

CONNECTICUT SITING COUNCIL

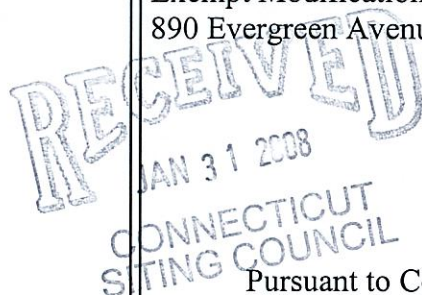
ORIGINAL

In re:

EM-SPRINT-NEXTEL-062-080131

Sprint Nextel Corporation's Notice to Make an  
Exempt Modification to an Existing Facility at  
890 Evergreen Avenue in Hamden, Connecticut.

: ]  
:  
: January 30, 2008



NOTICE OF EXEMPT MODIFICATION

Pursuant to Conn. Agencies Regs. §§ 16-50j-73 and 16-50j-72(b), Sprint Nextel

Corporation ("Sprint") hereby gives notice to the Connecticut Siting Council ("Council") and the Town of Hamden of Sprint's intent to make an exempt modification to an existing silo (the "Silo") located at 890 Evergreen Avenue in Hamden, Connecticut. Specifically, Sprint plans to add WiMAX antennas and CDMA network antennas to its existing iDEN network antenna array. Under the Council's regulations (Conn. Agencies Regs. § 16-50j-72(b)), Sprint's plans do not constitute a modification subject to the Council's review because Sprint will not change the height of the Silo, will not extend the boundaries of the compound, will not increase the noise levels at the site, and will not increase the total radio frequency electromagnetic radiation power density at the site to levels above applicable standards.

Sprint is currently undertaking an upgrade to its wireless communications system in Connecticut. As part of the upgrade, Sprint is implementing WiMAX technology to enable enhanced wireless data communications. In order to accomplish the upgrade at this site, Sprint plans to add three WiMAX antennas to the Silo and install additional WiMAX-related electronic equipment at the base of the Silo.

The Silo is 108 feet tall and is located at 890 Evergreen Avenue in Hamden, Connecticut (41° 24' 23.88" N, 72° 54' 16.23" W). The Silo is owned by Crown Castle International. Currently, Sprint has twelve iDEN network antennas (four per sector) located on the Silo with an antenna centerline at 75 feet. Sprint's equipment cabinets are located at the base of the Silo. A site plan with the Silo specifications is attached.

Sprint plans to remove six of the existing iDEN network antennas, two per sector. Three of the six removed antennas will be replaced with three WiMAX antennas, one per sector. Of the remaining three removed antennas only two will be replaced. Sprint will install two CDMA network antennas, one in the alpha sector and one in the gamma sector. The iDEN network removed from the beta sector will not be replaced, therefore the Silo will only have a total of eleven Sprint antennas. The replacement antennas, both WiMAX and CDMA, will have the same centerline as the existing antennas – 75 feet. Sprint will also install two 1-foot microwave dishes with a centerline of approximately 130 feet. To confirm the Silo can support these changes, Sprint commissioned PSG Engineering, Ltd. to perform a structural analysis of the Silo (attached). According to the structural analysis, dated December 9, 2007, "the tower structure and foundation ARE sufficient for the proposed loading. [emphasis in original].

Sprint will install the WiMAX and CDMA related equipment inside its equipment room inside the existing shelter at the base of the Silo. Hence, there will be no need to increase the size of the equipment shelter or compound. In addition, Sprint will mount two global positioning system (GPS) antennas to the existing equipment shelter. Therefore, excluding brief, minor, construction-related noise during the addition of the antennas and the installation of the equipment cabinet, Sprint's changes to the Silo will not increase noise levels at the site.

