STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

IN RE:	:	
	:	
A PETITION FOR A DECLARATORY	:	PETITION NO. ____
RULING ON THE NEED TO OBTAIN A	:	
SITING COUNCIL CERTIFICATE FOR THE	:	
INSTALLATION OF A TEMPORARY	:	
TELECOMMUNICATIONS FACILITY AT	:	
SACRED HEART UNIVERSITY, 5151 PARK	:	
AVENUE, FAIRFIELD, CONNECTICUT	:	NOVEMBER 8, 2021

PETITION FOR A DECLARATORY RULING:
INSTALLATION HAVING NO
SUBSTANTIAL ADVERSE ENVIRONMENTAL EFFECT

I. Introduction

Pursuant to Sections 16-50j-38 and 16-50j-39 of the Regulations of Connecticut State Agencies ("R.C.S.A."), Cellco Partnership d/b/a Verizon Wireless ("Cellco" or "Petitioner") in cooperation with New Cingular Wireless PCS, LLC ("AT&T") and T-Mobile Northeast, LLC ("T-Mobile") hereby petitions the Connecticut Siting Council (the "Council") for a declaratory ruling ("Petition") that no Certificate of Environmental Compatibility and Public Need ("Certificate") is required under Section 16-50k(a) of the Connecticut General Statutes ("C.G.S.") for the installation of a temporary telecommunications facility ("Temporary Facility") in the westerly portion of the Sacred Heart University ("SHU") main campus at 5151 Park Avenue in Fairfield, Connecticut (the "Property"). The Temporary Facility will allow Cellco, AT&T and T-Mobile to continue to provide wireless service to the SHU campus and the surrounding area for the period of time between the termination of wireless service from the existing Pierre Toussaint Hall rooftop wireless facilities and the construction of the new replacement facility approved by the Council in Docket No. 495.

In cooperation with SHU, Cellco is in the process of compiling information necessary to file a Motion to Reopen the Docket No. 495 evidentiary proceeding for the purpose of relocating the telecommunications facility approved in Docket No. 495. The Motion to Reopen would propose to relocate the approved telecommunications facility from the northwest corner of the Property adjacent to Jefferson Street, to the area adjacent to the Pitt Center and SHU Football Stadium, in the southwest corner of the SHU main campus. The relocated facility would support antennas for Cellco, AT&T and T-Mobile.

II. Factual Background

Cellco, AT&T and T-Mobile currently maintained wireless telecommunications facilities on the roof of Pierre Toussaint Hall (formerly the Jewish Home), a residential dormitory building in the center of the SHU main campus. These existing facilities provide wireless service to the SHU campus, commercial and residential land uses around the campus, portions of the Merritt Parkway, Park Avenue, and Jefferson Street and portions of the Fairchild Wheeler Golf Course. As the Council is aware from the Docket No. 495 application and record, SHU has notified the Cellco, AT&T and T-Mobile that all wireless service equipment must be removed from the roof of Toussaint Hall on or before January 13, 2022. In order to maintain wireless service on the SHU campus and the surrounding community, SHU has agreed to allow for the installation of a temporary tower adjacent to the Valentine Health and Recreation ("Valentine") Center while Cellco completes the construction of the permanent replacement facility described above.

III. Temporary Telecommunications Facility

The temporary telecommunications facility will consist of an approximately 125-foot tall ballast-supported monopole tower and associated wireless telecommunications equipment located near the northwest corner of the Valentine Center in the westerly portion of the SHU

main campus. The Site Schematic included in Attachment 1 shows the location of the approved tower site in Council Docket No. 495, the temporary tower location near the Valentine Center and to soon to be proposed alternative tower location near the Pitt Center/SHU football stadium.

Verizon will install antennas at the top of the temporary tower at a centerline height of approximately 121'- 7" above ground level ("AGL"); AT&T will install antennas at a centerline height of approximately 111'- 7" AGL; and T-Mobile will install antennas at a centerline height of approximately 101'-7" AGL. The temporary tower will be located in the northerly portion of a 1,776 square-foot L-shaped facility compound. Equipment associated with the antennas would be installed on the ground behind and to the west of the Valentine Center. (*See* Project Plans included in Attachment 2). Power and telephone service will extend from existing service along Jefferson Street and run along the westerly boundary of the SHU Main Campus to the temporary cell site. Cellco anticipates the need to maintain the temporary telecommunications facility at the Property for approximately 12 to 18 months while it completes the Council's regulatory process needed to relocate and construct a new telecommunications facility in the southwest corner of the SHU main campus.

Included in Attachment 3 is a Structural Analysis Report confirming that the temporary ballast-supported tower can support the proposed Cellco, AT&T and T-Mobile antennas and related tower-mounted equipment.

IV. Discussion

A. The Proposed Installation of Temporary Tower And Related Equipment Will Not Have A Substantial Adverse Environmental Effect

The Public Utility Environmental Standards Act (the "Act"), C.G.S. § 16-50g et seq., provides for the orderly and environmentally compatible development of telecommunications

towers in the state to avoid "a significant impact on the environment and ecology of the State of Connecticut." C.G.S. § 16-50g. To achieve these goals, the Act established the Council, and requires a Certificate of Environmental Compatibility and Public Need for the construction of cellular telecommunication towers "that may, as determined by the Council, have a substantial adverse environmental effect". C.G.S. § 16-50k(a).

1. Physical Environmental Effects

Cellco respectfully submit that the installation of a temporary tower supporting antennas and the installation of radio and electrical equipment within a 1,776 square foot facility compound, will not involve a significant alteration in the physical and environmental characteristics of the Property. The temporary tower facility will be placed in the westerly portion of the Property in an open area adjacent to the Valentine Center. Access to the temporary facility will extend over existing paved roadways on the SHU main campus. No trees will need to be removed and no on-site or off-site wetlands or watercourses will be impacted by the installation of the temporary facility.

2. Visual Effects

The visibility of the proposed temporary telecommunications facility would be limited to portions of the SHU main campus and select areas within one-half mile of the temporary tower location. Extended views may also occur up to a mile away to the southeast on the Fairchild Wheeler golf course. No substantive views of the temporary tower are anticipated from the residential areas to the north, east and west of the SHU main campus. A copy of the Visual Assessment & Photo Simulations report for the temporary facility is included in Attachment 4. Based on the nature of development in the area, the Petitioner believes that the proposed temporary telecommunications facility will have a minimal and temporary visual impact.

3. FCC Compliance

Radio frequency ("RF") emissions from the proposed temporary installation will be well below the standards adopted by the Federal Communications Commission ("FCC"). Included in Attachment 5 is a Calculated Radio Frequency Exposure Report prepared by C-Squared Systems for the proposed temporary tower facility. This report confirms that the temporary facility will operate well within the RF emission standards established by the FCC.

4. FAA Summary Report

Included in Attachment 6 of this Petition is a Federal Airways & Airspace Summary Report verifying that the temporary tower described in this Petition would not constitute an obstruction or hazard to air navigation and that notification to the FAA is not required. The Private Landing Facility (private heliport) referenced in the FAA Summary Report is the heliport located at the former General Electric Headquarter parcel now owned by SHU and is a part of its West Campus. The heliport is no longer in use.

B. Notice to the City, Property Owner and Abutting Landowners

On November 8, 2021 a copy of this Petition was sent to Fairfield First Selectwoman Brenda Kupchick; Joe Bienkowski, Fairfield's Town Planner; and Michael Larobina, General Counsel at SHU and the Bridgeport Roman Catholic Diocesan Corporation, the owner of the Property. A notice of Cellco's intent to file this Petition and a copy of the Petition itself was also sent to the owners of land that may be considered to abut the Property. Included in Attachment 7 are copies of the letters sent to Ms. Kupcheck, Mr. Bienkowski, Mr. Larobina and the Bridgeport Roman Catholic Diocesan Corporation. Included in Attachment 8 is a sample abutter's letter and the list of those abutting landowners who were sent notice and a copy of the Petition.

V. Conclusion

Based on the information provided above, the Petitioners respectfully requests that the Council issue a determination in the form of a declaratory ruling that the installation of a temporary tower at the Property will not have a substantial adverse environmental effect and does not require the issuance of a Certificate of Environmental Compatibility and Public Need pursuant to § 16-50k of the General Statutes.

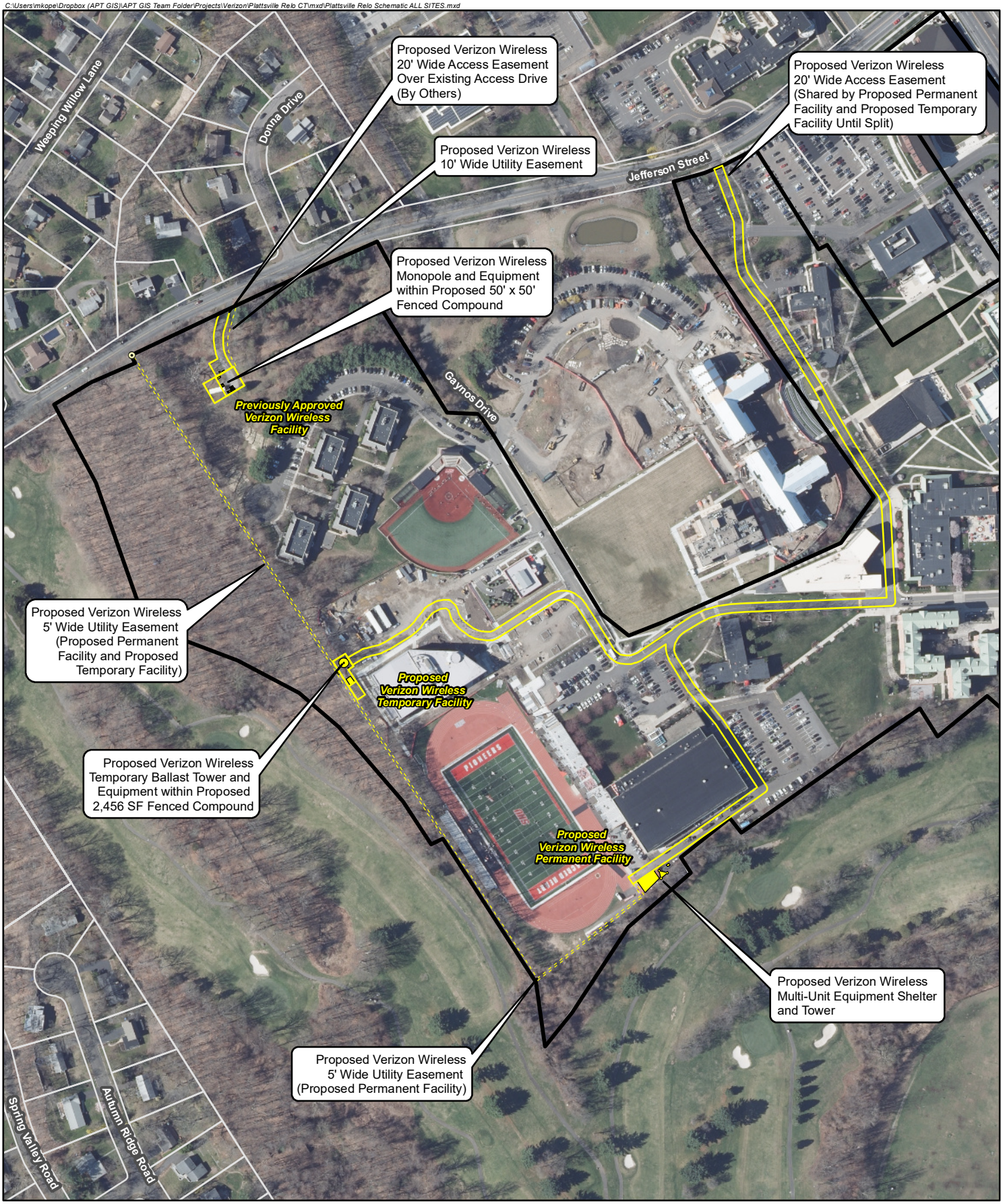
Respectfully submitted,

By 

Kenneth C. Baldwin, Esq.
Robinson & Cole LLP
280 Trumbull Street
Hartford, CT 06103-3597
(860) 275-8200
Its Attorneys

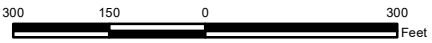
ATTACHMENT 1

C:\Users\mkope\Dropbox (APT GIS)\APT GIS Team Folder\Projects\Verizon\Plattsville Relo CT\mxd\Plattsville Relo Schematic ALL SITES.mxd



Legend

- Proposed Verizon Wireless Site Layout
- Proposed Verizon Wireless Equipment
- Proposed Verizon Wireless Utility Pole
- Subject Property
- Approximate Parcel Boundary



Map Notes:
Base Map Source: 2019 CT ECO Imagery
Map Scale:1 inch = 300 feet
Map Date: November 2021

Site Schematic

Approved, Proposed, and Temporary
Wireless Telecommunications Facilities
Plattsville Relo CT
5151 Park Avenue
Fairfield, Connecticut

verizon

ALL-POINTS TECHNOLOGY CORPORATION

ATTACHMENT 2

LEASE EXHIBIT

LEGEND

- PROPERTY LINE – SUBJECT PARCEL
- ABUTTERS PROPERTY LINE
- EXISTING CONTOUR LINE
- TREE LINE
- BARBED WIRE FENCE REMAINS
- OHW — OVERHEAD WIRE (TRANSMISSION LINE)
- OH DOOR — OVERHEAD DOOR
- EXISTING CHAIN LINK FENCE
- EXISTING IRON FENCE
- EXISTING CATCH BASIN
- EXISTING BUILDING

JEFFERSON STREET

PARK AVENUE

SAINT NICHOLAS DRIVE

AUTUMN RIDGE

13-1A

22-48

11-2

EXISTING UTILITY POLE # 296

PROPOSED UTILITY POLE

PROPOSED TELCO SERVICE ROUTED OVERHEAD

PROPOSED TELCO SERVICE ROUTED UNDERGROUND

PROPOSED LESSEE 5' WIDE UTILITY LICENSE FROM JEFFERSON STREET TO PROPOSED EQUIPMENT AREA

1 / L-2

EXISTING ACCESS ROAD (BY OTHERS)

PROPOSED LESSEE 20' WIDE ACCESS LICENSE OVER EXISTING DRIVEWAY/PARKING LOT

DEED 312-458
DEED 5439-264

LOCUS
13-1
5151 PARK AVENUE
N/F
BRIDGEPORT ROMAN DIOCESAN CORP.
238 JEWETT AVENUE
BRIDGEPORT, CT 06606

AREA = 60.2 AC. ±

13°13'
MAGNETIC NORTH
TRUE NORTH

SITE PLAN 1 / L-1
SCALE: N.T.S

LEASE EXHIBIT

THIS LEASE PLAN IS DIAGRAMMATIC IN NATURE AND IS INTENDED TO PROVIDE GENERAL INFORMATION REGARDING THE LOCATION AND SIZE OF THE PROPOSED WIRELESS COMMUNICATION FACILITY. THE SITE LAYOUT WILL BE FINALIZED UPON COMPLETION OF SITE SURVEY AND FACILITY DESIGN.

APPROXIMATE TOWER COORDINATES:	LAT:	N41° 13' 12.93"
	LONG:	W73° 14' 50.76"

PREPARED FOR: CELLCO PARTNERSHIP D.B.A.

verizon

HUDSON Design Group LLC
45 BEECHWOOD DRIVE
N. ANDOVER, MA 01845
TEL: (978) 557-5553
FAX: (978) 336-5586

CHECKED BY: JX

APPROVED BY: DPH

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
1	11/02/21	ADD. OTHER CARRIER(S) TOWER EQUIPMENT	SLY
0	10/06/21	ISSUED FOR REVIEW	SLY

SITE NAME:
PLATTSVILLE
RELO CT

SITE ADDRESS:
5151 PARK AVENUE
FAIRFIELD, CT 06825

SHEET TITLE
SITE PLAN

SHEET NUMBER
L-1

LEASE EXHIBIT

LOCUS
13–1
5151 PARK AVENUE
N/F
BRIDGEPORT ROMAN DIOCESAN CORP.
238 JEWETT AVENUE
BRIDGEPORT, CT 06606

AREA = 60.2 AC. ±

PROPOSED LESSEE 20' WIDE ACCESS LICENSE OVER EXISTING DRIVEWAY/PARKING LOT

PROPOSED TELCO SERVICE ROUTED UNDERGROUND

PROPOSED LESSEE 5' WIDE UTILITY LICENSE FROM JEFFERSON STREET TO PROPOSED EQUIPMENT AREA

PROPOSED LESSEE TEMPORARY BALLASTED TOWER

2 / L–2 PROPOSED LESSEE 1,776 ± SQ.FT. LEASE AREA

VERIZON

AT&T

T–MOBILE

AVAILABLE 17'X20' CARRIER SPACE

AVAILABLE 17'X20' CARRIER SPACE

28.3'±

PROPOSED POWER SERVICE TO BE ROUTED IN EXISTING CONDUIT (EXACT LOCATION TBD)

PROPOSED (3) LESSEE EMOM DEMON CHECK METERS IN ELECTRICAL ROOM ON BASEMENT LEVEL

CONCRETE WALK

EXISTING BUILDING (BOBBY VALENTINE CENTER HEALTH & RECREATION)

13°13'
MAGNETIC NORTH
TRUE NORTH

SITE PLAN 1 / L–2
22x34 SCALE: 1"=20'–0"
11x17 SCALE: 1"=40'–0"

GRAPHIC SCALE
0 10 20 40 60 FEET

LEGEND

- PROPERTY LINE – SUBJECT PARCEL
- ABUTTERS PROPERTY LINE
- EXISTING CONTOUR LINE
- TREE LINE
- BARBED WIRE FENCE REMAINS
- OHW — OVERHEAD WIRE (TRANSMISSION LINE)
- OH DOOR — OVERHEAD DOOR
- EXISTING CHAIN LINK FENCE
- EXISTING IRON FENCE
- EXISTING CATCH BASIN
- EXISTING BUILDING

34'–0"±

PROPOSED LESSEE 20'–0"± WIDE ACCESS LICENSE

34'–0"±

14'–0"± GATE

M.H.

PROPOSED LESSEE 2,456 ± SQ.FT. FENCED COMPOUND

PROPOSED LESSEE TEMPORARY BALLASTED TOWER

PROPOSED LESSEE FIBER PULL–BOX

EXISTING PULL–BOX (POWER SOURCE)

PROPOSED LESSEE HOFFMAN BOX ON H–FRAME

PROPOSED LESSEE CABLE TRAY ON SLEEPERS (TYP.)

PROPOSED LESSEE EQUIPMENT CONCRETE PAD

12'x16' CONCRETE PAD (VERIZON)

12'x16' CONCRETE PAD (AT&T)

12'x16' CONCRETE PAD (T–MOBILE)

98'–0"±

DRAIN

PROPOSED LESSEE RETAINING WALL

20'–0"±

COMPOUND PLAN 2 / L–2
22x34 SCALE: 1"=10'–0"
11x17 SCALE: 1"=20'–0"

GRAPHIC SCALE
0 5 10 20 30 FEET

PREPARED FOR: CELLCO PARTNERSHIP D.B.A.
verizon

HUDSON Design Group LLC
45 BEECHWOOD DRIVE
N. ANDOVER, MA 01845
TEL: (978) 557-5553
FAX: (978) 336-5586

CHECKED BY: JX

APPROVED BY: DPH

SUBMITTALS

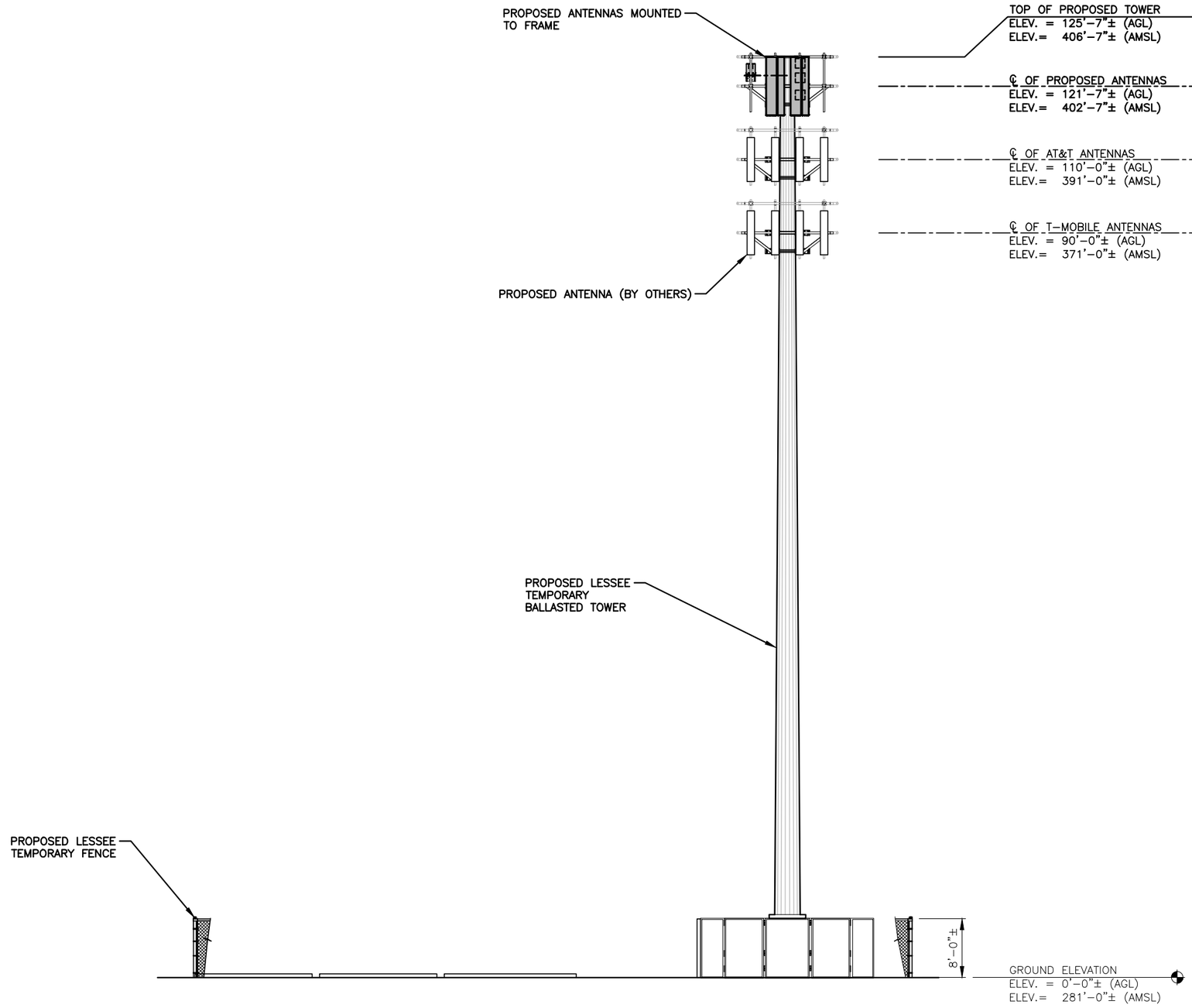
REV.	DATE	DESCRIPTION	BY
1	11/02/21	ADD. OTHER CARRIER(S) TOWER EQUIPMENT	SLY
0	10/06/21	ISSUED FOR REVIEW	SLY

SITE NAME:
PLATTSVILLE
RELO CT

SITE ADDRESS:
5151 PARK AVENUE
FAIRFIELD, CT 06825

SHEET TITLE
PARTIAL SITE PLAN

SHEET NUMBER
L-2



NORTH ELEVATION (1 / L-3)

22x34 SCALE: 1/8"=1'-0"
11x17 SCALE: 1/16"=1'-0"

GRAPHIC SCALE
0 4 8 16 24 FEET

LEASE EXHIBIT

VERIZON ANTENNA NOTE:

THE PROPOSED ANTENNA INSTALLATION TO CONSIST OF
(3) SECTORS OF
(2) PANEL ANTENNAS EACH FOR A TOTAL OF
(6) PANEL ANTENNAS AND ASSOCIATED CABLES & APPURTENANCES.

