### Daniel F. Caruso Chairman

# 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@ct.gov
Internet: ct.gov/csc

September 23, 2008

Steven L. Levine Real Estate Consultant New Cingular Wireless PCS, LLC 500 Enterprise Drive Rocky Hill, CT 06067

RE: **EM-CING-118-080730** – New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 845 Ethan Allen Highway, Ridgefield, Connecticut.

Dear Mr. Levine:

The Connecticut Siting Council (Council) hereby acknowledges 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 July 30, 2008, 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. Please be advised that the validity of this action shall expire one year from the date of this letter. 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.

S. Derek Phelps

Executive Director

SDP/MP/jb

c: The Honorable Rudolph P. Marconi, First Selectman, Town of Ridgefield Betty Brosius, Town Planner, Town of Ridgefield Hans Fiedler, T-Mobile

# Daniel F. Caruso

Chairman

# 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@ct.gov Internet: ct.gov/csc

July 31, 2008

The Honorable Rudolph P. Marconi First Selectman Town of Ridgefield Town Hall 400 Main Street Ridgefield, CT 06877

RE: EM-CING-118-080730 – New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 845 Ethan Allen Highway, Ridgefield, Connecticut.

Dear Mr. Marconi:

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.

If you have any questions or comments regarding this proposal, please call me or inform the Council by August 14, 2008.

Thank you for your cooperation and consideration.

Very truly yours,

S. Derek Phelps

Executive Director

.SDP/jb

Enclosure: Notice of Intent

c: Betty Brosius, Town Planner, Town of Ridgefield





# cinqular

EM-CING-118-080730

New Cingular Wireless PCS, LLC

500 Enterprise Drive

Rocky Hill, Connecticut 06067-3900

Phone: (860) 513-7636 Fax: (860) 513-7190

Steven L. Levine Real Estate Consultant

HAND DELIVERED

July 30, 2008

ORIGINALDEGESVES

Honorable Daniel F. Caruso, Chairman, and Members of the Connecticut Siting Council Connecticut Siting Council 10 Franklin Square New Britain, Connecticut 06051

CONNECTICUT SITING COUNCIL

Re: New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 845 Ethan Allen Highway, Ridgefield (owner, T-Mobile)

Dear Chairman Caruso and Members of the Council:

In order to accommodate technological changes, implement Uniform Mobile Telecommunications System ("UMTS") capability, and enhance system performance in the State of Connecticut, New Cingular Wireless PCS, LLC ("AT&T") plans to modify the equipment configurations at many of its existing cell sites. Please accept this letter and attachments as notification, pursuant to R.C.S.A. Section 16-50j-73, of construction which constitutes an exempt modification pursuant to R.C.S.A. Section 16-50j-72(b)(2). In compliance with R.C.S.A. Section 16-50j-73, a copy of this letter and attachments is being sent to the chief elected official of the municipality in which the affected cell site is located.

UMTS technology offers services to mobile computer and phone users anywhere in the world. Based on the Global System for Mobile (GSM) communication standard, UMTS is the planned worldwide standard for mobile users. UMTS, fully implemented, gives computer and phone users high-speed access to the Internet as they travel. They have the same capabilities even when they roam, through both terrestrial wireless and satellite transmissions.

Attached is a summary of the planned modifications, including power density calculations reflecting the change in AT&T's operations at the site. Also included is documentation of the structural sufficiency of the tower to accommodate the revised antenna configuration.

The changes to the facility do not constitute modifications as defined in Connecticut General Statutes ("C.G.S.") Section 16-50i(d) because the general physical characteristics of the facility

will not be significantly changed or altered. Rather, the planned changes to the facility fall squarely within those activities explicitly provided for in R.C.S.A. Section 16-50j-72(b)(2).