The new WiMAX and CDMA network antennas will not adversely impact the health and safety of the surrounding community or the people working on the Silo. The total radio frequency exposure measured around the Silo will be well below the National Council on Radiation Protection and Measurements' ("NCRP") standard adopted by the Federal Communications Commission ("FCC"). The worst-case power density analysis measured at the base of the Silo indicates that Sprint's antenna array will emit only 49.79% of the NCRP's standard for maximum permissible exposure. A cumulative power density analysis indicates that together, all of the antennas on the Silo will emit only 83.85% of the NCRP's standard for maximum permissible exposure. Therefore, the power density levels will be well below the FCC mandated radio frequency exposure limits in all locations around the Silo, even with extremely conservative assumptions. The power density analysis is attached.

In conclusion, Sprint's proposed plan to add WiMAX and CDMA antennas at this site does not constitute a modification subject to the Council's jurisdiction because Sprint will not increase the height of the Silo, will not extend the boundaries of the site, will not increase the noise levels at the site, and the total radio frequency electromagnetic radiation power density will stay within all applicable standards. *See Conn. Agencies Regs. § 16-50j-72.*

Sprint Nextel Corporation

By: Thomas J. Regan  
Thomas J. Regan  
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Hartford, CT 06103-3402  
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Fax - 860.509.6622

**DIG ALERT:**CALL FOR UNDERGROUND UTILITIES PRIOR TO DIGGING:  
1-800-922-4455**EMERGENCY:**

CALL 911

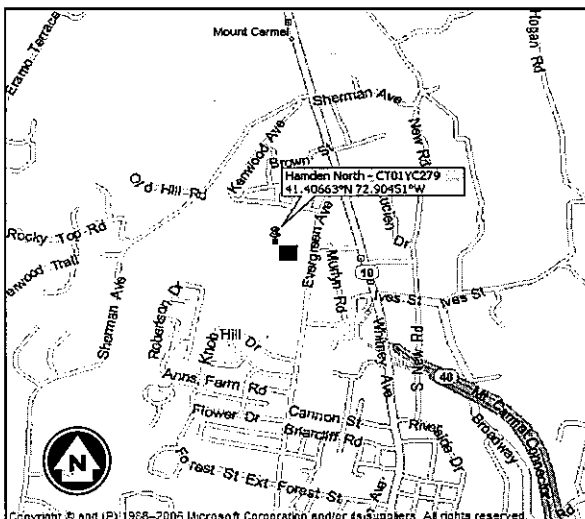
# Sprint Nextel Corp.



## NORTH HAMDEN

**SITE NUMBER: CT01YC279/CT1060****890 EVERGREEN AVE  
HAMDEN, CT 06514****NEW HAVEN COUNTY, CONNECTICUT****SITE TYPE: SILO**

MINOR MODIFICATION OF EXISTING WIRELESS COMMUNICATION SYSTEM CONSISTING OF ADDITION OF EQUIPMENT CABINET(S), SWAPPING OF EXISTING ANTENNAS, ADDITION OF ASSOCIATED CABLES & ADDITION OF A GPS ANTENNA. NO WATER OR SEWER IS REQUIRED. THE SITE IS UNMANNED AND NOT FOR HUMAN HABITATION.

**PROJECT DESCRIPTION:****VICINITY MAP: (NOT TO SCALE)**

LEAVING 100 CORPORATE PL, ROCKY HILL, CT. TURN LEFT ON TO WEST ST, THEN IMMEDIATELY RIGHT ON TO I-91. AT EXIT 10 TAKE RAMP ONTO MT CARMEL CONNECTOR (SR-10). TAKE RAMP ONTO WHITNEY AVE (SR-10). TURN LEFT ONTO EVERGREEN AVE. SITE WILL BE ON YOUR RIGHT.

