STATE OF CONNECTICUT

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.state.ct.us/csc/index.htm

September 9, 2002

Stephen J. Humes
LeBoeuf, Lamb, Greene & MacRae
Goodwin Square
225 Asylum Street
Hartford, CT 06103

RE: **TS-OMNI-085-020828** - Omnipoint Communications, Inc. d/b/a T-Mobile request for an order to approve tower sharing at an existing telecommunications facility located at 474 Main Street, Monroe, Connecticut.

Dear Attorney Humes:

At a public meeting held September 5, 2002, the Connecticut Siting Council (Council) ruled that the shared use of this existing tower site is technically, legally, environmentally, and economically feasible and meets public safety concerns, and therefore, in compliance with General Statutes § 16-50aa, the Council has ordered the shared use of this facility to avoid the unnecessary proliferation of tower structures. 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 may require an explicit request to this agency pursuant to General Statutes § 16-50aa or notice pursuant to Regulations of Connecticut State Agencies Section 16-50j-73, as applicable. Such request or notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point 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.

This decision applies only to this request for tower sharing and is not applicable to any other request or construction.

The proposed shared use is to be implemented as specified in your letter dated August 28, 2002.

Thank you for your attention and cooperation.

Very truly yours,

Mortimer A. Gelston
Chairman

MAG/RKE/laf

c: Honorable Andrew J. Nunn, First Selectman, Town of Monroe
Daniel A. Tuba, Planning Administrator, Town of Monroe
Julie M. Donaldson, Esq., Hurwitz & Sagarin LLC
Christopher B. Fisher, Esq., Cuddy & Feder & Worby LLP

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LEBOEUF, LAMB, GREENE & MACRAE
L.L.P.
A LIMITED LIABILITY PARTNERSHIP INCLUDING PROFESSIONAL CORPORATIONS

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BEIJING

August 28, 2002

Mortimer A. Gelston, Chairman
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: Request by T-Mobile for an Order to Approve the Shared Use of a Tower Facility at 474 Main Street, Monroe, Connecticut

Dear Chairman Gelston and Members of the Council:

Please be advised that LeBoeuf, Lamb, Greene & MacRae, L.L.P. represents Omnipoint Facilities Network 2, L.L.C., subsidiary of T-Mobile USA, Inc.(hereinafter T-Mobile) in the above-referenced matter. T-Mobile is the successor to VoiceStream Wireless Corp. by virtue of a recent corporate name change and nationwide re-branding strategy. Pursuant to Connecticut General Statutes §16-50aa, T-Mobile hereby requests an order from the Connecticut Siting Council ("Council") approving the proposed shared use by the Applicant of an existing tower located at 474 Main Street, Monroe, Connecticut. T-Mobile proposes to install antennas on the existing tower, and the equipment associated with this facility would be located near the base of the tower within and adjacent to the existing compound (see drawing 1, L-1 attached as part of Exhibit B). T-Mobile requests that the Council find that the proposed shared use of the tower satisfies the criteria stated in Conn. Gen. Stat. §16-50aa and issue an order approving the proposed use.

Background

Omnipoint Facilities Network 2, L.L.C., under the brand name of T-Mobil, operates the "A block" "Wideband PCS" license for the 2-Ghz PCS frequencies for the greater New York City area, including Fairfield County, Connecticut. Omnipoint is licensed by the Federal

Communications Commission (FCC) to provide PCS wireless telecommunications service in the State of Connecticut, which includes the area to be served by the proposed installation.

The tower at 474 Main Street in Monroe is a one hundred ninety five foot (195') Sprint Sites USA monopole. The coordinates for the site are **41°-19'-31" N** and **73°-15'-57" W**. The tower is located on Route 25 in the Upper Stepney section of Monroe approximately four hundred feet (400') north of the intersection with Stepney Road. The tower is owned by Sprint Sites USA. T-Mobile and the owner have agreed to mutually acceptable terms and conditions for the proposed shared use of this tower, and the owner has authorized T-Mobile to act on its behalf to apply for all necessary local, state and federal permits, approvals and authorizations which may be required for the proposed shared use of this facility. The tower is designed and built to hold multiple carrier antennas at multiple elevations above ground level ("AGL"). These elevations are listed on page four of the structural analysis attached as Exhibit D and are also shown on the elevation drawing 2, L-2, attached as part of Exhibit B. Currently, Sprint has antennas at the one hundred fifty foot (150'-0") centerline above ground level ("AGL") and AT&T Wireless has antennas at the one hundred forty foot (140'-0") centerline AGL.

T-Mobile proposes to install an antenna cluster comprised of three (3) sectors, with four (4) antennas per sector for a total of twelve (12) antennas. The model number for each antenna is EMS RR90-17-00 NP. The proposed antennas would be mounted on a triangular, low-profile antenna platform, set at the one hundred ninety five foot (195'-0") centerline AGL. The radio transmission equipment associated with these antennas, three (3) Nortel S8000 BTS cabinets, would be located near the base of the tower on a proposed six foot by fourteen foot (6'-0" x 14'-0") concrete pad. The tower and all of the equipment for all existing and proposed carriers is within an existing gravel compound, surrounded by a gated, six foot (6') high chain link fence. (shown on drawing 1, L-1, attached as part of Exhibit B).

C.G.S. §16-50aa (c) (1) provides in pertinent part that upon written request for approval of a proposed shared use, "if the council finds that the proposed shared use of the facility is technically, legally, environmentally and economically feasible and meets public safety concerns, the council shall issue an order approving such shared use." The shared use of the tower satisfies those criteria as follows:

A. **Technical Feasibility** - The existing tower and compound were designed to accommodate multiple carriers. A structural analysis of the tower with the proposed T-Mobile installation has been performed and is attached as Exhibit D. The structural analysis concludes that 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. The proposed shared use of this tower therefore is technically feasible.

B. **Legal Feasibility** Under C.G.S. § 16-50aa, the Council has been authorized to issue orders approving the proposed shared use of an existing tower facility such as the facility at Main Street in Monroe. This authority complements the Council's prior-existing authority under C.G.S. § 16-50p to issue orders approving the construction of new towers that are subject to the Council's jurisdiction. C.G.S. § 16-50x(a) vests exclusive jurisdiction over these facilities in the Council, which shall "give such consideration to other state laws and municipal regulations as it shall deem appropriate" in ruling on requests for the shared use of existing tower facilities.

Under this statutory authority vested in the Council, an order by the Council approving the shared use would permit the Applicant to obtain a building permit for the proposed installations.

C. Environmental Feasibility The proposed shared use would have minimal environmental effects, if any, for the following reasons:

1. The proposed installations (i.e., three (3) sectors with four (4) antennas per sector) would have an insignificant incremental visual impact, and would not cause any significant change or alteration in the physical or environmental characteristics of the existing site. In particular, the proposed installations would not increase the height of the existing tower, and would not extend the boundaries of the existing compound area. The tower is designed to accommodate multiple carriers

2. The proposed installations would not increase the noise levels at the existing facility by six decibels or more.

3. Operation of antennas at this site would not exceed the total radio frequency electromagnetic radiation power density level adopted by the American National Standards Institute ("ANSI"). The "worst-case" exposure calculated for operation of this facility (i.e., calculated at the base of the tower, which represents the closest publicly accessible point within the broadcast field of the antennas) will be 0.020166 mW/cm2, which is 2.017% of the Maximum Permissible Emission (MPE). The combined power density calculations from other carriers is 4.07% of the MPE. When combined with the proposed T-Mobile antennas, the combined power density of the antennas on the tower will be 6.087% of the MPE standard. These calculations are attached as Exhibit E.

4. The proposed installations would not require any water or sanitary facilities, or generate air emissions or discharges to water or sanitary facilities, or generate air emissions or discharges to water bodies. After construction is complete (approximately two (2) weeks), the proposed installations would not generate any traffic other than periodic maintenance visits.

The proposed use of this facility would therefore have a minimal environmental effect, if any, and is environmentally feasible.

D. Economic Feasibility As previously mentioned, the owner and T-Mobile have entered into a mutual agreement to share the use of the existing tower on terms agreeable to the parties. The proposed tower sharing is therefore economically feasible.

E. Public Safety Concerns As stated above, the existing tower is structurally capable of supporting the proposed T-Mobile antennas. The tower stands on a compound accessible from Main Street or Route 25. T-Mobile is not aware of any public safety concerns relative to the proposed sharing of the existing tower. In fact, the provision of new or improved wireless telephone service through shared use of the existing tower will enhance the safety and welfare of area residents and the public.

Conclusion

For the reasons discussed above, the proposed shared use of the existing tower facility at 474 Main Street in Monroe, Connecticut satisfies the criteria stated in Conn. Gen. Stat. §16-50aa, and advances the General Assembly's and the Council's goal of preventing the proliferation of towers in Connecticut. T-Mobile therefore respectfully requests that the Council issue an order approving the proposed shared use of this tower.

Thank you for your consideration of this matter.

Respectfully submitted,

T-MOBILE USA, INC.

