



STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square
New Britain, Connecticut 06051
Phone: (860) 827-2935
Fax: (860) 827-2950

April 16, 2004

Kenneth C. Baldwin
Robinson & Cole
280 Trumbull Street
Hartford, CT 06103-3597

RE: **EM-VER-036-040305** - Cellco Partnership d/b/a Verizon Wireless notice of intent to modify an existing telecommunications facility located at 15 Pent Road, Deep River, Connecticut.

Dear Attorney Baldwin:

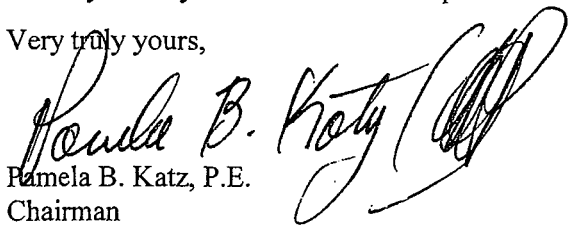
At a public meeting held on April 15, 2004, the Connecticut Siting Council (Council) acknowledged your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies.

The proposed modifications are to be implemented as specified here and in your notice dated March 5, 2004, and additional information dated March 8, 2004. The modifications are in compliance with the exception criteria in Section 16-50j-72 (b) of the Regulations of Connecticut State Agencies as changes to an existing facility site that would not increase tower height, extend the boundaries of the tower site, increase noise levels at the tower site boundary by six decibels, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundary to or above the standard adopted by the State Department of Environmental Protection pursuant to General Statutes § 22a-162. This facility has also been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on this tower.

This decision is under the exclusive jurisdiction of the Council. Any additional change to this facility will require explicit notice to this agency pursuant to Regulations of Connecticut State Agencies Section 16-50j-73. Such notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65. Any deviation from this format may result in the Council implementing enforcement proceedings pursuant to General Statutes § 16-50u including, without limitation, imposition of expenses resulting from such failure and of civil penalties in an amount not less than one thousand dollars per day for each day of construction or operation in material violation.

Thank you for your attention and cooperation.

Very truly yours,


Pamela B. Katz, P.E.
Chairman

PBK/laf

c: Honorable Richard H. Smith, First Selectman, Town of Deep River
Amy Petrone, Zoning Enforcement Officer, Town of Deep River
Stephen J. Humes, Esq., LeBoeuf, Lamb, Green & MacRae LLP
Christopher B. Fisher, Esq., Cuddy & Feder LLP

LEBOEUF
LAMB,
GREENE &
MACRAE, L.L.P.*

Goodwin Square
225 Asylum Street, 13th Floor
Hartford, CT 06103
Tel: (860) 293-3500
Fax: (860) 293-3555

FAX
TRANSMISSION

TRANSMISSION PROBLEMS: (860) 293-3722

| | | |
|------------------------|---------------|------------------------------|
| FROM: Roger J. Cirella | ID#: 5344 | DATE: April 8, 2004 |
| TEL: (860) 293-3722 | PAGES: 1 of 3 | CLIENT/MATTER NO.: 07687/307 |

| | | | |
|--------------|----------------------------|----------------|---------------------------|
| TO: | COMPANY: | FAX NO.: | CONFIRMING TELEPHONE NO.: |
| Mike Perrone | Connecticut Siting Council | (860) 827-2950 | (860) 827-2943 |

Comments/Message:

Mike,

Attached please find T-Mobile's response to Verizon's request. Apparently, the Council's email is down. Please let me know if you have any questions.

Roger

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Roger Cirella - RE: Deep River

From: "Overbey, Jason" <Jason.Overbey@T-Mobile.com>
To: "Dave.Crotty@VerizonWireless.com" <Dave.Crotty@VerizonWireless.com>,
 "KBALDWIN@RC.com" <KBALDWIN@RC.com>, "CarteAl@NE.VerizonWireless.com"
 <CarteAl@NE.VerizonWireless.com>, "rmayo@RC.com" <rmayo@RC.com>,
 "crottda@NE.VerizonWireless.com" <crottda@NE.VerizonWireless.com>,
 "TowleJo@NE.VerizonWireless.com" <TowleJo@NE.VerizonWireless.com>
Date: 3/23/04 1:45PM
Subject: RE: Deep River

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 APR 08 2004

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 SITING COUNCIL

Although not preferred, we have agreed to allow this design.
 Jason.

-----Original Message-----

From: Dave.Crotty@VerizonWireless.com [mailto:Dave.Crotty@VerizonWireless.com]
Sent: Friday, March 19, 2004 3:11 PM
To: KBALDWIN@RC.com; CarteAl@NE.VerizonWireless.com; rmayo@RC.com;
 crottda@NE.VerizonWireless.com; TowleJo@NE.VerizonWireless.com; Overbey, Jason
Subject: RE: Deep River

Jason

Verizon is proposing to install antennas on a tower of yours on RT 9 (Deep River). Because of the spacing on the tower we would only have 7 Ft. 6 " between our antennas and yours. Jon Towle (Verizon Engineer) did the calcs and determined we will have enough isolation. I've pasted his analysis below. Is this spacing OK with T-mobile?

Let us know.

thanks

Here's the technical argument: Normally we like to see 10 feet between the rad centers for the antennas. Using the typical 4 foot antennas, this gives 6 feet between the top of one antenna and the bottom of the other antenna. At the cellular frequency of 850 MHz, this gives us an isolation of about 57 dB between the antennas. To get the same isolation at 1950 Mhz we only need about 3 feet of spacing between the top and bottom of the ends of the antenna. Using our typical 4 foot antenna this means we only need 7 feet between the the rad centers of the antennas. This holds for the antennas that are designed to work in the same frequency band, ie pcs or cellular. Since we are the only 850 carrier on the tower at this time, the need for greater spacing is not necessary because the 850 MHz (cellular) antennas naturally reject the signals for the 1950 MHz PCS antennas.

Please let me know if you have any questions,

Jon

-----Original Message-----

From: Baldwin, Kenneth [mailto:KBALDWIN@RC.com]
Sent: Thursday, March 18, 2004 9:17 AM
To: 'Alexandria.Carter@VerizonWireless.com'; Mayo, Rachel; 'Dave.Crotty@VerizonWireless.com';
 'Jonathan.Towle@VerizonWireless.com'
Subject: Deep River

The Council TABLED the Deep River Exempt Mod yesterday because Voicestream couldn't answer the Council's question about the 7'6" separation distance quickly enough. Is there someone at Voicestream that Dave or Jon can call? I spoke to Mike Perrone at the Council and told him that we could live with less

Roger Cirella - RE: Deep River

than 10' but it's not the preferred separation distance.

<http://www.rc.com/images/lin_tab4.gif>

Kenneth C. Baldwin

<<http://www.rc.com/>> Robinson & Cole LLP

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<<http://www.rc.com/BioKBALD.htm>> Bio | <<http://www.rc.com/documents/peopleVcard/KBALD.vcf>>

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ROBINSON & COLE LLP

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Facsimile Transmission Sheet

DATE: March 8, 2004

NO. OF PAGES (including cover): 10

RECIPIENT(S) LIST

| NAME | COMPANY | FAX NUMBER | PHONE NUMBER |
|--------------|----------------------------|--------------|--------------|
| Mike Perrone | Connecticut Siting Council | 860-827-2950 | 860-827-2935 |
| | | | |
| | | | |
| | | | |

MESSAGE: REGARDING CELLCO FILING FOR PENT ROAD, DEEP RIVER...POWER DENSITY



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**RF Exposure Analysis for Proposed
AT&T Wireless Antenna Facility**

SITE ID: 907-007-392

June 26, 2002

**Prepared by AT&T Wireless Services, Inc.
Nader Soliman RF Engineer**

AT&T Wireless Services, Inc.

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AT&T Wireless Services, Inc.

1. Introduction

This report constitutes an RF exposure analysis for the proposed AT&T Wireless antenna facility to be located at *Off SR 154, Deep River, CT 06417*. This analysis uses site-specific engineering data to determine the predicted levels of radio frequency (RF) electromagnetic energy in the vicinity of the proposed facility and compares those levels with the Maximum Permissible Exposure (MPE) limits established by the Federal Communications Commission.

2. Site Data

| | |
|---------------------------------------------|---------------------------------------|
| Site Name: Port Stream Monopole | |
| Number of simultaneously operating channels | 12 |
| Type of antenna | Vertical 7.500a |
| Power per channel (Watts ERP) | 2500 Watts |
| Height of antenna (feet AGL) | 25000 feet |
| Antenna Aperture Length | 8 feet |

3. RF Exposure Prediction

The following equations established by the FCC, in conjunction with the site data, were used to determine the levels of RF electromagnetic energy present in the vicinity of the proposed facility¹:

$$\text{PowerDensity} = \frac{0.64 * 1.64 * N * ERP(\theta)}{\pi * R^2} \quad (\text{mW/cm}^2) \quad \text{Eq. 1-Far-field}$$

Where, N = Number of channels, R = distance in cm from the RC (Radiation Center) of antenna, and $ERP(\theta)$ = The power of a half wave dipole expressed in milliwatts in the direction of prediction point. This is the correct equation for antennas which have their gain expressed in dBd.

$$\text{PowerDensity} = \frac{P_{in} / ch * N * 10^3}{2 * \pi * R * h * \alpha / 360} \quad (\text{mW/cm}^2) \quad \text{Eq. 2-Near-field}$$

Where P_{in}/ch = Input power to antenna terminals in watts/ch, R = distance to center of radiation, h = aperture height in meters, α = 3 dB beam-width of horizontal pattern.

¹ RF exposure is measured and predicted in terms of power density in units of milliwatts (mW), a thousandth of a watt, or microwatts (μ W), a millionth of a watt, per square centimeter (cm^2). Data comparing predictive analysis with on site measurements has demonstrated that power density can be effectively predicted at given locations in the vicinity of a wireless antenna facility.

AT&T Wireless Services, Inc.

4. FCC Guidelines for Evaluating the Environmental Effects of RF Radiation

In 1985, the FCC established rules to regulate radio frequency (RF) exposure from FCC licensed antenna facilities. In 1996, the FCC updated these rules, which were further amended in August 1997 by a Second Memorandum Opinion and Order. These new rules represent a consensus of the federal agencies responsible for the protection of public health and the environment, including the Environmental Protection Agency (EPA), the Food and Drug Administration (FDA), the National Institute for Occupational Health and Safety (NIOSH), and the Occupational Safety and Health Administration (OSHA).

Under the laws that govern the delivery of wireless communications services in the United States, as amended by the Telecommunications Act of 1996, the FCC has exclusive jurisdiction over RF emissions from personal wireless antenna facilities, which include cellular, PCS, messaging and aviation sites.² Pursuant to its authority under federal law, the FCC has established rules to regulate the safety of emissions from these facilities.

5. Comparison with Standards

Exhibit A shows the levels of RF electromagnetic energy as one moves away from the antenna facility. As shown in Exhibit A, the maximum power density is 0.000962 mW/cm^2 which occurs at 80 feet from the antenna facility. The chart in exhibit A also shows that the power density is only 0.000079 mW/cm^2 at a distance of $\frac{1}{2}$ feet. Table 1 below shows the Maximum Permissible Exposure (MPE) limits established by the FCC. There are different MPE limits for public/uncontrolled and occupational/controlled environments.

Table 1: Maximum Permissible Exposure limits for RF radiation

| Frequency | Public/Uncontrolled | Occupational/controlled | Maximum power density at Accessible location |
|-----------|------------------------|-------------------------|----------------------------------------------|
| Cellular | $.580 \text{ mW/cm}^2$ | 2.9 mW/cm^2 | 0.000962 mW/cm^2 |
| PCS | 1 mW/cm^2 | 5 mW/cm^2 | |

The maximum power density at the proposed facility represents only 0.16% of the public MPE limit for PCS frequencies.

6. Conclusion

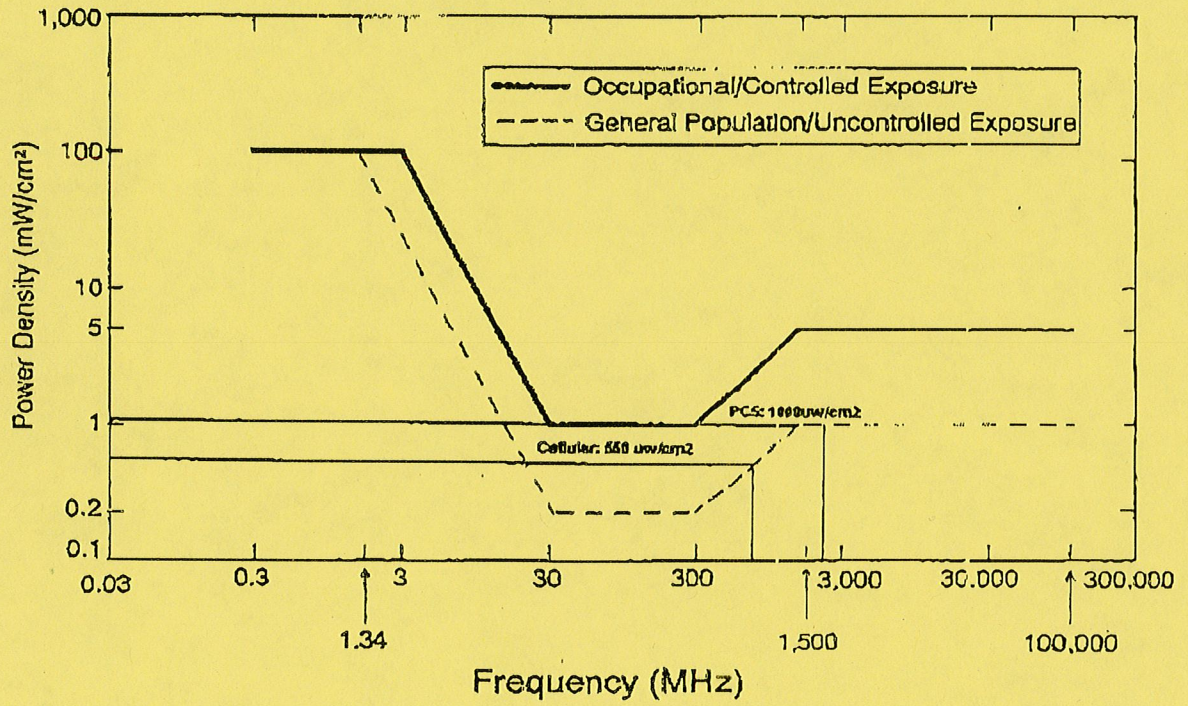
This analysis show that the maximum power density in accessible areas at this location is 0.000962 mW/cm^2 , a level of RF energy that is well below the Maximum Permissible Exposure limit established by the FCC.

² 47 U.S.C. Section 332 (c) (7)(B)(iv) states that "[n]o State or local government or instrumentality thereof may regulate the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the Commission's regulations concerning such emissions."

AT&T Wireless Services, Inc.

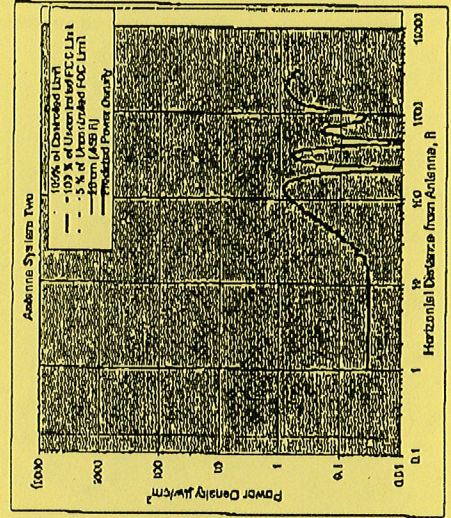
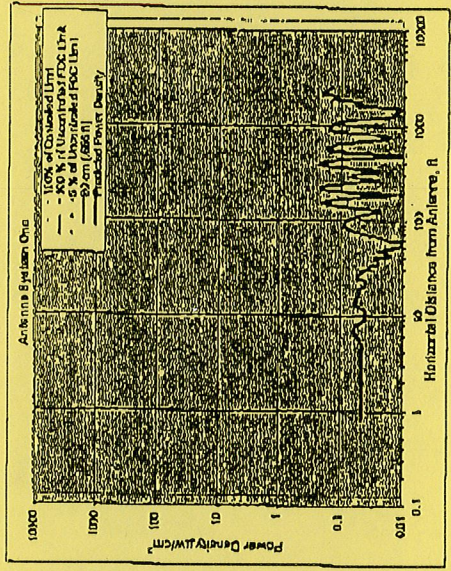
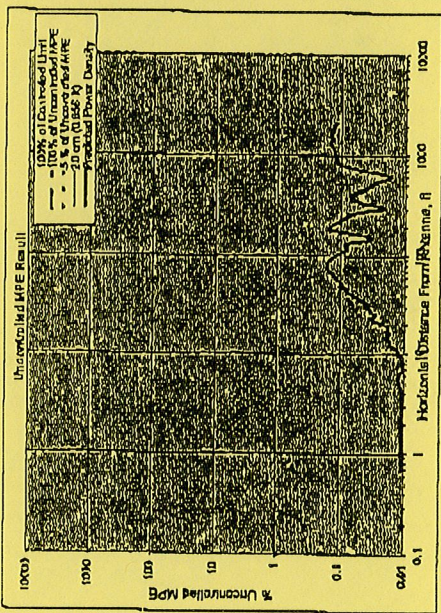
7. FCC Limits for Maximum Permissible Exposure

FCC Limits for Maximum Permissible Exposure (MPE)
Plane-wave Equivalent Power Density



AT&T Wireless Services, Inc.

8. Exhibit A



Number of Antenna Systems: 3
Meets FCC Controlled Limits for The Antenna Systems.

Meets FCC Uncontrolled Limits for The Antenna Systems.

Meets 5% of FCC Uncontrolled Limits for The Antenna Systems.