**DRIVING DIRECTIONS:**

SHEET #	TITLE	REV.#	DATE
T1	TITLE PAGE	1	1/28/08
SC-1	OVERALL SITE LAYOUT	1	1/28/08
SC-2	SILO ELEVATION	1	1/28/08

**SHEET INDEX:**

**SITE NAME:** HAMDEN NORTH

**SITE NUMBER:** CT01YC279/CT1060/CT73XR009

**SITE ADDRESS:** 890 EVERGREEN AVE  
HAMDEN, CT 06514

**SITE OWNER:** CROWN CASTLE INTERNATIONAL

**APPLICANT:** SPRINT/NEXTEL CORP  
CROSSROADS CORPORATE CENTER  
INTERNATIONAL BLVD, SUITE 800  
MAHWAH, NJ 07495

**APPLICANT REPRESENTATIVE:** TRANSCEND WIRELESS, LLC.  
479 ROUTE 17 NORTH, 2nd FLOOR  
MAHWAH, NJ 07430

**CENTERLINE:** 75' AGL

**GROUND ELEVATION:** 200' AMSL

**LATITUDE (NAD 83):** 41° 24' 23.88" N

**LONGITUDE (NAD 83):** 72° 54' 16.23" W

**PROJECT INDEX:**

**infinigy**  
engineering  
300 Great Oaks Boulevard  
Suite 312, Albany, NY 12203  
Office #: (518) 690-0790  
Fax #: (518) 690-0793

**TRANSCEND  
WIRELESS, LLC.**479 ROUTE 17 NORTH,  
2ND FLOOR  
MAHWAH, NJ 07430UNAUTHORIZED ALTERATION OR ADDITION  
TO THIS DOCUMENT IS A VIOLATION OF  
APPLICABLE STATE AND/OR LOCAL LAWS

1	REVISED PER COMMENTS	D/W	1/28/08
0	SUBMITTED FOR REVIEW	D/W	1/24/08
No.	Submittal / Revision	App'd	Date

Drawn: SQL Date: 1/24/08Designed: D/W Date: 1/24/08Checked: D/W Date: 1/24/08Project Number  
204-028Project Title  
**HAMDEN  
NORTH**890 EVERGREEN AVE  
HAMDEN, CT 06514

Prepared For

**Sprint  
Nextel Corp.**

Drawing Scale:  
AS NOTEDDate:  
1/24/08

Drawing Title

**TITLE PAGE**

Drawing Number

**T1**

FOR ADDITIONAL STRUCTURAL INFORMATION SEE  
STRUCTURAL OPINION LETTER COMPLETED BY PSG  
ENGINEERING, LTD., TITLED "HAMDEN NORTH,  
CT1060", PSG ENGINEERING PROJECT #:  
0701H228-Z320108, DATED 12/9/07 FOR CROWN  
CASTLE INTERNATIONAL, CROWN CASTLE JOB #:  
98384.

**infinigy**  
engineering  
300 Great Oaks Boulevard  
Suite 312, Albany, NY 12203  
Office #: (518) 860-0790  
Fax #: (518) 860-0793

**TRANSCEND  
WIRELESS, LLC.**

479 ROUTE 17 NORTH,  
2ND FLOOR  
MAHWAH, NJ 07430

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1	REVISED PER COMMENTS	D/W	1/28/08
0	SUBMITTED FOR REVIEW	D/W	1/24/08
No.	Submittal / Revision	App'd	Date