By: _____

Its Counsel
Diane W. Whitney
Stephen J. Humes

Attachments

cc: Andrew J. Nunn, Selectman, Town of Monroe

Exhibit A

Site Map
Route 25
Monroe, Connecticut

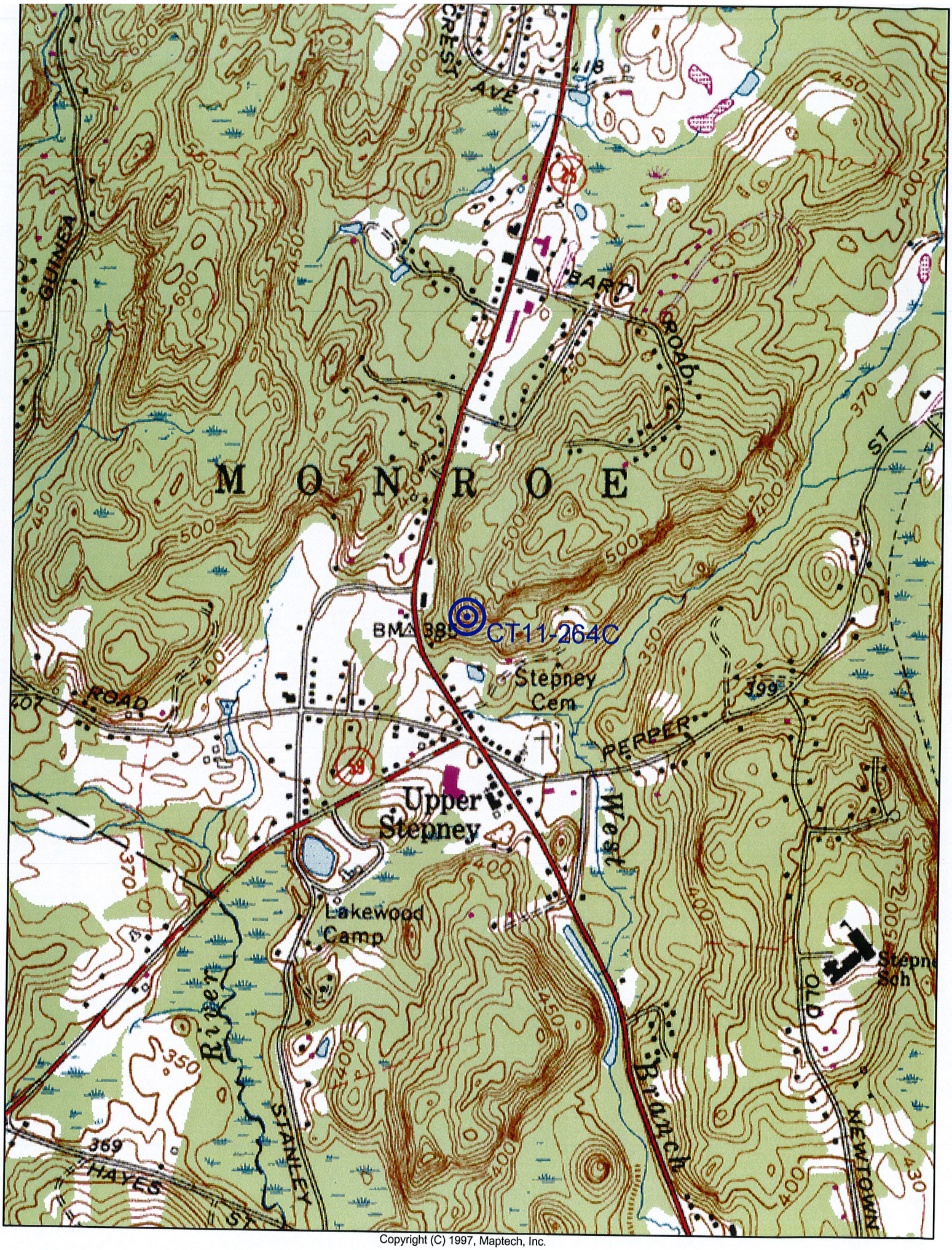


Exhibit B

Design Drawings

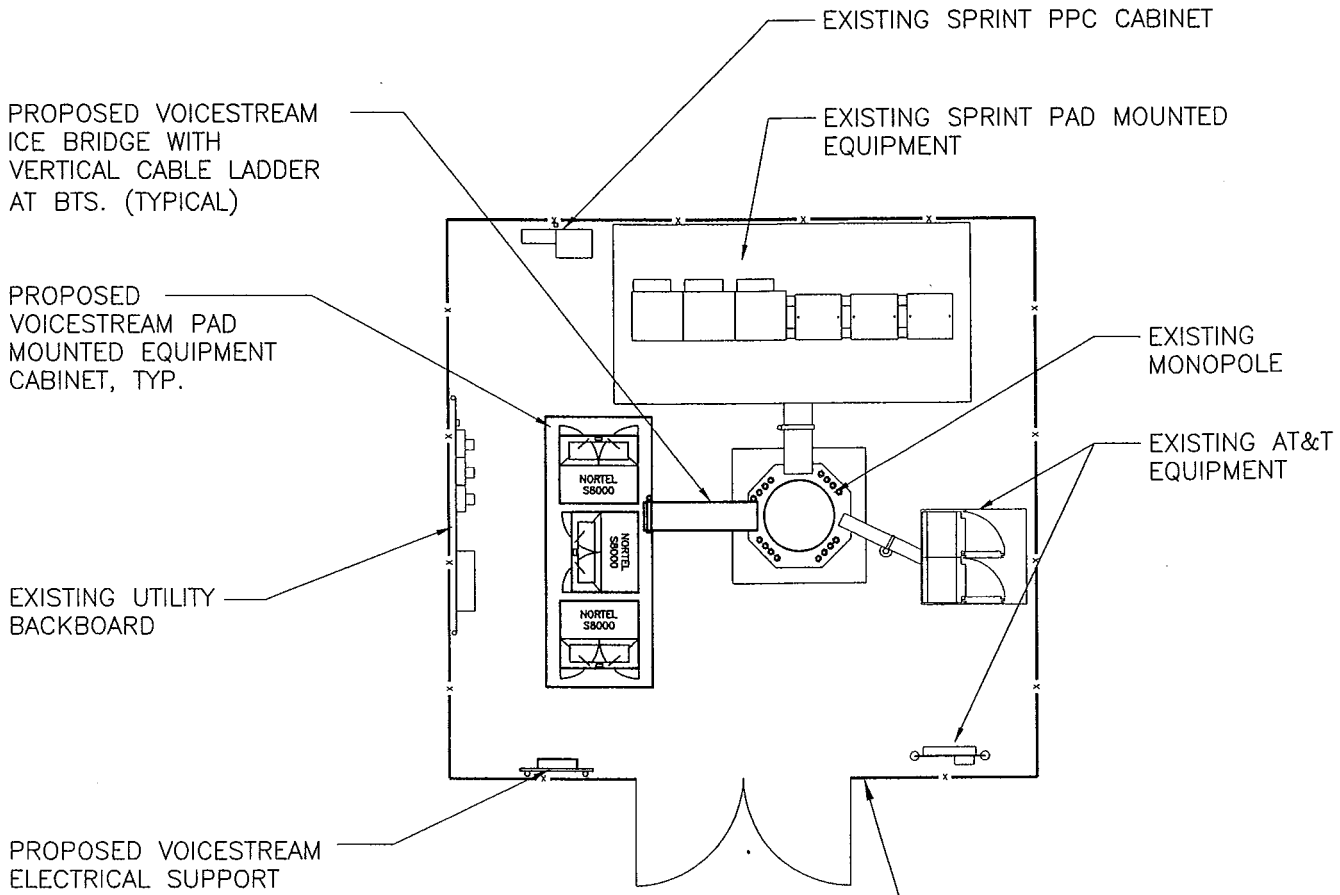
CT11-264C

474 Main Street

Monroe, Connecticut

LEASE EXHIBIT

THE LEASE PLAN IS DIAGRAMMATIC IN NATURE AND IS INTENDED TO PROVIDE GENERAL INFORMATION REGARDING THE LOCATION AND SIZE OF THE EXISTING WIRELESS COMMUNICATION FACILITY



NOTE:
STRUCTURAL ANALYSIS DONE BY SEEMAN ENGINEERING SOLUTIONS OF A 195' EEI MONOPOLE MONROE–MONROE, CT 06468 (CT11–264C) DATED AUGUST 13, 2002 BY ALVIN A. KRAFT LICENSE NO. 20787

1 / LE–2

1 / LE–1 **COMPOUND PLAN**

SCALE: 1" = 10'–0"

N

REVISIONS		
00	07/19/02	LEASE EXHIBIT
01	08/01/02	REVISED LEASE EXHIBIT
02	08/20/02	REVISED LEASE EXHIBIT

Natcomm, LLC
63-2 North Branford Road
Branford, Connecticut 06405
Tel. (203) 488-0580
Fax (203) 488-8587
Consulting Engineers - Project Management
Civil - Structural - Mechanical - Electrical

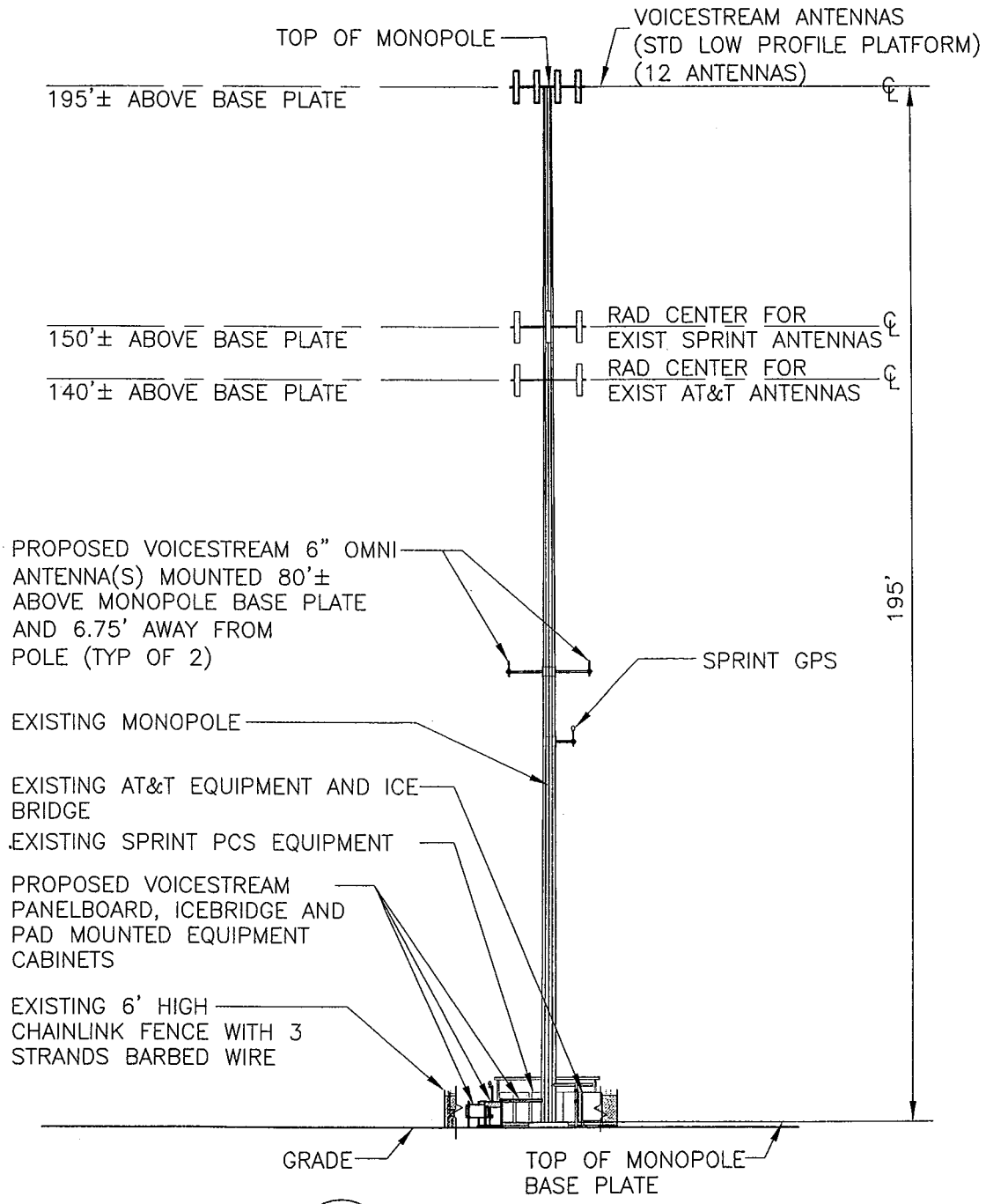
MONROE
CT11-264C
MONROE, CT

PROJECT NO:	02582
DRAWN BY:	DMD
CHECKED BY:	JJP
SCALE:	AS NOTED
DATE:	07/15/02

Voice Stream
100 FILLEY STREET
BLOOMFIELD, CT 06002

LEASE EXHIBIT
L-1
DWG. 1 OF 2

NOTE:
PER FCC MANDATE, ENHANCED EMERGENCY (E911) POSITION LOCATION EQUIPMENT IS REQUIRED TO MEET NATIONWIDE STANDARDS FOR WIRELESS COMMUNICATION SYSTEMS. IMPLEMENTATION REQUIRES DEPLOYMENT OF APPROXIMATELY 2 MEASUREMENT FUNCTION RECEIVER (MFR) ANTENNAS AND 1 GLOBAL POSITIONING SYSTEM (GPS) ANTENNA. THIS PLAN DEPICTS A SCHEMATIC DESIGN AND LOCATION OF ANTENNAS AND MAY BE SUBJECT TO CHANGE. VOICESTREAM RESERVES THE RIGHT TO CHANGE THE LOCATION AND CONFIGURATION OF THE E911 EQUIPMENT AS REQUIRED.



1 / LE-2 **ELEVATION**
SCALE: 1"= 30'

REVISIONS		
00	07/19/02	LEASE EXHIBIT
01	08/01/02	REVISED LEASE EXHIBIT
02	08/20/02	REVISED LEASE EXHIBIT

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MONROE
CT11-264C
MONROE, CT

PROJECT NO:	02582
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SCALE:	AS NOTED
DATE:	07/15/02

Voice Stream
100 FILLEY STREET
BLOOMFIELD, CT 06002

LEASE EXHIBIT
L-2
DWG. 2 OF 2

Exhibit C

Equipment Specifications

CT11-264C

474 Main Street

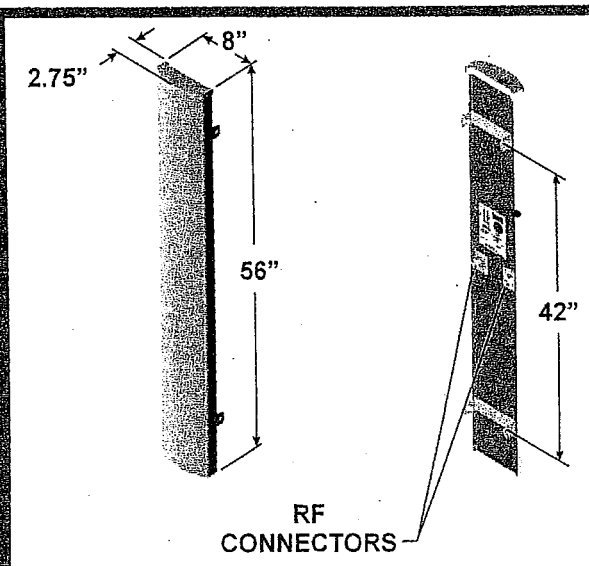
Monroe, Connecticut

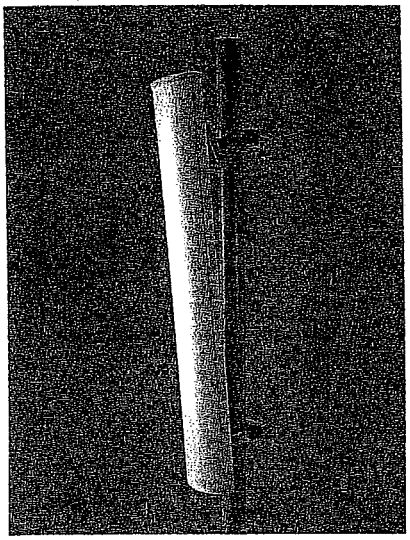
EMS WIRELESS

OptiRange™

RR90-17-XXXP

1850 MHz - 1990 MHz (P)





90° beamwidth

16.5 dBi gain

±45° DualPol™

56 inch

SPECIFICATIONS

Electrical

Azimuth Beamwidth	90°
Elevation Beamwidth	6°
Gain	16.5 dBi (14.4 dBd)
Polarization	Slant, ±45°
Port-to-Port Isolation	≥ 30 dB
Front-to-Back Ratio	≥ 25 dB (≥ 30 dB Typ.)
Electrical Downtilt Options	0°, 2°, 4°, 6°
VSWR	1.35:1 Max
Connectors	2;Type N or 7-16 DIN (female)
Power Handling	250 Watts CW
Passive Intermodulation	<-147 dBc (2 tone @ +43 dBm {20W} ea.)
Lightning Protection	Chassis Ground

Mechanical

Dimensions (L x W x D)	56in x 8in x 2.75in (142 cm x 20.3 cm x 7.0 cm)
Rated Wind Velocity	150 mph (241 km/hr)
Equivalent Flat Plate Area	3.1ft² (.29 m²)
Front Wind Load @ 100 mph (161 kph)	90 lbs (400 N)
Side Wind Load @ 100 mph (161 kph)	31 lbs (139 N)
Weight	18 lbs (8.2 kg)

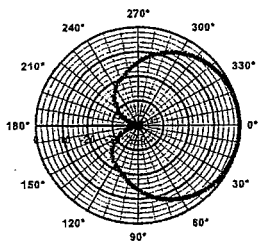
Note: Patent Pending and US Patent number 5, 757, 246.

Values and patterns are representative and variations may occur. Specifications may change without notice due to continuous product enhancements. Digitized pattern data is available from the factory or via the web site www.emswireless.com and reflect all updates.