No Further Maximum Permissible Exposure (MPE) Analysis Required.

| | | | |
|--------------------------------------------------------------------|--------------------|-----------|--------------|
| Power Density | mW/cm ² | 0.18 | Horiz. Dist. |
| Maximum Power Density = | % of limit | 0.18 | feet |
| 624.59 times lower than the MPE limit for uncontrolled environment | | | |
| Compositional Power (ERP) = | | 13,500.00 | Watts |

Site ID: 007-007-392
Site Name: YoccoStream Marzopolis
Site Location: On SR 154
Deep River, CT 06417

Performed By: Nader Soliman
Date: 6/26/2002

Antenna System One

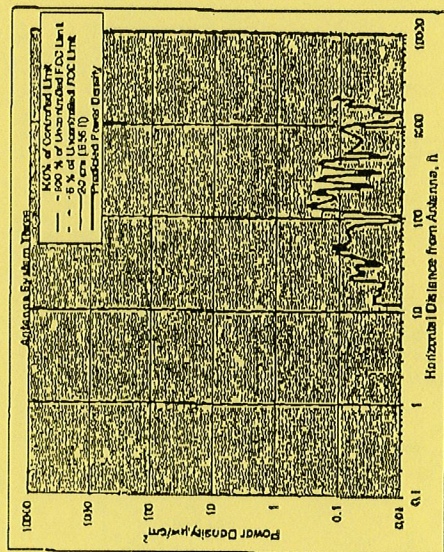
| Parameter | Units | Value |
|--------------------------------|---------|--------------|
| Frequency | MHz | 1945.00 |
| # of Channels | f | 12 |
| Max ERP/Ch | Watts | 250.00 |
| Max Power Into Ant. | Watts | 5.06 |
| Center of Radiation | feet | 100.00 |
| Calculation Point | feet | 0.00 |
| (above ground or road surface) | | 0.00 |
| Antenna Model No. | | Algon 7250A0 |
| Max Ant Gain | dBi | 16.30 |
| Down tilt | degrees | 0.00 |
| Misalignment Alt. | dB | 0.00 |
| Height of aperture | feet | 5.11 |
| Ant HPAV | degrees | 05.00 |
| Distance to Antenna | feet | 157.45 |
| | Y/N/Z | W007 |
| | | n |

Ant System ONE Owner: AT&T
Sector: 3
Altitude: 0170240

Antenna System Two

| Parameter | Units | Value |
|--------------------------------|----------|----------|
| Frequency | MHz | 660.00 |
| # of Channels | f | 30 |
| Max ERP/Ch | Watts | 250.00 |
| Max Power Into Ant. | Watts | 18.53 |
| Center of Radiation | feet | 170.00 |
| Calculation Point | feet | 0.00 |
| (above ground or road surface) | | 0.00 |
| Antenna Model No. | | Al 19212 |
| Max Ant Gain | dBi | 11.30 |
| Down tilt | degrees | 0.00 |
| Misalignment Alt. | dB | 0.00 |
| Height of aperture | feet | 4.00 |
| Ant HPAV | degrees | 55.00 |
| Distance to Antenna | feet | 168.00 |
| | W007/R17 | |
| | | n |

Ant System TWO Owner: Verizon
Sector: 3
Altitude: 0120140



Antenna System Three

| Parameter | Units | Value |
|---------------------------------------------------|---------|----------|
| Frequency | MHz | 1995.20 |
| H of Characteristic | ft | 12 |
| Max ERP (W) | Watts | 250.00 |
| Max Power into Ant (Center of Radiation) | Watts | 9.08 |
| Calculation Point (above ground or local surface) | feet | 100.00 |
| Antenna Model No. | | RR401702 |
| Max Ant Gain | dB | 14.40 |
| Downlink | dB | 0.00 |
| Antennas/Sec Ant | dB | 0.00 |
| Height of aperture | feet | 4.65 |
| Ant HRTV | degrees | 90.00 |
| Distance to Antenna | feet | 177.67 |
| VLOS? | | n |

Ant System Three Owner: VolvoSistem
Sector: J
Altitude: 04120240

AT&T Wireless Services, Inc.

9. For Further Information

Additional information about the environmental impact of RF energy from personal wireless antenna facilities can be obtained from the Federal Communications Commission:

Dr. Robert Cleveland
Federal Communications Commission
Office of Engineering and Technology
Washington, DC 20554

RF Safety Program: 202-418-2464
Internet address: rfsafety@fcc.gov
RF Safety Web Site: www.fcc.gov/oct/rfsafety

10. References

- [1] The Communications Act of 1934, as amended by the Telecommunications Act of 1996, 47 U.S.C. Section 332 (c)(7)(B)(iv).
- [2] *Guidelines for Evaluating the Environmental Effects of Radio frequency Radiation, Notice of Proposed Rulemaking*, ET Docket 93-62, 8 FCC Rcd 2849 (1993).
- [3] *Guidelines for Evaluating the Environmental Effects of Radio frequency Radiation, Report and Order*, ET Docket 93-62, FCC 96-326, adopted August 1, 1996. 61 Federal Register 41006 (1996).
- [4] *Guidelines for Evaluating the Environmental Effects of Radio frequency Radiation, Second Memorandum Opinion and Order*, ET Docket 93-62, adopted August 25, 1997.
- [5] *Evaluating Compliance with FCC Guidelines for Human Exposure to Radio frequency Electromagnetic Fields*, OET Bulletin 65, August, 1997.

General Power Density

Site Name: Deep River, CT
 Tower Height: 170 Ft. rad center

| Operator | Operating Frequency (MHz) | Number of Trans. | ERP Per Trans. (watts) | Total ERP (watts) | Distance to Target (feet) | Calculated Power Density (mW/cm ²) | Maximum Permissible Exposure* (mW/cm ²) | Fraction of MPE (%) |
|---------------------------------------------------------|---------------------------|------------------|------------------------|-------------------|---------------------------|------------------------------------------------|-----------------------------------------------------|---------------------|
| Verizon | 880 | 9 | 200 | 1800 | 170 | 0.0224 | 0.56733 | 3.95% |
| Verizon | 1900 | 3 | 285 | 855 | 170 | 0.0106 | 1 | 1.06% |
| Total Percentage of Maximum Permissible Exposure | | | | | | | | 5.01% |

*Guidelines adopted by the FCC on August 1, 1996, 47 CFR Part 1 based on NCRP Report 86, 1986 and generally on ANSI/IEEE C95.1-1992

MHz = Megahertz

mW/cm² = milliwatts per square centimeter

ERP = Effective Radiated Power

Absolute worst case scenario, maximum values used.



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CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@po.state.ct.us

Web Site: www.ct.gov/csc

March 5, 2004

Honorable Richard H. Smith
First Selectman
Town of Deep River
174 Main Street
Deep River, CT 06417

RE: **EM-VER-036-040305** - Cellco Partnership d/b/a Verizon Wireless notice of intent to modify existing telecommunications facilities located at 15 Pent Road, Deep River, Connecticut.

Dear Mr. Smith:

The Connecticut Siting Council (Council) received this request to modify an existing telecommunications facility, pursuant to Regulations of Connecticut State Agencies Section 16-50j-72.

The Council will consider this item at the next meeting scheduled for Wednesday, March 17, 2004 at 1:30 p.m. in Hearing Room One, Ten Franklin Square, New Britain, Connecticut.

Please call me or inform the Council if you have any questions or comments regarding this proposal.

Thank you for your cooperation and consideration.

Very truly yours,

S. Derek Phelps
Executive Director

SDP/cm

Enclosure: Notice of Intent

c: Amy Petrone, Zoning Enforcement Officer, Town of Deep River

EM-VER-036-040305

200 Trumbull Street
Hartford, CT 06103-3597
(860) 275-8200
(860) 275-8299
kbaldwin@rc.com
Tel: (860) 275-8345

March 5, 2004

Via Hand Delivery

S. Derek Phelps
Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: **Notice of Exempt Modification**
15 Pent Road
Deep River, Connecticut

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Dear Mr. Phelps:

Cellco Partnership d/b/a Verizon Wireless ("Cellco") intends to install antennas on an existing tower at 15 Pent Road in Deep River, Connecticut. Please accept this letter as notification pursuant to R.C.S.A. § 16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to the Deep River First Selectman, Richard H. Smith.

The facility consists of a 179-foot self-supporting monopole tower, capable of supporting multiple carriers within a fenced site compound. The tower is owned and operated by VoiceStream Communications, Inc. ("VoiceStream"). The tower is currently shared by VoiceStream at the 177.6-foot level and AT&T at the 160-foot level. Cellco proposes to install twelve (12) panel-type antennas at the 170-foot level on the tower and a 12' x 30' single-story equipment shelter near the base of the tower. (See Attachment 1- Project Plans).

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

1. The proposed modification will not increase the overall height of the existing tower. Cellco's antennas will be mounted with their centerline at the 170-foot level on the 179-foot tower.



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S. Derek Phelps
March 5, 2004
Page 2

2. The proposed installation of twelve (12) panel-type antennas and a 12' x 30' equipment shelter will not require an extension of the site boundaries.

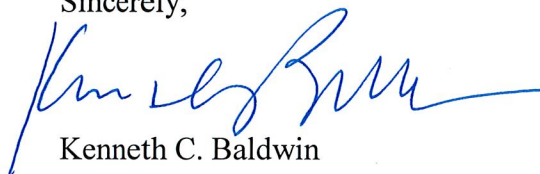
3. The proposed modification will not increase the noise levels at the facility by six decibels or more.

4. The operation of the antennas will not increase radio frequency (RF) power density levels at the facility to a level at or above the Federal Communications Commission (FCC) adopted safety standard. Pursuant to the RF Exposure Analysis prepared for AT&T and included in EM-AT&T-036-020701, the cumulative worst-case RF power density for the existing and Cellco antennas would be 0.16% of the applicable FCC Standard.

Also included as Attachment 2 is an engineer's certification verifying that the tower can accommodate the existing and proposed antennas and related equipment.

For the foregoing reasons, Cellco respectfully submits that the proposed antenna installation at the Deep River facility tower constitutes an exempt modification under R.C.S.A. § 16-50j-72(b)(2).

Sincerely,



Kenneth C. Baldwin

Attachments

cc: Richard H. Smith, Deep River First Selectman
Sandy M. Carter



Cellco Partnership

d.b.a. **verizon** wireless

WIRELESS COMMUNICATIONS FACILITY

DEEP RIVER

PROJECT: 973424

LOCATION CODE: 170032211

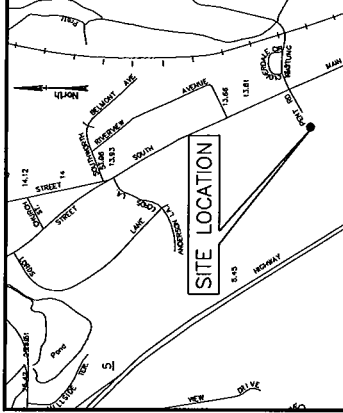
15 PENT ROAD

DEEP RIVER, CONNECTICUT 06417

NOTE 1:
THIS DOCUMENT IS A PRELIMINARY
DRAWING AND SHOULD NOT BE USED
FOR CONSTRUCTION OF THE FACILITY.
ANTENNA TOWER AND ANTENNA
REINFORCEMENTS SHALL BE DESIGNED
UPON COMPLETION OF DESIGN.

NOTE 2:
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CONDITIONS. IT IS NOT INTENDED
FOR ANOTHER SITE OR WHEN OTHER
CONDITIONS PERTAIN. RELIANCE ON THIS
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FOR THE FACILITY. THE REINFORCEMENTS SHALL BE DESIGNED
AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE
REQUIREMENTS OF THE STRUCTURAL ANALYSIS BE
PERFORMED ON THE FACILITY. THE REINFORCEMENTS SHALL BE
DESIGNED AND CONSTRUCTION IS GIVEN BY THE ENGINEER THAT THE EXISTING
OWNER AND ALL DESIGNING AND PROPOSED ANTENNAS AND APPURTENANCES
REINFORCEMENTS TAKE SUFFICIENT STRUCTURAL LOADS AND COMPLY WITH
THE REQUIREMENTS OF THE STRUCTURAL ANALYSIS. THE REINFORCEMENTS SHALL
BE DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF THE STRUCTURAL
ANALYSIS AND SHALL BE APPROVED BY THE ENGINEER THAT THE EXISTING
CONFIRMATION OF THE CERTIFICATION.



DEEP RIVER, CT

SCALE
1000 2000 3000 FEET

LOCATION MAP

DRIVING DIRECTIONS (FROM EAST HARTFORD):

MERGE ONTO I-91 SOUTH, MERGE ONTO CT-9 SOUTH VIA EXIT NUMBER
222-ON THE LEFT-TOWARD WILLOUGHBY/OLD SAVERBROOK. TAKE THE CT-40
ON THE LEFT-TOWARD WILLOUGHBY/OLD SAVERBROOK. TURN LEFT
ONTO CT-80/W. ELM ST. TURN RIGHT ONTO LAMON STREET. TURN RIGHT
RIGHT ONTO CT-154/S. MAIN ST. TURN RIGHT ONTO PENT RD.

PROJECT SUMMARY

SITE NAME: DEEP RIVER
 SITE ADDRESS: 15 PENT ROAD, CT 06417
 PROJECT OWNER: ROBERT AND GRACE STALSBURG
 DEEP RIVER, CT
 LESSOR: QUANTUM COMMUNICATIONS, INC.
 WAYNE, NJ 07170
 LESSEE: CELCO PARTNERSHIP
 42.0 VERIZON WIRELESS
 EAST HARTFORD, CT 06108
 DEVELOPER: CELCO PARTNERSHIP
 42.0 VERIZON WIRELESS
 EAST HARTFORD, CT 06108
 CONTRACT DESIGN: CELCO PARTNERSHIP
 42.0 VERIZON WIRELESS
 (860) 530-3219
 CENTER OF TOWER: LATITUDE: 41° 22' 20" N
 LONGITUDE: 72° 26' 06" W
 (COORDINATES PROVIDED BY
 CELCO PARTNERSHIP)

PROJECT DESCRIPTION:
 THE PROPOSED CENTER OF THE STRUCTURAL ANALYSIS AND DESIGN OF 3
 SECTORS OF 4 PANEL ANTENNAS PER SECTOR WHICH SHALL BE
 MOUNTED TO THE EXISTING TOWER, AND INSTALLING A 12" WIDE BY
 12" DEEP ELEVATION NUMBER. THIS SYSTEM WILL BOTH TRANSMIT
 AND RECEIVE RADIO SIGNALS.

SHEET INDEX

| SHEET NO. | DESCRIPTION | REV. NO. |
|-----------|----------------------------------|----------|
| T-1 | TITLE SHEET | A |
| C-1 | COMPOUND PLAN & TOWER ELEVATIONS | A |

REVISIONS

| No. | DATE | BY | DESCRIPTION |
|-----|----------|-----|------------------|
| 1 | 03/02/04 | ERC | REV. TOWER ELEV. |
| 0 | 02/17/04 | ERC | FINAL E.C. |
| A | 02/02/04 | ERC | PRELIM. E.C. |

DEEP RIVER
 15 PENT ROAD, CT
 06417

SITE NAME / ADDRESS

DRAWN BY: ERC
 APPROVED BY: PERK
 CHECKED BY: CRD
 DATE: 02/02/04

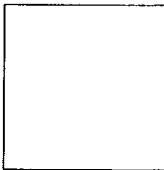
SHEET TITLE:
 TITLE SHEET

DEWBERRY P.N. 304420

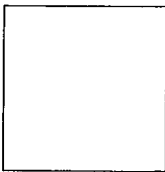
SHEET NO. T1

Cellco Partnership
 d.b.a. **verizon** wireless

Dewberry
 Dewberry-Goodkind, Inc.
 400 Main Street
 Suite 200
 Westborough, MA 01581
 (508) 735-2200



| No. | DATE | BY | DESCRIPTION |
|-----|----------|-----|------------------|
| 1 | 03/02/04 | ERC | REV. TOWER ELEV. |
| 0 | 02/17/04 | ERC | FINAL E.C. |
| A | 02/02/04 | ERC | PRELIM. E.C. |



| REV. | DATE | BY | DESCRIPTION |
|------|----------|-----|------------------|
| 1 | 03/29/04 | JSC | REV. TOWER ELEV. |
| 0 | 02/17/04 | RRS | FINAL S.C. |
| A | 02/02/04 | RRS | PRELIM. S.C. |

REVISIONS

DEEP RIVER
15 PENT ROAD
DEEP RIVER, CT
06417

SITE NAME / ADDRESS

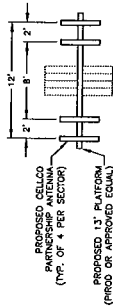
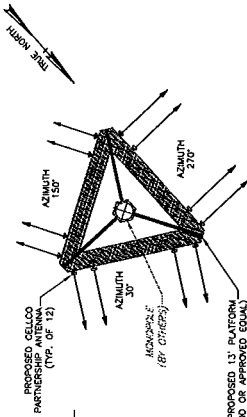
DRAWN BY: RRG
APPROVED BY: FDK
CHECKED BY: CKD
DATE: 03/26/04

COMPOUND PLAN & TOWER ELEVATION

DEWBERRY P/N: 3049-03

C1

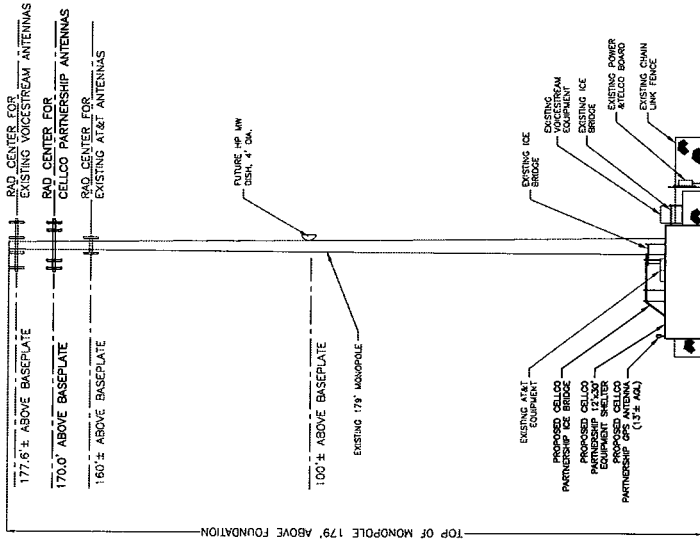
SHEET NO.