Drawn:	SJB	Date:	1/24/08
Designed:	D/W	Date:	1/24/08
Checked:	D/W	Date:	1/24/08

Project Number	204-028
Project Title	HAMDEN NORTH

**HAMDEN  
NORTH**

890 EVERGREEN AVE  
HAMDEN, CT 06514

Prepared For

**Sprint  
Nextel Corp.**

Drawing Scale:  
**AS NOTED**

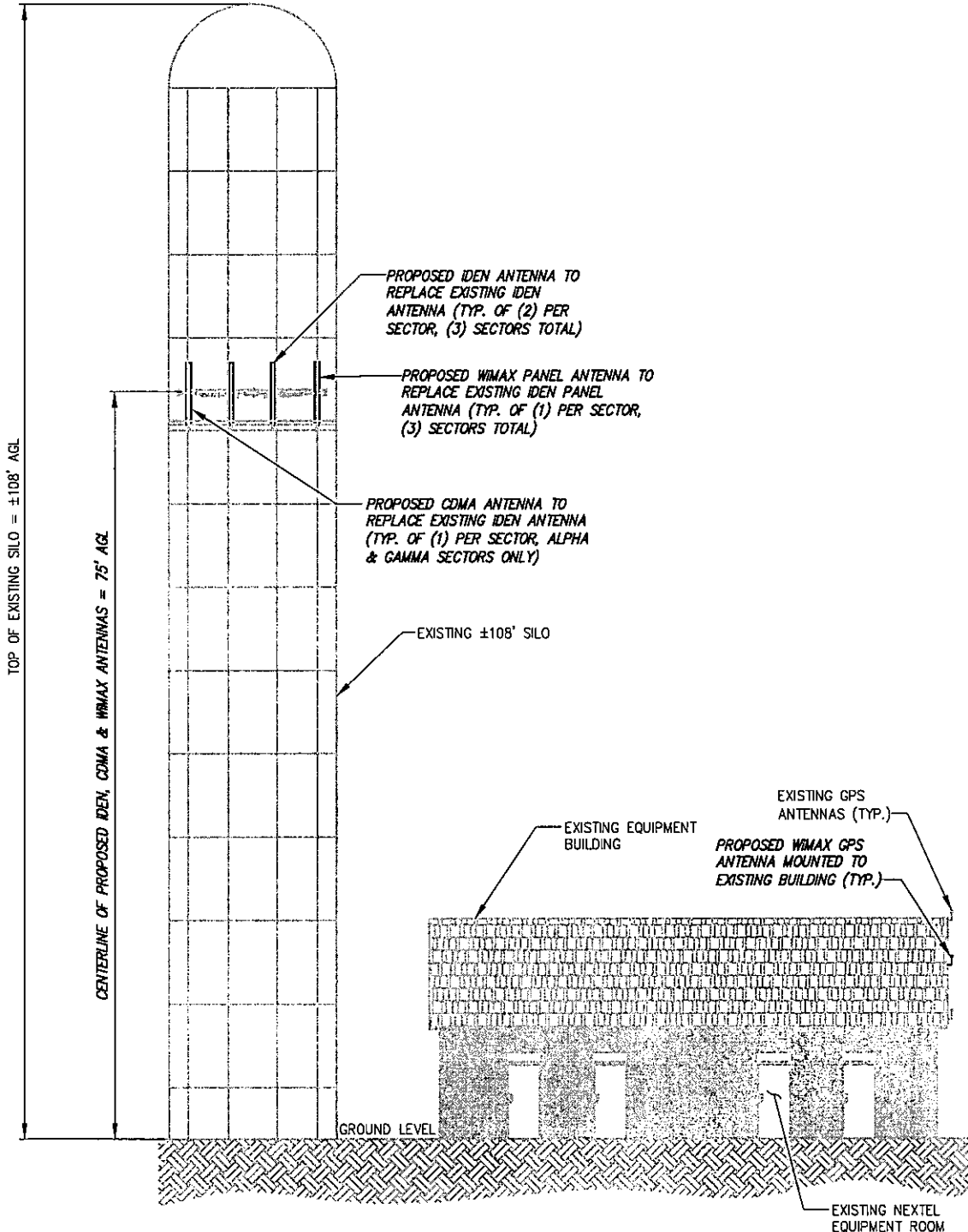
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1/24/08