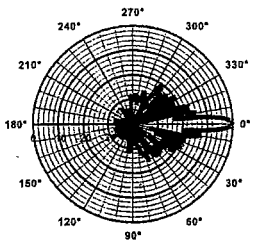
MOUNTING OPTIONS

Model Number	Description	Comments
MTG-P00-10	Standard Mount (Supplied with antenna)	Mounts to Wall or 1.5 inch to 5.0 inch O.D. Pole (3.8 cm to 12.7 cm)
MTG-S02-10	Swivel Mount	Mounting kit providing azimuth adjustment.
MTG-DXX-20*	Mechanical Downtilt Kits	0° - 10° or 0° - 15° Mechanical Downtilt
MTG-CXX-10*	Cluster Mount Kits	3 antennas 120° apart or 2 antennas 180° apart
MTG-C02-10	U-Bolt Cluster Mount Kit	3 antennas 120° apart , 4.5" O.D. pole.
MTG-TXX-10*	Steel Band Mount	Pole diameters 7.5" - 45"

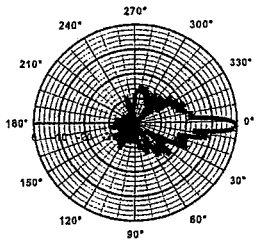
* Model number shown represents a series of products. See mounting options section for specific model number.



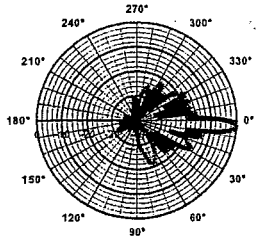
Azimuth



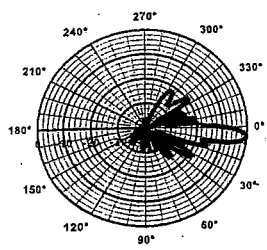
Elevation
0° Downtilt



Elevation
2° Downtilt



Elevation
4° Downtilt

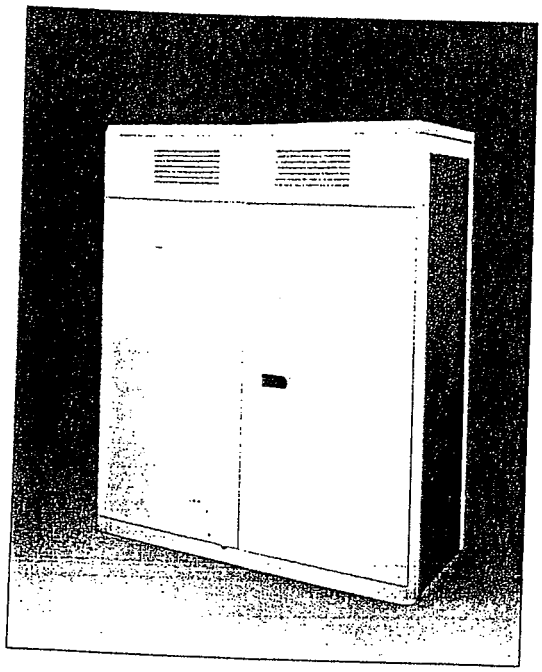


Elevation
6° Downtilt

GSM 900 / DCS 1800 / PCS 1900

NORTEL
NORTHERN TELECOM

S8000 Outdoor Base Transceiver Station



Nortel's S8000 Outdoor Base Transceiver Station has been designed to meet the economic and performance requirements of network operators. Based on a highly integrated RF and digital design, the S8000 Outdoor Base Transceiver Station represents a major technology advancement and delivers all the benefits of a compact, modular, high quality and high performance product.

Nortel's S8000 Outdoor BTS: Radio Performance Leadership - Reduced Site Acquisition and Operating Costs

Installation

- The S8000 Outdoor Base Transceiver Station (BTS) offers compact packaging and requires minimal floor space, only .88 sq m (9.5 sq ft.). Front only access keeps total space required, including maintenance access, to only 1.8 sq m (19.4 sq ft) per cabinet.

Transmission

- Integrated drop and insert connection to the Base Station Controller (BSC) and signaling concentration on the A-bis interface provide significant transmission cost reduction.
- Optional integrated digital microwave radio.

Maintenance

- Highly reliable technology, redundant architecture and integrated battery backup ensure high availability service.
- Front access and interconnections, as well as powerful fault detection, help reduce lifetime maintenance costs.

Industry leading performance

- New RF technology and advanced digital processing techniques provide very high receive sensitivity (-108 dBm guaranteed) and improved diversity gain (up to 6 dB). This provides higher resistance to interference, as well as, improved speech quality and cell coverage.
- Nortel's proven experience in frequency hopping, 1*3 frequency reuse, sophisticated microcellular handover algorithms and support of half-rate vocoders enables the operator to maximize use of available spectrum and deploy fewer cell sites.

Fast network deployment

- The S8000 BTS can be shipped fully equipped and tested, which provides fast network roll out to meet operator time to market requirements.

Modular and flexible configuration

- The S8000 supports eight transceivers (TRX) per cabinet in Omni and sectored configurations. The typical one cabinet S222 configuration may be expanded up to S332 or S422 without an additional cabinet.

• Frequency range		900 MHz GSM
		900 MHz GSM extended
		1800 MHz DCS
		1900 MHz PCS
• Receive sensitivity (guaranteed)		-108 dBm
• Dimensions	Height	1600 mm / 5 ft. 3 in.
	Width	1350 mm / 4 ft. 5 in.
	Depth	650 mm / 2 ft. 1 in.
• Weight	Fully equipped	600 kg / 1300 lbs.
• Capacity		8 TRX per cabinet
		up to 3 cabinets
• Configuration	Trisectorial	up to S888
	Omnidirectional	up to O16
• Amplifier output power		30 W (± 1.5 dB)
• Power control	Static	6 steps of 2 dB
	Dynamic	15 steps of 2 dB
• Frequency hopping		RF synthesized
		baseband
• Supported vocoders		Full rate
		Enhanced full rate
		Half rate
• Encryption algorithms		A5/1 A5/2
• Power supply		230V AC 50/60 Hz
• Power back-up		Integrated battery back-up plus optional battery cabinet allows provisioning up to 8 hours back-up time.
• Operating temperature range		-40°C to +50°C
		-40°F to +122°F

For more information,
please contact your local Nortel account representative.

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92807 Puteaux
France
Telephone (33) (1) 46 96 15 15

Publication Reference S8O.INS.0696
Printed in France

Information subject to change. Northern Telecom reserves the right to make changes, without notice, in equipment design as engineering or manufacturing methods warrant.

NORTEL
NORTHERN TELECOM

3 CABINET DESCRIPTION

3.1 PHYSICAL CHARACTERISTICS

3.1.1 S8000 Outdoor BTS

3.1.1.1 BTS cabinet

Dimensions

The BTS S8000 Outdoor has the following dimensions:

- height: 160 cm (63 in.)
- width: 135 cm (52.8 in.)
- depth: 65 cm (25.6 in.)

Weight

The weight of the cabinet when empty, that is, without its battery, fan units or boards, is 164 kg (361 lb). Depending on the configuration, a fully equipped cabinet weighs approximately 480 kg (1056 lb) with ACU unit or 440 kg (968 lb) with DACS unit.

These weights do not include the plinth.

Operating temperature

To operate correctly, the BTS requires a temperature greater than –40°C (–40°F) and less than +50°C (+122°F).

Consumption

BTS input voltage:

- GSM 900/1800
  - nominal voltage contained between 220V AC and 240V AC
  - minimum voltage: 220 – 10% = 198V AC
  - maximum voltage: 240 + 6% = 254V AC
- GSM 1900 (with DACS)
  - nominal voltage: 208V AC to 240V AC
  - minimum voltage: 208 – 10% = 187V AC
  - maximum voltage: 240 + 6% = 254V AC

NON - PREMIUM BTS ONLY

- GSM 1900 (with ACU and/or the power system six–rectifier type)
  - nominal voltage: 240V AC
  - minimum voltage: 240 – 10% = 187V AC
  - maximum voltage: 240 + 6% = 254V AC

Exhibit D

Structural Analysis

CT11-264C

474 Main Street

Monroe, Connecticut

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

SEMAAN ENGINEERING SOLUTIONS

195 ft EEI Monopole
Structural Analysis

Prepared for:
Sprint Sites USA
535 East Crescent Ave
Ramsey, NJ 07446

Site: CT03XC365 - VoiceStream
Monroe, CT

August 13, 2002

Mr. Russ Van Oudenaren
Sprint Sites USA - NJ
535 East Crescent Ave
Ramsey, NJ 07446

Re: Site Number CT03XC365 – Monroe, CT.

Dear Mr. Van Oudenaren:

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 195 ft EEI Monopole.

Refer to EEI drawing Job 8023 dated October 12, 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. It also treats guys as exact cable elements and therefore is ideal for guyed towers. 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
195.0	**12**	**RR90-17-00NP Mounted On a Low Profile Platform**	**(24) 1-5/8**	**VoiceStream**
150.0	9	DB980H90 Mounted On a Low Profile Platform	(9) 1-5/8	Sprint
140.0	6	Allgon 7250.02 Mounted On a Low Profile Platform	(12) 1-1/4	AT&T
80.0	**2**	**PC1NOF-190B-002 Mounted On (2) Stand-offs**	**(2) 7/8**	**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: 46.5%.

Foundation:

Pole Reactions	Original Design Reactions	Current Analysis Reactions	% Of Design
Moment (ft-kips)	5,190.50	2,924.15	56.3
Shear (kips)	38.08	24.72	64.9

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: 402-333-8577

Job Information

Pole :	CT03XC365
Description :	
Client :	Sprint Sites USA - NJ
Location :	Monroe, CT
Type :	18 Sides Slip Joints
Height :(ft)	195.000 Taper: 0.2570 (in/ft)

Sections Properties

Shaft Section	Section Length (ft)	Diameter (in) Accross Flats Top	Bottom	Thick (in)	Joint Type	Overlap Length (in)	Steel Grade (ksi)
1	49.500	49.27	62.00	0.500		0.000	65
2	49.380	39.38	52.07	0.500	Slip Joint	84.000	65
3	49.040	29.13	41.73	0.438	Slip Joint	69.000	65
4	45.670	19.13	30.87	0.313	Slip Joint	52.000	65
5	21.493	14.76	20.28	0.188	Slip Joint	36.000	65

Discrete Appurtenance

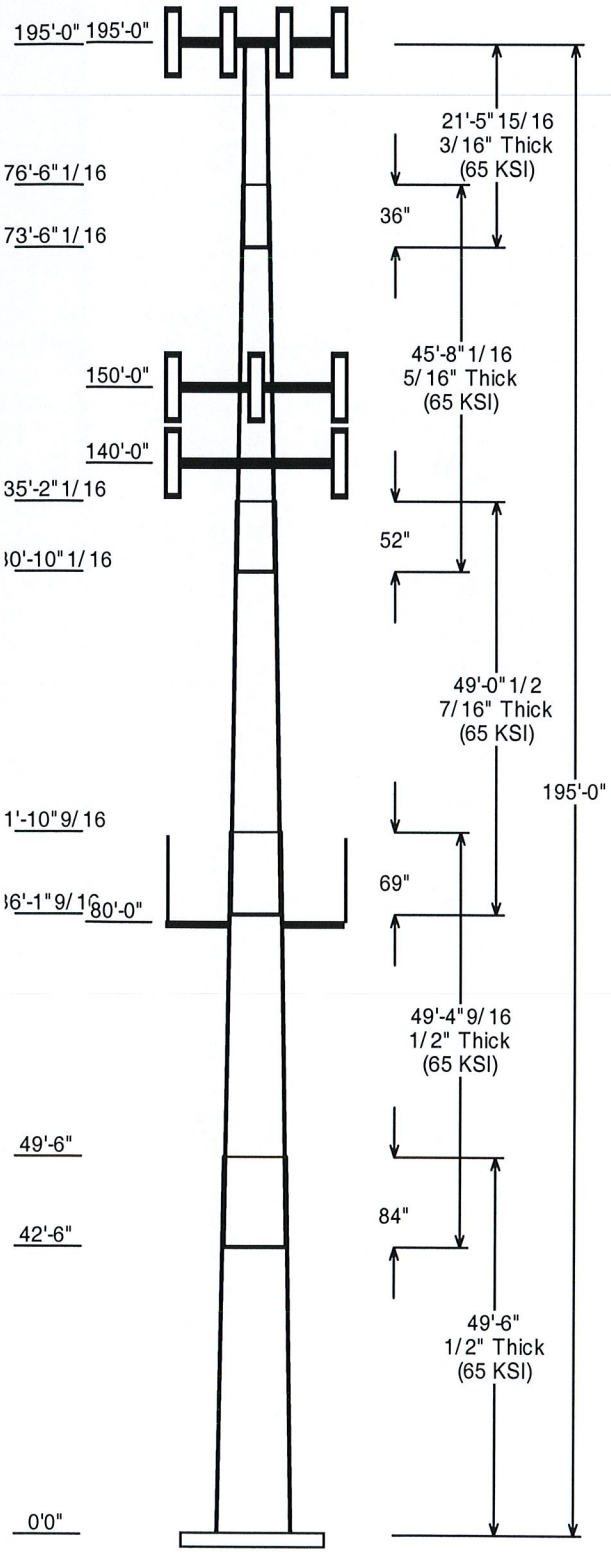
Attach Elev (ft)	Force Elev (ft)	Type	Qty	Description
195.000	195.000	Platform	1	Low Profile Platform
195.000	195.000	Panel	12	RR90-17-00NP
150.000	150.000	Platform	1	Low Profile Platform
150.000	150.000	Panel	9	DB980H90
140.000	140.000	Platform	1	Low Profile Platform
140.000	140.000	Panel	6	Allgon 7250.02
80.000	80.000	Straight	2	Standoff
80.000	80.400	Whip	2	PC1NOF-190-002

