13.199	6.719	14.835	3.916
T7	80'-60'	14.684	7.367	16.571	4.355
T8	60'-40'	16.257	8.092	18.510	4.859
T9	40'-20'	16.662	8.674	18.556	5.979
T10	20'-0'	18.038	9.429	20.447	6.465

Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
T1	1	Safety Line 3/8	180.00 - 185.00	0.6000	0.6000
T1	2	Step Pegs (5/8" SR) 7-in.	180.00 -	0.6000	0.6000

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Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
T1	8	w/30" step Feed Line Ladder	185.00 180.00 - 185.00	0.6000	0.6000
T1	20	MLCH HYBRID 6X12(1-3/8)	180.00 - 185.00	0.6000	0.6000
T1	21	LCF158-50JA(1-5/8)	180.00 - 185.00	0.6000	0.6000
T2	1	Safety Line 3/8	160.00 - 180.00	0.6000	0.6000
T2	2	Step Pegs (5/8" SR) 7-in. w/30" step	160.00 - 180.00	0.6000	0.6000
T2	3	Step Pegs (5/8" SR) 7-in. w/30" step	160.00 - 180.00	0.6000	0.6000
T2	4	Step Pegs (5/8" SR) 7-in. w/30" step	160.00 - 180.00	0.6000	0.6000
T2	6	Feed Line Ladder	160.00 - 177.00	0.6000	0.6000
T2	7	Feed Line Ladder	160.00 - 168.00	0.6000	0.6000
T2	8	Feed Line Ladder	160.00 - 180.00	0.6000	0.6000
T2	11	561(1-5/8)	160.00 - 177.00	0.6000	0.6000
T2	12	HB158-1-08U8-S8J18(1-5/8)	160.00 - 177.00	0.6000	0.6000
T2	16	9207(5/16)	160.00 - 168.00	0.6000	0.6000
T2	17	HB114-1-0813U4-M5J(1-1/4)	160.00 - 168.00	0.6000	0.6000
T2	18	CAT5E(1/4)	160.00 - 168.00	0.6000	0.6000
T2	20	MLCH HYBRID 6X12(1-3/8)	160.00 - 180.00	0.6000	0.6000
T2	21	LCF158-50JA(1-5/8)	160.00 - 180.00	0.6000	0.6000
T3	1	Safety Line 3/8	140.00 - 160.00	0.6000	0.6000
T3	2	Step Pegs (5/8" SR) 7-in. w/30" step	140.00 - 160.00	0.6000	0.6000
T3	3	Step Pegs (5/8" SR) 7-in. w/30" step	140.00 - 160.00	0.6000	0.6000
T3	4	Step Pegs (5/8" SR) 7-in. w/30" step	140.00 - 160.00	0.6000	0.6000
T3	6	Feed Line Ladder	140.00 - 160.00	0.6000	0.6000
T3	7	Feed Line Ladder	140.00 - 160.00	0.6000	0.6000
T3	8	Feed Line Ladder	140.00 - 160.00	0.6000	0.6000
T3	9	Feed Line Ladder	140.00 - 158.00	0.6000	0.6000
T3	11	561(1-5/8)	140.00 - 160.00	0.6000	0.6000
T3	12	HB158-1-08U8-S8J18(1-5/8)	140.00 - 160.00	0.6000	0.6000
T3	16	9207(5/16)	140.00 - 160.00	0.6000	0.6000
T3	17	HB114-1-0813U4-M5J(1-1/4)	140.00 - 160.00	0.6000	0.6000
T3	18	CAT5E(1/4)	140.00 - 160.00	0.6000	0.6000
T3	20	MLCH HYBRID	140.00 -	0.6000	0.6000

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Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
T3	21	6X12(1-3/8) LCF158-50JA(1-5/8)	160.00 140.00 - 160.00	0.6000	0.6000
T3	23	UCF114-50JA(1-1/4)	140.00 - 158.00	0.6000	0.6000
T3	24	WR-VG86ST-BRD(3/4)	140.00 - 158.00	0.6000	0.6000
T3	25	FB-L98B-034-XXX(3/8)	140.00 - 158.00	0.0000	0.0000
T3	26	WR-VG86ST-BRD(3/4)	140.00 - 158.00	0.0000	0.0000
T3	27	2" Flexible Conduit	140.00 - 158.00	0.6000	0.6000
T4	1	Safety Line 3/8	120.00 - 140.00	0.6000	0.6000
T4	2	Step Pegs (5/8" SR) 7-in. w/30" step	120.00 - 140.00	0.6000	0.6000
T4	3	Step Pegs (5/8" SR) 7-in. w/30" step	120.00 - 140.00	0.6000	0.6000
T4	4	Step Pegs (5/8" SR) 7-in. w/30" step	120.00 - 140.00	0.6000	0.6000
T4	6	Feed Line Ladder	120.00 - 140.00	0.6000	0.6000
T4	7	Feed Line Ladder	120.00 - 140.00	0.6000	0.6000
T4	8	Feed Line Ladder	120.00 - 140.00	0.6000	0.6000
T4	9	Feed Line Ladder	120.00 - 140.00	0.6000	0.6000
T4	11	561(1-5/8)	120.00 - 140.00	0.6000	0.6000
T4	12	HB158-1-08U8-S8J18(1-5/8)	120.00 - 140.00	0.6000	0.6000
T4	16	9207(5/16)	120.00 - 140.00	0.6000	0.6000
T4	17	HB114-1-0813U4-M5J(1-1/4)	120.00 - 140.00	0.6000	0.6000
T4	18	CAT5E(1/4)	120.00 - 140.00	0.6000	0.6000
T4	20	MLCH HYBRID 6X12(1-3/8)	120.00 - 140.00	0.6000	0.6000
T4	21	LCF158-50JA(1-5/8)	120.00 - 140.00	0.6000	0.6000
T4	23	UCF114-50JA(1-1/4)	120.00 - 140.00	0.6000	0.6000
T4	24	WR-VG86ST-BRD(3/4)	120.00 - 140.00	0.6000	0.6000
T4	25	FB-L98B-034-XXX(3/8)	120.00 - 140.00	0.0000	0.0000
T4	26	WR-VG86ST-BRD(3/4)	120.00 - 140.00	0.0000	0.0000
T4	27	2" Flexible Conduit	120.00 - 140.00	0.6000	0.6000
T5	1	Safety Line 3/8	100.00 - 120.00	0.6000	0.6000
T5	2	Step Pegs (5/8" SR) 7-in. w/30" step	100.00 - 120.00	0.6000	0.6000
T5	3	Step Pegs (5/8" SR) 7-in. w/30" step	100.00 - 120.00	0.6000	0.6000
T5	4	Step Pegs (5/8" SR) 7-in. w/30" step	100.00 - 120.00	0.6000	0.6000
T5	6	Feed Line Ladder	100.00 -	0.6000	0.6000

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Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
			120.00		
T5	7	Feed Line Ladder	100.00 - 120.00	0.6000	0.6000
T5	8	Feed Line Ladder	100.00 - 120.00	0.6000	0.6000
T5	9	Feed Line Ladder	100.00 - 120.00	0.6000	0.6000
T5	11	561(1-5/8)	100.00 - 120.00	0.6000	0.6000
T5	12	HB158-1-08U8-S8J18(1-5/8)	100.00 - 120.00	0.6000	0.6000
T5	16	9207(5/16)	100.00 - 120.00	0.6000	0.6000
T5	17	HB114-1-0813U4-M5J(1-1/4)	100.00 - 120.00	0.6000	0.6000
T5	18	CAT5E(1/4)	100.00 - 120.00	0.6000	0.6000
T5	20	MLCH HYBRID 6X12(1-3/8)	100.00 - 120.00	0.6000	0.6000
T5	21	LCF158-50JA(1-5/8)	100.00 - 120.00	0.6000	0.6000
T5	23	UCF114-50JA(1-1/4)	100.00 - 120.00	0.6000	0.6000
T5	24	WR-VG86ST-BRD(3/4)	100.00 - 120.00	0.6000	0.6000
T5	25	FB-L98B-034-XXX(3/8)	100.00 - 120.00	0.0000	0.0000
T5	26	WR-VG86ST-BRD(3/4)	100.00 - 120.00	0.0000	0.0000
T5	27	2" Flexible Conduit	100.00 - 120.00	0.6000	0.6000
T6	1	Safety Line 3/8	80.00 - 100.00	0.6000	0.6000
T6	2	Step Pegs (5/8" SR) 7-in. w/30" step	80.00 - 100.00	0.6000	0.6000
T6	3	Step Pegs (5/8" SR) 7-in. w/30" step	80.00 - 100.00	0.6000	0.6000
T6	4	Step Pegs (5/8" SR) 7-in. w/30" step	80.00 - 100.00	0.6000	0.6000
T6	6	Feed Line Ladder	80.00 - 100.00	0.6000	0.6000
T6	7	Feed Line Ladder	80.00 - 100.00	0.6000	0.6000
T6	8	Feed Line Ladder	80.00 - 100.00	0.6000	0.6000
T6	9	Feed Line Ladder	80.00 - 100.00	0.6000	0.6000
T6	11	561(1-5/8)	80.00 - 100.00	0.6000	0.6000
T6	12	HB158-1-08U8-S8J18(1-5/8)	80.00 - 100.00	0.6000	0.6000
T6	16	9207(5/16)	80.00 - 100.00	0.6000	0.6000
T6	17	HB114-1-0813U4-M5J(1-1/4)	80.00 - 100.00	0.6000	0.6000
T6	18	CAT5E(1/4)	80.00 - 100.00	0.6000	0.6000
T6	20	MLCH HYBRID 6X12(1-3/8)	80.00 - 100.00	0.6000	0.6000
T6	21	LCF158-50JA(1-5/8)	80.00 - 100.00	0.6000	0.6000
T6	23	UCF114-50JA(1-1/4)	80.00 - 100.00	0.6000	0.6000
T6	24	WR-VG86ST-BRD(3/4)	80.00 - 100.00	0.6000	0.6000
T6	25	FB-L98B-034-XXX(3/8)	80.00 - 100.00	0.0000	0.0000
T6	26	WR-VG86ST-BRD(3/4)	80.00 - 100.00	0.0000	0.0000
T6	27	2" Flexible Conduit	80.00 - 100.00	0.6000	0.6000
T7	1	Safety Line 3/8	60.00 - 80.00	0.6000	0.6000
T7	2	Step Pegs (5/8" SR) 7-in. w/30" step	60.00 - 80.00	0.6000	0.6000
T7	3	Step Pegs (5/8" SR) 7-in. w/30" step	60.00 - 80.00	0.6000	0.6000
T7	4	Step Pegs (5/8" SR) 7-in.	60.00 - 80.00	0.6000	0.6000

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Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
		w/30" step			
T7	6	Feed Line Ladder	60.00 - 80.00	0.6000	0.6000
T7	7	Feed Line Ladder	60.00 - 80.00	0.6000	0.6000
T7	8	Feed Line Ladder	60.00 - 80.00	0.6000	0.6000
T7	9	Feed Line Ladder	60.00 - 80.00	0.6000	0.6000
T7	11	561(1-5/8)	60.00 - 80.00	0.6000	0.6000
T7	12	HB158-1-08U8-S8J18(1-5/8)	60.00 - 80.00	0.6000	0.6000
T7	16	9207(5/16)	60.00 - 80.00	0.6000	0.6000
T7	17	HB114-1-0813U4-M5J(1-1/4)	60.00 - 80.00	0.6000	0.6000
)			
T7	18	CAT5E(1/4)	60.00 - 80.00	0.6000	0.6000
T7	20	MLCH HYBRID	60.00 - 80.00	0.6000	0.6000
		6X12(1-3/8)			
T7	21	LCF158-50JA(1-5/8)	60.00 - 80.00	0.6000	0.6000
T7	23	UCF114-50JA(1-1/4)	60.00 - 80.00	0.6000	0.6000
T7	24	WR-VG86ST-BRD(3/4)	60.00 - 80.00	0.6000	0.6000
T7	25	FB-L98B-034-XXX(3/8)	60.00 - 80.00	0.0000	0.0000
T7	26	WR-VG86ST-BRD(3/4)	60.00 - 80.00	0.0000	0.0000
T7	27	2" Flexible Conduit	60.00 - 80.00	0.6000	0.6000
T8	1	Safety Line 3/8	40.00 - 60.00	0.6000	0.6000
T8	2	Step Pegs (5/8" SR) 7-in.	40.00 - 60.00	0.6000	0.6000
		w/30" step			
T8	3	Step Pegs (5/8" SR) 7-in.	40.00 - 60.00	0.6000	0.6000
		w/30" step			
T8	4	Step Pegs (5/8" SR) 7-in.	40.00 - 60.00	0.6000	0.6000
		w/30" step			
T8	6	Feed Line Ladder	40.00 - 60.00	0.6000	0.6000
T8	7	Feed Line Ladder	40.00 - 60.00	0.6000	0.6000
T8	8	Feed Line Ladder	40.00 - 60.00	0.6000	0.6000
T8	9	Feed Line Ladder	40.00 - 60.00	0.6000	0.6000
T8	11	561(1-5/8)	40.00 - 60.00	0.6000	0.6000
T8	12	HB158-1-08U8-S8J18(1-5/8)	40.00 - 60.00	0.6000	0.6000
T8	16	9207(5/16)	40.00 - 60.00	0.6000	0.6000
T8	17	HB114-1-0813U4-M5J(1-1/4)	40.00 - 60.00	0.6000	0.6000
)			
T8	18	CAT5E(1/4)	40.00 - 60.00	0.6000	0.6000
T8	20	MLCH HYBRID	40.00 - 60.00	0.6000	0.6000
		6X12(1-3/8)			
T8	21	LCF158-50JA(1-5/8)	40.00 - 60.00	0.6000	0.6000
T8	23	UCF114-50JA(1-1/4)	40.00 - 60.00	0.6000	0.6000
T8	24	WR-VG86ST-BRD(3/4)	40.00 - 60.00	0.6000	0.6000
T8	25	FB-L98B-034-XXX(3/8)	40.00 - 60.00	0.0000	0.0000
T8	26	WR-VG86ST-BRD(3/4)	40.00 - 60.00	0.0000	0.0000
T8	27	2" Flexible Conduit	40.00 - 60.00	0.6000	0.6000
T9	1	Safety Line 3/8	20.00 - 40.00	0.6000	0.6000
T9	2	Step Pegs (5/8" SR) 7-in.	20.00 - 40.00	0.6000	0.6000
		w/30" step			
T9	3	Step Pegs (5/8" SR) 7-in.	20.00 - 40.00	0.6000	0.6000
		w/30" step			
T9	4	Step Pegs (5/8" SR) 7-in.	20.00 - 40.00	0.6000	0.6000
		w/30" step			
T9	6	Feed Line Ladder	20.00 - 40.00	0.6000	0.6000
T9	7	Feed Line Ladder	20.00 - 40.00	0.6000	0.6000
T9	8	Feed Line Ladder	20.00 - 40.00	0.6000	0.6000
T9	9	Feed Line Ladder	20.00 - 40.00	0.6000	0.6000
T9	11	561(1-5/8)	20.00 - 40.00	0.6000	0.6000
T9	12	HB158-1-08U8-S8J18(1-5/8)	20.00 - 40.00	0.6000	0.6000
T9	14	LDF4-50A(1/2)	20.00 - 40.00	0.6000	0.6000
T9	16	9207(5/16)	20.00 - 40.00	0.6000	0.6000
T9	17	HB114-1-0813U4-M5J(1-1/4)	20.00 - 40.00	0.6000	0.6000
)			
T9	18	CAT5E(1/4)	20.00 - 40.00	0.6000	0.6000

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Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
T9	20	MLCH HYBRID 6X12(1-3/8)	20.00 - 40.00	0.6000	0.6000
T9	21	LCF158-50JA(1-5/8)	20.00 - 40.00	0.6000	0.6000
T9	23	UCF114-50JA(1-1/4)	20.00 - 40.00	0.6000	0.6000
T9	24	WR-VG86ST-BRD(3/4)	20.00 - 40.00	0.6000	0.6000
T9	25	FB-L98B-034-XXX(3/8)	20.00 - 40.00	0.0000	0.0000
T9	26	WR-VG86ST-BRD(3/4)	20.00 - 40.00	0.0000	0.0000
T9	27	2" Flexible Conduit	20.00 - 40.00	0.6000	0.6000
T10	1	Safety Line 3/8	0.00 - 20.00	0.6000	0.6000
T10	2	Step Pegs (5/8" SR) 7-in. w/30" step	0.00 - 20.00	0.6000	0.6000
T10	3	Step Pegs (5/8" SR) 7-in. w/30" step	0.00 - 20.00	0.6000	0.6000
T10	4	Step Pegs (5/8" SR) 7-in. w/30" step	0.00 - 20.00	0.6000	0.6000
T10	6	Feed Line Ladder	0.00 - 20.00	0.6000	0.6000
T10	7	Feed Line Ladder	0.00 - 20.00	0.6000	0.6000
T10	8	Feed Line Ladder	0.00 - 20.00	0.6000	0.6000
T10	9	Feed Line Ladder	0.00 - 20.00	0.6000	0.6000
T10	11	561(1-5/8)	0.00 - 20.00	0.6000	0.6000
T10	12	HB158-1-08U8-S8J18(1-5/8)	0.00 - 20.00	0.6000	0.6000
T10	14	LDF4-50A(1/2)	0.00 - 20.00	0.6000	0.6000
T10	16	9207(5/16)	0.00 - 20.00	0.6000	0.6000
T10	17	HB114-1-0813U4-M5J(1-1/4)	0.00 - 20.00	0.6000	0.6000
T10	18	CAT5E(1/4)	0.00 - 20.00	0.6000	0.6000
T10	20	MLCH HYBRID 6X12(1-3/8)	0.00 - 20.00	0.6000	0.6000
T10	21	LCF158-50JA(1-5/8)	0.00 - 20.00	0.6000	0.6000
T10	23	UCF114-50JA(1-1/4)	0.00 - 20.00	0.6000	0.6000
T10	24	WR-VG86ST-BRD(3/4)	0.00 - 20.00	0.6000	0.6000
T10	25	FB-L98B-034-XXX(3/8)	0.00 - 20.00	0.0000	0.0000
T10	26	WR-VG86ST-BRD(3/4)	0.00 - 20.00	0.0000	0.0000
T10	27	2" Flexible Conduit	0.00 - 20.00	0.6000	0.6000

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _{AA} Front	C _{AA} Side	Weight
			Horz Lateral	Vert					

AIR 32 B2A/B66AA w/ Mount Pipe	A	From Leg	4.00	0.000	186'	No Ice	3.76	3.15	0.19
			0'			1/2" Ice	4.12	3.49	0.25
			0'			1" Ice	4.48	3.84	0.32
						2" Ice	5.24	4.58	0.48
AIR 32 B2A/B66AA w/ Mount Pipe	B	From Leg	4.00	0.000	186'	No Ice	3.76	3.15	0.19
			0'			1/2" Ice	4.12	3.49	0.25
			0'			1" Ice	4.48	3.84	0.32
						2" Ice	5.24	4.58	0.48
AIR 32 B2A/B66AA w/ Mount Pipe	C	From Leg	4.00	0.000	186'	No Ice	3.76	3.15	0.19
			0'			1/2" Ice	4.12	3.49	0.25

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Description	Face or Leg	Offset Type	Offsets:			Azimuth Adjustment	Placement	C _{AA} Front	C _{AA} Side	Weight
			Horz	Lateral	Vert						°	ft	ft^{2}	ft^{2}	K
APXVAARR24_43-U-NA20 w/ Mount Pipe	A	From Leg	4.00	0.000	186'	1" Ice	4.48	3.84	0.32	
			0'			2" Ice	5.24	4.58	0.48	
			0'			No Ice	14.69	6.87	0.19	
			0'			1/2" Ice	15.46	7.55	0.31	
			0'			1" Ice	16.23	8.25	0.46	
			0'			2" Ice	17.82	9.67	0.79	
APXVAARR24_43-U-NA20 w/ Mount Pipe	B	From Leg	4.00	0.000	186'	No Ice	14.69	6.87	0.19	
			0'			1/2" Ice	15.46	7.55	0.31	
			0'			1" Ice	16.23	8.25	0.46	
			0'			2" Ice	17.82	9.67	0.79	
APXVAARR24_43-U-NA20 w/ Mount Pipe	C	From Leg	4.00	0.000	186'	No Ice	14.69	6.87	0.19	
			0'			1/2" Ice	15.46	7.55	0.31	
			0'			1" Ice	16.23	8.25	0.46	
			0'			2" Ice	17.82	9.67	0.79	
AIR6449 B41_T-MOBILE w/ Mount Pipe	A	From Leg	4.00	0.000	186'	No Ice	5.19	2.71	0.13	
			0'			1/2" Ice	5.59	3.04	0.17	
			0'			1" Ice	6.02	3.38	0.23	
			0'			2" Ice	6.90	4.12	0.35	
AIR6449 B41_T-MOBILE w/ Mount Pipe	B	From Leg	4.00	0.000	186'	No Ice	5.19	2.71	0.13	
			0'			1/2" Ice	5.59	3.04	0.17	
			0'			1" Ice	6.02	3.38	0.23	
			0'			2" Ice	6.90	4.12	0.35	
AIR6449 B41_T-MOBILE w/ Mount Pipe	C	From Leg	4.00	0.000	186'	No Ice	5.19	2.71	0.13	
			0'			1/2" Ice	5.59	3.04	0.17	
			0'			1" Ice	6.02	3.38	0.23	
			0'			2" Ice	6.90	4.12	0.35	
SDX1926Q-43	A	From Leg	4.00	0.000	186'	No Ice	0.24	0.10	0.01	
			0'			1/2" Ice	0.31	0.14	0.01	
			0'			1" Ice	0.38	0.19	0.01	
			0'			2" Ice	0.55	0.32	0.02	
SDX1926Q-43	B	From Leg	4.00	0.000	186'	No Ice	0.24	0.10	0.01	
			0'			1/2" Ice	0.31	0.14	0.01	
			0'			1" Ice	0.38	0.19	0.01	
			0'			2" Ice	0.55	0.32	0.02	
SDX1926Q-43	C	From Leg	4.00	0.000	186'	No Ice	0.24	0.10	0.01	
			0'			1/2" Ice	0.31	0.14	0.01	
			0'			1" Ice	0.38	0.19	0.01	
			0'			2" Ice	0.55	0.32	0.02	
KRY 112 144/1	A	From Leg	4.00	0.000	186'	No Ice	0.35	0.17	0.01	
			0'			1/2" Ice	0.43	0.23	0.01	
			0'			1" Ice	0.51	0.30	0.02	
			0'			2" Ice	0.70	0.46	0.03	
KRY 112 144/1	B	From Leg	4.00	0.000	186'	No Ice	0.35	0.17	0.01	
			0'			1/2" Ice	0.43	0.23	0.01	
			0'			1" Ice	0.51	0.30	0.02	
			0'			2" Ice	0.70	0.46	0.03	
KRY 112 144/1	C	From Leg	4.00	0.000	186'	No Ice	0.35	0.17	0.01	
			0'			1/2" Ice	0.43	0.23	0.01	
			0'			1" Ice	0.51	0.30	0.02	
			0'			2" Ice	0.70	0.46	0.03	
RADIO 4449 B71 B85A_T-MOBILE	A	From Leg	4.00	0.000	186'	No Ice	1.97	1.59	0.07	
			0'			1/2" Ice	2.15	1.75	0.09	
			0'			1" Ice	2.33	1.92	0.12	
			0'			2" Ice	2.72	2.28	0.17	
RADIO 4449 B71 B85A_T-MOBILE	B	From Leg	4.00	0.000	186'	No Ice	1.97	1.59	0.07	
			0'			1/2" Ice	2.15	1.75	0.09	
			0'			1" Ice	2.33	1.92	0.12	

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Description	Face or Leg	Offset Type	Offsets:			Azimuth Adjustment	Placement	C _{AA} Front	C _{AA} Side	Weight
			Horz	Vert	Lateral					
			ft	ft	ft					
RADIO 4449 B71 B85A_T-MOBILE	C	From Leg	4.00	0.000	186'	2" Ice	2.72	2.28	0.17	
			0'			No Ice	1.97	1.59	0.07	
			0'			1/2" Ice	2.15	1.75	0.09	
			0'			1" Ice	2.33	1.92	0.12	
			0'			2" Ice	2.72	2.28	0.17	
RRUS 4415 B25	A	From Leg	4.00	0.000	186'	No Ice	1.64	0.68	0.04	
			0'			1/2" Ice	1.80	0.79	0.06	
			0'			1" Ice	1.97	0.91	0.07	
			0'			2" Ice	2.33	1.18	0.11	
			0'			No Ice	1.64	0.68	0.04	
RRUS 4415 B25	B	From Leg	4.00	0.000	186'	1/2" Ice	1.80	0.79	0.06	
			0'			1" Ice	1.97	0.91	0.07	
			0'			2" Ice	2.33	1.18	0.11	
			0'			No Ice	1.64	0.68	0.04	
			0'			1/2" Ice	1.80	0.79	0.06	
RRUS 4415 B25	C	From Leg	4.00	0.000	186'	1" Ice	1.97	0.91	0.07	
			0'			2" Ice	2.33	1.18	0.11	
			0'			No Ice	1.64	0.68	0.04	
			0'			1/2" Ice	1.80	0.79	0.06	
			0'			1" Ice	1.97	0.91	0.07	
Sector Mount [SM 502-3]	C	None	4.00	0.000	186'	2" Ice	2.33	1.18	0.11	
			0'			No Ice	29.82	29.82	1.67	
			0'			1/2" Ice	42.21	42.21	2.27	
			0'			1" Ice	54.43	54.43	3.05	
			0'			2" Ice	78.49	78.49	5.18	
***** *****										
(2) DB846F65ZAXY w/ Mount Pipe	A	From Leg	4.00	0.000	177'	No Ice	6.10	6.81	0.06	
			0'			1/2" Ice	6.80	7.52	0.12	
			0'			1" Ice	7.51	8.24	0.19	
			0'			2" Ice	8.98	9.73	0.37	
(2) LPA-80063/6CFx5 w/ Mount Pipe	B	From Leg	4.00	0.000	177'	No Ice	9.80	10.19	0.05	
			0'			1/2" Ice	10.37	11.36	0.14	
			0'			1" Ice	10.91	12.25	0.25	
			0'			2" Ice	12.00	14.06	0.48	
(2) SC-E 6014 rev2 w/ Mount Pipe	C	From Leg	4.00	0.000	177'	No Ice	3.56	4.22	0.03	
			0'			1/2" Ice	3.91	4.78	0.07	
			0'			1" Ice	4.26	5.35	0.12	
			0'			2" Ice	4.98	6.55	0.22	
(2) JAHH-65B-R3B w/ Mount Pipe	A	From Leg	4.00	0.000	177'	No Ice	5.50	4.38	0.10	
			0'			1/2" Ice	5.97	4.84	0.17	
			0'			1" Ice	6.45	5.30	0.25	
			0'			2" Ice	7.44	6.26	0.46	
(2) JAHH-65B-R3B w/ Mount Pipe	B	From Leg	4.00	0.000	177'	No Ice	5.50	4.38	0.10	
			0'			1/2" Ice	5.97	4.84	0.17	
			0'			1" Ice	6.45	5.30	0.25	
			0'			2" Ice	7.44	6.26	0.46	
(2) JAHH-65B-R3B w/ Mount Pipe	C	From Leg	4.00	0.000	177'	No Ice	5.50	4.38	0.10	
			0'			1/2" Ice	5.97	4.84	0.17	
			0'			1" Ice	6.45	5.30	0.25	
			0'			2" Ice	7.44	6.26	0.46	
Sub6 Antenna - VZS01 w/ Mount Pipe	A	From Leg	4.00	0.000	177'	No Ice	4.92	2.69	0.10	
			0'			1/2" Ice	5.26	3.15	0.14	
			0'			1" Ice	5.62	3.63	0.19	
			0'			2" Ice	6.37	4.64	0.29	
Sub6 Antenna - VZS01 w/ Mount Pipe	B	From Leg	4.00	0.000	177'	No Ice	4.92	2.69	0.10	
			0'			1/2" Ice	5.26	3.15	0.14	
			0'			1" Ice	5.62	3.63	0.19	
			0'			2" Ice	6.37	4.64	0.29	
Sub6 Antenna - VZS01 w/ Mount Pipe	C	From Leg	4.00	0.000	177'	No Ice	4.92	2.69	0.10	
			0'			1/2" Ice	5.26	3.15	0.14	

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Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _{AA} Front	C _{AA} Side	Weight
			Horz	Lateral						Vert	°	ft	ft^{2}	ft^{2}	K
APXVTM14-ALU-I20 w/ Mount Pipe	A	From Leg	4.00	0.000	168'	1" Ice	8.53	5.12	0.30
			0'			2" Ice	9.56	6.05	0.53
			0'			No Ice	4.09	2.86	0.08
			0'			1/2" Ice	4.48	3.23	0.13
			0'			1" Ice	4.88	3.61	0.19
APXVTM14-ALU-I20 w/ Mount Pipe	B	From Leg	4.00	0.000	168'	2" Ice	5.71	4.40	0.33
			0'			No Ice	4.09	2.86	0.08
			0'			1/2" Ice	4.48	3.23	0.13
			0'			1" Ice	4.88	3.61	0.19
APXVTM14-ALU-I20 w/ Mount Pipe	C	From Leg	4.00	0.000	168'	2" Ice	5.71	4.40	0.33
			0'			No Ice	4.09	2.86	0.08
			0'			1/2" Ice	4.48	3.23	0.13
			0'			1" Ice	4.88	3.61	0.19
FDD_R6_RRH	A	From Leg	4.00	0.000	168'	2" Ice	5.71	4.40	0.33
			0'			No Ice	1.53	0.68	0.03
			0'			1/2" Ice	1.69	0.80	0.04
			0'			1" Ice	1.85	0.92	0.06
FDD_R6_RRH	B	From Leg	4.00	0.000	168'	2" Ice	2.20	1.19	0.09
			0'			No Ice	1.53	0.68	0.03
			0'			1/2" Ice	1.69	0.80	0.04
			0'			1" Ice	1.85	0.92	0.06
FDD_R6_RRH	C	From Leg	4.00	0.000	168'	2" Ice	2.20	1.19	0.09
			0'			No Ice	1.53	0.68	0.03
			0'			1/2" Ice	1.69	0.80	0.04
			0'			1" Ice	1.85	0.92	0.06
AHCC	A	From Leg	4.00	0.000	168'	2" Ice	2.20	1.19	0.09
			0'			No Ice	1.63	1.14	0.05
			0'			1/2" Ice	1.79	1.28	0.06
			0'			1" Ice	1.96	1.43	0.08
AHCC	B	From Leg	4.00	0.000	168'	2" Ice	2.32	1.75	0.12
			0'			No Ice	1.63	1.14	0.05
			0'			1/2" Ice	1.79	1.28	0.06
			0'			1" Ice	1.96	1.43	0.08
AHCC	C	From Leg	4.00	0.000	168'	2" Ice	2.32	1.75	0.12
			0'			No Ice	1.63	1.14	0.05
			0'			1/2" Ice	1.79	1.28	0.06
			0'			1" Ice	1.96	1.43	0.08
AHFIB_CCIV2	A	From Leg	4.00	0.000	168'	2" Ice	2.32	1.75	0.12
			0'			No Ice	2.79	1.53	0.07
			0'			1/2" Ice	3.01	1.71	0.09
			0'			1" Ice	3.24	1.90	0.11
AHFIB_CCIV2	B	From Leg	4.00	0.000	168'	2" Ice	3.72	2.29	0.17
			0'			No Ice	2.79	1.53	0.07
			0'			1/2" Ice	3.01	1.71	0.09
			0'			1" Ice	3.24	1.90	0.11
AHFIB_CCIV2	C	From Leg	4.00	0.000	168'	2" Ice	3.72	2.29	0.17
			0'			No Ice	2.79	1.53	0.07
			0'			1/2" Ice	3.01	1.71	0.09
			0'			1" Ice	3.24	1.90	0.11
HORIZON DUO	C	From Leg	4.00	0.000	168'	2" Ice	3.72	2.29	0.17
			0'			No Ice	0.47	0.29	0.01
			0'			1/2" Ice	0.56	0.37	0.01
			0'			1" Ice	0.65	0.44	0.02
(2) 2.4" Dia x 6-ft Pipe	A	From Leg	4.00	0.000	168'	2" Ice	0.86	0.62	0.04
			0'			No Ice	1.43	1.43	0.02
			0'			1/2" Ice	1.93	1.93	0.03
			0'			1" Ice	2.30	2.30	0.05

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Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _{AA}		Weight	
			Horz	Vert			Front	Side		
			ft	ft	°	ft	ft ²	ft ²	K	
(2) 2.4" Dia x 6-ft Pipe	B	From Leg	4.00	0'	0.000	168'	2" Ice	3.06	3.06	0.09
							No Ice	1.43	1.43	0.02
							1/2" Ice	1.93	1.93	0.03
							1" Ice	2.30	2.30	0.05
							2" Ice	3.06	3.06	0.09
(2) 2.4" Dia x 6-ft Pipe	C	From Leg	4.00	0'	0.000	168'	No Ice	1.43	1.43	0.02
							1/2" Ice	1.93	1.93	0.03
							1" Ice	2.30	2.30	0.05
							2" Ice	3.06	3.06	0.09
							No Ice	25.20	25.20	1.97
Sitepro VFA12-HD Sector Mount (3)	C	None	4.00	0'	0.000	168'	1/2" Ice	38.36	38.36	2.41
							1" Ice	51.52	51.52	2.85
							2" Ice	77.84	77.84	3.73

7770.00 w/ Mount Pipe	A	From Leg	4.00	0'	0.000	158'	No Ice	5.75	4.25	0.06
							1/2" Ice	6.18	5.01	0.10
							1" Ice	6.61	5.71	0.16
							2" Ice	7.49	7.16	0.29
7770.00 w/ Mount Pipe	B	From Leg	4.00	0'	0.000	158'	No Ice	5.75	4.25	0.06
							1/2" Ice	6.18	5.01	0.10
							1" Ice	6.61	5.71	0.16
							2" Ice	7.49	7.16	0.29
7770.00 w/ Mount Pipe	C	From Leg	4.00	0'	0.000	158'	No Ice	5.75	4.25	0.06
							1/2" Ice	6.18	5.01	0.10
							1" Ice	6.61	5.71	0.16
							2" Ice	7.49	7.16	0.29
(2) OPA65R-BU6D w/ Mount Pipe	A	From Leg	4.00	0'	0.000	158'	No Ice	12.25	6.05	0.09
							1/2" Ice	13.00	6.71	0.18
							1" Ice	13.76	7.39	0.27
							2" Ice	15.34	8.79	0.51
OPA65R-BU8D w/ Mount Pipe	B	From Leg	4.00	0'	0.000	158'	No Ice	17.46	8.58	0.11
							1/2" Ice	18.46	9.49	0.22
							1" Ice	19.48	10.42	0.35
							2" Ice	21.58	12.33	0.66
(2) OPA65R-BU6D w/ Mount Pipe	C	From Leg	4.00	0'	0.000	158'	No Ice	12.25	6.05	0.09
							1/2" Ice	13.00	6.71	0.18
							1" Ice	13.76	7.39	0.27
							2" Ice	15.34	8.79	0.51
QS66512-2 w/ Mount Pipe	A	From Leg	4.00	0'	0.000	158'	No Ice	4.04	4.18	0.14
							1/2" Ice	4.42	4.57	0.21
							1" Ice	4.82	4.97	0.29
							2" Ice	5.63	5.79	0.48
QS66512-2 w/ Mount Pipe	C	From Leg	4.00	0'	0.000	158'	No Ice	4.04	4.18	0.14
							1/2" Ice	4.42	4.57	0.21
							1" Ice	4.82	4.97	0.29
							2" Ice	5.63	5.79	0.48
TPA-65R-LCUUUU-H8 w/ Mount Pipe	B	From Leg	4.00	0'	0.000	158'	No Ice	11.85	8.99	0.11
							1/2" Ice	12.77	9.88	0.21
							1" Ice	13.71	10.79	0.32
							2" Ice	15.64	12.66	0.58
DMP65R-BU8D w/ Mount Pipe	B	From Leg	4.00	0'	0.000	158'	No Ice	15.89	7.89	0.14
							1/2" Ice	16.81	8.74	0.25
							1" Ice	17.76	9.60	0.38
							2" Ice	19.70	11.37	0.68
DTMABP7819VG12A	A	From Leg	4.00	0'	0.000	158'	No Ice	0.98	0.34	0.02
							1/2" Ice	1.10	0.42	0.03

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	Client	Crown Castle	Designed by	JDB

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _{AA} Front	C _{AA} Side	Weight
			Horz	Lateral					
			ft	ft	°	ft	ft ²	ft ²	K
				2'		1" Ice	1.23	0.51	0.04
						2" Ice	1.52	0.71	0.06
DTMABP7819VG12A	B	From Leg	4.00	0.000	158'	No Ice	0.98	0.34	0.02
			0'			1/2" Ice	1.10	0.42	0.03
			2'			1" Ice	1.23	0.51	0.04
DTMABP7819VG12A	C	From Leg	4.00	0.000	158'	2" Ice	1.52	0.71	0.06
			0'			No Ice	0.98	0.34	0.02
			0'			1/2" Ice	1.10	0.42	0.03
			2'			1" Ice	1.23	0.51	0.04
7020.00	A	From Leg	4.00	0.000	158'	2" Ice	1.52	0.71	0.06
			0'			No Ice	0.10	0.17	0.00
			0'			1/2" Ice	0.15	0.24	0.01
			2'			1" Ice	0.20	0.31	0.01
7020.00	B	From Leg	4.00	0.000	158'	2" Ice	0.33	0.48	0.02
			0'			No Ice	0.10	0.17	0.00
			0'			1/2" Ice	0.15	0.24	0.01
			2'			1" Ice	0.20	0.31	0.01
7020.00	C	From Leg	4.00	0.000	158'	2" Ice	0.33	0.48	0.02
			0'			No Ice	0.10	0.17	0.00
			0'			1/2" Ice	0.15	0.24	0.01
			2'			1" Ice	0.20	0.31	0.01
(3) DC6-48-60-18-8F	A	From Leg	4.00	0.000	158'	2" Ice	0.33	0.48	0.02
			0'			No Ice	1.21	1.21	0.03
			0'			1/2" Ice	1.89	1.89	0.05
			2'			1" Ice	2.11	2.11	0.08
(2) DBC0061F1V51-2	A	From Leg	4.00	0.000	158'	2" Ice	2.57	2.57	0.14
			0'			No Ice	0.43	0.41	0.03
			0'			1/2" Ice	0.51	0.50	0.03
			2'			1" Ice	0.61	0.59	0.04
(2) DBC0061F1V51-2	B	From Leg	4.00	0.000	158'	2" Ice	0.81	0.79	0.06
			0'			No Ice	0.43	0.41	0.03
			0'			1/2" Ice	0.51	0.50	0.03
			2'			1" Ice	0.61	0.59	0.04
(2) DBC0061F1V51-2	C	From Leg	4.00	0.000	158'	2" Ice	0.81	0.79	0.06
			0'			No Ice	0.43	0.41	0.03
			0'			1/2" Ice	0.51	0.50	0.03
			2'			1" Ice	0.61	0.59	0.04
RRUS 32 B30	A	From Leg	4.00	0.000	158'	2" Ice	0.81	0.79	0.06
			0'			No Ice	2.73	1.67	0.05
			0'			1/2" Ice	2.95	1.86	0.07
			2'			1" Ice	3.18	2.05	0.10
RRUS 32 B30	B	From Leg	4.00	0.000	158'	2" Ice	3.66	2.46	0.16
			0'			No Ice	2.73	1.67	0.05
			0'			1/2" Ice	2.95	1.86	0.07
			2'			1" Ice	3.18	2.05	0.10
RRUS 32 B30	C	From Leg	4.00	0.000	158'	2" Ice	3.66	2.46	0.16
			0'			No Ice	2.73	1.67	0.05
			0'			1/2" Ice	2.95	1.86	0.07
			2'			1" Ice	3.18	2.05	0.10
RRUS 32 B2	A	From Leg	4.00	0.000	158'	2" Ice	3.66	2.46	0.16
			0'			No Ice	2.73	1.67	0.05
			0'			1/2" Ice	2.95	1.86	0.07
			2'			1" Ice	3.18	2.05	0.10
RRUS 32 B2	B	From Leg	4.00	0.000	158'	2" Ice	3.66	2.46	0.16
			0'			No Ice	2.73	1.67	0.05
			0'			1/2" Ice	2.95	1.86	0.07
			2'			1" Ice	3.18	2.05	0.10

