



Northeast Site Solutions
Denise Sabo
199 Brickyard Rd Farmington, CT 06032
860-209-4690
denise@northeastsitesolutions.com

October 24, 2017

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

RE: Exempt Modification Application
401 Chapel Hill Road, Oakdale CT 06370
Latitude: 41.468797
Longitude: -72.203344
T-Mobile Site#: CTNL814C-MWAAV

Dear Ms. Bachman:

T-Mobile is requesting to file an exempt modification for an existing 301.4-foot lattice tower located at 401 Chapel Hill Road, Oakdale CT 06370. T-Mobile currently has approval for six (6) antennas at the 181-foot level of the existing 301.4-foot tower. The property and tower are owned by Subcarrier Communications. T-Mobile now intends to install one (1) IBR1300 Dish. The new dish would be installed at the 181-foot and level of the tower.

Planned Modifications:

Remove:
NONE

Remove and Replace:
NONE

Install New:
(1)IBR1300 Dish
(1)Fiber line
(2)CAT6 Cables

Existing to Remain:
(1) Hybrid line
(9) RRU
(3) LNX6515 Antenna – 700 Mhz
(3) APX16 Antenna – 1900/2100 Mhz

This facility was approved by the Town of Montville PZC. The PZ approval file is no longer available – See attached letter from the City Zoning Director



NSS **NORTHEAST**
SITE SOLUTIONS

Turnkey Wireless Development

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies § 16- SOj-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-SOj-73, a copy of this letter is being sent to Mayor Ronald K McDaniel, Elected Official and Marcia A. Vlaun, Town Planner for the Town of Montville, as well as the property owner and the tower owner (Subcarrier Communications).

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

1. The proposed modifications will not result in an increase in the height of the existing structure.
2. The proposed modifications will not require the extension of the site boundary.
3. The proposed modifications will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
4. The operation of the replacement antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard.
5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
6. The existing structure and its foundation can support the proposed loading.

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

Sincerely,

Denise Sabo
Mobile: 860-209-4690
Fax: 413-521-0558
Office: 199 Brickyard Rd, Farmington, CT 06032
Email: denise@northeastitesolutions.com

Attachments

cc: Mayor Ronald K McDaniel- as elected official
Marcia A. Vlaun, Town Planner
Subcarrier Communications - as tower owner and property owner

Exhibit A

Sheldon F

From: Liz Burdick
Sent: Wednesday, October 11, 2017 2:59 PM
To: Denise Sabo
Cc: Sheldon Freinckle; Deborah Chase; Victoria Masse; Colleen Bezanson
Subject: RE: 401 Chapel Hill Road, Montville CT 06370 -T-Mobile EM Application (CTNL814C-MWAAV)
Attachments: 401 Chapel Hill Rd - Zoning File.pdf

10/11/2017

Dear Denise:

Please be advised that there are no original approvals for this site in either our regular or archived tower sites files. I have attached a copy of a zoning permit issued on 2006 for installation of antennas on "existing tower" that was in the file. Please contact me with any questions. Thank you.

Sincerely,
Liz Burdick

Liz Burdick, Zoning & Wetlands Officer
Town of Montville
310 Norwich New London Turnpike
Uncasville, CT 06382
Telephone: (860) 848-6753
Email: eburdick@montville-ct.org

From: Denise Sabo [<mailto:denise@northeastsitesolutions.com>]
Sent: Wednesday, October 11, 2017 2:45 PM
To: Liz Burdick <eburdick@montville-ct.org>
Cc: Sheldon Freinckle <sheldon@northeastsitesolutions.com>; Deborah Chase <deborah@northeastsitesolutions.com>; Victoria Masse <victoria@northeastsitesolutions.com>
Subject: 401 Chapel Hill Road, Montville CT 06370 -T-Mobile EM Application (CTNL814C-MWAAV)

Good Afternoon, Liz

As discussed, T-Mobile is seeking a copy of the original zoning approval for the tower located at **401 Chapel Hill Road, Montville**. This copy is required by the state for a Ct Siting Council application we are trying to get submitted. If you have any questions or this is not available please let me know, I can use a letter or email reply stating the file is not available.
Thank you again for your help.

Kind Regards,

Denise Sabo



860-209-4690

denise@northeastsitesolutions.com

401 Chapel Hill

ZONING PERMIT

IT IS THE OWNERS/AGENTS RESPONSIBILITY TO FURNISH THE FOLLOWING INFORMATION:

PROPERTY LOCATION 401 CHAPEL HILL ROAD, DAKDALE, CT 06370 MAP 036 LOT 200

PROPERTY OWNER SUBCARRIER COMMUNICATIONS INC. PHONE# 732-607-2828

CONTRACTOR GENERAL DYNAMICS PHONE# 860-350-0203

CONTACT ADDRESS 6 GLENVIEW DRIVE, SHERMAN CT 06784-2310

ZONE _____ LOT AREA _____ STRUCTURE AREA _____ HEIGHT _____

NATURE OF REQUEST/PROPOSED USE INSTALLATION OF ANTENNAS ON EXISTING TOWER AND EQUIPMENT SHELTER, GENERATOR AND PROPANE TANK

PROVIDE TWO COPIES OF PLANS DRAWN TO A SCALE OF AT LEAST 1" = 40' SHOWING: DIMENSIONS OF THE LOT, THE SIZE, AREA, AND LOCATION OF EXISTING, PROPOSED, PRINCIPAL AND ACCESSORY STRUCTURES, DRIVEWAYS, SANITARY FACILITIES AND WATER SUPPLY, PARKING FACILITIES, AND ADJACENT STREETS; DISTANCES OF PROPOSED STRUCTURES FROM PROPERTY LINES AND WETLANDS. A PLAN PREPARED BY A CONNECTICUT REGISTERED LAND SURVEYOR MAY BE REQUIRED. THE PROPOSED USE SPECIFIED ABOVE SHALL NOT BE AUTHORIZED UNTIL AN ACTUAL CERTIFICATE OF COMPLIANCE IS ISSUED BY THE COMMISSION OR ITS APPOINTED AGENTS.

Office use only

	YES	N/A
SITE PLAN	<input type="checkbox"/>	<input type="checkbox"/>
WETLANDS PERMIT	<input type="checkbox"/>	<input type="checkbox"/>
HAS A VARIANCE EVER BEEN GRANTED FOR THIS PROPERTY	<input type="checkbox"/>	<input type="checkbox"/>
HAS BOND BEEN FILED	<input type="checkbox"/>	<input type="checkbox"/>
FEE \$ <u>5500</u>		
	CASH/CHECK # _____	

ZONING PERMIT NUMBER _____ OR N/A EXPIRATION DATE 6/20/07

THE OWNER/AGENT IS RESPONSIBLE FOR AND AGREES TO:

1. FURNISH ALL NECESSARY INFORMATION AND DOCUMENTATION TO PROCESS APPLICATION.
2. ADHERE TO ALL THE APPLICABLE REQUIREMENTS OF THE ZONING REGULATIONS.
3. NOTIFY THE COMMISSION OR ITS APPOINTED AGENT OF ANY ALTERATION IN THE PLANS.
4. **CONTACT THE ZONING OFFICER (848-8549 x-379) AT LEAST 24 HOURS BEFORE CONSTRUCTION BEGINS AND UPON COMPLETION OF PROJECT TO ALLOW ZONING OFFICER TO INSPECT LOCATION.**
5. AN E&S BOND MAY BE REQUIRED PRIOR TO COMPLIANCE SIGN OFF AND HELD UNTIL ONE YEAR FROM THIS DATE

I HEREBY CERTIFY THAT THE INFORMATION PROVIDED IS TRUE AND CORRECT AND FURTHER ATTEST THAT THE PROPOSED WORK IS AUTHORIZED BY THE OWNER IN FEE AND THAT I AM AUTHORIZED TO MAKE APPLICATION FOR A PERMIT FOR SUCH DESCRIBED WORK.

OWNER/AGENTS SIGNATURE Sam J. Simons DATE: 6-20-2006
SAM J. SIMONS, AGENT

COMMISSION AGENT Thomas E. Chandler DATE 6/20/06 CERTIFICATE OF COMPLIANCE (COC) 7 Chandler DATE _____
Waived by Commission 2/28/06

THIS SIGNED PERMIT AUTHORIZES THE APPLICANT TO PROCEED TO THE BUILDING DEPARTMENT FOR ANY REQUIRED PERMITS THE SIGNED CERTIFICATE OF COMPLIANCE IS NEEDED PRIOR TO A CERTIFICATE OF OCCUPANCY BEING ISSUED BY THE BUILDING INSPECTOR

Simons Land Consulting LLC

6 Glenview Drive
Sherman, CT 06784-2310
Office (860) 350-0203
Mobile (203) 482-5156
Fax (860) 355-8767
sam@simonsland.com

June 20, 2006

Vernon D. Vesey II
Building Department
Town of Montville
301 Norwich New London Turnpike
Uncasville, CT 06382

Thomas E. Sanders
Planning Department
Town of Montville
301 Norwich New London Turnpike
Uncasville, CT 06382
(Letter & 1 copy of each referenced item)

Re: United States Coast Guard
Building Permit Application
401 Chapel Hill Road, Village of Oakdale (Montville), CT 06370

Town of Montville:

On behalf of United State of America, acting by and through the United States Coast Guard ("U.S. Coast Guard"), I am hereby submitting to the Town of Montville, Connecticut, the U.S. Coast Guard's plans to install antennas on an existing Tower pursuant to the Homeland Security Act and as part of a Congressionally-mandated upgrade to the U.S. Coast Guard's communications system to protect America's borders and to ensure safety of life and property at sea and in America's major bodies of waters. By way of summary, the U.S. Coast Guard's installation will also require, for reasons of safety and security, the construction of a fenced compound (the "U.S.C.G. Compound") including a generator, a fuel tank, and shelter to accommodate the U.S. Coast Guard's ground equipment. The proposed installation is shown in the plans submitted with this letter.

This is a Federal project under 40 U.S.C. § 3312(f)-(g) which entitles the U.S. Coast Guard exemptions from local zoning and permitting requirements as set forth in Item Nos. 1 and 2 below.

I am submitting the following documents for a Building Permit:

1. **U.S. Coast Guard letter** dated March 14, 2006 to Town of Montville regarding the U.S. Coast Guard's exemption from Town of Montville's requirements as a Federal Agency.
2. **U.S. Coast Guard's legal memorandum** dated February 15, 2006 regarding the U.S. Coast Guard's exemption from local and state regulation (the "U.S.C.G. Memorandum")

3. **Fees** – The U.S. Coast Guard is submitting no application fees as the U.S. Coast Guard is exempt from local and state governmental filing fees as set forth in last paragraph on page 1 of U.S. Coast Guard letter (Exhibit 1) and Paragraph 10 (page 4) of the U.S.C.G. Memorandum (Exhibit 2).
4. **Construction Drawings** (2 copies) dated May 9, 2006, by C&S Engineers which have been sealed by a Licensed Professional Engineer.
5. **Structural Analysis Report** (2 copies) on the Existing 300-ft Self Supporting Lattice Steel Tower reflecting the proposed U.S. Coast Guard's installation.
6. **Project Backgrounder** which provides a general description of the U.S. Coast Guard's Rescue 21 Project.
7. **Town of Montville Filing Documents**
 - a. **Construction Document Submission Requirements**
 - b. **Construction Permit Approval**
 - c. **Zoning Permit**
 - d. **Application for Commercial Building Permit**
 - e. **Application for Commercial Trades Permit**

As set forth in the U.S. Coast Guard's letter dated March 14, 2006 (attached hereto as Exhibit #1) and legal memorandum, dated February 15, 2006, attached hereto as Exhibit #2 (the "U.S.C.G. Memorandum"), the U.S. Coast Guard is not required to obtain a permit from the Town to co-locate on the Tower. Nevertheless, federal law requires the U.S. Coast Guard to inform the Town of its plans and to consider comments from Town officials.

The Tower is an existing, 300-foot telecommunications tower, owned by SubCarrier Communications, and located at 401 Chapel Hill Road, Village of Oakdale (Montville), CT 06370. SubCarrier Communications has entered into lease agreement with the U.S. Coast Guard pursuant to which such entity is entitled to install certain telecommunications facilities at specified heights on the Tower, and to place certain associated equipment on the Site.

The Project essentially consists of installing antennas on the existing Tower. The U.S. Coast Guard will place their associated antenna operating equipment within the existing Leased Area (the "Existing Leased Area") located adjacent to the Tower at the Site (As more fully shown on the C&S Engineers Construction Drawings, dated May 9, 2006 – Item No. 4 above).

As detailed in the U.S.C.G Memorandum, under 40 U.S.C. § 3312, U.S. Coast Guard contractors must comply "with the latest edition of nationally recognized codes, including electrical codes, fire and life safety codes, and plumbing codes." See U.S.C.G. Memorandum at 2. Moreover, federal contractors must give "due consideration" to substantive provisions of local zoning ordinances and similar laws, as well as to the recommendations of State and local officials. See id. at 2-3.

June 20, 2006

On the other hand, the U.S.C.G. Memorandum makes very clear that “[s]tate and local zoning and other similar laws . . . do not apply to Federal construction or alteration projects where the United States will own the constructed or altered improvement [and that] there is no need for the Coast Guard contractor to obtain a permit.” See *id.* at 1. According to the U.S. Coast Guard, the Town has the right to review, to comment on, and to inspect – but not, ultimately, to prevent or impose restrictions on – the U.S. Coast Guard’s installation and construction at the Site.

If requested, the U.S. Coast Guard will respond to questions or comments from the Town or residents of the community regarding the installation of the U.S.C.G. Facility, the construction of the U.S.C.G. Compound, or any other aspect of the U.S. Coast Guard’s plans at the Site.

Each aspect of the Coast Guard’s plans is included for purposes of security and/or safety. For instance, the generator and fuel tank are components of the U.S. Coast Guard emergency back-up system. In the event of an emergency during which commercial electrical power is lost, the generator, fueled by the propane, will automatically power-up so as to maintain uninterrupted operations and communications.

The Connecticut Siting Council (CSC) has confirmed with us that there are no filing or approval requirements with that state agency as this tower is not subject to CSC jurisdiction (Michael Perrone, Siting Analyst, Connecticut Siting Council, 10 Franklin Square, New Britain, CT 06051 (860) 827-2935).

I believe that the enclosed materials meet requirements for this Building Permit Application; however, if you have any questions, or require any further information, please do not hesitate to contact me. Thank you for your kind consideration of this Building Permit Application.

Very truly yours,



Sam Simons
Site Acquisition Consultant for General Dynamics
Contractor for the United States Coast Guard

Enclosures

Cc: Raymond Occhalini, Fire Marshall (with 1 copy of each enclosure)

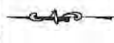
**TAX MAP
36
TOWN OF
MONTVILLE
CONNECTICUT**



- PROPERTY LINE
- OLD PROPERTY LINE
- IMPROVED AREA
- IMPROVED ROAD
- IMPROVED HIGHWAY
- IMPROVED ROAD
- PRIVATE ROAD
- WATER LINE
- MATCH LINE
- PAVED ROAD
- STREET LIGHT
- CONCRETE
- CEILING

3 PARCEL NUMBER
133 AC AREA
38 DIMENSION
120 DIMENSION LEFT PAL
P20 T-4 PART PARCEL
18000 COORDINATE

NOT ASSUREMENT PURPOSES ONLY
NOT TO BE USED FOR CONVEYANCES



ADJACENT SHEETS

43	44	45
36	36	37
27	28	29

SCALE
1" = 200'

COMPLETION DATE 4-1-04
DATE OF REVISION

JAMES W. SEWELL COMPANY



Exhibit B

Property Card: 401 CHAPEL HILL RD

Town of Montville, CT



Parcel Information	
Parcel ID: 036-002-000 Vision ID: 2136 Owner: SUBCARRIER COMMUNICATIONS INC Co-Owner: Mailing Address: 139 WHITE OAK LN OLD BRIDGE, NJ 08857	Map: 036 Lot: 002-000 Use Description: Radio/TV Tr Zone: R20 Land Area in Acres: 1.94
Sale History	Assessed Value
Book/Page: 456/669 Sale Date: 1/12/2005 Sale Price: \$55,000	Land: \$78,800 Buildings: \$170,470 Extra Bldg Features: \$0 Outbuildings: \$3,560 Total Buildings: \$174,030 Total: \$252,830

Building Details: Building # 1		
	Model: Industrial Living Area: 3480 Appr. Year Built: 1960 Style: Telephone Bldg Stories: 1 Occupancy: 1.00	Int Wall Desc 1: Minimum Int Wall Desc 2: Ext Wall Desc 1: Concrete Ext Wall Desc 2: Roof Cover: Rolled Compos Roof Structure: Flat Heat Type: Forced Air Heat Fuel: Gas A/C Type: Heat Pump
	No. Total Rooms: No. Bedrooms: No. Baths: No. Half Baths:	



www.cai-tech.com

Data shown on this report is provided for planning and informational purposes only. The municipality and CAI Technologies are not responsible for any use for other purposes or misuse or misrepresentation of this report.

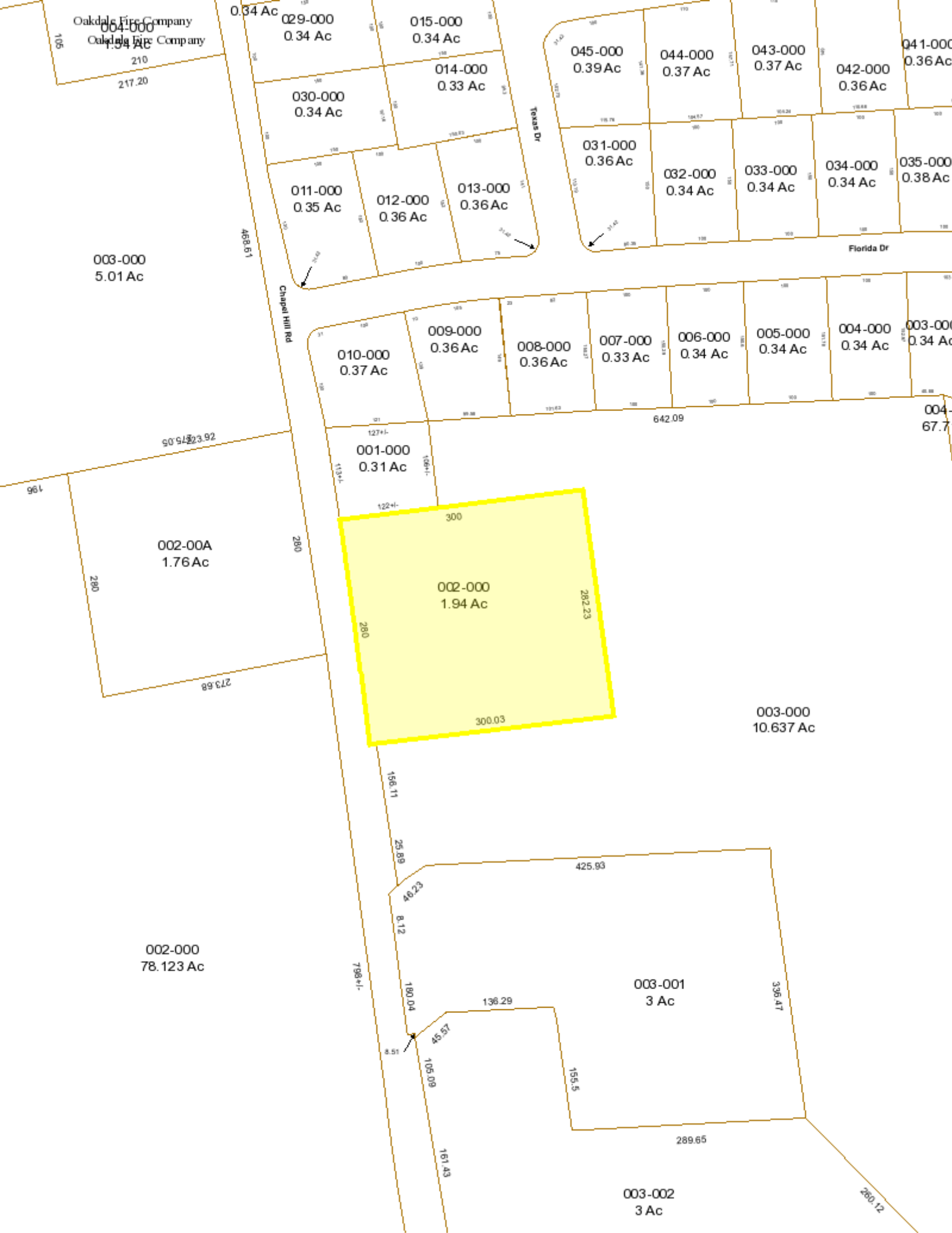


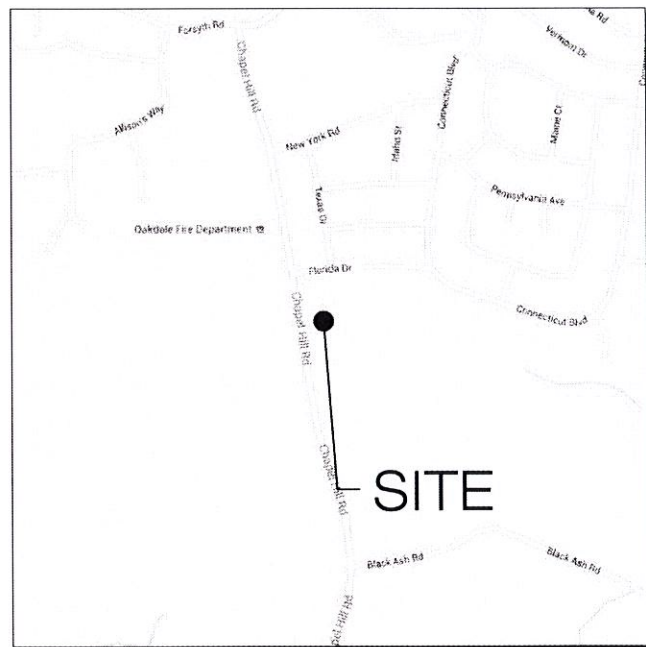
Exhibit C

T-Mobile

NORTHEAST, LLC.

NEW SITE DEVELOPMENT (NSD) "OAKDALE SUBCARRIER COMMUNICATIONS"

CTNL814C
401 CHAPEL HILL ROAD
OAKDALE, CT 06370



VICINITY MAP
SCALE: 1" = 500'

DRAWING INDEX

- T-1 TITLE SHEET & INDEX
- SP-1 SITE PLAN
- A-1 COMPOUND PLAN & ELEVATION
- A-2 ANTENNA DETAILS

SITE INFORMATION

T-MOBILE SITE NAME: "OAKDALE SUBCARRIER COMMUNICATIONS"
T-MOBILE SITE NUMBER: CTNL814C
SITE ADDRESS: 401 CHAPEL HILL ROAD
OAKDALE, CT 06370

SITE TYPE/DESCRIPTION: INSTALL (1) NEW MICROWAVE ANTENNA AND ASSOCIATED CABLING ON PENDING MOUNTS ON EXIST. LATTICE TOWER.

PROPERTY OWNER: SUBCARRIER COMMUNICATIONS INC.
139 WHITE OAK LANE
OLD BRIDGE, NJ 08857

LEASING CONTACT: MATTHEW BANDLE
(508) 642-8801

CONSTRUCTION CONTACT: MIKE SCORDO
(203) 520-8471

ENGINEER CONTACT: ROBERT BURNS
(860) 663-1697 x206

LATITUDE: 41°28'07.6154"N
LONGITUDE: 72°12'11.5430"W
ELEVATION: 604'± AMSL
MAP: 36
LOT: 2
MUNICIPALITY: MONTVILLE
ZONING DISTRICT: R20

APPLICANT:

T-MOBILE
35 GRIFFIN ROAD
BLOOMFIELD, CT 06002

POWER PROVIDER:

EVERSOURCE (860) 447-5746
GIUSEPPE CASSATA

TELCO PROVIDER:

FRONTIER: (800)-921-8102

CALL BEFORE YOU DIG:

811

CODE COMPLIANCE INFORMATION:

STATE OF CONNECTICUT BUILDING CODE, LATEST EDITION
ANSI/TIA-222-G
NATIONAL ELECTRIC CODE, LATEST EDITION

**ALL-POINTS
TECHNOLOGY CORPORATION**
3 SADDLEBROOK DRIVE PHONE: (860) 663-1697
KILLINGWORTH, CT 06419 FAX: (860) 663-0935
WWW.ALLPOINTSTECH.COM

**T-Mobile
NORTHEAST, LLC.**

35 GRIFFIN ROAD
BLOOMFIELD, CT 06002
OFFICE: (860)-692-7100

**NSS
NORTHEAST
SITE SOLUTIONS**

APPROVALS

LANDLORD: _____ DATE: _____
RF ENGINEER: _____ DATE: _____
CONSTRUCTION: _____ DATE: _____
OPERATIONS: _____ DATE: _____
SITE ACQ: _____ DATE: _____

CONSTRUCTION DOCUMENTS

NO	DATE	REVISION
0	11/02/16	FOR REVIEW: RCB
1	11/09/16	1A REVISIONS: RCB
2	10/02/17	MW ADDITION: SMC
3	10/24/17	CLIENT REVISIONS: RCB
4		
5		
6		

DESIGN PROFESSIONALS OF RECORD

PROF: SCOTT M. CHASSE P.E.
COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C.
ADD: 3 SADDLEBROOK DRIVE
KILLINGWORTH, CT 06419

NOTE:

THIS DOCUMENT IS THE CREATION, DESIGN, PROPERTY AND COPYRIGHTED WORK OF T-MOBILE NORTHEAST, LLC. ANY DUPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT IS STRICTLY PROHIBITED. DUPLICATION AND USE BY GOVERNMENT AGENCIES FOR THE PURPOSES OF CONDUCTING THEIR LAWFULLY AUTHORIZED REGULATORY AND ADMINISTRATIVE FUNCTIONS IS SPECIFICALLY ALLOWED.