- 1. The height of the overall structure will be unaffected. Modifications to the existing site include all or some of the following as necessary to bring the site into conformance with the plan:
  - Replacement of existing panel antennas with new antennas or, installation of additional antennas of a size required to accommodate UMTS.
  - Installation of small tower mount amplifiers ("TMA's") and/or diplexers to the platform on which the panel antennas are mounted to enhance signal reception.
  - Installation of additional or larger coaxial cables as required.
  - Installation of an additional equipment cabinet in existing shelters, or on existing or enlarged concrete pads.
  - Radome enlargement for flagpole and "stick" structures to accommodate larger antennas and additional associated equipment.

None of these modifications will extend the height of the tower.

- 2. The proposed changes will not extend the site boundaries. There will be no effect on the site compound other than some enlarged equipment pads as may be noted in the attachments.
- 3. The proposed changes will not increase the noise level at the existing facility by six decibels or more.
- 4. Radio frequency power density may increase due to use of one or more GSM channel for UMTS transmissions. However, the changes will not increase the calculated "worst case" power density for the combined operations at the site to a level at or above the applicable standard for uncontrolled environments as calculated for a mixed frequency site.

For the foregoing reasons, New Cingular Wireless respectfully submits that the proposed changes at the referenced site constitute exempt modifications under R.C.S.A. Section 16-50j-72(b)(2).

Please feel free to call me at (860) 513-7636 with questions concerning this matter. Thank you for your consideration.

Sincerely,

Steven L. Levine

Real Estate Consultant

Attachments

# CINGULAR WIRELESS Equipment Modification

845 Ethan Allen Highway, Ridgefield

Site Number 5244 Former AT&T Cell Site Exempt Modification 9/02

Tower Owner/Manager:

T-Mobile

**Equipment configuration:** 

Flagpole

Current and/or approved:

Three Allgon 7250 panel antennas @ 70 ft c.l.

Six runs 7/8 inch coax

**Planned Modifications:** 

Remove all three existing antennas

Replace 4<sup>th</sup> bay of tower (24-inch diameter RF-transparent radome) with 30-inch diameter radome to accommodate

Powerwave antennas & associated equipment Install three Powerwave 7770 antennas @ 69 ft

Install six TMA's @ 69 ft

Remove one existing outdoor cabinet

Install one new outdoor cabinet for UMTS and one RXAIT

cabinet on existing concrete pads

# **Power Density:**

Calculations for AT&T's current operations at the site indicate a radio frequency electromagnetic radiation power density, measured at the tower base, of approximately 28.1 % of the standard adopted by the FCC. As depicted in the second table below, the total radio frequency electromagnetic radiation power density for AT&T's planned operations would be approximately 47.7% of the standard.

### **Existing**

Company	Centerline Ht (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density (mW/cm <sup>2</sup> )	Standard Limits (mW/cm²)	Percent of Limit
Other Users *					141		20.73
AT&T GSM*	70	1900 Band	4	250	0.0734	1.0000	7.34
Total 3		1					28.1%

<sup>\*</sup> Per CSC records.