RRH & OVP NOTE:

THE PROPOSED RRH INSTALLATION TO CONSIST OF
(3) SECTORS OF
(3) RRHs EACH FOR A TOTAL OF
(9) RRHs.

DIPLEXER NOTE:

THE PROPOSED DIPLEXER INSTALLATION TO CONSIST OF
(3) SECTORS OF
(1) DIPLEXER EACH FOR A TOTAL OF
(3) DIPLEXERS.

THE PROPOSED JUNCTION BOX INSTALLATION TO CONSIST OF A TOTAL OF
(1) JUNCTION BOX (OVP)

AT&T ANTENNA NOTE:

THE PROPOSED ANTENNA INSTALLATION TO CONSIST OF
(3) SECTORS OF
(2) PANEL ANTENNAS EACH FOR A TOTAL OF
(6) PANEL ANTENNAS AND ASSOCIATED CABLES & APPURTENANCES.

RRH & SQUID NOTE:

THE PROPOSED RRH INSTALLATION TO CONSIST OF
(3) SECTORS OF
(3) RRHs EACH FOR A TOTAL OF
(9) RRHs.

THE PROPOSED SQUID INSTALLATION TO CONSIST OF A TOTAL OF
(1) SQUID

T-MOBILE ANTENNA NOTE:

THE PROPOSED ANTENNA INSTALLATION TO CONSIST OF
(3) SECTORS OF
(2) PANEL ANTENNAS EACH FOR A TOTAL OF
(6) PANEL ANTENNAS AND ASSOCIATED CABLES & APPURTENANCES.

RRH NOTE:

THE PROPOSED RRH INSTALLATION TO CONSIST OF
(3) SECTORS OF
(2) RRHs EACH FOR A TOTAL OF
(6) RRHs.

PREPARED FOR: CELLCO PARTNERSHIP D.B.A.

verizon

HUDSON Design Group LLC
45 BEECHWOOD DRIVE
N. ANDOVER, MA 01845
TEL: (978) 557-5553
FAX: (978) 336-5586

CHECKED BY: JX

APPROVED BY: DPH

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
1	11/02/21	ADD. OTHER CARRIER(S) TOWER EQUIPMENT	SLY
0	10/06/21	ISSUED FOR REVIEW	SLY

SITE NAME:
PLATTSVILLE
RELO CT

SITE ADDRESS:
5151 PARK AVENUE
FAIRFIELD, CT 06825

SHEET TITLE
ELEVATION

SHEET NUMBER
L-3

ATTACHMENT 3

STRUCTURAL ANALYSIS REPORT

For

PLATTSVILLE RELO CT

5151 Park Avenue
Fairfield, CT 06825

Antennas Mounted on the Temporary Ballasted Monopole

117'-6" Temporary Ballasted Monopole

Prepared for:

verizon

118 Flanders Road
Westborough, MA 01581

Dated: November 4, 2021

Prepared by:

HUDSON Design Group LLC

45 Beechwood Drive
North Andover, MA 01845
(P) 978.557.5553 (F) 978.336.5586
www.hudsondesigngroupllc.com

SCOPE OF WORK:

Hudson Design Group LLC (HDG) has been authorized by Verizon to conduct a structural evaluation of the existing 117'-6" temporary ballasted monopole supporting the proposed Verizon's antennas located at elevation 121'-7" above the ground level that is being relocated to 5151 Park Avenue Fairfield, CT. This analysis is to confirm that the existing tower and base structure with the new location and loading is in conformance with the original tower analysis and drawings referenced below.

This report represents this office's findings, conclusions and recommendations pertaining to the support of Verizon's existing and proposed antennas listed below.

The following documents were used for our reference:

- Temporary Monopole Design Drawings prepared by Ambor Structures dated June 29, 2015.
- Non-Penetrating Foundation Drawings prepared by Ambor Structures dated July 16, 2015.

CONCLUSION SUMMARY:

Based on our evaluation, we have determined that the existing tower **is in conformance** with the ANSI/TIA-222-H Standard for the loading considered under the criteria listed in this report. The tower structure is rated at **88.8 %** - (Pole Section-L3 from EL.85.428' to EL.105.428' Controlling).

FOUNDATION SUMMARY:

Based on our evaluation, we have determined that the existing foundation **is in conformance** with the ANSI/TIA-222-H Standard for the loading considered under the criteria listed in this report.

- Per the Non-Penetrating Foundation Design Drawings (6) 2 ft x 2 ft x 6 ft concrete waste blocks per sector (typ. of 12 sectors, total of 72 blocks) each weighing a minimum of 3600 lbs are required to achieve its overturning capacity of 2500 ft-kips.

HDG recommends the following prior to installation:

1. Stripping topsoil and fill to provide a minimum 2-foot-thick layer of compacted structural fill or ¾-inch crushed stone base course. Crushed stone (if used) should be separated from the fill subgrade and excavation sidewalls using a non-woven geotextile fabric, such as Mirafi 140N or equal, to prevent stone from punching into the fill subgrade.

2. Prior to placing the base course, the existing fill subgrade should be proof-rolled with multiple passes of a minimum 5-ton vibratory roller. The subgrade should be firm and unyielding. If soft or unstable areas are identified, they should be evaluated by the geotechnical engineer to evaluate suitability or to further evaluate the extent of potential over-excavation and replacement needed to achieve a stable subgrade.

3. Once the subgrade has been properly prepared, the base course layer can be placed to achieve design foundation elevation. If a well-graded structural fill is used, it should be placed in maximum 12-inch-thick loose lifts (for vibratory rollers) or 6-inch-thick loose lifts (large plate compactors) and compacted to at least 95% of the maximum dry density as determined by ASTM D 1557. Crushed stone, if used, should be placed in similar lift thicknesses, and chinked/compacted using multiple passes of a vibratory roller or large plate compactor.

APPURTENANCES CONFIGURATION:

Tenant	Appurtenances	Elev.	Mount
	4' Lightning Rod	127'-5"	**Top of Monopole**
Verizon	**(6) MX10FIT665-xx Antennas**	121'-7"	**Platform**
Verizon	**(3) RF4439d-25A RRH's**	121'-7"	**Platform**
Verizon	**(3) RF4440d-13A RRH's**	121'-7"	**Platform**
Verizon	**(3) RT4401-48A RRH's**	121'-7"	**Platform**
Verizon	**(3) TD-850B-LTE78-43 Diplexers**	121'-7"	**Platform**
Verizon	**(1) Junction Box**	121'-7"	**Platform**
AT&T	**(6) TPA65R-BU8DA-K Antennas**	110'	**Sector Frame**
AT&T	**(3) 4449 B5/B12 RRH's**	110'	**Sector Frame**
AT&T	**(3) B2/B66A 8843 RRH's**	110'	**Sector Frame**
AT&T	**(3) 4415 B30 RRH's**	110'	**Sector Frame**
AT&T	**(1) Squid Surge Arrestor**	110'	**Sector Frame**
T-Mobile	**(3) APXVAALL24_43-U-NA20 Antennas**	90'	**Platform**
T-Mobile	**(3) AIR6449 B41 Antennas**	90'	**Platform**
T-Mobile	**(3) 4480 B71+B85 RRH's**	90'	**Platform**
T-Mobile	**(3) 4460 B25+B66 RRH's**	90'	**Platform**

Proposed Appurtenances shown in Bold.

VERIZON PROPOSED COAX CABLES:

Tenant	Coax Cables	Elev.	Mount
Verizon	**(6) 1 5/8" Coax Cables**	121'-7"	Inside Monopole
Verizon	**(1) 12x24 Hybrid Cables**	121'-7"	Inside Monopole

Proposed Verizon Coax Cables shown in Bold.

ANALYSIS RESULTS SUMMARY:

Component	Max. Stress Ratio	Elev. of Component (ft)	Pass/Fail	Comments
Pole Section-L1	23.8 %	115.428 – 125.428	PASS	
Pole Section-L2	72.4 %	105.428 – 115.428	PASS	
Pole Section-L3	**88.8 %**	85.428 – 105.428	PASS	**Controlling**
Pole Section-L4	82.0 %	46.714 – 85.428	PASS	
Pole Section-L5	75.9 %	8 – 46.714	PASS	
Bolts/Base Plate	48.5 %	-	PASS	

FOUNDATION COMPARISON SUMMARY:

	Design Capacity	Proposed Loading	Pass/Fail
Overturning	2500 ft-kips	1957.3 ft-kips	PASS

Note: *HDG referenced non-penetrating foundation design drawings provided by the client and prepared by Ambor Structures dated July 16, 2015. According to design drawings the non-penetrating foundation has an overturning moment capacity of 2500 ft-kips. To achieve said capacity there is a ballast requirement of a minimum of 251,000 lbs which consists of (6) 2 ft x 2 ft x 6 ft concrete waste blocks per sector, for a total of (72) concrete waste blocks, each block should weigh a minimum of 3,600 lbs.*

DESIGN CRITERIA:

1. EIA/TIA-222-H Structural Standards for Steel Antenna Towers and Antenna Supporting Structures

   County: Fairfield
   Ultimate Wind Speed: 125 mph (3 second gust)
   Structural Class: II
   Exposure Category: C
   Topographic Category: 1
   Nominal Ice Thickness: 1 inch

2. Approximate height above grade to proposed antennas: 121'-7"

***Calculations and referenced documents are attached.**

ASSUMPTIONS:

1. The appurtenances configuration is as stated in this report. All antennas, coax cables and waveguide cables are assumed to be properly installed and supported as per the manufacturer's requirements.

2. The temporary monopole and the non-penetrating foundation are properly constructed and maintained. All structural members and their connections are assumed to be in good condition and are free from defects with no deterioration to its member capacities.

3. The support mounts and platforms are not analyzed and are considered adequate to support the loading. The analysis is limited to the primary support structure itself.

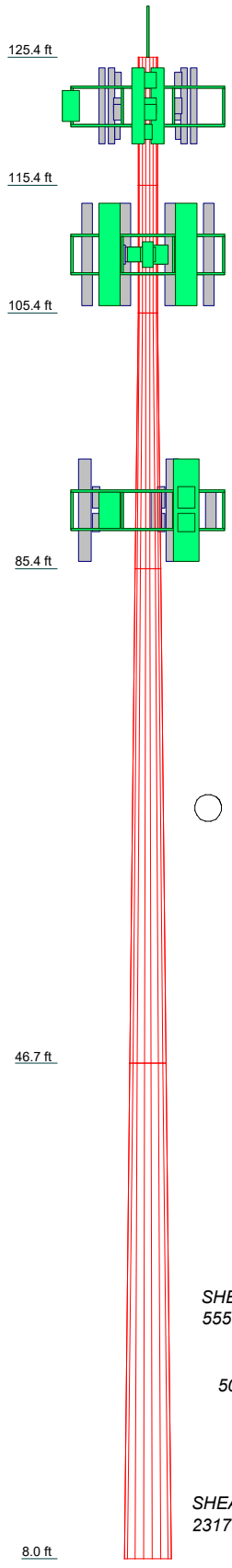
SUPPORT RECOMMENDATIONS:

HDG recommends that the proposed antennas, RRHs and Junction Box be mounted on the proposed platform supported by the temporary ballasted monopole.

HUDSON
Design Group LLC

CALCULATIONS

Section	Length (ft)	Number of Sides	Thickness (in)	Top Dia (in)	Bot Dia (in)	Grade	Weight (lb)
1	10.00	18	0.1600	17.7200	17.7200		303.4
2	10.00	18	0.1600	17.7200	17.7200		303.4
3	20.00	18	0.2000	17.7200	23.6200		884.3
4	38.71	18	0.2800	23.6200	33.8600	A572-65	3332.0
5	38.71	18	0.3200	33.8600	44.0900		5172.1
							9995.3



ALL REACTIONS ARE FACTORED

AXIAL 41006 lb

SHEAR 5558 lb *MOMENT 469794 lb-ft*

TORQUE 266 lb-ft

50 mph WIND - 1.0000 in ICE

AXIAL 27972 lb

SHEAR 23175 lb *MOMENT 1957274 lb-ft*

TORQUE 1204 lb-ft

REACTIONS - 125 mph WIND

DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
4' Lightning Rod	127.4	TPA65R-BU8DA-K Antenna w/ Mounting Pipe	110
12'-6" Platform w/ Handrail + PRK-1245 (Verizon)	121.6	TPA65R-BU8DA-K Antenna w/ Mounting Pipe	110
MX10FIT665-xx Antenna w/ Mounting Pipe	121.6	TPA65R-BU8DA-K Antenna w/ Mounting Pipe	110
MX10FIT665-xx Antenna w/ Mounting Pipe	121.6	4449 B5/B12 RRH	110
MX10FIT665-xx Antenna w/ Mounting Pipe	121.6	4449 B5/B12 RRH	110
MX10FIT665-xx Antenna w/ Mounting Pipe	121.6	4449 B5/B12 RRH	110
MX10FIT665-xx Antenna w/ Mounting Pipe	121.6	B2/B66A 8843 RRH	110
MX10FIT665-xx Antenna w/ Mounting Pipe	121.6	B2/B66A 8843 RRH	110
MX10FIT665-xx Antenna w/ Mounting Pipe	121.6	B2/B66A 8843 RRH	110
RF4439d-25A RRH	121.6	4415 B30 RRH	110
RF4439d-25A RRH	121.6	4415 B30 RRH	110
RF4439d-25A RRH	121.6	4415 B30 RRH	110
RF4440d-13A RRH	121.6	Squid Surge Arrestor	110
RF4440d-13A RRH	121.6	12'-6" Platform w/ Handrail + PRK-1245 (T-Mobile)	90
RF4440d-13A RRH	121.6	APXVAALL24_43-U-NA20 Antenna w/ Mounting Pipe	90
RT4401-48A RRH	121.6	APXVAALL24_43-U-NA20 Antenna w/ Mounting Pipe	90
RT4401-48A RRH	121.6	APXVAALL24_43-U-NA20 Antenna w/ Mounting Pipe	90
RT4401-48A RRH	121.6	AIR6449 B41 Antenna w/ Mounting Pipe	90
TD-850B-LTE78-43 | E14Z00P06 Diplexer	121.6	AIR6449 B41 Antenna w/ Mounting Pipe	90
TD-850B-LTE78-43 | E14Z00P06 Diplexer	121.6	AIR6449 B41 Antenna w/ Mounting Pipe	90
TD-850B-LTE78-43 | E14Z00P06 Diplexer	121.6	4480 B71+B85 RRH	90
Junction Box w/ Mounting Pipe	121.6	4480 B71+B85 RRH	90
(3) 12'-6" Sector Frames (ATI)	110	4480 B71+B85 RRH	90
TPA65R-BU8DA-K Antenna w/ Mounting Pipe	110	4460 B25+B66 RRH	90
TPA65R-BU8DA-K Antenna w/ Mounting Pipe	110	4460 B25+B66 RRH	90
TPA65R-BU8DA-K Antenna w/ Mounting Pipe	110	4460 B25+B66 RRH	90

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-65	65 ksi	80 ksi			

TOWER DESIGN NOTES

1. Tower designed for Exposure C to the TIA-222-H Standard.
2. Tower designed for a 125 mph basic wind in accordance with the TIA-222-H Standard.
3. Tower is also designed for a 50 mph basic wind with 1.00 in ice. Ice is considered to increase in thickness with height.
4. Deflections are based upon a 60 mph wind.
5. Tower Risk Category II.
6. Topographic Category 1 with Crest Height of 0.00 ft
7. TOWER RATING: 88.8%

Hudson Design Group
45 Beechwood Drive
North Andover, MA
Phone: 978.557.5553
FAX: 978.336.5586

Job: *117.5' Temporary Monopole*			
Project: *PLATTSVILLE RELO CT*			
Client: VERIZON	Drawn by: ID		App'd:
Code: TIA-222-H	Date: 11/04/21		Scale: NTS
Path:			Dwg No. E-1

Tower Input Data

The tower is a monopole.
This tower is designed using the TIA-222-H standard.
The following design criteria apply:

Tower base elevation above sea level: 8.00 ft.
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: 0.00 ft.
Nominal ice thickness of 1.0000 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.
Temperature drop of 50 °F.
Deflections calculated using a wind speed of 60 mph.
A non-linear (P-delta) analysis was used.
Pressures are calculated at each section.
Stress ratio used in pole design is 1.
Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Tapered Pole Section Geometry

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L1	125.43-115.43	10.00	0.00	18	17.7200	17.7200	0.1600	0.6400	A572-65 (65 ksi)
L2	115.43-105.43	10.00	0.00	18	17.7200	17.7200	0.1600	0.6400	A572-65 (65 ksi)
L3	105.43-85.43	20.00	0.00	18	17.7200	23.6200	0.2000	0.8000	A572-65 (65 ksi)
L4	85.43-46.71	38.71	0.00	18	23.6200	33.8600	0.2800	1.1200	A572-65 (65 ksi)
L5	46.71-8.00	38.71		18	33.8600	44.0900	0.3200	1.2800	A572-65 (65 ksi)

Tapered Pole Properties

Section	Tip Dia. in	Area in^2	I in^4	r in	C in	I/C in^3	J in^4	It/Q in^2	w in	w/t
L1	17.9687	8.9177	347.4065	6.2338	9.0018	38.5932	695.2700	4.4597	2.8371	17.732
	17.9687	8.9177	347.4065	6.2338	9.0018	38.5932	695.2700	4.4597	2.8371	17.732
L2	17.9687	8.9177	347.4065	6.2338	9.0018	38.5932	695.2700	4.4597	2.8371	17.732
	17.9687	8.9177	347.4065	6.2338	9.0018	38.5932	695.2700	4.4597	2.8371	17.732
L3	17.9625	11.1217	431.2972	6.2196	9.0018	47.9125	863.1620	5.5619	2.7667	13.834
	23.9535	14.8670	1030.2320	8.3141	11.9990	85.8601	2061.8196	7.4349	3.8051	19.026
L4	23.9412	20.7427	1427.5948	8.2857	11.9990	118.9765	2857.0681	10.3733	3.6643	13.087
	34.3392	29.8432	4251.5225	11.9209	17.2009	247.1689	8508.6392	14.9244	5.4666	19.523

Section	Tip Dia. in	Area in^2	I in^4	r in	C in	I/C in^3	J in^4	It/Q in^2	w in	w/t
L5	34.3330 44.7208	34.0659 44.4563	4841.5400 10760.2904	11.9067 15.5383	17.2009 22.3977	281.4705 480.4190	9689.4507 21534.7394	17.0362 22.2324	5.3962 7.1966	16.863 22.49

Tower Elevation ft	Gusset Area (per face) ft^2	Gusset Thickness in	Gusset Grade	Adjust. Factor A_f	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
L1 125.43-115.43				1	1	1			
L2 115.43-105.43				1	1	1			
L3 105.43-85.43				1	1	1			
L4 85.43-46.71				1	1	1			
L5 46.71-8.00				1	1	1			

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_A ft^2/ft	Weight plf
6x24 Hybrid Fiber Cables	C	No	No	Inside Pole	90.00 - 11.00	2	No Ice 1/2" Ice 1" Ice	0.00 0.00 0.00	3.50 3.50 3.50
1/4	C	No	No	Inside Pole	90.00 - 11.00	2	No Ice 1/2" Ice 1" Ice	0.00 0.00 0.00	0.25 0.25 0.25
**									
DC Cable	C	No	No	Inside Pole	110.00 - 11.00	3	No Ice 1/2" Ice 1" Ice	0.00 0.00 0.00	1.70 1.70 1.70
Fiber	C	No	No	Inside Pole	110.00 - 11.00	1	No Ice 1/2" Ice 1" Ice	0.00 0.00 0.00	0.48 0.48 0.48
**									
1 5/8	C	No	No	Inside Pole	125.43 - 11.00	6	No Ice 1/2" Ice 1" Ice	0.00 0.00 0.00	1.04 1.04 1.04
12 x 24 LI Hybrid Cable	C	No	No	Inside Pole	125.43 - 11.00	2	No Ice 1/2" Ice 1" Ice	0.00 0.00 0.00	3.20 3.20 3.20

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight lb
L1	125.43-115.43	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	126.40
L2	115.43-105.43	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight lb
		C	0.000	0.000	0.000	0.000	151.93
L3	105.43-85.43	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	398.77
L4	85.43-46.71	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	995.88
L5	46.71-8.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	918.71

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_A In Face ft^2	C_AA_A Out Face ft^2	Weight lb
L1	125.43-115.43	A	1.138	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	126.40
L2	115.43-105.43	A	1.128	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	151.93
L3	105.43-85.43	A	1.111	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	398.77
L4	85.43-46.71	A	1.070	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	995.88
L5	46.71-8.00	A	0.981	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	918.71

Feed Line Center of Pressure

Section	Elevation ft	CP_X in	CP_Z in	CP_X Ice in	CP_Z Ice in
L1	125.43-115.43	0.0000	0.0000	0.0000	0.0000
L2	115.43-105.43	0.0000	0.0000	0.0000	0.0000
L3	105.43-85.43	0.0000	0.0000	0.0000	0.0000
L4	85.43-46.71	0.0000	0.0000	0.0000	0.0000
L5	46.71-8.00	0.0000	0.0000	0.0000	0.0000