NOTE: ANTENNA TYPES AND CONFIGURATIONS TO BE DETERMINED BY RF ENGINEERING.

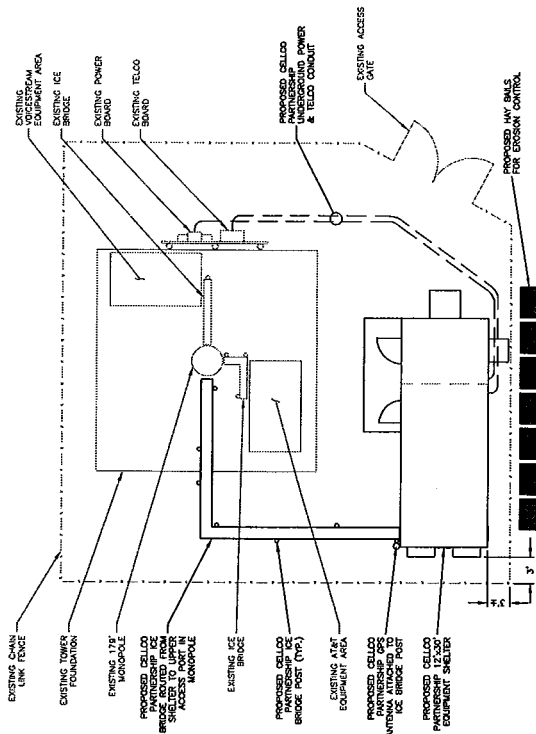
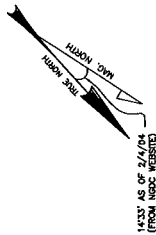
PROPOSED 13' PLATFORM (PROCD OR APPROVED EQUAL)

ANTENNA MOUNTING CONFIGURATION
NOT TO SCALE



ANTENNA HEIGHT INFORMATION BASED UPON 7.5' FT. ABOVE MONOPOLE. ALL ANTENNA HEIGHTS ARE TO BE DETERMINED BY RF ENGINEERING. ALL ANTENNA TYPES AND CONFIGURATIONS TO BE DETERMINED BY RF ENGINEERING.

SOUTH ELEVATION



PARTIAL SITE PLAN



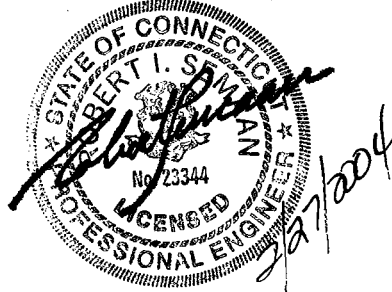
1047 N. 204th Avenue
Elkhorn, NE 68022
Ph:402-289-1888
Fax:402-289-1861

SEMAAN ENGINEERING SOLUTIONS

178 ft PIROD Monopole Structural Analysis

Prepared for:
VoiceStream Wireless
12920 SE 38th Street
Bellevue, WA 98006

Site: CT11237C / Deep River / AT&T
Middlesex County, CT



August 12, 2002

Mr. Joseph Laurenzano
VoiceStream Wireless
12920 SE 38th Street
Bellevue, WA 98006

Re: Site Number CT11237C – Deep River / AT&T.

Dear Mr. Laurenzano:

We have completed the structural analysis for the existing monopole, located at the above referenced site. The purpose of this analysis is to determine that the existing monopole design is in conformance with the EIA/TIA-222-F standard for the proposed antennae loads installation. Refer to the Review and Recommendations section at the end of this report for the analysis results.

Description of Structure:

The structure is a 178 ft PIROD Monopole.

Refer to PIROD drawing 206362-B dated September 29, 2000 for a detailed description of the structure.

Method of analysis:

The tower was analyzed using Semaan Engineering Solutions' software suite for communication structures. The structural analysis is performed using the SAPS finite element engine. The method is 3D, non-linear, which accounts for the second order geometric effects due to the displacements. The analysis was performed in conformance with **EIA/TIA-222-F for 85 mph with 1/2" radial ice.** Wind is applied to the structure, accessories and antennas.

Structure loading:

Per the loading sheet supplied, the analysis was performed using the following loading: (Proposed loading in bold)

| Elev. (ft) | Qty. | Antennas and Mounts | Coax | Owner |
|-------------------|-------------|----------------------------------------------------------------|-------------------|-----------------|
| 177.6 | 12 | RR65-19-00XP w/Airtech LNA's Mounted On a Low Profile platform | (24) 1-5/8 | VoiceStream |
| 170.0 | 12 | DB844H90EXY Mounted On a Low Profile platform | (12) 1-5/8 | Verizon |
| 160.0 | 6 | Allgon 7250.03 Mounted On a Low Profile platform | (12) 1-1/4 | AT&T |
| 100.0 | 1 | HP MW Dish, 4' Dia. | (1) 1-5/8 | VoiceStream |

All new access holes shall be reinforced with welded rims that are compatible with the pole and to be sized and supplied by pole manufacturer.

All transmission lines are assumed running inside of pole shaft.

Results of Analysis:

Refer to the attached Computer Summary sheets for detailed analysis results.

Structure:

The existing monopole is structurally capable of supporting the existing and proposed antennas. The maximum structure usage is: 72.4%.

Foundation:

| Pole Reactions | Original Design Reactions | Current Analysis Reactions | % Of Design |
|-----------------------|----------------------------------|-----------------------------------|--------------------|
| Moment (ft-kips) | 4,954.50 | 3,370.61 | 68.0 |
| Shear (kips) | 38.00 | 27.54 | 72.5 |

The structure base reactions resulting from this analysis do not exceed the ones shown on the original structure drawings.

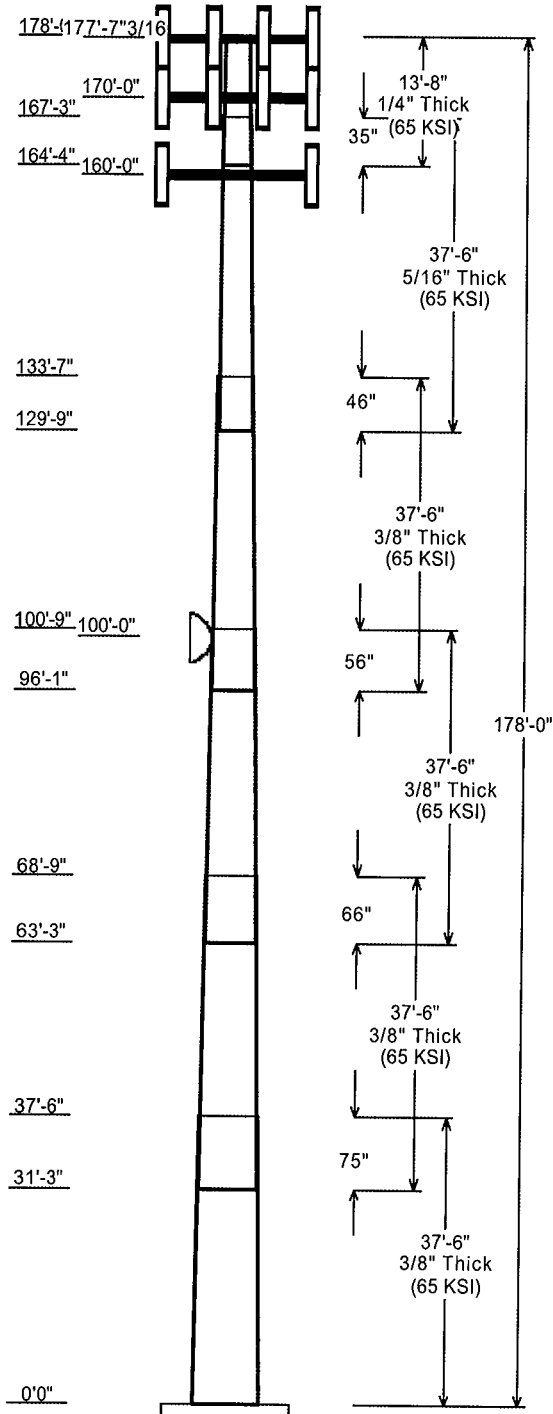
Review and Recommendations:

Based on the analysis results, the existing structure meets the requirements per the EIA/TIA-222-F standards for a basic wind speed of 85 mph with 1/2" radial ice.

SEMAAN ENGINEERING SOLUTIONS

1047 N.204th Avenue
 Elkhorn, NE 68022
 Phone: 402-289-1888
 Fax: 402-289-1861

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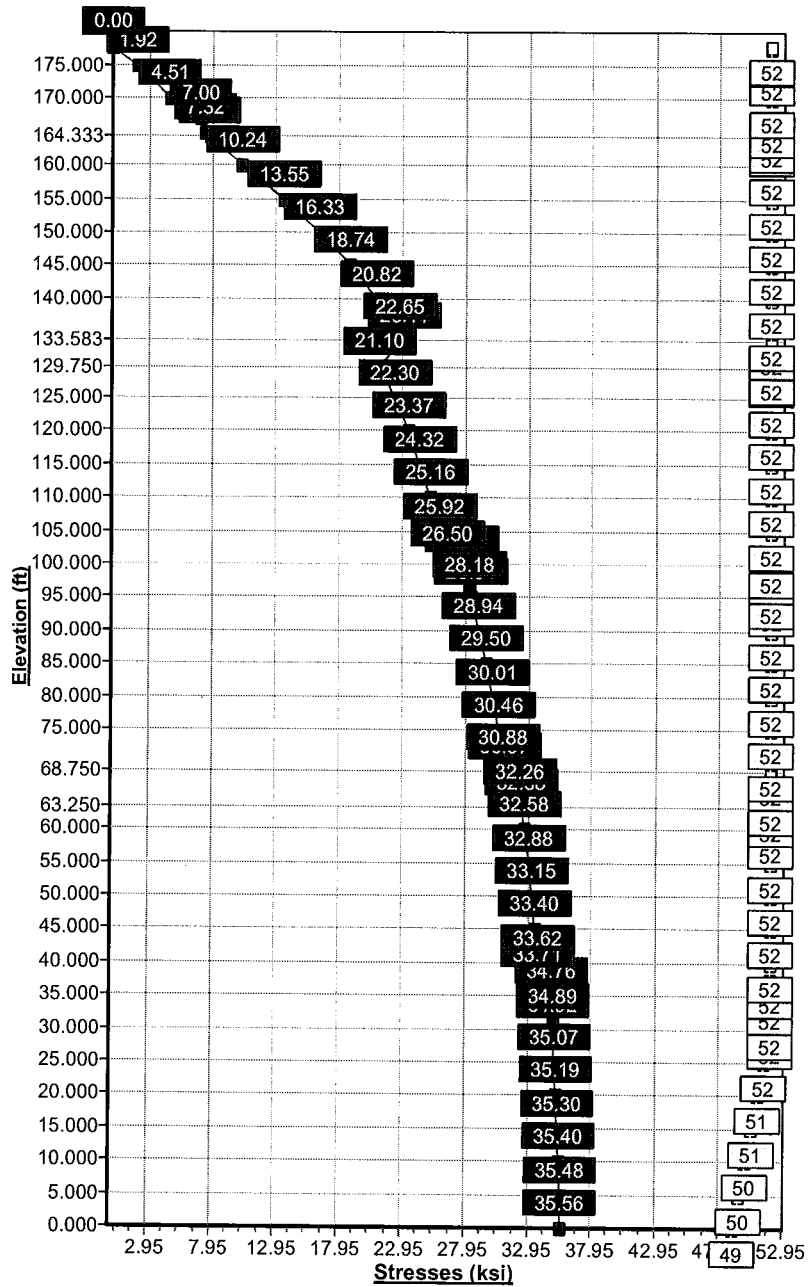
| Job Information | |
|-----------------|-------------------------------|
| Pole : | CT11237C |
| Description : | |
| Client : | VoiceStream Wireless-WA |
| Location : | Deep River Verizon |
| Type : | 18 Sides Slip Joints |
| Height (ft) | 178.000 Taper: 0.2457 (in/ft) |

| Sections Properties | | | | | | | |
|---------------------|-------------------|------------------|---------------------|------------|------------|---------------------|-------------------|
| Section | Shaft Length (ft) | Diameter (in) | | Thick (in) | Joint Type | Overlap Length (in) | Steel Grade (ksi) |
| | | Across Flats Top | Across Flats Bottom | | | | |
| 1 | 37.500 | 53.78 | 63.00 | 0.375 | | 0.000 | 65 |
| 2 | 37.500 | 46.85 | 56.07 | 0.375 | Slip Joint | 75.000 | 65 |
| 3 | 37.500 | 39.74 | 48.96 | 0.375 | Slip Joint | 66.000 | 65 |
| 4 | 37.500 | 32.43 | 41.64 | 0.375 | Slip Joint | 56.000 | 65 |
| 5 | 37.500 | 24.78 | 33.99 | 0.313 | Slip Joint | 46.000 | 65 |
| 6 | 13.667 | 22.64 | 26.00 | 0.250 | Slip Joint | 35.000 | 65 |

| Discrete Appurtenance | | | | | |
|-----------------------|-----------------|----------|-----|------------------------------|--|
| Attach Elev (ft) | Force Elev (ft) | Type | Qty | Description | |
| 177.600 | 177.600 | Panel | 12 | RR65-19-00XP w/Airtech LNA's | |
| 177.600 | 177.600 | Platform | 1 | Low Profile platform | |
| 170.000 | 170.000 | Platform | 1 | Low Profile platform | |
| 170.000 | 170.000 | Panel | 12 | DB844H90EXY | |
| 160.000 | 160.000 | Panel | 6 | Allgon 7250.03 | |
| 160.000 | 160.000 | Platform | 1 | Low Profile platform | |
| 100.000 | 100.000 | Dish | 1 | HP MW Dish, 4' Dia. | |

| Load Cases / Deflections | | | |
|-------------------------------------------------------------------|------------------|------------------|----------------|
| Load Case | Attach Elev (ft) | Translation (in) | Rotation (deg) |
| No Ice <u>No Ice Wind Speed = 85.00 mph w/ No Ice</u> | | | |
| | 177.600 | 92.84 | -4.648 |
| | 170.000 | 85.46 | -4.617 |
| | 160.000 | 75.91 | -4.494 |
| | 100.000 | 29.12 | -2.861 |
| Ice <u>Ice Wind Speed = 73.61 mph w/ Ice 0.50 in Thick</u> | | | |
| | 177.600 | 77.05 | -3.880 |
| | 170.000 | 70.89 | -3.854 |
| | 160.000 | 62.92 | -3.750 |
| | 100.000 | 24.01 | -2.369 |

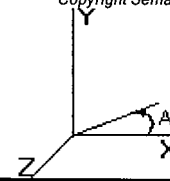
| Reactions | | | |
|-----------|-----------------|--------------|--------------|
| Load Case | Moment (Kip-ft) | Shear (Kips) | Axial (Kips) |
| No Ice | 3,370.608 | 27.538 | -37.917 |
| Ice | 2,755.618 | 21.919 | -45.901 |



Pole : CT11237C
 Location: Deep River Verizon
 Height : 178.0 (ft)
 Shape : 18 Sides
 Base Dia : 63.00 (in)
 Taper : 0.245 (in/ft)

VoiceStream Wireless-WA
 Base Elev : 0.000 (ft)
 Top Dia : 22.64 (in)

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 Page: 1



Shaft Section Properties

| Sect Num | Length (ft) | Thick (in) | Fv (ksi) | Joint Type | Slip Joint Len (in) | Weight (lb) | Bottom | | | | | | Top | | | | | | Taper (in/ft) |
|--------------|-------------|------------|----------|------------|---------------------|-------------|----------|-----------|-------------|-----------|-----------|-----------|----------|-----------|-------------|-----------|-----------|-----------|---------------|
| | | | | | | | Dia (in) | Elev (ft) | Area (sqin) | Ix (in^4) | W/t Ratio | D/t Ratio | Dia (in) | Elev (ft) | Area (sqin) | Ix (in^4) | W/t Ratio | D/t Ratio | |
| 1 | 37.500 | 0.3750 | 65 | | 0.00 | 8,812 | 63.00 | 0.000 | 74.54 | 36933.4 | 28.21 | 168.0 | 53.78 | 37.50 | 63.57 | 22913.1 | 23.88 | 143.43 | 0.245 |
| 2 | 37.500 | 0.3750 | 65 | Slip Joint | 75.00 | 7,759 | 56.07 | 31.25 | 66.29 | 25982.2 | 24.95 | 149.5 | 46.85 | 68.75 | 55.33 | 15103.6 | 20.62 | 124.96 | 0.245 |
| 3 | 37.500 | 0.3750 | 65 | Slip Joint | 66.00 | 6,679 | 48.96 | 63.25 | 57.83 | 17245.9 | 21.61 | 130.5 | 39.74 | 100.7 | 46.86 | 9177.6 | 17.28 | 105.99 | 0.245 |
| 4 | 37.500 | 0.3750 | 65 | Slip Joint | 56.00 | 5,568 | 41.64 | 96.08 | 49.12 | 10568.8 | 18.17 | 111.0 | 32.43 | 133.5 | 38.15 | 4952.9 | 13.84 | 86.48 | 0.245 |
| 5 | 37.500 | 0.3125 | 65 | Slip Joint | 46.00 | 3,680 | 33.99 | 129.7 | 33.41 | 4789.3 | 17.77 | 108.7 | 24.78 | 167.2 | 24.27 | 1836.3 | 12.57 | 79.31 | 0.245 |
| 6 | 13.667 | 0.2500 | 65 | Slip Joint | 35.00 | 888 | 26.00 | 164.3 | 20.43 | 1711.6 | 16.93 | 104.0 | 22.64 | 178.0 | 17.77 | 1125.6 | 14.56 | 90.57 | 0.245 |
| Shaft Weight | | | | | | 33,387 | | | | | | | | | | | | | |