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Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert	Azimuth Adjustment	Placement	CAA Front	CAA Side	Weight
			ft ft ft	°	ft	ft ²	ft ²	K

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	ft	ft ²	K	
VHLP2-11	C	Paraboloid w/Shroud (HP)	From Leg	4.00 0' 0'	-90.000		168'	2.00	No Ice 1/2" Ice 1" Ice 2" Ice	3.72 4.01 4.30 4.88	0.03 0.05 0.07 0.11

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
27	1.2 Dead+1.0 Wind 0 deg+1.0 Ice
28	1.2 Dead+1.0 Wind 30 deg+1.0 Ice
29	1.2 Dead+1.0 Wind 60 deg+1.0 Ice

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<i>Comb. No.</i>	<i>Description</i>
30	1.2 Dead+1.0 Wind 90 deg+1.0 Ice
31	1.2 Dead+1.0 Wind 120 deg+1.0 Ice
32	1.2 Dead+1.0 Wind 150 deg+1.0 Ice
33	1.2 Dead+1.0 Wind 180 deg+1.0 Ice
34	1.2 Dead+1.0 Wind 210 deg+1.0 Ice
35	1.2 Dead+1.0 Wind 240 deg+1.0 Ice
36	1.2 Dead+1.0 Wind 270 deg+1.0 Ice
37	1.2 Dead+1.0 Wind 300 deg+1.0 Ice
38	1.2 Dead+1.0 Wind 330 deg+1.0 Ice
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 Tower Deflections - Service Wind

<i>Section No.</i>	<i>Elevation</i>	<i>Horz. Deflection</i>	<i>Gov. Load</i>	<i>Tilt</i>	<i>Twist</i>
	<i>ft</i>	<i>in</i>	<i>Comb.</i>	<i>°</i>	<i>°</i>
T1	185 - 180	3.920	46	0.191	0.050
T2	180 - 160	3.718	46	0.191	0.050
T3	160 - 140	2.912	46	0.179	0.046
T4	140 - 120	2.178	46	0.154	0.039
T5	120 - 100	1.558	46	0.128	0.031
T6	100 - 80	1.057	46	0.105	0.024
T7	80 - 60	0.661	46	0.079	0.018
T8	60 - 40	0.368	46	0.056	0.013
T9	40 - 20	0.165	46	0.036	0.009
T10	20 - 0	0.042	40	0.017	0.004

Critical Deflections and Radius of Curvature - Service Wind

<i>Elevation</i>	<i>Appurtenance</i>	<i>Gov. Load</i>	<i>Deflection</i>	<i>Tilt</i>	<i>Twist</i>	<i>Radius of Curvature</i>
<i>ft</i>		<i>Comb.</i>	<i>in</i>	<i>°</i>	<i>°</i>	<i>ft</i>
186'	AIR 32 B2A/B66AA w/ Mount Pipe	46	3.920	0.191	0.050	209380
177'	(2) DB846F65ZAXY w/ Mount Pipe	46	3.596	0.190	0.050	323568
168'	VHLP2-11	46	3.231	0.185	0.048	124393
158'	7770.00 w/ Mount Pipe	46	2.835	0.177	0.046	54120
40'	GPS_A	46	0.165	0.036	0.009	66250

Maximum Tower Deflections - Design Wind

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Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T1	185 - 180	15.922	16	0.777	0.207
T2	180 - 160	15.102	16	0.776	0.207
T3	160 - 140	11.822	16	0.727	0.191
T4	140 - 120	8.834	16	0.627	0.160
T5	120 - 100	6.310	16	0.518	0.127
T6	100 - 80	4.275	16	0.424	0.100
T7	80 - 60	2.673	16	0.321	0.074
T8	60 - 40	1.487	16	0.225	0.053
T9	40 - 20	0.665	16	0.146	0.035
T10	20 - 0	0.166	4	0.067	0.018

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
186'	AIR 32 B2A/B66AA w/ Mount Pipe	16	15.922	0.777	0.207	51191
177'	(2) DB846F65ZAXY w/ Mount Pipe	16	14.606	0.773	0.206	79198
168'	VHLP2-11	16	13.119	0.755	0.200	30309
158'	7770.00 w/ Mount Pipe	16	11.505	0.719	0.188	13198
40'	GPS_A	16	0.665	0.146	0.035	16355

Bolt Design Data

Section No.	Elevation ft	Component Type	Bolt Grade	Bolt Size in	Number Of Bolts	Maximum Load per Bolt K	Allowable Load per Bolt K	Ratio Load Allowable	Allowable Ratio	Criteria
T1	185	Leg	A325X	0.750	4	0.32	30.10	0.011	1.05	Bolt Tension
		Diagonal	A325X	0.500	1	1.33	9.26	0.144	1.05	Gusset Bearing
		Top Girt	A325X	0.500	1	0.46	9.26	0.049	1.05	Gusset Bearing
T2	180	Leg	A325X	0.750	4	3.81	30.10	0.127	1.05	Bolt Tension
		Diagonal	A325X	0.625	3	2.82	15.08	0.187	1.05	Gusset Bearing
		Horizontal	A325X	0.625	2	2.30	13.92	0.165	1.05	Gusset Bearing
T3	160	Leg	A325X	0.875	4	13.40	41.56	0.323	1.05	Bolt Tension
		Diagonal	A325X	0.625	3	3.48	15.08	0.231	1.05	Gusset Bearing
		Horizontal	A325X	0.625	2	3.11	13.92	0.224	1.05	Gusset Bearing
T4	140	Leg	A325X	1.000	4	22.77	54.52	0.418	1.05	Bolt Tension
		Diagonal	A325X	0.625	3	3.30	15.08	0.219	1.05	Gusset Bearing
		Horizontal	A325X	0.625	2	3.42	13.92	0.246	1.05	Gusset Bearing
T5	120	Leg	A325X	1.000	4	29.80	54.52	0.547	1.05	Bolt Tension
		Diagonal	A325X	0.625	3	4.02	15.08	0.267	1.05	Gusset Bearing
		Horizontal	A325X	0.625	2	3.62	13.92	0.260	1.05	Gusset Bearing
T6	100	Leg	A325X	1.000	6	24.82	54.52	0.455	1.05	Bolt Tension
		Diagonal	A325X	0.625	3	3.64	15.08	0.241	1.05	Gusset Bearing
		Horizontal	A325X	0.625	2	3.63	13.92	0.261	1.05	Gusset Bearing
T7	80	Leg	A325X	1.000	6	29.29	54.52	0.537	1.05	Bolt Tension
		Diagonal	A325X	0.625	3	3.81	15.08	0.253	1.05	Gusset Bearing
		Horizontal	A325X	0.625	2	4.12	13.92	0.296	1.05	Gusset Bearing
T8	60	Leg	A325X	1.000	6	33.63	54.52	0.617	1.05	Bolt Tension
		Diagonal	A325X	0.625	3	3.90	15.08	0.259	1.05	Gusset Bearing
		Horizontal	A325X	0.625	2	4.50	13.92	0.323	1.05	Gusset Bearing

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Section No.	Elevation ft	Component Type	Bolt Grade	Bolt Size in	Number Of Bolts	Maximum Load per Bolt K	Allowable Load per Bolt K	Ratio Load Allowable	Allowable Ratio	Criteria
T9	40	Leg	A325X	1.000	8	28.27	54.52	0.518	1.05	Bolt Tension
		Diagonal	A325X	0.625	3	3.83	15.08	0.254	1.05	Gusset Bearing
		Horizontal	A325X	0.625	2	4.66	13.92	0.335	1.05	Gusset Bearing
T10	20	Diagonal	A325X	0.750	3	6.26	24.85	0.252	1.05	Bolt Shear
		Horizontal	A325X	0.750	2	5.07	24.85	0.204	1.05	Bolt Shear
		Redund Horiz 1 Bracing	A325X	0.625	1	4.66	11.23	0.415	1.05	Member Bearing
		Redund Diag 1 Bracing	A325X	0.625	1	4.26	15.66	0.272	1.05	Gusset Bearing
		Redund Hip 1 Bracing	A325X	0.625	1	0.03	17.26	0.002	1.05	Bolt Shear
		Redund Hip Diagonal 1 Bracing	A325X	0.625	1	0.08	17.26	0.005	1.05	Bolt Shear

Compression Checks

Leg Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio P _u / φP _n
T1	185 - 180	ROHN 2.5 STD	5'	5'	63.3	1.704	-3.88	38.59	0.101 ¹
					K=1.00				
T2	180 - 160	ROHN 2.5 STD	20'	6'8-1/32'	84.4	1.704	-23.72	45.53	0.521 ¹
					K=1.00				
T3	160 - 140	ROHN 3 X-STR	20'15/32"	6'8-5/32"	70.5	3.016	-66.86	94.34	0.709 ¹
			"	"	K=1.00				
T4	140 - 120	ROHN 4 X-STR	20'15/32"	6'8-5/32"	54.3	4.407	-106.43	159.90	0.666 ¹
			"	"	K=1.00				
T5	120 - 100	ROHN 5 EH	20'15/32"	10'1/4"	65.4	6.112	-136.66	201.19	0.679 ¹
			"	"	K=1.00				
T6	100 - 80	ROHN 5 EH	20'23/32"	10'3/8"	65.4	6.112	-168.99	201.11	0.840 ¹
			"	"	K=1.00				
T7	80 - 60	ROHN 6 EHS	20'19/32"	10'3/8"	54.1	6.713	-198.68	243.97	0.814 ¹
			"	"	K=1.00				
T8	60 - 40	ROHN 6 X-STR	20'19/32"	10'3/8"	54.8	8.405	-228.20	303.62	0.752 ¹
			"	"	K=1.00				
T9	40 - 20	ROHN 6 X-STR	20'23/32"	10'3/8"	54.8	8.405	-256.39	303.58	0.845 ¹
			"	"	K=1.00				
T10	20 - 0	ROHN 8 EHS	20'19/32"	10'3/8"	41.2	9.719	-268.81	386.31	0.696 ¹
			"	"	K=1.00				

¹ P_u / φP_n controls

Diagonal Design Data (Compression)

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Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T1	185 - 180	L2x2x1/4	9'10-5/16"	4'8-1/32"	143.2	0.938	-1.56	13.09	0.119 ¹
T2	180 - 160	ROHN 2 STD	7'11-1/32"	7'8-13/32"	117.3	1.075	-8.54	17.64	0.484 ¹
T3	160 - 140	ROHN 2 STD	8'6-3/8"	8'3-15/32"	126.4	1.075	-10.01	15.19	0.659 ¹
T4	140 - 120	ROHN 2 STD	9'2-17/32"	8'11-9/32"	136.3	1.075	-9.97	13.07	0.763 ¹
T5	120 - 100	ROHN 2.5 STD	12'5-7/8"	12'1-3/16"	153.3	1.704	-12.19	16.38	0.744 ¹
T6	100 - 80	ROHN 2.5 STD	13'3-23/32"	12'11-17/32"	164.1	1.704	-11.12	14.30	0.778 ¹
T7	80 - 60	ROHN 2.5 STD	14'1-29/32"	13'9-1/4"	174.4	1.704	-11.74	12.65	0.928 ¹
T8	60 - 40	ROHN 2.5 X-STR	15'2-7/32"	14'8-13/32"	190.9	2.254	-12.15	13.96	0.870 ¹
T9	40 - 20	ROHN 3 STD	16'31/32"	15'8-3/4"	162.2	2.228	-12.01	19.13	0.628 ¹
T10	20 - 0	ROHN 3 STD	24'3-31/32"	12'2-1/32"	125.5	2.228	-18.77	31.98	0.587 ¹

¹ P_u / φP_n controls

Horizontal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T2	180 - 160	ROHN 1.5 STD	8'6-3/8"	4'1-11/16"	79.9	0.799	-4.55	22.56	0.202 ¹
T3	160 - 140	ROHN 1.5 STD	9'11-5/32"	4'9-27/32"	92.9	0.799	-6.18	19.14	0.323 ¹
T4	140 - 120	ROHN 2 STD	12'1/8"	5'9-27/32"	88.7	1.075	-6.80	27.20	0.250 ¹
T5	120 - 100	ROHN 2 STD	13'9-31/32"	6'8-5/32"	101.9	1.075	-7.20	22.63	0.318 ¹
T6	100 - 80	ROHN 2 STD	16'3"	7'10-11/16"	120.3	1.075	-7.20	16.76	0.429 ¹
T7	80 - 60	ROHN 2.5 STD	18'9-15/32"	9'1-7/16"	115.5	1.704	-8.10	28.85	0.281 ¹
T8	60 - 40	ROHN 2.5 STD	21'3-15/32"	10'4-7/16"	131.3	1.704	-8.77	22.32	0.393 ¹
T9	40 - 20	ROHN 2.5 STD	23'10-5/16"	11'7-13/16"	147.6	1.704	-9.00	17.67	0.509 ¹
T10	20 - 0	ROHN 3 STD	25'2-5/32"	12'2-3/4"	126.1	2.228	-9.98	31.65	0.315 ¹

¹ P_u / φP_n controls

Top Girt Design Data (Compression)

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Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T1	185 - 180	L2x2x1/4	8'6"	8'1/8"	245.8 K=1.00	0.938	-0.31	4.44	0.070 ¹

KL/R > 200 (C) - 4

¹ P_u / φP_n controls

Redundant Horizontal (1) Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T10	20 - 0	ROHN 1.5 TUBE (11ga)	6'3-15/3 2"	5'11-5/3 2"	145.4 K=1.00	0.520	-4.66	5.56	0.839 ¹

¹ P_u / φP_n controls

Redundant Diagonal (1) Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T10	20 - 0	2L2x2x1/4x1/4	11'6"	10'5-3/4'	209.1 K=1.00	1.875	-4.26	12.19	0.350 ¹

2L 'a' > 60.597 in - 281

¹ P_u / φP_n controls

Redundant Hip (1) Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T10	20 - 0	ROHN 1.5 TUBE (11ga)	6'3-15/3 2"	6'3-15/3 2"	154.2 K=1.00	0.520	-0.03	4.94	0.006 ¹

¹ P_u / φP_n controls

Redundant Hip Diagonal (1) Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
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Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T10	20 - 0	ROHN 2.5 STD	15'27/32 "	15'27/32 "	190.9 K=1.00	1.704	-0.08	10.56	0.008 ¹

¹ P_u / φP_n controls

Inner Bracing Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T2	180 - 160	L2x2x1/8	4'3-1/8"	4'3-1/8"	128.7 K=1.00	0.484	-0.01	8.37	0.001 ¹
T3	160 - 140	L2x2x1/8	4'7-7/16'	4'7-7/16'	139.4 K=1.00	0.484	-0.01	7.13	0.001 ¹
T4	140 - 120	L2x2x1/8	6'1/8"	6'1/8"	181.3 K=1.00	0.484	-0.01	4.22	0.002 ¹
T5	120 - 100	L2x2x1/8	6'11-1/3 2"	6'11-1/3 2"	208.8 K=1.00	0.484	-0.01	3.18	0.002 ¹
T6	100 - 80	L2 1/2x2 1/2x3/16	8'1-9/16'	8'1-9/16'	197.0 K=1.00	0.902	-0.01	6.65	0.001 ¹
T7	80 - 60	L3x3x3/16	9'4-13/1 6"	9'4-13/1 6"	189.2 K=1.00	1.090	-0.01	8.72	0.001 ¹
T8	60 - 40	L3 1/2x3 1/2x1/4	10'7-13/ 16"	10'7-13/ 16"	184.1 K=1.00	1.690	-0.01	14.28	0.001 ¹
T9	40 - 20	L3 1/2x3 1/2x1/4	11'11-5/ 32"	11'11-5/ 32"	206.3 K=1.00	1.690	-0.02	11.37	0.001 ¹
T10	20 - 0	ROHN 3 STD	12'7-3/3 2"	12'7-3/3 2"	129.8 K=1.00	2.228	-0.02	29.87	0.001 ¹

¹ P_u / φP_n controls

Tension Checks

Leg Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T1	185 - 180	ROHN 2.5 STD	5'	5'	63.3	1.704	1.06	46.01	0.023 ¹
T2	180 - 160	ROHN 2.5 STD	20'	6'8-1/32'	84.4	1.704	15.24	76.68	0.199 ¹
T3	160 - 140	ROHN 3 X-STR	20'15/32 "	6'8-5/32'	70.5	3.016	53.61	135.72	0.395 ¹
T4	140 - 120	ROHN 4 X-STR	20'15/32 "	6'8-5/32'	54.3	4.407	91.08	198.34	0.459 ¹
T5	120 - 100	ROHN 5 EH	20'15/32 "	10'1/4"	65.4	6.112	119.22	275.04	0.433 ¹
T6	100 - 80	ROHN 5 EH	20'23/32 "	10'3/8"	65.4	6.112	148.95	275.04	0.542 ¹

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Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T7	80 - 60	ROHN 6 EHS	20'19/32 "	10'3/8"	54.1	6.713	175.74	302.10	0.582 ¹
T8	60 - 40	ROHN 6 X-STR	20'19/32 "	10'3/8"	54.8	8.405	201.78	378.22	0.533 ¹
T9	40 - 20	ROHN 6 X-STR	20'23/32 "	10'3/8"	54.8	8.405	226.13	378.22	0.598 ¹
T10	20 - 0	ROHN 8 EHS	20'19/32 "	10'3/8"	41.2	9.719	235.87	437.37	0.539 ¹

¹ P_u / φP_n controls

Diagonal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T1	185 - 180	L2x2x1/4	9'10-5/1 6"	4'8-1/32' ,	94.4	0.586	1.33	28.58	0.047 ¹
T2	180 - 160	ROHN 2 STD	7'11-1/3 2"	7'8-13/3 2"	117.3	1.075	8.46	48.35	0.175 ¹
T3	160 - 140	ROHN 2 STD	8'3-23/3 2"	8'31/32"	123.2	1.075	10.43	48.35	0.216 ¹
T4	140 - 120	ROHN 2 STD	8'11-3/4' ,	8'8-13/3 2"	132.7	1.075	9.90	48.35	0.205 ¹
T5	120 - 100	ROHN 2.5 STD	12'1-29/ 32"	11'9-3/8' ,	149.2	1.704	12.06	76.68	0.157 ¹
T6	100 - 80	ROHN 2.5 STD	12'10-11 /16"	12'6-15/ 32"	158.8	1.704	10.91	76.68	0.142 ¹
T7	80 - 60	ROHN 2.5 STD	14'1-29/ 32"	13'9-1/4' ,	174.4	1.704	11.43	76.68	0.149 ¹
T8	60 - 40	ROHN 2.5 X-STR	15'27/32 "	14'8-13/ 32"	190.9	2.254	11.71	101.41	0.115 ¹
T9	40 - 20	ROHN 3 STD	16'31/32 "	15'8-3/4' ,	162.2	2.228	11.49	100.28	0.115 ¹
T10	20 - 0	ROHN 3 STD	24'3-31/ 32"	12'2-1/3 2"	125.5	2.228	17.96	100.28	0.179 ¹

¹ P_u / φP_n controls

Horizontal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T2	180 - 160	ROHN 1.5 STD	8'6-3/8"	4'1-11/1- 6"	79.9	0.799	4.60	35.98	0.128 ¹
T3	160 - 140	ROHN 1.5 STD	9'2-7/8"	4'5-5/8"	86.2	0.799	6.23	35.98	0.173 ¹
T4	140 - 120	ROHN 2 STD	12'1/8"	5'9-27/3 2"	88.7	1.075	6.85	48.35	0.142 ¹
T5	120 - 100	ROHN 2 STD	13'9-31/ 32"	6'8-5/32' ,	101.9	1.075	7.24	48.35	0.150 ¹

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Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T6	100 - 80	ROHN 2 STD	16'3"	7'10-11/16"	120.3	1.075	7.26	48.35	0.150 ¹
T7	80 - 60	ROHN 2.5 STD	18'9-15/32"	9'1-7/16"	115.5	1.704	8.23	76.68	0.107 ¹
T8	60 - 40	ROHN 2.5 STD	21'3-15/32"	10'4-7/16"	131.3	1.704	8.99	76.68	0.117 ¹
T9	40 - 20	ROHN 2.5 STD	23'10-5/16"	11'7-13/16"	147.6	1.704	9.32	76.68	0.122 ¹
T10	20 - 0	ROHN 3 STD	25'2-5/32"	12'2-3/4"	126.1	2.228	10.14	100.28	0.101 ¹

¹ P_u / φP_n controls

Top Girt Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T1	185 - 180	L2x2x1/4	8'6"	8'1/8"	162.8	0.586	0.46	28.58	0.016 ¹

¹ P_u / φP_n controls

Redundant Horizontal (1) Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T10	20 - 0	ROHN 1.5 TUBE (11ga)	6'3-15/32"	5'11-5/32"	145.4	0.520	4.66	23.41	0.199 ¹

¹ P_u / φP_n controls

Redundant Diagonal (1) Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T10	20 - 0	2L2x2x1/4x1/4	11'6"	10'5-3/4"	212.3	1.125	4.26	54.84	0.078 ¹

2L 'a' > 60.597 in - 281

¹ P_u / φP_n controls

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Redundant Hip (1) Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T10	20 - 0	ROHN 1.5 TUBE (11ga)	6'3-15/32" 2"	6'3-15/32" 2"	154.2	0.520	0.02	23.41	0.001 ¹

¹ P_u / φP_n controls

Redundant Hip Diagonal (1) Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T10	20 - 0	ROHN 2.5 STD	15'27/32" "	15'27/32" "	190.9	1.704	0.07	76.68	0.001 ¹

¹ P_u / φP_n controls

Inner Bracing Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T2	180 - 160	L2x2x1/8	4'3-1/8"	4'3-1/8"	81.7	0.484	0.01	15.69	0.000 ¹
T3	160 - 140	L2x2x1/8	4'3-1/4"	4'3-1/4"	81.8	0.484	0.01	15.69	0.000 ¹
T4	140 - 120	L2x2x1/8	5'3-23/32" 2"	5'3-23/32" 2"	101.8	0.484	0.01	15.69	0.000 ¹
T5	120 - 100	L2x2x1/8	6'4-3/16' "	6'4-3/16' "	121.8	0.484	0.00	15.69	0.000 ¹
T6	100 - 80	L2 1/2x2 1/2x3/16	7'5-3/4"	7'5-3/4"	115.3	0.902	0.00	29.24	0.000 ¹
T7	80 - 60	L3x3x3/16	8'9-1/4"	8'9-1/4"	112.1	1.090	0.00	35.32	0.000 ¹

¹ P_u / φP_n controls

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	φP _{allow} K	% Capacity	Pass Fail
T1	185 - 180	Leg	ROHN 2.5 STD	2	-3.88	40.52	9.6	Pass
T2	180 - 160	Leg	ROHN 2.5 STD	15	-23.72	47.80	49.6	Pass
T3	160 - 140	Leg	ROHN 3 X-STR	54	-66.86	99.05	67.5	Pass
T4	140 - 120	Leg	ROHN 4 X-STR	93	-106.43	167.90	63.4	Pass
T5	120 - 100	Leg	ROHN 5 EH	132	-136.66	211.25	64.7	Pass
T6	100 - 80	Leg	ROHN 5 EH	159	-168.99	211.17	80.0	Pass
T7	80 - 60	Leg	ROHN 6 EHS	186	-198.68	256.16	77.6	Pass
T8	60 - 40	Leg	ROHN 6 X-STR	213	-228.20	318.80	71.6	Pass
T9	40 - 20	Leg	ROHN 6 X-STR	240	-256.39	318.76	80.4	Pass

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	<p>Client</p> <p>Crown Castle</p>	<p>Designed by</p> <p>JDB</p>

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
T10	20 - 0	Leg	ROHN 8 EHS	267	-268.81	405.62	66.3	Pass
T1	185 - 180	Diagonal	L2x2x1/4	10	-1.56	13.74	11.4	Pass
T2	180 - 160	Diagonal	ROHN 2 STD	20	-8.54	18.52	46.1	Pass
T3	160 - 140	Diagonal	ROHN 2 STD	59	-10.01	15.95	62.8	Pass
T4	140 - 120	Diagonal	ROHN 2 STD	99	-9.97	13.72	72.7	Pass
T5	120 - 100	Diagonal	ROHN 2.5 STD	138	-12.19	17.20	70.9	Pass
T6	100 - 80	Diagonal	ROHN 2.5 STD	165	-11.12	15.01	74.1	Pass
T7	80 - 60	Diagonal	ROHN 2.5 STD	192	-11.74	13.29	88.4	Pass
T8	60 - 40	Diagonal	ROHN 2.5 X-STR	219	-12.15	14.66	82.9	Pass
T9	40 - 20	Diagonal	ROHN 3 STD	246	-12.01	20.09	59.8	Pass
T10	20 - 0	Diagonal	ROHN 3 STD	279	-18.77	33.58	55.9	Pass
T2	180 - 160	Horizontal	ROHN 1.5 STD	19	-4.55	23.69	19.2	Pass
T3	160 - 140	Horizontal	ROHN 1.5 STD	58	-6.18	20.10	30.8	Pass
T4	140 - 120	Horizontal	ROHN 2 STD	97	-6.80	28.55	23.8	Pass
T5	120 - 100	Horizontal	ROHN 2 STD	136	-7.20	23.76	30.3	Pass
T6	100 - 80	Horizontal	ROHN 2 STD	163	-7.20	17.60	40.9	Pass
T7	80 - 60	Horizontal	ROHN 2.5 STD	190	-8.10	30.29	26.7	Pass
T8	60 - 40	Horizontal	ROHN 2.5 STD	217	-8.77	23.43	37.4	Pass
T9	40 - 20	Horizontal	ROHN 2.5 STD	244	-9.00	18.55	48.5	Pass
T10	20 - 0	Horizontal	ROHN 3 STD	275	-9.98	33.23	30.0	Pass
T1	185 - 180	Top Girt	L2x2x1/4	4	-0.31	4.66	6.7	Pass
T10	20 - 0	Redund Horz 1 Bracing	ROHN 1.5 TUBE (11ga)	280	-4.66	5.84	79.9	Pass
T10	20 - 0	Redund Diag 1 Bracing	2L2x2x1/4x1/4	281	-4.26	12.80	33.3	Pass
T10	20 - 0	Redund Hip 1 Bracing	ROHN 1.5 TUBE (11ga)	282	-0.03	5.19	0.6	Pass
T10	20 - 0	Redund Hip Diagonal 1 Bracing	ROHN 2.5 STD	283	-0.08	11.09	0.7	Pass
T2	180 - 160	Inner Bracing	L2x2x1/8	27	-0.01	8.79	0.4	Pass
T3	160 - 140	Inner Bracing	L2x2x1/8	66	-0.01	6.48	0.5	Pass
T4	140 - 120	Inner Bracing	L2x2x1/8	105	-0.01	4.43	0.6	Pass
T5	120 - 100	Inner Bracing	L2x2x1/8	143	-0.01	3.34	0.6	Pass
T6	100 - 80	Inner Bracing	L2 1/2x2 1/2x3/16	171	-0.01	6.99	0.5	Pass
T7	80 - 60	Inner Bracing	L3x3x3/16	198	-0.01	9.15	0.6	Pass
T8	60 - 40	Inner Bracing	L3 1/2x3 1/2x1/4	225	-0.01	14.99	0.4	Pass
T9	40 - 20	Inner Bracing	L3 1/2x3 1/2x1/4	252	-0.02	11.94	0.4	Pass
T10	20 - 0	Inner Bracing	ROHN 3 STD	296	-0.02	31.36	0.3	Pass

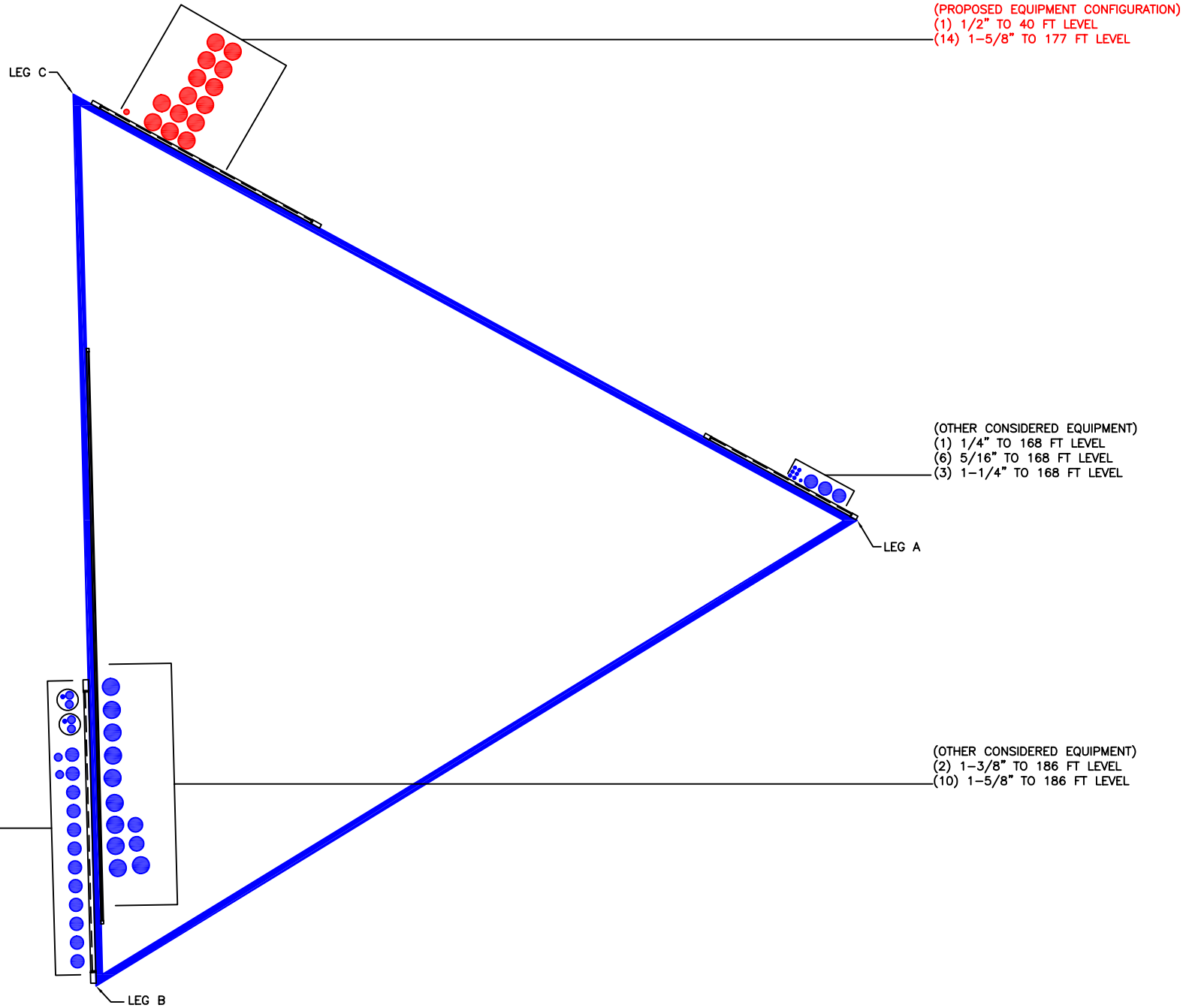
Summary

Leg (T9)	80.4	Pass
Diagonal (T7)	88.4	Pass
Horizontal (T9)	48.5	Pass
Top Girt (T1)	6.7	Pass
Redund Horz 1 Bracing (T10)	79.9	Pass
Redund Diag 1 Bracing (T10)	33.3	Pass
Redund Hip 1 Bracing (T10)	0.6	Pass
Redund Hip Diagonal 1 Bracing (T10)	0.7	Pass

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<i>Section No.</i>	<i>Elevation ft</i>	<i>Component Type</i>	<i>Size</i>	<i>Critical Element</i>	<i>P K</i>	ϕP_{allow} <i>K</i>	<i>% Capacity</i>	<i>Pass Fail</i>
						Inner Bracing (T5)	0.6	Pass
						Bolt Checks	58.7	Pass
						Rating =	88.4	Pass

APPENDIX B
BASE LEVEL DRAWING



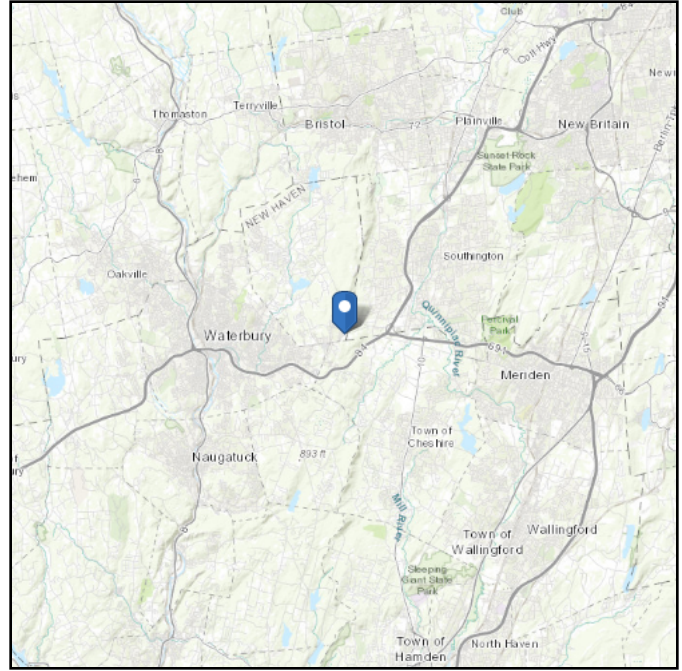
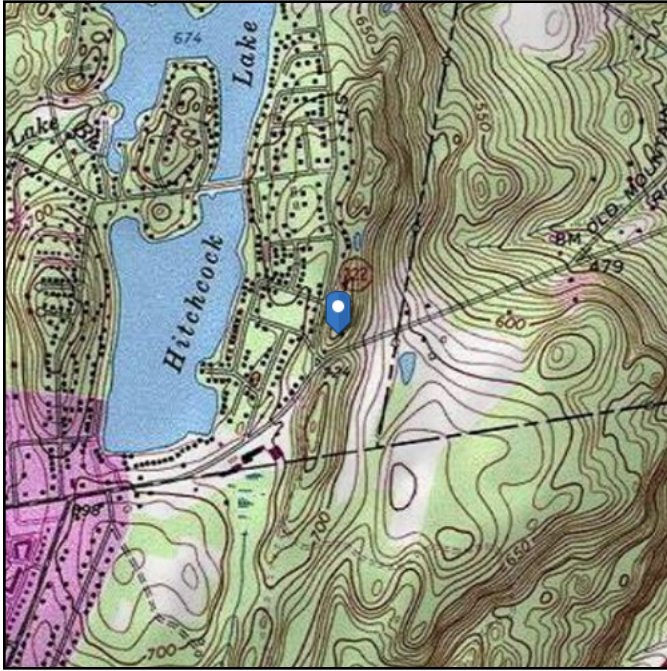
APPENDIX C
ADDITIONAL CALCULATIONS

ASCE 7 Hazards Report

Address:
No Address at This Location

Standard: ASCE/SEI 7-10
Risk Category: II
Soil Class: D - Stiff Soil

Elevation: 745.17 ft (NAVD 88)
Latitude: 41.559558
Longitude: -72.946972



Wind

Results:

Wind Speed:	122 Vmph	125 Vmph per Jurisdictional Requirement
10-year MRI	76 Vmph	
25-year MRI	86 Vmph	
50-year MRI	92 Vmph	
100-year MRI	99 Vmph	

Data Source: ASCE/SEI 7-10, Fig. 26.5-1A and Figs. CC-1–CC-4, and Section 26.5.2, incorporating errata of March 12, 2014

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-10 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

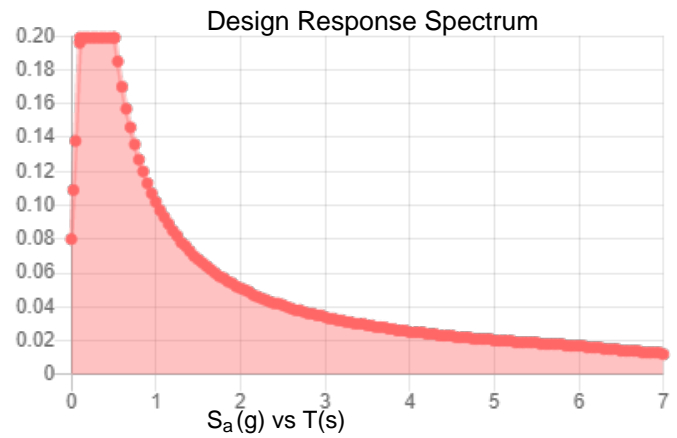
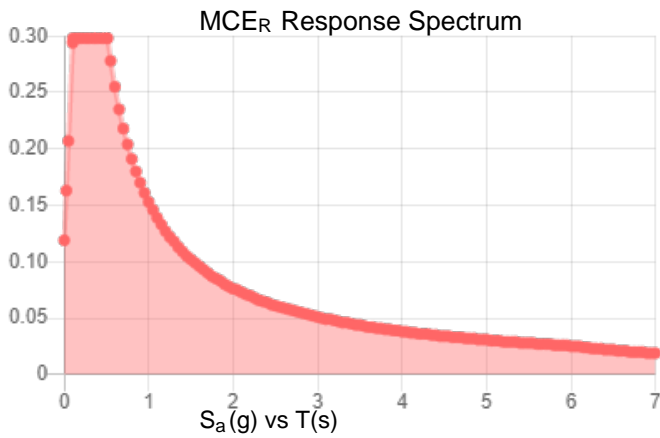
Site is in a hurricane-prone region as defined in ASCE/SEI 7-10 Section 26.2. Glazed openings need not be protected against wind-borne debris.

Site Soil Class: D - Stiff Soil

Results:

S_s :	0.186	S_{DS} :	0.199
S_1 :	0.064	S_{D1} :	0.102
F_a :	1.6	T_L :	6
F_v :	2.4	PGA :	0.096
S_{MS} :	0.298	PGA _M :	0.154
S_{M1} :	0.153	F _{PGA} :	1.6
		I_e :	1

Seismic Design Category B



Data Accessed:

Tue May 11 2021

Date Source:

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.

Ice

Results:

Ice Thickness: 0.75 in.

Concurrent Temperature: 5 F

Gust Speed: 50 mph

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

Date Accessed: Tue May 11 2021

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.

