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
www.ct.gov/csc

March 7, 2005

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

RE: **EM-VER-132-050210** - Cellco Partnership d/b/a Verizon Wireless notice of intent to modify an existing telecommunications facility located at 190 Burnham Street, South Windsor, Connecticut.

Dear Attorney Baldwin:

At a public meeting held on March 3, 2005, 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 February 10, 2005, including the placement of all necessary equipment and shelters within the tower compound. 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: The Honorable Edward F. Havens, Mayor, Town of South Windsor
Marcia Banach, Director of Planning, Town of South Windsor
Jeffrey W. Barbadora, Crown Atlantic Company LLC
Thomas F. Flynn III, Nextel Communications Inc.

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February 17, 2005

The Honorable Edward F. Havens
Mayor
Town of South Windsor
1540 Sullivan Avenue
South Windsor, CT 06074-2786

RE: **EM-VER-132-050210** – Cellco Partnership d/b/a Verizon Wireless notice of intent to modify an existing telecommunications facility located at 132 Burnham Street, South Windsor, Connecticut.

Dear Mayor Havens:

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 March 3, 2005 at 1:30 p.m. in Hearing Room One, Ten Franklin Square, New Britain, Connecticut.

If you have any questions or comments regarding this proposal, please call me or inform the council by March 2, 2005.

Thank you for your cooperation and consideration.

Very truly yours,

S. Derek Phelps
Executive Director

SDP/cm

Enclosure: Notice of Intent

c: Marcia Banach, Director of Planning, Town of South Windsor

ROBINSON & COLE LLP

KENNETH C. BALDWIN

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

EM-VER-132-050210

February 10, 2005

Via Hand Delivery

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

Re: **Notice of Exempt Modification – Antenna Swap**
190 Burnham Street
South Windsor, Connecticut

Dear Mr. Phelps:

Cellco Partnership d/b/a Verizon Wireless ("Cellco") currently maintains a wireless telecommunications facility, on an existing 110-foot tower, owned by Crown Atlantic Company, LLC at 190 Burnham Street in South Windsor. Cellco's facility consists of twelve (12) panel-type cellular antennas at the top of the 110-foot tower. Equipment associated with the antennas is located in a shelter near the base of the tower.

The Connecticut Siting Council ("the Council") approved Cellco's shared use of the Burnham Street facility in Docket No. 137. Cellco now intends to modify its facility by removing the existing cellular antennas and installing nine (9) new cellular antennas and six (6) PCS antennas, for a total of fifteen (15) antennas, at the same level on the existing tower. Attached behind Tab 1 are specifications for the existing cellular antennas and the proposed cellular and PCS antennas for the Burnham Street facility.

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 South Windsor Town Manager, Matthew B. Galligan.

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

1. The proposed modifications will not result in any increase in the overall height of the existing structure. Cellco's replacement antennas will be mounted at the same level on the 110-foot tower.

2. The proposed modifications will not affect ground-mounted equipment and therefore, will not require the extension of the site boundaries.

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

4. The proposed modifications will not result in radio frequency (RF) power density levels at the facility that exceed the Federal Communications Commission (FCC) adopted safety standard. Attached behind Tab 2 is a new Power Density Calculation Table.

Also attached behind Tab 3 is a structural report stating that the tower is capable of supporting the existing and proposed antennas and related equipment.

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

Sincerely,

Kenneth C. Baldwin

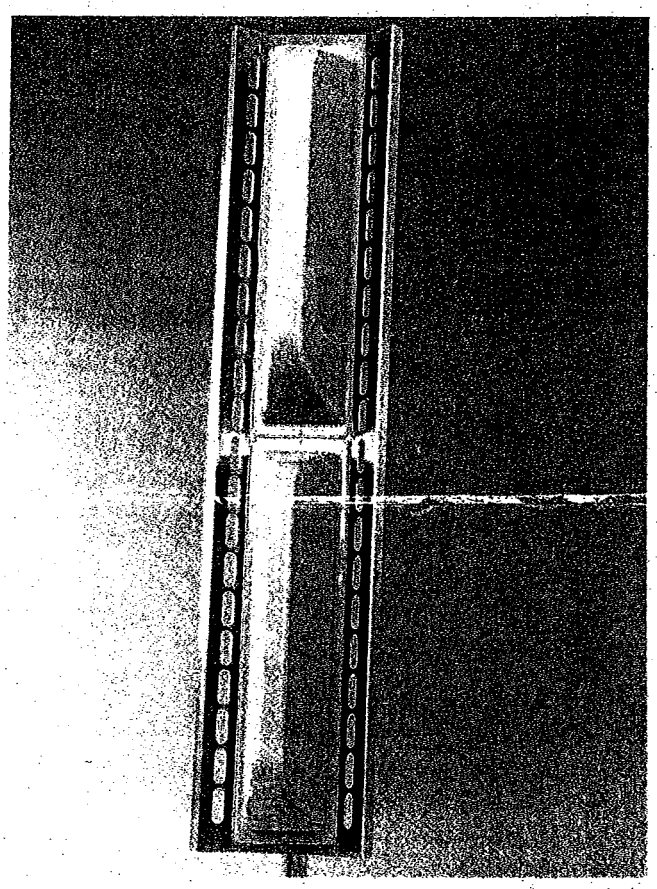
Enclosures
cc: Matthew B. Galligan, Town Manager
Sandy M. Carter