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

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight lb
4' Lightning Rod	C	None		0.0000	127.40	No Ice	0.25	0.25	31.00
						1/2" Ice	0.66	0.66	33.82
						1" Ice	0.97	0.97	39.29
**									
12'-6" Platform w/ Handrail + PRK-1245 (Verizon)	C	None		0.0000	121.60	No Ice	23.50	21.50	1945.00
						1/2" Ice	28.50	26.50	2335.00
						1" Ice	33.50	32.00	2845.00
MX10FIT665-xx Antenna w/ Mounting Pipe	A	From Face	3.00 0.75 0.00	0.0000	121.60	No Ice	8.11	6.90	75.90
						1/2" Ice	8.57	7.85	142.99
						1" Ice	9.04	8.67	217.82
MX10FIT665-xx Antenna w/ Mounting Pipe	B	From Face	3.00 0.75 0.00	0.0000	121.60	No Ice	8.11	6.90	75.90
						1/2" Ice	8.57	7.85	142.99
						1" Ice	9.04	8.67	217.82
MX10FIT665-xx Antenna w/ Mounting Pipe	C	From Face	3.00 0.75 0.00	0.0000	121.60	No Ice	8.11	6.90	75.90
						1/2" Ice	8.57	7.85	142.99
						1" Ice	9.04	8.67	217.82
MX10FIT665-xx Antenna w/ Mounting Pipe	A	From Face	3.00 -0.75 0.00	0.0000	121.60	No Ice	8.11	6.90	75.90
						1/2" Ice	8.57	7.85	142.99
						1" Ice	9.04	8.67	217.82
MX10FIT665-xx Antenna w/ Mounting Pipe	B	From Face	3.00 -0.75 0.00	0.0000	121.60	No Ice	8.11	6.90	75.90
						1/2" Ice	8.57	7.85	142.99
						1" Ice	9.04	8.67	217.82
MX10FIT665-xx Antenna w/ Mounting Pipe	C	From Face	3.00 -0.75 0.00	0.0000	121.60	No Ice	8.11	6.90	75.90
						1/2" Ice	8.57	7.85	142.99
						1" Ice	9.04	8.67	217.82
RF4439d-25A RRH	A	From Face	2.00 0.00 2.00	0.0000	121.60	No Ice	1.88	1.25	98.00
						1/2" Ice	2.05	1.39	116.34
						1" Ice	2.22	1.54	137.47
RF4439d-25A RRH	B	From Face	2.00 0.00 2.00	0.0000	121.60	No Ice	1.88	1.25	98.00
						1/2" Ice	2.05	1.39	116.34
						1" Ice	2.22	1.54	137.47
RF4439d-25A RRH	C	From Face	2.00 0.00 2.00	0.0000	121.60	No Ice	1.88	1.25	98.00
						1/2" Ice	2.05	1.39	116.34
						1" Ice	2.22	1.54	137.47
RF4440d-13A RRH	A	From Face	2.00 0.00 0.00	0.0000	121.60	No Ice	1.88	1.01	82.00
						1/2" Ice	2.05	1.14	98.43
						1" Ice	2.22	1.28	117.53
RF4440d-13A RRH	B	From Face	2.00 0.00 0.00	0.0000	121.60	No Ice	1.88	1.01	82.00
						1/2" Ice	2.05	1.14	98.43
						1" Ice	2.22	1.28	117.53
RF4440d-13A RRH	C	From Face	2.00 0.00 0.00	0.0000	121.60	No Ice	1.88	1.01	82.00
						1/2" Ice	2.05	1.14	98.43
						1" Ice	2.22	1.28	117.53
RT4401-48A RRH	A	From Face	2.00 0.00 -2.00	0.0000	121.60	No Ice	1.00	0.50	19.00
						1/2" Ice	1.12	0.60	26.83
						1" Ice	1.26	0.71	36.59
RT4401-48A RRH	B	From Face	2.00 0.00 -2.00	0.0000	121.60	No Ice	1.00	0.50	19.00
						1/2" Ice	1.12	0.60	26.83
						1" Ice	1.26	0.71	36.59
RT4401-48A RRH	C	From Face	2.00 0.00 -2.00	0.0000	121.60	No Ice	1.00	0.50	19.00
						1/2" Ice	1.12	0.60	26.83
						1" Ice	1.26	0.71	36.59
TD-850B-LTE78-43 | E14Z00P06 Diplexer	A	From Face	2.00 0.00	0.0000	121.60	No Ice	1.95	0.82	53.00
						1/2" Ice	2.12	0.95	68.16

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight lb
			-0.50			1" Ice	2.31	1.08	85.92
TD-850B-LTE78-43 | E14Z00P06 Diplexer	B	From Face	2.00 0.00 -0.50	0.0000	121.60	No Ice 1/2" Ice 1" Ice	1.95 2.12 2.31	0.82 0.95 1.08	53.00 68.16 85.92
TD-850B-LTE78-43 | E14Z00P06 Diplexer	C	From Face	2.00 0.00 -0.50	0.0000	121.60	No Ice 1/2" Ice 1" Ice	1.95 2.12 2.31	0.82 0.95 1.08	53.00 68.16 85.92
Junction Box w/ Mounting Pipe	C	From Face	3.00 6.00 0.00	0.0000	121.60	No Ice 1/2" Ice 1" Ice	4.63 5.18 5.66	3.93 4.65 5.24	53.90 101.19 153.91
**									
(3) 12'-6" Sector Frames (AT&T)	C	None		0.0000	110.00	No Ice 1/2" Ice 1" Ice	18.95 28.30 36.95	13.10 20.60 27.50	3000.00 3465.00 4135.00
TPA65R-BU8DA-K Antenna w/ Mounting Pipe	A	From Face	3.00 -3.00 0.00	0.0000	110.00	No Ice 1/2" Ice 1" Ice	17.87 18.50 19.14	10.02 11.44 12.72	116.20 234.88 363.91
TPA65R-BU8DA-K Antenna w/ Mounting Pipe	B	From Face	3.00 -3.00 0.00	0.0000	110.00	No Ice 1/2" Ice 1" Ice	17.87 18.50 19.14	10.02 11.44 12.72	116.20 234.88 363.91
TPA65R-BU8DA-K Antenna w/ Mounting Pipe	C	From Face	3.00 -3.00 0.00	0.0000	110.00	No Ice 1/2" Ice 1" Ice	17.87 18.50 19.14	10.02 11.44 12.72	116.20 234.88 363.91
TPA65R-BU8DA-K Antenna w/ Mounting Pipe	A	From Face	3.00 3.00 0.00	0.0000	110.00	No Ice 1/2" Ice 1" Ice	17.87 18.50 19.14	10.02 11.44 12.72	116.20 234.88 363.91
TPA65R-BU8DA-K Antenna w/ Mounting Pipe	B	From Face	3.00 3.00 0.00	0.0000	110.00	No Ice 1/2" Ice 1" Ice	17.87 18.50 19.14	10.02 11.44 12.72	116.20 234.88 363.91
TPA65R-BU8DA-K Antenna w/ Mounting Pipe	C	From Face	3.00 3.00 0.00	0.0000	110.00	No Ice 1/2" Ice 1" Ice	17.87 18.50 19.14	10.02 11.44 12.72	116.20 234.88 363.91
4449 B5/B12 RRH	A	From Face	1.00 -1.00 0.00	0.0000	110.00	No Ice 1/2" Ice 1" Ice	1.97 2.15 2.33	1.40 1.56 1.72	7.20 25.68 46.97
4449 B5/B12 RRH	B	From Face	1.00 -1.00 0.00	0.0000	110.00	No Ice 1/2" Ice 1" Ice	1.97 2.15 2.33	1.40 1.56 1.72	7.20 25.68 46.97
4449 B5/B12 RRH	C	From Face	1.00 -1.00 0.00	0.0000	110.00	No Ice 1/2" Ice 1" Ice	1.97 2.15 2.33	1.40 1.56 1.72	7.20 25.68 46.97
B2/B66A 8843 RRH	A	From Face	1.00 1.00 0.00	0.0000	110.00	No Ice 1/2" Ice 1" Ice	1.64 1.80 1.97	1.35 1.50 1.65	72.00 89.60 109.91
B2/B66A 8843 RRH	B	From Face	1.00 1.00 0.00	0.0000	110.00	No Ice 1/2" Ice 1" Ice	1.64 1.80 1.97	1.35 1.50 1.65	72.00 89.60 109.91
B2/B66A 8843 RRH	C	From Face	1.00 1.00 0.00	0.0000	110.00	No Ice 1/2" Ice 1" Ice	1.64 1.80 1.97	1.35 1.50 1.65	72.00 89.60 109.91
4415 B30 RRH	A	From Face	1.00 0.00 0.00	0.0000	110.00	No Ice 1/2" Ice 1" Ice	1.64 1.80 1.97	0.68 0.79 0.91	44.00 56.41 71.18
4415 B30 RRH	B	From Face	1.00 0.00 0.00	0.0000	110.00	No Ice 1/2" Ice 1" Ice	1.64 1.80 1.97	0.68 0.79 0.91	44.00 56.41 71.18
4415 B30 RRH	C	From Face	1.00	0.0000	110.00	No Ice	1.64	0.68	44.00

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight lb
			0.00			1/2" Ice	1.80	0.79	56.41
			0.00			1" Ice	1.97	0.91	71.18
Squid Surge Arrestor	C	From Face	1.00	0.0000	110.00	No Ice	0.81	0.81	33.00
			0.00			1/2" Ice	1.30	1.30	48.38
			0.00			1" Ice	1.48	1.48	66.11
**									
12'-6" Platform w/ Handrail + PRK-1245 (T-Mobile)	C	None		0.0000	90.00	No Ice	23.50	21.50	1945.00
						1/2" Ice	28.50	26.50	2335.00
						1" Ice	33.50	32.00	2845.00
APXVAALL24_43-U-NA20 Antenna w/ Mounting Pipe	A	From Face	3.00	0.0000	90.00	No Ice	20.24	10.79	157.20
			-3.00			1/2" Ice	20.89	12.21	290.89
			0.00			1" Ice	21.55	13.49	435.20
APXVAALL24_43-U-NA20 Antenna w/ Mounting Pipe	B	From Face	3.00	0.0000	90.00	No Ice	20.24	10.79	157.20
			-3.00			1/2" Ice	20.89	12.21	290.89
			0.00			1" Ice	21.55	13.49	435.20
APXVAALL24_43-U-NA20 Antenna w/ Mounting Pipe	C	From Face	3.00	0.0000	90.00	No Ice	20.24	10.79	157.20
			-3.00			1/2" Ice	20.89	12.21	290.89
			0.00			1" Ice	21.55	13.49	435.20
AIR6449 B41 Antenna w/ Mounting Pipe	A	From Face	0.00	0.0000	90.00	No Ice	6.42	3.89	124.90
			3.00			1/2" Ice	7.00	4.62	179.59
			0.00			1" Ice	7.50	5.22	240.17
AIR6449 B41 Antenna w/ Mounting Pipe	B	From Face	3.00	0.0000	90.00	No Ice	6.42	3.89	124.90
			3.00			1/2" Ice	7.00	4.62	179.59
			0.00			1" Ice	7.50	5.22	240.17
AIR6449 B41 Antenna w/ Mounting Pipe	C	From Face	3.00	0.0000	90.00	No Ice	6.42	3.89	124.90
			3.00			1/2" Ice	7.00	4.62	179.59
			0.00			1" Ice	7.50	5.22	240.17
4480 B71+B85 RRH	A	From Face	2.00	0.0000	90.00	No Ice	2.42	1.20	93.00
			-3.00			1/2" Ice	2.61	1.35	112.12
			1.00			1" Ice	2.81	1.51	134.14
4480 B71+B85 RRH	B	From Face	2.00	0.0000	90.00	No Ice	2.42	1.20	93.00
			-3.00			1/2" Ice	2.61	1.35	112.12
			1.00			1" Ice	2.81	1.51	134.14
4480 B71+B85 RRH	C	From Face	2.00	0.0000	90.00	No Ice	2.42	1.20	93.00
			-3.00			1/2" Ice	2.61	1.35	112.12
			1.00			1" Ice	2.81	1.51	134.14
4460 B25+B66 RRH	A	From Face	2.00	0.0000	90.00	No Ice	2.14	1.69	104.00
			-3.00			1/2" Ice	2.32	1.85	126.16
			-1.00			1" Ice	2.51	2.02	151.36
4460 B25+B66 RRH	B	From Face	2.00	0.0000	90.00	No Ice	2.14	1.69	104.00
			-3.00			1/2" Ice	2.32	1.85	126.16
			-1.00			1" Ice	2.51	2.02	151.36
4460 B25+B66 RRH	C	From Face	2.00	0.0000	90.00	No Ice	2.14	1.69	104.00
			-3.00			1/2" Ice	2.32	1.85	126.16
			-1.00			1" Ice	2.51	2.02	151.36
**									

Load Combinations

Comb. No.	Description
1	Dead Only
2	1.2 Dead+1.0 Wind 0 deg - No Ice
3	0.9 Dead+1.0 Wind 0 deg - No Ice
4	1.2 Dead+1.0 Wind 30 deg - No Ice
5	0.9 Dead+1.0 Wind 30 deg - No Ice
6	1.2 Dead+1.0 Wind 60 deg - No Ice
7	0.9 Dead+1.0 Wind 60 deg - No Ice
8	1.2 Dead+1.0 Wind 90 deg - No Ice
9	0.9 Dead+1.0 Wind 90 deg - No Ice
10	1.2 Dead+1.0 Wind 120 deg - No Ice
11	0.9 Dead+1.0 Wind 120 deg - No Ice
12	1.2 Dead+1.0 Wind 150 deg - No Ice
13	0.9 Dead+1.0 Wind 150 deg - No Ice
14	1.2 Dead+1.0 Wind 180 deg - No Ice
15	0.9 Dead+1.0 Wind 180 deg - No Ice
16	1.2 Dead+1.0 Wind 210 deg - No Ice
17	0.9 Dead+1.0 Wind 210 deg - No Ice
18	1.2 Dead+1.0 Wind 240 deg - No Ice
19	0.9 Dead+1.0 Wind 240 deg - No Ice
20	1.2 Dead+1.0 Wind 270 deg - No Ice
21	0.9 Dead+1.0 Wind 270 deg - No Ice
22	1.2 Dead+1.0 Wind 300 deg - No Ice
23	0.9 Dead+1.0 Wind 300 deg - No Ice
24	1.2 Dead+1.0 Wind 330 deg - No Ice
25	0.9 Dead+1.0 Wind 330 deg - No Ice
26	1.2 Dead+1.0 Ice+1.0 Temp
27	1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp
28	1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp
29	1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp
30	1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp
31	1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp
32	1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp
33	1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp
34	1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp
35	1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp
36	1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp
37	1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp
38	1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp
39	Dead+Wind 0 deg - Service
40	Dead+Wind 30 deg - Service
41	Dead+Wind 60 deg - Service
42	Dead+Wind 90 deg - Service
43	Dead+Wind 120 deg - Service
44	Dead+Wind 150 deg - Service
45	Dead+Wind 180 deg - Service
46	Dead+Wind 210 deg - Service
47	Dead+Wind 240 deg - Service
48	Dead+Wind 270 deg - Service
49	Dead+Wind 300 deg - Service
50	Dead+Wind 330 deg - Service

Maximum Member Forces

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
L1	125.428 - 115.428	Pole	Max Tension	8	0.01	0.01	2.20
			Max. Compression	26	-7236.60	1110.43	-699.21
			Max. Mx	20	-3722.56	32575.33	-170.57
			Max. My	14	-3716.03	242.39	-32628.92
			Max. Vy	20	-5302.36	32575.33	-170.57
			Max. Vx	14	5334.61	242.39	-32628.92
			Max. Torque	12			-1382.34
L2	115.428 - 105.428	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-16310.84	1139.64	-871.39
			Max. Mx	20	-8455.78	115351.43	-260.49
			Max. My	14	-8447.08	273.22	-115804.20
			Max. Vy	20	-11736.82	115351.43	-260.49
			Max. Vx	14	11770.91	273.22	-115804.20
			Max. Torque	12			-1409.55
L3	105.428 - 85.428	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-25105.69	444.99	-1362.05
			Max. Mx	20	-13890.65	382123.61	-516.03
			Max. My	14	-13882.80	-36.89	-383869.32
			Max. Vy	20	-17530.13	382123.61	-516.03
			Max. Vx	14	17564.81	-36.89	-383869.32
			Max. Torque	12			-1408.42
L4	85.428 - 46.714	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-31824.05	445.95	-1382.28
			Max. Mx	20	-19854.46	1112006.77	-569.61
			Max. My	14	-19851.17	-9.29	-1115058.19
			Max. Vy	20	-20286.46	1112006.77	-569.61
			Max. Vx	14	20319.31	-9.29	-1115058.19
			Max. Torque	10			-1212.98
L5	46.714 - 8	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-41006.28	432.58	-1359.26
			Max. Mx	20	-27951.98	1952988.47	-575.53
			Max. My	14	-27951.91	-9.28	-1957273.89
			Max. Vy	8	23168.00	-1952969.86	-575.56
			Max. Vx	14	23198.94	-9.28	-1957273.89
			Max. Torque	10			-1205.51

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical lb	Horizontal, X lb	Horizontal, Z lb
Pole	Max. Vert	26	41006.28	-0.31	0.54
	Max. H_x	21	20979.30	23143.88	-0.00
	Max. H_z	3	20979.30	0.00	23174.77
	Max. M_x	2	1956099.97	0.00	23174.26

Location	Condition	Gov. Load Comb.	Vertical lb	Horizontal, X lb	Horizontal, Z lb
	Max. M_z	8	1952969.86	-23143.37	-0.00
	Max. Torsion	23	1203.04	20043.91	11587.80
	Min. Vert	15	20979.30	0.00	-23174.77
	Min. H_x	9	20979.30	-23143.88	-0.00
	Min. H_z	15	20979.30	0.00	-23174.77
	Min. M_x	14	-1957273.89	0.00	-23174.26
	Min. M_z	20	-1952988.47	23143.37	-0.00
	Min. Torsion	11	-1203.56	-20043.91	-11587.80

Tower Mast Reaction Summary

Load Combination	Vertical lb	$Shear_x$ lb	$Shear_z$ lb	Overturning Moment, M_x lb-ft	Overturning Moment, M_z lb-ft	Torque lb-ft
Dead Only	23310.40	0.09	-0.15	440.94	-4.48	-0.01
1.2 Dead+1.0 Wind 0 deg - No Ice	27972.38	-0.00	-23174.26	-1956099.97	-9.45	-811.67
0.9 Dead+1.0 Wind 0 deg - No Ice	20979.30	-0.00	-23174.77	-1930155.07	-8.93	-805.77
1.2 Dead+1.0 Wind 30 deg - No Ice	27972.48	11572.34	-20070.63	-1694072.54	-976549.79	-242.81
0.9 Dead+1.0 Wind 30 deg - No Ice	20979.36	11572.36	-20070.66	-1671580.68	-963504.20	-235.97
1.2 Dead+1.0 Wind 60 deg - No Ice	27972.48	20043.88	-11587.78	-977834.99	-1691433.84	391.29
0.9 Dead+1.0 Wind 60 deg - No Ice	20979.36	20043.91	-11587.80	-964914.95	-1668838.85	397.25
1.2 Dead+1.0 Wind 90 deg - No Ice	27972.38	23143.37	0.00	575.31	-1952969.86	920.83
0.9 Dead+1.0 Wind 90 deg - No Ice	20979.30	23143.88	0.00	419.62	-1926930.53	924.29
1.2 Dead+1.0 Wind 120 deg - No Ice	27972.48	20043.88	11587.79	978991.00	-1691444.36	1203.51
0.9 Dead+1.0 Wind 120 deg - No Ice	20979.36	20043.91	11587.80	965758.11	-1668846.58	1203.56
1.2 Dead+1.0 Wind 150 deg - No Ice	27972.48	11572.34	20070.63	1695240.57	-976560.33	1163.45
0.9 Dead+1.0 Wind 150 deg - No Ice	20979.36	11572.36	20070.66	1672432.68	-963511.95	1160.09
1.2 Dead+1.0 Wind 180 deg - No Ice	27972.38	-0.00	23174.26	1957273.89	-9.50	811.59
0.9 Dead+1.0 Wind 180 deg - No Ice	20979.30	-0.00	23174.77	1931011.43	-8.95	805.71
1.2 Dead+1.0 Wind 210 deg - No Ice	27972.48	-11572.34	20070.63	1695257.16	976550.12	242.31
0.9 Dead+1.0 Wind 210 deg - No Ice	20979.36	-11572.36	20070.66	1672444.56	963500.30	235.48
1.2 Dead+1.0 Wind 240 deg - No Ice	27972.48	-20043.88	11587.78	979007.57	1691453.39	-391.76
0.9 Dead+1.0 Wind 240 deg - No Ice	20979.36	-20043.91	11587.80	965769.98	1668848.72	-397.71
1.2 Dead+1.0 Wind 270 deg - No Ice	27972.38	-23143.37	0.00	575.29	1952988.47	-920.75
0.9 Dead+1.0 Wind 270 deg - No Ice	20979.30	-23143.88	0.00	419.61	1926939.54	-924.23
1.2 Dead+1.0 Wind 300 deg - No Ice	27972.48	-20043.88	-11587.78	-977851.59	1691442.89	-1202.95

Load Combination	Vertical	$Shear_x$	$Shear_z$	Overturning Moment, M_x	Overturning Moment, M_z	Torque
	lb	lb	lb	lb-ft	lb-ft	lb-ft
0.9 Dead+1.0 Wind 300 deg - No Ice	20979.36	-20043.91	-11587.80	-964926.84	1668841.00	-1203.04
1.2 Dead+1.0 Wind 330 deg - No Ice	27972.48	-11572.34	-20070.63	-1694089.13	976539.64	-1163.02
0.9 Dead+1.0 Wind 330 deg - No Ice	20979.36	-11572.36	-20070.66	-1671592.56	963492.60	-1159.67
1.2 Dead+1.0 Ice+1.0 Temp	41006.28	0.31	-0.54	1359.26	432.58	0.12
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	41006.27	0.00	-5558.44	-466810.77	489.59	-166.72
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	41006.27	2777.82	-4813.75	-404069.97	-233484.52	-39.18
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp	41006.27	4811.33	-2779.22	-232659.93	-404765.21	98.89
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	41006.27	5555.64	-0.01	1490.67	-467458.48	210.50
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp	41006.27	4811.33	2779.21	235641.59	-404765.83	265.73
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp	41006.27	2777.82	4813.74	407052.29	-233485.17	249.78
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	41006.27	0.00	5558.43	469793.39	489.53	166.94
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp	41006.27	-2777.82	4813.74	407053.24	234464.80	39.41
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp	41006.27	-4811.32	2779.21	235642.52	405746.60	-98.65
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp	41006.27	-5555.64	-0.01	1490.62	468439.84	-210.25
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp	41006.27	-4811.32	-2779.22	-232660.94	405746.04	-265.48
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp	41006.27	-2777.82	-4813.75	-404070.97	234464.25	-249.55
Dead+Wind 0 deg - Service	23310.39	0.00	-4778.05	-400212.21	6.96	-170.76
Dead+Wind 30 deg - Service	23310.39	2385.84	-4137.91	-346528.37	-199962.10	-49.65
Dead+Wind 60 deg - Service	23310.39	4132.40	-2389.03	-199861.81	-346349.49	84.77
Dead+Wind 90 deg - Service	23310.39	4771.68	-0.00	488.66	-399931.09	196.49
Dead+Wind 120 deg - Service	23310.39	4132.40	2389.02	200839.32	-346349.83	255.56
Dead+Wind 150 deg - Service	23310.39	2385.84	4137.91	347506.26	-199962.45	246.15
Dead+Wind 180 deg - Service	23310.39	0.00	4778.04	401190.29	6.96	170.79
Dead+Wind 210 deg - Service	23310.39	-2385.84	4137.91	347506.79	199976.67	49.67
Dead+Wind 240 deg - Service	23310.39	-4132.39	2389.02	200839.84	346364.66	-84.76
Dead+Wind 270 deg - Service	23310.39	-4771.68	-0.00	488.66	399946.24	-196.46
Dead+Wind 300 deg - Service	23310.39	-4132.40	-2389.03	-199862.34	346364.33	-255.52
Dead+Wind 330 deg - Service	23310.39	-2385.84	-4137.91	-346528.90	199976.34	-246.11