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Self Support Anchor Rod Capacity



Site Info	
BU #	806362
Site Name	NHV 108 943133
Order #	568280 Rev. 1

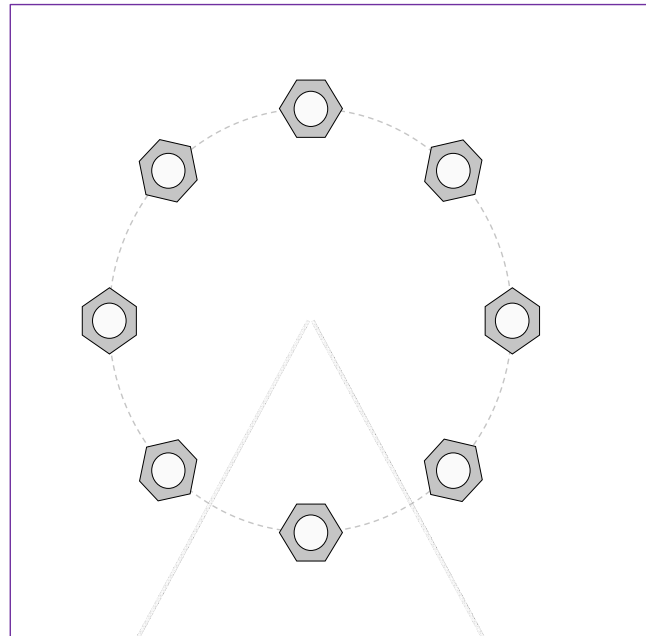
Analysis Considerations	
TIA-222 Revision	H
Grout Considered:	Yes
l_{ar} (in)	0

Applied Loads		
	Comp.	Uplift
Axial Force (kips)	296	260
Shear Force (kips)	37	33

*TIA-222-H Section 15.5 Applied

Considered Eccentricity	
Leg Mod Eccentricity (in)	0.000
Anchor Rod N.A Shift (in)	0.000
Total Eccentricity (in)	0.000

*Anchor Rod Eccentricity Applied



Connection Properties	Analysis Results
-----------------------	------------------

Anchor Rod Data	
(8) 1" ϕ bolts (A449 N; $F_y=92$ ksi, $F_u=120$ ksi)	
l_{ar} (in):	0

Anchor Rod Summary		(units of kips, kip-in)
$P_{u,t} = 32.5$	$\phi P_{n,t} = 54.54$	Stress Rating
$V_u = 4.13$	$\phi V_n = 35.34$	56.8%
$M_u = n/a$	$\phi M_n = n/a$	Pass

Pier and Pad Foundation



BU #: 806362
 Site Name: NHV 108 943133
 App. Number: 568280 Rev. 1

TIA-222 Revision: H
 Tower Type: Self Support

Top & Bot. Pad Rein. Different?:
 Block Foundation?:
 Rectangular Pad?:

Superstructure Analysis Reactions		
Compression, P_{comp} :	296	kips
Compression Shear, $V_{u, comp}$:	37	kips
Uplift, P_{uplift} :	260	kips
Uplift Shear, $V_{u, uplift}$:	33	kips
Tower Height, H :	185	ft
Base Face Width, BW :	27.677	ft
BP Dist. Above Fdn, bp_{dist} :	2.5	in

Foundation Analysis Checks				
	Capacity	Demand	Rating*	Check
<i>Uplift (kips)</i>	947.08	260.00	26.1%	Pass
<i>Lateral (Sliding) (kips)</i>	446.17	33.00	7.0%	Pass
<i>Bearing Pressure (ksf)</i>	18.00	6.01	31.8%	Pass
<i>Pier Flexure (Comp.) (kip*ft)</i>	1153.40	407.00	33.6%	Pass
<i>Pier Flexure (Tension) (kip*ft)</i>	891.09	363.00	38.8%	Pass
<i>Pier Compression (kip)</i>	2325.54	313.82	12.9%	Pass
<i>Pad Flexure (kip*ft)</i>	513.41	140.76	26.1%	Pass
<i>Pad Shear - 1-way (kips)</i>	169.84	42.04	23.6%	Pass
<i>Pad Shear - 2-way (Comp) (ksi)</i>	0.164	0.063	36.7%	Pass
<i>Flexural 2-way (Comp) (kip*ft)</i>	1026.82	244.20	22.6%	Pass
<i>Pad Shear - 2-way (Uplift) (ksi)</i>	0.164	0.099	57.7%	Pass
<i>Flexural 2-way (Tension) (kip*ft)</i>	1026.82	217.80	20.2%	Pass

*Rating per TIA-222-H Section 15.5

Soil Rating*:	31.8%
Structural Rating*:	57.7%

Pier Properties		
Pier Shape:	Square	
Pier Diameter, $dpier$:	3	ft
Ext. Above Grade, E :	0.5	ft
Pier Rebar Size, Sc :	10	
Pier Rebar Quantity, mc :	16	
Pier Tie/Spiral Size, St :	4	
Pier Tie/Spiral Quantity, mt :	13	
Pier Reinforcement Type:	Tie	
Pier Clear Cover, cc_{pier} :	3	in

Pad Properties		
Depth, D :	12.5	ft
Pad Width, W_1 :	8.75	ft
Pad Thickness, T :	2	ft
Pad Rebar Size (Bottom dir. 2), Sp_2 :	7	
Pad Rebar Quantity (Bottom dir. 2), mp_2 :	10	
Pad Clear Cover, cc_{pad} :	3	in

Material Properties		
Rebar Grade, F_y :	60	ksi
Concrete Compressive Strength, F'_c :	3	ksi
Dry Concrete Density, δ_c :	150	pcf

Soil Properties		
Total Soil Unit Weight, γ :	139.3	pcf
Ultimate Gross Bearing, Q_{ult} :	24	ksf
Cohesion, C_u :	7	ksf
Friction Angle, ϕ :		degrees
SPT Blow Count, N_{blows} :		
Base Friction, μ :	0.4	
Neglected Depth, N :	3.33	ft
Foundation Bearing on Rock?	Yes	
Groundwater Depth, gw :	N/A	ft

*weighted avg. w/ collar mod
 <--Toggle between Gross and Net

Exhibit E

Mount Analysis



Maser Consulting Connecticut
2000 Midlantic Drive, Suite 100
Mt. Laurel, NJ 08054
856.797.0412
peter.albano@colliersengineering.com

Post-Mod Antenna Mount Analysis Report and PMI Requirements

Mount Fix

SMART Tool Project #: 10068722
Maser Consulting Project #: 21777142A

July 6, 2021

Site Information

Site ID: 467897-VZW / WOLCOTT CT
Site Name: WOLCOTT CT
Carrier Name: Verizon Wireless
Address: 347 East St
Wolcott, Connecticut 06716
New Haven County
Latitude: 41.559528°
Longitude: -72.947028°

Structure Information

Tower Type: 190-Ft Self Support
Mount Type: 14.00-Ft Sector Frame

FUZE ID # 16244099

Analysis Results

Sector Frame: 66.9% Pass

***Contractor PMI Requirements:

Included at the end of this MA report

Available & Submitted via portal at <https://pmi.vzwsmart.com>

Contractor - Please Review Specific Site PMI Requirements Upon Award

Requirements also Noted on Mount Modification Drawings

Requirements may also be Noted on A & E drawings

Report Prepared By: Lauren Luzier

Executive Summary:

The objective of this report is to summarize the analysis results of the antenna support mount including the proposed modifications at the subject facility for the final wireless telecommunications configuration, per the applicable codes and standards.

This analysis is inclusive of the mount structure only and does not address the structural capacity of the supporting structure. This mounting frame was not analyzed as an anchor attachment point for fall protection. All climbing activities are required to have a fall protection plan completed by a competent person.

Sources of Information:

Document Type	Remarks
<i>Radio Frequency Data Sheet (RFDS)</i>	<i>Verizon RFDS, Site ID: 325178, dated February 11, 2021</i>
<i>Mount Mapping Report</i>	<i>Hudson Design Group LLC, Site #: 467897, dated March 24, 2021</i>
<i>Previous Mount Analysis Report</i>	<i>Maser Consulting Project #: 21777142A, dated May 4, 2021</i>
<i>Mount Modification Drawings</i>	<i>Maser Consulting Project #: 21777142A, dated July 6, 2021</i>

Analysis Criteria:

Codes and Standards:	ANSI/TIA-222-H
Wind Parameters:	Basic Wind Speed (Ultimate 3-sec. Gust), V_{ULT} : 118 mph Ice Wind Speed (3-sec. Gust): 50 mph Design Ice Thickness: 1.00 in Risk Category: II Exposure Category: C Topographic Category: 1 Topographic Feature Considered: N/A Topographic Method: N/A Ground Elevation Factor, K_e : 0.974
Seismic Parameters:	S_s : 0.195 S_1 : 0.054
Maintenance Parameters:	Wind Speed (3-sec. Gust): 30 mph Maintenance Live Load, L_v : 250 lbs. Maintenance Live Load, L_m : 500 lbs.
Analysis Software:	RISA-3D (V17)

Final Loading Configuration:

The following equipment has been considered for the analysis of the mounts:

Mount Elevation (ft)	Equipment Elevation (ft)	Quantity	Manufacturer	Model	Status
176.5	177.0	6	Commscope	JAHH-65B-R3B	Added
		3	Samsung	MT6407-77A	
		3	Commscope	CBC78T-DS-43-2X	
		1	Raycap	RVZDC-6627-PF-48	
		3	Samsung	B2/B66A RRH-BR049	
		3	Samsung	B5/B13 RRH-BR04C	
		2	Andrew	DB846F65ZAXY	Retained
		2	Amphenol Antel	LPA80063/6CF 5	
		2	Swedcom	SC-E 6014 REV2	

The recent mount mapping did not report existing OVP units. However, it is acceptable to install up to any three (3) of the OVP model numbers listed below as required at any location other than the mount face without affecting the structural capacity of the mount. If OVP units are installed on the mount face, a mount re-analysis may be required.

Model Number	Ports	AKA
DB-B1-6C-12AB-0Z	6	OVP-6
RVZDC-6627-PF-48	12	OVP-12

Standard Conditions:

1. All engineering services are performed on the basis that the information provided to Maser Consulting and used in this analysis is current and correct. The existing equipment loading has been applied at locations determined from the supplied documentation. Any deviation from the loading locations specified in this report shall be communicated to Maser Consulting to verify deviation will not adversely impact the analysis.
2. Mounts are assumed to have been properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer’s specifications.

Obvious safety and structural issues/deficiencies noticed at the time of the mount mapping and reported in the Mount Mapping Report are assumed to be corrected and documented as part of the PMI process and are not considered in the mount analysis.

The mount analysis and the mount mapping are not a condition assessment of the mount. Proper maintenance and condition assessments are still required post analysis.

3. For mount analyses completed from other data sources (including new replacement mounts) and not specifically mapped by Maser Consulting, the mounts are assumed to have been properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer’s specifications.
4. 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.
5. The mount was checked up to, and including, the bolts that fasten it to the mount collar/attachment and threaded rod connections in collar members if applicable. Local deformation and interaction between the mount collar/attachment and the supporting tower structure are outside the scope of this analysis.

6. All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. Maser Consulting is not responsible for the conclusion, opinions, and recommendations made by others based on the information supplied.
7. Structural Steel Grades have been assumed as follows, if applicable, unless otherwise noted in this analysis:
 - o Channel, Solid Round, Angle, Plate ASTM A36 (Gr. 36)
 - o HSS (Rectangular) ASTM 500 (Gr. B-46)
 - o Pipe ASTM A53 (Gr. B-35)
 - o Threaded Rod F1554 (Gr. 36)
 - o Bolts ASTM A325
8. Any mount modifications listed under Sources of Information are assumed to have been installed per the design specifications.

Discrepancies between in-field conditions and the assumptions listed above may render this analysis invalid unless explicitly approved by Maser Consulting.

Analysis Results:

Component	Utilization %	Pass/Fail
Standoff Plate	66.9 %	Pass
Face Horizontal	66.6 %	Pass
Standoff Horizontal	54.8 %	Pass
Standoff Vertical	25.3 %	Pass
Standoff Diagonal	28.1 %	Pass
Antenna Pipe	61.4 %	Pass
Dual Antenna Pipe	12.3 %	Pass
Tie Back	7.9 %	Pass
Plate	7.5 %	Pass
Mount Connection	26.8 %	Pass

Structure Rating – (Controlling Utilization of all Components)	66.9%
---	--------------

Recommendation:

The existing mounts will be **SUFFICIENT** for the final loading after the proposed modifications are successfully completed.

ANSI/ASSP rigging plan review services compliant with the requirements of ANSI/TIA 322 are available for a Construction Class IV site or other, if required. Separate review fees will apply.

Attachments:

1. Mount Photos
2. Mount Mapping Report (for reference only)
3. Analysis Calculations
- 4. Contractor Required PMI Report Deliverables**
5. Antenna Placement Diagrams
6. TIA Adoption and Wind Speed Usage Letter



Replace this page with antenna placement diagrams.

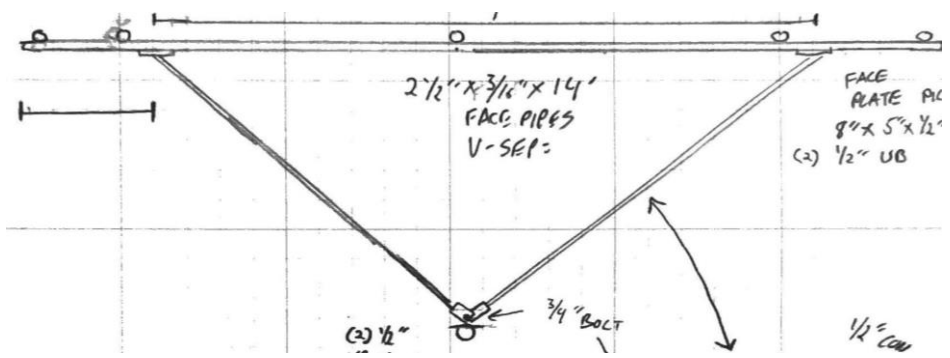


Antenna Mount Mapping Form (PATENT PENDING)

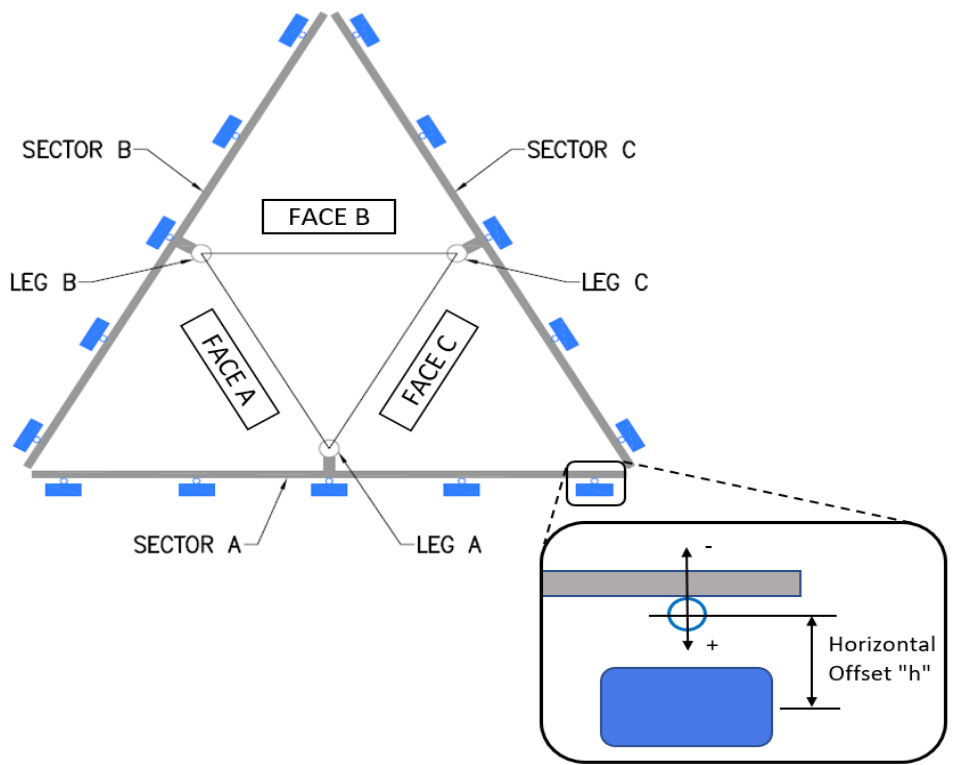
FCC #

Tower Owner:	CROWN CASTLE	Mapping Date:	3/24/2021
Site Name:	WOLCOTT CT	Tower Type:	Self Support
Site Number or ID:	467897	Tower Height (Ft.):	190
Mapping Contractor:	HUDSON DESIGN GROUP, LLC.	Mount Elevation (Ft.):	179.75

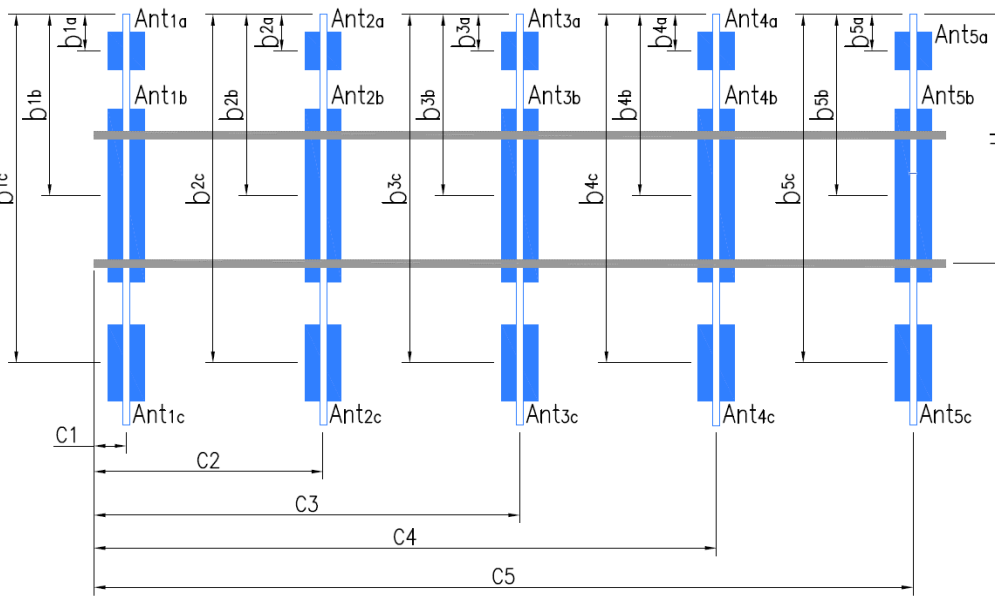
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Mount Pipe Configuration and Geometries [Unit = Inches]							
Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "u"	Horizontal Offset "C1, C2, C3, etc."	Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "u"	Horizontal Offset "C1, C2, C3, etc."
A1	2" STD. PIPE X 72" LONG	57.00	3.50	C1	2" STD. PIPE X 72" LONG	57.00	3.50
A2	3-1/2" Ø X 3/16" PIPE X 66" LONG	59.00	21.50	C2	3-1/2" Ø X 3/16" PIPE X 66" LONG	59.00	21.50
A3	2" STD. PIPE X 72" LONG	57.00	81.50	C3	2" STD. PIPE X 72" LONG	57.00	81.50
A4	2" STD. PIPE X 72" LONG	57.00	131.50	C4	2" STD. PIPE X 72" LONG	57.00	131.50
A5	2" STD. PIPE X 72" LONG	57.00	164.50	C5	2" STD. PIPE X 72" LONG	57.00	164.50
A6				C6			
B1	2" STD. PIPE X 72" LONG	57.00	3.50	D1			
B2	3-1/2" Ø X 3/16" PIPE X 66" LONG	59.00	21.50	D2			
B3	2" STD. PIPE X 72" LONG	57.00	81.50	D3			
B4	2" STD. PIPE X 72" LONG	57.00	131.50	D4			
B5	2" STD. PIPE X 78" LONG	63.00	164.50	D5			
B6				D6			
Distance between bottom rail and mount CL elevation (dim d). Unit is inches. See 'Mount Elev Ref' tab for details. :							23.00
Distance from top of bottom support rail to lowest tip of ant./eqpt. of Carrier above. (N/A if > 10 ft.) :							31
Distance from top of bottom support rail to highest tip of ant./eqpt. of Carrier below. (N/A if > 10 ft.) :							46
Please enter additional information or comments below.							
Tower Face Width at Mount Elev. (ft.):		8.25		Tower Leg Size or Pole Shaft Diameter at Mount Elev. (in.):		2.875	



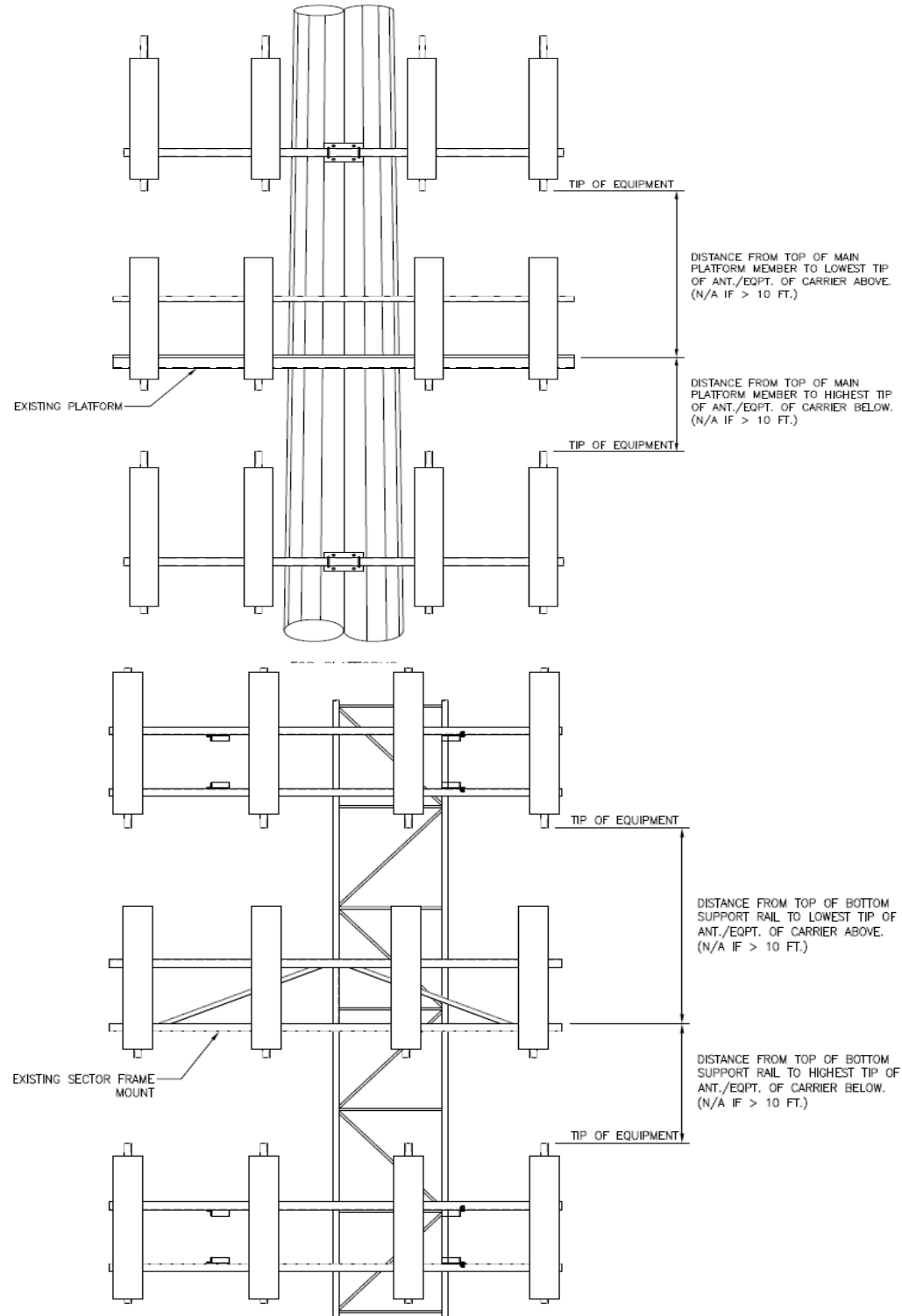
Ants. Items	Enter antenna model. If not labeled, enter "Unknown".						Mounting Locations [Units are inches and degrees]			Photos of antennas
	Antenna Models if Known	Width (in.)	Depth (in.)	Height (in.)	Coax Size and Qty	Antenna Center-line (Ft.)	Vertical Distances "b _{1a} , b _{2a} , b _{3a} , b _{1b} ..." (Inches)	Horiz. Offset "h" (Use "-" if Ant. is behind)	Antenna Azimuth (Degrees)		Photo Numbers
Sector A										
Ant _{1a}										
Ant _{1b}	UNKNOWN ANTENNA	8.00	8.00	72.00		179.417	38.00	12.50	330.00	97
Ant _{1c}										
Ant _{2a}	B4 RRH2X60	11.00	5.50	36.00		179.417	40.00	-6.00		77,97
Ant _{2b}	SBNHH-1D45B	18.50	8.00	72.00		180.25	30.00	10.50	30.00	73,97
Ant _{2c}	RFSM20118334	6.50	0.75	5.00		181	21.00			79,97
Ant _{3a}	B25 RRH4X30	12.00	7.00	20.50		179.458	37.50	-6.50		97
Ant _{3b}	SBNHH-1D45B	18.50	8.00	72.00		180.083	30.00	10.50	30.00	73,97
Ant _{3c}										
Ant _{4a}										
Ant _{4b}	SBNHH-1D65B	12.00	7.50	73.00		180.583	24.00	10.00	30.00	91
Ant _{4c}	RFSM20118334	6.50	0.75	5.00		180.833	21.00			79
Ant _{5a}										
Ant _{5b}	UNKNOWN ANTENNA	8.00	8.00	72.00		179.417	38.00	12.50	30.00	
Ant _{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										



Antenna Layout (Looking Out From Tower)

Mount Azimuth (Degree) for Each Sector			Tower Leg Azimuth (Degree) for Each Sector			Sector B														
Sector A:	40.00	Deg	Leg A:	60.00	Deg	Ant _{1a}														
Sector B:	165.00	Deg	Leg B:	180.00	Deg	Ant _{1b}	LPA-80063-6CF	15.00	13.00	71.00		179.417	38.00	12.50	165.00	88				
Sector C:	280.00	Deg	Leg C:	300.00	Deg	Ant _{1c}														
Sector D:		Deg	Leg D:		Deg	Ant _{2a}	B4 RRH2X60	11.00	5.50	36.00		179.417	40.00	-6.00		77				

Climbing Facility Information			
Location:	280.00	Deg	On Leg C
Climbing Facility	Corrosion Type:	Minor corrosion observed.	
	Access:	Climbing path was unobstructed.	
	Condition:	Good condition.	



Ant _{2b}	SBNHH-1D45B	18.50	8.00	72.00		180.25	30.00	10.50	190.00	73,75
Ant _{2c}	RFSM20118334	6.50	0.75	5.00		181	21.00			79
Ant _{3a}	B25 RRH4X30	12.00	7.00	20.50		179.458	37.50	-6.50		75,108
Ant _{3b}	SBNHH-1D65B	12.00	7.50	73.00		180.083	30.00	10.50	190.00	91,108
Ant _{4a}										
Ant _{4b}	LPA-80063-6CF	15.00	13.00	71.00		180.583	24.00	10.00	165.00	88,108
Ant _{4c}	RFSM20118334	6.50	0.75	5.00		180.833	21.00			79,108
Ant _{5a}										
Ant _{5b}	SBNHH-1D45B	18.00	8.00	72.00		180.25	34.00	10.50	190.00	73,108
Ant _{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower	RFDC-3315-PF-48	15.00	10.00	28.00						98
Ant on Tower										

Sector C										
Ant _{1a}										
Ant _{1b}	SC-E-6014	8.50	8.00	43.00		180.083	30.00	13.00	280.00	6,71
Ant _{1c}										
Ant _{2a}	B4 RRH2X60	11.00	5.50	36.00		179.417	40.00	-6.00		6,79
Ant _{2b}	SBNHH-1D45B	18.50	8.00	72.00		180.25	30.00	10.50	315.00	6,73
Ant _{2c}	RFSM20118334	6.50	0.75	5.00		181	21.00			6,79
Ant _{3a}	B25 RRH4X30	12.00	7.00	20.50		179.458	37.50	-6.50		6
Ant _{3b}	SBNHH-1D45B	18.50	8.00	72.00		180.083	30.00	10.50	315.00	6,73
Ant _{3c}										
Ant _{4a}										
Ant _{4b}	SBNHH-1D65B	12.00	7.50	73.00		180.583	24.00	10.00	315.00	9,91
Ant _{4c}	RFSM20118334	6.50	0.75	5.00		180.833	21.00			9,79
Ant _{5a}										
Ant _{5b}	SC-E-6014	8.50	8.00	43.00		180.083	30.00	13.00	280.00	9,71
Ant _{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										

Sector D										
Ant _{1a}										
Ant _{1b}										
Ant _{1c}										
Ant _{2a}										
Ant _{2b}										
Ant _{2c}										
Ant _{3a}										
Ant _{3b}										
Ant _{3c}										
Ant _{4a}										
Ant _{4b}										
Ant _{4c}										
Ant _{5a}										
Ant _{5b}										
Ant _{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										

Observed Safety and Structural Issues During the Mount Mapping		
Issue #	Description of Issue	Photo #

1		
2	(12) 1-5/8"Ø COAX, (1) 1-1/4"Ø HYBRID	115-120
3		
4		
5		
6		
7		
8		

Mapping Notes

1. Please report any visible structural or safety issues observed on the antenna mounts (Damaged members, loose connections, tilting mounts, safety climb issues, etc.)
2. If the thickness of the existing pipes or tubing can't be obtained from a general tool (such as Caliper), please use an ultrasonic measurement tool (thickness gauge) to measure the thickness.
3. Please create all required detail sketches of the mounts and insert them into the "Sketches" tab.
4. Please measure and enter the bolt sizes and types under the Members Box in the spreadsheet of the mount type.
5. Take and label the photos of the tower, mounts, connections, antennas and all measurements. Minimum 50 photos are required.
6. Please measure and report the size and length of all existing antenna mounting pipes.
7. Please measure and report the antenna information for all sectors.
8. Don't delete or rearrange any sheet or contents of any sheet from this mapping form.

Standard Conditions

1. Obvious safety and structural issues/deficiencies noticed at the time of the mount mapping are to be reported in this mapping. However, this mount mapping is not a condition assessment of the mount.



Antenna Mount Mapping Form (PATENT PENDING)

FCC #

Tower Owner:	CROWN CASTLE	Mapping Date:	3/24/2021
Site Name:	WOLCOTT CT	Tower Type:	Self Support
Site Number or ID:	467897	Tower Height (Ft.):	190
Mapping Contractor:	HUDSON DESIGN GROUP, LLC.	Mount Elevation (Ft.):	179.75

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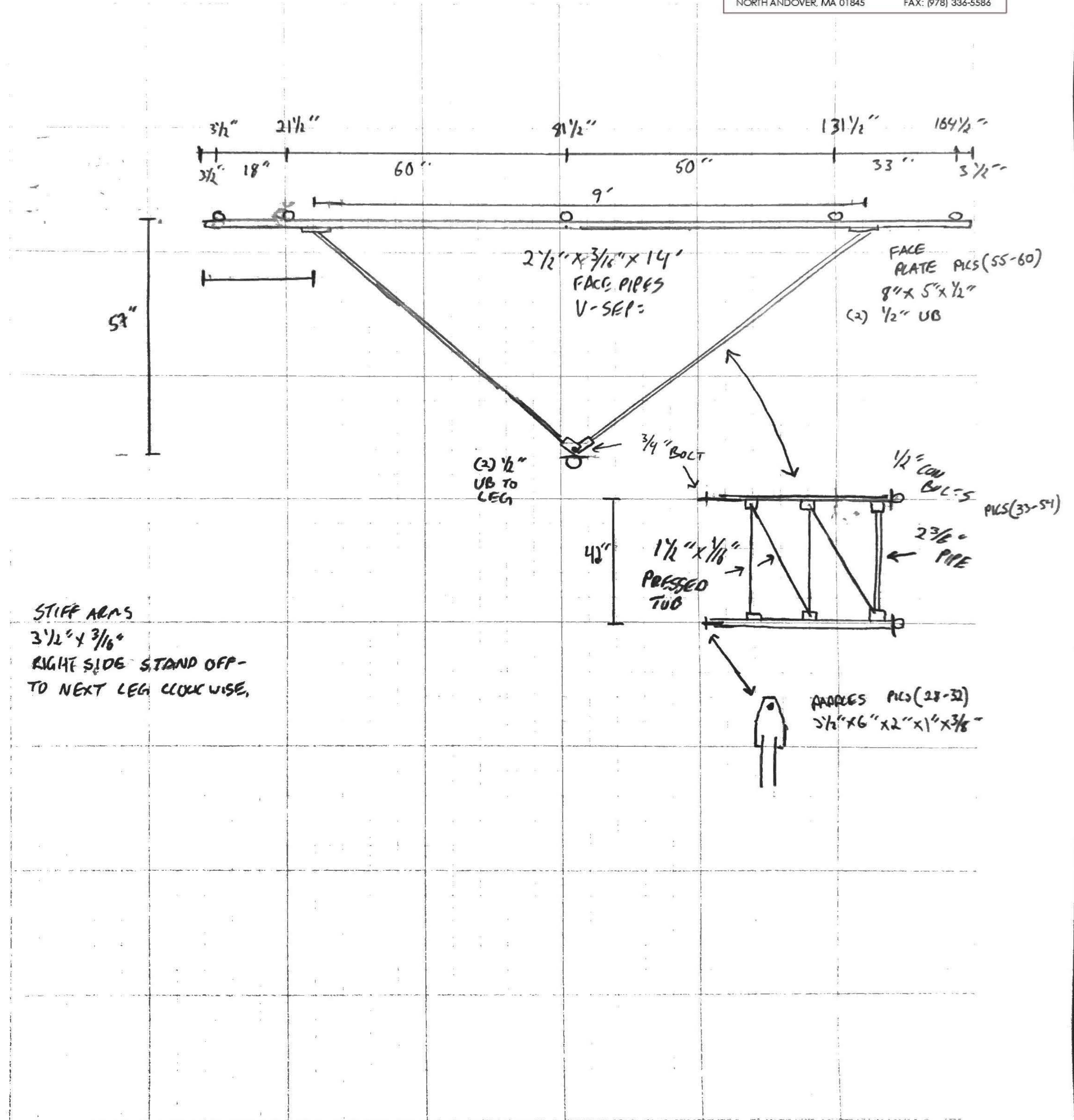
Please Insert Sketches of the Antenna Mount

DATE: _____
 Project Name: _____
 Project No.: WOLCOTT CT
 Design By: _____ Chk'd By: _____ Page 3 of 3

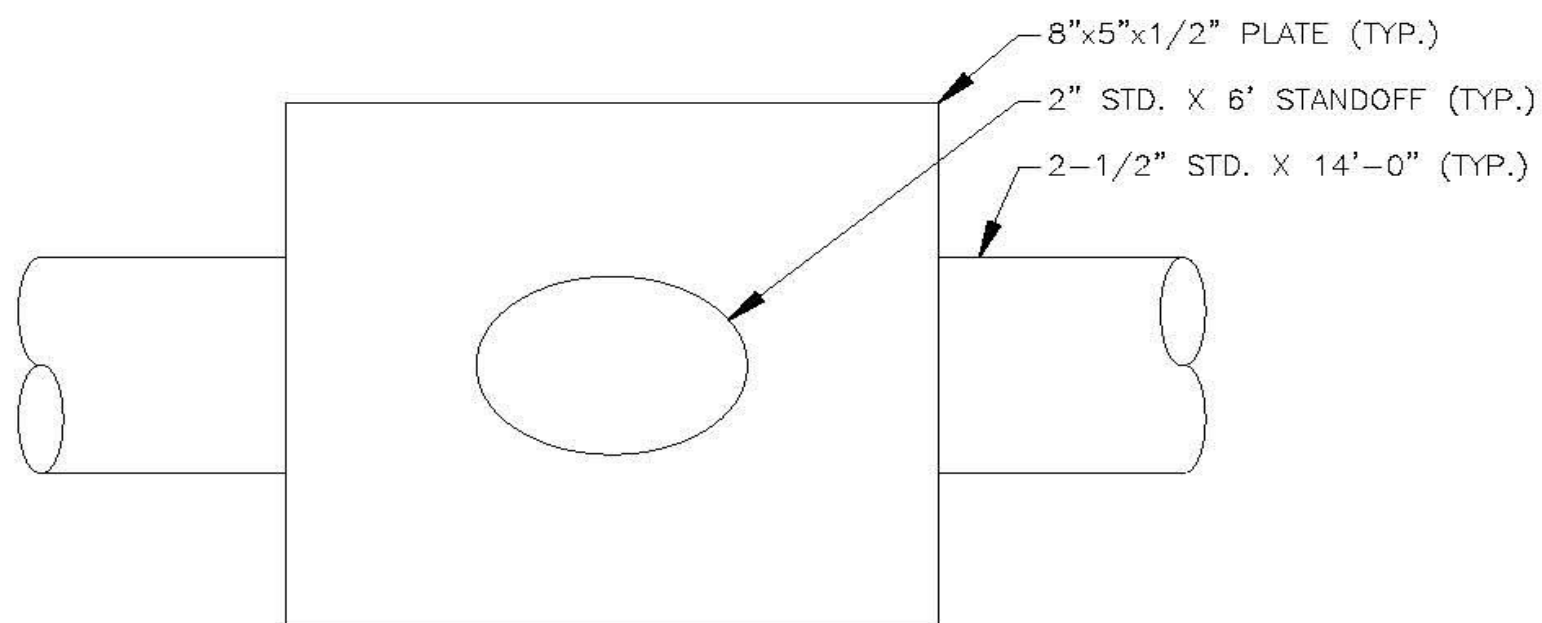
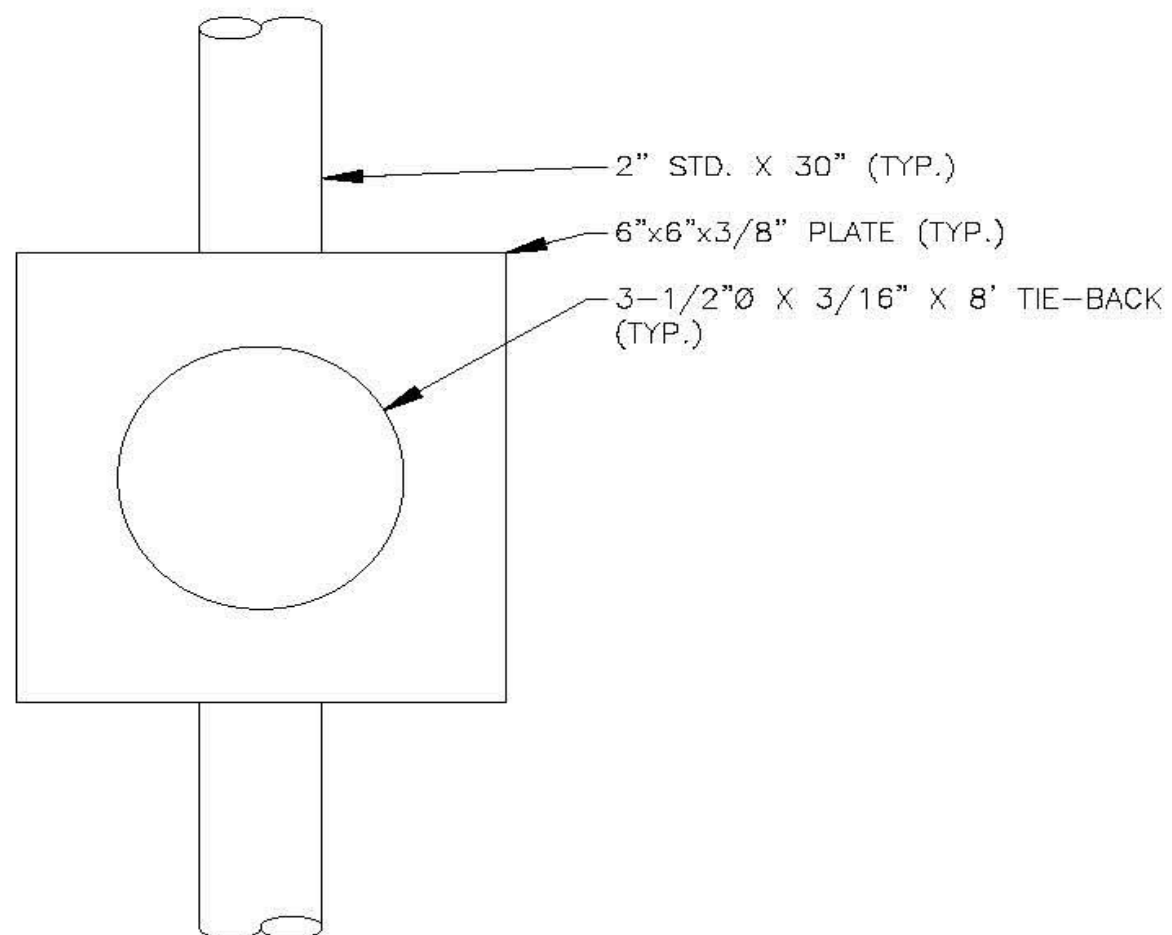
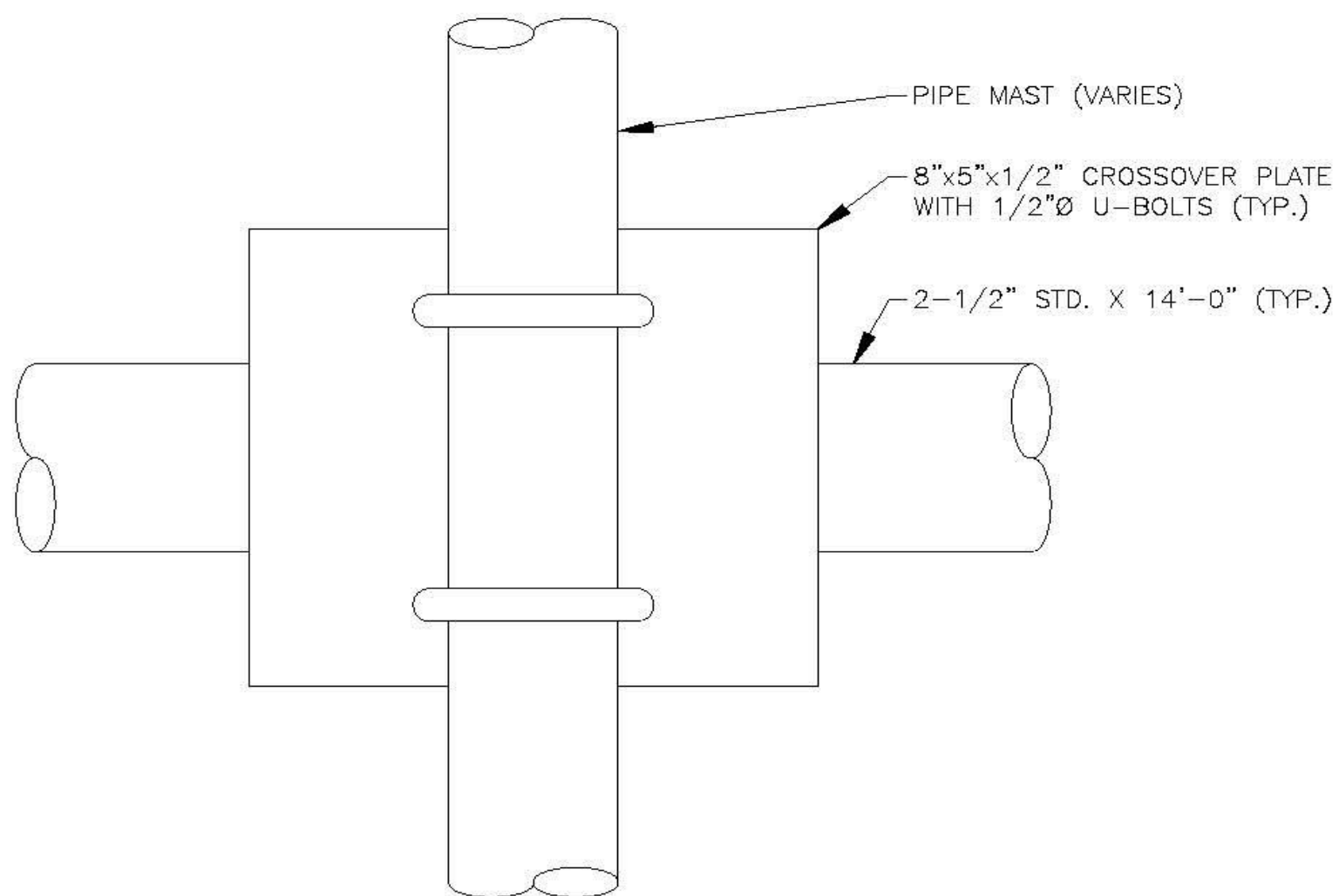