Swedcom Corporation

ALP 9212-N

Log-Periodic Reflector Antenna

92 Degrees 12 dBd



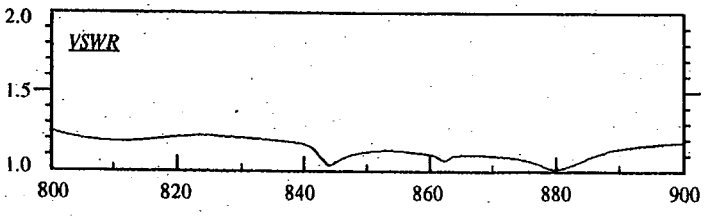
Features:

- ❑ **Broadbanded. (800-900 MHz)**
- ❑ **Low backlobe radiation. Front-to-back ratio better than 28 dB**
- ❑ **Low Intermodulation Products.**
- ❑ **Low Wind-load.**
- ❑ **Low weight.**
- ❑ **Small size.**
- ❑ **Rugged design.**

Please see the following pages including radiation patterns/tables for *ALP 9212-N.*

Electrical Specifications:

Frequency range:	806-896 MHz
Impedance:	50 ohm
Connector:	N-female or 7/8" EIA
VSWR:	Typ. 1.3:1 max 1.5:1
Polarization:	Vertical
Gain:	12 dBd
Front to back ratio:	>28 dB
Side-lobe supression:	>18 dB
Intermodulation: (2x25W):	IM3 >146 dB
	IM5 >153 dB
	IM7 & IM9 >163 dB
Power Rating:	500 W
H-Plane: -3 dB	95 °
E-Plane: -3 dB	15 °
Lightning Protection:	DC Grounded



Mechanical Specifications:

Overall Height:	52 in	(1320 mm)
Width:	11.4 in	(290 mm)
Depth:	11.4 in	(290 mm)
Weight including brackets:	26.7 lbs	(12 Kg)
Rated wind velocity:	113 mph	(180 Km/h)
Wind Area (CxA/Front):	3.9 sq.ft	(0.36 sq.m)
Lateral thrust at rated wind		
Worst case:	570 N	

Materials:

Radiating elements:	Aluminum
Element housing:	Grey PVC
Back-plate:	Aluminum
Mounting hardware	
clamps:	Hot dip galvanized steel
bolts:	Stainless steel

Manufactured by: ***Allgon System AB***

DECIBEL®
Base Station Antennas

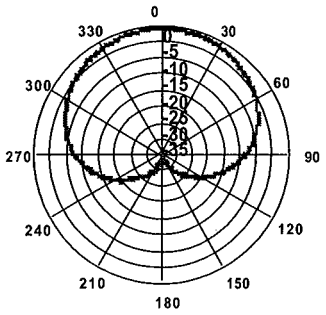
DB844F90A-SX

12 dBd, Directed Dipole Antenna
806-896 MHz

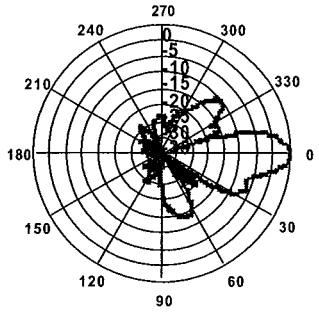
806-896 MHz

- Exceptional azimuth roll off reducing soft hand offs and improving capacity
- Strong null filling for below horizon RF penetration
- Extremely rugged, reliable design yet lightweight for low tower loading
- Air dielectric feed system

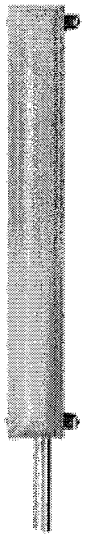
90°



Horizontal 850 MHz (Tilt=0)



Vertical 850 MHz (Tilt=0)