Load Cases / Deflections

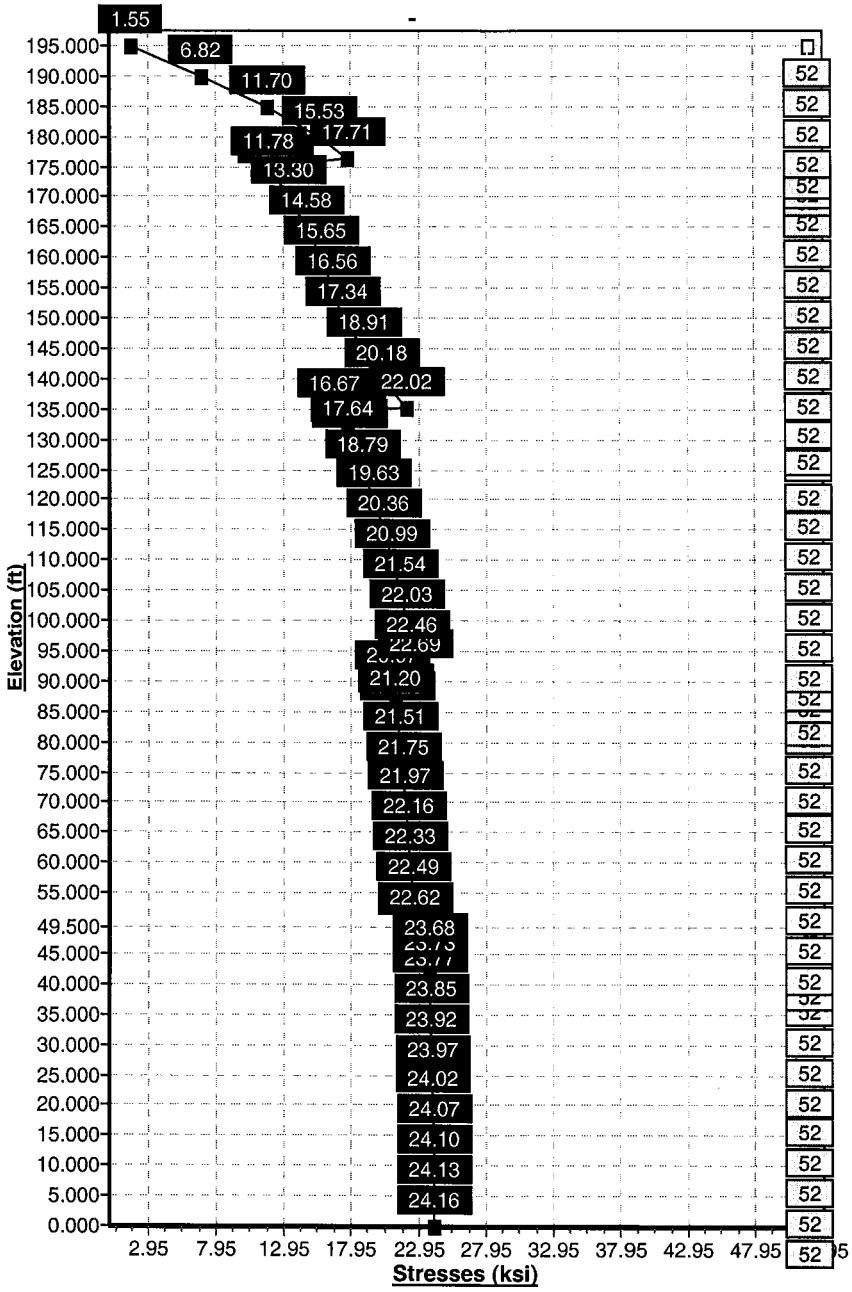
Load Case	Attach Elev (ft)	Translation (in)	Rotation (deg)
No Ice	No Ice Wind Speed = 85.00 mph w/ No Ice		
	195.000	86.67	-4.529
	150.000	48.90	-3.382
	140.000	42.13	-3.085
	80.000	12.86	-1.593
Ice	Ice Wind Speed = 73.61 mph w/ Ice 0.50 in Thick		
	195.000	72.73	-3.828
	150.000	40.88	-2.844
	140.000	35.19	-2.591
	80.000	10.68	-1.328

Reactions

Load Case	Moment (Kip-ft)	Shear (Kips)	Axial (Kips)
No Ice	2,924.152	24.720	-44.654
Ice	2,414.208	19.878	-53.492



Load Case : No Ice

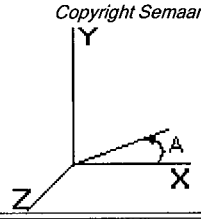


Pole : CT03XC365
Location: Monroe, CT
Height : 195.0 (ft)
Shape : 18 Sides
Base Dia : 62.00 (in)
Taper : 0.257 (in/ft)

Sprint Sites USA - NJ

Base Elev : 0.000 (ft)

Top Dia : 14.76 (in)



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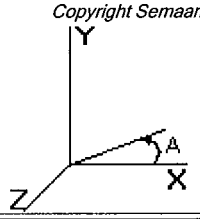
Shaft Section Properties

Sect Num	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Slip Joint Len (in)	Weight (lb)	Bottom Dia (in)	Bottom Elev (ft)	Bottom Area (sqin)	Bottom Ix (in^4)	Bottom W/t Ratio	Bottom D/t Ratio	Top Dia (in)	Top Elev (ft)	Top Area (sqin)	Top Ix (in^4)	Top W/t Ratio	Top D/t Ratio	Taper (in/ft)
1	49.500	0.5000	65		0.00	14,739	62.00	0.000	97.60	46638.0	20.45	124.0	49.27	49.50	77.41	23270.2	15.97	98.56	0.257
2	49.380	0.5000	65	Slip Joint	84.00	12,061	52.07	42.50	81.85	27510.3	16.95	104.1	39.38	91.88	61.71	11790.2	12.48	78.77	0.257
3	49.040	0.4375	65	Slip Joint	69.00	8,110	41.73	86.13	57.35	12360.6	15.41	95.40	29.13	135.1	39.85	4146.8	10.33	66.60	0.257
4	45.670	0.3125	65	Slip Joint	52.00	3,806	30.87	130.8	30.31	3577.3	16.01	98.80	19.13	176.5	18.67	836.0	9.39	61.24	0.257
5	21.493	0.1875	65	Slip Joint	36.00	754	20.28	173.5	11.96	610.2	17.66	108.1	14.76	195.0	8.67	232.7	12.47	78.72	0.257
				Shaft Weight		39,471													

Discrete Appurtenance Properties

Attach Elev (ft)	Description	Qty	No Ice Weight (lb)	No Ice CaAa (sf)	No Ice CaAa Factor	Ice Weight (lb)	Ice CaAa (sf)	Ice CaAa Factor	Distance From Face (ft)	X Angle (deg)	Vert Ecc (ft)
195.0	Low Profile Platform	1	1600.00	28.000	1.00	2800.00	32.000	1.00	0.000	0.00	0.000
195.0	RR90-17-00NP	12	12.00	5.230	0.67	35.00	5.800	0.67	0.000	0.00	0.000
150.0	Low Profile Platform	1	1600.00	28.000	1.00	2800.00	32.000	1.00	0.000	0.00	0.000
150.0	DB980H90	9	9.00	3.280	0.67	28.00	3.850	0.67	0.000	0.00	0.000
140.0	Low Profile Platform	1	1600.00	28.000	1.00	2800.00	32.000	1.00	0.000	0.00	0.000
140.0	Allgon 7250.02	6	16.00	4.300	1.00	36.00	5.000	1.00	0.000	0.00	0.000
80.00	Standoff	2	40.00	2.630	1.00	63.00	4.340	1.00	0.000	0.00	0.000
80.00	PC1NOF-190-002	2	0.80	0.068	1.00	1.78	0.133	1.00	0.000	0.00	0.400
	Totals	34	5202.60			9417.56			Number of Loadings :		8

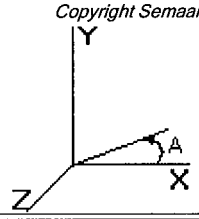
Pole :	CT03XC365	Sprint Sites USA - NJ	
Location:	Monroe, CT		
Height :	195.0 (ft)	Base Elev : 0.000 (ft)	
Shape :	18 Sides		
Base Dia :	62.00 (in)	Top Dia : 14.76 (in)	
Taper :	0.257 (in/ft)		



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		0.5000	62.000	97.597	46,638.0	20.45	124.00	65	52	0.0
5.00		0.5000	60.715	95.558	43,775.2	20.00	121.43	65	52	1,643.2
10.00		0.5000	59.430	93.519	41,032.1	19.55	118.86	65	52	1,608.5
15.00		0.5000	58.145	91.479	38,406.0	19.09	116.29	65	52	1,573.8
20.00		0.5000	56.860	89.440	35,894.5	18.64	113.72	65	52	1,539.1
25.00		0.5000	55.575	87.401	33,494.8	18.19	111.15	65	52	1,504.4
30.00		0.5000	54.290	85.362	31,204.6	17.73	108.58	65	52	1,469.7
35.00		0.5000	53.005	83.322	29,021.3	17.28	106.01	65	52	1,435.0
40.00		0.5000	51.720	81.283	26,942.2	16.83	103.44	65	52	1,400.3
42.50	Bot - Section 2	0.5000	51.077	80.264	25,941.0	16.60	102.15	65	52	687.1
45.00		0.5000	50.435	79.244	24,964.9	16.38	100.87	65	52	1,370.4
49.50	Top - Section 1	0.5000	50.278	78.996	24,730.9	16.32	100.56	65	52	2,423.0
50.00		0.5000	50.150	78.792	24,539.9	16.27	100.30	65	52	134.2
55.00		0.5000	48.865	76.752	22,683.4	15.82	97.73	65	52	1,323.2
60.00		0.5000	47.580	74.713	20,923.0	15.37	95.16	65	52	1,288.5
65.00		0.5000	46.295	72.674	19,256.1	14.92	92.59	65	52	1,253.8
70.00		0.5000	45.010	70.635	17,680.2	14.46	90.02	65	52	1,219.1
75.00		0.5000	43.725	68.596	16,192.7	14.01	87.45	65	52	1,184.4
80.00		0.5000	42.440	66.556	14,791.1	13.56	84.88	65	52	1,149.7
85.00		0.5000	41.155	64.517	13,472.7	13.10	82.31	65	52	1,115.0
86.13	Bot - Section 3	0.5000	40.865	64.056	13,186.1	13.00	81.73	65	52	247.2
90.00		0.5000	39.870	62.478	12,235.2	12.65	79.74	65	52	1,579.3
91.88	Top - Section 2	0.4375	40.262	55.299	11,080.7	14.82	92.03	65	52	753.1
95.00		0.4375	39.460	54.186	10,424.8	14.49	90.19	65	52	581.2
100.00		0.4375	38.175	52.401	9,428.5	13.98	87.26	65	52	906.7
105.00		0.4375	36.890	50.617	8,497.8	13.46	84.32	65	52	876.4
110.00		0.4375	35.605	48.833	7,630.4	12.94	81.38	65	52	846.0
115.00		0.4375	34.320	47.048	6,824.2	12.42	78.45	65	52	815.7
120.00		0.4375	33.035	45.264	6,076.8	11.90	75.51	65	52	785.3
125.00		0.4375	31.750	43.480	5,386.1	11.39	72.57	65	52	754.9
130.00		0.4375	30.465	41.695	4,749.9	10.87	69.63	65	52	724.6
130.84	Bot - Section 4	0.4375	30.250	41.397	4,648.6	10.78	69.14	65	52	118.3
135.00		0.4375	29.180	39.911	4,165.8	10.35	66.70	65	52	997.9
135.17	Top - Section 3	0.3125	29.761	29.209	3,200.4	15.38	95.24	65	52	40.0
140.00		0.3125	28.520	27.977	2,812.5	14.68	91.26	65	52	469.9
145.00		0.3125	27.235	26.703	2,445.3	13.96	87.15	65	52	465.2
150.00		0.3125	25.950	25.428	2,111.6	13.23	83.04	65	52	443.5
155.00		0.3125	24.665	24.154	1,809.8	12.51	78.93	65	52	421.8
160.00		0.3125	23.380	22.879	1,538.1	11.78	74.82	65	52	400.1
165.00		0.3125	22.095	21.605	1,295.1	11.06	70.70	65	52	378.4
170.00		0.3125	20.810	20.330	1,079.2	10.33	66.59	65	52	356.7
173.51	Bot - Section 5	0.3125	19.909	19.436	943.0	9.82	63.71	65	52	237.2
175.00		0.3125	19.525	19.056	888.7	9.61	62.48	65	52	158.0
176.51	Top - Section 4	0.1875	19.513	11.501	542.7	16.94	104.07	65	52	156.3
180.00		0.1875	18.615	10.966	470.5	16.10	99.28	65	52	133.5
185.00		0.1875	17.330	10.202	378.8	14.89	92.43	65	52	180.1
190.00		0.1875	16.045	9.437	299.8	13.68	85.57	65	52	167.1
195.00		0.1875	14.760	8.672	232.7	12.47	78.72	65	52	154.1
										39,470.8

Pole :	CT03XC365	Sprint Sites USA - NJ	
Location:	Monroe, CT		
Height :	195.0 (ft)	Base Elev : 0.000 (ft)	
Shape :	18 Sides		
Base Dia :	62.00 (in)	Top Dia : 14.76 (in)	
Taper :	0.257 (in/ft)		



Load Case: No Ice — 85 mph - No Ice — 26 Iterations

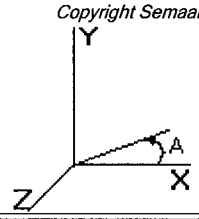
Gust Response Factor : 1.69 — Effective Wind Speed : 85.00 (mph)