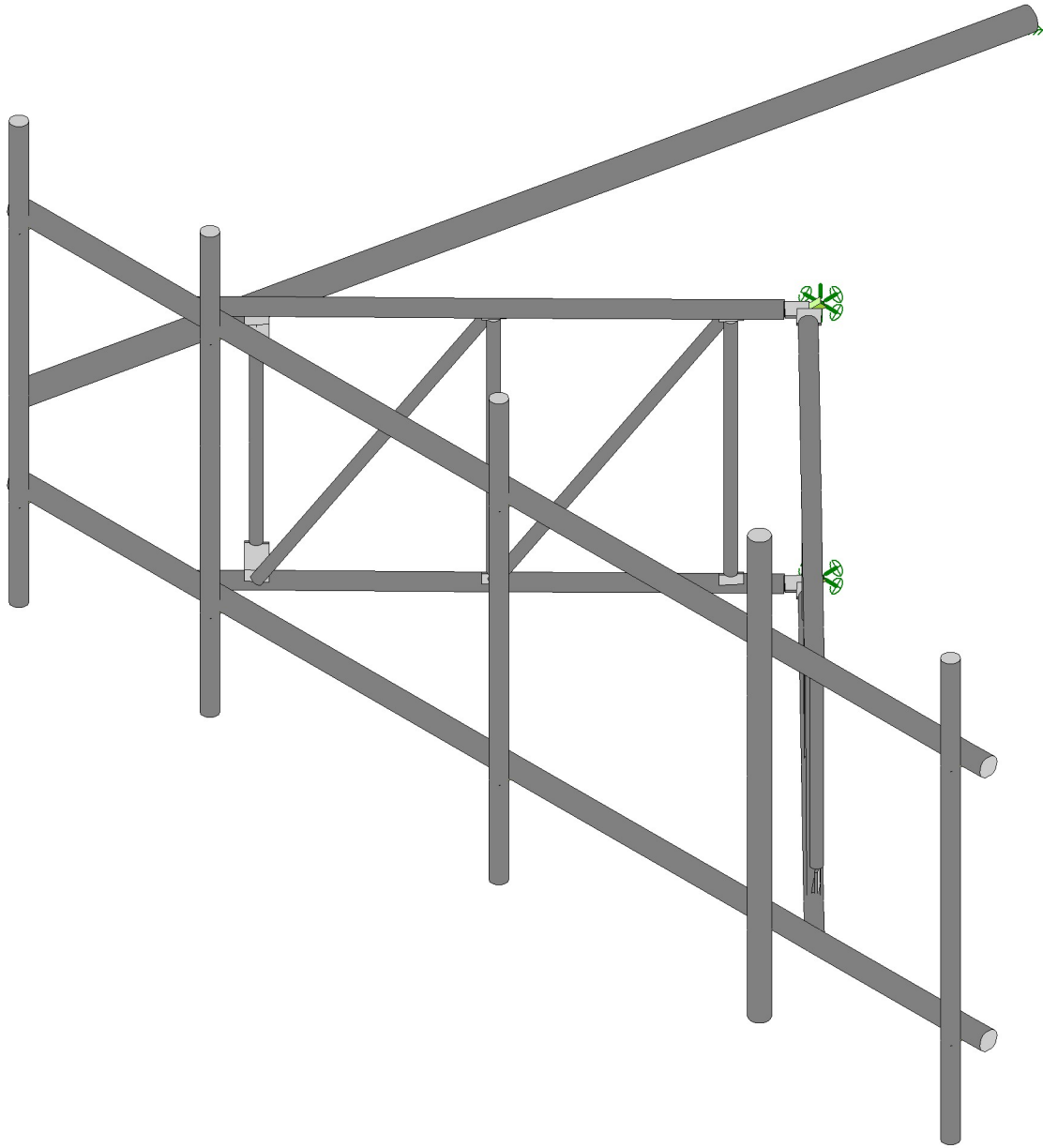
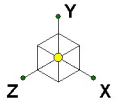
45 BEECHWOOD DRIVE
NORTH ANDOVER, MA 01845

TEL: (978) 557-5553
FAX: (978) 336-5586



Please Insert Sketches of the Antenna Mount, cont'd





Envelope Only Solution

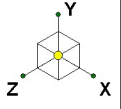
Maser Consulting

467897-VZW_MT_LOT_SectorA_H

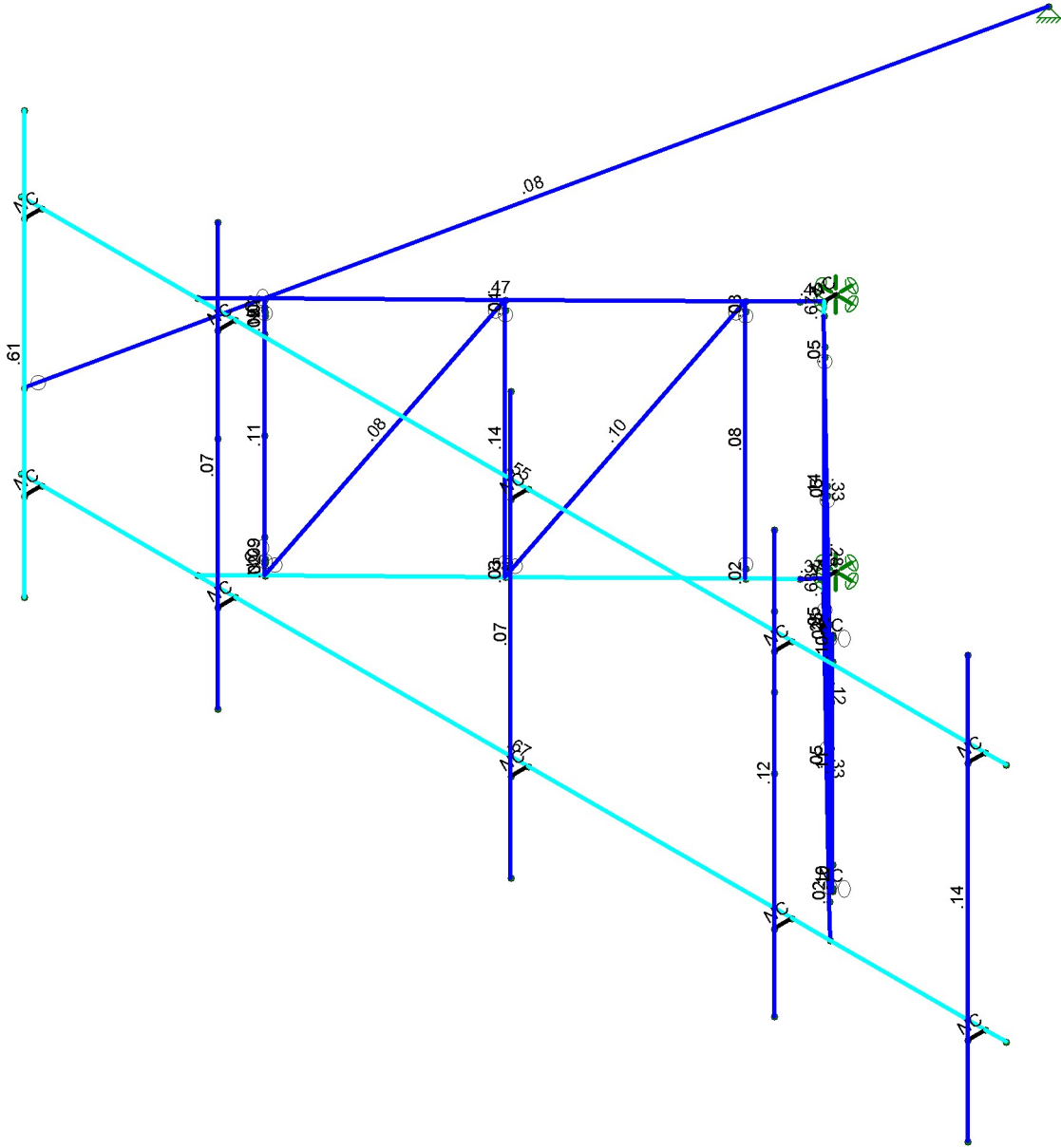
SK - 1

July 1, 2021 at 8:49 AM

467897-VZW_MT_LOT_A_H.r3d

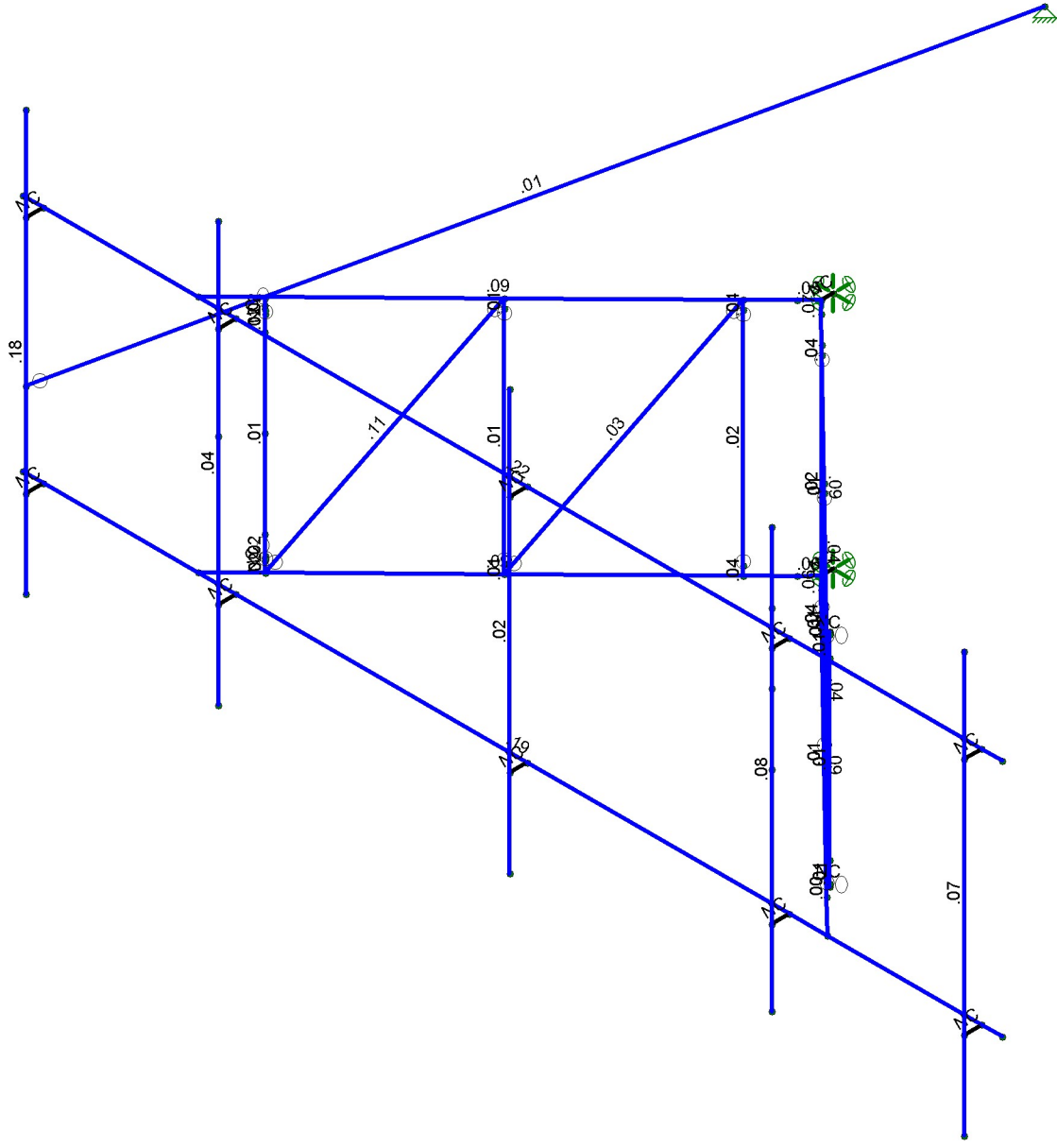
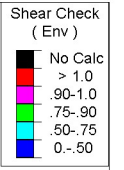
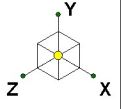


Code Check (Env)	
Black	No Calc
Red	> 1.0
Magenta	.90-1.0
Green	.75-90
Cyan	.50-.75
Blue	0-.50



Member Code Checks Displayed (Enveloped)
Envelope Only Solution

Maser Consulting	467897-VZW_MT_LOT_SectorA_H	SK - 2
		July 1, 2021 at 8:49 AM
		467897-VZW_MT_LOT_A_H.r3d



Member Shear Checks Displayed (Enveloped)
Envelope Only Solution

Maser Consulting	467897-VZW_MT_LOT_SectorA_H	SK - 3
		July 1, 2021 at 8:49 AM
		467897-VZW_MT_LOT_A_H.r3d



Load Combinations (Continued)

Description	S...	PDelta	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
26	1.2D + 1.5Lm1 ...	Yes	Y	1	1.2	39	1.2	77	1.5	28	1	66	1								
27	1.2D + 1.5Lm1 ...	Yes	Y	1	1.2	39	1.2	77	1.5	29	1	67	1								
28	1.2D + 1.5Lm1 ...	Yes	Y	1	1.2	39	1.2	77	1.5	30	1	68	1								
29	1.2D + 1.5Lm1 ...	Yes	Y	1	1.2	39	1.2	77	1.5	31	1	69	1								
30	1.2D + 1.5Lm1 ...	Yes	Y	1	1.2	39	1.2	77	1.5	32	1	70	1								
31	1.2D + 1.5Lm1 ...	Yes	Y	1	1.2	39	1.2	77	1.5	33	1	71	1								
32	1.2D + 1.5Lm1 ...	Yes	Y	1	1.2	39	1.2	77	1.5	34	1	72	1								
33	1.2D + 1.5Lm1 ...	Yes	Y	1	1.2	39	1.2	77	1.5	35	1	73	1								
34	1.2D + 1.5Lm1 ...	Yes	Y	1	1.2	39	1.2	77	1.5	36	1	74	1								
35	1.2D + 1.5Lm1 ...	Yes	Y	1	1.2	39	1.2	77	1.5	37	1	75	1								
36	1.2D + 1.5Lm1 ...	Yes	Y	1	1.2	39	1.2	77	1.5	38	1	76	1								
37	1.2D + 1.5Lm2 ...	Yes	Y	1	1.2	39	1.2	78	1.5	27	1	65	1								
38	1.2D + 1.5Lm2 ...	Yes	Y	1	1.2	39	1.2	78	1.5	28	1	66	1								
39	1.2D + 1.5Lm2 ...	Yes	Y	1	1.2	39	1.2	78	1.5	29	1	67	1								
40	1.2D + 1.5Lm2 ...	Yes	Y	1	1.2	39	1.2	78	1.5	30	1	68	1								
41	1.2D + 1.5Lm2 ...	Yes	Y	1	1.2	39	1.2	78	1.5	31	1	69	1								
42	1.2D + 1.5Lm2 ...	Yes	Y	1	1.2	39	1.2	78	1.5	32	1	70	1								
43	1.2D + 1.5Lm2 ...	Yes	Y	1	1.2	39	1.2	78	1.5	33	1	71	1								
44	1.2D + 1.5Lm2 ...	Yes	Y	1	1.2	39	1.2	78	1.5	34	1	72	1								
45	1.2D + 1.5Lm2 ...	Yes	Y	1	1.2	39	1.2	78	1.5	35	1	73	1								
46	1.2D + 1.5Lm2 ...	Yes	Y	1	1.2	39	1.2	78	1.5	36	1	74	1								
47	1.2D + 1.5Lm2 ...	Yes	Y	1	1.2	39	1.2	78	1.5	37	1	75	1								
48	1.2D + 1.5Lm2 ...	Yes	Y	1	1.2	39	1.2	78	1.5	38	1	76	1								
49	1.2D + 1.5Lv1	Yes	Y	1	1.2	39	1.2	79	1.5												
50	1.2D + 1.5Lv2	Yes	Y	1	1.2	39	1.2	80	1.5												
51	1.4D	Yes	Y	1	1.4	39	1.4														
52	Seismic Mass		Y	1	1	39	1														
53	1.2D + 1.0Ev + ...		Y	1	1.2	39	1.2	SX		SY	1	SZ	-1								
54	1.2D + 1.0Ev + ...		Y	1	1.2	39	1.2	SX	.5	SY	1	SZ	-.866								
55	1.2D + 1.0Ev + ...		Y	1	1.2	39	1.2	SX	.866	SY	1	SZ	-.5								
56	1.2D + 1.0Ev + ...		Y	1	1.2	39	1.2	SX	1	SY	1	SZ									
57	1.2D + 1.0Ev + ...		Y	1	1.2	39	1.2	SX	.866	SY	1	SZ	.5								
58	1.2D + 1.0Ev + ...		Y	1	1.2	39	1.2	SX	.5	SY	1	SZ	.866								
59	1.2D + 1.0Ev + ...		Y	1	1.2	39	1.2	SX		SY	1	SZ	1								
60	1.2D + 1.0Ev + ...		Y	1	1.2	39	1.2	SX	-.5	SY	1	SZ	.866								
61	1.2D + 1.0Ev + ...		Y	1	1.2	39	1.2	SX	-.866	SY	1	SZ	.5								
62	1.2D + 1.0Ev + ...		Y	1	1.2	39	1.2	SX	-1	SY	1	SZ									
63	1.2D + 1.0Ev + ...		Y	1	1.2	39	1.2	SX	-.866	SY	1	SZ	-.5								
64	1.2D + 1.0Ev + ...		Y	1	1.2	39	1.2	SX	-.5	SY	1	SZ	-.866								

Joint Coordinates and Temperatures

Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
1	N1	-0.166667	0	0.166667	0
2	N4	-0.166667	0	0	0
3	N5	-0.166667	-3.416667	0.166667	0
4	N11A	-7.166667	0	4.583333	0
5	N12	6.833333	0	4.583333	0
6	N16	-7.166667	-3.416667	4.583333	0
7	N17	6.833333	-3.416667	4.583333	0
8	N17A	-0.341752	0	0.345119	0
9	N18	0.008419	0	0.345119	0
10	N19	-0.341752	-3.416667	0.345119	0
11	N20	0.008419	-3.416667	0.345119	0
12	N65	-0.166667	-3.416667	0	0
13	N47	6.541667	0	4.583333	0



Joint Coordinates and Temperatures (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
14	N48	6.541667	-3.416667	4.583333	0	
15	N49	3.791667	0	4.583333	0	
16	N50	3.791667	-3.416667	4.583333	0	
17	N51	0.041667	0	4.583333	0	
18	N52	0.041667	-3.416667	4.583333	0	
19	N53	-4.125	0	4.583333	0	
20	N54	-4.125	-3.416667	4.583333	0	
21	N55	-6.875	0	4.583333	0	
22	N56	-6.875	-3.416667	4.583333	0	
23	N57	-4.666667	0	4.583333	0	
24	N58	-4.666667	-3.416667	4.583333	0	
25	N59	4.333333	0	4.583333	0	
26	N60	4.333333	-3.416667	4.583333	0	
27	N61	-4.180736	0	4.107143	0	
28	N62	-2.454681	0	2.415691	0	
29	N63A	-4.180735	-0.208333	4.107144	0	
30	N62A	-4.180736	-3.416667	4.107143	0	
31	N54A	-0.728626	0	0.724238	0	
32	N55A	-2.454681	-.125	2.415691	0	
33	N56A	-0.728626	-.125	0.724238	0	
34	N57A	-2.454681	-3.291667	2.415691	0	
35	N58A	-0.728626	-3.291667	0.724238	0	
36	N59A	-2.454681	-3.416667	2.415691	0	
37	N60A	-0.728626	-3.416667	0.724238	0	
38	N45	0.395293	0	0.724238	0	
39	N46	0.395293	-3.416667	0.724238	0	
40	N47A	2.121347	0	2.415691	0	
41	N48A	2.121347	-3.416667	2.415691	0	
42	N50A	3.847402	-3.416667	4.107143	0	
43	N53A	0.395293	-.125	0.724238	0	
44	N54B	2.121347	-.125	2.415691	0	
45	N55B	0.395293	-3.291667	0.724238	0	
46	N56B	2.121347	-3.291667	2.415691	0	
47	N55C	6.541667	0	4.833333	0	
48	N56C	6.541667	-3.416667	4.833333	0	
49	N57B	3.791667	0	4.833333	0	
50	N58B	3.791667	-3.416667	4.833333	0	
51	N59B	-4.125	0	4.833333	0	
52	N60B	-4.125	-3.416667	4.833333	0	
53	N61B	-6.875	0	4.833333	0	
54	N62B	-6.875	-3.416667	4.833333	0	
55	N63	0.041667	0	4.833333	0	
56	N64	0.041667	-3.416667	4.833333	0	
57	N65A	6.541667	1.333333	4.833333	0	
58	N66	-4.125	1.333333	4.833333	0	
59	N67	-6.875	1.333333	4.833333	0	
60	N68	0.041667	1.333333	4.833333	0	
61	N69	6.541667	-4.666667	4.833333	0	
62	N70	-4.125	-4.666667	4.833333	0	
63	N71	-6.875	-4.666667	4.833333	0	
64	N72	0.041667	-4.666667	4.833333	0	
65	N73	3.791667	1.5	4.833333	0	
66	N74	3.791667	-4.5	4.833333	0	
67	N76	-4.291667	-2.083333	-7.14471	0	
68	N77	3.791667	-.5	4.833333	0	
69	N79	3.791667	-1.5	4.833333	0	
70	N79A	3.791667	.5	4.833333	0	



Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	M2	N1	N4			RIGID	None	None	RIGID	Typical
2	M5	N1	N17A		90	Standoff Plate	Beam	RECT	A36 Gr.36	Typical
3	M6	N1	N18		90	Standoff Plate	Beam	RECT	A36 Gr.36	Typical
4	M7	N11A	N12			Face Horizontal	Beam	Pipe	A53 Gr. B	Typical
5	M8	N5	N19		90	Standoff Plate	Beam	RECT	A36 Gr.36	Typical
6	M9	N5	N20		90	Standoff Plate	Beam	RECT	A36 Gr.36	Typical
7	M10	N16	N17			Face Horizontal	Beam	Pipe	A53 Gr. B	Typical
8	M11	N17A	N57			Standoff Horiz...	Beam	Pipe	A53 Gr. B	Typical
9	OVP	N18	N59			Standoff Horiz...	Beam	Pipe	A53 Gr. B	Typical
10	M13	N19	N58			Standoff Horiz...	Beam	Pipe	A53 Gr. B	Typical
11	M14	N20	N60			Standoff Horiz...	Beam	Pipe	A53 Gr. B	Typical
12	M46A	N5	N65			RIGID	None	None	RIGID	Typical
13	M34A	N61	N63A		130	Standoff Plate	Beam	RECT	A36 Gr.36	Typical
14	M36	N81	N87			Standoff Vertical	Beam	Pipe	A53 Gr. B	Typical
15	M30	N62	N55A		130	Standoff Plate	Beam	RECT	A36 Gr.36	Typical
16	M31	N57A	N59A		130	Standoff Plate	Beam	RECT	A36 Gr.36	Typical
17	M32	N58A	N60A		130	Standoff Plate	Beam	RECT	A36 Gr.36	Typical
18	M33	N54A	N56A		130	Standoff Plate	Beam	RECT	A36 Gr.36	Typical
19	M34	N55A	N57A			Standoff Diago...	Beam	Pipe	A53 Gr. B	Typical
20	M35A	N56A	N58A			Standoff Diago...	Beam	Pipe	A53 Gr. B	Typical
21	M36A	N54A	N59A			Standoff Diago...	Beam	Pipe	A53 Gr. B	Typical
22	M37	N62	N62A			Standoff Diago...	Beam	Pipe	A53 Gr. B	Typical
23	M29	N56B	N48A		40	Standoff Plate	Beam	RECT	A36 Gr.36	Typical
24	M30A	N47A	N54B		40	Standoff Plate	Beam	RECT	A36 Gr.36	Typical
25	M31A	N45	N53A		40	Standoff Plate	Beam	RECT	A36 Gr.36	Typical
26	M32A	N55B	N46		40	Standoff Plate	Beam	RECT	A36 Gr.36	Typical
27	M34B	N54B	N56B			Standoff Diago...	Beam	Pipe	A53 Gr. B	Typical
28	M35B	N53A	N55B			Standoff Diago...	Beam	Pipe	A53 Gr. B	Typical
29	M36B	N45	N48A			Standoff Diago...	Beam	Pipe	A53 Gr. B	Typical
30	M37A	N47A	N50A			Standoff Diago...	Beam	Pipe	A53 Gr. B	Typical
31	M37B	N61B	N55			RIGID	None	None	RIGID	Typical
32	M38	N62B	N56			RIGID	None	None	RIGID	Typical
33	M39	N60B	N54			RIGID	None	None	RIGID	Typical
34	M40	N59B	N53			RIGID	None	None	RIGID	Typical
35	M41	N58B	N50			RIGID	None	None	RIGID	Typical
36	M42	N56C	N48			RIGID	None	None	RIGID	Typical
37	M43	N55C	N47			RIGID	None	None	RIGID	Typical
38	M44	N57B	N49			RIGID	None	None	RIGID	Typical
39	M45	N63	N51			RIGID	None	None	RIGID	Typical
40	M46	N64	N52			RIGID	None	None	RIGID	Typical
41	MP5A	N67	N71			Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
42	MP4A	N66	N70			Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
43	MP3A	N68	N72			Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
44	MP1A	N65A	N69			Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
45	MP2A	N73	N74			Antenna Pipe (...)	Column	Pipe	A53 Gr. B	Typical
46	M52	N92A	N76			Tie Back	Beam	Pipe	A53 Gr. B	Typical
47	M53	N80	N81		130	Plate	Beam	RECT	A36 Gr.36	Typical
48	M54	N83	N82			RIGID	None	None	RIGID	Typical
49	M54A	N62A	N85		40	Standoff Plate	Beam	RECT	A36 Gr.36	Typical
50	M55	N86	N87		40	Plate	Beam	RECT	A36 Gr.36	Typical
51	M56	N89	N88			RIGID	None	None	RIGID	Typical
52	M54B	N85A	N86A		40	Standoff Plate	Beam	RECT	A36 Gr.36	Typical
53	M55A	N89A	N94			Standoff Vertical	Beam	Pipe	A53 Gr. B	Typical
54	M56A	N88B	N89A		40	Plate	Beam	RECT	A36 Gr.36	Typical
55	M57	N91	N90			RIGID	None	None	RIGID	Typical
56	M58	N50A	N92		130	Standoff Plate	Beam	RECT	A36 Gr.36	Typical



Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat..	Analysis ...	Inactive	Seismic...
51	M56	OOOXOO					Yes	** NA **			None
52	M54B	OOOXO					Yes	Default			None
53	M55A						Yes	Default			None
54	M56A						Yes	Default			None
55	M57	OOOXOO					Yes	** NA **			None
56	M58	OOOXO					Yes	Default			None
57	M59						Yes	Default			None
58	M60	OOOXOO					Yes	** NA **			None

Member Point Loads (BLC 1 : Antenna D)

	Member Label	Direction	Magnitude[[lb,k-ft]	Location[ft,%]
1	MP2A	Y	-31.65	1.17
2	MP2A	My	-.024	1.17
3	MP2A	Mz	.021	1.17
4	MP2A	Y	-31.65	5.17
5	MP2A	My	-.024	5.17
6	MP2A	Mz	.021	5.17
7	MP2A	Y	-31.65	1.17
8	MP2A	My	-.024	1.17
9	MP2A	Mz	-.021	1.17
10	MP2A	Y	-31.65	5.17
11	MP2A	My	-.024	5.17
12	MP2A	Mz	-.021	5.17
13	MP3A	Y	-43.55	1
14	MP3A	My	-.011	1
15	MP3A	Mz	0	1
16	MP3A	Y	-43.55	3
17	MP3A	My	-.011	3
18	MP3A	Mz	0	3
19	MP2A	Y	-10.4	2
20	MP2A	My	.005	2
21	MP2A	Mz	0	2
22	OVP	Y	-32	1
23	OVP	My	0	1
24	OVP	Mz	0	1
25	MP1A	Y	-84.4	3.5
26	MP1A	My	.042	3.5
27	MP1A	Mz	0	3.5
28	MP2A	Y	-70.3	3.5
29	MP2A	My	.035	3.5
30	MP2A	Mz	0	3.5
31	MP1A	Y	-10.5	1.17
32	MP1A	My	-.008	1.17
33	MP1A	Mz	0	1.17
34	MP1A	Y	-10.5	5.17
35	MP1A	My	-.008	5.17
36	MP1A	Mz	0	5.17
37	MP5A	Y	-10.5	1.17
38	MP5A	My	-.008	1.17
39	MP5A	Mz	0	1.17
40	MP5A	Y	-10.5	5.17
41	MP5A	My	-.008	5.17
42	MP5A	Mz	0	5.17



Member Point Loads (BLC 5 : Antenna Wo (60 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
34	MP1A	X	116.955	5.17
35	MP1A	Z	-67.524	5.17
36	MP1A	Mx	-.088	5.17
37	MP5A	X	116.955	1.17
38	MP5A	Z	-67.524	1.17
39	MP5A	Mx	-.088	1.17
40	MP5A	X	116.955	5.17
41	MP5A	Z	-67.524	5.17
42	MP5A	Mx	-.088	5.17

Member Point Loads (BLC 6 : Antenna Wo (90 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP2A	X	126.627	1.17
2	MP2A	Z	0	1.17
3	MP2A	Mx	-.095	1.17
4	MP2A	X	126.627	5.17
5	MP2A	Z	0	5.17
6	MP2A	Mx	-.095	5.17
7	MP2A	X	126.627	1.17
8	MP2A	Z	0	1.17
9	MP2A	Mx	-.095	1.17
10	MP2A	X	126.627	5.17
11	MP2A	Z	0	5.17
12	MP2A	Mx	-.095	5.17
13	MP3A	X	38.941	1
14	MP3A	Z	0	1
15	MP3A	Mx	-.01	1
16	MP3A	X	38.941	3
17	MP3A	Z	0	3
18	MP3A	Mx	-.01	3
19	MP2A	X	10.836	2
20	MP2A	Z	0	2
21	MP2A	Mx	.005	2
22	OVP	X	112.528	1
23	OVP	Z	0	1
24	OVP	Mx	0	1
25	MP1A	X	52.908	3.5
26	MP1A	Z	0	3.5
27	MP1A	Mx	.026	3.5
28	MP2A	X	42.856	3.5
29	MP2A	Z	0	3.5
30	MP2A	Mx	.021	3.5
31	MP1A	X	130.33	1.17
32	MP1A	Z	0	1.17
33	MP1A	Mx	-.098	1.17
34	MP1A	X	130.33	5.17
35	MP1A	Z	0	5.17
36	MP1A	Mx	-.098	5.17
37	MP5A	X	130.33	1.17
38	MP5A	Z	0	1.17
39	MP5A	Mx	-.098	1.17
40	MP5A	X	130.33	5.17
41	MP5A	Z	0	5.17
42	MP5A	Mx	-.098	5.17



Member Point Loads (BLC 7 : Antenna Wo (120 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP2A	X	123.988	1.17
2	MP2A	Z	71.585	1.17
3	MP2A	Mx	-.045	1.17
4	MP2A	X	123.988	5.17
5	MP2A	Z	71.585	5.17
6	MP2A	Mx	-.045	5.17
7	MP2A	X	123.988	1.17
8	MP2A	Z	71.585	1.17
9	MP2A	Mx	-.141	1.17
10	MP2A	X	123.988	5.17
11	MP2A	Z	71.585	5.17
12	MP2A	Mx	-.141	5.17
13	MP3A	X	46.828	1
14	MP3A	Z	27.036	1
15	MP3A	Mx	-.012	1
16	MP3A	X	46.828	3
17	MP3A	Z	27.036	3
18	MP3A	Mx	-.012	3
19	MP2A	X	10.429	2
20	MP2A	Z	6.021	2
21	MP2A	Mx	.005	2
22	OVP	X	119.52	1
23	OVP	Z	69.005	1
24	OVP	Mx	0	1
25	MP1A	X	51.501	3.5
26	MP1A	Z	29.734	3.5
27	MP1A	Mx	.026	3.5
28	MP2A	X	44.972	3.5
29	MP2A	Z	25.965	3.5
30	MP2A	Mx	.022	3.5
31	MP1A	X	116.955	1.17
32	MP1A	Z	67.524	1.17
33	MP1A	Mx	-.088	1.17
34	MP1A	X	116.955	5.17
35	MP1A	Z	67.524	5.17
36	MP1A	Mx	-.088	5.17
37	MP5A	X	116.955	1.17
38	MP5A	Z	67.524	1.17
39	MP5A	Mx	-.088	1.17
40	MP5A	X	116.955	5.17
41	MP5A	Z	67.524	5.17
42	MP5A	Mx	-.088	5.17

Member Point Loads (BLC 8 : Antenna Wo (150 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP2A	X	88.127	1.17
2	MP2A	Z	152.641	1.17
3	MP2A	Mx	.036	1.17
4	MP2A	X	88.127	5.17
5	MP2A	Z	152.641	5.17
6	MP2A	Mx	.036	5.17
7	MP2A	X	88.127	1.17
8	MP2A	Z	152.641	1.17
9	MP2A	Mx	-.168	1.17
10	MP2A	X	88.127	5.17
11	MP2A	Z	152.641	5.17



Company : Maser Consulting
 Designer :
 Job Number :
 Model Name : 467897-VZW_MT_LOT_SectorA_H

July 1, 2021
 8:50 AM
 Checked By: _____

Member Point Loads (BLC 8 : Antenna Wo (150 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
12	MP2A	Mx	-.168	5.17
13	MP3A	X	42.168	1
14	MP3A	Z	73.037	1
15	MP3A	Mx	-.011	1
16	MP3A	X	42.168	3
17	MP3A	Z	73.037	3
18	MP3A	Mx	-.011	3
19	MP2A	X	7.227	2
20	MP2A	Z	12.518	2
21	MP2A	Mx	.004	2
22	OVP	X	79.391	1
23	OVP	Z	137.509	1
24	OVP	Mx	0	1
25	MP1A	X	36.295	3.5
26	MP1A	Z	62.865	3.5
27	MP1A	Mx	.018	3.5
28	MP2A	X	35.038	3.5
29	MP2A	Z	60.688	3.5
30	MP2A	Mx	.018	3.5
31	MP1A	X	72.242	1.17
32	MP1A	Z	125.126	1.17
33	MP1A	Mx	-.054	1.17
34	MP1A	X	72.242	5.17
35	MP1A	Z	125.126	5.17
36	MP1A	Mx	-.054	5.17
37	MP5A	X	72.242	1.17
38	MP5A	Z	125.126	1.17
39	MP5A	Mx	-.054	1.17
40	MP5A	X	72.242	5.17
41	MP5A	Z	125.126	5.17
42	MP5A	Mx	-.054	5.17

Member Point Loads (BLC 9 : Antenna Wo (180 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP2A	X	0	1.17
2	MP2A	Z	192.797	1.17
3	MP2A	Mx	.129	1.17
4	MP2A	X	0	5.17
5	MP2A	Z	192.797	5.17
6	MP2A	Mx	.129	5.17
7	MP2A	X	0	1.17
8	MP2A	Z	192.797	1.17
9	MP2A	Mx	-.129	1.17
10	MP2A	X	0	5.17
11	MP2A	Z	192.797	5.17
12	MP2A	Mx	-.129	5.17
13	MP3A	X	0	1
14	MP3A	Z	99.467	1
15	MP3A	Mx	0	1
16	MP3A	X	0	3
17	MP3A	Z	99.467	3
18	MP3A	Mx	0	3
19	MP2A	X	0	2
20	MP2A	Z	15.661	2
21	MP2A	Mx	0	2
22	OVP	X	0	1



Member Point Loads (BLC 13 : Antenna Wo (300 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
12	MP2A	Mx	.141	5.17
13	MP3A	X	-46.828	1
14	MP3A	Z	-27.036	1
15	MP3A	Mx	.012	1
16	MP3A	X	-46.828	3
17	MP3A	Z	-27.036	3
18	MP3A	Mx	.012	3
19	MP2A	X	-10.429	2
20	MP2A	Z	-6.021	2
21	MP2A	Mx	-.005	2
22	OVP	X	-119.52	1
23	OVP	Z	-69.005	1
24	OVP	Mx	0	1
25	MP1A	X	-51.501	3.5
26	MP1A	Z	-29.734	3.5
27	MP1A	Mx	-.026	3.5
28	MP2A	X	-44.972	3.5
29	MP2A	Z	-25.965	3.5
30	MP2A	Mx	-.022	3.5
31	MP1A	X	-116.955	1.17
32	MP1A	Z	-67.524	1.17
33	MP1A	Mx	.088	1.17
34	MP1A	X	-116.955	5.17
35	MP1A	Z	-67.524	5.17
36	MP1A	Mx	.088	5.17
37	MP5A	X	-116.955	1.17
38	MP5A	Z	-67.524	1.17
39	MP5A	Mx	.088	1.17
40	MP5A	X	-116.955	5.17
41	MP5A	Z	-67.524	5.17
42	MP5A	Mx	.088	5.17