ELECTRICAL		MECHANICAL	
Frequency (MHz):	806-896	**Weight:**	9.5 lbs (4.3 kg)
Polarization:	Vertical	**Dimensions (LxWxD):**	48 X 6.5 X 8 in (1219 X 165 X 203 mm)
Gain (dBd/dBi):	12/14.1	**Max. Wind Area:**	1.29 ft² (0.12 m²)
Azimuth BW:	90°	**Max. Wind Load (@ 100mph):**	69 lbf (307 N)
Elevation BW:	15°	**Max. Wind Speed:**	125 mph (201 km/h)
Beam Tilt:	0°	**Radiator Material:**	Aluminum
Front-to-Back Ratio* (dB):	40	**Reflector Material:**	Aluminum
VSWR:	1.33:1	**Radome Material:**	ABS,UV Resistant
Impedance:	50 Ohms	**Mounting Hardware Material:**	Galvanized Steel
Max Input Power:	500 Watts	**Connector Type:**	7-16 DIN - Female (Back)
Lightning Protection:	DC Ground	**Color:**	LightGray
		Standard Mounting Hardware:	DB380 Pipe Mount Kit, included
		Downtilt Mounting Hardware:	DB5083, optional
		Opt. Mounting Hardware:	DB5084-AZ

Andrew Corporation
8635 Stemmons Freeway
Dallas, Texas U.S.A 75247-3701
Tel: 214.631.0310

Fax: 214.631.4706
Toll Free Tel: 1.800.676.5342
Fax: 1.800.229.4706
www.andrew.com

dbtech@andrew.com

Date: 4/23/2004
* - Indicates Typical Values

DECIBEL®
Base Station Antennas

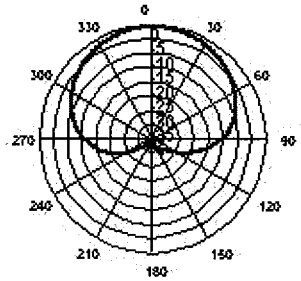
948F85T2E-M

16.1 dBi, Directed Dipole Antenna
1850-1990 MHz

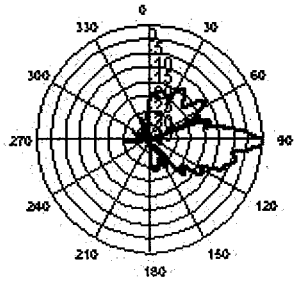
1850-1990 MHz
MaxFill™
dB Director®

85°

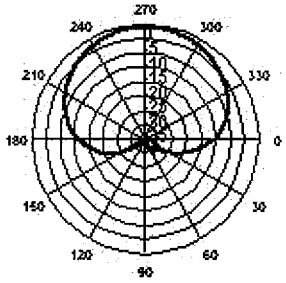
- Exceptional azimuth roll-off reducing soft hand-offs and improving capacity
- Excellent upper side lobe suppression
- Deep null filling below the horizon assures improved signal intensity
- Low profile appearance and low wind loading profile for easier zoning approvals



Azimuth 1850 MHz (Tilt=2)



Vertical 1850 MHz (Tilt=2)



Horizontal 1850 MHz (Tilt=2)

ELECTRICAL	
Frequency (MHz):	1850-1990
Polarization:	Vertical
Gain (dBd/dBi):	14/16.1
Azimuth BW:	85°
Elevation BW:	8°
Beam Tilt:	2°
USLS* (dB):	>18
Null Fill* (dB):	15
Front-to-Back Ratio* (dB):	40
VSWR:	<1.33:1
IM Suppression - Two 20 Watt Carriers:	-150 dBc
Impedance:	50 Ohms
Max Input Power:	250 Watts
Lightning Protection:	DC Ground
Opt Electrical Tilt:	0°,4°,6°

MECHANICAL	
Weight:	8.5 lbs (3.9 kg)
Dimensions (LxWxD):	48 X 3.5 X 7 in (1219 X 89 X 178 mm)
Max. Wind Area:	1.18 ft² (0.11 m²)
Max. Wind Load (@ 100mph):	65 lbf (289 N)
Max. Wind Speed:	125 mph (201 km/h)
Radiator Material:	Low Loss Circuit Board
Reflector Material:	Aluminum
Radome Material:	ABS, UV Resistant
Mounting Hardware Material:	Galvanized Steel
Connector Type:	7-16 DIN - Female (Bottom)
Color:	Light Gray
Standard Mounting Hardware:	DB390 Pipe Mount Kit, included
Downtilt Mounting Hardware:	DB5098, optional
Opt. Mounting Hardware:	DB5094-AZ Azimuth Wall Mount

Andrew Corporation
8635 Stemmons Freeway
Dallas, Texas U.S.A 75247-3701
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Fax: 214.631.4706
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Fax: 1.800.229.4706
www.andrew.com

dbtech@andrew.com

Date: 4/29/2004
* - Indicates Typical Values

General Power Density

Site Name: Burnham Street , CT
Tower Height: 110 ft rad center

Operator	Operating Frequency	Number of Trans	ERP Per Trans	Total ERP	Distance to Target	Calculated Power Density	Maximum Permissable Exposure*	Fraction of MPE
	(MHz)		(watts)	(watts)	(feet)	(mW/cm^2)	(mW/cm^2)	(%)
Verizon	869	9	200	1800	110	0.0535	0.5793	9.23%
Verizon	1900	3	200	600	110	0.0178	1	1.78%
Total Percentage of Maximum Permissible Exposure								11.02%

*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/cm^2 = milliwatts per square centimeter
ERP = Effective Radiated Power

Absolute worst case scenario, maximum values used.