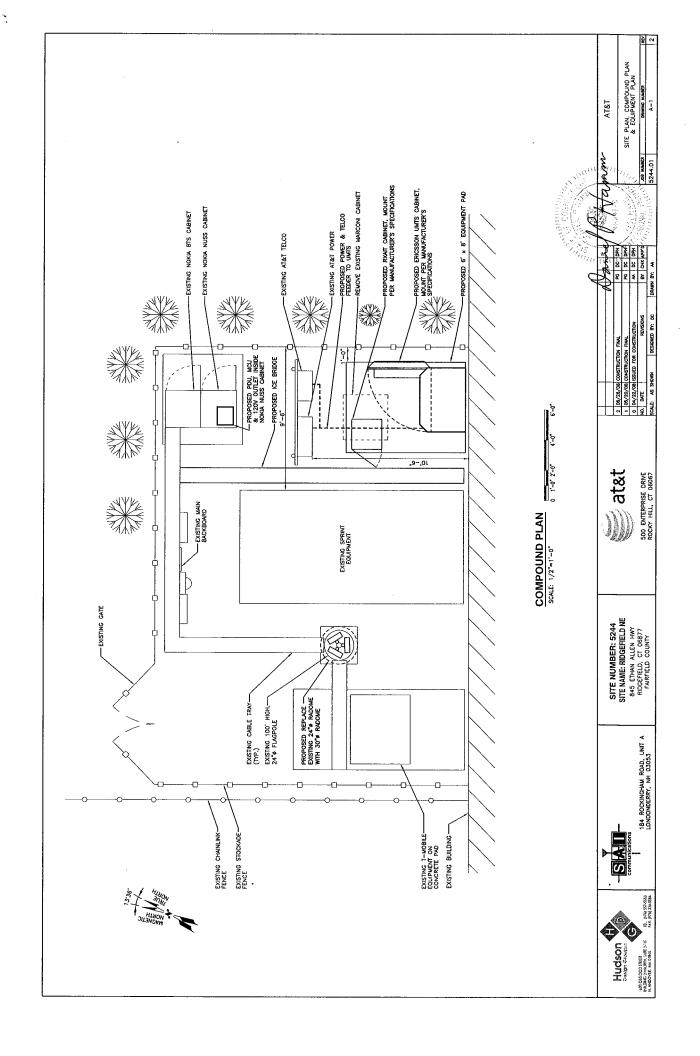
# Proposed

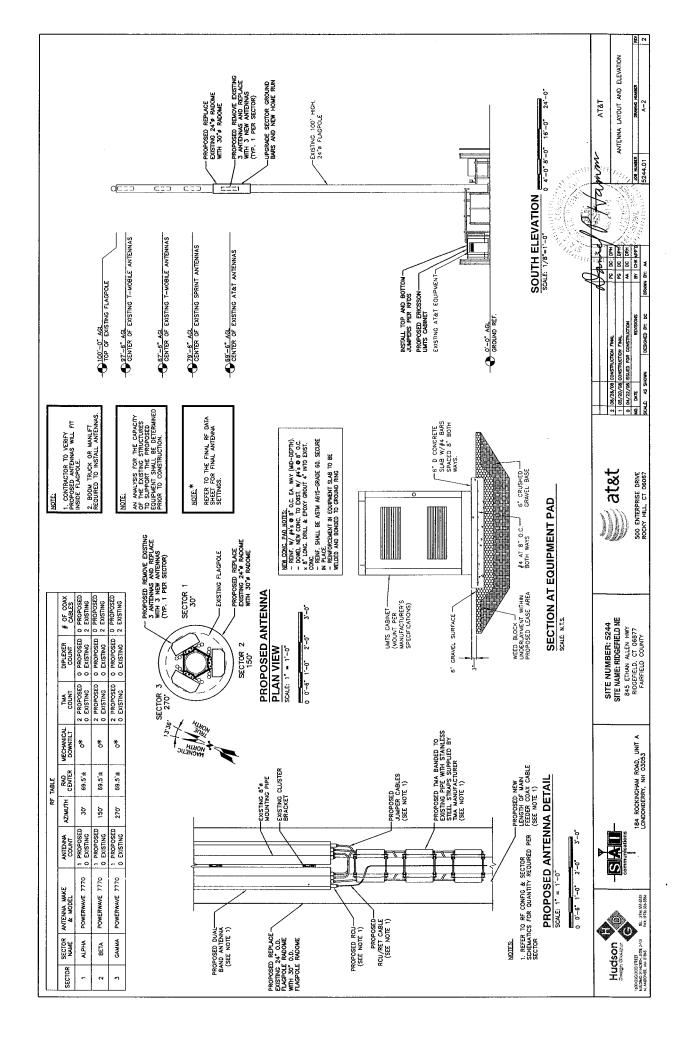
Company	Centerline Ht (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density (mW/cm²)	Standard Limits (mW/cm²)	Percent of Limit
Other Users *							20.73
AT&T GSM	69	1900 Band	4	427	0.1290	1.0000	12.90
AT&T GSM	69	880 - 894	2	296	0.0447	0.5867	7.62
AT&T UMTS	69	880 - 894	1	500	0.0378	0.5867	6.44
Join 5							47/71%

<sup>\*</sup> Per CSC records.