Member Point Loads (BLC 14 : Antenna Wo (330 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP2A	X	-88.127	1.17
2	MP2A	Z	-152.641	1.17
3	MP2A	Mx	-.036	1.17
4	MP2A	X	-88.127	5.17
5	MP2A	Z	-152.641	5.17
6	MP2A	Mx	-.036	5.17
7	MP2A	X	-88.127	1.17
8	MP2A	Z	-152.641	1.17
9	MP2A	Mx	.168	1.17
10	MP2A	X	-88.127	5.17
11	MP2A	Z	-152.641	5.17
12	MP2A	Mx	.168	5.17
13	MP3A	X	-42.168	1
14	MP3A	Z	-73.037	1
15	MP3A	Mx	.011	1
16	MP3A	X	-42.168	3
17	MP3A	Z	-73.037	3
18	MP3A	Mx	.011	3
19	MP2A	X	-7.227	2
20	MP2A	Z	-12.518	2
21	MP2A	Mx	-.004	2
22	OVP	X	-79.391	1



Member Point Loads (BLC 17 : Antenna Wi (60 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP2A	X	25.091	1.17
2	MP2A	Z	-14.486	1.17
3	MP2A	Mx	-.028	1.17
4	MP2A	X	25.091	5.17
5	MP2A	Z	-14.486	5.17
6	MP2A	Mx	-.028	5.17
7	MP2A	X	25.091	1.17
8	MP2A	Z	-14.486	1.17
9	MP2A	Mx	-.009	1.17
10	MP2A	X	25.091	5.17
11	MP2A	Z	-14.486	5.17
12	MP2A	Mx	-.009	5.17
13	MP3A	X	9.991	1
14	MP3A	Z	-5.768	1
15	MP3A	Mx	-.002	1
16	MP3A	X	9.991	3
17	MP3A	Z	-5.768	3
18	MP3A	Mx	-.002	3
19	MP2A	X	2.935	2
20	MP2A	Z	-1.695	2
21	MP2A	Mx	.001	2
22	OVP	X	19.741	1
23	OVP	Z	-11.398	1
24	OVP	Mx	0	1
25	MP1A	X	11.42	3.5
26	MP1A	Z	-6.594	3.5
27	MP1A	Mx	.006	3.5
28	MP2A	X	10.14	3.5
29	MP2A	Z	-5.854	3.5
30	MP2A	Mx	.005	3.5
31	MP1A	X	23.753	1.17
32	MP1A	Z	-13.714	1.17
33	MP1A	Mx	-.018	1.17
34	MP1A	X	23.753	5.17
35	MP1A	Z	-13.714	5.17
36	MP1A	Mx	-.018	5.17
37	MP5A	X	23.753	1.17
38	MP5A	Z	-13.714	1.17
39	MP5A	Mx	-.018	1.17
40	MP5A	X	23.753	5.17
41	MP5A	Z	-13.714	5.17
42	MP5A	Mx	-.018	5.17

Member Point Loads (BLC 18 : Antenna Wi (90 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP2A	X	25.958	1.17
2	MP2A	Z	0	1.17
3	MP2A	Mx	-.019	1.17
4	MP2A	X	25.958	5.17
5	MP2A	Z	0	5.17
6	MP2A	Mx	-.019	5.17
7	MP2A	X	25.958	1.17
8	MP2A	Z	0	1.17
9	MP2A	Mx	-.019	1.17
10	MP2A	X	25.958	5.17
11	MP2A	Z	0	5.17



Member Point Loads (BLC 20 : Antenna Wi (150 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
34	MP1A	X	14.526	5.17
35	MP1A	Z	25.159	5.17
36	MP1A	Mx	-.011	5.17
37	MP5A	X	14.526	1.17
38	MP5A	Z	25.159	1.17
39	MP5A	Mx	-.011	1.17
40	MP5A	X	14.526	5.17
41	MP5A	Z	25.159	5.17
42	MP5A	Mx	-.011	5.17

Member Point Loads (BLC 21 : Antenna Wi (180 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP2A	X	0	1.17
2	MP2A	Z	38.018	1.17
3	MP2A	Mx	.025	1.17
4	MP2A	X	0	5.17
5	MP2A	Z	38.018	5.17
6	MP2A	Mx	.025	5.17
7	MP2A	X	0	1.17
8	MP2A	Z	38.018	1.17
9	MP2A	Mx	-.025	1.17
10	MP2A	X	0	5.17
11	MP2A	Z	38.018	5.17
12	MP2A	Mx	-.025	5.17
13	MP3A	X	0	1
14	MP3A	Z	20.234	1
15	MP3A	Mx	0	1
16	MP3A	X	0	3
17	MP3A	Z	20.234	3
18	MP3A	Mx	0	3
19	MP2A	X	0	2
20	MP2A	Z	4.165	2
21	MP2A	Mx	0	2
22	OVP	X	0	1
23	OVP	Z	31.627	1
24	OVP	Mx	0	1
25	MP1A	X	0	3.5
26	MP1A	Z	17.077	3.5
27	MP1A	Mx	0	3.5
28	MP2A	X	0	3.5
29	MP2A	Z	17.077	3.5
30	MP2A	Mx	0	3.5
31	MP1A	X	0	1.17
32	MP1A	Z	29.863	1.17
33	MP1A	Mx	0	1.17
34	MP1A	X	0	5.17
35	MP1A	Z	29.863	5.17
36	MP1A	Mx	0	5.17
37	MP5A	X	0	1.17
38	MP5A	Z	29.863	1.17
39	MP5A	Mx	0	1.17
40	MP5A	X	0	5.17
41	MP5A	Z	29.863	5.17
42	MP5A	Mx	0	5.17



Member Point Loads (BLC 22 : Antenna Wi (210 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP2A	X	-17.501	1.17
2	MP2A	Z	30.313	1.17
3	MP2A	Mx	.033	1.17
4	MP2A	X	-17.501	5.17
5	MP2A	Z	30.313	5.17
6	MP2A	Mx	.033	5.17
7	MP2A	X	-17.501	1.17
8	MP2A	Z	30.313	1.17
9	MP2A	Mx	-.007	1.17
10	MP2A	X	-17.501	5.17
11	MP2A	Z	30.313	5.17
12	MP2A	Mx	-.007	5.17
13	MP3A	X	-8.667	1
14	MP3A	Z	15.012	1
15	MP3A	Mx	.002	1
16	MP3A	X	-8.667	3
17	MP3A	Z	15.012	3
18	MP3A	Mx	.002	3
19	MP2A	X	-1.953	2
20	MP2A	Z	3.383	2
21	MP2A	Mx	-.000976	2
22	OVP	X	-13.381	1
23	OVP	Z	23.176	1
24	OVP	Mx	0	1
25	MP1A	X	-7.89	3.5
26	MP1A	Z	13.666	3.5
27	MP1A	Mx	-.004	3.5
28	MP2A	X	-7.644	3.5
29	MP2A	Z	13.239	3.5
30	MP2A	Mx	-.004	3.5
31	MP1A	X	-14.526	1.17
32	MP1A	Z	25.159	1.17
33	MP1A	Mx	.011	1.17
34	MP1A	X	-14.526	5.17
35	MP1A	Z	25.159	5.17
36	MP1A	Mx	.011	5.17
37	MP5A	X	-14.526	1.17
38	MP5A	Z	25.159	1.17
39	MP5A	Mx	.011	1.17
40	MP5A	X	-14.526	5.17
41	MP5A	Z	25.159	5.17
42	MP5A	Mx	.011	5.17

Member Point Loads (BLC 23 : Antenna Wi (240 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP2A	X	-25.091	1.17
2	MP2A	Z	14.486	1.17
3	MP2A	Mx	.028	1.17
4	MP2A	X	-25.091	5.17
5	MP2A	Z	14.486	5.17
6	MP2A	Mx	.028	5.17
7	MP2A	X	-25.091	1.17
8	MP2A	Z	14.486	1.17
9	MP2A	Mx	.009	1.17
10	MP2A	X	-25.091	5.17
11	MP2A	Z	14.486	5.17



Member Point Loads (BLC 25 : Antenna Wi (300 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
34	MP1A	X	-23.753	5.17
35	MP1A	Z	-13.714	5.17
36	MP1A	Mx	.018	5.17
37	MP5A	X	-23.753	1.17
38	MP5A	Z	-13.714	1.17
39	MP5A	Mx	.018	1.17
40	MP5A	X	-23.753	5.17
41	MP5A	Z	-13.714	5.17
42	MP5A	Mx	.018	5.17

Member Point Loads (BLC 26 : Antenna Wi (330 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP2A	X	-17.501	1.17
2	MP2A	Z	-30.313	1.17
3	MP2A	Mx	-.007	1.17
4	MP2A	X	-17.501	5.17
5	MP2A	Z	-30.313	5.17
6	MP2A	Mx	-.007	5.17
7	MP2A	X	-17.501	1.17
8	MP2A	Z	-30.313	1.17
9	MP2A	Mx	.033	1.17
10	MP2A	X	-17.501	5.17
11	MP2A	Z	-30.313	5.17
12	MP2A	Mx	.033	5.17
13	MP3A	X	-8.667	1
14	MP3A	Z	-15.012	1
15	MP3A	Mx	.002	1
16	MP3A	X	-8.667	3
17	MP3A	Z	-15.012	3
18	MP3A	Mx	.002	3
19	MP2A	X	-1.953	2
20	MP2A	Z	-3.383	2
21	MP2A	Mx	-.000976	2
22	OVP	X	-16.263	1
23	OVP	Z	-28.168	1
24	OVP	Mx	0	1
25	MP1A	X	-7.89	3.5
26	MP1A	Z	-13.666	3.5
27	MP1A	Mx	-.004	3.5
28	MP2A	X	-7.644	3.5
29	MP2A	Z	-13.239	3.5
30	MP2A	Mx	-.004	3.5
31	MP1A	X	-14.526	1.17
32	MP1A	Z	-25.159	1.17
33	MP1A	Mx	.011	1.17
34	MP1A	X	-14.526	5.17
35	MP1A	Z	-25.159	5.17
36	MP1A	Mx	.011	5.17
37	MP5A	X	-14.526	1.17
38	MP5A	Z	-25.159	1.17
39	MP5A	Mx	.011	1.17
40	MP5A	X	-14.526	5.17
41	MP5A	Z	-25.159	5.17
42	MP5A	Mx	.011	5.17



Member Point Loads (BLC 28 : Antenna Wm (30 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
12	MP2A	Mx	.002	5.17
13	MP3A	X	2.726	1
14	MP3A	Z	-4.721	1
15	MP3A	Mx	-.000682	1
16	MP3A	X	2.726	3
17	MP3A	Z	-4.721	3
18	MP3A	Mx	-.000682	3
19	MP2A	X	.467	2
20	MP2A	Z	-.809	2
21	MP2A	Mx	.000234	2
22	OVP	X	4.156	1
23	OVP	Z	-7.198	1
24	OVP	Mx	0	1
25	MP1A	X	2.346	3.5
26	MP1A	Z	-4.063	3.5
27	MP1A	Mx	.001	3.5
28	MP2A	X	2.265	3.5
29	MP2A	Z	-3.923	3.5
30	MP2A	Mx	.001	3.5
31	MP1A	X	4.669	1.17
32	MP1A	Z	-8.088	1.17
33	MP1A	Mx	-.004	1.17
34	MP1A	X	4.669	5.17
35	MP1A	Z	-8.088	5.17
36	MP1A	Mx	-.004	5.17
37	MP5A	X	4.669	1.17
38	MP5A	Z	-8.088	1.17
39	MP5A	Mx	-.004	1.17
40	MP5A	X	4.669	5.17
41	MP5A	Z	-8.088	5.17
42	MP5A	Mx	-.004	5.17

Member Point Loads (BLC 29 : Antenna Wm (60 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP2A	X	8.014	1.17
2	MP2A	Z	-4.627	1.17
3	MP2A	Mx	-.009	1.17
4	MP2A	X	8.014	5.17
5	MP2A	Z	-4.627	5.17
6	MP2A	Mx	-.009	5.17
7	MP2A	X	8.014	1.17
8	MP2A	Z	-4.627	1.17
9	MP2A	Mx	-.003	1.17
10	MP2A	X	8.014	5.17
11	MP2A	Z	-4.627	5.17
12	MP2A	Mx	-.003	5.17
13	MP3A	X	3.027	1
14	MP3A	Z	-1.748	1
15	MP3A	Mx	-.000757	1
16	MP3A	X	3.027	3
17	MP3A	Z	-1.748	3
18	MP3A	Mx	-.000757	3
19	MP2A	X	.674	2
20	MP2A	Z	-.389	2
21	MP2A	Mx	.000337	2
22	OVP	X	6.035	1



Member Point Loads (BLC 32 : Antenna Wm (150 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP2A	X	5.696	1.17
2	MP2A	Z	9.866	1.17
3	MP2A	Mx	.002	1.17
4	MP2A	X	5.696	5.17
5	MP2A	Z	9.866	5.17
6	MP2A	Mx	.002	5.17
7	MP2A	X	5.696	1.17
8	MP2A	Z	9.866	1.17
9	MP2A	Mx	-.011	1.17
10	MP2A	X	5.696	5.17
11	MP2A	Z	9.866	5.17
12	MP2A	Mx	-.011	5.17
13	MP3A	X	2.726	1
14	MP3A	Z	4.721	1
15	MP3A	Mx	-.000682	1
16	MP3A	X	2.726	3
17	MP3A	Z	4.721	3
18	MP3A	Mx	-.000682	3
19	MP2A	X	.467	2
20	MP2A	Z	.809	2
21	MP2A	Mx	.000234	2
22	OVP	X	5.132	1
23	OVP	Z	8.888	1
24	OVP	Mx	0	1
25	MP1A	X	2.346	3.5
26	MP1A	Z	4.063	3.5
27	MP1A	Mx	.001	3.5
28	MP2A	X	2.265	3.5
29	MP2A	Z	3.923	3.5
30	MP2A	Mx	.001	3.5
31	MP1A	X	4.669	1.17
32	MP1A	Z	8.088	1.17
33	MP1A	Mx	-.004	1.17
34	MP1A	X	4.669	5.17
35	MP1A	Z	8.088	5.17
36	MP1A	Mx	-.004	5.17
37	MP5A	X	4.669	1.17
38	MP5A	Z	8.088	1.17
39	MP5A	Mx	-.004	1.17
40	MP5A	X	4.669	5.17
41	MP5A	Z	8.088	5.17
42	MP5A	Mx	-.004	5.17

Member Point Loads (BLC 33 : Antenna Wm (180 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP2A	X	0	1.17
2	MP2A	Z	12.462	1.17
3	MP2A	Mx	.008	1.17
4	MP2A	X	0	5.17
5	MP2A	Z	12.462	5.17
6	MP2A	Mx	.008	5.17
7	MP2A	X	0	1.17
8	MP2A	Z	12.462	1.17
9	MP2A	Mx	-.008	1.17
10	MP2A	X	0	5.17
11	MP2A	Z	12.462	5.17



Member Point Loads (BLC 33 : Antenna Wm (180 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
12	MP2A	Mx	-.008	5.17
13	MP3A	X	0	1
14	MP3A	Z	6.429	1
15	MP3A	Mx	0	1
16	MP3A	X	0	3
17	MP3A	Z	6.429	3
18	MP3A	Mx	0	3
19	MP2A	X	0	2
20	MP2A	Z	1.012	2
21	MP2A	Mx	0	2
22	OVP	X	0	1
23	OVP	Z	9.959	1
24	OVP	Mx	0	1
25	MP1A	X	0	3.5
26	MP1A	Z	5.116	3.5
27	MP1A	Mx	0	3.5
28	MP2A	X	0	3.5
29	MP2A	Z	5.116	3.5
30	MP2A	Mx	0	3.5
31	MP1A	X	0	1.17
32	MP1A	Z	9.644	1.17
33	MP1A	Mx	0	1.17
34	MP1A	X	0	5.17
35	MP1A	Z	9.644	5.17
36	MP1A	Mx	0	5.17
37	MP5A	X	0	1.17
38	MP5A	Z	9.644	1.17
39	MP5A	Mx	0	1.17
40	MP5A	X	0	5.17
41	MP5A	Z	9.644	5.17
42	MP5A	Mx	0	5.17

Member Point Loads (BLC 34 : Antenna Wm (210 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP2A	X	-5.696	1.17
2	MP2A	Z	9.866	1.17
3	MP2A	Mx	.011	1.17
4	MP2A	X	-5.696	5.17
5	MP2A	Z	9.866	5.17
6	MP2A	Mx	.011	5.17
7	MP2A	X	-5.696	1.17
8	MP2A	Z	9.866	1.17
9	MP2A	Mx	-.002	1.17
10	MP2A	X	-5.696	5.17
11	MP2A	Z	9.866	5.17
12	MP2A	Mx	-.002	5.17
13	MP3A	X	-2.726	1
14	MP3A	Z	4.721	1
15	MP3A	Mx	.000682	1
16	MP3A	X	-2.726	3
17	MP3A	Z	4.721	3
18	MP3A	Mx	.000682	3
19	MP2A	X	-.467	2
20	MP2A	Z	.809	2
21	MP2A	Mx	-.000234	2
22	OVP	X	-4.156	1



Member Point Loads (BLC 34 : Antenna Wm (210 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
23	OVP	Z	7.198	1
24	OVP	Mx	0	1
25	MP1A	X	-2.346	3.5
26	MP1A	Z	4.063	3.5
27	MP1A	Mx	-.001	3.5
28	MP2A	X	-2.265	3.5
29	MP2A	Z	3.923	3.5
30	MP2A	Mx	-.001	3.5
31	MP1A	X	-4.669	1.17
32	MP1A	Z	8.088	1.17
33	MP1A	Mx	.004	1.17
34	MP1A	X	-4.669	5.17
35	MP1A	Z	8.088	5.17
36	MP1A	Mx	.004	5.17
37	MP5A	X	-4.669	1.17
38	MP5A	Z	8.088	1.17
39	MP5A	Mx	.004	1.17
40	MP5A	X	-4.669	5.17
41	MP5A	Z	8.088	5.17
42	MP5A	Mx	.004	5.17

Member Point Loads (BLC 35 : Antenna Wm (240 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP2A	X	-8.014	1.17
2	MP2A	Z	4.627	1.17
3	MP2A	Mx	.009	1.17
4	MP2A	X	-8.014	5.17
5	MP2A	Z	4.627	5.17
6	MP2A	Mx	.009	5.17
7	MP2A	X	-8.014	1.17
8	MP2A	Z	4.627	1.17
9	MP2A	Mx	.003	1.17
10	MP2A	X	-8.014	5.17
11	MP2A	Z	4.627	5.17
12	MP2A	Mx	.003	5.17
13	MP3A	X	-3.027	1
14	MP3A	Z	1.748	1
15	MP3A	Mx	.000757	1
16	MP3A	X	-3.027	3
17	MP3A	Z	1.748	3
18	MP3A	Mx	.000757	3
19	MP2A	X	-.674	2
20	MP2A	Z	.389	2
21	MP2A	Mx	-.000337	2
22	OVP	X	-6.035	1
23	OVP	Z	3.485	1
24	OVP	Mx	0	1
25	MP1A	X	-3.329	3.5
26	MP1A	Z	1.922	3.5
27	MP1A	Mx	-.002	3.5
28	MP2A	X	-2.907	3.5
29	MP2A	Z	1.678	3.5
30	MP2A	Mx	-.001	3.5
31	MP1A	X	-7.56	1.17
32	MP1A	Z	4.365	1.17
33	MP1A	Mx	.006	1.17



Member Point Loads (BLC 35 : Antenna Wm (240 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
34	MP1A	X	-7.56	5.17
35	MP1A	Z	4.365	5.17
36	MP1A	Mx	.006	5.17
37	MP5A	X	-7.56	1.17
38	MP5A	Z	4.365	1.17
39	MP5A	Mx	.006	1.17
40	MP5A	X	-7.56	5.17
41	MP5A	Z	4.365	5.17
42	MP5A	Mx	.006	5.17

Member Point Loads (BLC 36 : Antenna Wm (270 Deg))

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP2A	X	-8.185	1.17
2	MP2A	Z	0	1.17
3	MP2A	Mx	.006	1.17
4	MP2A	X	-8.185	5.17
5	MP2A	Z	0	5.17
6	MP2A	Mx	.006	5.17
7	MP2A	X	-8.185	1.17
8	MP2A	Z	0	1.17
9	MP2A	Mx	.006	1.17
10	MP2A	X	-8.185	5.17
11	MP2A	Z	0	5.17
12	MP2A	Mx	.006	5.17
13	MP3A	X	-2.517	1
14	MP3A	Z	0	1
15	MP3A	Mx	.000629	1
16	MP3A	X	-2.517	3
17	MP3A	Z	0	3
18	MP3A	Mx	.000629	3
19	MP2A	X	-.7	2
20	MP2A	Z	0	2
21	MP2A	Mx	-.00035	2
22	OVP	X	-7.273	1
23	OVP	Z	0	1
24	OVP	Mx	0	1
25	MP1A	X	-3.42	3.5
26	MP1A	Z	0	3.5
27	MP1A	Mx	-.002	3.5
28	MP2A	X	-2.77	3.5
29	MP2A	Z	0	3.5
30	MP2A	Mx	-.001	3.5
31	MP1A	X	-8.424	1.17
32	MP1A	Z	0	1.17
33	MP1A	Mx	.006	1.17
34	MP1A	X	-8.424	5.17
35	MP1A	Z	0	5.17
36	MP1A	Mx	.006	5.17
37	MP5A	X	-8.424	1.17
38	MP5A	Z	0	1.17
39	MP5A	Mx	.006	1.17
40	MP5A	X	-8.424	5.17
41	MP5A	Z	0	5.17
42	MP5A	Mx	.006	5.17



Member Distributed Loads (BLC 40 : Structure Di) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
4	M8	Y	-6.077	-6.077	0	%100
5	M9	Y	-6.077	-6.077	0	%100
6	M10	Y	-5.862	-5.862	0	%100
7	M11	Y	-5.14	-5.14	0	%100
8	OVP	Y	-5.14	-5.14	0	%100
9	M13	Y	-5.14	-5.14	0	%100
10	M14	Y	-5.14	-5.14	0	%100
11	M34A	Y	-6.077	-6.077	0	%100
12	M36	Y	-4.107	-4.107	0	%100
13	M30	Y	-6.077	-6.077	0	%100
14	M31	Y	-6.077	-6.077	0	%100
15	M32	Y	-6.077	-6.077	0	%100
16	M33	Y	-6.077	-6.077	0	%100
17	M34	Y	-4.107	-4.107	0	%100
18	M35A	Y	-4.107	-4.107	0	%100
19	M36A	Y	-4.107	-4.107	0	%100
20	M37	Y	-4.107	-4.107	0	%100
21	M29	Y	-6.077	-6.077	0	%100
22	M30A	Y	-6.077	-6.077	0	%100
23	M31A	Y	-6.077	-6.077	0	%100
24	M32A	Y	-6.077	-6.077	0	%100
25	M34B	Y	-4.107	-4.107	0	%100
26	M35B	Y	-4.107	-4.107	0	%100
27	M36B	Y	-4.107	-4.107	0	%100
28	M37A	Y	-4.107	-4.107	0	%100
29	MP5A	Y	-5.14	-5.14	0	%100
30	MP4A	Y	-5.14	-5.14	0	%100
31	MP3A	Y	-5.14	-5.14	0	%100
32	MP1A	Y	-5.14	-5.14	0	%100
33	MP2A	Y	-5.862	-5.862	0	%100
34	M52	Y	-6.765	-6.765	0	%100
35	M53	Y	-6.077	-6.077	0	%100
36	M54A	Y	-6.077	-6.077	0	%100
37	M55	Y	-6.077	-6.077	0	%100
38	M54B	Y	-6.077	-6.077	0	%100
39	M55A	Y	-4.107	-4.107	0	%100
40	M56A	Y	-6.077	-6.077	0	%100
41	M58	Y	-6.077	-6.077	0	%100
42	M59	Y	-6.077	-6.077	0	%100

Member Distributed Loads (BLC 41 : Structure Wo (0 Deg))

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M5	X	0	0	0	%100
2	M5	Z	-0.779	-0.779	0	%100
3	M6	X	0	0	0	%100
4	M6	Z	-0.779	-0.779	0	%100
5	M7	X	0	0	0	%100
6	M7	Z	-12.169	-12.169	0	%100
7	M8	X	0	0	0	%100
8	M8	Z	-0.779	-0.779	0	%100
9	M9	X	0	0	0	%100
10	M9	Z	-0.779	-0.779	0	%100
11	M10	X	0	0	0	%100
12	M10	Z	-12.169	-12.169	0	%100
13	M11	X	0	0	0	%100
14	M11	Z	-5.128	-5.128	0	%100



Member Distributed Loads (BLC 41 : Structure Wo (0 Deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]	
15	OVP	X	0	0	0	%100
16	OVP	Z	-5.128	-5.128	0	%100
17	M13	X	0	0	0	%100
18	M13	Z	-5.128	-5.128	0	%100
19	M14	X	0	0	0	%100
20	M14	Z	-5.128	-5.128	0	%100
21	M34A	X	0	0	0	%100
22	M34A	Z	-6.499	-6.499	0	%100
23	M36	X	0	0	0	%100
24	M36	Z	-6.125	-6.125	0	%100
25	M30	X	0	0	0	%100
26	M30	Z	-8.144	-8.144	0	%100
27	M31	X	0	0	0	%100
28	M31	Z	-8.144	-8.144	0	%100
29	M32	X	0	0	0	%100
30	M32	Z	-8.144	-8.144	0	%100
31	M33	X	0	0	0	%100
32	M33	Z	-8.144	-8.144	0	%100
33	M34	X	0	0	0	%100
34	M34	Z	-6.752	-6.752	0	%100
35	M35A	X	0	0	0	%100
36	M35A	Z	-6.752	-6.752	0	%100
37	M36A	X	0	0	0	%100
38	M36A	Z	-5.878	-5.878	0	%100
39	M37	X	0	0	0	%100
40	M37	Z	-5.878	-5.878	0	%100
41	M29	X	0	0	0	%100
42	M29	Z	-6.23	-6.23	0	%100
43	M30A	X	0	0	0	%100
44	M30A	Z	-6.23	-6.23	0	%100
45	M31A	X	0	0	0	%100
46	M31A	Z	-6.23	-6.23	0	%100
47	M32A	X	0	0	0	%100
48	M32A	Z	-6.23	-6.23	0	%100
49	M34B	X	0	0	0	%100
50	M34B	Z	-6.752	-6.752	0	%100
51	M35B	X	0	0	0	%100
52	M35B	Z	-6.752	-6.752	0	%100
53	M36B	X	0	0	0	%100
54	M36B	Z	-5.878	-5.878	0	%100
55	M37A	X	0	0	0	%100
56	M37A	Z	-5.878	-5.878	0	%100
57	MP5A	X	0	0	0	%100
58	MP5A	Z	-10.053	-10.053	0	%100
59	MP4A	X	0	0	0	%100
60	MP4A	Z	-10.053	-10.053	0	%100
61	MP3A	X	0	0	0	%100
62	MP3A	Z	-10.053	-10.053	0	%100
63	MP1A	X	0	0	0	%100
64	MP1A	Z	-10.053	-10.053	0	%100
65	MP2A	X	0	0	0	%100
66	MP2A	Z	-12.169	-12.169	0	%100
67	M52	X	0	0	0	%100
68	M52	Z	-.633	-.633	0	%100
69	M53	X	0	0	0	%100
70	M53	Z	-8.283	-8.283	0	%100
71	M54A	X	0	0	0	%100



Member Distributed Loads (BLC 43 : Structure Wo (60 Deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
10	M9	Z	- .744	- .744	0 %100
11	M10	X	2.635	2.635	0 %100
12	M10	Z	-1.521	-1.521	0 %100
13	M11	X	.54	.54	0 %100
14	M11	Z	-.312	-.312	0 %100
15	OVP	X	8.078	8.078	0 %100
16	OVP	Z	-4.664	-4.664	0 %100
17	M13	X	.54	.54	0 %100
18	M13	Z	-.312	-.312	0 %100
19	M14	X	8.078	8.078	0 %100
20	M14	Z	-4.664	-4.664	0 %100
21	M34A	X	10.657	10.657	0 %100
22	M34A	Z	-6.153	-6.153	0 %100
23	M36	X	5.304	5.304	0 %100
24	M36	Z	-3.062	-3.062	0 %100
25	M30	X	9.88	9.88	0 %100
26	M30	Z	-5.704	-5.704	0 %100
27	M31	X	9.88	9.88	0 %100
28	M31	Z	-5.704	-5.704	0 %100
29	M32	X	9.88	9.88	0 %100
30	M32	Z	-5.704	-5.704	0 %100
31	M33	X	9.88	9.88	0 %100
32	M33	Z	-5.704	-5.704	0 %100
33	M34	X	5.847	5.847	0 %100
34	M34	Z	-3.376	-3.376	0 %100
35	M35A	X	5.847	5.847	0 %100
36	M35A	Z	-3.376	-3.376	0 %100
37	M36A	X	4.182	4.182	0 %100
38	M36A	Z	-2.414	-2.414	0 %100
39	M37	X	4.182	4.182	0 %100
40	M37	Z	-2.414	-2.414	0 %100
41	M29	X	2.568	2.568	0 %100
42	M29	Z	-1.482	-1.482	0 %100
43	M30A	X	2.568	2.568	0 %100
44	M30A	Z	-1.482	-1.482	0 %100
45	M31A	X	2.568	2.568	0 %100
46	M31A	Z	-1.482	-1.482	0 %100
47	M32A	X	2.568	2.568	0 %100
48	M32A	Z	-1.482	-1.482	0 %100
49	M34B	X	5.847	5.847	0 %100
50	M34B	Z	-3.376	-3.376	0 %100
51	M35B	X	5.847	5.847	0 %100
52	M35B	Z	-3.376	-3.376	0 %100
53	M36B	X	5.938	5.938	0 %100
54	M36B	Z	-3.429	-3.429	0 %100
55	M37A	X	5.938	5.938	0 %100
56	M37A	Z	-3.429	-3.429	0 %100
57	MP5A	X	8.706	8.706	0 %100
58	MP5A	Z	-5.026	-5.026	0 %100
59	MP4A	X	8.706	8.706	0 %100
60	MP4A	Z	-5.026	-5.026	0 %100
61	MP3A	X	8.706	8.706	0 %100
62	MP3A	Z	-5.026	-5.026	0 %100
63	MP1A	X	8.706	8.706	0 %100
64	MP1A	Z	-5.026	-5.026	0 %100
65	MP2A	X	10.539	10.539	0 %100
66	MP2A	Z	-6.084	-6.084	0 %100



Member Distributed Loads (BLC 44 : Structure Wo (90 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
36	M35A	Z	0	0	0	%100
37	M36A	X	5.831	5.831	0	%100
38	M36A	Z	0	0	0	%100
39	M37	X	5.831	5.831	0	%100
40	M37	Z	0	0	0	%100
41	M29	X	8.144	8.144	0	%100
42	M29	Z	0	0	0	%100
43	M30A	X	8.144	8.144	0	%100
44	M30A	Z	0	0	0	%100
45	M31A	X	8.144	8.144	0	%100
46	M31A	Z	0	0	0	%100
47	M32A	X	8.144	8.144	0	%100
48	M32A	Z	0	0	0	%100
49	M34B	X	6.752	6.752	0	%100
50	M34B	Z	0	0	0	%100
51	M35B	X	6.752	6.752	0	%100
52	M35B	Z	0	0	0	%100
53	M36B	X	5.831	5.831	0	%100
54	M36B	Z	0	0	0	%100
55	M37A	X	5.831	5.831	0	%100
56	M37A	Z	0	0	0	%100
57	MP5A	X	10.053	10.053	0	%100
58	MP5A	Z	0	0	0	%100
59	MP4A	X	10.053	10.053	0	%100
60	MP4A	Z	0	0	0	%100
61	MP3A	X	10.053	10.053	0	%100
62	MP3A	Z	0	0	0	%100
63	MP1A	X	10.053	10.053	0	%100
64	MP1A	Z	0	0	0	%100
65	MP2A	X	12.169	12.169	0	%100
66	MP2A	Z	0	0	0	%100
67	M52	X	13.612	13.612	0	%100
68	M52	Z	0	0	0	%100
69	M53	X	6.428	6.428	0	%100
70	M53	Z	0	0	0	%100
71	M54A	X	8.031	8.031	0	%100
72	M54A	Z	0	0	0	%100
73	M55	X	8.283	8.283	0	%100
74	M55	Z	0	0	0	%100
75	M54B	X	8.031	8.031	0	%100
76	M54B	Z	0	0	0	%100
77	M55A	X	6.125	6.125	0	%100
78	M55A	Z	0	0	0	%100
79	M56A	X	8.283	8.283	0	%100
80	M56A	Z	0	0	0	%100
81	M58	X	8.033	8.033	0	%100
82	M58	Z	0	0	0	%100
83	M59	X	6.428	6.428	0	%100
84	M59	Z	0	0	0	%100

Member Distributed Loads (BLC 45 : Structure Wo (120 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M5	X	1.289	1.289	0	%100
2	M5	Z	.744	.744	0	%100
3	M6	X	.099	.099	0	%100
4	M6	Z	.057	.057	0	%100



Member Distributed Loads (BLC 46 : Structure Wo (150 Deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
31	M33	X	1.482	1.482	0 %100
32	M33	Z	2.568	2.568	0 %100
33	M34	X	3.376	3.376	0 %100
34	M34	Z	5.847	5.847	0 %100
35	M35A	X	3.376	3.376	0 %100
36	M35A	Z	5.847	5.847	0 %100
37	M36A	X	3.44	3.44	0 %100
38	M36A	Z	5.959	5.959	0 %100
39	M37	X	3.44	3.44	0 %100
40	M37	Z	5.959	5.959	0 %100
41	M29	X	5.704	5.704	0 %100
42	M29	Z	9.88	9.88	0 %100
43	M30A	X	5.704	5.704	0 %100
44	M30A	Z	9.88	9.88	0 %100
45	M31A	X	5.704	5.704	0 %100
46	M31A	Z	9.88	9.88	0 %100
47	M32A	X	5.704	5.704	0 %100
48	M32A	Z	9.88	9.88	0 %100
49	M34B	X	3.376	3.376	0 %100
50	M34B	Z	5.847	5.847	0 %100
51	M35B	X	3.376	3.376	0 %100
52	M35B	Z	5.847	5.847	0 %100
53	M36B	X	2.426	2.426	0 %100
54	M36B	Z	4.202	4.202	0 %100
55	M37A	X	2.426	2.426	0 %100
56	M37A	Z	4.202	4.202	0 %100
57	MP5A	X	5.026	5.026	0 %100
58	MP5A	Z	8.706	8.706	0 %100
59	MP4A	X	5.026	5.026	0 %100
60	MP4A	Z	8.706	8.706	0 %100
61	MP3A	X	5.026	5.026	0 %100
62	MP3A	Z	8.706	8.706	0 %100
63	MP1A	X	5.026	5.026	0 %100
64	MP1A	Z	8.706	8.706	0 %100
65	MP2A	X	6.084	6.084	0 %100
66	MP2A	Z	10.539	10.539	0 %100
67	M52	X	3.21	3.21	0 %100
68	M52	Z	5.56	5.56	0 %100
69	M53	X	1.632	1.632	0 %100
70	M53	Z	2.826	2.826	0 %100
71	M54A	X	1.112	1.112	0 %100
72	M54A	Z	1.926	1.926	0 %100
73	M55	X	1.168	1.168	0 %100
74	M55	Z	2.023	2.023	0 %100
75	M54B	X	5.77	5.77	0 %100
76	M54B	Z	9.994	9.994	0 %100
77	M55A	X	3.062	3.062	0 %100
78	M55A	Z	5.304	5.304	0 %100
79	M56A	X	5.724	5.724	0 %100
80	M56A	Z	9.914	9.914	0 %100
81	M58	X	5.77	5.77	0 %100
82	M58	Z	9.993	9.993	0 %100
83	M59	X	6.188	6.188	0 %100
84	M59	Z	10.718	10.718	0 %100

Member Distributed Loads (BLC 47 : Structure Wo (180 Deg))

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
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Company : Maser Consulting
 Designer :
 Job Number :
 Model Name : 467897-VZW_MT_LOT_SectorA_H

July 1, 2021
 8:50 AM
 Checked By: _____

Member Distributed Loads (BLC 47 : Structure Wo (180 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M5	X	0	0	0	%100
2	M5	Z	.779	.779	0	%100
3	M6	X	0	0	0	%100
4	M6	Z	.779	.779	0	%100
5	M7	X	0	0	0	%100
6	M7	Z	12.169	12.169	0	%100
7	M8	X	0	0	0	%100
8	M8	Z	.779	.779	0	%100
9	M9	X	0	0	0	%100
10	M9	Z	.779	.779	0	%100
11	M10	X	0	0	0	%100
12	M10	Z	12.169	12.169	0	%100
13	M11	X	0	0	0	%100
14	M11	Z	5.128	5.128	0	%100
15	OVP	X	0	0	0	%100
16	OVP	Z	5.128	5.128	0	%100
17	M13	X	0	0	0	%100
18	M13	Z	5.128	5.128	0	%100
19	M14	X	0	0	0	%100
20	M14	Z	5.128	5.128	0	%100
21	M34A	X	0	0	0	%100
22	M34A	Z	6.499	6.499	0	%100
23	M36	X	0	0	0	%100
24	M36	Z	6.125	6.125	0	%100
25	M30	X	0	0	0	%100
26	M30	Z	8.144	8.144	0	%100
27	M31	X	0	0	0	%100
28	M31	Z	8.144	8.144	0	%100
29	M32	X	0	0	0	%100
30	M32	Z	8.144	8.144	0	%100
31	M33	X	0	0	0	%100
32	M33	Z	8.144	8.144	0	%100
33	M34	X	0	0	0	%100
34	M34	Z	6.752	6.752	0	%100
35	M35A	X	0	0	0	%100
36	M35A	Z	6.752	6.752	0	%100
37	M36A	X	0	0	0	%100
38	M36A	Z	5.878	5.878	0	%100
39	M37	X	0	0	0	%100
40	M37	Z	5.878	5.878	0	%100
41	M29	X	0	0	0	%100
42	M29	Z	6.23	6.23	0	%100
43	M30A	X	0	0	0	%100
44	M30A	Z	6.23	6.23	0	%100
45	M31A	X	0	0	0	%100
46	M31A	Z	6.23	6.23	0	%100
47	M32A	X	0	0	0	%100
48	M32A	Z	6.23	6.23	0	%100
49	M34B	X	0	0	0	%100
50	M34B	Z	6.752	6.752	0	%100
51	M35B	X	0	0	0	%100
52	M35B	Z	6.752	6.752	0	%100
53	M36B	X	0	0	0	%100
54	M36B	Z	5.878	5.878	0	%100
55	M37A	X	0	0	0	%100
56	M37A	Z	5.878	5.878	0	%100
57	MP5A	X	0	0	0	%100