S. Windsor/ Burnham St.

GPD GROUP

CROWN CASTLE INTERNATIONAL

Lincoln Erhard
Crown Castle International
500 West Cummings Park; Suite 3400
Woburn, Massachusetts, 01801
(781) 729-4406

January 19, 2005

Subject:	**Structural Analysis Report**
Carrier Designation	**Verizon Collocate** **Site Name: Burnham Street South Windsor** **Site Number: HRT095**
Crown Castle Designation	**BU Number: 806375** **Site Name: HRT 095 943237**
GPD Associate Designation	**Project Number: 2005078.09**
Site Data	**190 Burnham Street, South Windsor, Connecticut 06074** **Latitude 41° 48' 0.0", Longitude 72° 36' 58.0"** **110' Valmont Monopole**

Dear Mr. Erhard,

GPD is pleased to submit this structural analysis report as a determination of the structural integrity of the aforementioned tower. The purpose of the analysis is to determine the suitability of the tower with the addition of the following proposed antenna configuration.

Elev. 109'	(9) Decibel DB844F90A-SX Antennas on existing 13' Platform w/ (9) 1-5/8" internal coax
Elev. 109'	(6) Decibel DB948F85T2E-M Antennas on same Platform w/ (6) 1-5/8" internal coax

This analysis has been performed in accordance with the TIA/EIA-222-F standard based upon a wind speed condition of 80 mph. Based on our analysis we have determined the tower and it's foundation **will be sufficient** for the proposed loading.

We at GPD appreciate the opportunity of providing our continuing professional services to you and Crown Castle International. If you have any questions please do not hesitate to call.

Respectfully submitted,

David B. Granger, P.E.
Connecticut #: 17557

TABLE OF CONTENTS

EXECUTIVE SUMMARY

The purpose of this analysis was to verify that the existing structure is capable of carrying the proposed loading configuration as specified by Verizon to Crown Castle International. This report was commissioned by Mr. Lincoln Erhard of Crown Castle.

The monopole is structurally satisfactory for the proposed loading configuration for a basic wind speed of 80 mph with ½" of radial ice (25% reduction) in accordance with TIA/EIA-222-F and BOCA. The tower rating/capacity is 65.3%.

Foundation reactions, with the proposed loading, were found to be 66.9% of the original design reactions. If the existing foundation was properly designed for the original reactions then it is our opinion that the foundation will be adequate.

TOWER DESCRIPTION

The existing monopole has 12 sides and is evenly tapered from 41.90" (flat-flat) at the base to 15.53" (flat-flat) at the top. It has three major sections, connected with slip joints. The structure is galvanized and has no tower lighting.

The tower was originally designed for Metromobile – CT by Valmont Industries, Inc. of Valley Nebraska for a 90 moh wind speed with 1/2" radial ice in accordance with EIA-222-D.

Table 1 – Original Design

Center Line Elevation (feet)	Number Of Antenna	Antenna Manufacturer	Antenna Model	Mount Type	Number Of Feed Lines	Feed Line Size (inches)
107	4 12		PD10017 PD1132	Cellular Platform Pipe		Internal
94				Cellular Platform		Internal

ANALYSIS CRITERIA

The current requirements of TIA/EIA-222-F and BOCA are for a basic wind speed of 80 mph with ½" of radial ice. A 25% reduction in wind load is allowed when wind and ice are applied simultaneously. TIA/EIA-222-F requires towers within Hartford County be analyzed with an 80 mph wind speed. BOCA requires structures within the towers region to be analyzed using an 80 mph wind speed.

Seismic loads were calculated from hand calculations. It was determined from these calculations that the seismic loads do not control the maximum loading on the structure. The wind loading case will control.