Dead Load Factor : 1.00

Wind Load Factor : 1.00

Shaft Forces

Seg Top Elev (ft)	Description	Kz	qz (psf)	qzGh (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	439.17	0.650	0.00	0.000	0.000	0.00	0.00	0.0
5.00		1.00	18.49	31.25	430.06	0.650	5.00	25.566	16.618	519.44	0.00	1,643.2
10.00		1.00	18.49	31.25	420.96	0.650	5.00	25.030	16.270	508.56	0.00	1,608.5
15.00		1.00	18.49	31.25	411.86	0.650	5.00	24.495	15.922	497.68	0.00	1,573.8
20.00		1.00	18.49	31.25	402.76	0.650	5.00	23.959	15.574	486.80	0.00	1,539.1
25.00		1.00	18.49	31.25	393.66	0.650	5.00	23.424	15.226	475.92	0.00	1,504.4
30.00		1.00	18.49	31.25	384.55	0.650	5.00	22.889	14.878	465.05	0.00	1,469.7
35.00		1.01	18.81	31.78	378.62	0.650	5.00	22.353	14.530	461.87	0.00	1,435.0
40.00		1.05	19.54	33.02	376.56	0.650	5.00	21.818	14.182	468.34	0.00	1,400.3
42.50	Bot - Section 2	1.07	19.88	33.60	375.11	0.650	2.50	10.708	6.960	233.87	0.00	687.1
45.00		1.09	20.21	34.15	373.43	0.650	2.50	10.783	7.009	239.38	0.00	1,370.4
49.50	Top - Section 1	1.12	20.76	35.09	369.87	0.650	4.50	19.071	12.396	435.08	0.00	2,423.0
50.00		1.12	20.82	35.19	376.95	0.650	0.50	2.092	1.360	47.87	0.00	134.2
55.00		1.15	21.40	36.17	372.33	0.650	5.00	20.628	13.408	484.98	0.00	1,323.2
60.00		1.18	21.94	37.08	367.07	0.650	5.00	20.093	13.060	484.28	0.00	1,288.5
65.00		1.21	22.44	37.93	361.27	0.650	5.00	19.557	12.712	482.28	0.00	1,253.8
70.00		1.24	22.92	38.75	354.98	0.650	5.00	19.022	12.364	479.12	0.00	1,219.1
75.00		1.26	23.38	39.52	348.26	0.650	5.00	18.486	12.016	474.90	0.00	1,184.4
80.00	Appertunance(s)	1.28	23.82	40.25	341.16	0.650	5.00	17.951	11.668	469.73	0.00	1,149.7
85.00		1.31	24.23	40.96	333.70	0.650	5.00	17.416	11.320	463.68	0.00	1,115.0
86.13	Bot - Section 3	1.31	24.32	41.11	331.97	0.650	1.13	3.862	2.510	103.21	0.00	247.2
90.00		1.33	24.63	41.63	325.93	0.650	3.87	13.301	8.645	359.95	0.00	1,579.3
91.88	Top - Section 2	1.34	24.78	41.88	322.94	0.650	1.88	6.346	4.125	172.75	0.00	753.1
95.00		1.35	25.02	42.28	325.08	0.650	3.12	10.364	6.736	284.84	0.00	581.2
100.00		1.37	25.38	42.90	316.81	0.650	5.00	16.174	10.513	451.09	0.00	906.7
105.00		1.39	25.74	43.51	308.29	0.650	5.00	15.639	10.165	442.28	0.00	876.4
110.00		1.41	26.09	44.09	299.53	0.650	5.00	15.103	9.817	432.85	0.00	846.0
115.00		1.42	26.42	44.65	290.56	0.650	5.00	14.568	9.469	422.84	0.00	815.7
120.00		1.44	26.74	45.20	281.39	0.650	5.00	14.032	9.121	412.28	0.00	785.3
125.00		1.46	27.06	45.73	272.03	0.650	5.00	13.497	8.773	401.21	0.00	754.9
130.00		1.48	27.36	46.24	262.48	0.650	5.00	12.961	8.425	389.63	0.00	724.6
130.84	Bot - Section 4	1.48	27.41	46.33	260.87	0.650	0.84	2.116	1.376	63.74	0.00	118.3
135.00		1.49	27.66	46.74	252.77	0.650	4.16	10.527	6.842	319.87	0.00	997.9
135.17	Top - Section 3	1.49	27.67	46.76	252.44	0.650	0.17	0.422	0.274	12.82	0.00	40.0
140.00	Appertunance(s)	1.51	27.95	47.23	248.34	0.650	4.83	11.729	7.624	360.14	0.00	469.9
145.00		1.52	28.23	47.71	238.34	0.650	5.00	11.616	7.550	360.24	0.00	465.2
150.00	Appertunance(s)	1.54	28.50	48.17	228.20	0.650	5.00	11.080	7.202	346.98	0.00	443.5
155.00		1.55	28.77	48.63	217.92	0.650	5.00	10.545	6.854	333.32	0.00	421.8
160.00		1.57	29.03	49.07	207.50	0.650	5.00	10.009	6.506	319.28	0.00	400.1
165.00		1.58	29.29	49.50	196.96	0.650	5.00	9.474	6.158	304.87	0.00	378.4
170.00		1.59	29.54	49.93	186.30	0.650	5.00	8.939	5.810	290.10	0.00	356.7
173.51	Bot - Section 5	1.60	29.71	50.22	178.75	0.650	3.51	5.949	3.867	194.22	0.00	237.2
175.00		1.61	29.79	50.34	175.52	0.650	1.49	2.501	1.625	81.83	0.00	158.0
176.51	Top - Section 4	1.61	29.86	50.47	172.25	0.650	1.51	2.474	1.608	81.16	0.00	156.3
180.00		1.62	30.03	50.75	168.02	0.650	3.49	5.550	3.607	183.09	0.00	133.5
185.00		1.63	30.26	51.15	157.03	0.650	5.00	7.489	4.868	248.99	0.00	180.1
190.00		1.64	30.49	51.54	145.94	0.650	5.00	6.953	4.520	232.95	0.00	167.1
195.00	Appertunance(s)	1.66	30.72	51.92	134.75	0.650	5.00	6.418	4.172	216.62	0.00	154.1
					Totals:		195.00			16,001.97	0.00	39,470.8



Load Case: No Ice — 85 mph - No Ice — 26 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Effective Wind Speed : 85.00 (mph)

Discrete Appurtenance Forces

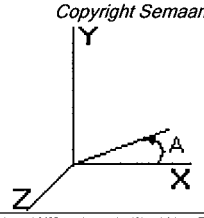
Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Total CaAa (sf)	CaAa Factor	Horiz Ecc (ft)	Vert Ecc (ft)	X Angle (deg)	Wind Force X (lb)	Wind Force Z (lb)	Mom X (lb-ft)	Mom Y (lb-ft)	Mom Z (lb-ft)	Weight (lb)
80.00	Standoff	2	23.82	40.25	5.260	1.000	0.000	0.0	0.0	211.75	0.00	0.00	0.00	0.00	80.0
80.00	PC1NOF-190-002	2	23.85	40.31	0.136	1.000	0.000	0.4	0.0	5.48	0.00	0.00	0.00	2.19	1.6
140.00	Low Profile Platform	1	27.95	47.23	28.000	1.000	0.000	0.0	0.0	1322.64	0.00	0.00	0.00	0.00	1600.0
140.00	Allgon 7250.02	6	27.95	47.23	25.800	1.000	0.000	0.0	0.0	1218.72	0.00	0.00	0.00	0.00	96.0
150.00	Low Profile Platform	1	28.50	48.17	28.000	1.000	0.000	0.0	0.0	1348.97	0.00	0.00	0.00	0.00	1600.0
150.00	DB980H90	9	28.50	48.17	19.690	0.667	0.000	0.0	0.0	948.61	0.00	0.00	0.00	0.00	81.0
195.00	Low Profile Platform	1	30.72	51.92	28.000	1.000	0.000	0.0	0.0	1453.98	0.00	0.00	0.00	0.00	1600.0
195.00	RR90-17-00NP	12	30.72	51.92	41.861	0.667	0.000	0.0	0.0	2173.74	0.00	0.00	0.00	0.00	144.0
										8,683.88	0.00				5,202.6

Pole : CT03XC365
Location: Monroe, CT
Height : 195.0 (ft)
Shape : 18 Sides
Base Dia : 62.00 (in)
Taper : 0.257 (in/ft)

Sprint Sites USA - NJ

Base Elev : 0.000 (ft)

Top Dia : 14.76 (in)



Load Case: No Ice — 85 mph - No Ice — 26 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Effective Wind Speed : 85.00 (mph)

Applied Forces Summary

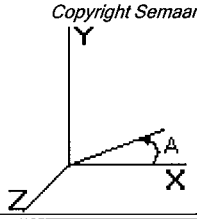
Seg Elev (ft)	X Coord (ft)	Z Coord (ft)	Lateral FX (-) (lb)	Axial FY (-) (lb)	Lateral FZ (lb)	Moment MX (lb-ft)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5.00	0.00	0.00	519.44	1,643.16	0.00	0.00	0.00	0.00
10.00	0.00	0.00	508.56	1,608.46	0.00	0.00	0.00	0.00
15.00	0.00	0.00	497.68	1,573.77	0.00	0.00	0.00	0.00
20.00	0.00	0.00	486.80	1,539.07	0.00	0.00	0.00	0.00
25.00	0.00	0.00	475.92	1,504.38	0.00	0.00	0.00	0.00
30.00	0.00	0.00	465.05	1,469.68	0.00	0.00	0.00	0.00
35.00	0.00	0.00	461.87	1,434.99	0.00	0.00	0.00	0.00
40.00	0.00	0.00	468.34	1,400.29	0.00	0.00	0.00	0.00
42.50	0.00	0.00	233.87	687.14	0.00	0.00	0.00	0.00
45.00	0.00	0.00	239.38	1,370.42	0.00	0.00	0.00	0.00
49.50	0.00	0.00	435.08	2,423.04	0.00	0.00	0.00	0.00
50.00	0.00	0.00	47.87	134.23	0.00	0.00	0.00	0.00
55.00	0.00	0.00	484.98	1,323.21	0.00	0.00	0.00	0.00
60.00	0.00	0.00	484.28	1,288.51	0.00	0.00	0.00	0.00
65.00	0.00	0.00	482.28	1,253.82	0.00	0.00	0.00	0.00
70.00	0.00	0.00	479.12	1,219.12	0.00	0.00	0.00	0.00
75.00	0.00	0.00	474.90	1,184.43	0.00	0.00	0.00	0.00
80.00	0.00	0.00	686.96	1,231.33	0.00	0.00	0.00	2.19
85.00	0.00	0.00	463.68	1,115.04	0.00	0.00	0.00	0.00
86.13	0.00	0.00	103.21	247.19	0.00	0.00	0.00	0.00
90.00	0.00	0.00	359.95	1,579.29	0.00	0.00	0.00	0.00
91.88	0.00	0.00	172.75	753.14	0.00	0.00	0.00	0.00
95.00	0.00	0.00	284.84	581.18	0.00	0.00	0.00	0.00
100.00	0.00	0.00	451.09	906.73	0.00	0.00	0.00	0.00
105.00	0.00	0.00	442.28	876.37	0.00	0.00	0.00	0.00
110.00	0.00	0.00	432.85	846.01	0.00	0.00	0.00	0.00
115.00	0.00	0.00	422.84	815.66	0.00	0.00	0.00	0.00
120.00	0.00	0.00	412.28	785.30	0.00	0.00	0.00	0.00
125.00	0.00	0.00	401.21	754.94	0.00	0.00	0.00	0.00
130.00	0.00	0.00	389.63	724.58	0.00	0.00	0.00	0.00
130.84	0.00	0.00	63.74	118.27	0.00	0.00	0.00	0.00
135.00	0.00	0.00	319.87	997.89	0.00	0.00	0.00	0.00
135.17	0.00	0.00	12.82	39.96	0.00	0.00	0.00	0.00
140.00	0.00	0.00	2,901.49	2,165.95	0.00	0.00	0.00	0.00
145.00	0.00	0.00	360.24	465.16	0.00	0.00	0.00	0.00
150.00	0.00	0.00	2,644.56	2,124.48	0.00	0.00	0.00	0.00
155.00	0.00	0.00	333.32	421.79	0.00	0.00	0.00	0.00
160.00	0.00	0.00	319.28	400.11	0.00	0.00	0.00	0.00
165.00	0.00	0.00	304.87	378.42	0.00	0.00	0.00	0.00
170.00	0.00	0.00	290.10	356.74	0.00	0.00	0.00	0.00
173.51	0.00	0.00	194.22	237.25	0.00	0.00	0.00	0.00
175.00	0.00	0.00	81.83	158.00	0.00	0.00	0.00	0.00
176.51	0.00	0.00	81.16	156.25	0.00	0.00	0.00	0.00
180.00	0.00	0.00	183.09	133.54	0.00	0.00	0.00	0.00
185.00	0.00	0.00	248.99	180.07	0.00	0.00	0.00	0.00
190.00	0.00	0.00	232.95	167.06	0.00	0.00	0.00	0.00
195.00	0.00	0.00	3,844.33	1,898.05	0.00	0.00	0.00	0.00
	Totals:		24,685.85	44,673.44	0.00	0.00	0.00	2.19

Pole : CT03XC365
Location: Monroe, CT
Height : 195.0 (ft)
Shape : 18 Sides
Base Dia : 62.00 (in)
Taper : 0.257 (in/ft)

Sprint Sites USA - NJ

Base Elev : 0.000 (ft)

Top Dia : 14.76 (in)