Solution Summary

	Sum of Applied Forces			Sum of Reactions			
Load Comb.	PX	PY	PZ	PX	PY	PZ	% Error
	lb	lb	lb	lb	lb	lb	
1	0.00	-23310.40	0.00	-0.09	23310.40	0.15	0.001%
2	0.00	-27972.48	-23175.65	0.00	27972.38	23174.26	0.004%
3	0.00	-20979.36	-23175.65	0.00	20979.30	23174.77	0.003%
4	11572.38	-27972.48	-20070.70	-11572.34	27972.48	20070.63	0.000%
5	11572.38	-20979.36	-20070.70	-11572.36	20979.36	20070.66	0.000%
6	20043.95	-27972.48	-11587.82	-20043.88	27972.48	11587.78	0.000%
7	20043.95	-20979.36	-11587.82	-20043.91	20979.36	11587.80	0.000%
8	23144.76	-27972.48	0.00	-23143.37	27972.38	-0.00	0.004%
9	23144.76	-20979.36	0.00	-23143.88	20979.30	-0.00	0.003%

Load Comb.	Sum of Applied Forces PX lb	PY lb	PZ lb	Sum of Reactions PX lb	PY lb	PZ lb	% Error
10	20043.95	-27972.48	11587.82	-20043.88	27972.48	-11587.79	0.000%
11	20043.95	-20979.36	11587.82	-20043.91	20979.36	-11587.80	0.000%
12	11572.38	-27972.48	20070.70	-11572.34	27972.48	-20070.63	0.000%
13	11572.38	-20979.36	20070.70	-11572.36	20979.36	-20070.66	0.000%
14	0.00	-27972.48	23175.65	0.00	27972.38	-23174.26	0.004%
15	0.00	-20979.36	23175.65	0.00	20979.30	-23174.77	0.003%
16	-11572.38	-27972.48	20070.70	11572.34	27972.48	-20070.63	0.000%
17	-11572.38	-20979.36	20070.70	11572.36	20979.36	-20070.66	0.000%
18	-20043.95	-27972.48	11587.82	20043.88	27972.48	-11587.78	0.000%
19	-20043.95	-20979.36	11587.82	20043.91	20979.36	-11587.80	0.000%
20	-23144.76	-27972.48	0.00	23143.37	27972.38	-0.00	0.004%
21	-23144.76	-20979.36	0.00	23143.88	20979.30	-0.00	0.003%
22	-20043.95	-27972.48	-11587.82	20043.88	27972.48	11587.78	0.000%
23	-20043.95	-20979.36	-11587.82	20043.91	20979.36	11587.80	0.000%
24	-11572.38	-27972.48	-20070.70	11572.34	27972.48	20070.63	0.000%
25	-11572.38	-20979.36	-20070.70	11572.36	20979.36	20070.66	0.000%
26	0.00	-41006.28	0.00	-0.31	41006.28	0.54	0.002%
27	0.00	-41006.28	-5559.18	-0.00	41006.27	5558.44	0.002%
28	2778.19	-41006.28	-4814.39	-2777.82	41006.27	4813.75	0.002%
29	4811.97	-41006.28	-2779.59	-4811.33	41006.27	2779.22	0.002%
30	5556.38	-41006.28	0.00	-5555.64	41006.27	0.01	0.002%
31	4811.97	-41006.28	2779.59	-4811.33	41006.27	-2779.21	0.002%
32	2778.19	-41006.28	4814.39	-2777.82	41006.27	-4813.74	0.002%
33	0.00	-41006.28	5559.18	-0.00	41006.27	-5558.43	0.002%
34	-2778.19	-41006.28	4814.39	2777.82	41006.27	-4813.74	0.002%
35	-4811.97	-41006.28	2779.59	4811.32	41006.27	-2779.21	0.002%
36	-5556.38	-41006.28	0.00	5555.64	41006.27	0.01	0.002%
37	-4811.97	-41006.28	-2779.59	4811.32	41006.27	2779.22	0.002%
38	-2778.19	-41006.28	-4814.39	2777.82	41006.27	4813.75	0.002%
39	0.00	-23310.40	-4778.96	-0.00	23310.39	4778.05	0.004%
40	2386.30	-23310.40	-4138.70	-2385.84	23310.39	4137.91	0.004%
41	4133.19	-23310.40	-2389.48	-4132.40	23310.39	2389.03	0.004%
42	4772.59	-23310.40	0.00	-4771.68	23310.39	0.00	0.004%
43	4133.19	-23310.40	2389.48	-4132.40	23310.39	-2389.02	0.004%
44	2386.30	-23310.40	4138.70	-2385.84	23310.39	-4137.91	0.004%
45	0.00	-23310.40	4778.96	-0.00	23310.39	-4778.04	0.004%
46	-2386.30	-23310.40	4138.70	2385.84	23310.39	-4137.91	0.004%
47	-4133.19	-23310.40	2389.48	4132.39	23310.39	-2389.02	0.004%
48	-4772.59	-23310.40	0.00	4771.68	23310.39	0.00	0.004%
49	-4133.19	-23310.40	-2389.48	4132.40	23310.39	2389.03	0.004%
50	-2386.30	-23310.40	-4138.70	2385.84	23310.39	4137.91	0.004%

Non-Linear Convergence Results

Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance
1	Yes	6	0.00000001	0.00000001
2	Yes	18	0.00003988	0.00012869
3	Yes	18	0.00002527	0.00009614
4	Yes	22	0.00000001	0.00014054
5	Yes	22	0.00000001	0.00009271
6	Yes	22	0.00000001	0.00014147
7	Yes	22	0.00000001	0.00009335
8	Yes	18	0.00003989	0.00010490
9	Yes	18	0.00002528	0.00007835
10	Yes	22	0.00000001	0.00014808
11	Yes	22	0.00000001	0.00009789
12	Yes	22	0.00000001	0.00013790

13	Yes	22	0.00000001	0.00009078
14	Yes	18	0.00003987	0.00012881
15	Yes	18	0.00002527	0.00009621
16	Yes	22	0.00000001	0.00014513
17	Yes	22	0.00000001	0.00009575
18	Yes	22	0.00000001	0.00014382
19	Yes	22	0.00000001	0.00009487
20	Yes	18	0.00003989	0.00010492
21	Yes	18	0.00002528	0.00007836
22	Yes	22	0.00000001	0.00013778
23	Yes	22	0.00000001	0.00009077
24	Yes	22	0.00000001	0.00014834
25	Yes	22	0.00000001	0.00009810
26	Yes	10	0.00000001	0.00001389
27	Yes	18	0.00010392	0.00005070
28	Yes	18	0.00010371	0.00009942
29	Yes	18	0.00010371	0.00009957
30	Yes	18	0.00010391	0.00005056
31	Yes	18	0.00010378	0.00010815
32	Yes	18	0.00010385	0.00009990
33	Yes	18	0.00010408	0.00005150
34	Yes	18	0.00010392	0.00010657
35	Yes	18	0.00010392	0.00010615
36	Yes	18	0.00010408	0.00005100
37	Yes	18	0.00010385	0.00009891
38	Yes	18	0.00010379	0.00010733
39	Yes	16	0.00012460	0.00005123
40	Yes	16	0.00012441	0.00007036
41	Yes	16	0.00012440	0.00007268
42	Yes	16	0.00012460	0.00004915
43	Yes	16	0.00012444	0.00009366
44	Yes	16	0.00012447	0.00006564
45	Yes	16	0.00012467	0.00005154
46	Yes	16	0.00012449	0.00008320
47	Yes	16	0.00012449	0.00007931
48	Yes	16	0.00012465	0.00004923
49	Yes	16	0.00012445	0.00006514
50	Yes	16	0.00012443	0.00009455

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	ϕP_{allow} lb	% Capacity	Pass Fail
L1	125.428 - 115.428	Pole	TP17.72x17.72x0.16	1	-3717.36	39426.80	23.8	Pass
L2	115.428 - 105.428	Pole	TP17.72x17.72x0.16	2	-8447.08	39426.80	72.4	Pass
L3	105.428 - 85.428	Pole	TP23.62x17.72x0.2	3	-13882.80	116920.00	88.8	Pass
L4	85.428 - 46.714	Pole	TP33.86x23.62x0.28	4	-19851.20	482501.00	82.0	Pass
L5	46.714 - 8	Pole	TP44.09x33.86x0.32	5	-27951.90	1190110.00	75.9	Pass
							Summary	
						Pole (L3)	88.8	Pass
						RATING =	**88.8**	**Pass**

Stiffened or Unstiffened, Ungrouted, Circular Base Plate - Any Rod Material

Assumption: Clear space between bottom of leveling nut and top of concrete **not** exceeding (1)*(Rod Diameter)

Site Data

BU#:	*0*
Site Name:	*PLATTESVILLE RELO CT*
App #:	*0*
Pole Manufacturer:	*Other*

Reactions		
Mu:	1957	ft-kips
Axial, Pu:	28	kips
Shear, Vu:	23	kips
Eta Factor, η	0.5	TIA G (Fig. 4-4)

If No stiffeners, Criteria:	AISC LRFD	<-Only Applcable to Unstiffened Cases

Anchor Rod Data		
Qty:	12	
Diam:	2.25	in
Rod Material:	8.8	(Metric Grade)
Strength (Fu):	120	ksi
Yield (Fy):	96	ksi
Bolt Circle:	54	in

Bolt Results

		Rigid
Max Rod (Cu+ Vu/ń):	151.2 Kips	AISC LRFD
Allowable Axial, Φ*Fu*Anet:	312.0 Kips	φ*Tn
Anchor Rod Stress Ratio:	48.5% **Pass**	

Plate Data		
Diam:	60	in
Thick:	2.75	in
Grade:	50	ksi
Single-Rod B-eff:	11.66	in

Base Plate Results Flexural Check

		Rigid
Base Plate Stress:	19.5 ksi	AISC LRFD
Allowable Plate Stress:	45.0 ksi	φ*Fy
Base Plate Stress Ratio:	43.3% **Pass**	Y.L. Length: 31.18

Stiffener Data (Welding at both sides)		
Config:	0	*
Weld Type:		
Groove Depth:		<-- Disregard
Groove Angle:		<-- Disregard
Fillet H. Weld:		in
Fillet V. Weld:		in
Width:		in
Height:		in
Thick:		in
Notch:		in
Grade:		ksi
Weld str.:		ksi

n/a

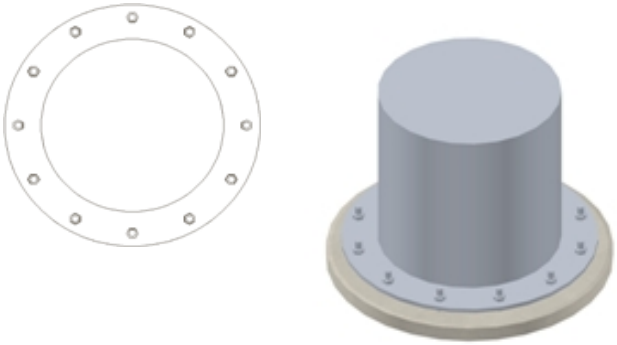
Stiffener Results

Horizontal Weld :	n/a
Vertical Weld:	n/a
Plate Flex+Shear, fb/Fb+(fv/Fv)^2:	n/a
Plate Tension+Shear, ft/Ft+(fv/Fv)^2:	n/a
Plate Comp. (AISC Bracket):	n/a

Pole Results

Pole Punching Shear Check: n/a

Pole Data		
Diam:	44.09	in
Thick:	0.32	in
Grade:	65	ksi
# of Sides:	18	"0" IF Round
Fu	80	ksi
Reinf. Fillet Weld	0	"0" if None



* 0 = none, 1 = every bolt, 2 = every 2 bolts, 3 = 2 per bolt

** Note: for complete joint penetration groove welds the groove depth must be exactly 1/2 the stiffener thickness for calculation purposes

Date: 11/3/2021
Project Name: PLATTESVILLE RELO CT
Designed By: ID **Checked By:** MSC

HUDSON Design Group LLC

Check Concrete Waste Blocks:

Nominal Weight of Concrete: **150 pcf**

Volume of Concrete: **24 ft^3**

Weight of Concrete Waste Block: **3600 lbs**

Item	Wt. (Lbs/ft.)	Linear ft.	Qty.	Total (Lbs.)
Concrete Waste Blocks	3600		72	259200
		Total, T_{weight}		**259200 lbs**

Minimum Ballast Weight Requirement for Overturning:

HDG referenced Non-Penetrating Foundation Design Drawings provided by the client and prepared by Ambor Structures dated July 16, 2015.

= **251000 lbs.**

Check Non-Penantrating Foundation Weight Requirements for Overturning:

= **251000 lbs.** **<** **259200 lbs.** **O.K!**

Check Soil Bearing Capacity:

Item	Wt. (Lbs/ft.)	Linear ft.	Qty.	Total (Lbs.)
Monopole	27972		1	27972
Concrete Waste Blocks	3600		72	259200
Misc.	15000		1	15000
		Total, T_{weight}		**302172 lbs**

Diameter of Base: **24.5 ft**

Area of Base: **472.7 ft^2**

Bearing Pressure: **639.2 psf**

Assumed Soil Bearing Capacity:

Due to lack of information a worse case presumptive load-bearing value was used to calculate the soil bearing capacity. According to the IBC 2015 Section 1806.2 the worse case presumptive load bearing value is 1500 psf.

= **1500 psf** (See IBC 2015 Section 1806.2)

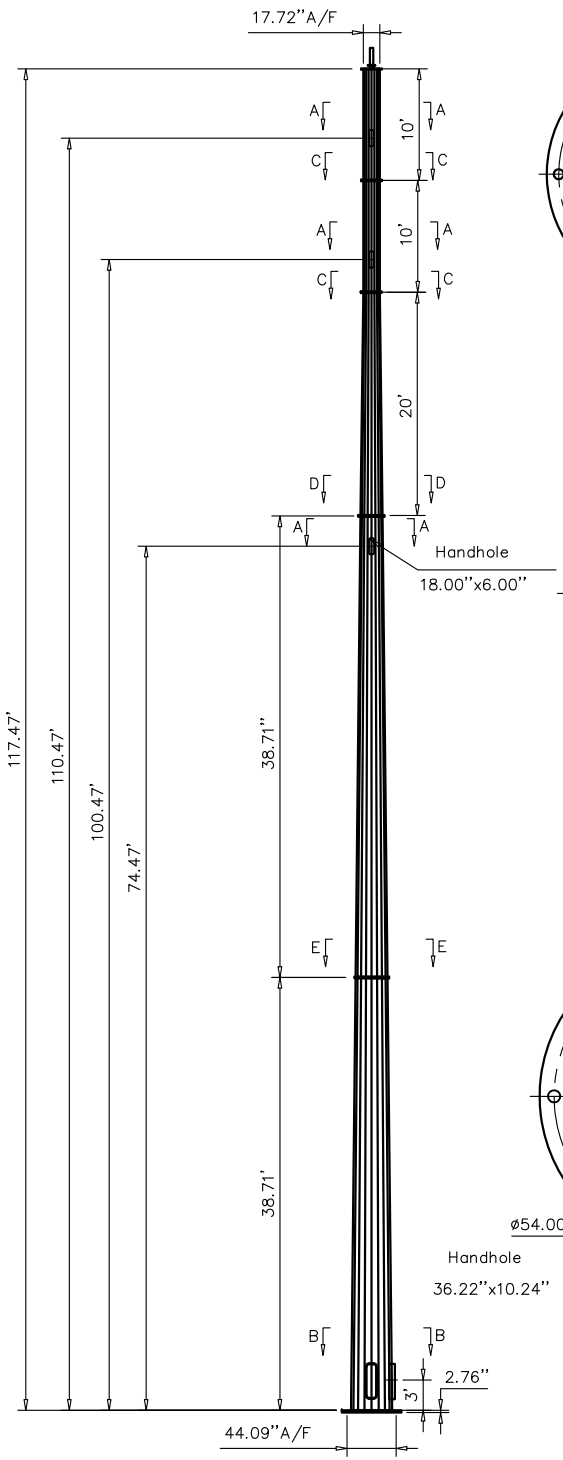
Check Soil Bearing Capacity:

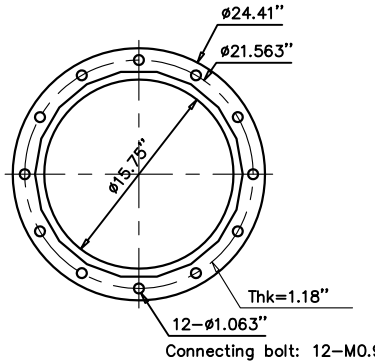
= **639.2 psf** **<** **1500 psf** **O.K!**

HUDSON Design Group LLC

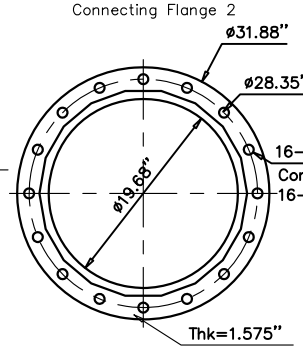
REFERENCE DOCUMENTS

C15011001B
QUOTATION #

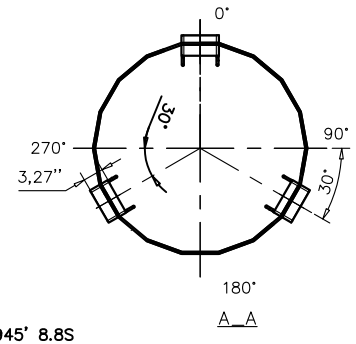




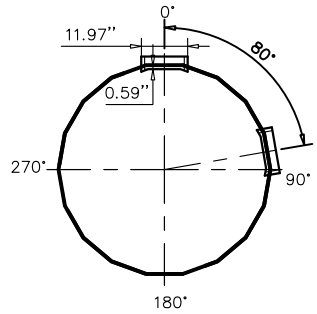
C-C
Connecting Flange 2



D-D
Connecting Flange 1



A_A



B_B

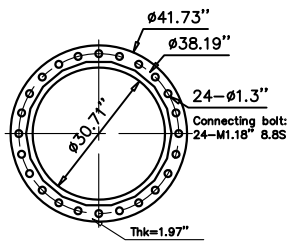
Design Output:

1. Material: Pole shaft: ASTM A572 GR65
   Baseplate,Connection Flange,Top Flange: Q345B or ASTM A572 GR50
2. Pole section has 18 sides
3. Finished: Finish Paint Over galvanizing per ASTM A123
   4'Lightning Rod : copper clad
4. Section information detail

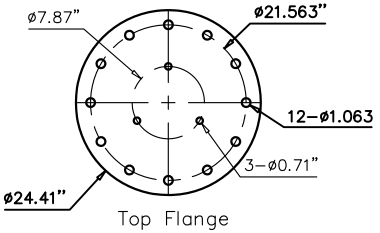
Section #	1st	2nd	3rd	4th	5th
Thickness (in):	0.315	0.276	0.197	0.157	0.157
Length (ft):	38.714	38.714	20.0	10.0	10.0
Top (in):	33.86	23.62	17.72	17.72	17.72
Bottom (in):	44.09	33.86	23.62	17.72	17.72

5.Charpy impact requirement

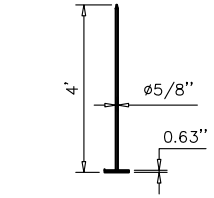
Material	Charpy V-Notch Test	
	Minimum Impact Energy(J)	Test Temperature(℃)
ASTM A572 GR65	34	-30
Q345B	34	20

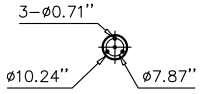


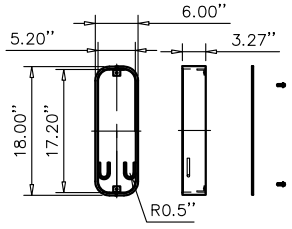
E-E
Connecting Flange 3



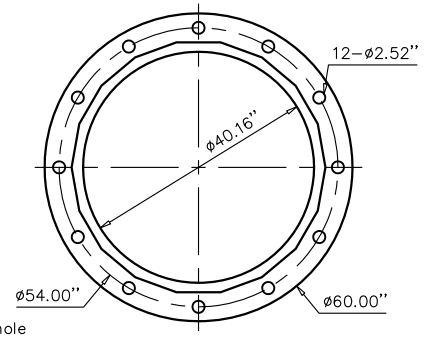
Top Flange





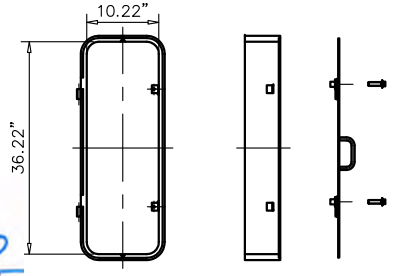


Handhole-18.00"x6.00"



Handhole
36.22"x10.24"

Baseplate



Handhole 36.22"x10.24"

4'Lightning Rod(copper clad)
Please find attached documents with the safety device

NO	PART NO.	DESCRIPTION	WEIGHT	QTY
10		Connecting Flange 3		2
9		Connecting Flange 2		4
8		Connecting Flange 1		2
7		4' Steel Lightning Rod		1
6		Top Cap		1
5		Safety Device		1
4		Step Bolts		1
3		Handhole 18.00"x6.00"		9
2		Hand Hole 36.22"x10.24"		2
1		Pole		1

Ambor Structures
amborstructures.com

DWG SIZE	A4V
CLASS CODE	
CUSTOMER	BLUESKY
DESCRIPTION	120ft CP

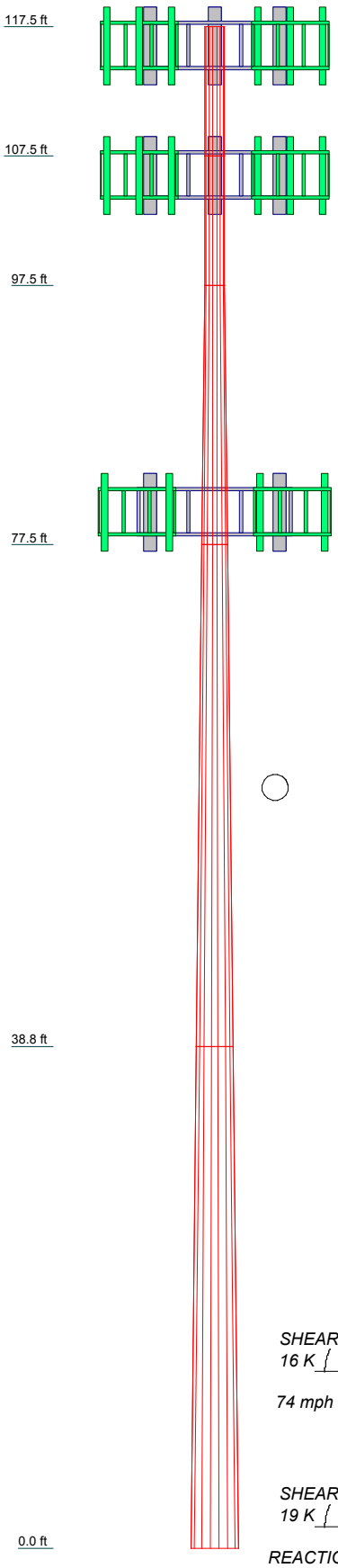
REV ID.	DATE	REVISION DESCRIPTION

DRAWN	dwz	Jun.29 2015	MATERIAL		ORDER NO
ENGR	dwz	Jun.29 2015	THK(mm)		SCALE
CHECKED	WJ	Jun.29 2015	WT(kg)		VERSION: E
SPECIFICATIONS					