Member Distributed Loads (BLC 47 : Structure Wo (180 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
58	MP5A	Z	10.053	10.053	0	%100
59	MP4A	X	0	0	0	%100
60	MP4A	Z	10.053	10.053	0	%100
61	MP3A	X	0	0	0	%100
62	MP3A	Z	10.053	10.053	0	%100
63	MP1A	X	0	0	0	%100
64	MP1A	Z	10.053	10.053	0	%100
65	MP2A	X	0	0	0	%100
66	MP2A	Z	12.169	12.169	0	%100
67	M52	X	0	0	0	%100
68	M52	Z	.633	.633	0	%100
69	M53	X	0	0	0	%100
70	M53	Z	8.283	8.283	0	%100
71	M54A	X	0	0	0	%100
72	M54A	Z	6.499	6.499	0	%100
73	M55	X	0	0	0	%100
74	M55	Z	6.428	6.428	0	%100
75	M54B	X	0	0	0	%100
76	M54B	Z	6.499	6.499	0	%100
77	M55A	X	0	0	0	%100
78	M55A	Z	6.125	6.125	0	%100
79	M56A	X	0	0	0	%100
80	M56A	Z	6.428	6.428	0	%100
81	M58	X	0	0	0	%100
82	M58	Z	6.497	6.497	0	%100
83	M59	X	0	0	0	%100
84	M59	Z	8.283	8.283	0	%100

Member Distributed Loads (BLC 48 : Structure Wo (210 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M5	X	-.049	-.049	0	%100
2	M5	Z	.086	.086	0	%100
3	M6	X	-.737	-.737	0	%100
4	M6	Z	1.276	1.276	0	%100
5	M7	X	-4.563	-4.563	0	%100
6	M7	Z	7.904	7.904	0	%100
7	M8	X	-.049	-.049	0	%100
8	M8	Z	.086	.086	0	%100
9	M9	X	-.737	-.737	0	%100
10	M9	Z	1.276	1.276	0	%100
11	M10	X	-4.563	-4.563	0	%100
12	M10	Z	7.904	7.904	0	%100
13	M11	X	-.363	-.363	0	%100
14	M11	Z	.628	.628	0	%100
15	OVP	X	-4.715	-4.715	0	%100
16	OVP	Z	8.166	8.166	0	%100
17	M13	X	-.363	-.363	0	%100
18	M13	Z	.628	.628	0	%100
19	M14	X	-4.715	-4.715	0	%100
20	M14	Z	8.166	8.166	0	%100
21	M34A	X	-5.77	-5.77	0	%100
22	M34A	Z	9.994	9.994	0	%100
23	M36	X	-3.062	-3.062	0	%100
24	M36	Z	5.304	5.304	0	%100
25	M30	X	-6.183	-6.183	0	%100
26	M30	Z	10.709	10.709	0	%100



Member Distributed Loads (BLC 50 : Structure Wo (270 Deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
22	M34A	Z	0	0	%100
23	M36	X	-6.125	-6.125	%100
24	M36	Z	0	0	%100
25	M30	X	-6.23	-6.23	%100
26	M30	Z	0	0	%100
27	M31	X	-6.23	-6.23	%100
28	M31	Z	0	0	%100
29	M32	X	-6.23	-6.23	%100
30	M32	Z	0	0	%100
31	M33	X	-6.23	-6.23	%100
32	M33	Z	0	0	%100
33	M34	X	-6.752	-6.752	%100
34	M34	Z	0	0	%100
35	M35A	X	-6.752	-6.752	%100
36	M35A	Z	0	0	%100
37	M36A	X	-5.831	-5.831	%100
38	M36A	Z	0	0	%100
39	M37	X	-5.831	-5.831	%100
40	M37	Z	0	0	%100
41	M29	X	-8.144	-8.144	%100
42	M29	Z	0	0	%100
43	M30A	X	-8.144	-8.144	%100
44	M30A	Z	0	0	%100
45	M31A	X	-8.144	-8.144	%100
46	M31A	Z	0	0	%100
47	M32A	X	-8.144	-8.144	%100
48	M32A	Z	0	0	%100
49	M34B	X	-6.752	-6.752	%100
50	M34B	Z	0	0	%100
51	M35B	X	-6.752	-6.752	%100
52	M35B	Z	0	0	%100
53	M36B	X	-5.831	-5.831	%100
54	M36B	Z	0	0	%100
55	M37A	X	-5.831	-5.831	%100
56	M37A	Z	0	0	%100
57	MP5A	X	-10.053	-10.053	%100
58	MP5A	Z	0	0	%100
59	MP4A	X	-10.053	-10.053	%100
60	MP4A	Z	0	0	%100
61	MP3A	X	-10.053	-10.053	%100
62	MP3A	Z	0	0	%100
63	MP1A	X	-10.053	-10.053	%100
64	MP1A	Z	0	0	%100
65	MP2A	X	-12.169	-12.169	%100
66	MP2A	Z	0	0	%100
67	M52	X	-13.612	-13.612	%100
68	M52	Z	0	0	%100
69	M53	X	-6.428	-6.428	%100
70	M53	Z	0	0	%100
71	M54A	X	-8.031	-8.031	%100
72	M54A	Z	0	0	%100
73	M55	X	-8.283	-8.283	%100
74	M55	Z	0	0	%100
75	M54B	X	-8.031	-8.031	%100
76	M54B	Z	0	0	%100
77	M55A	X	-6.125	-6.125	%100
78	M55A	Z	0	0	%100



Member Distributed Loads (BLC 51 : Structure Wo (300 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
48	M32A	Z	-6.183	-6.183	0	%100
49	M34B	X	-5.847	-5.847	0	%100
50	M34B	Z	-3.376	-3.376	0	%100
51	M35B	X	-5.847	-5.847	0	%100
52	M35B	Z	-3.376	-3.376	0	%100
53	M36B	X	-4.182	-4.182	0	%100
54	M36B	Z	-2.414	-2.414	0	%100
55	M37A	X	-4.182	-4.182	0	%100
56	M37A	Z	-2.414	-2.414	0	%100
57	MP5A	X	-8.706	-8.706	0	%100
58	MP5A	Z	-5.026	-5.026	0	%100
59	MP4A	X	-8.706	-8.706	0	%100
60	MP4A	Z	-5.026	-5.026	0	%100
61	MP3A	X	-8.706	-8.706	0	%100
62	MP3A	Z	-5.026	-5.026	0	%100
63	MP1A	X	-8.706	-8.706	0	%100
64	MP1A	Z	-5.026	-5.026	0	%100
65	MP2A	X	-10.539	-10.539	0	%100
66	MP2A	Z	-6.084	-6.084	0	%100
67	M52	X	-11.18	-11.18	0	%100
68	M52	Z	-6.455	-6.455	0	%100
69	M53	X	-2.023	-2.023	0	%100
70	M53	Z	-1.168	-1.168	0	%100
71	M54A	X	-2.59	-2.59	0	%100
72	M54A	Z	-1.495	-1.495	0	%100
73	M55	X	-2.826	-2.826	0	%100
74	M55	Z	-1.632	-1.632	0	%100
75	M54B	X	-10.657	-10.657	0	%100
76	M54B	Z	-6.153	-6.153	0	%100
77	M55A	X	-5.304	-5.304	0	%100
78	M55A	Z	-3.062	-3.062	0	%100
79	M56A	X	-10.718	-10.718	0	%100
80	M56A	Z	-6.188	-6.188	0	%100
81	M58	X	-10.658	-10.658	0	%100
82	M58	Z	-6.153	-6.153	0	%100
83	M59	X	-9.914	-9.914	0	%100
84	M59	Z	-5.724	-5.724	0	%100

Member Distributed Loads (BLC 52 : Structure Wo (330 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M5	X	-0.737	-0.737	0	%100
2	M5	Z	-1.276	-1.276	0	%100
3	M6	X	-0.049	-0.049	0	%100
4	M6	Z	-0.086	-0.086	0	%100
5	M7	X	-4.563	-4.563	0	%100
6	M7	Z	-7.904	-7.904	0	%100
7	M8	X	-0.737	-0.737	0	%100
8	M8	Z	-1.276	-1.276	0	%100
9	M9	X	-0.049	-0.049	0	%100
10	M9	Z	-0.086	-0.086	0	%100
11	M10	X	-4.563	-4.563	0	%100
12	M10	Z	-7.904	-7.904	0	%100
13	M11	X	-4.715	-4.715	0	%100
14	M11	Z	-8.166	-8.166	0	%100
15	OVP	X	-0.363	-0.363	0	%100
16	OVP	Z	-0.628	-0.628	0	%100



Member Distributed Loads (BLC 53 : Structure Wi (0 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
43	M30A	X	0	0	0	%100
44	M30A	Z	-2.167	-2.167	0	%100
45	M31A	X	0	0	0	%100
46	M31A	Z	-2.167	-2.167	0	%100
47	M32A	X	0	0	0	%100
48	M32A	Z	-2.167	-2.167	0	%100
49	M34B	X	0	0	0	%100
50	M34B	Z	-2.712	-2.712	0	%100
51	M35B	X	0	0	0	%100
52	M35B	Z	-2.712	-2.712	0	%100
53	M36B	X	0	0	0	%100
54	M36B	Z	-2.454	-2.454	0	%100
55	M37A	X	0	0	0	%100
56	M37A	Z	-2.454	-2.454	0	%100
57	MP5A	X	0	0	0	%100
58	MP5A	Z	-3.602	-3.602	0	%100
59	MP4A	X	0	0	0	%100
60	MP4A	Z	-3.602	-3.602	0	%100
61	MP3A	X	0	0	0	%100
62	MP3A	Z	-3.602	-3.602	0	%100
63	MP1A	X	0	0	0	%100
64	MP1A	Z	-3.602	-3.602	0	%100
65	MP2A	X	0	0	0	%100
66	MP2A	Z	-3.982	-3.982	0	%100
67	M52	X	0	0	0	%100
68	M52	Z	-.198	-.198	0	%100
69	M53	X	0	0	0	%100
70	M53	Z	-2.536	-2.536	0	%100
71	M54A	X	0	0	0	%100
72	M54A	Z	-2.215	-2.215	0	%100
73	M55	X	0	0	0	%100
74	M55	Z	-2.203	-2.203	0	%100
75	M54B	X	0	0	0	%100
76	M54B	Z	-2.215	-2.215	0	%100
77	M55A	X	0	0	0	%100
78	M55A	Z	-2.487	-2.487	0	%100
79	M56A	X	0	0	0	%100
80	M56A	Z	-2.203	-2.203	0	%100
81	M58	X	0	0	0	%100
82	M58	Z	-2.215	-2.215	0	%100
83	M59	X	0	0	0	%100
84	M59	Z	-2.536	-2.536	0	%100

Member Distributed Loads (BLC 54 : Structure Wi (30 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M5	X	.042	.042	0	%100
2	M5	Z	-.072	-.072	0	%100
3	M6	X	.619	.619	0	%100
4	M6	Z	-1.072	-1.072	0	%100
5	M7	X	1.493	1.493	0	%100
6	M7	Z	-2.587	-2.587	0	%100
7	M8	X	.042	.042	0	%100
8	M8	Z	-.072	-.072	0	%100
9	M9	X	.619	.619	0	%100
10	M9	Z	-1.072	-1.072	0	%100
11	M10	X	1.493	1.493	0	%100



Member Distributed Loads (BLC 55 : Structure Wi (60 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
38	M36A	Z	-1.008	-1.008	0	%100
39	M37	X	1.746	1.746	0	%100
40	M37	Z	-1.008	-1.008	0	%100
41	M29	X	1.369	1.369	0	%100
42	M29	Z	-.79	-.79	0	%100
43	M30A	X	1.369	1.369	0	%100
44	M30A	Z	-.79	-.79	0	%100
45	M31A	X	1.369	1.369	0	%100
46	M31A	Z	-.79	-.79	0	%100
47	M32A	X	1.369	1.369	0	%100
48	M32A	Z	-.79	-.79	0	%100
49	M34B	X	2.349	2.349	0	%100
50	M34B	Z	-1.356	-1.356	0	%100
51	M35B	X	2.349	2.349	0	%100
52	M35B	Z	-1.356	-1.356	0	%100
53	M36B	X	2.479	2.479	0	%100
54	M36B	Z	-1.431	-1.431	0	%100
55	M37A	X	2.479	2.479	0	%100
56	M37A	Z	-1.431	-1.431	0	%100
57	MP5A	X	3.12	3.12	0	%100
58	MP5A	Z	-1.801	-1.801	0	%100
59	MP4A	X	3.12	3.12	0	%100
60	MP4A	Z	-1.801	-1.801	0	%100
61	MP3A	X	3.12	3.12	0	%100
62	MP3A	Z	-1.801	-1.801	0	%100
63	MP1A	X	3.12	3.12	0	%100
64	MP1A	Z	-1.801	-1.801	0	%100
65	MP2A	X	3.449	3.449	0	%100
66	MP2A	Z	-1.991	-1.991	0	%100
67	M52	X	2.12	2.12	0	%100
68	M52	Z	-1.224	-1.224	0	%100
69	M53	X	2.688	2.688	0	%100
70	M53	Z	-1.552	-1.552	0	%100
71	M54A	X	2.822	2.822	0	%100
72	M54A	Z	-1.629	-1.629	0	%100
73	M55	X	2.832	2.832	0	%100
74	M55	Z	-1.635	-1.635	0	%100
75	M54B	X	1.373	1.373	0	%100
76	M54B	Z	-.793	-.793	0	%100
77	M55A	X	2.154	2.154	0	%100
78	M55A	Z	-1.244	-1.244	0	%100
79	M56A	X	1.415	1.415	0	%100
80	M56A	Z	-.817	-.817	0	%100
81	M58	X	1.373	1.373	0	%100
82	M58	Z	-.793	-.793	0	%100
83	M59	X	1.271	1.271	0	%100
84	M59	Z	-.734	-.734	0	%100

Member Distributed Loads (BLC 56 : Structure Wi (90 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M5	X	.679	.679	0	%100
2	M5	Z	0	0	0	%100
3	M6	X	.679	.679	0	%100
4	M6	Z	0	0	0	%100
5	M7	X	0	0	0	%100
6	M7	Z	0	0	0	%100



Member Distributed Loads (BLC 58 : Structure Wi (150 Deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
2	M5	Z	1.072	1.072	0 %100
3	M6	X	.042	.042	0 %100
4	M6	Z	.072	.072	0 %100
5	M7	X	1.493	1.493	0 %100
6	M7	Z	2.587	2.587	0 %100
7	M8	X	.619	.619	0 %100
8	M8	Z	1.072	1.072	0 %100
9	M9	X	.042	.042	0 %100
10	M9	Z	.072	.072	0 %100
11	M10	X	1.493	1.493	0 %100
12	M10	Z	2.587	2.587	0 %100
13	M11	X	1.689	1.689	0 %100
14	M11	Z	2.926	2.926	0 %100
15	OVP	X	.13	.13	0 %100
16	OVP	Z	.225	.225	0 %100
17	M13	X	1.689	1.689	0 %100
18	M13	Z	2.926	2.926	0 %100
19	M14	X	.13	.13	0 %100
20	M14	Z	.225	.225	0 %100
21	M34A	X	.724	.724	0 %100
22	M34A	Z	1.254	1.254	0 %100
23	M36	X	1.244	1.244	0 %100
24	M36	Z	2.154	2.154	0 %100
25	M30	X	.79	.79	0 %100
26	M30	Z	1.369	1.369	0 %100
27	M31	X	.79	.79	0 %100
28	M31	Z	1.369	1.369	0 %100
29	M32	X	.79	.79	0 %100
30	M32	Z	1.369	1.369	0 %100
31	M33	X	.79	.79	0 %100
32	M33	Z	1.369	1.369	0 %100
33	M34	X	1.356	1.356	0 %100
34	M34	Z	2.349	2.349	0 %100
35	M35A	X	1.356	1.356	0 %100
36	M35A	Z	2.349	2.349	0 %100
37	M36A	X	1.436	1.436	0 %100
38	M36A	Z	2.488	2.488	0 %100
39	M37	X	1.436	1.436	0 %100
40	M37	Z	2.488	2.488	0 %100
41	M29	X	1.548	1.548	0 %100
42	M29	Z	2.682	2.682	0 %100
43	M30A	X	1.548	1.548	0 %100
44	M30A	Z	2.682	2.682	0 %100
45	M31A	X	1.548	1.548	0 %100
46	M31A	Z	2.682	2.682	0 %100
47	M32A	X	1.548	1.548	0 %100
48	M32A	Z	2.682	2.682	0 %100
49	M34B	X	1.356	1.356	0 %100
50	M34B	Z	2.349	2.349	0 %100
51	M35B	X	1.356	1.356	0 %100
52	M35B	Z	2.349	2.349	0 %100
53	M36B	X	1.013	1.013	0 %100
54	M36B	Z	1.754	1.754	0 %100
55	M37A	X	1.013	1.013	0 %100
56	M37A	Z	1.754	1.754	0 %100
57	MP5A	X	1.801	1.801	0 %100
58	MP5A	Z	3.12	3.12	0 %100



Company : Maser Consulting
 Designer :
 Job Number :
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Member Distributed Loads (BLC 58 : Structure Wi (150 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
59	MP4A	X	1.801	1.801	0	%100
60	MP4A	Z	3.12	3.12	0	%100
61	MP3A	X	1.801	1.801	0	%100
62	MP3A	Z	3.12	3.12	0	%100
63	MP1A	X	1.801	1.801	0	%100
64	MP1A	Z	3.12	3.12	0	%100
65	MP2A	X	1.991	1.991	0	%100
66	MP2A	Z	3.449	3.449	0	%100
67	M52	X	1.004	1.004	0	%100
68	M52	Z	1.74	1.74	0	%100
69	M53	X	.817	.817	0	%100
70	M53	Z	1.415	1.415	0	%100
71	M54A	X	.724	.724	0	%100
72	M54A	Z	1.254	1.254	0	%100
73	M55	X	.734	.734	0	%100
74	M55	Z	1.271	1.271	0	%100
75	M54B	X	1.56	1.56	0	%100
76	M54B	Z	2.702	2.702	0	%100
77	M55A	X	1.244	1.244	0	%100
78	M55A	Z	2.154	2.154	0	%100
79	M56A	X	1.552	1.552	0	%100
80	M56A	Z	2.688	2.688	0	%100
81	M58	X	1.56	1.56	0	%100
82	M58	Z	2.702	2.702	0	%100
83	M59	X	1.635	1.635	0	%100
84	M59	Z	2.832	2.832	0	%100

Member Distributed Loads (BLC 59 : Structure Wi (180 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M5	X	0	0	0	%100
2	M5	Z	.654	.654	0	%100
3	M6	X	0	0	0	%100
4	M6	Z	.654	.654	0	%100
5	M7	X	0	0	0	%100
6	M7	Z	3.982	3.982	0	%100
7	M8	X	0	0	0	%100
8	M8	Z	.654	.654	0	%100
9	M9	X	0	0	0	%100
10	M9	Z	.654	.654	0	%100
11	M10	X	0	0	0	%100
12	M10	Z	3.982	3.982	0	%100
13	M11	X	0	0	0	%100
14	M11	Z	1.838	1.838	0	%100
15	OVP	X	0	0	0	%100
16	OVP	Z	1.838	1.838	0	%100
17	M13	X	0	0	0	%100
18	M13	Z	1.838	1.838	0	%100
19	M14	X	0	0	0	%100
20	M14	Z	1.838	1.838	0	%100
21	M34A	X	0	0	0	%100
22	M34A	Z	2.215	2.215	0	%100
23	M36	X	0	0	0	%100
24	M36	Z	2.487	2.487	0	%100
25	M30	X	0	0	0	%100
26	M30	Z	2.511	2.511	0	%100
27	M31	X	0	0	0	%100



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Member Distributed Loads (BLC 60 : Structure Wi (210 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
58	MP5A	Z	3.12	3.12	0	%100
59	MP4A	X	-1.801	-1.801	0	%100
60	MP4A	Z	3.12	3.12	0	%100
61	MP3A	X	-1.801	-1.801	0	%100
62	MP3A	Z	3.12	3.12	0	%100
63	MP1A	X	-1.801	-1.801	0	%100
64	MP1A	Z	3.12	3.12	0	%100
65	MP2A	X	-1.991	-1.991	0	%100
66	MP2A	Z	3.449	3.449	0	%100
67	M52	X	-.209	-.209	0	%100
68	M52	Z	.362	.362	0	%100
69	M53	X	-1.635	-1.635	0	%100
70	M53	Z	2.832	2.832	0	%100
71	M54A	X	-1.56	-1.56	0	%100
72	M54A	Z	2.702	2.702	0	%100
73	M55	X	-1.552	-1.552	0	%100
74	M55	Z	2.688	2.688	0	%100
75	M54B	X	-.724	-.724	0	%100
76	M54B	Z	1.254	1.254	0	%100
77	M55A	X	-1.244	-1.244	0	%100
78	M55A	Z	2.154	2.154	0	%100
79	M56A	X	-.734	-.734	0	%100
80	M56A	Z	1.271	1.271	0	%100
81	M58	X	-.724	-.724	0	%100
82	M58	Z	1.254	1.254	0	%100
83	M59	X	-.817	-.817	0	%100
84	M59	Z	1.415	1.415	0	%100

Member Distributed Loads (BLC 61 : Structure Wi (240 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M5	X	-.083	-.083	0	%100
2	M5	Z	.048	.048	0	%100
3	M6	X	-1.083	-1.083	0	%100
4	M6	Z	.625	.625	0	%100
5	M7	X	-.862	-.862	0	%100
6	M7	Z	.498	.498	0	%100
7	M8	X	-.083	-.083	0	%100
8	M8	Z	.048	.048	0	%100
9	M9	X	-1.083	-1.083	0	%100
10	M9	Z	.625	.625	0	%100
11	M10	X	-.862	-.862	0	%100
12	M10	Z	.498	.498	0	%100
13	M11	X	-.193	-.193	0	%100
14	M11	Z	.112	.112	0	%100
15	OVP	X	-2.895	-2.895	0	%100
16	OVP	Z	1.671	1.671	0	%100
17	M13	X	-.193	-.193	0	%100
18	M13	Z	.112	.112	0	%100
19	M14	X	-2.895	-2.895	0	%100
20	M14	Z	1.671	1.671	0	%100
21	M34A	X	-2.822	-2.822	0	%100
22	M34A	Z	1.629	1.629	0	%100
23	M36	X	-2.154	-2.154	0	%100
24	M36	Z	1.244	1.244	0	%100
25	M30	X	-2.682	-2.682	0	%100
26	M30	Z	1.548	1.548	0	%100



Member Distributed Loads (BLC 62 : Structure Wi (270 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
53	M36B	X	-2.435	-2.435	0	%100
54	M36B	Z	0	0	0	%100
55	M37A	X	-2.435	-2.435	0	%100
56	M37A	Z	0	0	0	%100
57	MP5A	X	-3.602	-3.602	0	%100
58	MP5A	Z	0	0	0	%100
59	MP4A	X	-3.602	-3.602	0	%100
60	MP4A	Z	0	0	0	%100
61	MP3A	X	-3.602	-3.602	0	%100
62	MP3A	Z	0	0	0	%100
63	MP1A	X	-3.602	-3.602	0	%100
64	MP1A	Z	0	0	0	%100
65	MP2A	X	-3.982	-3.982	0	%100
66	MP2A	Z	0	0	0	%100
67	M52	X	-4.259	-4.259	0	%100
68	M52	Z	0	0	0	%100
69	M53	X	-2.203	-2.203	0	%100
70	M53	Z	0	0	0	%100
71	M54A	X	-2.49	-2.49	0	%100
72	M54A	Z	0	0	0	%100
73	M55	X	-2.536	-2.536	0	%100
74	M55	Z	0	0	0	%100
75	M54B	X	-2.49	-2.49	0	%100
76	M54B	Z	0	0	0	%100
77	M55A	X	-2.487	-2.487	0	%100
78	M55A	Z	0	0	0	%100
79	M56A	X	-2.536	-2.536	0	%100
80	M56A	Z	0	0	0	%100
81	M58	X	-2.491	-2.491	0	%100
82	M58	Z	0	0	0	%100
83	M59	X	-2.203	-2.203	0	%100
84	M59	Z	0	0	0	%100

Member Distributed Loads (BLC 63 : Structure Wi (300 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M5	X	-1.083	-1.083	0	%100
2	M5	Z	-.625	-.625	0	%100
3	M6	X	-.083	-.083	0	%100
4	M6	Z	-.048	-.048	0	%100
5	M7	X	-.862	-.862	0	%100
6	M7	Z	-.498	-.498	0	%100
7	M8	X	-1.083	-1.083	0	%100
8	M8	Z	-.625	-.625	0	%100
9	M9	X	-.083	-.083	0	%100
10	M9	Z	-.048	-.048	0	%100
11	M10	X	-.862	-.862	0	%100
12	M10	Z	-.498	-.498	0	%100
13	M11	X	-2.895	-2.895	0	%100
14	M11	Z	-1.671	-1.671	0	%100
15	OVP	X	-.193	-.193	0	%100
16	OVP	Z	-.112	-.112	0	%100
17	M13	X	-2.895	-2.895	0	%100
18	M13	Z	-1.671	-1.671	0	%100
19	M14	X	-.193	-.193	0	%100
20	M14	Z	-.112	-.112	0	%100
21	M34A	X	-1.373	-1.373	0	%100



Member Distributed Loads (BLC 67 : Structure Wm (60 Deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
12	M10	Z	-.098	-.098	0 %100
13	M11	X	.035	.035	0 %100
14	M11	Z	-.02	-.02	0 %100
15	OVP	X	.522	.522	0 %100
16	OVP	Z	-.301	-.301	0 %100
17	M13	X	.035	.035	0 %100
18	M13	Z	-.02	-.02	0 %100
19	M14	X	.522	.522	0 %100
20	M14	Z	-.301	-.301	0 %100
21	M34A	X	.689	.689	0 %100
22	M34A	Z	-.398	-.398	0 %100
23	M36	X	.343	.343	0 %100
24	M36	Z	-.198	-.198	0 %100
25	M30	X	.639	.639	0 %100
26	M30	Z	-.369	-.369	0 %100
27	M31	X	.639	.639	0 %100
28	M31	Z	-.369	-.369	0 %100
29	M32	X	.639	.639	0 %100
30	M32	Z	-.369	-.369	0 %100
31	M33	X	.639	.639	0 %100
32	M33	Z	-.369	-.369	0 %100
33	M34	X	.378	.378	0 %100
34	M34	Z	-.218	-.218	0 %100
35	M35A	X	.378	.378	0 %100
36	M35A	Z	-.218	-.218	0 %100
37	M36A	X	.27	.27	0 %100
38	M36A	Z	-.156	-.156	0 %100
39	M37	X	.27	.27	0 %100
40	M37	Z	-.156	-.156	0 %100
41	M29	X	.166	.166	0 %100
42	M29	Z	-.096	-.096	0 %100
43	M30A	X	.166	.166	0 %100
44	M30A	Z	-.096	-.096	0 %100
45	M31A	X	.166	.166	0 %100
46	M31A	Z	-.096	-.096	0 %100
47	M32A	X	.166	.166	0 %100
48	M32A	Z	-.096	-.096	0 %100
49	M34B	X	.378	.378	0 %100
50	M34B	Z	-.218	-.218	0 %100
51	M35B	X	.378	.378	0 %100
52	M35B	Z	-.218	-.218	0 %100
53	M36B	X	.384	.384	0 %100
54	M36B	Z	-.222	-.222	0 %100
55	M37A	X	.384	.384	0 %100
56	M37A	Z	-.222	-.222	0 %100
57	MP5A	X	.563	.563	0 %100
58	MP5A	Z	-.325	-.325	0 %100
59	MP4A	X	.563	.563	0 %100
60	MP4A	Z	-.325	-.325	0 %100
61	MP3A	X	.563	.563	0 %100
62	MP3A	Z	-.325	-.325	0 %100
63	MP1A	X	.563	.563	0 %100
64	MP1A	Z	-.325	-.325	0 %100
65	MP2A	X	.681	.681	0 %100
66	MP2A	Z	-.393	-.393	0 %100
67	M52	X	.438	.438	0 %100
68	M52	Z	-.253	-.253	0 %100



Member Distributed Loads (BLC 69 : Structure Wm (120 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
7	M8	X	.083	.083	0	%100
8	M8	Z	.048	.048	0	%100
9	M9	X	.006	.006	0	%100
10	M9	Z	.004	.004	0	%100
11	M10	X	.17	.17	0	%100
12	M10	Z	.098	.098	0	%100
13	M11	X	.522	.522	0	%100
14	M11	Z	.301	.301	0	%100
15	OVP	X	.035	.035	0	%100
16	OVP	Z	.02	.02	0	%100
17	M13	X	.522	.522	0	%100
18	M13	Z	.301	.301	0	%100
19	M14	X	.035	.035	0	%100
20	M14	Z	.02	.02	0	%100
21	M34A	X	.167	.167	0	%100
22	M34A	Z	.097	.097	0	%100
23	M36	X	.343	.343	0	%100
24	M36	Z	.198	.198	0	%100
25	M30	X	.112	.112	0	%100
26	M30	Z	.065	.065	0	%100
27	M31	X	.112	.112	0	%100
28	M31	Z	.065	.065	0	%100
29	M32	X	.112	.112	0	%100
30	M32	Z	.065	.065	0	%100
31	M33	X	.112	.112	0	%100
32	M33	Z	.065	.065	0	%100
33	M34	X	.378	.378	0	%100
34	M34	Z	.218	.218	0	%100
35	M35A	X	.378	.378	0	%100
36	M35A	Z	.218	.218	0	%100
37	M36A	X	.384	.384	0	%100
38	M36A	Z	.222	.222	0	%100
39	M37	X	.384	.384	0	%100
40	M37	Z	.222	.222	0	%100
41	M29	X	.692	.692	0	%100
42	M29	Z	.4	.4	0	%100
43	M30A	X	.692	.692	0	%100
44	M30A	Z	.4	.4	0	%100
45	M31A	X	.692	.692	0	%100
46	M31A	Z	.4	.4	0	%100
47	M32A	X	.692	.692	0	%100
48	M32A	Z	.4	.4	0	%100
49	M34B	X	.378	.378	0	%100
50	M34B	Z	.218	.218	0	%100
51	M35B	X	.378	.378	0	%100
52	M35B	Z	.218	.218	0	%100
53	M36B	X	.27	.27	0	%100
54	M36B	Z	.156	.156	0	%100
55	M37A	X	.27	.27	0	%100
56	M37A	Z	.156	.156	0	%100
57	MP5A	X	.563	.563	0	%100
58	MP5A	Z	.325	.325	0	%100
59	MP4A	X	.563	.563	0	%100
60	MP4A	Z	.325	.325	0	%100
61	MP3A	X	.563	.563	0	%100
62	MP3A	Z	.325	.325	0	%100
63	MP1A	X	.563	.563	0	%100



Member Distributed Loads (BLC 69 : Structure Wm (120 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
64	MP1A	Z	.325	.325	0	%100
65	MP2A	X	.681	.681	0	%100
66	MP2A	Z	.393	.393	0	%100
67	M52	X	.723	.723	0	%100
68	M52	Z	.417	.417	0	%100
69	M53	X	.131	.131	0	%100
70	M53	Z	.075	.075	0	%100
71	M54A	X	.167	.167	0	%100
72	M54A	Z	.097	.097	0	%100
73	M55	X	.183	.183	0	%100
74	M55	Z	.105	.105	0	%100
75	M54B	X	.689	.689	0	%100
76	M54B	Z	.398	.398	0	%100
77	M55A	X	.343	.343	0	%100
78	M55A	Z	.198	.198	0	%100
79	M56A	X	.693	.693	0	%100
80	M56A	Z	.4	.4	0	%100
81	M58	X	.689	.689	0	%100
82	M58	Z	.398	.398	0	%100
83	M59	X	.641	.641	0	%100
84	M59	Z	.37	.37	0	%100

Member Distributed Loads (BLC 70 : Structure Wm (150 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M5	X	.048	.048	0	%100
2	M5	Z	.082	.082	0	%100
3	M6	X	.003	.003	0	%100
4	M6	Z	.006	.006	0	%100
5	M7	X	.295	.295	0	%100
6	M7	Z	.511	.511	0	%100
7	M8	X	.048	.048	0	%100
8	M8	Z	.082	.082	0	%100
9	M9	X	.003	.003	0	%100
10	M9	Z	.006	.006	0	%100
11	M10	X	.295	.295	0	%100
12	M10	Z	.511	.511	0	%100
13	M11	X	.305	.305	0	%100
14	M11	Z	.528	.528	0	%100
15	OVP	X	.023	.023	0	%100
16	OVP	Z	.041	.041	0	%100
17	M13	X	.305	.305	0	%100
18	M13	Z	.528	.528	0	%100
19	M14	X	.023	.023	0	%100
20	M14	Z	.041	.041	0	%100
21	M34A	X	.072	.072	0	%100
22	M34A	Z	.124	.124	0	%100
23	M36	X	.198	.198	0	%100
24	M36	Z	.343	.343	0	%100
25	M30	X	.096	.096	0	%100
26	M30	Z	.166	.166	0	%100
27	M31	X	.096	.096	0	%100
28	M31	Z	.166	.166	0	%100
29	M32	X	.096	.096	0	%100
30	M32	Z	.166	.166	0	%100
31	M33	X	.096	.096	0	%100
32	M33	Z	.166	.166	0	%100



Member Distributed Loads (BLC 71 : Structure Wm (180 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
59	MP4A	X	0	0	0	%100
60	MP4A	Z	.65	.65	0	%100
61	MP3A	X	0	0	0	%100
62	MP3A	Z	.65	.65	0	%100
63	MP1A	X	0	0	0	%100
64	MP1A	Z	.65	.65	0	%100
65	MP2A	X	0	0	0	%100
66	MP2A	Z	.787	.787	0	%100
67	M52	X	0	0	0	%100
68	M52	Z	.041	.041	0	%100
69	M53	X	0	0	0	%100
70	M53	Z	.535	.535	0	%100
71	M54A	X	0	0	0	%100
72	M54A	Z	.42	.42	0	%100
73	M55	X	0	0	0	%100
74	M55	Z	.415	.415	0	%100
75	M54B	X	0	0	0	%100
76	M54B	Z	.42	.42	0	%100
77	M55A	X	0	0	0	%100
78	M55A	Z	.396	.396	0	%100
79	M56A	X	0	0	0	%100
80	M56A	Z	.415	.415	0	%100
81	M58	X	0	0	0	%100
82	M58	Z	.42	.42	0	%100
83	M59	X	0	0	0	%100
84	M59	Z	.535	.535	0	%100

Member Distributed Loads (BLC 72 : Structure Wm (210 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M5	X	-.003	-.003	0	%100
2	M5	Z	.006	.006	0	%100
3	M6	X	-.048	-.048	0	%100
4	M6	Z	.082	.082	0	%100
5	M7	X	-.295	-.295	0	%100
6	M7	Z	.511	.511	0	%100
7	M8	X	-.003	-.003	0	%100
8	M8	Z	.006	.006	0	%100
9	M9	X	-.048	-.048	0	%100
10	M9	Z	.082	.082	0	%100
11	M10	X	-.295	-.295	0	%100
12	M10	Z	.511	.511	0	%100
13	M11	X	-.023	-.023	0	%100
14	M11	Z	.041	.041	0	%100
15	OVP	X	-.305	-.305	0	%100
16	OVP	Z	.528	.528	0	%100
17	M13	X	-.023	-.023	0	%100
18	M13	Z	.041	.041	0	%100
19	M14	X	-.305	-.305	0	%100
20	M14	Z	.528	.528	0	%100
21	M34A	X	-.373	-.373	0	%100
22	M34A	Z	.646	.646	0	%100
23	M36	X	-.198	-.198	0	%100
24	M36	Z	.343	.343	0	%100
25	M30	X	-.4	-.4	0	%100
26	M30	Z	.692	.692	0	%100
27	M31	X	-.4	-.4	0	%100



Member Distributed Loads (BLC 72 : Structure Wm (210 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
28	M31	Z	.692	.692	0	%100
29	M32	X	-.4	-.4	0	%100
30	M32	Z	.692	.692	0	%100
31	M33	X	-.4	-.4	0	%100
32	M33	Z	.692	.692	0	%100
33	M34	X	-.218	-.218	0	%100
34	M34	Z	.378	.378	0	%100
35	M35A	X	-.218	-.218	0	%100
36	M35A	Z	.378	.378	0	%100
37	M36A	X	-.157	-.157	0	%100
38	M36A	Z	.272	.272	0	%100
39	M37	X	-.157	-.157	0	%100
40	M37	Z	.272	.272	0	%100
41	M29	X	-.065	-.065	0	%100
42	M29	Z	.112	.112	0	%100
43	M30A	X	-.065	-.065	0	%100
44	M30A	Z	.112	.112	0	%100
45	M31A	X	-.065	-.065	0	%100
46	M31A	Z	.112	.112	0	%100
47	M32A	X	-.065	-.065	0	%100
48	M32A	Z	.112	.112	0	%100
49	M34B	X	-.218	-.218	0	%100
50	M34B	Z	.378	.378	0	%100
51	M35B	X	-.218	-.218	0	%100
52	M35B	Z	.378	.378	0	%100
53	M36B	X	-.222	-.222	0	%100
54	M36B	Z	.385	.385	0	%100
55	M37A	X	-.222	-.222	0	%100
56	M37A	Z	.385	.385	0	%100
57	MP5A	X	-.325	-.325	0	%100
58	MP5A	Z	.563	.563	0	%100
59	MP4A	X	-.325	-.325	0	%100
60	MP4A	Z	.563	.563	0	%100
61	MP3A	X	-.325	-.325	0	%100
62	MP3A	Z	.563	.563	0	%100
63	MP1A	X	-.325	-.325	0	%100
64	MP1A	Z	.563	.563	0	%100
65	MP2A	X	-.393	-.393	0	%100
66	MP2A	Z	.681	.681	0	%100
67	M52	X	-.043	-.043	0	%100
68	M52	Z	.075	.075	0	%100
69	M53	X	-.4	-.4	0	%100
70	M53	Z	.693	.693	0	%100
71	M54A	X	-.373	-.373	0	%100
72	M54A	Z	.646	.646	0	%100
73	M55	X	-.37	-.37	0	%100
74	M55	Z	.641	.641	0	%100
75	M54B	X	-.072	-.072	0	%100
76	M54B	Z	.124	.124	0	%100
77	M55A	X	-.198	-.198	0	%100
78	M55A	Z	.343	.343	0	%100
79	M56A	X	-.075	-.075	0	%100
80	M56A	Z	.131	.131	0	%100
81	M58	X	-.072	-.072	0	%100
82	M58	Z	.124	.124	0	%100
83	M59	X	-.105	-.105	0	%100
84	M59	Z	.183	.183	0	%100



Member Distributed Loads (BLC 75 : Structure Wm (300 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
53	M36B	X	-0.27	-0.27	0	%100
54	M36B	Z	-0.156	-0.156	0	%100
55	M37A	X	-0.27	-0.27	0	%100
56	M37A	Z	-0.156	-0.156	0	%100
57	MP5A	X	-0.563	-0.563	0	%100
58	MP5A	Z	-0.325	-0.325	0	%100
59	MP4A	X	-0.563	-0.563	0	%100
60	MP4A	Z	-0.325	-0.325	0	%100
61	MP3A	X	-0.563	-0.563	0	%100
62	MP3A	Z	-0.325	-0.325	0	%100
63	MP1A	X	-0.563	-0.563	0	%100
64	MP1A	Z	-0.325	-0.325	0	%100
65	MP2A	X	-0.681	-0.681	0	%100
66	MP2A	Z	-0.393	-0.393	0	%100
67	M52	X	-0.723	-0.723	0	%100
68	M52	Z	-0.417	-0.417	0	%100
69	M53	X	-0.131	-0.131	0	%100
70	M53	Z	-0.075	-0.075	0	%100
71	M54A	X	-0.167	-0.167	0	%100
72	M54A	Z	-0.097	-0.097	0	%100
73	M55	X	-0.183	-0.183	0	%100
74	M55	Z	-0.105	-0.105	0	%100
75	M54B	X	-0.689	-0.689	0	%100
76	M54B	Z	-0.398	-0.398	0	%100
77	M55A	X	-0.343	-0.343	0	%100
78	M55A	Z	-0.198	-0.198	0	%100
79	M56A	X	-0.693	-0.693	0	%100
80	M56A	Z	-0.4	-0.4	0	%100
81	M58	X	-0.689	-0.689	0	%100
82	M58	Z	-0.398	-0.398	0	%100
83	M59	X	-0.641	-0.641	0	%100
84	M59	Z	-0.37	-0.37	0	%100