Drawing Title

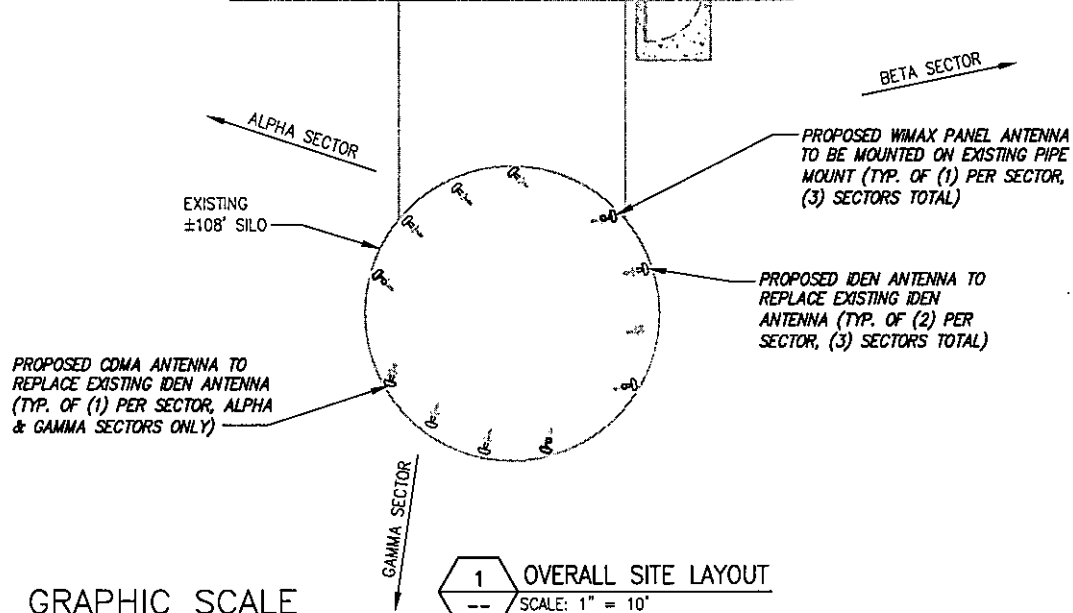
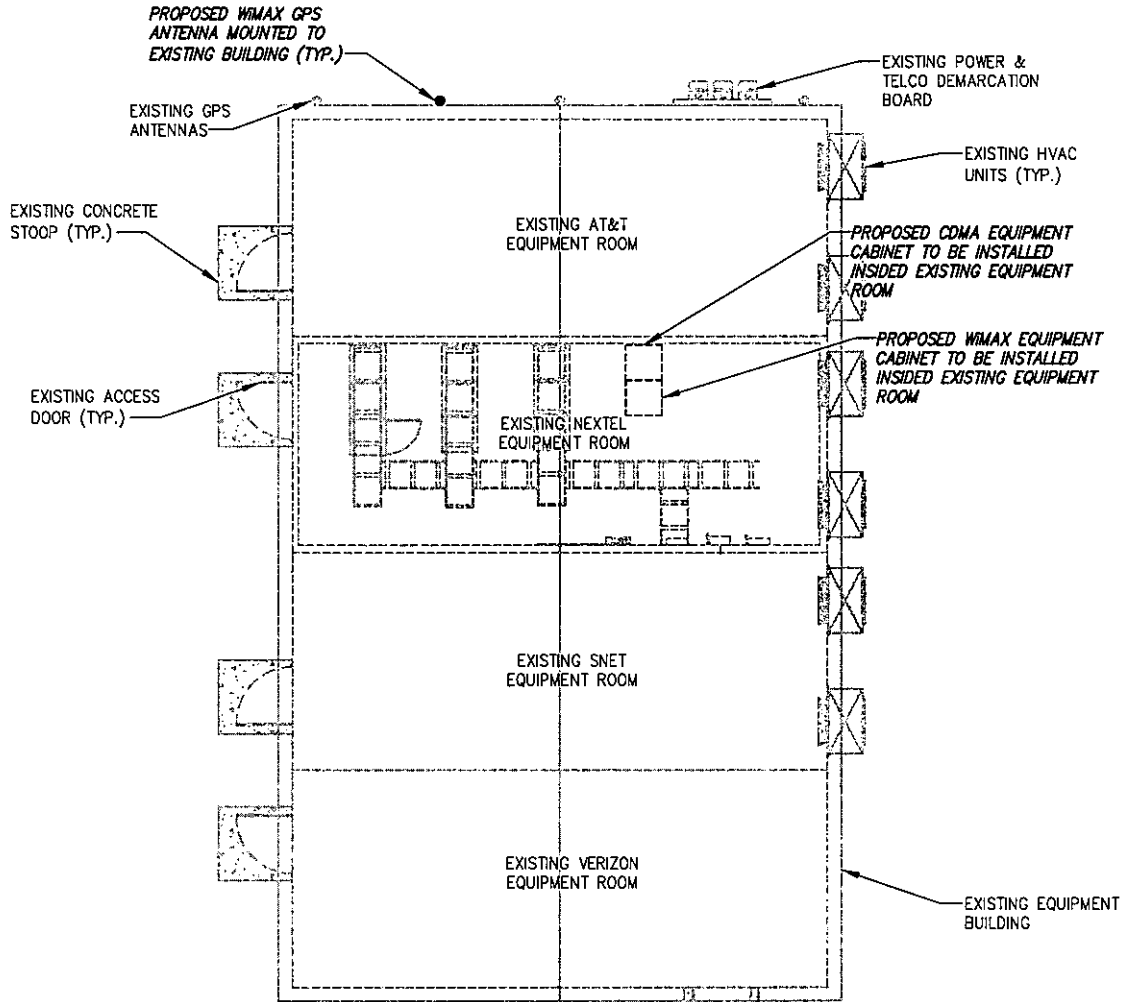
**SILO  
ELEVATION**