**T-MOBILE
"OAKDALE SUBCARRIER
COMMUNICATIONS"**

SITE: 401 CHAPEL HILL ROAD,
ADDRESS: OAKDALE, CT 06370

APT FILING NUMBER: CT409160

SITE NUMBER: CTNL814C

DRAWN BY: CSH CHECKED BY: RCB
DATE: 11/02/16

CONFIGURATION

707C

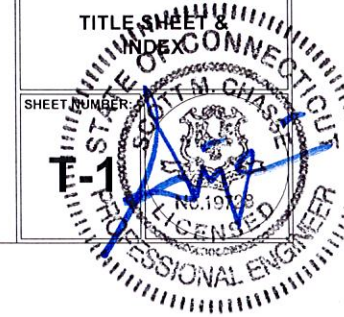
REFER TO LATEST T-MOBILE RF DATA SHEET FOR FINAL RF DESIGN & BOM.

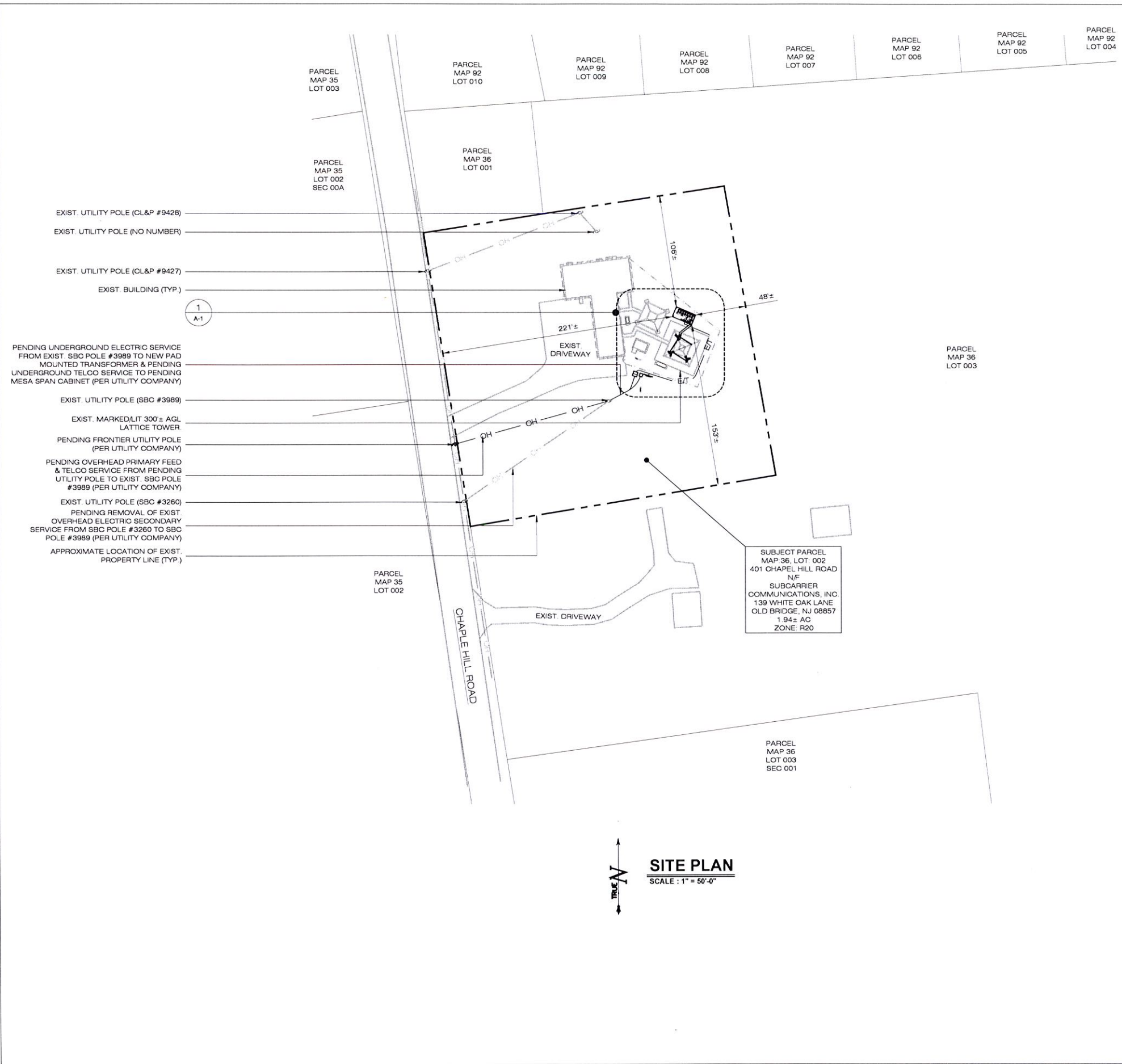
SHEET TITLE:

TITLE SHEET &
INDEX

SHEET NUMBER:

T-1





- EXIST. UTILITY POLE (CL&P #9428)
- EXIST. UTILITY POLE (NO NUMBER)
- EXIST. UTILITY POLE (CL&P #9427)
- EXIST. BUILDING (TYP.)
- PENDING UNDERGROUND ELECTRIC SERVICE FROM EXIST. SBC POLE #3989 TO NEW PAD MOUNTED TRANSFORMER & PENDING UNDERGROUND TELCO SERVICE TO PENDING MESA SPAN CABINET (PER UTILITY COMPANY)
- EXIST. UTILITY POLE (SBC #3989)
- EXIST. MARKED/LIT 300± AGL LATTICE TOWER
- PENDING FRONTIER UTILITY POLE (PER UTILITY COMPANY)
- PENDING OVERHEAD PRIMARY FEED & TELCO SERVICE FROM PENDING UTILITY POLE TO EXIST. SBC POLE #3989 (PER UTILITY COMPANY)
- EXIST. UTILITY POLE (SBC #3260)
- PENDING REMOVAL OF EXIST. OVERHEAD ELECTRIC SECONDARY SERVICE FROM SBC POLE #3260 TO SBC POLE #3989 (PER UTILITY COMPANY)
- APPROXIMATE LOCATION OF EXIST. PROPERTY LINE (TYP.)

SUBJECT PARCEL
MAP 36, LOT 002
401 CHAPEL HILL ROAD
N/F
SUBCARRIER
COMMUNICATIONS, INC.
139 WHITE OAK LANE
OLD BRIDGE, NJ 08857
1.94± AC
ZONE R20

SITE PLAN
SCALE: 1" = 50'-0"

BULK TABLE			
TOWN OF MONTVILLE SUBCARRIER COMMUNICATIONS INC 401 CHAPEL HILL ROAD OAKDALE, CT 06370 MAP 36 LOT 2 ZONED R20			
ITEM:	ALLOWABLE	EXIST:	NEW:
MIN. LOT AREA (SF)	20,000 SF	84,506 SF±	NC
MIN. LOT FRONTAGE (FT)	100 FT	280.4 FT±	NC
MIN. FRONT YARD (FT)	40 FT	125 FT±	NC
MIN. SIDE YARD (EACH) (FT)	15 FT	53 FT±	NC
MIN. REAR YARD (FT)	40 FT	98 FT±	NC
MAX. BUILDING HEIGHT (FT)	35 FT	18 FT±	NC

NA = NOT APPLICABLE NC = NO CHANGE

- SITE PLAN NOTES**
- PROPERTY OWNER: SUBCARRIER COMMUNICATIONS INC
139 WHITE OAK LANE
OLD BRIDGE, NJ 08857
- NEW USE: INSTALLATION OF PERSONAL WIRELESS SERVICES FACILITY ON EXIST. 300± AGL LATTICE TOWER W/ NEW GROUND EQUIPMENT AT THE BASE OF THE TOWER.
 - BOUNDARY, SITE & TOPOGRAPHIC INFORMATION TAKEN FROM TOWN OF MONTVILLE GEOGRAPHIC INFORMATION SYSTEMS, CONNECTICUT ENVIRONMENTAL CONDITIONS ONLINE, AND SUPPLEMENTED WITH FIELD MEASUREMENTS
 - NO ADDITIONAL PARKING IS NEEDED, AS THE NEW GROUND FACILITY INSTALLATION IS UNMANNED & VISITED APPROXIMATELY ONCE/MONTH FOR ROUTINE MAINTENANCE. ACCORDINGLY, THE NEW DEVELOPMENT WILL NOT ADVERSELY CHANGE OR AFFECT TRAFFIC PATTERNS.
 - SUBJECT FACILITY ON-SITE IS LOCATED WITHIN ZONE X FLOOD ZONE DESIGNATION (FIRM FLOOD INSURANCE RATE MAP #09011C0327G & MAP #09011C0329G).
 - NEW EQUIPMENT SPACE WILL BE OUTFITTED WITH ONE 150W EXTERIOR LIGHT W/ MOTION DETECTOR (RAB H101B)
 - NO STORMWATER DRAINAGE, WATER SUPPLY, SEWAGE DISPOSAL, REFUSE STORAGE, IS REQUIRED, AS THE NEW INSTALLATION IS FOR AN UNMANNED FACILITY.
 - ALL NEW UTILITIES FOR NEW EQUIPMENT WILL BE PROVIDED FROM NEARBY SERVICES CURRENTLY SERVICING THE SITE. CONNECTIONS TO SHALL BE DETERMINED BY A LOCAL UTILITY REPRESENTATIVE.
 - NO DUST, FUMES, ODORS, OR VIBRATIONS WILL OCCUR AS A RESULT OF THE NEW INSTALLATION.

LEGEND	
CONCRETE CURB	UTILITY POLE
DROP CURB	BOLLARD
WALL	CHAIN LINK FENCE
EDGE OF PAVEMENT	STOCKADE FENCE
OVERHEAD WIRES	FENCE OTHER
STRUCTURE - MANHOLE	TOP/BOTTOM OF CURB
STRUCTURE - TELEPHONE	SPOT ELEVATION
STRUCTURE - DRAINAGE	CONCRETE
WATER VALVE	TREE LINE
WATER METER	MONUMENT
FIRE HYDRANT	HEDGE
DRAINAGE INLET	TREE
SIGN	HANDICAP PARKING
LIGHT POLE	PARKING STALL COUNT

**ALL-POINTS
TECHNOLOGY CORPORATION**
3 SADDLEBROOK DRIVE PHONE: (860)-663-1697
KILLINGWORTH, CT 06419 FAX: (860)-663-0936
WWW.ALLPOINTS TECH.COM

T-Mobile
NORTHEAST, LLC.
35 GRIFFIN ROAD
BLOOMFIELD, CT 06002
OFFICE: (860)-692-7100

**NSS
NORTHEAST
SITE SOLUTIONS**

APPROVALS

LANDLORD: _____ DATE: _____

RF ENGINEER: _____ DATE: _____

CONSTRUCTION: _____ DATE: _____

OPERATIONS: _____ DATE: _____

SITE ACQ: _____ DATE: _____

CONSTRUCTION DOCUMENTS

NO	DATE	REVISION
0	11/02/16	FOR REVIEW: RCB
1	11/09/16	1A REVISIONS: RCB
2	10/02/17	MW ADDITION: SMC
3	10/24/17	CLIENT REVISIONS: RCB
4		
5		
6		

DESIGN PROFESSIONALS OF RECORD

PROF: SCOTT M. CHASSE P.E.
COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C.
ADD: 3 SADDLEBROOK DRIVE
KILLINGWORTH, CT 06419

NOTE:

THIS DOCUMENT IS THE CREATION, DESIGN, PROPERTY AND COPYRIGHTED WORK OF T-MOBILE NORTHEAST, LLC. ANY DUPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT IS STRICTLY PROHIBITED. DUPLICATION AND USE BY GOVERNMENT AGENCIES FOR THE PURPOSES OF CONDUCTING THEIR LAWFULLY AUTHORIZED REGULATORY AND ADMINISTRATIVE FUNCTIONS IS SPECIFICALLY ALLOWED.

**T-MOBILE
"OAKDALE SUBCARRIER
COMMUNICATIONS"**

SITE: 401 CHAPEL HILL ROAD,
ADDRESS: OAKDALE, CT 06370
APT FILING NUMBER: CT409160

SITE NUMBER: CTNL814C

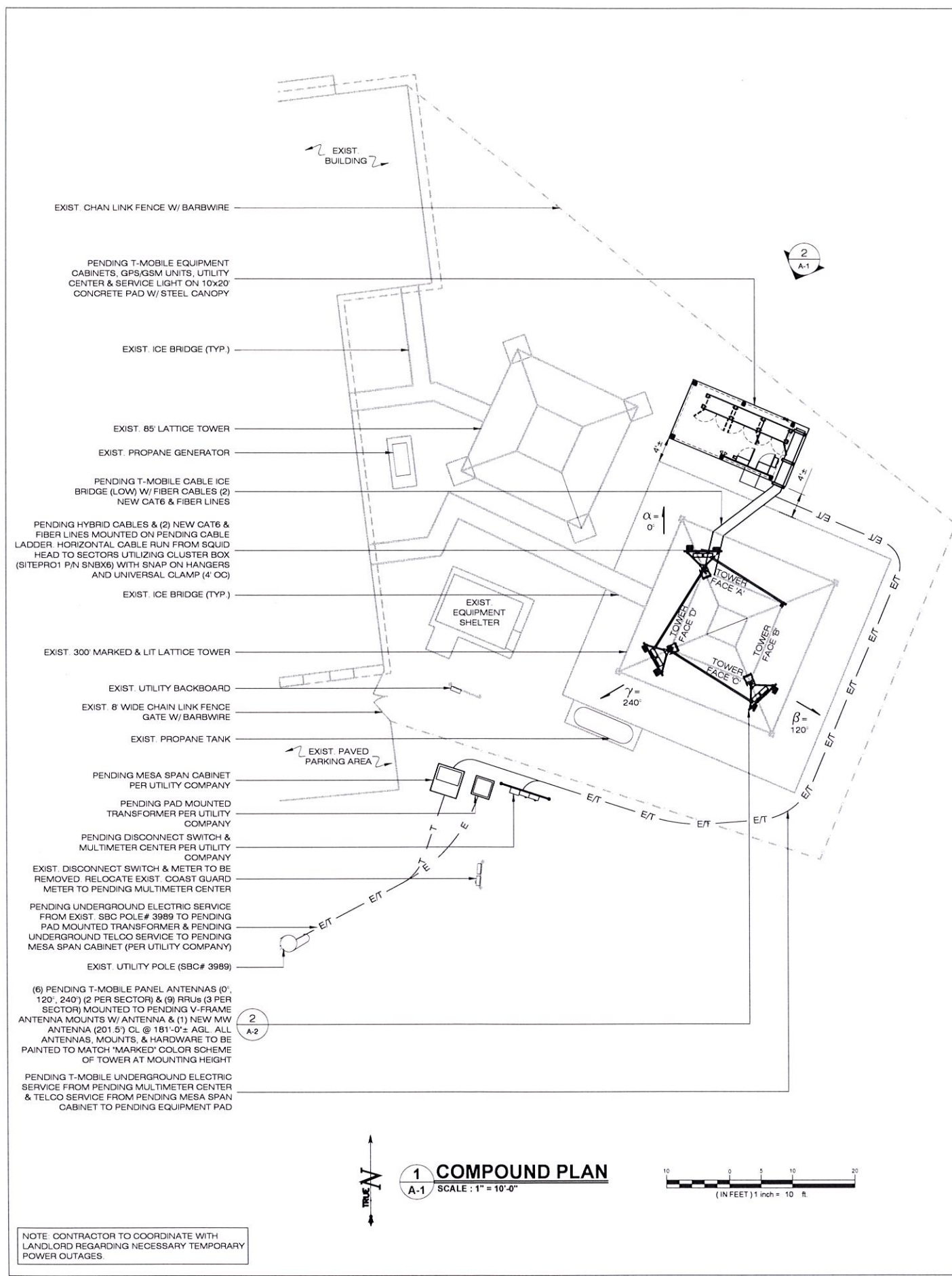
DRAWN BY: CSH CHECKED BY: RCB
DATE: 11/02/16

CONFIGURATION
707C

REFER TO LATEST T-MOBILE RF DATA SHEET FOR FINAL RF DESIGN & BOM.

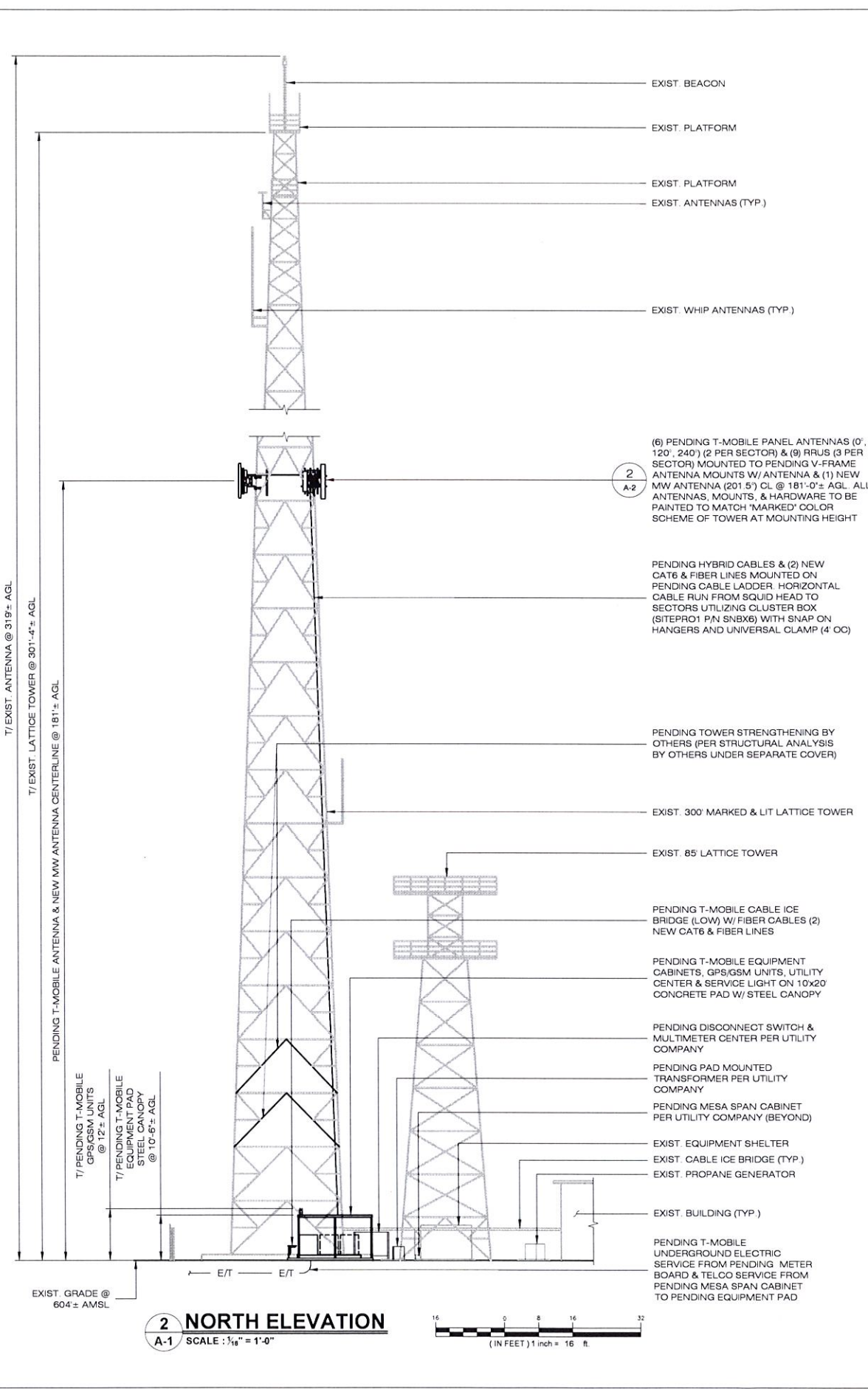
SHEET TITLE:





1 COMPOUND PLAN
A-1 SCALE: 1" = 10'-0"

NOTE: CONTRACTOR TO COORDINATE WITH LANDLORD REGARDING NECESSARY TEMPORARY POWER OUTAGES



2 NORTH ELEVATION
A-1 SCALE: 1/16" = 1'-0"

(6) PENDING T-MOBILE PANEL ANTENNAS (0', 120', 240') (2 PER SECTOR) & (9) RRUS (3 PER SECTOR) MOUNTED TO PENDING V-FRAME ANTENNA MOUNTS W/ ANTENNA & (1) NEW MW ANTENNA (201.5') CL @ 181'-0"± AGL. ALL ANTENNAS, MOUNTS, & HARDWARE TO BE PAINTED TO MATCH 'MARKED' COLOR SCHEME OF TOWER AT MOUNTING HEIGHT

PENDING HYBRID CABLES & (2) NEW CAT6 & FIBER LINES MOUNTED ON PENDING CABLE LADDER. HORIZONTAL CABLE RUN FROM SQUID HEAD TO SECTORS UTILIZING CLUSTER BOX (SITEPRO1 P/N SNBX6) WITH SNAP ON HANGERS AND UNIVERSAL CLAMP (4" OC)

PENDING TOWER STRENGTHENING BY OTHERS (PER STRUCTURAL ANALYSIS BY OTHERS UNDER SEPARATE COVER)

PENDING T-MOBILE CABLE ICE BRIDGE (LOW) W/ FIBER CABLES (2) NEW CAT6 & FIBER LINES

PENDING T-MOBILE EQUIPMENT CABINETS, GPS/GSM UNITS, UTILITY CENTER & SERVICE LIGHT ON 10x20 CONCRETE PAD W/ STEEL CANOPY

PENDING DISCONNECT SWITCH & MULTIMETER CENTER PER UTILITY COMPANY

PENDING PAD MOUNTED TRANSFORMER PER UTILITY COMPANY

PENDING MESA SPAN CABINET PER UTILITY COMPANY (BEYOND)

EXIST. EQUIPMENT SHELTER

EXIST. CABLE ICE BRIDGE (TYP.)

EXIST. PROPAANE GENERATOR

ALL-POINTS TECHNOLOGY CORPORATION
3 SADDLEBROOK DRIVE PHONE: (860)-663-1697
KILLINGWORTH, CT 06419 FAX: (860)-663-0936
WWW.ALLPOINTSTECH.COM

T-Mobile NORTHEAST, LLC.
35 GRIFFIN ROAD
BLOOMFIELD, CT 06002
OFFICE: (860)-692-7100

NSS NORTHEAST SITE SOLUTIONS

APPROVALS

LANDLORD: _____ DATE: _____

RF ENGINEER: _____ DATE: _____

CONSTRUCTION: _____ DATE: _____

OPERATIONS: _____ DATE: _____

SITE ACQ: _____ DATE: _____

CONSTRUCTION DOCUMENTS

NO	DATE	REVISION
0	11/02/16	FOR REVIEW: RCB
1	11/09/16	1A REVISIONS: RCB
2	10/02/17	MW ADDITION: SMC
3	10/24/17	CLIENT REVISIONS: RCB
4		
5		
6		

DESIGN PROFESSIONALS OF RECORD

PROF: SCOTT M. CHASSE P.E.
COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C.
ADD: 3 SADDLEBROOK DRIVE
KILLINGWORTH, CT 06419

NOTE:

THIS DOCUMENT IS THE CREATION, DESIGN, PROPERTY AND COPYRIGHTED WORK OF T-MOBILE NORTHEAST, LLC. ANY DUPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT IS STRICTLY PROHIBITED. DUPLICATION AND USE BY GOVERNMENT AGENCIES FOR THE PURPOSES OF CONDUCTING THEIR LAWFULLY AUTHORIZED REGULATORY AND ADMINISTRATIVE FUNCTIONS IS SPECIFICALLY ALLOWED.

T-MOBILE "OAKDALE SUBCARRIER COMMUNICATIONS"

SITE 401 CHAPEL HILL ROAD,
ADDRESS: OAKDALE, CT 06370

APT FILING NUMBER: CT409160

SITE NUMBER: CTNL814C

DRAWN BY: CSH CHECKED BY: RCB
DATE: 11/02/16

CONFIGURATION

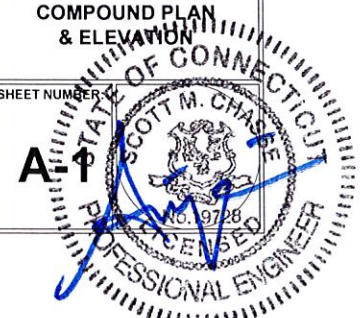
707C

REFER TO LATEST T-MOBILE RF DATA SHEET FOR FINAL RF DESIGN & BOM.