Discrete Appurtenance Properties

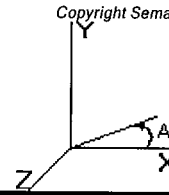
| Attach Elev (ft) | Description | Qty | Weight (lb) | No Ice CaAa (sf) | CaAa Factor | Weight (lb) | Ice CaAa (sf) | CaAa Factor | Distance From Face (ft) | X Angle (deg) | Vert Ecc (ft) |
|------------------|------------------------|-----|-------------|------------------|-------------|-------------|---------------|-------------|-------------------------|---------------|---------------|
| 177.6 | RR65-19-00XP w/Airtech | 12 | 23.00 | 6.000 | 1.00 | 52.00 | 6.850 | 1.00 | 0.000 | 0.00 | 0.000 |
| 177.6 | Low Profile platform | 1 | 1300.00 | 25.550 | 1.00 | 2100.00 | 27.320 | 1.00 | 0.000 | 0.00 | 0.000 |
| 170.0 | Low Profile platform | 1 | 1300.00 | 25.550 | 1.00 | 2100.00 | 27.320 | 1.00 | 0.000 | 0.00 | 0.000 |
| 170.0 | DB844H90EXY | 12 | 10.00 | 3.960 | 1.00 | 35.00 | 4.520 | 1.00 | 0.000 | 0.00 | 0.000 |
| 160.0 | Allgon 7250.03 | 6 | 16.00 | 4.300 | 0.67 | 36.00 | 5.000 | 0.67 | 0.000 | 0.00 | 0.000 |
| 160.0 | Low Profile platform | 1 | 1300.00 | 25.550 | 1.00 | 2100.00 | 27.320 | 1.00 | 0.000 | 0.00 | 0.000 |
| 100.0 | HP MW Dish, 4' Dia. | 1 | 170.00 | 15.860 | 1.00 | 280.00 | 16.520 | 1.00 | 0.000 | 0.00 | 0.000 |
| Totals | | 34 | 4562.00 | | | 7840.00 | | | Number of Loadings : 7 | | |

Pole : CT11237C
 Location: Deep River Verizon
 Height : 178.0 (ft)
 Shape : 18 Sides
 Base Dia : 63.00 (in)
 Taper : 0.245 (in/ft)

VoiceStream Wireless-WA

Base Elev : 0.000 (ft)
 Top Dia : 22.64 (in)

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 Page: 2



Segment Properties (Max Len : 5 ft)

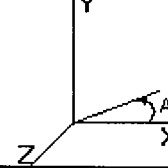
| Seg Elev (ft) | Description | Thick (in) | Dia (in) | Area (in^2) | Ix (in^4) | W/t Ratio | D/t Ratio | Fy (ksi) | Fb (ksi) | Weight (lb) |
|---------------|-----------------|------------|----------|-------------|-----------|-----------|-----------|----------|----------|-------------|
| 0.00 | | 0.3750 | 63.000 | 74.537 | 36,933.4 | 28.21 | 168.00 | 65 | 49 | 0.0 |
| 5.00 | | 0.3750 | 61.772 | 73.075 | 34,802.3 | 27.63 | 164.72 | 65 | 50 | 1,255.7 |
| 10.00 | | 0.3750 | 60.543 | 71.612 | 32,754.8 | 27.06 | 161.45 | 65 | 50 | 1,230.8 |
| 15.00 | | 0.3750 | 59.315 | 70.150 | 30,789.2 | 26.48 | 158.17 | 65 | 51 | 1,206.0 |
| 20.00 | | 0.3750 | 58.086 | 68.688 | 28,903.9 | 25.90 | 154.90 | 65 | 51 | 1,181.1 |
| 25.00 | | 0.3750 | 56.858 | 67.226 | 27,097.1 | 25.32 | 151.62 | 65 | 52 | 1,156.2 |
| 30.00 | | 0.3750 | 55.629 | 65.764 | 25,367.3 | 24.75 | 148.34 | 65 | 52 | 1,131.3 |
| 31.25 | Bot - Section 2 | 0.3750 | 55.322 | 65.399 | 24,946.6 | 24.60 | 147.53 | 65 | 52 | 278.9 |
| 35.00 | | 0.3750 | 54.401 | 64.302 | 23,712.7 | 24.17 | 145.07 | 65 | 52 | 1,666.4 |
| 37.50 | Top - Section 1 | 0.3750 | 54.537 | 64.464 | 23,891.9 | 24.23 | 145.43 | 65 | 52 | 1,095.4 |
| 40.00 | | 0.3750 | 53.922 | 63.732 | 23,088.2 | 23.94 | 143.79 | 65 | 52 | 545.3 |
| 45.00 | | 0.3750 | 52.694 | 62.270 | 21,535.4 | 23.37 | 140.52 | 65 | 52 | 1,071.9 |
| 50.00 | | 0.3750 | 51.465 | 60.808 | 20,053.8 | 22.79 | 137.24 | 65 | 52 | 1,047.0 |
| 55.00 | | 0.3750 | 50.237 | 59.346 | 18,641.7 | 22.21 | 133.97 | 65 | 52 | 1,022.1 |
| 60.00 | | 0.3750 | 49.009 | 57.884 | 17,297.6 | 21.63 | 130.69 | 65 | 52 | 997.3 |
| 63.25 | Bot - Section 3 | 0.3750 | 48.210 | 56.934 | 16,459.5 | 21.26 | 128.56 | 65 | 52 | 634.9 |
| 65.00 | | 0.3750 | 47.780 | 56.422 | 16,019.6 | 21.06 | 127.41 | 65 | 52 | 680.3 |
| 68.75 | Top - Section 2 | 0.3750 | 47.609 | 56.218 | 15,846.5 | 20.98 | 126.96 | 65 | 52 | 1,437.3 |
| 70.00 | | 0.3750 | 47.302 | 55.852 | 15,539.5 | 20.83 | 126.14 | 65 | 52 | 238.3 |
| 75.00 | | 0.3750 | 46.073 | 54.390 | 14,350.7 | 20.25 | 122.86 | 65 | 52 | 937.8 |
| 80.00 | | 0.3750 | 44.845 | 52.928 | 13,224.3 | 19.68 | 119.59 | 65 | 52 | 913.0 |
| 85.00 | | 0.3750 | 43.616 | 51.466 | 12,158.3 | 19.10 | 116.31 | 65 | 52 | 888.1 |
| 90.00 | | 0.3750 | 42.388 | 50.004 | 11,151.3 | 18.52 | 113.03 | 65 | 52 | 863.2 |
| 95.00 | | 0.3750 | 41.159 | 48.542 | 10,201.4 | 17.94 | 109.76 | 65 | 52 | 838.3 |
| 96.08 | Bot - Section 4 | 0.3750 | 40.893 | 48.225 | 10,003.0 | 17.82 | 109.05 | 65 | 52 | 178.4 |
| 100.00 | | 0.3750 | 39.931 | 47.080 | 9,307.1 | 17.37 | 106.48 | 65 | 52 | 1,282.1 |
| 100.75 | Top - Section 3 | 0.3750 | 40.497 | 47.753 | 9,712.1 | 17.63 | 107.99 | 65 | 52 | 242.0 |
| 105.00 | | 0.3750 | 39.453 | 46.510 | 8,973.4 | 17.14 | 105.21 | 65 | 52 | 681.6 |
| 110.00 | | 0.3750 | 38.224 | 45.048 | 8,153.5 | 16.56 | 101.93 | 65 | 52 | 778.9 |
| 115.00 | | 0.3750 | 36.996 | 43.586 | 7,385.1 | 15.98 | 98.66 | 65 | 52 | 754.0 |
| 120.00 | | 0.3750 | 35.767 | 42.124 | 6,666.5 | 15.41 | 95.38 | 65 | 52 | 729.1 |
| 125.00 | | 0.3750 | 34.539 | 40.662 | 5,996.1 | 14.83 | 92.10 | 65 | 52 | 704.3 |
| 129.75 | Bot - Section 5 | 0.3750 | 33.372 | 39.273 | 5,402.4 | 14.28 | 88.99 | 65 | 52 | 646.0 |
| 130.00 | | 0.3750 | 33.310 | 39.200 | 5,372.3 | 14.25 | 88.83 | 65 | 52 | 61.8 |
| 133.58 | Top - Section 4 | 0.3125 | 33.055 | 32.475 | 4,398.7 | 17.24 | 105.78 | 65 | 52 | 872.9 |
| 135.00 | | 0.3125 | 32.707 | 32.130 | 4,259.9 | 17.04 | 104.66 | 65 | 52 | 155.7 |
| 140.00 | | 0.3125 | 31.478 | 30.912 | 3,793.4 | 16.35 | 100.73 | 65 | 52 | 536.3 |
| 145.00 | | 0.3125 | 30.250 | 29.693 | 3,362.3 | 15.66 | 96.80 | 65 | 52 | 515.6 |
| 150.00 | | 0.3125 | 29.022 | 28.475 | 2,965.2 | 14.96 | 92.87 | 65 | 52 | 494.8 |
| 155.00 | | 0.3125 | 27.793 | 27.256 | 2,600.6 | 14.27 | 88.94 | 65 | 52 | 474.1 |
| 160.00 | | 0.3125 | 26.565 | 26.038 | 2,267.2 | 13.58 | 85.01 | 65 | 52 | 453.4 |
| 164.33 | Bot - Section 6 | 0.3125 | 25.500 | 24.982 | 2,002.4 | 12.98 | 81.60 | 65 | 52 | 376.2 |
| 165.00 | | 0.3125 | 25.336 | 24.819 | 1,963.6 | 12.89 | 81.08 | 65 | 52 | 102.7 |
| 167.25 | Top - Section 5 | 0.2500 | 25.283 | 19.863 | 1,572.7 | 16.42 | 101.13 | 65 | 52 | 341.7 |
| 170.00 | | 0.2500 | 24.608 | 19.327 | 1,448.8 | 15.95 | 98.43 | 65 | 52 | 183.4 |
| 175.00 | | 0.2500 | 23.379 | 18.352 | 1,240.4 | 15.08 | 93.52 | 65 | 52 | 320.5 |
| 177.60 | | 0.2500 | 22.740 | 17.846 | 1,140.5 | 14.63 | 90.96 | 65 | 52 | 160.1 |
| 178.00 | | 0.2500 | 22.642 | 17.768 | 1,125.6 | 14.56 | 90.57 | 65 | 52 | 24.2 |
| | | | | | | | | | | 33,386.5 |

Pole : CT11237C
 Location: Deep River Verizon
 Height : 178.0 (ft)
 Shape : 18 Sides
 Base Dia : 63.00 (in)
 Taper : 0.245 (in/ft)

VoiceStream Wireless-WA

Base Elev : 0.000 (ft)

Top Dia : 22.64 (in)



Load Case: No Ice 85 mph - No Ice 25 Iterations

Gust Response Factor : 1.69 Effective Wind Speed : 85.00 (mph)

Dead Load Factor : 1.00

Wind Load Factor : 1.00

Shaft Forces

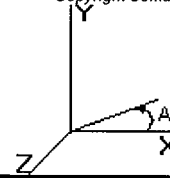
| Seg Top Elev (ft) | Description | Kz | az (psf) | azGh (psf) | C (mph-ft) | Cf | Tributary (ft) | Aa (sf) | CfAa (sf) | Wind Force X (lb) | Wind Force Z (lb) | Weight (lb) |
|-------------------|-----------------|------|----------|------------|------------|-------|----------------|---------|-----------|-------------------|-------------------|-------------|
| 0.00 | | 1.00 | 18.49 | 31.25 | 446.25 | 0.650 | 0.00 | 0.000 | 0.000 | 0.00 | 0.00 | 0.0 |
| 5.00 | | 1.00 | 18.49 | 31.25 | 437.55 | 0.650 | 5.00 | 25.994 | 16.896 | 528.14 | 0.00 | 1,255.7 |
| 10.00 | | 1.00 | 18.49 | 31.25 | 428.85 | 0.650 | 5.00 | 25.482 | 16.563 | 517.74 | 0.00 | 1,230.8 |
| 15.00 | | 1.00 | 18.49 | 31.25 | 420.15 | 0.650 | 5.00 | 24.970 | 16.231 | 507.34 | 0.00 | 1,206.0 |
| 20.00 | | 1.00 | 18.49 | 31.25 | 411.44 | 0.650 | 5.00 | 24.459 | 15.898 | 496.94 | 0.00 | 1,181.1 |
| 25.00 | | 1.00 | 18.49 | 31.25 | 402.74 | 0.650 | 5.00 | 23.947 | 15.565 | 486.54 | 0.00 | 1,156.2 |
| 30.00 | | 1.00 | 18.49 | 31.25 | 394.04 | 0.650 | 5.00 | 23.435 | 15.233 | 476.14 | 0.00 | 1,131.3 |
| 31.25 | Bot - Section 2 | 1.00 | 18.49 | 31.25 | 391.87 | 0.650 | 1.25 | 5.779 | 3.756 | 117.41 | 0.00 | 278.9 |
| 35.00 | | 1.01 | 18.81 | 31.78 | 388.59 | 0.650 | 3.75 | 17.379 | 11.296 | 359.08 | 0.00 | 1,666.4 |
| 37.50 | Top - Section 1 | 1.03 | 19.18 | 32.42 | 388.01 | 0.650 | 2.50 | 11.426 | 7.427 | 240.78 | 0.00 | 1,095.4 |
| 40.00 | | 1.05 | 19.54 | 33.02 | 392.59 | 0.650 | 2.50 | 11.298 | 7.344 | 242.52 | 0.00 | 545.3 |
| 45.00 | | 1.09 | 20.21 | 34.15 | 390.16 | 0.650 | 5.00 | 22.212 | 14.438 | 493.11 | 0.00 | 1,071.9 |
| 50.00 | | 1.12 | 20.82 | 35.19 | 386.84 | 0.650 | 5.00 | 21.700 | 14.105 | 496.47 | 0.00 | 1,047.0 |
| 55.00 | | 1.15 | 21.40 | 36.17 | 382.78 | 0.650 | 5.00 | 21.188 | 13.772 | 498.14 | 0.00 | 1,022.1 |
| 60.00 | | 1.18 | 21.94 | 37.08 | 378.10 | 0.650 | 5.00 | 20.676 | 13.440 | 498.35 | 0.00 | 997.3 |
| 63.25 | Bot - Section 3 | 1.20 | 22.27 | 37.64 | 374.75 | 0.650 | 3.25 | 13.165 | 8.557 | 322.13 | 0.00 | 634.9 |
| 65.00 | | 1.21 | 22.44 | 37.93 | 372.86 | 0.650 | 1.75 | 7.109 | 4.621 | 175.30 | 0.00 | 680.3 |
| 68.75 | Top - Section 2 | 1.23 | 22.81 | 38.55 | 368.61 | 0.650 | 3.75 | 15.022 | 9.764 | 376.42 | 0.00 | 1,437.3 |
| 70.00 | | 1.24 | 22.92 | 38.75 | 373.05 | 0.650 | 1.25 | 4.943 | 3.213 | 124.51 | 0.00 | 238.3 |
| 75.00 | | 1.26 | 23.38 | 39.52 | 366.96 | 0.650 | 5.00 | 19.453 | 12.645 | 499.73 | 0.00 | 937.8 |
| 80.00 | | 1.28 | 23.82 | 40.25 | 360.49 | 0.650 | 5.00 | 18.941 | 12.312 | 495.64 | 0.00 | 913.0 |
| 85.00 | | 1.31 | 24.23 | 40.96 | 353.66 | 0.650 | 5.00 | 18.429 | 11.979 | 490.67 | 0.00 | 888.1 |
| 90.00 | | 1.33 | 24.63 | 41.63 | 346.52 | 0.650 | 5.00 | 17.918 | 11.646 | 484.90 | 0.00 | 863.2 |
| 95.00 | | 1.35 | 25.02 | 42.28 | 339.09 | 0.650 | 5.00 | 17.406 | 11.314 | 478.38 | 0.00 | 838.3 |
| 96.08 | Bot - Section 4 | 1.35 | 25.10 | 42.42 | 337.44 | 0.650 | 1.08 | 3.704 | 2.407 | 102.12 | 0.00 | 178.4 |
| 100.00 | Appertunance(s) | 1.37 | 25.38 | 42.90 | 331.38 | 0.650 | 3.92 | 13.435 | 8.733 | 374.70 | 0.00 | 1,282.1 |
| 100.75 | Top - Section 3 | 1.37 | 25.44 | 42.99 | 330.21 | 0.650 | 0.75 | 2.537 | 1.649 | 70.90 | 0.00 | 242.0 |
| 105.00 | | 1.39 | 25.74 | 43.51 | 329.70 | 0.650 | 4.25 | 14.158 | 9.202 | 400.40 | 0.00 | 681.6 |
| 110.00 | | 1.41 | 26.09 | 44.09 | 321.57 | 0.650 | 5.00 | 16.183 | 10.519 | 463.79 | 0.00 | 778.9 |
| 115.00 | | 1.42 | 26.42 | 44.65 | 313.22 | 0.650 | 5.00 | 15.671 | 10.186 | 454.86 | 0.00 | 754.0 |
| 120.00 | | 1.44 | 26.74 | 45.20 | 304.66 | 0.650 | 5.00 | 15.159 | 9.853 | 445.39 | 0.00 | 729.1 |
| 125.00 | | 1.46 | 27.06 | 45.73 | 295.92 | 0.650 | 5.00 | 14.647 | 9.521 | 435.40 | 0.00 | 704.3 |
| 129.75 | Bot - Section 5 | 1.47 | 27.35 | 46.22 | 287.45 | 0.650 | 4.75 | 13.441 | 8.736 | 403.81 | 0.00 | 646.0 |
| 130.00 | | 1.48 | 27.36 | 46.24 | 287.00 | 0.650 | 0.25 | 0.708 | 0.460 | 21.27 | 0.00 | 61.8 |
| 133.58 | Top - Section 4 | 1.49 | 27.57 | 46.60 | 280.50 | 0.650 | 3.58 | 10.002 | 6.501 | 303.01 | 0.00 | 872.9 |
| 135.00 | | 1.49 | 27.66 | 46.74 | 283.32 | 0.650 | 1.42 | 3.882 | 2.523 | 117.95 | 0.00 | 155.7 |
| 140.00 | | 1.51 | 27.95 | 47.23 | 274.10 | 0.650 | 5.00 | 13.372 | 8.692 | 410.57 | 0.00 | 536.3 |
| 145.00 | | 1.52 | 28.23 | 47.71 | 264.73 | 0.650 | 5.00 | 12.860 | 8.359 | 398.84 | 0.00 | 515.6 |
| 150.00 | | 1.54 | 28.50 | 48.17 | 255.21 | 0.650 | 5.00 | 12.348 | 8.026 | 386.69 | 0.00 | 494.8 |
| 155.00 | | 1.55 | 28.77 | 48.63 | 245.55 | 0.650 | 5.00 | 11.836 | 7.694 | 374.15 | 0.00 | 474.1 |
| 160.00 | Appertunance(s) | 1.57 | 29.03 | 49.07 | 235.77 | 0.650 | 5.00 | 11.325 | 7.361 | 361.23 | 0.00 | 453.4 |
| 164.33 | Bot - Section 6 | 1.58 | 29.26 | 49.45 | 227.18 | 0.650 | 4.33 | 9.401 | 6.110 | 302.16 | 0.00 | 376.2 |
| 165.00 | | 1.58 | 29.29 | 49.50 | 225.86 | 0.650 | 0.67 | 1.440 | 0.936 | 46.33 | 0.00 | 102.7 |
| 167.25 | Top - Section 5 | 1.59 | 29.40 | 49.69 | 221.36 | 0.650 | 2.25 | 4.792 | 3.115 | 154.82 | 0.00 | 341.7 |
| 170.00 | Appertunance(s) | 1.59 | 29.54 | 49.93 | 220.30 | 0.650 | 2.75 | 5.717 | 3.716 | 185.54 | 0.00 | 183.4 |
| 175.00 | | 1.61 | 29.79 | 50.34 | 210.17 | 0.650 | 5.00 | 9.997 | 6.498 | 327.16 | 0.00 | 320.5 |
| 177.60 | Appertunance(s) | 1.61 | 29.91 | 50.55 | 204.86 | 0.650 | 2.60 | 4.996 | 3.247 | 164.19 | 0.00 | 160.1 |
| 178.00 | | 1.61 | 29.93 | 50.59 | 204.04 | 0.650 | 0.40 | 0.757 | 0.492 | 24.88 | 0.00 | 24.2 |
| Totals: | | | | | | | 178.00 | | | 16,136.57 | 0.00 | 33,386.5 |