STATE OF CONNECTICUT
MICHAEL T. DE BOER
No. 18022
LICENSED PROFESSIONAL ENGINEER

08/21/2015

Section	Length (ft)	Number of Sides	Thickness (in)	Top Dia (in)	Bot Dia (in)	Grade	Weight (K)
1	10'	18	0.16	17.72	17.72	A572-65	0.3
2	10'	18	0.16	17.72	17.72		0.3
3	20'	18	0.20	17.72	23.62		0.9
4	388-17/32"	18	0.28	23.62	33.86		3.3
5	389-1/8"	18	0.32	33.86	44.09		5.1



DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
12' Low Profile	116	(12) TMABPDB7823	106
(6) OPA-65R-LCUU-H4	116	(12) TMABPDB7823	80
12' Low Profile	106	(12) OPA-65R-LCUU-H4	80
(12) OPA-65R-LCUU-H4	106	12' Low Profile	80

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-65	65 ksi	80 ksi			

TOWER DESIGN NOTES

1. Tower is located in Fairfield County, Connecticut.
2. Tower designed for a 85 mph basic wind in accordance with the TIA/EIA-222-F Standard.
3. Tower is also designed for a 74 mph basic wind with 0.75 in ice.
4. Deflections are based upon a 60 mph wind.
5. Connections use galvanized A325 bolts, nuts and locking devices. Installation per TIA/EIA-222 and AISC Specifications.
6. Tower members are "hot dipped" galvanized in accordance with ASTM A123 and ASTM A153 Standards.
7. Tower will meet or exceed the required 100 mph (3-sec gust) wind speed for Bridgeport, CT.
8. IBC 2003 in conjunction with the 2005 CT supplement and 2013 Amendments.
9. TOWER RATING: 93.8%

AXIAL 28 K
SHEAR 16 K *MOMENT 1442 kip-ft*

74 mph WIND - 0.75 in ICE

AXIAL 21 K
SHEAR 19 K *MOMENT 1635 kip-ft*

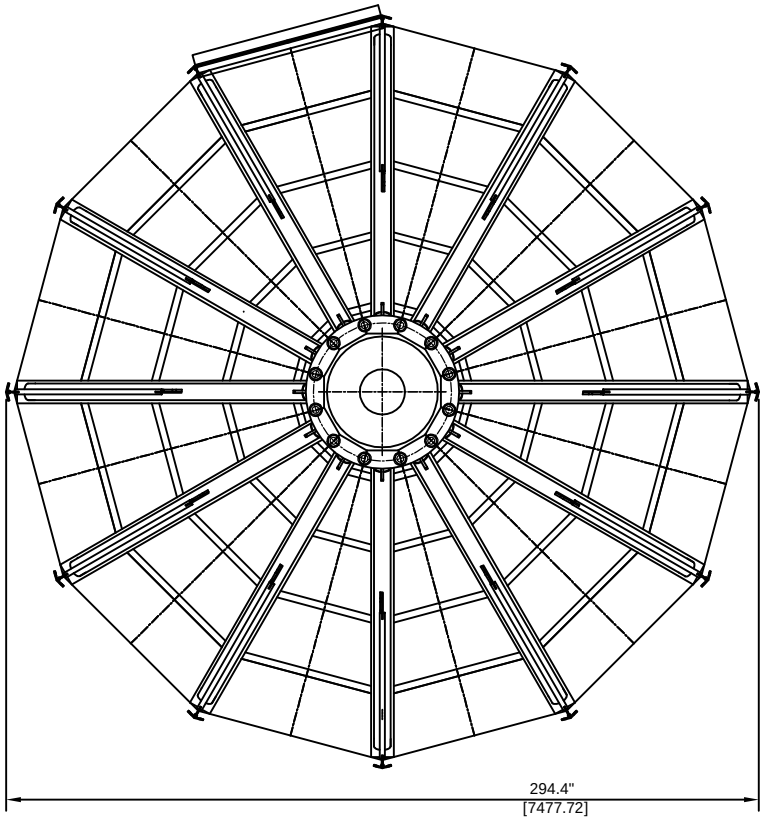
REACTIONS - 85 mph WIND

11/16/2015

bennett&pless
Experience Structural Expertise

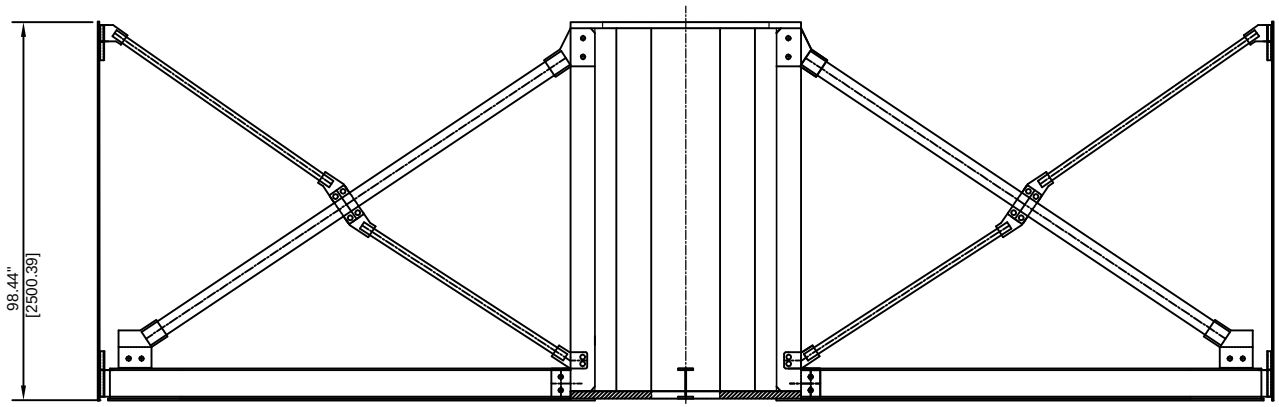
Bennett & Pless
550 River Drive
North Sioux City, SD 57049
Phone: 605-540-4621
FAX: 678-990-8701

Job: **120FT CP**			
Project: ***Evergreen Street***			
Client: BlueSky Tower	Drawn by: Chunhui Song	App'd:	
Code: TIA/EIA-222-F	Date: 11/12/15	Scale: NTS	
Path:		Dwg No. E-1	



QuikBase 12-B

Capacity: 2500ft-kip
Ballast: Concrete Block
Non-Penetrating Foundation



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Atlanta, GA•Chattanooga, TN•North Sioux City, SD

09/04/2015

SHEET INDEX:

PROJECT: Evergreen Street 120ft Monopole

CUSTOMER:

Blue Sky Tower Partners, LLC

SITE:
220 Evergreen Street
Bridgeport, CT 06606 (Fairfield County)

CUSTOMER PO #:

DESCRIPTION:

DRAWING #:

DRAWN: KE July 16, 2015

ENGR:

CHECKED:

SPECS:

VERSION: A

PROJECT INFORMATION:

Date: September 4 2015
Customer: Blue Sky Tower Partners, LLC
Tower Design: 117ft 85mph Monopole with Ballasted Foundation
Site #: CT-5020

Site Location:
220 Evergreen Street
Bridgeport, CT 06606
Fairfield County, Conneticut
41.1978, -73.1908

Design Criteria:

WIND
85mph basic wind in accordance with TIA-222-F Standard. IBC 2003 in conjunction with the 2005 CT supplement and 2013 amendments.
74mph basic wind wit 0.75 in ice. Ice is considered to increase in thickness with height.

EXPOSURE
C

TOWER CLASS:
II

TOPOGRAPHIC CATEGORY:
1 with Crest Height: 0ft

Tower Reactions:
Moment: 2220 kip-ft
Shear: 26K
Axial: 25K

Ballast Requirement:
251,000lbs

Preferred Ballast Type:
Concrete waste block - 2ft x 2ft x 6ft; 3,600lbs

Qty per Sector (12):
6 blocks (can be stood on end to achieve ballast requirement within the space provided)

IF RELOCATED, ADDITIONAL CALCULATIONS WILL NEED TO BE RUN FOR VERIFICATION.

REV	DATE	REV DESCRIPTION

STRUCTURAL STEEL:
1. PROVIDE STRUCTURAL STEEL CONFORMING TO THE FOLLOWING STANDARDS:
   1.1. AISC MANUAL OF STEEL CONSTRUCTION, 13TH EDITION
   1.2. AISC 360-05, SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS
   1.3. AISC 303-05, CODE OF STANDARD PRACTICE FOR STRUCTURAL STEEL BUILDINGS AND BRIDGES
   1.4. AISC 326-02, DETAILING FOR STEEL CONSTRUCTION, 2ND EDITION

SHOP DRAWINGS:
1. SUBMIT SHOP DRAWINGS PREPARED IN ACCORDANCE WITH AISC 326-02.
2. PROVIDE COMPLETE WELDING INFORMATION USING AWS SYMBOLS.
3. USE PREQUALIFIED WELDED JOINTS PER AISC AND AWS D1.1 “STRUCTURAL WELDING CODE.”
4. DO NOT BEGIN FABRICATION UNTIL SHOP DRAWINGS ARE COMPLETED AND REVIEWED BY THE STRUCTURAL ENGINEER OF RECORD.

UNLESS NOTED OTHERWISE PROVIDE STRUCTURAL STEEL CONFORMING TO:

1.	WIDE FLANGE SHAPES:	ASTM A992 OR EQUIVALENT
2.	CHANNELS, ANGLES AND PLATES:	ASTM A36 OR EQUIVALENT
3.	HOLLOW STEEL SECTIONS (HSS):	ASTM A500, GRADE B OR EQUIVALENT
4.	STRUCTURAL PIPES:	ASTM A53, TYPE E OR S, GRADE B
5.	HEADED STUDS:	ASTM A 29
6.	DEFORMED BAR ANCHORS (DBA):	ASTM A 496
7.	ANCHOR RODS	ASTM F 1554, GRADE 36.

BOLTED CONNECTIONS:
1. UNLESS NOTED OTHERWISE, MAKE ALL CONNECTIONS WITH 3/4” DIAMETER ASTM A 325 BOLTS OR EQUIVALENT.
2. ASSEMBLE AND INSPECT BOLTED CONNECTIONS IN ACCORDANCE WITH AISC “SPECIFICATION FOR JOINTS USING ASTM A 325 OR ASTM A 490 BOLTS”, 2004. PROVIDE SNUG TIGHT JOINTS.

WELDED CONNECTIONS:
a. MAKE ALL WELDED CONNECTIONS IN ACCORDANCE WITH AWS D1.1-04 “STRUCTURAL WELDING CODE”, USING TYPE E70XX ELECTRODES.
b. EMPLOY ONLY CERTIFIED WELDERS.
c. MAINTAIN PROOF OF CERTIFICATION AT THE JOB SITE.

PROVIDE CONNECTIONS FOR BEAMS WHICH CANNOT CONFORM TO THE TYPICAL CONNECTION DETAILS IN ACCORDANCE WITH THE FOLLOWING:
1. WHERE MEMBER REACTIONS ARE NOT SHOWN ON THE DRAWINGS, DETAIL CONNECTIONS FOR THE MAXIMUM UNIFORM LOAD SHOWN IN THE MAXIMUM TOTAL UNIFORM LOAD TABLES, IN TABLE 3-6 OF THE AISC STEEL CONSTRUCTION MANUAL FOR THE SPAN SHOWN ON THE DRAWING.
2. WHERE MEMBER REACTIONS ARE SHOWN, PROVIDE CONNECTIONS TO DEVELOP THE REACTIONS SHOWN.
3. WHERE CONNECTIONS ARE SUBJECT TO ECCENTRICITY, DETAIL CONNECTIONS THAT ACCOUNT FOR THE ECCENTRICITY.

PROVIDE SPECIAL CONNECTIONS BETWEEN STEEL FRAMING COMPONENTS NOT DETAILED BY THE STRUCTURAL ENGINEER OF RECORD DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS TO BE CONSTRUCTED INCLUDING BUT NOT LIMITED TO BRACE END CONNECTIONS, MOMENT RESISTING CONNECTIONS, MODIFIED BEAM SEAT CONNECTIONS, AND MEMBER SPLICE CONNECTIONS.
1. DO NOT USE GAS CUTTING TORCHES TO CORRECT FABRICATION ERRORS IN STRUCTURAL STEEL FRAMING.
2. PROVIDE TEMPORARY BRACING FOR STRUCTURAL STEEL FRAMING UNTIL ALL PERMANENT BRACING, MOMENT CONNECTIONS, AND FLOOR/ROOF DECKS (DIAPHRAGMS) ARE COMPLETELY INSTALLED.
3. PAINT STRUCTURAL STEEL IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. DO NOT PAINT STEEL SURFACES TO BE ENCASED IN CONCRETE, SURFACES TO RECEIVE FIREPROOFING, CONNECTIONS DESIGNATED AS FRICTION TYPE, SURFACES TO BE WELDED, OR SURFACES RECEIVING WELDED STUDS OR DEFORMED BAR ANCHORS ("DBA's") IN THE FIELD..

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STATE OF CONNECTICUT
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LICENSED PROFESSIONAL ENGINEER
09/04/2015

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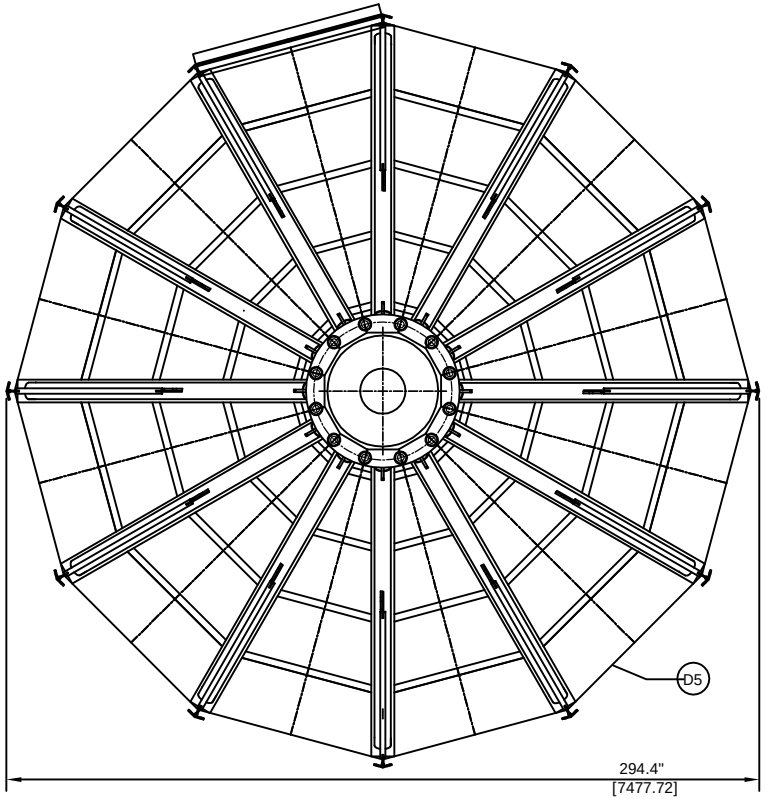
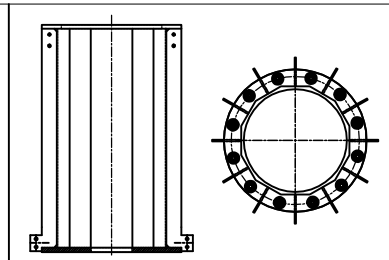
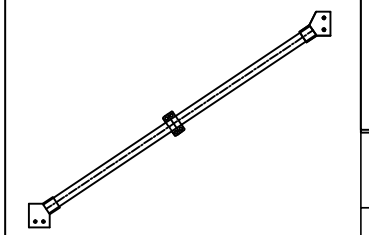
PROJECT: Evergreen Street 120ft Monopole
CUSTOMER: Blue Sky Tower Partners, LLC
SITE: 220 Evergreen Street Bridgeport, CT 06606 (Fairfield County)
CUSTOMER PO #:
DESCRIPTION:
DRAWING#: KE July 16, 2015
DRAWN:
ENGR:
CHECKED:
SPECS:
VERSION:

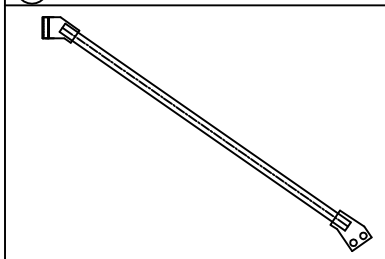




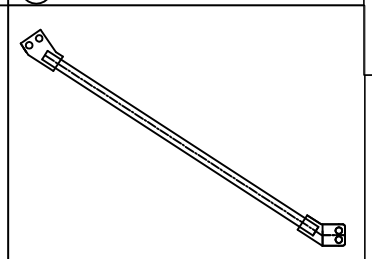
D2 - Base Pedestal



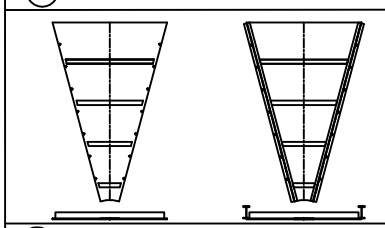
D3 - Primary Angle Pipe



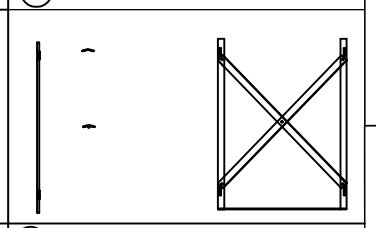
D4 - Secondary Angle Pipe (top)



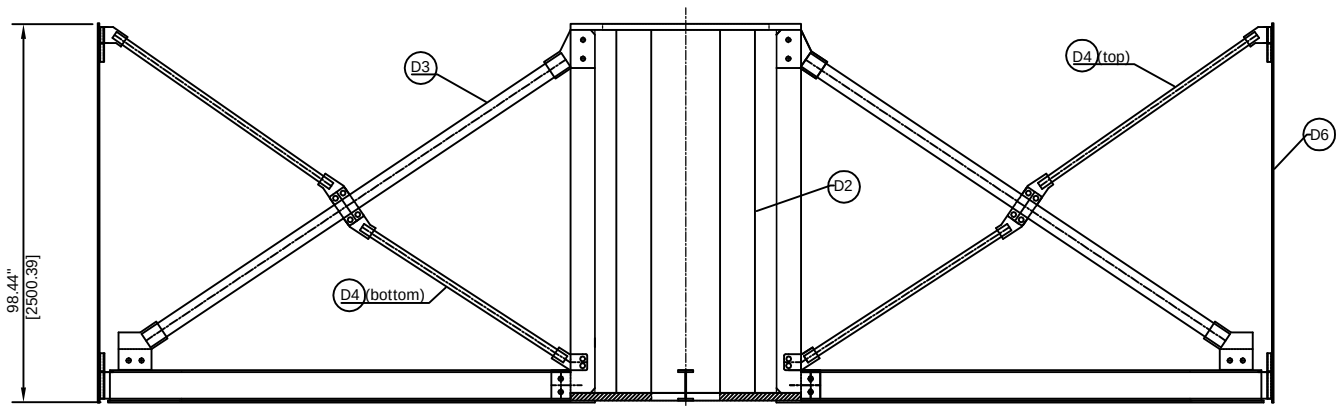
D4 - Secondary Angle Pipe (Bottom)



D5 - Floor Plates



D6 - Perimeter Frame



D1

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DRAWING INDEX:

T1- Title Page
N1- Notes Page
D1- Assembly Drawing
D2- Base Pedestal
D3- Primary Angle Pipe
D4- Secondary Angle Pipe
D5- Floor Plates
D6- Perimeter Frame

PROJECT: Evergreen Street 120ft Monopole

CUSTOMER:
Blue Sky Tower Partners, LLC

SITE:
220 Evergreen Street
Bridgeport, CT 06606 (Fairfield County)

CUSTOMER PO #:

DESCRIPTION:

DRAWING #:

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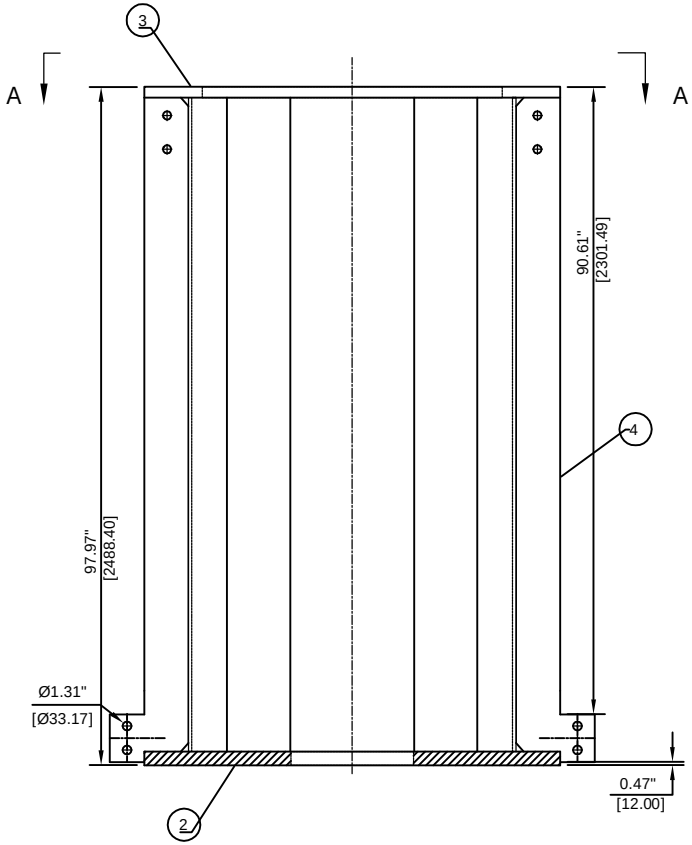
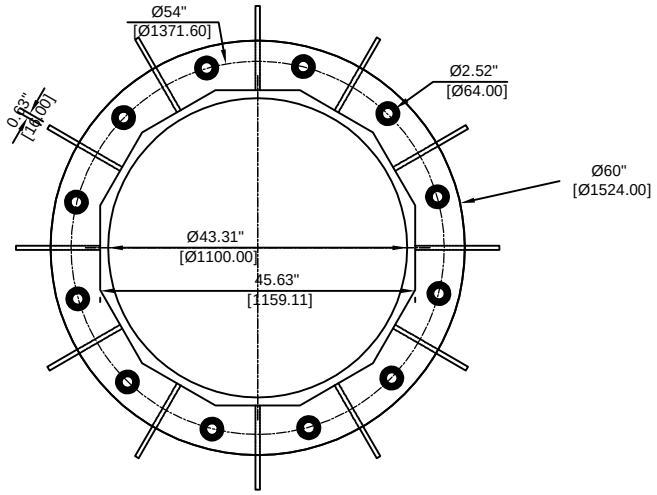
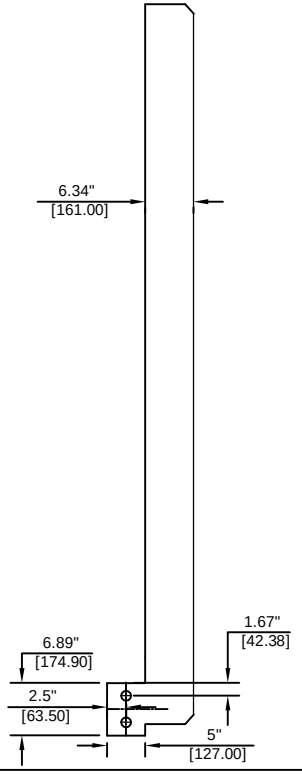
SPECS:

VERSION: A

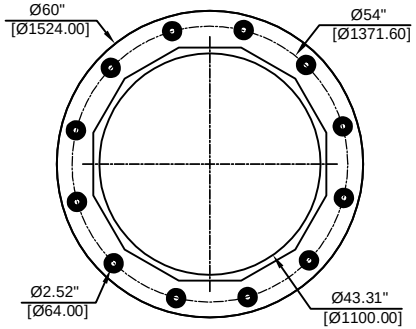




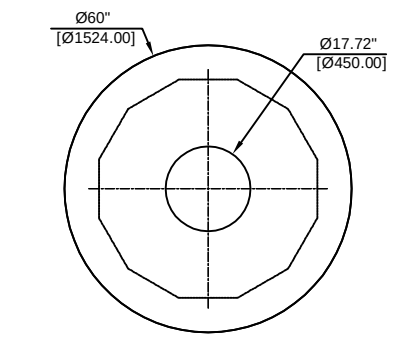
A–A



4 – Stiffener



3 – Top Flange



2 – Bottom Flange

Material Notes:

1. Pedestal Shaft - 12mm thk
2. Pedestal Bottom Plate - 50mm thk
3. Pedestal Top Flange - 40mm thk
4. Stiffener Plate - 16mm thk

D2

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CUSTOMER PO #:

DESCRIPTION:
DRAWING#:
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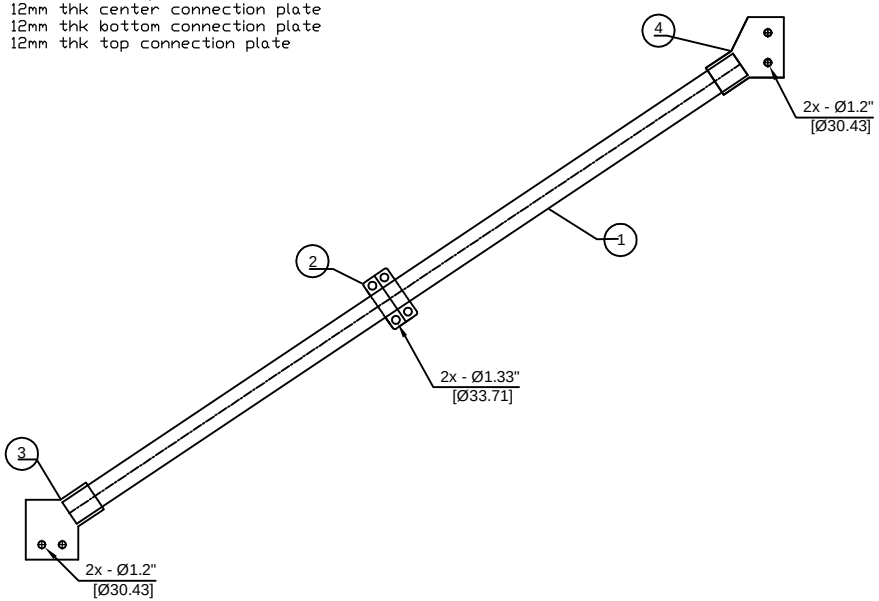
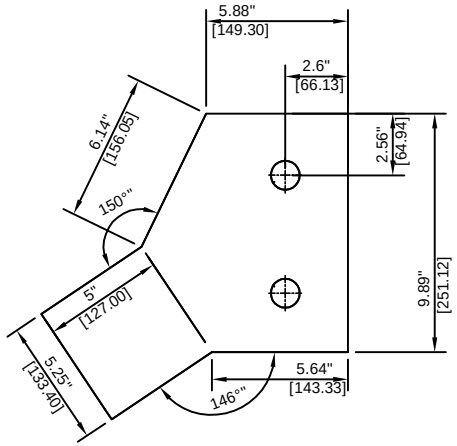
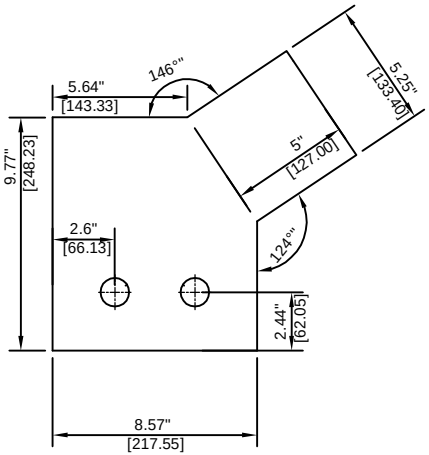
SPECS:
VERSION: A

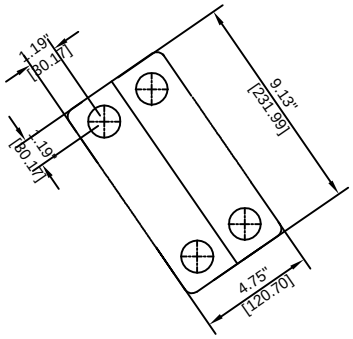
Material NOTES:
1. 108mm x 14mm Pipe
2. 12mm thk center connection plate
3. 12mm thk bottom connection plate
4. 12mm thk top connection plate

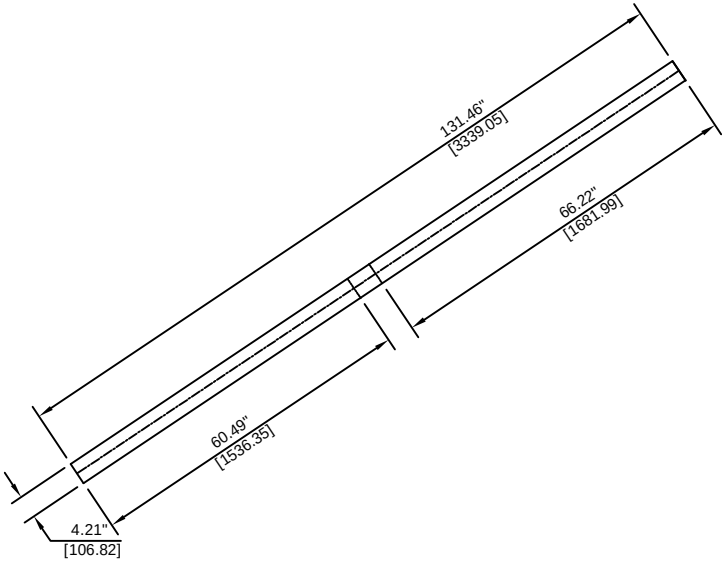




4 12mm thk top connection plate







D3 3 12mm thk bottom connection plate

2 12mm thk center connection plate

1 108mm x 14mm pipe

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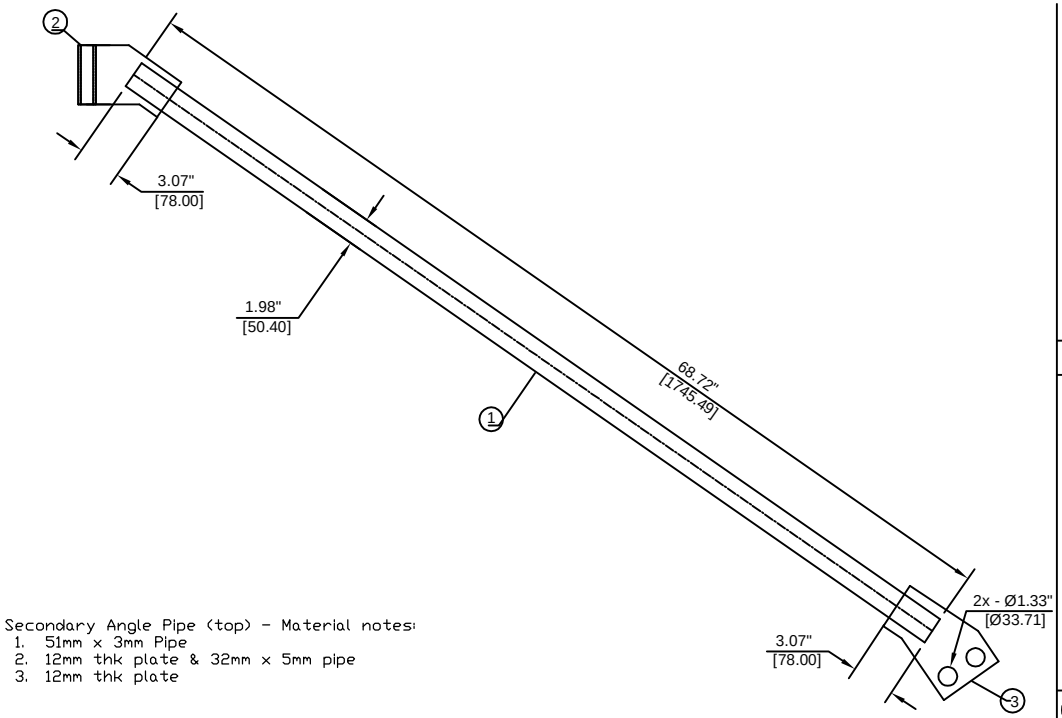
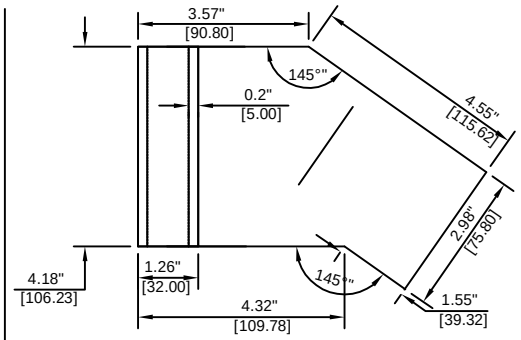
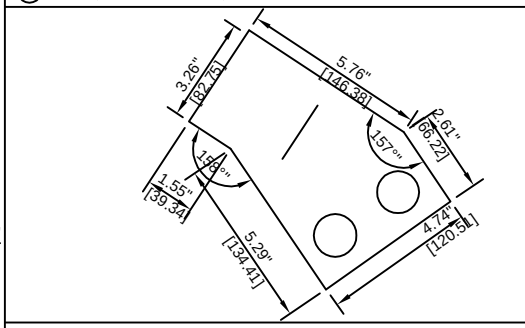


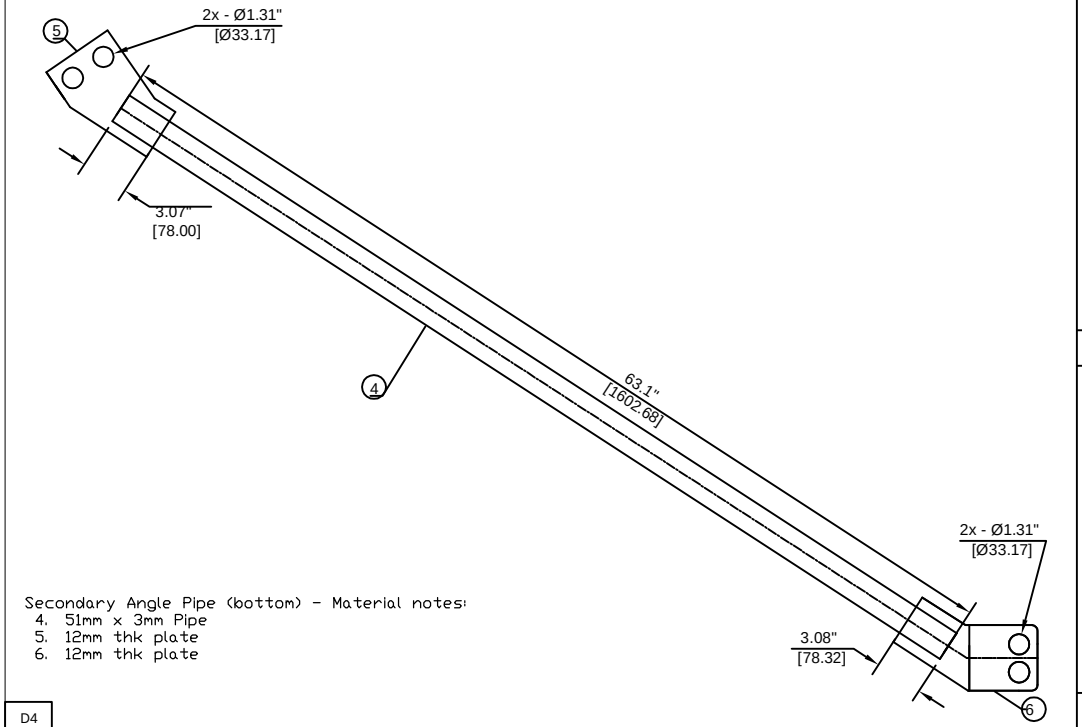
Secondary Angle Pipe (top) - Material notes:
1. 51mm x 3mm Pipe
2. 12mm thk plate & 32mm x 5mm pipe
3. 12mm thk plate



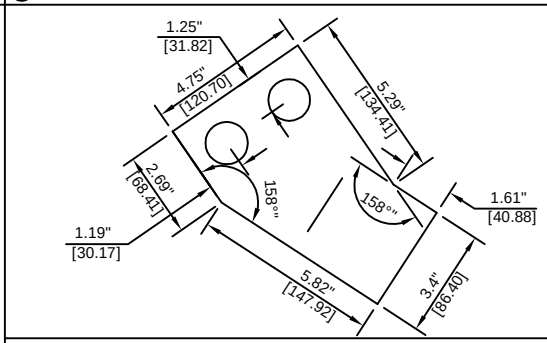
(2) - Top connection plate



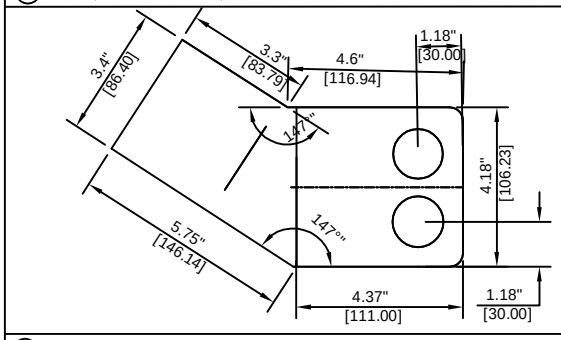
(3) - Bottom connection plate



Secondary Angle Pipe (bottom) - Material notes:
4. 51mm x 3mm Pipe
5. 12mm thk plate
6. 12mm thk plate



(5) - Top connection plate



(6) - Bottom connection plate

D4

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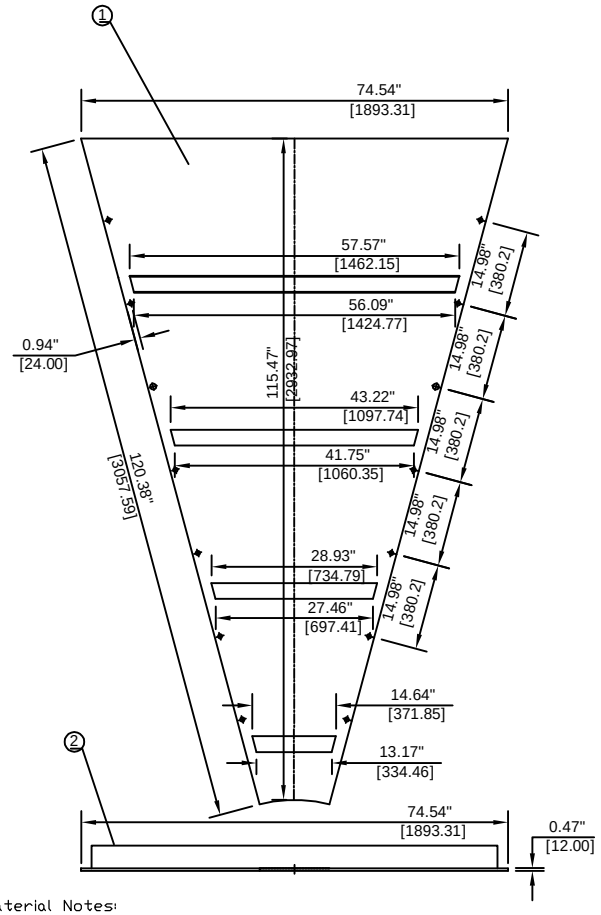
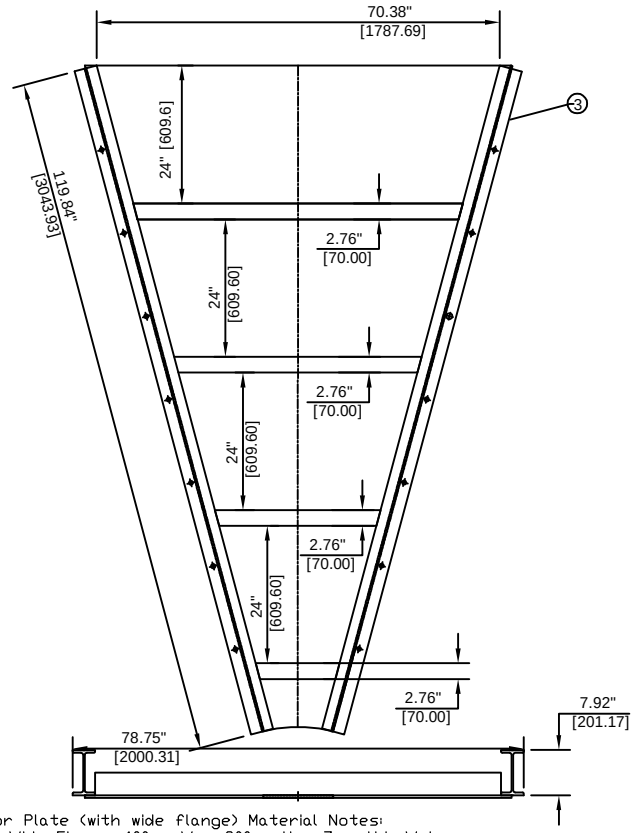
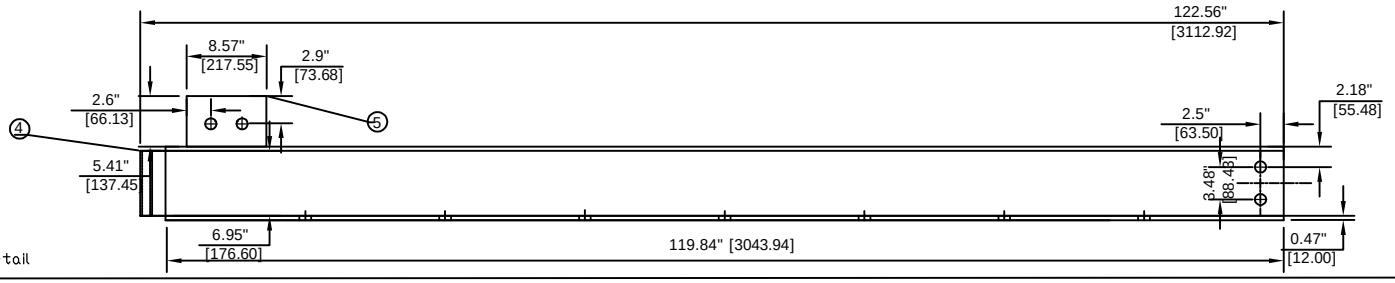


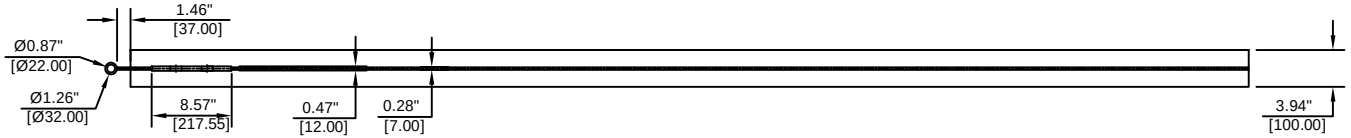
Floor Plate Material Notes:
1. 12mm thk Plate
2. Square tube Stiffeners - 70mm x 70mm x 7mm thk



Floor Plate (with wide flange) Material Notes:
3. Wide Flange: 100mm W x 200mm H x 7mm thk Web
4. 32mm x 5mm Pipe
5. 12mm thk plate



③ - Wide Flange Detail



D5 ③ - Top View

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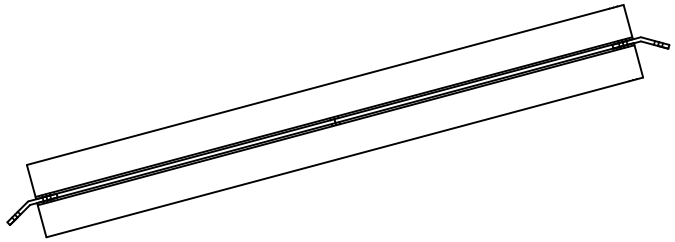
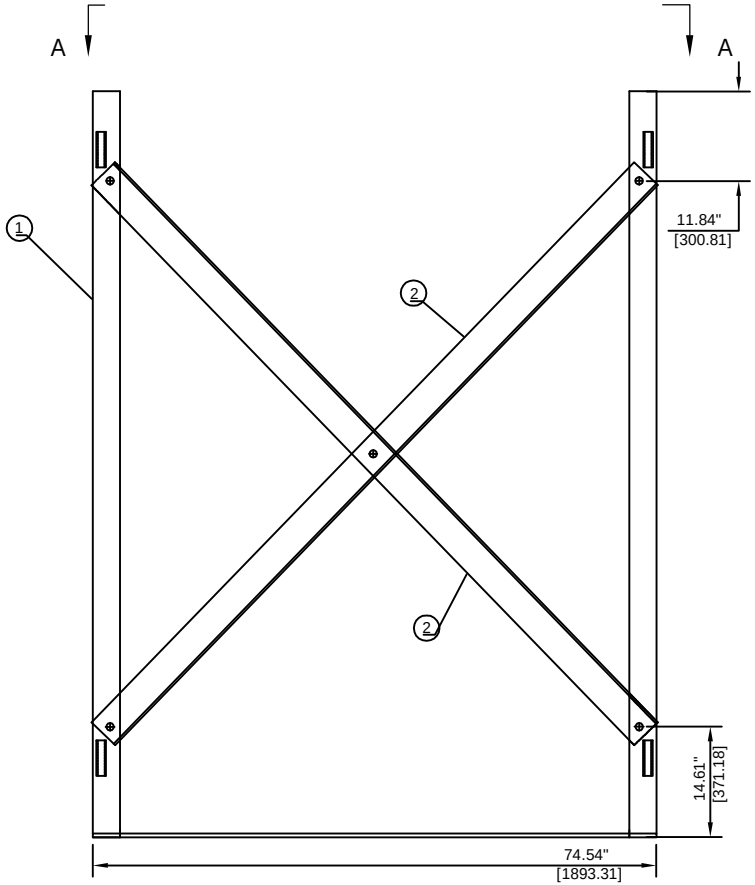
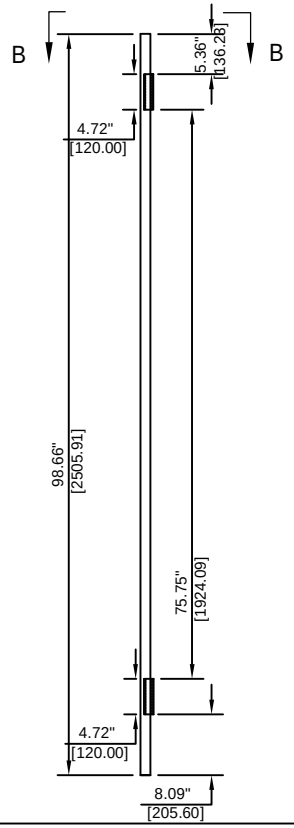