SHEET TITLE:

COMPOUND PLAN & ELEVATION

SHEET NUMBER



APPROVALS

LANDLORD: _____ DATE: _____
 RF ENGINEER: _____ DATE: _____
 CONSTRUCTION: _____ DATE: _____
 OPERATIONS: _____ DATE: _____
 SITE ACQ: _____ DATE: _____

CONSTRUCTION DOCUMENTS

NO	DATE	REVISION
0	11/02/16	FOR REVIEW: RCB
1	11/09/16	1A REVISIONS: RCB
2	10/02/17	MW ADDITION: SMC
3	10/24/17	CLIENT REVISIONS: RCB
4		
5		
6		

DESIGN PROFESSIONALS OF RECORD

PROF: SCOTT M. CHASSE P.E.
 COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C.
 ADD: 3 SADDLEBROOK DRIVE
 KILLINGWORTH, CT 06419

NOTE:

THIS DOCUMENT IS THE CREATION, DESIGN, PROPERTY AND COPYRIGHTED WORK OF T-MOBILE NORTHEAST, LLC. ANY DUPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT IS STRICTLY PROHIBITED. DUPLICATION AND USE BY GOVERNMENT AGENCIES FOR THE PURPOSES OF CONDUCTING THEIR LAWFULLY AUTHORIZED REGULATORY AND ADMINISTRATIVE FUNCTIONS IS SPECIFICALLY ALLOWED.

T-MOBILE "OAKDALE SUBCARRIER COMMUNICATIONS"

SITE 401 CHAPEL HILL ROAD, ADDRESS: OAKDALE, CT 06370
 APT FILING NUMBER: CT409160
 SITE NUMBER: CTNL814C

DRAWN BY: CSH CHECKED BY: RCB
 DATE: 11/02/16

CONFIGURATION

707C

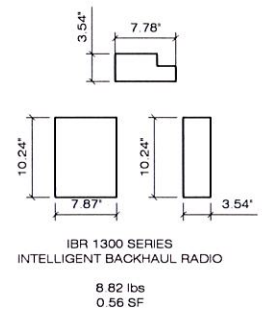
REFER TO LATEST T-MOBILE RF DATA SHEET FOR FINAL RF DESIGN & BOM.

SHEET TITLE:

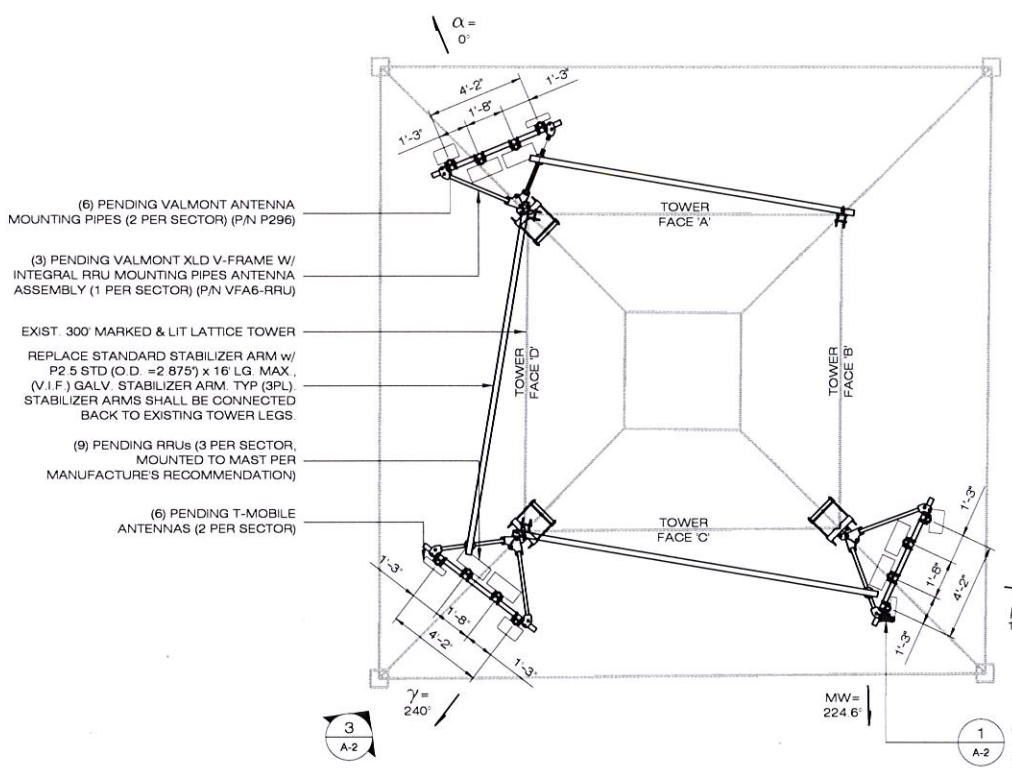
ANTENNA CONNECTICUT STATE PROFESSIONAL ENGINEER

SCOTT M. CHASSE
 P.E.
 0601728

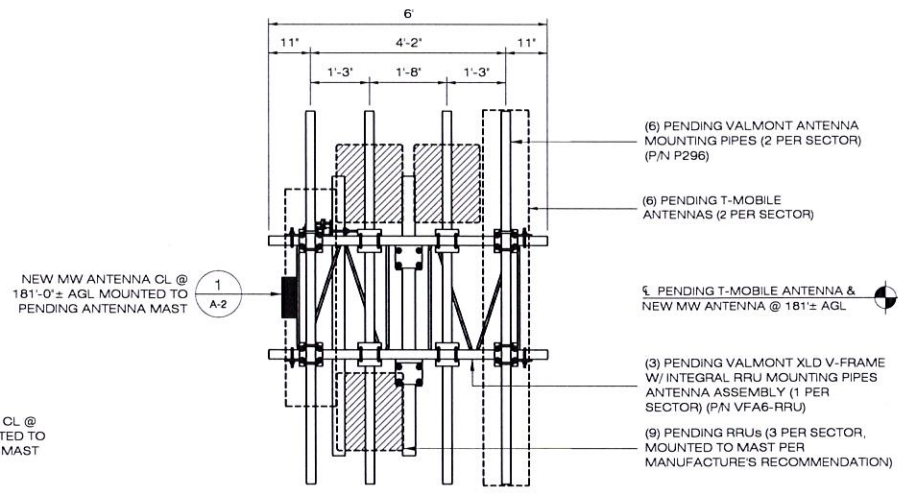
A-2



1 ANTENNA DETAILS
 A-2 SCALE: 1/2" = 1'-0"



2 ANTENNA MOUNTING PLAN
 A-2 SCALE: 1/4" = 1'-0"



3 ANTENNA MOUNTING DETAIL
 A-2 SCALE: 1/2" = 1'-0"

Exhibit D



Kerri Sullivan-Rodrigues
kerri@subcarrier.com
Subcarrier Communications
139 White Oak Lane; Old Bridge, NJ 08857

October 17, 2017

Re: Structural Review of an Existing 300-ft Self Supporting Lattice Steel Tower
SubCarrier Communications Site: Oakdale (Montville) I.D. #4048
Location: 401 Chapel Hill Road, Village of Oakdale, CT 06370; New London County, CT

Dear Kerri,

Communication Structures Engineering, Inc. (CSEI) has completed a structural review of the existing 300-ft Self Supporting Tower located at this Subcarrier Communications Inc. site known as Oakdale, CT. In accordance with your request, we have performed a structural analysis of this tower to check its capability to support the existing tower & equipment loads as well as the loads from the proposed T-Mobile additions. A description of the existing tower, the loads considered, and the results of our review follow.

EXISTING TOWER INFORMATION & HISTORY

The 300-ft Self Supporting tower at this site was built in 1969 by Flint Steel Corp. for AT&T Long Lines Eastern Region. This tower, was built to provide an AT&T Microwave Radio Path to Greenhill R.I. The tower is a four-sided, lattice braced steel structure with a top grated antenna platform that measures 10'-0" X 23'-3", and a tower base plan dimension of 26'-4" X 26'-4". The tower was originally designed to support two Western Electric KS15676 Horn Reflector Antennas on the top platform. This structure is supported on a concrete spread footing foundation that was designed in 1968 by Rose Chulkoff & Rose Engineering (RCR of NYC). The tower foundation was strengthened in 2006. Both of the original KS15676 Horn Antennas were removed from the top grated antenna platform in 2006.

CSEI utilized the following documents from our archives to conduct our structural review of this tower: 1.) The 1968 AT&T Tower Design Drawings; 2.) The 1969 Flint Steel Tower Shop & Erection Drawings; 3.) The 1968 RCR Tower Foundation Design Drawings & Calculations; and 4.) The 1966 Geotechnical Report & Soil Borings. The T-Mobile proposed dish addition that you provided to us was utilized to determine the T-Mobile antenna & cable requirements. A site visit or condition survey of this tower was not a part of CSEI's scope of work for this tower. We have assumed that the tower has been maintained in good physical condition.

DESIGN CRITERIA

The specific loading criteria that we utilized were those prescribed by 2016 Connecticut State Building Code (Adopted 10/1/16). In accordance with the this document the wind speed that we utilized for the analysis of this structure was the "3 second Gust Wind Speed" of 105-mph applicable to this location in New London County, CT. The tower was analyzed as a Class II Structure. Based on our review of the topography & local features, we have considered this location to be an Exposure Category 'B' & Topographic Category '1' site. Please see the next page titled, "DESIGN CRITERIA", for a complete listing of all customer mounted equipment items that were used to determine the loadings for our current structural analysis of this tower.

STRUCTURAL ANALYSIS PROCEDURE

The referenced design criteria combined with wind tunnel test data from tests conducted on AT&T tower framing and tower platforms, were utilized to determine the applicable loads for this structure. A frame analysis was then performed utilizing the stated wind loads and a computer model of the tower framing modeled on Power Line Systems Inc. "PLS Tower" Program. The load carrying frame members of this structure were reviewed to check their compliance with ANSI/TIA-222-G-2.

RESULTS OF STRUCTURAL ANALYSIS

Our analysis found that all of the existing tower members had maximum stress levels that were less than the allowable stresses permitted by the above code & standard. The tower foundation was also found to be in compliance with the requirements of this Code & Standard. We have therefore concluded that this existing tower structure is capable of supporting the existing loads as well as the proposed customer additions in compliance with the requirements of the 2016 Connecticut State Building Code & ANSI/TIA-222-G. This tower will not require any structural modifications or changes to support the proposed customers equipment.

If any co-location customers add any future additional antennas or equipment to this tower, this structure should be re-analyzed at that time.

CSEI would be happy to respond to any questions regarding this analysis.

Sincerely,

James E. Boltz, P.E.



Attachments: 1.) Design Criteria 300-ft tower at Oakdale CT
2.) Structural Calculations: 300-ft tower at Oakdale CT

DESIGN CRITERIA

SubCarrier Communications Site: Oakdale Site #4048

Location: 401 Chapel Hill Road, Village of Oakdale, CT 06370

Latitude N 41° 28' 07" / Longitude W 72° 12' 12"

New London County, CT

DESIGN STANDARDS

2016 Connecticut State Building Code

105 MPH (3-Second Gust) Wind Speed for New London County, CT

Structure Class II Exposure 'B' ; Topographic Category 1

In addition to the loads from the existing tower framing and platforms the loads from the following antennas and their associated transmission lines were considered in the analysis.

ANTENNA CONFIGURATION (Used for Structural Analysis)

(Note: A.T.B.P. = Above Tower Base Plate)

Existing Customer Antennas - To Remain on Tower

- **Calvary Chapel** One (1) SWR-FM1 Low Power FM Antenna (ERP 250W) mounted on antenna platform at 300-ft A.T.B.P. with one (1) run of 0.5-inch dia. coaxial cable from the antenna down to grade.
- **Tactical Communications** Two (2) RFS Model # DB-408 UHF omni antennas mounted at 100-ft A.T.B.P. with total of two (2) runs of 0.875-inch dia. coax cable from the antennas down to grade.

Existing United States Coast Guard Antennas - To Remain on Tower

- 1.) One (1) ADD090S Direction Finder Antenna mounted at 280-ft above tower base plate with two associated runs of 0.875 inch diameter coaxial cable and one run of AWG24 control cable.
- 2.) One (1) SRL235-2 VHF antenna mounted at 255-ft A.T.B.P. with one run of 0.875-inch dia. coax cable.
- 3.) One (1) SRL335-2 UHF antenna mounted at 255-ft A.T.B.P. with one run of 0.875-inch dia. coax cable.
- 4.) One (1) SRL235-2 VHF antenna mounted at 220-ft A.T.B.P. with two runs of 0.875-inch dia. coax cable.

(All SRL antennas to be mounted on 6-ft side-arms)

NOTE: To reduce tower loading, the wind loads due to cable ladder were not included in our analysis. The proposed USCG vertical cables were to be installed using leg-mounted brackets instead of a cable ladder.

Existing T-Mobile Equipment at 180-ft A.T.B.P.

Three (3) panel antennas APX16DWV-16DWV-S-E-A20 (55" x 13.3" x 3.15") with mounts
 Three (3) panel antennas LNX-6515DS-A1M (96.6" x 11.9" x 7.1") with mounts
 Nine (9) RRUS11's (17 x 17.8 x 7.2) at least (6) of these (9) will be mounted behind antennas
 One (1) Commscope hybrid trunk fiber line (9x18)(1.6" dia.) from grade to break-out hub at 180-ft.

New (Proposed) T-Mobile Equipment at 180-ft A.T.B.P. - To Be Added on Tower

One (1) IBR1300 Microwave Dish (7.87" x 10.24" x 3.54", 8.8 lbs.) at 180' level,
 with three (3) lines - (2) coax - 5/16", (1) fiber - 5/16".

Customer Antenna & Cable Mounts and Their Connections to Tower

The loads stated above include the applicable overall tower dead and wind loads from the listed customer antennas and transmission lines that were provided to CSEI. CSEI's structural analysis applies these loads at the tower truss panel points (joints where tower braces connect) that are closest to the customer equipment location. CSEI's structural analysis of this overall tower structure does not include tower stresses that could occur from improper customer equipment attachments that may locally stress individual tower braces. The attachment of the individual customer's equipment is not a part of CSEI's scope of work. CSEI assumes that these attachments, in accordance with good engineering practice, will be designed and installed to properly connect close to the tower panel points in such a manner as to not introduce significant local stresses to the existing tower bracing members. Improperly connected customer equipment can significantly stress individual tower members and consequently reduce the overall load capacity of the entire tower structure.

The design & installation of all customers' antenna & cable mounts and their proper connections to this tower are the responsibility of the individual customers and their engineers, suppliers & contractors.



on Structures Engineering, Inc.



COMMUNICATION STRUCTURES ENGINEERING, INC.
5579-B Chamblee Dunwoody Rd. /Suite 517
Dunwoody, GA 30338 (770) 951-8080

STRUCTURAL CALCULATIONS

SubCarrier Communications: Oakdale Site #4048 Existing 300-ft Self Supporting Tower Village of Oakdale, CT

Issue Date: October 17, 2017

TABLE OF CONTENTS

	<u>Pages</u>
Design Criteria	1
Computer Model	2
Summary	
Tower Component Stresses vs. Capacity.....	3
Tower Summary Output	4 to 20
Tower Foundation Review	21

DESIGN CRITERIA

SubCarrier Communications Site: Oakdale Site #4048

Location: 401 Chapel Hill Road, Village of Oakdale, CT 06370

Latitude N 41° 28' 07"/ Longitude W 72° 12' 12"

New London County, CT

DESIGN STANDARDS

2016 Connecticut State Building Code

105 MPH (3-Second Gust) Wind Speed for New London County, CT

Structure Class II Exposure 'B' ; Topographic Category 1

In addition to the loads from the existing tower framing and platforms the loads from the following antennas and their associated transmission lines were considered in the analysis.

ANTENNA CONFIGURATION (Used for Structural Analysis)

(Note: A.T.B.P. = Above Tower Base Plate)

Existing Customer Antennas - To Remain on Tower

- **Calvary Chapel** One (1) SWR-FM1 Low Power FM Antenna (ERP 250W) mounted on antenna platform at 300-ft A.T.B.P. with one (1) run of 0.5-inch dia. coaxial cable from the antenna down to grade.
- **Tactical Communications** Two (2) RFS Model # DB-408 UHF omni antennas mounted at 100-ft A.T.B.P with total of two (2) runs of 0.875-inch dia. coax cable from the antennas down to grade.

Existing United States Coast Guard Antennas - To Remain on Tower

- 1.) One (1) ADD090S Direction Finder Antenna mounted at 280-ft above tower base plate with two associated runs of 0.875 inch diameter coaxial cable and one run of AWG24 control cable.
- 2.) One (1) SRL235-2 VHF antenna mounted at 255-ft A.T.B.P. with one run of 0.875-inch dia. coax cable.
- 3.) One (1) SRL335-2 UHF antenna mounted at 255-ft A.T.B.P. with one run of 0.875-inch dia. coax cable.
- 4.) One (1) SRL235-2 VHF antenna mounted at 220-ft A.T.B.P with two runs of 0.875-inch dia. coax cable.

(All SRL antennas to be mounted on 6-ft side-arms)

NOTE: To reduce tower loading, the wind loads due to cable ladder were not included in our analysis.

The proposed USCG vertical cables were to be installed using leg-mounted brackets instead of a cable ladder.

Existing T-Mobile Equipment at 180-ft A.T.B.P.

Three (3) panel antennas APX16DWV-16DWV-S-E-A20 (55" x 13.3" x 3.15") with mounts

Three (3) panel antennas LNX-6515DS-A1M (96.6" x 11.9" x 7.1") with mounts

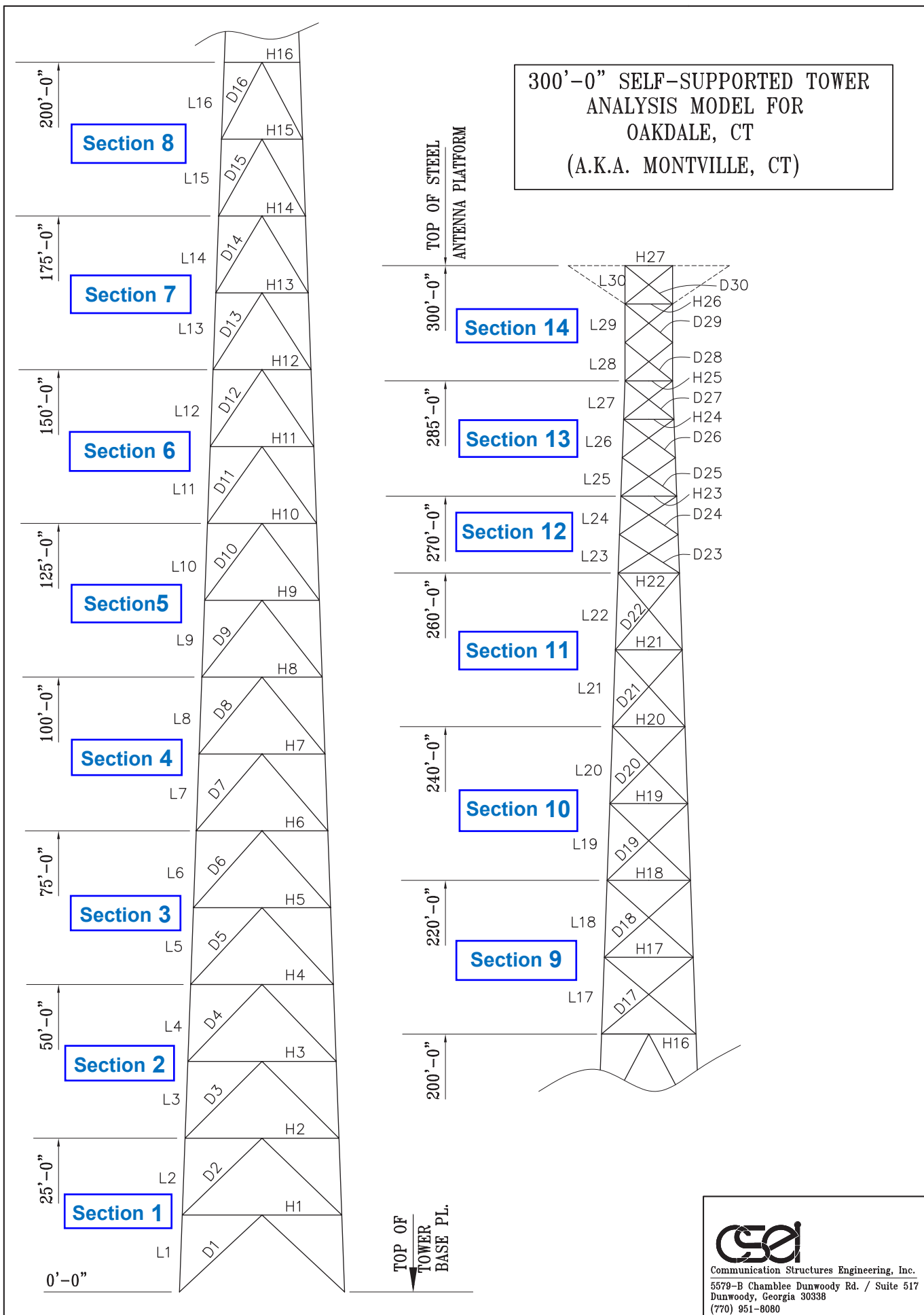
Nine (9) RRUS11's (17 x 17.8 x 7.2) at least (6) of these (9) will be mounted behind antennas

One (1) Commscope hybrid trunk fiber line (9x18)(1.6" dia.) from grade to break-out hub at 180-ft.

New (Proposed) T-Mobile Equipment at 180-ft A.T.B.P. - To Be Added on Tower

One (1) IBR1300 Microwave Dish (7.87" x 10.24" x 3.54", 8.8 lbs.) at 180' level,

with three (3) lines - (2) coax - 5/16", (1) fiber - 5/16".



ANALYSIS RESULTS SUMMARY

Tower Component Stresses vs. Capacity

Section No. <i>(see Analysis Model for section locations)</i>	Elevation (ft)	Percent Capacity Used		
		Leg	Diagonal	Horizontal
1	0'-0" to 25'-0"	71.1%	74.6%	81.8%
2	25'-0" to 50'-0"	74.2%	88.6%	73.5%
3	50'-0" to 75'-0"	66.5%	82.9%	61.7%
4	75'-0" to 100'-0"	80.0%	82.2%	50.5%
5	100'-0" to 125'-0"	77.2%	75.8%	39.4%
6	125'-0" to 150'-0"	73.9%	70.7%	31.2%
7	150'-0" to 175'-0"	70.0%	66.5%	24.1%
8	175'-0" to 200'-0"	70.9%	57.6%	17.4%
9	200'-0" to 220'-0"	59.5%	66.1%	45.3%
10	220'-0" to 240'-0"	52.8%	52.8%	33.5%
11	240'-0" to 260'-0"	39.7%	43.7%	22.5%
12	260'-0" to 270'-0"	38.3%	27.2%	10.0%
13	270'-0" to 285'-0"	26.4%	25.1%	10.0%
14	285'-0" to 300'-0"	17.2%	15.8%	10.0%

TOWER FOUNDATION

Foundation Loads (with Load factor) from Current Analysis = **481.5 kips uplift / 557.0 kips downward**

Foundation Capacity (per calculations) = **585.3 kips uplift / 1000+ kips downward**

Actual Loads / Foundation Capacity

Uplift 482K/585K = 83% capacity

Downward 557K/1000K = 56% capacity

Foundation is adequate for the proposed loading

Results above indicate:

- The tower foundation is sufficient to support the proposed loading.
- The tower steel is sufficient to support the proposed loading.



 *
 * TOWER - Analysis and Design - Copyright Power Line Systems, Inc. 1986-2016 *
 *

Project Name : Oakdale Site #4048
 Project Notes: Existing 300 Feet Self Supported Tower
 Project File : c:\csei\analysis\analysis\2017\oakdale ct 10142017\oakdale ct 10142017.tow
 Date run : October 16, 2017
 Licensed to : Communication Structures Engineering Inc.

Successfully performed nonlinear analysis

The model has 0 warnings.