Drawing Number

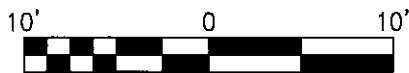
**SC-2**



**1 SILO ELEVATION**  
--- NOT TO SCALE

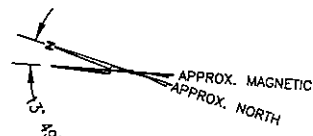


GRAPHIC SCALE



SCALE: 1" = 10'-0"

1 OVERALL SITE LAYOUT  
SCALE: 1" = 10'



BASEMAPING PREPARED FROM A LEASE EXHIBIT PREPARED BY VERTICAL RESOURCES GRP "HAMDEN NORTH, DATED 6/14/07, AND DOES NOT REPRESENT AN ACTUAL FIELD SURVEY.

**infinity**  
engineering  
300 Great Oaks Boulevard  
Suite 312, Albany, NY 12203  
Office #: (518) 890-0790  
Fax #: (518) 890-0793

**TRANSCEND  
WIRELESS, LLC.**

479 ROUTE 17 NORTH,  
2ND FLOOR  
MAHWAH, NJ 07430

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TO THIS DOCUMENT IS A VIOLATION OF  
APPLICABLE STATE AND/OR LOCAL LAWS

1	REVISED PER COMMENTS	DJW	1/28/08
0	SUBMITTED FOR REVIEW	DJW	1/24/08
No.	Submital / Revision	App'd	Date

Drawn: SPB Date: 1/24/08  
Designed: DJW Date: 1/24/08  
Checked: DJW Date: 1/24/08

Project Number  
204-028

Project Title

**HAMDEN  
NORTH**

890 EVERGREEN AVE  
HAMDEN, CT 06514

Prepared For



Drawing Scale:  
AS NOTED

Date:  
1/24/08

Drawing Title

**OVERALL SITE  
LAYOUT**

Drawing Number

**SC-1**



Date: **December 9, 2007**

Chuck Sustarsic  
Crown Castle International  
808 Aviation Parkway  
Suite 700  
Morrisville, NC 27560  
(919) 465-3512

PSG Engineering, Ltd.  
8206 Forest Gate Drive  
Sugar Land, TX 77479

Phone: (281) 343-7099

Fax: (281) 343-7127

**Subject: Structural Opinion Letter**

**Carrier Designation**                      **Nextel Co-Locate**  
**Carrier Site Number:** "CT1060"  
**Carrier Site Name:** "Hamden North"

**Crown Castle Designation**              **Crown Castle BU Number:** 800529  
**Crown Castle Site Name:** CT HAMDEN NORTH CAC  
**Crown Castle JDE Job Number:** 98384