Member Distributed Loads (BLC 76 : Structure Wm (330 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M5	X	-0.048	-0.048	0	%100
2	M5	Z	-0.082	-0.082	0	%100
3	M6	X	-0.003	-0.003	0	%100
4	M6	Z	-0.006	-0.006	0	%100
5	M7	X	-0.295	-0.295	0	%100
6	M7	Z	-0.511	-0.511	0	%100
7	M8	X	-0.048	-0.048	0	%100
8	M8	Z	-0.082	-0.082	0	%100
9	M9	X	-0.003	-0.003	0	%100
10	M9	Z	-0.006	-0.006	0	%100
11	M10	X	-0.295	-0.295	0	%100
12	M10	Z	-0.511	-0.511	0	%100
13	M11	X	-0.305	-0.305	0	%100
14	M11	Z	-0.528	-0.528	0	%100
15	OVP	X	-0.023	-0.023	0	%100
16	OVP	Z	-0.041	-0.041	0	%100
17	M13	X	-0.305	-0.305	0	%100
18	M13	Z	-0.528	-0.528	0	%100
19	M14	X	-0.023	-0.023	0	%100
20	M14	Z	-0.041	-0.041	0	%100
21	M34A	X	-0.072	-0.072	0	%100



Member Distributed Loads (BLC 76 : Structure Wm (330 Deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
22	M34A	Z	-.124	-.124	0 %100
23	M36	X	-.198	-.198	0 %100
24	M36	Z	-.343	-.343	0 %100
25	M30	X	-.096	-.096	0 %100
26	M30	Z	-.166	-.166	0 %100
27	M31	X	-.096	-.096	0 %100
28	M31	Z	-.166	-.166	0 %100
29	M32	X	-.096	-.096	0 %100
30	M32	Z	-.166	-.166	0 %100
31	M33	X	-.096	-.096	0 %100
32	M33	Z	-.166	-.166	0 %100
33	M34	X	-.218	-.218	0 %100
34	M34	Z	-.378	-.378	0 %100
35	M35A	X	-.218	-.218	0 %100
36	M35A	Z	-.378	-.378	0 %100
37	M36A	X	-.222	-.222	0 %100
38	M36A	Z	-.385	-.385	0 %100
39	M37	X	-.222	-.222	0 %100
40	M37	Z	-.385	-.385	0 %100
41	M29	X	-.369	-.369	0 %100
42	M29	Z	-.639	-.639	0 %100
43	M30A	X	-.369	-.369	0 %100
44	M30A	Z	-.639	-.639	0 %100
45	M31A	X	-.369	-.369	0 %100
46	M31A	Z	-.639	-.639	0 %100
47	M32A	X	-.369	-.369	0 %100
48	M32A	Z	-.639	-.639	0 %100
49	M34B	X	-.218	-.218	0 %100
50	M34B	Z	-.378	-.378	0 %100
51	M35B	X	-.218	-.218	0 %100
52	M35B	Z	-.378	-.378	0 %100
53	M36B	X	-.157	-.157	0 %100
54	M36B	Z	-.272	-.272	0 %100
55	M37A	X	-.157	-.157	0 %100
56	M37A	Z	-.272	-.272	0 %100
57	MP5A	X	-.325	-.325	0 %100
58	MP5A	Z	-.563	-.563	0 %100
59	MP4A	X	-.325	-.325	0 %100
60	MP4A	Z	-.563	-.563	0 %100
61	MP3A	X	-.325	-.325	0 %100
62	MP3A	Z	-.563	-.563	0 %100
63	MP1A	X	-.325	-.325	0 %100
64	MP1A	Z	-.563	-.563	0 %100
65	MP2A	X	-.393	-.393	0 %100
66	MP2A	Z	-.681	-.681	0 %100
67	M52	X	-.207	-.207	0 %100
68	M52	Z	-.359	-.359	0 %100
69	M53	X	-.105	-.105	0 %100
70	M53	Z	-.183	-.183	0 %100
71	M54A	X	-.072	-.072	0 %100
72	M54A	Z	-.124	-.124	0 %100
73	M55	X	-.075	-.075	0 %100
74	M55	Z	-.131	-.131	0 %100
75	M54B	X	-.373	-.373	0 %100
76	M54B	Z	-.646	-.646	0 %100
77	M55A	X	-.198	-.198	0 %100
78	M55A	Z	-.343	-.343	0 %100



Company : Maser Consulting
 Designer :
 Job Number :
 Model Name : 467897-VZW_MT_LOT_SectorA_H

July 1, 2021
 8:50 AM
 Checked By: _____

Envelope AISC 15th(360-16): LRFD Steel Code Checks (Continued)

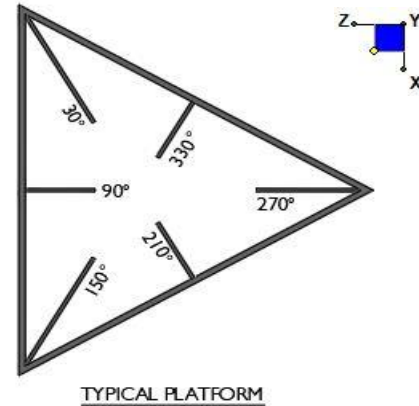
Member	Shape	Code Check	Loc[ft]	LC	Shear Check	L...Dir	LC	phi*Pnc...	phi*Pnt...	phi*Mn...	phi*Mn...	Cb	Eqn
29	MP5A	PIPE 2.0	.614	3.375	3	.176	4...	9	20866.7...	32130	1.872	1.872	1...H1-1b
30	MP4A	PIPE 2.0	.066	1.375	3	.040	4...	8	20866.7...	32130	1.872	1.872	2...H1-1b
31	MP3A	PIPE 2.0	.069	4.75	9	.017	4...	2	20866.7...	32130	1.872	1.872	1...H1-1b
32	MP1A	PIPE 2.0	.143	4.75	23	.074	1...	4	20866.7...	32130	1.872	1.872	1...H1-1b
33	MP2A	PIPE 2.5	.123	4.875	13	.079	1.5	9	37773.8...	50715	3.596	3.596	1...H1-1b
34	M52	PIPE 3.0	.079	6.254	10	.006	0	16	29188.7...	65205	5.749	5.749	1...H1-1b
35	M53	PL3/8X3	.092	.333	9	.019	.... y	9	34471.5...	36450	.284	2.271	1 H1-1b
36	M54A	PL3/8X3	.018	0	9	.018	0 y	9	35426.7...	36450	.284	2.279	2...H1-1b*
37	M55	PL3/8X3	.091	.333	10	.019	.... y	9	34471.5...	36450	.284	2.279	1...H1-1b
38	M54B	PL3/8X3	.021	.165	37	.007	0 y	12	35426.7...	36450	.284	2.279	1...H1-1b*
39	M55A	PIPE 1.5x0...	.113	1.458	38	.006	0	1	7829.821	9143.92	.374	.374	1...H1-1b
40	M56A	PL3/8X3	.098	.333	38	.006	.... y	12	34471.5...	36450	.284	2.271	1 H1-1b
41	M58	PL3/8X3	.021	0	37	.005	0 y	1	35426.7...	36450	.284	2.279	1...H1-1b*
42	M59	PL3/8X3	.098	.333	38	.006	.... y	12	34471.5...	36450	.284	2.271	1 H1-1b



I. Mount-to-Tower Connection Check

RISA Model Data

Nodes (labeled per RISA)	Orientation (per graphic of typical platform)
N4	90
N65	90



Tower Connection Bolt Checks

Any moment resistance?:

Bolt Quantity per Reaction:

d_x (in) (Delta X of typ. bolt config. sketch):

d_y (in) (Delta Y of typ. bolt config. sketch):

Bolt Type:

Bolt Diameter (in):

Required Tensile Strength (kips):

Required Shear Strength (kips):

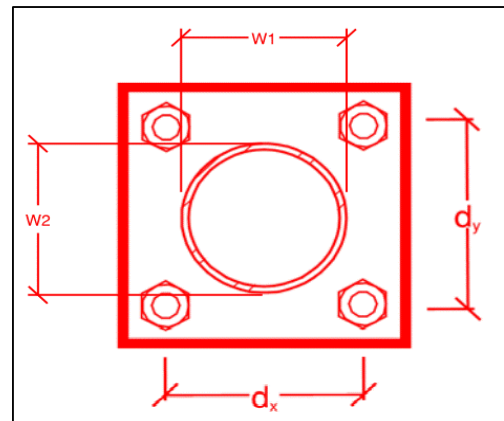
Tensile Strength / bolt (kips):

Shear Strength / bolt (kips):

Tensile Capacity Overall:

Shear Capacity Overall:

yes
2
3
1.5
U-Bolt
0.5
8.8
2.6
16.3
9.8
26.8%*
13.1%



*Note: Tension reduction not required if tension or shear capacity < 30%

Mount Desktop – Post Modification Inspection (PMI) Report Requirements

Documents & Photos Required from Contractor – Mount Modification

Purpose – to provide MASER CONSULTING the proper documentation in order to complete the required Mount Desktop review of the Post Modification Inspection Report.

- Contractor is responsible for making certain the photos provided as noted below provide confirmation that the modification was completed in accordance with the modification drawings.
- Contractor shall relay any data that can impact the performance of the mount or the mount modification, this includes safety issues.

Base Requirements:

- Any special photos outside of the standard requirements will be indicated on the drawings
- Provide “as built drawings” showing contractor’s name, preparer’s signature, and date. Any deviations from the drawings (proposed modification) must be shown.
- Notation that all hardware was properly installed, and the existing hardware was inspected for any issues.
- Verification that loading is as communicated in the modification drawings. NOTE If loading is different than what is conveyed in the modification drawing contact MASER CONSULTING immediately.
- Each photo should be time and date stamped
- Photos should be high resolution and submitted in a Zip File and should be organized in the file structure as depicted in Schedule A attached.
- Contractor shall ensure that the safety climb wire rope is supported and not adversely impacted by the install of the modification components. This may involve the install of wire rope guides, or other items to protect the wire rope.
- The photos in the file structure should be uploaded to <https://pmi.vzwsmart.com> as depicted on the drawings

Photo Requirements:

- Base and “During Installation Photos”
 - Base pictures include
 - Photo of Gate Signs showing the tower owner, site name, and number
 - Photo of carrier shelter showing the carrier site name and number if available
 - Photos of the galvanizing compound and/or paint used (if applicable), clearly showing the label and name
 - “During Installation Photos if provided - must be placed only in this folder
- Photos taken at ground level
 - Overall tower structure before and after installation of the modifications
 - Photos of the appropriate mount before and after installation of the modifications; if the mounts are at different rad elevations, pictures must be provided for all elevations that the modifications were installed

- Photos taken at Mount Elevation
 - Photos showing each individual sector before and also after installation of modifications. Each entire sector must be in one photo to show in the inter-connection of members.
 - These photos should also certify that the placement and geometry of the equipment on the mount is as depicted on the sketch and table in the mount analysis
 - Close-up photos of each installed modification per the modification drawings; pictures should also include connection hardware (U-bolts, bolts, nuts, all-threaded rods, etc.)
 - Photos showing the measurements of the installed modification member sizes (i.e. lengths, widths, depths, diameters, thicknesses)
 - Photos showing the elevation or distances of the installed modifications from the appropriate reference locations shown in the modification drawings
 - Photos showing the installed modifications onto the tower with tape drop measurements (if applicable) (i.e. ring/collar mounts, tie-backs, V-bracing kits, etc.); if the existing mount elevation needs to be changed according to the modification drawings, a tape drop measurement shall be provided before the elevation change
 - Photos showing the safety climb wire rope above and below the mount prior to modification.
 - Photos showing the climbing facility and safety climb if present.

Material Certification:

- Materials utilized must be as per specification on the drawings or the equivalent as validated by MASER CONSULTING.
 - If the drawings are as specified on the drawings
 - The contractor should provide the packing list or the materials utilized to perform the mount modification
 - If an equivalent is utilized
 - It is required that the MASER CONSULTING certification of such is included in the contractor submission package. There may be an additional charge for this certification if the equivalent submission doesn't meet specifications as prescribed in the drawings.
- The contractor must certify that the materials meet these specifications by one of these methods.


















The Material utilized was as specified on the MASER CONSULTING Mount Modification Drawings and included in the Material certification folder is a packing list or invoice for these materials

The material utilized was an "equivalent" and included as part of the contractor submission is the MASER CONSULTING certification, invoices, or specifications validating accepted status

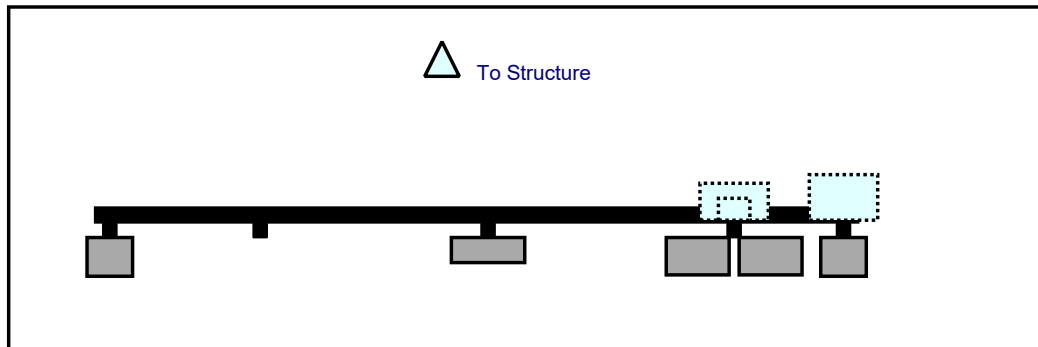
Certifying Individual: Company _____

Name _____

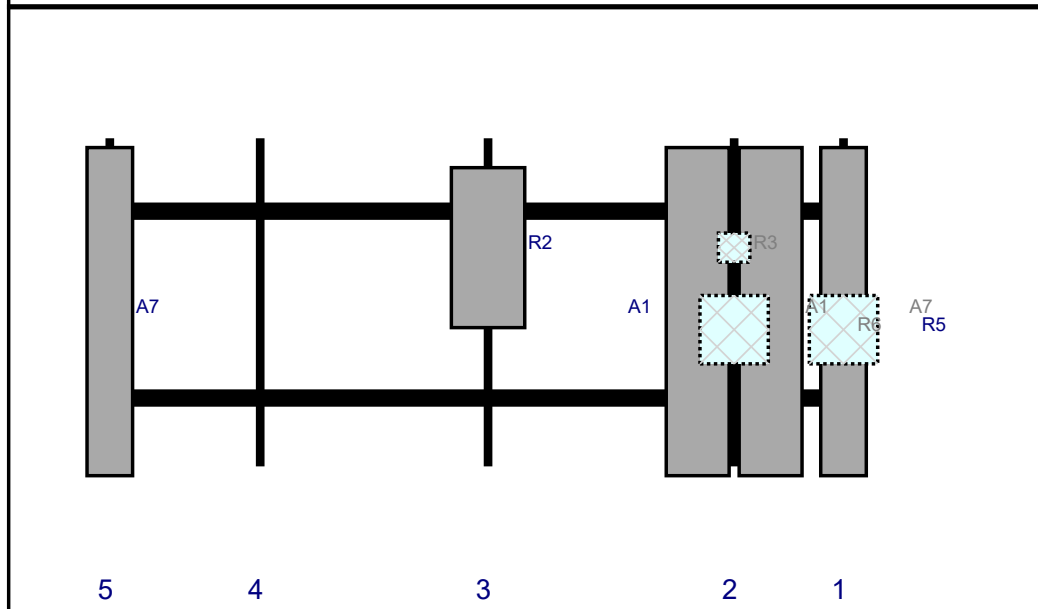
Schedule A – Photo & Document File Structure

-  VzW Site Number / Name
 -  Base & “During Installation” Photos
 -  Pre-Installation Photos
 -  Alpha
 -  Beta
 -  Gamma
 -  Ground Level
 -  Tape Drop
 -  Post-Installation Photos
 -  Alpha
 -  Beta
 -  Gamma
 -  Ground Level
 -  Tape Drop
 -  Photos of climbing facility and safety climb – If Present
-  Certifications – Submission of this document including certifications
-  Specific Required Additional Photos

Plan View

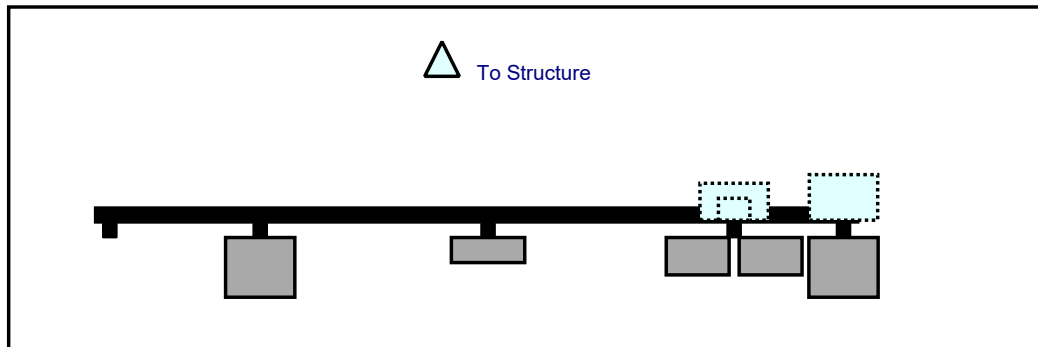


Front View
Looking at Structure

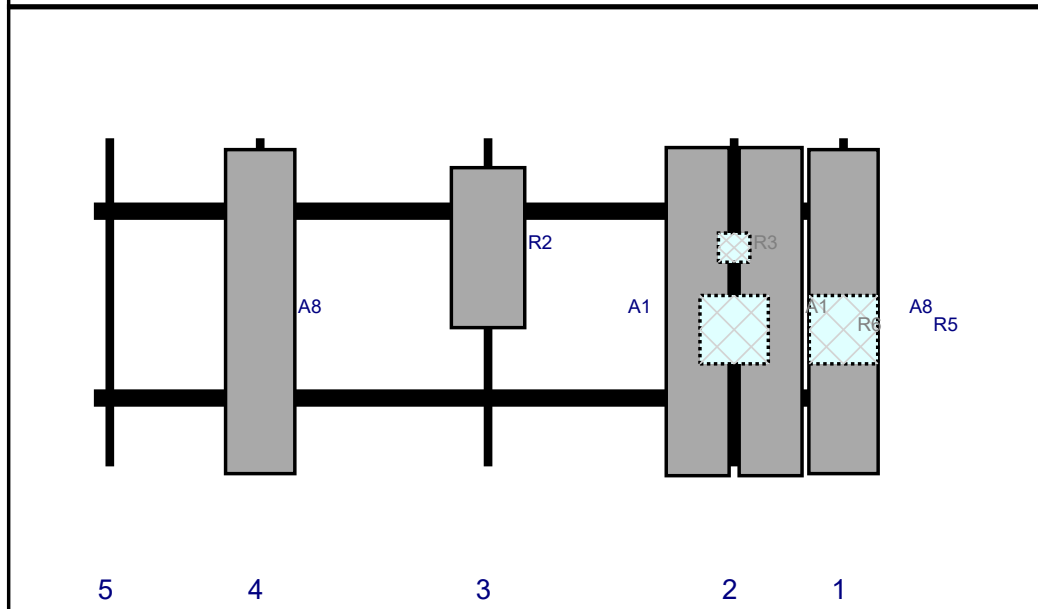


Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A7	DB846F65ZAXY	72	10	164.5	1	a	Front	38.04	0	Retained	03/24/2021
R5	B2/B66A RRH-BR049 (RFV01U-D1A)	15	15	164.5	1	a	Behind	42	0	Added	
A1	JAHH-65B-R3B	72	13.8	140.5	2	a	Front	38.04	8	Added	
A1	JAHH-65B-R3B	72	13.8	140.5	2	b	Front	38.04	-8	Added	
R3	CBC78T-DS-43-2X	6.4	6.9	140.5	2	a	Behind	24	0	Added	
R6	B5/B13 RRH-BR04C (RFV01U-D2A)	15	15	140.5	2	b	Behind	42	0	Added	
R2	MT6407-77A	35.1	16.1	86.5	3	a	Front	24	0	Added	
A7	DB846F65ZAXY	72	10	3.5	5	a	Front	38.04	0	Retained	03/24/2021

Plan View

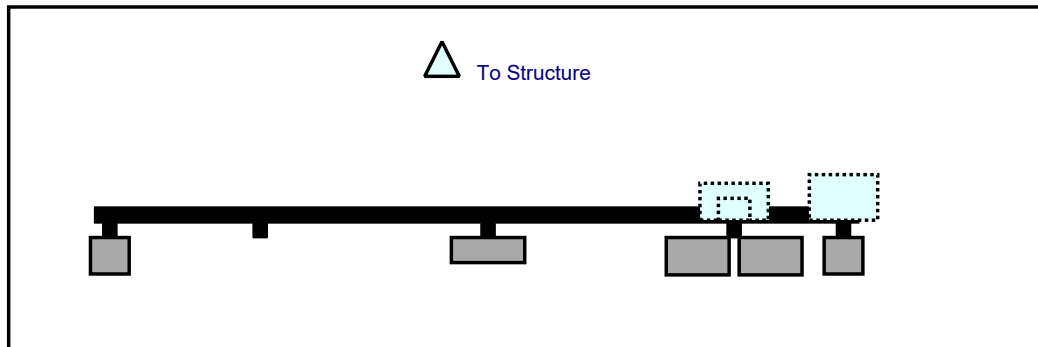


Front View
Looking at Structure

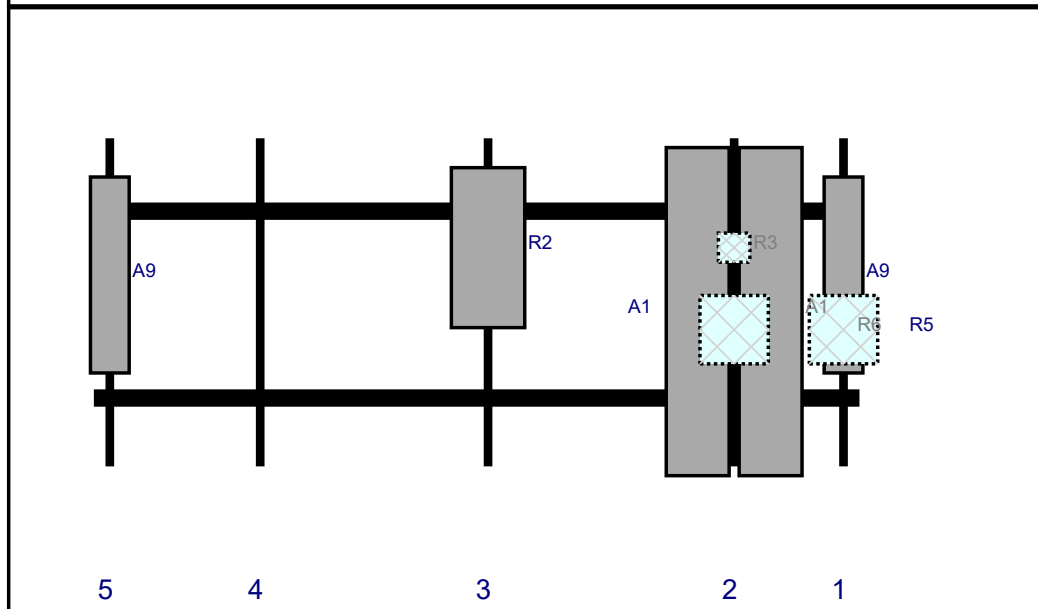


Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A8	LPA80063/6CF 5	71.1	15.2	164.5	1	a	Front	38.04	0	Retained	03/24/2021
R5	B2/B66A RRH-BR049 (RFV01U-D1A)	15	15	164.5	1	a	Behind	42	0	Added	
A1	JAHH-65B-R3B	72	13.8	140.5	2	a	Front	38.04	8	Added	
A1	JAHH-65B-R3B	72	13.8	140.5	2	b	Front	38.04	-8	Added	
R3	CBC78T-DS-43-2X	6.4	6.9	140.5	2	a	Behind	24	0	Added	
R6	B5/B13 RRH-BR04C (RFV01U-D2A)	15	15	140.5	2	b	Behind	42	0	Added	
R2	MT6407-77A	35.1	16.1	86.5	3	a	Front	24	0	Added	
A8	LPA80063/6CF 5	71.1	15.2	36.5	4	a	Front	38.04	0	Retained	03/24/2021

Plan View



Front View
Looking at Structure



Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A9	SC-E 6014 rev2	43	8.5	164.5	1	a	Front	30	0	Retained	03/24/2021
R5	B2/B66A RRH-BR049 (RFV01U-D1A)	15	15	164.5	1	a	Behind	42	0	Added	
A1	JAHH-65B-R3B	72	13.8	140.5	2	a	Front	38.04	8	Added	
A1	JAHH-65B-R3B	72	13.8	140.5	2	b	Front	38.04	-8	Added	
R3	CBC78T-DS-43-2X	6.4	6.9	140.5	2	a	Behind	24	0	Added	
R6	B5/B13 RRH-BR04C (RFV01U-D2A)	15	15	140.5	2	b	Behind	42	0	Added	
R2	MT6407-77A	35.1	16.1	86.5	3	a	Front	24	0	Added	
A9	SC-E 6014 rev2	43	8.5	3.5	5	a	Front	30	0	Retained	03/24/2021

Subject: *TIA-222-H Usage*

Site Information

Site ID: 467897-VZW / WOLCOTT CT
Site Name: WOLCOTT CT
Carrier Name: Verizon Wireless
Address: 347 East St
Wolcott, Connecticut 06716
New Haven County
Latitude: 41.559528°
Longitude: -72.947028°

Structure Information

Tower Type: 190-Ft Self Support
Mount Type: 14.00-Ft Sector Frame

To Whom It May Concern,

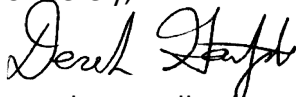
We respectfully submit the above referenced Antenna Mount Structural Analysis report in conformance with ANSI/TIA-222-H, Structural Standard for Antenna Supporting Structures and Antennas and Small Wind Turbine Support Structures.

The 2021 International Building Code states that, in Section 3108, telecommunication towers shall be designed and constructed in accordance with the provisions of TIA-222. The TIA-222-H is the latest revision of the TIA-222 Standard, effective as of January 01, 2018.

As with all ANSI standards and engineering best practice is to apply the most current revision of the standard. This ensures the engineer is applying all updates. As an example, the TIA-222-H standard includes updates to bring it in line with the latest AISC and ACI standards and it also incorporates the latest wind speed map by ASCE 7 based on updated studies of the wind data.

The TIA-222-H standard clarifies these specific requirements for the antenna mount analysis such as modeling method, seismic analysis, 30-degree increment wind direction and maintenance loading. Therefore, it is our opinion that TIA-222-H is the most appropriate standard for antenna mount structural analysis and is acceptable for use at this site to ensure the engineer is taking into account the most current engineering standard available.

Sincerely,



Derek Hartzell, PE
Technical Specialist

PROJECT NOTES

- SEE MODIFICATION NOTES
- THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES, ORDINANCES, LAWS AND REGULATIONS OF ALL MUNICIPALITIES, UTILITY COMPANIES OR OTHER PUBLIC/GOVERNING AUTHORITIES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS THAT MAY BE REQUIRED BY ANY FEDERAL, STATE, COUNTY OR MUNICIPAL AUTHORITIES.
- THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER, IN WRITING, OF ANY CONFLICTS, ERRORS OR OMISSIONS PRIOR TO THE SUBMISSION OF BIDS OR PERFORMANCE OF WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING SITE IMPROVEMENTS PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL REPAIR ANY DAMAGE AS A RESULT OF CONSTRUCTION OF THIS FACILITY AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
- THE SCOPE OF WORK FOR THIS PROJECT SHALL INCLUDE PROVIDING ALL MATERIALS, EQUIPMENT AND LABOR REQUIRED TO COMPLETE THIS PROJECT. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- THE CONTRACTOR SHALL VISIT THE PROJECT SITE PRIOR TO SUBMITTING THE BID TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND CONSTRUCTION DRAWINGS.
- THE CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THESE DRAWINGS MUST BE VERIFIED. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
- SINCE THE CELL SITE MAY BE ACTIVE, ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHOULD BE SHUTDOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RF EXPOSURE MONITORS ARE REQUIRED TO BE WORN TO ALERT OF ANY POTENTIALLY DANGEROUS EXPOSURE LEVELS.
- NO NOISE, SMOKE, DUST OR ODOR WILL RESULT FROM THIS FACILITY AS TO CAUSE A NUISANCE.
- THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION (NO HANDICAP ACCESS IS REQUIRED).



MOUNT MODIFICATION DRAWINGS EXISTING 14.00' SECTOR FRAME

SITE NAME: WOLCOTT CT
SITE NUMBER: 467897

347 EAST ST
WOLCOTT, CT 06716
NEW HAVEN COUNTY

PROJECT INFORMATION	
SITE INFORMATION	
LATITUDE:	41.559528° N
LONGITUDE:	-72.947028° W
JURISDICTION:	NEW HAVEN COUNTY
APPLICANT/LESSEE	
COMPANY:	VERIZON WIRELESS
CLIENT REPRESENTATIVE	
COMPANY:	VERIZON WIRELESS
ADDRESS:	118 FLANDERS ROAD, THIRD FLOOR
CITY, STATE, ZIP:	WESTBOROUGH, MA 01581
CONTACT:	ANDREW CANDIELLO
EMAIL:	ANDREW.CANDIELLO@VERIZONWIRELESS.COM
PROJECT MANAGER	
COMPANY:	MASER CONSULTING CONNECTICUT
CONTACT:	PETER ALBANO
PHONE:	856-797-0412
E-MAIL:	PETER.ALBANO@COLLIERSENGINEERING.COM

SHEET INDEX	
SHEET	DESCRIPTION
T-1	TITLE SHEET
S-1	BILL OF MATERIALS
S-2	MODIFICATION NOTES
S-3	MODIFICATION NOTES
S-4	MODIFICATION DETAILS
S-5	MODIFICATION DETAILS
S-6	MOUNT PHOTOS
	SPECIFICATION SHEETS

CONTRACTOR PMI REQUIREMENTS	
PMI LOCATION:	HTTPS://PMI.VZWSMART.COM
SMART TOOL PROJECT #:	10068722
VZW LOCATION CODE (PSLC):	467897
FUZE ID:	16244099

REFERENCED DOCUMENTS	
	FAILING MOUNT ANALYSIS REPORT
SMART TOOL PROJECT #:	10039608
MASER CONSULTING PROJECT #:	21777142A
ANALYSIS DATE:	5/4/2021

PMI REQUIREMENTS EMBEDDED WITHIN MOUNT MODIFICATION REPORT

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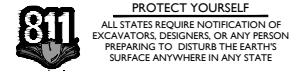
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 - GEORGIA
 - TEXAS
 - TENNESSEE
 - COLORADO

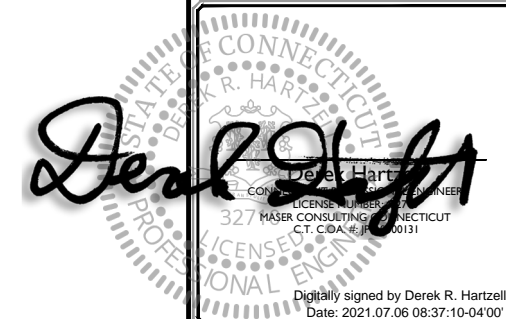
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SCALE: AS SHOWN JOB NUMBER: 21777142A

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
0	7/6/2021	ISSUED FOR CONSTRUCTION	DEH	DH

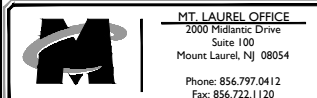


Digitally signed by Derek R. Hartzell
Date: 2021.07.06 08:37:10-04'00'

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

SITE NAME:

WOLCOTT CT
467897
347 EAST ST
WOLCOTT, CT 06716
NEW HAVEN COUNTY



MT. LAUREL OFFICE
2000 Piedmont Drive
Suite 100
Mount Laurel, NJ 08054
Phone: 856.797.0412
Fax: 856.722.1120

SHEET TITLE:
TITLE SHEET

SHEET NUMBER:
T-1

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

BILL OF MATERIALS

VZWSMART KITS					
QUANTITY	MANUFACTURER	PART NUMBER	DESCRIPTION	NOTES	
6	VZWSMART	VZWSMART-MSK I	CROSSOVER PLATE		
OTHER REQUIRED PARTS					
QUANTITY	MANUFACTURER	PART NUMBER	DESCRIPTION	NOTES	
3	-	-	72" LONG, P2.5 STD	GALVANIZED	

NOTE: ALL MATERIALS REQUIRED FOR THE DESIGNED MODIFICATIONS BUT NOT LISTED IN THIS SHEET ARE ASSUMED TO BE PROVIDED BY THE CONTRACTOR

VZWSMART KITS - APPROVED VENDORS	
COMMSCOPE	
CONTACT	SALVADOR ANGUIANO
PHONE	(817) 304-7492
EMAIL	SALVADOR.ANGUIANO@COMMSCOPE.COM
WEBSITE	WWW.COMMSCOPE.COM
METROSITE FABRICATORS, LLC	
CONTACT	KENT RAMEY
PHONE	(706) 335-7045 (O), (706) 982-9788 (M)
EMAIL	KENT@METROSITELLC.COM
WEBSITE	METROSITEFABRICATORS.COM
PERFECTVISION	
CONTACT	WIRELESS SALES
PHONE	(844) 887-6723
EMAIL	WWW.PERFECT-VISION.COM
WEBSITE	WIRELESSALES@PERFECT-VISION.COM
SABRE INDUSTRIES, INC.	
CONTACT	ANGIE WELCH
PHONE	(866) 428-6937
EMAIL	AKWELCH@SABREINDUSTRIES.COM
WEBSITE	WWW.SABRESITESOLUTIONS.COM
SITE PRO 1	
CONTACT	PAULA BOSWELL
PHONE	(972) 236-9843
EMAIL	PAULA.BOSWELL@VALMONT.COM
WEBSITE	WWW.SITEPRO1.COM

NOTE: WHEN SPECIFIED, VZWSMART KITS SHALL BE REQUIRED AND WILL BE VERIFIED DURING THE DESKTOP PMI



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REV	DATE	DESCRIPTION	DRAWN BY / CHECKED BY
0	7/6/2021	ISSUED FOR CONSTRUCTION	DEH / DH




Digitally signed by Derek R. Hartzell
Date: 2021.07.06 08:37:20-04'00'

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SITE NAME:

**WOLCOTT CT
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WOLCOTT, CT 06716
NEW HAVEN COUNTY



MT. LAUREL OFFICE
2000 Millstone Drive
Suite 100
Mount Laurel, NJ 08054
Phone: 856.797.0412
Fax: 856.722.1120

GENERAL NOTES

1. THESE MODIFICATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE GOVERNING PROVISIONS OF THE TELECOMMUNICATIONS INDUSTRY STANDARD TIA-222-H. MATERIALS AND SERVICES PROVIDED BY THE CONTRACTOR SHALL CONFORM TO THE ABOVE MENTIONED CODES.
2. CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT DAMAGE TO EXISTING STRUCTURES. ANY DAMAGE TO EXISTING STRUCTURES AS A RESULT OF THE CONTRACTOR'S WORK OR FROM DAMAGE DUE TO OTHER CAUSES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
3. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS BEFORE BEGINNING WORK, ORDERING MATERIAL, AND PREPARING OF SHOP DRAWINGS. ANY DISCREPANCIES BETWEEN FIELD CONDITIONS AND THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER. IF THE CONTRACTOR DISCOVERS ANY EXISTING CONDITIONS THAT ARE NOT REPRESENTED ON THESE DRAWINGS, OR ANY CONDITIONS THAT WOULD INTERFERE WITH THE INSTALLATION OF THE MODIFICATIONS, NOTIFY THE ENGINEER IMMEDIATELY.
4. IT IS ASSUMED THAT ANY STRUCTURAL MODIFICATION WORK SPECIFIED ON THESE PLANS WILL BE ACCOMPLISHED BY KNOWLEDGEABLE WORKMEN WITH TOWER CONSTRUCTION EXPERIENCE.
5. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION METHODS, MEANS, TECHNIQUES, SEQUENCES, AND PROCEDURES.
6. ALL CONSTRUCTION MEANS AND METHODS; INCLUDING BUT NOT LIMITED TO, ERECTION PLANS, RIGGING PLANS, CLIMBING PLANS, AND RESCUE PLANS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THE WORK CONTAINED HEREIN AND SHALL MEET ANSITIA-322 (LATEST EDITION), OSHA, AND GENERAL INDUSTRY STANDARDS. ALL RIGGING PLANS SHALL ADHERE TO ANSITIA-322 (LATEST EDITION) INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION.
7. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PROGRAMS IN ACCORDANCE WITH APPLICABLE SAFETY CODES.
8. WORK SHALL ONLY BE PERFORMED DURING CALM DRY DAYS (WINDS LESS THAN 30-MPH). THE STRUCTURE SHOWN ON THE DRAWINGS IS STRUCTURALLY SOUND ONLY IN THE COMPLETED FORM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STRENGTH AND STABILITY OF THE STRUCTURE DURING ERECTION. CONTRACTOR SHALL PROVIDE TEMPORARY SUPPORT, SHORING, BRACING AND ANY OTHER STRUCTURAL SYSTEMS AS REQUIRED TO RESIST ALL FORCES THAT MAY OCCUR DURING HANDLING AND ERECTION UNTIL THE STRUCTURE IS FULLY COMPLETED. TEMPORARY SUPPORTS, BRACING AND OTHER STRUCTURAL SYSTEMS REQUIRED DURING CONSTRUCTION SHALL REMAIN THE CONTRACTOR'S PROPERTY AFTER THEIR USE.
9. ALL INSTALLATIONS PERFORMED ON THIS STRUCTURE SHALL BE COMPLETED IN ACCORDANCE WITH THE GOVERNING PROVISIONS OF THE STANDARD FOR INSTALLATION, ALTERATION AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS, ANSITIA-322.
10. CONTRACTOR SHALL SECURE SITE BACK TO EXISTING CONDITION UNDER SUPERVISION OF OWNER. ALL FENCE, STONE, GEOFABRIC, GROUNDING, AND SURROUNDING GRADE SHALL BE REPLACED AND REPAIRED AS REQUIRED TO ACHIEVE OWNER APPROVAL. POSITIVE DRAINAGE AWAY FROM TOWER SITE SHALL BE MAINTAINED.
11. CONNECTIONS BETWEEN ITEMS SUPPORTED BY THE STRUCTURE AND THE STRUCTURE NOT SPECIFICALLY DETAILED IN THE CONTRACT DOCUMENTS ARE THE RESPONSIBILITY OF THE CONTRACTOR. SUCH CONNECTIONS SHALL BE DESIGNED, COORDINATED AND INSPECTED BY A PROFESSIONAL STRUCTURAL ENGINEER LICENSED IN THE STATE OF THE PROJECT. SUBMIT SIGNED AND SEALED CALCULATIONS DURING SHOP DRAWING REVIEW.
12. DO NOT SCALE DRAWINGS.
13. DO NOT USE THESE DRAWINGS FOR ANY OTHER SITE.
14. ALL MATERIAL UTILIZED FOR THIS PROJECT MUST BE NEW AND FREE OF ANY DEFECTS. ANY MATERIAL SUBSTITUTIONS, INCLUDING BUT NOT LIMITED TO ALTERED SIZE AND/OR STRENGTHS, MUST BE APPROVED BY THE OWNER AND ENGINEER IN WRITING.
15. THE MOUNT UNDER NO CIRCUMSTANCES SHOULD BE USED AS A TIE OFF POINT.