Maximum element usage is 88.58% for Angle "g80P" in load case "WIND 0 COMB 1"

Structure Height Summary (used for calculating wind/ice adjust with height):

Structure height above ground 300.00 (ft)
 Elevation of structure bottom for wind height adjustment: 0.00 (ft)
 Structure height for structure gust response factor: 300.00 (ft)
 Structure gust response factor, G_s: 0.8500
 Mean wind conversion factor, m: 0.5500
 Wind direction probability factor, K_d, for structures: 0.85, for appurtenances: 0.85
 Guy installation temperature: 32.00 (deg F)
 Tower Type: Rectangular Latticed

ANSI/TIA 222-G Load Options:

Structure Class 2
 Exposure Category B Urban or suburban area must surround structure for at least 6000.00 (ft)
 Topographic Category 1 (Kzt always 1.0)
 Spectral Response SDS 0.000
 Spectral Response SD1 0.000

EIA Rev. G Load Cases:

Load Case Description	Dead Load Factor	Wind Load Factor	Load Strength Factor	Load Case Type	Basic Wind Speed (mph) (Deg)	Wind Dir.	Mean Wind Start Elevation (ft)	Mean Wind Stop Elevation (ft)	Ice Thick. (in)	Ice Density (lbs/ft ³)	Ice Temperature (deg F)	Point Loads	Joint Displ.
WIND 0 COMB 1	1.2000	1.6000	1.0000	Regular	105.000	0	0.00	0.00	0.0000	0.0000	60.0		
WIND 45 COMB 1	1.2000	1.6000	1.0000	Regular	105.000	45	0.00	0.00	0.0000	0.0000	60.0		
WIND 0 COMB 2	0.9000	1.6000	1.0000	Regular	105.000	0	0.00	0.00	0.0000	0.0000	60.0		
WIND 45 COMB 2	0.9000	1.6000	1.0000	Regular	105.000	45	0.00	0.00	0.0000	0.0000	60.0		
WIND 0 ICE COMB 3	1.2000	1.0000	1.0000	Regular	50.000	0	0.00	0.00	0.7500	56.0000	10.0		
WIND 45 ICE COMB 3	1.2000	1.0000	1.0000	Regular	50.000	45	0.00	0.00	0.7500	56.0000	10.0		

EIA Sections Information:

Section Label	Top Z (ft)	Bottom Z (ft)	Joint Count	Member Count	Top Width (ft)	Bottom Width (ft)	Gross Area (ft^2)	Face Adjust Factor	Face Ar Adjust Factor	Dead Load
1	300.000	285.000	16	52	6.00	6.00	90.00	1.0000	1.0000	2.940
2	285.000	260.000	24	75	6.00	7.72	171.50	1.0000	1.0000	1.610
3	260.000	240.000	12	34	7.72	9.18	168.98	1.1400	1.0000	1.380
4	240.000	220.000	12	34	9.18	10.64	198.14	1.1500	1.0000	1.360
5	220.000	200.000	16	41	10.64	12.09	227.30	1.1600	1.0000	1.300
6	200.000	175.000	24	50	12.09	13.92	325.12	1.2000	1.0000	1.280
7	175.000	150.000	24	50	13.92	15.74	370.70	1.1600	1.0000	1.190
8	150.000	125.000	24	50	15.74	17.56	416.27	1.1600	1.0000	1.310
9	125.000	100.000	24	50	17.56	19.39	461.85	1.1500	1.0000	1.360
10	100.000	75.000	24	50	19.39	21.21	507.43	1.1500	1.0000	1.320
11	75.000	50.000	24	50	21.21	23.03	553.00	1.1800	1.0000	1.170
12	50.000	25.000	24	50	23.03	24.85	598.58	1.1800	1.0000	1.340
13	25.000	0.000	20	37	24.85	26.68	644.15	1.1800	1.0000	1.330

Equipment Library:

Equipment Property Label	Stock Number	Weight (lbs)	Wind Area (ft^2)	Ice Area (ft^2)	Shape or EIA Antenna Type	Drag Coef.	Diameter (ft)	Height (ft)
ANTENNA PLATFORM		990.0	22.00	0.00		1.00	0.00	0.00
ACCESS PLATFORM		533.0	13.00	0.00		1.00	0.00	0.00
LIGHT PLATFORM 1		150.0	4.00	0.00		1.00	0.00	0.00
LIGHT PLATFORM 2		200.0	5.00	0.00		1.00	0.00	0.00
USCG ADD090S ANT		100.0	10.00	0.00		1.00	0.00	0.00
USGS SRL235-2 ANT		75.0	5.00	0.00		1.00	0.00	0.00
USGS SRL335-2 ANT		75.0	5.00	0.00		1.00	0.00	0.00
OMNI ANT		10.0	2.00	0.00		1.00	0.00	0.00
T-MOBILE INSTALL 8 JTS		150.0	14.50	0.00		1.00	0.00	0.00

Equipment Connectivity:

Equipment Label	Attach Label	Equipment Property Set	EIA Antenna Orientation Angle (deg)
AP-1	63P	ANTIENNA PLATFORM	0.00
AP-2	63X	ANTIENNA PLATFORM	0.00
AP-3	63XY	ANTIENNA PLATFORM	0.00
AP-4	63Y	ANTIENNA PLATFORM	0.00
ACP-1	60P	ACCESS PLATFORM	0.00
ACP-2	60X	ACCESS PLATFORM	0.00
ACP-3	60XY	ACCESS PLATFORM	0.00
ACP-4	60Y	ACCESS PLATFORM	0.00
LP1-1	51P	LIGHT PLATFORM 1	0.00
LP1-2	51X	LIGHT PLATFORM 1	0.00
LP1-3	51XY	LIGHT PLATFORM 1	0.00
LP1-4	51Y	LIGHT PLATFORM 1	0.00
LP2-1	20P	LIGHT PLATFORM 2	0.00

LF2-2	20X	LIGHT PLATFORM 2	0.00
LF2-3	20XY	LIGHT PLATFORM 2	0.00
LF2-4	20Y	LIGHT PLATFORM 2	0.00
USCG-1	59P	USCG ADD090S ANT	0.00
USCG-2	59X	USCG ADD090S ANT	0.00
USCG-3	59XY	USCG ADD090S ANT	0.00
USCG-4	59Y	USCG ADD090S ANT	0.00
USCG-5	55P	USGS SRL235-2 ANT	0.00
USCG-6	55X	USGS SRL235-2 ANT	0.00
USCG-7	55XY	USGS SRL235-2 ANT	0.00
USCG-8	55Y	USGS SRL235-2 ANT	0.00
USCG-9	54P	USGS SRL335-2 ANT	0.00
USCG-10	54X	USGS SRL335-2 ANT	0.00
USCG-11	54XY	USGS SRL335-2 ANT	0.00
USCG-12	54Y	USGS SRL335-2 ANT	0.00
USCG-13	51P	USGS SRL235-2 ANT	0.00
USCG-14	51X	USGS SRL235-2 ANT	0.00
USCG-15	51XY	USGS SRL235-2 ANT	0.00
USCG-16	51Y	USGS SRL235-2 ANT	0.00
OMNI-1	63P	OMNI ANT	0.00
OMNI-2	63X	OMNI ANT	0.00
OMNI-3	63XY	OMNI ANT	0.00
OMNI-4	63Y	OMNI ANT	0.00
OMNI-5	23P	OMNI ANT	0.00
OMNI-6	23X	OMNI ANT	0.00
OMNI-7	23XY	OMNI ANT	0.00
OMNI-8	23Y	OMNI ANT	0.00
OMNI-9	23P	OMNI ANT	0.00
OMNI-10	23X	OMNI ANT	0.00
OMNI-11	23XY	OMNI ANT	0.00
OMNI-12	23Y	OMNI ANT	0.00
TM-1	44P	T-MOBILE INSTALL 8 JTS	0.00
TM-2	44X	T-MOBILE INSTALL 8 JTS	0.00
TM-3	44XY	T-MOBILE INSTALL 8 JTS	0.00
TM-4	44Y	T-MOBILE INSTALL 8 JTS	0.00
TM-5	41P	T-MOBILE INSTALL 8 JTS	0.00
TM-6	41X	T-MOBILE INSTALL 8 JTS	0.00
TM-7	41XY	T-MOBILE INSTALL 8 JTS	0.00
TM-8	41Y	T-MOBILE INSTALL 8 JTS	0.00

Linear Appurtenances:

Description	From	To	Quantity	Shape	Width or Perimeter		Unit	In	Include in
					Diameter	Weight			
	(ft)	(ft)			(in)	(in)	(lbs/ft)	Zone	
CLIMBING LADDER	0	300	1	Flat	6	20	10	Yes	Yes
USCG COAX 1	3	280	2	Round	1.09	0	0.33	Yes	Yes
USCG COAX 2	3	255	2	Round	1.09	0	0.33	Yes	Yes
USCG COAX 3	3	220	2	Round	1.09	0	0.33	Yes	Yes
OMNI-1	3	300	1	Round	1.09	0	0.33	Yes	Yes
OMNI-2	3	100	2	Round	1.09	0	0.33	Yes	Yes
T-MOBILE-1	3	180	1	Round	2	0	1	Yes	Yes
T-MOBILE-2	3	180	3	Round	0.45	0	0.09	Yes	Yes

*** Loads Data

Equipment Load Case Information for "WIND 0 COMB 1":

Equipment Label	Equipment Property Set	Elevation Above Ground (ft)	qzGh (psf)	Ice Thick. (in)	Total Wind Area (ft^2)	Wind Incidence Angle (deg)	222-G CA	222-G CS	222-G CM	Antenna Axial Load (lbs)	Antenna Side Load (lbs)	Antenna Moment (ft-lbs)	Long. Load (lbs)	Trans. Load (lbs)	Vert. Load (lbs)
AP-1	ANTENNA PLATFORM	300.00	44.11	0.00	22.00	0.00							970.36	0.00	1188.00
AP-2	ANTENNA PLATFORM	300.00	44.11	0.00	22.00	0.00							970.36	0.00	1188.00
AP-3	ANTENNA PLATFORM	300.00	44.11	0.00	22.00	0.00							970.36	0.00	1188.00
AP-4	ANTENNA PLATFORM	300.00	44.11	0.00	22.00	0.00							970.36	0.00	1188.00
ACP-1	ACCESS PLATFORM	285.00	43.47	0.00	13.00	0.00							565.06	0.00	639.60
ACP-2	ACCESS PLATFORM	285.00	43.47	0.00	13.00	0.00							565.06	0.00	639.60
ACP-3	ACCESS PLATFORM	285.00	43.47	0.00	13.00	0.00							565.06	0.00	639.60
ACP-4	ACCESS PLATFORM	285.00	43.47	0.00	13.00	0.00							565.06	0.00	639.60
LP1-1	LIGHT PLATFORM 1	220.00	40.37	0.00	4.00	0.00							161.47	0.00	180.00
LP1-2	LIGHT PLATFORM 1	220.00	40.37	0.00	4.00	0.00							161.47	0.00	180.00
LP1-3	LIGHT PLATFORM 1	220.00	40.37	0.00	4.00	0.00							161.47	0.00	180.00
LP1-4	LIGHT PLATFORM 1	220.00	40.37	0.00	4.00	0.00							161.47	0.00	180.00
LP2-1	LIGHT PLATFORM 2	87.50	31.02	0.00	5.00	0.00							155.09	0.00	240.00
LP2-2	LIGHT PLATFORM 2	87.50	31.02	0.00	5.00	0.00							155.09	0.00	240.00
LP2-3	LIGHT PLATFORM 2	87.50	31.02	0.00	5.00	0.00							155.09	0.00	240.00
LP2-4	LIGHT PLATFORM 2	87.50	31.02	0.00	5.00	0.00							155.09	0.00	240.00
USCG-1	USCG ADD090S ANT	280.00	43.25	0.00	10.00	0.00							432.47	0.00	120.00
USCG-2	USCG ADD090S ANT	280.00	43.25	0.00	10.00	0.00							432.47	0.00	120.00
USCG-3	USCG ADD090S ANT	280.00	43.25	0.00	10.00	0.00							432.47	0.00	120.00
USCG-4	USCG ADD090S ANT	280.00	43.25	0.00	10.00	0.00							432.47	0.00	120.00
USCG-5	USGS SRL235-2 ANT	260.00	42.34	0.00	5.00	0.00							211.70	0.00	90.00
USCG-6	USGS SRL235-2 ANT	260.00	42.34	0.00	5.00	0.00							211.70	0.00	90.00
USCG-7	USGS SRL235-2 ANT	260.00	42.34	0.00	5.00	0.00							211.70	0.00	90.00
USCG-8	USGS SRL235-2 ANT	260.00	42.34	0.00	5.00	0.00							211.70	0.00	90.00
USCG-9	USGS SRL335-2 ANT	250.00	41.87	0.00	5.00	0.00							209.34	0.00	90.00
USCG-10	USGS SRL335-2 ANT	250.00	41.87	0.00	5.00	0.00							209.34	0.00	90.00
USCG-11	USGS SRL335-2 ANT	250.00	41.87	0.00	5.00	0.00							209.34	0.00	90.00
USCG-12	USGS SRL335-2 ANT	250.00	41.87	0.00	5.00	0.00							209.34	0.00	90.00
USCG-13	USGS SRL235-2 ANT	220.00	40.37	0.00	5.00	0.00							201.84	0.00	90.00
USCG-14	USGS SRL235-2 ANT	220.00	40.37	0.00	5.00	0.00							201.84	0.00	90.00
USCG-15	USGS SRL235-2 ANT	220.00	40.37	0.00	5.00	0.00							201.84	0.00	90.00
USCG-16	USGS SRL235-2 ANT	220.00	40.37	0.00	5.00	0.00							201.84	0.00	90.00
OMNI-1	OMNI ANT	300.00	44.11	0.00	2.00	0.00							88.21	0.00	12.00
OMNI-2	OMNI ANT	300.00	44.11	0.00	2.00	0.00							88.21	0.00	12.00
OMNI-3	OMNI ANT	300.00	44.11	0.00	2.00	0.00							88.21	0.00	12.00
OMNI-4	OMNI ANT	300.00	44.11	0.00	2.00	0.00							88.21	0.00	12.00
OMNI-5	OMNI ANT	100.00	32.22	0.00	2.00	0.00							64.45	0.00	12.00
OMNI-6	OMNI ANT	100.00	32.22	0.00	2.00	0.00							64.45	0.00	12.00
OMNI-7	OMNI ANT	100.00	32.22	0.00	2.00	0.00							64.45	0.00	12.00
OMNI-8	OMNI ANT	100.00	32.22	0.00	2.00	0.00							64.45	0.00	12.00
OMNI-9	OMNI ANT	100.00	32.22	0.00	2.00	0.00							64.45	0.00	12.00
OMNI-10	OMNI ANT	100.00	32.22	0.00	2.00	0.00							64.45	0.00	12.00
OMNI-11	OMNI ANT	100.00	32.22	0.00	2.00	0.00							64.45	0.00	12.00
OMNI-12	OMNI ANT	100.00	32.22	0.00	2.00	0.00							64.45	0.00	12.00
TM-1	T-MOBILE INSTALL 8 JTS	187.50	38.56	0.00	14.50	0.00							559.19	0.00	180.00

TM-2	T-MOBILE	INSTALL	8	JTS	187.50	38.56	0.00	14.50	0.00							559.19	0.00	180.00
TM-3	T-MOBILE	INSTALL	8	JTS	187.50	38.56	0.00	14.50	0.00							559.19	0.00	180.00
TM-4	T-MOBILE	INSTALL	8	JTS	187.50	38.56	0.00	14.50	0.00							559.19	0.00	180.00
TM-5	T-MOBILE	INSTALL	8	JTS	175.00	37.81	0.00	14.50	0.00							548.28	0.00	180.00
TM-6	T-MOBILE	INSTALL	8	JTS	175.00	37.81	0.00	14.50	0.00							548.28	0.00	180.00
TM-7	T-MOBILE	INSTALL	8	JTS	175.00	37.81	0.00	14.50	0.00							548.28	0.00	180.00
TM-8	T-MOBILE	INSTALL	8	JTS	175.00	37.81	0.00	14.50	0.00							548.28	0.00	180.00

EIA Section Load Case Information for "WIND 0 COMB 1":

Note: qzGh (adjusted wind pressure) includes: Velocity Pressure Coefficient (Kz), Topographic Factor (Kzt), Gust Effect Factor (Gh), Wind Direction Probability Factor (Kd), Wind Importance Factor (Table 2-3), Wind Load Factor (from Loads/EIA Loads)
Face RR is the minimum round reduction factor for all round angles and appurtenances in the section

Section Label	Z of Top (ft)	Z of Bottom (ft)	Ave. Elev. Above Gnd. (ft)	qzGh (psf)	Ice Thick. (in)	Face AF (ft^2)	Face AR (ft^2)	Face RR*AR (ft^2)	Face AG (ft^2)	Face e	Face DF	Face DR	Face RR	Face CF	Face AE (ft^2)	Face WF (lbs)	NotF AAF (ft^2)	NotF CAF (ft^2)	NotF AAR (ft^2)	NotF CAR (ft^2)	NotF AAR*CAR (ft^2)	NotF WA (lbs)	Total Wind (lbs)	Total Weight (lbs)
1	300.00	285.00	292.50	43.79	0.00	28.51	0.00	0.00	90.0	0.32	1.00	1.00	0.52	2.53	28.5	3162	7.50	2.00	0.82	0.63	0.98	700	3862	7392
2	285.00	260.00	272.50	42.91	0.00	42.90	0.00	0.00	171.5	0.25	1.00	1.00	0.52	2.77	42.9	5108	12.50	2.00	3.54	0.64	4.25	1255	6363	7027
3	260.00	240.00	250.00	41.87	0.00	41.95	0.00	0.00	169.0	0.25	1.00	1.00	0.49	2.78	41.9	4886	10.00	2.00	4.91	0.65	5.89	1084	5970	5571
4	240.00	220.00	230.00	40.88	0.00	44.15	0.00	0.00	198.1	0.22	1.00	1.00	0.48	2.88	44.1	5205	10.00	2.00	5.45	0.65	6.54	1085	6290	6036
5	220.00	200.00	210.00	39.83	0.00	46.47	0.00	0.00	227.3	0.20	1.00	1.00	0.47	2.96	46.5	5481	10.00	2.00	7.63	0.66	9.16	1161	6642	6998
6	200.00	175.00	187.50	38.56	0.00	50.98	0.00	0.00	325.1	0.16	1.00	1.00	0.45	3.17	51.0	6238	12.50	2.00	10.37	0.67	12.45	1444	7683	10463
7	175.00	150.00	162.50	37.02	0.00	60.28	0.00	0.00	370.7	0.16	1.00	1.00	0.43	3.15	60.3	7021	12.50	2.00	13.73	0.69	16.47	1535	8556	10967
8	150.00	125.00	137.50	35.29	0.00	61.64	0.00	0.00	416.3	0.15	1.00	1.00	0.42	3.21	61.6	6992	12.50	2.00	13.72	0.70	16.47	1464	8456	13389
9	125.00	100.00	112.50	33.33	0.00	62.49	0.00	0.00	461.9	0.14	1.00	1.00	0.41	3.27	62.5	6820	12.50	2.00	13.73	0.72	16.47	1382	8203	15286
10	100.00	75.00	87.50	31.02	0.00	63.90	0.00	0.00	507.4	0.13	1.00	1.00	0.41	3.32	63.9	6582	12.50	2.00	16.45	0.75	19.74	1388	7969	16219
11	75.00	50.00	62.50	28.18	0.00	67.05	0.00	0.00	553.0	0.12	1.00	1.00	0.40	3.34	67.1	6317	12.50	2.00	16.45	0.79	19.74	1261	7577	17695
12	50.00	25.00	37.50	24.35	0.00	68.56	0.00	0.00	598.6	0.11	1.00	1.00	0.42	3.38	68.6	5637	12.50	2.00	16.45	0.85	19.74	1089	6727	20638
13	25.00	0.00	12.50	22.83	0.00	68.37	0.00	0.00	644.2	0.11	1.00	1.00	0.43	3.42	68.4	5335	12.50	2.00	14.48	0.87	17.37	967	6303	21100

Equipment Load Case Information for "WIND 45 COMB 1":

Equipment Label	Equipment Property Set	Elevation Above Ground (ft)	qzGh (psf)	Ice Thick. (in)	Total Wind Area (ft^2)	Wind Incidence Angle (deg)	222-G CA	222-G CS	222-G CM	Antenna Axial Load (lbs)	Antenna Side Load (lbs)	Antenna Moment (ft-lbs)	Long. Load (lbs)	Trans. Load (lbs)	Vert. Load (lbs)
AP-1	ANTENNA PLATFORM	300.00	44.11	0.00	22.00	315.00							686.15	686.15	1188.00
AP-2	ANTENNA PLATFORM	300.00	44.11	0.00	22.00	315.00							686.15	686.15	1188.00
AP-3	ANTENNA PLATFORM	300.00	44.11	0.00	22.00	315.00							686.15	686.15	1188.00
AP-4	ANTENNA PLATFORM	300.00	44.11	0.00	22.00	315.00							686.15	686.15	1188.00
ACP-1	ACCESS PLATFORM	285.00	43.47	0.00	13.00	315.00							399.55	399.55	639.60
ACP-2	ACCESS PLATFORM	285.00	43.47	0.00	13.00	315.00							399.55	399.55	639.60
ACP-3	ACCESS PLATFORM	285.00	43.47	0.00	13.00	315.00							399.55	399.55	639.60
ACP-4	ACCESS PLATFORM	285.00	43.47	0.00	13.00	315.00							399.55	399.55	639.60
LP1-1	LIGHT PLATFORM 1	220.00	40.37	0.00	4.00	315.00							114.18	114.18	180.00
LP1-2	LIGHT PLATFORM 1	220.00	40.37	0.00	4.00	315.00							114.18	114.18	180.00
LP1-3	LIGHT PLATFORM 1	220.00	40.37	0.00	4.00	315.00							114.18	114.18	180.00
LP1-4	LIGHT PLATFORM 1	220.00	40.37	0.00	4.00	315.00							114.18	114.18	180.00
LP2-1	LIGHT PLATFORM 2	87.50	31.02	0.00	5.00	315.00							109.67	109.67	240.00
LP2-2	LIGHT PLATFORM 2	87.50	31.02	0.00	5.00	315.00							109.67	109.67	240.00
LP2-3	LIGHT PLATFORM 2	87.50	31.02	0.00	5.00	315.00							109.67	109.67	240.00
LP2-4	LIGHT PLATFORM 2	87.50	31.02	0.00	5.00	315.00							109.67	109.67	240.00

USCG-1	USCG ADD090S ANT	280.00	43.25	0.00	10.00	315.00	305.80	305.80	120.00
USCG-2	USCG ADD090S ANT	280.00	43.25	0.00	10.00	315.00	305.80	305.80	120.00
USCG-3	USCG ADD090S ANT	280.00	43.25	0.00	10.00	315.00	305.80	305.80	120.00
USCG-4	USCG ADD090S ANT	280.00	43.25	0.00	10.00	315.00	305.80	305.80	120.00
USCG-5	USGS SRL235-2 ANT	260.00	42.34	0.00	5.00	315.00	149.70	149.70	90.00
USCG-6	USGS SRL235-2 ANT	260.00	42.34	0.00	5.00	315.00	149.70	149.70	90.00
USCG-7	USGS SRL235-2 ANT	260.00	42.34	0.00	5.00	315.00	149.70	149.70	90.00
USCG-8	USGS SRL235-2 ANT	260.00	42.34	0.00	5.00	315.00	149.70	149.70	90.00
USCG-9	USGS SRL335-2 ANT	250.00	41.87	0.00	5.00	315.00	148.03	148.03	90.00
USCG-10	USGS SRL335-2 ANT	250.00	41.87	0.00	5.00	315.00	148.03	148.03	90.00
USCG-11	USGS SRL335-2 ANT	250.00	41.87	0.00	5.00	315.00	148.03	148.03	90.00
USCG-12	USGS SRL335-2 ANT	250.00	41.87	0.00	5.00	315.00	148.03	148.03	90.00
USCG-13	USGS SRL235-2 ANT	220.00	40.37	0.00	5.00	315.00	142.72	142.72	90.00
USCG-14	USGS SRL235-2 ANT	220.00	40.37	0.00	5.00	315.00	142.72	142.72	90.00
USCG-15	USGS SRL235-2 ANT	220.00	40.37	0.00	5.00	315.00	142.72	142.72	90.00
USCG-16	USGS SRL235-2 ANT	220.00	40.37	0.00	5.00	315.00	142.72	142.72	90.00
OMNI-1	OMNI ANT	300.00	44.11	0.00	2.00	315.00	62.38	62.38	12.00
OMNI-2	OMNI ANT	300.00	44.11	0.00	2.00	315.00	62.38	62.38	12.00
OMNI-3	OMNI ANT	300.00	44.11	0.00	2.00	315.00	62.38	62.38	12.00
OMNI-4	OMNI ANT	300.00	44.11	0.00	2.00	315.00	62.38	62.38	12.00
OMNI-5	OMNI ANT	100.00	32.22	0.00	2.00	315.00	45.57	45.57	12.00
OMNI-6	OMNI ANT	100.00	32.22	0.00	2.00	315.00	45.57	45.57	12.00
OMNI-7	OMNI ANT	100.00	32.22	0.00	2.00	315.00	45.57	45.57	12.00
OMNI-8	OMNI ANT	100.00	32.22	0.00	2.00	315.00	45.57	45.57	12.00
OMNI-9	OMNI ANT	100.00	32.22	0.00	2.00	315.00	45.57	45.57	12.00
OMNI-10	OMNI ANT	100.00	32.22	0.00	2.00	315.00	45.57	45.57	12.00
OMNI-11	OMNI ANT	100.00	32.22	0.00	2.00	315.00	45.57	45.57	12.00
OMNI-12	OMNI ANT	100.00	32.22	0.00	2.00	315.00	45.57	45.57	12.00
TM-1	T-MOBILE INSTALL 8 JTS	187.50	38.56	0.00	14.50	315.00	395.41	395.41	180.00
TM-2	T-MOBILE INSTALL 8 JTS	187.50	38.56	0.00	14.50	315.00	395.41	395.41	180.00
TM-3	T-MOBILE INSTALL 8 JTS	187.50	38.56	0.00	14.50	315.00	395.41	395.41	180.00
TM-4	T-MOBILE INSTALL 8 JTS	187.50	38.56	0.00	14.50	315.00	395.41	395.41	180.00
TM-5	T-MOBILE INSTALL 8 JTS	175.00	37.81	0.00	14.50	315.00	387.69	387.69	180.00
TM-6	T-MOBILE INSTALL 8 JTS	175.00	37.81	0.00	14.50	315.00	387.69	387.69	180.00
TM-7	T-MOBILE INSTALL 8 JTS	175.00	37.81	0.00	14.50	315.00	387.69	387.69	180.00
TM-8	T-MOBILE INSTALL 8 JTS	175.00	37.81	0.00	14.50	315.00	387.69	387.69	180.00