# **Structural information:**

The attached structural analysis demonstrates that the tower and foundation have adequate structural capacity to accommodate the proposed modifications. (PiRod Engineering, dated 7/14/08)









New Cingular Wireless PCS, LLC

500 Enterprise Drive

Rocky Hill, Connecticut 06067-3900

Phone: (860) 513-7636 Fax: (860) 513-7190

Steven L. Levine Real Estate Consultant

July 30, 2008

Honorable Rudolph P. Marconi 1<sup>st</sup> Selectman, Town of Ridgefield Town Hall 400 Main St. Ridgefield, CT 06877

Re: Telecommunications Facility – 845 Ethan Allen Hwy, Ridgefield

Dear Mr. Marconi:

In order to accommodate technological changes, implement Uniform Mobile Telecommunications System ("UMTS") capability, and enhance system performance in the State of Connecticut, New Cingular Wireless PCS, LLC ("Cingular" or "AT&T") will be changing its equipment configuration at certain cell sites.

As required by Regulations of Connecticut State Agencies ("R.C.S.A.") Section 16-50j-73, the Connecticut Siting Council has been notified of the changes and will review Cingular's proposal. Please accept this letter as notification under Section 16-50j-73 of construction which constitutes an exempt modification pursuant to R.C.S.A. Section 16-50j-72(b)(2).

The accompanying letter to the Siting Council fully describes Cingular's proposal for the referenced cell site. However, if you have any questions or require any further information on our plans or the Siting Council's procedures, please call me at (860) 513-7636 or Mr. Derek Phelps, Executive Director, Connecticut Siting Council at (860) 827-2935.

Sincerely,

Steven L. Levine

Real Estate Consultant

# Tower Reanalysis Report Proposal PR-2008-06-018

Model: FP 24 X 100' Tower
Site: Ridgefield
PiRod Engineering File A-118156

Tower Contact Person:

Ken Durnil
Engineering Technician
e-mail: ken.durnil@valmont.com
telephone extension: 5301

Completed under the Supervision and Approval by William R. Heiden III, P.E.
Engineering Group Leader
e-mail: William.Heiden@valmont.com
telephone extension: 5243



William R. Helden III, CT Professional Engineer #23038

Phone: 574-936-4221

# 1.0 EXECUTIVE SUMMARY

This reanalysis was performed by PiRod to determine if the structure is capable of accommodating loading that is different than previous design specifications. This engineering report gives details how the loading changes affect the tower, specifies feasible modifications, and proposes modification materials. PiRod's engineering study concludes that the tower does comply. See section 6.0 for details.

# 2.0 ASSUMPTIONS

This engineering study is based on the fheoretical capacity of the structure. It is not a condition assessment of the tower. This report is being provided by PiRod without the benefit of an inspection by PiRod personnel and is based on information supplied by the customer to PiRod. PiRod has made no independent determination, nor is required to, of the accuracy of the information provided. Therefore, unless specifically informed to the contrary by the customer in writing, PiRod assumes the following:

- 1. The subsoil characteristics exist as stated on the tower drawing or stated elsewhere in this report;
- 2. The tower is erected and maintained in accordance with the manufacturer's plans and specifications and is plumb;
- 3. There is no damage, natural or manmade, to the structure, either gradual or sudden;
- 4. All connections and guy cables are properly installed;
- 5. The information concerning the components, existing and proposed, is accurate; and
- 6. There are no modifications to the tower itself, except as may be disclosed elsewhere in this report,

PiRod recommends that qualified personnel assess the physical condition of the tower, preferably under the direction of a licensed professional engineer. Following is a list of the general areas that PiRod recommends to be inspected.