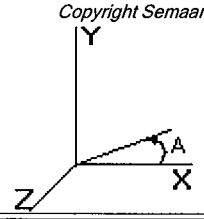
Load Case: No Ice — 85 mph - No Ice — 26 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Effective Wind Speed : 85.00 (mph)

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	24.720	44.654	0.000	0.000	0.000	2,924.152	0.000	0.000	0.000	0.000
5.00	24.266	42.974	0.000	0.000	0.000	2,800.553	-0.047	0.000	0.047	-0.087
10.00	23.818	41.329	0.000	0.000	0.000	2,679.227	-0.187	0.000	0.187	-0.176
15.00	23.378	39.720	0.000	0.000	0.000	2,560.137	-0.420	0.000	0.420	-0.267
20.00	22.945	38.146	0.000	0.000	0.000	2,443.248	-0.750	0.000	0.750	-0.360
25.00	22.520	36.608	0.000	0.000	0.000	2,328.523	-1.178	0.000	1.178	-0.454
30.00	22.102	35.105	0.000	0.000	0.000	2,215.927	-1.705	0.000	1.705	-0.551
35.00	21.683	33.637	0.000	0.000	0.000	2,105.420	-2.335	0.000	2.335	-0.649
40.00	21.240	32.215	0.000	0.000	0.000	1,997.006	-3.070	0.000	3.070	-0.750
42.50	21.026	31.511	0.000	0.000	0.000	1,943.906	-3.476	0.000	3.476	-0.802
45.00	20.806	30.118	0.000	0.000	0.000	1,891.342	-3.911	0.000	3.911	-0.855
49.50	20.358	27.683	0.000	0.000	0.000	1,797.717	-4.762	0.000	4.762	-0.949
50.00	20.335	27.530	0.000	0.000	0.000	1,787.539	-4.862	0.000	4.862	-0.960
55.00	19.873	26.180	0.000	0.000	0.000	1,685.867	-5.922	0.000	5.922	-1.061
60.00	19.409	24.866	0.000	0.000	0.000	1,586.503	-7.088	0.000	7.088	-1.163
65.00	18.943	23.588	0.000	0.000	0.000	1,489.461	-8.362	0.000	8.362	-1.268
70.00	18.478	22.346	0.000	0.000	0.000	1,394.745	-9.747	0.000	9.747	-1.374
75.00	18.014	21.139	0.000	0.000	0.000	1,302.354	-11.245	0.000	11.245	-1.483
80.00	17.333	19.893	0.000	0.000	0.000	1,212.281	-12.857	0.000	12.857	-1.593
85.00	16.860	18.772	0.000	0.000	0.000	1,125.616	-14.586	0.000	14.586	-1.706
86.13	16.769	18.511	0.000	0.000	0.000	1,106.564	-14.993	0.000	14.993	-1.732
90.00	16.380	16.924	0.000	0.000	0.000	1,041.670	-16.435	0.000	16.435	-1.822
91.88	16.200	16.160	0.000	0.000	0.000	1,010.876	-17.161	0.000	17.161	-1.867
95.00	15.923	15.561	0.000	0.000	0.000	960.334	-18.406	0.000	18.406	-1.941
100.00	15.473	14.636	0.000	0.000	0.000	880.720	-20.507	0.000	20.507	-2.067
105.00	15.029	13.743	0.000	0.000	0.000	803.357	-22.739	0.000	22.739	-2.194
110.00	14.592	12.882	0.000	0.000	0.000	728.214	-25.105	0.000	25.105	-2.322
115.00	14.163	12.053	0.000	0.000	0.000	655.255	-27.606	0.000	27.606	-2.451
120.00	13.742	11.256	0.000	0.000	0.000	584.443	-30.242	0.000	30.242	-2.580
125.00	13.330	10.490	0.000	0.000	0.000	515.735	-33.013	0.000	33.013	-2.709
130.00	12.918	9.769	0.000	0.000	0.000	449.087	-35.919	0.000	35.919	-2.836
130.84	12.859	9.640	0.000	0.000	0.000	438.281	-36.418	0.000	36.418	-2.859
135.00	12.497	8.648	0.000	0.000	0.000	384.743	-38.957	0.000	38.957	-2.963
135.17	12.492	8.595	0.000	0.000	0.000	382.619	-39.062	0.000	39.062	-2.968
140.00	9.495	6.563	0.000	0.000	0.000	322.284	-42.125	0.000	42.125	-3.085
145.00	9.126	6.095	0.000	0.000	0.000	274.809	-45.437	0.000	45.437	-3.236
150.00	6.373	4.110	0.000	0.000	0.000	229.180	-48.904	0.000	48.904	-3.382
155.00	6.024	3.694	0.000	0.000	0.000	197.314	-52.521	0.000	52.521	-3.526
160.00	5.689	3.301	0.000	0.000	0.000	167.193	-56.289	0.000	56.289	-3.669
165.00	5.367	2.930	0.000	0.000	0.000	138.748	-60.206	0.000	60.206	-3.811
170.00	5.059	2.584	0.000	0.000	0.000	111.913	-64.270	0.000	64.270	-3.948
173.51	4.851	2.355	0.000	0.000	0.000	94.174	-67.204	0.000	67.204	-4.044
175.00	4.760	2.200	0.000	0.000	0.000	86.929	-68.474	0.000	68.474	-4.084
176.51	4.670	2.045	0.000	0.000	0.000	79.758	-69.769	0.000	69.769	-4.125
180.00	4.482	1.915	0.000	0.000	0.000	63.443	-72.817	0.000	72.817	-4.210
185.00	4.225	1.744	0.000	0.000	0.000	41.032	-77.311	0.000	77.311	-4.368
190.00	3.982	1.590	0.000	0.000	0.000	19.909	-81.949	0.000	81.949	-4.482
195.00	3.844	0.000	0.000	0.000	0.000	0.000	-86.672	0.000	86.672	-4.529

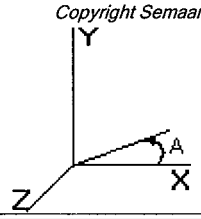


Load Case: No Ice — 85 mph - No Ice — 26 Iterations

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 Axial (Y) (ksi)	Shear (X) (ksi)	Shear (Z) (ksi)	Torsion (ksi)	Bending (X) (ksi)	Bending (Z) (ksi)	Combined (ksi)	Allowable Stress (Fb) (ksi)	Stress Ratio
0.00	0.458	0.510	0.000	0.000	0.000	23.684	24.158	52.0	0.465
5.00	0.450	0.512	0.000	0.000	0.000	23.665	24.131	52.0	0.464
10.00	0.442	0.513	0.000	0.000	0.000	23.642	24.101	52.0	0.464
15.00	0.434	0.515	0.000	0.000	0.000	23.614	24.065	52.0	0.463
20.00	0.427	0.517	0.000	0.000	0.000	23.580	24.023	52.0	0.462
25.00	0.419	0.519	0.000	0.000	0.000	23.539	23.974	52.0	0.461
30.00	0.411	0.522	0.000	0.000	0.000	23.489	23.917	52.0	0.460
35.00	0.404	0.524	0.000	0.000	0.000	23.428	23.849	52.0	0.459
40.00	0.396	0.527	0.000	0.000	0.000	23.356	23.770	52.0	0.457
42.50	0.393	0.528	0.000	0.000	0.000	23.319	23.730	52.0	0.457
45.00	0.380	0.529	0.000	0.000	0.000	23.279	23.677	52.0	0.456
49.50	0.350	0.519	0.000	0.000	0.000	22.267	22.635	52.0	0.435
50.00	0.349	0.520	0.000	0.000	0.000	22.256	22.624	52.0	0.435
55.00	0.341	0.522	0.000	0.000	0.000	22.127	22.486	52.0	0.433
60.00	0.333	0.524	0.000	0.000	0.000	21.981	22.332	52.0	0.430
65.00	0.325	0.525	0.000	0.000	0.000	21.817	22.160	52.0	0.426
70.00	0.316	0.527	0.000	0.000	0.000	21.633	21.968	52.0	0.423
75.00	0.308	0.529	0.000	0.000	0.000	21.426	21.753	52.0	0.419
80.00	0.299	0.525	0.000	0.000	0.000	21.192	21.510	52.0	0.414
85.00	0.291	0.527	0.000	0.000	0.000	20.949	21.259	52.0	0.409
86.13	0.289	0.528	0.000	0.000	0.000	20.893	21.202	52.0	0.408
90.00	0.271	0.528	0.000	0.000	0.000	20.681	20.972	52.0	0.403
91.88	0.292	0.590	0.000	0.000	0.000	22.378	22.693	52.0	0.437
95.00	0.287	0.592	0.000	0.000	0.000	22.147	22.457	52.0	0.432
100.00	0.279	0.595	0.000	0.000	0.000	21.726	22.029	52.0	0.424
105.00	0.272	0.598	0.000	0.000	0.000	21.248	21.544	52.0	0.414
110.00	0.264	0.602	0.000	0.000	0.000	20.703	20.992	52.0	0.404
115.00	0.256	0.607	0.000	0.000	0.000	20.077	20.361	52.0	0.392
120.00	0.249	0.612	0.000	0.000	0.000	19.357	19.634	52.0	0.378
125.00	0.241	0.618	0.000	0.000	0.000	18.522	18.794	52.0	0.362
130.00	0.234	0.624	0.000	0.000	0.000	17.549	17.816	52.0	0.343
130.84	0.233	0.626	0.000	0.000	0.000	17.376	17.643	52.0	0.339
135.00	0.217	0.631	0.000	0.000	0.000	16.419	16.672	52.0	0.321
135.17	0.294	0.862	0.000	0.000	0.000	21.678	22.023	52.0	0.424
140.00	0.235	0.684	0.000	0.000	0.000	19.911	20.181	52.0	0.388
145.00	0.228	0.689	0.000	0.000	0.000	18.647	18.913	52.0	0.364
150.00	0.162	0.505	0.000	0.000	0.000	17.159	17.343	52.0	0.334
155.00	0.153	0.503	0.000	0.000	0.000	16.384	16.560	52.0	0.319
160.00	0.144	0.501	0.000	0.000	0.000	15.483	15.652	52.0	0.301
165.00	0.136	0.501	0.000	0.000	0.000	14.421	14.583	52.0	0.281
170.00	0.127	0.501	0.000	0.000	0.000	13.148	13.303	52.0	0.256
173.51	0.121	0.503	0.000	0.000	0.000	12.113	12.265	52.0	0.236
175.00	0.115	0.503	0.000	0.000	0.000	11.636	11.784	52.0	0.227
176.51	0.178	0.818	0.000	0.000	0.000	17.473	17.708	52.0	0.341
180.00	0.175	0.824	0.000	0.000	0.000	15.293	15.533	52.0	0.299
185.00	0.171	0.835	0.000	0.000	0.000	11.438	11.699	52.0	0.225
190.00	0.168	0.850	0.000	0.000	0.000	6.491	6.821	52.0	0.131
195.00	0.000	0.893	0.000	0.000	0.000	0.000	1.547	52.0	0.030



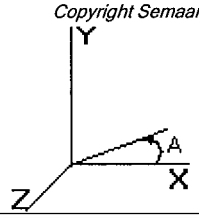
Load Case: Ice — 85 mph - With Ice - Ice Thickness = 0.5 in — 26 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Effective Wind Speed : 73.61 (mph)