A-A Top View

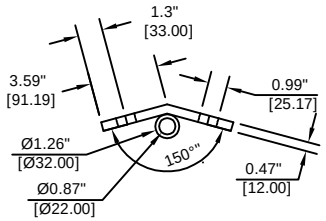


Perimeter Bracing Material Notes:
1. Posts - 12mm Thk Plate (Posts - bent to 150°) & 32mm x 5mm Pipe
2. X-Bracing - 110mm x 110mm x 7mm Angle Iron

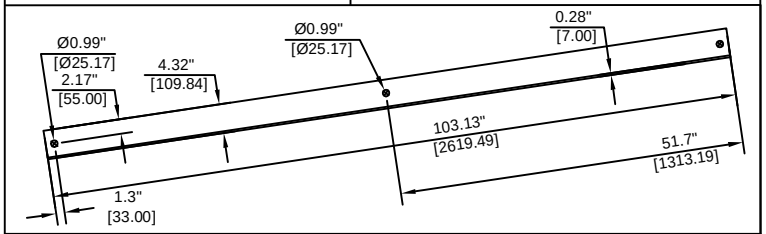
D6



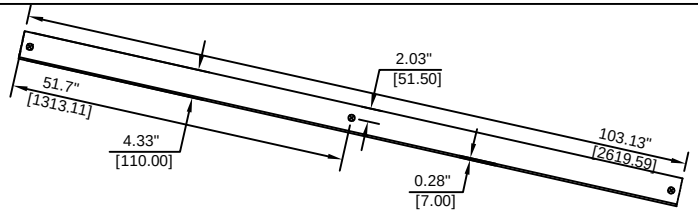
1 - Perimeter Post



B-B Top View



2 - X Bracing



2 - X Bracing

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ATTACHMENT 4

Visual Assessment & Photo-Simulations

PLATTSVILLE RELO CT
5151 PARK AVENUE
FAIRFIELD, CT 06825

Prepared in October 2021 by:
All-Points Technology Corporation, P.C.
567 Vauxhall Street Extension – Suite 311
Waterford, CT 06385

Prepared for Verizon Wireless

ALL-POINTS
TECHNOLOGY CORPORATION

VISUAL ASSESSMENT & PHOTO-SIMULATIONS

Cellco Partnership, d/b/a Verizon Wireless is seeking approval to relocate its existing wireless communications facility from a building located at 175 Jefferson Street in Fairfield, Connecticut (the "existing Rooftop") to a temporary ballast mounted monopole at 5151 Park Avenue in Fairfield, Connecticut (the "Host Property"). Both locations are located on the main campus of Sacred Heart University ("SHU" or the "University"). At the request of Verizon Wireless, All-Points Technology Corporation, P.C. ("APT") completed this visual assessment and prepared computer-generated photo-simulations depicting the proposed installation of the temporary wireless telecommunications facility (the "Temporary Facility") at the Host Property.

Project Undertaking

The proposed Temporary Facility includes a ±125'-7" tall ballast mounted monopole in an irregularly shaped approximately 2,456 square foot fenced compound, located near the northeast corner of the Bobby Valentine Health and Recreation Center on the western portion of the Host Property (the "Site). The monopole would be constructed to temporarily hold Verizon Wireless' antennas and equipment[1]. Verizon Wireless would install its antenna array at a centerline height of ±121'-7" above ground level ("AGL"). The Temporary Facility will be decommissioned upon completion of a proposed permanent wireless communications facility in the near future.

Project Setting

The Host Property is located west of Park Avenue and south of Jefferson Street in the northeastern portion of Fairfield on the University's main campus. Fairchild Wheeler Golf Course borders the Host Property to the west and south. Notre Dame Catholic High School is located across Jefferson Street north of the Site. Land use in the immediate vicinity also includes high density residentially-developed properties.

Balloon Float and Photographic Documentation

On September 14, 2021, APT personnel completed a balloon float and photo-documented existing conditions. The balloon float consisted of raising a brightly-colored, approximately 4-foot diameter, helium-filled balloon tethered to a string height of ±130 feet AGL at the Site. Weather conditions were favorable with calm winds and sunny skies.

During the field reconnaissance, APT obtained photo-documentation of representative locations where the balloon was visible. At each photo location, the geographic coordinates of the camera's position were logged using global positioning system ("GPS") technology. Photographs were taken with a Canon EOS 6D digital camera body[2] and Canon EF 24 to 105 millimeter

[1] The Temporary Facility has been designed to accommodate the two (2) additional wireless service providers' antennas currently sharing the existing Rooftop.

[2] The Canon EOS 6D is a full-framed camera which includes a lens receptor of the same size as the film used in 35mm cameras. As such, the images produced are comparable to those taken with a conventional 35mm camera.

("mm") zoom lens. APT typically uses a standard focal length of 50mm to present a consistent field of view.

Photographic Simulations

Photographic simulations were generated to portray scaled renderings of the proposed Facility from three (3) locations presented herein where at least a portion of the Temporary Facility would be seen. Using field data, site plan information and 3-dimensional (3D) modeling software, spatially referenced models of the Site and monopole were generated and merged. The geographic coordinates obtained in the field for the photograph locations were incorporated into the model to produce virtual camera positions within the spatial 3D model. Photo-simulations were then created using a combination of renderings generated in the 3D model and photo-rendering software programs, which were ultimately composited and merged with the existing conditions photographs (using Photoshop image editing software). The scale of the subjects in the photograph (the balloon) and the corresponding simulation (the Temporary Facility) is proportional to their surroundings.

Photographs of the balloon float and photo-simulations of the proposed Temporary Facility are presented in the attachment at the end of this report. The photos that include the balloon in the view provide visual reference points for the approximate height and location of the Temporary Facility relative to the scene. All simulations were created to represent the top height of the monopole at 125'-7" AGL.

Table 1 – Photo Locations summarizes the photographs and simulations presented in the attachment to this report, and includes a description of each location, view orientation, distance from where the photo was taken relative to the proposed Temporary Facility, and the approximate height of the monopole that is visible in the view. The photo locations are depicted on the photolog provided in the attachment to this report.

Table 1 – Photo Locations

Photo	Location	Orientation	Distance to Site	Height of Monopole Visible in Photograph
1	Sacred Heart University – Pioneer Way	West	± 0.10 Mile	60'-70'
2	Sacred Heart University – William H. Pitt Health and Recreation Center	Northwest	± 0.15 Mile	40'-50'
3	Sacred Heart University – Gaynos Drive	Southwest	± 0.14 Mile	10'-20'

Conclusions

The majority of visibility associated with the Temporary Facility would occur on the main campus of the University and areas generally within 0.5 mile of the Site. Views could also extend to select locations up to nearly one mile to the southeast within portions of the Fairchild Wheeler Golf Course. No substantive views of the Temporary Facility are anticipated from residential properties to the north, east, or west.

Given the combination of topography, existing buildings and campus infrastructure, and intervening trees, it is our opinion that the proposed installation of the Temporary Facility will have a minimal and short-term visual impact beyond the immediate vicinity of the Site.

Proximity to Schools And Commercial Child Day Care Centers

Notre Dame Catholic High School (220 Jefferson Street) is located approximately 0.24 mile north of the Site. APT did not access the grounds of Notre Dame Catholic High School because it is a private school. However, portions of the Temporary Facility may be visible from some exterior locations on the school property. ABC Day Care is located approximately 1.17 miles northeast of the Site. The proposed Temporary Facility would not be visible from the vicinity of ABC Day Care.

Limitations

For presentation purposes in this report, the photographs were produced in an approximate 7-inch by 10.5-inch format. When reproducing the images in this format size, we believe it is important to present the largest view while providing key contextual landscape elements (existing developments, street signs, utility poles, etc.) so that the viewer can determine the proportionate scale of each object within the scene. The photo-simulations provide a representation of the Temporary Facility under similar settings as those encountered during the field review and reconnaissance. Views can change throughout the seasons and the time of day, and are dependent on weather and other atmospheric conditions (e.g., haze, fog, clouds); the location, angle and intensity of the sun; and the specific viewer location. Weather conditions on the day of the field review included calm winds and sunny skies.

ATTACHMENTS

PHOTO LOG

Legend

Temporary Site Photographic Location Municipal Boundary

N W E S

1 inch = 400 feet

400 200 0 400 Feet

ALL-POINTS TECHNOLOGY CORPORATION

verizon

PHOTOGRAPHED ON 9/14/2020

EXISTING

PHOTO	LOCATION (TEMPORARY TOWER)	ORIENTATION	DISTANCE TO SITE	VISIBILITY
1	**SACRED HEART UNIVERSITY - PIONEER WAY**	**WEST**	**+/- 0.10 MILE**	**VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

verizon

PROPOSED

PHOTO	LOCATION (TEMPORARY TOWER)	ORIENTATION	DISTANCE TO SITE	VISIBILITY
1	**SACRED HEART UNIVERSITY - PIONEER WAY**	**WEST**	**+/- 0.10 MILE**	**VISIBLE**

PHOTOGRAPHED ON 9/14/2020

EXISTING

PHOTO	LOCATION (TEMPORARY TOWER)	ORIENTATION	DISTANCE TO SITE	VISIBILITY
2	**SACRED HEART UNIVERSITY - WILLIAM H. PITT HEALTH AND RECREATION CENTER**	**NORTHWEST**	**+/- 0.15 MILE**	**VISIBLE**

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verizon

PROPOSED

PHOTO	LOCATION (TEMPORARY TOWER)	ORIENTATION	DISTANCE TO SITE	VISIBILITY
2	**SACRED HEART UNIVERSITY - WILLIAM H. PITT HEALTH AND RECREATION CENTER**	**NORTHWEST**	**+/- 0.15 MILE**	**VISIBLE**

ALL-POINTS TECHNOLOGY CORPORATION

verizon

EXISTING

PHOTOGRAPHED ON 9/14/2020

PHOTO	LOCATION (TEMPORARY TOWER)	ORIENTATION	DISTANCE TO SITE	VISIBILITY
3	**SACRED HEART UNIVERSITY - GAYNOS DRIVE**	**SOUTHWEST**	**+/- 0.14 MILE**	**VISIBLE**

PROPOSED

PHOTO	LOCATION (TEMPORARY TOWER)	ORIENTATION	DISTANCE TO SITE	VISIBILITY
3	**SACRED HEART UNIVERSITY - GAYNOS DRIVE**	**SOUTHWEST**	**+/- 0.14 MILE**	**VISIBLE**

ATTACHMENT 5

C Squared Systems, LLC
65 Dartmouth Drive
Auburn, NH 03032
603-644-2800
support@csquaredsystems.com

Calculated Radio Frequency Exposure

Plattsville Relo – Temporary Tower

5151 Park Avenue, Fairfield, CT 06825

October 28, 2021

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1. Introduction

The purpose of this report is to investigate compliance with applicable FCC regulations for the proposed installation of the AT&T, Verizon Wireless and T-Mobile antenna arrays on a new temporary monopole tower located at 5151 Park Avenue in Fairfield, CT. The coordinates of the tower are 41.220258 N, 73.247433 W.

This report considers the planned antenna configuration for AT&T, Verizon Wireless and T-Mobile to derive the resulting % Maximum Permissible Exposure of its proposed installation.

2. FCC Guidelines for Evaluating RF Radiation Exposure Limits

In 1985, the FCC established rules to regulate radio frequency (RF) exposure from FCC licensed antenna facilities. In 1996, the FCC updated these rules, which were further amended in August 1997 by OET Bulletin 65 Edition 97-01. These new rules include Maximum Permissible Exposure (MPE) limits for transmitters operating between 300 kHz and 100 GHz. The FCC MPE limits are based upon those recommended by the National Council on Radiation Protection and Measurements (NCRP), developed by the Institute of Electrical and Electronics Engineers, Inc., (IEEE) and adopted by the American National Standards Institute (ANSI).

The FCC general population/uncontrolled limits set the maximum exposure to which most people may be subjected. General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

Public exposure to radio frequencies is regulated and enforced in units of milliwatts per square centimeter (mW/cm^2). The general population exposure limits for the various frequency ranges are defined in the attached “FCC Limits for Maximum Permissible Exposure (MPE)” in Attachment B of this report.

Higher exposure limits are permitted under the occupational/controlled exposure category, but only for persons who are exposed as a consequence of their employment and who have been made fully aware of the potential for exposure, and they must be able to exercise control over their exposure. General population/uncontrolled limits are five times more stringent than the levels that are acceptable for occupational, or radio frequency trained individuals. Attachment B contains excerpts from OET Bulletin 65 and defines the Maximum Exposure Limit.

Finally, it should be noted that the MPE limits adopted by the FCC for both general population/uncontrolled exposure and for occupational/controlled exposure incorporate a substantial margin of safety and have been established to be well below levels generally accepted as having the potential to cause adverse health effects.

3. RF Exposure Calculation Methods

The power density calculation results were generated using the following formula as outlined in FCC bulletin OET 65, and Connecticut Siting Council recommendations:

$$\text{Power Density} = \left(\frac{1.6^2 \times 1.64 \times \text{ERP}}{4\pi \times R^2}\right) \text{X Off Beam Loss}$$

Where:

ERP = Effective Radiated Power

R = Radial Distance = $\sqrt{\left(H^2 + V^2\right)}$

H = Horizontal Distance from antenna

V = Vertical Distance from radiation center of antenna

Ground reflection factor of 1.6

Off Beam Loss is determined by the selected antenna pattern

These calculations assume that the antennas are operating at 100 percent capacity and power, and that all antenna channels are transmitting simultaneously. Obstructions (trees, buildings, etc.) that would normally attenuate the signal are not taken into account. The calculations assume even terrain in the area of study and do not consider actual terrain elevations which could attenuate the signal. As a result, the predicted signal levels reported below are much higher than the actual signal levels will be from the final installations.

4. Calculation Results

Table 1 below outlines the cumulative power density information for the AT&T, Verizon Wireless and T-Mobile equipment at the site. The proposed antennas are directional in nature; therefore, the majority of the RF power is focused out towards the horizon. As a result, there will be less RF power directed below the antennas relative to the horizon, and consequently lower power density levels around the base of the tower. Please refer to Attachment C for the vertical pattern of the proposed AT&T antennas. The calculated results in Table 1 include a nominal 10 dB off-beam pattern loss to account for the lower relative gain below the antennas.

Carrier	Antenna Height (Feet)	Operating Frequency (MHz)	Number of Trans.	ERP Per Transmitter (Watts)	Power Density (mw/cm^2)	Limit	% MPE
AT&T	110	763	1	3541	0.0118	0.5087	2.32%
AT&T	110	885	1	3883	0.0129	0.5900	2.19%
AT&T	110	1900	2	4562	0.0303	1.0000	3.03%
AT&T	110	2100	2	8226	0.0547	1.0000	5.47%
AT&T	110	2300	1	6747	0.0224	1.0000	2.24%
T-Mobile	90	2100	1	6153	0.0314	1.0000	3.14%
T-Mobile	90	1900	1	6013	0.0307	1.0000	3.07%
T-Mobile	90	1900	1	376	0.0019	1.0000	0.19%
T-Mobile	90	600	1	826	0.0042	0.4000	1.05%
T-Mobile	90	600	1	1652	0.0084	0.4000	2.11%
T-Mobile	90	700	1	826	0.0042	0.4667	0.90%
T-Mobile	90	2500	1	4488	0.0229	1.0000	2.29%
T-Mobile	90	2500	1	4488	0.0229	1.0000	2.29%
T-Mobile	90	2500	1	22440	0.1144	1.0000	11.44%
Verizon	121.7	3500	1	14	0.0000	1.0000	0.00%
Verizon	121.7	700	1	507	0.0014	0.4667	0.29%
Verizon	121.7	850	1	543	0.0015	0.5667	0.26%
Verizon	121.7	850	2	270	0.0014	0.5667	0.26%
Verizon	121.7	1900	1	1333	0.0036	1.0000	0.36%
Verizon	121.7	1900	1	1462	0.0039	1.0000	0.39%
						Total	**43.29%**

Table 1: Carrier Information

5. Conclusion

The above analysis concludes that RF exposure at ground level from the proposed site will be below the maximum power density levels as outlined by the FCC in the OET Bulletin 65 Ed. 97-01. Using conservative calculation methods, the highest expected percent of Maximum Permissible Exposure at ground level is **43.29% of the FCC General Population/Uncontrolled limit**.

As noted previously, the calculated % MPE levels are more conservative (higher) than the actual signal levels will be from the finished modifications.

6. Statement of Certification

I certify to the best of my knowledge that the statements in this report are true and accurate. The calculations follow guidelines set forth in FCC OET Bulletin 65 Edition 97-01, ANSI/IEEE Std. C95.1 and ANSI/IEEE Std. C95.3.

Reviewed/Approved By: Martin J. Lavin
Senior RF Engineer
C Squared Systems, LLC

October 28, 2021
Date

Attachment A: References

OET Bulletin 65 - Edition 97-01 - August 1997 Federal Communications Commission Office of Engineering & Technology

IEEE C95.1-2005, IEEE Standard Safety Levels With Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz IEEE-SA Standards Board

IEEE C95.3-2002 (R2008), IEEE Recommended Practice for Measurements and Computations of Radio Frequency Electromagnetic Fields With Respect to Human Exposure to Such Fields, 100 kHz-300 GHz IEEE-SA Standards Board

Attachment B: FCC Limits for Maximum Permissible Exposure (MPE)

(A) Limits for Occupational/Controlled Exposure[1]

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (E) (A/m)	Power Density (S) (mW/cm^2)	Averaging Time $\|E\|^2$, $\|H\|^2$ or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	($900/f^2$)*	6
30-300	61.4	0.163	1.0	6
300-1500	-	-	f/300	6
1500-100,000	-	-	5	6

(B) Limits for General Population/Uncontrolled Exposure[2]

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (E) (A/m)	Power Density (S) (mW/cm^2)	Averaging Time $\|E\|^2$, $\|H\|^2$ or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	($180/f^2$)*	30
30-300	27.5	0.073	0.2	30
300-1500	-	-	f/1500	30
1500-100,000	-	-	1.0	30

f = frequency in MHz * Plane-wave equivalent power density

Table 2: FCC Limits for Maximum Permissible Exposure (MPE)

[1] Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure

[2] General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure

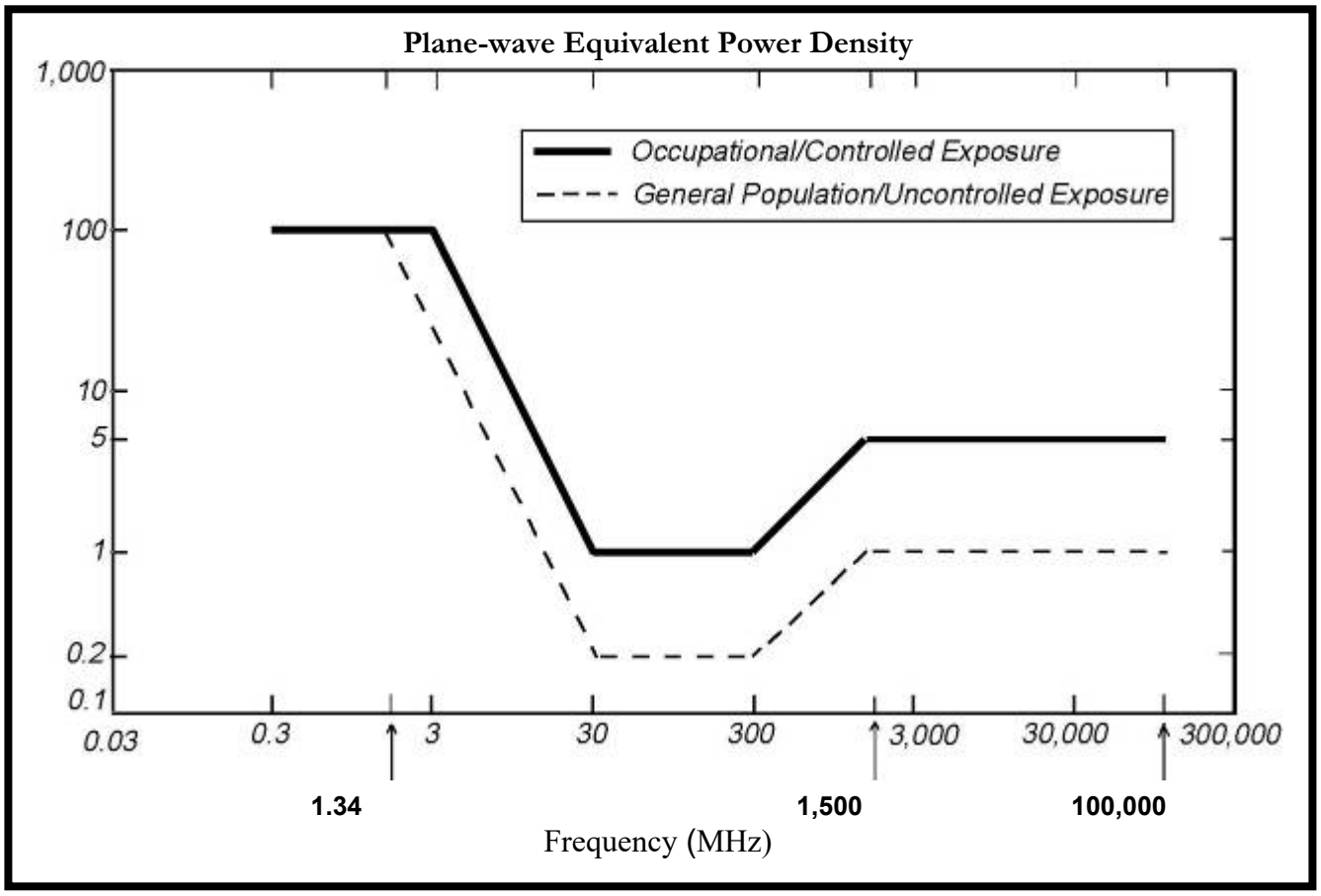
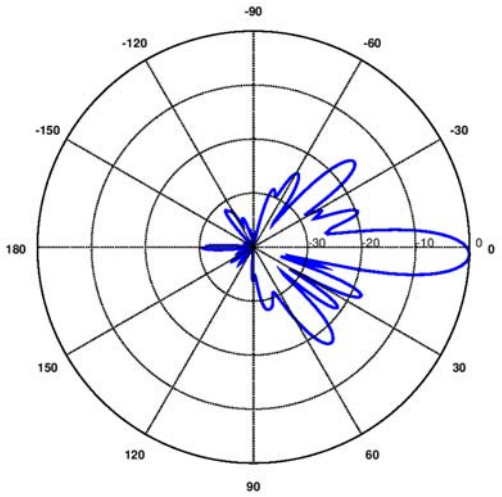
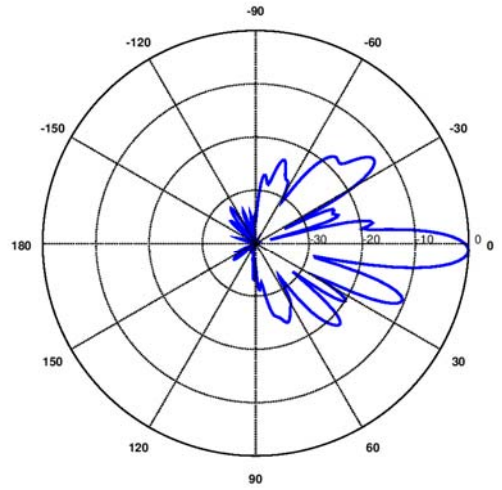
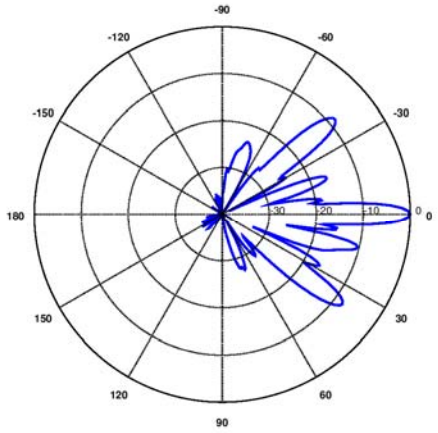
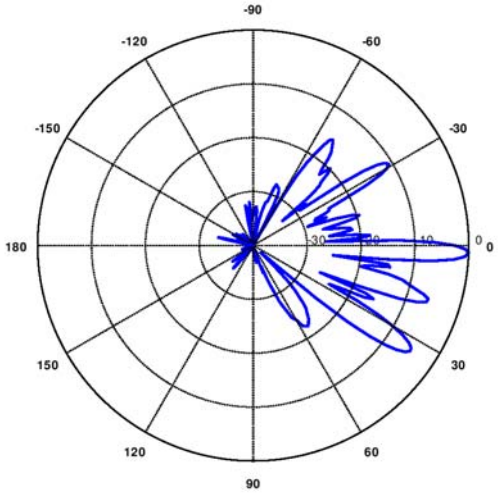
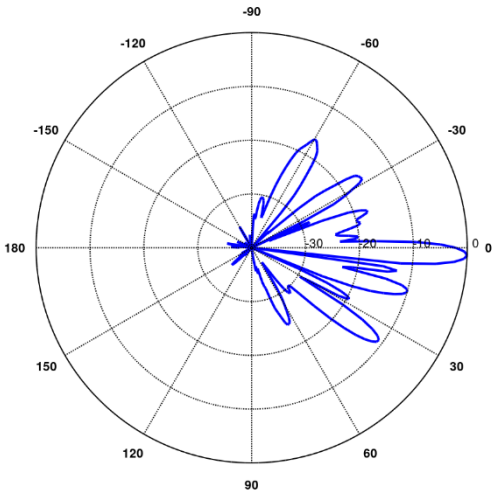