Pole : CT11237C
Location: Deep River Verizon
Height: 178.0 (ft)
Shape: 18 Sides
Base Dia: 63.00 (in)
Taper: 0.245 (in/ft)

VoiceStream Wireless-WA

Base Elev : 0.000 (ft)
Top Dia : 22.64 (in)

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| | | |
|-----------------------------------|------------------------------------------|---------------|
| Load Case: No Ice | 85 mph - No Ice | 25 Iterations |
| Gust Response Factor: 1.69 | Effective Wind Speed: 85.00 (mph) | |
| Dead Load Factor: 1.00 | | |
| Wind Load Factor: 1.00 | | |

Discrete Appurtenance Forces

| Elev (ft) | Description | Qty | qz (psf) | qzGh (psf) | Total GaAa (sf) | CaAa Factor | Horiz Ecc (ft) | Vert Ecc (ft) | X Angle (deg) | Wind Force X (lb) | Wind Force Z (lb) | Mom X (lb-ft) | Mom Y (lb-ft) | Mom Z (lb-ft) | Weight (lb) |
|-----------|----------------------|-----|----------|------------|-----------------|-------------|----------------|---------------|---------------|-------------------|-------------------|---------------|---------------|---------------|-------------|
| 100.00 | HP MW Dish, 4' Dia. | 1 | 25.38 | 42.90 | 15.860 | 1.000 | 0.000 | 0.0 | 0.0 | 680.51 | 0.00 | 0.00 | 0.00 | 0.00 | 170.0 |
| 160.00 | Allgon 7250.03 | 6 | 29.03 | 49.07 | 17.209 | 0.667 | 0.000 | 0.0 | 0.0 | 844.50 | 0.00 | 0.00 | 0.00 | 0.00 | 96.0 |
| 160.00 | Low Profile platform | 1 | 29.03 | 49.07 | 25.550 | 1.000 | 0.000 | 0.0 | 0.0 | 1253.84 | 0.00 | 0.00 | 0.00 | 0.00 | 1300.0 |
| 170.00 | Low Profile platform | 1 | 29.54 | 49.93 | 25.550 | 1.000 | 0.000 | 0.0 | 0.0 | 1275.74 | 0.00 | 0.00 | 0.00 | 0.00 | 1300.0 |
| 170.00 | DB844H90EXY | 12 | 29.54 | 49.93 | 47.520 | 1.000 | 0.000 | 0.0 | 0.0 | 2372.74 | 0.00 | 0.00 | 0.00 | 0.00 | 120.0 |
| 177.60 | RR65-19-00XP | 12 | 29.91 | 50.55 | 72.000 | 1.000 | 0.000 | 0.0 | 0.0 | 3640.27 | 0.00 | 0.00 | 0.00 | 0.00 | 276.0 |
| 177.60 | Low Profile platform | 1 | 29.91 | 50.55 | 25.550 | 1.000 | 0.000 | 0.0 | 0.0 | 1291.79 | 0.00 | 0.00 | 0.00 | 0.00 | 1300.0 |
| | | | | | | | | | | 11,359.4 | 0.00 | | | | 4,562.0 |

Pole : CT11237C
 Location: Deep River Verizon
 Height : 178.0 (ft)
 Shape : 18 Sides
 Base Dia : 63.00 (in)
 Taper : 0.245 (in/ft)

VoiceStream Wireless-WA

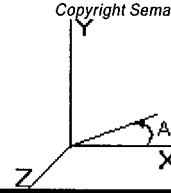
Base Elev : 0.000 (ft)

Top Dia : 22.64 (in)

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Load Case: No Ice 85 mph - No Ice 25 Iterations

Gust Response Factor : 1.69 Effective Wind Speed : 85.00 (mph)

Dead Load Factor : 1.00

Wind Load Factor : 1.00

Applied Forces Summary

| Seg Elev (ft) | X Coord (ft) | Z Coord (ft) | Lateral FX (-) (lb) | Axial FY (-) (lb) | Lateral FZ (lb) | Moment MX (lb-ft) | Torsion MY (lb-ft) | Moment MZ (lb-ft) |
|----------------|--------------|--------------|---------------------|-------------------|-----------------|-------------------|--------------------|-------------------|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5.00 | 0.00 | 0.00 | 528.14 | 1,255.72 | 0.00 | 0.00 | 0.00 | 0.00 |
| 10.00 | 0.00 | 0.00 | 517.74 | 1,230.85 | 0.00 | 0.00 | 0.00 | 0.00 |
| 15.00 | 0.00 | 0.00 | 507.34 | 1,205.97 | 0.00 | 0.00 | 0.00 | 0.00 |
| 20.00 | 0.00 | 0.00 | 496.94 | 1,181.09 | 0.00 | 0.00 | 0.00 | 0.00 |
| 25.00 | 0.00 | 0.00 | 486.54 | 1,156.22 | 0.00 | 0.00 | 0.00 | 0.00 |
| 30.00 | 0.00 | 0.00 | 476.14 | 1,131.34 | 0.00 | 0.00 | 0.00 | 0.00 |
| 31.25 | 0.00 | 0.00 | 117.41 | 278.95 | 0.00 | 0.00 | 0.00 | 0.00 |
| 35.00 | 0.00 | 0.00 | 359.08 | 1,666.42 | 0.00 | 0.00 | 0.00 | 0.00 |
| 37.50 | 0.00 | 0.00 | 240.78 | 1,095.40 | 0.00 | 0.00 | 0.00 | 0.00 |
| 40.00 | 0.00 | 0.00 | 242.52 | 545.28 | 0.00 | 0.00 | 0.00 | 0.00 |
| 45.00 | 0.00 | 0.00 | 493.11 | 1,071.90 | 0.00 | 0.00 | 0.00 | 0.00 |
| 50.00 | 0.00 | 0.00 | 496.47 | 1,047.02 | 0.00 | 0.00 | 0.00 | 0.00 |
| 55.00 | 0.00 | 0.00 | 498.14 | 1,022.15 | 0.00 | 0.00 | 0.00 | 0.00 |
| 60.00 | 0.00 | 0.00 | 498.35 | 997.27 | 0.00 | 0.00 | 0.00 | 0.00 |
| 63.25 | 0.00 | 0.00 | 322.13 | 634.89 | 0.00 | 0.00 | 0.00 | 0.00 |
| 65.00 | 0.00 | 0.00 | 175.30 | 680.33 | 0.00 | 0.00 | 0.00 | 0.00 |
| 68.75 | 0.00 | 0.00 | 376.42 | 1,437.33 | 0.00 | 0.00 | 0.00 | 0.00 |
| 70.00 | 0.00 | 0.00 | 124.51 | 238.34 | 0.00 | 0.00 | 0.00 | 0.00 |
| 75.00 | 0.00 | 0.00 | 499.73 | 937.83 | 0.00 | 0.00 | 0.00 | 0.00 |
| 80.00 | 0.00 | 0.00 | 495.64 | 912.95 | 0.00 | 0.00 | 0.00 | 0.00 |
| 85.00 | 0.00 | 0.00 | 490.67 | 888.08 | 0.00 | 0.00 | 0.00 | 0.00 |
| 90.00 | 0.00 | 0.00 | 484.90 | 863.20 | 0.00 | 0.00 | 0.00 | 0.00 |
| 95.00 | 0.00 | 0.00 | 478.38 | 838.33 | 0.00 | 0.00 | 0.00 | 0.00 |
| 96.08 | 0.00 | 0.00 | 102.12 | 178.36 | 0.00 | 0.00 | 0.00 | 0.00 |
| 100.00 | 0.00 | 0.00 | 1,055.20 | 1,452.08 | 0.00 | 0.00 | 0.00 | 0.00 |
| 100.75 | 0.00 | 0.00 | 70.90 | 242.02 | 0.00 | 0.00 | 0.00 | 0.00 |
| 105.00 | 0.00 | 0.00 | 400.40 | 681.61 | 0.00 | 0.00 | 0.00 | 0.00 |
| 110.00 | 0.00 | 0.00 | 463.79 | 778.88 | 0.00 | 0.00 | 0.00 | 0.00 |
| 115.00 | 0.00 | 0.00 | 454.86 | 754.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120.00 | 0.00 | 0.00 | 445.39 | 729.13 | 0.00 | 0.00 | 0.00 | 0.00 |
| 125.00 | 0.00 | 0.00 | 435.40 | 704.26 | 0.00 | 0.00 | 0.00 | 0.00 |
| 129.75 | 0.00 | 0.00 | 403.81 | 646.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 130.00 | 0.00 | 0.00 | 21.27 | 61.77 | 0.00 | 0.00 | 0.00 | 0.00 |
| 133.58 | 0.00 | 0.00 | 303.01 | 872.89 | 0.00 | 0.00 | 0.00 | 0.00 |
| 135.00 | 0.00 | 0.00 | 117.95 | 155.72 | 0.00 | 0.00 | 0.00 | 0.00 |
| 140.00 | 0.00 | 0.00 | 410.57 | 536.29 | 0.00 | 0.00 | 0.00 | 0.00 |
| 145.00 | 0.00 | 0.00 | 398.84 | 515.56 | 0.00 | 0.00 | 0.00 | 0.00 |
| 150.00 | 0.00 | 0.00 | 386.69 | 494.83 | 0.00 | 0.00 | 0.00 | 0.00 |
| 155.00 | 0.00 | 0.00 | 374.15 | 474.10 | 0.00 | 0.00 | 0.00 | 0.00 |
| 160.00 | 0.00 | 0.00 | 2,459.57 | 1,849.37 | 0.00 | 0.00 | 0.00 | 0.00 |
| 164.33 | 0.00 | 0.00 | 302.16 | 376.15 | 0.00 | 0.00 | 0.00 | 0.00 |
| 165.00 | 0.00 | 0.00 | 46.33 | 102.69 | 0.00 | 0.00 | 0.00 | 0.00 |
| 167.25 | 0.00 | 0.00 | 154.82 | 341.68 | 0.00 | 0.00 | 0.00 | 0.00 |
| 170.00 | 0.00 | 0.00 | 3,834.03 | 1,603.36 | 0.00 | 0.00 | 0.00 | 0.00 |
| 175.00 | 0.00 | 0.00 | 327.16 | 320.54 | 0.00 | 0.00 | 0.00 | 0.00 |
| 177.60 | 0.00 | 0.00 | 5,096.25 | 1,736.12 | 0.00 | 0.00 | 0.00 | 0.00 |
| 178.00 | 0.00 | 0.00 | 24.88 | 24.24 | 0.00 | 0.00 | 0.00 | 0.00 |
| Totals: | | | 27,495.97 | 37,948.54 | 0.00 | 0.00 | 0.00 | 0.00 |

Pole : CT11237C
 Location: Deep River Verizon
 Height : 178.0 (ft)
 Shape : 18 Sides
 Base Dia : 63.00 (in)
 Taper : 0.245 (in/ft)

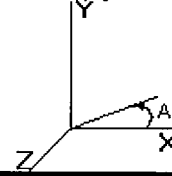
VoiceStream Wireless-WA

Base Elev : 0.000 (ft)
 Top Dia : 22.64 (in)

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Load Case: No Ice 85 mph - No Ice 25 Iterations

Gust Response Factor : 1.69 Effective Wind Speed : 85.00 (mph)