Table 2 – Existing and Reserved Antenna and Cable Information

Center Line Elevation (feet)	Number Of Antenna	Antenna Manufacturer	Antenna Model	Mount Type	Number Of Feed Lines	Feed Line Size (inches)
109	12		Panel	13' Valmont Platform	12	Internal
94	9 3 (reserved)	Swedcom Swedcom	ALP 9212 ALP 9212	13' Valmont Platform	9 3	1-5/8 1-5/8

Table 3 – Proposed Antenna and Cable Information

Center Line Elevation (feet)	Number Of Antenna	Antenna Manufacturer	Antenna Model	Mount Type	Number Of Feed Lines	Feed Line Size (inches)
109	**9** **6**	**Decibel** **Decibel**	**DB844F90A-SX** **DB948F85T2E-M**	13' Valmont Platform	**9** **6**	**1-5/8** **1-5/8**
94	9 3 (reserved)	Swedcom Swedcom	ALP 9212 ALP 9212	13' Valmont Platform	9 3	1-5/8 1-5/8

Note: **Bold** indicates a new appurtenance. All coax shall be installed internal to monopole.

ANALYSIS PROCEDURE

Table 4 – Documents Provided

Document	Remarks	Reference	Source
Geotechnical Report	EDP/Triggs Consultants, Inc., Project #: 19058, dated 3/20/91	Doc ID # 262109	Crown DMZ
Original Tower Drawings	Valmont Industries, Inc., Order #: 10888-91, dated 1/24/91	Doc ID # 262106	Crown DMZ
Foundation Design	Leinweber & Associates Job #: 9132, dated 3/21/91	Doc ID # 262107	Crown DMZ

Analysis Methods

ERI Tower (Version 3.0.0.16), a commercially available software program, was used to create a three-dimensional model of the tower and calculate member stresses for various dead, live, wind, and ice load cases. All loads were computed in accordance with the ANSI/EIA/TIA-222-F and all local building code requirements. Selected output from the analysis is included in Appendix A.

Assumptions

1. Tower and structures were built in accordance with the manufacture's specifications.
2. The tower and structures have been maintained in accordance with manufacture's specifications.
3. The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Tables 2 & 3, and the referenced drawings.

If any of these assumptions are not valid or have been made in error, this analysis may be affected, and GPD Associates should be allowed to review any new information to determine its effect on the structural integrity of the tower.

ANALYSIS RESULTS

Table 5 – Tower Summary

Member (Yield Strength)	Results
Monopole (65 KSI)	Satisfactory
Foundation	Adequate

Recommended Modifications

The tower and its foundation will be adequate for the proposed loading and do not require modifications.

DISCLAIMER OF WARRANTIES

The engineering services rendered by GPD ASSOCIATES in connection with this Structural Analysis are limited to a computer analysis of the tower structure, size and capacity of its members. GPD ASSOCIATES does not analyze the fabrication, including welding, except as included in this report.

GPD ASSOCIATES makes no warranties, expressed or implied, in connection with this report and disclaims any liability arising from material, fabrication, and erection of this tower. GPD ASSOCIATES will not be responsible whatsoever for, or on account of, consequential or incidental damages sustained by any person, firm, or organization as a result of any data or conclusions contained in this report. The maximum liability of GPD ASSOCIATES pursuant to this report will be limited to the total fee received for preparation of this report.

APPENDIX A

ERI Tower Output File

Tower Input Data

There is a pole section.
This tower is designed using the TIA/EIA-222-F standard.
The following design criteria apply:

Tower is located in Hartford County, Connecticut.
Basic wind speed of 80 mph.
Nominal ice thickness of 0.5000 in.
Ice density of 56 pcf.
A wind speed of 69 mph is used in combination with ice.
Temperature drop of 50 °F.
Deflections calculated using a wind speed of 50 mph.
A non-linear (P-delta) analysis was used.
Pressures are calculated at each section.
Stress ratio used in pole design is 1.333.
Local bending stresses due to climbing loads, feedline supports, and appurtenance mounts are not considered.

Monopole Base Plate Data

Base Plate Data	
Base plate is square	
Base plate is grouted	√
Anchor bolt grade	A615-75
Anchor bolt size	2.2500 in
Number of bolts	12
Embedment length	96.2500 in
f'_c	4 ksi
Grout space	7.0000 in
Base plate grade	A607-60
Base plate thickness	2.5000 in
Bolt circle diameter	49.8800 in
Outer diameter	55.8800 in
Inner diameter	24.0000 in
Base plate type	Plain Plate

Feed Line/Linear Appurtenances - Entered As Area

Description	*Face or Leg*	*Allow Shield*	*Component Type*	*Placement* *ft*	*Total Number*		C_AA_A *ft²/ft*	*Weight* *plf*
LDF7-50A (1-5/8 FOAM)	A	No	Inside Pole	94.00 - 10.00	12	No Ice	0.00	0.82
						1/2" Ice	0.00	0.82
HJ7-50A (1-5/8 AIR)	C	No	Inside Pole	108.00 - 10.00	15	No Ice	0.00	1.04
						1/2" Ice	0.00	1.04