DESIGN LOADS

WIND LOADS

- a. BASIC WIND SPEED (3 SECOND GUST), V = 118 MPH
- b. EXPOSURE CATEGORY C
- c. TOPOGRAPHIC CATEGORY 1
- d. MEAN BASE ELEVATION (AMSL) = 738.28'

ICE LOADS

- a. ICE WIND SPEED (3 SECOND GUST), V = 50 MPH
- b. ICE THICKNESS = 1.00 IN

SEISMIC LOADS

- a. SEISMIC DESIGN CATEGORY B
- b. SHORT TERM MCER GROUND MOTION, S_s = .195
- c. LONG TERM MCER GROUND MOTION, S₁ = .054

STRUCTURAL STEEL

1. DESIGN, DETAILING, FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING PUBLICATIONS EXCEPT AS SPECIFICALLY INDICATED IN THE CONTRACT DOCUMENTS.
 - a. AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) MANUAL OF STEEL CONSTRUCTION (15TH EDITION)
 - b. SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS
 - c. AISC CODE OF STANDARD PRACTICE
2. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING UNLESS OTHERWISE SHOWN:

CHANNELS, ANGLES, PLATES, ETC.	ASTM A36 (GR 36)
STEEL PIPE	ASTM A53 (GR 35)
BOLTS	ASTM A325
NUTS	ASTM A563
LOCK WASHERS	LOCKING STRUCTURAL GRADE

3. ALL SUBSTITUTIONS PROPOSED BY THE CONTRACTOR SHALL BE APPROVED IN WRITING BY THE ENGINEER. CONTRACTOR SHALL PROVIDE DOCUMENTATION TO ENGINEER FOR VERIFYING THE SUBSTITUTE IS SUITABLE FOR USE AND MEETS ORIGINAL DESIGN CRITERIA. DIFFERENCES FROM THE ORIGINAL DESIGN, INCLUDING MAINTENANCE, REPAIR AND REPLACEMENT, SHALL BE NOTED. ESTIMATES OF COSTS/CREDITS ASSOCIATED WITH THE SUBSTITUTION (INCLUDING RE-DESIGN COSTS AND COSTS TO SUB-CONTRACTORS) SHALL BE PROVIDED TO THE ENGINEER. CONTRACTOR SHALL PROVIDE ADDITIONAL DOCUMENTATION AND/OR SPECIFICATIONS TO THE ENGINEER AS REQUESTED.
4. PROVIDE STRUCTURAL STEEL SHOP DRAWINGS TO ENGINEER FOR APPROVAL PRIOR TO FABRICATION.
 - a. SUBMIT SHOP DRAWINGS TO PETER.ALBANO@COLLIERSENGINEERING.COM
 - b. PROVIDE MASER CONSULTING PROJECT # AND MASER CONSULTING PROJECT ENGINEER CONTACT IN THE BODY OF THE EMAIL
5. DRILL NO HOLES IN ANY NEW OR EXISTING STRUCTURAL STEEL MEMBERS OTHER THAN THOSE SHOWN ON STRUCTURAL DRAWINGS WITHOUT THE APPROVAL OF THE ENGINEER OF RECORD.
6. GALVANIZED ASTM A325 BOLTS SHALL NOT BE REUSED.
7. ALL NEW STEEL SHALL BE HOT BE DIPPED GALVANIZED FOR FULL WEATHER PROTECTION. IN ADDITION ALL NEW STEEL SHALL BE PAINTED TO MATCH EXISTING STEEL. CONTRACTOR SHALL OBTAIN WRITTEN PERMISSION TO PROTECT STEEL BY ANY OTHER MEANS.
8. ALL BOLT ASSEMBLIES FOR STRUCTURAL MEMBERS REPRESENTED IN THIS DRAWING REQUIRE LOCKING DEVICES TO BE INSTALLED IN ACCORDANCE WITH TIA-222-H SECTION 4.9.2 REQUIREMENTS.
9. WHERE CONNECTIONS ARE NOT FULLY DETAILED ON THESE DRAWINGS, FABRICATOR SHALL DESIGN CONNECTIONS TO RESIST LOADS AND FORCES WHERE SHOWN ON DRAWINGS AND AS OUTLINED IN SPECIFICATIONS.
10. FOR MEMBERS BEING REPLACED, PROVIDE NEW BOLTS AND MATCH EXISTING SIZE AND GRADE. MAINTAIN AISC REQUIREMENTS FOR MINIMUM BOLT DISTANCE AND SPACING.
11. ALL PROPOSED AND/OR REPLACED BOLTS SHALL BE OF SUFFICIENT LENGTH SUCH THAT THE END OF THE BOLT IS AT LEAST FLUSH WITH THE FACE OF THE NUT. IT IS NOT PERMITTED FOR THE BOLT END TO BE BELOW THE FACE OF THE NUT AFTER TIGHTENING IS COMPLETED.
12. GALVANIZED ASTM A325 BOLTS SHALL NOT BE REUSED.

13. ALL NEW STEEL SHALL BE HOT BE DIPPED GALVANIZED FOR FULL WEATHER PROTECTION. CONTRACTOR SHALL OBTAIN WRITTEN PERMISSION TO PROTECT STEEL BY ANY OTHER MEANS.
14. ALL EXISTING PAINTED/GALVANIZED SURFACES DAMAGED DURING REHAB INCLUDING AREAS UNDER STIFFENER PLATES SHALL BE WIRE BRUSHED CLEAN, REPAIRED BY COLD GALVANIZING (ZINGA OR ZINC COTE), AND REPAINTED TO MATCH THE EXISTING FINISH (IF APPLICABLE).
15. ALL HOLES IN STEEL MEMBERS SHALL BE SIZED 1/16" LARGER THAN THE BOLT DIAMETER. STANDARD HOLES SHALL BE USED UNLESS NOTED OTHERWISE.



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REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
0	7/6/2021	ISSUED FOR CONSTRUCTION	DEH	DH

Digitally signed by Derek R. Hartzell
 Date: 2021.07.06 08:37:21-04'00'

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MT. LAUREL OFFICE
 2000 Millstone Drive
 Suite 100
 Mount Laurel, NJ 08054
 Phone: 856.797.0412
 Fax: 856.722.1120

SHEET TITLE:
 MODIFICATION NOTES

SHEET NUMBER:
 S-2

W:\Projects\10816\WOLCOTT CT - 1034999 - Mount HOD Drawing - 07.dwg 5/21/21

MODIFICATION INSPECTION NOTES

MI CHECKLIST	
CONSTRUCTION/ INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY EOR)	REPORT ITEM
PRE-CONSTRUCTION	
X	MI CHECKLIST DRAWING
X	EOB APPROVED SHOP DRAWINGS
NA	FABRICATION INSPECTION
NA	FABRICATOR CERTIFIED WELD INSPECTION
X	MATERIAL TEST REPORT (MTR)
NA	FABRICATOR NDE INSPECTION
X	PACKING SLIPS
ADDITIONAL TESTING AND INSPECTIONS:	
CONSTRUCTION	
X	CONSTRUCTION INSPECTIONS
NA	CONTRACTOR'S CERTIFIED WELD INSPECTION AND NDE REPORTS
X	ON SITE COLD GALVANIZING VERIFICATION
X	GC AS-BUILT DOCUMENTS
ADDITIONAL TESTING AND INSPECTIONS:	
POST-CONSTRUCTION	
X	MI INSPECTOR REDLINE OR RECORD DRAWING(S)
X	VZW PMI DOCUMENTS
X	PHOTOGRAPHS
ADDITIONAL TESTING AND INSPECTIONS:	

NOTE: X DENOTES A DOCUMENT REQUIRED FOR THE MI REPORT
 NA DENOTES A DOCUMENT THAT IS NOT REQUIRED FOR THE MI REPORT

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

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

TO ENSURE THAT THE REQUIREMENTS OF THE MI ARE MET, IT IS VITAL THAT THE GENERAL CONTRACTOR (GC) AND THE MI INSPECTOR BEGIN COMMUNICATING AND COORDINATING AS SOON AS A PURCHASE ORDER (PO) IS RECEIVED. IT IS EXPECTED THAT EACH PARTY WILL BE PROACTIVE IN REACHING OUT TO THE OTHER PARTY.

MI INSPECTOR

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

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

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

GENERAL CONTRACTOR

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

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

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

RECOMMENDATIONS

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

- IT IS SUGGESTED THAT THE GC PROVIDE A MINIMUM OF 5 BUSINESS DAYS NOTICE, PREFERABLY 10, TO THE MI INSPECTOR AS TO WHEN THE SITE WILL BE READY FOR THE MI TO BE CONDUCTED.
- THE GC AND MI INSPECTOR COORDINATE CLOSELY THROUGHOUT THE ENTIRE PROJECT.
- WHEN POSSIBLE, IT IS PREFERRED TO HAVE THE GC AND MI INSPECTOR ON-SITE SIMULTANEOUSLY FOR ANY GUY WIRE TENSIONING OR RE-TENSIONING OPERATIONS.
- IT MAY BE BENEFICIAL TO INSTALL ALL MODIFICATIONS PRIOR TO CONDUCTING THE FOUNDATION INSPECTIONS TO ALLOW THE FOUNDATION AND MI INSPECTION(S) TO COMMENCE WITH ONE SITE VISIT.
- WHEN POSSIBLE, IT IS PREFERRED TO HAVE THE GC AND MI INSPECTOR ON-SITE DURING THE MI TO HAVE ANY DEFICIENCIES CORRECTED DURING THE INITIAL MI. THEREFORE, THE GC MAY CHOOSE TO COORDINATE THE MI CAREFULLY TO ENSURE ALL CONSTRUCTION FACILITIES ARE AT THEIR DISPOSAL WHEN THE MI INSPECTOR IS ON SITE.

CORRECTION OF FAILING MI'S

IF THE MODIFICATION INSTALLATION WOULD FAIL THE MI ("FAILED MI"), THE GC SHALL WORK WITH THE OWNER TO COORDINATE A REMEDIATION PLAN:

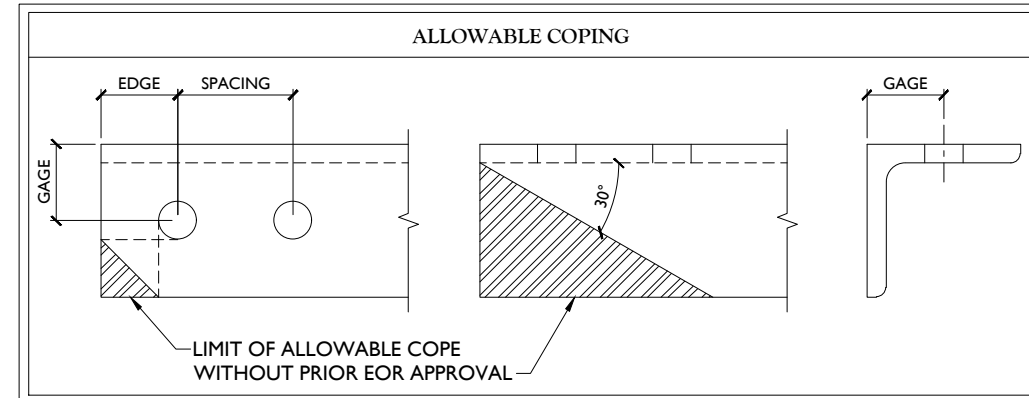
- CORRECT FAILING ISSUES TO COMPLY WITH THE SPECIFICATIONS CONTAINED IN THE ORIGINAL CONTRACT DOCUMENTS AND COORDINATE A SUPPLEMENT MI.

REQUIRED PHOTOS

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

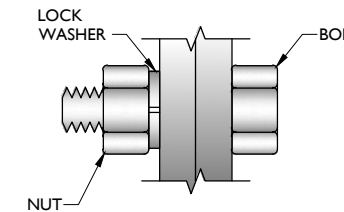
- PRE-CONSTRUCTION GENERAL SITE CONDITION
- PHOTOGRAPHS DURING THE REINFORCEMENT MODIFICATION CONSTRUCTION/ERECTION AND INSPECTION
 - RAW MATERIALS
 - PHOTOS OF ALL CRITICAL DETAILS
 - FOUNDATION MODIFICATIONS
 - WELD PREPARATION
 - BOLT INSTALLATION
 - FINAL INSTALLED CONDITION
 - SURFACE COATING REPAIR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

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



BOLT DIAMETER	STANDARD HOLE	SHORT SLOT	MIN. EDGE DISTANCE	SPACING
1/2	9/16	9/16 x 11/16	7/8	1 1/2
5/8	11/16	11/16 x 7/8	1 1/8	1 7/8
3/4	13/16	13/16 x 1	1 1/4	2 1/4
7/8	15/16	15/16 x 1 1/8	1 1/2	2 5/8
1	1 1/16	1 1/16 x 1 5/16	1 3/4	3

LEG	GAGE
4	2 1/2
3 1/2	2
3	1 3/4
2 1/2	1 3/8
2	1 1/8



TYP. BOLT ASSEMBLY

NOTES:

- ALL DIMENSIONS REPRESENTED IN THE ABOVE TABLES ARE AISC MINIMUM REQUIREMENTS. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS IN FIELD AND NOTIFY ENGINEER IF DISTANCES ARE LESS THAN THOSE PROVIDED.
- THE DIMENSIONS PROVIDED ARE MINIMUM REQUIREMENTS. ACTUAL DIMENSIONS OF PROPOSED MEMBERS WITHIN THESE DRAWINGS MAY VARY FROM THE AISC MINIMUM REQUIREMENTS.
- SHORT SLOT HOLES SHALL ONLY BE USED WHEN DEPICTED IN THE DRAWINGS
- MATCH EXISTING GAGES WHEN APPLICABLE, UNLESS MINIMUM EDGE DISTANCES ARE COMPROMISED.

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REV:	DATE:	DESCRIPTION:	DRAWN BY:	CHECKED BY:

Derek R. Hartzell
 DEREK R. HARTZELL
 REGISTERED PROFESSIONAL ENGINEER
 LICENSE NUMBER: 3277
 C.T. C.O.A.#: JF 000131
 Digitally signed by Derek R. Hartzell
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 Fax: 856.722.1120

SHEET TITLE:
MODIFICATION NOTES

SHEET NUMBER:
S-3



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 STATE OF CONNECTICUT
 DEREK R. HARTZELL
 LICENSED PROFESSIONAL ENGINEER
 327 MASER CONSULTING CONNECTICUT
 C.T. C.O.A.#. JF. 000131
 Digitally signed by Derek R. Hartzell
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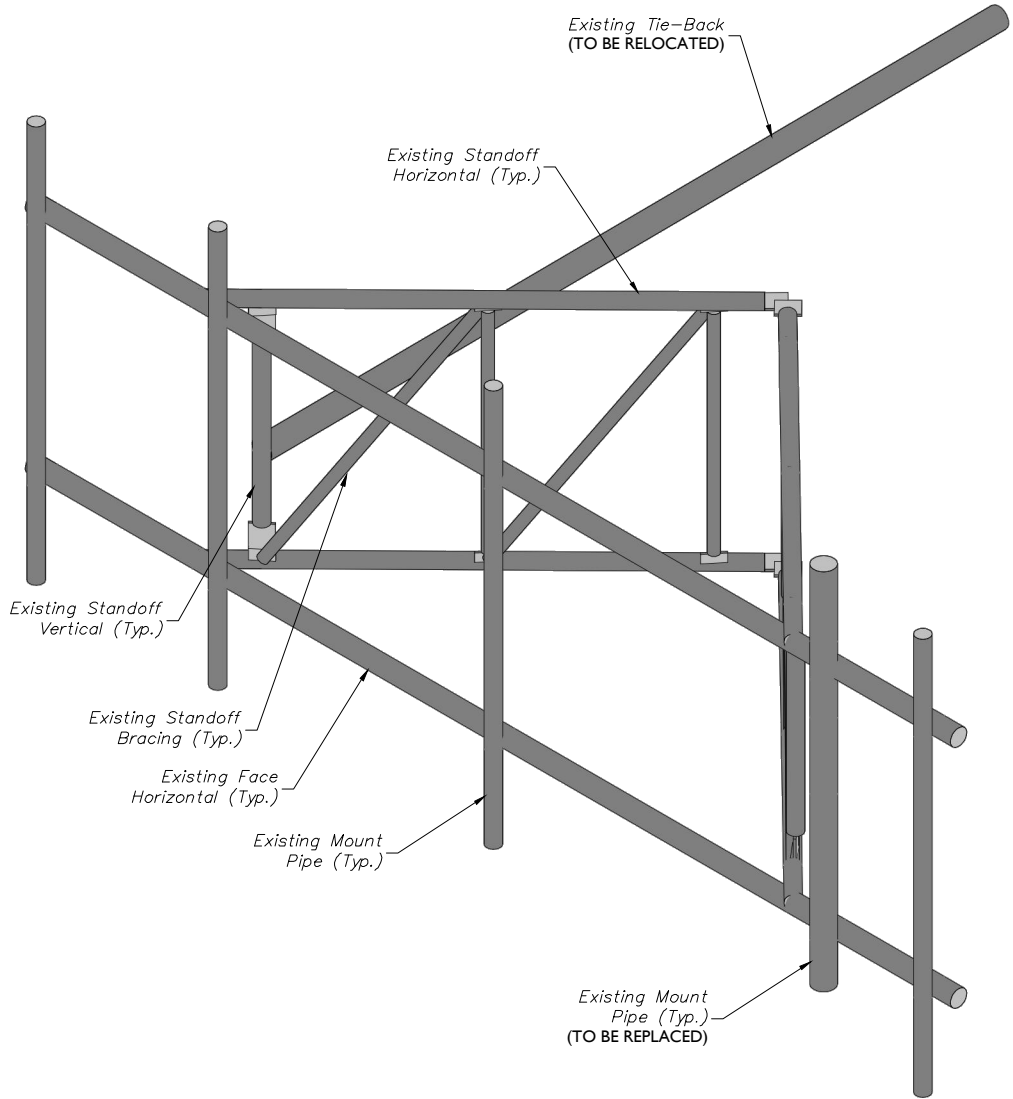
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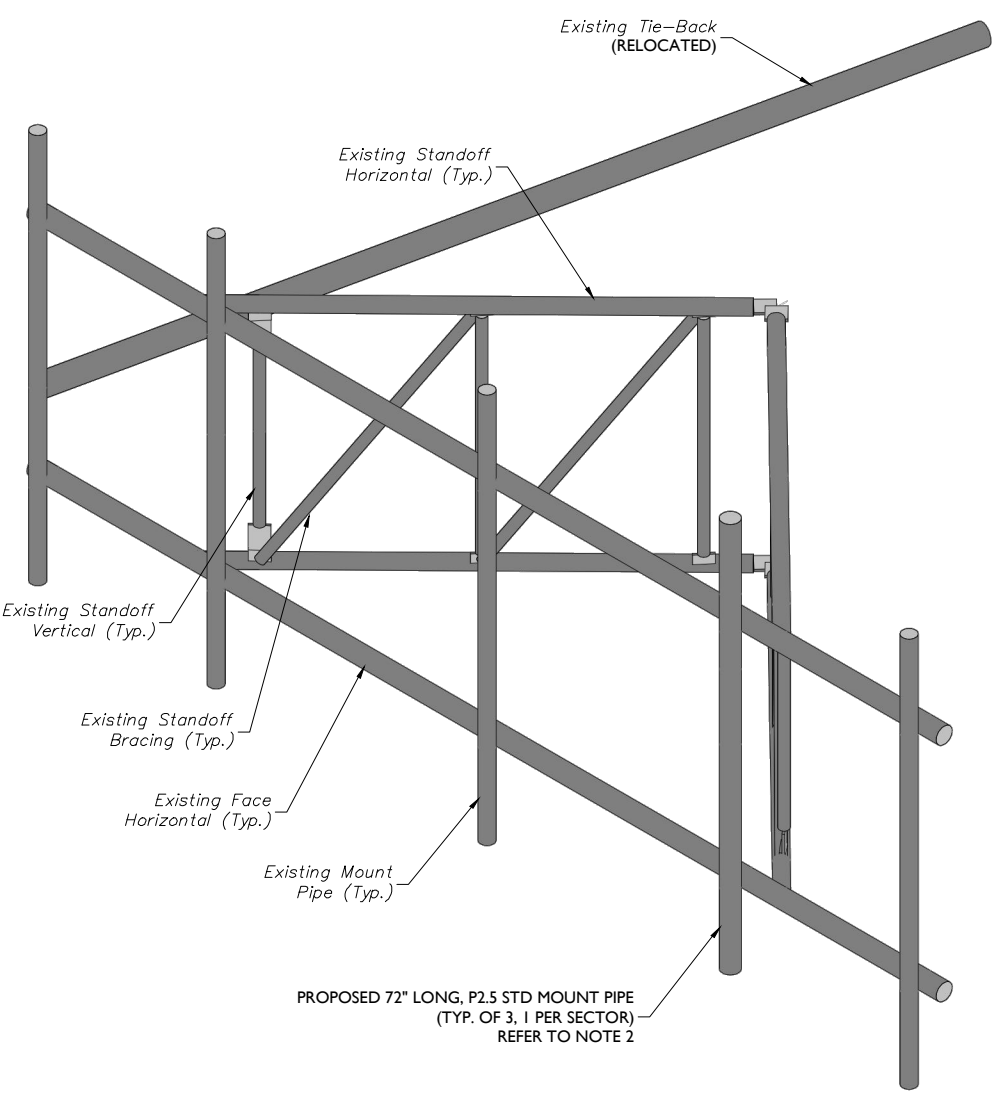
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 2000 Midland Drive
 Suite 100
 Mount Laurel, NJ 08054
 Phone: 856.797.0412
 Fax: 856.722.1120

SHEET TITLE:
MODIFICATION DETAILS

SHEET NUMBER:
S-4



1 EXISTING SECTOR FRAME ISOMETRIC VIEW (TYP. ALL SECTORS)
 SCALE : N.T.S.



2 PROPOSED SECTOR FRAME ISOMETRIC VIEW (TYP. ALL SECTORS)
 SCALE : N.T.S.

MODIFICATION NOTES:

1. MOUNT MEMBERS NOT SHOWN FOR CLARITY U.N.O.
2. CONNECT NEW MOUNT PIPE TO EXISTING HORIZONTAL WITH CROSSOVER PLATES (PART #: VZWSMART-MSK1).

STRUCTURAL NOTES:

1. PER THE MOUNT MAPPING COMPLETED BY HUDSON DESIGN GROUP LLC ON 3/24/2021, THE SAFETY CLIMB AND CLIMBING FACILITIES UP TO THE VERIZON MOUNT ELEVATION (176'-6") ARE IN GOOD CONDITION. MASER DOES NOT WARRANT THIS INFORMATION.
2. INSTALL SHALL NOT CAUSE HARM TO THE STRUCTURE, CLIMBING FACILITY, SAFETY CLIMB, OR ANY SYSTEM INSTALLED ON THE STRUCTURE. TIMELY NOTICE AND DOCUMENTATION SHALL BE PROVIDED BY CONTRACTORS TO THE EOR (OF STRUCTURAL DESIGN) IF AN OBSTRUCTION WAS REQUIRED TO MEET THE RF SYSTEM DESIGN REQUIREMENTS AND PERFORMANCES.



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Derek R. Hartzell

Derek R. Hartzell
Professional Engineer
Maser Consulting Connecticut
C.T. C.O.A.#. JF. 000131
327

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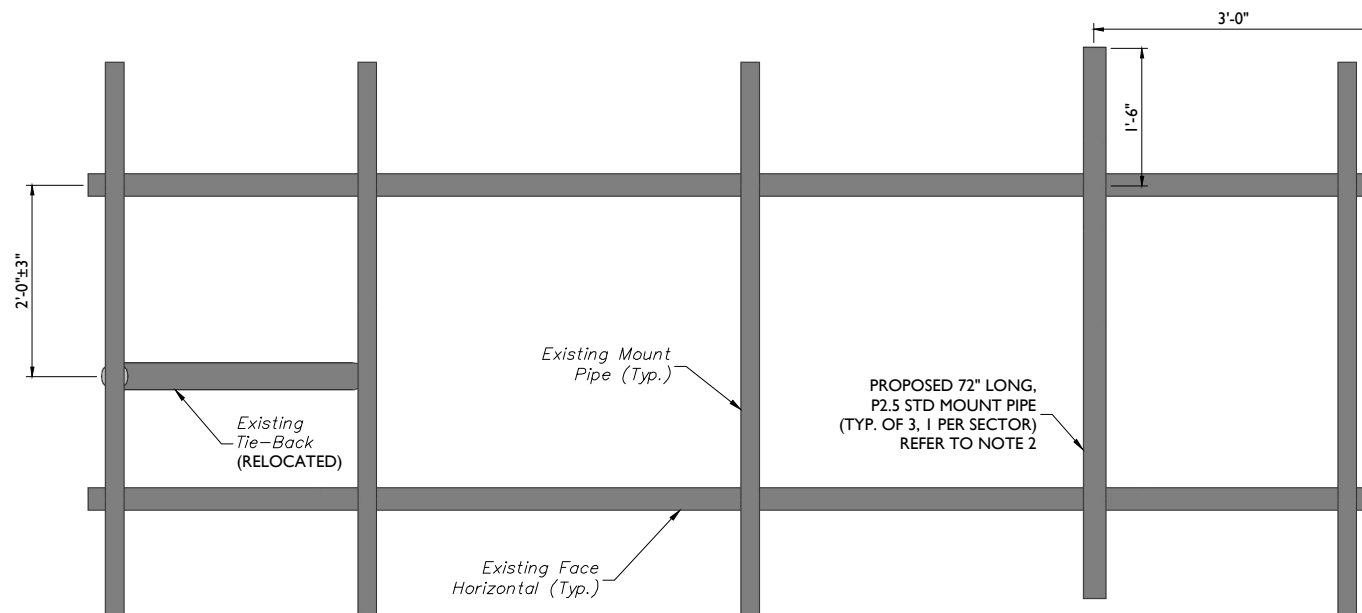
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NEW HAVEN COUNTY**

MT. LAUREL OFFICE
2000 Radiance Drive
Suite 100
Mount Laurel, NJ 08054

Phone: 856.797.0412
Fax: 856.722.1120

SHEET TITLE: MODIFICATION DETAILS

SHEET NUMBER: S-5



1 PROPOSED FRONT ELEVATION (TYP. ALL SECTORS)
SCALE: N.T.S.

MODIFICATION NOTES:

1. MOUNT MEMBERS NOT SHOWN FOR CLARITY U.N.O.
2. CONNECT NEW MOUNT PIPE TO EXISTING HORIZONTAL WITH CROSSOVER PLATES (PART #: VZWSMART-MSK1).



MOUNT PHOTO 1



MOUNT PHOTO 2



MOUNT PHOTO 3



MOUNT PHOTO 4



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 STATE OF CONNECTICUT
 DEREK R. HARTZELL
 LICENSE NUMBER: 327
 MASER CONSULTING CONNECTICUT
 C.T. C.O.A.#: JF000131
 Digitally signed by Derek R. Hartzell
 Date: 2021.07.06 08:37:22-04'00'

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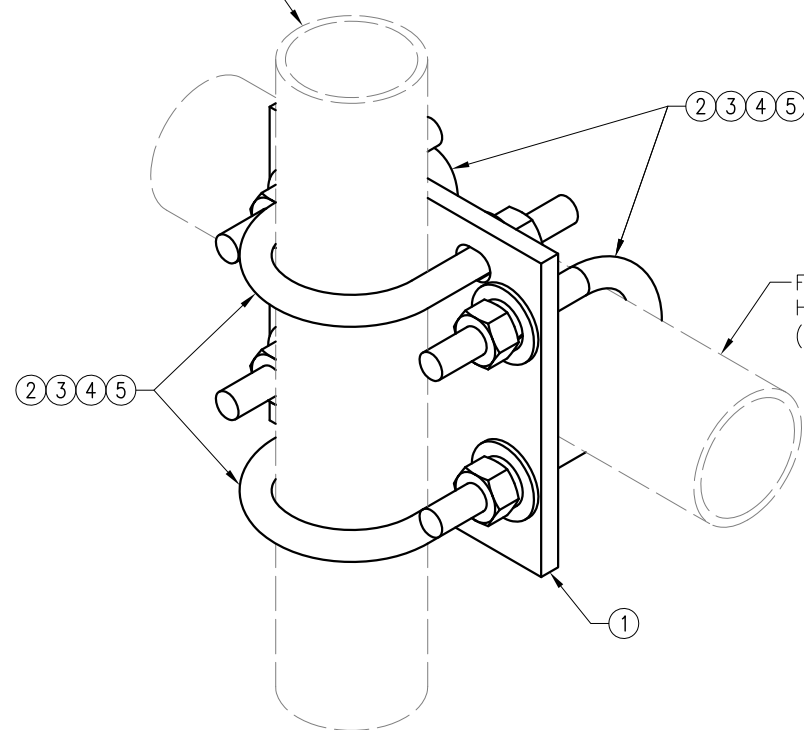
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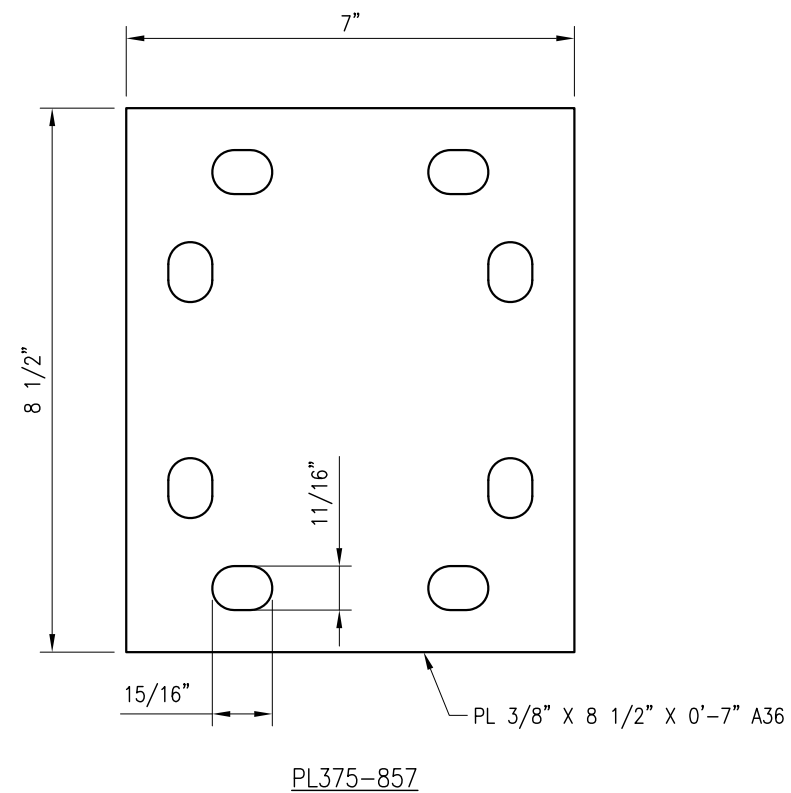
SHEET TITLE:
 MOUNT PHOTOS

SHEET NUMBER:
 S-6

FITS 2.375" O.D. AND 2.875" O.D.
 VERTICAL PIPE.
 (NOT INCLUDED IN THIS KIT)



FITS 2.375" O.D. AND 2.875" O.D.
 HORIZONTAL PIPE.
 (NOT INCLUDED IN THIS KIT)



NOTES:
 1. HOT-DIPPED GALVANIZED PER ASTM A123.

VZSMART-MSK1 (CROSSOVER PLATE)					
ITEM NO.	QTY.	PART NO.	DESCRIPTION	SHEET #	WT
1	1	PL375-857	PL 3/8" X 8 1/2" X 0'-7" A36	MSK1-F1	6
2	4	MS02-625-300-500	RU-BOLT 5/8" X 3" I.W. X 5" I.L. A36 (OR EQUIV.)	RBC-1	5
3	8	FW-625	5/8" HDG USS FLAT WASHER	---	1
4	8	LW-625	5/8" HDG LOCK WASHER	---	0
5	8	NUT-625	5/8" HDG HEX NUT	---	1
GALVANIZED WT					14

DRAWN BY: H.R. CHECKED BY: HMA

REV.	DESCRIPTION	BY	DATE
1	FIRST ISSUE	H.R.	05/08/20

SHEET TITLE:

VZSMART-MSK1
 CROSSOVER PLATE

SHEET NUMBER: REV #:

VZSMART-MSK1 0

Exhibit F

Power Density/RF Emissions Report

Site Name: WOLCOTT CT
Cumulative Power Density

Operator	Operating Frequency	Number of Trans.	ERP Per Trans.	Total ERP	Distance to Target	Calculated Power Density
	(MHz)		(watts)	(watts)	(feet)	(mW/cm ²)
VZW 700	751	4	631	2523	177	0.0029
VZW CDMA	877.26	2	497	993	177	0.0011
VZW Cellular	874	4	725	2902	177	0.0033
VZW PCS	1975	4	1480	5919	177	0.0068
VZW AWS	2120	4	1530	6120	177	0.0070
VZW CBAND	3730.08	4	6531	26125	177	0.0300

Total Percentage of Maximum Permissible Exposure

*Guidelines adopted by the FCC on August 1, 1996, 47 CFR Part 1 based on NCRP Report 86, 1986 and generally on ANSI
 **Calculation includes a -10 dB Off Beam Antenna Pattern Adjustment pursuant to Attachments B and C of the Siting Council

MHz = Megahertz
 mW/cm² = milliwatts per square centimeter
 ERP = Effective Radiated Power

Absolute worst case maximum values used.

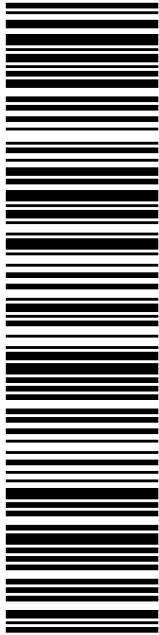
Maximum Permissible Exposure*	Fraction of MPE
(mW/cm ²)	(%)
0.5007	0.58%
0.5848	0.19%
0.5827	0.57%
1.0000	0.68%
1.0000	0.70%
1.0000	3.00%
	5.73%

/IEEE C95.1-1992

il's November 10, 2015 Memorandum for Exempt Modification filing:

Exhibit G

Recipient Mailings



USPS TRACKING #

9405 5036 9930 0005 8231 91

Electronic Rate Approved #038555749

SHIP

TO: THOMAS G DUNN
MAYOR OF WOLCOTT
10 KENEA AVE
WOLCOTT CT 06716-2114

Expected Delivery Date: 09/20/21

Ret#: CR-806362

0006

C080

P

USPS.com
US POSTAGE
Legal Flat Rate Env

09/16/2021

Click-N-Ship®

9405 5036 9930 0005 8231 91 0082 5000 0010 6716

U.S. POSTAGE PAID
click-n-ship®

Mailed from 01566

PRIORITY MAIL 2-DAY™

✂ ————— Cut on dotted line. —————

Instructions

1. Each Click-N-Ship® label is unique. Labels are to be used as printed and used only once. **DO NOT PHOTO COPY OR ALTER LABEL.**
2. Place your label so it does not wrap around the edge of the package.
3. Adhere your label to the package. A self-adhesive label is recommended. If tape or glue is used, **DO NOT TAPE OVER BARCODE.** Be sure all edges are secure.
4. To mail your package with PC Postage®, you may schedule a Package Pickup online, hand to your letter carrier, take to a Post Office™, or drop in a USPS collection box.
5. Mail your package on the "Ship Date" you selected when creating this label.

Click-N-Ship® Label Record

USPS TRACKING # :
9405 5036 9930 0005 8231 91


Trans. #: 543752129	Priority Mail® Postage: \$8.25
Print Date: 09/16/2021	Total: \$8.25
Ship Date: 09/16/2021	
Expected Delivery Date: 09/20/2021	

From: DEBORAH CHASE
NORTHEAST SITE SOLUTIONS
420 MAIN ST
STE 1
STURBRIDGE MA 01566-1359

Ref#: CR-806362

To: THOMAS G DUNN
MAYOR OF WOLCOTT
10 KENEA AVE
WOLCOTT CT 06716-2114

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**UNITED STATES
POSTAL SERVICE®**

Click-N-Ship®

P

usps.com 9405 5036 9930 0005 8232 14 0082 5000 0010 6716
US POSTAGE
 Legal Flat Rate Env

U.S. POSTAGE PAID
click-n-ship®

09/16/2021 Mailed from 01566


PRIORITY MAIL 2-DAY™

Expected Delivery Date: 09/20/21
 Ref#: CR-806362
0006

C080

SHIP TO: DAVID KALINOWSKI
 ZONING INSPECTOR
 10 KENEA AVE
 WOLCOTT CT 06716-2114

USPS TRACKING #



9405 5036 9930 0005 8232 14

Electronic Rate Approved #038555749



Cut on dotted line.

Instructions

1. Each Click-N-Ship® label is unique. Labels are to be used as printed and used only once. DO NOT PHOTO COPY OR ALTER LABEL.
2. Place your label so it does not wrap around the edge of the package.
3. Adhere your label to the package. A self-adhesive label is recommended. If tape or glue is used, DO NOT TAPE OVER BARCODE. Be sure all edges are secure.
4. To mail your package with PC Postage®, you may schedule a Package Pickup online, hand to your letter carrier, take to a Post Office™, or drop in a USPS collection box.
5. Mail your package on the "Ship Date" you selected when creating this label.

Click-N-Ship® Label Record

USPS TRACKING # :
9405 5036 9930 0005 8232 14

Trans. #: 543752129	Priority Mail® Postage: \$8.25
Print Date: 09/16/2021	Total: \$8.25
Ship Date: 09/16/2021	
Expected Delivery Date: 09/20/2021	


From: DEBORAH CHASE
 NORTHEAST SITE SOLUTIONS
 420 MAIN ST
 STE 1
 STURBRIDGE MA 01566-1359
 Ref#: CR-806362

To: DAVID KALINOWSKI
 ZONING INSPECTOR
 10 KENEA AVE
 WOLCOTT CT 06716-2114

* Retail Pricing Priority Mail rates apply. There is no fee for USPS Tracking® service on Priority Mail service with use of this electronic rate shipping label. Refunds for unused postage paid labels can be requested online 30 days from the print date.



Thank you for shipping with the United States Postal Service!
 Check the status of your shipment on the USPS Tracking® page at usps.com



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P

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US POSTAGE
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09/16/2021 Mailed from 01566

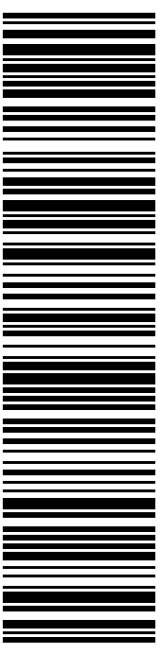
PRIORITY MAIL 2-DAY™

Expected Delivery Date: 09/20/21
 Ref#: CR-806362
0006

C090

SHIP TO:
 AUGUSTINHO & JOANNE RODRIGUES
 347 EAST ST
 WOLCOTT CT 06716-3336

USPS TRACKING #



9405 5036 9930 0005 8232 21

Electronic Rate Approved #038555749



Cut on dotted line.

Instructions

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USPS TRACKING # :
9405 5036 9930 0005 8232 21

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Print Date: 09/16/2021	Total: \$8.25
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From: DEBORAH CHASE Ref#: CR-806362
 NORTHEAST SITE SOLUTIONS
 420 MAIN ST
 STE 1
 STURBRIDGE MA 01566-1359

To: AUGUSTINHO & JOANNE RODRIGUES
 347 EAST ST
 WOLCOTT CT 06716-3336

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Thank you for shipping with the United States Postal Service!
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8062102



FISKDALE
458 MAIN ST
FISKDALE, MA 01518-9998
(800)275-8777

09/16/2021

03:18 PM

Product	Qty	Unit Price	Price
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Prepaid Mail	1		\$0.00
Westborough, MA 01581			
Weight: 0 lb 2.10 oz			
Acceptance Date:			
Thu 09/16/2021			
Tracking #:			
9405 5036 9930 0005 5609 28			

Prepaid Mail	1		\$0.00
Wolcott, CT 06716			
Weight: 2 lb 5.40 oz			
Acceptance Date:			
Thu 09/16/2021			
Tracking #:			
9405 5036 9930 0005 8232 14			

Prepaid Mail	1		\$0.00
Wolcott, CT 06716			
Weight: 2 lb 5.30 oz			
Acceptance Date:			
Thu 09/16/2021			
Tracking #:			
9405 5036 9930 0005 8231 91			

Prepaid Mail	1		\$0.00
Wolcott, CT 06716			
Weight: 2 lb 5.20 oz			
Acceptance Date:			
Thu 09/16/2021			
Tracking #:			
9405 5036 9930 0005 8232 21			

Grand Total:			\$0.00
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