Dead Load Factor : 1.00

Wind Load Factor : 1.00

Calculated Forces and Deflections

| Seg Elev (ft) | Lateral FX (-) (kips) | Axial FY (-) (kips) | Lateral FZ (kips) | Moment MX (ft-kips) | Torsion MY (ft-kips) | Moment MZ (ft-kips) | X Deflect (in) | Z Deflect (in) | Total Deflect (in) | Rotation (deg) |
|---------------|-----------------------|---------------------|-------------------|---------------------|----------------------|---------------------|----------------|----------------|--------------------|----------------|
| 0.00 | 27.538 | 37.917 | 0.000 | 0.000 | 0.000 | 3,370.608 | 0.000 | 0.000 | 0.000 | 0.000 |
| 5.00 | 27.090 | 36.601 | 0.000 | 0.000 | 0.000 | 3,232.921 | -0.069 | 0.000 | 0.069 | -0.127 |
| 10.00 | 26.649 | 35.312 | 0.000 | 0.000 | 0.000 | 3,097.471 | -0.272 | 0.000 | 0.272 | -0.257 |
| 15.00 | 26.214 | 34.048 | 0.000 | 0.000 | 0.000 | 2,964.229 | -0.611 | 0.000 | 0.611 | -0.388 |
| 20.00 | 25.785 | 32.810 | 0.000 | 0.000 | 0.000 | 2,833.162 | -1.090 | 0.000 | 1.090 | -0.522 |
| 25.00 | 25.362 | 31.598 | 0.000 | 0.000 | 0.000 | 2,704.239 | -1.710 | 0.000 | 1.710 | -0.658 |
| 30.00 | 24.918 | 30.435 | 0.000 | 0.000 | 0.000 | 2,577.429 | -2.474 | 0.000 | 2.474 | -0.797 |
| 31.25 | 24.834 | 30.127 | 0.000 | 0.000 | 0.000 | 2,546.282 | -2.688 | 0.000 | 2.688 | -0.833 |
| 35.00 | 24.494 | 28.428 | 0.000 | 0.000 | 0.000 | 2,453.155 | -3.385 | 0.000 | 3.385 | -0.940 |
| 37.50 | 24.269 | 27.306 | 0.000 | 0.000 | 0.000 | 2,391.921 | -3.897 | 0.000 | 3.897 | -1.012 |
| 40.00 | 24.067 | 26.720 | 0.000 | 0.000 | 0.000 | 2,331.249 | -4.447 | 0.000 | 4.447 | -1.086 |
| 45.00 | 23.615 | 25.601 | 0.000 | 0.000 | 0.000 | 2,210.916 | -5.660 | 0.000 | 5.660 | -1.226 |
| 50.00 | 23.157 | 24.507 | 0.000 | 0.000 | 0.000 | 2,092.842 | -7.020 | 0.000 | 7.020 | -1.368 |
| 55.00 | 22.692 | 23.440 | 0.000 | 0.000 | 0.000 | 1,977.060 | -8.530 | 0.000 | 8.530 | -1.512 |
| 60.00 | 22.214 | 22.410 | 0.000 | 0.000 | 0.000 | 1,863.600 | -10.193 | 0.000 | 10.193 | -1.659 |
| 63.25 | 21.902 | 21.756 | 0.000 | 0.000 | 0.000 | 1,791.404 | -11.356 | 0.000 | 11.356 | -1.756 |
| 65.00 | 21.737 | 21.050 | 0.000 | 0.000 | 0.000 | 1,753.076 | -12.010 | 0.000 | 12.010 | -1.810 |
| 68.75 | 21.340 | 19.597 | 0.000 | 0.000 | 0.000 | 1,671.564 | -13.478 | 0.000 | 13.478 | -1.924 |
| 70.00 | 21.239 | 19.329 | 0.000 | 0.000 | 0.000 | 1,644.890 | -13.987 | 0.000 | 13.987 | -1.963 |
| 75.00 | 20.753 | 18.356 | 0.000 | 0.000 | 0.000 | 1,538.699 | -16.121 | 0.000 | 16.121 | -2.109 |
| 80.00 | 20.268 | 17.411 | 0.000 | 0.000 | 0.000 | 1,434.936 | -18.408 | 0.000 | 18.408 | -2.256 |
| 85.00 | 19.785 | 16.492 | 0.000 | 0.000 | 0.000 | 1,333.598 | -20.851 | 0.000 | 20.851 | -2.405 |
| 90.00 | 19.304 | 15.600 | 0.000 | 0.000 | 0.000 | 1,234.676 | -23.450 | 0.000 | 23.450 | -2.555 |
| 95.00 | 18.811 | 14.754 | 0.000 | 0.000 | 0.000 | 1,138.158 | -26.207 | 0.000 | 26.207 | -2.707 |
| 96.08 | 18.721 | 14.555 | 0.000 | 0.000 | 0.000 | 1,117.779 | -26.825 | 0.000 | 26.825 | -2.741 |
| 100.00 | 17.612 | 13.135 | 0.000 | 0.000 | 0.000 | 1,044.458 | -29.123 | 0.000 | 29.123 | -2.861 |
| 100.75 | 17.547 | 12.872 | 0.000 | 0.000 | 0.000 | 1,031.249 | -29.575 | 0.000 | 29.575 | -2.885 |
| 105.00 | 17.141 | 12.171 | 0.000 | 0.000 | 0.000 | 956.677 | -32.202 | 0.000 | 32.202 | -3.016 |
| 110.00 | 16.665 | 11.376 | 0.000 | 0.000 | 0.000 | 870.972 | -35.437 | 0.000 | 35.437 | -3.161 |
| 115.00 | 16.195 | 10.608 | 0.000 | 0.000 | 0.000 | 787.649 | -38.824 | 0.000 | 38.824 | -3.306 |
| 120.00 | 15.732 | 9.867 | 0.000 | 0.000 | 0.000 | 706.675 | -42.362 | 0.000 | 42.362 | -3.449 |
| 125.00 | 15.276 | 9.154 | 0.000 | 0.000 | 0.000 | 628.015 | -46.049 | 0.000 | 46.049 | -3.592 |
| 129.75 | 14.842 | 8.518 | 0.000 | 0.000 | 0.000 | 555.453 | -49.689 | 0.000 | 49.689 | -3.725 |
| 130.00 | 14.825 | 8.443 | 0.000 | 0.000 | 0.000 | 551.742 | -49.884 | 0.000 | 49.884 | -3.732 |
| 133.58 | 14.474 | 7.575 | 0.000 | 0.000 | 0.000 | 498.619 | -52.722 | 0.000 | 52.722 | -3.832 |
| 135.00 | 14.359 | 7.404 | 0.000 | 0.000 | 0.000 | 478.114 | -53.865 | 0.000 | 53.865 | -3.872 |
| 140.00 | 13.929 | 6.862 | 0.000 | 0.000 | 0.000 | 406.321 | -57.998 | 0.000 | 57.998 | -4.020 |
| 145.00 | 13.510 | 6.345 | 0.000 | 0.000 | 0.000 | 336.674 | -62.280 | 0.000 | 62.280 | -4.159 |
| 150.00 | 13.100 | 5.852 | 0.000 | 0.000 | 0.000 | 269.125 | -66.703 | 0.000 | 66.703 | -4.287 |
| 155.00 | 12.701 | 5.385 | 0.000 | 0.000 | 0.000 | 203.625 | -71.252 | 0.000 | 71.252 | -4.400 |
| 160.00 | 10.110 | 3.718 | 0.000 | 0.000 | 0.000 | 140.121 | -75.909 | 0.000 | 75.909 | -4.494 |
| 164.33 | 9.782 | 3.361 | 0.000 | 0.000 | 0.000 | 96.310 | -80.017 | 0.000 | 80.017 | -4.559 |
| 165.00 | 9.728 | 3.259 | 0.000 | 0.000 | 0.000 | 89.789 | -80.653 | 0.000 | 80.653 | -4.568 |
| 167.25 | 9.548 | 2.927 | 0.000 | 0.000 | 0.000 | 67.900 | -82.810 | 0.000 | 82.810 | -4.593 |
| 170.00 | 5.598 | 1.634 | 0.000 | 0.000 | 0.000 | 41.643 | -85.461 | 0.000 | 85.461 | -4.617 |
| 175.00 | 5.247 | 1.340 | 0.000 | 0.000 | 0.000 | 13.652 | -90.308 | 0.000 | 90.308 | -4.644 |
| 177.60 | 0.027 | 0.022 | 0.000 | 0.000 | 0.000 | 0.011 | -92.836 | 0.000 | 92.836 | -4.648 |
| 178.00 | 0.025 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | -93.225 | 0.000 | 93.225 | -4.648 |

Pole : CT11237C
 Location: Deep River Verizon
 Height : 178.0 (ft)
 Shape : 18 Sides
 Base Dia : 63.00 (in)
 Taper : 0.245 (in/ft)

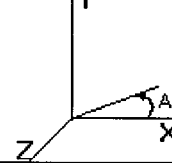
VoiceStream Wireless-WA

Base Elev : 0.000 (ft)
 Top Dia : 22.64 (in)

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| | | |
|-----------------------------|------------------------------------|---------------|
| Load Case: No Ice | 85 mph - No Ice | 25 Iterations |
| Gust Response Factor : 1.69 | Effective Wind Speed : 85.00 (mph) | |
| Dead Load Factor : 1.00 | | |
| Wind Load Factor : 1.00 | | |

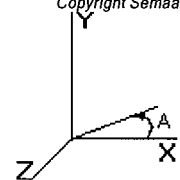
Calculated Stresses

| Seg Elev (ft) | Applied Stresses | | | | | | | Allowable Stress (Fb) (ksi) | Stress Ratio |
|---------------|------------------|-----------------|-----------------|---------------|-------------------|-------------------|----------------|-----------------------------|--------------|
| | Axial (Y) (ksi) | Shear (X) (ksi) | Shear (Z) (ksi) | Torsion (ksi) | Bending (X) (ksi) | Bending (Z) (ksi) | Combined (ksi) | | |
| 0.00 | 0.509 | 0.745 | 0.000 | 0.000 | 0.000 | 35.029 | 35.561 | 49.1 | 0.724 |
| 5.00 | 0.501 | 0.747 | 0.000 | 0.000 | 0.000 | 34.960 | 35.485 | 49.6 | 0.716 |
| 10.00 | 0.493 | 0.750 | 0.000 | 0.000 | 0.000 | 34.882 | 35.399 | 50.1 | 0.707 |
| 15.00 | 0.485 | 0.753 | 0.000 | 0.000 | 0.000 | 34.792 | 35.301 | 50.6 | 0.698 |
| 20.00 | 0.478 | 0.757 | 0.000 | 0.000 | 0.000 | 34.689 | 35.191 | 51.0 | 0.689 |
| 25.00 | 0.470 | 0.760 | 0.000 | 0.000 | 0.000 | 34.571 | 35.066 | 51.5 | 0.680 |
| 30.00 | 0.463 | 0.764 | 0.000 | 0.000 | 0.000 | 34.436 | 34.924 | 52.0 | 0.672 |
| 31.25 | 0.461 | 0.765 | 0.000 | 0.000 | 0.000 | 34.403 | 34.889 | 52.0 | 0.671 |
| 35.00 | 0.442 | 0.768 | 0.000 | 0.000 | 0.000 | 34.289 | 34.756 | 52.0 | 0.669 |
| 37.50 | 0.424 | 0.759 | 0.000 | 0.000 | 0.000 | 33.265 | 33.714 | 52.0 | 0.649 |
| 40.00 | 0.419 | 0.761 | 0.000 | 0.000 | 0.000 | 33.172 | 33.617 | 52.0 | 0.647 |
| 45.00 | 0.411 | 0.764 | 0.000 | 0.000 | 0.000 | 32.959 | 33.397 | 52.0 | 0.643 |
| 50.00 | 0.403 | 0.767 | 0.000 | 0.000 | 0.000 | 32.723 | 33.153 | 52.0 | 0.638 |
| 55.00 | 0.395 | 0.771 | 0.000 | 0.000 | 0.000 | 32.461 | 32.883 | 52.0 | 0.633 |
| 60.00 | 0.387 | 0.773 | 0.000 | 0.000 | 0.000 | 32.169 | 32.584 | 52.0 | 0.627 |
| 63.25 | 0.382 | 0.775 | 0.000 | 0.000 | 0.000 | 31.968 | 32.378 | 52.0 | 0.623 |
| 65.00 | 0.373 | 0.776 | 0.000 | 0.000 | 0.000 | 31.856 | 32.257 | 52.0 | 0.621 |
| 68.75 | 0.349 | 0.765 | 0.000 | 0.000 | 0.000 | 30.597 | 30.974 | 52.0 | 0.596 |
| 70.00 | 0.346 | 0.766 | 0.000 | 0.000 | 0.000 | 30.505 | 30.880 | 52.0 | 0.594 |
| 75.00 | 0.337 | 0.769 | 0.000 | 0.000 | 0.000 | 30.097 | 30.464 | 52.0 | 0.586 |
| 80.00 | 0.329 | 0.772 | 0.000 | 0.000 | 0.000 | 29.646 | 30.005 | 52.0 | 0.577 |
| 85.00 | 0.320 | 0.775 | 0.000 | 0.000 | 0.000 | 29.147 | 29.498 | 52.0 | 0.568 |
| 90.00 | 0.312 | 0.778 | 0.000 | 0.000 | 0.000 | 28.594 | 28.937 | 52.0 | 0.557 |
| 95.00 | 0.304 | 0.781 | 0.000 | 0.000 | 0.000 | 27.978 | 28.314 | 52.0 | 0.545 |
| 96.08 | 0.302 | 0.782 | 0.000 | 0.000 | 0.000 | 27.841 | 28.175 | 52.0 | 0.542 |
| 100.00 | 0.279 | 0.754 | 0.000 | 0.000 | 0.000 | 27.302 | 27.611 | 52.0 | 0.531 |
| 100.75 | 0.270 | 0.741 | 0.000 | 0.000 | 0.000 | 26.198 | 26.499 | 52.0 | 0.510 |
| 105.00 | 0.262 | 0.743 | 0.000 | 0.000 | 0.000 | 25.626 | 25.920 | 52.0 | 0.499 |
| 110.00 | 0.253 | 0.746 | 0.000 | 0.000 | 0.000 | 24.877 | 25.163 | 52.0 | 0.484 |
| 115.00 | 0.243 | 0.749 | 0.000 | 0.000 | 0.000 | 24.040 | 24.318 | 52.0 | 0.468 |
| 120.00 | 0.234 | 0.753 | 0.000 | 0.000 | 0.000 | 23.100 | 23.370 | 52.0 | 0.450 |
| 125.00 | 0.225 | 0.757 | 0.000 | 0.000 | 0.000 | 22.040 | 22.303 | 52.0 | 0.429 |
| 129.75 | 0.217 | 0.762 | 0.000 | 0.000 | 0.000 | 20.904 | 21.162 | 52.0 | 0.407 |
| 130.00 | 0.215 | 0.762 | 0.000 | 0.000 | 0.000 | 20.843 | 21.099 | 52.0 | 0.406 |
| 133.58 | 0.233 | 0.898 | 0.000 | 0.000 | 0.000 | 22.829 | 23.114 | 52.0 | 0.445 |
| 135.00 | 0.230 | 0.901 | 0.000 | 0.000 | 0.000 | 22.365 | 22.649 | 52.0 | 0.436 |
| 140.00 | 0.222 | 0.908 | 0.000 | 0.000 | 0.000 | 20.542 | 20.824 | 52.0 | 0.401 |
| 145.00 | 0.214 | 0.917 | 0.000 | 0.000 | 0.000 | 18.454 | 18.735 | 52.0 | 0.360 |
| 150.00 | 0.206 | 0.927 | 0.000 | 0.000 | 0.000 | 16.048 | 16.333 | 52.0 | 0.314 |
| 155.00 | 0.198 | 0.939 | 0.000 | 0.000 | 0.000 | 13.259 | 13.554 | 52.0 | 0.261 |
| 160.00 | 0.143 | 0.783 | 0.000 | 0.000 | 0.000 | 10.003 | 10.236 | 52.0 | 0.197 |
| 164.33 | 0.135 | 0.789 | 0.000 | 0.000 | 0.000 | 7.472 | 7.729 | 52.0 | 0.149 |
| 165.00 | 0.131 | 0.790 | 0.000 | 0.000 | 0.000 | 7.059 | 7.319 | 52.0 | 0.141 |
| 167.25 | 0.147 | 0.969 | 0.000 | 0.000 | 0.000 | 6.651 | 7.002 | 52.0 | 0.135 |
| 170.00 | 0.085 | 0.584 | 0.000 | 0.000 | 0.000 | 4.309 | 4.509 | 52.0 | 0.087 |
| 175.00 | 0.073 | 0.576 | 0.000 | 0.000 | 0.000 | 1.568 | 1.920 | 52.0 | 0.037 |
| 177.60 | 0.001 | 0.003 | 0.000 | 0.000 | 0.000 | 0.001 | 0.006 | 52.0 | 0.000 |
| 178.00 | 0.000 | 0.003 | 0.000 | 0.000 | 0.000 | 0.000 | 0.005 | 52.0 | 0.000 |

Pole : CT11237C
 Location: Deep River Verizon
 Height : 178.0 (ft)
 Shape : 18 Sides
 Base Dia : 63.00 (in)
 Taper : 0.245 (in/ft)

VoiceStream Wireless-WA
 Base Elev : 0.000 (ft)
 Top Dia : 22.64 (in)

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Load Case: Ice 85 mph - With Ice - Ice Thickness = 0.5 in 25 Iterations

Gust Response Factor : 1.69 Effective Wind Speed : 73.61 (mph)