**Engineering Firm Designation**      **PSG Engineering Project Number:** 0701H228-Z320108

**Site Data**                                      **890 Evergreen Ave., Hamden, CT, New Haven County**  
**Latitude 41° 24' 24.24", Longitude -72° 54' 15.20"**  
**100 Foot - Silo Tower**

Dear Mr. Sustarsic,

PSG Engineering, Ltd. is pleased to submit this "Structural Opinion Letter" for the structural integrity of the aforementioned tower. This letter has been performed in Crown Castle Structural 'Statement of Work' and the terms of Crown Castle Purchase Order Number 266863, in accordance with application 56352, revision 2. The purpose of this letter is to determine the suitability of the tower with the proposed, existing, and reserved loading as specified in Tables 1 & 2 below. This opinion is consistent with the guidelines as stated in the TIA/EIA 222-F standard based upon a fastest mile wind speed condition of 85 mph (equivalent to 105 mph 3-second gust wind speed).

**Table 1 – Proposed (P) Antenna and Cable Information**

Center Line Elevation (feet)	Number Of Antenna	Antenna Manufacturer	Antenna Model	Mount	Number Of Feed Lines	Feed Line Size (inches)
75	6(P)+1(R)	Kathrein	AP13-880/085D/ADT/XP	-	6(P)	1 5/8
	1(P)	Andrew	VHLP2-23-2WH		3(P)	1 1/4
	3(P)	KMW	AM-X-WM-17-65-00T		1(P)	1/2
	3(P)	Communications	KMDAPS2050000			



**Table 2 – Installed (I) and Reserved (R) Antenna and Cable Information**

Center Line Elevation (feet)	Number Of Antenna	Antenna Manufacturer	Antenna Model	Mount	Number Of Feed Lines	Feed Line Size (inches)
104	1(I)	Decibel	DB806-XC	Silo Internal Mount (1)	1(I)	7/8
100	3(I)	EMS Wireless	DR65-18-02DPL2Q		12(I)	1 5/8
	3(I)	REMEC	S20057A1			
95	12(I)	Swedcom	ALP 9212-N	Silo Internal Mount (1)	12(I)	1 5/8
90	1(I)	Decibel	DB411-A	Silo Internal Mount (1)	2(I)	1/2
85	6(I)	CSS	DU01417-8686		9(I)	7/8
	3(I)	Powerwave	7770.00			
	6(I)	Technologies	LGP13519			
	6(I)	ADC	DB 800/1900 FB MSTHD			
*75	*10(I)	*Decibel	*DB844H90E-XY	Silo Internal Mount (1)	11(I)	1 5/8
	2(I)	CSA Wireless	A-18A24N-U			
65	6(I)	Allgon	7250.03	Silo Internal Mount (1)	6(I)	1 1/4

\*Note: (10) Installed Decibel antennas will be removed and replaced with proposed loading. Installed CSA Wireless antennas, mount, and coax lines will remain to support proposed loads.

**Table 3 – Original Tower Manufacturer Design Antenna and Cable Information**

Center Line Elevation (feet)	Number Of Antenna	Antenna Manufacturer	Antenna Model	Mount	Number Of Feed Lines	Feed Line Size (inches)
95	12	Allgon	7129.16.33	Silo Internal Mount	Not Available	
85	12	Allgon	7120.16	Silo Internal Mount	Not Available	
75	12	Decibel	844H90EXY	Silo Internal Mount	Not Available	

Based on a comparison of the original design loads (including wind speeds), the current loads, and the proposed loads, we have determined the tower structure and foundation **ARE** sufficient for the proposed loading.

All proposed equipment shall be installed in accordance with the attached drawings.

We at *PSG Engineering* appreciate the opportunity of providing our continuing professional services to you and Crown Castle International. If you have any questions or need further assistance on this or any other projects please give us a call.

Respectfully submitted,

Oscar Pedraza, P.E.  
 President

**Attachments:** Engineering Application  
 Site Plan Drawing  
 Elevation Drawing  
 Level Drawing



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	2(I)	CSA Wireless	A-18A24N-U	Silo Internal Mount (1)		
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