Tower Structure	Guyed Towers	Foundations	Appurtenances
Tower Sections	Guy Cables	Cracking	Antennas
Bolted Connections	Turnbuckles	Drainage	Mounts
Welded Connections	Preforms	Spalling	Transmission Line
Plumbness	Guy Lugs	Anchor Bolts	Line Brackets
Corrosion	Thimbles	Settling	Cable Hangers
Linearity	Torque Arms	Grounding	Lighting
Galvanization	Ice Clips	Grout	
Paint	Guy Tensions	Subsoil	
	Anchor Rods	Characteristics	
	Shackles	Erosion	
	Inculators		

# 3.0 TOWER HISTORY

Date of Origination: February 2001

PiRod Model: FP 24 X 100' Tower Sold to: Voicestream Wireless

ſ		ORIGINAL DESIG	N CRITERL	A	
	Code/Standard	Wind Loading	Radial Ice	Wind Load  Reduction Used	Allowable Stress Increase Used
	TIA/EIA-222- F	85 mph fastest mile	no	none	yes
	TIA/EIA-222-F	85 mph fastest mile	1/2" solid	25%	yes

For the structural analysis, the tower and foundation are assumed to exist as shown on the enclosed tower drawing, which is PiRod's latest revision.

# 4.0 CURRENT WIND LOAD REQUIREMENT

The TIA/EIA Standard is currently at version F for Fairfield County. We have taken the opportunity to reanalyze this structure using the following wind speed and ice load conditions:

Code/Standard	Wind Loading	Radial Ice	Wind Load Reduction Used (1)	Allowable Stress Increase Used <sup>(2)</sup>
F/2003 IBC	105 mph 3-sec gust / 85 mph fastest mile	no	none	yes
F/2003 IBC	105 mph 3-sec gust / 85 mph fastest mile	0.5"	25%	yes

- (1) The wind load reduction is permitted by the TIA/EIA-222-F Standard section 2.3.16 and most other codes to account for the minimal chance that the maximum wind speed will occur simultaneously with the ice load.
- (2) The allowable stress increase is permitted by the TIA/EIA-222-F Standard and most other codes in accordance with the AISC-ASD Manual of Steel Construction.

Note: Some localities stipulate wind load requirements that are different from that required by the TIA/EIA Standard. Please check with your local building department and verify the required wind load.

# 5.0 ANTENNA LOADING

A-118156

The tower analysis uses the following antenna loading, which was provided on 05/19/2008.

HEIGHT		ANTENNAS	ASSUMED CAAC (SQ.FT.)	#	Mounts Model	#	, Ĺ Size	INESBRACKET
	(3:#L)3	-MODEC	Exis	ting I	Loáding		- CAMPAN	STEAM SAME
						. : .		
						2.5		
						v		
			Proposed		ional Loading			
		1 20 E	1100000		101111111111111111111111111111111111111			
70'	1	36" radome (3 Powerwave 7770 Antenna & 6						
		Powerwave 21401 TMA's)				5 V.3 5 5 5		
							1	

These antennas, mounts, and lines represent our understanding of the antenna loading required. Please contact us if any discrepancies are evident. If different antennas, mounts, or lines are installed on this structure, this analysis is invalid. If the lines are mounted on PiRod Double-T, Extended Double-T or Expandable Double-T, they are assumed to be mounted inside the tower and the transmission lines are mounted in a back to back configuration. If any of these brackets cannot be placed inside concerning physical fit, alternatively they can be installed outside the tower, but all the brackets need to be swung back as close as possible to one of the tower faces, to minimize the torque.

\* An asterisk indicates that we were not provided with a value for the effective projected area (C<sub>A</sub>A<sub>C</sub>), and that the area has been assumed based on any information that was made available. The actual effective projected area for each antenna must be confirmed to be equal to the assumed area listed above. If it is determined that the area is different than that stated for any of the above items, this analysis is invalid.

PiRod, Inc.	 		
Ridgefield		F	P 24 X 100°

# 6.0 RESULTS

With the antennas listed in section 5.0, the following modifications are required for the tower to comply with the indicated code and TIA/EIA Standard listed in section 4.0.