Figure 1: Graph of FCC Limits for Maximum Permissible Exposure (MPE)

Attachment C: AT&T Antenna Data Sheets and Electrical Patterns

763 MHz Manufacturer: CCI Products Model #: TPA65R-BU8D Frequency Band: 698 - 806MHz Gain: 13.45 dBd Vertical Beamwidth: 9.5° Horizontal Beamwidth: 74° Polarization: Dual Linear 45° Size L x W x D: 96.0” x 20.7” x 7.7”	
885 MHz Manufacturer: CCI Products Model #: TPA65R-BU8D Frequency Band: 824 - 896 MHz Gain: 13.9 dBd Vertical Beamwidth: 7.9° Horizontal Beamwidth: 64° Polarization: Dual Linear 45° Size L x W x D: 96.0” x 20.7” x 7.7”	

1900 MHz Manufacturer: CCI Products Model #: TPA65R-BU8D Frequency Band: 1850-1990 MHz Gain: 14.6 dBd Vertical Beamwidth: 5.1° Horizontal Beamwidth: 68° Polarization: Dual Linear 45° Size L x W x D: 96.0” x 20.7” x 7.7”	
2100 MHz Manufacturer: CCI Products Model #: TPA65R-BU8D Frequency Band: 1920-2180 MHz Gain: 16.15 dBd Vertical Beamwidth: 5.1° Horizontal Beamwidth: 66° Polarization: Dual Linear 45° Size L x W x D: 96.0” x 20.7” x 7.7”	
2300 MHz Manufacturer: CCI Products Model #: TPA65R-BU8D Frequency Band: 2300 - 2400 MHz Gain: 15.85 dBd Vertical Beamwidth: 4.1° Horizontal Beamwidth: 62° Polarization: Dual Linear 45° Size L x W x D: 96.0” x 20.7” x 7.7”	

ATTACHMENT 6

****
* Federal Airways & Airspace *
* Summary Report: New Construction *
* Antenna Structure *
****

Airspace User: Meaghan Kate McLean

File: PLATTSVILLE CT _Temp Pole/COW

Location: Fairfield, CT

Latitude: 41°-13'-12.93"
Longitude: 73°-14'-50.76"

SITE ELEVATION AMSL.....281 ft.
STRUCTURE HEIGHT.....126 ft.
OVERALL HEIGHT AMSL.....407 ft.

NOTICE CRITERIA
FAR 77.9(a): NNR (DNE 200 ft AGL)
FAR 77.9(b): NNR (DNE Notice Slope)
FAR 77.9(c): NNR (Not a Traverse Way)
FAR 77.9: NNR FAR 77.9 IFR Straight-In Notice Criteria for BDR
FAR 77.9: NNR (No Expected TERPS® impact DXR)
FAR 77.9(d): NNR (Off Airport Construction)

NR = Notice Required
NNR = Notice Not Required
PNR = Possible Notice Required (depends upon actual IFR procedure)

For new construction review Air Navigation Facilities at bottom of this report. Notice to the FAA is not required at the analyzed location and height for slope, height or Straight-In procedures. Please review the 'Air Navigation'section for notice requirements for offset IFR procedures and EMI.

OBSTRUCTION STANDARDS
FAR 77.17(a)(1): DNE 499 ft AGL
FAR 77.17(a)(2): DNE - Airport Surface
FAR 77.19(a): DNE - Horizontal Surface
FAR 77.19(b): DNE - Conical Surface
FAR 77.19(c): DNE - Primary Surface
FAR 77.19(d): DNE - Approach Surface
FAR 77.19(e): DNE - Approach Transitional Surface
FAR 77.19(e): DNE - Abeam Transitional Surface

VFR TRAFFIC PATTERN AIRSPACE FOR: BDR: IGOR I SIKORSKY MEML

Type: A RD: 36683.36 RE: 8.5
FAR 77.17(a)(1): DNE
FAR 77.17(a)(2): DNE - Greater Than 5.99 NM.
VFR Horizontal Surface: DNE
VFR Conical Surface: DNE
VFR Primary Surface: DNE
VFR Approach Surface: DNE
VFR Transitional Surface: DNE

VFR TRAFFIC PATTERN AIRSPACE FOR: DXR: DANBURY MUNI
Type: A RD: 83353.54 RE: 454.1
FAR 77.17(a)(1): DNE
FAR 77.17(a)(2): DNE - Greater Than 5.99 NM.
VFR Horizontal Surface: DNE
VFR Conical Surface: DNE
VFR Primary Surface: DNE
VFR Approach Surface: DNE
VFR Transitional Surface: DNE

TERPS DEPARTURE PROCEDURE (FAA Order 8260.3, Volume 4)
FAR 77.17(a)(3) Departure Surface Criteria (40:1)
DNE Departure Surface

MINIMUM OBSTACLE CLEARANCE ALTITUDE (MOCA)
FAR 77.17(a)(4) MOCA Altitude Enroute Criteria
The Maximum Height Permitted is 1500 ft AMSL

PRIVATE LANDING FACILITIES

FACIL IDENT	TYP	NAME	BEARING To FACIL	RANGE IN NM	DELTA ARP ELEVATION	FAA IFR
CT41	HEL	GENERAL ELECTRIC	242.86	.4	+285	

Possible Impact to Private landing Facility
Exceeds Notice Standards by: 199 ft (N/A Private Heliport)

Possible Impact to Private landing Facility
Helicopter Approach Surface violation is: 68 ft (N/A Private Heliport)

CT12	HEL	MEDICAL CENTER	119	2.37	+259	

No Impact to Private Landing Facility
Structure is beyond notice limit by 9400 feet.

CT37	HEL	SIKORSKY BRIDGEPORT	151.56	4.03	+398.7	

No Impact to Private Landing Facility
Structure is beyond notice limit by 19487 feet.

0CT7 HEL BRIDGEPORT HOSPITAL 117.65 4.13
+327
No Impact to Private Landing Facility
Structure is beyond notice limit by 20094 feet.

CT76 HEL CHASE MANHATTAN BANK OF CT 73.3 4.59
+207
No Impact to Private Landing Facility
Structure is beyond notice limit by 22889 feet.

AIR NAVIGATION ELECTRONIC FACILITIES

FAC IDNT	TYPE	AT	ST FREQ	VECTOR	DIST (ft)	DELTA ELEVA	ST	LOCATION	GRND ANGLE	APCH BEAR
BDR	VOR/DME	R	108.8	122.71	40204	+401	CT	BRIDGEPORT	.57	
JWE	NDB	D	36	32.08	69741	-164	CT	CLERA	-.13	
CMK	VOR/DME	R	116.6	283.47	94365	-287	NY	CARMEL	-.17	
HPN	RADAR	I	2735.	247.21	139637	-103	NY	WESTCHESTER COUNT	-.04	
MAD	VOR/DME	I	110.4	77.22	156411	+191	CT	MADISON	.07	
ISP	RADAR	I	2735.	164.52	156549	+225	NY	LONG ISLAND MacAR	.08	
DPK	VOR/DME	R	117.7	185.66	156903	+284	NY	DEER PARK	.10	
CCC	VOR/DME	R	117.2	130.72	162829	+322	NY	CALVERTON	.11	
KOKX	RADAR WXL	Y		140.82	167021	+212	NY	NEW YORK	.07	
QVH	RADAR ARSR	Y	1326.9	129.03	198400	+56	NY	RIVERHEAD	.02	

CFR Title 47, §1.30000-§1.30004
AM STUDY NOT REQUIRED: Structure is not near a FCC licensed AM station. Movement Method Proof as specified in § 73.151(c) is not required.Please review 'AM Station Report' for details. Nearest AM Station: WCUM @ 3839 meters.

Airspace® Summary Version 21.9.615

10-13-2021
16:57:31

ATTACHMENT 7

Robinson+Cole

KENNETH C. BALDWIN

280 Trumbull Street
Hartford, CT 06103-3597
Main (860) 275-8200
Fax (860) 275-8299
kbaldwin@rc.com
Direct (860) 275-8345

Also admitted in Massachusetts
and New York

November 8, 2021

Via Certificate of Mailing

Brenda L. Kupchick, First Selectwoman
Town of Fairfield
Sullivan Independence Hall
725 Old Post Road
Fairfield, CT 06824

Re: **Petition for Declaratory Ruling Filed with the Connecticut Siting Council for the Installation of a Wireless Telecommunications Facility on the Main Campus of Sacred Heart University ("SHU") at 5151 Park Avenue, Fairfield, Connecticut**

Dear First Selectwoman Kupchick:

This firm represents Cellco Partnership d/b/a Verizon Wireless ("Cellco"). Cellco intends to file a Petition for Declaratory Ruling ("Petition") with the Connecticut Siting Council ("Council") seeking approval to install a temporary telecommunications facility (the "Temporary Facility") adjacent to the Valentine Health and Recreation ("Valentine") Center in the westerly portion of the Sacred Heart University ("SHU") main campus at 5151 Park Avenue in Fairfield (the "Property"). The Temporary Facility will allow Cellco, AT&T and T-Mobile to maintain wireless service at SHU and in the surrounding area after decommissioning the existing roof-top wireless facility on Toussaint Residence Hall. The Temporary Facility will be used until the new permanent telecommunications facility on the SHU main campus can be constructed.

The Temporary Facility will consist of an approximately 125-foot tall ballasted monopole tower located adjacent to the Valentine Center. Cellco will install antennas at a height of 121'-7" above grade. AT&T will install antennas at a height of 111'-7" above grade. T-Mobile will install antennas at a height of 101'-7" above grade. Equipment associated with the antennas will be located along the west side of the Valentine Center. A copy of the Petition for the Temporary Facility is attached.

As you may recall, on April 26, 2021, the Council approved Cellco's proposed construction of a new tower site in the northwest corner of the SHU main campus, near the new SHU Maintenance Facility (Council Docket No. 495). For the last several months, Cellco has been working with SHU to relocate the approved tower site to the southwest portion of the SHU Main Campus near the Pitt Center/SHU football stadium. The proposed relocation of the permanent replacement tower will be the subject of a future filing with the Council. You will receive notice of that future filing shortly. Also included in the attached copy of the Petition is a Site Schematic that shows the location of the approved Docket No. 495 tower site, the proposed Temporary Facility location and the location of the proposed relocated tower site near the Pitt Center/SHU football stadium for your reference.

A copy of a similar notice letter and the full Petition for the Temporary Facility was also sent to the owners of land that abut the Property. A list of abutting property owners who received this notice is included in the Petition.

Please contact me if you have any questions regarding this proposal.

Sincerely,

Kenneth C. Baldwin

Attachment
Copy to:
James T. Baldwin, Esq. (*via jbaldwin@cbklaw.net*)
Michael Larobina, Esq., General Counsel, Sacred Heart University

Robinson+Cole

KENNETH C. BALDWIN

280 Trumbull Street
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kbaldwin@rc.com
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Also admitted in Massachusetts
and New York

November 8, 2021

Via Certificate of Mailing

Joe Bienkowski, Town Planner
Town Plan and Zoning Department
Town of Fairfield
Sullivan Independence Hall
725 Old Post Road
Fairfield, CT 06824

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Attachment

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Via Certificate of Mailing

Michael Larobina, Esq., General Counsel
Sacred Heart University Inc.
5151 Park Avenue
Fairfield, CT 06825

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November 8, 2021

Via Certificate of Mailing

Bridgeport Roman Catholic Diocesan Corporation
238 Jewett Avenue
Bridgeport, CT 06606

Re: **Petition for Declaratory Ruling Filed with the Connecticut Siting Council for the Installation of a Wireless Telecommunications Facility on the Main Campus of Sacred Heart University ("SHU") at 5151 Park Avenue, Fairfield, Connecticut**

Dear Sir or Madam:

This firm represents Cellco Partnership d/b/a Verizon Wireless ("Cellco"). Cellco intends to file a Petition for Declaratory Ruling ("Petition") with the Connecticut Siting Council ("Council") seeking approval to install a temporary telecommunications facility (the "Temporary Facility") adjacent to the Valentine Health and Recreation ("Valentine") Center in the westerly portion of the Sacred Heart University ("SHU") main campus at 5151 Park Avenue in Fairfield (the "Property"). The Temporary Facility will allow Cellco, AT&T and T-Mobile to maintain wireless service at SHU and in the surrounding area after decommissioning the existing roof-top wireless facility on Toussaint Residence Hall. The Temporary Facility will be used until the new permanent telecommunications facility on the SHU main campus can be constructed.

The Temporary Facility will consist of an approximately 125-foot tall ballasted monopole tower located adjacent to the Valentine Center. Cellco will install antennas at a height of 121'-7" above grade. AT&T will install antennas at a height of 111'-7" above grade. T-Mobile will install antennas at a height of 101'-7" above grade. Equipment associated with the antennas will be located along the west side of the Valentine Center. A copy of the Petition for the Temporary Facility is attached.

As you may recall, on April 26, 2021, the Council approved Cellco's proposed construction of a new tower site in the northwest corner of the SHU main campus, near the new

SHU Maintenance Facility (Council Docket No. 495). For the last several months, Cellco has been working with SHU to relocate the approved tower site to the southwest portion of the SHU Main Campus near the Pitt Center/SHU football stadium. The proposed relocation of the permanent replacement tower will be the subject of a future filing with the Council. You will receive notice of that future filing shortly. Also included in the attached copy of the Petition is a Site Schematic that shows the location of the approved Docket No. 495 tower site, the proposed Temporary Facility location and the location of the proposed relocated tower site near the Pitt Center/SHU football stadium for your reference.

A copy of a similar notice letter and the full Petition for the Temporary Facility was also sent to the owners of land that abut the Property. A list of abutting property owners who received this notice is included in the Petition.

Please contact me if you have any questions regarding this proposal.

Sincerely,

Kenneth C. Baldwin

Attachment

ATTACHMENT 8

Robinson+Cole

KENNETH C. BALDWIN

280 Trumbull Street
Hartford, CT 06103-3597
Main (860) 275-8200
Fax (860) 275-8299
kbaldwin@rc.com
Direct (860) 275-8345

Also admitted in Massachusetts
and New York

November 8, 2021

Via Certificate of Mailing

«Name_and_Address»

Re: **Petition for Declaratory Ruling Filed with the Connecticut Siting Council for the Installation of a Wireless Telecommunications Facility on the Main Campus of Sacred Heart University at 5151 Park Avenue, Fairfield, Connecticut**

Dear «Salutation»:

This firm represents Cellco Partnership d/b/a Verizon Wireless ("Cellco"). Cellco intends to file a Petition for Declaratory Ruling ("Petition") with the Connecticut Siting Council ("Council") seeking approval to install a temporary telecommunications facility (the "Temporary Facility") adjacent to the Valentine Health and Recreation ("Valentine") Center in the westerly portion of the Sacred Heart University ("SHU") main campus at 5151 Park Avenue in Fairfield (the "Property"). The Temporary Facility will allow Cellco, AT&T and T-Mobile to maintain wireless service at SHU and in the surrounding area after decommissioning the existing roof-top wireless facility on Toussaint Residence Hall. The Temporary Facility will be used until the new permanent telecommunications facility on the SHU main campus can be constructed.

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permanent replacement tower will be the subject of a future filing with the Council. You will receive notice of that future filing shortly. Also included in the attached copy of the Petition is a Site Schematic that shows the location of the Approved Docket No. 495 tower site, the proposed Temporary Facility location and the location of the proposed relocated tower site near the Pitt Center/SHU football stadium for your reference.

This notice is being sent to you because you are listed on the Town Assessor's records as an owner of land that may be considered to abut the Property. If you have any questions regarding the Petition, the Council's process for reviewing the Petition or the details of the filing itself, please feel free to contact me at the number listed above. You may also contact the Council directly at 860-827-2935.

Sincerely,

Kenneth C. Baldwin

Attachment

ADJACENT PROPERTY OWNERS

PROPERTY ADDRESS: 5151 PARK AVENUE, FARIFIELD, CT

ASSESSORS PARCEL ID: 01300100000

THE FOLLOWING INFORMATION WAS COLLECTED FROM THE MUNICIPAL ONLINE GIS AND TAX ASSESSOR'S RECORDS ON NOVEMBER 4, 2021.

FAIRFIELD

	Property Address	**Owner and Mailing Address**
1.	2390 Easton Turnpike	City of Bridgeport c/o Mayor's Office 45 Lyon Terrace Bridgeport, CT 06604
2.	5401 Park Avenue 175 Jefferson Street 283 Jefferson Street	Sacred Heart University Inc. 5151 Park Avenue Fairfield, CT 06825
3.	118 Jefferson Street	Ludlow Realty LLC 118 Jefferson Street Fairfield, CT 06825
4.	220 Jefferson Street	Bridgeport Roman Catholic Diocesan Corporation 238 Jewett Avenue Bridgeport, CT 06606
5.	288 Jefferson Street	Scott P. and Kathy Auer 288 Jefferson Street Fairfield, CT 06825
6.	22 Donna Drive	Paul Pennino and Susan Cocozza 22 Donna Drive Fairfield, CT 06825
7.	15 Donna Drive	Jeffery and Tracey Taylor 15 Donna Drive Fairfield, CT 06825
8.	370 Jefferson Street	Nay Kang 370 Jefferson Street Fairfield, CT 06825

	Property Address	**Owner and Mailing Address**
9.	392 Jefferson Street	Joshua and Melinda Prince 3 Glenarden Road Trumbull, CT 06611
10.	418 Jefferson Street	Robert Fuda 418 Jefferson Street Fairfield, CT 06825
11.	12 Weeping Willow Lane	Alexandra McHale 12 Weeping Willow Lane Fairfield, CT 06825
12.	21 Weeping Willow Lane	William and Mary Kate Mitchell 21 Weeping Willow Lane Fairfield, CT 06825
13.	4959 Park Avenue	Bridgeport Roman Catholic Diocesan Corporation 238 Jewett Avenue Bridgeport, CT 06606

BRIDGEPORT

	Property Address	**Owner and Mailing Address**
14.	4940 Park Avenue	Sacred Heart University Inc. 5151 Park Avenue Fairfield, CT 06825
15.	4950 Park Avenue	Sacred Heart University Inc. 5151 Park Avenue Fairfield, CT 06825
16.	5020 Park Avenue	Sacred Heart University Inc. 5151 Park Avenue Fairfield, CT 06825
17.	5060 Park Avenue	Sacred Heart University Inc. 5151 Park Avenue Fairfield, CT 06825
18.	5088 Park Avenue	Leah Moran 5088 Park Avenue Bridgeport, CT 06606

	Property Address	**Owner and Mailing Address**
19.	5120 Park Avenue	Estate of George Saden c/o Walter A. Flynn Jr., Executor 1087 Broad Street Bridgeport, CT 06604
20.	5160 Park Avenue	North Park Baptist Church Inc. 5160 Park Avenue Bridgeport, CT 06604
21.	5252 Park Avenue	Sacred Heart University Inc. 5151 Park Avenue Fairfield, CT 06825
22.	5294 Park Avenue	Wendy B. Montanaro 16 Wimbledon Lane Easton, CT 06612
23.	3935 Old Town Road	Richard Montanaro and Donald Bosak, Trustees 5294 Park Avenue Bridgeport, CT 06604
24.	5336 Park Avenue	Charles and Barbara Adams 5336 Park Avenue Bridgeport, CT 06604

CERTIFICATION OF SERVICE

I hereby certify that a copy of the foregoing letter was sent by certified mail, return receipt requested, to each of the parties on the attached list of abutting landowners.

November 8, 2021
Date

Kenneth C. Baldwin, Esq.
Robinson & Cole LLP
280 Trumbull Street
Hartford, CT 06103

Attorneys for Cellco Partnership d/b/a Verizon Wireless