Shaft Forces

Seg Top Elev (ft)	Description	Kz	qz (psf)	qzGh (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	380.32	0.650	0.00	0.000	0.000	0.00	0.00	0.0
5.00		1.00	13.87	23.44	372.44	0.650	5.00	25.982	16.888	395.90	0.00	1,832.0
10.00		1.00	13.87	23.44	364.55	0.650	5.00	25.447	16.540	387.75	0.00	1,793.4
15.00		1.00	13.87	23.44	356.67	0.650	5.00	24.911	16.192	379.59	0.00	1,754.7
20.00		1.00	13.87	23.44	348.79	0.650	5.00	24.376	15.844	371.43	0.00	1,716.1
25.00		1.00	13.87	23.44	340.91	0.650	5.00	23.841	15.496	363.27	0.00	1,677.4
30.00		1.00	13.87	23.44	333.02	0.650	5.00	23.305	15.148	355.11	0.00	1,638.7
35.00		1.01	14.10	23.84	327.89	0.650	5.00	22.770	14.800	352.84	0.00	1,600.1
40.00		1.05	14.65	24.76	326.10	0.650	5.00	22.234	14.452	357.94	0.00	1,561.4
42.50	Bot - Section 2	1.07	14.91	25.20	324.85	0.650	2.50	10.916	7.096	178.81	0.00	766.7
45.00		1.09	15.15	25.61	323.39	0.650	2.50	10.991	7.144	182.99	0.00	1,450.5
49.50	Top - Section 1	1.12	15.57	26.32	320.31	0.650	4.50	19.446	12.640	332.71	0.00	2,564.1
50.00		1.12	15.62	26.39	326.44	0.650	0.50	2.134	1.387	36.61	0.00	149.9
55.00		1.15	16.05	27.12	322.44	0.650	5.00	21.045	13.679	371.06	0.00	1,475.5
60.00		1.18	16.45	27.80	317.89	0.650	5.00	20.509	13.331	370.72	0.00	1,436.9
65.00		1.21	16.83	28.45	312.86	0.650	5.00	19.974	12.983	369.39	0.00	1,398.2
70.00		1.24	17.19	29.06	307.41	0.650	5.00	19.439	12.635	367.19	0.00	1,359.6
75.00		1.26	17.53	29.63	301.59	0.650	5.00	18.903	12.287	364.18	0.00	1,320.9
80.00	Appertunance(s)	1.28	17.86	30.19	295.44	0.650	5.00	18.368	11.939	360.45	0.00	1,282.2
85.00		1.31	18.17	30.71	288.99	0.650	5.00	17.832	11.591	356.06	0.00	1,243.6
86.13	Bot - Section 3	1.31	18.24	30.83	287.49	0.650	1.13	3.956	2.571	79.29	0.00	276.0
90.00		1.33	18.47	31.22	282.26	0.650	3.87	13.623	8.855	276.49	0.00	1,677.8
91.88	Top - Section 2	1.34	18.58	31.40	279.66	0.650	1.88	6.502	4.226	132.75	0.00	800.4
95.00		1.35	18.76	31.71	281.52	0.650	3.12	10.624	6.905	218.98	0.00	658.1
100.00		1.37	19.04	32.17	274.36	0.650	5.00	16.591	10.784	347.01	0.00	1,026.1
105.00		1.39	19.30	32.63	266.98	0.650	5.00	16.055	10.436	340.53	0.00	991.7
110.00		1.41	19.56	33.06	259.40	0.650	5.00	15.520	10.088	333.57	0.00	957.4
115.00		1.42	19.81	33.49	251.63	0.650	5.00	14.984	9.740	326.18	0.00	923.1
120.00		1.44	20.05	33.89	243.68	0.650	5.00	14.449	9.392	318.38	0.00	888.8
125.00		1.46	20.29	34.29	235.57	0.650	5.00	13.914	9.044	310.17	0.00	854.5
130.00		1.48	20.52	34.68	227.31	0.650	5.00	13.378	8.696	301.60	0.00	820.1
130.84	Bot - Section 4	1.48	20.56	34.74	225.91	0.650	0.84	2.186	1.421	49.37	0.00	134.1
135.00		1.49	20.74	35.05	218.90	0.650	4.16	10.873	7.068	247.79	0.00	1,075.8
135.17	Top - Section 3	1.49	20.75	35.07	218.61	0.650	0.17	0.436	0.283	9.94	0.00	43.1
140.00	Appertunance(s)	1.51	20.96	35.42	215.06	0.650	4.83	12.132	7.886	279.36	0.00	556.5
145.00		1.52	21.17	35.78	206.40	0.650	5.00	12.032	7.821	279.86	0.00	550.7
150.00	Appertunance(s)	1.54	21.37	36.13	197.62	0.650	5.00	11.497	7.473	270.00	0.00	525.1
155.00		1.55	21.58	36.47	188.72	0.650	5.00	10.961	7.125	259.85	0.00	499.4
160.00		1.57	21.77	36.80	179.70	0.650	5.00	10.426	6.777	249.41	0.00	473.8
165.00		1.58	21.96	37.12	170.57	0.650	5.00	9.891	6.429	238.69	0.00	448.1
170.00		1.59	22.15	37.44	161.34	0.650	5.00	9.355	6.081	227.71	0.00	422.5
173.51	Bot - Section 5	1.60	22.28	37.66	154.80	0.650	3.51	6.242	4.057	152.81	0.00	281.4
175.00		1.61	22.34	37.75	152.00	0.650	1.49	2.625	1.706	64.42	0.00	176.8
176.51	Top - Section 4	1.61	22.39	37.85	149.17	0.650	1.51	2.600	1.690	63.96	0.00	174.9
180.00		1.62	22.52	38.06	145.50	0.650	3.49	5.841	3.797	144.51	0.00	174.7
185.00		1.63	22.69	38.36	135.99	0.650	5.00	7.905	5.138	197.12	0.00	235.1
190.00		1.64	22.87	38.65	126.39	0.650	5.00	7.370	4.790	185.17	0.00	218.1
195.00	Appertunance(s)	1.66	23.04	38.94	116.70	0.650	5.00	6.834	4.442	173.00	0.00	201.1
					Totals:		195.00			12,331.92	0.00	44,087.4



Load Case: Ice — 85 mph - With Ice - Ice Thickness = 0.5 in — 26 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Effective Wind Speed : 73.61 (mph)

Discrete Appurtenance Forces

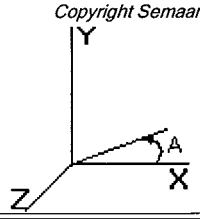
Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Total CaAa (sf)	CaAa Factor	Horiz Ecc (ft)	Vert Ecc (ft)	X Angle (deg)	Wind Force X (lb)	Wind Force Z (lb)	Mom X (lb-ft)	Mom Y (lb-ft)	Mom Z (lb-ft)	Weight (lb)
80.00	Standoff	2	17.86	30.19	8.680	1.000	0.000	0.0	0.0	262.06	0.00	0.00	0.00	0.00	126.0
80.00	PC1NOF-190-002	2	17.89	30.23	0.266	1.000	0.000	0.4	0.0	8.04	0.00	0.00	0.00	3.22	3.6
140.00	Low Profile Platform	1	20.96	35.42	32.000	1.000	0.000	0.0	0.0	1133.62	0.00	0.00	0.00	0.00	2800.0
140.00	Allgon 7250.02	6	20.96	35.42	30.000	1.000	0.000	0.0	0.0	1062.77	0.00	0.00	0.00	0.00	216.0
150.00	Low Profile Platform	1	21.37	36.13	32.000	1.000	0.000	0.0	0.0	1156.19	0.00	0.00	0.00	0.00	2800.0
150.00	DB980H90	9	21.37	36.13	23.112	0.667	0.000	0.0	0.0	835.04	0.00	0.00	0.00	0.00	252.0
195.00	Low Profile Platform	1	23.04	38.94	32.000	1.000	0.000	0.0	0.0	1246.19	0.00	0.00	0.00	0.00	2800.0
195.00	RR90-17-00NP	12	23.04	38.94	46.423	0.667	0.000	0.0	0.0	1807.88	0.00	0.00	0.00	0.00	420.0
										7,511.78	0.00				9,417.6

Pole : CT03XC365
Location: Monroe, CT
Height : 195.0 (ft)
Shape : 18 Sides
Base Dia : 62.00 (in)
Taper : 0.257 (in/ft)

Sprint Sites USA - NJ

Base Elev : 0.000 (ft)

Top Dia : 14.76 (in)



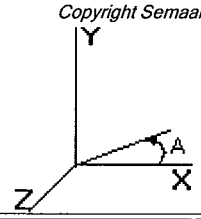
Load Case: Ice — 85 mph - With Ice - Ice Thickness = 0.5 in — 26 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Effective Wind Speed : 73.61 (mph)

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	395.90	1,832.05	0.00	0.00	0.00	0.00
10.00	0.00	0.00	387.75	1,793.39	0.00	0.00	0.00	0.00
15.00	0.00	0.00	379.59	1,754.73	0.00	0.00	0.00	0.00
20.00	0.00	0.00	371.43	1,716.07	0.00	0.00	0.00	0.00
25.00	0.00	0.00	363.27	1,677.41	0.00	0.00	0.00	0.00
30.00	0.00	0.00	355.11	1,638.75	0.00	0.00	0.00	0.00
35.00	0.00	0.00	352.84	1,600.09	0.00	0.00	0.00	0.00
40.00	0.00	0.00	357.94	1,561.43	0.00	0.00	0.00	0.00
42.50	0.00	0.00	178.81	766.71	0.00	0.00	0.00	0.00
45.00	0.00	0.00	182.99	1,450.55	0.00	0.00	0.00	0.00
49.50	0.00	0.00	332.71	2,564.06	0.00	0.00	0.00	0.00
50.00	0.00	0.00	36.61	149.86	0.00	0.00	0.00	0.00
55.00	0.00	0.00	371.06	1,475.53	0.00	0.00	0.00	0.00
60.00	0.00	0.00	370.72	1,436.87	0.00	0.00	0.00	0.00
65.00	0.00	0.00	369.39	1,398.21	0.00	0.00	0.00	0.00
70.00	0.00	0.00	367.19	1,359.55	0.00	0.00	0.00	0.00
75.00	0.00	0.00	364.18	1,320.89	0.00	0.00	0.00	0.00
80.00	0.00	0.00	630.55	1,411.79	0.00	0.00	0.00	3.22
85.00	0.00	0.00	356.06	1,243.57	0.00	0.00	0.00	0.00
86.13	0.00	0.00	79.29	276.04	0.00	0.00	0.00	0.00
90.00	0.00	0.00	276.49	1,677.80	0.00	0.00	0.00	0.00
91.88	0.00	0.00	132.75	800.43	0.00	0.00	0.00	0.00
95.00	0.00	0.00	218.98	658.12	0.00	0.00	0.00	0.00
100.00	0.00	0.00	347.01	1,026.07	0.00	0.00	0.00	0.00
105.00	0.00	0.00	340.53	991.75	0.00	0.00	0.00	0.00
110.00	0.00	0.00	333.57	957.42	0.00	0.00	0.00	0.00
115.00	0.00	0.00	326.18	923.10	0.00	0.00	0.00	0.00
120.00	0.00	0.00	318.38	888.78	0.00	0.00	0.00	0.00
125.00	0.00	0.00	310.17	854.45	0.00	0.00	0.00	0.00
130.00	0.00	0.00	301.60	820.13	0.00	0.00	0.00	0.00
130.84	0.00	0.00	49.37	134.14	0.00	0.00	0.00	0.00
135.00	0.00	0.00	247.79	1,075.75	0.00	0.00	0.00	0.00
135.17	0.00	0.00	9.94	43.13	0.00	0.00	0.00	0.00
140.00	0.00	0.00	2,475.74	3,572.45	0.00	0.00	0.00	0.00
145.00	0.00	0.00	279.86	550.74	0.00	0.00	0.00	0.00
150.00	0.00	0.00	2,261.23	3,577.09	0.00	0.00	0.00	0.00
155.00	0.00	0.00	259.85	499.44	0.00	0.00	0.00	0.00
160.00	0.00	0.00	249.41	473.79	0.00	0.00	0.00	0.00
165.00	0.00	0.00	238.69	448.14	0.00	0.00	0.00	0.00
170.00	0.00	0.00	227.71	422.50	0.00	0.00	0.00	0.00
173.51	0.00	0.00	152.81	281.41	0.00	0.00	0.00	0.00
175.00	0.00	0.00	64.42	176.80	0.00	0.00	0.00	0.00
176.51	0.00	0.00	63.96	174.86	0.00	0.00	0.00	0.00
180.00	0.00	0.00	144.51	174.75	0.00	0.00	0.00	0.00
185.00	0.00	0.00	197.12	235.09	0.00	0.00	0.00	0.00
190.00	0.00	0.00	185.17	218.12	0.00	0.00	0.00	0.00
195.00	0.00	0.00	3,227.06	3,421.14	0.00	0.00	0.00	0.00
		Totals:	19,843.70	53,504.98	0.00	0.00	0.00	3.22



Load Case: Ice — 85 mph - With Ice - Ice Thickness = 0.5 in — 26 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

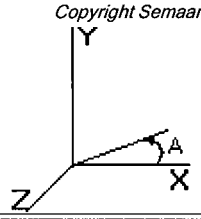
Seg Elev (ft)	Lateral FX (-) (kips)	Axial FY (-) (kips)	Lateral FZ (kips)	Moment MX (ft-kips)	Torsion MY (ft-kips)	Moment MZ (ft-kips)	X Deflect (in)	Z Deflect (in)	Total Deflect (in)	Rotation (deg)
0.00	19.878	53.492	0.000	0.000	0.000	2,414.208	0.000	0.000	0.000	0.000
5.00	19.546	51.635	0.000	0.000	0.000	2,314.821	-0.039	0.000	0.039	-0.072
10.00	19.220	49.818	0.000	0.000	0.000	2,217.091	-0.154	0.000	0.154	-0.146
15.00	18.898	48.039	0.000	0.000	0.000	2,120.994	-0.347	0.000	0.347	-0.221
20.00	18.582	46.300	0.000	0.000	0.000	2,026.503	-0.620	0.000	0.620	-0.298
25.00	18.271	44.599	0.000	0.000	0.000	1,933.595	-0.974	0.000	0.974	-0.376
30.00	17.964	42.938	0.000	0.000	0.000	1,842.244	-1.411	0.000	1.411	-0.456
35.00	17.657	41.315	0.000	0.000	0.000	1,752.424	-1.933	0.000	1.933	-0.538
40.00	17.328	39.739	0.000	0.000	0.000	1,664.138	-2.542	0.000	2.542	-0.622
42.50	17.170	38.961	0.000	0.000	0.000	1,620.820	-2.880	0.000	2.880	-0.665
45.00	17.010	37.494	0.000	0.000	0.000	1,577.897	-3.240	0.000	3.240	-0.709
49.50	16.670	34.922	0.000	0.000	0.000	1,501.354	-3.947	0.000	3.947	-0.788
50.00	16.660	34.759	0.000	0.000	0.000	1,493.019	-4.030	0.000	4.030	-0.797
55.00	16.317	33.265	0.000	0.000	0.000	1,409.721	-4.910	0.000	4.910	-0.882
60.00	15.971	31.810	0.000	0.000	0.000	1,328.139	-5.880	0.000	5.880	-0.967
65.00	15.624	30.395	0.000	0.000	0.000	1,248.285	-6.940	0.000	6.940	-1.055
70.00	15.276	29.018	0.000	0.000	0.000	1,170.167	-8.093	0.000	8.093	-1.144
75.00	14.929	27.681	0.000	0.000	0.000	1,093.786	-9.340	0.000	9.340	-1.235
80.00	14.310	26.261	0.000	0.000	0.000	1,019.138	-10.684	0.000	10.684	-1.328
85.00	13.950	25.012	0.000	0.000	0.000	947.587	-12.125	0.000	12.125	-1.423
86.13	13.885	24.726	0.000	0.000	0.000	931.824	-12.465	0.000	12.465	-1.445
90.00	13.588	23.043	0.000	0.000	0.000	878.091	-13.668	0.000	13.668	-1.521
91.88	13.453	22.234	0.000	0.000	0.000	852.546	-14.274	0.000	14.274	-1.559
95.00	13.248	21.563	0.000	0.000	0.000	810.573	-15.314	0.000	15.314	-1.621
100.00	12.909	20.523	0.000	0.000	0.000	744.335	-17.068	0.000	17.068	-1.727
105.00	12.575	19.519	0.000	0.000	0.000	679.789	-18.935	0.000	18.935	-1.835
110.00	12.245	18.550	0.000	0.000	0.000	616.916	-20.915	0.000	20.915	-1.943
115.00	11.921	17.616	0.000	0.000	0.000	555.690	-23.008	0.000	23.008	-2.053
120.00	11.602	16.717	0.000	0.000	0.000	496.087	-25.217	0.000	25.217	-2.162
125.00	11.289	15.854	0.000	0.000	0.000	438.079	-27.540	0.000	27.540	-2.271
130.00	10.971	15.035	0.000	0.000	0.000	381.634	-29.977	0.000	29.977	-2.380
130.84	10.930	14.892	0.000	0.000	0.000	372.456	-30.396	0.000	30.396	-2.399
135.00	10.648	13.820	0.000	0.000	0.000	326.950	-32.527	0.000	32.527	-2.488
135.17	10.649	13.767	0.000	0.000	0.000	325.141	-32.616	0.000	32.616	-2.492
140.00	8.037	10.292	0.000	0.000	0.000	273.708	-35.188	0.000	35.188	-2.591
145.00	7.754	9.738	0.000	0.000	0.000	233.521	-37.970	0.000	37.970	-2.719
150.00	5.335	6.264	0.000	0.000	0.000	194.753	-40.885	0.000	40.885	-2.844
155.00	5.062	5.767	0.000	0.000	0.000	168.079	-43.928	0.000	43.928	-2.966
160.00	4.800	5.297	0.000	0.000	0.000	142.767	-47.098	0.000	47.098	-3.088
165.00	4.547	4.853	0.000	0.000	0.000	118.769	-50.397	0.000	50.397	-3.209
170.00	4.303	4.437	0.000	0.000	0.000	96.035	-53.820	0.000	53.820	-3.327
173.51	4.138	4.161	0.000	0.000	0.000	80.947	-56.293	0.000	56.293	-3.409
175.00	4.066	3.986	0.000	0.000	0.000	74.767	-57.365	0.000	57.365	-3.444
176.51	3.995	3.811	0.000	0.000	0.000	68.641	-58.456	0.000	58.456	-3.478
180.00	3.847	3.638	0.000	0.000	0.000	54.685	-61.028	0.000	61.028	-3.552
185.00	3.643	3.409	0.000	0.000	0.000	35.450	-64.823	0.000	64.823	-3.688
190.00	3.448	3.199	0.000	0.000	0.000	17.237	-68.741	0.000	68.741	-3.787
195.00	3.227	0.000	0.000	0.000	0.000	0.000	-72.734	0.000	72.734	-3.828