EIA Section Load Case Information for "WIND 45 COMB 1":

Note: qzGh (adjusted wind pressure) includes: Velocity Pressure Coefficient (Kz), Topographic Factor (Kzt), Gust Effect Factor (Gh), Wind Direction Probability Factor (Kd), Wind Importance Factor (Table 2-3), Wind Load Factor (from Loads/EIA Loads)
Face RR is the minimum round reduction factor for all round angles and appurtenances in the section

Section Label	Z of Top (ft)	Z of Bottom (ft)	Ave. Elev. Above Gnd. (ft)	qzGh (psf)	Ice Thick. (in)	Face AF (ft^2)	Face AR (ft^2)	Face RR*AR (ft^2)	Face AG (ft^2)	Face e	Face DF	Face DR	Face RR	Face CF	Face AE (ft^2)	Face WF (lbs)	NotF AAF (ft^2)	NotF CAF	NotF AAR (ft^2)	NotF CAR	NotF AAR*CAR (ft^2)	NotF WA (lbs)	Total Wind (lbs)	Total Weight (lbs)
1	300.00	285.00	292.50	43.79	0.00	28.51	0.00	0.00	90.0	0.32	1.20	1.20	0.52	2.53	34.2	3794	7.50	2.00	0.82	0.63	0.98	700	4494	7392
2	285.00	260.00	272.50	42.91	0.00	42.90	0.00	0.00	171.5	0.25	1.19	1.19	0.52	2.77	51.0	6066	12.50	2.00	3.54	0.64	4.25	1255	7322	7027
3	260.00	240.00	250.00	41.87	0.00	41.95	0.00	0.00	169.0	0.25	1.19	1.19	0.49	2.78	49.8	5796	10.00	2.00	4.91	0.65	5.89	1084	6879	5571
4	240.00	220.00	230.00	40.88	0.00	44.15	0.00	0.00	198.1	0.22	1.17	1.17	0.48	2.88	51.5	6075	10.00	2.00	5.45	0.65	6.54	1085	7160	6036
5	220.00	200.00	210.00	39.83	0.00	46.47	0.00	0.00	227.3	0.20	1.15	1.15	0.47	2.96	53.6	6321	10.00	2.00	7.63	0.66	9.16	1161	7482	6998
6	200.00	175.00	187.50	38.56	0.00	50.98	0.00	0.00	325.1	0.16	1.12	1.12	0.45	3.17	57.0	6972	12.50	2.00	10.37	0.67	12.45	1444	8416	10463
7	175.00	150.00	162.50	37.02	0.00	60.28	0.00	0.00	370.7	0.16	1.12	1.12	0.43	3.15	67.6	7877	12.50	2.00	13.73	0.69	16.47	1535	9412	10967
8	150.00	125.00	137.50	35.29	0.00	61.64	0.00	0.00	416.3	0.15	1.11	1.11	0.42	3.21	68.5	7768	12.50	2.00	13.72	0.70	16.47	1464	9232	13389

9	125.00	100.00	112.50	33.33	0.00	62.49	0.00	0.00	461.9	0.14	1.10	1.10	0.41	3.27	68.8	7513	12.50	2.00	13.73	0.72	16.47	1382	8895	15286
10	100.00	75.00	87.50	31.02	0.00	63.90	0.00	0.00	507.4	0.13	1.09	1.09	0.41	3.32	69.9	7203	12.50	2.00	16.45	0.75	19.74	1388	8591	16219
11	75.00	50.00	62.50	28.18	0.00	67.05	0.00	0.00	553.0	0.12	1.09	1.09	0.40	3.34	73.2	6891	12.50	2.00	16.45	0.79	19.74	1261	8152	17695
12	50.00	25.00	37.50	24.35	0.00	68.56	0.00	0.00	598.6	0.11	1.09	1.09	0.42	3.38	74.5	6121	12.50	2.00	16.45	0.85	19.74	1089	7211	20638
13	25.00	0.00	12.50	22.83	0.00	68.37	0.00	0.00	644.2	0.11	1.08	1.08	0.43	3.42	73.8	5760	12.50	2.00	14.48	0.87	17.37	967	6727	21100

Equipment Load Case Information for "WIND 0 COMB 2":

Equipment Label	Equipment Property Set	Elevation Above Ground (ft)	qzGh (psf)	Ice Thick. (in)	Total Wind Area (ft^2)	Wind Incidence Angle (deg)	222-G CA	222-G CS	222-G CM	Antenna Axial Load (lbs)	Antenna Side Load (lbs)	Antenna Moment (ft-lbs)	Long. Load (lbs)	Trans. Load (lbs)	Vert. Load (lbs)
AP-1	ANTENNA PLATFORM	300.00	44.11	0.00	22.00	0.00							970.36	0.00	891.00
AP-2	ANTENNA PLATFORM	300.00	44.11	0.00	22.00	0.00							970.36	0.00	891.00
AP-3	ANTENNA PLATFORM	300.00	44.11	0.00	22.00	0.00							970.36	0.00	891.00
AP-4	ANTENNA PLATFORM	300.00	44.11	0.00	22.00	0.00							970.36	0.00	891.00
ACP-1	ACCESS PLATFORM	285.00	43.47	0.00	13.00	0.00							565.06	0.00	479.70
ACP-2	ACCESS PLATFORM	285.00	43.47	0.00	13.00	0.00							565.06	0.00	479.70
ACP-3	ACCESS PLATFORM	285.00	43.47	0.00	13.00	0.00							565.06	0.00	479.70
ACP-4	ACCESS PLATFORM	285.00	43.47	0.00	13.00	0.00							565.06	0.00	479.70
LP1-1	LIGHT PLATFORM 1	220.00	40.37	0.00	4.00	0.00							161.47	0.00	135.00
LP1-2	LIGHT PLATFORM 1	220.00	40.37	0.00	4.00	0.00							161.47	0.00	135.00
LP1-3	LIGHT PLATFORM 1	220.00	40.37	0.00	4.00	0.00							161.47	0.00	135.00
LP1-4	LIGHT PLATFORM 1	220.00	40.37	0.00	4.00	0.00							161.47	0.00	135.00
LP2-1	LIGHT PLATFORM 2	87.50	31.02	0.00	5.00	0.00							155.09	0.00	180.00
LP2-2	LIGHT PLATFORM 2	87.50	31.02	0.00	5.00	0.00							155.09	0.00	180.00
LP2-3	LIGHT PLATFORM 2	87.50	31.02	0.00	5.00	0.00							155.09	0.00	180.00
LP2-4	LIGHT PLATFORM 2	87.50	31.02	0.00	5.00	0.00							155.09	0.00	180.00
USCG-1	USCG ADD090S ANT	280.00	43.25	0.00	10.00	0.00							432.47	0.00	90.00
USCG-2	USCG ADD090S ANT	280.00	43.25	0.00	10.00	0.00							432.47	0.00	90.00
USCG-3	USCG ADD090S ANT	280.00	43.25	0.00	10.00	0.00							432.47	0.00	90.00
USCG-4	USCG ADD090S ANT	280.00	43.25	0.00	10.00	0.00							432.47	0.00	90.00
USCG-5	USGS SRL235-2 ANT	260.00	42.34	0.00	5.00	0.00							211.70	0.00	67.50
USCG-6	USGS SRL235-2 ANT	260.00	42.34	0.00	5.00	0.00							211.70	0.00	67.50
USCG-7	USGS SRL235-2 ANT	260.00	42.34	0.00	5.00	0.00							211.70	0.00	67.50
USCG-8	USGS SRL235-2 ANT	260.00	42.34	0.00	5.00	0.00							211.70	0.00	67.50
USCG-9	USGS SRL335-2 ANT	250.00	41.87	0.00	5.00	0.00							209.34	0.00	67.50
USCG-10	USGS SRL335-2 ANT	250.00	41.87	0.00	5.00	0.00							209.34	0.00	67.50
USCG-11	USGS SRL335-2 ANT	250.00	41.87	0.00	5.00	0.00							209.34	0.00	67.50
USCG-12	USGS SRL335-2 ANT	250.00	41.87	0.00	5.00	0.00							209.34	0.00	67.50
USCG-13	USGS SRL235-2 ANT	220.00	40.37	0.00	5.00	0.00							201.84	0.00	67.50
USCG-14	USGS SRL235-2 ANT	220.00	40.37	0.00	5.00	0.00							201.84	0.00	67.50
USCG-15	USGS SRL235-2 ANT	220.00	40.37	0.00	5.00	0.00							201.84	0.00	67.50
USCG-16	USGS SRL235-2 ANT	220.00	40.37	0.00	5.00	0.00							201.84	0.00	67.50
OMNI-1	OMNI ANT	300.00	44.11	0.00	2.00	0.00							88.21	0.00	9.00
OMNI-2	OMNI ANT	300.00	44.11	0.00	2.00	0.00							88.21	0.00	9.00
OMNI-3	OMNI ANT	300.00	44.11	0.00	2.00	0.00							88.21	0.00	9.00
OMNI-4	OMNI ANT	300.00	44.11	0.00	2.00	0.00							88.21	0.00	9.00
OMNI-5	OMNI ANT	100.00	32.22	0.00	2.00	0.00							64.45	0.00	9.00
OMNI-6	OMNI ANT	100.00	32.22	0.00	2.00	0.00							64.45	0.00	9.00
OMNI-7	OMNI ANT	100.00	32.22	0.00	2.00	0.00							64.45	0.00	9.00
OMNI-8	OMNI ANT	100.00	32.22	0.00	2.00	0.00							64.45	0.00	9.00
OMNI-9	OMNI ANT	100.00	32.22	0.00	2.00	0.00							64.45	0.00	9.00
OMNI-10	OMNI ANT	100.00	32.22	0.00	2.00	0.00							64.45	0.00	9.00

OMNI-11	OMNI ANT	100.00	32.22	0.00	2.00	0.00													64.45	0.00	9.00
OMNI-12	OMNI ANT	100.00	32.22	0.00	2.00	0.00													64.45	0.00	9.00
TM-1	T-MOBILE INSTALL 8 JTS	187.50	38.56	0.00	14.50	0.00													559.19	0.00	135.00
TM-2	T-MOBILE INSTALL 8 JTS	187.50	38.56	0.00	14.50	0.00													559.19	0.00	135.00
TM-3	T-MOBILE INSTALL 8 JTS	187.50	38.56	0.00	14.50	0.00													559.19	0.00	135.00
TM-4	T-MOBILE INSTALL 8 JTS	187.50	38.56	0.00	14.50	0.00													559.19	0.00	135.00
TM-5	T-MOBILE INSTALL 8 JTS	175.00	37.81	0.00	14.50	0.00													548.28	0.00	135.00
TM-6	T-MOBILE INSTALL 8 JTS	175.00	37.81	0.00	14.50	0.00													548.28	0.00	135.00
TM-7	T-MOBILE INSTALL 8 JTS	175.00	37.81	0.00	14.50	0.00													548.28	0.00	135.00
TM-8	T-MOBILE INSTALL 8 JTS	175.00	37.81	0.00	14.50	0.00													548.28	0.00	135.00

EIA Section Load Case Information for "WIND 0 COMB 2":

Note: qzGh (adjusted wind pressure) includes: Velocity Pressure Coefficient (Kz), Topographic Factor (Kzt), Gust Effect Factor (Gh), Wind Direction Probability Factor (Kd), Wind Importance Factor (Table 2-3), Wind Load Factor (from Loads/EIA Loads)
Face RR is the minimum round reduction factor for all round angles and appurtenances in the section

Section Label	Z of Top (ft)	Z of Bottom (ft)	Ave. Elev. Above Gnd. (ft)	qzGh (psf)	Ice Thick. (in)	Face AF (ft^2)	Face AR (ft^2)	Face RR*AR (ft^2)	Face AG (ft^2)	Face e	Face DF	Face DR	Face RR	Face CF	Face AE (ft^2)	Face WF (lbs)	NotF AAF (ft^2)	NotF CAF	NotF AAR (ft^2)	NotF CAR	NotF AAR*CAR (ft^2)	NotF WA (lbs)	Total Wind (lbs)	Total Weight (lbs)
1	300.00	285.00	292.50	43.79	0.00	28.51	0.00	0.00	90.0	0.32	1.00	1.00	0.52	2.53	28.5	3162	7.50	2.00	0.82	0.63	0.98	700	3862	5544
2	285.00	260.00	272.50	42.91	0.00	42.90	0.00	0.00	171.5	0.25	1.00	1.00	0.52	2.77	42.9	5108	12.50	2.00	3.54	0.64	4.25	1255	6363	5270
3	260.00	240.00	250.00	41.87	0.00	41.95	0.00	0.00	169.0	0.25	1.00	1.00	0.49	2.78	41.9	4886	10.00	2.00	4.91	0.65	5.89	1084	5970	4178
4	240.00	220.00	230.00	40.88	0.00	44.15	0.00	0.00	198.1	0.22	1.00	1.00	0.48	2.88	44.1	5205	10.00	2.00	5.45	0.65	6.54	1085	6290	4527
5	220.00	200.00	210.00	39.83	0.00	46.47	0.00	0.00	227.3	0.20	1.00	1.00	0.47	2.96	46.5	5481	10.00	2.00	7.63	0.66	9.16	1161	6642	5248
6	200.00	175.00	187.50	38.56	0.00	50.98	0.00	0.00	325.1	0.16	1.00	1.00	0.45	3.17	51.0	6238	12.50	2.00	10.37	0.67	12.45	1444	7683	7847
7	175.00	150.00	162.50	37.02	0.00	60.28	0.00	0.00	370.7	0.16	1.00	1.00	0.43	3.15	60.3	7021	12.50	2.00	13.73	0.69	16.47	1535	8556	8225
8	150.00	125.00	137.50	35.29	0.00	61.64	0.00	0.00	416.3	0.15	1.00	1.00	0.42	3.21	61.6	6992	12.50	2.00	13.72	0.70	16.47	1464	8456	10042
9	125.00	100.00	112.50	33.33	0.00	62.49	0.00	0.00	461.9	0.14	1.00	1.00	0.41	3.27	62.5	6820	12.50	2.00	13.73	0.72	16.47	1382	8203	11465
10	100.00	75.00	87.50	31.02	0.00	63.90	0.00	0.00	507.4	0.13	1.00	1.00	0.41	3.32	63.9	6582	12.50	2.00	16.45	0.75	19.74	1388	7969	12165
11	75.00	50.00	62.50	28.18	0.00	67.05	0.00	0.00	553.0	0.12	1.00	1.00	0.40	3.34	67.1	6317	12.50	2.00	16.45	0.79	19.74	1261	7577	13271
12	50.00	25.00	37.50	24.35	0.00	68.56	0.00	0.00	598.6	0.11	1.00	1.00	0.42	3.38	68.6	5637	12.50	2.00	16.45	0.85	19.74	1089	6727	15478
13	25.00	0.00	12.50	22.83	0.00	68.37	0.00	0.00	644.2	0.11	1.00	1.00	0.43	3.42	68.4	5335	12.50	2.00	14.48	0.87	17.37	967	6303	15825

Equipment Load Case Information for "WIND 45 COMB 2":

Equipment Label	Equipment Property Set	Elevation Above Ground (ft)	qzGh (psf)	Ice Thick. (in)	Total Wind Area (ft^2)	Wind Incidence Angle (deg)	222-G CA	222-G CS	222-G CM	Antenna Axial Load (lbs)	Antenna Side Load (lbs)	Antenna Moment (ft-lbs)	Long. Load (lbs)	Trans. Load (lbs)	Vert. Load (lbs)
AP-1	ANTENNA PLATFORM	300.00	44.11	0.00	22.00	315.00							686.15	686.15	891.00
AP-2	ANTENNA PLATFORM	300.00	44.11	0.00	22.00	315.00							686.15	686.15	891.00
AP-3	ANTENNA PLATFORM	300.00	44.11	0.00	22.00	315.00							686.15	686.15	891.00
AP-4	ANTENNA PLATFORM	300.00	44.11	0.00	22.00	315.00							686.15	686.15	891.00
ACP-1	ACCESS PLATFORM	285.00	43.47	0.00	13.00	315.00							399.55	399.55	479.70
ACP-2	ACCESS PLATFORM	285.00	43.47	0.00	13.00	315.00							399.55	399.55	479.70
ACP-3	ACCESS PLATFORM	285.00	43.47	0.00	13.00	315.00							399.55	399.55	479.70
ACP-4	ACCESS PLATFORM	285.00	43.47	0.00	13.00	315.00							399.55	399.55	479.70
LP1-1	LIGHT PLATFORM 1	220.00	40.37	0.00	4.00	315.00							114.18	114.18	135.00
LP1-2	LIGHT PLATFORM 1	220.00	40.37	0.00	4.00	315.00							114.18	114.18	135.00
LP1-3	LIGHT PLATFORM 1	220.00	40.37	0.00	4.00	315.00							114.18	114.18	135.00
LP1-4	LIGHT PLATFORM 1	220.00	40.37	0.00	4.00	315.00							114.18	114.18	135.00
LP2-1	LIGHT PLATFORM 2	87.50	31.02	0.00	5.00	315.00							109.67	109.67	180.00

LP2-2	LIGHT PLATFORM 2	87.50	31.02	0.00	5.00	315.00																	109.67	109.67	180.00	
LP2-3	LIGHT PLATFORM 2	87.50	31.02	0.00	5.00	315.00																		109.67	109.67	180.00
LP2-4	LIGHT PLATFORM 2	87.50	31.02	0.00	5.00	315.00																		109.67	109.67	180.00
USCG-1	USCG ADD090S ANT	280.00	43.25	0.00	10.00	315.00																		305.80	305.80	90.00
USCG-2	USCG ADD090S ANT	280.00	43.25	0.00	10.00	315.00																		305.80	305.80	90.00
USCG-3	USCG ADD090S ANT	280.00	43.25	0.00	10.00	315.00																		305.80	305.80	90.00
USCG-4	USCG ADD090S ANT	280.00	43.25	0.00	10.00	315.00																		305.80	305.80	90.00
USCG-5	USGS SRL235-2 ANT	260.00	42.34	0.00	5.00	315.00																		149.70	149.70	67.50
USCG-6	USGS SRL235-2 ANT	260.00	42.34	0.00	5.00	315.00																		149.70	149.70	67.50
USCG-7	USGS SRL235-2 ANT	260.00	42.34	0.00	5.00	315.00																		149.70	149.70	67.50
USCG-8	USGS SRL235-2 ANT	260.00	42.34	0.00	5.00	315.00																		149.70	149.70	67.50
USCG-9	USGS SRL335-2 ANT	250.00	41.87	0.00	5.00	315.00																		148.03	148.03	67.50
USCG-10	USGS SRL335-2 ANT	250.00	41.87	0.00	5.00	315.00																		148.03	148.03	67.50
USCG-11	USGS SRL335-2 ANT	250.00	41.87	0.00	5.00	315.00																		148.03	148.03	67.50
USCG-12	USGS SRL335-2 ANT	250.00	41.87	0.00	5.00	315.00																		148.03	148.03	67.50
USCG-13	USGS SRL235-2 ANT	220.00	40.37	0.00	5.00	315.00																		142.72	142.72	67.50
USCG-14	USGS SRL235-2 ANT	220.00	40.37	0.00	5.00	315.00																		142.72	142.72	67.50
USCG-15	USGS SRL235-2 ANT	220.00	40.37	0.00	5.00	315.00																		142.72	142.72	67.50
USCG-16	USGS SRL235-2 ANT	220.00	40.37	0.00	5.00	315.00																		142.72	142.72	67.50
OMNI-1	OMNI ANT	300.00	44.11	0.00	2.00	315.00																		62.38	62.38	9.00
OMNI-2	OMNI ANT	300.00	44.11	0.00	2.00	315.00																		62.38	62.38	9.00
OMNI-3	OMNI ANT	300.00	44.11	0.00	2.00	315.00																		62.38	62.38	9.00
OMNI-4	OMNI ANT	300.00	44.11	0.00	2.00	315.00																		62.38	62.38	9.00
OMNI-5	OMNI ANT	100.00	32.22	0.00	2.00	315.00																		45.57	45.57	9.00
OMNI-6	OMNI ANT	100.00	32.22	0.00	2.00	315.00																		45.57	45.57	9.00
OMNI-7	OMNI ANT	100.00	32.22	0.00	2.00	315.00																		45.57	45.57	9.00
OMNI-8	OMNI ANT	100.00	32.22	0.00	2.00	315.00																		45.57	45.57	9.00
OMNI-9	OMNI ANT	100.00	32.22	0.00	2.00	315.00																		45.57	45.57	9.00
OMNI-10	OMNI ANT	100.00	32.22	0.00	2.00	315.00																		45.57	45.57	9.00
OMNI-11	OMNI ANT	100.00	32.22	0.00	2.00	315.00																		45.57	45.57	9.00
OMNI-12	OMNI ANT	100.00	32.22	0.00	2.00	315.00																		45.57	45.57	9.00
TM-1	T-MOBILE INSTALL 8 JTS	187.50	38.56	0.00	14.50	315.00																		395.41	395.41	135.00
TM-2	T-MOBILE INSTALL 8 JTS	187.50	38.56	0.00	14.50	315.00																		395.41	395.41	135.00
TM-3	T-MOBILE INSTALL 8 JTS	187.50	38.56	0.00	14.50	315.00																		395.41	395.41	135.00
TM-4	T-MOBILE INSTALL 8 JTS	187.50	38.56	0.00	14.50	315.00																		395.41	395.41	135.00
TM-5	T-MOBILE INSTALL 8 JTS	175.00	37.81	0.00	14.50	315.00																		387.69	387.69	135.00
TM-6	T-MOBILE INSTALL 8 JTS	175.00	37.81	0.00	14.50	315.00																		387.69	387.69	135.00
TM-7	T-MOBILE INSTALL 8 JTS	175.00	37.81	0.00	14.50	315.00																		387.69	387.69	135.00
TM-8	T-MOBILE INSTALL 8 JTS	175.00	37.81	0.00	14.50	315.00																		387.69	387.69	135.00

EIA Section Load Case Information for "WIND 45 COMB 2":

Note: qzGh (adjusted wind pressure) includes: Velocity Pressure Coefficient (Kz), Topographic Factor (Kzt), Gust Effect Factor (Gh), Wind Direction Probability Factor (Kd), Wind Importance Factor (Table 2-3), Wind Load Factor (from Loads/EIA Loads)
Face RR is the minimum round reduction factor for all round angles and appurtenances in the section

Section Label	Z of Top (ft)	Z of Bottom (ft)	Ave. Elev. Above Gnd. (ft)	qzGh (psf)	Ice Thick. (in)	Face AF (ft^2)	Face AR (ft^2)	Face RR*AR (ft^2)	Face AG (ft^2)	Face e	Face DF	Face DR	Face RR	Face CF	Face AE (ft^2)	Face WF (lbs)	NotF AAF (ft^2)	NotF CAF	NotF AAR (ft^2)	NotF CAR	NotF AAR*CAR (ft^2)	NotF WA (lbs)	Total Wind (lbs)	Total Weight (lbs)
1	300.00	285.00	292.50	43.79	0.00	28.51	0.00	0.00	90.0	0.32	1.20	1.20	0.52	2.53	34.2	3794	7.50	2.00	0.82	0.63	0.98	700	4494	5544
2	285.00	260.00	272.50	42.91	0.00	42.90	0.00	0.00	171.5	0.25	1.19	1.19	0.52	2.77	51.0	6066	12.50	2.00	3.54	0.64	4.25	1255	7322	5270
3	260.00	240.00	250.00	41.87	0.00	41.95	0.00	0.00	169.0	0.25	1.19	1.19	0.49	2.78	49.8	5796	10.00	2.00	4.91	0.65	5.89	1084	6879	4178
4	240.00	220.00	230.00	40.88	0.00	44.15	0.00	0.00	198.1	0.22	1.17	1.17	0.48	2.88	51.5	6075	10.00	2.00	5.45	0.65	6.54	1085	7160	4527
5	220.00	200.00	210.00	39.83	0.00	46.47	0.00	0.00	227.3	0.20	1.15	1.15	0.47	2.96	53.6	6321	10.00	2.00	7.63	0.66	9.16	1161	7482	5248