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight lb
(3) DB844F90A-SX	A	From Centroid-Face	3.50 0.00 1.00	0.0000	108.00	No Ice 1/2" Ice	3.06 3.39	3.73 4.10	9.50 35.80
(3) DB844F90A-SX	B	From Centroid-Face	3.50 0.00 1.00	0.0000	108.00	No Ice 1/2" Ice	3.06 3.39	3.73 4.10	9.50 35.80
(3) DB844F90A-SX	C	From Centroid-Face	3.50 0.00 1.00	0.0000	108.00	No Ice 1/2" Ice	3.06 3.39	3.73 4.10	9.50 35.80
(2) DB948F85T2E-M	A	From Centroid-Face	3.50 0.00 1.00	0.0000	108.00	No Ice 1/2" Ice	1.92 2.22	3.26 3.62	8.50 27.57
(2) DB948F85T2E-M	B	From Centroid-Face	3.50 0.00 1.00	0.0000	108.00	No Ice 1/2" Ice	1.92 2.22	3.26 3.62	8.50 27.57
(2) DB948F85T2E-M	C	From Centroid-Face	3.50 0.00 1.00	0.0000	108.00	No Ice 1/2" Ice	1.92 2.22	3.26 3.62	8.50 27.57
Valmont 13' Platform w/Rails	C	None		0.0000	108.00	No Ice 1/2" Ice	53.00 68.00	53.00 68.00	2000.00 3000.00
(4) ALP 9212-N	A	From Centroid-Face	3.50 0.00 0.00	0.0000	94.00	No Ice 1/2" Ice	5.78 6.20	5.78 6.20	17.16 62.42
(4) ALP 9212-N	B	From Centroid-Face	3.50 0.00 0.00	0.0000	94.00	No Ice 1/2" Ice	5.78 6.20	5.78 6.20	17.16 62.42
(4) ALP 9212-N	C	From Centroid-Face	3.50 0.00 0.00	0.0000	94.00	No Ice 1/2" Ice	5.78 6.20	5.78 6.20	17.16 62.42
Valmont 13' Platform w/Rails	C	None		0.0000	94.00	No Ice 1/2" Ice	53.00 68.00	53.00 68.00	2000.00 3000.00

Base Plate Design Data

Plate Thickness in	Number of Anchor Bolts	Anchor Bolt Size in	Actual Allowable Ratio Bolt Tension lb	Actual Allowable Ratio Concrete Stress ksi	Actual Allowable Ratio Plate Stress ksi	Actual Allowable Ratio Stiffener Stress ksi	Controlling Condition	Critical Ratio
2.5000	12	2.2500	77874.00 174903.70 0.45	1.338 2.800 0.48	31.380 45.000 0.70		Plate	0.70 ✓

ERITower	Job	Page
	HRT 095 - BU# 806375	3 of 3
GPD Associates 520 S. Main St., Suite 2531 Akron, Ohio 44311 Phone: (330) 572-2100 FAX: (330) 572-2102	**Project** 2005078.09	**Date** 13:58:11 01/19/05
	Client Crown Castle	**Designed by** jcheronis

Section Capacity Table

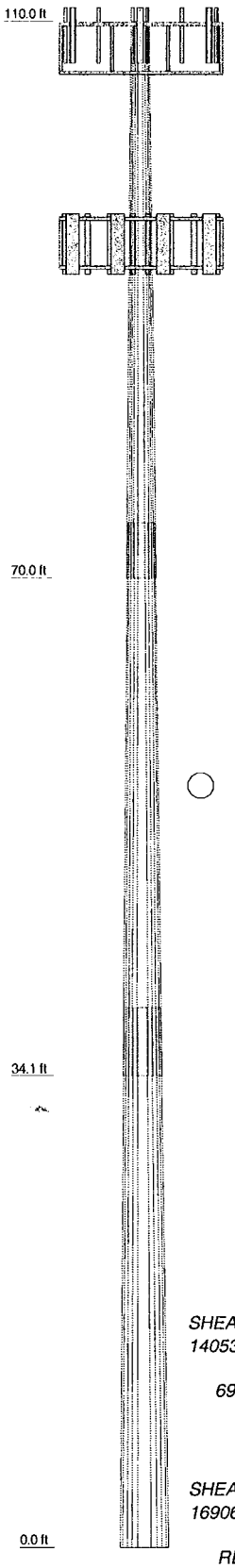
Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	$SF*P_{allow}$ lb	% Capacity	Pass Fail
L1	110 - 70	Pole	TP25.53x15.53x0.25	1	-6454.07	1016107.20	55.0	Pass
L2	70 - 34.0833	Pole	TP34.02x24.03x0.3125	2	-11191.70	1698935.09	63.6	Pass
L3	34.0833 - 0	Pole	TP41.9x32.1645x0.3438	3	-18223.60	2385976.59	65.3	Pass
							Summary	
						Pole (L3)	65.3	Pass
						Base Plate	52.3	Pass
						RATING =	**65.3**	**Pass**