Dead Load Factor : 1.00

Wind Load Factor : 1.00

Shaft Forces

| Seg Top Elev (ft) | Description | Kz | az (psf) | azGh (psf) | C (mph-ft) | Cf | Tributary (ft) | Aa (sf) | CfAa (sf) | Wind Force X (lb) | Wind Force Z (lb) | Weight (lb) |
|-------------------|-----------------|------|----------|------------|------------|-------|----------------|---------|-----------|-------------------|-------------------|-------------|
| 0.00 | | 1.00 | 13.87 | 23.44 | 386.45 | 0.650 | 0.00 | 0.000 | 0.000 | 0.00 | 0.00 | 0.0 |
| 5.00 | | 1.00 | 13.87 | 23.44 | 378.92 | 0.650 | 5.00 | 26.411 | 17.167 | 402.43 | 0.00 | 1,447.9 |
| 10.00 | | 1.00 | 13.87 | 23.44 | 371.38 | 0.650 | 5.00 | 25.899 | 16.834 | 394.63 | 0.00 | 1,419.2 |
| 15.00 | | 1.00 | 13.87 | 23.44 | 363.85 | 0.650 | 5.00 | 25.387 | 16.502 | 386.83 | 0.00 | 1,390.5 |
| 20.00 | | 1.00 | 13.87 | 23.44 | 356.31 | 0.650 | 5.00 | 24.875 | 16.169 | 379.03 | 0.00 | 1,361.9 |
| 25.00 | | 1.00 | 13.87 | 23.44 | 348.77 | 0.650 | 5.00 | 24.363 | 15.836 | 371.24 | 0.00 | 1,333.2 |
| 30.00 | | 1.00 | 13.87 | 23.44 | 341.24 | 0.650 | 5.00 | 23.851 | 15.503 | 363.44 | 0.00 | 1,304.5 |
| 31.25 | Bot - Section 2 | 1.00 | 13.87 | 23.44 | 339.36 | 0.650 | 1.25 | 5.883 | 3.824 | 89.64 | 0.00 | 322.0 |
| 35.00 | | 1.01 | 14.10 | 23.84 | 336.52 | 0.650 | 3.75 | 17.691 | 11.499 | 274.14 | 0.00 | 1,795.2 |
| 37.50 | Top - Section 1 | 1.03 | 14.38 | 24.31 | 336.02 | 0.650 | 2.50 | 11.634 | 7.562 | 183.87 | 0.00 | 1,180.3 |
| 40.00 | | 1.05 | 14.65 | 24.76 | 339.98 | 0.650 | 2.50 | 11.506 | 7.479 | 185.23 | 0.00 | 629.2 |
| 45.00 | | 1.09 | 15.15 | 25.61 | 337.88 | 0.650 | 5.00 | 22.628 | 14.708 | 376.75 | 0.00 | 1,236.0 |
| 50.00 | | 1.12 | 15.62 | 26.39 | 335.00 | 0.650 | 5.00 | 22.117 | 14.376 | 379.48 | 0.00 | 1,207.4 |
| 55.00 | | 1.15 | 16.05 | 27.12 | 331.49 | 0.650 | 5.00 | 21.605 | 14.043 | 380.93 | 0.00 | 1,178.7 |
| 60.00 | | 1.18 | 16.45 | 27.80 | 327.43 | 0.650 | 5.00 | 21.093 | 13.710 | 381.27 | 0.00 | 1,150.0 |
| 63.25 | Bot - Section 3 | 1.20 | 16.70 | 28.23 | 324.53 | 0.650 | 3.25 | 13.436 | 8.733 | 246.55 | 0.00 | 732.6 |
| 65.00 | | 1.21 | 16.83 | 28.45 | 322.89 | 0.650 | 1.75 | 7.254 | 4.715 | 134.16 | 0.00 | 733.3 |
| 68.75 | Top - Section 2 | 1.23 | 17.10 | 28.91 | 319.21 | 0.650 | 3.75 | 15.334 | 9.967 | 288.17 | 0.00 | 1,548.7 |
| 70.00 | | 1.24 | 17.19 | 29.06 | 323.06 | 0.650 | 1.25 | 5.047 | 3.281 | 95.34 | 0.00 | 275.2 |
| 75.00 | | 1.26 | 17.53 | 29.63 | 317.79 | 0.650 | 5.00 | 19.870 | 12.915 | 382.80 | 0.00 | 1,081.5 |
| 80.00 | | 1.28 | 17.86 | 30.19 | 312.18 | 0.650 | 5.00 | 19.358 | 12.583 | 379.88 | 0.00 | 1,052.9 |
| 85.00 | | 1.31 | 18.17 | 30.71 | 306.27 | 0.650 | 5.00 | 18.846 | 12.250 | 376.30 | 0.00 | 1,024.2 |
| 90.00 | | 1.33 | 18.47 | 31.22 | 300.08 | 0.650 | 5.00 | 18.334 | 11.917 | 372.11 | 0.00 | 995.5 |
| 95.00 | | 1.35 | 18.76 | 31.71 | 293.65 | 0.650 | 5.00 | 17.822 | 11.585 | 367.35 | 0.00 | 966.9 |
| 96.08 | Bot - Section 4 | 1.35 | 18.82 | 31.81 | 292.22 | 0.650 | 1.08 | 3.794 | 2.466 | 78.46 | 0.00 | 206.0 |
| 100.00 | Appertunance(s) | 1.37 | 19.04 | 32.17 | 286.98 | 0.650 | 3.92 | 13.761 | 8.945 | 287.83 | 0.00 | 1,381.6 |
| 100.75 | Top - Section 3 | 1.37 | 19.08 | 32.24 | 285.96 | 0.650 | 0.75 | 2.599 | 1.690 | 54.48 | 0.00 | 261.0 |
| 105.00 | | 1.39 | 19.30 | 32.63 | 285.52 | 0.650 | 4.25 | 14.512 | 9.433 | 307.79 | 0.00 | 786.4 |
| 110.00 | | 1.41 | 19.56 | 33.06 | 278.48 | 0.650 | 5.00 | 16.599 | 10.790 | 356.78 | 0.00 | 898.4 |
| 115.00 | | 1.42 | 19.81 | 33.49 | 271.24 | 0.650 | 5.00 | 16.087 | 10.457 | 350.19 | 0.00 | 869.7 |
| 120.00 | | 1.44 | 20.05 | 33.89 | 263.84 | 0.650 | 5.00 | 15.576 | 10.124 | 343.20 | 0.00 | 841.0 |
| 125.00 | | 1.46 | 20.29 | 34.29 | 256.27 | 0.650 | 5.00 | 15.064 | 9.791 | 335.82 | 0.00 | 812.4 |
| 129.75 | Bot - Section 5 | 1.47 | 20.51 | 34.66 | 248.93 | 0.650 | 4.75 | 13.836 | 8.994 | 311.76 | 0.00 | 745.3 |
| 130.00 | | 1.48 | 20.52 | 34.68 | 248.54 | 0.650 | 0.25 | 0.728 | 0.473 | 16.42 | 0.00 | 67.1 |
| 133.58 | Top - Section 4 | 1.49 | 20.68 | 34.95 | 242.91 | 0.650 | 3.58 | 10.301 | 6.695 | 234.03 | 0.00 | 947.1 |
| 135.00 | | 1.49 | 20.74 | 35.05 | 245.36 | 0.650 | 1.42 | 4.000 | 2.600 | 91.15 | 0.00 | 184.8 |
| 140.00 | | 1.51 | 20.96 | 35.42 | 237.37 | 0.650 | 5.00 | 13.789 | 8.963 | 317.51 | 0.00 | 635.0 |
| 145.00 | | 1.52 | 21.17 | 35.78 | 229.25 | 0.650 | 5.00 | 13.277 | 8.630 | 308.80 | 0.00 | 610.4 |
| 150.00 | | 1.54 | 21.37 | 36.13 | 221.01 | 0.650 | 5.00 | 12.765 | 8.297 | 299.78 | 0.00 | 585.9 |
| 155.00 | | 1.55 | 21.58 | 36.47 | 212.65 | 0.650 | 5.00 | 12.253 | 7.964 | 290.47 | 0.00 | 561.4 |
| 160.00 | Appertunance(s) | 1.57 | 21.77 | 36.80 | 204.17 | 0.650 | 5.00 | 11.741 | 7.632 | 280.87 | 0.00 | 536.9 |
| 164.33 | Bot - Section 6 | 1.58 | 21.94 | 37.08 | 196.74 | 0.650 | 4.33 | 9.762 | 6.345 | 235.31 | 0.00 | 445.7 |
| 165.00 | | 1.58 | 21.96 | 37.12 | 195.59 | 0.650 | 0.67 | 1.495 | 0.972 | 36.09 | 0.00 | 113.5 |
| 167.25 | Top - Section 5 | 1.59 | 22.05 | 37.27 | 191.69 | 0.650 | 2.25 | 4.980 | 3.237 | 120.65 | 0.00 | 377.5 |
| 170.00 | Appertunance(s) | 1.59 | 22.15 | 37.44 | 190.78 | 0.650 | 2.75 | 5.946 | 3.865 | 144.72 | 0.00 | 226.0 |
| 175.00 | | 1.61 | 22.34 | 37.75 | 182.01 | 0.650 | 5.00 | 10.414 | 6.769 | 255.58 | 0.00 | 394.2 |
| 177.60 | Appertunance(s) | 1.61 | 22.43 | 37.91 | 177.41 | 0.650 | 2.60 | 5.213 | 3.388 | 128.47 | 0.00 | 197.4 |
| 178.00 | | 1.61 | 22.45 | 37.94 | 176.70 | 0.650 | 0.40 | 0.790 | 0.513 | 19.48 | 0.00 | 30.0 |
| Totals: | | | | | | | 178.00 | | | 12,397.24 | 0.00 | 38,081.7 |

Pole : CT11237C
 Location: Deep River Verizon
 Height : 178.0 (ft)
 Shape : 18 Sides
 Base Dia : 63.00 (in)
 Taper : 0.245 (in/ft)

VoiceStream Wireless-WA
 Base Elev : 0.000 (ft)
 Top Dia : 22.64 (in)

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Load Case: Ice 85 mph - With Ice - Ice Thickness = 0.5 in 25 Iterations
 Gust Response Factor : 1.69 Effective Wind Speed : 73.61 (mph)
 Dead Load Factor : 1.00
 Wind Load Factor : 1.00

Discrete Appurtenance Forces

| Elev (ft) | Description | Qty | qz (psf) | qzGh (psf) | Total CaAa (sf) | CaAa Factor | Horiz Ecc (ft) | Vert Ecc (ft) | X Angle (deg) | Wind Force X (lb) | Wind Force Z (lb) | Mom X (lb-ft) | Mom Y (lb-ft) | Mom Z (lb-ft) | Weight (lb) |
|-----------|----------------------|-----|----------|------------|-----------------|-------------|----------------|---------------|---------------|-------------------|-------------------|---------------|---------------|---------------|-------------|
| 100.00 | HP MW Dish, 4' Dia. | 1 | 19.04 | 32.17 | 16.520 | 1.000 | 0.000 | 0.0 | 0.0 | 531.59 | 0.00 | 0.00 | 0.00 | 0.00 | 280.0 |
| 160.00 | Allgon 7250.03 | 6 | 21.77 | 36.80 | 20.010 | 0.667 | 0.000 | 0.0 | 0.0 | 736.43 | 0.00 | 0.00 | 0.00 | 0.00 | 216.0 |
| 160.00 | Low Profile platform | 1 | 21.77 | 36.80 | 27.320 | 1.000 | 0.000 | 0.0 | 0.0 | 1005.47 | 0.00 | 0.00 | 0.00 | 0.00 | 2100.0 |
| 170.00 | Low Profile platform | 1 | 22.15 | 37.44 | 27.320 | 1.000 | 0.000 | 0.0 | 0.0 | 1023.03 | 0.00 | 0.00 | 0.00 | 0.00 | 2100.0 |
| 170.00 | DB844H90EXY | 12 | 22.15 | 37.44 | 54.240 | 1.000 | 0.000 | 0.0 | 0.0 | 2031.09 | 0.00 | 0.00 | 0.00 | 0.00 | 420.0 |
| 177.60 | RR65-19-00XP | 12 | 22.43 | 37.91 | 82.200 | 1.000 | 0.000 | 0.0 | 0.0 | 3116.79 | 0.00 | 0.00 | 0.00 | 0.00 | 624.0 |
| 177.60 | Low Profile platform | 1 | 22.43 | 37.91 | 27.320 | 1.000 | 0.000 | 0.0 | 0.0 | 1035.90 | 0.00 | 0.00 | 0.00 | 0.00 | 2100.0 |
| | | | | | | | | | | 9,480.30 | 0.00 | | | | 7,840.0 |

Pole : CT11237C
 Location: Deep River Verizon
 Height : 178.0 (ft)
 Shape : 18 Sides
 Base Dia : 63.00 (in)
 Taper : 0.245 (in/ft)

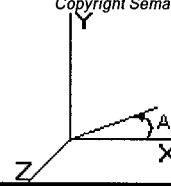
VoiceStream Wireless-WA

Base Elev : 0.000 (ft)
 Top Dia : 22.64 (in)

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Load Case: Ice 85 mph - With Ice - Ice Thickness = 0.5 in 25 Iterations

Gust Response Factor : 1.69 Effective Wind Speed : 73.61 (mph)

Dead Load Factor : 1.00

Wind Load Factor : 1.00

Applied Forces Summary

| Seg Elev (ft) | X Coord (ft) | Z Coord (ft) | Lateral FX (-) (lb) | Axial FY (-) (lb) | Lateral FZ (lb) | Moment MX (lb-ft) | Torsion MY (lb-ft) | Moment MZ (lb-ft) |
|----------------|--------------|--------------|---------------------|-------------------|-----------------|-------------------|--------------------|-------------------|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5.00 | 0.00 | 0.00 | 402.43 | 1,447.87 | 0.00 | 0.00 | 0.00 | 0.00 |
| 10.00 | 0.00 | 0.00 | 394.63 | 1,419.21 | 0.00 | 0.00 | 0.00 | 0.00 |
| 15.00 | 0.00 | 0.00 | 386.83 | 1,390.54 | 0.00 | 0.00 | 0.00 | 0.00 |
| 20.00 | 0.00 | 0.00 | 379.03 | 1,361.87 | 0.00 | 0.00 | 0.00 | 0.00 |
| 25.00 | 0.00 | 0.00 | 371.24 | 1,333.21 | 0.00 | 0.00 | 0.00 | 0.00 |
| 30.00 | 0.00 | 0.00 | 363.44 | 1,304.54 | 0.00 | 0.00 | 0.00 | 0.00 |
| 31.25 | 0.00 | 0.00 | 89.64 | 322.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 35.00 | 0.00 | 0.00 | 274.14 | 1,795.22 | 0.00 | 0.00 | 0.00 | 0.00 |
| 37.50 | 0.00 | 0.00 | 183.87 | 1,180.31 | 0.00 | 0.00 | 0.00 | 0.00 |
| 40.00 | 0.00 | 0.00 | 185.23 | 629.24 | 0.00 | 0.00 | 0.00 | 0.00 |
| 45.00 | 0.00 | 0.00 | 376.75 | 1,236.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| 50.00 | 0.00 | 0.00 | 379.48 | 1,207.37 | 0.00 | 0.00 | 0.00 | 0.00 |
| 55.00 | 0.00 | 0.00 | 380.93 | 1,178.71 | 0.00 | 0.00 | 0.00 | 0.00 |
| 60.00 | 0.00 | 0.00 | 381.27 | 1,150.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| 63.25 | 0.00 | 0.00 | 246.55 | 732.59 | 0.00 | 0.00 | 0.00 | 0.00 |
| 65.00 | 0.00 | 0.00 | 134.16 | 733.29 | 0.00 | 0.00 | 0.00 | 0.00 |
| 68.75 | 0.00 | 0.00 | 288.17 | 1,548.67 | 0.00 | 0.00 | 0.00 | 0.00 |
| 70.00 | 0.00 | 0.00 | 95.34 | 275.22 | 0.00 | 0.00 | 0.00 | 0.00 |
| 75.00 | 0.00 | 0.00 | 382.80 | 1,081.54 | 0.00 | 0.00 | 0.00 | 0.00 |
| 80.00 | 0.00 | 0.00 | 379.88 | 1,052.88 | 0.00 | 0.00 | 0.00 | 0.00 |
| 85.00 | 0.00 | 0.00 | 376.30 | 1,024.21 | 0.00 | 0.00 | 0.00 | 0.00 |
| 90.00 | 0.00 | 0.00 | 372.11 | 995.54 | 0.00 | 0.00 | 0.00 | 0.00 |
| 95.00 | 0.00 | 0.00 | 367.35 | 966.87 | 0.00 | 0.00 | 0.00 | 0.00 |
| 96.08 | 0.00 | 0.00 | 78.46 | 206.03 | 0.00 | 0.00 | 0.00 | 0.00 |
| 100.00 | 0.00 | 0.00 | 819.42 | 1,661.62 | 0.00 | 0.00 | 0.00 | 0.00 |
| 100.75 | 0.00 | 0.00 | 54.48 | 261.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 105.00 | 0.00 | 0.00 | 307.79 | 786.40 | 0.00 | 0.00 | 0.00 | 0.00 |
| 110.00 | 0.00 | 0.00 | 356.78 | 898.38 | 0.00 | 0.00 | 0.00 | 0.00 |
| 115.00 | 0.00 | 0.00 | 350.19 | 869.71 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120.00 | 0.00 | 0.00 | 343.20 | 841.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| 125.00 | 0.00 | 0.00 | 335.82 | 812.38 | 0.00 | 0.00 | 0.00 | 0.00 |
| 129.75 | 0.00 | 0.00 | 311.76 | 745.29 | 0.00 | 0.00 | 0.00 | 0.00 |
| 130.00 | 0.00 | 0.00 | 16.42 | 67.09 | 0.00 | 0.00 | 0.00 | 0.00 |
| 133.58 | 0.00 | 0.00 | 234.03 | 947.09 | 0.00 | 0.00 | 0.00 | 0.00 |
| 135.00 | 0.00 | 0.00 | 91.15 | 184.75 | 0.00 | 0.00 | 0.00 | 0.00 |
| 140.00 | 0.00 | 0.00 | 317.51 | 634.97 | 0.00 | 0.00 | 0.00 | 0.00 |
| 145.00 | 0.00 | 0.00 | 308.80 | 610.45 | 0.00 | 0.00 | 0.00 | 0.00 |
| 150.00 | 0.00 | 0.00 | 299.78 | 585.93 | 0.00 | 0.00 | 0.00 | 0.00 |
| 155.00 | 0.00 | 0.00 | 290.47 | 561.41 | 0.00 | 0.00 | 0.00 | 0.00 |
| 160.00 | 0.00 | 0.00 | 2,022.77 | 2,852.88 | 0.00 | 0.00 | 0.00 | 0.00 |
| 164.33 | 0.00 | 0.00 | 235.31 | 445.69 | 0.00 | 0.00 | 0.00 | 0.00 |
| 165.00 | 0.00 | 0.00 | 36.09 | 113.52 | 0.00 | 0.00 | 0.00 | 0.00 |
| 167.25 | 0.00 | 0.00 | 120.65 | 377.48 | 0.00 | 0.00 | 0.00 | 0.00 |
| 170.00 | 0.00 | 0.00 | 3,198.84 | 2,745.98 | 0.00 | 0.00 | 0.00 | 0.00 |
| 175.00 | 0.00 | 0.00 | 255.58 | 394.22 | 0.00 | 0.00 | 0.00 | 0.00 |
| 177.60 | 0.00 | 0.00 | 4,281.16 | 2,921.41 | 0.00 | 0.00 | 0.00 | 0.00 |
| 178.00 | 0.00 | 0.00 | 19.48 | 29.96 | 0.00 | 0.00 | 0.00 | 0.00 |
| Totals: | | | 21,877.54 | 45,921.66 | 0.00 | 0.00 | 0.00 | 0.00 |

Pole : CT11237C
 Location: Deep River Verizon
 Height: 178.0 (ft)
 Shape: 18 Sides
 Base Dia: 63.00 (in)
 Taper: 0.245 (in/ft)

VoiceStream Wireless-WA

Base Elev : 0.000 (ft)
 Top Dia : 22.64 (in)

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Load Case: Ice 85 mph - With Ice - Ice Thickness = 0.5 in 25 Iterations

Gust Response Factor : 1.69 Effective Wind Speed : 73.61 (mph)