6	200.00	175.00	187.50	38.56	0.00	50.98	0.00	0.00	325.1	0.16	1.12	1.12	0.45	3.17	57.0	6972	12.50	2.00	10.37	0.67	12.45	1444	8416	7847
7	175.00	150.00	162.50	37.02	0.00	60.28	0.00	0.00	370.7	0.16	1.12	1.12	0.43	3.15	67.6	7877	12.50	2.00	13.73	0.69	16.47	1535	9412	8225
8	150.00	125.00	137.50	35.29	0.00	61.64	0.00	0.00	416.3	0.15	1.11	1.11	0.42	3.21	68.5	7768	12.50	2.00	13.72	0.70	16.47	1464	9232	10042
9	125.00	100.00	112.50	33.33	0.00	62.49	0.00	0.00	461.9	0.14	1.10	1.10	0.41	3.27	68.8	7513	12.50	2.00	13.73	0.72	16.47	1382	8895	11465
10	100.00	75.00	87.50	31.02	0.00	63.90	0.00	0.00	507.4	0.13	1.09	1.09	0.41	3.32	69.9	7203	12.50	2.00	16.45	0.75	19.74	1388	8591	12165
11	75.00	50.00	62.50	28.18	0.00	67.05	0.00	0.00	553.0	0.12	1.09	1.09	0.40	3.34	73.2	6891	12.50	2.00	16.45	0.79	19.74	1261	8152	13271
12	50.00	25.00	37.50	24.35	0.00	68.56	0.00	0.00	598.6	0.11	1.09	1.09	0.42	3.38	74.5	6121	12.50	2.00	16.45	0.85	19.74	1089	7211	15478
13	25.00	0.00	12.50	22.83	0.00	68.37	0.00	0.00	644.2	0.11	1.08	1.08	0.43	3.42	73.8	5760	12.50	2.00	14.48	0.87	17.37	967	6727	15825

Equipment Load Case Information for "WIND 0 ICE COMB 3":

Equipment Label	Equipment Property Set	Elevation Above Ground (ft)	qzGh (psf)	Ice Thick. (in)	Total Wind Area (ft^2)	Wind Incidence Angle (deg)	222-G CA	222-G CS	222-G CM	Antenna Axial Load (lbs)	Antenna Side Load (lbs)	Antenna Moment (ft-lbs)	Long. Load (lbs)	Trans. Load (lbs)	Vert. Load (lbs)
AP-1	ANTENNA PLATFORM	300.00	6.25	1.87	22.00	0.00							137.52	0.00	1188.00
AP-2	ANTENNA PLATFORM	300.00	6.25	1.87	22.00	0.00							137.52	0.00	1188.00
AP-3	ANTENNA PLATFORM	300.00	6.25	1.87	22.00	0.00							137.52	0.00	1188.00
AP-4	ANTENNA PLATFORM	300.00	6.25	1.87	22.00	0.00							137.52	0.00	1188.00
ACP-1	ACCESS PLATFORM	285.00	6.16	1.86	13.00	0.00							80.08	0.00	639.60
ACP-2	ACCESS PLATFORM	285.00	6.16	1.86	13.00	0.00							80.08	0.00	639.60
ACP-3	ACCESS PLATFORM	285.00	6.16	1.86	13.00	0.00							80.08	0.00	639.60
ACP-4	ACCESS PLATFORM	285.00	6.16	1.86	13.00	0.00							80.08	0.00	639.60
LP1-1	LIGHT PLATFORM 1	220.00	5.72	1.81	4.00	0.00							22.88	0.00	180.00
LP1-2	LIGHT PLATFORM 1	220.00	5.72	1.81	4.00	0.00							22.88	0.00	180.00
LP1-3	LIGHT PLATFORM 1	220.00	5.72	1.81	4.00	0.00							22.88	0.00	180.00
LP1-4	LIGHT PLATFORM 1	220.00	5.72	1.81	4.00	0.00							22.88	0.00	180.00
LP2-1	LIGHT PLATFORM 2	87.50	4.40	1.65	5.00	0.00							21.98	0.00	240.00
LP2-2	LIGHT PLATFORM 2	87.50	4.40	1.65	5.00	0.00							21.98	0.00	240.00
LP2-3	LIGHT PLATFORM 2	87.50	4.40	1.65	5.00	0.00							21.98	0.00	240.00
LP2-4	LIGHT PLATFORM 2	87.50	4.40	1.65	5.00	0.00							21.98	0.00	240.00
USCG-1	USCG ADD090S ANT	280.00	6.13	1.86	10.00	0.00							61.29	0.00	120.00
USCG-2	USCG ADD090S ANT	280.00	6.13	1.86	10.00	0.00							61.29	0.00	120.00
USCG-3	USCG ADD090S ANT	280.00	6.13	1.86	10.00	0.00							61.29	0.00	120.00
USCG-4	USCG ADD090S ANT	280.00	6.13	1.86	10.00	0.00							61.29	0.00	120.00
USCG-5	USGS SRL235-2 ANT	260.00	6.00	1.84	5.00	0.00							30.00	0.00	90.00
USCG-6	USGS SRL235-2 ANT	260.00	6.00	1.84	5.00	0.00							30.00	0.00	90.00
USCG-7	USGS SRL235-2 ANT	260.00	6.00	1.84	5.00	0.00							30.00	0.00	90.00
USCG-8	USGS SRL235-2 ANT	260.00	6.00	1.84	5.00	0.00							30.00	0.00	90.00
USCG-9	USGS SRL335-2 ANT	250.00	5.93	1.84	5.00	0.00							29.67	0.00	90.00
USCG-10	USGS SRL335-2 ANT	250.00	5.93	1.84	5.00	0.00							29.67	0.00	90.00
USCG-11	USGS SRL335-2 ANT	250.00	5.93	1.84	5.00	0.00							29.67	0.00	90.00
USCG-12	USGS SRL335-2 ANT	250.00	5.93	1.84	5.00	0.00							29.67	0.00	90.00
USCG-13	USGS SRL235-2 ANT	220.00	5.72	1.81	5.00	0.00							28.60	0.00	90.00
USCG-14	USGS SRL235-2 ANT	220.00	5.72	1.81	5.00	0.00							28.60	0.00	90.00
USCG-15	USGS SRL235-2 ANT	220.00	5.72	1.81	5.00	0.00							28.60	0.00	90.00
USCG-16	USGS SRL235-2 ANT	220.00	5.72	1.81	5.00	0.00							28.60	0.00	90.00
OMNI-1	OMNI ANT	300.00	6.25	1.87	2.00	0.00							12.50	0.00	12.00
OMNI-2	OMNI ANT	300.00	6.25	1.87	2.00	0.00							12.50	0.00	12.00
OMNI-3	OMNI ANT	300.00	6.25	1.87	2.00	0.00							12.50	0.00	12.00
OMNI-4	OMNI ANT	300.00	6.25	1.87	2.00	0.00							12.50	0.00	12.00
OMNI-5	OMNI ANT	100.00	4.57	1.68	2.00	0.00							9.13	0.00	12.00
OMNI-6	OMNI ANT	100.00	4.57	1.68	2.00	0.00							9.13	0.00	12.00
OMNI-7	OMNI ANT	100.00	4.57	1.68	2.00	0.00							9.13	0.00	12.00

OMNI-8	OMNI ANT	100.00	4.57	1.68	2.00	0.00										9.13	0.00	12.00
OMNI-9	OMNI ANT	100.00	4.57	1.68	2.00	0.00										9.13	0.00	12.00
OMNI-10	OMNI ANT	100.00	4.57	1.68	2.00	0.00										9.13	0.00	12.00
OMNI-11	OMNI ANT	100.00	4.57	1.68	2.00	0.00										9.13	0.00	12.00
OMNI-12	OMNI ANT	100.00	4.57	1.68	2.00	0.00										9.13	0.00	12.00
TM-1	T-MOBILE INSTALL 8 JTS	187.50	5.47	1.78	14.50	0.00										79.25	0.00	180.00
TM-2	T-MOBILE INSTALL 8 JTS	187.50	5.47	1.78	14.50	0.00										79.25	0.00	180.00
TM-3	T-MOBILE INSTALL 8 JTS	187.50	5.47	1.78	14.50	0.00										79.25	0.00	180.00
TM-4	T-MOBILE INSTALL 8 JTS	187.50	5.47	1.78	14.50	0.00										79.25	0.00	180.00
TM-5	T-MOBILE INSTALL 8 JTS	175.00	5.36	1.77	14.50	0.00										77.70	0.00	180.00
TM-6	T-MOBILE INSTALL 8 JTS	175.00	5.36	1.77	14.50	0.00										77.70	0.00	180.00
TM-7	T-MOBILE INSTALL 8 JTS	175.00	5.36	1.77	14.50	0.00										77.70	0.00	180.00
TM-8	T-MOBILE INSTALL 8 JTS	175.00	5.36	1.77	14.50	0.00										77.70	0.00	180.00

EIA Section Load Case Information for "WIND 0 ICE COMB 3":

Note: qzGh (adjusted wind pressure) includes: Velocity Pressure Coefficient (Kz), Topographic Factor (Kzt), Gust Effect Factor (Gh), Wind Direction Probability Factor (Kd), Wind Importance Factor (Table 2-3), Wind Load Factor (from Loads/EIA Loads)
Face RR is the minimum round reduction factor for all round angles and appurtenances in the section

Section Label	Z of Top (ft)	Z of Bottom (ft)	Ave. Elev. Above Gnd. (ft)	Elev. qzGh (psf)	Ice Thick. (in)	Face AF (ft^2)	Face AR (ft^2)	Face RR*AR (ft^2)	Face AG (ft^2)	Face e	Face DF	Face DR	Face RR	Face CF	Face AE (ft^2)	Face WF (lbs)	NotF AAF (ft^2)	NotF CAF	NotF AAR (ft^2)	NotF CAR	NotF AAR*CAR (ft^2)	NotF WA (lbs)	Total Wind (lbs)	Total Weight (lbs)
1	300.00	285.00	292.50	6.21	1.87	28.51	29.50	22.80	90.0	0.64	1.00	1.00	0.77	1.86	51.3	592	2.67	2.00	3.80	1.20	4.56	61	653	12795
2	285.00	260.00	272.50	6.08	1.85	42.90	48.13	33.79	171.5	0.53	1.00	1.00	0.70	2.00	76.7	931	5.86	2.00	15.81	1.20	18.97	187	1117	15451
3	260.00	240.00	250.00	5.93	1.84	41.95	33.70	22.18	169.0	0.45	1.00	1.00	0.66	2.16	64.1	822	5.52	2.00	23.11	1.20	27.74	230	1052	12449
4	240.00	220.00	230.00	5.79	1.82	44.15	35.50	22.61	198.1	0.40	1.00	1.00	0.64	2.27	66.8	880	5.98	2.00	27.22	1.20	32.66	259	1138	13311
5	220.00	200.00	210.00	5.65	1.80	46.47	37.33	23.26	227.3	0.37	1.00	1.00	0.62	2.37	69.7	932	6.00	2.00	36.51	1.20	43.81	315	1247	14913
6	200.00	175.00	187.50	5.47	1.78	50.98	39.80	23.59	325.1	0.28	1.00	1.00	0.59	2.66	74.6	1086	7.50	2.00	49.64	1.20	59.56	408	1493	18844
7	175.00	150.00	162.50	5.25	1.76	60.28	40.84	24.13	370.7	0.27	1.00	1.00	0.59	2.69	84.4	1191	7.50	2.00	66.50	1.20	79.80	497	1688	20623
8	150.00	125.00	137.50	5.00	1.73	61.64	41.78	24.43	416.3	0.25	1.00	1.00	0.58	2.78	86.1	1197	7.50	2.00	65.63	1.20	78.75	469	1666	23209
9	125.00	100.00	112.50	4.72	1.70	62.49	42.58	24.69	461.9	0.23	1.00	1.00	0.58	2.86	87.2	1180	7.50	2.00	64.60	1.20	77.52	437	1617	25219
10	100.00	75.00	87.50	4.40	1.65	63.90	43.15	24.88	507.4	0.21	1.00	1.00	0.58	2.93	88.8	1145	7.50	2.00	74.33	1.20	89.19	458	1603	26466
11	75.00	50.00	62.50	3.99	1.60	67.05	43.34	24.89	553.0	0.20	1.00	1.00	0.57	2.98	91.9	1095	7.50	2.00	72.41	1.20	86.89	407	1502	27845
12	50.00	25.00	37.50	3.45	1.52	68.56	42.73	24.45	598.6	0.19	1.00	1.00	0.57	3.04	93.0	976	7.50	2.00	69.63	1.20	83.55	340	1316	30456
13	25.00	0.00	12.50	3.23	1.36	68.37	33.65	19.13	644.2	0.16	1.00	1.00	0.57	3.17	87.5	896	7.50	2.00	56.81	1.20	68.17	269	1165	28430

Equipment Load Case Information for "WIND 45 ICE COMB 3":

Equipment Label	Equipment Property Set	Elevation Above Ground (ft)	qzGh (psf)	Ice Thick. (in)	Total Wind Area (ft^2)	Wind Incidence Angle (deg)	222-G CA	222-G CS	222-G CM	Antenna Axial Load (lbs)	Antenna Side Load (lbs)	Antenna Moment (ft-lbs)	Long. Load (lbs)	Trans. Load (lbs)	Vert. Load (lbs)
AP-1	ANTENNA PLATFORM	300.00	6.25	1.87	22.00	315.00							97.24	97.24	1188.00
AP-2	ANTENNA PLATFORM	300.00	6.25	1.87	22.00	315.00							97.24	97.24	1188.00
AP-3	ANTENNA PLATFORM	300.00	6.25	1.87	22.00	315.00							97.24	97.24	1188.00
AP-4	ANTENNA PLATFORM	300.00	6.25	1.87	22.00	315.00							97.24	97.24	1188.00
ACP-1	ACCESS PLATFORM	285.00	6.16	1.86	13.00	315.00							56.63	56.63	639.60
ACP-2	ACCESS PLATFORM	285.00	6.16	1.86	13.00	315.00							56.63	56.63	639.60
ACP-3	ACCESS PLATFORM	285.00	6.16	1.86	13.00	315.00							56.63	56.63	639.60
ACP-4	ACCESS PLATFORM	285.00	6.16	1.86	13.00	315.00							56.63	56.63	639.60
LP1-1	LIGHT PLATFORM 1	220.00	5.72	1.81	4.00	315.00							16.18	16.18	180.00
LP1-2	LIGHT PLATFORM 1	220.00	5.72	1.81	4.00	315.00							16.18	16.18	180.00

LP1-3	LIGHT PLATFORM 1	220.00	5.72	1.81	4.00	315.00													16.18	16.18	180.00
LP1-4	LIGHT PLATFORM 1	220.00	5.72	1.81	4.00	315.00													16.18	16.18	180.00
LP2-1	LIGHT PLATFORM 2	87.50	4.40	1.65	5.00	315.00													15.54	15.54	240.00
LP2-2	LIGHT PLATFORM 2	87.50	4.40	1.65	5.00	315.00													15.54	15.54	240.00
LP2-3	LIGHT PLATFORM 2	87.50	4.40	1.65	5.00	315.00													15.54	15.54	240.00
LP2-4	LIGHT PLATFORM 2	87.50	4.40	1.65	5.00	315.00													15.54	15.54	240.00
USCG-1	USCG ADD090S ANT	280.00	6.13	1.86	10.00	315.00													43.34	43.34	120.00
USCG-2	USCG ADD090S ANT	280.00	6.13	1.86	10.00	315.00													43.34	43.34	120.00
USCG-3	USCG ADD090S ANT	280.00	6.13	1.86	10.00	315.00													43.34	43.34	120.00
USCG-4	USCG ADD090S ANT	280.00	6.13	1.86	10.00	315.00													43.34	43.34	120.00
USCG-5	USGS SRL235-2 ANT	260.00	6.00	1.84	5.00	315.00													21.22	21.22	90.00
USCG-6	USGS SRL235-2 ANT	260.00	6.00	1.84	5.00	315.00													21.22	21.22	90.00
USCG-7	USGS SRL235-2 ANT	260.00	6.00	1.84	5.00	315.00													21.22	21.22	90.00
USCG-8	USGS SRL235-2 ANT	260.00	6.00	1.84	5.00	315.00													21.22	21.22	90.00
USCG-9	USGS SRL335-2 ANT	250.00	5.93	1.84	5.00	315.00													20.98	20.98	90.00
USCG-10	USGS SRL335-2 ANT	250.00	5.93	1.84	5.00	315.00													20.98	20.98	90.00
USCG-11	USGS SRL335-2 ANT	250.00	5.93	1.84	5.00	315.00													20.98	20.98	90.00
USCG-12	USGS SRL335-2 ANT	250.00	5.93	1.84	5.00	315.00													20.98	20.98	90.00
USCG-13	USGS SRL235-2 ANT	220.00	5.72	1.81	5.00	315.00													20.23	20.23	90.00
USCG-14	USGS SRL235-2 ANT	220.00	5.72	1.81	5.00	315.00													20.23	20.23	90.00
USCG-15	USGS SRL235-2 ANT	220.00	5.72	1.81	5.00	315.00													20.23	20.23	90.00
USCG-16	USGS SRL235-2 ANT	220.00	5.72	1.81	5.00	315.00													20.23	20.23	90.00
OMNI-1	OMNI ANT	300.00	6.25	1.87	2.00	315.00													8.84	8.84	12.00
OMNI-2	OMNI ANT	300.00	6.25	1.87	2.00	315.00													8.84	8.84	12.00
OMNI-3	OMNI ANT	300.00	6.25	1.87	2.00	315.00													8.84	8.84	12.00
OMNI-4	OMNI ANT	300.00	6.25	1.87	2.00	315.00													8.84	8.84	12.00
OMNI-5	OMNI ANT	100.00	4.57	1.68	2.00	315.00													6.46	6.46	12.00
OMNI-6	OMNI ANT	100.00	4.57	1.68	2.00	315.00													6.46	6.46	12.00
OMNI-7	OMNI ANT	100.00	4.57	1.68	2.00	315.00													6.46	6.46	12.00
OMNI-8	OMNI ANT	100.00	4.57	1.68	2.00	315.00													6.46	6.46	12.00
OMNI-9	OMNI ANT	100.00	4.57	1.68	2.00	315.00													6.46	6.46	12.00
OMNI-10	OMNI ANT	100.00	4.57	1.68	2.00	315.00													6.46	6.46	12.00
OMNI-11	OMNI ANT	100.00	4.57	1.68	2.00	315.00													6.46	6.46	12.00
OMNI-12	OMNI ANT	100.00	4.57	1.68	2.00	315.00													6.46	6.46	12.00
TM-1	T-MOBILE INSTALL 8 JTS	187.50	5.47	1.78	14.50	315.00													56.04	56.04	180.00
TM-2	T-MOBILE INSTALL 8 JTS	187.50	5.47	1.78	14.50	315.00													56.04	56.04	180.00
TM-3	T-MOBILE INSTALL 8 JTS	187.50	5.47	1.78	14.50	315.00													56.04	56.04	180.00
TM-4	T-MOBILE INSTALL 8 JTS	187.50	5.47	1.78	14.50	315.00													56.04	56.04	180.00
TM-5	T-MOBILE INSTALL 8 JTS	175.00	5.36	1.77	14.50	315.00													54.94	54.94	180.00
TM-6	T-MOBILE INSTALL 8 JTS	175.00	5.36	1.77	14.50	315.00													54.94	54.94	180.00
TM-7	T-MOBILE INSTALL 8 JTS	175.00	5.36	1.77	14.50	315.00													54.94	54.94	180.00
TM-8	T-MOBILE INSTALL 8 JTS	175.00	5.36	1.77	14.50	315.00													54.94	54.94	180.00

EIA Section Load Case Information for "WIND 45 ICE COMB 3":

Note: qzGh (adjusted wind pressure) includes: Velocity Pressure Coefficient (Kz), Topographic Factor (Kzt), Gust Effect Factor (Gh), Wind Direction Probability Factor (Kd), Wind Importance Factor (Table 2-3), Wind Load Factor (from Loads/EIA Loads)
Face RR is the minimum round reduction factor for all round angles and appurtenances in the section

Section Label	Z of Top (ft)	Z of Bottom (ft)	Ave. Elev. Above Gnd. (ft)	qzGh (psf)	Ice Thick. (in)	Face AF (ft^2)	Face AR (ft^2)	Face RR*AR (ft^2)	Face AG (ft^2)	Face e	Face DF	Face DR	Face RR	Face CF	Face AE (ft^2)	Face WF (lbs)	NotF AAF (ft^2)	NotF CAF	NotF AAR (ft^2)	NotF CAR	NotF AAR*CAR (ft^2)	NotF WA (lbs)	Total Wind (lbs)	Total Weight (lbs)
1	300.00	285.00	292.50	6.21	1.87	28.51	29.50	22.80	90.0	0.64	1.20	1.20	0.77	1.86	61.6	710	2.67	2.00	3.80	1.20	4.56	61	772	12795
2	285.00	260.00	272.50	6.08	1.85	42.90	48.13	33.79	171.5	0.53	1.20	1.20	0.70	2.00	92.0	1117	5.86	2.00	15.81	1.20	18.97	187	1304	15451

3	260.00	240.00	250.00	5.93	1.84	41.95	33.70	22.18	169.0	0.45	1.20	1.20	0.66	2.16	77.0	986	5.52	2.00	23.11	1.20	27.74	230	1217	12449
4	240.00	220.00	230.00	5.79	1.82	44.15	35.50	22.61	198.1	0.40	1.20	1.20	0.64	2.27	80.1	1056	5.98	2.00	27.22	1.20	32.66	259	1314	13311
5	220.00	200.00	210.00	5.65	1.80	46.47	37.33	23.26	227.3	0.37	1.20	1.20	0.62	2.37	83.7	1119	6.00	2.00	36.51	1.20	43.81	315	1434	14913
6	200.00	175.00	187.50	5.47	1.78	50.98	39.80	23.59	325.1	0.28	1.20	1.20	0.59	2.66	89.5	1303	7.50	2.00	49.64	1.20	59.56	408	1711	18844
7	175.00	150.00	162.50	5.25	1.76	60.28	40.84	24.13	370.7	0.27	1.20	1.20	0.59	2.69	101.3	1429	7.50	2.00	66.50	1.20	79.80	497	1926	20623
8	150.00	125.00	137.50	5.00	1.73	61.64	41.78	24.43	416.3	0.25	1.19	1.19	0.58	2.78	102.1	1420	7.50	2.00	65.63	1.20	78.75	469	1889	23209
9	125.00	100.00	112.50	4.72	1.70	62.49	42.58	24.69	461.9	0.23	1.17	1.17	0.58	2.86	102.1	1381	7.50	2.00	64.60	1.20	77.52	437	1818	25219
10	100.00	75.00	87.50	4.40	1.65	63.90	43.15	24.88	507.4	0.21	1.16	1.16	0.58	2.93	102.8	1326	7.50	2.00	74.33	1.20	89.19	458	1784	26466
11	75.00	50.00	62.50	3.99	1.60	67.05	43.34	24.89	553.0	0.20	1.15	1.15	0.57	2.98	105.7	1259	7.50	2.00	72.41	1.20	86.89	407	1665	27845
12	50.00	25.00	37.50	3.45	1.52	68.56	42.73	24.45	598.6	0.19	1.14	1.14	0.57	3.04	106.0	1112	7.50	2.00	69.63	1.20	83.55	340	1452	30456
13	25.00	0.00	12.50	3.23	1.36	68.37	33.65	19.13	644.2	0.16	1.12	1.12	0.57	3.17	97.9	1003	7.50	2.00	56.81	1.20	68.17	269	1272	28430

*** Analysis Results:

Summary of Joint Support Reactions For All Load Cases:

Load Case	Joint Label	Long. Force (kips)	Tran. Force (kips)	Vert. Force (kips)	Shear Force (kips)	Tran. Moment (ft-k)	Long. Moment (ft-k)	Vert. Moment (ft-k)	Bending Moment (ft-k)	Found. Usage %
WIND 0	CQMB 1 1P	-28.70	-14.14	375.73	32.00	-0.00	-0.00	-0.00	0.00	0.00
WIND 0	CQMB 1 1X	-28.70	14.14	375.73	32.00	-0.00	-0.00	-0.00	0.00	0.00
WIND 0	CQMB 1 1XY	-25.06	-10.02	-290.28	26.99	-0.00	-0.00	-0.00	0.00	0.00
WIND 0	CQMB 1 1Y	-25.06	10.02	-290.28	26.99	-0.00	-0.00	-0.00	0.00	0.00
WIND 45	CQMB 1 1P	-31.74	-31.74	556.99	44.89	-0.00	-0.00	-0.00	0.00	0.00
WIND 45	CQMB 1 1X	-13.43	-9.24	42.69	16.30	-0.00	-0.00	-0.00	0.00	0.00
WIND 45	CQMB 1 1XY	-28.25	-28.25	-471.46	39.95	-0.00	-0.00	-0.00	0.00	0.00
WIND 45	CQMB 1 1Y	-9.24	-13.43	42.69	16.30	-0.00	-0.00	-0.00	0.00	0.00
WIND 0	CQMB 2 1P	-28.19	-13.61	364.61	31.30	-0.00	-0.00	-0.00	0.00	0.00
WIND 0	CQMB 2 1X	-28.19	13.61	364.61	31.30	-0.00	-0.00	-0.00	0.00	0.00
WIND 0	CQMB 2 1XY	-25.57	-10.52	-300.52	27.65	-0.00	-0.00	-0.00	0.00	0.00
WIND 0	CQMB 2 1Y	-25.57	10.52	-300.52	27.65	-0.00	-0.00	-0.00	0.00	0.00
WIND 45	CQMB 2 1P	-31.22	-31.22	545.63	44.14	-0.00	-0.00	-0.00	0.00	0.00
WIND 45	CQMB 2 1X	-12.93	-9.77	32.01	16.20	-0.00	-0.00	-0.00	0.00	0.00
WIND 45	CQMB 2 1XY	-28.75	-28.75	-481.46	40.66	-0.00	-0.00	-0.00	0.00	0.00
WIND 45	CQMB 2 1Y	-9.77	-12.93	32.01	16.20	-0.00	-0.00	-0.00	0.00	0.00
WIND 0	ICE CQMB 3 1P	-8.17	-5.42	129.54	9.81	-0.00	-0.00	-0.00	0.00	0.00
WIND 0	ICE CQMB 3 1X	-8.17	5.42	129.54	9.81	-0.00	-0.00	-0.00	0.00	0.00
WIND 0	ICE CQMB 3 1XY	-1.66	1.10	11.53	1.99	-0.00	-0.00	-0.00	0.00	0.00
WIND 0	ICE CQMB 3 1Y	-1.66	-1.10	11.53	1.99	-0.00	-0.00	-0.00	0.00	0.00
WIND 45	ICE CQMB 3 1P	-8.84	-8.84	163.90	12.51	-0.00	-0.00	-0.00	0.00	0.00
WIND 45	ICE CQMB 3 1X	-5.44	1.09	70.54	5.55	-0.00	-0.00	-0.00	0.00	0.00
WIND 45	ICE CQMB 3 1XY	-2.34	-2.34	-22.82	3.31	-0.00	-0.00	-0.00	0.00	0.00
WIND 45	ICE CQMB 3 1Y	1.09	-5.44	70.54	5.55	-0.00	-0.00	-0.00	0.00	0.00

Group Summary (Compression Portion):

Group Label	Group Desc.	Angle Type	Angle Size	Steel Strength (ksi)	Max Usage %	Max Use In Comp. %	Comp. Control Member	Comp. Force (kips)	Comp. Control Load Case	I/R Capacity (kips)	Comp. Shear Capacity (kips)	Conn. Bearing Capacity (kips)	RLX	RLY	RLZ	I/R Length (ft)	Curve No.	No. Bolts	Of Comp.
L1	LEG	BUS	8X8X1 1/8+2L6X4X1/2	36.0	71.07	71.07	g1X	-534.029	WIND 45 CO	751.379	0.000	0.000	0.500	0.500	0.500	48.14	12.517	1	0
L2	LEG	BUS	8X8X1 1/8+2L6X4X1/2	36.0	67.73	67.73	g26X	-508.906	WIND 45 CO	751.379	0.000	0.000	0.500	0.500	0.500	48.14	12.517	1	0
L3	LEG	BUS	8X8X1 1/8+2L6X4X5/16	36.0	74.17	74.17	g51X	-484.115	WIND 45 CO	652.725	0.000	0.000	0.500	0.500	0.500	48.14	12.517	1	0
L4	LEG	BUS	8X8X1 1/8+2L6X4X5/16	36.0	70.28	70.28	g76X	-458.765	WIND 45 CO	652.726	0.000	0.000	0.500	0.500	0.500	48.14	12.517	1	0
L5	LEG	BUS	8X8X1 1/8+2L6X4X5/16	36.0	66.45	66.45	g101X	-433.741	WIND 45 CO	652.725	0.000	0.000	0.500	0.500	0.500	48.14	12.517	1	0
L6	LEG	BUS	8X8X1 1/8+2L6X4X5/16	36.0	62.52	62.52	g126X	-408.076	WIND 45 CO	652.725	0.000	0.000	0.500	0.500	0.500	48.14	12.517	1	0
L7	LEG	SAE	8X8X1.125	36.0	79.79	79.79	g151X	-382.806	WIND 45 CO	479.793	0.000	0.000	0.500	0.500	0.500	48.14	12.517	1	0
L8	LEG	SAE	8X8X1.125	36.0	74.35	74.35	g176X	-356.741	WIND 45 CO	479.794	0.000	0.000	0.500	0.500	0.500	48.14	12.517	1	0
L9	LEG	SAE	8X8X1	36.0	77.10	77.10	g201X	-331.666	WIND 45 CO	430.179	0.000	0.000	0.500	0.500	0.500	48.14	12.517	1	0
L10	LEG	SAE	8X8X1	36.0	71.09	71.09	g226X	-305.808	WIND 45 CO	430.179	0.000	0.000	0.500	0.500	0.500	48.14	12.517	1	0
L11	LEG	SAE	8X8X0.875	36.0	73.84	73.84	g251X	-280.590	WIND 45 CO	380.007	0.000	0.000	0.500	0.500	0.500	47.83	12.517	1	0
L12	LEG	SAE	8X8X0.875	36.0	67.00	67.00	g276X	-254.586	WIND 45 CO	380.006	0.000	0.000	0.500	0.500	0.500	47.83	12.517	1	0
L13	LEG	SAE	8X8X0.75	36.0	69.71	69.71	g301X	-229.407	WIND 45 CO	329.092	0.000	0.000	0.500	0.500	0.500	47.53	12.517	1	0
L14	LEG	SAE	8X8X0.75	36.0	61.75	61.75	g326X	-203.219	WIND 45 CO	329.092	0.000	0.000	0.500	0.500	0.500	47.53	12.517	1	0
L15	LEG	SAE	6X6X0.875	36.0	70.51	70.51	g351X	-178.938	WIND 45 CO	253.782	0.000	0.000	0.500	0.500	0.500	64.19	12.517	1	0
L16	LEG	SAE	6X6X0.875	36.0	61.06	61.06	g376X	-154.965	WIND 45 CO	253.781	0.000	0.000	0.500	0.500	0.500	64.19	12.517	1	0
L17	LEG	SAE	6X6X0.75	36.0	59.41	59.41	g401X	-141.405	WIND 45 CO	238.013	0.000	0.000	0.500	0.500	0.500	51.35	10.013	1	0
L18	LEG	SAE	6X6X0.75	36.0	52.56	52.56	g417X	-125.093	WIND 45 CO	238.013	0.000	0.000	0.500	0.500	0.500	51.35	10.013	1	0
L19	LEG	SAE	6X6X0.625	36.0	52.78	52.78	g435X	-106.078	WIND 45 CO	200.976	0.000	0.000	0.500	0.500	0.500	50.92	10.013	1	0
L20	LEG	SAE	6X6X0.625	36.0	44.52	44.52	g451X	-89.474	WIND 45 CO	200.977	0.000	0.000	0.500	0.500	0.500	50.91	10.013	1	0
L21	LEG	SAE	6X6X0.5625	36.0	39.64	39.64	g469X	-72.043	WIND 45 CO	181.755	0.000	0.000	0.500	0.500	0.500	50.92	10.013	1	0
L22	LEG	SAE	6X6X0.5625	36.0	30.72	30.72	g485X	-55.828	WIND 45 CO	181.755	0.000	0.000	0.500	0.500	0.500	50.91	10.013	1	0
L23	LEG	SAE	5X5X0.5	36.0	38.24	38.24	g503X	-48.340	WIND 45 CO	126.424	0.000	0.000	1.000	1.000	1.000	61.12	5.007	1	0
L24	LEG	SAE	5X5X0.5	36.0	32.25	32.25	g515X	-40.773	WIND 45 CO	126.425	0.000	0.000	1.000	1.000	1.000	61.12	5.007	1	0
L25	LEG	SAE	5X5X0.5	36.0	26.42	26.42	g532X	-33.406	WIND 45 CO	126.437	0.000	0.000	1.000	1.000	1.000	61.10	5.005	1	0
L26	LEG	SAE	5X5X0.5	36.0	20.70	20.70	g544X	-26.172	WIND 45 CO	126.437	0.000	0.000	1.000	1.000	1.000	61.10	5.005	1	0
L27	LEG	SAE	5X5X0.5	36.0	14.10	14.10	g560X	-17.822	WIND 45 CO	126.437	0.000	0.000	1.000	1.000	1.000	61.10	5.005	1	0
L28	LEG	SAE	4X4X0.375	36.0	17.17	17.17	g578X	-11.729	WIND 45 CO	68.290	0.000	0.000	1.000	1.000	1.000	76.14	5.000	1	0
L29	LEG	SAE	4X4X0.375	36.0	10.94	10.94	g579X	-7.470	WIND 45 CO	68.290	0.000	0.000	1.000	1.000	1.000	76.14	5.000	1	0
L30	LEG	SAE	4X4X0.375	36.0	4.22	4.22	g582X	-2.884	WIND 45 CO	68.290	0.000	0.000	1.000	1.000	1.000	76.14	5.000	1	0
D1	DIA	DAS	3X2.5X0.25	36.0	74.53	74.53	g5P	-21.379	WIND 0 CCM	28.686	0.000	0.000	0.500	1.000	0.500	151.33	18.286	5	0
D2	DIA	DAS	3X2.5X0.25	36.0	74.83	74.83	g30P	-22.101	WIND 0 CCM	29.534	0.000	0.000	0.500	1.000	0.500	148.60	17.956	5	0
D3	DIA	DAE	2.5X2.5X0.25	36.0	87.04	87.04	g55P	-20.776	WIND 0 CCM	23.871	0.000	0.000	0.500	0.950	0.500	168.91	17.632	6	0
D4	DIA	DAE	2.5X2.5X0.25	36.0	88.58	88.58	g80P	-21.683	WIND 0 CCM	24.479	0.000	0.000	0.500	0.950	0.500	165.86	17.314	6	0
D5	DIA	DAE	2.5X2.5X0.25	36.0	81.76	81.76	g105P	-20.520	WIND 0 CCM	25.096	0.000	0.000	0.500	0.950	0.500	162.88	17.002	6	0
D6	DIA	DAE	2.5X2.5X0.25	36.0	82.83	82.83	g131X	-21.308	WIND 0 CCM	25.725	0.000	0.000	0.500	0.950	0.500	159.95	16.697	6	0
D7	DIA	DAE	2.5X2.5X0.25	36.0	82.00	82.00	g155X	-20.157	WIND 0 CCM	24.581	0.000	0.000	0.500	1.000	0.500	165.36	16.398	6	0
D8	DIA	DAE	2.5X2.5X0.25	36.0	82.20	82.20	g180X	-20.709	WIND 0 CCM	25.192	0.000	0.000	0.500	1.000	0.500	162.42	16.107	6	0
D9	DIA	DAE	2.5X2.5X0.25	36.0	74.74	74.74	g205X	-19.289	WIND 0 CCM	25.808	0.000	0.000	0.500	1.000	0.500	159.57	15.824	6	0
D10	DIA	DAE	2.5X2.5X0.25	36.0	75.77	75.77	g230X	-20.026	WIND 0 CCM	26.429	0.000	0.000	0.500	1.000	0.500	156.80	15.549	6	0
D11	DIA	DAE	2.5X2.5X0.25	36.0	69.67	69.67	g255X	-18.847	WIND 0 CCM	27.053	0.000	0.000	0.500	1.000	0.500	154.11	15.283	6	0
D12	DIA	DAE	2.5X2.5X0.25	36.0	70.63	70.63	g280X	-19.546	WIND 0 CCM	27.674	0.000	0.000	0.500	1.000	0.500	151.52	15.026	6	0
D13	DIA	DAE	2.5X2.5X0.25	36.0	64.87	64.87	g305X	-18.356	WIND 0 CCM	28.295	0.000	0.000	0.500	1.000	0.500	149.02	14.778	6	0
D14	DIA	DAE	2.5X2.5X0.25	36.0	66.28	66.28	g330X	-19.161	WIND 0 CCM	28.910	0.000	0.000	0.500	1.000	0.500	146.63	14.540	6	0
D15	DIA	DAE	2.5X2.5X0.25	36.0	57.58	57.58	g355P	-16.995	WIND 0 CCM	29.516	0.000	0.000	0.500	1.000	0.500	144.34	14.313	6	0
D16	DIA	DAE	2.5X2.5X0.25	36.0	55.28	55.28	g380P	-16.650	WIND 0 CCM	30.120	0.000	0.000	0.500	1.000	0.500	142.16	14.098	6	0
D17	DIA	SAE	3X3X0.25	36.0	65.51	65.51	g405P	-9.772	WIND 45 CO	14.918	0.000	0.000	0.500	0.500	0.500	156.26	15.418	5	0
D18	DIA	SAE	3X3X0.25	36.0	56.92	56.92	g418X	-8.998	WIND 45 CO	15.810	0.000	0.000	0.500	0.500	0.500	150.71	14.871	5	0
D19	DIA	SAE	3X3X0.25	36.0	52.81	52.81	g439P	-8.848	WIND 45 CO	16.754	0.000	0.000	0.500	0.500	0.500	145.33	14.340	5	0

D20	DIA	SAE	3X3X0.25	36.0	48.71	48.71	g452X	-8.645WIND	45	CO	17.749	0.000	0.000	0.500	0.500	0.500	140.14	13.827	5	0
D21	DIA	SAE	3X3X0.25	36.0	43.54	43.54	g473P	-8.164WIND	45	CO	18.753	0.000	0.000	0.500	0.500	0.500	135.14	13.334	5	0
D22	DIA	SAE	3X3X0.25	36.0	40.23	40.23	g489P	-7.928WIND	45	CO	19.707	0.000	0.000	0.500	0.500	0.500	130.38	12.864	5	0
D23	DIA	SAU	2.5X2X0.25	36.0	27.18	27.18	g507X	-4.040WIND	0	CCM	14.860	0.000	0.000	0.500	0.500	0.500	128.02	9.047	5	0
D24	DIA	SAU	2.5X2X0.25	36.0	25.94	25.94	g519X	-4.022WIND	0	CCM	15.508	0.000	0.000	0.500	0.500	0.500	123.75	8.745	5	0
D25	DIA	SAU	2.5X2X0.25	36.0	25.09	25.09	g536P	-4.044WIND	0	CCM	16.118	0.000	0.000	0.500	0.500	0.500	119.75	8.462	3	0
D26	DIA	SAU	2.5X2X0.25	36.0	23.88	23.88	g548P	-3.941WIND	0	CCM	16.499	0.000	0.000	0.500	0.500	0.500	116.01	8.198	3	0
D27	DIA	SAU	2.5X2X0.25	36.0	21.21	21.21	g564P	-3.579WIND	0	CCM	16.876	0.000	0.000	0.500	0.500	0.500	112.35	7.939	3	0
D28	DIA	SAU	2.5X2X0.25	36.0	14.07	14.07	g590X	-2.401WIND	0	CCM	17.065	0.000	0.000	0.500	0.500	0.500	110.52	7.810	3	0
D29	DIA	SAU	2.5X2X0.25	36.0	11.75	11.75	g598X	-2.005WIND	0	CCM	17.065	0.000	0.000	0.500	0.500	0.500	110.52	7.810	3	0
D30	DIA	SAU	2.5X2X0.25	36.0	11.12	11.12	g606X	-1.897WIND	0	CCM	17.065	0.000	0.000	0.500	0.500	0.500	110.52	7.810	3	0
H1	HOR	DAL	3X2.5X0.25	36.0	55.92	55.92	g13Y	-14.145WIND	0	CCM	25.296	0.000	0.000	1.000	1.000	1.000	163.59	12.883	5	0
H2	HOR	DAE	2.5X2.5X0.25	36.0	81.79	81.79	g38Y	-14.137WIND	0	CCM	17.286	0.000	0.000	1.000	1.000	1.000	193.92	12.427	5	0
H3	HOR	DAE	2.5X2.5X0.25	36.0	73.52	73.52	g63Y	-13.527WIND	0	CCM	18.400	0.000	0.000	1.000	1.000	1.000	186.80	11.971	5	0
H4	HOR	DAE	2.5X2.5X0.25	36.0	68.95	68.95	g88Y	-13.528WIND	0	CCM	19.622	0.000	0.000	1.000	1.000	1.000	179.70	11.516	5	0
H5	HOR	DAE	2.5X2.5X0.25	36.0	61.57	61.57	g113XY	-12.913WIND	0	CCM	20.973	0.000	0.000	1.000	1.000	1.000	172.59	11.060	5	0
H6	HOR	DAE	2.5X2.5X0.25	36.0	56.76	56.76	g138XY	-12.753WIND	0	CCM	22.469	0.000	0.000	1.000	1.000	1.000	165.47	10.604	5	0
H7	HOR	DAE	2.5X2.5X0.25	36.0	50.44	50.44	g163XY	-12.173WIND	0	CCM	24.132	0.000	0.000	1.000	1.000	1.000	158.36	10.148	5	0
H8	HOR	DAE	2.5X2.5X0.25	36.0	45.38	45.38	g188XY	-11.790WIND	0	CCM	25.981	0.000	0.000	1.000	1.000	1.000	151.26	9.693	5	0
H9	HOR	DAE	2.5X2.5X0.25	36.0	39.32	39.32	g213XY	-11.033WIND	0	CCM	28.056	0.000	0.000	1.000	1.000	1.000	144.14	9.237	5	0
H10	HOR	DAE	2.5X2.5X0.25	36.0	35.34	35.34	g238XY	-10.736WIND	0	CCM	30.382	0.000	0.000	1.000	1.000	1.000	137.02	8.781	5	0
H11	HOR	DAE	2.5X2.5X0.25	36.0	31.01	31.01	g263XY	-10.147WIND	0	CCM	32.723	0.000	0.000	1.000	1.000	1.000	129.92	8.326	5	0
H12	HOR	DAE	2.5X2.5X0.25	36.0	27.82	27.82	g288XY	-9.777WIND	0	CCM	35.141	0.000	0.000	1.000	1.100	1.000	122.81	7.870	5	0
H13	HOR	DAE	2.5X2.5X0.25	36.0	24.08	24.08	g313XY	-9.178WIND	0	CCM	38.115	0.000	0.000	1.000	1.000	1.100	115.69	7.414	1	0
H14	HOR	DAE	2.5X2.5X0.25	36.0	21.28	21.28	g338Y	-8.821WIND	0	CCM	41.456	0.000	0.000	1.000	1.100	1.000	108.58	6.958	1	0
H15	HOR	DAE	2.5X2.5X0.25	36.0	17.25	17.25	g363Y	-7.733WIND	0	CCM	44.842	0.000	0.000	1.000	1.000	1.000	101.48	6.503	1	0
H16	HOR	DAE	2.5X2.5X0.25	36.0	15.23	15.23	g384Y	-7.348WIND	45	CO	48.255	0.000	0.000	1.000	1.000	1.000	94.36	6.047	1	0
H17	HOR	SAE	2.5X2.5X0.25	36.0	45.30	45.30	g409Y	-4.543WIND	0	CCM	10.029	0.000	0.000	0.500	1.000	0.500	177.33	11.364	5	0
H18	HOR	SAE	2.5X2.5X0.25	36.0	25.98	25.98	g425Y	-4.249WIND	0	CCM	16.354	0.000	0.000	0.500	0.700	0.500	129.97	10.636	5	0
H19	HOR	SAE	2.5X2.5X0.25	36.0	33.45	33.45	g443Y	-4.197WIND	0	CCM	12.545	0.000	0.000	0.500	1.000	0.500	154.58	9.906	5	0
H20	HOR	SAE	2.5X2.5X0.25	36.0	20.42	20.42	g459Y	-4.060WIND	0	CCM	19.884	0.000	0.000	0.500	0.600	0.500	112.15	9.178	1	0
H21	HOR	SAE	2.5X2.5X0.25	36.0	22.47	22.47	g477Y	-3.606WIND	0	CCM	16.044	0.000	0.000	0.500	1.000	0.500	131.83	8.448	5	0
H22	HOR	SAE	2.5X2.5X0.25	36.0	7.68	7.68	g493Y	-1.815WIND	0	CCM	23.645	0.000	0.000	0.500	0.800	0.500	96.37	7.720	1	0
H23	HOR	SAE	2.5X2.5X0.25	36.0	0.00	0.00		0.000			0.000	0.000	0.000	0.000	0.000	0.000	0.00	0.000	0	0
H24	HOR	SAU	2.5X2X0.25	36.0	2.65	2.65	g552Y	-0.259WIND	0	CCM	9.793	0.000	0.000	1.000	1.000	1.000	179.15	6.330	6	0
H25	HOR	CHN	C7 X 9.8	36.0	0.53	0.49	g568Y	-0.355WIND	0	CCM	72.251	0.000	0.000	1.000	1.000	1.000	69.23	6.000	1	0
H26	HOR	SAE	2.5X2.5X0.25	36.0	0.33	0.00	g615X	0.000			14.453	0.000	0.000	1.000	1.000	1.000	146.64	6.000	6	0
H27	HOR	CHN	C8 x 11.5	36.0	0.45	0.06	g616Y	-0.034WIND	0	CCM	54.456	0.000	0.000	1.000	1.000	1.000	115.20	6.000	1	0
R1	RUD	SAE	3X3X0.25	36.0	1.94	1.94	g42Y	-0.598WIND	45	CO	30.730	0.000	0.000	0.250	0.250	0.250	89.06	17.574	1	0

Group Summary (Tension Portion) :

Group Label	Group Desc.	Angle Type	Angle Size	Steel Strength (ksi)	Max Usage %	Max Use In Tens. %	Tension Control Member	Tension Force (kips)	Tension Control Load Case	Net Tens. Section Capacity (kips)	Conn. Shear Capacity (kips)	Conn. Bearing Capacity (kips)	Conn. Rupture Capacity (kips)	Length Tens. Member (ft)	No. Of Bolts Tens.	No. Of Holes	Hole Diameter (in)	
L1	LEG	BUS	8X8X1 1/8+2L6X4X1/2	36.0	71.07	54.43	g1Y	462.007WIND	45	CO	848.879	0.000	0.000	0.000	12.517	0	0.000	0
L2	LEG	BUS	8X8X1 1/8+2L6X4X1/2	36.0	67.73	52.08	g26Y	442.097WIND	45	CO	848.879	0.000	0.000	0.000	12.517	0	0.000	0
L3	LEG	BUS	8X8X1 1/8+2L6X4X5/16	36.0	74.17	57.26	g51Y	422.226WIND	45	CO	737.423	0.000	0.000	0.000	12.517	0	0.000	0
L4	LEG	BUS	8X8X1 1/8+2L6X4X5/16	36.0	70.28	54.41	g76Y	401.257WIND	45	CO	737.423	0.000	0.000	0.000	12.517	0	0.000	0
L5	LEG	BUS	8X8X1 1/8+2L6X4X5/16	36.0	66.45	51.58	g101Y	380.382WIND	45	CO	737.423	0.000	0.000	0.000	12.517	0	0.000	0
L6	LEG	BUS	8X8X1 1/8+2L6X4X5/16	36.0	62.52	48.62	g126Y	358.541WIND	45	CO	737.423	0.000	0.000	0.000	12.517	0	0.000	0
L7	LEG	SAE	8X8X1.125	36.0	79.79	62.16	g151Y	336.952WIND	45	CO	542.051	0.000	0.000	0.000	12.517	0	0.000	0