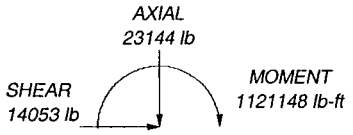
Program Version 3.0.0.16 - 7/8/2004 File:G:/Telecom/2005078/09/ERI/806375.eri

APPENDIX B

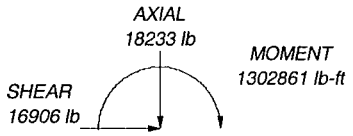
Tower Elevation Drawing

Section	1	2	3
Length (ft)	40.00	39.92	39.00
Number of Sides	12	12	12
Thickness (in)	0.2500	0.3125	0.3438
Lap Splice (ft)	4.00	4.92	
Top Dia (in)	15.5300	24.0300	32.1645
Bot Dia (in)	25.5300	34.0200	41.9000
Grade	A572-65		
Weight (lb) 11535.6	2222.1	3924.3	5389.2





69 mph WIND - 0.5000 in ICE



REACTIONS - 80 mph WIND

APPURTENANCES

TYPE	ELEVATION	TYPE	ELEVATION
(3) DB844F90A-SX	108	Valmont 13' Platform w/Rails	108
(3) DB844F90A-SX	108	(4) ALP 9212-N	94
(3) DB844F90A-SX	108	(4) ALP 9212-N	94
(2) DB948F85T2E-M	108	(4) ALP 9212-N	94
(2) DB948F85T2E-M	108	Valmont 13' Platform w/Rails	94
(2) DB948F85T2E-M	108		

MATERIAL STRENGTH

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

TOWER DESIGN NOTES

1. Tower is located in Hartford County, Connecticut.
2. Tower designed for a 80 mph basic wind in accordance with the TIA/EIA-222-F Standard.
3. Tower is also designed for a 69 mph basic wind with 0.50 in ice.
4. Deflections are based upon a 50 mph wind.
5. TOWER RATING: 65.3%

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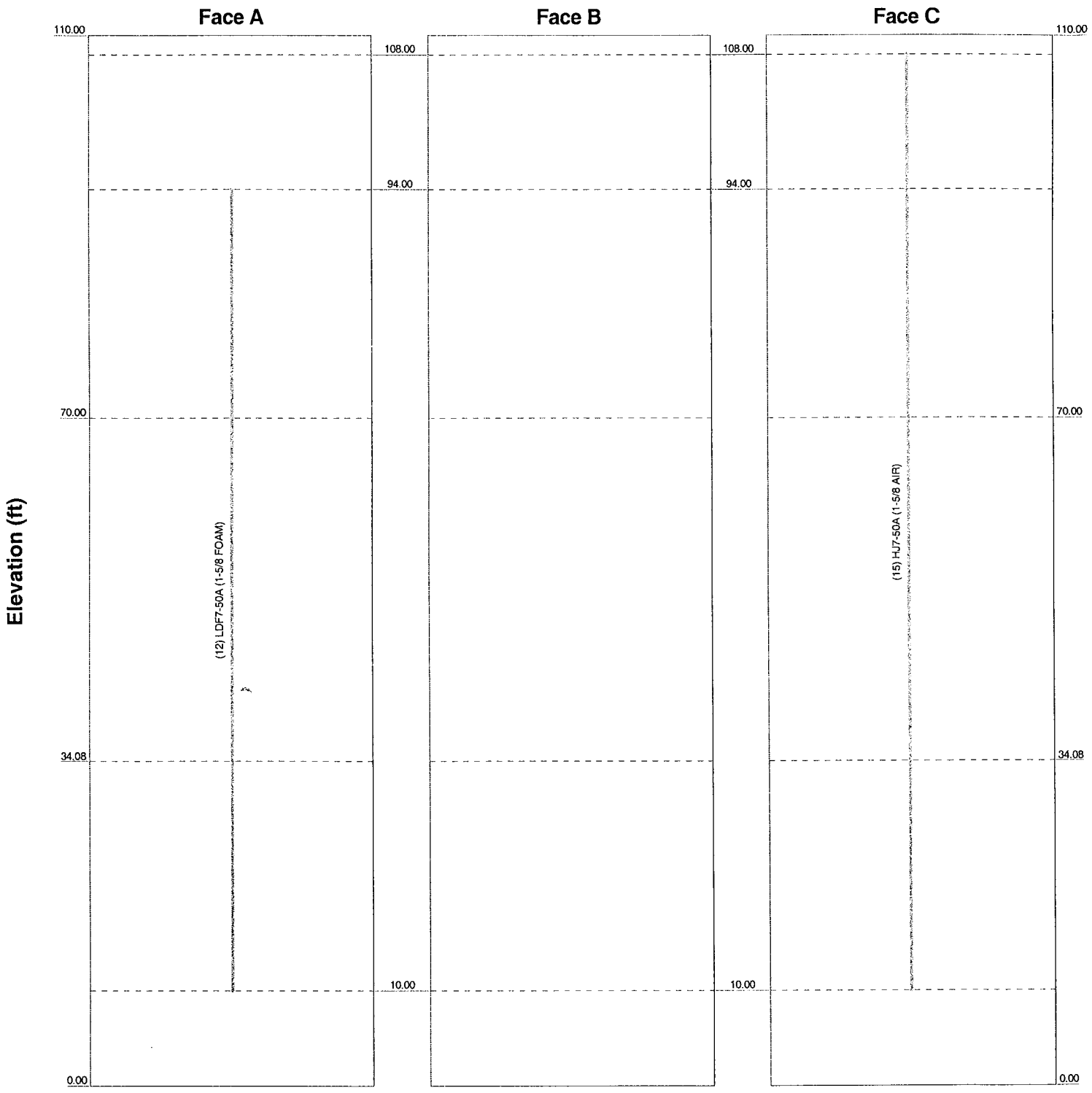
Project: ***2005078.09***			
Client: Crown Castle	Drawn by: jcheronis	App'd:	
Code: TIA/EIA-222-F	Date: 01/19/05	Scale: NTS	
Path: G:\Telecom\2005078\09\ERI\806375.eri		Dwg No. E-1	