Pole : CT03XC365
Location: Monroe, CT
Height : 195.0 (ft)
Shape : 18 Sides
Base Dia : 62.00 (in)
Taper : 0.257 (in/ft)

Sprint Sites USA - NJ

Base Elev : 0.000 (ft)

Top Dia : 14.76 (in)



Load Case: Ice — 85 mph - With Ice - Ice Thickness = 0.5 in — 26 Iterations

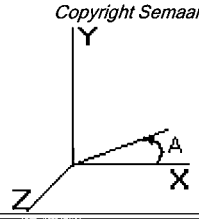
Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Effective Wind Speed : 73.61 (mph)

Calculated Stresses

Seg Elev (ft)	Applied Stresses Axial (Y) (ksi)	Shear (X) (ksi)	Shear (Z) (ksi)	Torsion (ksi)	Bending (X) (ksi)	Bending (Z) (ksi)	Combined (ksi)	Allowable Stress (Fb) (ksi)	Stress Ratio
0.00	0.548	0.410	0.000	0.000	0.000	19.554	20.114	52.0	0.387
5.00	0.540	0.412	0.000	0.000	0.000	19.561	20.114	52.0	0.387
10.00	0.533	0.414	0.000	0.000	0.000	19.564	20.110	52.0	0.387
15.00	0.525	0.416	0.000	0.000	0.000	19.564	20.102	52.0	0.387
20.00	0.518	0.419	0.000	0.000	0.000	19.558	20.089	52.0	0.386
25.00	0.510	0.421	0.000	0.000	0.000	19.546	20.070	52.0	0.386
30.00	0.503	0.424	0.000	0.000	0.000	19.528	20.044	52.0	0.386
35.00	0.496	0.427	0.000	0.000	0.000	19.500	20.010	52.0	0.385
40.00	0.489	0.430	0.000	0.000	0.000	19.463	19.966	52.0	0.384
42.50	0.485	0.431	0.000	0.000	0.000	19.444	19.943	52.0	0.384
45.00	0.473	0.433	0.000	0.000	0.000	19.421	19.909	52.0	0.383
49.50	0.442	0.425	0.000	0.000	0.000	18.596	19.053	52.0	0.367
50.00	0.441	0.426	0.000	0.000	0.000	18.589	19.045	52.0	0.366
55.00	0.433	0.428	0.000	0.000	0.000	18.502	18.950	52.0	0.365
60.00	0.426	0.431	0.000	0.000	0.000	18.401	18.842	52.0	0.363
65.00	0.418	0.433	0.000	0.000	0.000	18.284	18.718	52.0	0.360
70.00	0.411	0.436	0.000	0.000	0.000	18.150	18.576	52.0	0.357
75.00	0.404	0.439	0.000	0.000	0.000	17.995	18.414	52.0	0.354
80.00	0.395	0.433	0.000	0.000	0.000	17.816	18.226	52.0	0.351
85.00	0.388	0.436	0.000	0.000	0.000	17.635	18.039	52.0	0.347
86.13	0.386	0.437	0.000	0.000	0.000	17.594	17.996	52.0	0.346
90.00	0.369	0.438	0.000	0.000	0.000	17.433	17.818	52.0	0.343
91.88	0.402	0.490	0.000	0.000	0.000	18.873	19.294	52.0	0.371
95.00	0.398	0.493	0.000	0.000	0.000	18.693	19.110	52.0	0.368
100.00	0.392	0.497	0.000	0.000	0.000	18.361	18.773	52.0	0.361
105.00	0.386	0.501	0.000	0.000	0.000	17.980	18.386	52.0	0.354
110.00	0.380	0.505	0.000	0.000	0.000	17.538	17.940	52.0	0.345
115.00	0.374	0.511	0.000	0.000	0.000	17.027	17.424	52.0	0.335
120.00	0.369	0.517	0.000	0.000	0.000	16.431	16.824	52.0	0.324
125.00	0.365	0.523	0.000	0.000	0.000	15.733	16.123	52.0	0.310
130.00	0.361	0.530	0.000	0.000	0.000	14.913	15.301	52.0	0.294
130.84	0.360	0.532	0.000	0.000	0.000	14.767	15.154	52.0	0.292
135.00	0.346	0.538	0.000	0.000	0.000	13.953	14.330	52.0	0.276
135.17	0.471	0.735	0.000	0.000	0.000	18.421	18.936	52.0	0.364
140.00	0.368	0.579	0.000	0.000	0.000	16.910	17.307	52.0	0.333
145.00	0.365	0.585	0.000	0.000	0.000	15.846	16.242	52.0	0.312
150.00	0.246	0.423	0.000	0.000	0.000	14.581	14.846	52.0	0.286
155.00	0.239	0.422	0.000	0.000	0.000	13.956	14.214	52.0	0.273
160.00	0.232	0.423	0.000	0.000	0.000	13.221	13.473	52.0	0.259
165.00	0.225	0.424	0.000	0.000	0.000	12.345	12.591	52.0	0.242
170.00	0.218	0.427	0.000	0.000	0.000	11.283	11.524	52.0	0.222
173.51	0.214	0.429	0.000	0.000	0.000	10.412	10.652	52.0	0.205
175.00	0.209	0.430	0.000	0.000	0.000	10.008	10.244	52.0	0.197
176.51	0.331	0.700	0.000	0.000	0.000	15.038	15.417	52.0	0.297
180.00	0.332	0.707	0.000	0.000	0.000	13.182	13.569	52.0	0.261
185.00	0.334	0.720	0.000	0.000	0.000	9.882	10.292	52.0	0.198
190.00	0.339	0.736	0.000	0.000	0.000	5.620	6.094	52.0	0.117
195.00	0.000	0.750	0.000	0.000	0.000	0.000	1.299	52.0	0.025

Pole :	CT03XC365	Sprint Sites USA - NJ	
Location:	Monroe, CT		
Height :	195.0 (ft)	Base Elev : 0.000 (ft)	
Shape :	18 Sides		
Base Dia :	62.00 (in)	Top Dia : 14.76 (in)	
Taper :	0.257 (in/ft)		



Load Case: No Ice — 85 mph - No Ice — 26 Iterations

Gust Response Factor : 1.69 — Effective Wind Speed : 85.00 (mph)
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Analysis Summary

	Reactions						Max Stresses			
Load Case	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	24.720	0.000	44.654	0.000	0.000	2,924.152	24.158	52.0	0.000	0.465
Ice	19.878	0.000	53.492	0.000	0.000	2,414.208	20.114	52.0	0.000	0.387

Exhibit E

Power Density Calculations

CT11-264C

474 Main Street

Monroe, Connecticut

VOICESTREAM WIRELESS CORPORATION
76 Progress Drive, Stamford, CT 06902-3000
Phone: (203) 328-8900
Fax: (203) 328-8953

Technical Memo

To: Karina Hansen
From: Chetan Dhaduk - Radio Frequency Engineer
cc: Roni Zola; J. Brendan Sharkey
Subject: Power Density Report for CT11-264C
Date: August 19, 2002

1. Introduction:

This report is the result of an Electromagnetic Field Intensities (EMF - Power Densities) study for the Voicestream Wireless Corporation PCS antenna installation on a Monopole at 474-480 Main Street, Monroe, CT. This study incorporates the most conservative consideration for determining the practical combined worst case power density levels that would be theoretically encountered from locations surrounding the transmitting location.

2. Discussion:

The following assumptions were used in the calculations:

1) The emissions from Voicestream Wireless transmitters are in the 1930-1950 MHz frequency band.
2) The antenna array consists of three sectors, with 4 antennas per sector.
3) The model number for each antenna is EMS-RR90-17-02DPL2.
4) The antenna center line height is 195 ft.
5) The maximum transmit power from any sector is 3283.37 Watts Effective Radiated Power (EiRP) assuming 8 channels per sector.
6) All the antennas are simultaneously transmitting and receiving, 24 hours a day.
7) Power levels emitting from the antennas are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. This is rarely the case, and if so, is never continuous.
8) The average ground level of the studied area does not change significantly with respect to the transmitting location

Equations given in "FCC OET Bulletin 65, Edition 97-01" were then used with the above information to perform the calculations.

3. Conclusion:

Based on the above worst case assumptions, the power density calculation from the VoiceStream Wireless Corporation PCS antenna installation on a Monopole at 474-480 Main Street, Monroe, CT, is 0.02017 mW/cm^2. This value represents 2.017% of the Maximum Permissible Emission (MPE) standard of 1 milliwatt per square centimeter (mW/cm^2) set forth in the FCC/ANSI/IEEE C95.1-1991. Furthermore, the proposed antenna location for VoiceStream Wireless will not interfere with existing public safety communications, AM or FM radio broadcasts, TV, Police Communications, HAM Radio communications or any other signals in the area.
The combined Power Density from other carriers is 4.07%. The combined Power Density for the site is 6.087% of the M.P.E. standard.

New York Market
Connecticut
Worst Case Power Density

VoiceStream Global Wireless by T-Mobile

Site:	**CT11-264C**
Site Address:	**474-480 Main Street**
Town:	**Monroe**
Tower Height:	**195'**
Tower Style:	**Monopole**
Base Station TX output	20 W
Number of channels	8
Antenna Model	EMS-RR90-17-02DPL2
Cable Size	1 5/8 in.
Cable Length	205 ft.
Antenna Height	195.0 ft.
Ground Reflection	1.6
Frequency	1935.0 MHz
Jumper & Connector loss	1.00 dB
Antenna Gain	16.5 dBi
Cable Loss per foot	0.0116 dB
Total Cable Loss	2.3780 dB
Total Attenuation	3.3780 dB
Total EIRP per Channel	56.13 dBm
(In Watts)	410.42 W
Total EIRP per Sector	65.16 dBm
(In Watts)	3283.37 W
nsg	13.1220
Power Density (S) =	**0.020166 mW/cm^2**
Voicestream Worst Case % MPE =	**2.0166%**

Equation Used :

$$S = \frac{(1000)(grf)^2(Power)*10^{(nsg/10)}}{4\pi(R)^2}$$

Office of Engineering and Technology (OET) Bulletin 65, Edition 97-01, August 1997

Co-Location Total

Carrier	% of Standard
Verizon	
Cingular	
Sprint PCS	**2.2100 %**
AT&T Wireless	**1.8600 %**
Nextel	
Total Excluding Voicestream	**4.0700 %**
Voicestream	2.0166
Total % MPE for Site	**6.0866%**

Relative Gain Power Density

Antenna Relative Gain Factor	0.0 dBi
Total Attenuation	3.3780 dB
Total EIRP per Channel	56.13 dBm
(In Watts)	410.42 W
Total EIRP per Sector	65.16 dBm
(In Watts)	3283.37 W
nsg	13.1220
Power Density (S) =	**0.020166 mW/cm^2**
Voicestream Relative Gain % MPE =	**2.0166%**