Dead Load Factor : 1.00

Wind Load Factor : 1.00

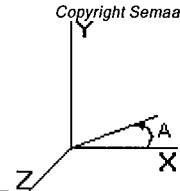
Calculated Forces and Deflections

| Seg Elev (ft) | Lateral FX (-) (kips) | Axial FY (-) (kips) | Lateral FZ (kips) | Moment MX (ft-kips) | Torsion MY (ft-kips) | Moment MZ (ft-kips) | X Deflect (in) | Z Deflect (in) | Total Deflect (in) | Rotation (deg) |
|---------------|-----------------------|---------------------|-------------------|---------------------|----------------------|---------------------|----------------|----------------|--------------------|----------------|
| 0.00 | 21.919 | 45.901 | 0.000 | 0.000 | 0.000 | 2,755.618 | 0.000 | 0.000 | 0.000 | 0.000 |
| 5.00 | 21.597 | 44.414 | 0.000 | 0.000 | 0.000 | 2,646.024 | -0.056 | 0.000 | 0.056 | -0.104 |
| 10.00 | 21.279 | 42.956 | 0.000 | 0.000 | 0.000 | 2,538.042 | -0.222 | 0.000 | 0.222 | -0.210 |
| 15.00 | 20.964 | 41.528 | 0.000 | 0.000 | 0.000 | 2,431.651 | -0.500 | 0.000 | 0.500 | -0.318 |
| 20.00 | 20.654 | 40.129 | 0.000 | 0.000 | 0.000 | 2,326.832 | -0.892 | 0.000 | 0.892 | -0.428 |
| 25.00 | 20.348 | 38.759 | 0.000 | 0.000 | 0.000 | 2,223.564 | -1.400 | 0.000 | 1.400 | -0.540 |
| 30.00 | 20.018 | 37.433 | 0.000 | 0.000 | 0.000 | 2,121.825 | -2.027 | 0.000 | 2.027 | -0.654 |
| 31.25 | 19.963 | 37.091 | 0.000 | 0.000 | 0.000 | 2,096.803 | -2.203 | 0.000 | 2.203 | -0.683 |
| 35.00 | 19.711 | 35.274 | 0.000 | 0.000 | 0.000 | 2,021.945 | -2.775 | 0.000 | 2.775 | -0.771 |
| 37.50 | 19.547 | 34.076 | 0.000 | 0.000 | 0.000 | 1,972.668 | -3.195 | 0.000 | 3.195 | -0.831 |
| 40.00 | 19.403 | 33.420 | 0.000 | 0.000 | 0.000 | 1,923.803 | -3.647 | 0.000 | 3.647 | -0.892 |
| 45.00 | 19.072 | 32.152 | 0.000 | 0.000 | 0.000 | 1,826.788 | -4.643 | 0.000 | 4.643 | -1.007 |
| 50.00 | 18.734 | 30.913 | 0.000 | 0.000 | 0.000 | 1,731.431 | -5.762 | 0.000 | 5.762 | -1.125 |
| 55.00 | 18.391 | 29.704 | 0.000 | 0.000 | 0.000 | 1,637.764 | -7.004 | 0.000 | 7.004 | -1.244 |
| 60.00 | 18.034 | 28.531 | 0.000 | 0.000 | 0.000 | 1,545.811 | -8.372 | 0.000 | 8.372 | -1.366 |
| 63.25 | 17.800 | 27.785 | 0.000 | 0.000 | 0.000 | 1,487.201 | -9.331 | 0.000 | 9.331 | -1.447 |
| 65.00 | 17.680 | 27.034 | 0.000 | 0.000 | 0.000 | 1,456.052 | -9.870 | 0.000 | 9.870 | -1.491 |
| 68.75 | 17.378 | 25.475 | 0.000 | 0.000 | 0.000 | 1,389.754 | -11.079 | 0.000 | 11.079 | -1.586 |
| 70.00 | 17.309 | 25.179 | 0.000 | 0.000 | 0.000 | 1,368.031 | -11.499 | 0.000 | 11.499 | -1.619 |
| 75.00 | 16.946 | 24.073 | 0.000 | 0.000 | 0.000 | 1,281.485 | -13.259 | 0.000 | 13.259 | -1.740 |
| 80.00 | 16.583 | 22.997 | 0.000 | 0.000 | 0.000 | 1,196.755 | -15.147 | 0.000 | 15.147 | -1.863 |
| 85.00 | 16.221 | 21.950 | 0.000 | 0.000 | 0.000 | 1,113.840 | -17.165 | 0.000 | 17.165 | -1.987 |
| 90.00 | 15.859 | 20.934 | 0.000 | 0.000 | 0.000 | 1,032.737 | -19.313 | 0.000 | 19.313 | -2.113 |
| 95.00 | 15.482 | 19.961 | 0.000 | 0.000 | 0.000 | 953.442 | -21.593 | 0.000 | 21.593 | -2.239 |
| 96.08 | 15.418 | 19.741 | 0.000 | 0.000 | 0.000 | 936.670 | -22.105 | 0.000 | 22.105 | -2.268 |
| 100.00 | 14.551 | 18.098 | 0.000 | 0.000 | 0.000 | 876.282 | -24.008 | 0.000 | 24.008 | -2.369 |
| 100.75 | 14.506 | 17.823 | 0.000 | 0.000 | 0.000 | 865.369 | -24.381 | 0.000 | 24.381 | -2.389 |
| 105.00 | 14.200 | 17.022 | 0.000 | 0.000 | 0.000 | 803.718 | -26.558 | 0.000 | 26.558 | -2.499 |
| 110.00 | 13.838 | 16.111 | 0.000 | 0.000 | 0.000 | 732.719 | -29.240 | 0.000 | 29.240 | -2.621 |
| 115.00 | 13.480 | 15.230 | 0.000 | 0.000 | 0.000 | 663.532 | -32.049 | 0.000 | 32.049 | -2.742 |
| 120.00 | 13.126 | 14.379 | 0.000 | 0.000 | 0.000 | 596.136 | -34.985 | 0.000 | 34.985 | -2.864 |
| 125.00 | 12.777 | 13.559 | 0.000 | 0.000 | 0.000 | 530.507 | -38.048 | 0.000 | 38.048 | -2.984 |
| 129.75 | 12.439 | 12.819 | 0.000 | 0.000 | 0.000 | 469.818 | -41.074 | 0.000 | 41.074 | -3.097 |
| 130.00 | 12.429 | 12.743 | 0.000 | 0.000 | 0.000 | 466.709 | -41.236 | 0.000 | 41.236 | -3.103 |
| 133.58 | 12.156 | 11.797 | 0.000 | 0.000 | 0.000 | 422.171 | -43.597 | 0.000 | 43.597 | -3.187 |
| 135.00 | 12.071 | 11.601 | 0.000 | 0.000 | 0.000 | 404.951 | -44.547 | 0.000 | 44.547 | -3.221 |
| 140.00 | 11.741 | 10.960 | 0.000 | 0.000 | 0.000 | 344.599 | -47.987 | 0.000 | 47.987 | -3.346 |
| 145.00 | 11.417 | 10.347 | 0.000 | 0.000 | 0.000 | 285.896 | -51.554 | 0.000 | 51.554 | -3.464 |
| 150.00 | 11.099 | 9.760 | 0.000 | 0.000 | 0.000 | 228.813 | -55.240 | 0.000 | 55.240 | -3.573 |
| 155.00 | 10.788 | 9.202 | 0.000 | 0.000 | 0.000 | 173.318 | -59.033 | 0.000 | 59.033 | -3.669 |
| 160.00 | 8.592 | 6.476 | 0.000 | 0.000 | 0.000 | 119.379 | -62.919 | 0.000 | 62.919 | -3.750 |
| 164.33 | 8.331 | 6.042 | 0.000 | 0.000 | 0.000 | 82.146 | -66.347 | 0.000 | 66.347 | -3.804 |
| 165.00 | 8.289 | 5.929 | 0.000 | 0.000 | 0.000 | 76.592 | -66.879 | 0.000 | 66.879 | -3.812 |
| 167.25 | 8.146 | 5.558 | 0.000 | 0.000 | 0.000 | 57.941 | -68.680 | 0.000 | 68.680 | -3.834 |
| 170.00 | 4.771 | 3.031 | 0.000 | 0.000 | 0.000 | 35.540 | -70.893 | 0.000 | 70.893 | -3.854 |
| 175.00 | 4.490 | 2.654 | 0.000 | 0.000 | 0.000 | 11.683 | -74.941 | 0.000 | 74.941 | -3.877 |
| 177.60 | 0.021 | 0.029 | 0.000 | 0.000 | 0.000 | 0.009 | -77.052 | 0.000 | 77.052 | -3.880 |
| 178.00 | 0.019 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | -77.377 | 0.000 | 77.377 | -3.880 |

Pole : CT11237C
 Location: Deep River Verizon
 Height : 178.0 (ft)
 Shape : 18 Sides
 Base Dia : 63.00 (in)
 Taper : 0.245 (in/ft)

VoiceStream Wireless-WA
 Base Elev : 0.000 (ft)
 Top Dia : 22.64 (in)

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Load Case: Ice 85 mph - With Ice - Ice Thickness = 0.5 in 25 Iterations

Gust Response Factor : 1.69 Effective Wind Speed : 73.61 (mph)

Dead Load Factor : 1.00

Wind Load Factor : 1.00

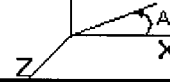
Calculated Stresses

| Seg Elev (ft) | Applied Stresses | | | | | | Combined (ksi) | Allowable Stress (Fb) (ksi) | Stress Ratio |
|---------------|------------------|-----------------|-----------------|---------------|-------------------|-------------------|----------------|-----------------------------|--------------|
| | Axial (Y) (ksi) | Shear (X) (ksi) | Shear (Z) (ksi) | Torsion (ksi) | Bending (X) (ksi) | Bending (Z) (ksi) | | | |
| 0.00 | 0.616 | 0.593 | 0.000 | 0.000 | 0.000 | 28.638 | 29.272 | 49.1 | 0.596 |
| 5.00 | 0.608 | 0.596 | 0.000 | 0.000 | 0.000 | 28.614 | 29.240 | 49.6 | 0.590 |
| 10.00 | 0.600 | 0.599 | 0.000 | 0.000 | 0.000 | 28.582 | 29.200 | 50.1 | 0.583 |
| 15.00 | 0.592 | 0.602 | 0.000 | 0.000 | 0.000 | 28.541 | 29.151 | 50.6 | 0.577 |
| 20.00 | 0.584 | 0.606 | 0.000 | 0.000 | 0.000 | 28.489 | 29.092 | 51.0 | 0.570 |
| 25.00 | 0.577 | 0.610 | 0.000 | 0.000 | 0.000 | 28.426 | 29.022 | 51.5 | 0.563 |
| 30.00 | 0.569 | 0.613 | 0.000 | 0.000 | 0.000 | 28.349 | 28.938 | 52.0 | 0.557 |
| 31.25 | 0.567 | 0.615 | 0.000 | 0.000 | 0.000 | 28.330 | 28.917 | 52.0 | 0.556 |
| 35.00 | 0.549 | 0.618 | 0.000 | 0.000 | 0.000 | 28.261 | 28.830 | 52.0 | 0.555 |
| 37.50 | 0.529 | 0.611 | 0.000 | 0.000 | 0.000 | 27.434 | 27.983 | 52.0 | 0.538 |
| 40.00 | 0.524 | 0.614 | 0.000 | 0.000 | 0.000 | 27.374 | 27.919 | 52.0 | 0.537 |
| 45.00 | 0.516 | 0.617 | 0.000 | 0.000 | 0.000 | 27.233 | 27.770 | 52.0 | 0.534 |
| 50.00 | 0.508 | 0.621 | 0.000 | 0.000 | 0.000 | 27.072 | 27.602 | 52.0 | 0.531 |
| 55.00 | 0.501 | 0.625 | 0.000 | 0.000 | 0.000 | 26.890 | 27.412 | 52.0 | 0.527 |
| 60.00 | 0.493 | 0.628 | 0.000 | 0.000 | 0.000 | 26.684 | 27.198 | 52.0 | 0.523 |
| 63.25 | 0.488 | 0.630 | 0.000 | 0.000 | 0.000 | 26.539 | 27.049 | 52.0 | 0.520 |
| 65.00 | 0.479 | 0.632 | 0.000 | 0.000 | 0.000 | 26.459 | 26.960 | 52.0 | 0.519 |
| 68.75 | 0.453 | 0.623 | 0.000 | 0.000 | 0.000 | 25.438 | 25.914 | 52.0 | 0.499 |
| 70.00 | 0.451 | 0.625 | 0.000 | 0.000 | 0.000 | 25.371 | 25.844 | 52.0 | 0.497 |
| 75.00 | 0.443 | 0.628 | 0.000 | 0.000 | 0.000 | 25.066 | 25.532 | 52.0 | 0.491 |
| 80.00 | 0.434 | 0.631 | 0.000 | 0.000 | 0.000 | 24.726 | 25.184 | 52.0 | 0.485 |
| 85.00 | 0.427 | 0.635 | 0.000 | 0.000 | 0.000 | 24.344 | 24.795 | 52.0 | 0.477 |
| 90.00 | 0.419 | 0.639 | 0.000 | 0.000 | 0.000 | 23.917 | 24.361 | 52.0 | 0.469 |
| 95.00 | 0.411 | 0.643 | 0.000 | 0.000 | 0.000 | 23.437 | 23.874 | 52.0 | 0.459 |
| 96.08 | 0.409 | 0.644 | 0.000 | 0.000 | 0.000 | 23.330 | 23.765 | 52.0 | 0.457 |
| 100.00 | 0.384 | 0.623 | 0.000 | 0.000 | 0.000 | 22.906 | 23.315 | 52.0 | 0.449 |
| 100.75 | 0.373 | 0.612 | 0.000 | 0.000 | 0.000 | 21.984 | 22.382 | 52.0 | 0.431 |
| 105.00 | 0.366 | 0.615 | 0.000 | 0.000 | 0.000 | 21.529 | 21.921 | 52.0 | 0.422 |
| 110.00 | 0.358 | 0.619 | 0.000 | 0.000 | 0.000 | 20.928 | 21.313 | 52.0 | 0.410 |
| 115.00 | 0.349 | 0.623 | 0.000 | 0.000 | 0.000 | 20.252 | 20.629 | 52.0 | 0.397 |
| 120.00 | 0.341 | 0.628 | 0.000 | 0.000 | 0.000 | 19.486 | 19.858 | 52.0 | 0.382 |
| 125.00 | 0.333 | 0.633 | 0.000 | 0.000 | 0.000 | 18.618 | 18.983 | 52.0 | 0.365 |
| 129.75 | 0.326 | 0.638 | 0.000 | 0.000 | 0.000 | 17.682 | 18.042 | 52.0 | 0.347 |
| 130.00 | 0.325 | 0.639 | 0.000 | 0.000 | 0.000 | 17.630 | 17.990 | 52.0 | 0.346 |
| 133.58 | 0.363 | 0.754 | 0.000 | 0.000 | 0.000 | 19.329 | 19.735 | 52.0 | 0.380 |
| 135.00 | 0.361 | 0.757 | 0.000 | 0.000 | 0.000 | 18.943 | 19.348 | 52.0 | 0.372 |
| 140.00 | 0.355 | 0.765 | 0.000 | 0.000 | 0.000 | 17.422 | 17.826 | 52.0 | 0.343 |
| 145.00 | 0.348 | 0.775 | 0.000 | 0.000 | 0.000 | 15.671 | 16.075 | 52.0 | 0.309 |
| 150.00 | 0.343 | 0.786 | 0.000 | 0.000 | 0.000 | 13.644 | 14.053 | 52.0 | 0.270 |
| 155.00 | 0.338 | 0.798 | 0.000 | 0.000 | 0.000 | 11.285 | 11.705 | 52.0 | 0.225 |
| 160.00 | 0.249 | 0.665 | 0.000 | 0.000 | 0.000 | 8.522 | 8.846 | 52.0 | 0.170 |
| 164.33 | 0.242 | 0.672 | 0.000 | 0.000 | 0.000 | 6.373 | 6.717 | 52.0 | 0.129 |
| 165.00 | 0.239 | 0.673 | 0.000 | 0.000 | 0.000 | 6.021 | 6.368 | 52.0 | 0.123 |
| 167.25 | 0.280 | 0.827 | 0.000 | 0.000 | 0.000 | 5.675 | 6.125 | 52.0 | 0.118 |
| 170.00 | 0.157 | 0.498 | 0.000 | 0.000 | 0.000 | 3.678 | 3.930 | 52.0 | 0.076 |
| 175.00 | 0.145 | 0.493 | 0.000 | 0.000 | 0.000 | 1.342 | 1.714 | 52.0 | 0.033 |
| 177.60 | 0.002 | 0.002 | 0.000 | 0.000 | 0.000 | 0.001 | 0.005 | 52.0 | 0.000 |
| 178.00 | 0.000 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.004 | 52.0 | 0.000 |

Pole : CT11237C
 Location: Deep River Verizon
 Height : 178.0 (ft)
 Shape : 18 Sides
 Base Dia : 63.00 (in)
 Taper : 0.245 (in/ft)

VoiceStream Wireless-WA
 Base Elev : 0.000 (ft)
 Top Dia : 22.64 (in)

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| | | |
|-----------------------------|------------------------------------|---------------|
| Load Case: No Ice | 85 mph - No Ice | 25 Iterations |
| Gust Response Factor : 1.69 | Effective Wind Speed : 85.00 (mph) | |
| Dead Load Factor : 1.00 | | |
| Wind Load Factor : 1.00 | | |

Analysis Summary

| Load Case | Reactions | | | | | | Max Stresses | | | |
|-----------|-----------------|-----------------|-----------------|---------------------|---------------------|---------------------|-----------------------|------------------------|-----------|--------------|
| | Shear FX (kips) | Shear FZ (kips) | Axial FY (kips) | Moment MX (ft-kips) | Moment MY (ft-kips) | Moment MZ (ft-kips) | Combined Stress (ksi) | Allowable Stress (ksi) | Elev (ft) | Stress Ratio |
| No Ice | 27.538 | 0.000 | 37.917 | 0.000 | 0.000 | 3,370.608 | 35.561 | 49.1 | 0.000 | 0.724 |
| Ice | 21.919 | 0.000 | 45.901 | 0.000 | 0.000 | 2,755.618 | 29.272 | 49.1 | 0.000 | 0.596 |