L8	LEG	SAE	8X8X1.125	36.0	74.35	58.08	g176Y	314.849WIND	45	CO	542.051	0.000	0.000	0.000	12.517	0	0.000	0
L9	LEG	SAE	8X8X1	36.0	77.10	60.34	g201Y	293.269WIND	45	CO	485.999	0.000	0.000	0.000	12.517	0	0.000	0
L10	LEG	SAE	8X8X1	36.0	71.09	55.70	g226Y	270.677WIND	45	CO	485.999	0.000	0.000	0.000	12.517	0	0.000	0
L11	LEG	SAE	8X8X0.875	36.0	73.84	57.99	g251Y	248.565WIND	45	CO	428.651	0.000	0.000	0.000	12.517	0	0.000	0
L12	LEG	SAE	8X8X0.875	36.0	67.00	52.58	g276Y	225.370WIND	45	CO	428.651	0.000	0.000	0.000	12.517	0	0.000	0
L13	LEG	SAE	8X8X0.75	36.0	69.71	54.71	g301Y	202.800WIND	45	CO	370.655	0.000	0.000	0.000	12.517	0	0.000	0
L14	LEG	SAE	8X8X0.75	36.0	61.75	48.30	g326Y	179.032WIND	45	CO	370.655	0.000	0.000	0.000	12.517	0	0.000	0
L15	LEG	SAE	6X6X0.875	36.0	70.51	49.93	g351Y	157.414WIND	45	CO	315.252	0.000	0.000	0.000	12.517	0	0.000	0
L16	LEG	SAE	6X6X0.875	36.0	61.06	43.16	g376Y	136.077WIND	45	CO	315.252	0.000	0.000	0.000	12.517	0	0.000	0
L17	LEG	SAE	6X6X0.75	36.0	59.41	45.70	g401Y	124.979WIND	45	CO	273.456	0.000	0.000	0.000	10.013	0	0.000	0
L18	LEG	SAE	6X6X0.75	36.0	52.56	40.02	g417Y	109.438WIND	45	CO	273.456	0.000	0.000	0.000	10.013	0	0.000	0
L19	LEG	SAE	6X6X0.625	36.0	52.78	40.27	g435Y	92.759WIND	45	CO	230.364	0.000	0.000	0.000	10.013	0	0.000	0
L20	LEG	SAE	6X6X0.625	36.0	44.52	33.48	g451Y	77.136WIND	45	CO	230.364	0.000	0.000	0.000	10.013	0	0.000	0
L21	LEG	SAE	6X6X0.5625	36.0	39.64	29.54	g469Y	61.549WIND	45	CO	208.332	0.000	0.000	0.000	10.013	0	0.000	0
L22	LEG	SAE	6X6X0.5625	36.0	30.72	22.32	g485Y	46.508WIND	45	CO	208.332	0.000	0.000	0.000	10.013	0	0.000	0
L23	LEG	SAE	5X5X0.5	36.0	38.24	25.37	g503Y	39.043WIND	45	CO	153.900	0.000	0.000	0.000	5.007	0	0.000	0
L24	LEG	SAE	5X5X0.5	36.0	32.25	20.84	g515Y	32.071WIND	45	CO	153.900	0.000	0.000	0.000	5.007	0	0.000	0
L25	LEG	SAE	5X5X0.5	36.0	26.42	16.39	g532Y	25.227WIND	45	CO	153.900	0.000	0.000	0.000	5.005	0	0.000	0
L26	LEG	SAE	5X5X0.5	36.0	20.70	11.99	g544Y	18.451WIND	45	CO	153.900	0.000	0.000	0.000	5.005	0	0.000	0
L27	LEG	SAE	5X5X0.5	36.0	14.10	7.44	g560Y	11.442WIND	45	CO	153.900	0.000	0.000	0.000	5.005	0	0.000	0
L28	LEG	SAE	4X4X0.375	36.0	17.17	7.88	g578Y	7.301WIND	45	CO	92.664	0.000	0.000	0.000	5.000	0	0.000	0
L29	LEG	SAE	4X4X0.375	36.0	10.94	3.98	g579Y	3.692WIND	45	CO	92.664	0.000	0.000	0.000	5.000	0	0.000	0
L30	LEG	SAE	4X4X0.375	36.0	4.22	0.44	g582Y	0.403WIND	45	CO	92.664	0.000	0.000	0.000	5.000	0	0.000	0
D1	DIA	DAS	3X2.5X0.25	36.0	74.53	23.51	g5Y	20.034WIND	0	COM	85.212	0.000	0.000	0.000	18.286	0	0.000	0
D2	DIA	DAS	3X2.5X0.25	36.0	74.83	23.12	g30Y	19.699WIND	0	COM	85.212	0.000	0.000	0.000	17.956	0	0.000	0
D3	DIA	DAE	2.5X2.5X0.25	36.0	87.04	25.57	g55Y	19.714WIND	0	COM	77.112	0.000	0.000	0.000	17.632	0	0.000	0
D4	DIA	DAE	2.5X2.5X0.25	36.0	88.58	25.61	g80Y	19.745WIND	0	COM	77.112	0.000	0.000	0.000	17.314	0	0.000	0
D5	DIA	DAE	2.5X2.5X0.25	36.0	81.76	25.47	g105Y	19.637WIND	0	COM	77.112	0.000	0.000	0.000	17.002	0	0.000	0
D6	DIA	DAE	2.5X2.5X0.25	36.0	82.83	25.48	g131XY	19.651WIND	0	COM	77.112	0.000	0.000	0.000	16.697	0	0.000	0
D7	DIA	DAE	2.5X2.5X0.25	36.0	82.00	25.12	g155XY	19.368WIND	0	COM	77.112	0.000	0.000	0.000	16.398	0	0.000	0
D8	DIA	DAE	2.5X2.5X0.25	36.0	82.20	24.92	g180XY	19.215WIND	0	COM	77.112	0.000	0.000	0.000	16.107	0	0.000	0
D9	DIA	DAE	2.5X2.5X0.25	36.0	74.74	24.08	g205XY	18.565WIND	0	COM	77.112	0.000	0.000	0.000	15.824	0	0.000	0
D10	DIA	DAE	2.5X2.5X0.25	36.0	75.77	24.26	g230XY	18.708WIND	0	COM	77.112	0.000	0.000	0.000	15.549	0	0.000	0
D11	DIA	DAE	2.5X2.5X0.25	36.0	69.67	23.64	g255XY	18.228WIND	0	COM	77.112	0.000	0.000	0.000	15.283	0	0.000	0
D12	DIA	DAE	2.5X2.5X0.25	36.0	70.63	23.94	g280XY	18.457WIND	0	COM	77.112	0.000	0.000	0.000	15.026	0	0.000	0
D13	DIA	DAE	2.5X2.5X0.25	36.0	64.87	23.16	g305XY	17.857WIND	0	COM	77.112	0.000	0.000	0.000	14.778	0	0.000	0
D14	DIA	DAE	2.5X2.5X0.25	36.0	66.28	23.64	g330XY	18.227WIND	0	COM	77.112	0.000	0.000	0.000	14.540	0	0.000	0
D15	DIA	DAE	2.5X2.5X0.25	36.0	57.58	21.43	g355Y	16.529WIND	0	COM	77.112	0.000	0.000	0.000	14.313	0	0.000	0
D16	DIA	DAE	2.5X2.5X0.25	36.0	55.28	20.44	g380Y	15.761WIND	0	COM	77.112	0.000	0.000	0.000	14.098	0	0.000	0
D17	DIA	SAE	3X3X0.25	36.0	65.51	19.38	g405XY	9.044WIND	45	CO	46.656	0.000	0.000	0.000	15.418	0	0.000	0
D18	DIA	SAE	3X3X0.25	36.0	56.92	17.70	g418Y	8.259WIND	45	CO	46.656	0.000	0.000	0.000	14.871	0	0.000	0
D19	DIA	SAE	3X3X0.25	36.0	52.81	17.28	g439XY	8.062WIND	45	CO	46.656	0.000	0.000	0.000	14.340	0	0.000	0
D20	DIA	SAE	3X3X0.25	36.0	48.71	16.68	g452Y	7.783WIND	45	CO	46.656	0.000	0.000	0.000	13.827	0	0.000	0
D21	DIA	SAE	3X3X0.25	36.0	43.54	15.65	g473XY	7.299WIND	45	CO	46.656	0.000	0.000	0.000	13.334	0	0.000	0
D22	DIA	SAE	3X3X0.25	36.0	40.23	14.90	g489XY	6.952WIND	45	CO	46.656	0.000	0.000	0.000	12.864	0	0.000	0
D23	DIA	SAU	2.5X2X0.25	36.0	27.18	11.81	g507XY	4.056WIND	0	COM	34.344	0.000	0.000	0.000	9.047	0	0.000	0
D24	DIA	SAU	2.5X2X0.25	36.0	25.94	11.54	g519XY	3.962WIND	0	COM	34.344	0.000	0.000	0.000	8.745	0	0.000	0
D25	DIA	SAU	2.5X2X0.25	36.0	25.09	11.63	g536Y	3.995WIND	0	COM	34.344	0.000	0.000	0.000	8.462	0	0.000	0
D26	DIA	SAU	2.5X2X0.25	36.0	23.88	11.54	g548Y	3.963WIND	0	COM	34.344	0.000	0.000	0.000	8.198	0	0.000	0
D27	DIA	SAU	2.5X2X0.25	36.0	21.21	9.05	g564Y	3.110WIND	0	COM	34.344	0.000	0.000	0.000	7.939	0	0.000	0
D28	DIA	SAU	2.5X2X0.25	36.0	14.07	6.77	g590XY	2.326WIND	0	COM	34.344	0.000	0.000	0.000	7.810	0	0.000	0
D29	DIA	SAU	2.5X2X0.25	36.0	11.75	6.05	g598XY	2.079WIND	0	COM	34.344	0.000	0.000	0.000	7.810	0	0.000	0
D30	DIA	SAU	2.5X2X0.25	36.0	11.12	4.60	g606XY	1.580WIND	0	COM	34.344	0.000	0.000	0.000	7.810	0	0.000	0
H1	HOR	DAL	3X2.5X0.25	36.0	55.92	18.21	g13P	15.516WIND	0	COM	85.212	0.000	0.000	0.000	12.883	0	0.000	0
H2	HOR	DAE	2.5X2.5X0.25	36.0	81.79	18.80	g38P	14.499WIND	0	COM	77.112	0.000	0.000	0.000	12.427	0	0.000	0

H3	HOR	DAE	2.5X2.5X0.25	36.0	73.52	18.83	g63P	14.516WIND	0	COM	77.112	0.000	0.000	0.000	11.971	0	0.000	0
H4	HOR	DAE	2.5X2.5X0.25	36.0	68.95	17.89	g88P	13.795WIND	0	COM	77.112	0.000	0.000	0.000	11.516	0	0.000	0
H5	HOR	DAE	2.5X2.5X0.25	36.0	61.57	17.78	g113X	13.710WIND	0	COM	77.112	0.000	0.000	0.000	11.060	0	0.000	0
H6	HOR	DAE	2.5X2.5X0.25	36.0	56.76	16.83	g138X	12.976WIND	0	COM	77.112	0.000	0.000	0.000	10.604	0	0.000	0
H7	HOR	DAE	2.5X2.5X0.25	36.0	50.44	16.55	g163X	12.764WIND	0	COM	77.112	0.000	0.000	0.000	10.148	0	0.000	0
H8	HOR	DAE	2.5X2.5X0.25	36.0	45.38	15.46	g188X	11.921WIND	0	COM	77.112	0.000	0.000	0.000	9.693	0	0.000	0
H9	HOR	DAE	2.5X2.5X0.25	36.0	39.32	14.92	g213X	11.503WIND	0	COM	77.112	0.000	0.000	0.000	9.237	0	0.000	0
H10	HOR	DAE	2.5X2.5X0.25	36.0	35.34	14.01	g238X	10.800WIND	0	COM	77.112	0.000	0.000	0.000	8.781	0	0.000	0
H11	HOR	DAE	2.5X2.5X0.25	36.0	31.01	13.58	g263X	10.472WIND	0	COM	77.112	0.000	0.000	0.000	8.326	0	0.000	0
H12	HOR	DAE	2.5X2.5X0.25	36.0	27.82	12.70	g288X	9.793WIND	0	COM	77.112	0.000	0.000	0.000	7.870	0	0.000	0
H13	HOR	DAE	2.5X2.5X0.25	36.0	24.08	12.20	g313X	9.410WIND	0	COM	77.112	0.000	0.000	0.000	7.414	0	0.000	0
H14	HOR	DAE	2.5X2.5X0.25	36.0	21.28	11.45	g338P	8.831WIND	0	COM	77.112	0.000	0.000	0.000	6.958	0	0.000	0
H15	HOR	DAE	2.5X2.5X0.25	36.0	17.25	10.29	g363P	7.934WIND	0	COM	77.112	0.000	0.000	0.000	6.503	0	0.000	0
H16	HOR	DAE	2.5X2.5X0.25	36.0	15.23	9.95	g384X	7.674WIND	45	CO	77.112	0.000	0.000	0.000	6.047	0	0.000	0
H17	HOR	SAE	2.5X2.5X0.25	36.0	45.30	14.48	g409P	5.583WIND	0	COM	38.556	0.000	0.000	0.000	11.364	0	0.000	0
H18	HOR	SAE	2.5X2.5X0.25	36.0	25.98	12.44	g425P	4.795WIND	0	COM	38.556	0.000	0.000	0.000	10.636	0	0.000	0
H19	HOR	SAE	2.5X2.5X0.25	36.0	33.45	13.73	g443P	5.295WIND	0	COM	38.556	0.000	0.000	0.000	9.906	0	0.000	0
H20	HOR	SAE	2.5X2.5X0.25	36.0	20.42	12.06	g459P	4.649WIND	0	COM	38.556	0.000	0.000	0.000	9.178	0	0.000	0
H21	HOR	SAE	2.5X2.5X0.25	36.0	22.47	12.27	g477P	4.733WIND	0	COM	38.556	0.000	0.000	0.000	8.448	0	0.000	0
H22	HOR	SAE	2.5X2.5X0.25	36.0	7.68	5.18	g493P	1.998WIND	0	COM	38.556	0.000	0.000	0.000	7.720	0	0.000	0
H23	HOR	SAE	2.5X2.5X0.25	36.0	0.00	0.00		0.000			0.000	0.000	0.000	0.000	0.000	0	0.000	0
H24	HOR	SAU	2.5X2X0.25	36.0	2.65	1.63	g552P	0.558WIND	0	COM	34.344	0.000	0.000	0.000	6.330	0	0.000	0
H25	HOR	CHN	C7 X 9.8	36.0	0.53	0.53	g568P	0.494WIND	0	COM	92.988	0.000	0.000	0.000	6.000	0	0.000	0
H26	HOR	SAE	2.5X2.5X0.25	36.0	0.33	0.33	g614Y	0.126WIND	0	COM	38.556	0.000	0.000	0.000	6.000	0	0.000	0
H27	HOR	CHN	C8 x 11.5	36.0	0.45	0.45	g499X	0.489WIND	45	IC	109.512	0.000	0.000	0.000	10.918	0	0.000	0
R1	RUD	SAE	3X3X0.25	36.0	1.94	1.88	g392X	0.879WIND	45	CO	46.656	0.000	0.000	0.000	8.552	0	0.000	0

*** End of Report



Foundation Loads from Analysis Run

MAXIMUM DOWNWARD LOAD = 557.0 K

MAXIMUM UPWARD LOAD = 481.5 K

ANCHOR BOLT CHECK

$23.86 \text{ in}^2 \times .75 \times .75 \times 58 \text{ KSI} = 778 \text{ K} > 481.5 \text{ K} \quad \text{O.K.}$

REBAR CHECK (Piers)

$20.0 \text{ in}^2 \times (.85) 40 = 680 \text{ K} > 481.5 \text{ K} \quad \text{O.K.}$

UPLIFT CHECK

Concrete

$18.6 \times 27.0 \times 3.00 \times .15 = 140.9 \text{ K} \dots\dots\dots 224.7 \text{ K}$

$20.0^2 \times 1.42 \times .15 = 85.2 \text{ K} \dots\dots\dots 85.2 \text{ K}$

$[4.5^2 + (4.5' \times 9.0') + 9.0^2] 4.5/3 = 212.6 \text{ ft}^3$

$212.6 \text{ ft}^3 \times .15 = 31.9 \text{ K} \dots\dots\dots 31.9 \text{ K}$

341.8 K

Wt of SOIL

$[(31.62 \times 23.12) + (27' \times 18.5)] 4.0/2 = 2461 \text{ ft}^3$

$(2461 \text{ ft}^3 - 212.6 \text{ ft}^3) \times .11 = 247.3 \text{ K}$

Soil Shear

$91 \text{ ft} \times 3.0\text{-ft} \times .45 \text{ KSF} = 122.9 \text{ K}$

TOTAL UPLIFT CHECK

$(122.9 \text{ K} + 247.3) (.75) + 341.8 (.9) = 585.3 \text{ K} > 481.5 \text{ K} \quad \text{O.K.}$

DOWNWARD LOAD CHECK

$557 + 341.8 \text{ K} + 247.3 \text{ K} = 1148 \text{ K}$

$1148 / (27' \times 18.5) = 2.27 \text{ KSF} < 6.0 \text{ KSF Allowable} \quad \text{O.K.}$

Exhibit E



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

T-Mobile Existing Facility

Site ID: CTNL814C (MW Add)

CTNL814C (Chapel Hill Road)
401 Chapel Hill Road
Oakdale, CT 06370

October 2, 2017

EBI Project Number: 6217004240

Site Compliance Summary	
Compliance Status:	COMPLIANT
Site total MPE% of FCC general population allowable limit:	1.133%



October 2, 2017

T-Mobile USA
Attn: Jason Overbey, RF Manager
35 Griffin Road South
Bloomfield, CT 06002

Emissions Analysis for Site: **CTNL814C – CTNL814C (Chapel Hill Road)**

EBI Consulting was directed to analyze the proposed T-Mobile facility located at **401 Chapel Hill Road, Oakdale, CT**, for the purpose of determining whether the emissions from the Proposed T-Mobile Antenna Installation located on this property are within specified federal limits.

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

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

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

Population exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The general population exposure limit for the 700 MHz Band is approximately 467 $\mu\text{W}/\text{cm}^2$, and the general population exposure limit for the 1900 MHz (PCS), 2100 MHz (AWS) and 5 GHz microwave bands is 1000 $\mu\text{W}/\text{cm}^2$. Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density.



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

Additional details can be found in FCC OET 65.

CALCULATIONS

Calculations were done for the proposed T-Mobile Wireless antenna facility located at **401 Chapel Hill Road, Oakdale, CT**, using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since T-Mobile is proposing highly focused directional panel and microwave antennas, which project most of the emitted energy out toward the horizon, all calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB, was focused at the base of the tower. For this report the sample point is the top of a 6-foot person standing at the base of the tower.

For all calculations, all equipment was calculated using the following assumptions:

- 1) 2 UMTS channels (PCS Band - 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.
- 2) 2 LTE channels (AWS Band – 2100 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 60 Watts per Channel
- 3) 1 LTE channel (700 MHz Band) was considered for each sector of the proposed installation. This channel has a transmit power of 30 Watts.
- 4) 1 microwave backhaul channel (5 GHz) was considered for the microwave Link. This channel has a transmit power of 1 Watt.
- 5) All radios at the proposed installation were considered to be running at full power and were uncombined in their RF transmissions paths per carrier prescribed configuration. Per FCC OET Bulletin No. 65 - Edition 97-01 recommendations to achieve the maximum anticipated value at each sample point, all power levels emitting from the proposed antenna installation are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. This is rarely the case, and if so, is never continuous.



- 6) For the following calculations, the sample point was the top of a 6-foot person standing at the base of the tower. The maximum gain of the antenna per the antenna manufactures supplied specifications minus 10 dB was used in this direction. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.
- 7) The antennas used in this modeling are the **RFS APX16DWV-16DWVS-E-A20** for 1900 MHz (PCS) and 2100 MHz (AWS) channels, the **Commscope LNX-6515DS-A1M** for 700 MHz channels and the **Fastback Networks IBR 1300** for 5 GHz microwave backhaul. This is based on feedback from the carrier with regards to anticipated antenna selection. The **RFS APX16DWV-16DWVS-E-A20** has a maximum gain of **16.3 dBd** at its main lobe at 1900 MHz and 2100 MHz. The **Commscope LNX-6515DS-A1M** has a maximum gain of **14.6 dBd** at its main lobe at 700 MHz. the **Fastback Networks IBR 1300 antenna** has a maximum gain of **10 dBd** at 5 GHz. The maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB, was used for all calculations. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.
- 8) The antenna mounting height centerline of the proposed antennas is **180 feet** above ground level (AGL) for all standard panel antennas and 5 GHz microwave radio / antenna.
- 9) Emissions values for additional carriers were taken from the Connecticut Siting Council active database. Values in this database are provided by the individual carriers themselves.
- 10) All calculations were done with respect to uncontrolled / general population threshold limits.



T-Mobile Site Inventory and Power Data

Sector:	A	Sector:	B	Sector:	C
Antenna #:	1	Antenna #:	1	Antenna #:	1
Make / Model:	RFS APX16DWV-16DWVS-E-A20	Make / Model:	RFS APX16DWV-16DWVS-E-A20	Make / Model:	RFS APX16DWV-16DWVS-E-A20
Gain:	16.3 dBd	Gain:	16.3 dBd	Gain:	16.3 dBd
Height (AGL):	180	Height (AGL):	180	Height (AGL):	180
Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)	Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)	Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)
Channel Count	4	Channel Count	4	Channel Count	4
Total TX Power(W):	180	Total TX Power(W):	180	Total TX Power(W):	180
ERP (W):	7,678.43	ERP (W):	7,678.43	ERP (W):	7,678.43
Antenna A1 MPE%	0.912	Antenna B1 MPE%	0.912	Antenna C1 MPE%	0.912
Antenna #:	2	Antenna #:	2	Antenna #:	2
Make / Model:	Commscope LNX-6515DS-A1M	Make / Model:	Commscope LNX-6515DS-A1M	Make / Model:	Commscope LNX-6515DS-A1M
Gain:	14.6 dBm	Gain:	14.6 dBm	Gain:	14.6 dBm
Height (AGL):	180	Height (AGL):	180	Height (AGL):	180
Frequency Bands	700 MHz	Frequency Bands	700 MHz	Frequency Bands	700 MHz
Channel Count	1	Channel Count	1	Channel Count	1
Total TX Power(W):	30	Total TX Power(W):	30	Total TX Power(W):	30
ERP (W):	865.21	ERP (W):	865.21	ERP (W):	865.21
Antenna A2 MPE%	0.220	Antenna B2 MPE%	0.220	Antenna C2 MPE%	0.220
				Antenna #:	3 (Microwave)
				Make / Model:	Fastback Networks IBR 1300
				Gain:	10.0 dBd
				Height (AGL):	180
				Frequency Bands	5.0 GHz
				Channel Count	1
				Total TX Power(W):	1
				ERP (W):	10 W
				Antenna C3 MPE%	0.001

Site Composite MPE%	
Carrier	MPE%
T-Mobile (Per Sector Max)	1.133%
No Additional Carriers Listed	NA
Site Total MPE %:	1.133%

T-Mobile Sector A Total:	1.132%
T-Mobile Sector B Total:	1.132%
T-Mobile Sector C Total:	1.133%
Site Total:	
	1.133%



T-Mobile Per Sector Maximum Power Values

T-Mobile _Max Values per sector (Sector C)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density ($\mu\text{W}/\text{cm}^2$)	Frequency (MHz)	Allowable MPE ($\mu\text{W}/\text{cm}^2$)	Calculated % MPE
T-Mobile PCS - 1900 MHz UMTS	2	1,279.74	180	3.04	PCS - 1900 MHz	1000	0.304%
T-Mobile AWS - 2100 MHz LTE	2	2,559.48	180	6.08	AWS - 2100 MHz	1000	0.608%
T-Mobile 700 MHz LTE	1	865.21	180	1.03	700 MHz	467	0.220%
T-Mobile 5 GHz Microwave	1	10	180	0.25	5 GHz Microwave	1000	0.001%
						Total:	1.133%



Summary

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

The anticipated maximum composite contributions from the T-Mobile facility as well as the site composite emissions value with regards to compliance with FCC's allowable limits for general population exposure to RF Emissions are shown here:

T-Mobile Sector	Power Density Value (%)
Sector A:	1.132%
Sector B:	1.132%
Sector C:	1.133%
T-Mobile Per Sector Maximum:	1.133%
Site Total:	1.133%
Site Compliance Status:	COMPLIANT

The anticipated composite MPE value for this site assuming all carriers present is 1.133% of the allowable FCC established general population limit sampled at the ground level. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions.

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

Exhibit F

CTNL814C

FISKDALE
458 MAIN ST
FISKDALE
MA

01518-9998
2427030518

10/19/2017 (800)275-8777 1:20 PM

Product Description	Sale Qty	Final Price
---------------------	----------	-------------

PM 2-Day	1	\$6.65
----------	---	--------

Flat Rate Env
(Domestic)
(NEW BRITAIN, CT 06051)
(Flat Rate)
(Expected Delivery Day)
(Saturday 10/21/2017)
(USPS Tracking #)
(9505 5112 4091 7292 0930 19)

Insurance	1	\$0.00
(Up to \$50.00 included)		

PM 2-Day	1	\$6.65
----------	---	--------

Flat Rate Env
(Domestic)
(NEW BRITAIN, CT 06051)
(Flat Rate)
(Expected Delivery Day)
(Saturday 10/21/2017)
(USPS Tracking #)
(9505 5112 4091 7292 0930 26)

Insurance	1	\$0.00
(Up to \$50.00 included)		

PM 2-Day	1	\$6.65
----------	---	--------

Flat Rate Env
(Domestic)
(OLD BRIDGE, NJ 08857)
(Flat Rate)
(Expected Delivery Day)
(Saturday 10/21/2017)
(USPS Tracking #)
(9505 5112 4091 7292 0930 33)

Insurance	1	\$0.00
(Up to \$50.00 included)		

Total		\$19.95
-------	--	---------

Credit Card Remitd		\$19.95
--------------------	--	---------

(Card Name:VISA)
(Account #:XXXXXXXXXXXX7500)
(Approval #:01765G)
(Transaction #:080)

Includes up to \$50 insurance

BRIGHTEN SOMEONE'S MAILBOX. Greeting cards available for purchase at select Post Offices.

Text your tracking number to 28777
(2USPS) to get the latest status.
Standard Message and Data rates may