Feedline Distribution Chart
0' - 110'

Round Flat App In Face App Out Face Truss Leg



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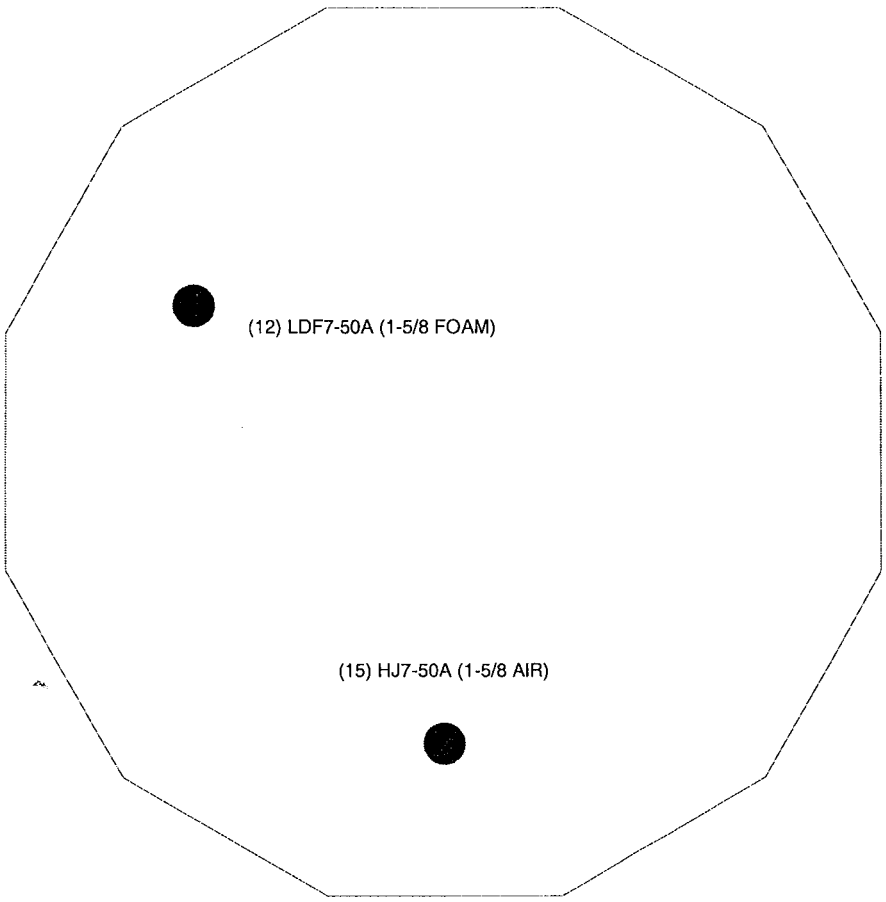
Path: G:\Telecom\2005078\09\ERI\806375.eri		Dwg No. E-7	

Feedline Plan

_____ Round _____ Flat _____ App In Face App Out Face



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