# 6.1 Tower Modifications

The tower complies without modifications.

The proposed materials, associated hardware and updated engineering documentation are priced on the appended Reanalysis Parts Pricing Proposal.

# 6.2 Foundation Modifications

The foundation analysis is based on the soil report by Dr. Clarence Welti, P.E., P.C., dated May 1, 2000, file #N/A.

The foundation complies without modifications.

If foundation modifications are recommended, the foundation must be modified before installing any proposed antennas, lines, or tower modifications.

These modifications outline the scope of work only and are not intended to imply sequence of work or construction procedures. Once the above modifications have been installed, the structure will comply with the indicated code and TIA/EIA Standard.

# 7.0 LIST OF APPENDICES

Reanalysis Parts Pricing Proposal Main Tower Drawing, latest revision

153438-B

Note: The tower drawing included with this report is PiRod's latest revision and depicts the tower as we understand it to currently exist with the exceptions listed in Section 3.0. It has <u>not</u> been updated to show the existing or proposed antenna loading or any modifications required as a result of this analysis.

PiRod, Inc.

# 8.0 DISCLAIMER

- 1. The information and conclusions contained in this Report were determined by the application of the then current "state of the art" engineering and analysis procedures and formulae, and Valmont Structures (1) assumes no obligation to revise any of the information or conclusions contained in this Report in the event such engineering and analysis procedures and formulae are hereafter modified or revised.
- 2. In no event shall Valmont Structures be liable for any incidental, consequential, indirect, special or punitive damages (including without limitation lost profits) arising out of any claim associated with the use of this report (whether for breach of contract, tort, negligence or other form of action), irrespective of whether Valmont Structures has been advised of the possibility of any such loss or damage. In no event shall Valmont Structures' total, cumulative liability to the customer exceed the amount paid by customer for the preparation of this report.
- 3. Valmont Structures shall have no liability whatsoever to Customer or to others for any work or services performed by any persons other than Valmont Structures personnel, including but not limited to, any services rendered by riggers, erectors or other subcontractors. Customer acknowledges and agrees that any riggers, erectors or subcontractors retained or employed by Customer shall be solely responsible to Customer for the quality of work performed by them
- 4. Valmont Structures makes no warranties, expressed or implied, in connection with this Report as to any other matter whatsoever, and in particular, any and all warranties of merchantability or fitness for a particular purpose are hereby expressly disclaimed. Valmont Structures further expressly disclaims any liability arising from material, fabrication, and erection deficiencies. This Report is being provided by Valmont Structures without the benefit of an inspection by Valmont Structures personnel and is based solely on information supplied by the Customer to Valmont Structures. Valmont Structures has made no independent determination, nor is it required to do so, of the accuracy of the information provided by Customer. Therefore, unless specifically informed to the contrary by the Customer in writing, the following assumptions apply to the Report:
  - A. The subsoil characteristics exist as stated on the tower drawing or stated elsewhere in this report;
  - B. The tower is erected and maintained in accordance with the manufacturer's plans and specifications and is plumb;
  - C. There is no damage, natural or manmade, to the structure, either gradual or sudden;
  - D. All connections are properly installed;
  - E. The information concerning the components, existing and proposed, is accurate; and
  - F. There are no modifications to the tower itself, except as may be disclosed elsewhere in this report.

    Examples include but are not limited to replacement or strengthening of bracing members, reinforcing vertical members in any manner, adding additional bracing, or extending tower.

6. All representations and recommendations and conclusions are based upon the information contained and set forth herein. If Customer is aware of any information which is contrary to that which is contained herein, or if Customer is aware of any defects arising from the original design, material, fabrication, and erection deficiencies Customer must disregard this Report and immediately contact Valmont Structures.

(1) Valmont Structures is the Structures Division of Valmont Industries, Inc., and performs engineering services under the engineering corporation name PiRod, Inc.

PiRod, Inc.

